

MERLIN AND MAGUM

Truck mounted road sweepers

FAYAT



Illustrated Parts Catalogue



SCARAB ♦ Leave nothing behind

ILLUSTRATED PARTS CATALOGUE

MERLIN AND MAGNUM ROAD SWEEPERS

Manual SCAZ039752

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This manual is published by the Technical Publications Department of Scarab Sweepers Limited and every effort is made to ensure that the information it contains is correct at the time of publication. Due to a policy of continuous development, however, the Company reserves the right to alter the specification and to supply when so altered without reference to illustrations and descriptions in this manual.

Parts depicted or mentioned in this manual may or may not be fitted to your particular road sweeper due to various options that may or may not have been selected and does not therefore infer that the part should be fitted to your particular road sweeper or is missing. If in doubt then please contact the Scarab Parts Department for clarification.

This manual may show pneumatic cylinders with bellows fitted. Bellows are no longer required and are now not fitted.

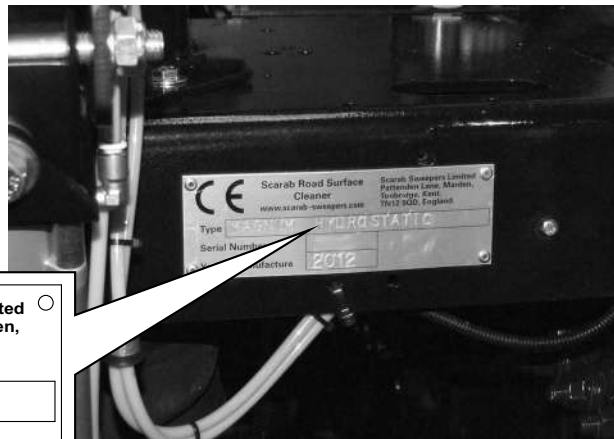
This manual does not attempt to cover every variation in assemblies such as exhaust gantries or sub-frames made necessary by differing customer requirements and also as a result of changes introduced by the chassis manufacturers.

It is imperative that the correct model is FULLY identified when procuring replacement parts for your Scarab Sweeper. To avoid unnecessary confusion and delays caused by incorrectly ordered parts, please refer to the Vehicle Serial Number (CE) Plate and take note of the vehicle's number.

i The Serial Number Plate is located on the left hand side of the subframe, on the rear face of the suction spigot mounting and inboard of the suction nozzle lifting ram.

The example shown here is for guidance only.

If the vehicle has an IVA (Individual Vehicle Approval) a Scarab VIN plate (label) will be attached to the chassis as well.



	Scarab Road Surface Cleaner www.scarab-sweepers.com	Scarab Sweepers Limited Pattenden Lane, Marden, Tonbridge, Kent. TN12 9QD, England.	
	Type <input type="text"/>		
	Serial Number <input type="text"/>		
	Year of Manufacture <input type="text"/>		



WK - nnnn	044830-01
SCARAB SWEEPERS LTD	
TA No. - <input type="text"/>	
VIN - AnAnnnnnnAAAnnnnnn	
GVW - 7500	Kg
Axle 1 - 3600	Kg
Axle 2 - 5000	Kg

Scarab VIN plate (label), location may differ. IVA vehicles only.

This information should accompany every parts order to try and ensure that the correct parts are supplied.

How To Use This Illustrated Parts Catalogue

Introduction

This Illustrated Parts Catalogue has been organised to facilitate ease of use when identifying and procuring replacement parts for the Scarab Sweeper.

The information content has been arranged in a logical manner by creating a number of separate sections, each dealing with a specific aspect or sub-system of the machine, complete with its own table of contents. Where relevant, cross-references from one section to another have been included to enable the user to quickly navigate to the information that gives the required level of detail.

Using The Parts Lists

The breakdown structure within each parts list reflects the inter-relationship of the various components in an assembly. The order of information (L to R) is: Item/Part No./Quantity/Description.

The first item on a parts list, is the description of the main assembly in question, is shown in bold, thus:

Description of Main Assembly

The succeeding parts generally fall into two categories, namely attaching parts i.e. bolts, screws, nuts, washers etc. or breakdown parts i.e. assemblies/sub assemblies and/or piece parts.

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			Description of Main Assembly
1	064321	1	Sub-Assembly 1 of Main Assembly
	012356	2	. Set screw, M6 x 30mm
2	045678	1	. Sub-Sub-Assembly 1 of Sub-Assembly 1
3	032145	1	. . Piece part 1 of Sub-Sub-Assembly 1
	012356	2	. . . Set screw, M6 x 30mm
NI	032187	1	. . Piece part 2 of Sub-Sub-Assembly 1
4	045678	1	. Sub-Sub-Assembly 2 of Sub-Assembly 1
5	032142	1	. . Piece part 1 of Sub-Sub-Assembly 2
	090909	AR	. . . Hose. rubber, 1 bore
6	064321	1	Sub-Assembly 2 of Main Assembly

Item Numbers

Item numbers are used to cross-refer items from the parts lists to their associated illustrations and vice-versa, except for, attaching parts.

If the illustration of an item is superfluous, then the item number will be listed as not illustrated:- NI.

Part Numbers

Not every item will have a part number associated with it because it might be an assembly that is broken down into its components elsewhere or there might be different versions of that item described elsewhere.

Quantities

When a parts quantity has been marked with **AR** then this means **as required**, for example hose lengths may differ slightly due to the route taken, or you may have one or more of a given part then the quantity will be **as required** due to the quantity of said part that is fitted to a particular sweeper configuration.

PDF Version

The PDF version of this manual has been created to open like you would the real manual with two pages per view, so do not click the one page per view button otherwise it makes it harder to read. It will include bookmarks to each chapter and links to other sections from components that are also referenced elsewhere to make navigation throughout the manual easier.

Warranty Statement

1. Scarab Sweepers Limited (hereinafter referred to as the Company) warrants that (subject to the other provisions of the published Terms and Conditions of Sale - available upon request) upon delivery and for a period of 12 months from the date of actual delivery, or 2,000 running hours from the date of actual delivery whichever is sooner, the Goods correspond with their specification at the time of delivery, and will be free from defects in materials and workmanship.
 2. The Company does not warrant the condition or quality of any used Goods supplied to the Customer, or other truck manufacturers' chassis cab content or to any other component not manufactured by the Company and any such warranty claims must be submitted to the manufacturer of that component, or their locally appointed agent.
 3. The Company shall not be liable for a breach of any of the warranties in condition 1 unless the Customer gives written notice of the defect to the Company, and (if the defect is as a result of damage in transit) to the carrier, within 7 days of the time when the Customer discovers or ought to have discovered the defect.
 4. The Company shall not be liable for a breach of any of the warranties in condition 1 if the Customer makes any further use of such Goods after giving such notice, the defect arises because the Customer failed to follow the Company's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods or (if there are none) good trade practice, or the Customer alters or repairs such Goods without the written consent of the Company, or uses non genuine parts to effect a repair.
 5. The following consumable items listed are excluded from the Company warranty:
 - all fuel oils,
 - antifreeze,
 - all brush link pivots and bushes,
 - wander hoses, suction nozzles,
 - body inlet ducts, wearing plates,
 - high pressure water pump piston seals and valves,
 - door seals,
 - inlet seals,
 - batteries,
 - tyres,
 - all brushes,
 - lift cables,
 - rubber skirts,
 - suction nozzle wheels,
 - flap trunking,
 - deflectors,
 - screens flaps or blanking plates,
 - water pump diaphragm valves and water jets,
 - all filter strainers and elements,
 - windows,
 - glass mirrors,
 - light bulbs,
 - fuses,
 - brake lining pads,
 - auxiliary drive belts and any other part normally regarded as consumable.
 6. Any parts replaced under the terms of this warranty will be covered by the unexpired portion of this warranty.
 7. Subject to conditions 3 and 4, if any of the Goods do not conform with any of the warranties in condition 1 the Company shall at its option repair or replace such Goods (or the defective part) or refund the price of such Goods at the pro rata Contract rate provided that, if the Company so requests, the Customer shall, at the Customer's expense, remove the defective Goods or part of such Goods and return the Goods or the part of such Goods which is defective to the Company. Parts replaced under warranty will be delivered by the Company FOB port of exportation.
 8. If the Company complies with the terms contained in this statement it shall have no further liability for a breach of any of the warranties in condition 1 in respect of such Goods.
 9. No representative or agent of Scarab Sweepers Limited has the authority to add or to vary these Warranty Conditions except with the Company's official confirmation in writing from Scarab Sweepers Limited, head office in Marden Kent, England.
- For further information, please refer to the Company's Terms & Conditions of Sale. In the event of conflict between this Warranty Statement and the Company's Terms & Conditions of Sale the latter will prevail.

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Sweeping

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Side brush arrangement, left hand, without brush tilt

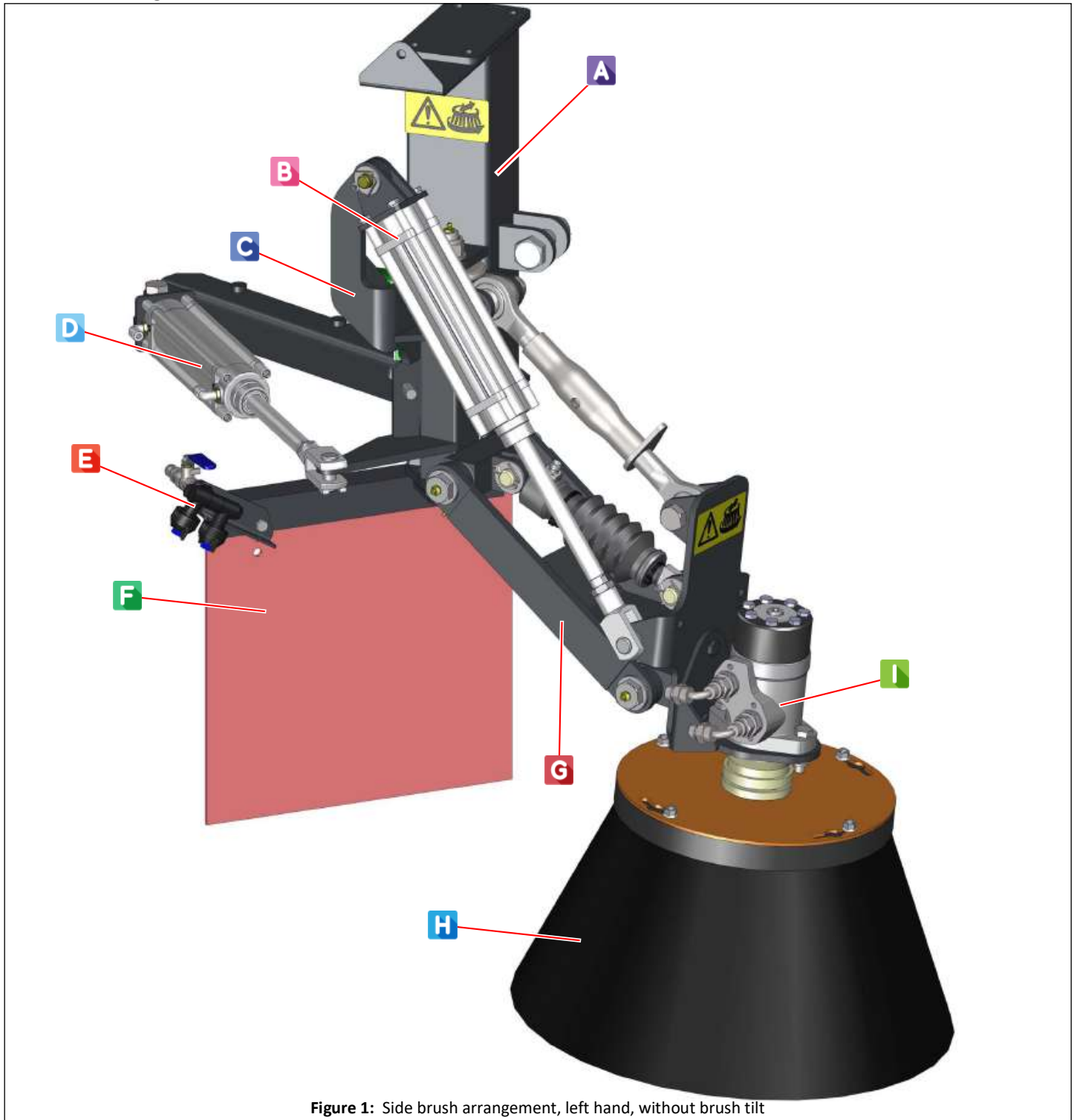


Figure 1: Side brush arrangement, left hand, without brush tilt

Item	Description	
A	Subframe leg	16, 17
B	Side brush pressure	22
C	King post	18
D	Side brush extend/retract	19
E	Side brush water spray	24
F	Side brush skirt	23
G	Side brush raise/lower	25,26
H	Side brush	35
I	Side brush drive motor	33

Side brush arrangement, left hand, with brush tilt

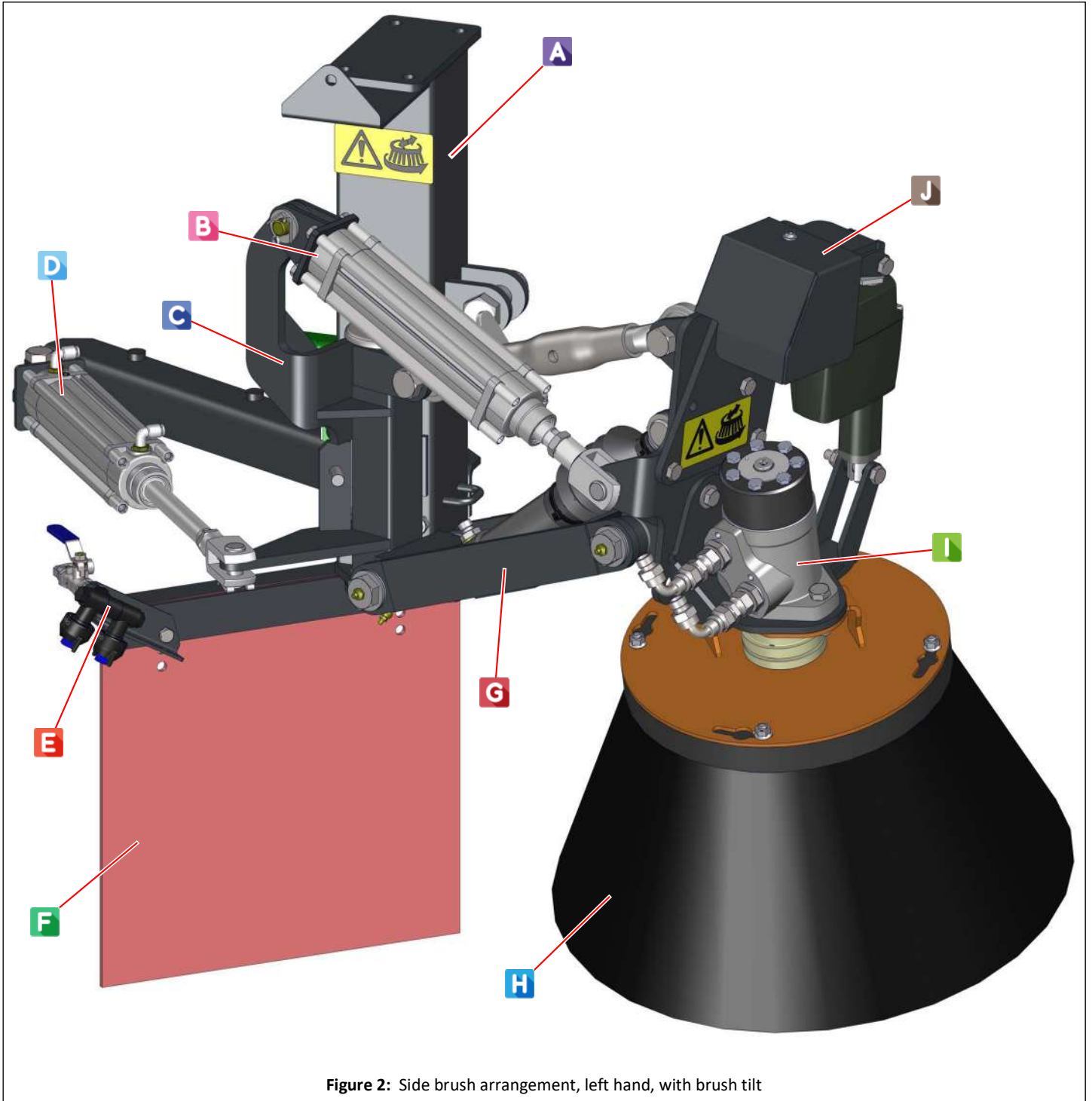
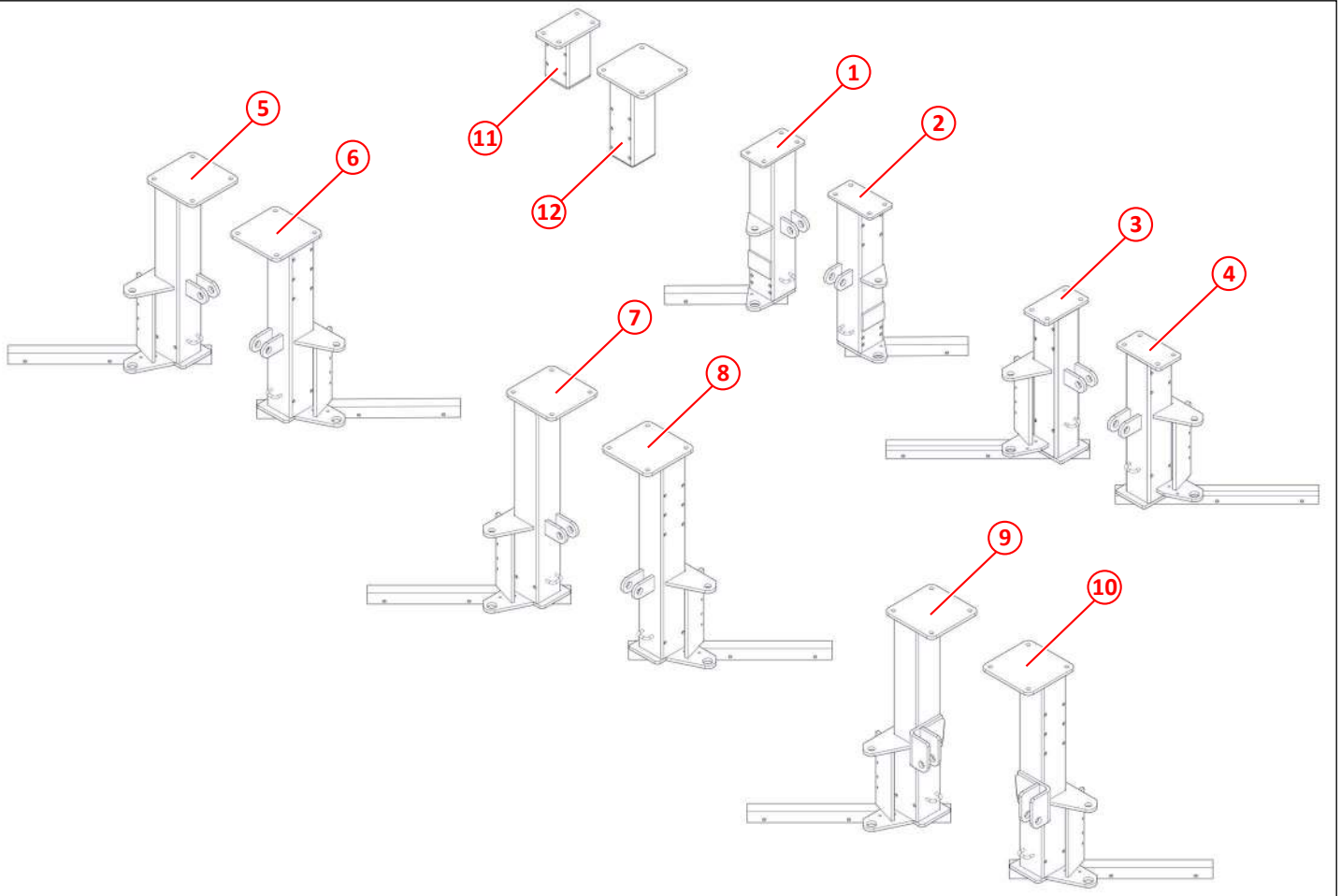


Figure 2: Side brush arrangement, left hand, with brush tilt

Item	Description	
A	Subframe leg	16, 17
B	Side brush pressure	22
C	King post	18
D	Side brush extend/retract	19
E	Side brush water spray	24
F	Side brush skirt	23
G	Side brush raise/lower	25,26
H	Side brush	35
I	Side brush drive motor	33
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Subframe legs and dummy legs

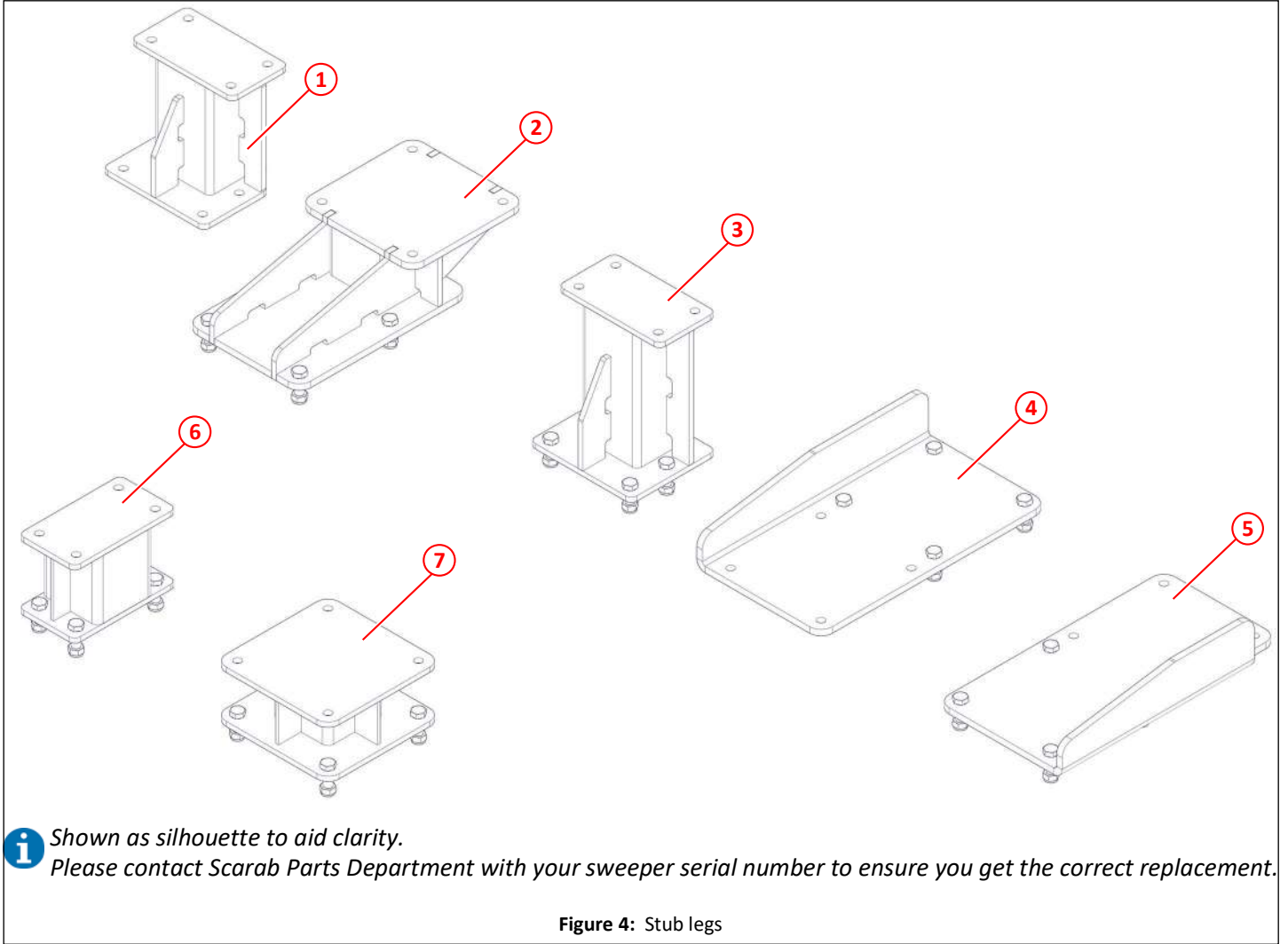


i Shown as silhouette to aid clarity.
Please contact Scarab Parts Department with your sweeper serial number to ensure you get the correct replacement.

Figure 3: Subframe legs and dummy legs

Item	Part No	Qty	Description
①	SCA027132	1	Subframe leg, standard, left hand - Merlin
②	SCA027133	1	Subframe leg, standard, right hand - Merlin
③	SCA030050	1	Subframe leg, large brush, left hand - Merlin
④	SCA030049	1	Subframe leg, large brush, right hand - Merlin
⑤	SCA024247	1	Subframe leg, universal, left hand - Magnum
⑥	SCA024248	1	Subframe leg, universal, right hand - Magnum
⑦	SCA030152	1	Subframe leg, +95 mm, left hand - Magnum
⑧	SCA030153	1	Subframe leg, +95 mm, right hand - Magnum
⑨	SCA030154	1	Subframe leg, left hand - Magnum Plus
⑩	SCA030155	1	Subframe leg, right hand - Magnum Plus
⑪	SCA038501	1	Dummy leg - Merlin
⑫	SCA038500	1	Dummy leg, - Magnum

Stub legs



Item	Part No	Qty	Description
①	SCA047777	1	Stub leg 180 mm, long 50 mm offset
②	SCA036826	1	Stub leg 95 mm long, 200 mm offset
③	SCA037920	1	Stub leg 220 mm long, 50 mm offset
④	SCA038811	1	Stub leg 10 mm, 200 mm offset, right hand
⑤	SCA039384	1	Stub leg 10 mm, 200 mm offset, left hand
⑥	SCA031355	1	Stub leg 120mm long
⑦	SCA031415	1	Stub leg 95mm long

King post, left hand, side brush

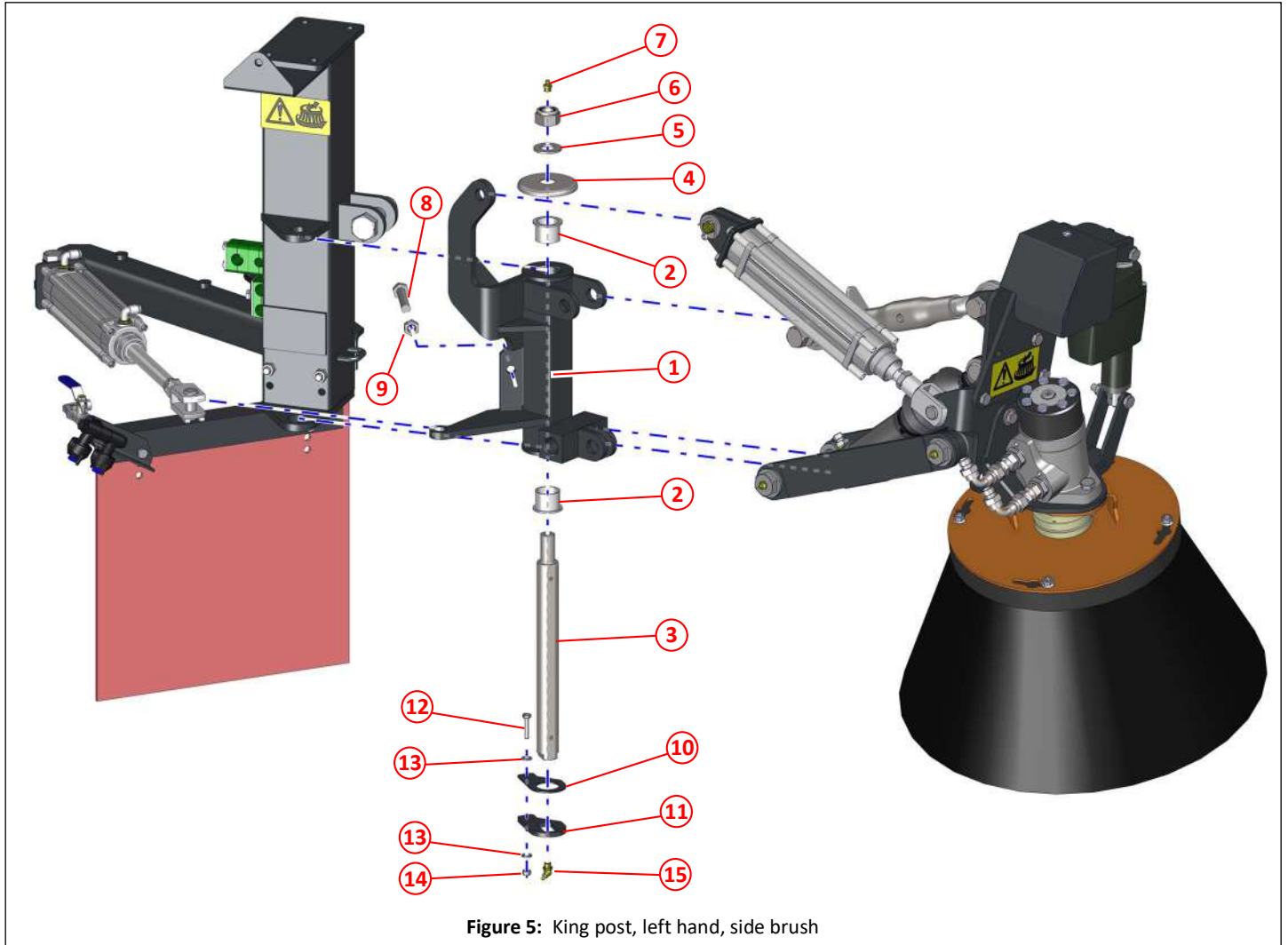


Figure 5: King post, left hand, side brush

Item	Part No	Qty	Description
①	SCA023120	1	King Post, left hand side brush
②	SCA013012	2	Bush
③	SCA013007	1	King pin
④	SCA013013	1	Dirt shield
⑤	SCA011102	1	Plain washer M20
⑥	SCA011082	1	Nyloc nut M20
⑦	SCA010903	1	Grease nipple, $\frac{1}{8}$ " BSP, straight
⑧	SCA000521	1	Setscrew M12 x 70 BZP
⑨	SCA011076	1	Full nut M12
⑩	SCA048997	1	King pin locking plate, thin
⑪	SCA048998	1	King pin locking plate, thick
⑫	SCA000020	1	Setscrew M6 x 30
⑬	SCA000254	2	Plain washer M6, stainless steel
⑭	SCA000253	1	Nyloc nut M6, stainless steel
⑮	SCA010901	1	Grease nipple, $\frac{1}{8}$ " BSP, 135°

Swing in/out, left hand, side brush

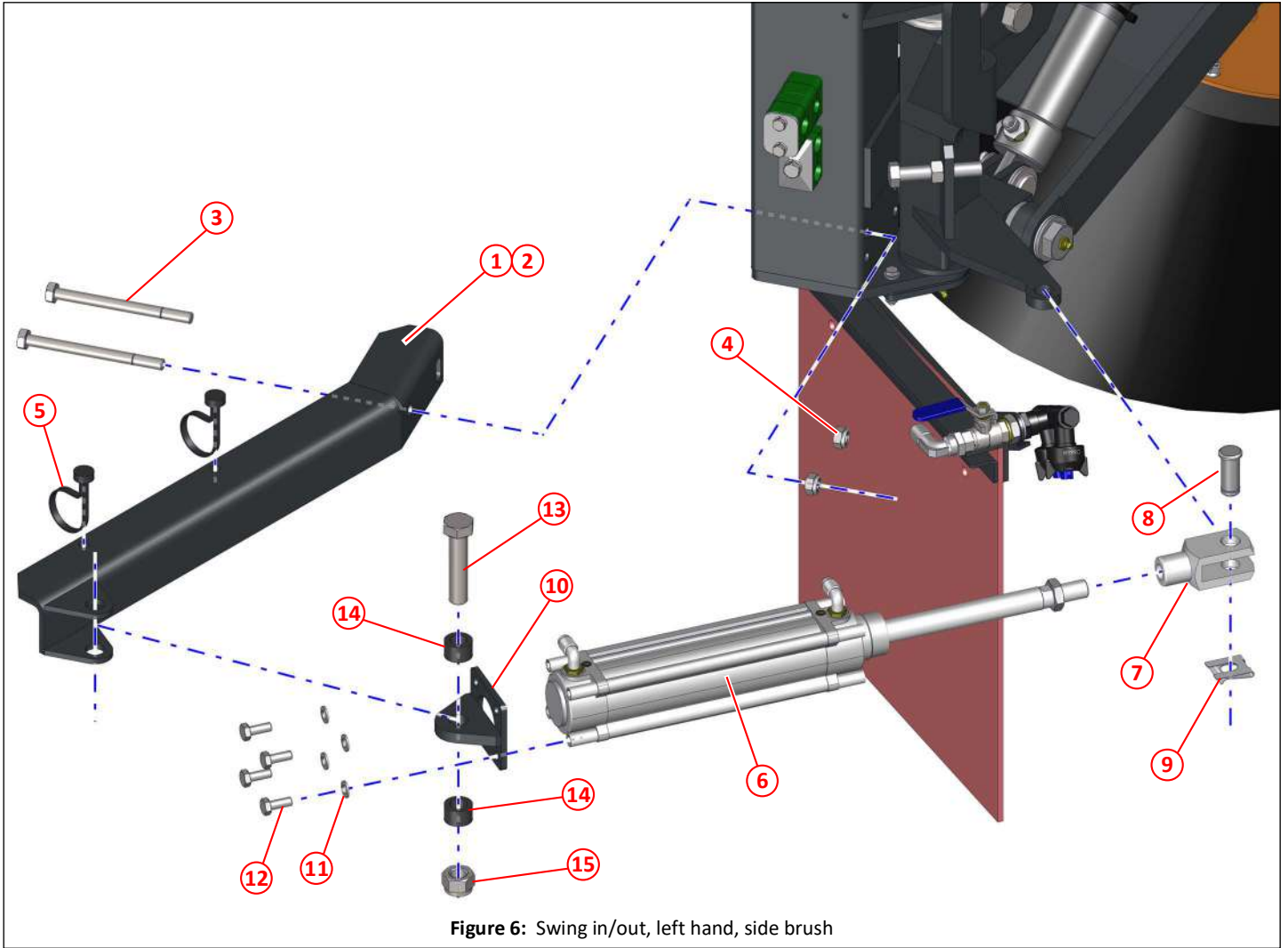


Figure 6: Swing in/out, left hand, side brush

Item	Part No	Qty	Description
①	SCA021519	1	Arm, air cylinder, left hand - <i>Merlin</i>
②	SCA021721		Arm, air cylinder, left hand - <i>Magnum</i>
③	SCA011407	2	Bolt HT M10 x120
④	SCA011075	2	Nyloc nut M10
⑤	SCA005061	2	Cable tie, round head
⑥	SCA020298	1	Pneumatic cylinder 50 x 160
⑦	SCA020299	1	Clevis pneumatic M16 x 1.5
⑧	SCA022673	1	Clevis pin
⑨	SCA022674	1	Clip, retaining M16
⑩	SCA020534	1	Ram end
⑪	SCA011093	4	Spring washer M8
⑫	SCA011010	4	Setscrew HT M8 x 20
⑬	SCA011260	1	Bolt HT M16 x 70
⑭	SCA011000	2	Hose $\frac{5}{8}$ " , fuel SAE100R6 - (Cut to 15mm)
⑮	SCA011060	1	Nyloc nut M16

Hydraulic hose tidy, left hand - Merlin

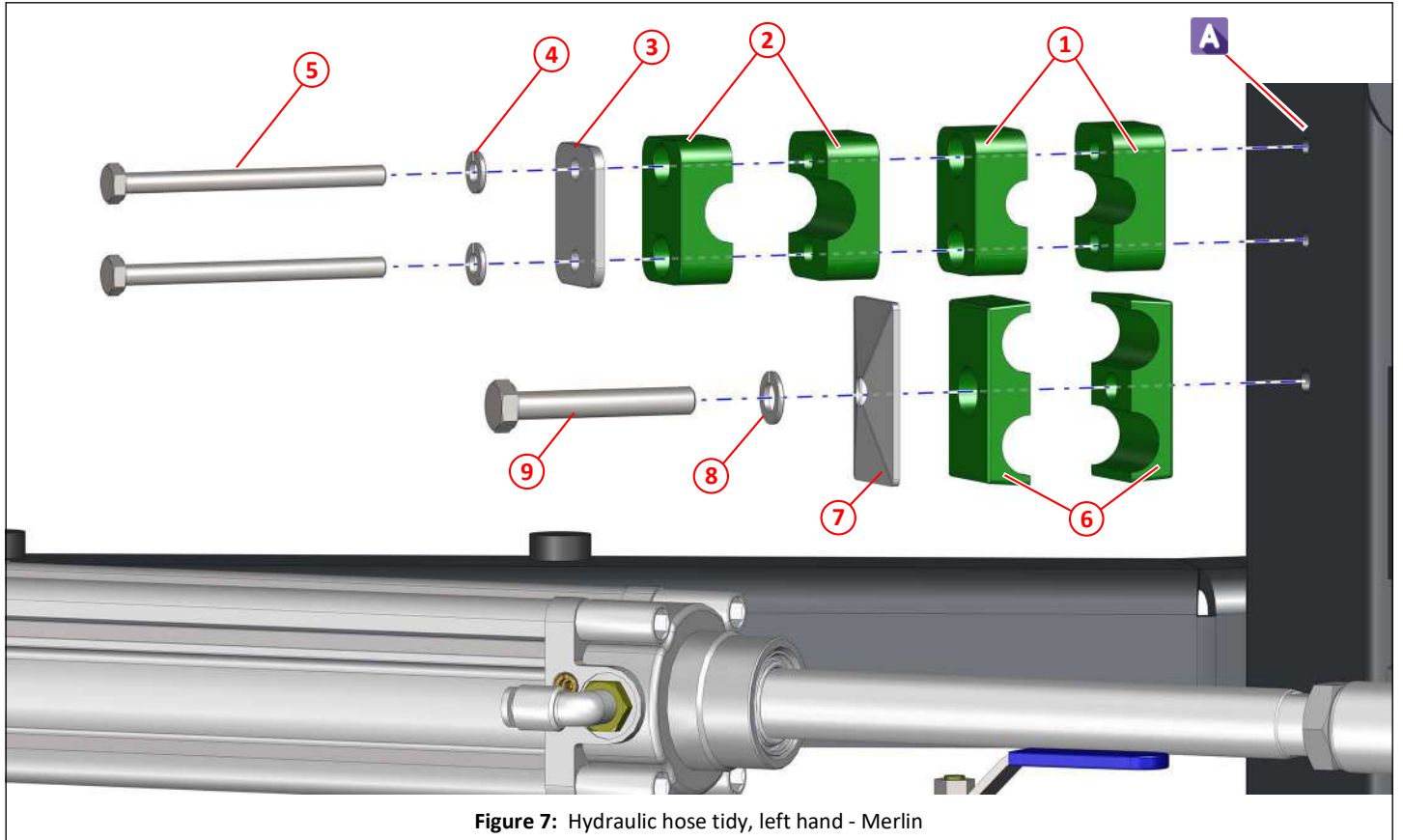


Figure 7: Hydraulic hose tidy, left hand - Merlin

Item	Part No	Qty	Description	
A			Subframe leg, left hand	16
①	SCA031316	2	Pipe clamp block $\frac{1}{4}$ " hose, single	
②	SCA002163	2	Pipe clamp block $\varnothing 17.2$, single	
③	SCA031317	1	Clamp plate flat	
④	SCA011091	2	Spring washer M6	
⑤	SCA000221	2	Bolt HT M6 x 80	
⑥	SCA031318	2	Pipe clamp block $\frac{3}{8}$ " hose, twin	
⑦	SCA031319	1	Clamp plate flat	
⑧	SCA011093	1	Spring washer M8	
⑨	SCA000009	1	Bolt HT M8 x 55	

Hydraulic hose tidy, left hand - *Magnum*

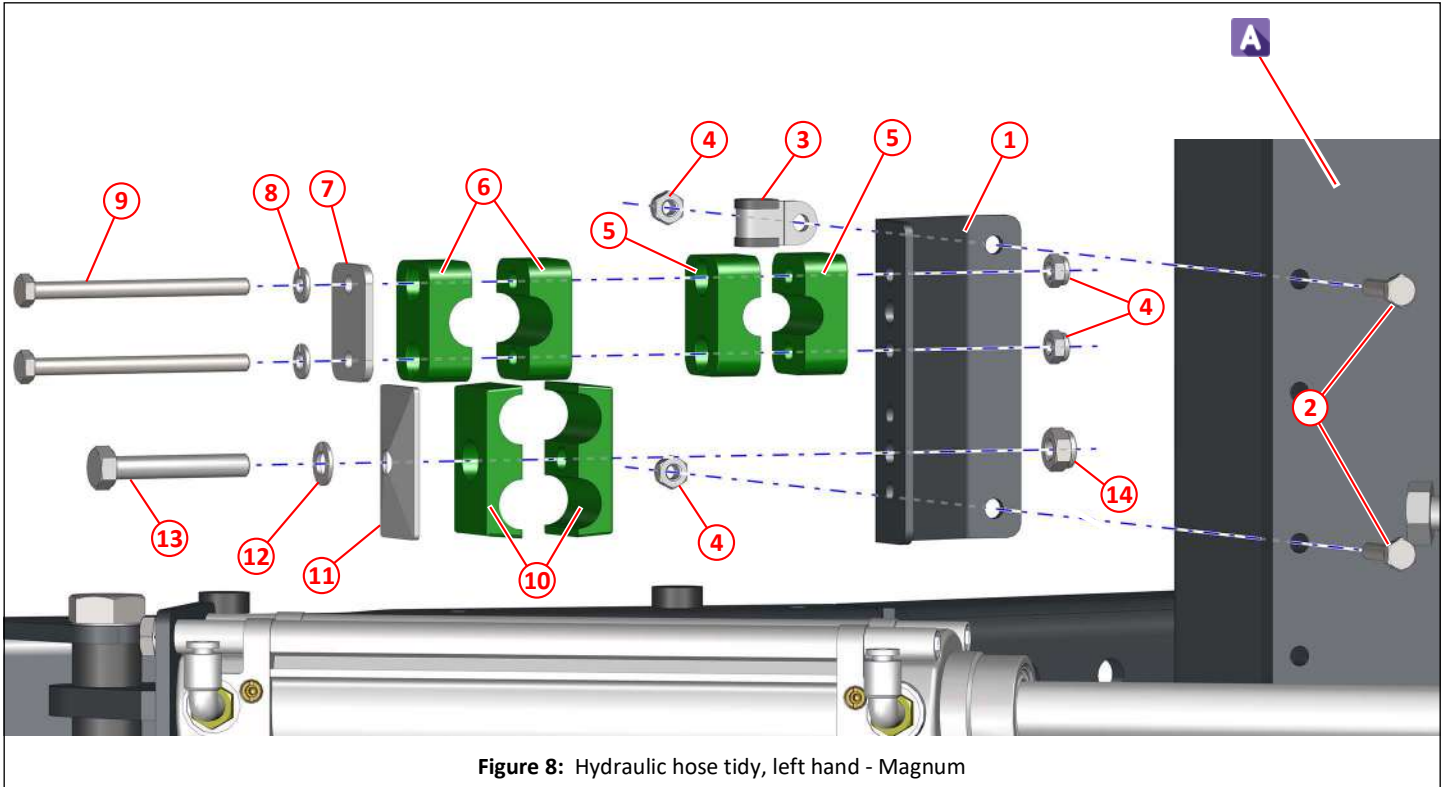


Figure 8: Hydraulic hose tidy, left hand - Magnum

Item	Part No	Qty	Description	
A			Subframe leg, left hand	16
①	SCA031306	1	Clamp support	
②	SCA011087	2	Setscrew HT M6 x 25	
③	SCA021914	1	Clip ø12, rubber, sealed	
④	SCA011071	4	Nyloc nut M6	
⑤	SCA031316	2	Pipe clamp block $\frac{1}{4}$ " hose, single	
⑥	SCA002163	2	Pipe clamp block ø17.2, single	
⑦	SCA031317	1	Clamp plate flat	
⑧	SCA011091	2	Spring washer M6	
⑨	SCA000221	2	Bolt HT M6 x 80	
⑩	SCA031318	2	Pipe clamp block $\frac{3}{8}$ " hose, twin	
⑪	SCA031319	1	Clamp plate flat	
⑫	SCA011093	1	Spring washer M8	
⑬	SCA000009	1	Bolt HT M8 x 55	
⑭	SCA011073	1	Nyloc nut M8	

Side brush pressure, left hand

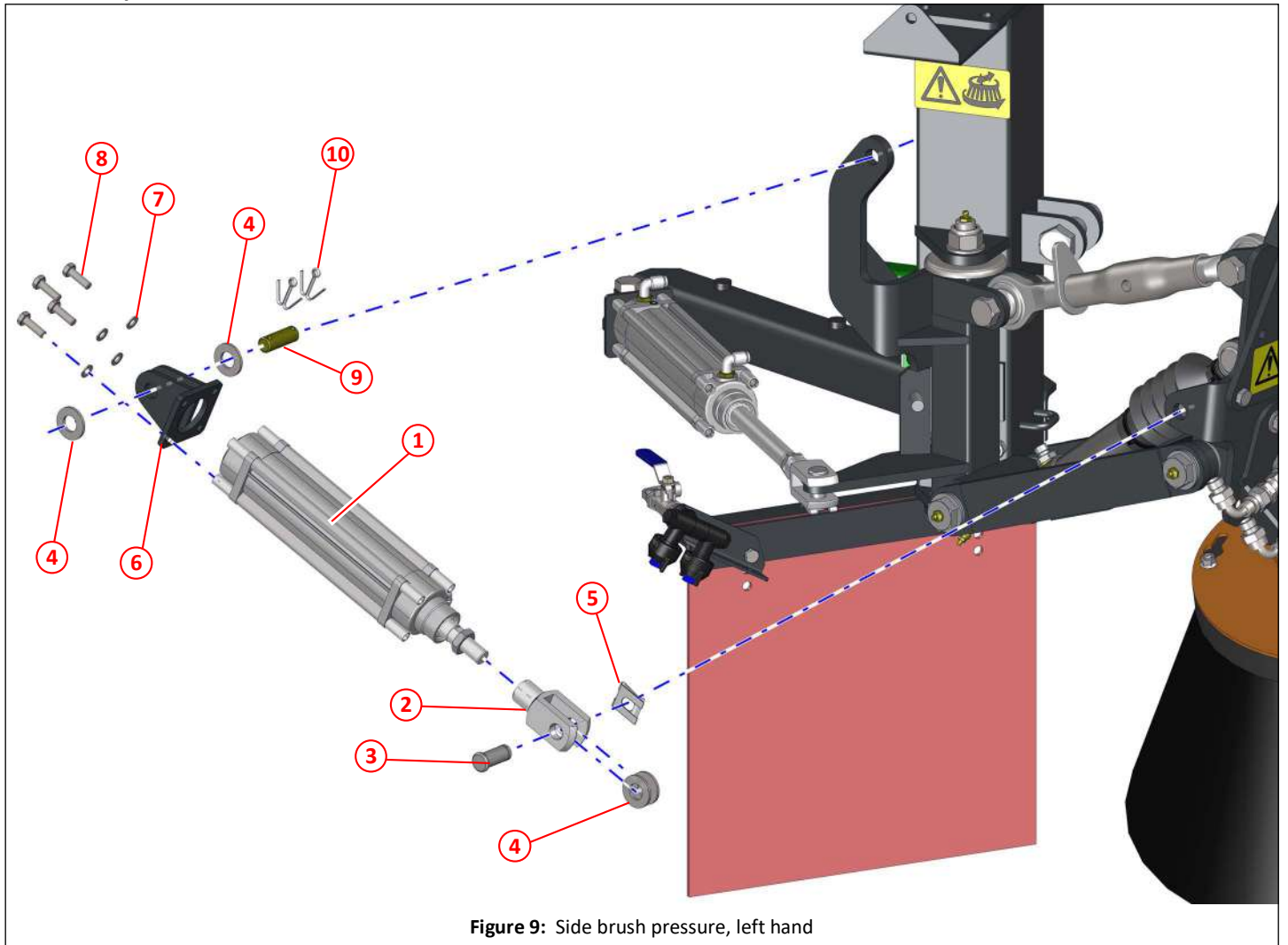


Figure 9: Side brush pressure, left hand

Item	Part No	Qty	Description
①	SCA020298	1	Pneumatic cylinder 50 x 160
②	SCA020299	1	Clevis pneumatic M16 x 1.5
③	SCA022673	1	Clevis pin
④	SCA011135	4	Plain washer M16
⑤	SCA022674	1	Clip, retaining M16
⑥	SCA023122	1	Pivot, pneumatic cylinder $\varnothing 50$
⑦	SCA011093	4	Spring washer M8
⑧	SCA011011	4	Setscrew HT M8x25
⑨	SCA023123	1	Pin $\varnothing 16 \times 46$
⑩	SCA011122	2	Split pin $\frac{3}{16}'' \times 1\frac{1}{2}''$

Skirt, side brush, left hand

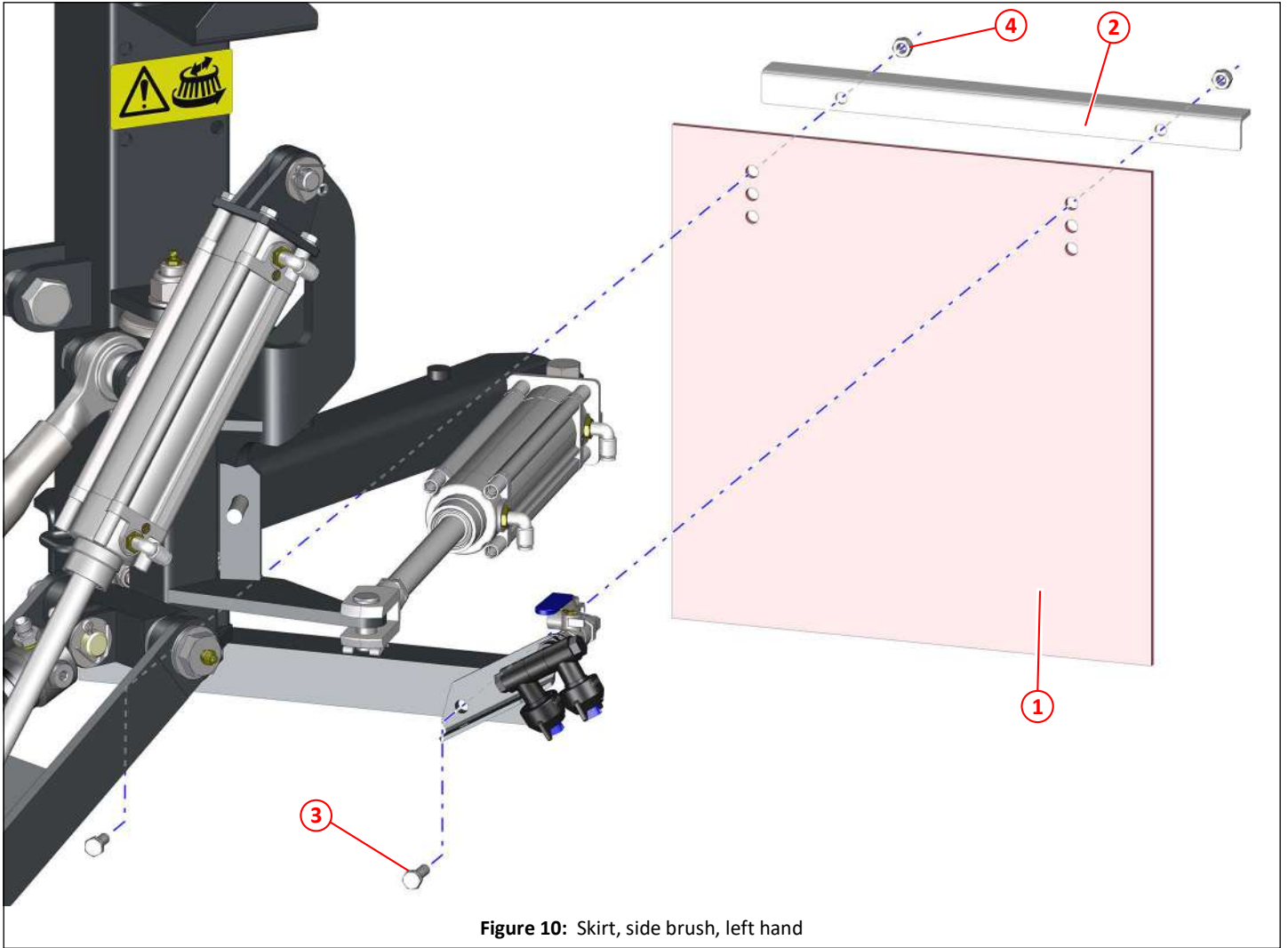


Figure 10: Skirt, side brush, left hand

Item	Part No	Qty	Description
①	SCA012216	1	Skirt, side brush - 2 pitch, heavy duty
②	SCA012217	1	Skirt clamp
③	SCA011011	2	Setscrew HT M8 x 25
④	SCA011073	2	Nyloc nut M8

Water spray, side brush, left hand

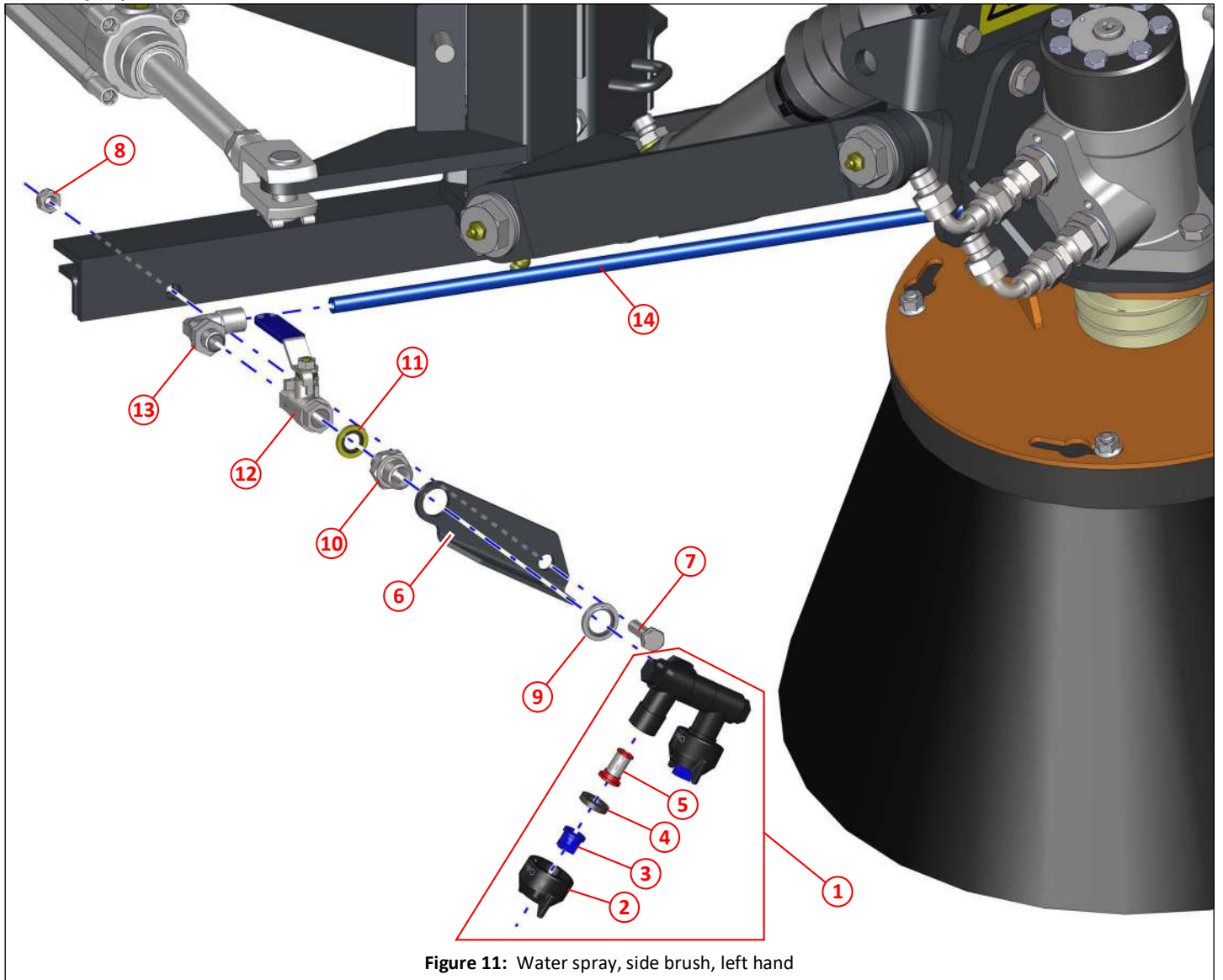


Figure 11: Water spray, side brush, left hand

Item	Part No	Qty	Description
①	SCA036044	1	Double swivel nozzle holder assembly
②	SCA030746	2	Cone nozzle cap
③	SCA030748	2	Jet (blue)
④	SCA030636	2	Rubber washer
⑤	SCA030633	2	Filter, 100 mesh
⑥	SCA036042	1	Nozzle bracket
⑦	SCA011011	1	Setscrew HT M8 x 25
⑧	SCA011073	1	Nyloc nut M8
⑨	SCA011153	1	Dowty seal $\frac{3}{8}$ " BSP
⑩	SCA011199	1	Adapter $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
⑪	SCA011152	1	Dowty seal $\frac{1}{4}$ " BSP
⑫	SCA011743	1	Valve $\frac{1}{4}$ " ball
⑬	SCA047602	1	Elbow, push-in 10mm x $\frac{1}{4}$ " BSP
⑭	SCA041031	1	\varnothing 10mm nylon pipe, blue

Brush link, left hand

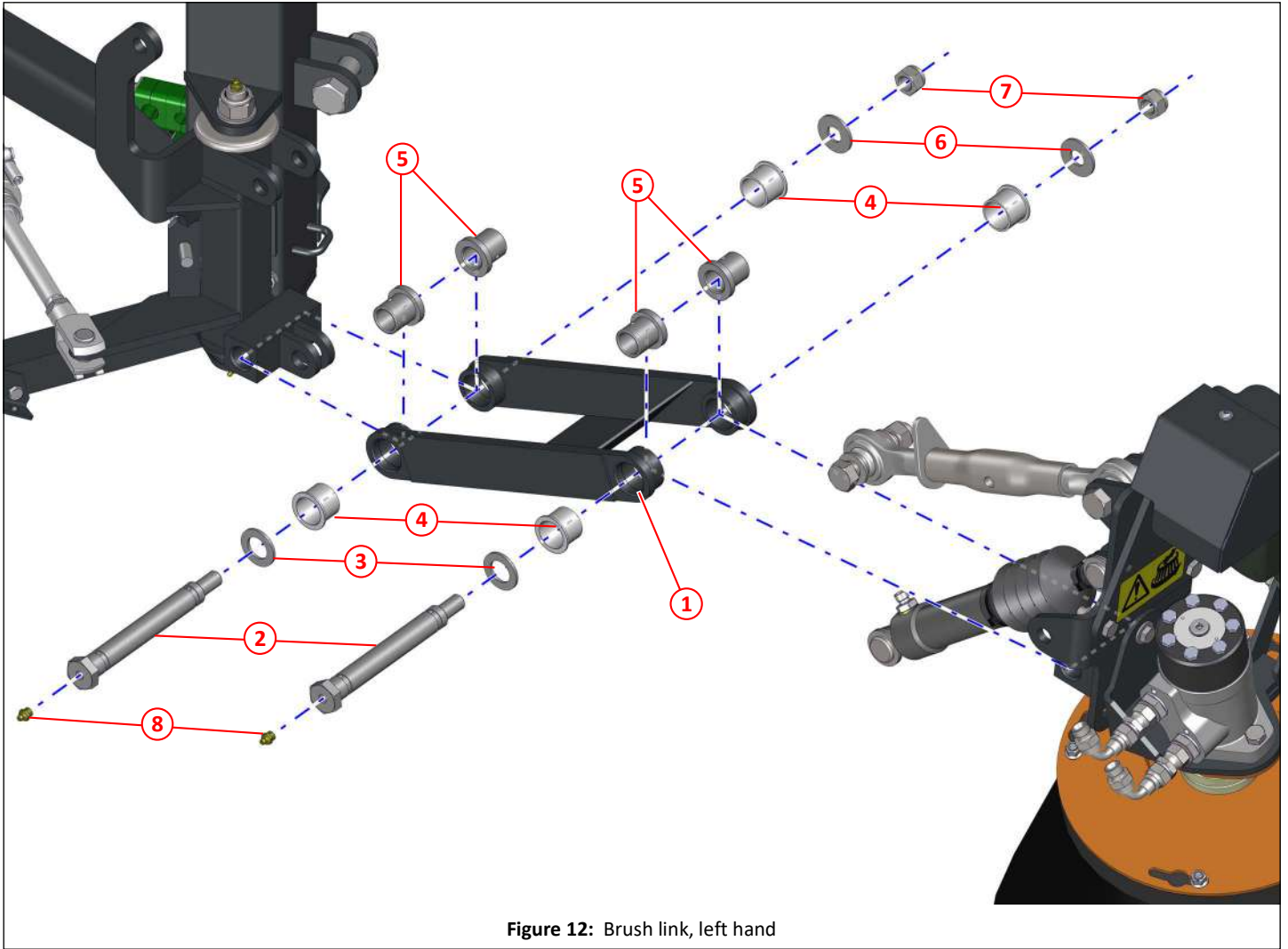


Figure 12: Brush link, left hand

Item	Part No	Qty	Description
①	SCA014801	1	Brush link, side brush
②	SCA014796	2	Pivot bolt, side brush
③	SCA014798	2	Washer $\varnothing 24 \times \varnothing 40 \times 3$
④	SCA013012	4	Bush
⑤	SCA014799	4	pacer sleeve, side brush
⑥	SCA014797	2	Washer $\varnothing 17 \times \varnothing 40 \times 3$
⑦	SCA011060	2	Nyloc nut M16
⑧	SCA010903	2	Grease nipple, $\frac{1}{8}$ " BSP, straight

Raise/lower ram, side brush, left hand

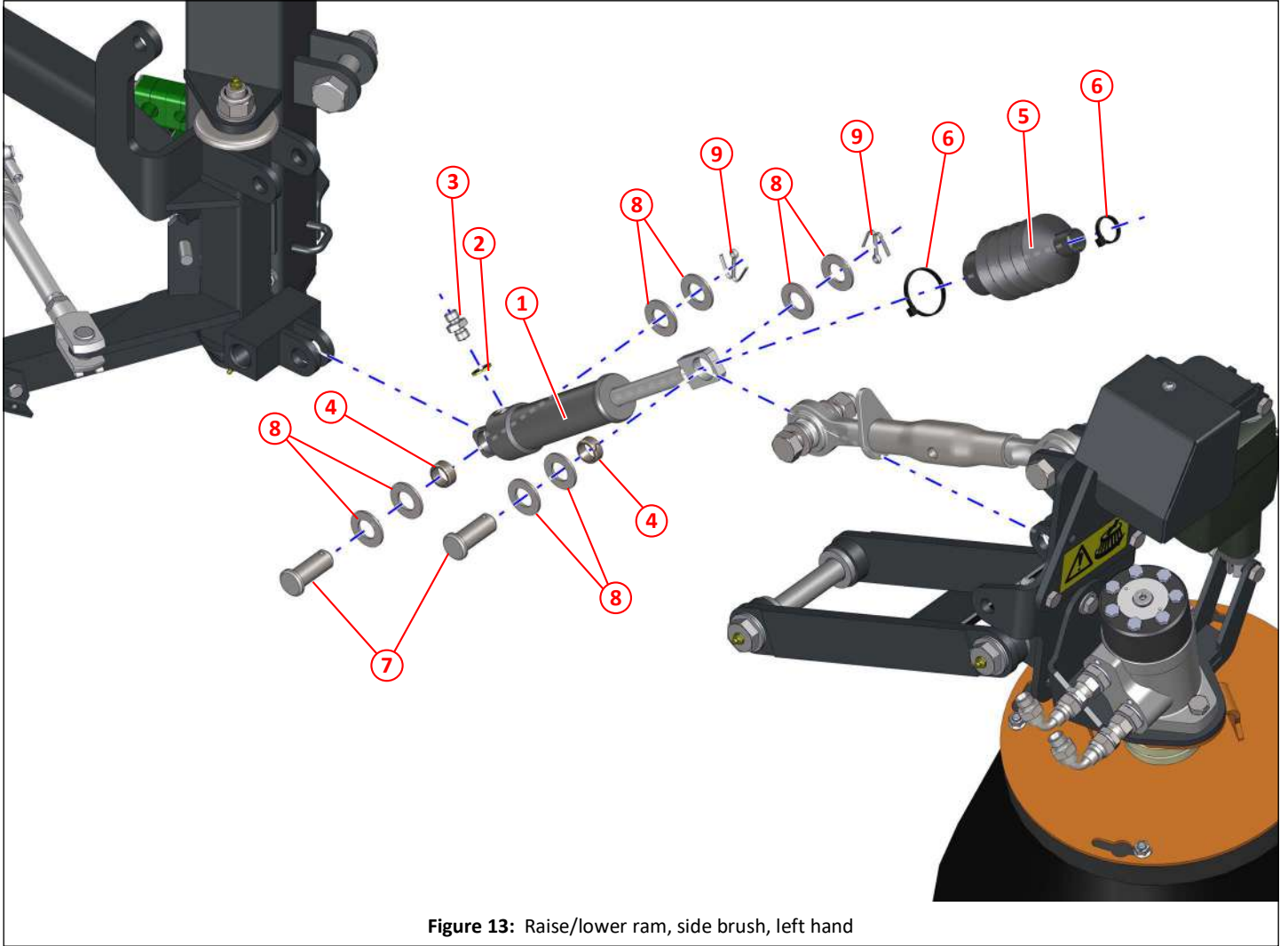


Figure 13: Raise/lower ram, side brush, left hand

Item	Part No	Qty	Description
①	SCA010009	1	Ram 240/340
②	SCA011152	1	Dowty seal $\frac{3}{8}$ " BSP
③	SCA012539	1	Adapter, restrictor No 5, $\frac{1}{4}$ " x $\frac{1}{4}$ " BSP, $\frac{1}{32}$ " white
④	SCA024682	2	Bush $\varnothing 25$ x $\varnothing 20$ x 10
⑤	SCA014473	1	Bellows, ram
⑥	SCA005018	2	Cable tie, black, X80R
⑦	SCA046750	2	Clevis pin, $\varnothing 20$ x 50
⑧	SCA011102	4	Plain washer M20
⑨	SCA011122	2	Split pin $\frac{3}{16}$ " x $1\frac{1}{2}$ "

Top link, side brush, left hand

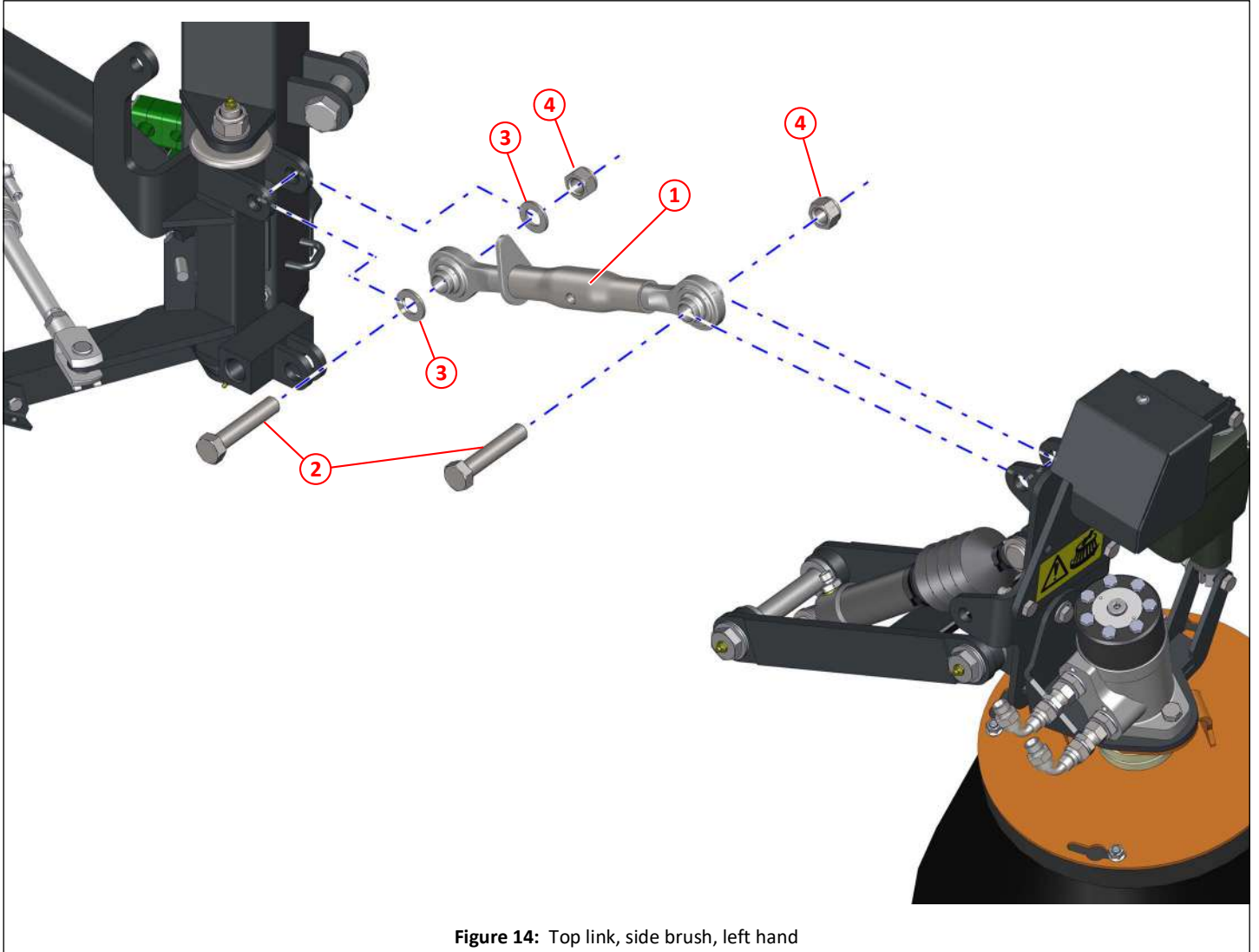


Figure 14: Top link, side brush, left hand

Item	Part No	Qty	Description
①	SCA013011	1	Top link
②	SCA011140	2	Bolt HT M18 x90
③	SCA011138	2	Plain washer M18
④	SCA011139	2	Nyloc nut M18

Swivel plate, side brush, left hand

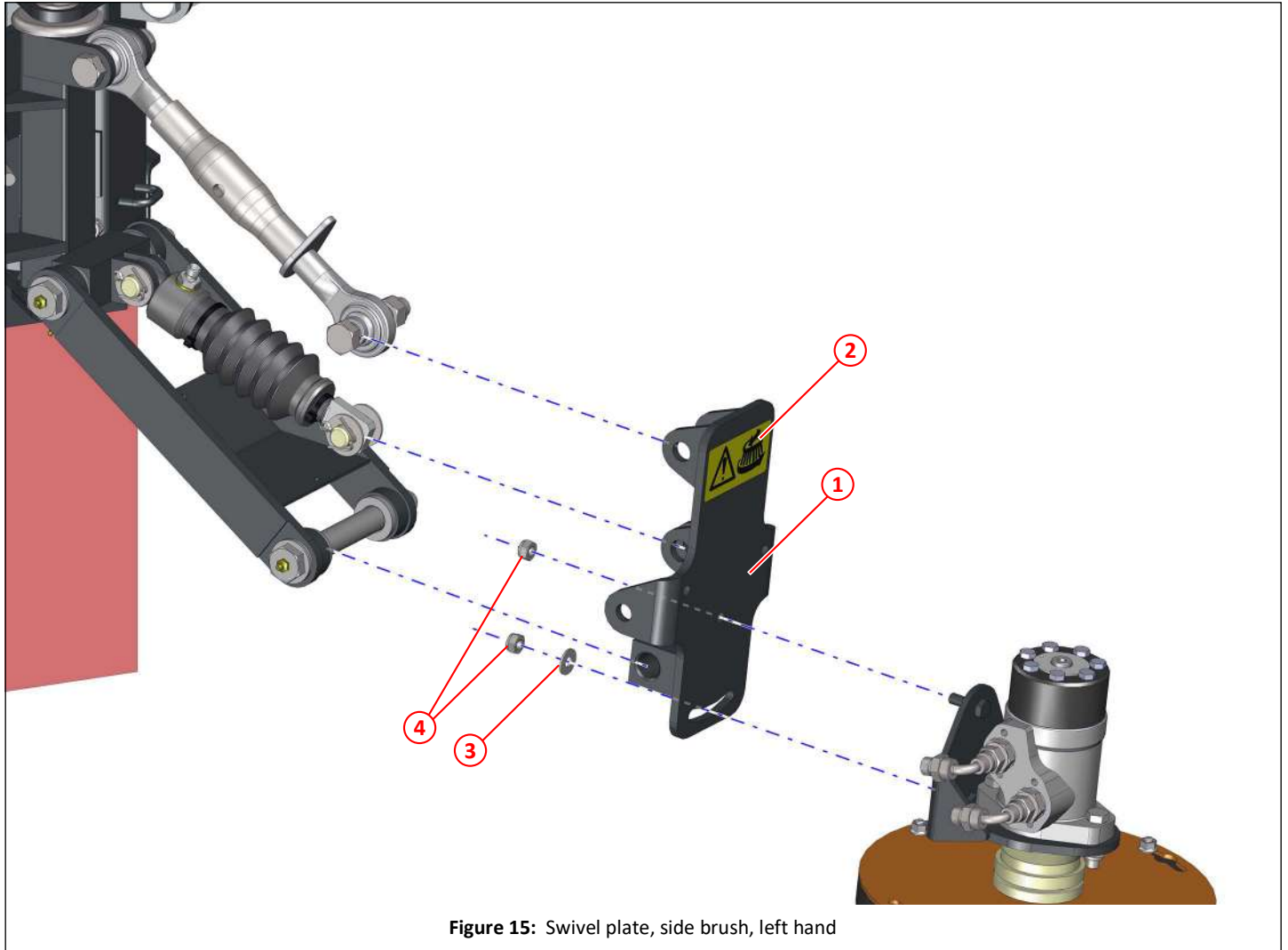


Figure 15: Swivel plate, side brush, left hand

Item	Part No	Qty	Description
①	SCA023121	1	Swivel plate side brush
②	SCA022383	1	Label-Brush warning
③	SCA011094	1	Plain washer M10
④	SCA011075	2	Nyloc nut M10

Swivel plate, side brush with brush tilt, left hand

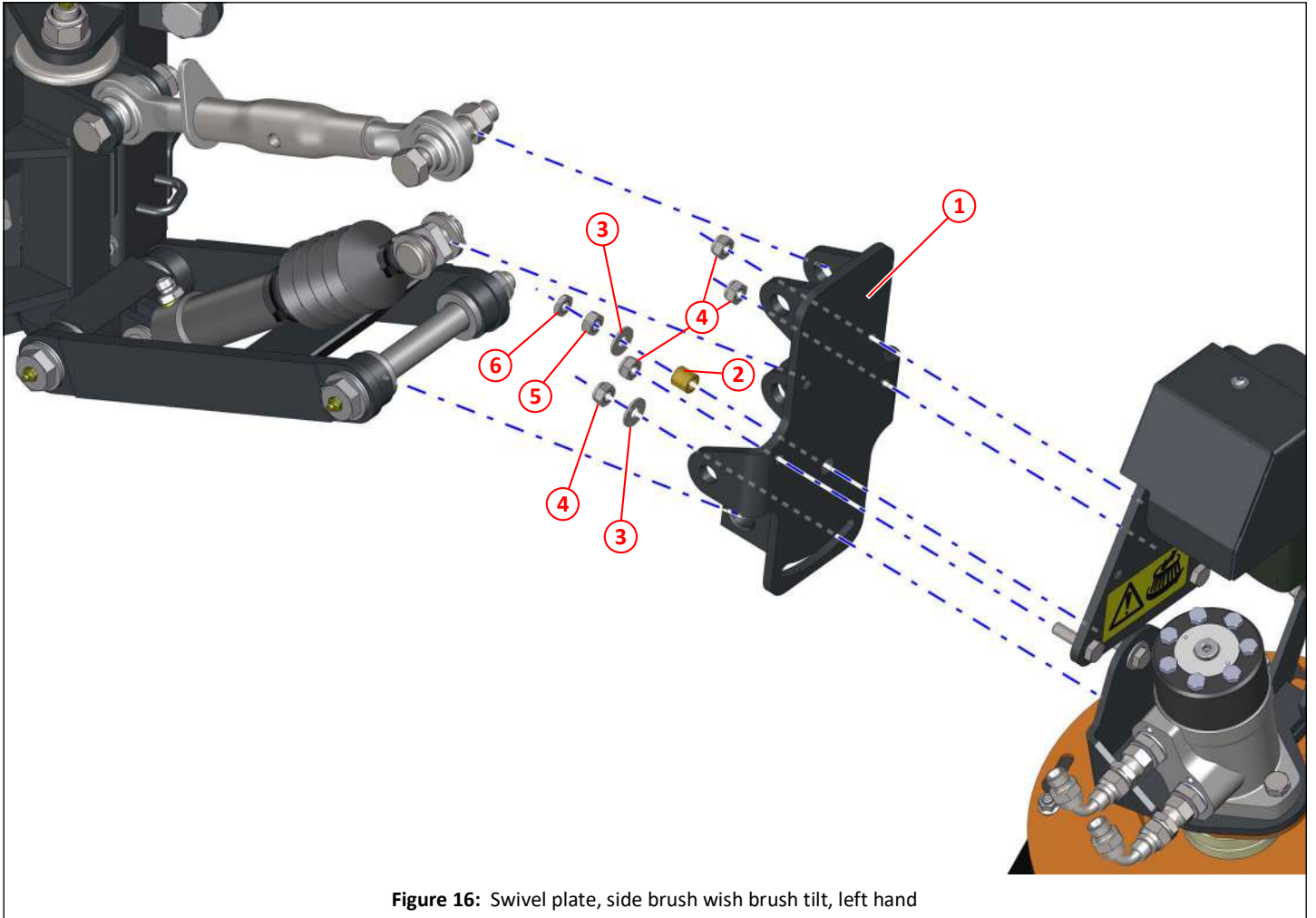


Figure 16: Swivel plate, side brush wish brush tilt, left hand

Item	Part No	Qty	Description
①	SCA046284	1	Swivel plate side brush with brush tilt
②	SCA046282	1	Bush $\varnothing 16 \times \varnothing 10.5 \times 15$
③	SCA011094	2	Plain washer M10
④	SCA011075	4	Nyloc nut M10
⑤	SCA011074	1	Full nut M10
⑥	SCA000506	1	Half nut M10

Motor mounting, side brush, left hand

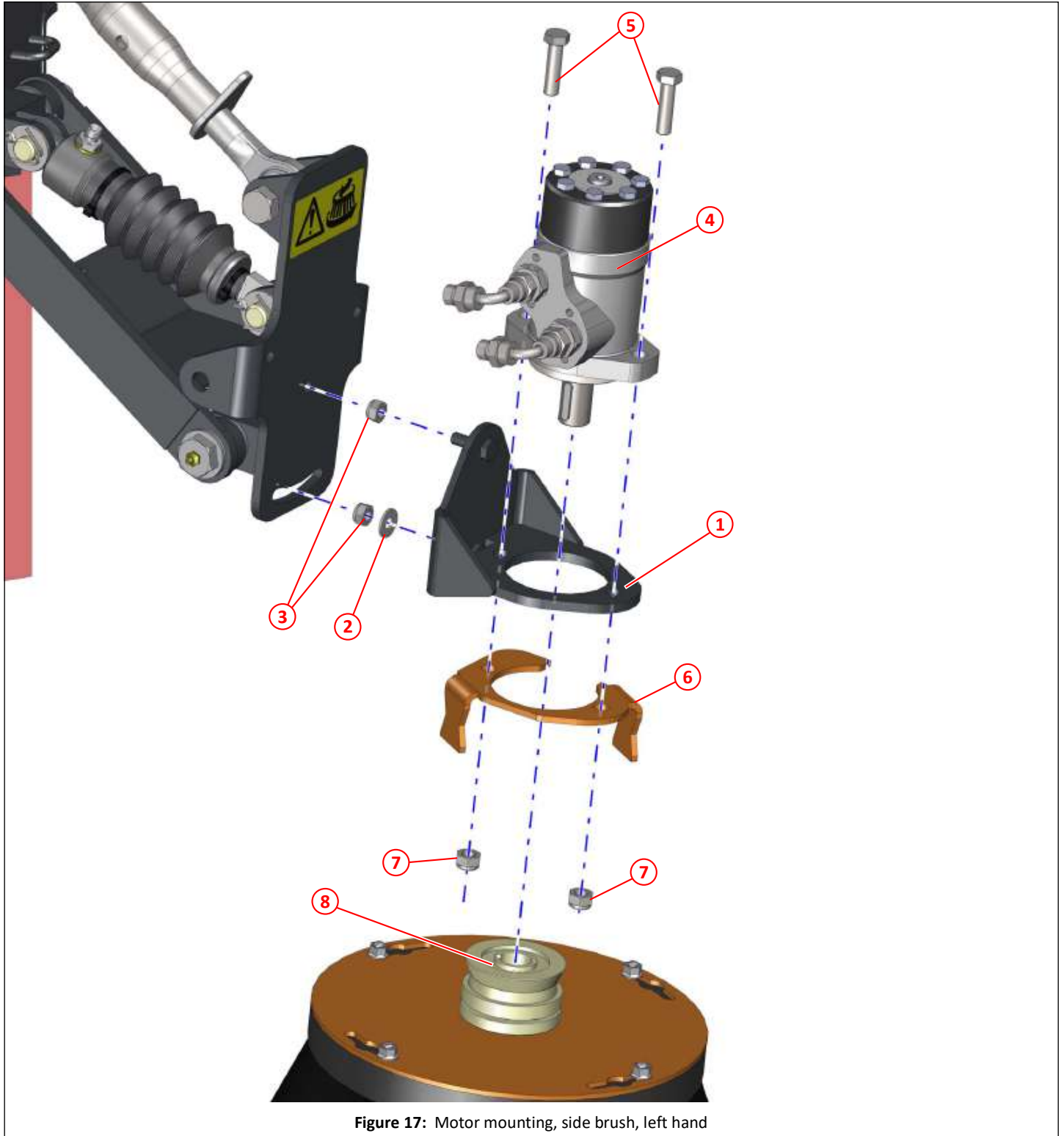


Figure 17: Motor mounting, side brush, left hand

Item	Part No	Qty	Description	
①	SCA047485	1	Motor bracket, side brush, bolt hub	
②	SCA011094	1	Plain washer M10	
③	SCA011075	2	Nyloc nut M10	
④	SCA010749	1	Motor 3597 200cc	33
⑤	SCA011054	2	Setscrew HT M12 x45	
⑥	SCA048816	1	Tape cutter left hand	
⑦	SCA011077	2	Nyloc nut M12	
⑧	SCA047482	1	Plate hub	35

Side brush tilt bracket, left hand

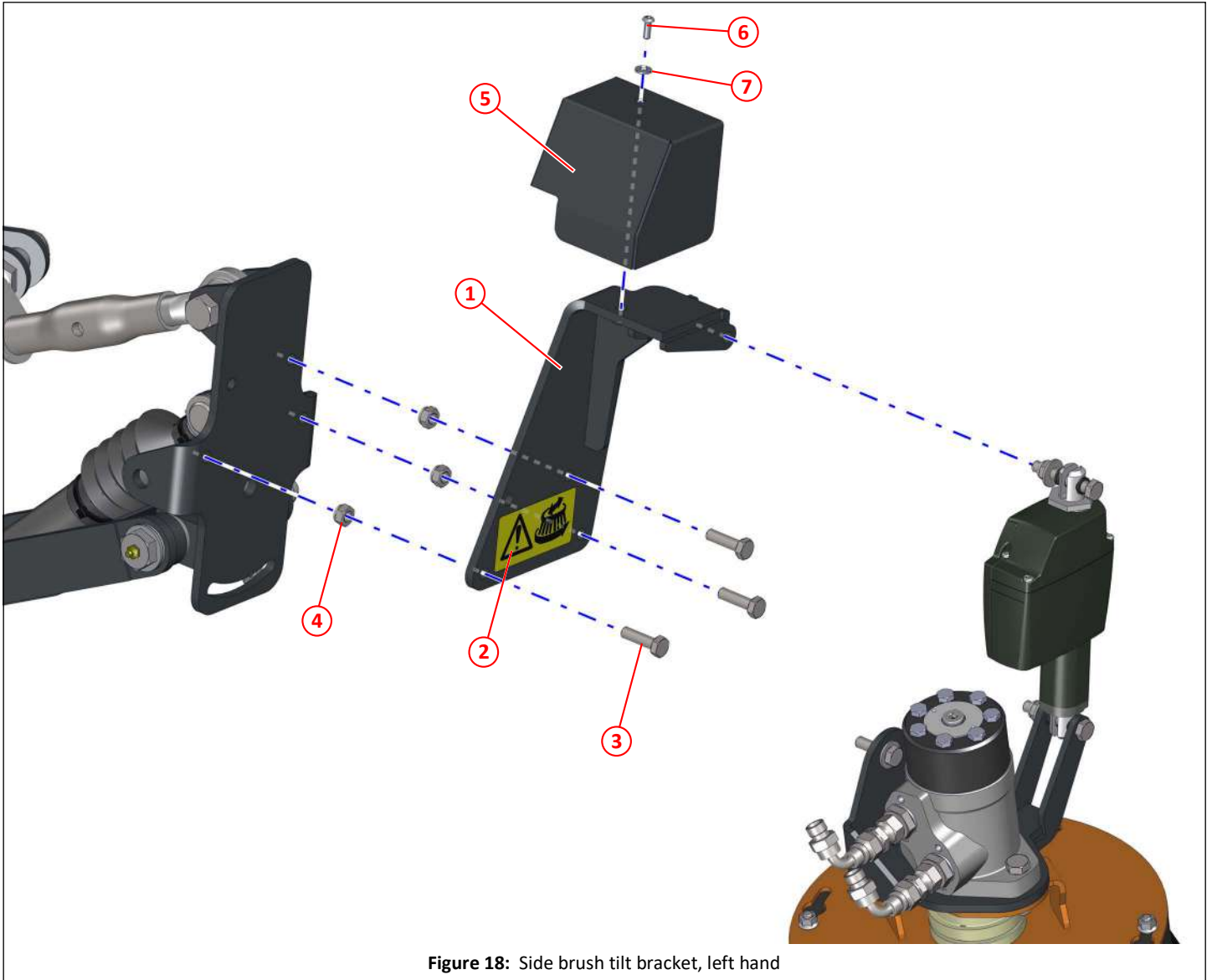


Figure 18: Side brush tilt bracket, left hand

Item	Part No	Qty	Description
①	SCA046279	1	Brush tilt bracket left hand
②	SCA022383	1	Label, Brush warning
③	SCA011033	3	Setscrew HT M10 x 35
④	SCA011075	3	Nyloc nut M10
⑤	SCA046491	1	Actuator cover, brush tilt, left hand
⑥	SCA000373	1	Socket dome head screw M6 x 16, stainless steel
⑦	SCA000254	1	Plain washer M6, stainless steel

Motor mount, side brush with brush tilt, left hand

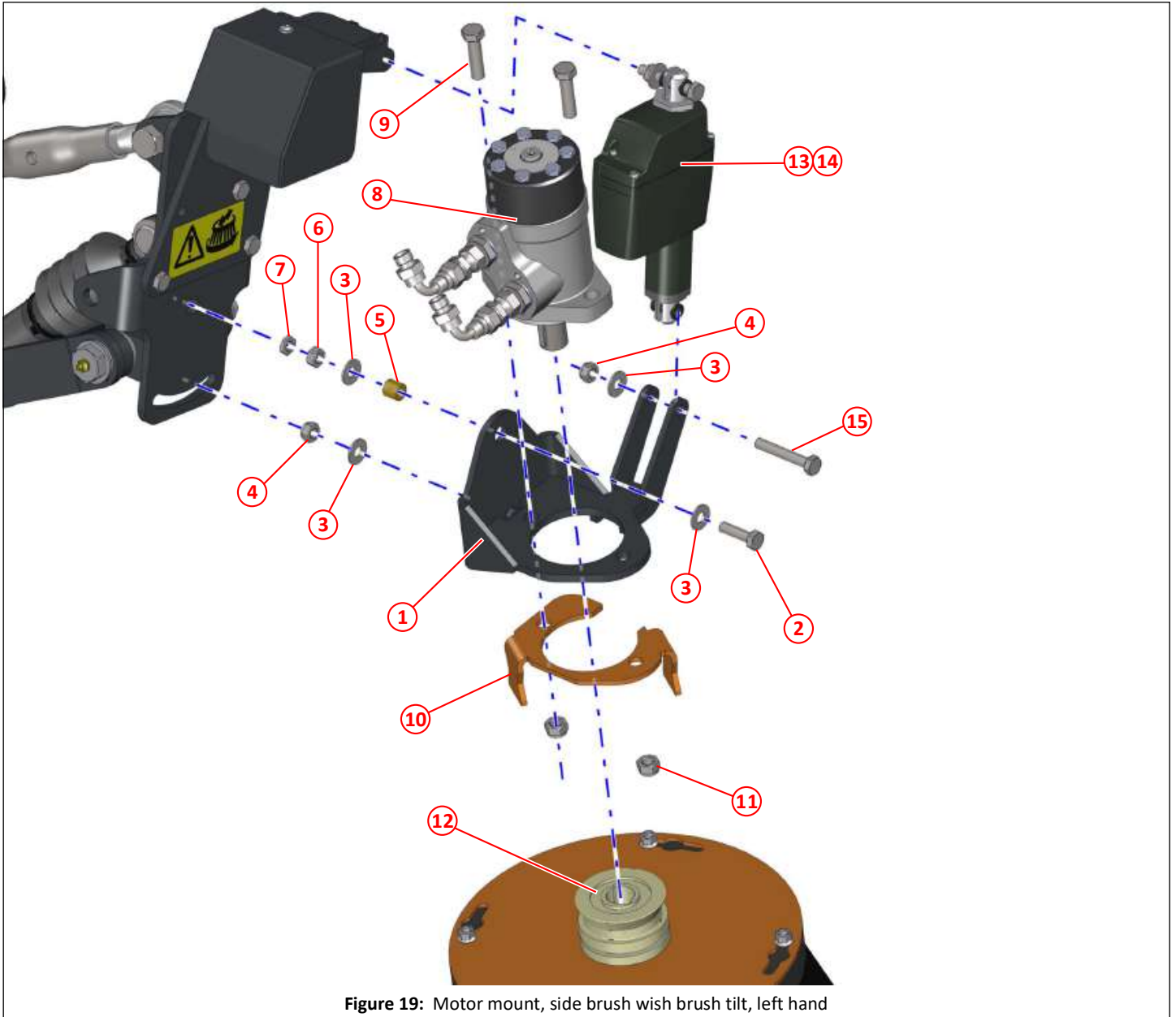


Figure 19: Motor mount, side brush wish brush tilt, left hand

Item	Part No	Qty	Description	
①	SCA047553	1	Motor bracket tilting side brush, bolt hub, left hand	
②	SCA011033	1	Setscrew HT M10 x35	
③	SCA011094	4	Plain washer M10	
④	SCA011075	2	Nyloc nut M10	
⑤	SCA046282	1	Bush $\varnothing 16 \times \varnothing 10.5 \times 15$	
⑥	SCA011074	1	Full nut M10	
⑦	SCA000506	1	Half nut M10	
⑧	SCA010749	1	Motor 3597 200cc	33
⑨	SCA011054	2	Setscrew HT M12 x 45	
⑩	SCA048816	1	Tape cutter left hand	
⑪	SCA011077	2	Nyloc nut M12	
⑫	SCA047482	1	Plate hub	35
⑬	SCA047660	1	Brush tilt actuator (24V)	
⑭	SCA046270	1	Brush tilt actuator (12V)	
⑮	SCA011036	1	Bolt HT M10 x 60	

Motor, side brush left hand

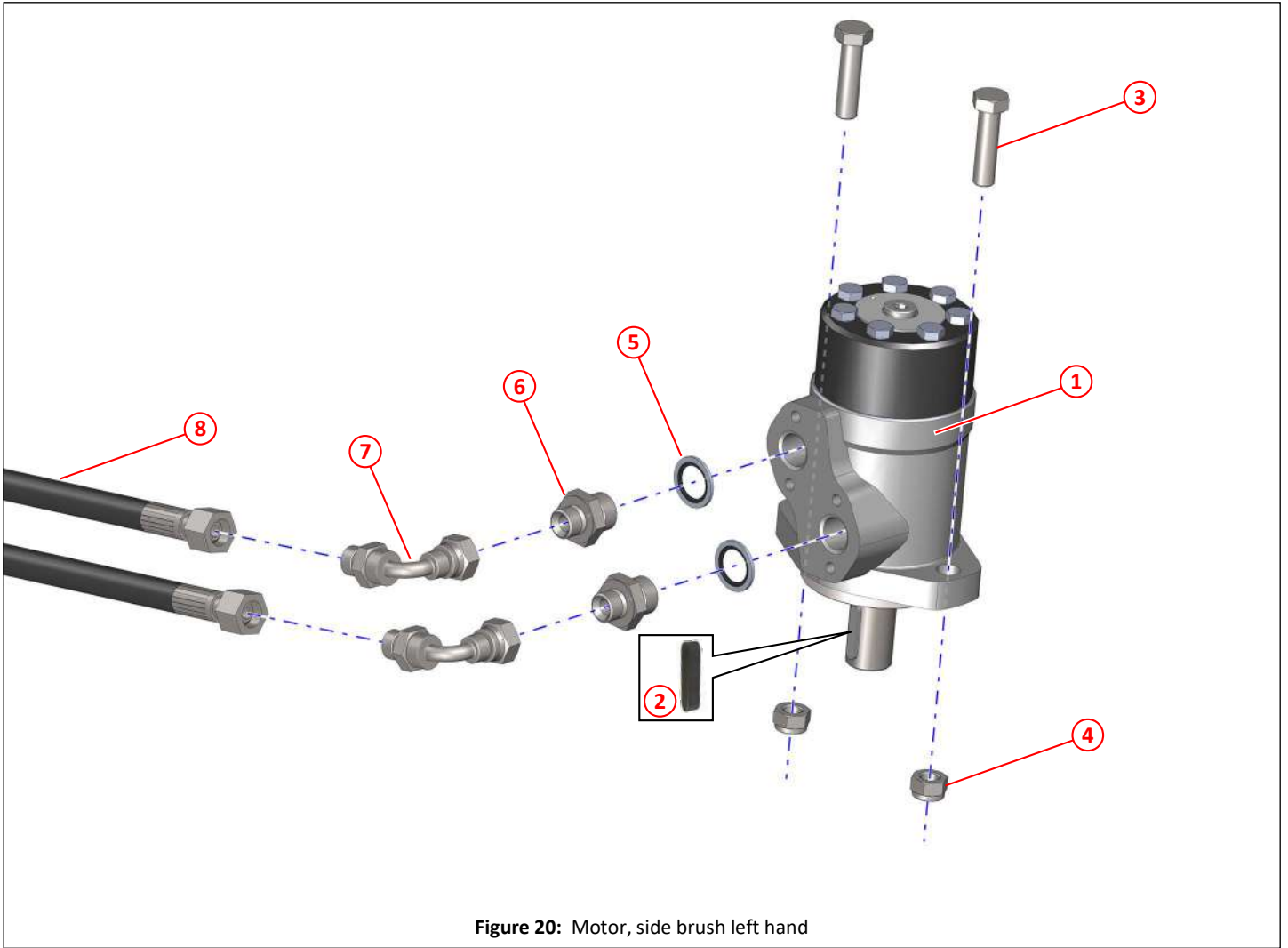


Figure 20: Motor, side brush left hand

Item	Part No	Qty	Description
①	SCA010749	1	Motor 3597 200cc
②	SCA011155	1	Key for item ①
③	SCA011054	2	Setscrew HT M12 x 45
④	SCA011077	2	Nyloc nut M12
⑤	SCA011154	2	Dowty seal $\frac{1}{2}$ " BSP
⑥	SCA011167	2	Adapter $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
⑦	SCA011221	2	Swept elbow $\frac{3}{8}$ " BSP
⑧	SCA011307	2	Hose $\frac{3}{8}$ " x 1300 long, $\frac{3}{8}$ " BSP straight connectors

Brush tilt actuator, side brush left hand

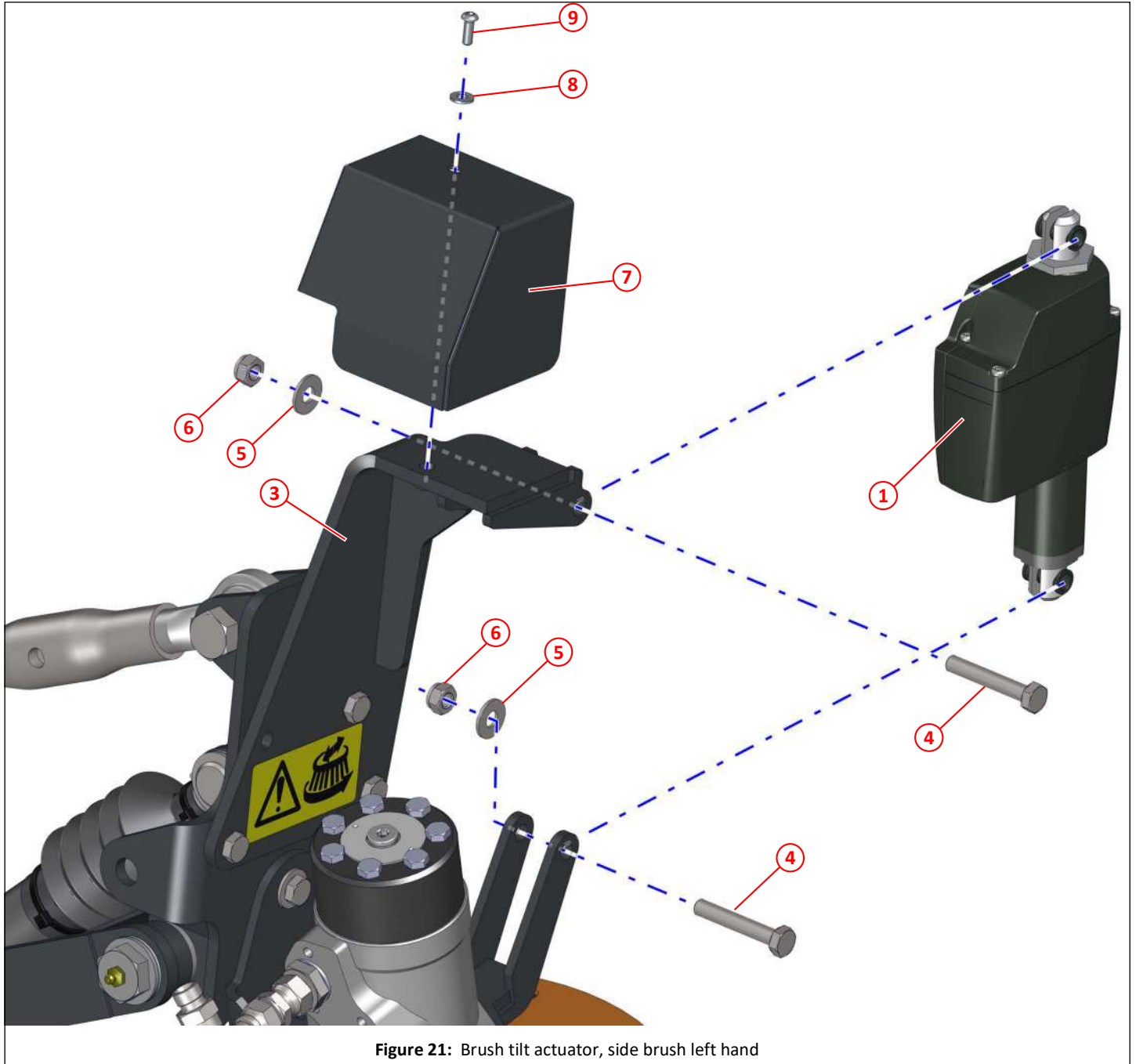


Figure 21: Brush tilt actuator, side brush left hand

Item	Part No	Qty	Description
①	SCA047660	1	Brush tilt actuator (24V)
②	SCA046270	1	Brush tilt actuator (12V)
③	SCA046279	1	Brush tilt bracket left hand
④	SCA011036	1	Bolt HT M10 x 60
⑤	SCA011094	2	Plain washer M10
⑥	SCA011075	2	Nyloc nut M10
⑦	SCA046491	1	Actuator cover, brush tilt, left hand
⑧	SCA000373	1	Socket dome head screw M6 x 16, stainless steel
⑨	SCA000254	1	Plain washer M6, stainless steel

Bolt hub, brush hubs and brushes

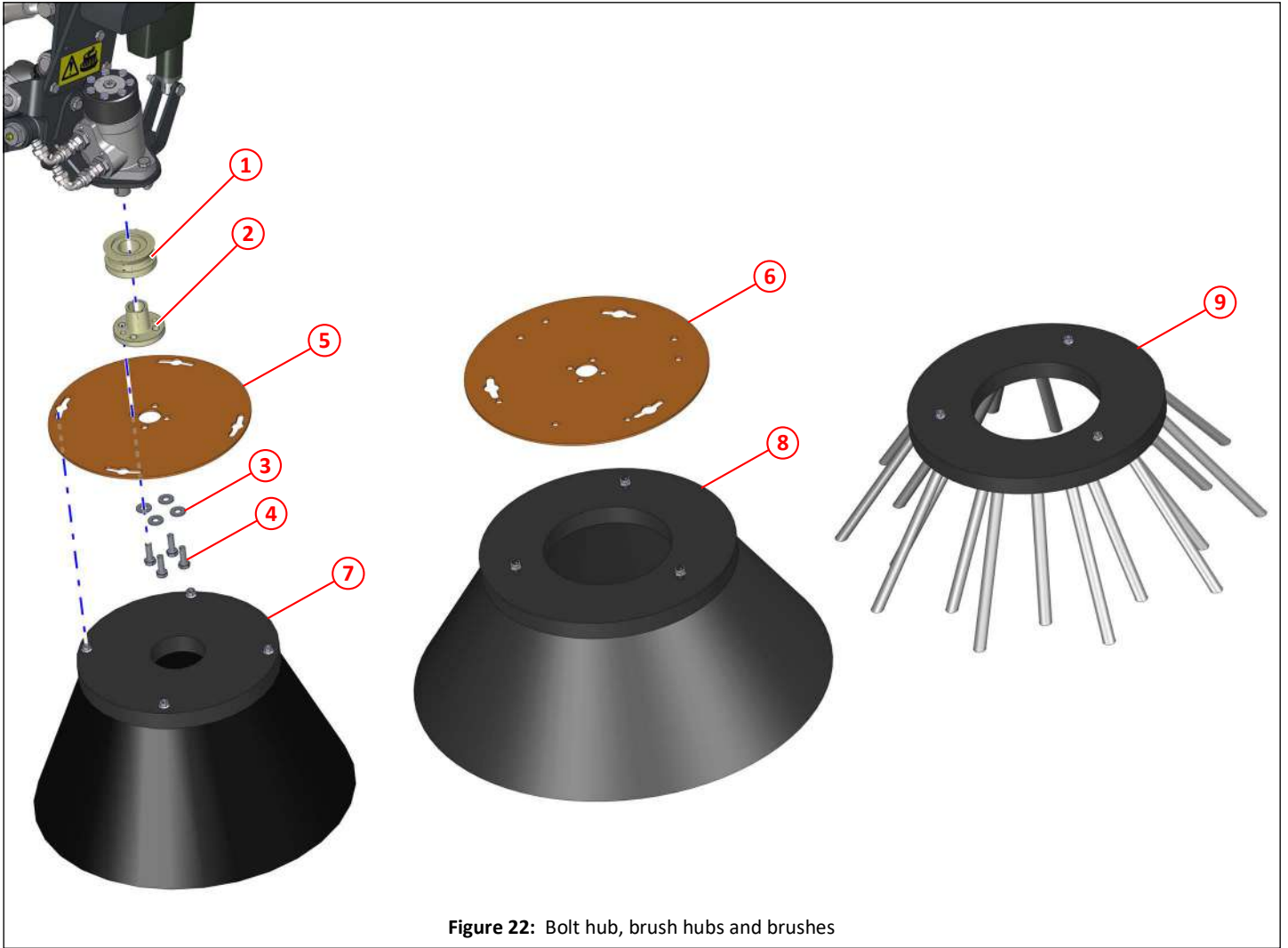


Figure 22: Bolt hub, brush hubs and brushes

Item	Part No	Qty	Description
①	SCA047482	1	Plate hub
②	SCA047481	1	Sprung hub
③	SCA000270	4	Plain washer M10, stainless steel
④	SCA000461	4	Setscrew HT M10 x30, stainless steel
⑤	SCA048096	1	Brush hub 3000, side brush, bolt hub)
⑥	SCA047484	1	Brush hub 7000, side brush, bolt hub
⑦	SCA023470	1	Brush side 315-500, steel
⑧	SCA023473	1	Brush side 400-650, steel
⑨	SCA020921	1	Brush side 7000, weed ripper

Side brush arrangement, right hand, without brush tilt

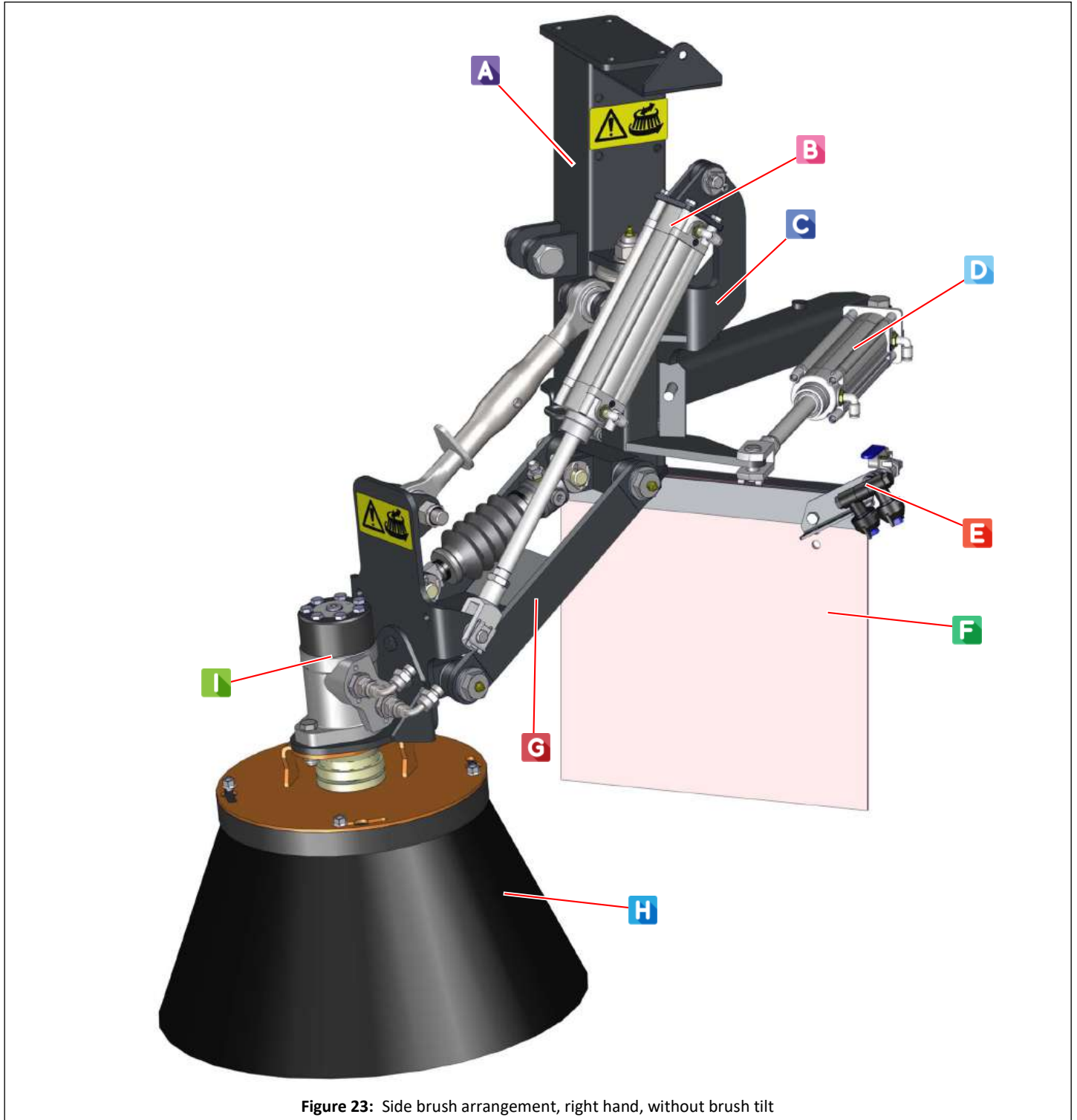


Figure 23: Side brush arrangement, right hand, without brush tilt

Item	Description	
A	Subframe leg	16
B	Side brush pressure	
C	King post	
D	Side brush extend/retract	
E	Side brush water spray	
F	Side brush skirt	
G	Side brush raise/lower	
H	Side brush	
I	Side brush drive motor	

Side brush arrangement, right hand, with brush tilt

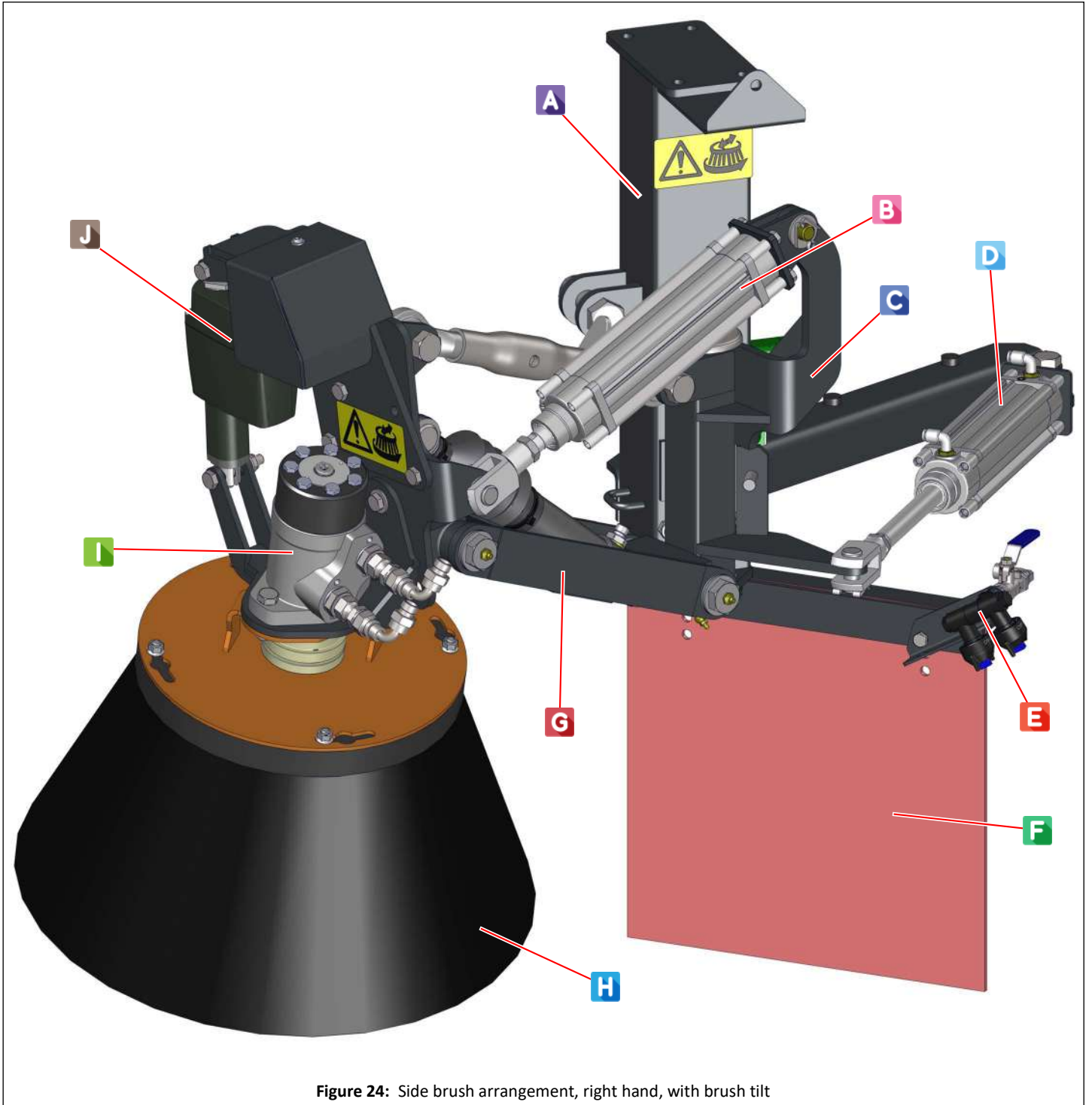


Figure 24: Side brush arrangement, right hand, with brush tilt

Item	Description	
A	Subframe leg	16
B	Side brush pressure	
C	King post	
D	Side brush extend/retract	
E	Side brush water spray	
F	Side brush skirt	
G	Side brush raise/lower	
H	Side brush	
I	Side brush drive motor	
J	Brush tilt mechanism	

King post, right hand, side brush

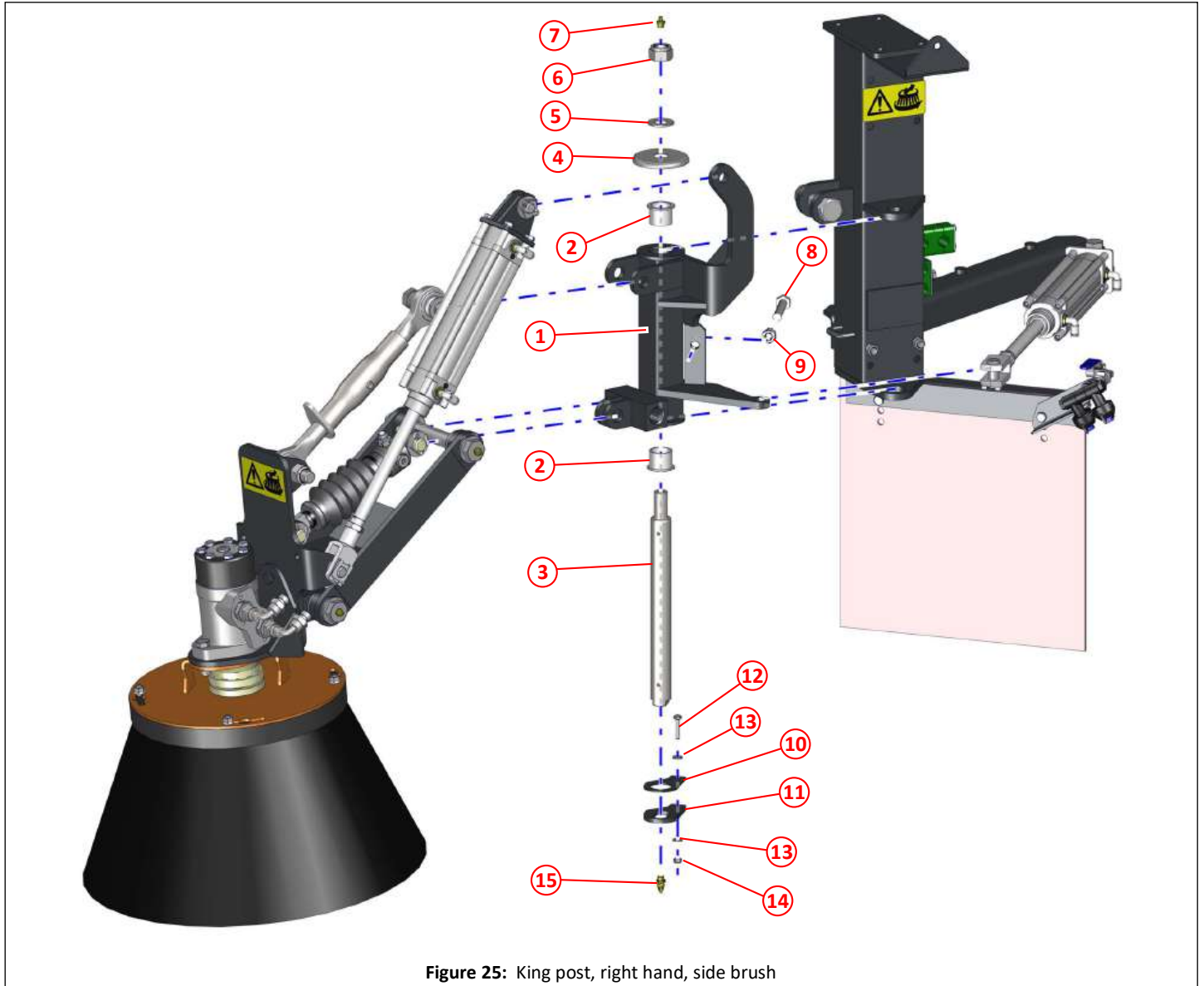


Figure 25: King post, right hand, side brush

Item	Part No	Qty	Description
①	SCA023124	1	King Post, right hand side brush
②	SCA013012	2	Bush
③	SCA013007	1	King pin
④	SCA013013	1	Dirt shield
⑤	SCA011102	1	Plain washer M20
⑥	SCA011082	1	Nyloc nut M20
⑦	SCA010903	1	Grease nipple, $\frac{1}{8}$ " BSP, straight
⑧	SCA000521	1	Setscrew M12 x 70 BZP
⑨	SCA011076	1	Full nut M12
⑩	SCA048997	1	King pin locking plate, thin
⑪	SCA048998	1	King pin locking plate, thick
⑫	SCA000020	1	Setscrew M6 x 30
⑬	SCA000254	2	Plain washer M6, stainless steel
⑭	SCA000253	1	Nyloc nut M6, stainless steel
⑮	SCA010901	1	Grease nipple, $\frac{1}{8}$ " BSP, 135°

Swing in/out, right hand, side brush

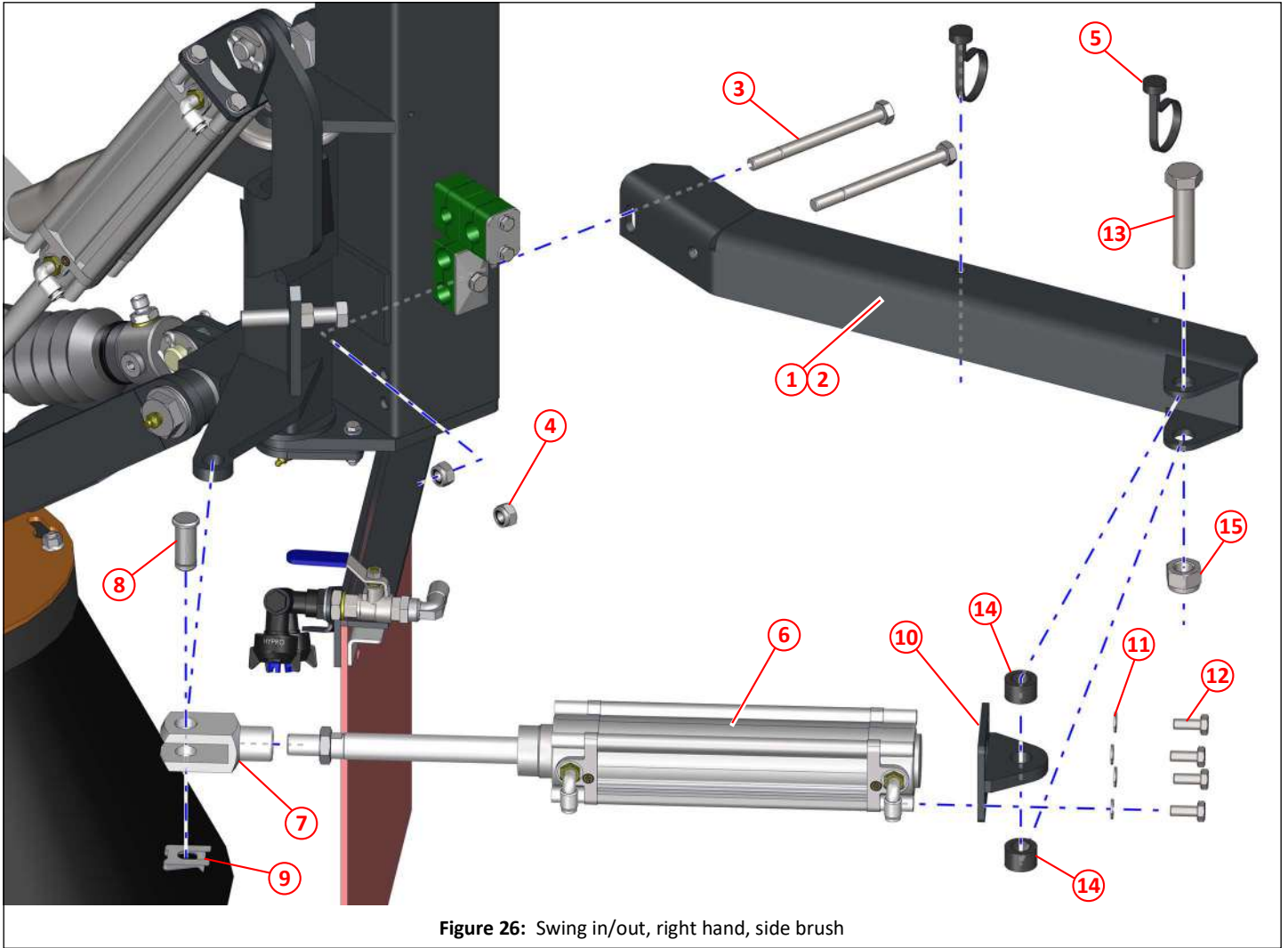


Figure 26: Swing in/out, right hand, side brush

Item	Part No	Qty	Description
①	SCA021520	1	Arm, air cylinder, right hand - <i>Merlin</i>
②	SCA021722	1	Arm, air cylinder, right hand - <i>Magnum</i>
③	SCA011407	2	Bolt HT M10 x120
④	SCA011075	2	Nyloc nut M10
⑤	SCA005061	2	Cable tie, round head
⑥	SCA020298	1	Pneumatic cylinder 50 x 160
⑦	SCA020299	1	Clevis pneumatic M16 x 1.5
⑧	SCA022673	1	Clevis pin
⑨	SCA022674	1	Clip, retaining M16
⑩	SCA020534	1	Ram end
⑪	SCA011093	4	Spring washer M8
⑫	SCA011010	4	Setscrew HT M8 x 20
⑬	SCA011260	1	Bolt HT M16 x 70
⑭	SCA011000	2	Hose $\frac{5}{8}$ " , fuel SAE100R6 - (Cut to 15mm)
⑮	SCA011060	1	Nyloc nut M16

Hydraulic hose tidy, right hand - Merlin

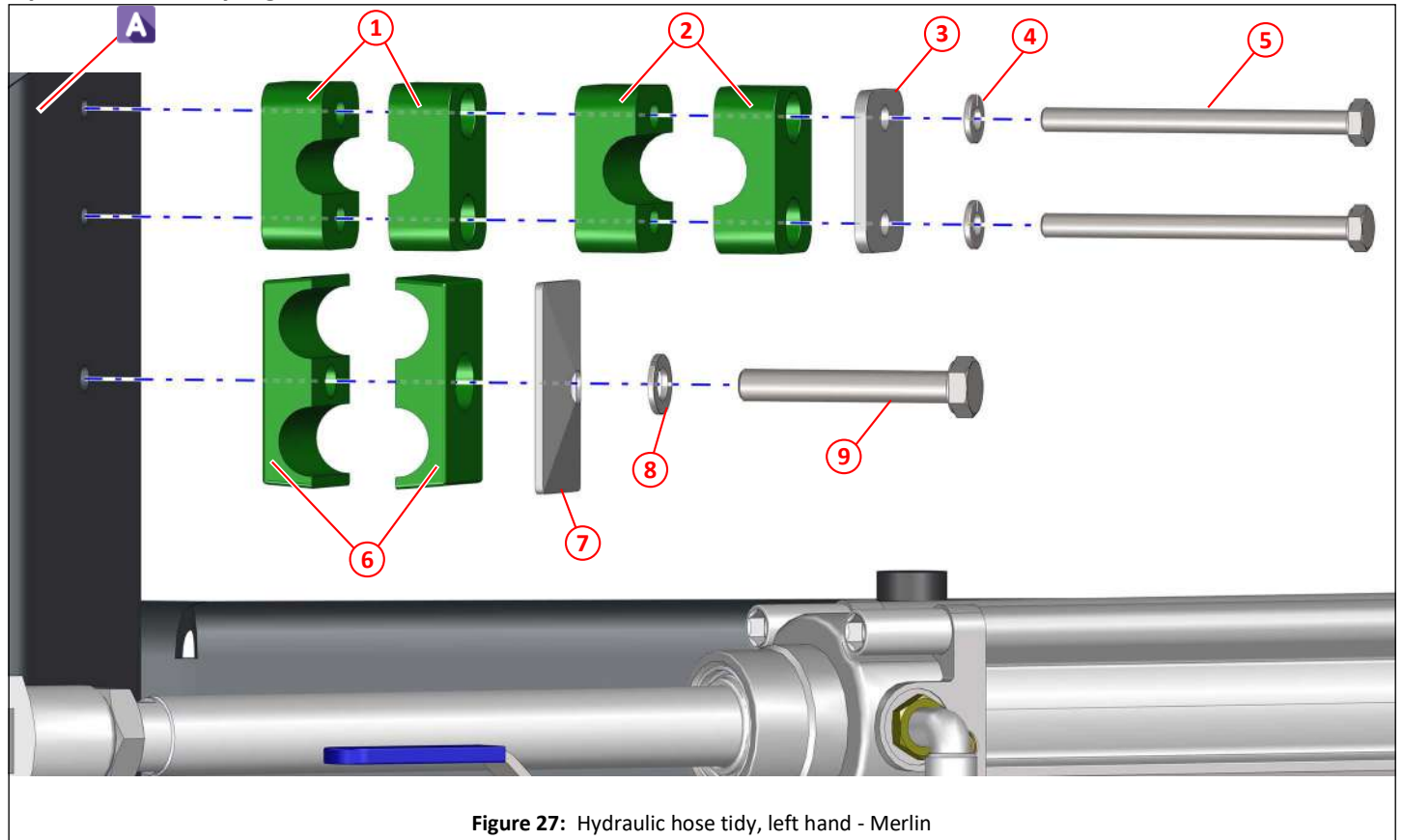


Figure 27: Hydraulic hose tidy, left hand - Merlin

Item	Part No	Qty	Description	
A			Subframe leg, left hand	16
①	SCA031316	2	Pipe clamp block $\frac{1}{4}$ " hose, single	
②	SCA002163	2	Pipe clamp block $\varnothing 17.2$, single	
③	SCA031317	1	Clamp plate flat	
④	SCA011091	2	Spring washer M6	
⑤	SCA000221	2	Bolt HT M6 x 80	
⑥	SCA031318	2	Pipe clamp block $\frac{3}{8}$ " hose, twin	
⑦	SCA031319	1	Clamp plate flat	
⑧	SCA011093	1	Spring washer M8	
⑨	SCA000009	1	Bolt HT M8 x 55	

Hydraulic hose tidy, right hand - *Magnum*

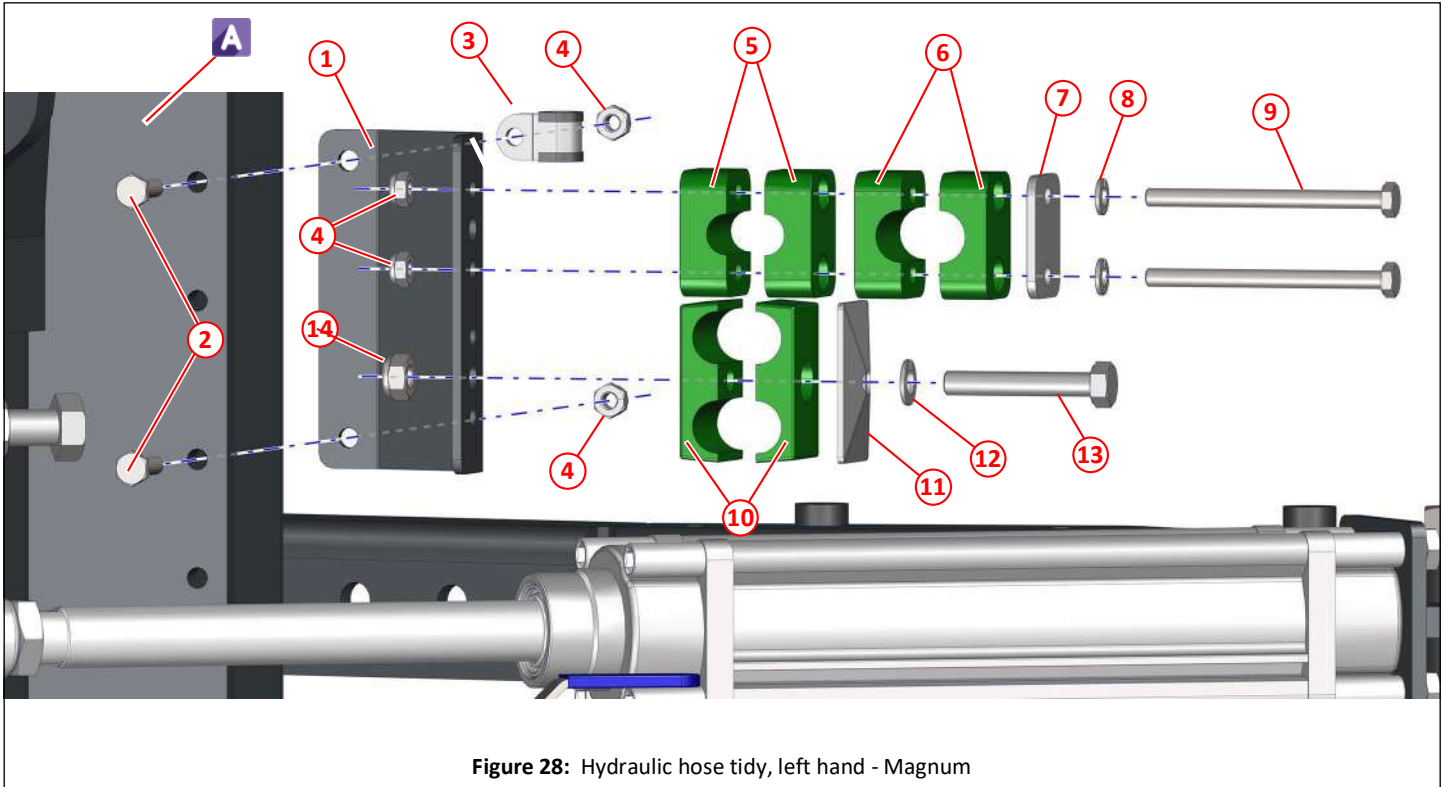


Figure 28: Hydraulic hose tidy, left hand - *Magnum*

Item	Part No	Qty	Description	
A			Subframe leg, left hand	16
①	SCA031306	1	Clamp support	
②	SCA011087	2	Setscrew HT M6 x 25	
③	SCA021914	1	Clip ø12, rubber, sealed	
④	SCA011071	4	Nyloc nut M6	
⑤	SCA031316	2	Pipe clamp block $\frac{1}{4}$ " hose, single	
⑥	SCA002163	2	Pipe clamp block ø17.2, single	
⑦	SCA031317	1	Clamp plate flat	
⑧	SCA011091	2	Spring washer M6	
⑨	SCA000221	2	Bolt HT M6 x 80	
⑩	SCA031318	2	Pipe clamp block $\frac{3}{8}$ " hose, twin	
⑪	SCA031319	1	Clamp plate flat	
⑫	SCA011093	1	Spring washer M8	
⑬	SCA000009	1	Bolt HT M8 x 55	
⑭	SCA011073	1	Nyloc nut M8	

Side brush pressure, right hand

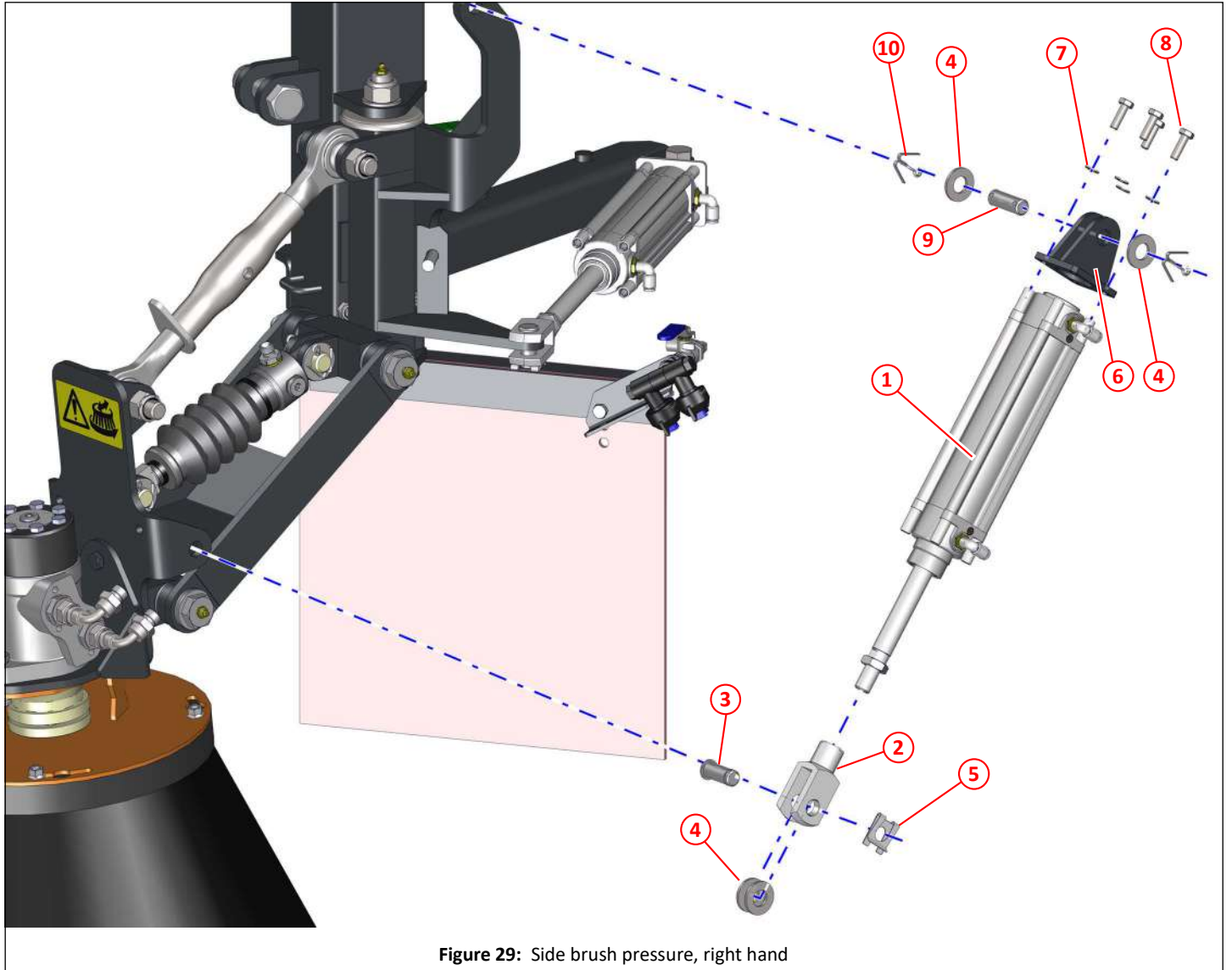


Figure 29: Side brush pressure, right hand

Item	Part No	Qty	Description
①	SCA020298	1	Pneumatic cylinder 50 x 160
②	SCA020299	1	Clevis pneumatic M16 x 1.5
③	SCA022673	1	Clevis pin
④	SCA011135	4	Plain washer M16
⑤	SCA022674	1	Clip, retaining M16
⑥	SCA023122	1	Pivot, pneumatic cylinder ø50
⑦	SCA011093	4	Spring washer M8
⑧	SCA011011	4	Setscrew HT M8x25
⑨	SCA023123	1	Pin ø16 x 46
⑩	SCA011122	2	Split pin $\frac{3}{16}$ " x $1\frac{1}{2}$ "

Skirt, side brush, right hand

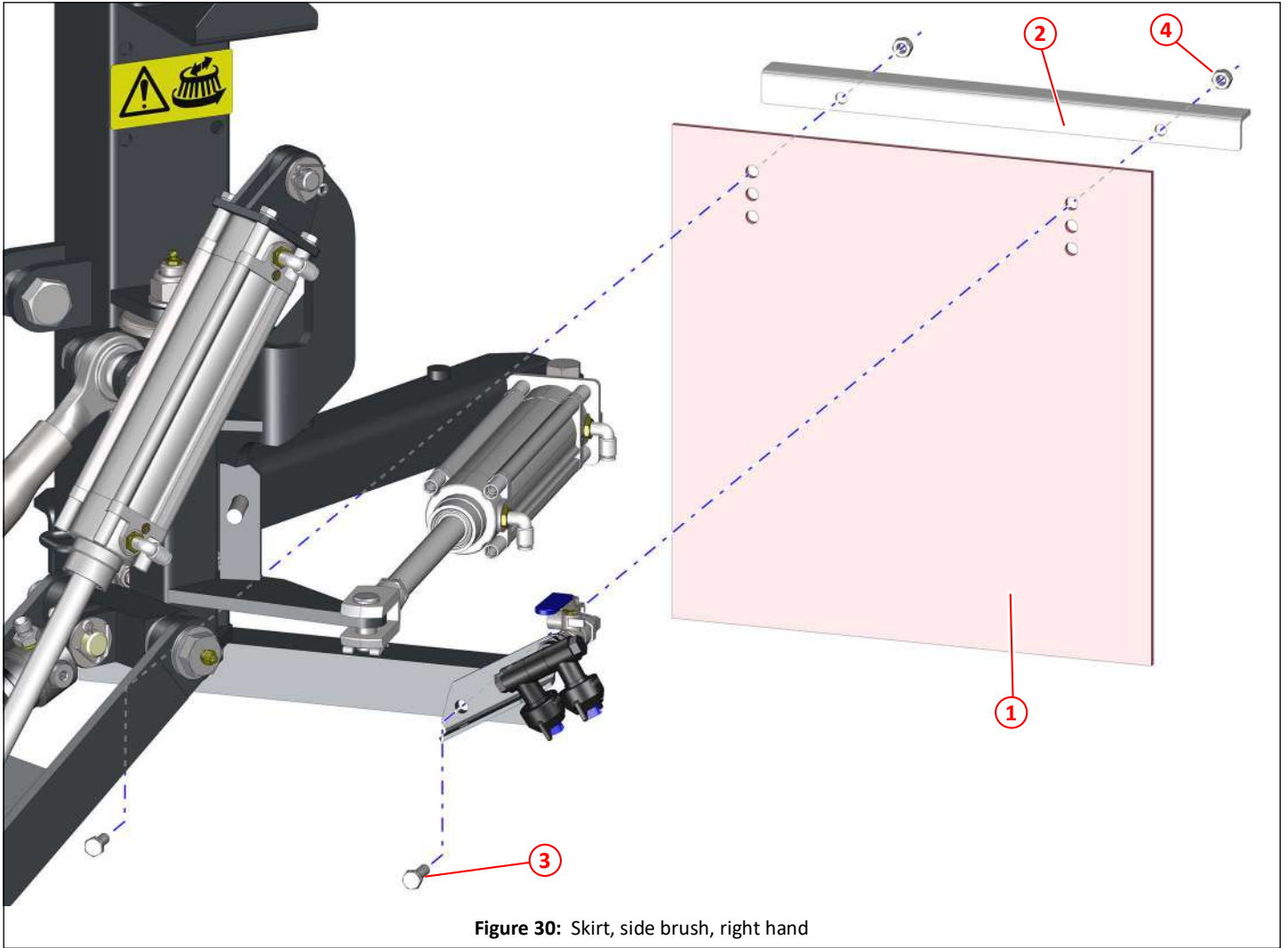


Figure 30: Skirt, side brush, right hand

Item	Part No	Qty	Description
①	SCA012216	1	Skirt, side brush - 2 pitch, heavy duty
②	SCA012217	1	Skirt clamp
③	SCA011011	2	Setscrew HT M8 x 25
④	SCA011073	2	Nyloc nut M8

Water spray, side brush, right hand

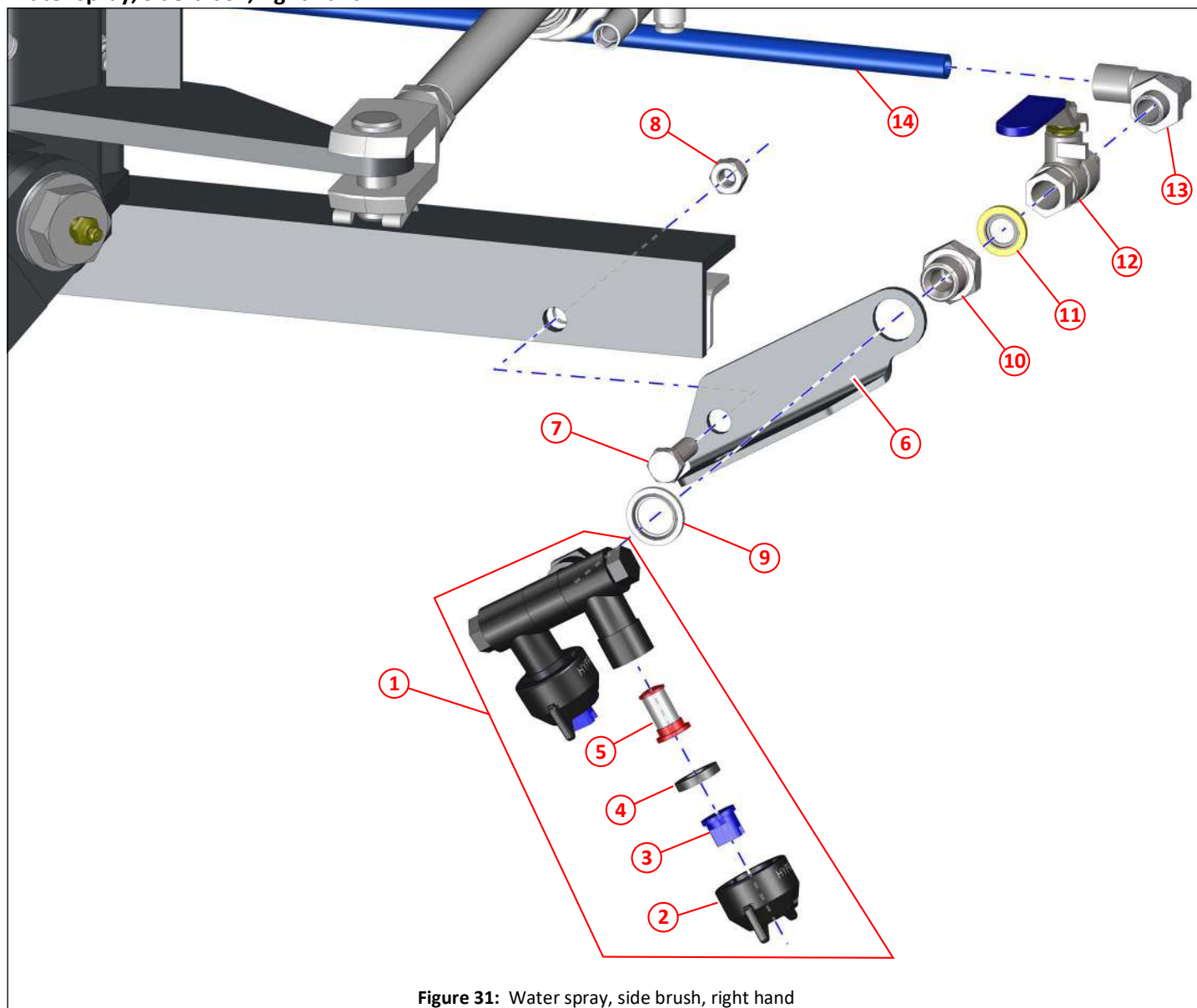


Figure 31: Water spray, side brush, right hand

Item	Part No	Qty	Description
①	SCA036044	1	Double swivel nozzle holder assembly
②	SCA030746	2	Cone nozzle cap
③	SCA030748	2	Jet (blue)
④	SCA030636	2	Rubber washer
⑤	SCA030633	2	Filter, 100 mesh
⑥	SCA036042	1	Nozzle bracket
⑦	SCA011011	1	Setscrew HT M8 x 25
⑧	SCA011073	1	Nyloc nut M8
⑨	SCA011153	1	Dowty seal $\frac{3}{8}$ " BSP
⑩	SCA011199	1	Adapter $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
⑪	SCA011152	1	Dowty seal $\frac{1}{4}$ " BSP
⑫	SCA011743	1	Valve $\frac{1}{4}$ " ball
⑬	SCA047602	1	Elbow, push-in 10mm x $\frac{1}{4}$ " BSP
⑭	SCA041031	1	ø10mm nylon pipe, blue

Central brush (wide sweep) arrangement

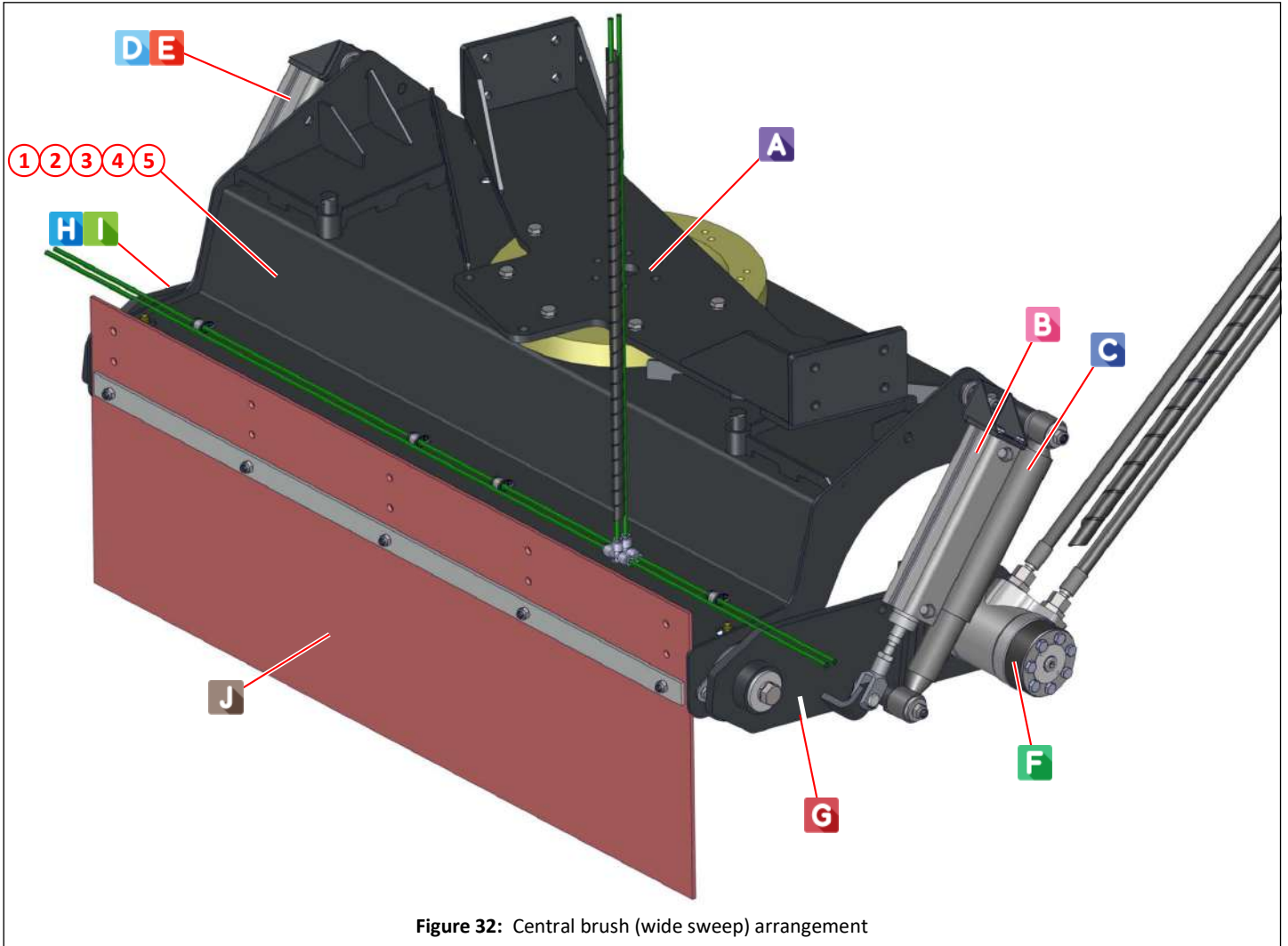


Figure 32: Central brush (wide sweep) arrangement

Item	Part No	Qty	Description
①	SCA049069		Central brush (wide sweep) assembly left hand fixed slew
②	SCA049070		Central brush (wide sweep) assembly right hand fixed slew
③	SCA048987		Central brush (wide sweep) assembly slewing
④	SCA049071		Central brush (wide sweep) assembly right hand fixed slew, extended +200mm
⑤	SCA049072		Central brush (wide sweep) assembly slewing, extended +200mm
A			Fixed slew arrangement 48
B			Pneumatic lift cylinder left hand 49
C			Shock absorber left hand 50
D			Pneumatic lift cylinder right hand 54
E			Shock absorber right hand 55
F			Motor 51
G			Motor mounting plate 52
H			Brush bearing 58
I			Brush bearing mounting plate 56
J			Wide sweep skirt 46

Skirt, central brush (wide sweep)

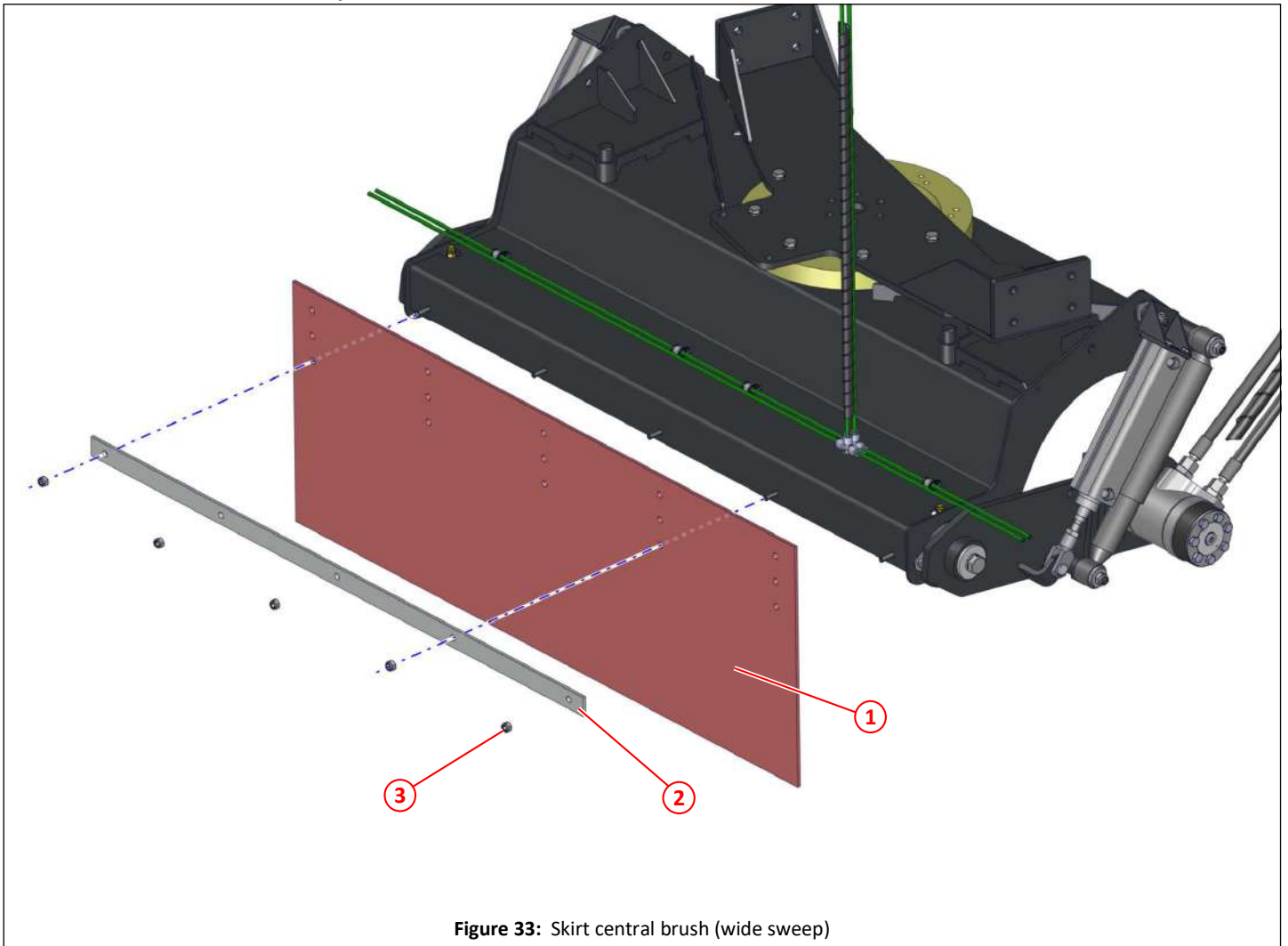



Figure 33: Skirt central brush (wide sweep)

Item	Part No	Qty	Description 
①	SCA022516	1	Skirt, central brush (wide sweep)
②	SCA026026	1	Skirt, central brush (wide sweep), extended +200mm
③	SCA022517	1	Clamp bar, skirt, central brush (wide sweep)
④	SCA026025	1	Clamp bar, skirt, central brush (wide sweep), extended +200mm
⑤	SCA011073	5	Nyloc nuts, M8

Hoses and pipes, central brush (wide sweep)

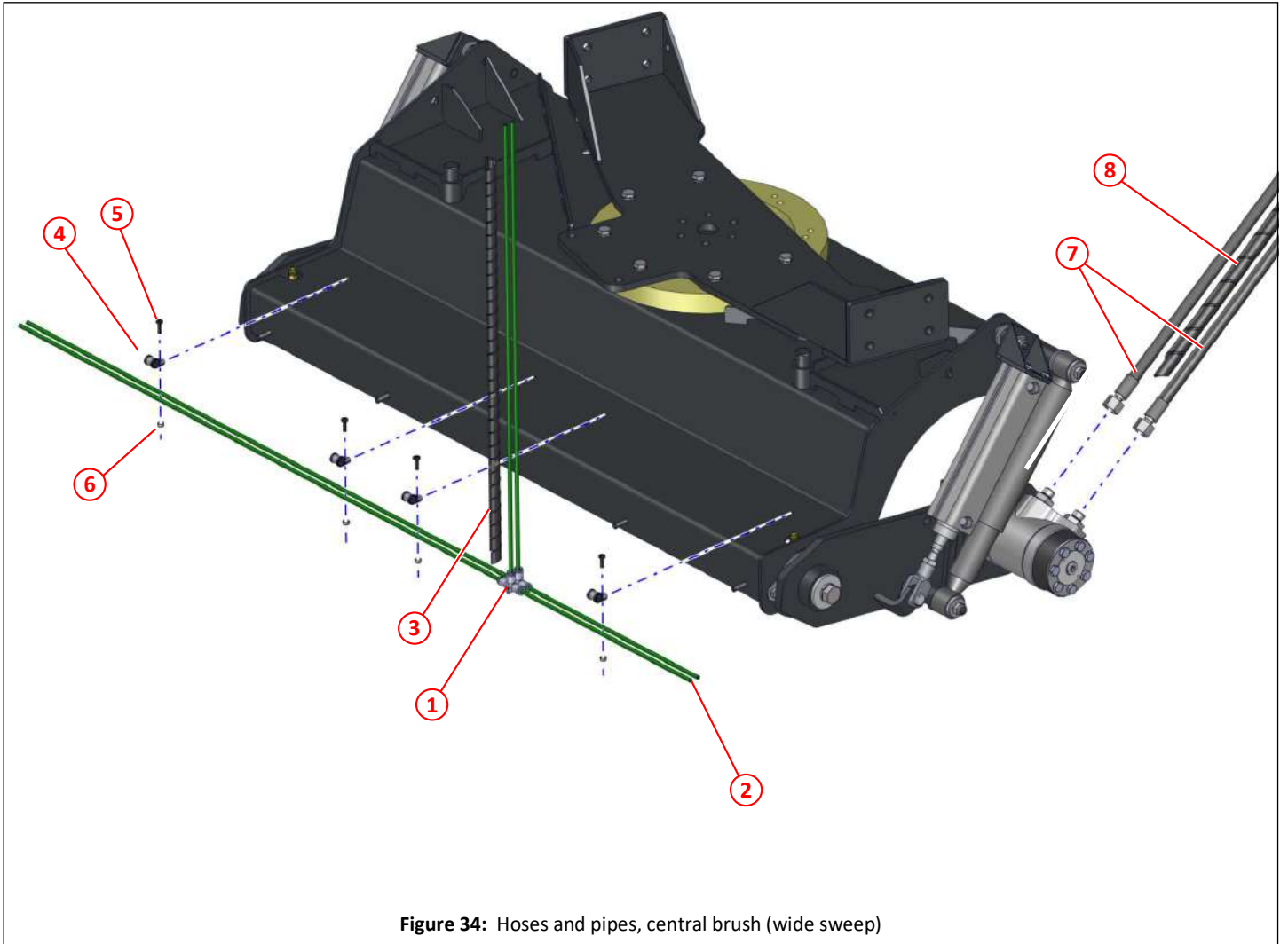



Figure 34: Hoses and pipes, central brush (wide sweep)

Item	Part No	Qty	Description 
①	SCA024647	2	Tee, grey, 6mm
②	SCA024650	6	Air pipe, 6mm green, cut to length required
③	SCA004161	1	Flex cable conduit (split) ø15.7 OD, cut to length required
④	SCA021914	4	Clip, ø12, rubber sealed
⑤	SCA000234	4	Pan head, Pozidriv, set screw M5 x16, black
⑥	SCA000155	4	Nyloc nut, M5
⑦	SCA001254	2	Hose, $\frac{3}{8}$ " x 1500, straight and 90° connectors
⑧	SCA004210	1	Flex cable conduit (split) ø21 OD, cut to length required

Fixed slew, central brush (wide sweep)

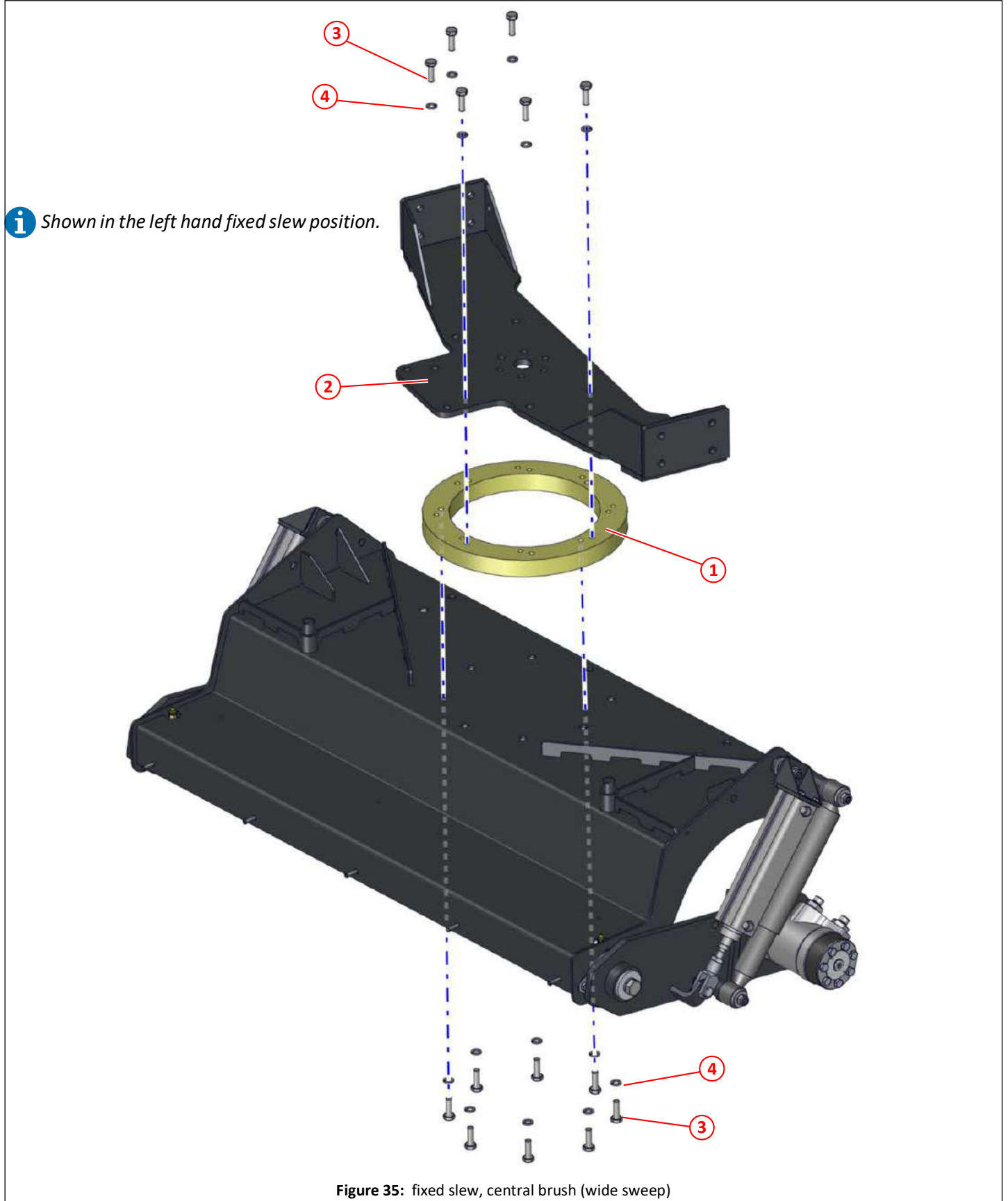


Figure 35: fixed slew, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA020919	1	Adapter ring, fixed slew, central brush (wide sweep)
②	SCA024155	1	Support mounting, central brush (wide sweep)
③	SCA011032	14	Set screw HT M10 x30
④	SCA011095	14	Spring washer M10

Pneumatic cylinder left hand, central brush (wide sweep)

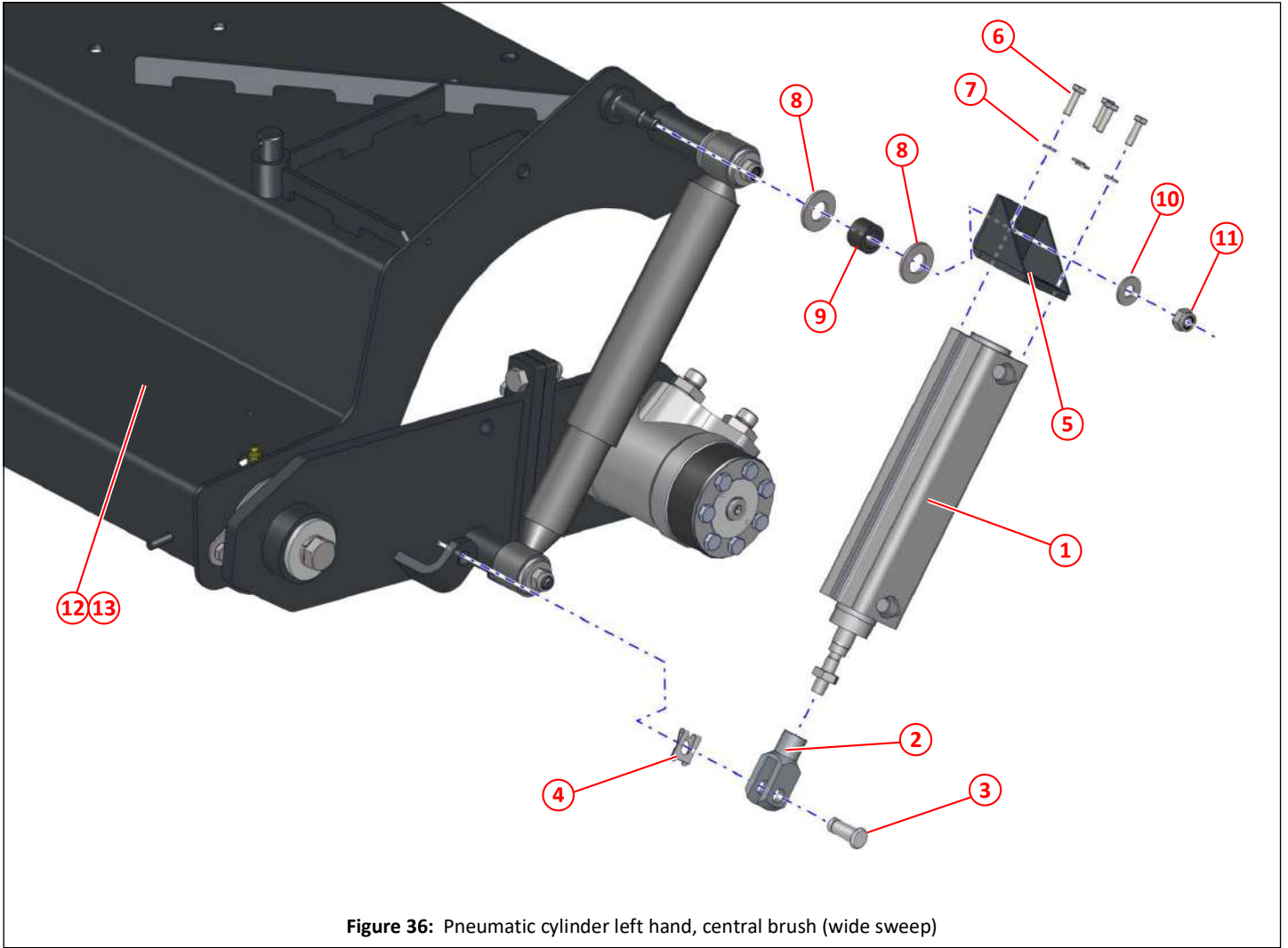


Figure 36: Pneumatic cylinder left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA020602	1	Pneumatic cylinder 40 x125, includes locknut
②	SCA014469	1	Clevis, air cylinder, M12
③	SCA023270	1	Clevis pin $\varnothing 12$
④	SCA023269	1	Safety fastener $\varnothing 12$
⑤	SCA030532	1	Air ram mounting bracket, central brush (wide sweep)
⑥	SCA011067	4	Set screw HT M6 x20
⑦	SCA011091	4	Spring washer M6
⑧	SCA011135	2	Plain washer M16
⑨	SCA011000	1	Spacer, buffer - Hose, $\frac{5}{8}$ " fuel SAE100R6, cut to 16mm
⑩	SCA011094	1	Plain washer M10
⑪	SCA011075	1	Nyloc nut, M10
⑫	SCA036216	1	Cover, central brush (wide sweep)
⑬	SCA037173	1	Cover, central brush (wide sweep), extended +200mm

Shock absorber, left hand, central brush (wide sweep)

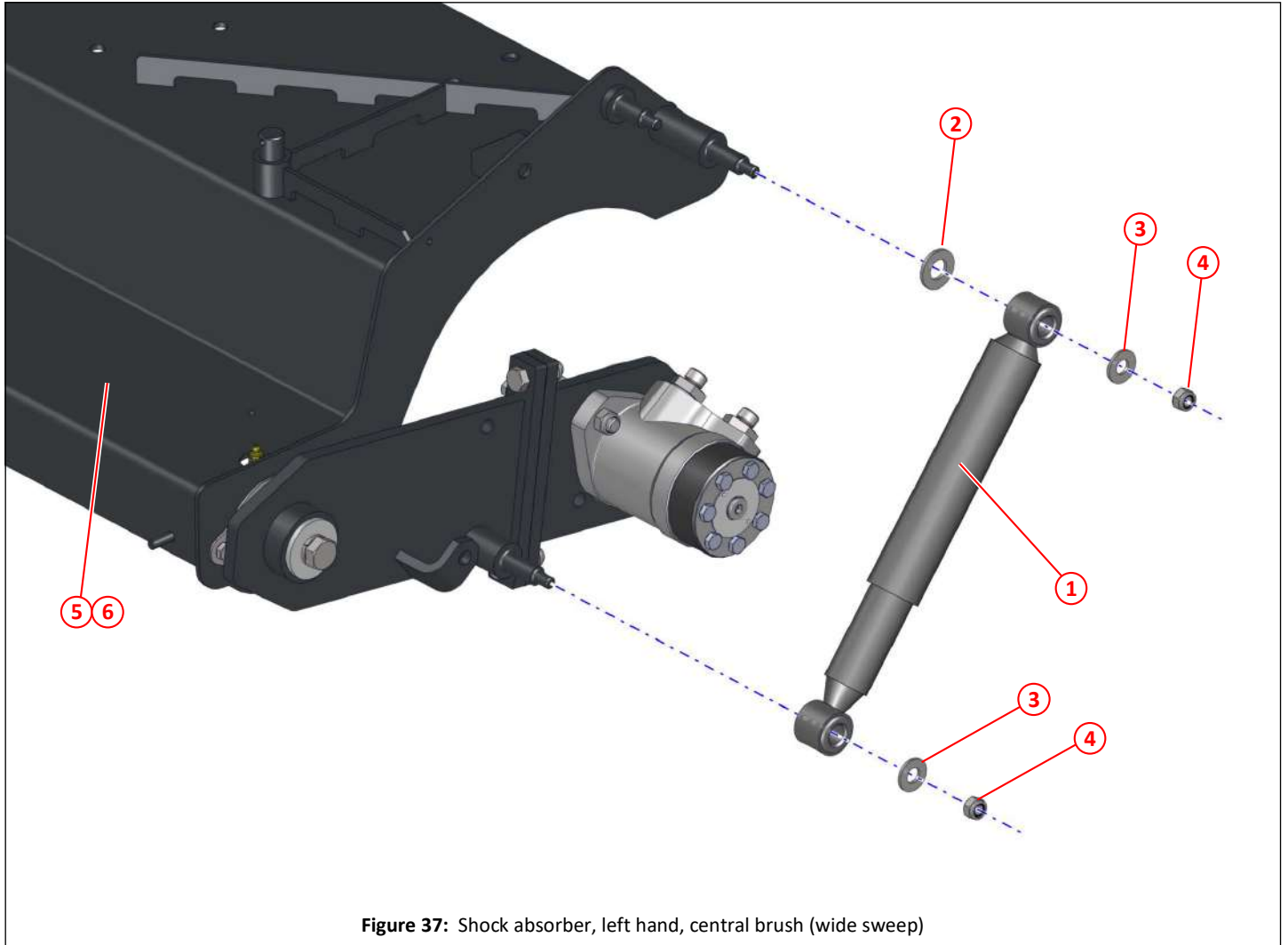



Figure 37: Shock absorber, left hand, central brush (wide sweep)

Item	Part No	Qty	Description 
①	SCA014063	1	Shock absorber 320/500
②	SCA011135	1	Plain washer M16
③	SCA011096	2	Plain washer M12
④	SCA011075	2	Nyloc nut M10
⑤	SCA036216	1	Cover, central brush (wide sweep)
⑥	SCA037173	1	Cover, central brush (wide sweep), extended +200mm

Motor mounting, left hand, central brush (wide sweep)

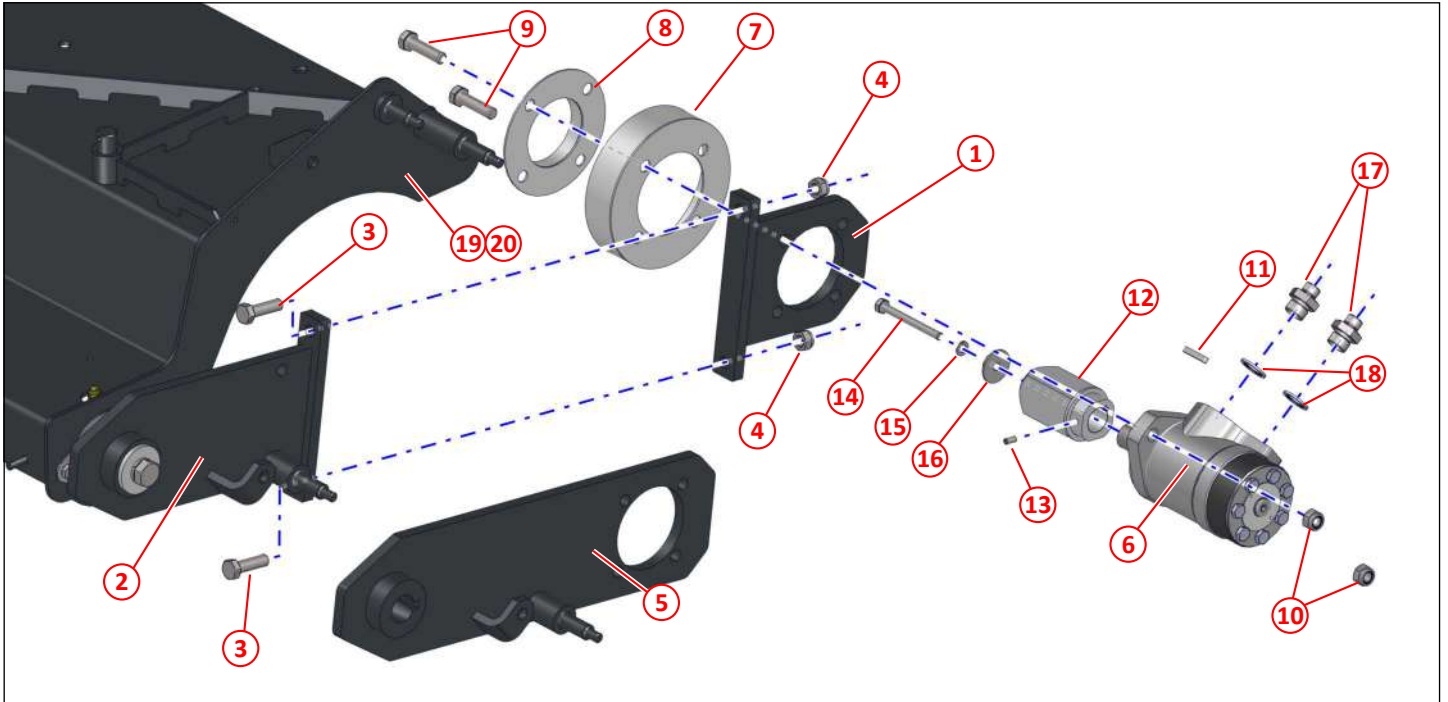


Figure 38: Motor fixing, left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA048978	1	Motor fixing plate
②	SCA048977	1	Motor plate left hand
③	SCA011069	2	Bolt M12 x 40
④	SCA011077	2	Nyloc nut M12
⑤	SCA023077	1	Motor plate left hand (old Type)
⑥	SCA010566	1	Motor 3596 (OMP 100)
⑦	SCA049483	1	Motor guard bracket
⑧	SCA046472	1	Motor guard
⑨	SCA011054	2	Set screw HT M12 x45
⑩	SCA011077	2	Nyloc nut M12
⑪	SCA011515	1	Key - Parallel, square $\frac{1}{4}$ " x $1\frac{1}{4}$ ", round ends
⑫	SCA024535	1	Drive shaft
⑬	SCA011112	1	Socket set screw M6 x 12
⑭	SCA011415	1	Bolt M8 x 80
⑮	SCA011093	1	Spring washer M8
⑯	SCA024538	1	Cone washer
⑰	SCA011167	2	Adapter $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
⑱	SCA011154	2	Dowty seal $\frac{1}{2}$ " BSP
⑲	SCA036216	1	Cover, central brush (wide sweep)
⑳	SCA037173	1	Cover, central brush (wide sweep), extended +200mm

i Please identify which motor plate style you have before ordering. If in doubt contact the Scarab Parts Department.

i If you have item ⑤ this has been replaced with a new assembly, please order **SCA023077RETROFIT** which contains items ①, ②, ③, ④, ⑦ and ⑧. This will ensure you get all the required parts to replace item ⑤.

Motor plate, left hand, central brush (wide sweep)

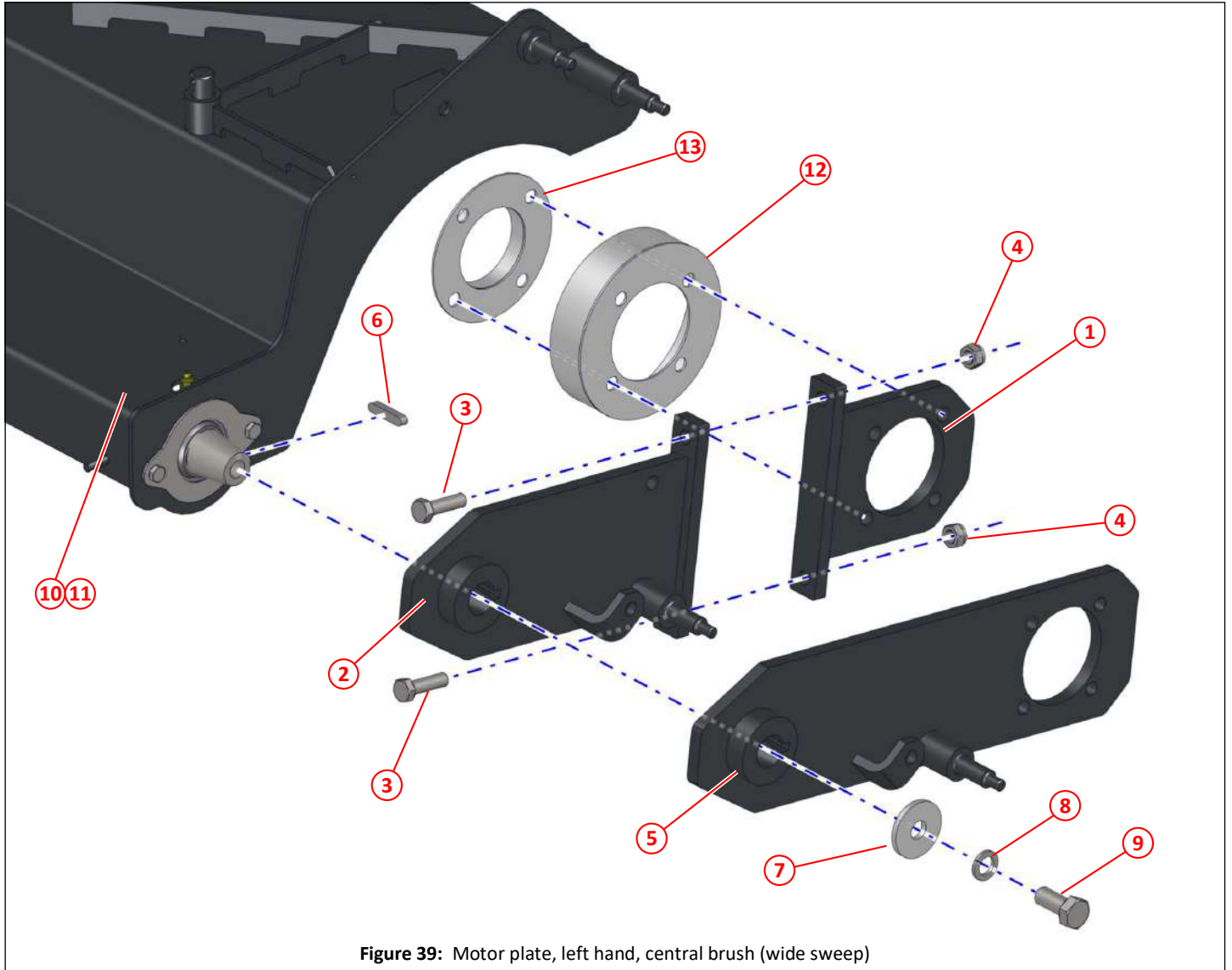


Figure 39: Motor plate, left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	048978	1	Motor fixing plate
②	048977	1	Motor plate left hand
③	011069	2	Bolt M12 x 40
④	011077	2	Nyloc nut M12
⑤	023077	1	Motor plate left hand (old type)
⑥	013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends
⑦	013439	1	Washer, $\phi 50 \times \phi 16.5 \times 5$
⑧	011142	1	Spring washer M61
⑨	011141	1	Bolt M16 x 35
⑩	036216	1	Cover, central brush (wide sweep)
⑪	037173	1	Cover, central brush (wide sweep), extended +200mm
⑫	049483	1	Motor guard bracket
⑬	046472	1	Motor guard

i Please identify which motor plate style you have before ordering. If in doubt contact the Scarab Parts Department.

i If you have item ⑤ this has been replaced with a new assembly, please order **SCA023077RETROFIT** which contains items ①, ②, ③, ④, ⑫ and ⑬. This will ensure you get all the required parts to replace item ⑤.

Spherical bearing, left hand, central brush (wide sweep)

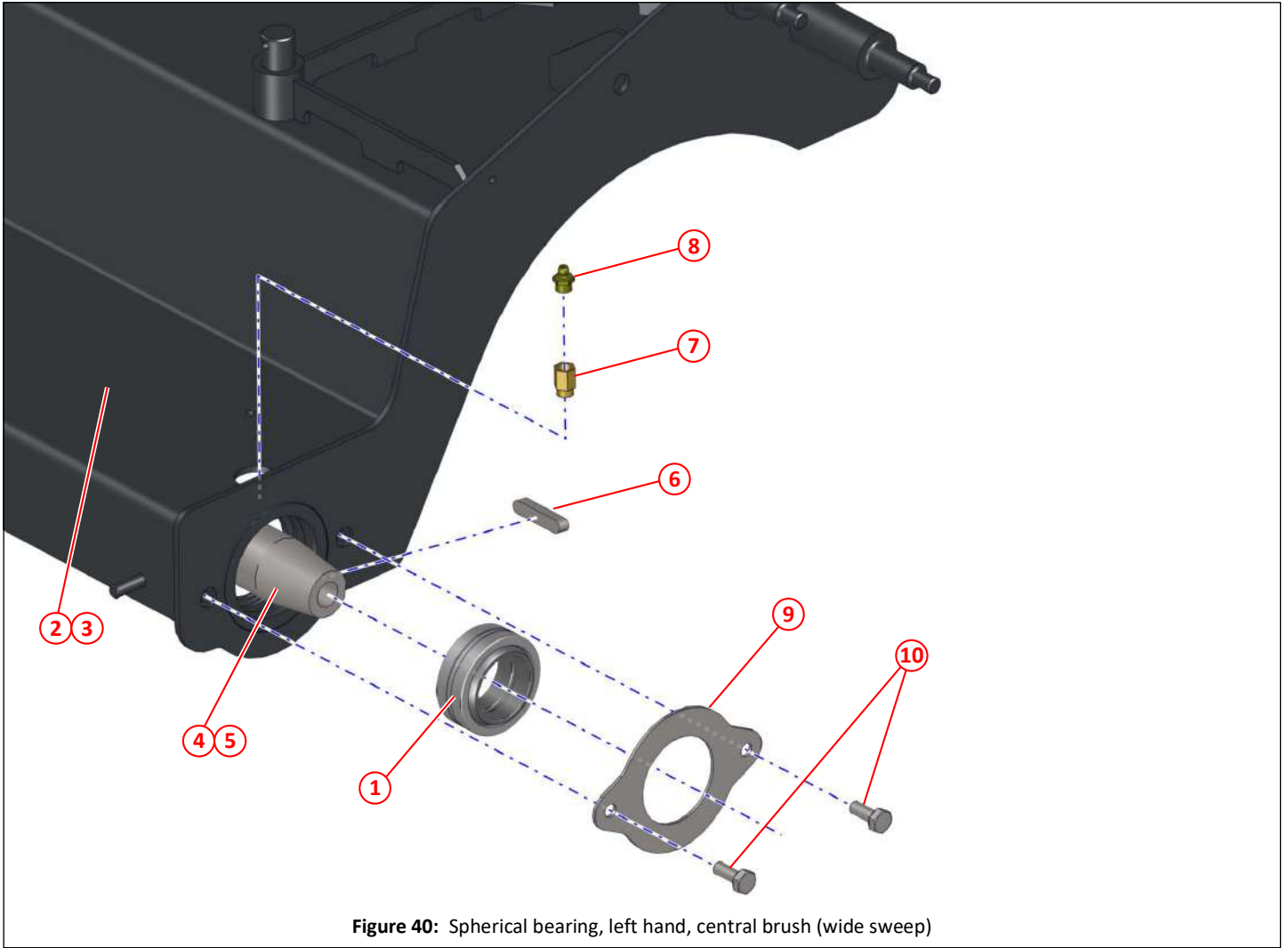


Figure 40: Spherical bearing, left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA036789	1	Spherical bearing, central brush (wide sweep)
②	SCA036216	1	Cover, central brush (wide sweep)
③	SCA037173	1	Cover, central brush (wide sweep), extended +200mm
④	SCA023080	1	Shaft, taper, central brush (wide sweep)
⑤	SCA025632	1	Shaft, taper, central brush (wide sweep), extended +200mm
⑥	SCA013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends
⑦	SCA040301	1	Grease nipple extension $\frac{1}{8}$ " BSP
⑧	SCA010903	1	Grease nipple $\frac{1}{8}$ " BSP, straight
⑨	SCA037172	1	Retainer plate, spherical bearing, central brush (wide sweep)
⑩	SCA011010	2	Set screw HT M8 x 20

Pneumatic cylinder, right hand, central brush (wide sweep)

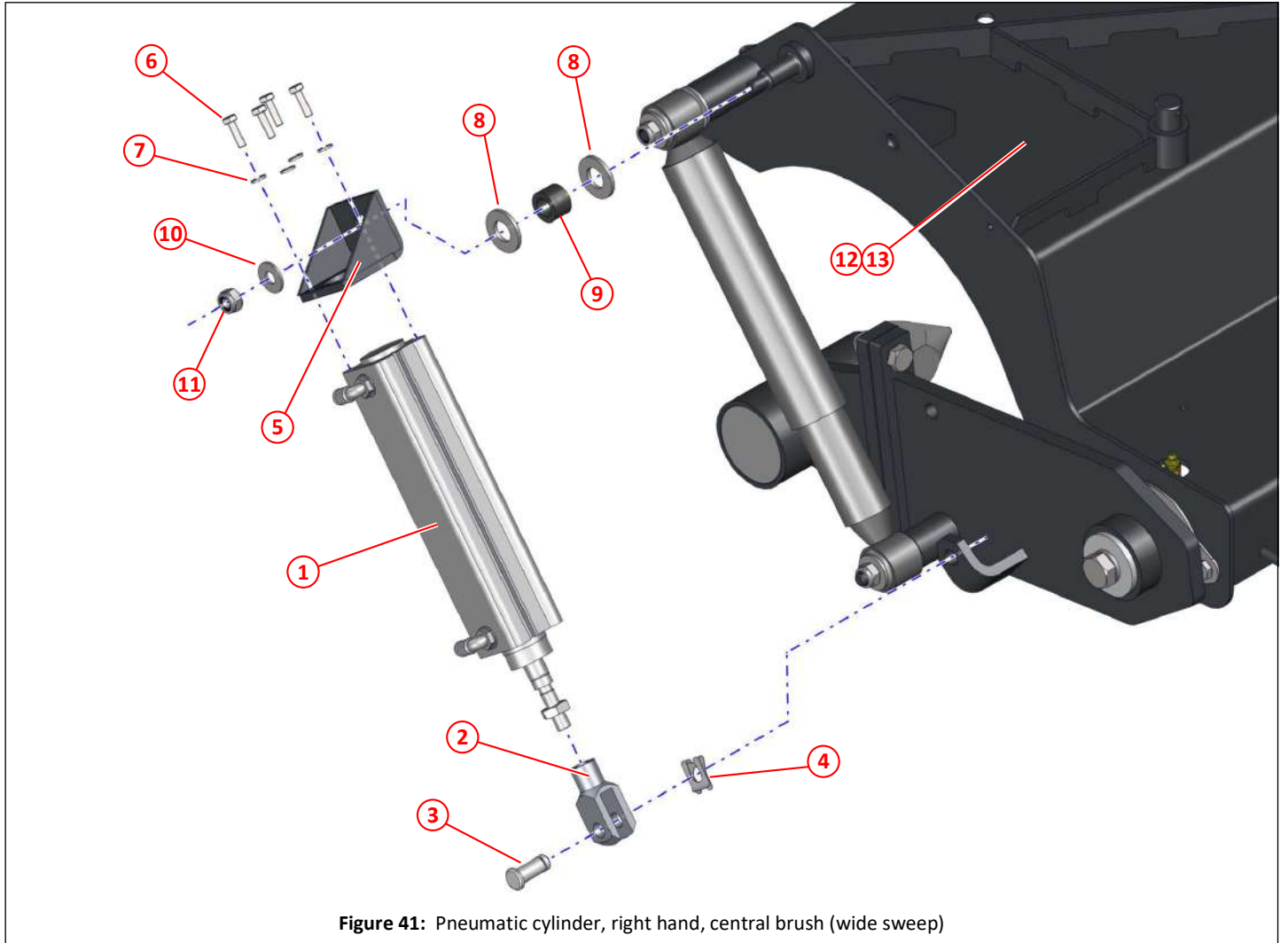


Figure 41: Pneumatic cylinder, right hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA020602	1	Pneumatic cylinder 40 x125, includes locknut
②	SCA014469	1	Clevis, air cylinder, M12
③	SCA023270	1	Clevis pin $\varnothing 12$
④	SCA023269	1	Safety fastener $\varnothing 12$
⑤	SCA030532	1	Air ram mounting bracket, central brush (wide sweep)
⑥	SCA011067	4	Set screw HT M6 x20
⑦	SCA011091	4	Spring washer M6
⑧	SCA011135	2	Plain washer M16
⑨	SCA011000	1	Spacer, buffer - Hose, $\frac{5}{8}$ " fuel SAE100R6, cut to 16mm
⑩	SCA011094	1	Plain washer M10
⑪	SCA011075	1	Nyloc nut, M10
⑫	SCA036216	1	Cover, central brush (wide sweep)
⑬	SCA037173	1	Cover, central brush (wide sweep), extended +200mm

Shock absorber, right hand, central brush (wide sweep)

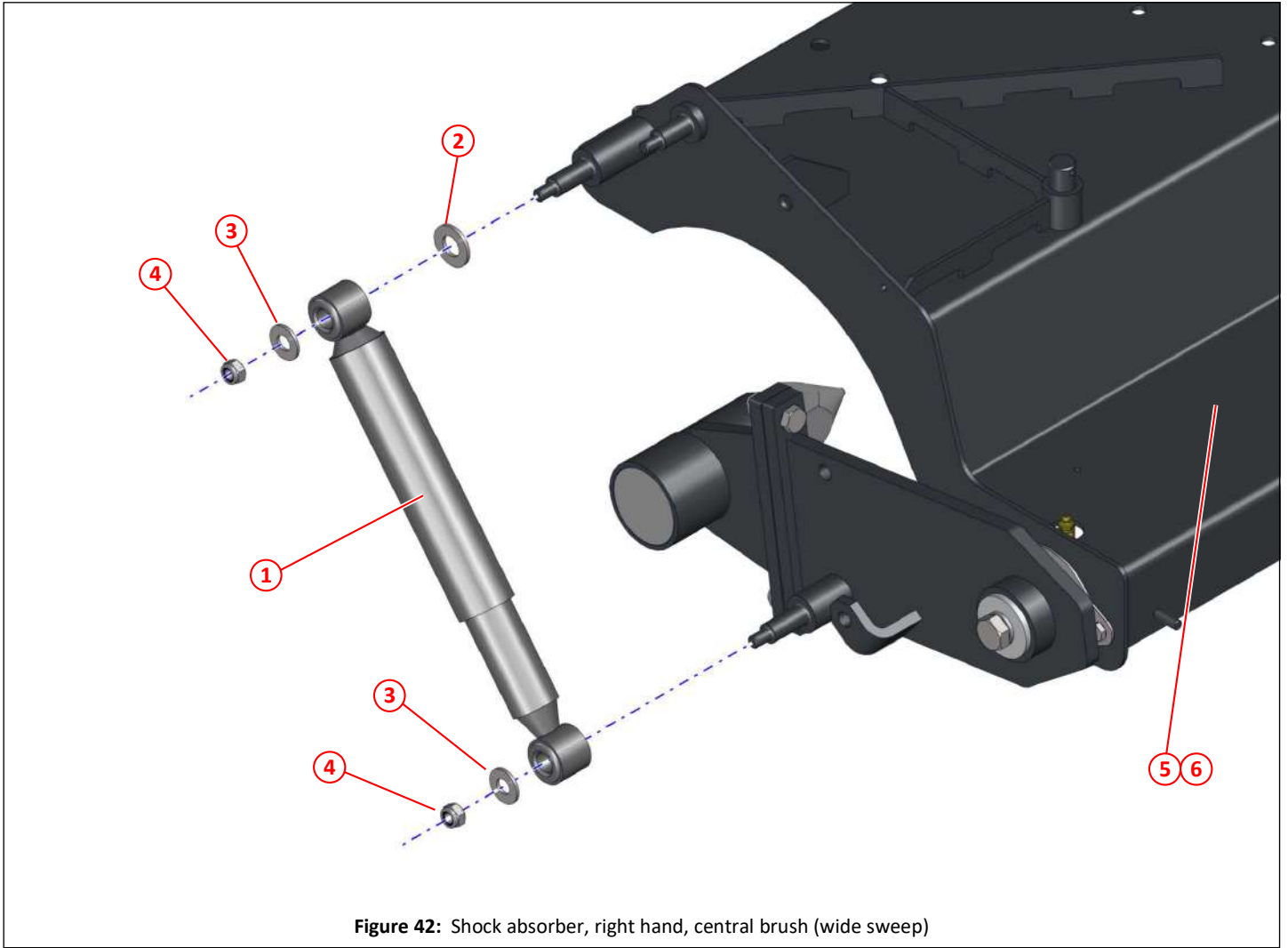


Figure 42: Shock absorber, right hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA014063	1	Shock absorber 320/500
②	SCA011135	1	Plain washer M16
③	SCA011096	2	Plain washer M12
④	SCA011075	2	Nyloc nut M10
⑤	SCA036216	1	Cover, central brush (wide sweep)
⑥	SCA037173	1	Cover, central brush (wide sweep), extended +200mm

Brush bearing mounting, right hand, central brush (wide sweep)

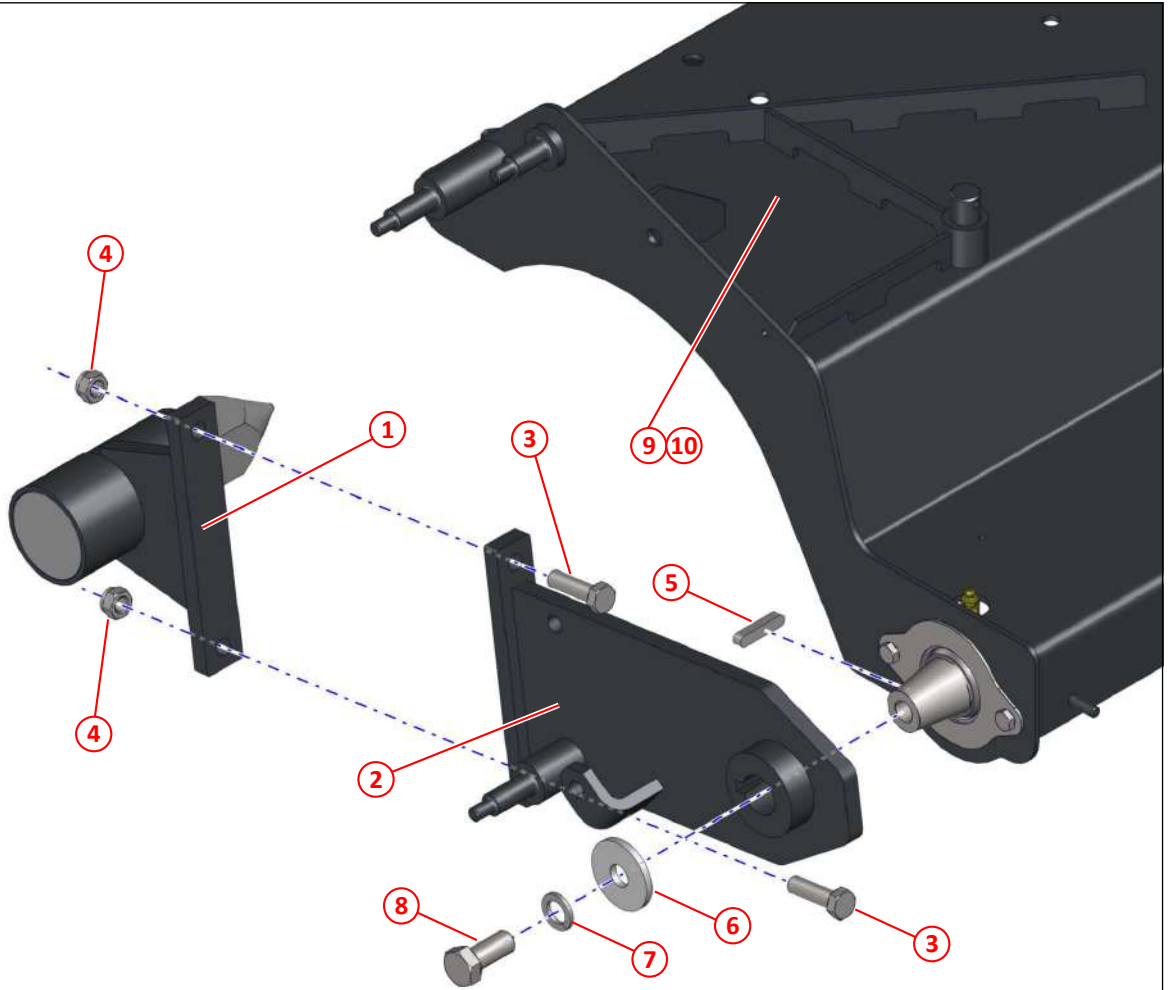



Figure 43: Brush bearing support mounting, right hand, central brush (wide sweep)

Item	Part No	Qty	Description 	
①	SCA024224	1	Brush bearing support assembly, central brush (wide sweep)	58
②	SCA023078	1	Motor plate right hand	
③	SCA011069	2	Bolt M12 x 40	
④	SCA011077	2	Nyloc nut M12	
⑤	SCA013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends	
⑥	SCA013439	1	Washer, $\varnothing 50 \times \varnothing 16.5 \times 5$	
⑦	SCA011142	1	Spring washer M61	
⑧	SCA011141	1	Bolt M16 x 35	
⑨	SCA036216	1	Cover, central brush (wide sweep)	
⑩	SCA037173	1	Cover, central brush (wide sweep), extended +200mm	

Spherical bearing, right hand, central brush (wide sweep)

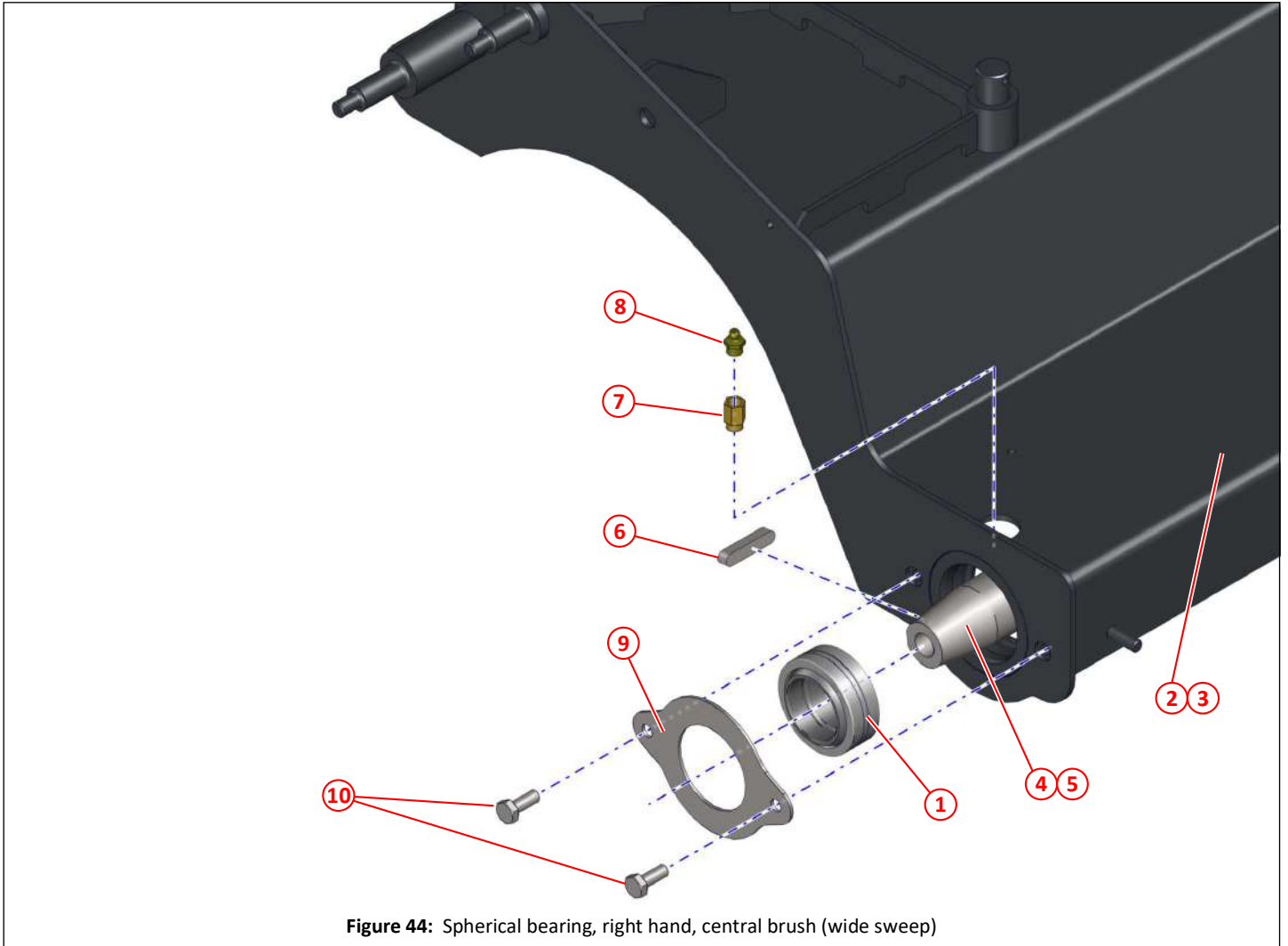


Figure 44: Spherical bearing, right hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA036789	1	Spherical bearing, central brush (wide sweep)
②	SCA036216	1	Cover, central brush (wide sweep)
③	SCA037173	1	Cover, central brush (wide sweep), extended +200mm
④	SCA023080	1	Shaft, taper, central brush (wide sweep)
⑤	SCA025632	1	Shaft, taper, central brush (wide sweep), extended +200mm
⑥	SCA013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends
⑦	SCA040301	1	Grease nipple extension $\frac{1}{8}$ " BSP
⑧	SCA010903	1	Grease nipple $\frac{1}{8}$ " BSP, straight
⑨	SCA037172	1	Retainer plate, spherical bearing, central brush (wide sweep)
⑩	SCA011010	2	Set screw HT M8 x 20

Brush bearing support assembly, central brush (wide sweep)

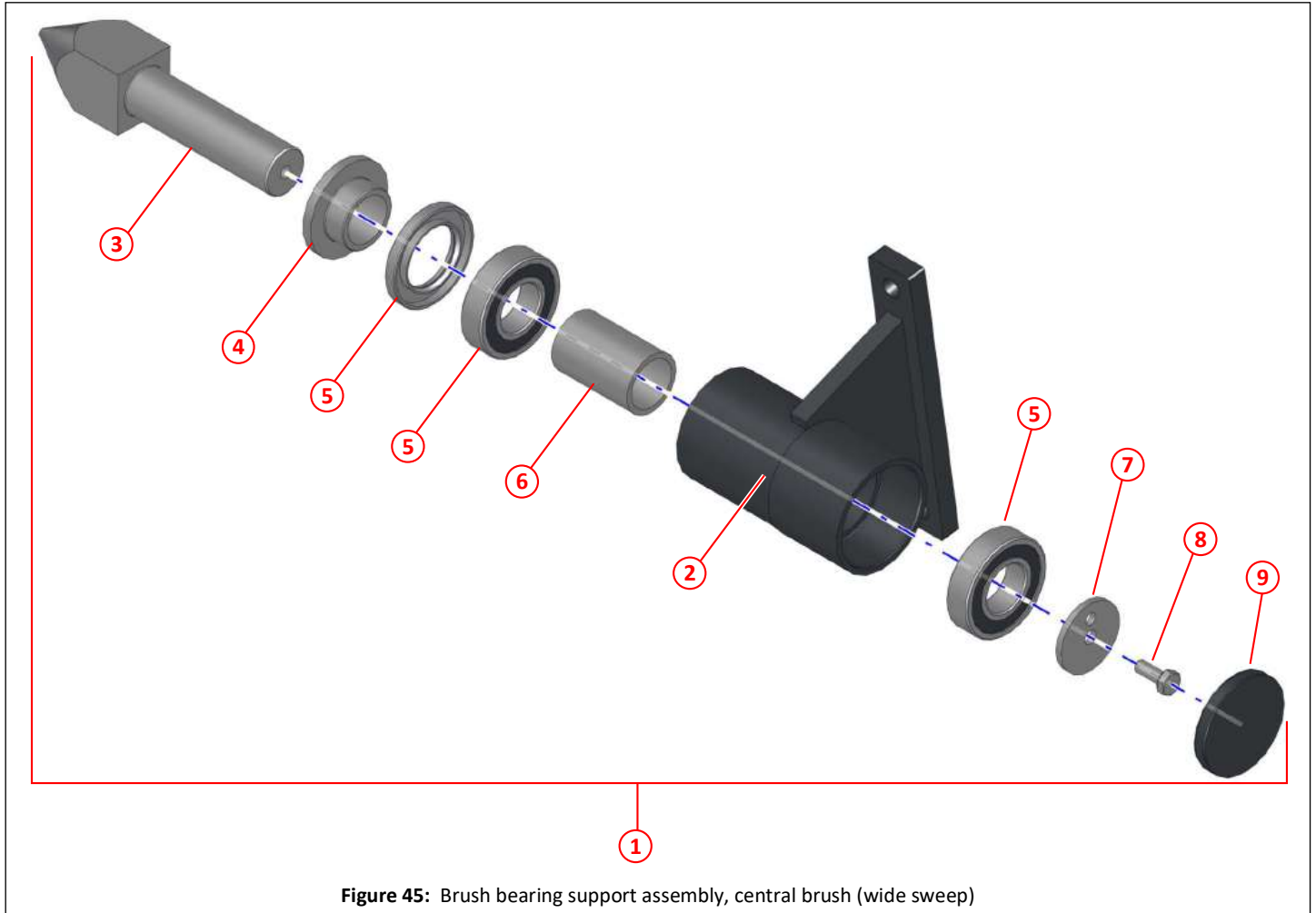


Figure 45: Brush bearing support assembly, central brush (wide sweep)

Item	Part No	Qty	Description
①	SCA024224	1	Bearing assembly, central brush (wide sweep)
②	SCA024219	1	Bearing housing, central brush (wide sweep)
③	SCA024223	1	Shaft, bearing, central brush (wide sweep)
④	SCA024221	1	Spacer ø60 x ø30 x 20
⑤	SCA010578	2	Bearing, ball, 6206 2Z
⑥	SCA024531	1	Spacer ø38 x ø31 x 58
⑦	SCA010004	1	Washer ø45 x ø9 x 4
⑧	SCA011010	1	Setscrew M8 x 20
⑨	SCA024222	1	Bearing cap

Brush assembly, central brush (wide sweep)

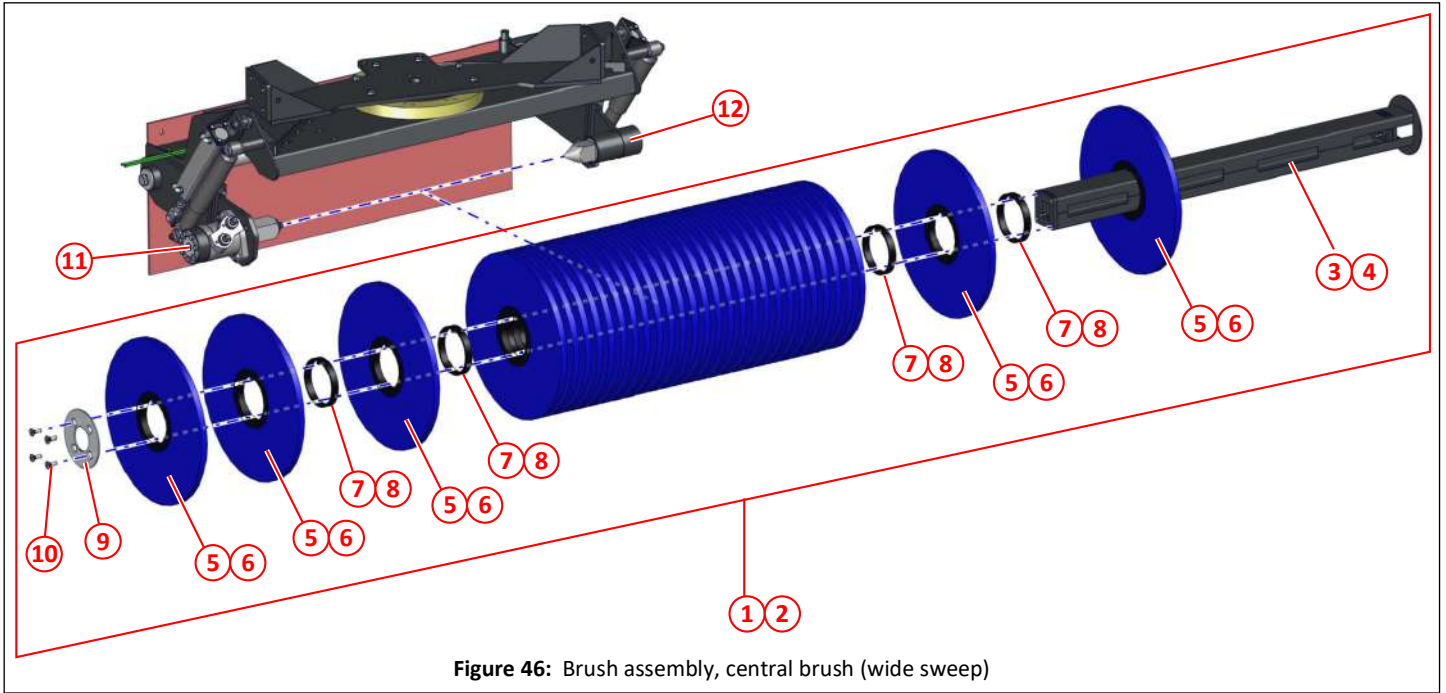


Figure 46: Brush assembly, central brush (wide sweep)

Item	Part No	Qty	Description	
①	SCA037588	1	Brush assembly, central brush (wide sweep)	
②	SCA025662	1	Brush assembly, central brush (wide sweep), extended +200mm	
③	SCA013646	1	Brush core	
④	SCA025642	1	Brush core, extended +200mm	
⑤	SCA023474	31	Brush fill ø400 poly	
⑥	SCA023474	37	Brush fill ø400 poly, for extended +200mm	
⑦	SCA023472	29	Brush spacer	
⑧	SCA023472	35	Brush spacer, for extended +200mm	
⑨	SCA013649	1	End plate, brush core	
⑩	SCA011417	4	Socket cap screw, chamfered, $\frac{3}{8}$ " UNC X 1"	
⑪	SCA010566	1	Motor 3596 (OMP 100)	51
⑫	SCA024224	1	Bearing assembly, central brush (wide sweep)	58

Sweeping and Suction

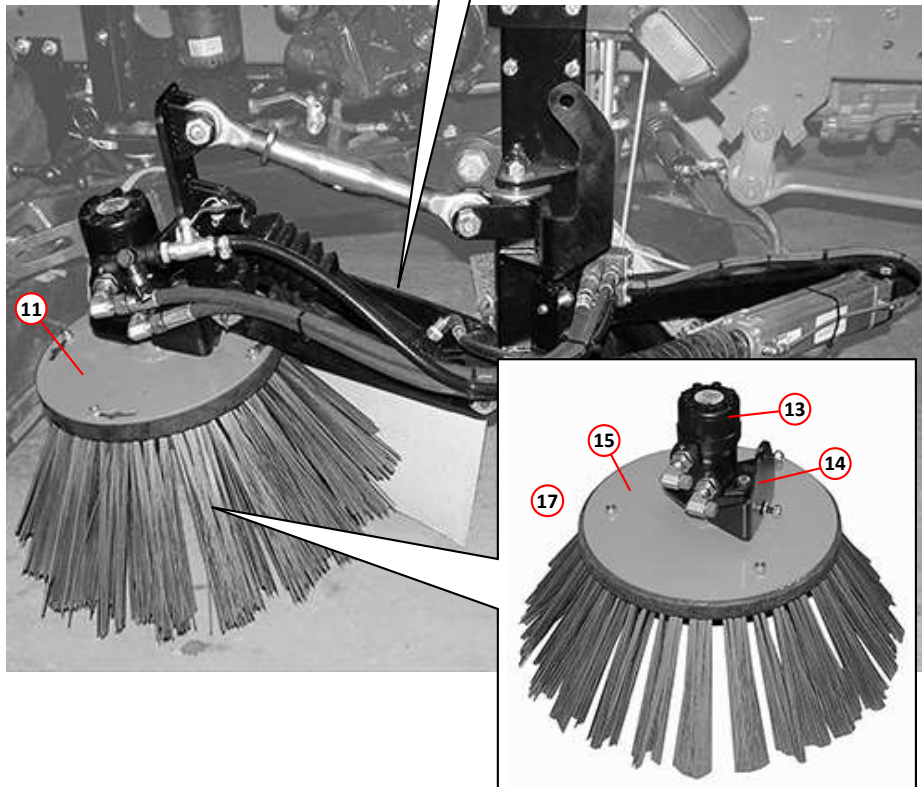
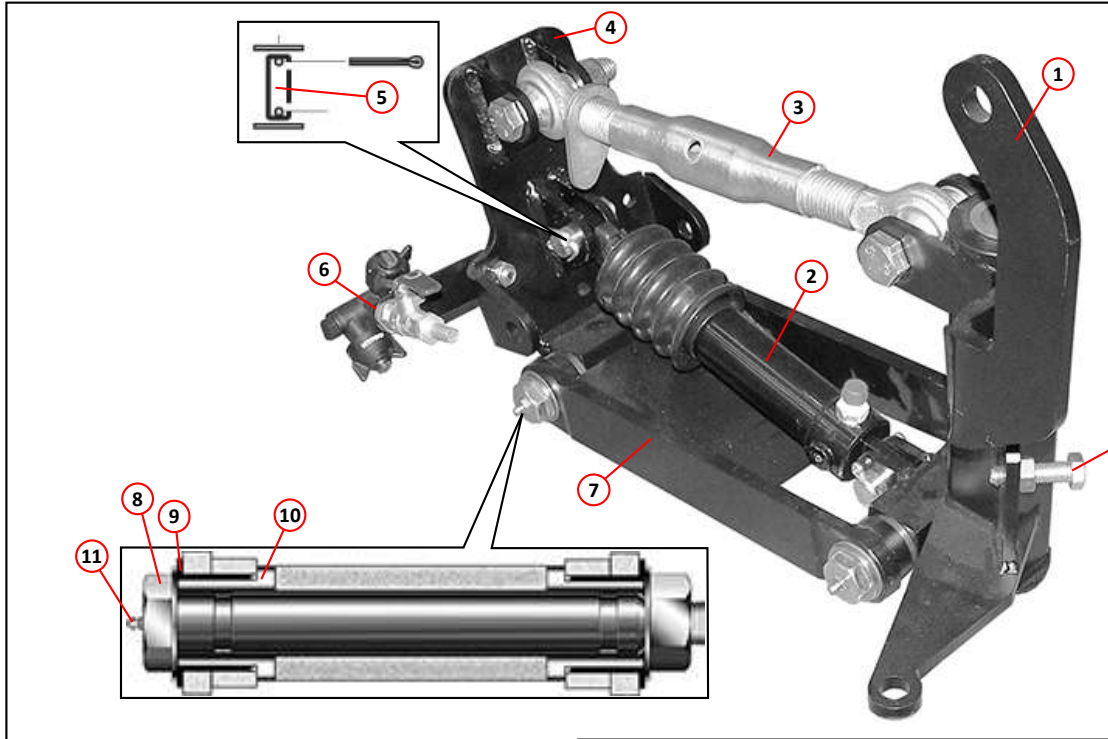
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Item	Part Number	Quantity	Description
Side Brush Arrangement			
1	023124	1	Kingpost, RH
NI	023120	1	Kingpost, LH
2	024539	1	. Ram, hydraulic (raise/lower) Page 274
3	013011	1	. Link, top (turnbuckle)
	011140	2	. . Bolt, M18 x 90mm
	011138	2	. . Washer, M18
	011139	2	. . Nut, M18, Nyloc
4	023121	1	. Plate, Swivel
5	010067	2	. . Pin, Ram Pivot, $\varnothing 20\text{mm} \times 50\text{mm}$
	011103	2	. . . Washer, M20
	011122	2	. . . Pin, split, $\frac{3}{16}'' \times 1\frac{1}{2}''$
6		1	. Brush spray nozzle assembly Page 182
7	014801	1	. Link, lower
8	014796 *	2	. . Bolt, pivot, M16 (special with grease point)
	014798 *	2	. . Washer, 24 x 40 x 3
	014797 *	2	. . Washer, 17 x 40 x 3
	011060 *	2	. . Nut, M16, Nyloc
9	013012 *	2	. . . Bush, plastic
10	014799 *	4	. . Sleeve, spacer
11	010903	2	. . Grease point, straight, $\frac{1}{8}''$ BSP
12	011055	1	. . Bolt, M12 x 60mm (Merlin/XP)
12	000110	1	. . Bolt, M12 x 80mm (Magnum)
	011076	1	. . Nut, M12
13	010749	1	. . Motor, brush drive, hydraulic Page 272
14		1	. . Plate, motor swivel
	011075	2	. . . Nut, M10, Nyloc
15	014067	1	. . Hub, side brush, 3 holes
16	011688	1	. . Hub, side brush, 4 holes
NI	040058 †	1	. . . . . Spacer, brush hub
	040197	1	. . . . . Washer, safety, Schnorr
	011012	1	. . . . . Screw, M8 x 30mm
17		1	. . . Brush Page 94

Notes:-

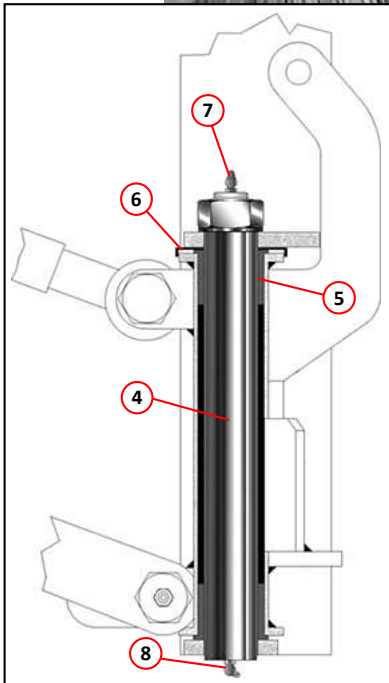
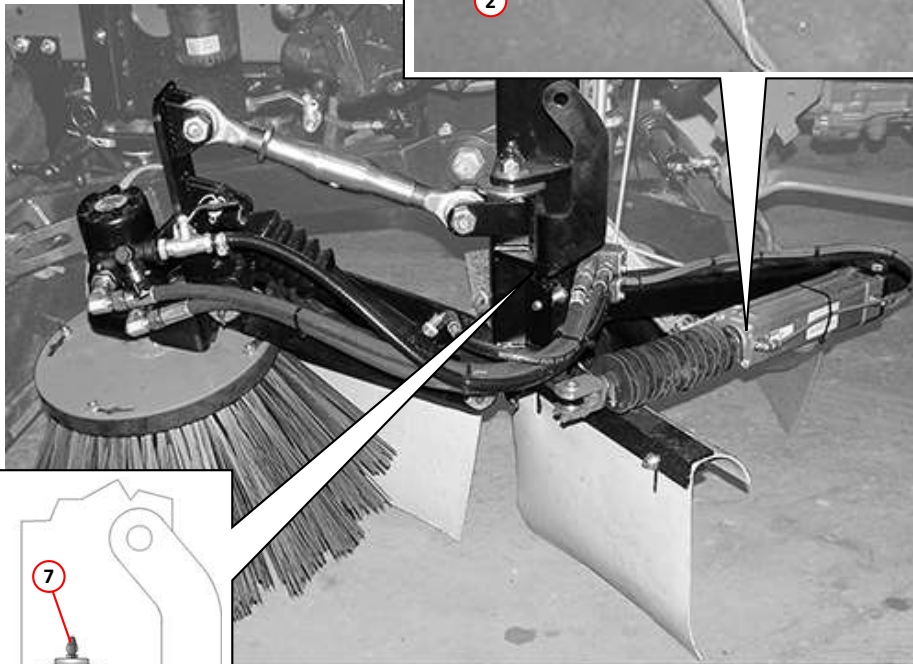
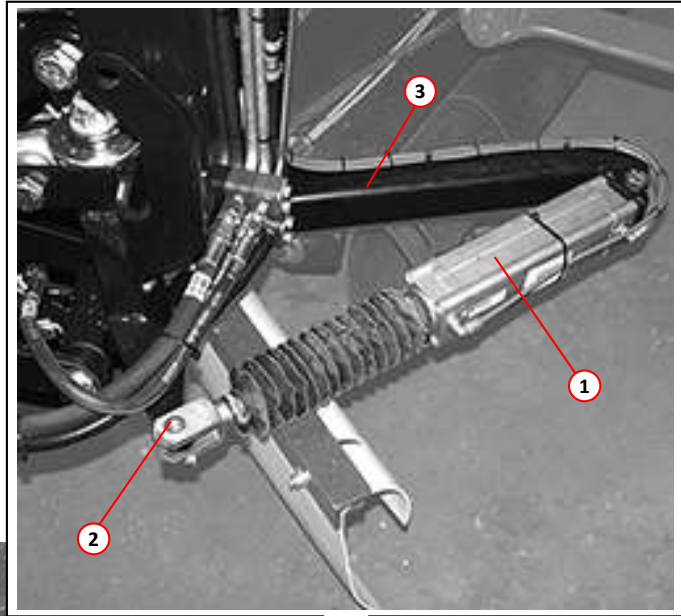
* These Items comprise the lower link bush kit 024611.

† This part is required if the drive motor is manufactured by Eaton, please contact Scarab Parts Department.

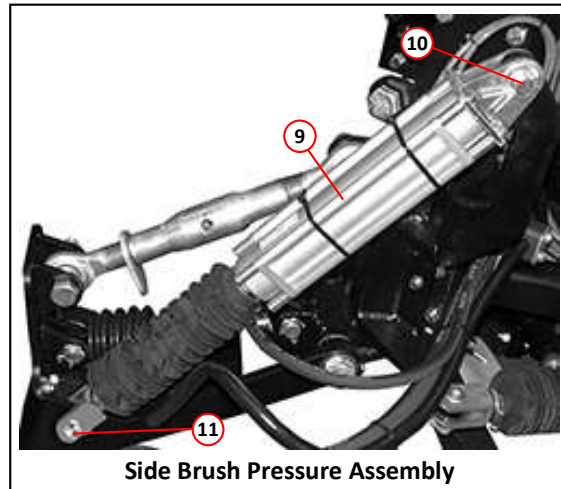


Side Brush Arrangement (Hydraulic Lift)

Item	Part Number	Quantity	Description
Side Brush Swing Out & Brush Pressure Arrangement			
1	020298	1	Cylinder, pneumatic, swing-out Page 306
	011260	1	. Bolt, M16 x 70mm
	011060	1	. Nut, M16, Nyloc
2	022673	1	. Pin, clevis
	022674	1	. Pin, clevis, retainer
3	021520	1	Bracket, swing-out cylinder, RH (Merlin)
NI	021519	1	Bracket, swing-out cylinder, LH (Merlin)
NI	021722	1	Bracket, swing-out cylinder, RH (Magnum)
NI	021721	1	Bracket, swing-out cylinder, LH (Magnum)
	011407	2	. Bolt, M10 x 120mm
	011077	2	. Nut, M10, Nyloc
4	013007	1	Kingpin
	011102	1	. Washer, M20
	011082	1	. Nut, M20, Nyloc
5	013012	2	. Bush, plastic
6	013013	1	. Cap
7	010903	3	. Grease point, straight, $\frac{1}{8}$ " BSP
NI	020241	3	. Grease, straight connector (auto-lube only)
	020243	3	. Cone (auto-lube only)
	020242	3	. Nut (auto-lube only)
8	010901	1	. Grease point, 45°, $\frac{1}{8}$ " BSP
NI	020240	1	. Grease, elbow connector (auto-lube only)
	020243	3	. Cone (auto-lube only)
	020242	3	. Nut (auto-lube only)
9	020298	1	Cylinder, pneumatic, brush pressure (option) Page 306
10	023123	1	. Pin, cylinder retaining
	011135	2	. Washer, M16
	011122	2	. Pin, split $\phi_{16}^{3/16}$ x $1\frac{1}{2}$ "
11	022673	1	. Pin, clevis



Side Brush Swing Out Arrangement



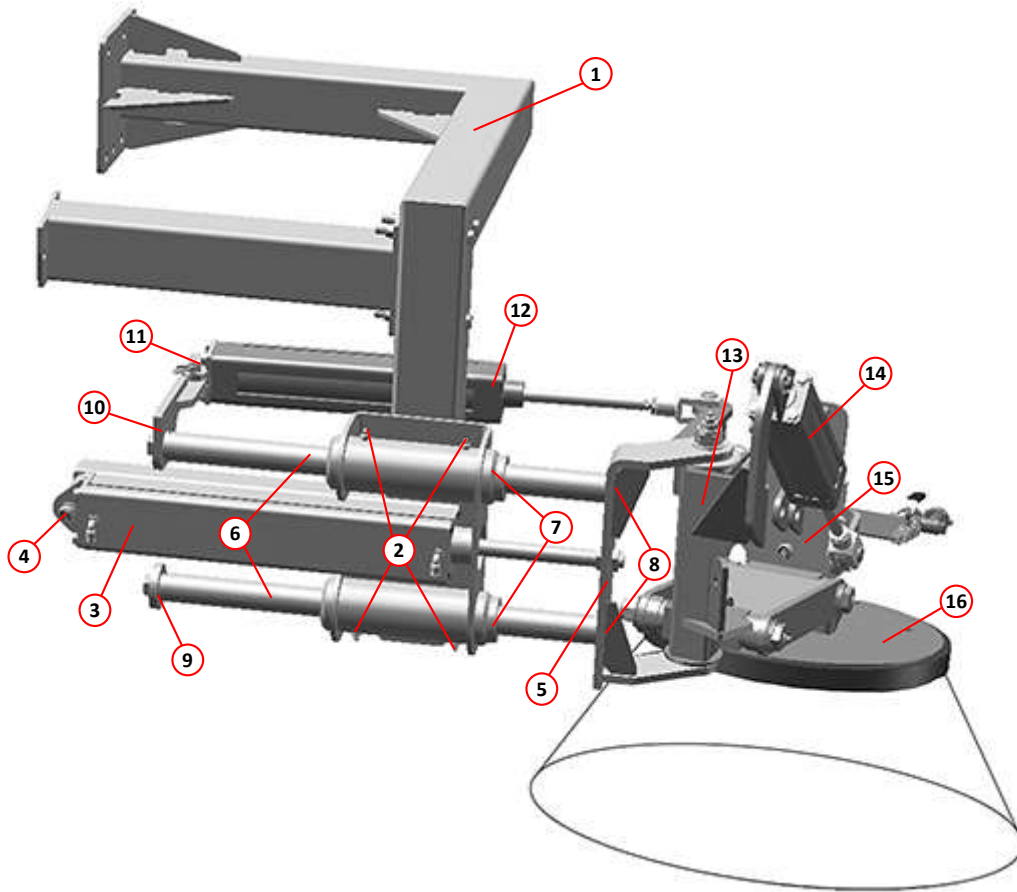
Side Brush Pressure Assembly

i Please note that pneumatic cylinders are no longer fitted with bellows.

Item	Part Number	Quantity	Description
Auxiliary Side Brush - (Option)			
1	*	1	Main support frame
2	010903	4	. Grease point, straight, $\frac{1}{8}$ " BSP
3		1	. Pneumatic cylinder, brush (extend/retract) Page 308
4	030859	1	. Bracket, extend/retract ram, pivot
5	030858	1	. Bracket, kingpost support
6	030856	2	. Thrust bar
7	039838	2	. . Spacer
8	030862	2	. . Washer, special, small
	000079	2	. . . Bolt, M16 x 55mm
9	030861	1	. . Washer, special, large
	000079	1	. . . Bolt, M16 x 55mm
10	030863	1	. . Push Link
	000079	1	. . . Bolt, M16 x 55mm
11	030860	1	. . Bracket, brush swing in/out, ram pivot
12		1	. . . Pneumatic cylinder, brush (swing in/out) Page 310
13	030857 †	1	. . Kingpost pivot
14		1	. Pneumatic cylinder, brush (raise/lower) Page 302
15	†	1	Brush arrangement Page 62
16		1	Brush assembly Page 62

Notes:-

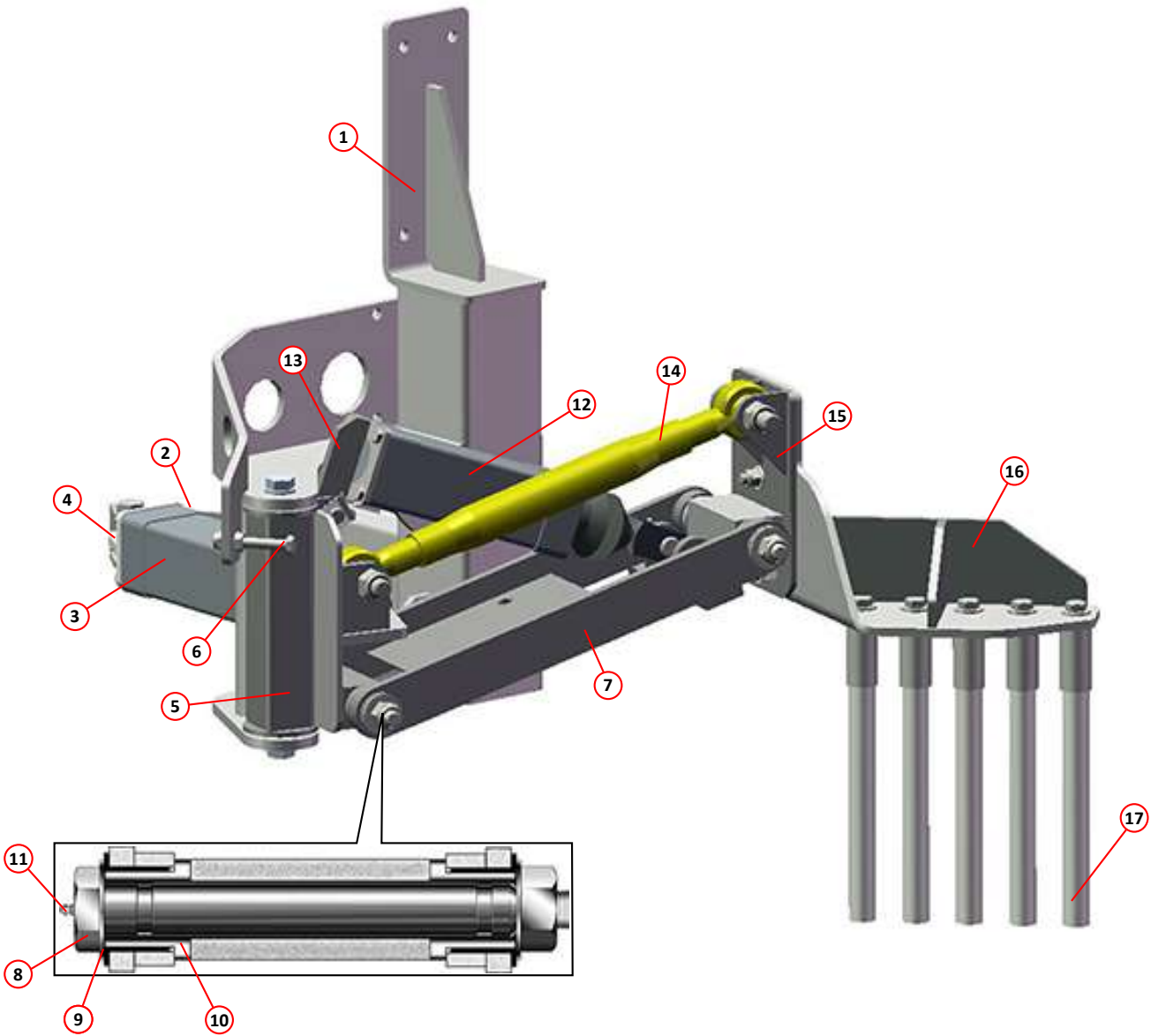
- * Item is chassis specific and/or subject to optional configurations. Before ordering replacement parts, please contact the Scarab Parts Department, quoting your model type and serial number.
- † Components used for the brush arrangement are similar as described on Page 62 except for the modified kingpost and the use of a pneumatic lift ram instead of the hydraulic lift ram.



i Left hand sweep version illustrated.
Design of main support frame is just an example, please contact Scarab Parts Department.

A Typical Auxiliary Side Brush Arrangement

Item	Part Number	Quantity	Description
Auxiliary Side Brush Scraper - (Option)			
1	042277	1	Main support frame LH
NI		1	Main support frame RH
2	034026	1	. Arm swing in/out pneumatic cylinder
	011032	2	. . HT set screw, M10 x 30
	011075	2	. . Nut, M10, Nyloc
3	021026	1	. Pneumatic cylinder, swing in/out, 63 x 100
NI	021510	1	. . Bellows 50 x 160
NI	020299	1	. . Clevis
NI	022673	1	. . Clevis pin
NI	022674	1	. . Retaining clip
4	021032	1	. . Pivot bracket, swing in/out cylinder
	011010	4	. . . HT set screw, M8 x 20
	011260	1	. . . HT set screw, M16 x 70
	011060	1	. . . Nut, M16, Nyloc
5	020763	1	. Swivel post LH
NI	010903	2	. . Grease point, straight, $\frac{1}{8}$ " BSP
NI	020765	1	. . King pin
NI	013012	2	. . Bush swivel post
	011135	2	. . Washer M16
	011141	2	. . Bolt M16 x 35mm
NI	010903	1	. . Grease point, $\frac{1}{8}$ " BSP, straight
6	011043	1	. . Stop bolt M10 x 70
	011075	1	. . . Nut, M10, Nyloc
		1	. . . Nut, M10
7	020764	1	. Brush link
8	014796	2	. . Pivot bolt, M16, special
	014798	2	. . Washer 40 x 24 x 3
9	013012	2	. . Bush, plastic
10	014799	4	. . Sleeve, spacer
	014797	2	. . Washer 40 x 17 x 3
	011060	2	. . Nut, M16, Nyloc
11	010903	2	. . Grease point, straight, $\frac{1}{8}$ " BSP
12	021026	1	. . Pneumatic cylinder, raise/lower, 63 x 100
NI	021510	1	. . . Bellows 50 x 160
NI	020299	2	. . . Clevis
NI	022673	2	. . . Clevis pin
NI	022674	2	. . . Retaining clip
13	021031	1	. . . Pivot bracket, raise/lower cylinder
	011010	4	. . . HT set screw, M8 x 20
NI	022673	2	. . . Clevis pin
NI	022674	2	. . . Retaining clip
14	020685	1	. . Top link
	011140	2	. . . Set screw, M18 x 90
	000140	2	. . . Nut, M18, Nyloc
15	020769	1	. . Swivel plate
16	042287	1	. . Scraper element holder
	011033	2	. . . HT set screw, M10 x 35
	011094	4	. . . Washer, M10
	011075	2	. . . Nut, M10, Nyloc
17	020499	5	. . . Scraper element, wire
	011050	5	. . . . Set screw, M12 x 20
	011096	5	. . . . Washer, M12



i Left hand sweep version illustrated.

Auxiliary Side Brush Scraper Arrangement

Central brush (wide sweep) arrangement

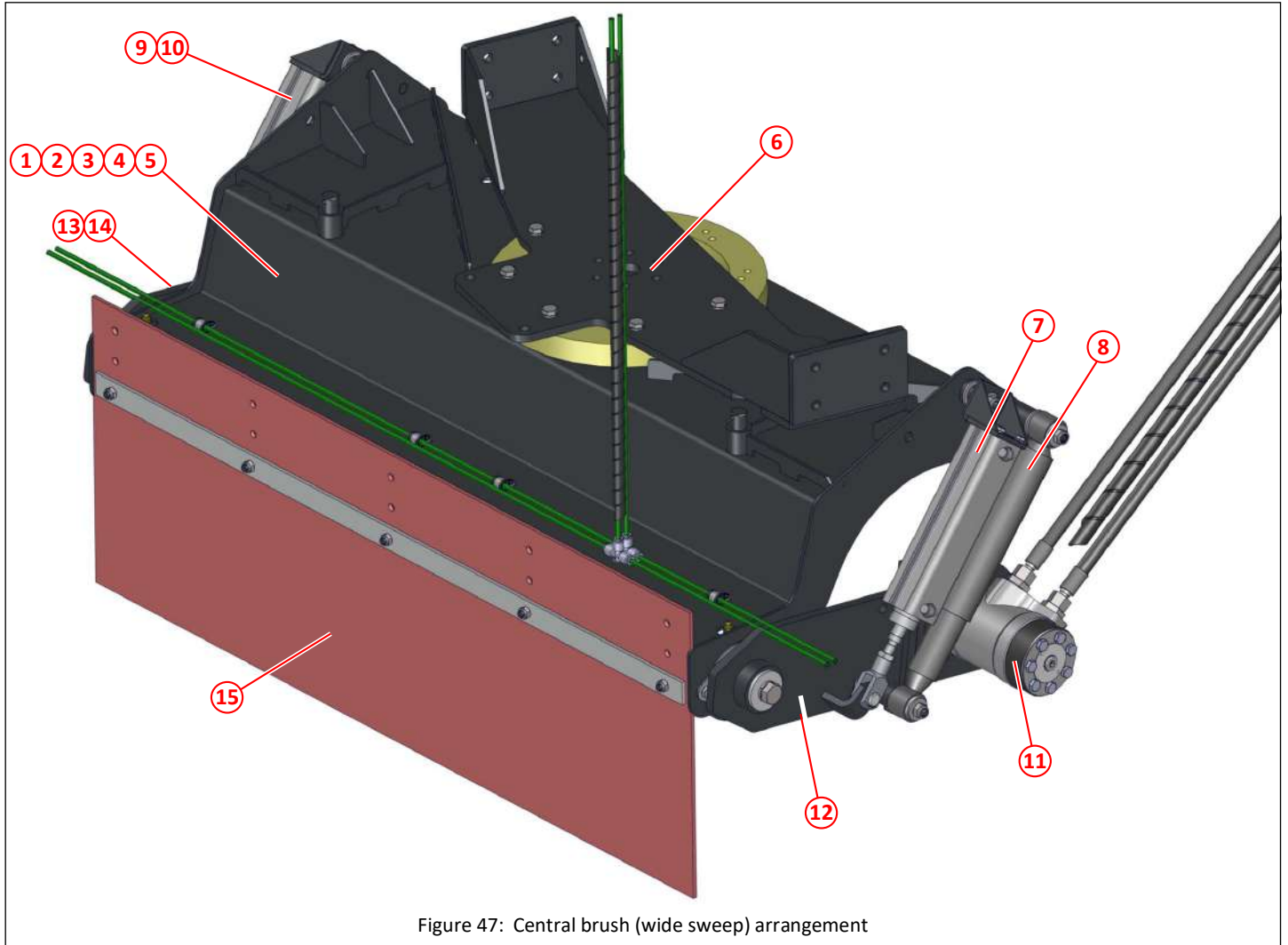


Figure 47: Central brush (wide sweep) arrangement

Item	Part No	Qty	Description	
①	049069		Central brush (wide sweep) assembly left hand fixed slew	
②	049070		Central brush (wide sweep) assembly right hand fixed slew	
③	048987		Central brush (wide sweep) assembly slewing	
④	049071		Central brush (wide sweep) assembly right hand fixed slew, extended +200mm	
⑤	049072		Central brush (wide sweep) assembly slewing, extended +200mm	
⑥			Fixed slew arrangement	73
⑦			Pneumatic lift cylinder left hand	74
⑧			Shock absorber left hand	75
⑨			Pneumatic lift cylinder right hand	79
⑩			Shock absorber right hand	80
⑪			Motor	76
⑫			Motor mounting plate	77
⑬			Brush bearing	83
⑭			Brush bearing mounting plate	81
⑮			Wide sweep skirt	71

Skirt, central brush (wide sweep)

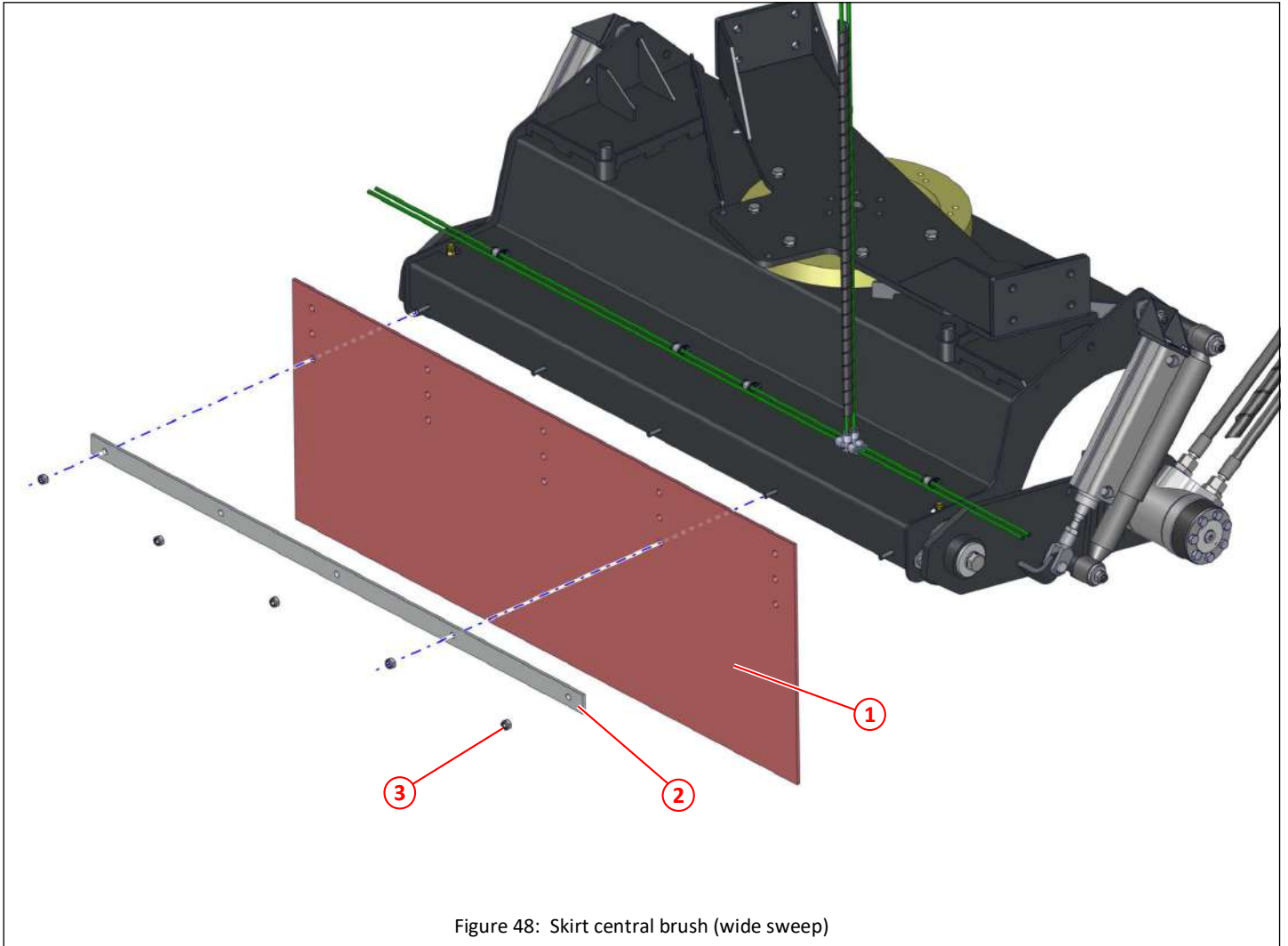


Figure 48: Skirt central brush (wide sweep)

Item	Part No	Qty	Description
①	022516	1	Skirt, central brush (wide sweep)
②	026026	1	Skirt, central brush (wide sweep), extended +200mm
③	022517	1	Clamp bar, skirt, central brush (wide sweep)
④	026025	1	Clamp bar, skirt, central brush (wide sweep), extended +200mm
⑤	011073	5	Nyloc nuts, M8

Hoses and pipes, central brush (wide sweep)

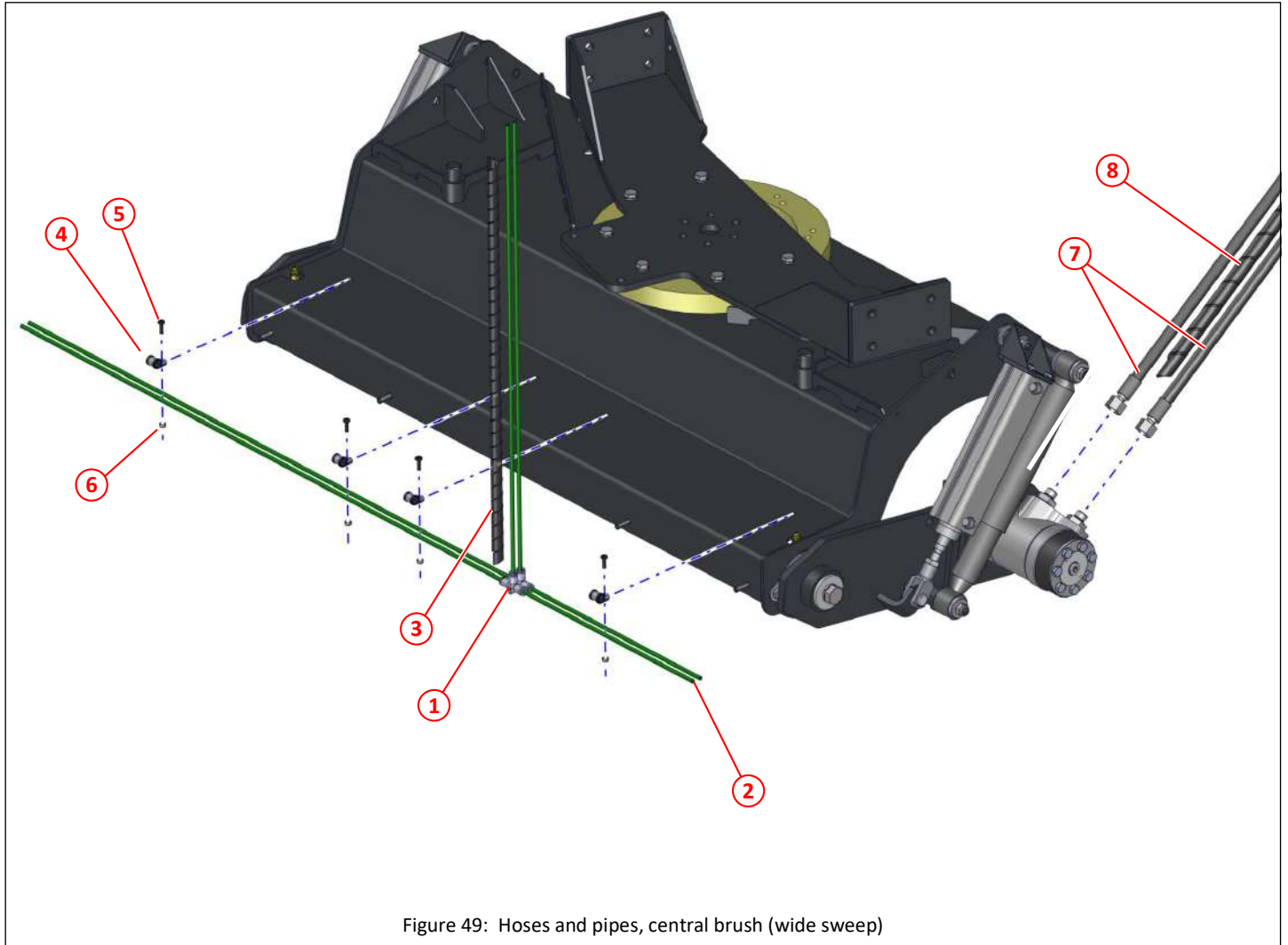


Figure 49: Hoses and pipes, central brush (wide sweep)

Item	Part No	Qty	Description	
①	024647	2	Tee, grey, 6mm	
②	024650	6	Air pipe, 6mm green, cut to length required	
③	004161	1	Flex cable conduit (split) ø15.7 OD, cut to length required	
④	021914	4	Clip, ø12, rubber sealed	
⑤	000234	4	Pan head, Pozidriv, set screw M5 x16, black	
⑥	000155	4	Nyloc nut, M5	
⑦	001254	2	Hose, $\frac{3}{8}$ " x 1500, straight and 90° connectors	
⑧	004210	1	Flex cable conduit (split) ø21 OD, cut to length required	

Fixed slew, central brush (wide sweep)

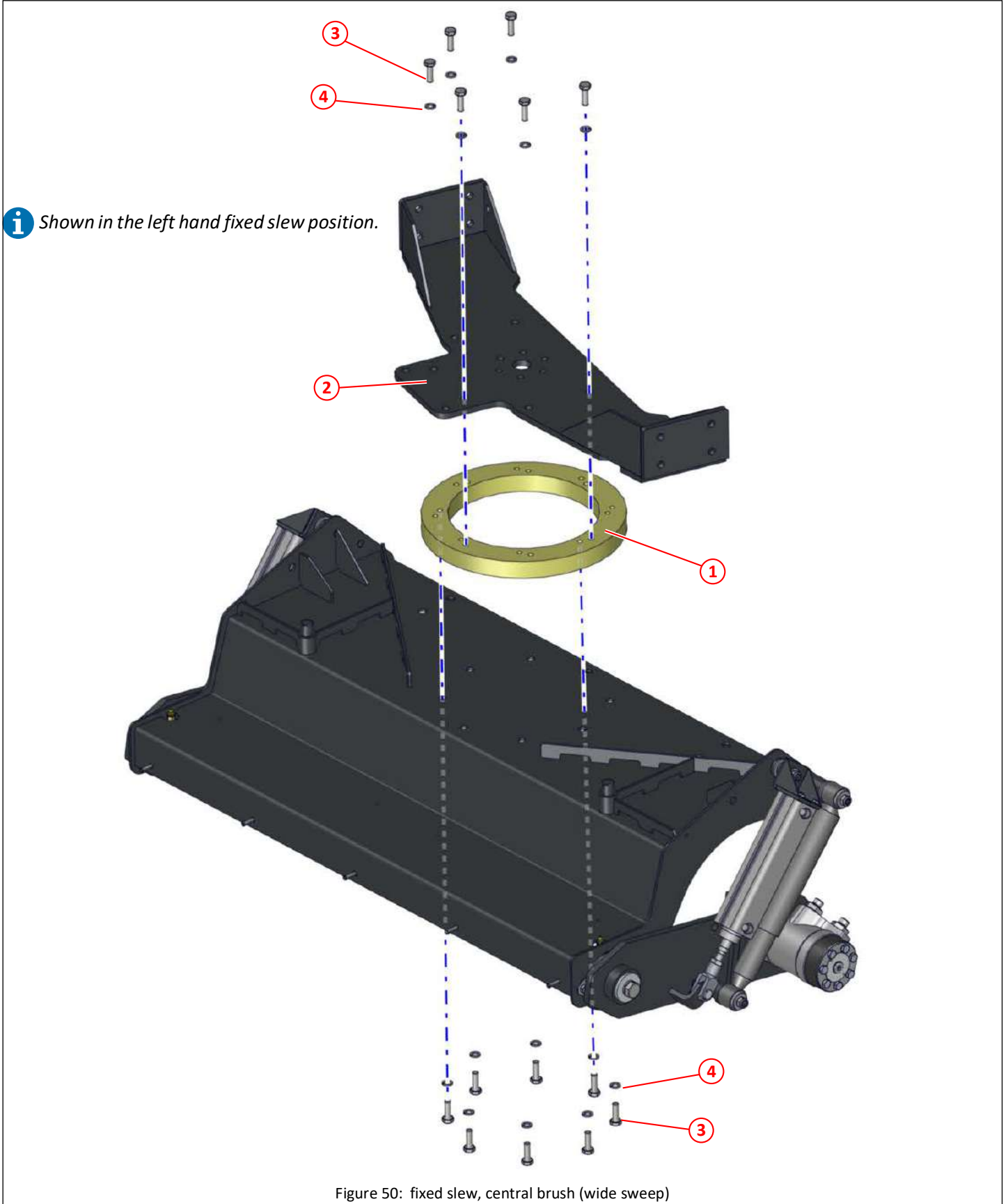


Figure 50: fixed slew, central brush (wide sweep)

Item	Part No	Qty	Description
①	020919	1	Adapter ring, fixed slew, central brush (wide sweep)
②	024155	1	Support mounting, central brush (wide sweep)
③	011032	14	Set screw HT M10 x30
④	011095	14	Spring washer M10

Pneumatic cylinder left hand, central brush (wide sweep)

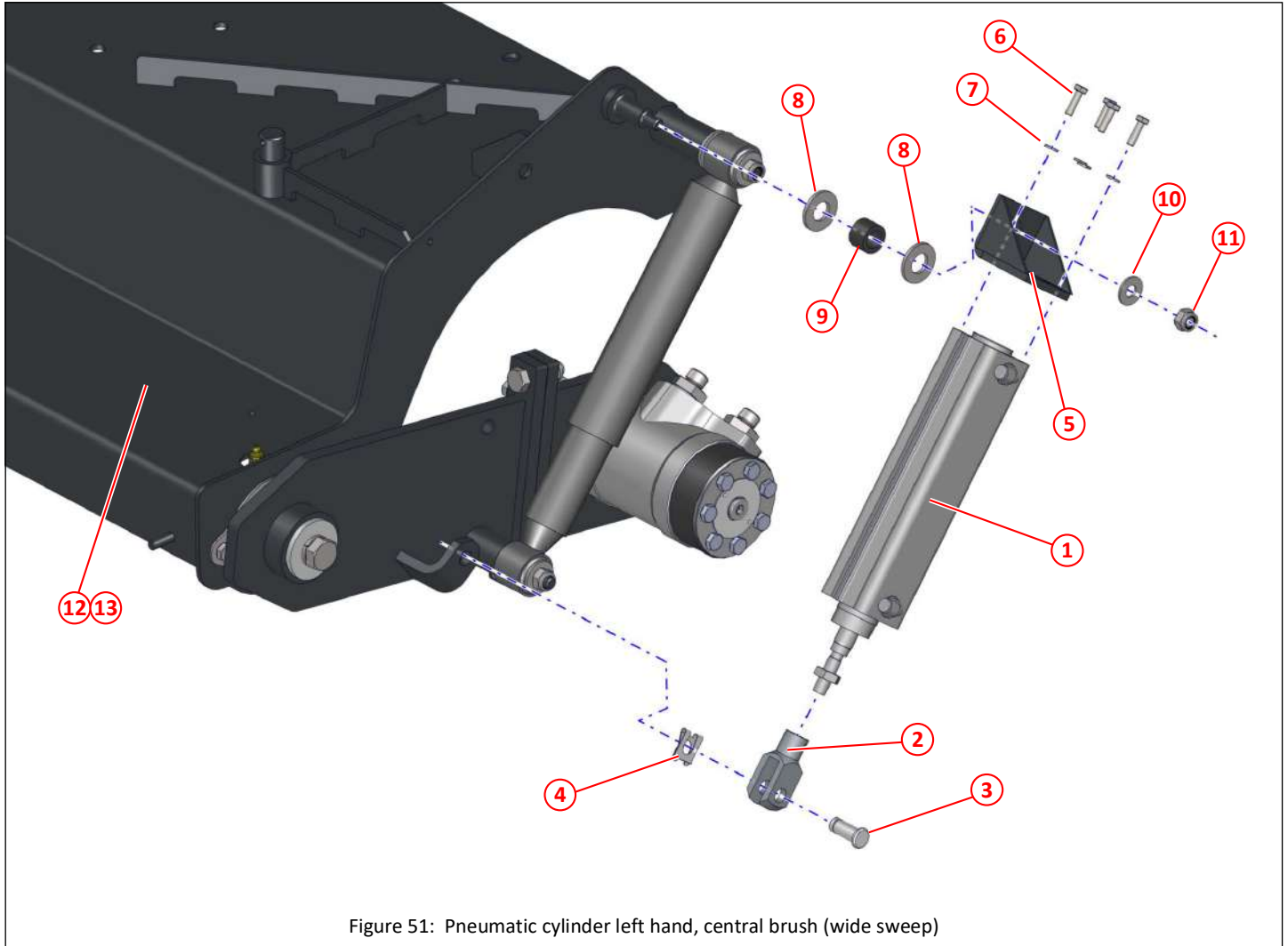


Figure 51: Pneumatic cylinder left hand, central brush (wide sweep)

Item	Part No	Qty	Description	
①	020602	1	Pneumatic cylinder 40 x125, includes locknut	
②	014469	1	Clevis, air cylinder, M12	
③	023270	1	Clevis pin \varnothing 12	
④	023269	1	Safety fastener \varnothing 12	
⑤	030532	1	Air ram mounting bracket, central brush (wide sweep)	
⑥	011067	4	Set screw HT M6 x20	
⑦	011091	4	Spring washer M6	
⑧	011135	2	Plain washer M16	
⑨	011000	1	Spacer, buffer - Hose, $\frac{5}{8}$ " fuel SAE100R6, cut to 16mm	
⑩	011094	1	Plain washer M10	
⑪	011075	1	Nyloc nut, M10	
⑫	036216	1	Cover, central brush (wide sweep)	
⑬	037173	1	Cover, central brush (wide sweep), extended +200mm	

Shock absorber, left hand, central brush (wide sweep)

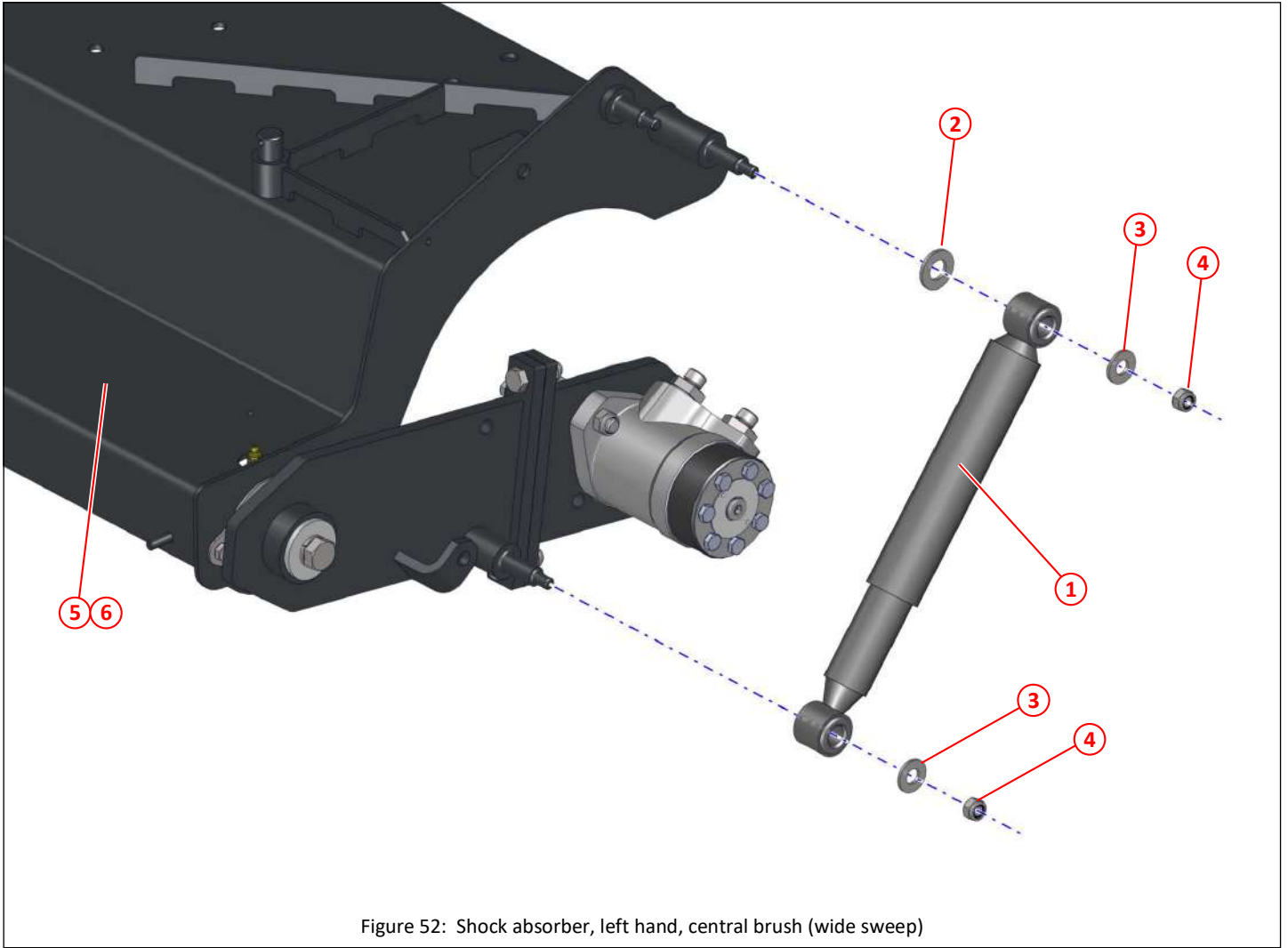


Figure 52: Shock absorber, left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	014063	1	Shock absorber 320/500
②	011135	1	Plain washer M16
③	011096	2	Plain washer M12
④	011075	2	Nyloc nut M10
⑤	036216	1	Cover, central brush (wide sweep)
⑥	037173	1	Cover, central brush (wide sweep), extended +200mm

Motor mounting, left hand, central brush (wide sweep)

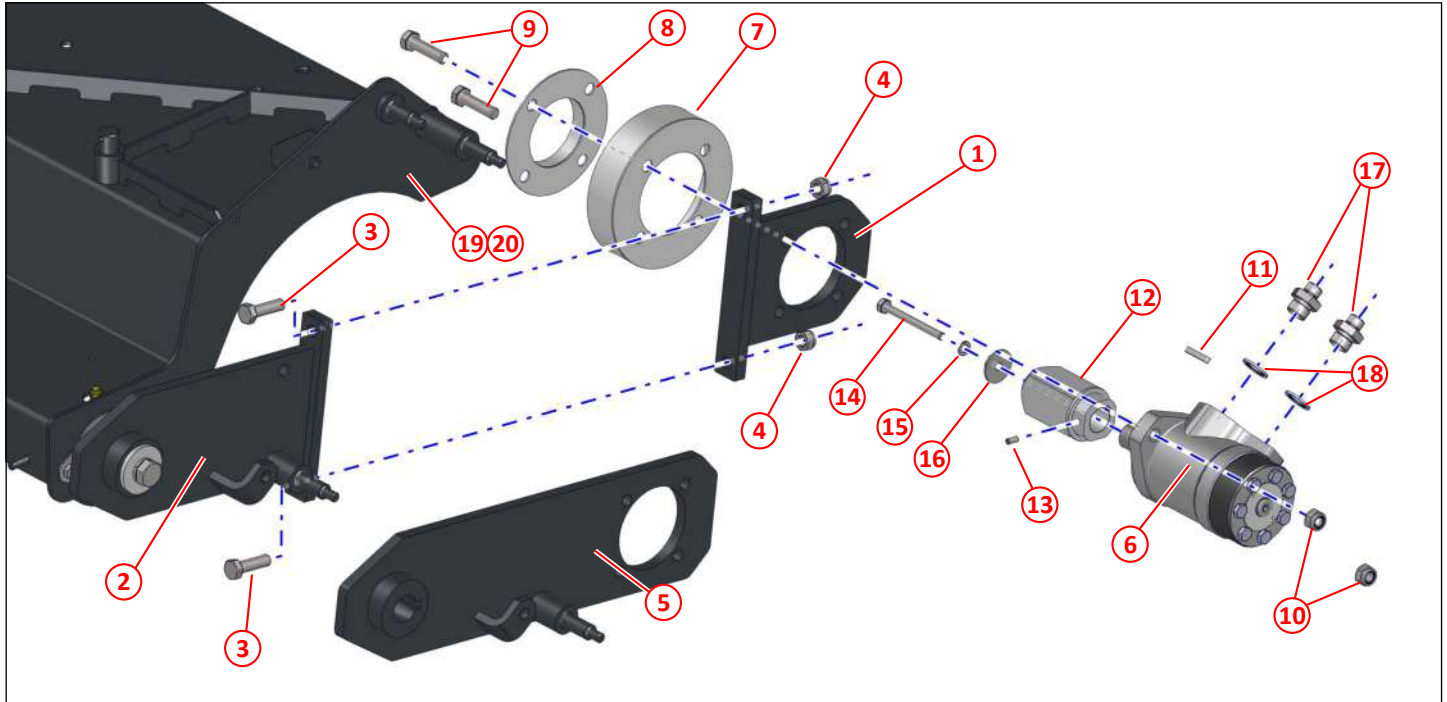


Figure 53: Motor fixing, left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	048978	1	Motor fixing plate
②	048977	1	Motor plate left hand
③	011069	2	Bolt M12 x 40
④	011077	2	Nyloc nut M12
⑤	023077	1	Motor plate left hand (old Type)
⑥	010566	1	Motor 3596 (OMP 100)
⑦	049483	1	Motor guard bracket
⑧	046472		Motor guard
⑨	011054	2	Set screw HT M12 x45
⑩	011077	2	Nyloc nut M12
⑪	011515	1	Key - Parallel, square $\frac{1}{4}$ " x $1\frac{1}{4}$ ", round ends
⑫	024535	1	Drive shaft
⑬	011112	1	Socket set screw M6 x 12
⑭	011415	1	Bolt M8 x 80
⑮	011093	1	Spring washer M8
⑯	024538	1	Cone washer
⑰	011167	2	Adapter $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
⑱	011154	2	Dowty seal $\frac{1}{2}$ " BSP
⑲	036216	1	Cover, central brush (wide sweep)
⑳	037173	1	Cover, central brush (wide sweep), extended +200mm

i Please identify which motor plate style you have before ordering. If in doubt contact the Scarab Parts Department.

i If you have item ⑤ this has been replaced with a new assembly, please order **SCA023077RETROFIT** which contains items ①, ②, ③, ④, ⑦ and ⑧. This will ensure you get all the required parts to replace item ⑤.

Motor plate, left hand, central brush (wide sweep)

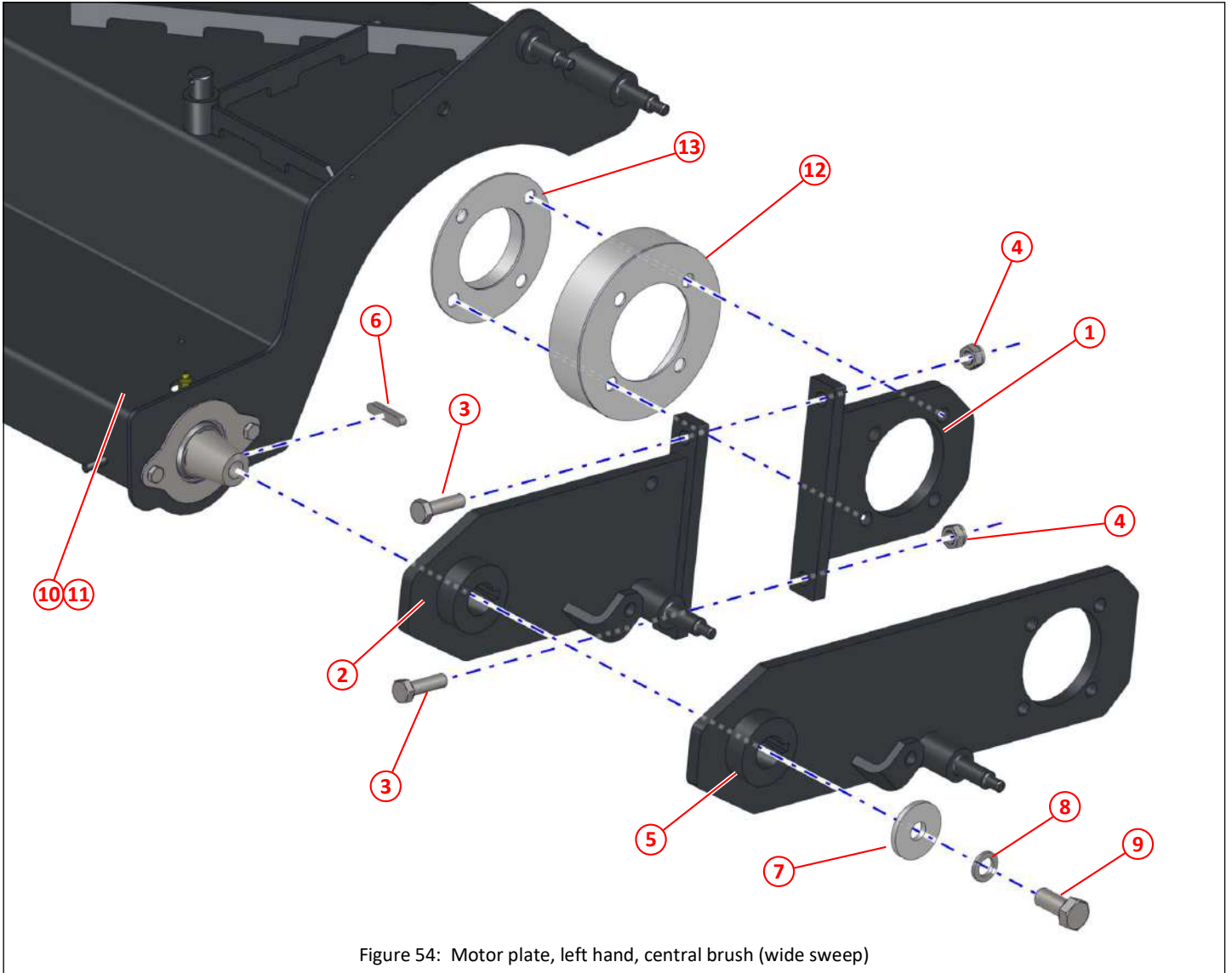


Figure 54: Motor plate, left hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	048978	1	Motor fixing plate
②	048977	1	Motor plate left hand
③	011069	2	Bolt M12 x 40
④	011077	2	Nyloc nut M12
⑤	023077	1	Motor plate left hand (old type)
⑥	013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends
⑦	013439	1	Washer, $\phi 50 \times \phi 16.5 \times 5$
⑧	011142	1	Spring washer M61
⑨	011141	1	Bolt M16 x 35
⑩	036216	1	Cover, central brush (wide sweep)
⑪	037173	1	Cover, central brush (wide sweep), extended +200mm
⑫	049483	1	Motor guard bracket
⑬	046472	1	Motor guard

i Please identify which motor plate style you have before ordering. If in doubt contact the Scarab Parts Department.

i If you have item ⑤ this has been replaced with a new assembly, please order **SCA023077RETROFIT** which contains items ①, ②, ③, ④, ⑩ and ⑬. This will ensure you get all the required parts to replace item ⑤.

Spherical bearing, left hand, central brush (wide sweep)

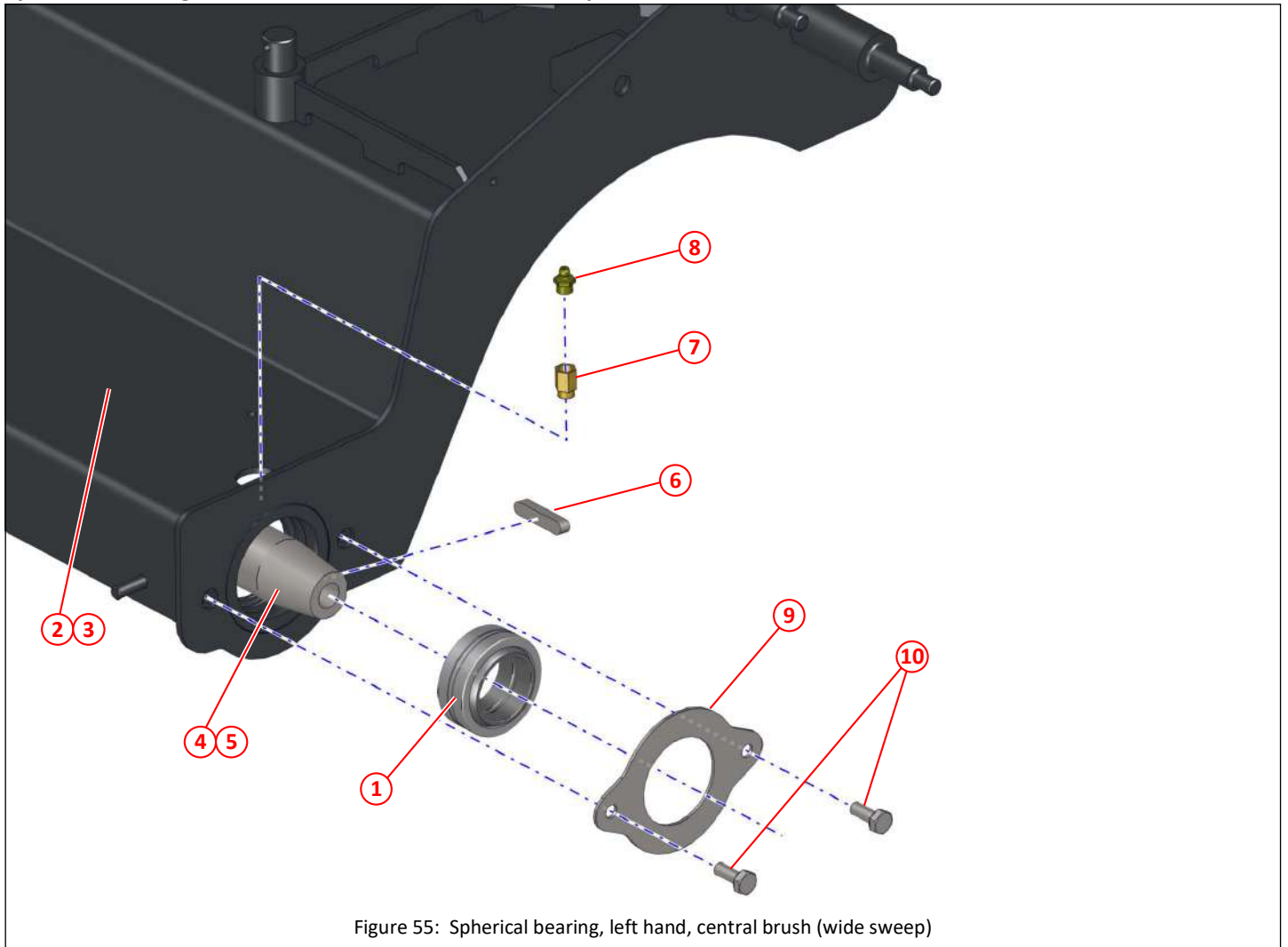


Figure 55: Spherical bearing, left hand, central brush (wide sweep)

Item	Part No	Qty	Description	
①	036789	1	Spherical bearing, central brush (wide sweep)	
②	036216	1	Cover, central brush (wide sweep)	
③	037173	1	Cover, central brush (wide sweep), extended +200mm	
④	023080	1	Shaft, taper, central brush (wide sweep)	
⑤	025632	1	Shaft, taper, central brush (wide sweep), extended +200mm	
⑥	013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends	
⑦	040301	1	Grease nipple extension $\frac{1}{8}$ " BSP	
⑧	010903	1	Grease nipple $\frac{1}{8}$ " BSP, straight	
⑨	037172	1	Retainer plate, spherical bearing, central brush (wide sweep)	
⑩	011010	2	Set screw HT M8 x 20	

Pneumatic cylinder, right hand, central brush (wide sweep)

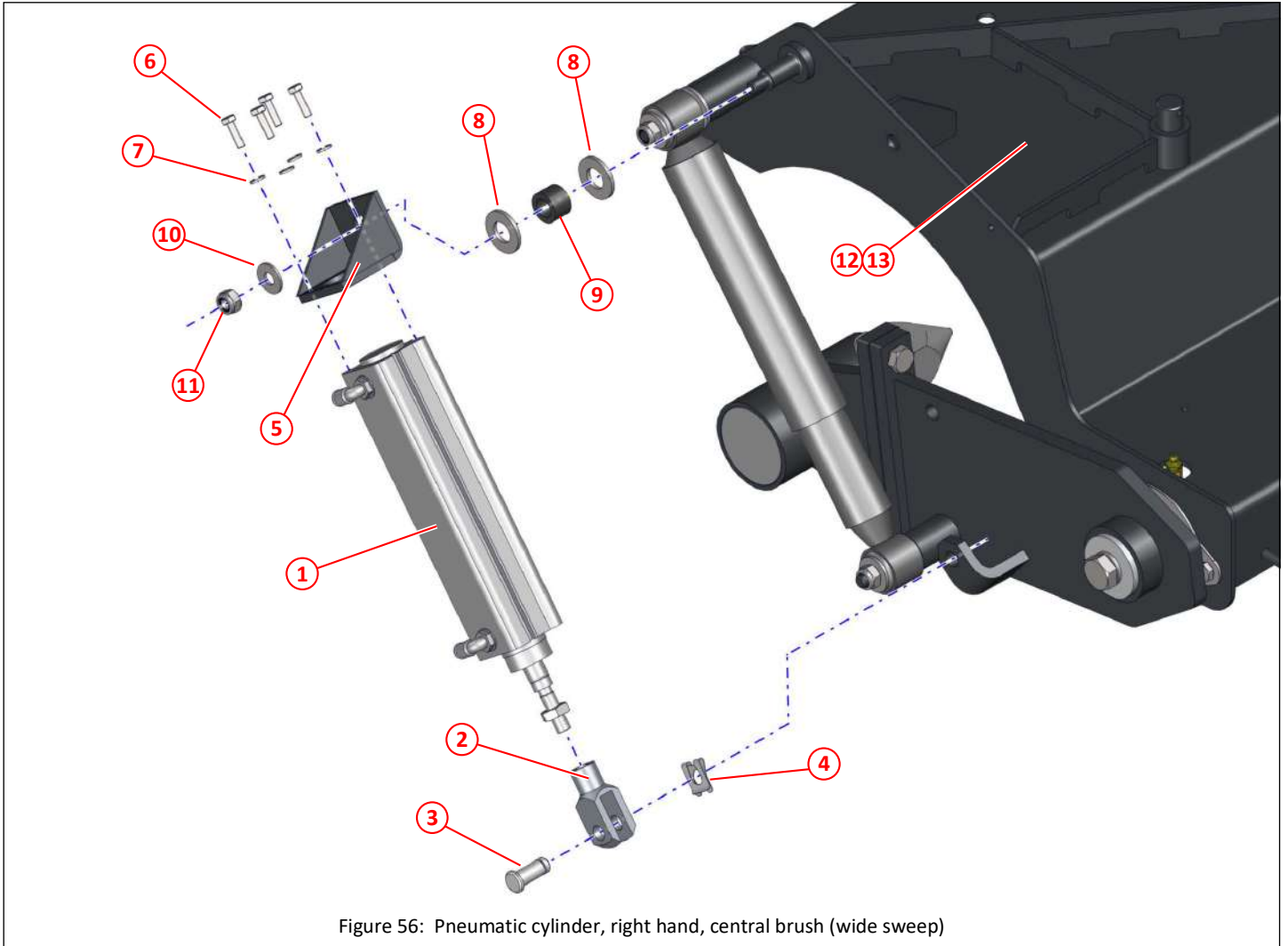


Figure 56: Pneumatic cylinder, right hand, central brush (wide sweep)

Item	Part No	Qty	Description
①	020602	1	Pneumatic cylinder 40 x125, includes locknut
②	014469	1	Clevis, air cylinder, M12
③	023270	1	Clevis pin ø12
④	023269	1	Safety fastener ø12
⑤	030532	1	Air ram mounting bracket, central brush (wide sweep)
⑥	011067	4	Set screw HT M6 x20
⑦	011091	4	Spring washer M6
⑧	011135	2	Plain washer M16
⑨	011000	1	Spacer, buffer - Hose, 5/8" fuel SAE100R6, cut to 16mm
⑩	011094	1	Plain washer M10
⑪	011075	1	Nyloc nut, M10
⑫	036216	1	Cover, central brush (wide sweep)
⑬	037173	1	Cover, central brush (wide sweep), extended +200mm

Shock absorber, right hand, central brush (wide sweep)

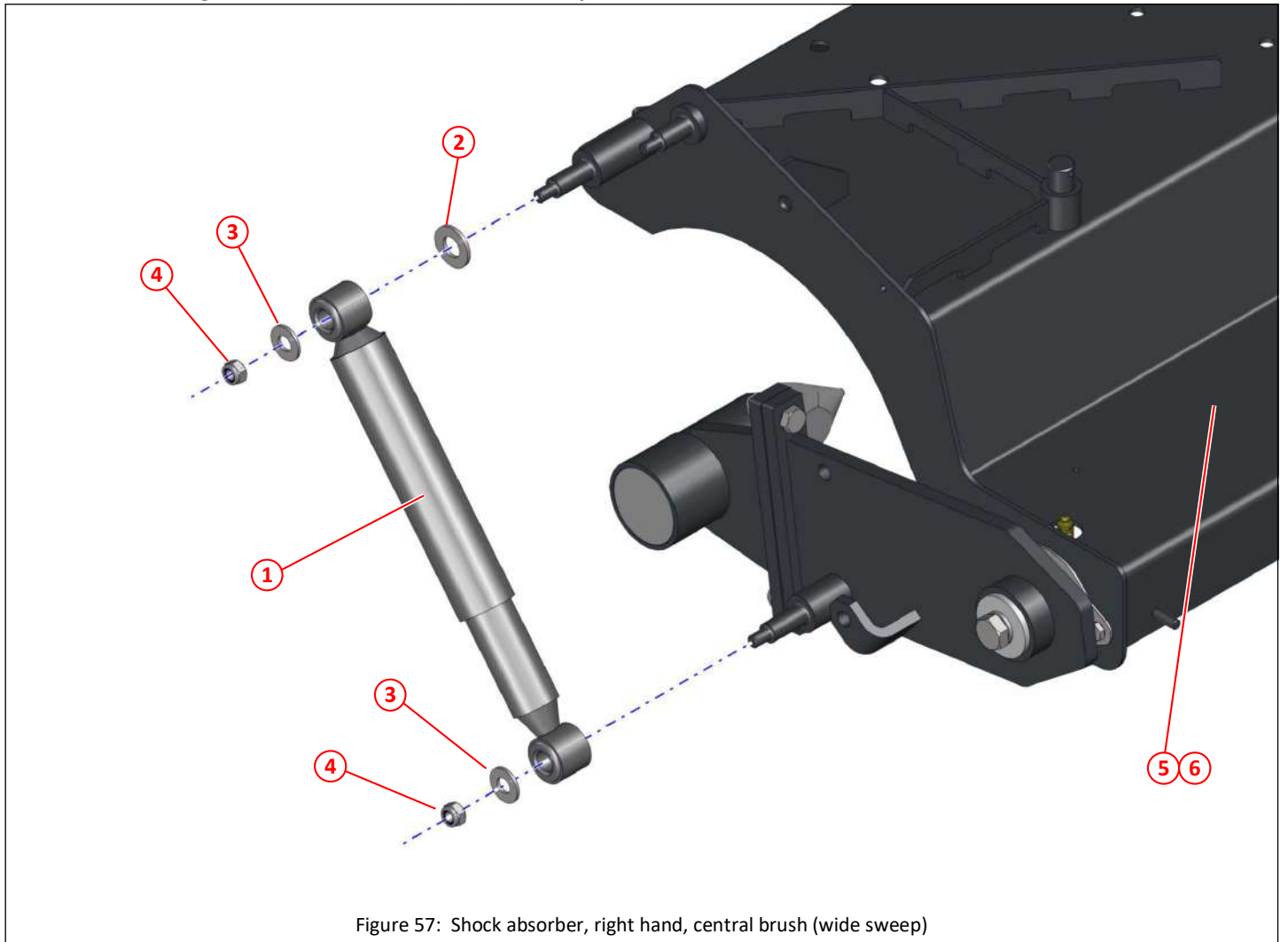


Figure 57: Shock absorber, right hand, central brush (wide sweep)

Item	Part No	Qty	Description	
①	014063	1	Shock absorber 320/500	
②	011135	1	Plain washer M16	
③	011096	2	Plain washer M12	
④	011075	2	Nyloc nut M10	
⑤	036216	1	Cover, central brush (wide sweep)	
⑥	037173	1	Cover, central brush (wide sweep), extended +200mm	

Brush bearing mounting, right hand, central brush (wide sweep)

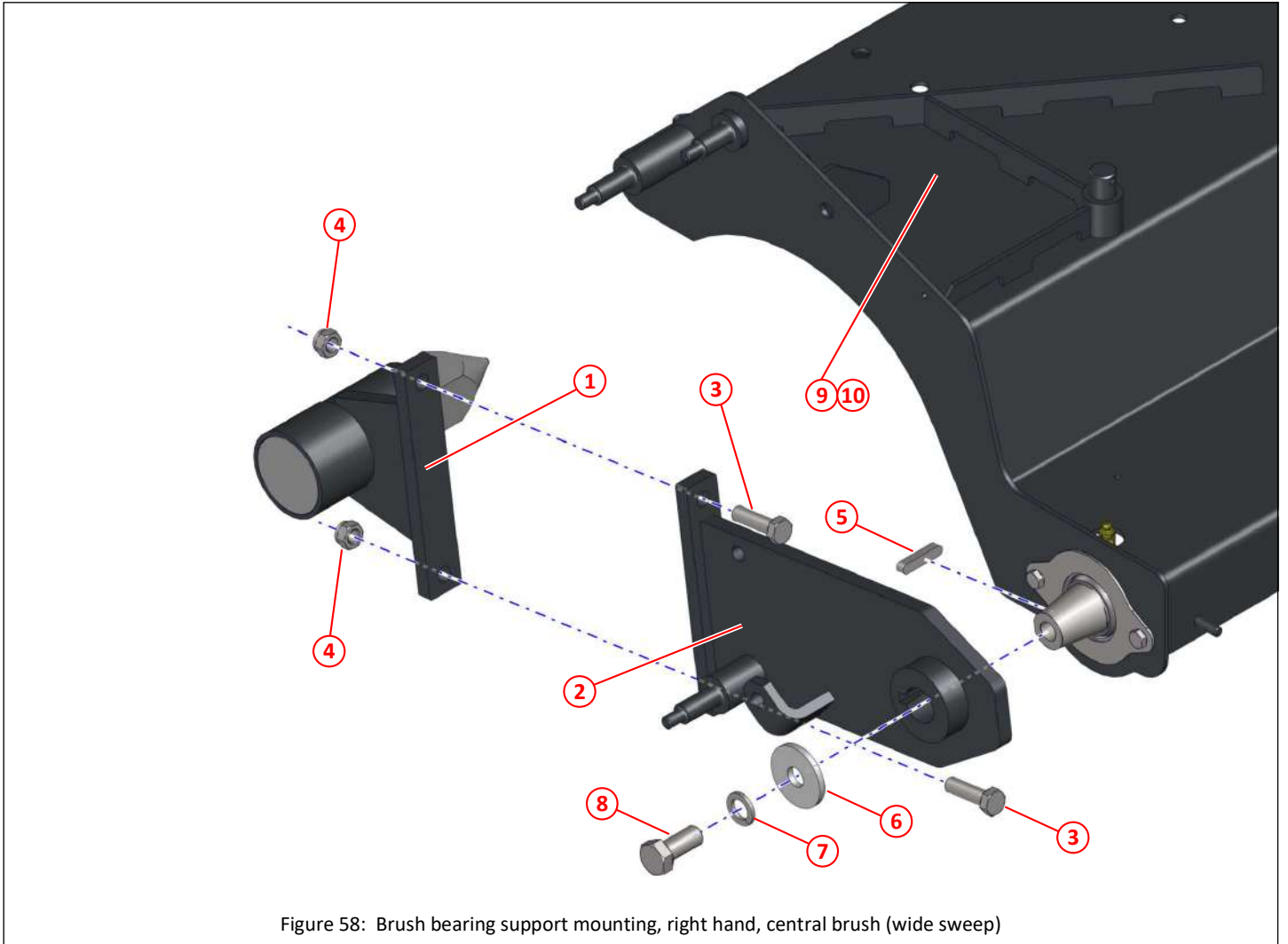
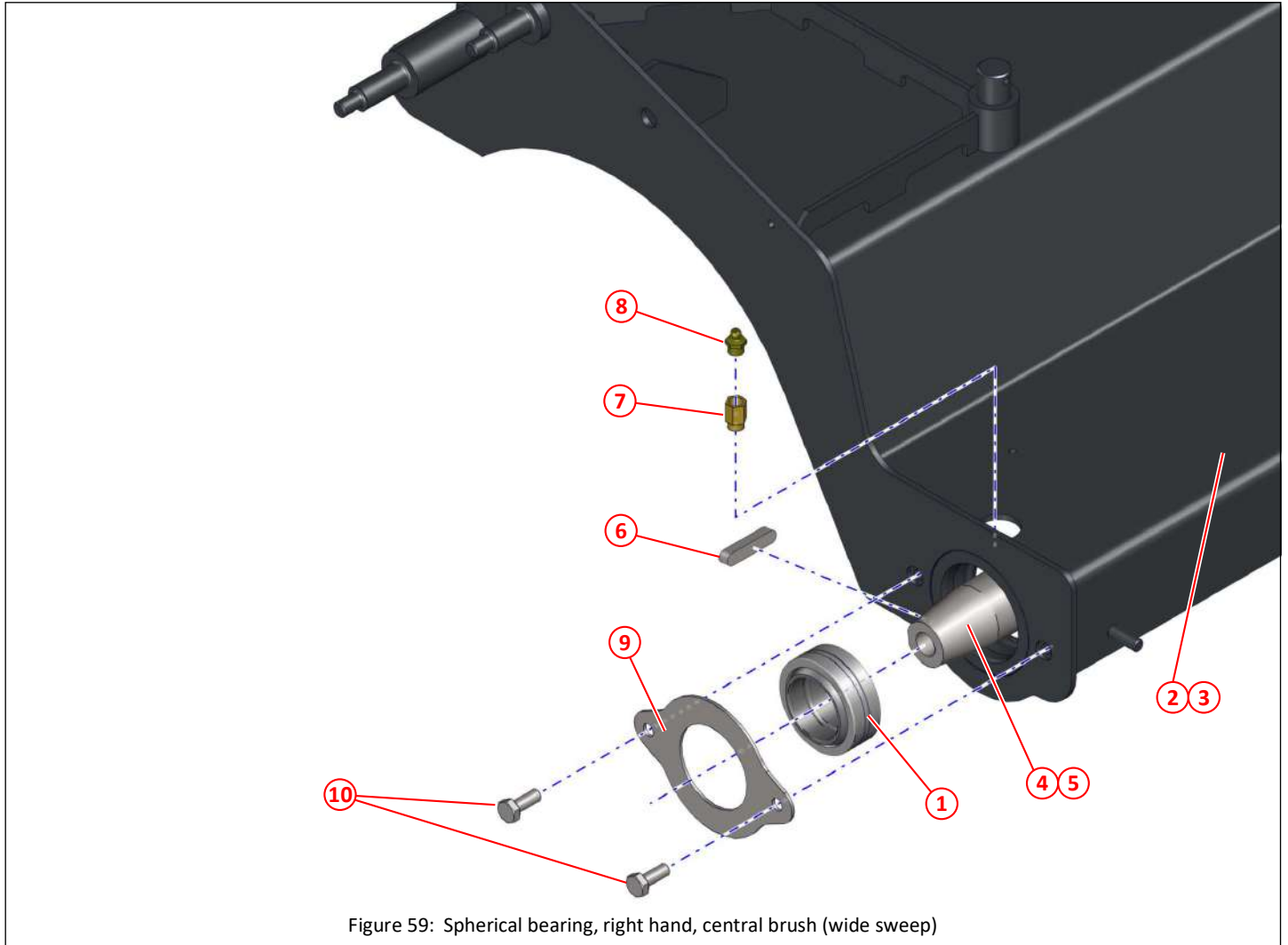


Figure 58: Brush bearing support mounting, right hand, central brush (wide sweep)

Item	Part No	Qty	Description	
①	024224	1	Brush bearing support assembly, central brush (wide sweep)	83
②	023078	1	Motor plate right hand	
③	011069	2	Bolt M12 x 40	
④	011077	2	Nyloc nut M12	
⑤	013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends	
⑥	013439	1	Washer, $\phi 50 \times \phi 16.5 \times 5$	
⑦	011142	1	Spring washer M61	
⑧	011141	1	Bolt M16 x 35	
⑨	036216	1	Cover, central brush (wide sweep)	
⑩	037173	1	Cover, central brush (wide sweep), extended +200mm	

Spherical bearing, right hand, central brush (wide sweep)



Item	Part No	Qty	Description	
①	036789	1	Spherical bearing, central brush (wide sweep)	
②	036216	1	Cover, central brush (wide sweep)	
③	037173	1	Cover, central brush (wide sweep), extended +200mm	
④	023080	1	Shaft, taper, central brush (wide sweep)	
⑤	025632	1	Shaft, taper, central brush (wide sweep), extended +200mm	
⑥	013292	1	Key - Parallel, rectangular, 8 x 7 x 40, round ends	
⑦	040301	1	Grease nipple extension $\frac{1}{8}$ " BSP	
⑧	010903	1	Grease nipple $\frac{1}{8}$ " BSP, straight	
⑨	037172	1	Retainer plate, spherical bearing, central brush (wide sweep)	
⑩	011010	2	Set screw HT M8 x 20	

Brush bearing support assembly, central brush (wide sweep)

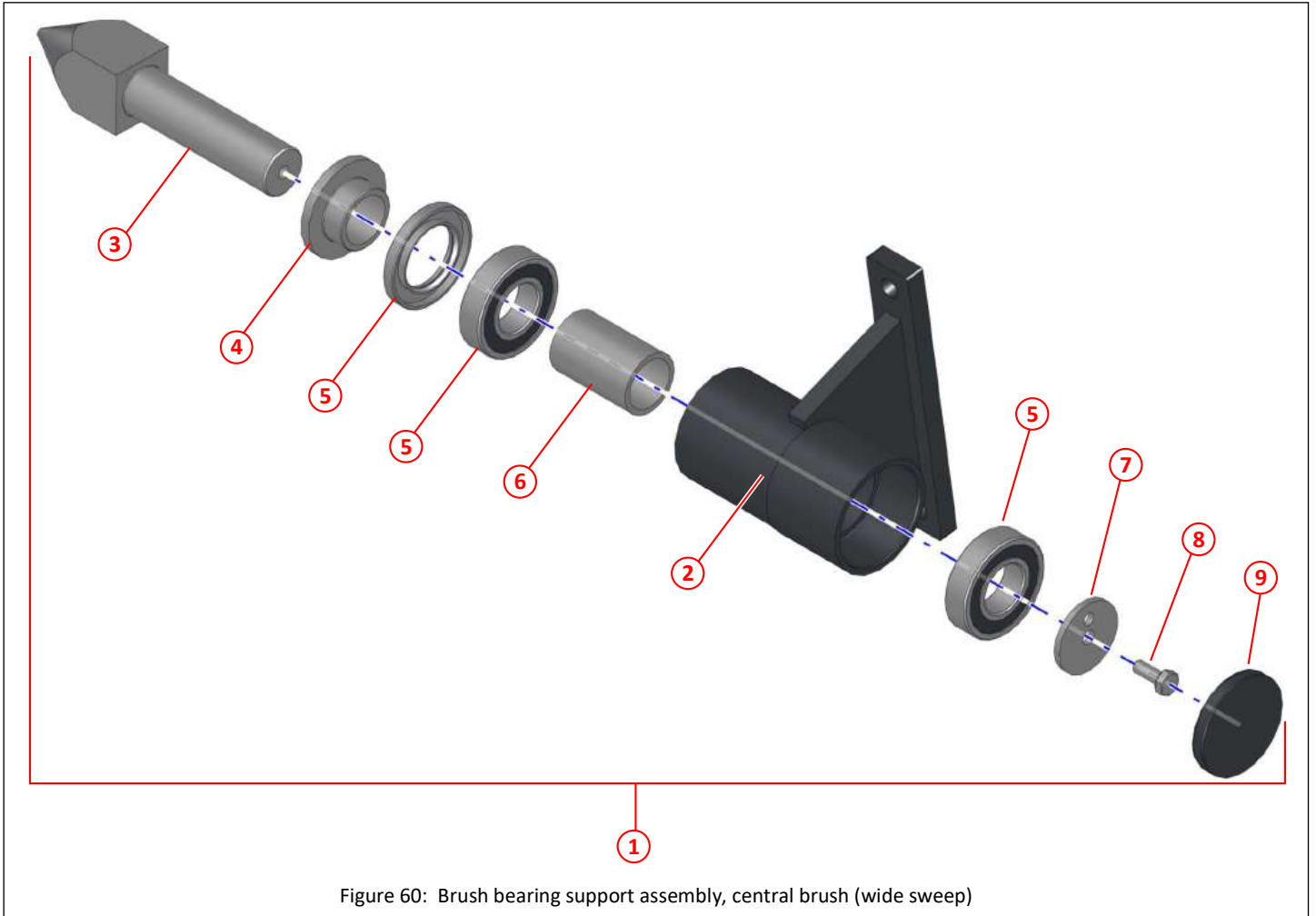


Figure 60: Brush bearing support assembly, central brush (wide sweep)

Item	Part No	Qty	Description
①	024224	1	Bearing assembly, central brush (wide sweep)
②	024219	1	Bearing housing, central brush (wide sweep)
③	024223	1	Shaft, bearing, central brush (wide sweep)
④	024221	1	Spacer $\varnothing 60 \times \varnothing 30 \times 20$
⑤	010578	2	Bearing, ball, 6206 2Z
⑥	024531	1	Spacer $\varnothing 38 \times \varnothing 31 \times 58$
⑦	010004	1	Washer $\varnothing 45 \times \varnothing 9 \times 4$
⑧	011010	1	Setscrew M8 x 20
⑨	024222	1	Bearing cap

Brush assembly, central brush (wide sweep)

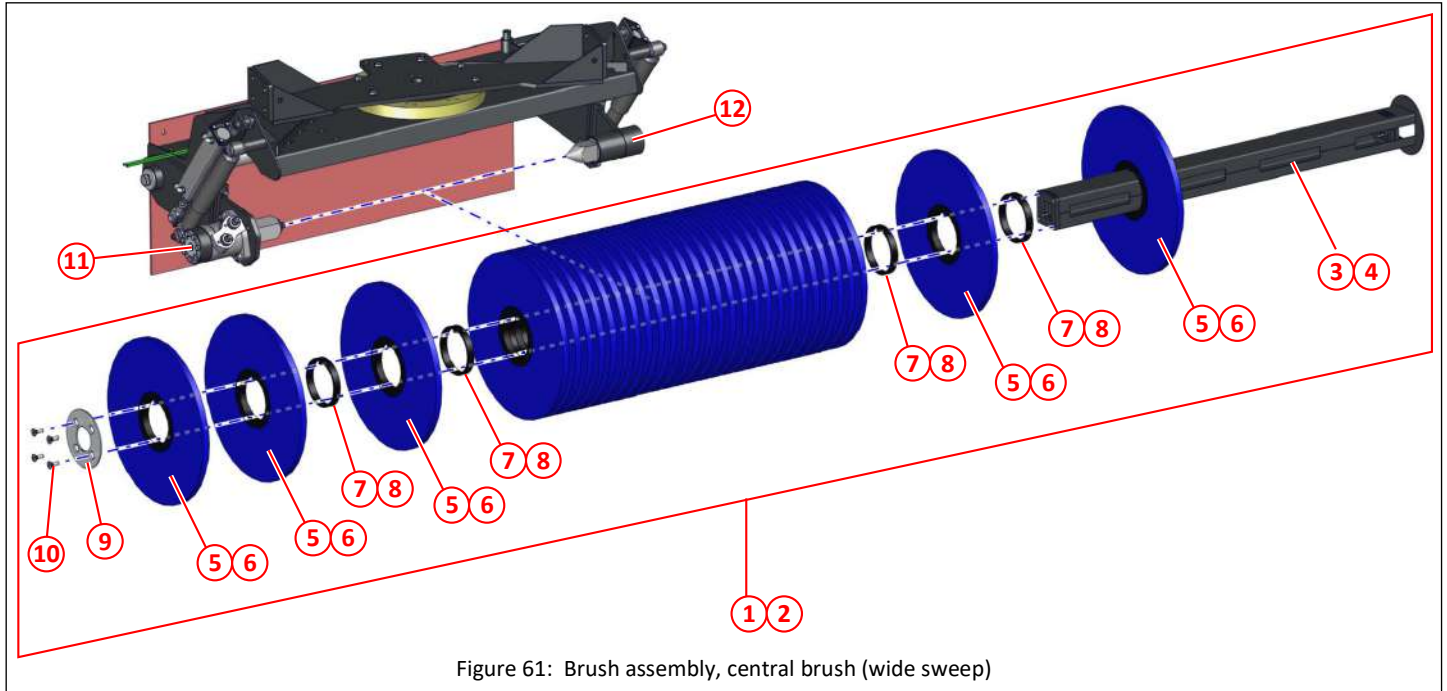
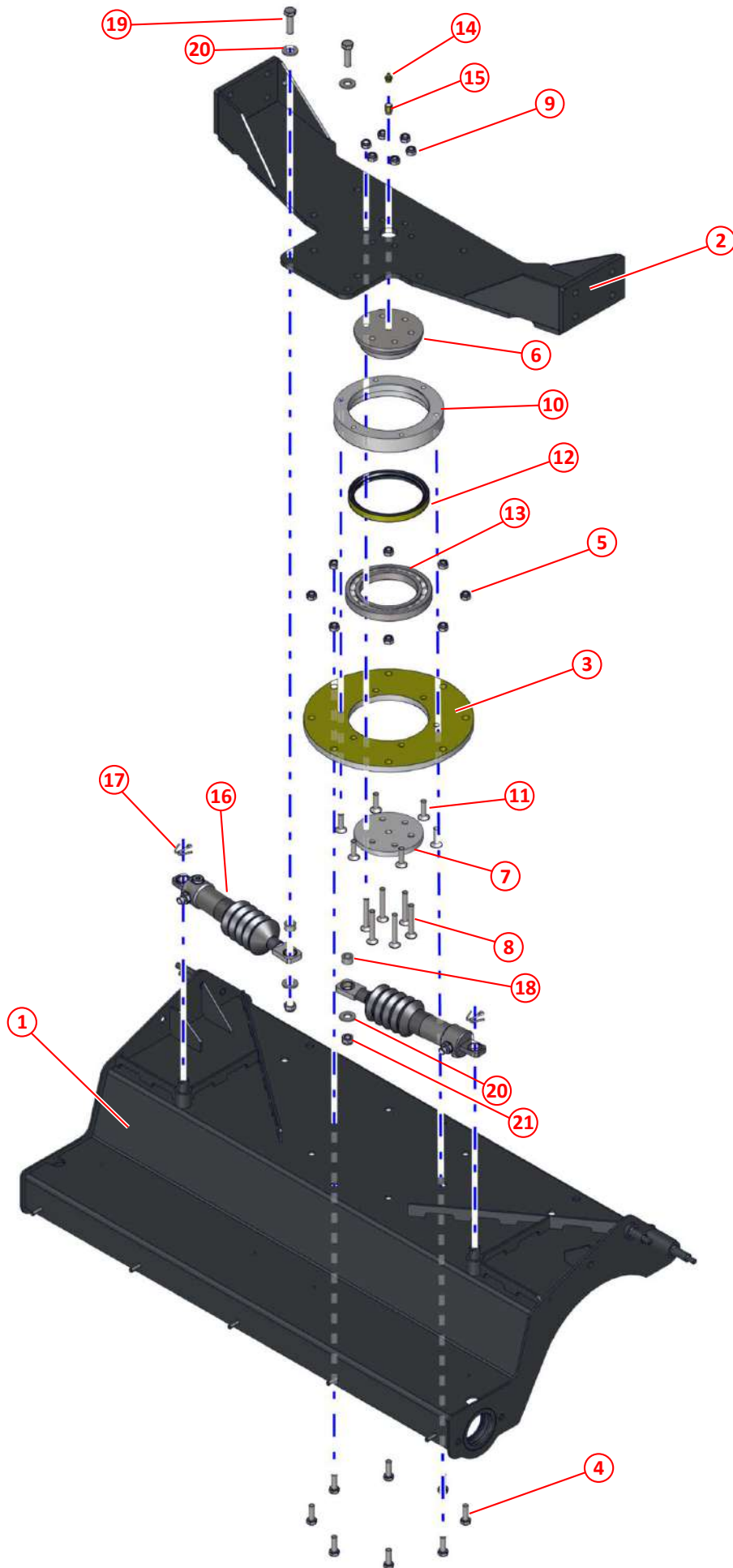


Figure 61: Brush assembly, central brush (wide sweep)

Item	Part No	Qty	Description	
①	037588	1	Brush assembly, central brush (wide sweep)	
②	025662	1	Brush assembly, central brush (wide sweep), extended +200mm	
③	013646	1	Brush core	
④	025642	1	Brush core, extended +200mm	
⑤	023474	31	Brush fill \varnothing 400 poly	
⑥	023474	37	Brush fill \varnothing 400 poly, for extended +200mm	
⑦	023472	29	Brush spacer	
⑧	023472	35	Brush spacer, for extended +200mm	
⑨	013649	1	End plate, brush core	
⑩	011417	4	Socket cap screw, chamfered, $\frac{3}{8}$ " UNC X 1"	
⑪	010566	1	Motor 3596 (OMP 100)	76
⑫	024224	1	Bearing assembly, central brush (wide sweep)	83

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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Wide Sweep Slewing Arrangement			
1	036216	1	Cover, central brush (wide sweep)
1	037173	1	Cover, central brush (wide sweep), extended +200mm
2	024155	1	Support, wide sweep
3	024154	1	Clamp ring
4	011032	8	Set screw, M10 x 30mm
5	011075	8	Nut, M10, Nyloc
6	024150	1	Spigot
7	024151	1	Plate, clamp
8	000178	6	Screw, socket countersunk, M10 x 65mm
9	011075	8	Nut, M10, Nyloc
10	024152	1	Housing, bearing
11	000167	6	Screw, socket countersunk, M10 x 40mm
12	024148	1	Oil seal
13	024149	1	Bearing
14	010903	1	Grease nipple, $\frac{1}{8}$ " BSP
15	040301	1	Grease nipple extension, $\frac{1}{8}$ " BSP
16	024539	2	Ram, hydraulic Page 274
17	011122	2	Pin, split, cotter, $\frac{3}{16}$ " x $1\frac{1}{2}$ "
18	011724	2	Spacer, 20mm OD x 12.5mm ID x 11mm
19	011069	2	Set screw, M12 x 40mm
20	011096	4	Washer, M12
21	011077	2	Nut, M12, Nyloc



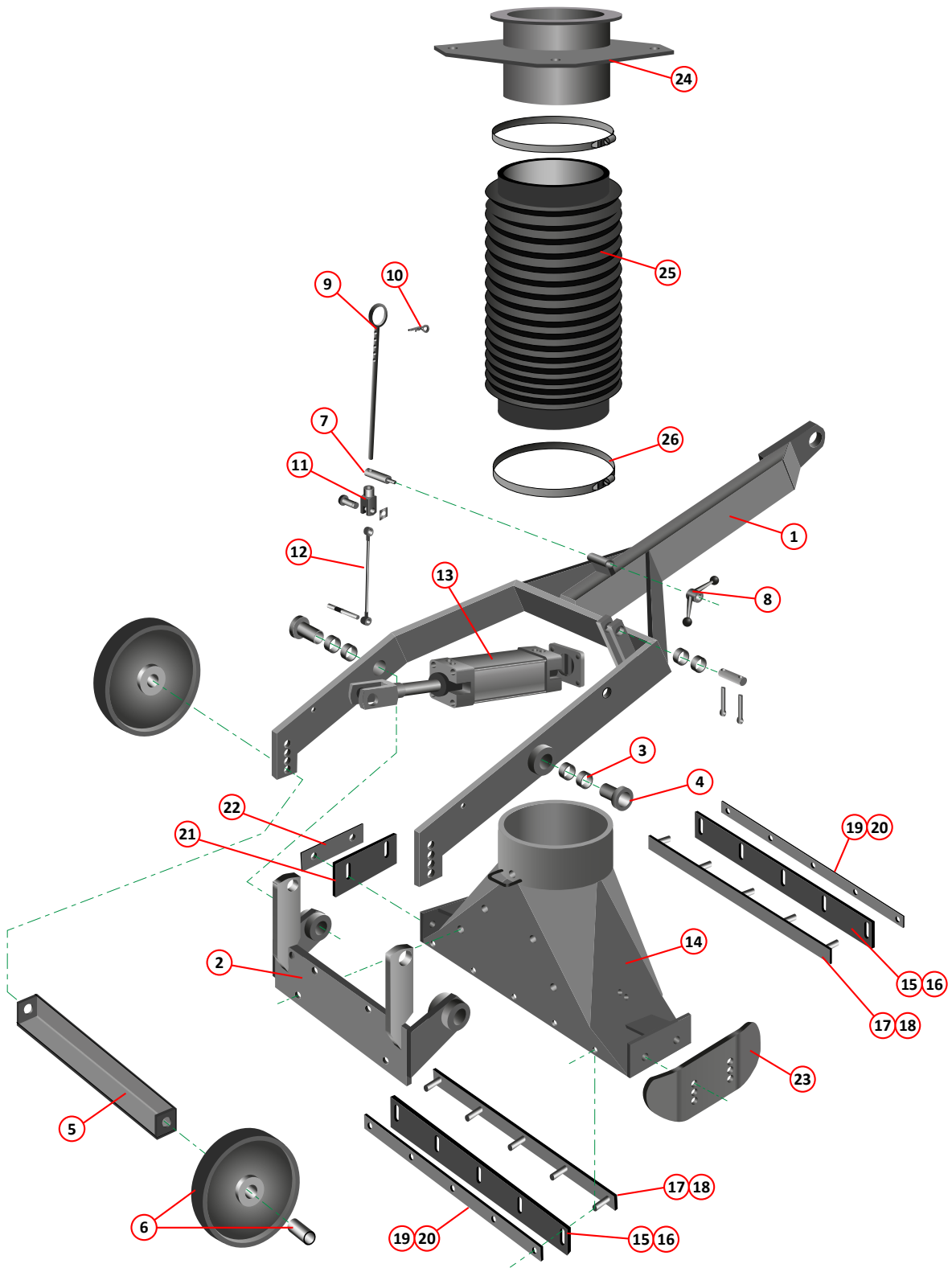
Wide Sweep Slewing Arrangement

Sweeping and Suction

Item	Part Number	Quantity	Description
Tilting Suction Nozzle Assembly - Pneumatic Tilt			
1	023606	1	Frame, RH
NI	023605	1	Frame, LH
2	023607	1	. . Pivot (pneumatic tilt only)
	000351	2	. . . Bolt, M14 x 70mm
	011127	2	. . . Nut, M14, Nyloc
3	024682	8	. . Bush, hardened
4	021416	2	. . Sleeve
5	031833	1	. Axle
6	031831	2	. . Wheel, ø250mm, complete with spacer
	011135	4	. . . Washer, M16
	011133	2	. . . Bolt, M16 x 100mm
	011060	2	. . . Nut, M16, Nyloc
7	023625	1	. Adjuster, nozzle
NI	000182	1	. . Special lock nut (adjuster nozzle)
8	024051	1	. . Turn wheel, nozzle adjust
9	023610	1	. . Rod, nozzle adjust
10	021944	1	. . Double wound grip, R clip ø3mm wire
11	020291	1	. . . Clevis, M10 x 1.25
12	025681	1	. . . Leash assembly, nozzle adjust
	039766	1	. . . . Stud, leash cable
	011074	1	. . . . Nut, M10
13	032119	1	. Cylinder, pneumatic, nozzle tilt, assembly Page 302
14	023604 *	1	. Nozzle (Merlin/Magnum/XP)
NI	027136 *	1	. Nozzle, left hand, (Magnum Plus)
NI	027137 *	1	. Nozzle, right hand, (Magnum Plus)
	011031	4	. . Set screw, M10 x 25mm
	011075	4	. . Nut, M10, Nyloc
15	013023	2	. . Flap, nozzle (Merlin/Magnum/XP)
16	027146	2	. . Flap, nozzle (Magnum Plus)
17	013362	2	. . . Retainer, bolt, flap (Merlin/Magnum/XP)
18	027210	2	. . . Retainer, bolt, front/rear flap (Magnum Plus)
19	013025	1	. . . Clamp strip, flap (Merlin/Magnum/XP)
20	027147	1	. . . Clamp strip, flap (Magnum Plus)
	011073	10	. . . . Nut, M8, Nyloc
21	013283	1	. . Flap, nozzle, side
22	013024	1	. . . Clamp, retaining, side flap
	011012	2	. . . . Set screw, M8 x 30mm
	011073	2	. . . . Nut, M8, Nyloc
	011010	5	. . . . Set screw, M8 x 20mm (front flap plate)
23	013277	1	. . Skid plate, nozzle
	011021	2	. . . Screw, socket cap head, M8 x 25mm
	011073	2	. . . Nut, M8, Nyloc
24		1	Suction spigot Page 96
25	013028	1	. Suction hose Page 96
26	012933	2	. . Clamp, worm drive, 235-267mm

Notes:-

* These items can also be supplied with a PU coating. Please contact the Scarab Parts Department.



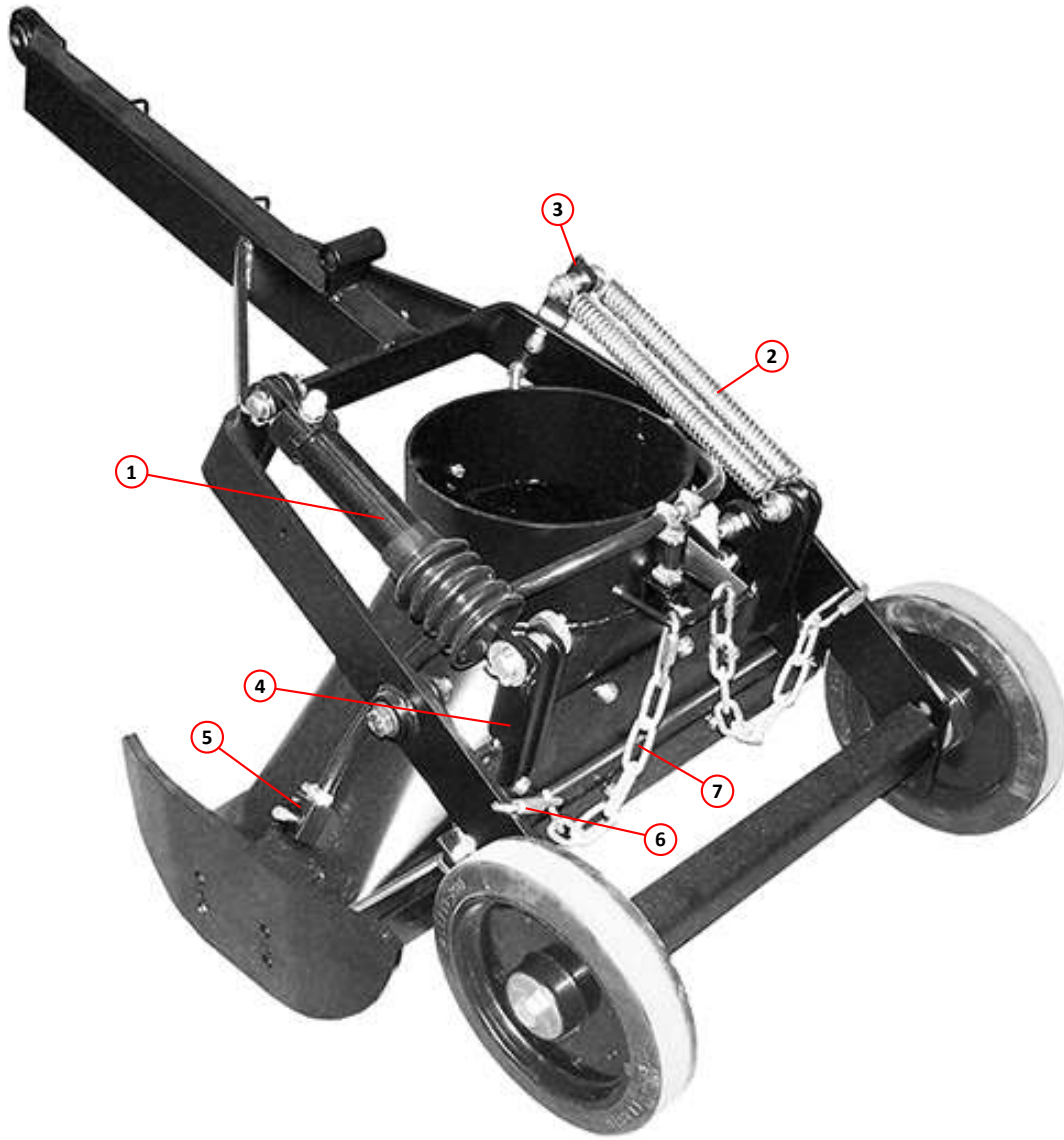
i Frame tow-point ball ends are welded to the frame but can be procured as replacements if required. Please contact the Scarab Parts Department for details.
Right hand shown, left hand similar.

Tilting Suction Nozzle Assembly - Pneumatic Tilt

Item	Part Number	Quantity	Description
Tilting Suction Nozzle Assembly - Hydraulic Variable Tilt *			
1	024539 †	1	Ram, hydraulic, variable tilt (option) Page 274
2	010017 †	2	. Spring, variable tilt (option)
	011724	2	. . Spacer, ø20OD x ø12.5ID x 11mm
	013363	1	. . Spacer, ø20OD x ø10.5ID x 30mm
	011036	2	. . . Bolt, M10 x 60mm
	011074	4	. . . Washer, M10
	011075	2	. . Nut, M10 Nyloc
3	025100†	1	. . Bracket, spring support, RH
NI	025099†	1	. . Bracket, spring support, LH
	011032	2	. . . Set screw, M10 x 30mm
	011075	2	. . . Nut, M10, Nyloc
4	020328†	1	. . Pivot (hydraulic tilt only)
5		4	. Jet, water spray Page 186
6	010606	4	. Carabiner
7	010525	AR	. . Chain, large link, welded

Notes:-

- * For all other components of this assembly please refer to Page 88.
- † When procuring replacement parts for the ram and return springs on hydraulically operated nozzle tilt setup, please contact the Scarab Parts Department.



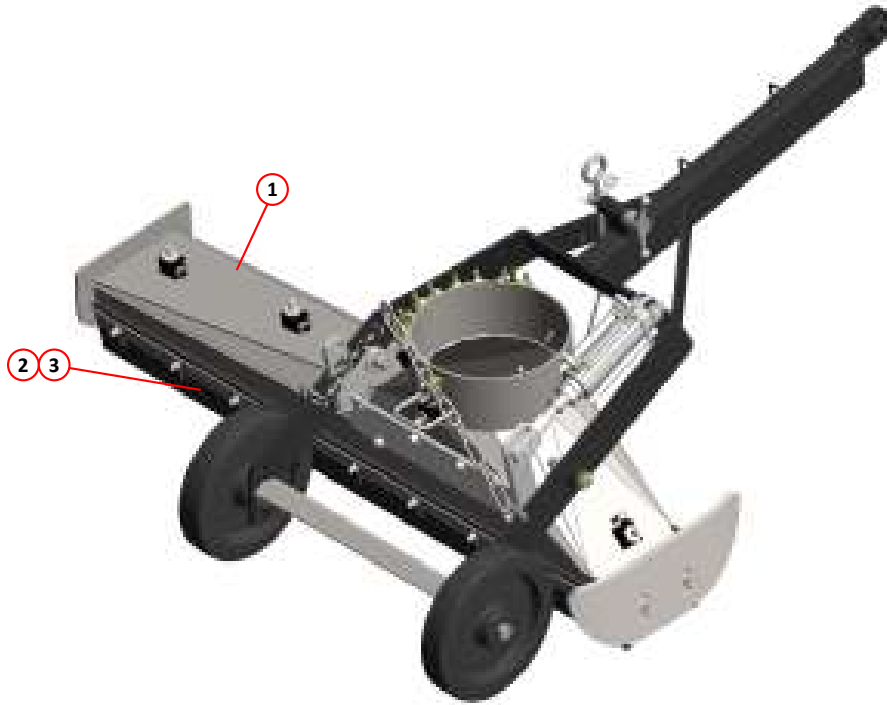
i Left hand shown, right hand similar.
For all other components of this assembly please refer to Page 88.

Tilting Suction Nozzle Assembly - Hydraulic Variable Tilt

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Full Width Suction Nozzle Assembly (Merlin) - (Option)			
1	030928 *	1	Nozzle full width, RH
NI	030929 *	1	Nozzle full width, LH
2	030940	2	. Flap, front/rear
3	030939	2	. Retainer, bolt, front/rear
3	030941	2	. Clamp, front/rear
	011073	18	. . Nut, M8, Nyloc

Notes:-

* These items can also be supplied with a PU coating. Please contact the Scarab Parts Department.



Full Width Suction Nozzle Assembly (Merlin)

Item	Part Number	Quantity	Description
Associated Sweeping Equipment			
1	023470	AR	Side brush, ø315mm, 4 stud (steel)
NI	023473	AR	Side brush, ø400mm, 3 stud (steel)
NI	020921	AR	Side brush, ø400mm, 3 stud (weed ripping)
NI	025744	AR	Side brush, ø400mm, 4 stud (poly)
2	012216	AR	. Skirt, side brush, front, 2 slot
3		1	. . Clamp, skirt, 2 hole
	011011	2	. . . Set screw, M8 x 25mm
	011092	4	. Washer, M8
	011073	2	. Nut, M8 Nyloc
4	010247	AR	. Skirt, side brush, front, 3 slot
5		1	. . Clamp, skirt, 3 stud
	011092	6	. . . Washer, M8
	011073	3	. . . Nut, M8, Nyloc
6	013145	AR	. . . Clamp, angle, 3 hole
7	010606	AR	. . . . Carabiner
8	037084	AR	Work light Page 318
9	047757	1	LED Work Light Page 100,318
10	022516	1	Skirt, wide sweep
11	022517	1	. Clamp, wide sweep
	011073	5	. . Nut, M8, Nyloc
12	026026	1	Skirt, wide sweep, extended
13	026025	1	. Clamp, wide sweep
	011073	5	. . Nut, M8, Nyloc
14	023168	AR	Brush element, ø300mm, wide sweep core
15	023169	AR	Brush element, ø400mm, wide sweep core
NI	023472	AR	. Spacer
NI	023471 *	1	Brush element, ø300mm
NI	023474 *	1	Brush element, ø400mm

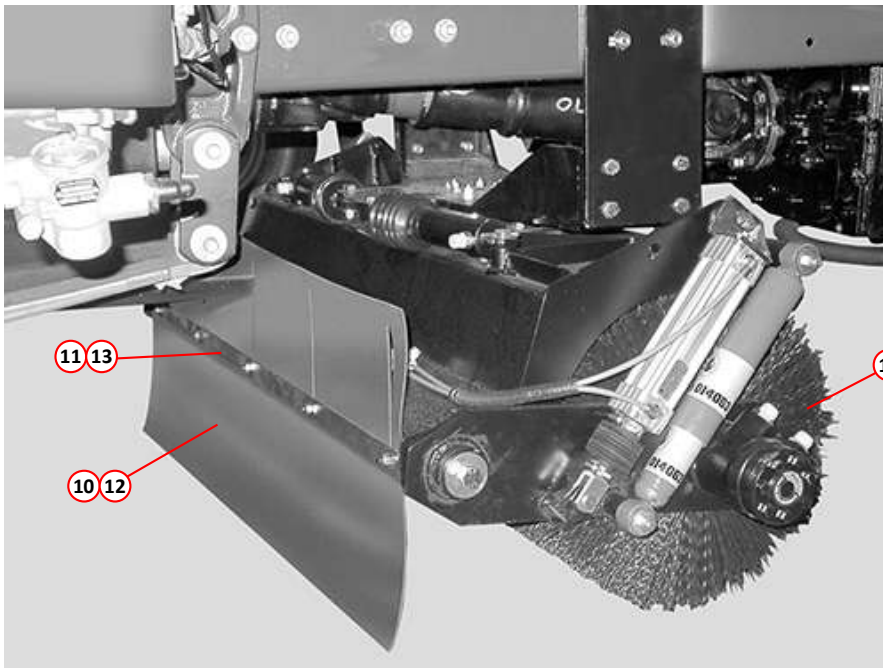
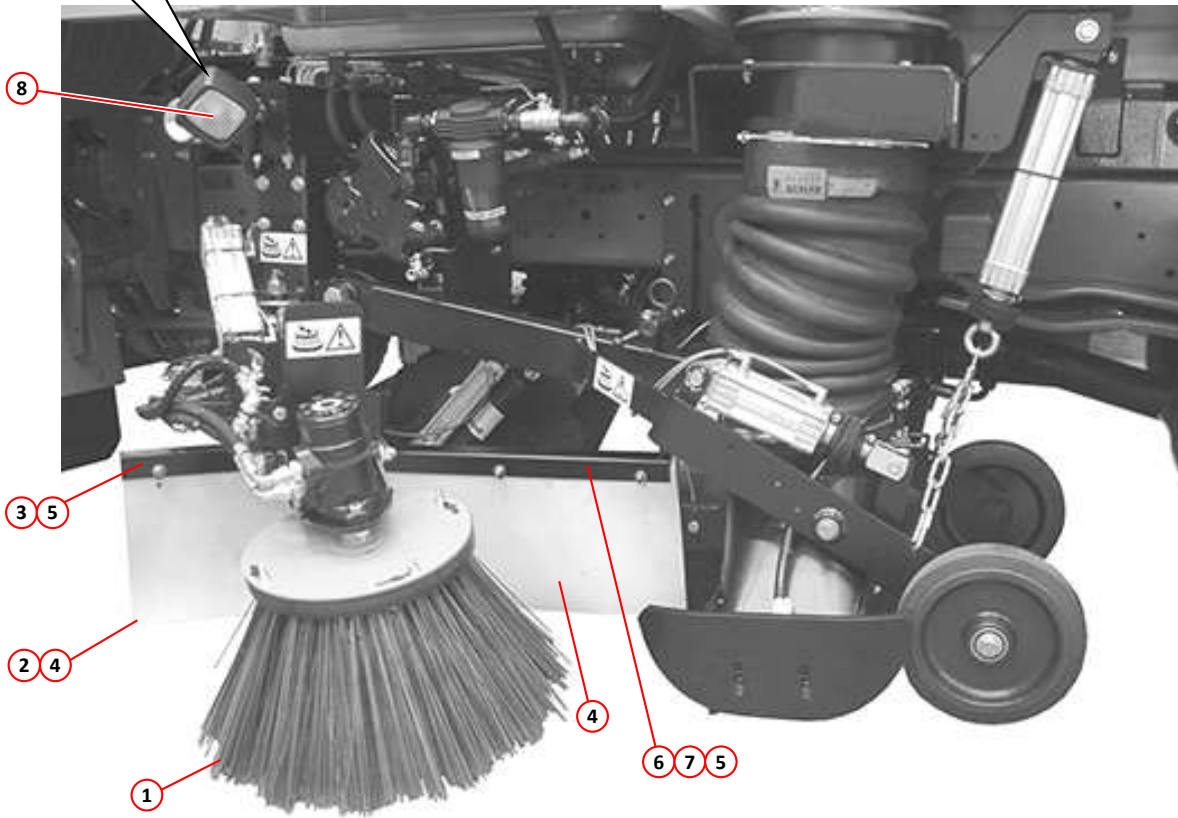
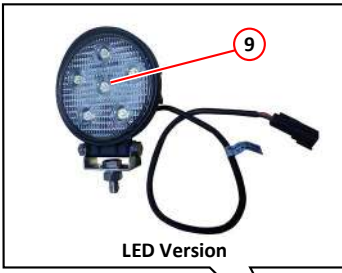
} Per Skirt

} Per Skirt

} complete refill =
33 brush elements + 32 spacers

Notes:-

* For extended wide sweep brush element refills add an extra 12 brushes + 12 spacers.



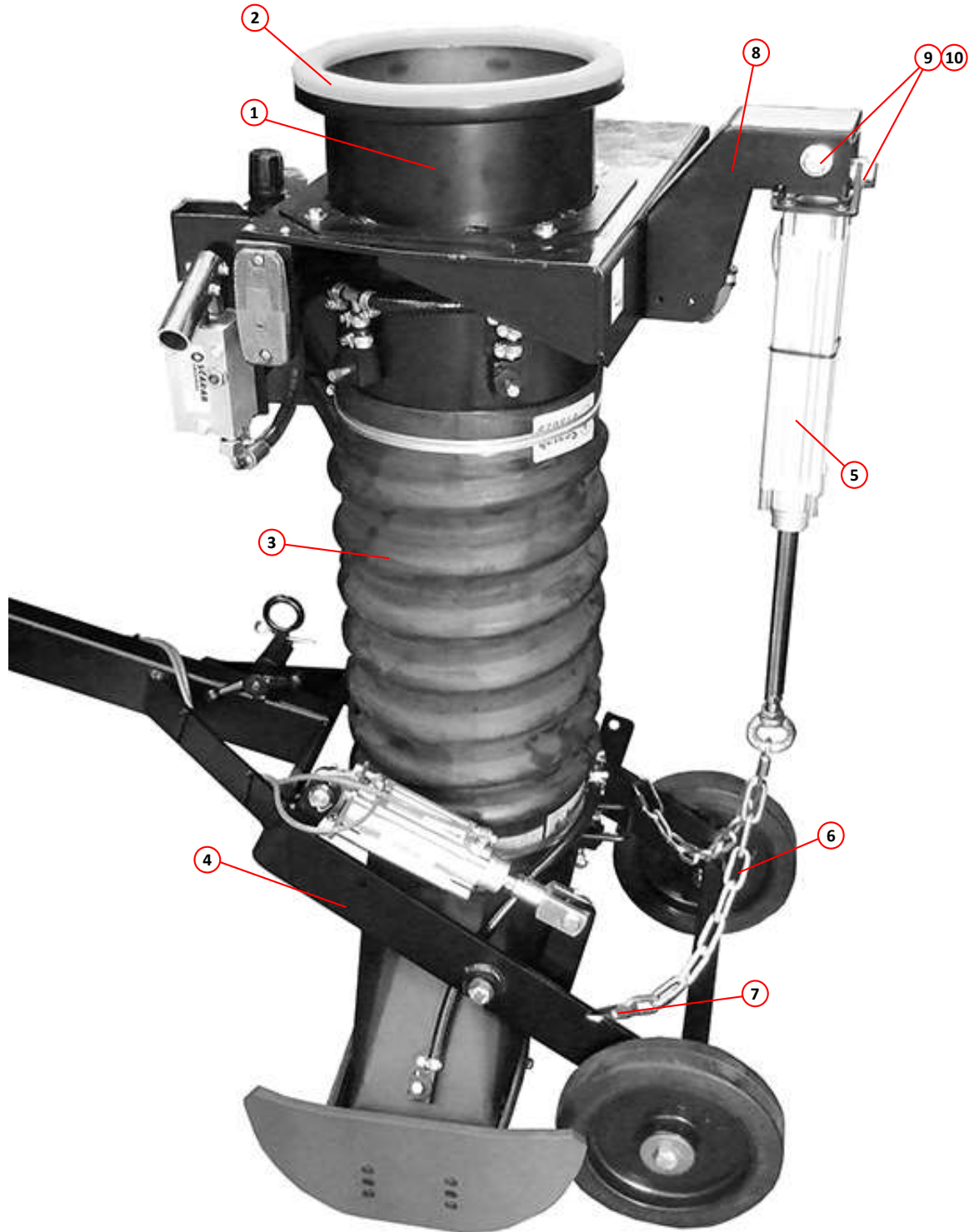
i Please note that pneumatic cylinders are no longer fitted with bellows.

Associated Sweeping Equipment

Item	Part Number	Quantity	Description
Suction Spigot And Nozzle Lifting Arrangement			
1	013111 *	1	Suction spigot, 220mm long
1	023896 *	1	Suction spigot, 300mm long
1	013976 *	1	Suction spigot, 380mm long
1	024514 *	1	Suction spigot, 400mm long
1	020801 *	1	Suction spigot, 440mm long
1	024512 *	1	Suction spigot, 500mm long
1	024735 *	1	Suction spigot, 600mm long
2	013601	1	. Seal, spigot
3	013028	1	Suction hose
	012933	2	. Clamp, worm drive, 235-267mm
4			Suction nozzle assembly Page 88
5		1	. Cylinder, pneumatic, nozzle lift, assembly Page 302
6	010525	AR	. . Chain, large link, welded
7	010606	3	. . . Carabiner
8	030775	1	. . Cylinder mounting bracket
	011033	4	. . . Set screw, M10 x 35mm
	011075	4	. . . Nut M10, Nyloc
9	030776	1	. . . Cylinder pivot block
	011057	1	. . . . . Bolt, M12 x 100mm
	011077	1	. . . . . Nut, M12, Nyloc
	011096	4	. . . . . Washer, M12
10	030777	1	. . . . Cylinder pivot
	011057	1	. . . . . Bolt, M12 x 100mm
	011077	1	. . . . . Nut, M12, Nyloc
	011096	4	. . . . . Washer, M12

Notes:-

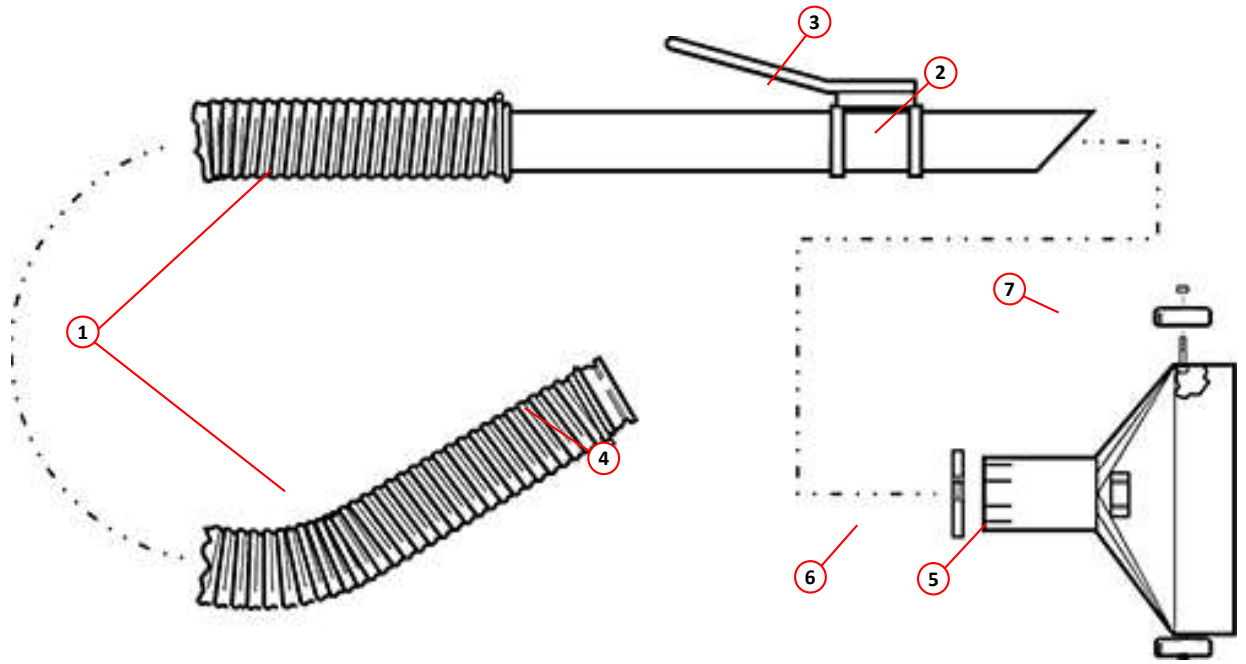
* These items can also be supplied with a PU coating. Please contact the Scarab Parts Department.
 The Scarab sweeping equipment is mounted on a wide range of chassis types. The height of the chassis determines which type of suction spigot is fitted. It may be advisable to obtain either the length of spigot and/or the machine serial number and contact the Scarab Parts Department.



i Left hand with pneumatic lift version shown, right hand similar.

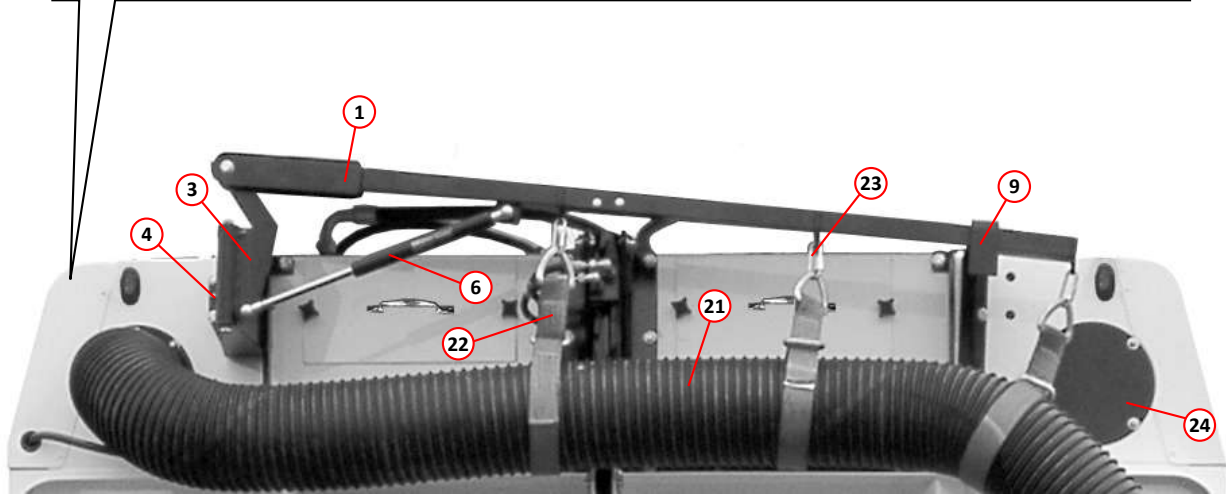
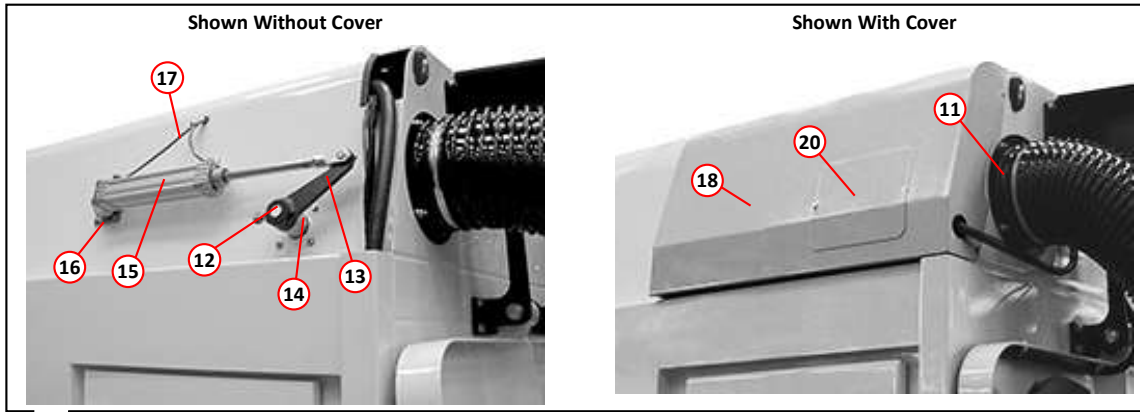
Suction Spigot and Nozzle Lifting Arrangement

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Wander Hose Arrangement			
1	010119	1	Hose/trunking, flexible, \varnothing 160mm x 3m
2	010587	1	. Pipe, nozzle
	010519	2	. . Clamp, worm drive, 135-165mm
3	040670	1	. . Handle
4	012488	1	. . Spigot
NI	013537	1	. . . Gasket
5	012873	1	. . Fishtail (option)
6	011808	1	. . . Clip, over-centre fastening
7	010508	2	. . . Wheel
	011035	1	. . . .Set screw, M10 x 50mm (axle)
	011075	1	. . . . Nut, M10, Nyloc



Wander Hose Arrangement
Showing Fishtail Option

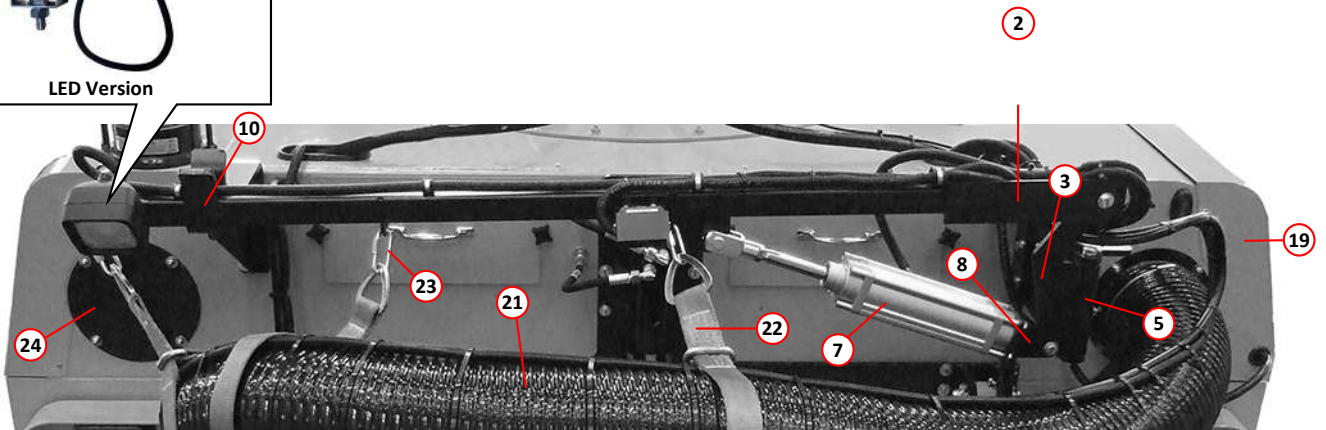
Item	Part Number	Quantity	Description
Wander Boom - Rear Mounted - With Remote Control			
1	025218	1	Support boom arm, wander hose (gas strut)
2	027926	1	Support boom arm, wander hose (pneumatic)
NI	014399	1	. Spacer 20 x 10.5 x 41mm
		1	. . Bolt, M10 x 55mm, stainless steel
		2	. . Washer, M10, stainless steel
		1	. . Nut, M10, Nyloc
3	025219	1	. Hinge, support, boom, wander hose
NI	013662	2	. . Bush
NI	023490	1	. . Hinge shaft
		2	. . Bolt, M12 x 40mm, stainless steel
4	025220	1	. Support, wander hose, LH
5	025574	1	. Support, wander hose, RH
6	021993	1	. Gas strut, boom support arm (gas strut)
7	028306	1	. Cylinder, pneumatic, wander boom raise lower (pneumatic) Page 308
NI	021158	2	. . Restrictor
	011034	1	. . Set screw, M10 x 40mm
	011075	1	. . Nut, M10, Nyloc
8	028305	1	. . Pivot, cylinder
	011010	4	. . . Set screw, M8 x 20mm
	011093	4	. . . Washer, spring, M8
9	034313	1	. Bracket, stowage hook (gas strut)
10	027929	1	. Bracket, stowage (pneumatic)
11	025225	1	. Wander hose sleeve
12	025476	1	. . Flap arm, wander hose
NI	025487	1	. . . Blanking flap, wander hose
13	025254	1	. . . Flap lever
14	025471	1	. . . . Pivot tube - wander hose flap (bolt on)
NI	013488	2	. . . . . Bush
NI	010903	1	. . . . . Grease point, straight $\frac{1}{8}$ " BSP
15	021467	1	. . Cylinder, pneumatic, wander hose blanking Page 308
16	025524	1	. . . Pivot plate, cylinder
17	024650	1	. . . Air pipe, nylon, 6mm
NI	012316	1	. . Spray jet
NI	010915	1	. . . Elbow, galvanised, $\frac{3}{8}$ " BSP
NI	010922	2	. . . Hose tail, $\frac{1}{4}$ " BSP x $\frac{3}{8}$ " hose
NI	010950	AR	. . . Hose, plastic reinforced, $\frac{3}{8}$ " bore
NI	010516	2	. . . . Clamp, worm drive, 11-16mm
18	025980	1	. . Cover, LH, (Merlin)
NI	025979	1	. . Cover, RH, (Merlin)
NI	026104	1	. . Cover, LH, (Magnum)
19	026105	1	. . Cover, RH, (Magnum)
20	030674	1	. . . Cover, inspection, (Merlin)
NI	030675	1	. . . Cover, inspection, (Magnum)
21	025214	1	Wander hose
NI	012933	2	. Clamp, worm drive, 235-267mm
22	025235	3	. Strap, wander hose
23	010606	1	. . Carabiner
24	025486	1	. Cover plate
25	047757	1	LED work light Page 94,318
26	028270	1	. Remote control unit, rear boom (pneumatic)
27	028355	1	. . Holster, for remote control



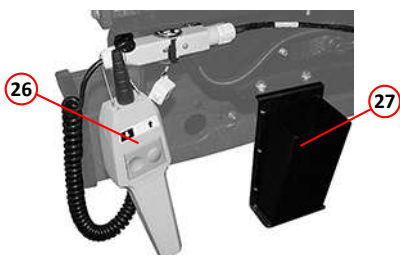
Gas Strut Rear Mounted Wander Boom



LED Version

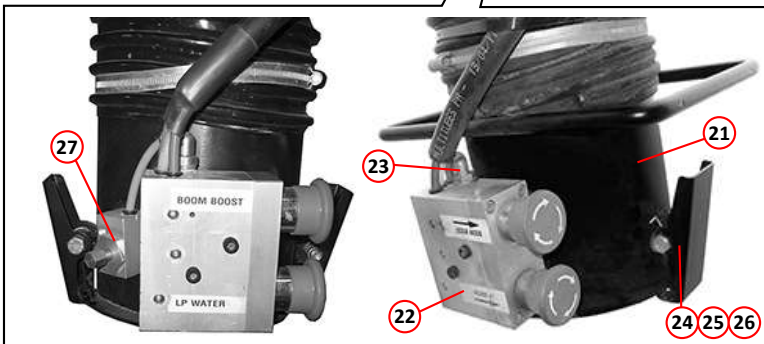
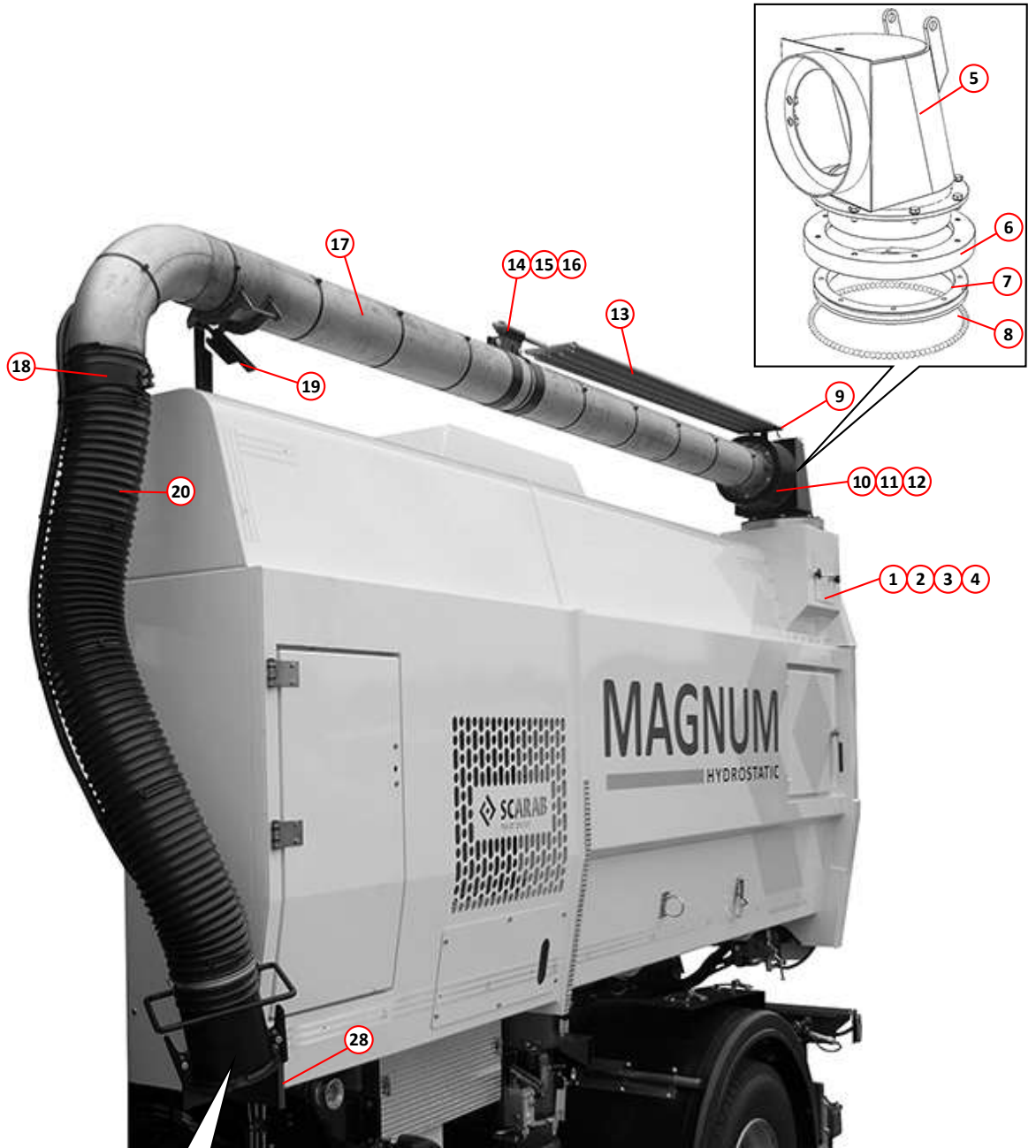


**Pneumatic Rear Mounted Wander Boom
Shown With Rear View Camera and Optional Work Light**



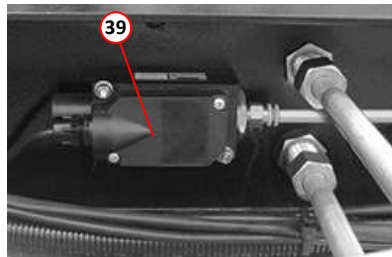
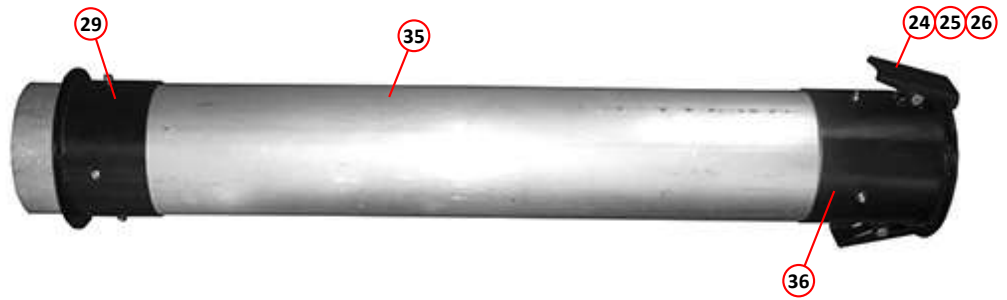
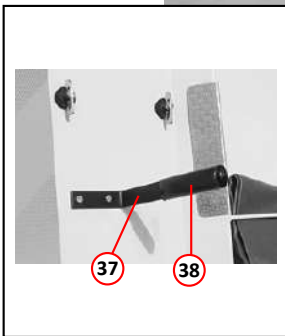
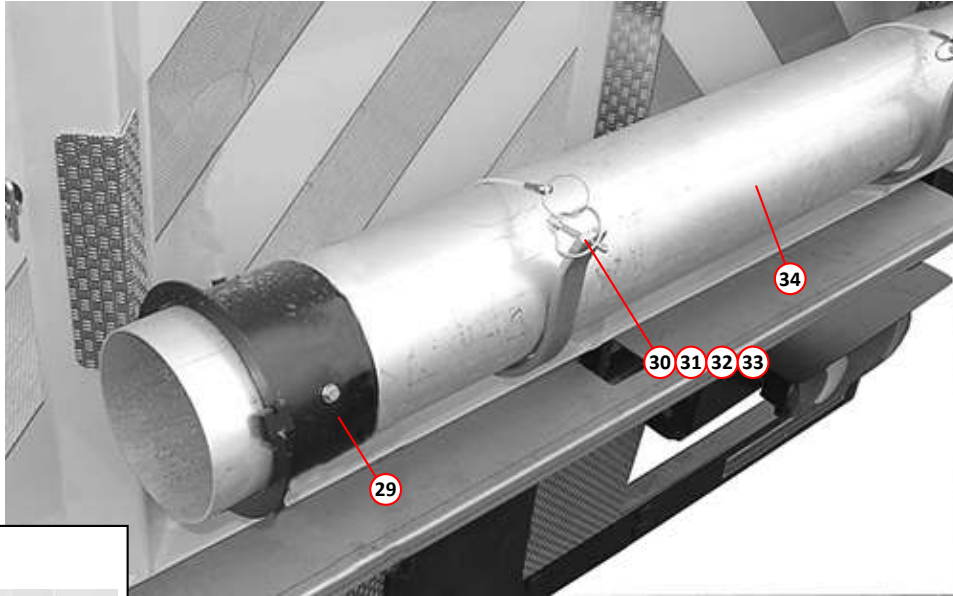
**Wander Boom - Rear Mounted
With Remote Control**

Item	Part Number	Quantity	Description
Overhead Boom Assembly - (Option)			
1	032160	1	Boom carrier, LH
NI	034068	1	Boom carrier, RH
	000257	26	. Set screw, M8 x 25mm, stainless steel
	000264	31	. Washer M8, stainless steel
	000263	31	. Nut, M8, Nyloc, stainless steel
2	032351	1	. Access cover
3	010502	1	. Handle
4	000248	2	. Locking handle M8
5	013793	1	. Boom elbow
6	013788	1	. . Outer slew ring
7	013789	1	. . Inner slew ring
8	013791	92	. . . Ball, ϕ 10mm
NI	013792	1	. . . Grease point, straight, $\frac{1}{4}$ " BSP
	011031	22	. . Set screw, M10 x 25mm
	011095	17	. . Washer, spring, M10
9	013801	1	. Bracket, spring anchor
	011141	2	. . Set screw, M16 x 35mm
	011060	2	. . Nut, M16, Nyloc
10	014223	1	. Suction hose
11	036174	1	. Pivot boom
12	013796	2	. Pivot block
	012933	1	. . Clamp, worm drive, 235-267mm
	011036	4	. . Bolt, M10 x 60mm
13	013805	4	. Spring, 800mm long
14	013802	1	. Bracket, tensioner anchor
15	013804	1	. Bracket, tensioner
16	036099	2	. Tensioner clamp
	011053	2	. . Set screw, M12 x 35mm
	011077	5	. . Nut, M12, Nyloc
17	036851	1	. Suction tube, Magnum
18	036100	1	. Hose, clamp ring
	000257	6	. . Set screw, M8 x 25mm, stainless steel
	011073	8	. . Nut, M8, Nyloc, stainless steel
19	036354	1	. Bracket, boom hook retaining
	000280	2	. . Set screw, M10 x 25mm, stainless steel
	000270	2	. . Washer, M10, stainless steel
	011075	2	. . Nut, M10, Nyloc, stainless steel
20	035990	AR	. Wander hose ϕ 160mm ID x 3m
	010519	2	. . Clamp, worm drive, 135-165mm
21	033402	1	. Hose coupling
22	033110	1	. Control valve
23	023203	1	. Elbow, ϕ 6mm tube $\frac{1}{4}$ " BSP
	000137	2	. . Screw, socket cap head, M5 x 50mm
24	033536	2	. Clamp handle
25	034802	4	. Spring
26	033463	2	. Spacer
	011016	2	. . Set screw, M8 x 50mm
27	034342	1	. Low pressure water nozzle
	011087	1	. . Set screw, M6 x 25mm
28	033400	1	. Bracket, hose coupling stowage (LH shown)
NI	034067	1	. Bracket, hose coupling stowage, (RH)



Overhead Boom Assembly

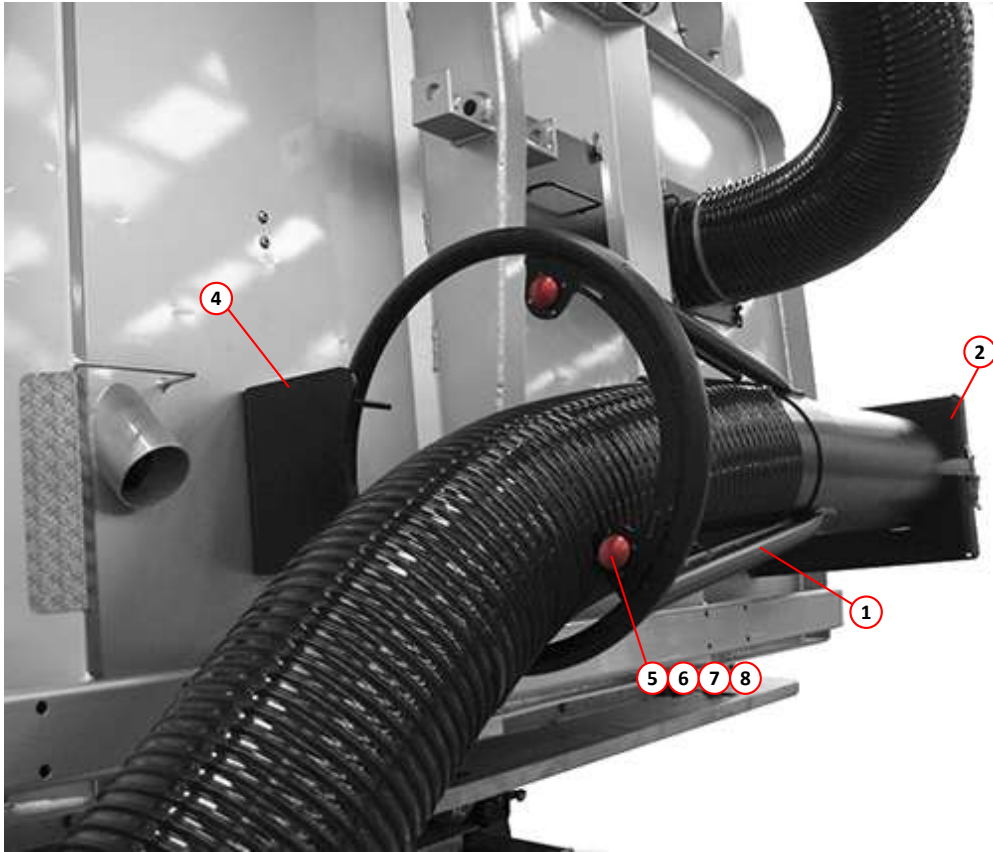
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Overhead Boom Assembly - (Option) - Continued			
29	033403	1	Boom tube coupling
	000250	4	. Set screw, M6 x 20mm, stainless steel
	000253	4	. Nut, M6, stainless steel
30	013507	2	Linch pin
31	020711	2	Leash cable
32	023599	2	Pull ring
33	022747	2	Hook
34	034551	1	Lower section tube
35	034552	1	. Extension tube
36	034065	1	. . Extension tube coupling top
	000250	4	. . Set screw, M6 x 20mm, stainless steel
	000253	4	. . . Nut, M6, Nyloc, stainless steel
37	026239	2	Bracket, lower suction tube retaining
38	014997	2	. Plastic handle grip
39	028117	1	Switch, air pressure



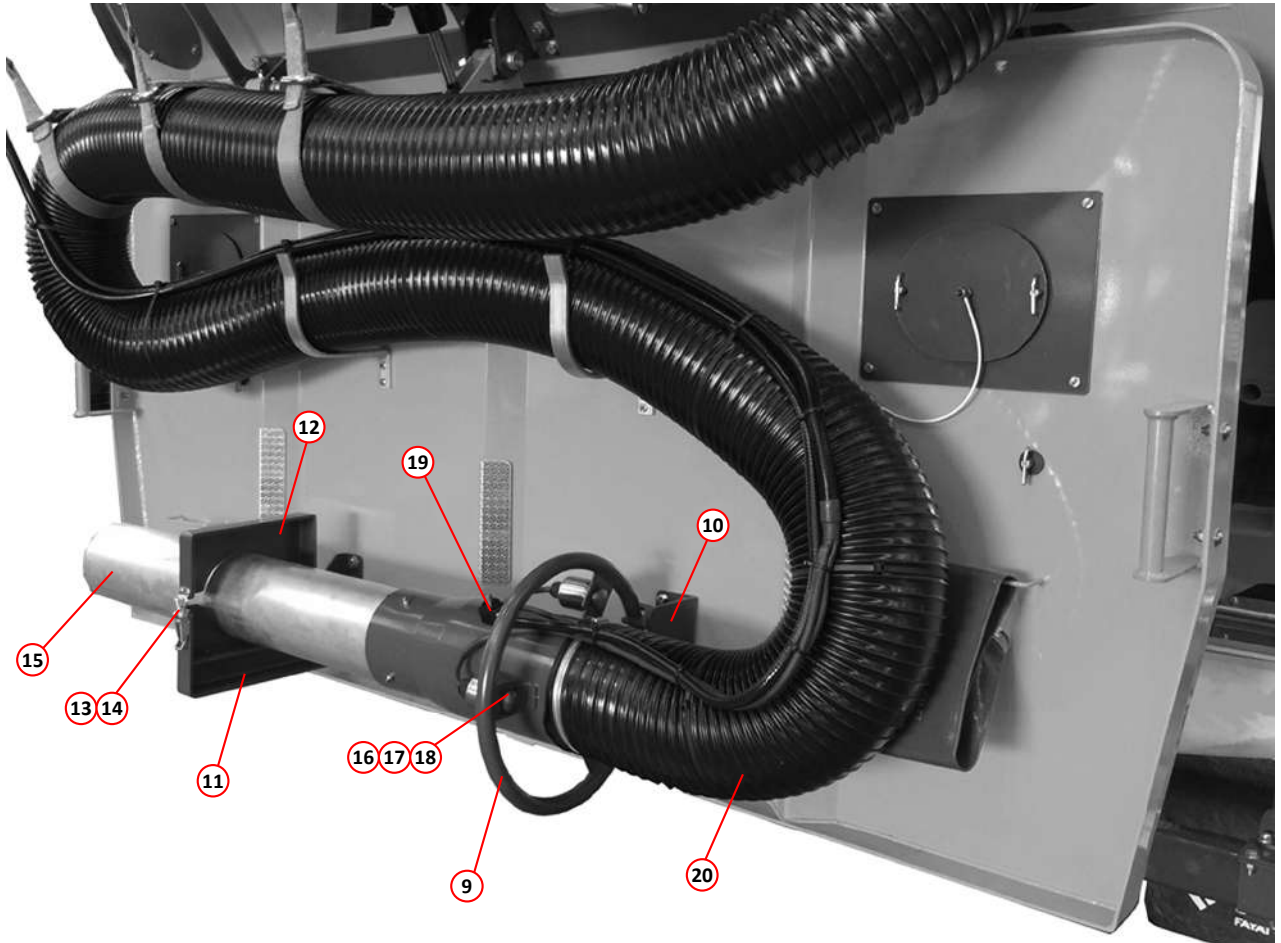
Overhead Boom Assembly

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Suction Tube Control Yoke - (Option)			
1	035293	1	Rear boom handle
2	034822	1	. Boom mounting cup
3	034823	1	. . Boom mounting lock
4	034821	1	. Boom mounting hook
5	035947	2	. Switch
6	035294	2	. . Switch plate cover
7	035474	2	. . . Cable gland
8	038898	1	. . . Wiring loom

Rear Boom Reduction Handle Suction Tube Control Yoke - (Option)			
9	039129	1	Rear boom handle with reduction tube
10	039134	1	Boom mounting hook
11	039136	1	Boom mounting cup Ø150
12	039137	1	Boom mounting lock Ø150
13	010509	1	OJOP latch
14	021841	1	Toggle latch
15	039139	1	Aluminium suction tube Ø150
16	035947	2	Switch
17	035294	2	Switch plate cover
18	035474	2	Cable gland
19	013360	1	Water jet assembly
20	036062	1	Wander hose Ø180



Suction Tube Control Yoke



Rear Boom Reduction Handle Suction Tube Control Yoke

Suction fan

<i>Assembly/Description</i>	<i>Page</i>
Suction fan - standard speed	110
Suction fan - high speed	112
Suction fan motor	114
Suction fan inlet cone and guard	115

Suction fan - standard speed

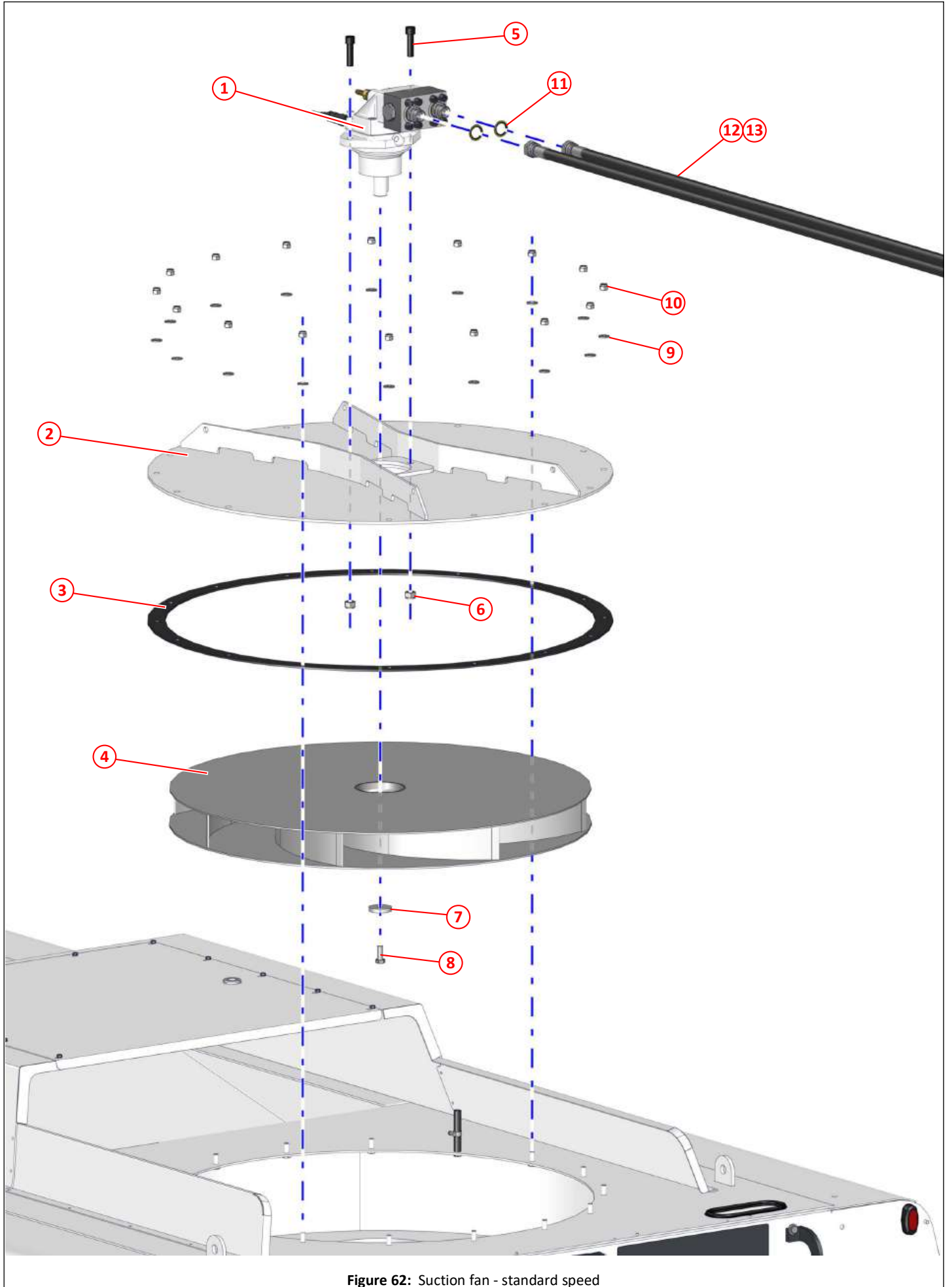



Figure 62: Suction fan - standard speed

Item	Part No	Qty	Description 
①	025564	1	Fan motor assembly
②	024679	1	Fan plate
③	010546	1	Sealing strip 3 x 38
④	030651	1	Impeller
⑤	000343	2	Socket cap head bolt M14 x 50, black
⑥	011127	2	Nyloc nut T M14
⑦	044926	1	Washer $\phi 50 \times \phi 12.5 \times 8$, stainless steel
⑧	011052	1	Setscrew M12 x 30
⑨	011094	16	Washer M10
⑩	011075	16	Nyloc nut T M10
⑪	011155	2	Dowty seal, $\frac{3}{4}$ " BSP
⑫	001150	2	Hose $\frac{5}{8}$ " x 2800 with $\frac{3}{4}$ " BSP straight ends - Merlin and Magnum
⑬	001223	2	Hose $\frac{5}{8}$ " x 2500 with $\frac{3}{4}$ " BSP straight ends - Merlin XP/55

Suction fan - high speed

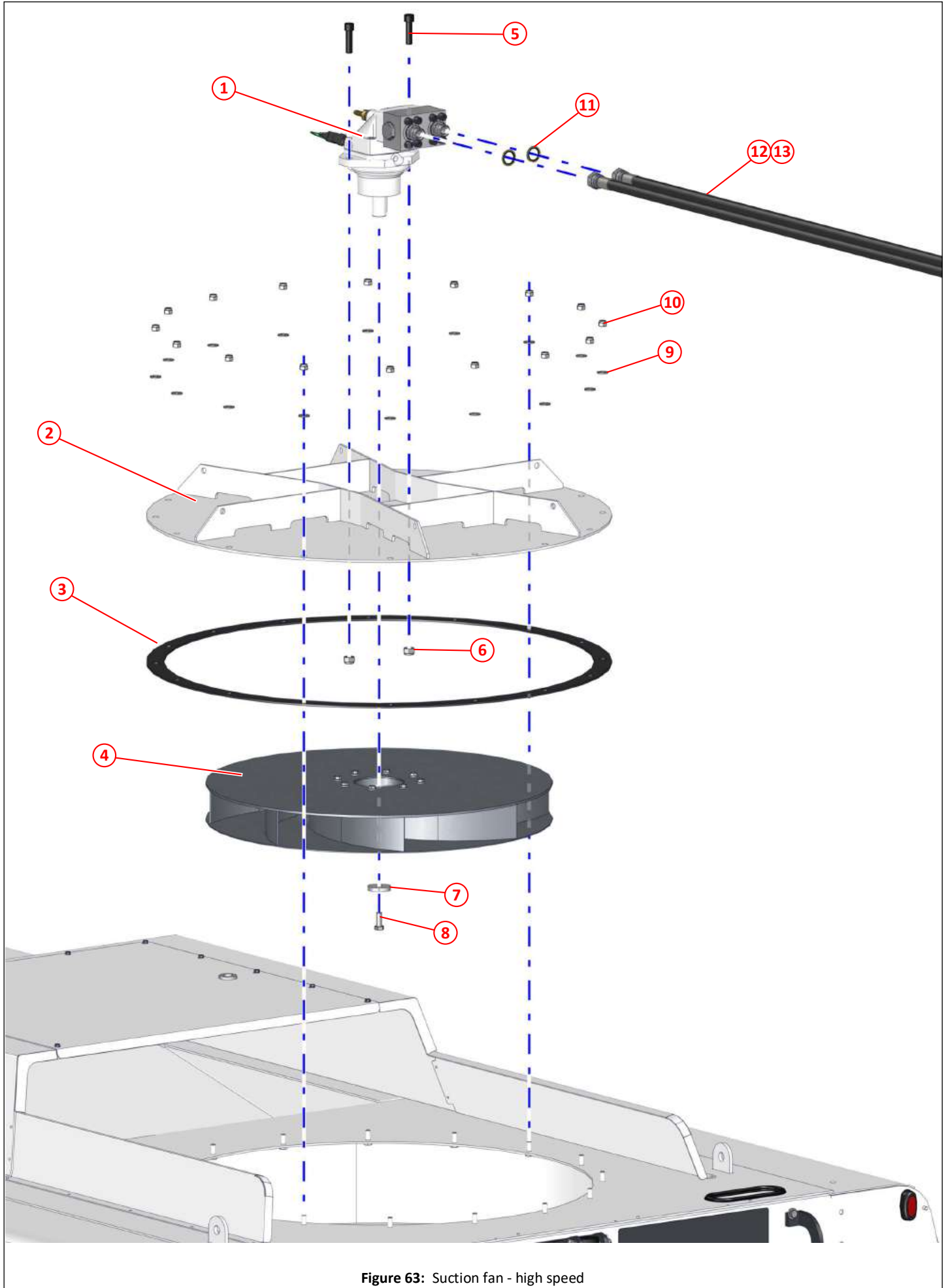


Figure 63: Suction fan - high speed

Item	Part No	Qty	Description
①	025564	1	Fan motor assembly
②	041468	1	Fan plate, heavy duty, for high speed fan
③	010546	1	Sealing strip 3 x 38
④	041456	1	Impeller, high speed
⑤	000343	2	Socket cap head bolt M14 x 50, black
⑥	011127	2	Nyloc nut T M14
⑦	044926	1	Washer $\phi 50 \times \phi 12.5 \times 8$, stainless steel
⑧	011052	1	Setscrew M12 x 30
⑨	011094	16	Washer M10
⑩	011075	16	Nyloc nut T M10
⑪	011155	2	Dowty seal, $\frac{3}{4}$ " BSP
⑫	001150	2	Hose $\frac{5}{8}$ " x 2800 with $\frac{3}{4}$ " BSP straight ends - Merlin and Magnum
⑬	001223	2	Hose $\frac{5}{8}$ " x 2500 with $\frac{3}{4}$ " BSP straight ends - Merlin XP/55

Suction fan motor

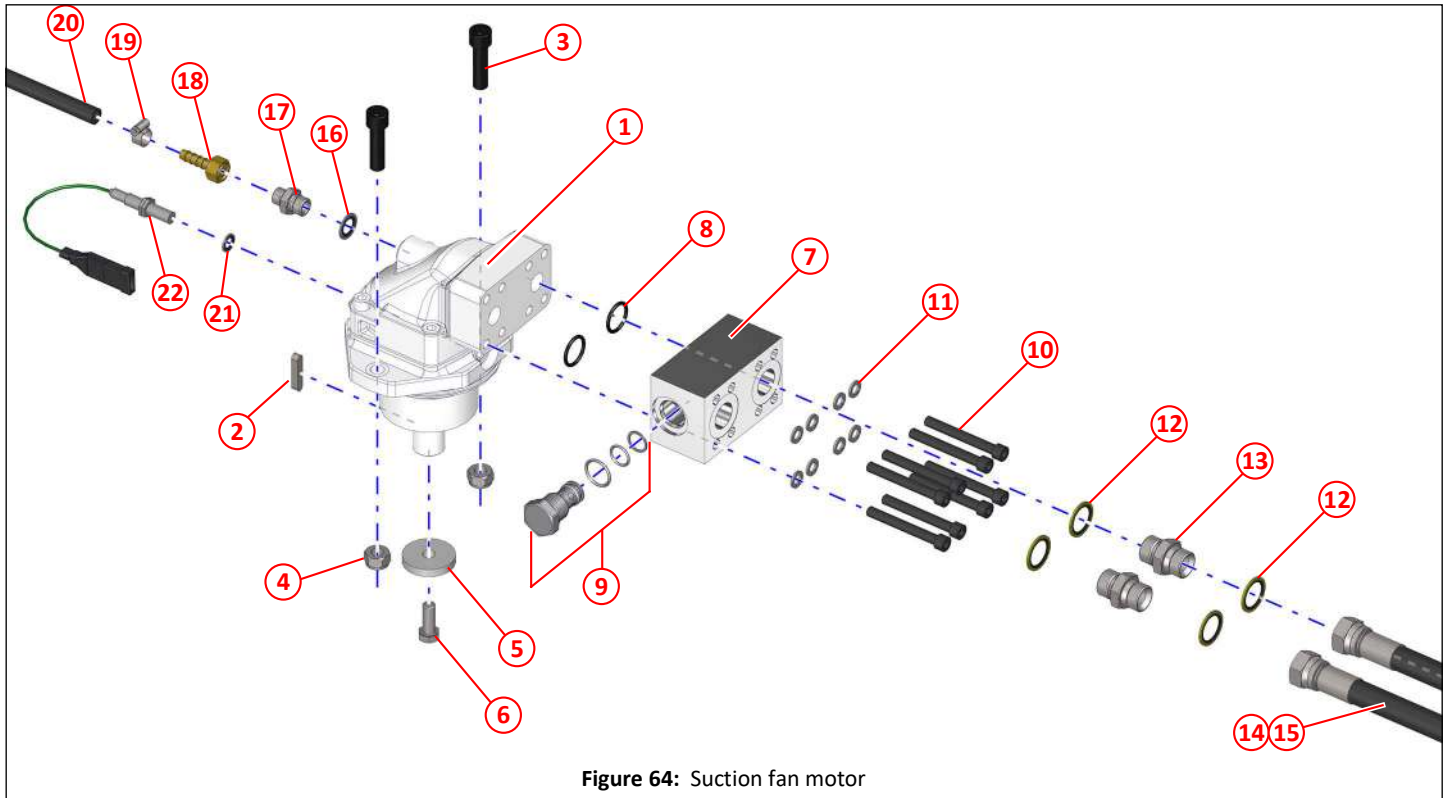
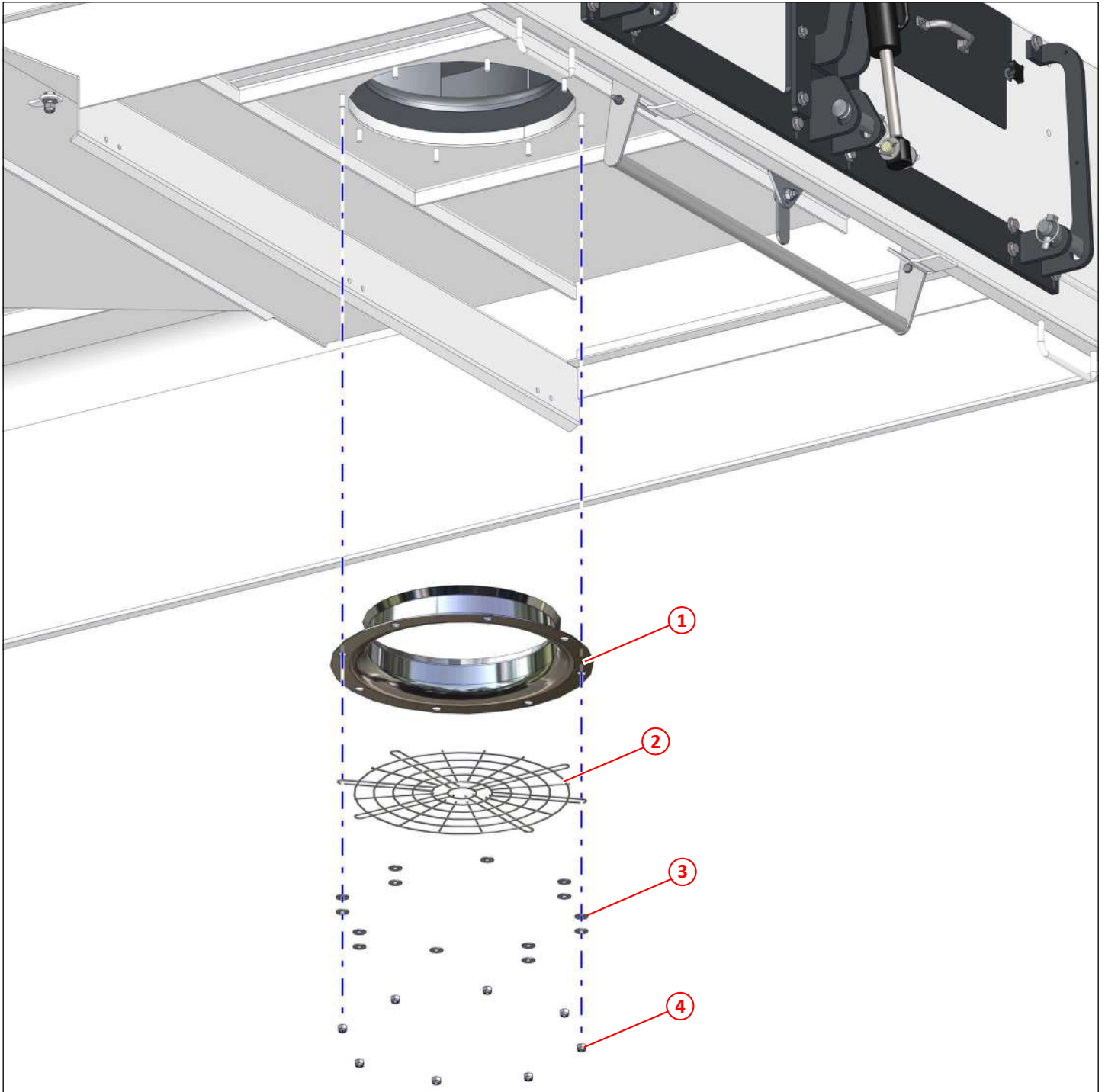


Figure 64: Suction fan motor

Item	Part No	Qty	Description
①	025564	1	Motor F12-030-MF-CH-K-000-000-P
②	013292	1	Key for item ①
③	000343	2	Socket cap head bolt M14 x 50, black
④	011127	2	Nyloc nut T M14
⑤	044926	1	Washer $\phi 50 \times \phi 12.5 \times 8$, stainless steel
⑥	011052	1	Setscrew M12 x 30
⑦	041673 *	1	Manifold
⑧	041634 *	2	O-ring
⑨	011094 *	1	Check valve HCV12-20, includes seals
⑩	000048	8	Socket cap head screw M10 x 80
⑪	011095	8	Washer, spring, M10
⑫	011155	4	Dowty seal, $\frac{3}{4}$ " BSP
⑬	011161	2	Adapter, $\frac{3}{4}$ " BSP
⑭	001150	2	Hose $\frac{5}{8}$ " x 2800 with $\frac{3}{4}$ " BSP straight ends - Merlin and Magnum
⑮	001223	2	Hose $\frac{5}{8}$ " x 2500 with $\frac{3}{4}$ " BSP straight ends - Merlin XP/55
⑯	011247	1	Dowty seal, M18
⑰	011248	1	Adapter, M18 x $\frac{3}{8}$ " BSP
⑱	010921	1	Adapter, $\frac{3}{8}$ " BSP x $\frac{3}{8}$ " hose, complete with nut
⑲	010516	1	Jubilee clip No MOO [11-16]
⑳	010958	1	Hose, $\frac{3}{8}$ "
㉑	011215	1	Dowty seal, M12
㉒	0254184	1	Speed sensor
	* 041564	1	Anti-cavitation valve assembly, includes items ⑦, ⑧ and ⑨

Suction fan inlet cone and guard



i Note. Two washers are used when it is attaching the guard. All others use a single washer.

Figure 65: Suction fan inlet cone and guard

Item	Part No	Qty	Description
①	032357	1	Inlet cone, stainless steel
②	039674	1	Fan guard
③	000264	14	Washer, M8, stainless steel
④	000263	8	Nyloc nut, M8, stainless steel

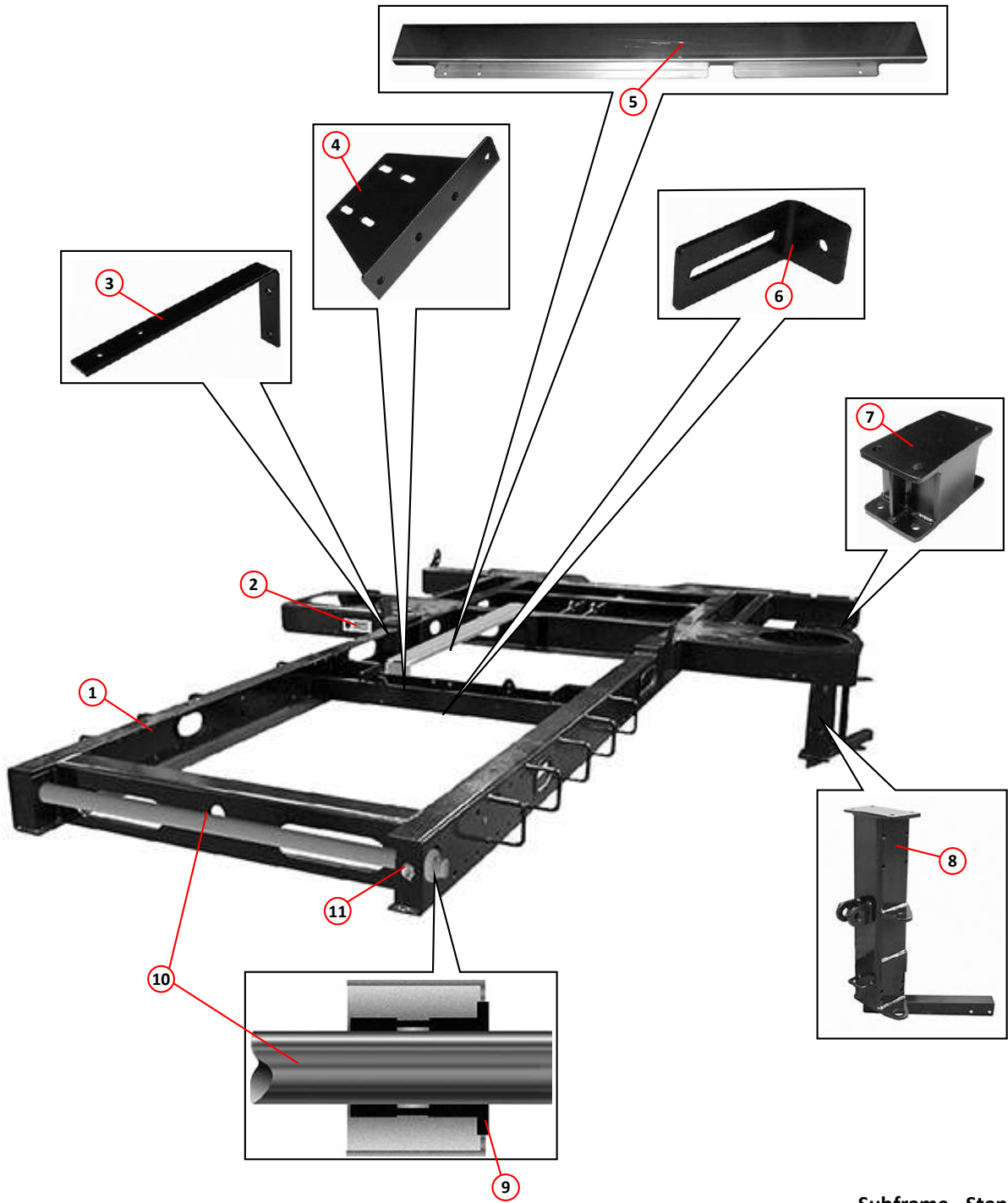
Subframe, Hopper and Related Equipment

<i>Assembly/Description</i>	<i>Page</i>
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Item	Part Number	Quantity	Description
Subframe Standard Parts			
1	024978	1	Subframe (Merlin)
NI	024246	1	Subframe (Magnum)
NI	032224	1	Subframe (Merlin XP)
2	021716	1	. Serial number & CE mark plate
3	032979	1	. Support, pipe, front (Merlin XP)
NI	026239	1	. Support, pipe, front
	011087	2	. . Set screw, M6 x 25mm
	011090	2	. . Washer, M6
	011071	2	. . Nut, M6, Nyloc
4	028010	1	. Support, pipe cover
	011067	2	. . Set screw, M6 x 20mm
	011099	2	. . Washer, repair, $\varnothing 1 \frac{1}{4}$ ID
	011071	2	. . Nut, M6, Nyloc
5	028127	1	. Pipe cover (Merlin)
NI	028009	1	. Pipe cover (Magnum)
NI	040681	1	. Pipe cover (Magnum with ratchet hopper prop)
6	030487	1	. Support, pipe, rear
	011067	1	. . Set screw, M6 x 20mm
	011071	1	. . Washer, M6
	011071	1	. . Nut, M6, Nyloc
7	031381 *	AR	. Stub, subframe leg, 100mm long (Merlin)
NI	031355 *	AR	. Stub, subframe leg, 120mm long (Merlin)
NI	030316 *	AR	. Stub, subframe leg, 180mm long (Merlin)
NI	031693 *	AR	. Stub, subframe leg, 220mm long (Merlin)
Ni	031415 *	AR	. Stub, subframe leg, 95mm long
NI	031416 *	AR	. Stub, subframe leg, 165mm long
	011052	4	. . Set screw, M12 x 30mm (Per stub)
	011077	4	. . Nut, M12, Nyloc, (Per stub)
8	027133 *	1	. Subframe leg, RH, (A) (Merlin)
NI	027132 *	1	. Subframe leg, LH, (B) (Merlin)
NI	027134 *	1	. Subframe leg, LH, (C) (Merlin)
NI	027134 *	1	. Subframe leg, RH, (D) (Merlin)
	000047	4	. . Bolt, M12 x 140mm (Per leg)
	011077	4	. . Nut, M12, Nyloc (Per leg)
NI	024247 *	1	. Subframe leg, LH, (J) (Magnum)
NI	024248 *	1	. Subframe leg, RH, (K) (Magnum)
NI	027753 *	1	. Subframe leg, LH, Hi-lift, (P) (Magnum)
NI	027754 *	1	. Subframe leg, RH, Hi-lift, (Q) (Magnum)
NI	030152 *	1	. Subframe leg, LH, (R) (Magnum)
NI	030153 *	1	. Subframe leg, RH, (S) (Magnum)
NI	030924 *	1	. Subframe leg, LH, (T) (Magnum)
NI	030925 *	1	. Subframe leg, RH, (U) (Magnum)
NI	030154 *	1	. Subframe leg, LH (Magnum) (8000/8500 only)
NI	030155 *	1	. Subframe leg, RH (Magnum) (8000/8500 only)
	011052	4	. . Set screw, M12 x 30mm (Magnum)
	011077	4	. . Nut, M12, Nyloc (Magnum)
9	020336	2	. Bush, hopper hinge pin
10	013065	1	. . Hopper hinge pin
	000096	2	. . . Screw, socket cap head, M8 x 40mm
	011073	2	. . . Nut, M8, Nyloc
11	010901	2	. Grease point, $\frac{1}{8}$ BSP x 90°

Notes:-

* The type of the subframe/stub and leg are dependent on many factors. Please contact the Scarab Parts Department quoting your machine serial number before ordering any parts.

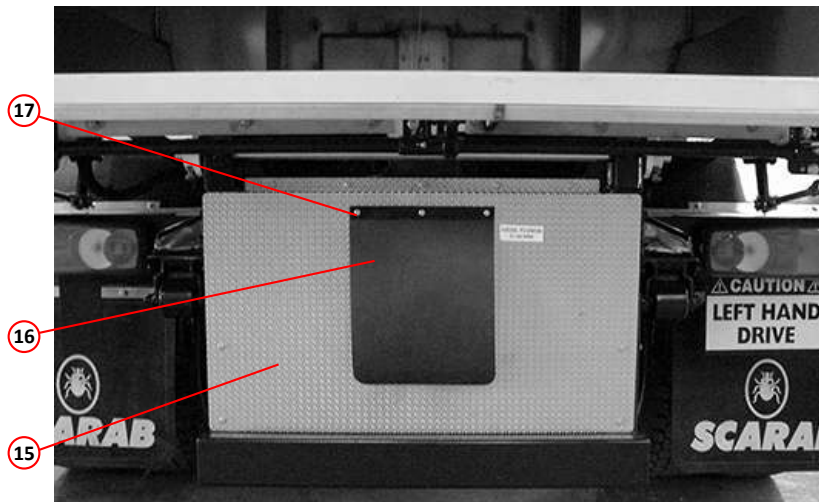
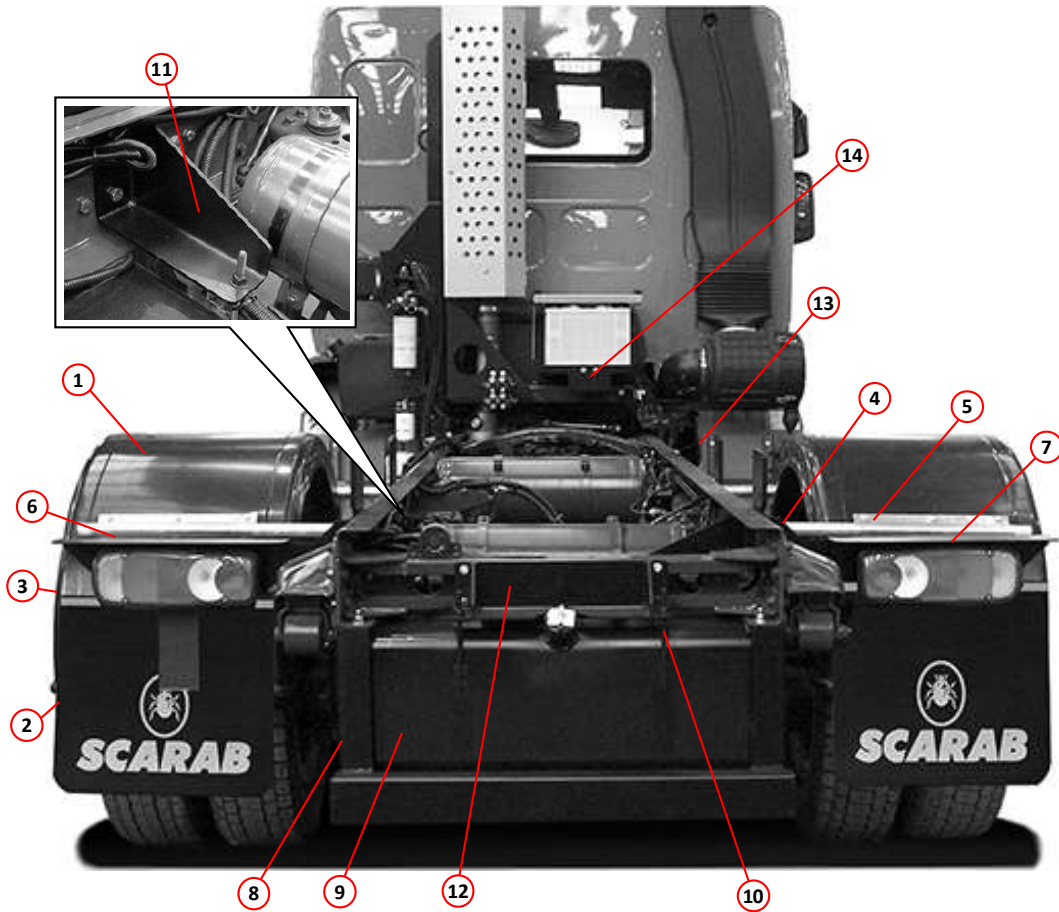


Subframe - Standard Parts

Item	Part Number	Quantity	Description
Subframe - Additional Standard Scarab Parts - Fitted to Chassis			
1	*	1	Mudguard (Per side)
2	024992	1	. Mud flap (Per side)
NI	030140	1	. Mud flap, wide (Per side)
3	024993	1	. . Clamp, mud flap (Per flap)
NI	030187	1	. . Clamp, mud flap, wide (Per flap)
	011011	5	. . . Set screw, M8 x 25mm (Per clamp)
	011073	5	. . . Nut, M8, Nyloc (Per clamp)
4	013403	2	. Bracket, mudguard, straight (Per mudguard)
NI	020836	2	. Bracket, mudguard, cranked (Per mudguard)
	011032	3	. . Set screw, M10 x 30mm (Per bracket)
	011075	3	. . Nut, M10, Nyloc (Per bracket)
5	013404	2	. . Stay, mudguard (Per mudguard)
NI	012954	2	. . Stay backing plate (Per mudguard)
	011010	6	. . . Set screw, M8 x 20mm (Per stay)
	011073	6	. . . Nut, M8, Nyloc (Per stay)
6	*	1	. Bracket, rear lights LH
7	*	1	. Bracket, rear lights RH
	011083	2	. . Set screw, M12 x 1.25 pitch x 35mm
	011086	2	. . Nut, M12 x 1.25 pitch (Per bracket)
NI	036910	1	Loom, rear lights Page 316
8	*	1	Bracket, rear under-run
9	*	1	Fuel tank
10	*	2	. Strap, fuel tank
	011075	4	. . Nut, M10, Nyloc
11	*	1	. Bracket, front, fuel tank, LH
NI	*	1	. Bracket, front, fuel tank, RH
12	*	1	. Bracket, rear, fuel tank
13	*	AR	Bracket, connecting, chassis/subframe
14	*	1	Support frame, Battery
15	*	1	Rear cover, fuel tank
16	026709	1	Cover, Rubber, fuel filler, narrow
17	014741	1	. Clamp plate, fuel filler cover, narrow
	011087	3	. . Set screw, M6 x 25mm
	011071	3	. . Nut, M6, Nyloc
NI	032484	1	Cover, Rubber, fuel filler, wide
NI	032483	1	. Clamp plate, fuel filler cover, wide
	011087	3	. . Set screw, M6 x 25mm
	011071	3	. . Nut, M6, Nyloc
NI	*	1	. Fuel tank sender
NI	*	1	. . Gasket, fuel tank sender
NI	*	1	. Fuel filler cap

Notes:-

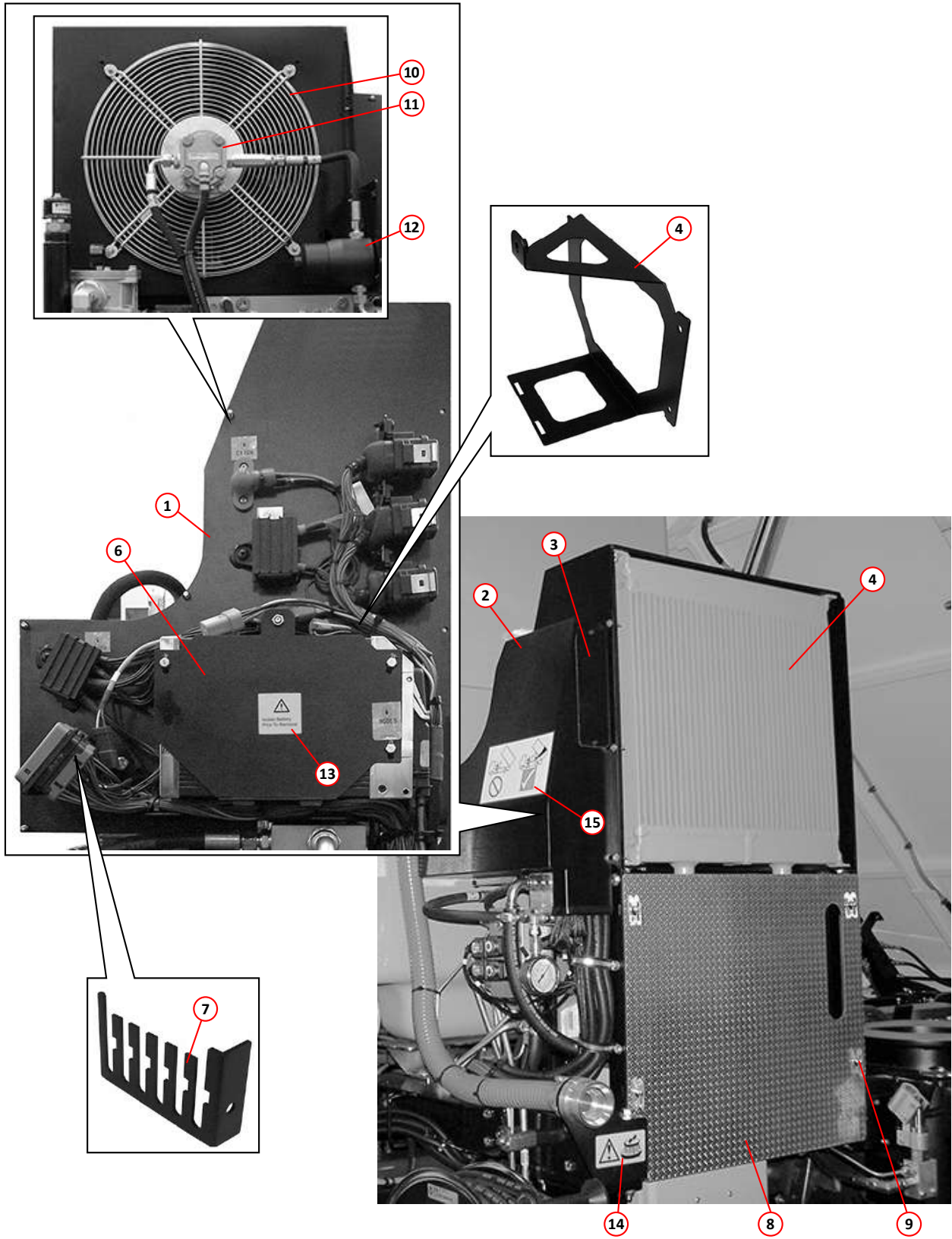
* These items are chassis specific. When ordering, contact Scarab Parts Department, quoting machine serial number and chassis type.



i The photographs shown above are of a DAF chassis, other chassis configurations may differ.

Additional Standard Scarab Parts Fitted to Chassis

Item	Part Number	Quantity	Description
Oil Cooler and Hydraulics Gantry			
1	037086	1	Oil cooler frame Page 220
	011407	2	. Bolt, M10 x 120mm
	011031	2	. Set screw, M10 x 25mm
	011075	4	. Nut, M10, Nyloc
NI	024838	1	. Oil cooler leg
	011407	2	. Bolt, M10 x 120mm
	011031	1	. Set screw, M10 x 25mm
	011075	3	. Nut, M10, Nyloc
2	037096	1	. Node cover
	000402	7	. Screw, Pozidrive, M5 x 20mm
	000155	7	. Nut, M5, Nyloc
3	037097	1	. Fuse cover
4	031732	1	. Oil cooler Page 222
5	037203	1	. Bracket, node carrier
	000155	3	. Nut, M5, Nyloc
6	037204	1	. Cover, node carrier
	000097	4	. Set screw, M5 x 12mm
	011067	1	. Set screw, M6 x 20mm
	011071	1	. Nut, M6, Nyloc
7	037198	1	. Bracket, splice saver
	011010	1	. Set screw, M8 x 20mm
8	025383	1	. Cover, hydraulic tank & valves
9	012253	4	. Antiluce, Small
10	020883	1	. Bracket, fan mounting
	000020	4	. Set screw, M6 x 30mm
	011071	4	. Nut, M6, Nyloc
	011099	4	. Washer, repair, M6
	023504	4	. Anti-vibration ring
	023505	4	. Anti-vibration bush
11	028752	1	. Motor, hydraulic, cooler fan Page 222
NI		1	. Fan, oil cooler
12	025103	1	. Filter, hydraulic, high pressure Page 264
NI	036797	2	. Controller CR0020 Page 316
13	036170	1	. Disconnect battery, caution label Page 426
14	022383	1	. Brush rotating, warning label Page 426
15	022384	1	. Hopper prop deployment, warning label Page 426

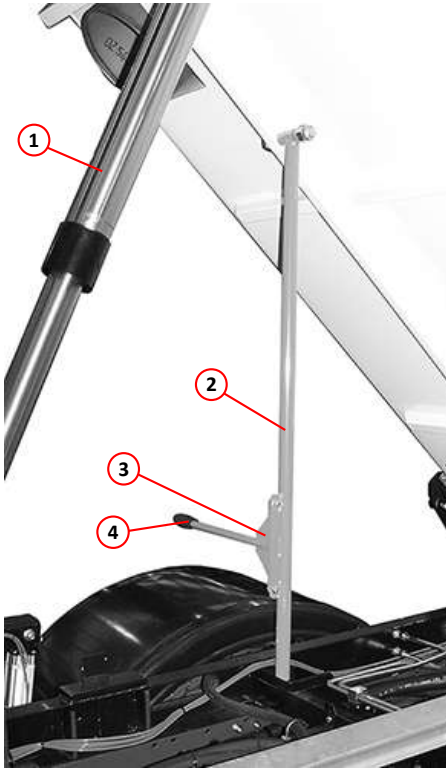


Oil Cooler and Hydraulics Gantry

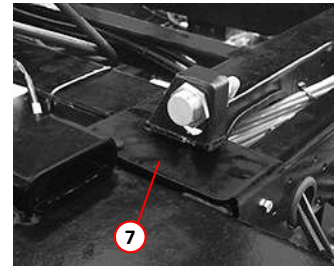
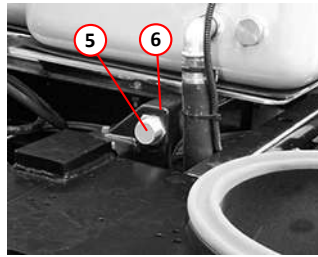
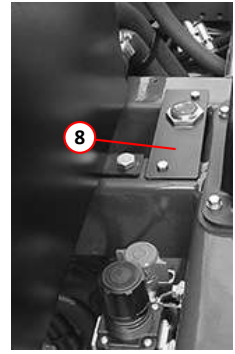
Item	Part Number	Quantity	Description
Manual Hopper Safety Prop			
1	024249	1	Hopper lift ram, dual stage Page 274
NI	039677	1	Hopper Prop, (Merlin)
2	039676	1	Hopper Prop, (Magnum)
	011083	1	. Bolt, 1 „ UNF x 6
	011062	1	. . Nut, 1 UNF, Nyloc
3	039675	1	. Hopper prop handle
	011032	2	. . Set screw, M10 x 30mm
	011075	2	. . . Nut, M10, Nyloc
4	039680	1	. . Hopper prop handle grip

Item	Part Number	Quantity	Description
Hopper Raised Sensor			
5	032627	1	. Sensor, 'HOPPER-RAISED' Page 318
6	039659	1	. . Bracket, hopper raised sensor (Merlin/Merlin XP)
7	039673	1	. . Bracket, hopper raised sensor (Magnum/Magnum+)
8	032908	1	. . Bracket, hopper raised sensor (vertical) (Merlin)
NI	032909	1	. . Bracket, hopper raised sensor (vertical) (Magnum)
	011067	2	. . . Set screw, M6 x 20mm
	011091	2	. . . . Washer, spring, M6
	011071	2	. . . . . Nut, M6, Nyloc

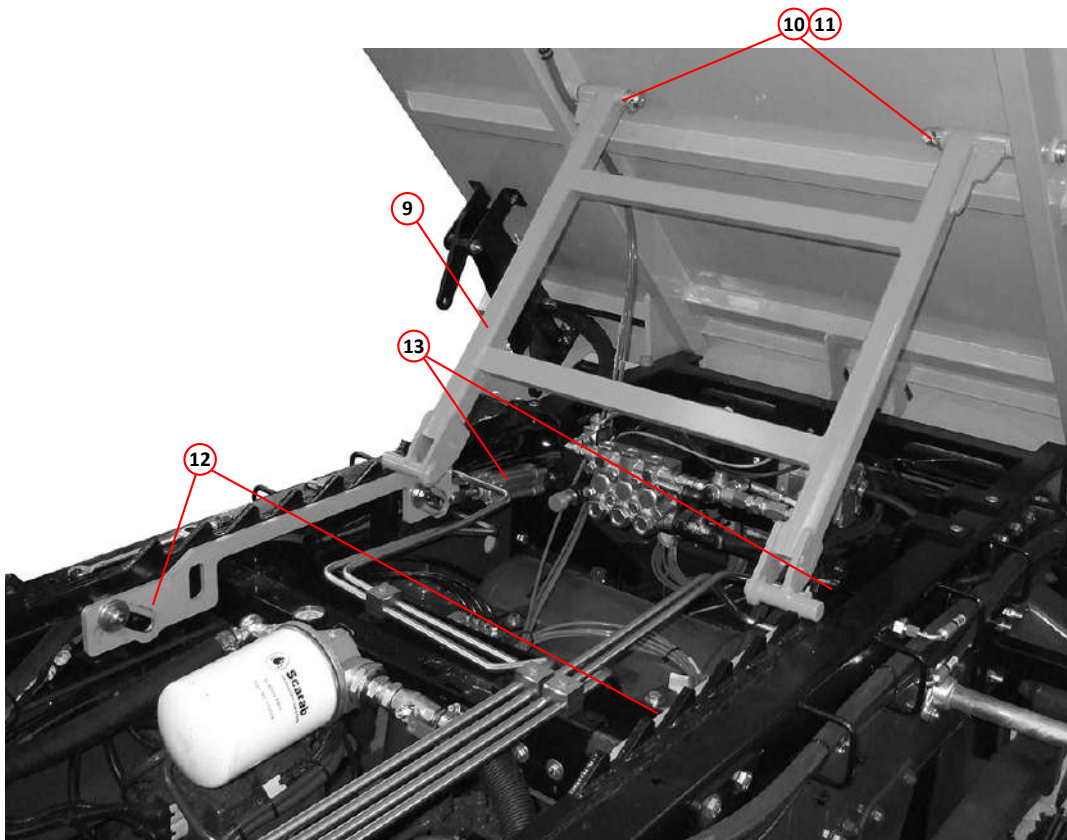
Item	Part Number	Quantity	Description
Ratchet Hopper Prop			
9	039901	1	Hopper Prop
10	040134	2	. Prop hinge pin
11	013053	2	. . Linch pin
12	039899	2	Lifting plate
	011094	4	. Washer, M10 special
	011075	2	. . Nut, M10, Nyloc
13	040456	2	Cylinder, pneumatic, 32 x 50 spring return Page 310
	011407	2	. Bolt, M10 x 120mm
	011094	2	. . Washer, M10
	011075	2	. . . Nut, M10, Nyloc



Manual Hopper Prop

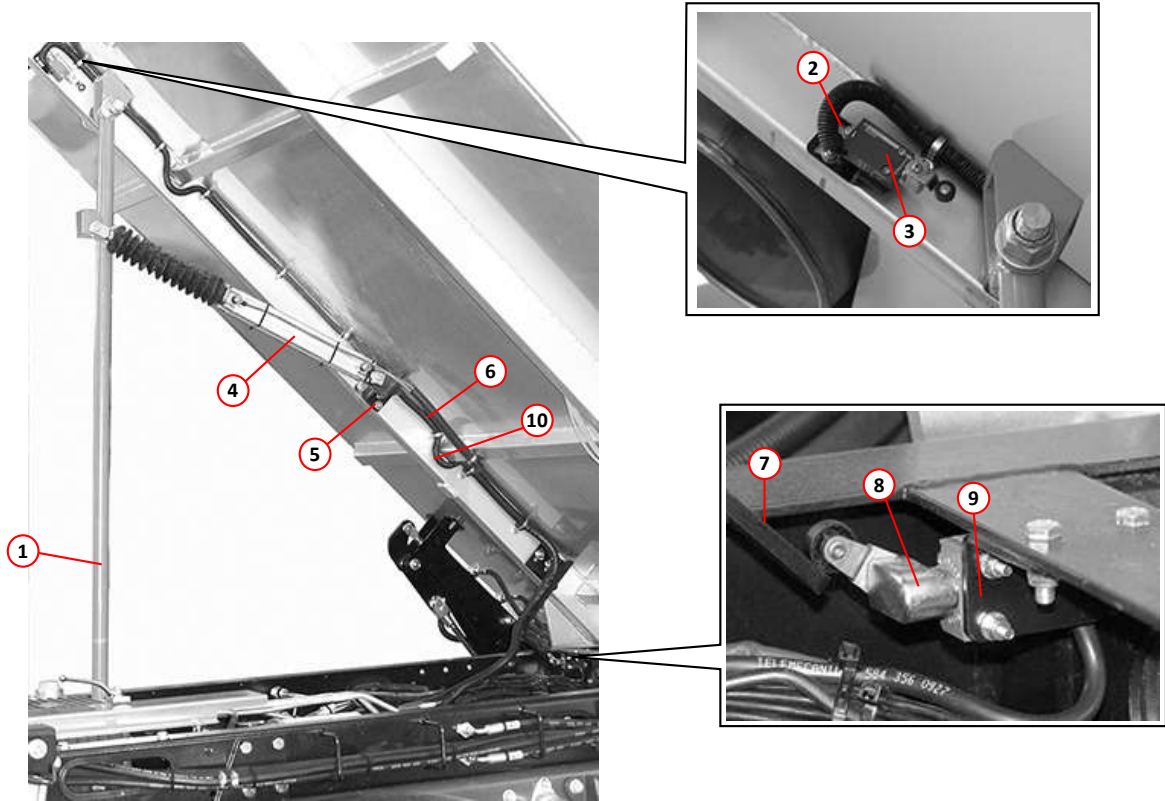


Hopper Raised Sensor



Ratchet Hopper Prop

Item	Part Number	Quantity	Description
Automatic Hopper Safety Prop Assembly - (Option)			
1	030380	1	Hopper Prop (MERLIN)
1	030099	1	Hopper Prop (MAGNUM)
	000316	1	. Bolt, 1" UNF x 7
	011062	1	. Nut, 1" UNF, Nyloc
2	030379	1	. Mounting bracket, proximity switch (MERLIN)
NI	030226	1	. Mounting, bracket, proximity switch (MAGNUM)
	000191	2	. . Screw, socket cap head, M4 x 25mm
	000134	2	. . Nut, M4, Nyloc
3	030158	1	. . Switch, proximity, upper
4	030156	1	. Cylinder, pneumatic, 40 x 250 Page 306
5	030377	1	. . Ram mounting bracket, catch pocket (MERLIN)
NI	030101	1	. . Ram mounting bracket, catch pocket (MAGNUM)
	011415	2	. . . Bolt, M8 x 80mm
	011073	2	. . . Nut, M8, Nyloc
6	024650	AR	. . Air pipe
7	030378	1	. Proximity actuator bracket (MERLIN)
NI	030174	1	. Proximity actuator bracket (MAGNUM)
	000221	2	. . Bolt, M6 x 80mm
	011071	2	. . Nut, M6, Nyloc
8	030158	1	. Switch, proximity, lower Page 318
9	030159	1	. . Mounting bracket, proximity switch
	011067	2	. . . Set screw, M6 x 20mm
	011071	2	. . . Nut, M6, Nyloc
	000191	2	. . . Screw, socket cap head, M4 x 25mm
	000134	2	. . . Nut, M4, Nyloc
10	036920	1	. Loom, hopper, auto prop Page 316

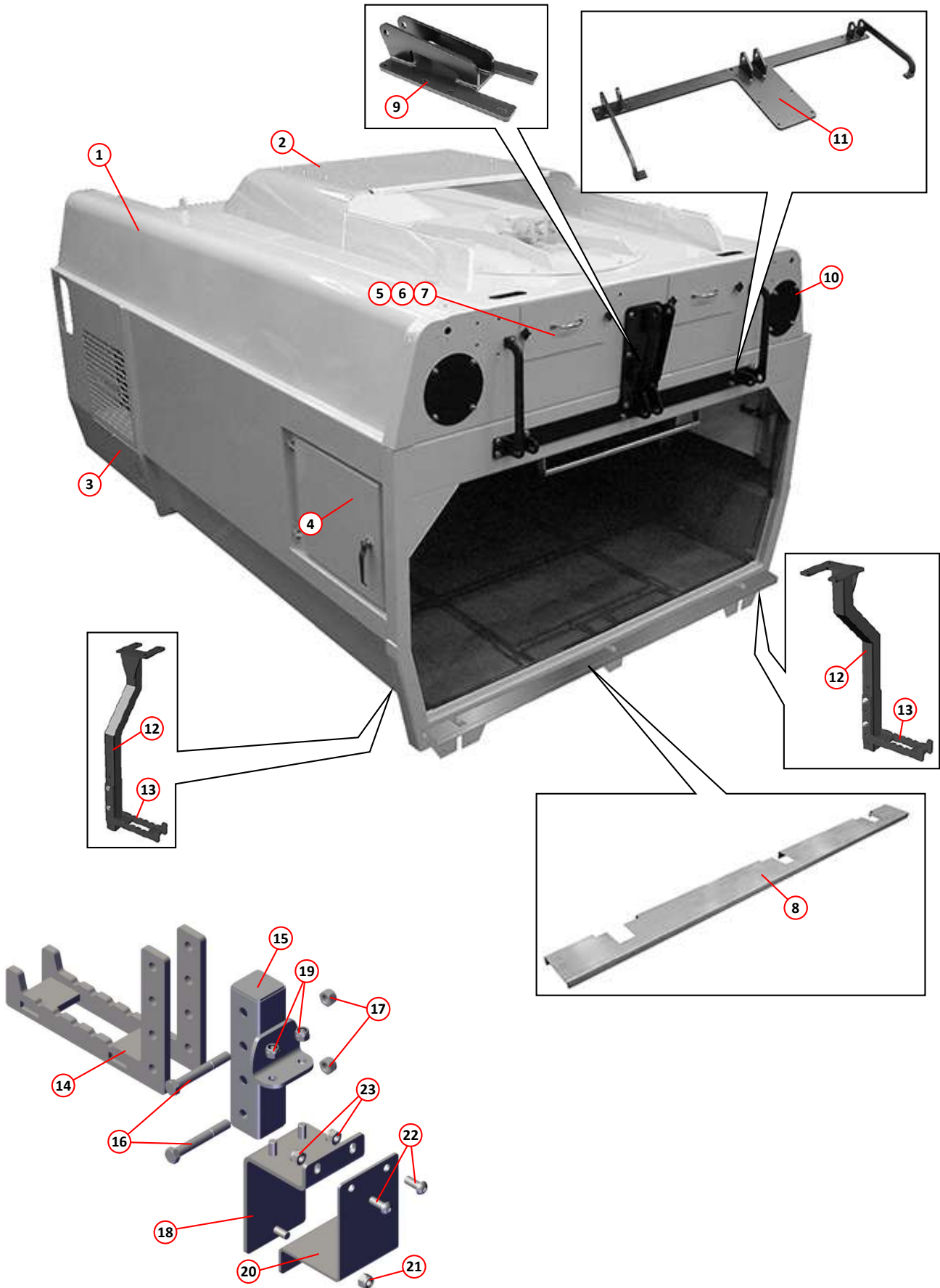


Automatic Hopper Prop Assembly

Item	Part Number	Quantity	Description
Hopper External Fittings			
1		1	Hopper
2	035797	1	. Cover, hopper
	000254	13	. . Washer, M6, stainless steel
	000250	13	. . . Set screw, M6 x 16, stainless steel
3	027755	1	. Access cover, valve block
	013645	AR	. . Seal strip
	011087	6	. . Set screw, M6 x 25mm
	011091	6	. . Washer, spring, M6
4	036363	2	. Door, side-loading hatch Page 130
5	030728	2	. Cover plate, fan housing
	010546	AR	. . Seal strip
6	000248	4	. . Plastic Knob
7	010502	2	. . Handle
8	030210	1	. Chute, discharge. (Merlin)
NI	028937	1	. Chute, discharge, (Magnum/8000/8500)
	000256	8	. . Set screw, M8 x 20, stainless steel
	000263	8	. . Nut, M8 Nyloc, stainless steel
	000270	16	. . Washer, M8, stainless steel
9	024346	1	. Mounting, adjustable, rear door ram Page 144
NI	025660	1	. Mounting, adjustable, rear door ram, (8000/8500) Page 144
	011032	10	. . Set screw, M10 x 30
	011033	2	. . Set screw, M10 x 35
	011074	12	. . Washer, M10
	011075	6	. . Nut, M10, Nyloc
10	025486	2	. Cover, wander boom aperture (1 only if rear boom fitted)
	011073	4	. . Nut, M8, Nyloc
	011092	4	. . Washer, M8
11	024345	1	. Plate, hinge, rear door Page 144
NI	025661	1	. Plate, hinge, rear door, (8000/8500) Page 144
	011034	6	. . Set screw, M10 x 40
	011075	6	. . Nut, M10, Nyloc
	011074	6	. . Washer, M10
	011014	2	. . Set screw, M8 x 40
	011073	2	. . Nut, M8, Nyloc
	011092	4	. . Washer, M8
Side Loading Hatch Access Steps *			
Hopper Mounted			
12		1	. Rear step mount
13	041290	1	. . Rear access step
	000139	2	. . . Bolt, M12 x 90
	011077	2	. . . Nut, M12, Nyloc
Rear Under Run/Rear Bumper Mounted (DAF 55 SHOWN)			
14	040153	1	Rear access step
15	041290	1	Mounting bracket rear access step
16	000139	2	Bolt, M12 x 90
17	011077	2	Nut, M12, Nyloc
18	042507	1	Clamp bracket
19	011075	2	Nut, M10, Nyloc
20	042508	1	Clamp plate
21	011075	1	Nut, M10, Nyloc
22	000344	2	Socket button head, M25 x 10, stainless steel
23	011075	2	Nut, M10, Nyloc

Notes:-

* Please contact Scarab Parts Department regarding these steps due to the variety of mounting options on differing chassis.

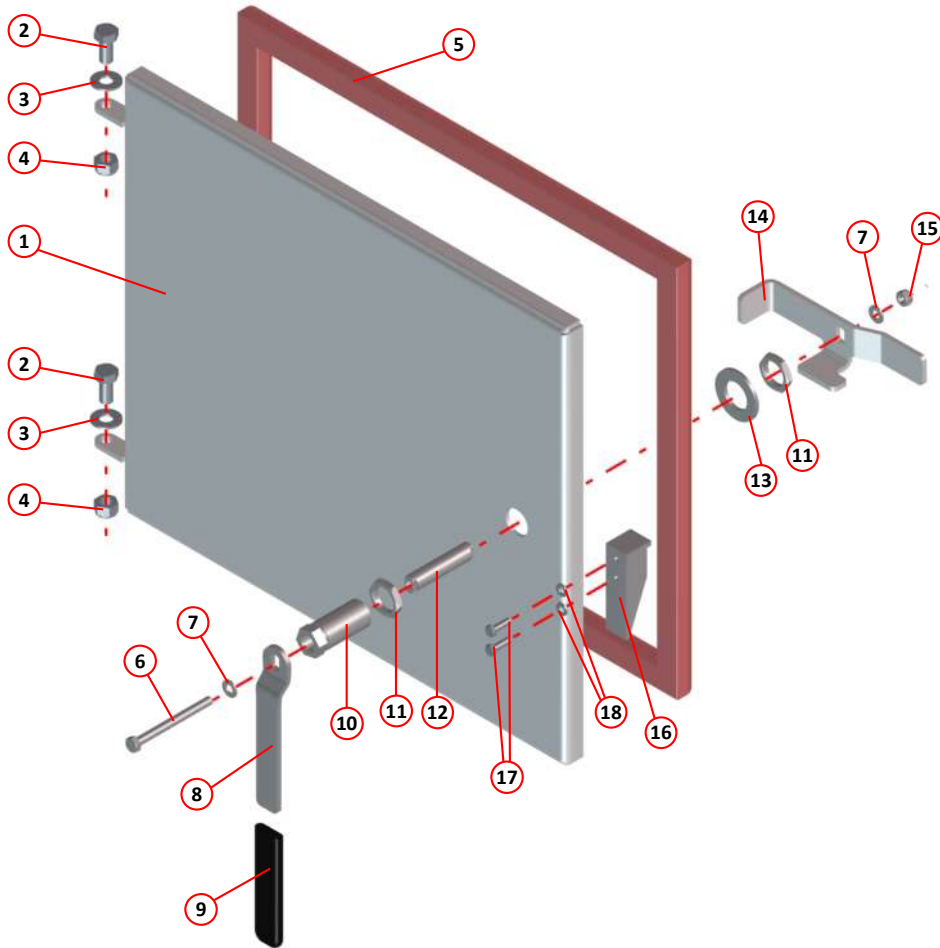


i Many variations of hopper exist therefore it is advisable to contact Scarab Parts Department, quoting the machines serial number when ordering associated replacement parts.

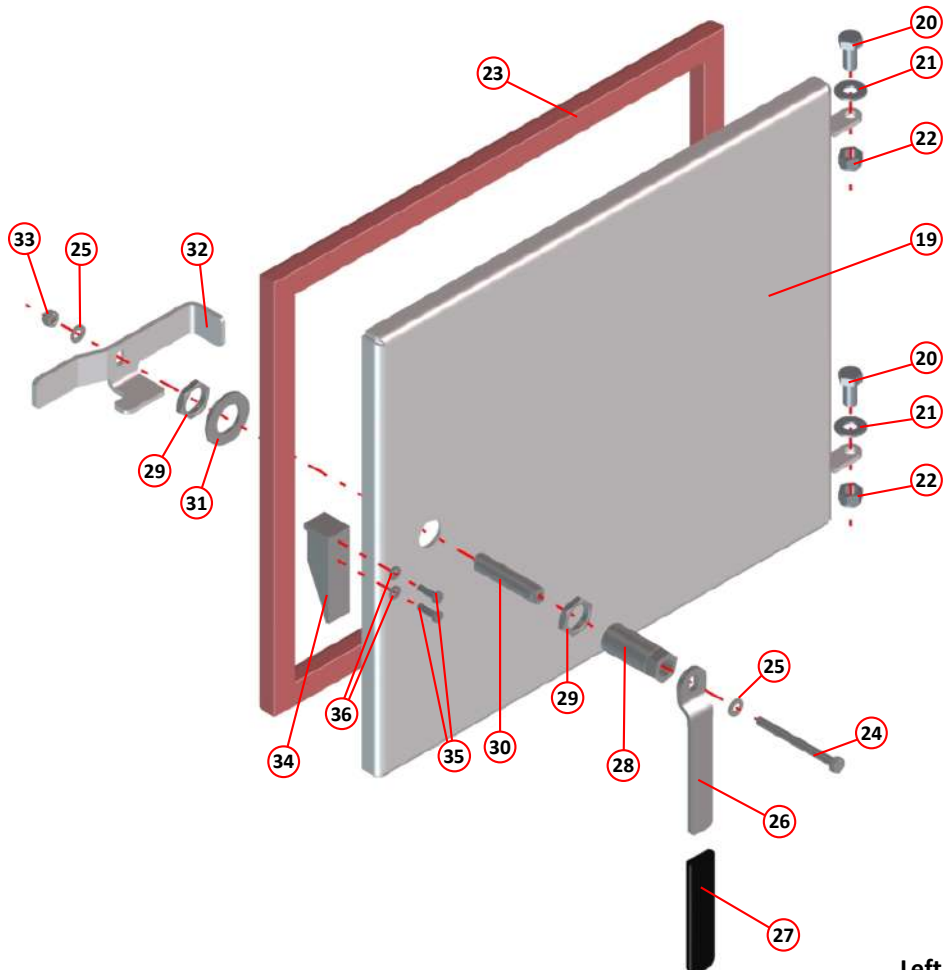
Hopper External Fittings

Item	Part Number	Quantity	Description
Hopper Left Side Loading Hatch			
1	036363	1	Side access door Page 128
2	000273	2	Set screw, M12 x 25mm, stainless steel
3	000277	2	Washer, M12, stainless steel
4	000275	2	Nut, M12, Nyloc, stainless steel
5	013599	1	Seal, side door
6	011019	1	Bolt, M8 x 90mm, stainless steel
7	011092	2	Washer, M8
8	027933	1	Handle
9	040032	1	Door handle sleeve
10	027935	1	Bearing, door catch
11	027937	2	Back nut, $\frac{3}{4}$ " BSP
12	027934	1	Spindle, door catch
13	000121	1	Washer, M27
14	040033	2	Door catch left hand
15	011073	1	Nut, M8, Nyloc
16	027932	1	Striker (located inside of hopper)
17	000252	2	Set screw, M6 x 20mm, stainless steel
18	000254	2	Washer, M6, stainless steel

Hopper Right Side Loading Hatch			
19	036363	1	Side access door Page 128
20	000273	2	Set screw, M12 x 25mm, stainless steel
21	000277	2	Washer, M12, stainless steel
22	000275	2	Nut, M12, Nyloc, stainless steel
23	013599	1	Seal, side door
24	011019	1	Bolt, M8 x 90mm, stainless steel
25	011092	2	Washer, M8
26	027933	1	Handle
27	040032	1	Door handle sleeve
28	027935	1	Bearing, door catch
29	027937	2	Back nut, $\frac{3}{4}$ " BSP
30	027934	1	Spindle, door catch
31	000121	1	Washer, M27
32	040034	2	Door catch right hand
33	011073	1	Nut, M8, Nyloc
34	027932	1	Striker (located inside of hopper)
35	000252	2	Set screw, M6 x 20mm, stainless steel
36	000254	2	Washer, M6, stainless steel



Left Side Loading Hatch



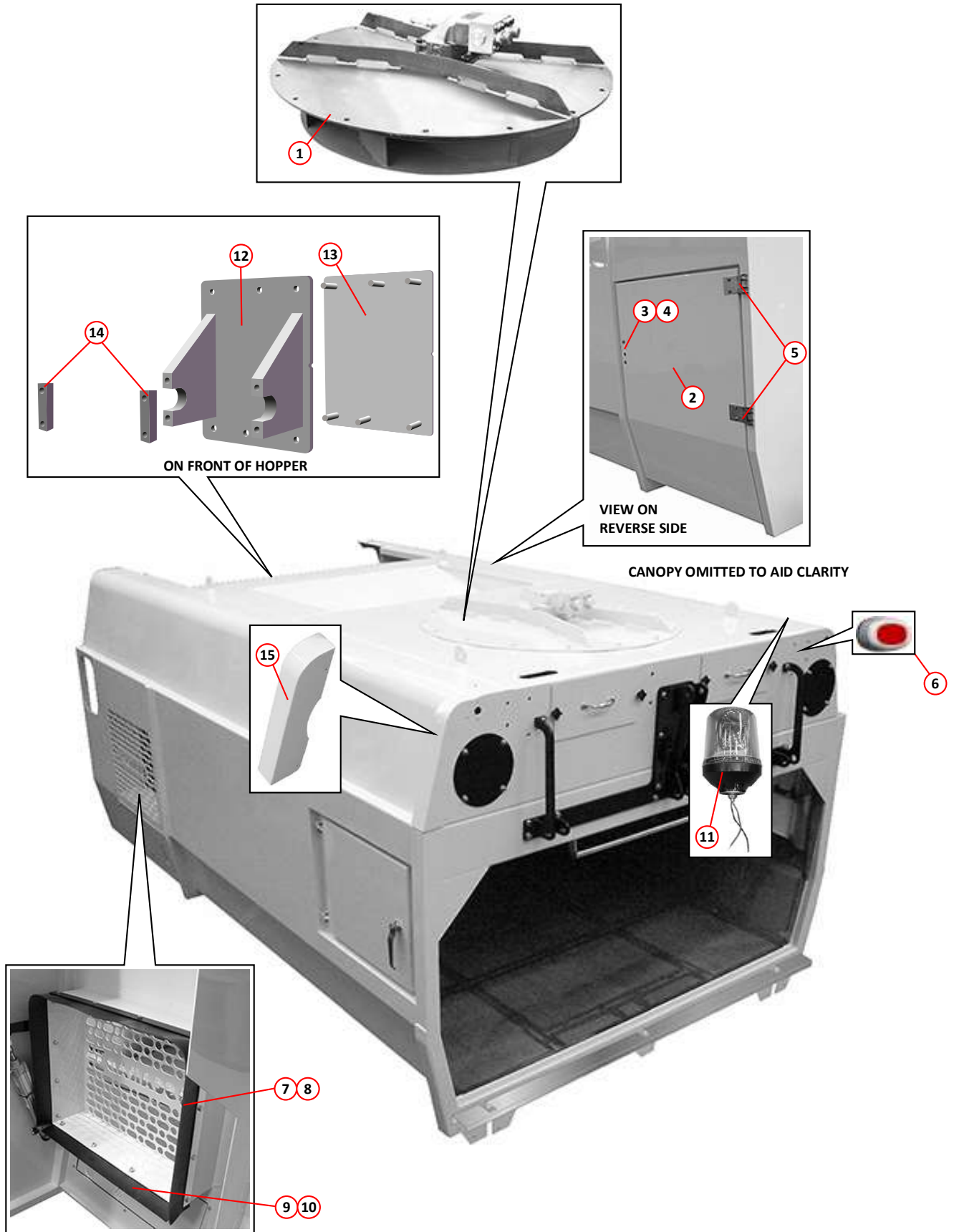
Left Side Loading Hatch

Subframe, Hopper and Related Equipment

Item	Part Number	Quantity	Description	
Hopper External Fittings - Continued				
1		1	Suction fan assembly	Page 148
	011075	16	. Nut, M10, Nyloc	
	011074	16	. Washer, M10	
2	025828	1	Locker door (Merlin)	
NI	032228	1	Locker door (Merlin XP)	
3	013072	1	. Door lock	
4	013073	1	. Spacer	
	000284	2	. . Set screw, M6 x 55mm	
	011071	2	. . Nut, M6, Nyloc	
5	011654	2	. Hinge	
	000517	2	. . Countersunk screw, M6 x 55mm	
	000250	2	. . Set screw, M6 x 16mm	
	011071	4	. . Nut, M6, Nyloc	
	011090	4	. . Washer, M6	
NI	013069	1	. Key, locker door	
6	030773	2	Rear marker light	Page 318
	000028	4	. Screw, slotted round head, 2BA x $\frac{1}{2}$ "	
	011078	4	. Nut, 2BA, Nyloc	
7	024937	1	Seal, cooler, long	
8	022604	2	Clamp, long	
	011010	8	. Set screw, M8 x 20mm	
	011073	8	. Nut, M8, Nyloc	
	011092	8	. Washer, M8	
9	022603	1	Seal, cooler, short	
10	024983	2	Clamp, short	
	011010	8	. Set screw, M8 x 20mm	
	011073	8	. Nut, M8, Nyloc	
	011092	8	. Washer, M8	
11	014064	1	Beacon, standard fit	Page 318
NI	036911	1	Loom, hopper components	Page 316
12	010719 *	1	Pivot plate, hopper lift ram	
NI	025581 *	A/R	. Spacer 4mm	
13	040382 *	1	. Clamp plate (inside of hopper)	
	011075 *	6	. . Nut, M10, Nyloc	
	000270 *	6	. . Washer M10	
14	034395 *	2	. . Ram pivot bar	
	011034 *	4	. . . Bolt, M10 x 40mm	
	011095 *	4	. . . Washer, spring, rectangular, M10	
15	024784	1	. Capping, LH. (Merlin) (Rivet)	
NI	040024	1	. Capping, LH. (Merlin) (Screw)	
NI	025767	1	. Capping, LH. (Magnum/8000/8500) (Rivet)	
NI	040014	1	. Capping, LH. (Magnum/8000/8500) (Screw)	
NI	024789	1	. Capping, RH. (Merlin) (Rivet)	
NI	040025	1	. Capping, RH. (Merlin) (Screw)	
NI	025766	1	. Capping, RH. (Magnum/8000/8500) (Rivet)	
NI	040013	1	. Capping, RH. (Magnum/8000/8500) (Screw)	

Notes:-

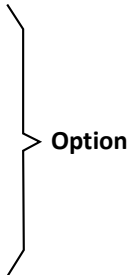
* All these parts are required to retro fit the single piece pivot plate in place of the older 2 piece design.

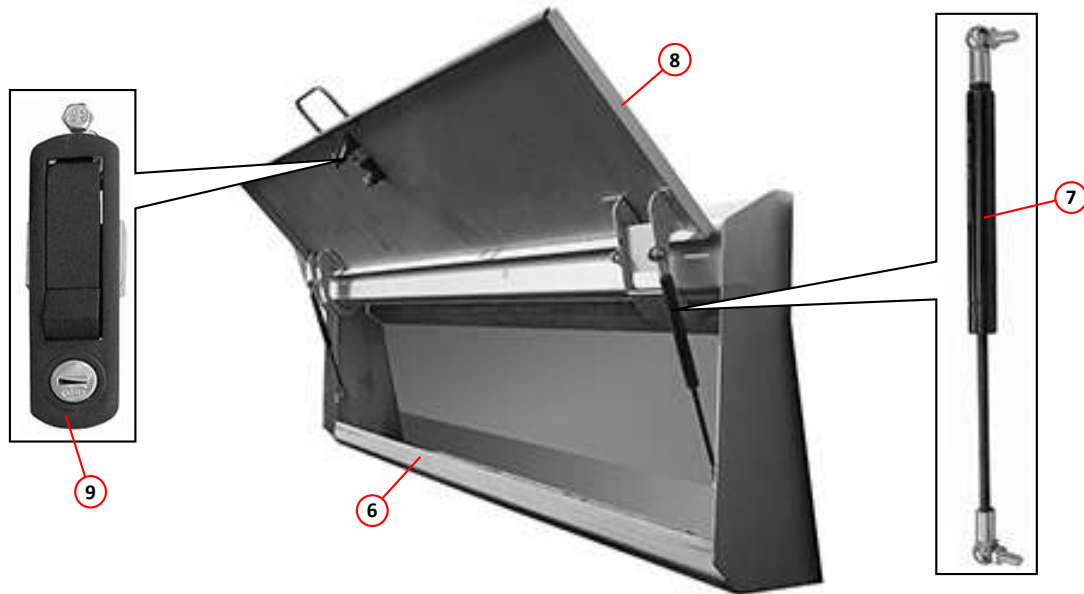
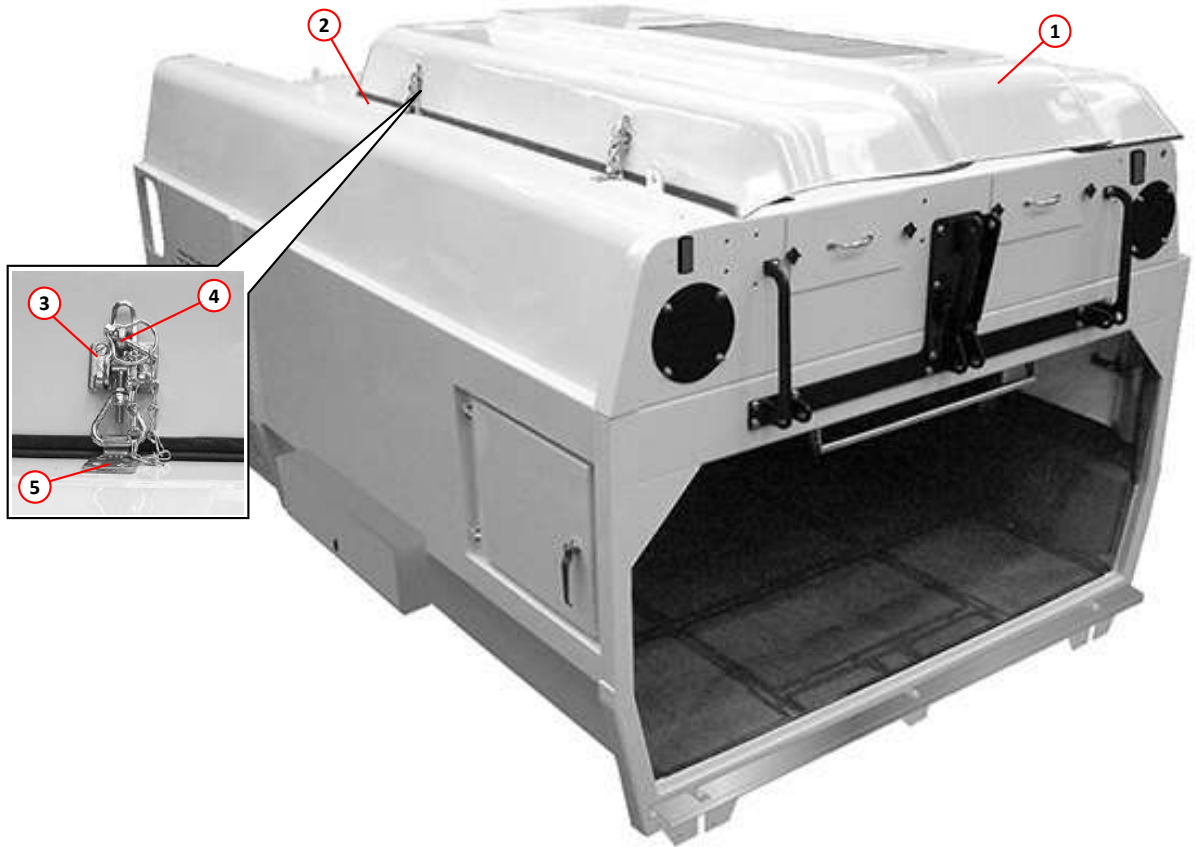


i Many variations of hopper exist therefore it is advisable to contact Scarab Parts Department, quoting the machines serial number when ordering associated replacement parts.

Hopper External Fittings

Item	Part Number	Quantity	Description
Hopper External Fittings - Continued			
1	024704	1	Hopper cover, GRP (Merlin)
2	013952	AR	. Seal strip
	000005	15	. . Screw, slotted countersunk, 2BA x $\frac{3}{4}$ "
	011078	15	. . Nut, 2BA, Nyloc
3	022656	5	. Toggle clip fastener
4	013507	5	. Linch pin, complete with chain
5	022657	5	. Hook plate, toggle clip
6	031487	1	Ancillary tool locker body
	000344	4	. Screw, button socket head, M10 x 25mm stainless steel
	000269	4	. Nut, M10, Nyloc, stainless steel
	000270	4	. Washer, M10, stainless steel
7	033114	2	. Gas Strut
8	031489	1	. Locker door
	011019		. . Set screw, M8 x 90mm
	011073		. . Nut, M8, Nyloc
9	033115	1	. Locking latch





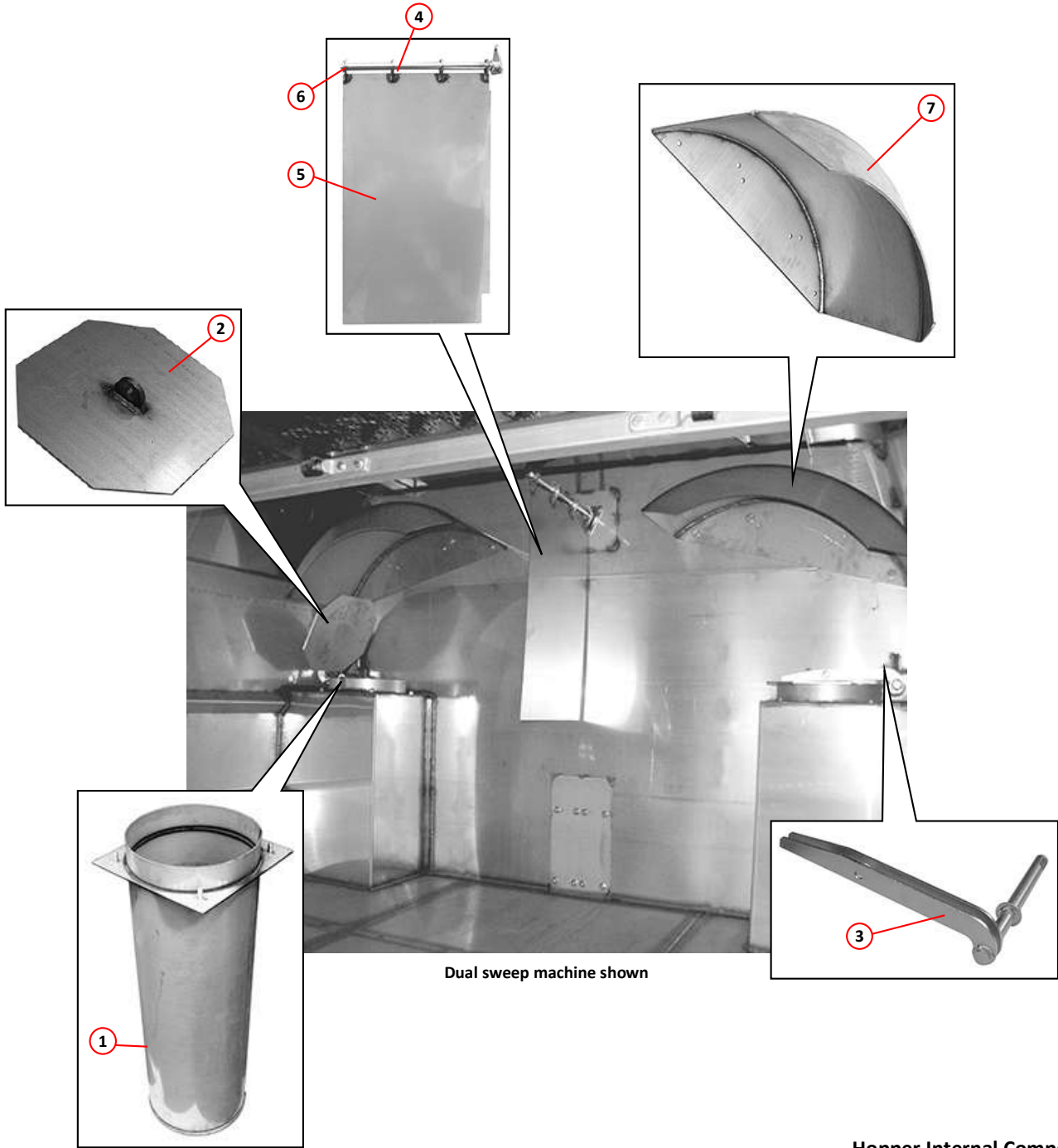
i Many variations of hopper exist therefore it is advisable to contact Scarab Parts Department, quoting the machines serial number when ordering associated replacement parts.

Hopper External Fittings

Item	Part Number	Quantity	Description
Hopper Internal Components			
1	025435 *	1	Suction tube 750mm (Merlin)
1	025401 *	1	Suction tube 850mm (Magnum)
1	025665 *	1	Suction tube 925mm (Magnum/8000/8500)
1	024732 *	1	Suction tube 600mm (Magnum/8000)
	005021	AR	. Sealing strip
	000269	4	. Nut, M10 Nyloc, stainless steel
	000270	4	. Washer, M10, stainless steel
2	021514 *	1	Cover lid, blanking Page 140
3	021518	1	. Flap arm, RH Page 140
NI	021517	1	. Flap arm, LH Page 140
4	030536	1	Mounting bar
	011032	3	. Set screw, M10 x 30mm
	011075	3	. Nut, M10, Nyloc
	011094	3	. Washer, M10
5	030535 *	1	. Deflector plate
6	030537	1	. Locking ring
	011031	1	. . Set screw, M10 x 25mm
	011095	1	. . Washer, spring, M10
7	022644 *	1	Deflector, universal
	011055	2	. Bolt, M12 x 65mm
	011051	4	. Set screw, M12 x 25mm

Notes:-

- * Can be supplied with PU compound, before ordering replacement parts, please contact Scarab Parts Department quoting your machine serial number.

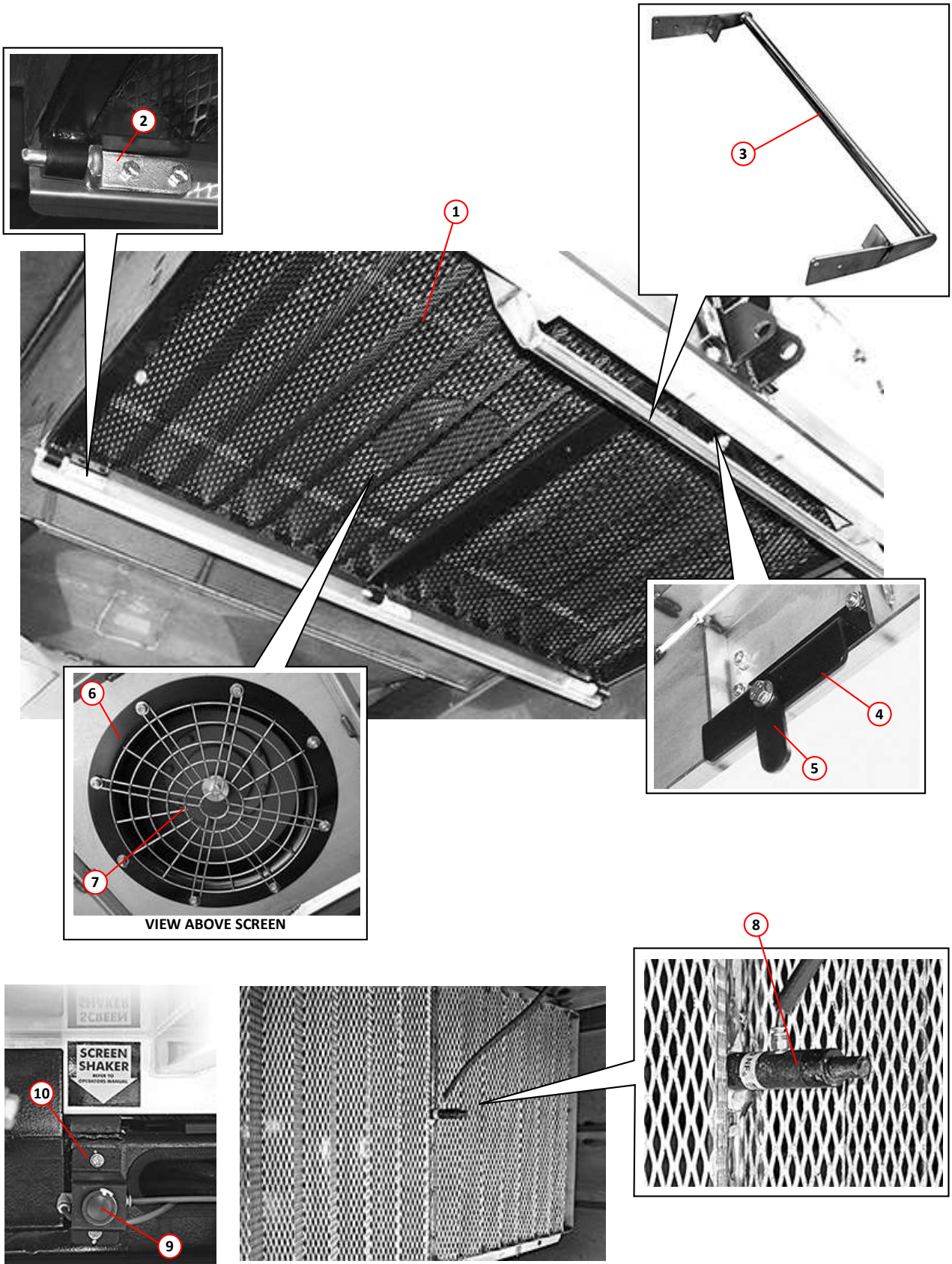


Dual sweep machine shown

Hopper Internal Components

Item	Part Number	Quantity	Description
Hopper Internal Components - Continued			
1	031883	1	Screen, filter, stainless steel
1	024668	1	Screen, filter
2	025245	3	. Hinge, points
	000257	6	. . Set screw, M8 x 25mm, stainless steel
	000263	6	. . Nut, M8, Nyloc
3	028265	1	. Screen handle catch
	000257	4	. . Set screw, M8 x 25mm, stainless steel
	000263	4	. . Nut, M8, Nyloc, stainless steel
	011092	4	. . Washer, M8
4	028052	1	. Bracket, safety link
5	028053	1	. . Safety link
	000280	1	. . . Set screw, M10 x 25mm, stainless steel
	011075	1	. . . Nut, M10, Nyloc, stainless steel
	000270	2	. . . Washer, M10, stainless steel
6	032357	1	Cone, inlet, suction fan, stainless steel
6	024790	1	Cone, inlet, suction fan
7	039674	1	. Fan guard
NI	034091	1	. Repair ring (requires welding)
	000263	8	. Nut, M8, Nyloc, stainless steel
8	033618	1	Vibrator, screen shaker
9	033619	1	Screen shaker control valve
10	033620	1	. Mount, screen shaker control valve
	011087	2	. . Set screw, M6 x 25mm
	011071	2	. . Nut, M6, Nyloc

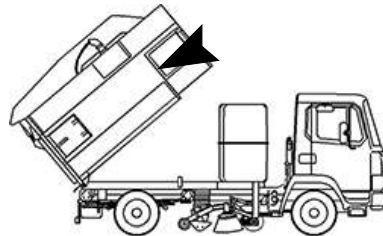
} Option



Hopper Internal Components

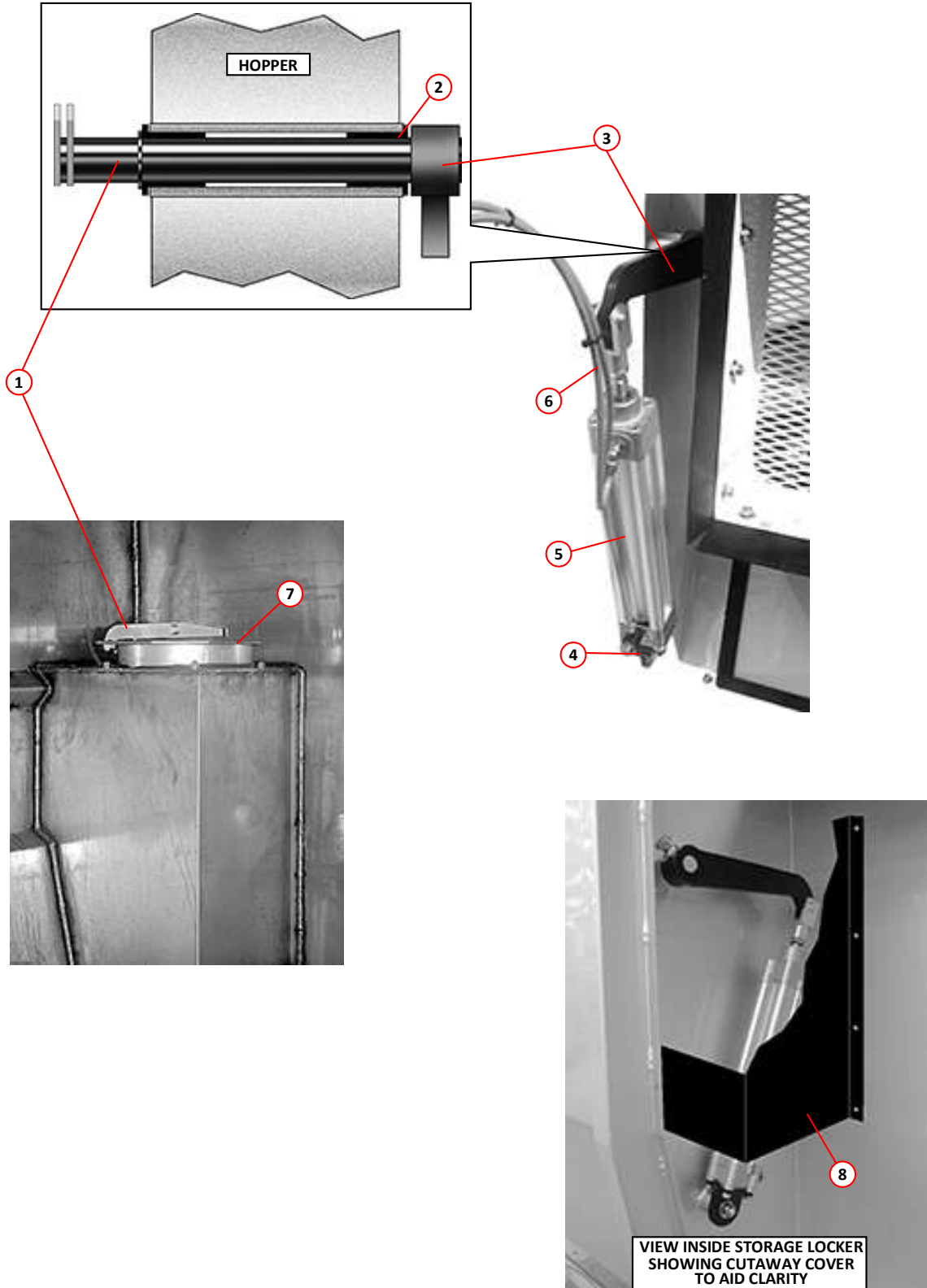
Item	Part Number	Quantity	Description
Auto Blanking Arrangement *			
1	021517	1	Flap arm, LH Page 136
NI	021518	1	Flap arm, RH Page 136
2	013488	2	. Bush
3	024772	1	. Flap lever
	000363	1	. . Set screw, M12 x 1.25 pitch x 25mm, stainless steel
	000279	1	. . Nut, M12 x 1.25 pitch, stainless steel
5	021467	1	Cylinder, pneumatic, 40 x 200 Page 308
	011075	1	. Nut, M10, Nyloc
6	024650	AR	. Tubing, air, flexible nylon, 6mm Superflex
7	021514 †	1	Flap lid, blanking Page 136
8	025486	1	Cover plate (Merlin)
NI	032343	1	Cover plate (XP)
NI	021547	1	Cover plate (Magnum)

AUTO-BLANKING RAMS



Notes:-

- * Items listed are identical for both left and right hand blanking assemblies, except for where identified specifically for one side.
- † Can be supplied with PU compound, before ordering replacement parts, please contact Scarab Parts Department quoting your machine serial number.

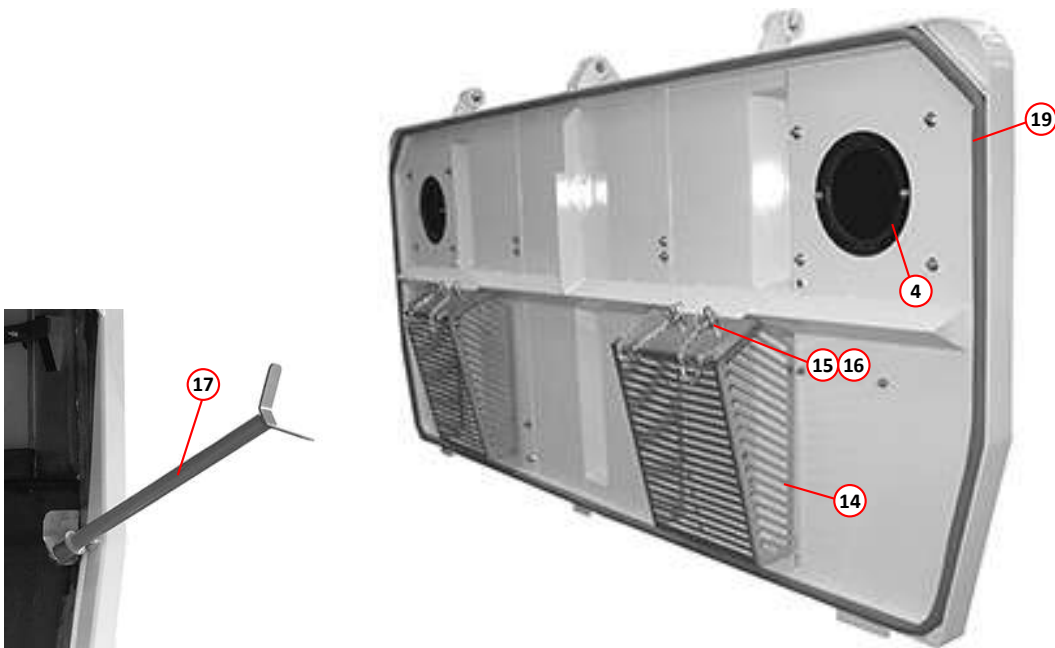
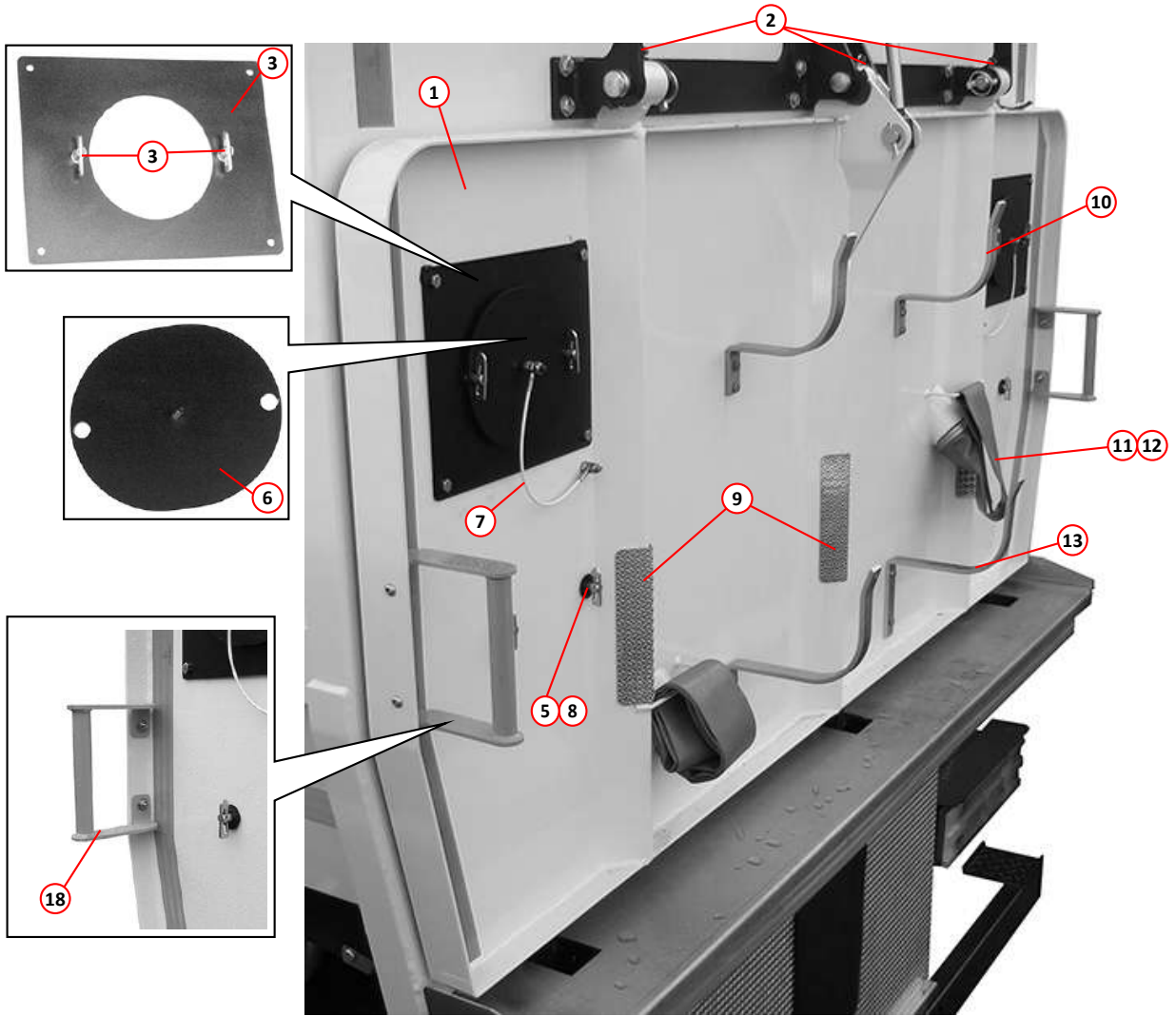


Auto Blanking - Arrangement

Item	Part Number	Quantity	Description
Rear Door Components			
1	023012 *	1	Rear door (Merlin)
NI	027902 *	1	Rear door (Magnum)
NI	032223 *	1	Rear door (XP)
2	010902	3	. Grease point, $\frac{1}{8}$ " BSP x 90°
3	023009	2	. Plate, wander hose, mounting
4	025222	AR	. . Sealing strip, Titanfast DX78
	000257	8	. . Set screw, M8 x 25mm, stainless steel
	000263	8	. . Nut, M8, Nyloc, stainless steel
5	012253	8	. Antiluce, small
6	012486	2	. Plate, blanking cap
7	020711	2	. . Leash cable
	000258	2	. . . Set screw, M8 x 30mm, stainless steel
	000262	4	. . . Nut, M8, stainless steel
	000263	4	. . . Nut, M8, Nyloc, stainless steel
8	021979	4	. . . Washer, rubber
9	031919	3	. Protector
10	010245	2	. Hook, wander hose, upper mounting
	000257	4	. . Set screw, M8 x 25mm, stainless steel
	000263	4	. . Nut, M8, Nyloc, stainless steel
11	010998	AR	. Hose, lay flat
12	012931	2	. . Clamp, worm drive, 70-90mm
13	022747	2	. Hook, wander hose, lower mounting
	000257	4	. . Set screw, M8 x 25mm, stainless steel
	000263	4	. . Nut, M8, Nyloc, stainless steel
14	022292	2	. Strainer (option)
15	013506	4	. . . Pin
16	013507	4	. . . Linch pin and chain
17	039683	1	. Safety prop, hopper rear door, usually stowed in locker
18	039593	2	. Grab handle, hopper door
	000281	4	. . Set screw, hex socket pan head, M8 x 25mm, stainless steel
	000264	4	. . . Washer, M8, stainless steel
	000263	4	. . . Nut, M8, Nyloc, stainless steel
19	030481	6.0 m	. Seal, rear door, circular section, (cut to length)

Notes:-

* Rear doors listed are for standard hoppers. Many variations of hopper and rear door exist and therefore it is advisable to contact Scarab Parts Department, quoting machine serial number when ordering.



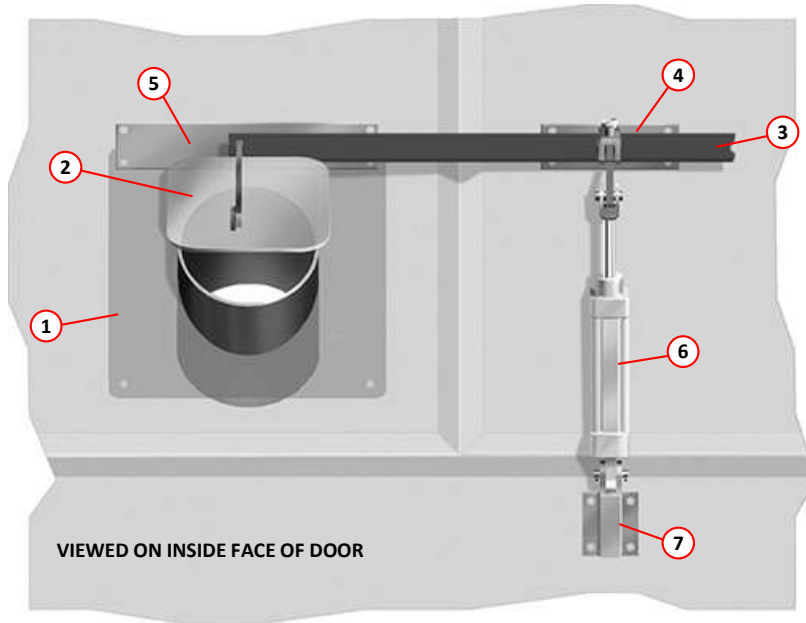
Rear Door Components

Item	Part Number	Quantity	Description
Rear Door Auto Blanking Assembly * - (Option)			
1	027674	2	Hose Spigot Plate
2	027675	2	. Flap Plate
3	027802	1	. Pivot Bar
4	027737	1	. . Adjuster bracket
5	027738	2	. . Pivot bracket
6	020602	1	Cylinder, pneumatic, 40 x 125 Page 306
7	027679	1	. Ram bracket

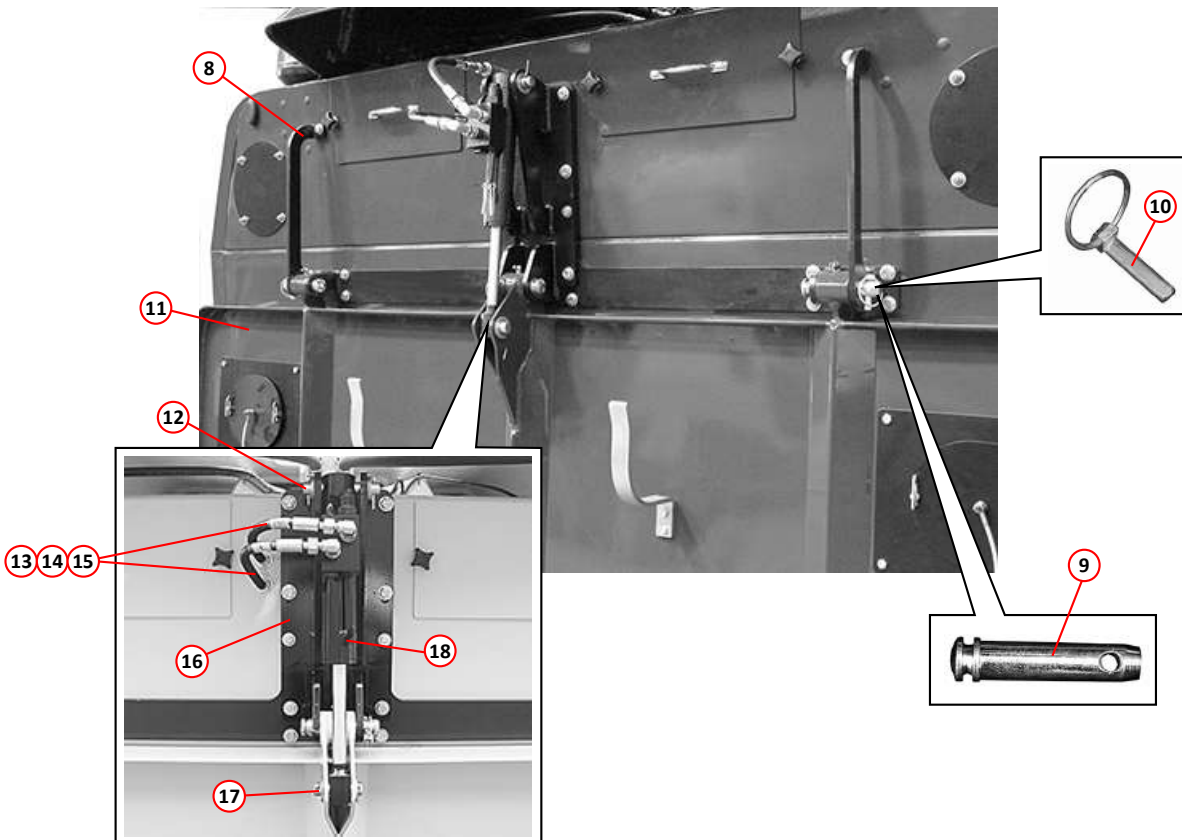
Item	Part Number	Quantity	Description
Rear Door Hinge and Ram Arrangement			
8		1	Hinge plate Page 128
9	013051	3	Hinge pin
10	013053	3	. Linch pin
11		1	Rear door assembly Page 142
12	022558	1	Pin, upper
	011102	4	. Washer, M20
	011122	2	. Split pin, $\frac{3}{16}$ " x $1\frac{1}{2}$ "
13	011317	2	Hose, rubber, $\frac{1}{4}$ " BSP x 295mm, straight ends
14	011269	2	Adaptor, bulkhead, M/M, $\frac{1}{4}$ " BSP
15	011171	2	Elbow, swivel, $\frac{1}{4}$ " BSP, M/F
16		1	Mounting plate, ram Page 128
17	014038	1	. Pin, lower
	011102	4	. Washer, M20
	011122	2	. Split pin, $\frac{3}{16}$ " x $1\frac{1}{2}$ "
18	022511	1	Ram assembly Page 274

Notes:-

- * The rear door auto-blanking option is only fitted when the vehicle is equipped with a rear mounted suction nozzle assembly.

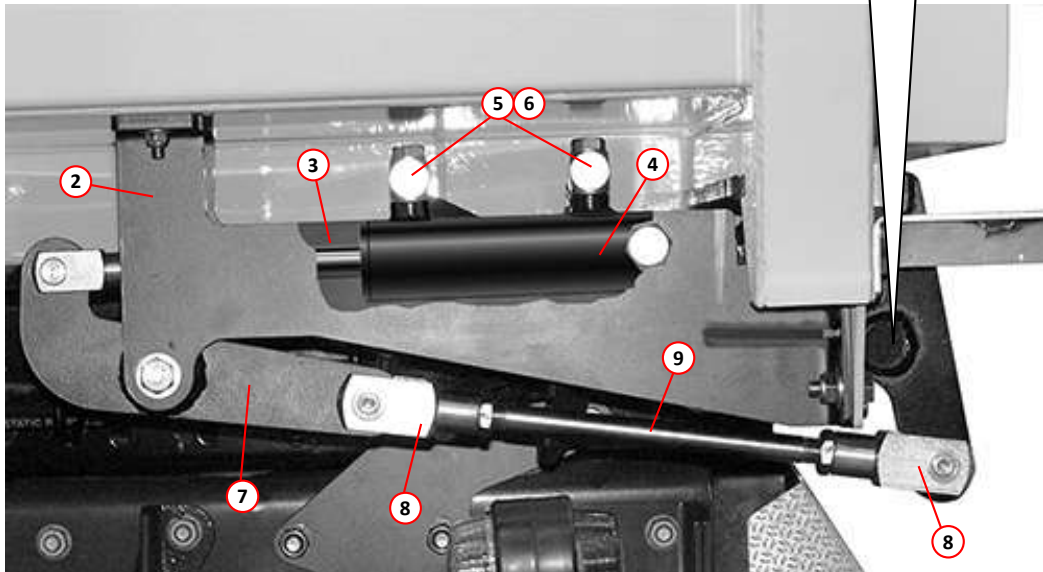
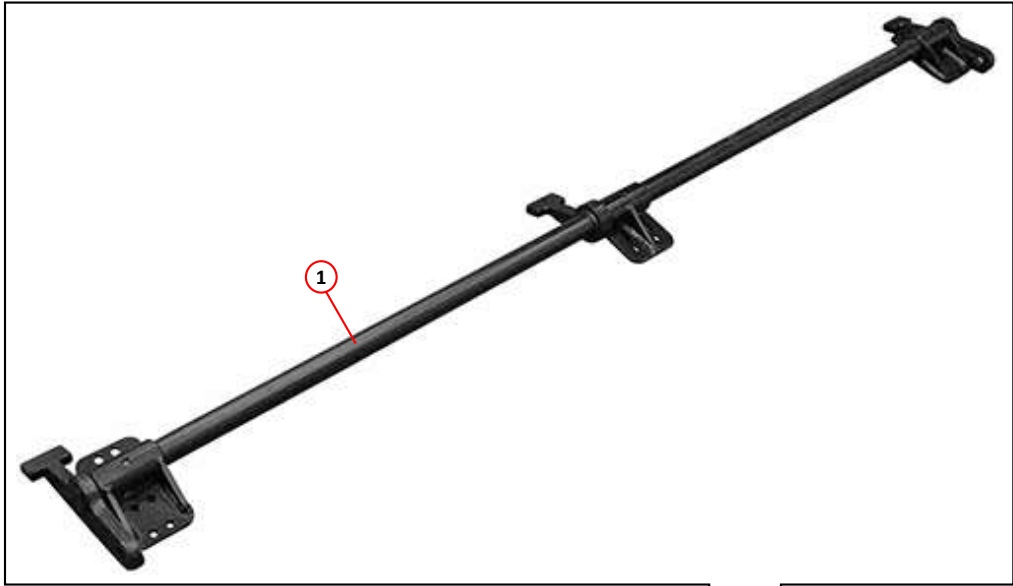


Rear Door Auto Blanking Assembly



Rear Door Hinge and Ram Arrangement

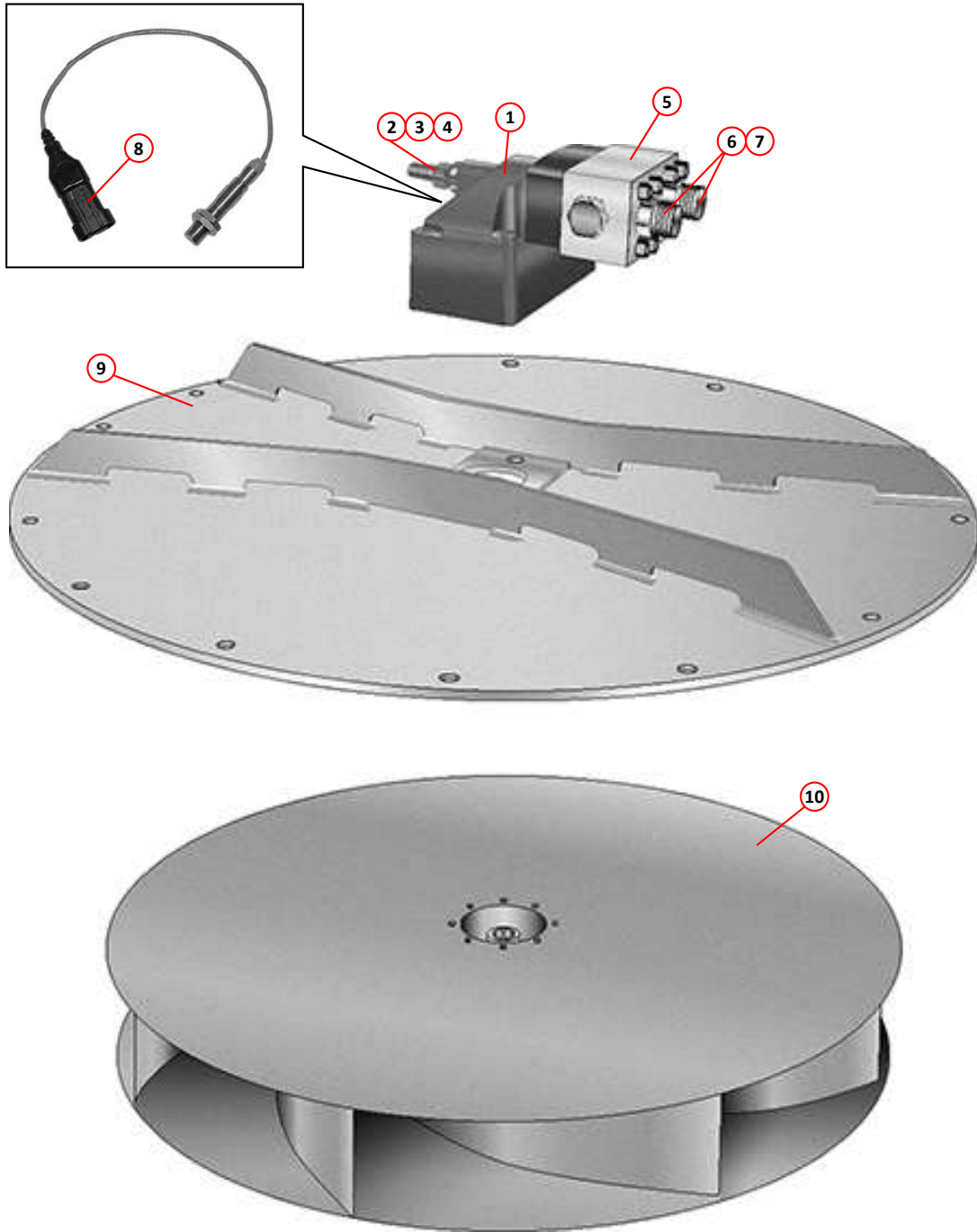
Item	Part Number	Quantity	Description
Rear Door Locking Arrangement			
1	030985	1	Locking bar assembly (Merlin/Merlin XP)
NI	027908	1	Locking bar assembly (Magnum)
NI	028089	1	Locking bar assembly (8000/8500)
	011032	8	. Set screw, M10 x 30mm
	011074	16	. Washer, M10
	011075	8	. Nut, M10, Nyloc
2	030984	1	Side plate, outer, rear door clamp, RH (Merlin)
3	030982	1	Side plate, inner, rear door clamp, RH (Merlin)
NI	030983	1	Side plate, outer, rear door clamp, LH (Merlin)
NI	030981	1	Side plate, inner, rear door clamp, LH (Merlin)
NI	028278	1	Side plate, outer, rear door clamp, RH (Magnum/8000/8500)
NI	028278	1	Side plate, inner, rear door clamp, RH (Magnum/8000/8500)
NI	028277	1	Side plate, outer, rear door clamp, LH (Magnum/8000/8500)
NI	027903	1	Side plate, inner, rear door clamp, LH (Magnum/8000/8500)
	000329	4	. Screw, socket button head, M8 x 20mm, stainless steel
	000270	4	. Washer, M8, stainless steel
	000263	4	. Nut, M8, Nyloc, stainless steel
	011031	4	. Set screw, M10 x 25mm
	011074	8	. Washer, M10
	011075	4	. Nut, M10, Nyloc
4	022350	2	. Ram, hydraulic Page 274
	011133	2	. . Bolt, M16 x 100mm
	011060	2	. . Nut, M16, Nyloc
5	002017	4	. . Adaptor, banjo, elbow, M/M, $\frac{1}{4}$ " BSP
6	011152	8	. . Seal, Dowty, $\frac{1}{4}$ " BSP
7	024999	2	. Lever, ram operating
NI	013488	4	. . Bush
NI	022451	2	. . Spacer
	000139	2	. . . Bolt, M12 x 90mm
	011077	2	. . . Nut, M12, Nyloc
8	020299	4	. . Clevis, M16
NI	022673	4	. . Pin, clevis fixing
NI	022674	4	. . Clip, clevis pin
9	022347	2	. . Connecting rod
	000138	4	. . . Nut, M16 x 1.5 pitch



CUT-AWAY TO SHOW HIDDEN DETAIL

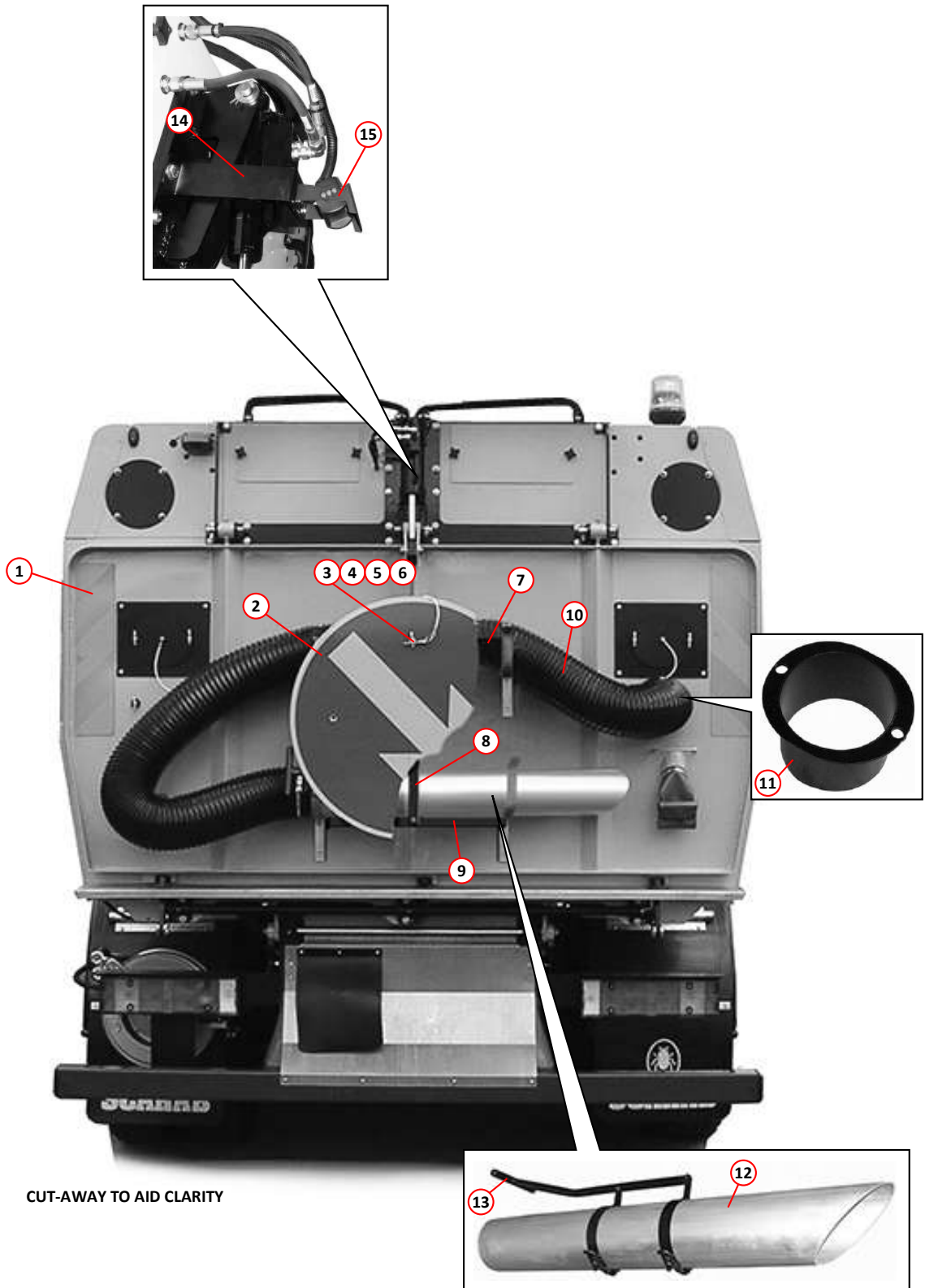
Rear Door Locking Arrangement

Item	Part Number	Quantity	Description
Suction Fan Arrangement			
1	024641	1	Motor, hydraulic, VOAC F12-030-MF-CH-K Page 268
2	011248	1	. Adaptor, M/M, M18 x $\frac{3}{8}$ " BSP
3	011247	1	. Seal, Dowty, M18
4	010921	1	. Hose tail, $\frac{3}{8}$ " BSP female x $\frac{3}{8}$ " hose
NI	027237	1	. Seal kit, for 024641 VOAC Fan Motor
5	035967	1	. Valve block
	000048	8	. . Screw, socket cap head, M10 x 80mm
	011095	8	. , Washer, spring, M10
6	011161	2	. . Adaptor, M/M, $\frac{3}{4}$ " BSP
7	011155	2	. . Seal, Dowty, $\frac{3}{4}$ " BSP
8	025184	1	. Speed sensor (green lead) Page 318
9	024679	1	Fan Plate
	011424	16	. Washer, M10
	011075	16	. Nut, M10, Nyloc
10	025241	1	Impeller
NI	030651	1	Impeller (stainless steel)
NI	041456	1	Impeller, high speed (stainless steel)
	011052	1	. Set screw, M12 x 30mm
	024791	1	. Cap Washer, VOAC Motor



Suction Fan Arrangement

Item	Part Number	Quantity	Description
Additional Hopper/Rear Door Components			
1	022389	2	. Marker plates
2	026694	1	. Directional arrow, ø750mm
3	012253	2	. . Antiluce, small
	012969	2	. . . Washer, rubber, ø40 x 12 bore x 6mm thick
4	020711	1	. . Leash cable
5	021944	1	. . . R-clip
6	023599	1	. . . Key pull
7	031976	1	. . . Upper support bar, directional arrow
8	031978	1	. . . Centre support bar, directional arrow
	000003	2	. . . . Screw, socket countersunk, M8 x 20mm
	011073	2	. . . . Nut, M8, Nyloc
	011092	2	. . . . Washer, M8
9	031977	1	. . . Lower support bar, directional arrow
10	010119	1	. Wander hose, ø160mm x 3 metre
11	012488	1	. . Coupling
NI	010519	2	. . . Clamp, worm drive, size 135-165mm
12	010587	1	. . Tube
13	040670	1	. . Handle
14	036437	1	Bracket, rear camera
15	040354	1	. Rear camera Page 318
NI	040353	1	Loom, power supply, rear camera Page 420,314,316
NI	040355	1	Loom, rear camera Page 420,314,316

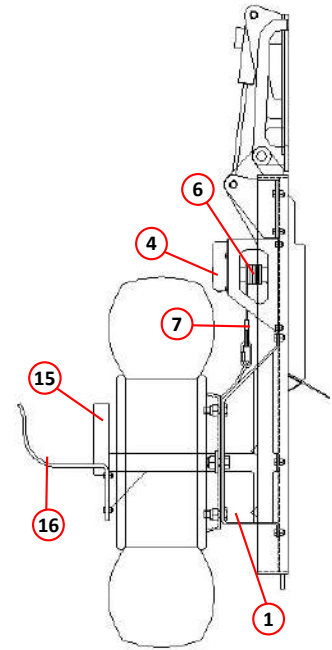
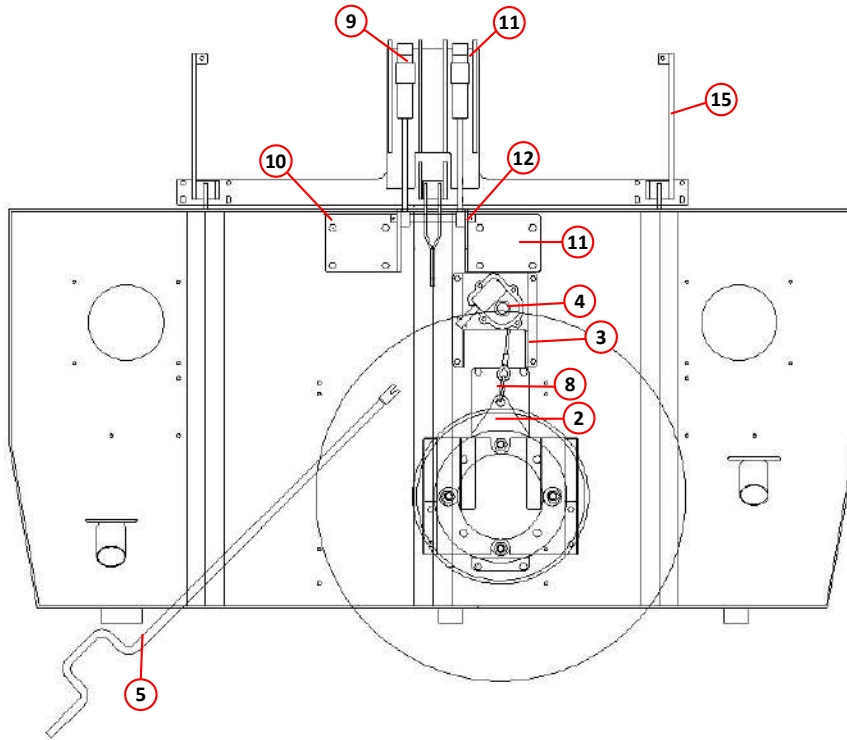


CUT-AWAY TO AID CLARITY

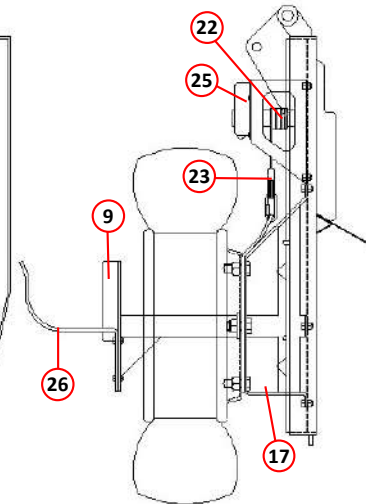
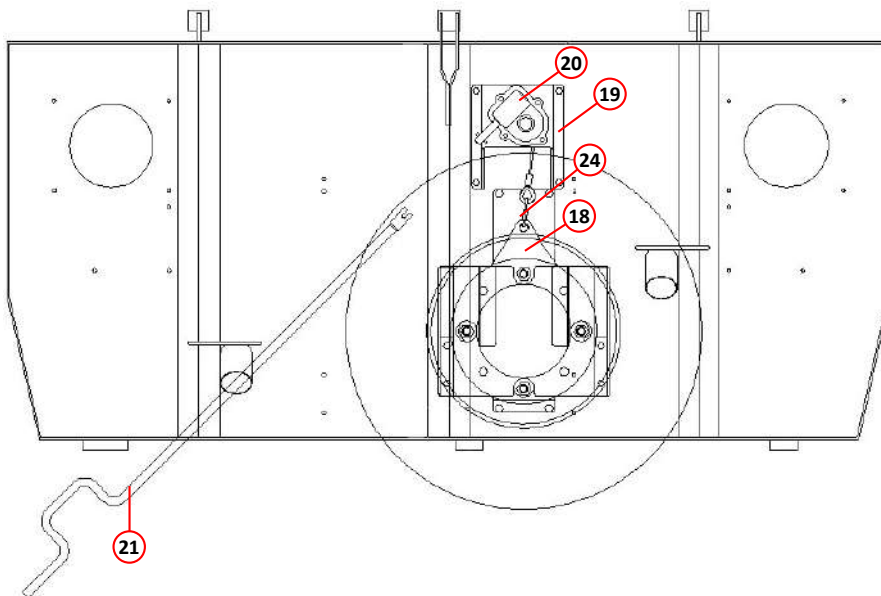
Additional Hopper/Rear Door Parts

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Rear Door - Spare Wheel Carrier - Magnum - (Option)			
1	026777	1	Bracket, spare wheel
	011082	4	. Nut, M20, Nyloc
2	026778	1	Lift plate
3	026779	1	Bracket, Winch
4	028406	1	Winch, modified
5	028407	1	Winch handle
6	028645	1	Cable, winch
7	014107	2	Cable grip 6mm
8	010606	1	Carabiner
9	022511	1	Ram
10	028523	1	Ram pivot LH
11	028524	1	Ram pivot RH
12	028525	1	Ram pin
13	025661	1	Ram mount, adjustable
14	025660	1	Hinge plate, adjustable
15	028684	1	Rear boom carrier
16	022747	2	Hose hook large

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Rear Door - Spare Wheel Carrier - Merlin - (Option)			
17	026777	1	Bracket, spare wheel
	011082	4	. Nut, M20, Nyloc
18	026778	1	Lift plate
19	026779	1	Bracket, winch
20	028406	1	Winch, modified
21	028407	1	Winch handle
22	028645	1	Winch cable
23	014107	2	Cable grip 6mm
24	010606	1	Carabiner
25	028684	1	Rear boom carrier
26	022747	2	Hose hook large



Spare Wheel Carrier - Magnum

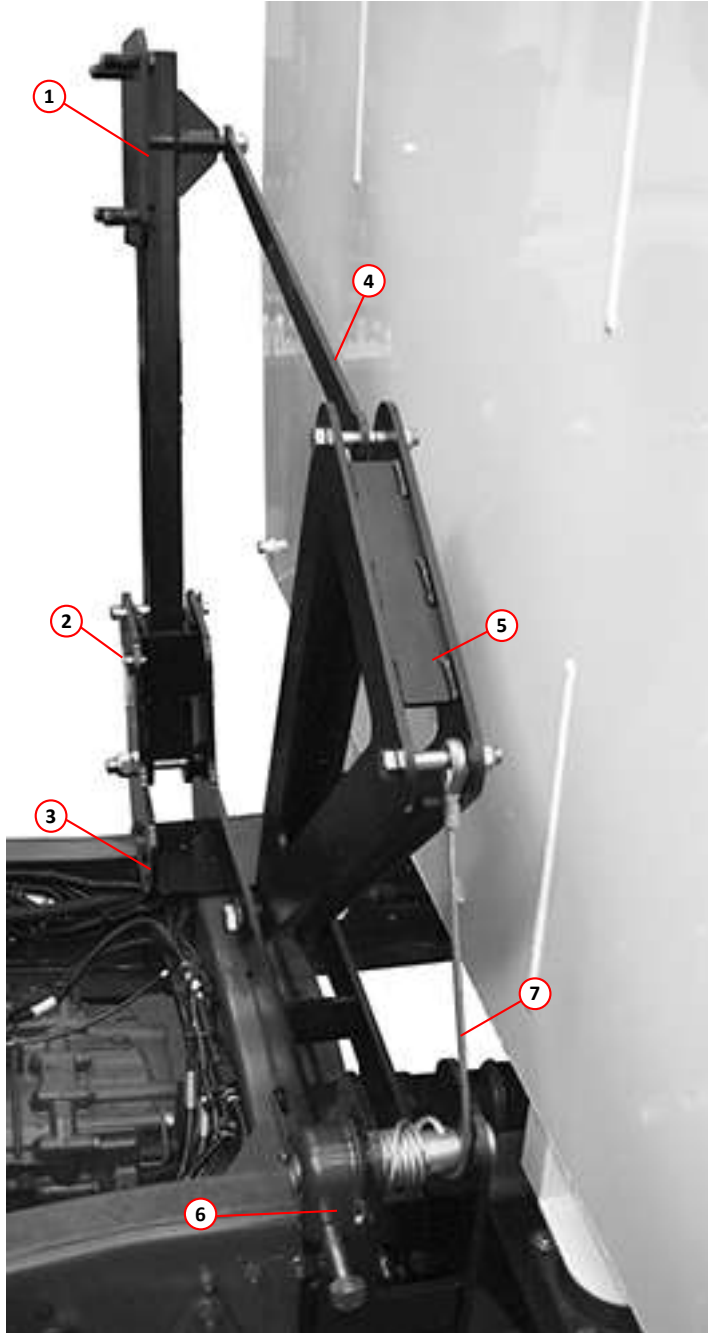


Spare Wheel Carrier - Merlin

Item	Part Number	Quantity	Description
Chassis Mounted - Spare Wheel Carrier - (Option)			
1	*	1	Main arm & wheel mounting
	011086	1	. Nut, M16, Nyloc
	000241	2	. Bolt, M24 x 130mm
	000008	2	. Nut, M24, Nyloc
	032587	1	. Lock pin
NI	020711	1	. . Leash cable
NI	023599	1	. . Pull ring
NI	021944	1	. . D-clip
3	*	1	. Mounting bracket
	011052	6	. . Set screw, M12 x 30mm
	011086	6	. . Nut, M12, Nyloc
4	*	1	. Link arm
	000043	2	. . Bolt, M16 x 90mm
	011060	2	. . Nut, M16, Nyloc
5	032586	1	. 'V' Bracket
6	028406	1	. Winch
7	028645	1	Winch cable

Notes:-

* Before ordering these items please contact the Scarab Parts Department quoting machine serial number and model.



Spare wheel omitted to aid clarity

Spare Wheel Carrier

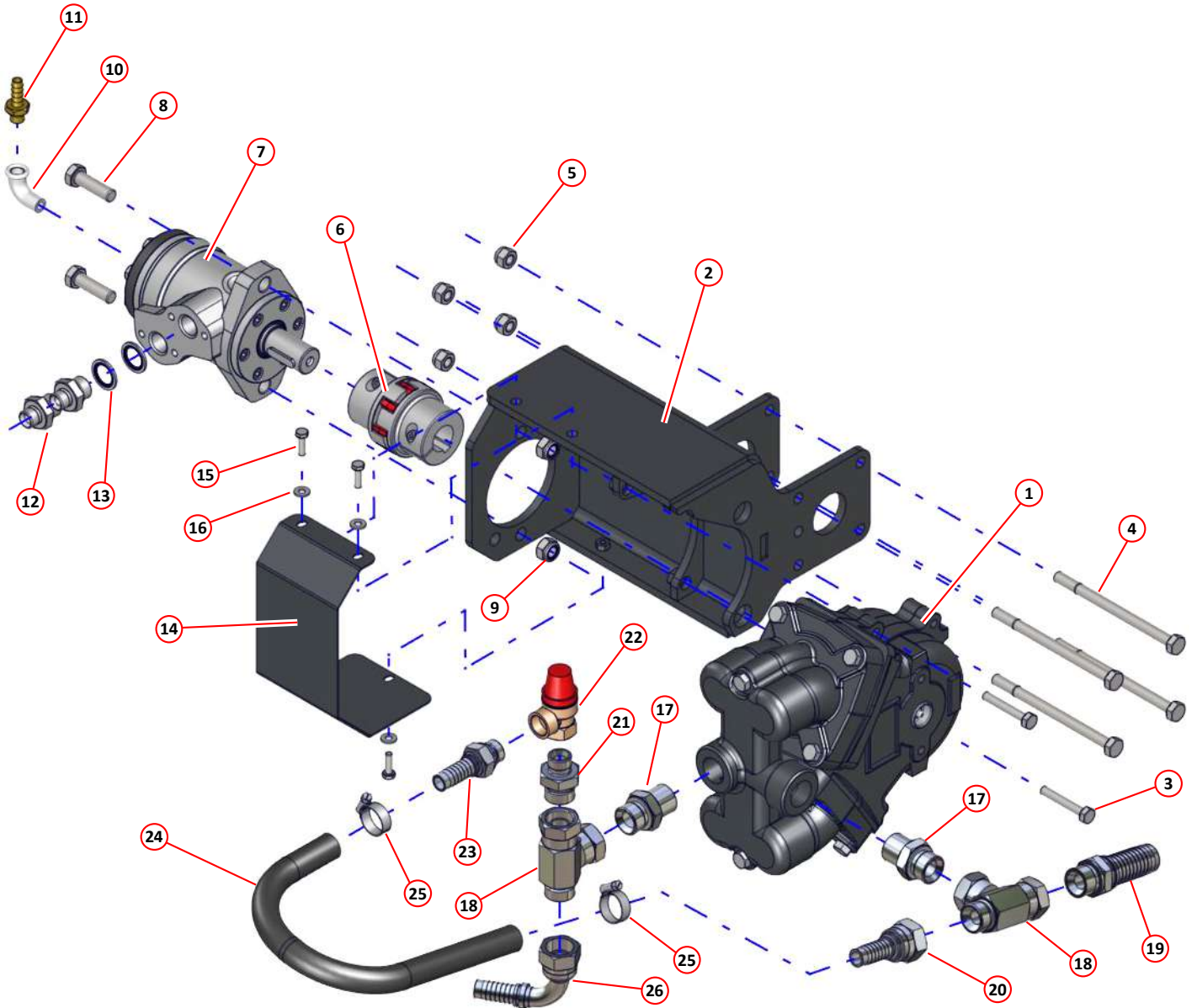
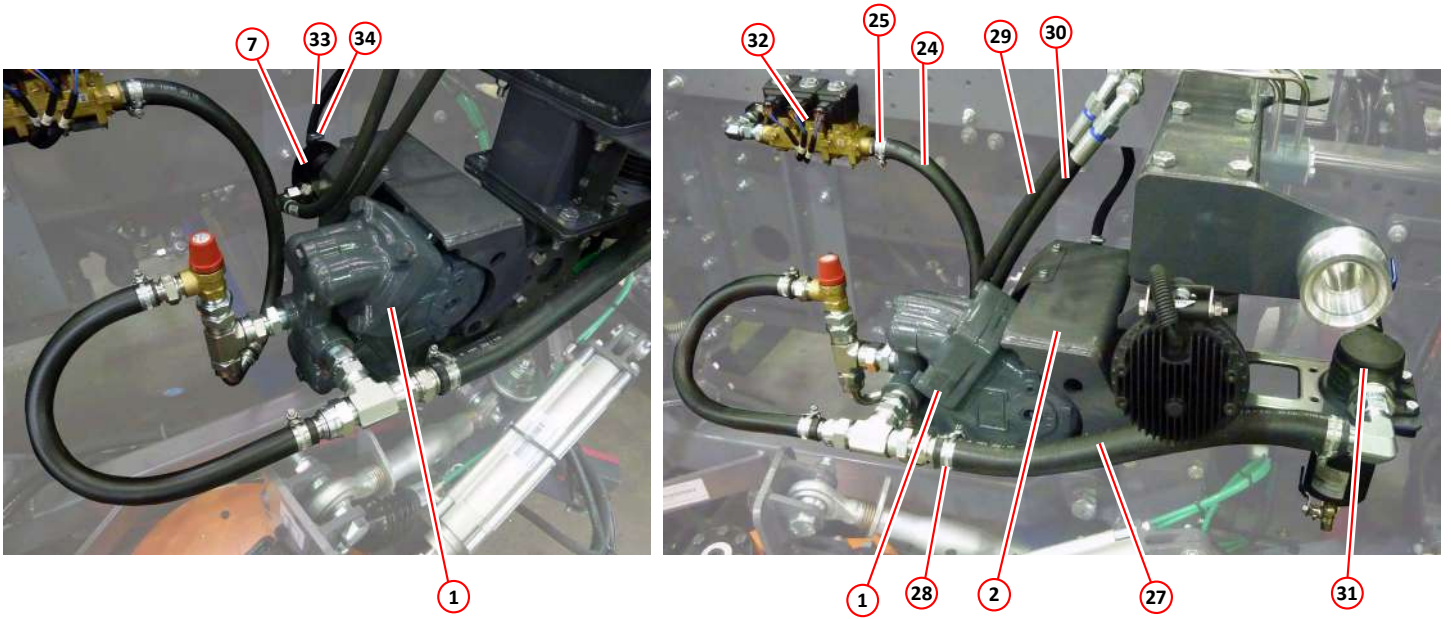
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High Pressure Water Pump - 75 litres/minute - Arrangement	212
High Pressure Water Pump - 75 litres/minute - Components	214
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Item	Part Number	Quantity	Description
Low Pressure Water Pump - Twin Diaphragm - Arrangement (From 2016)			
1	010208 *	1	Pump, twin diaphragm, assembly Page 160
2	045029	1	Mounting bracket, pump
3	011016	2	Set screw, M8 x 50
4	000041	4	Bolt, M10 x 140
5	011075	4	Nyloc Nut, M10
6	043779	1	Coupling
7	043778	1	Motor, hydraulic 40cc
8	011069	2	Bolt, M12 x 40
9	011077	2	Nyloc nut, M12
10	010910	1	Elbow, M/F, $\frac{1}{4}$ " BSP
11	010922	1	Adapter, $\frac{1}{4}$ " x BSP $\frac{3}{8}$ " hose tail
12	011167	2	Adapter, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
13	011154	2	Dowty seal, $\frac{1}{2}$ " BSP
14	044186	1	Cover, coupling
15	011067	3	Set screw, M6 x 20
16	011090	3	Plain washer, M6
17	002245	2	Adapter, $\frac{3}{4}$ " BSPP x $\frac{3}{4}$ " BSP
18	002233	2	Tee, M/F/F, $\frac{3}{4}$ " BSP, nut on branch
19	002252	1	Adapter, $\frac{3}{4}$ " BSP x 1" hose tail
20	001144	1	Adapter, female $\frac{3}{4}$ " BSP x $\frac{5}{8}$ " hose tail
21	011166	1	Adapter, $\frac{3}{4}$ " x $\frac{1}{2}$ " BSP
22	030741	1	Pressure relief valve
23	002159	1	Adapter, $\frac{1}{2}$ " BSPP x $\frac{5}{8}$ " hose tail
24	011000	As Req	Hose, $\frac{5}{8}$ " bore
25	010517	4	Clamp, worm drive, 18-25mm
26	001145	1	Adapter, female x $\frac{5}{8}$ " hose tail
27	010959	As Req	Hose, 1" bore
28	010518	2	Clamp, worm drive, 1X [30-40mm]
29	001220	1	Hose, $\frac{3}{8}$ " BSP x 410mm, straight/90° ends
30	001294	1	Hose, $\frac{3}{8}$ " BSP x 500mm, straight/90° ends
31		1	Water filter, low pressure, assembly Page 162
32		1	Water valves, low pressure, assembly Page 172

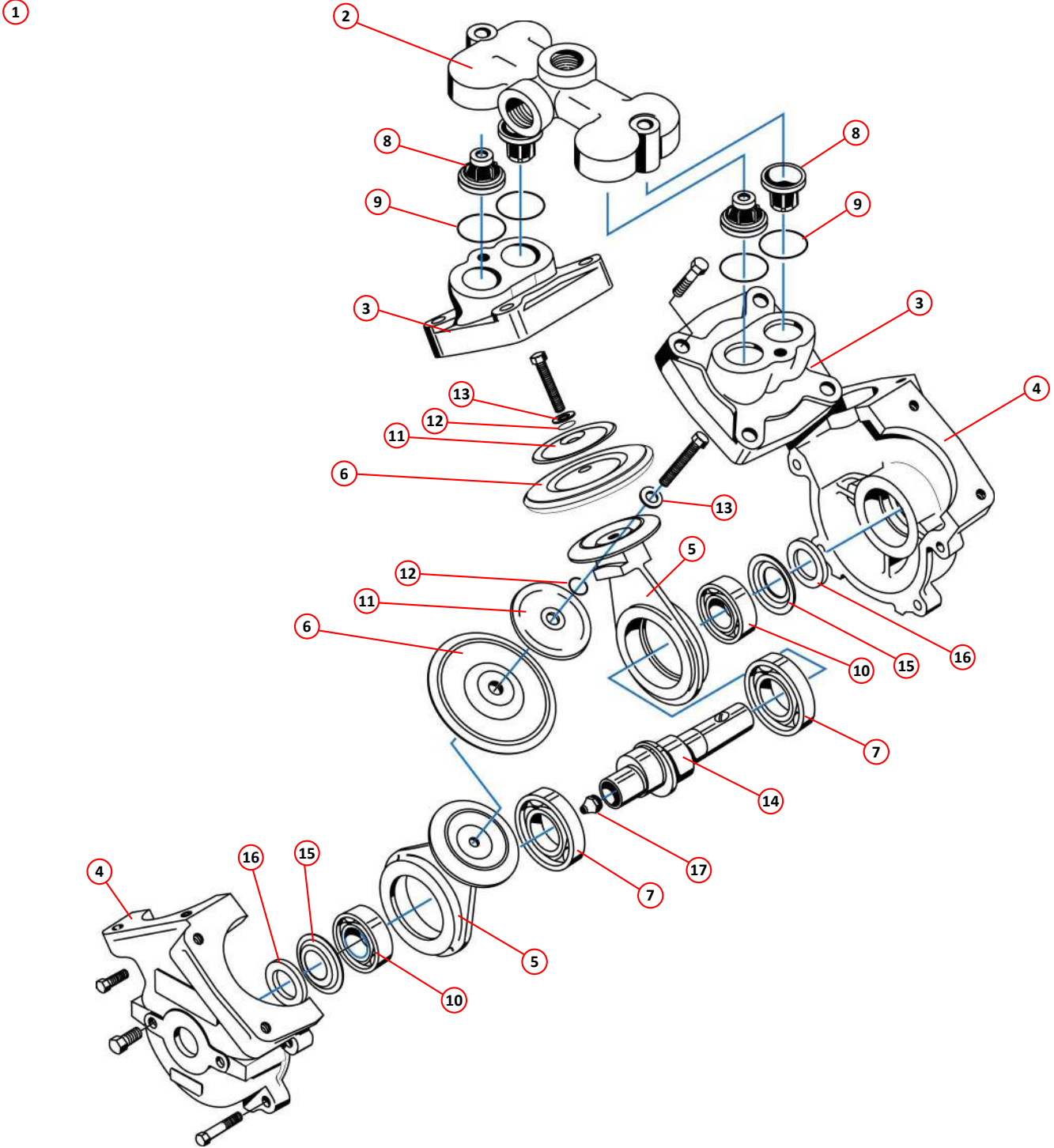
Notes:-

* A service exchange unit is available, please contact Scarab Parts Department.



Low Pressure Water Pump - Twin Diaphragm (From 2016)

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Low Pressure Water Pump - Twin Diaphragm - Components (From 2016)			
1	010208	1	Pump, twin diaphragm, low pressure, assembly158
2	020460	1	Pump bridge, valve chamber
3	020463	1	Pump head, diaphragm cover
4	020461	1	Pump crankcase
5	014682	2	Connecting rod
6	013629	2	Diaphragm
7	013522	2	Bearing, ball
8	013627	4	Poppet valve
9	013628	4	Sealing ring
10	022726	1	Bearing, ball
11	014882	2	Diaphragm upper
12	031560	2	Seal
13	031561	2	Washer
14	048004	1	Pump eccentric
15	014881	1	Retainer
16	014879	1	Felt washer
17	010903	1	Grease point, $\frac{1}{8}$ " straight



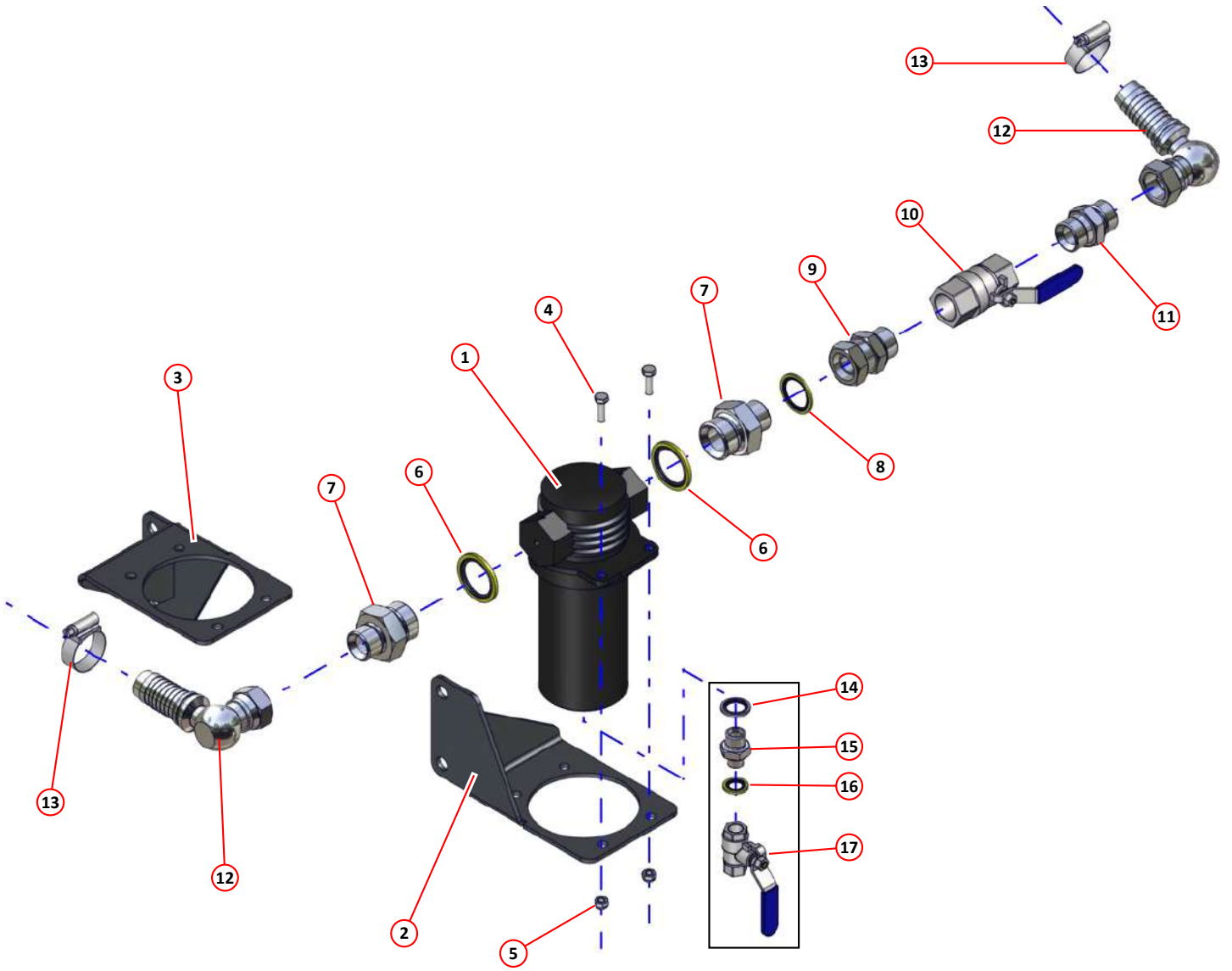
Low Pressure Water Pump - Twin Diaphragm - Components (From 2016)

Item	Part Number	Quantity	Description
Low Pressure Water Filter (From 2016)			
1	023862	1	Water strainer
2	043863	1	Bracket, water strainer, Merlin and Merlin XP
3	043863	1	Bracket, water strainer, Magnum
4	011067	2	Set screw M6 x 20
5	011071	2	Nyloc nut, M6
6	011156	2	Dowty seal, 1" BSP
7	011193	2	Adapter, 1" x $\frac{3}{4}$ " BSP
8	011155	1	Dowty seal, $\frac{3}{4}$ " BSP
9	012228	1	Adapter, swivel, M/F, $\frac{3}{4}$ " x $\frac{3}{4}$ " BSP
10	013757	1	Valve, ball, $\frac{3}{4}$ " BSP
11	011161	1	Adapter, $\frac{3}{4}$ " BSP
12	002203	2	Adapter, $\frac{3}{4}$ " BSPP x 1" hose tail
13	010518	2	Clamp, worm drive, 1X [30-40mm]
NI	010959	As Req	Hose, 1" bore
14	011153 *	1	Dowty seal, $\frac{3}{8}$ " BSP
15	011199 *	1	Adapter, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
16	011152 *	1	Dowty seal, $\frac{1}{4}$ " BSP
17	011743 *	1	Valve, ball, $\frac{1}{4}$ " BSP

Notes:-

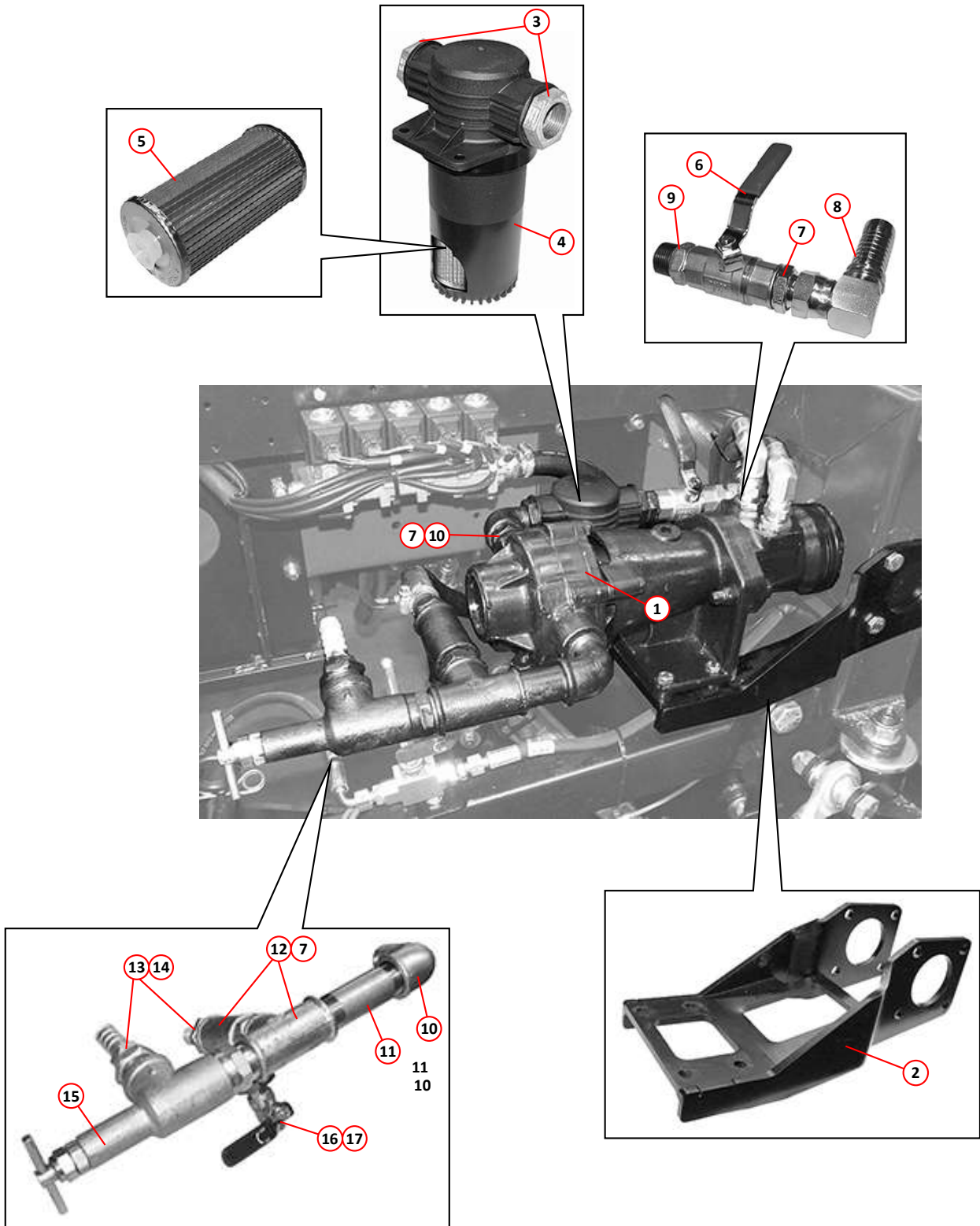
* Only only water purge systems

Washing and Dust Suppression



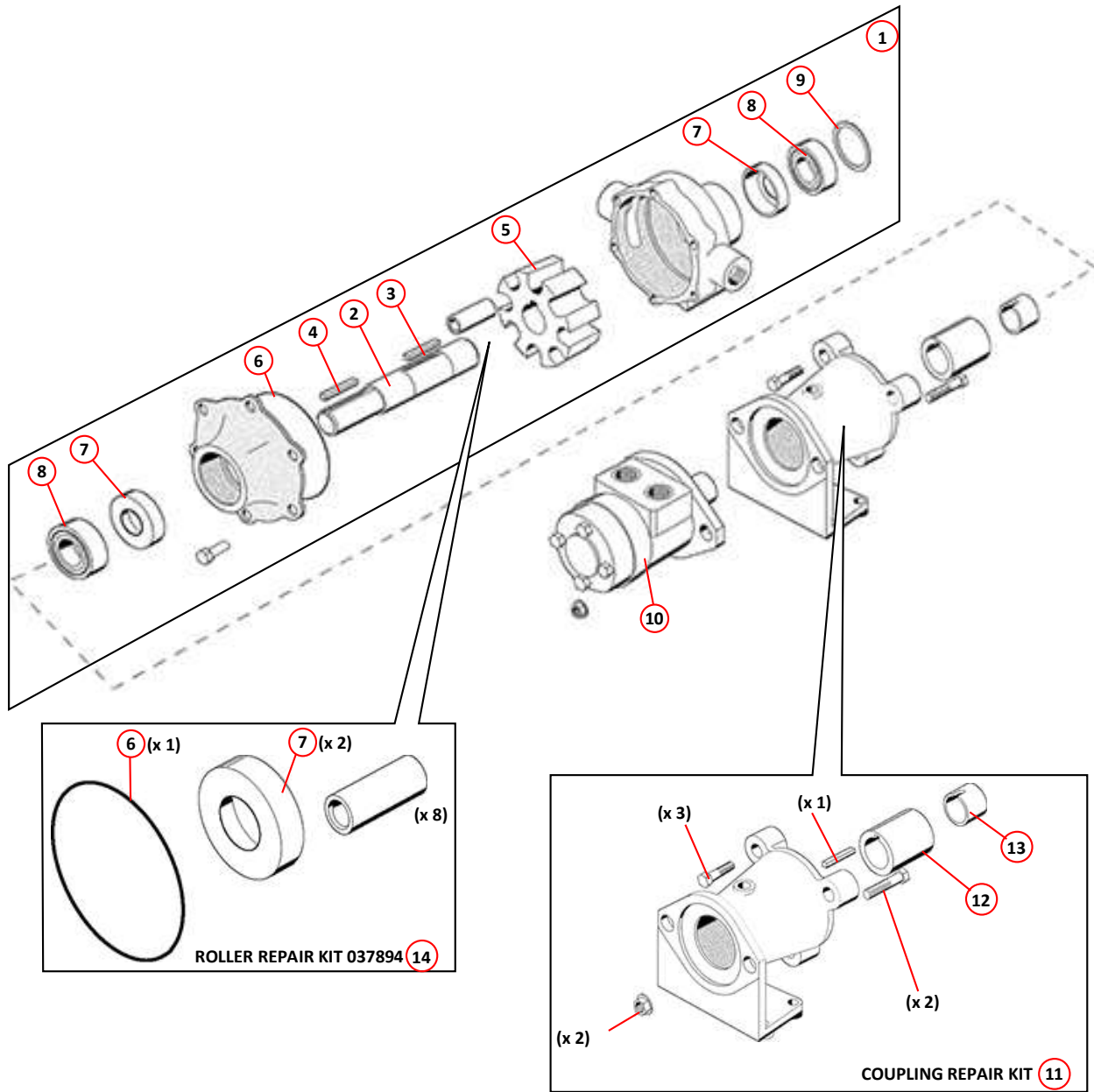
Low Pressure Water Filter (From 2016)

Item	Part Number	Quantity	Description
Low Pressure Water Pump - Roller - Arrangement			
1	037812	1	Water pump, low pressure (roller type) Page 166
	011013	4	. Set screw, M8 x 35mm
	011073	4	. Nut, M8, Nyloc
2	037813	1	. Bracket, pump support
	011407	4	. . Bolt, M10 x 120mm
	011075	4	. . Nut, M10, Nyloc
3	000154	2	. Adaptor, galvanised, M/F, 1" x $\frac{3}{4}$ " BSP
4	023862	1	. Filter (complete)
5	023863	1	. . Filter, element
6	013757	1	Valve, ball, $\frac{3}{4}$ " BSP
7	011161	1	. Adaptor, M/M, $\frac{3}{4}$ " BSP
	011155	1	. Seal, Dowty, $\frac{3}{4}$ " BSP
8	011210	1	. Elbow, hose tail, $\frac{3}{4}$ " BSP x 1" hose
9	010916	2	. Adaptor, galvanised, M/M, $\frac{3}{4}$ " BSP
10	010917	1	. Elbow, galvanised, M/F, $\frac{3}{4}$ " BSP
11	010933	1	. Connector, M/M, $\frac{3}{4}$ " BSP
12	010919	2	. Tee, galvanised, F/F/F, $\frac{3}{4}$ " BSP
13	010946	2	. Adaptor, galvanised, M/F, $\frac{3}{4}$ " x $\frac{3}{8}$ " BSP
14	010930	2	. Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
15	010101	1	. Valve, flow control, $\frac{3}{4}$ " BSP
16	011164	1	. Adaptor, M/M, $\frac{3}{4}$ " x $\frac{1}{4}$ " BSP
17	011743	1	. Valve, ball, $\frac{1}{4}$ " BSP



Low Pressure Water Pump - Roller - Arrangement

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Low Pressure Water Pump - Roller - Components			
1	037893	1	Pump, body, complete
2	045203	1	. Shaft, drive
3	045531	1	. Key, drive
4	045346	1	. Key, drive
5	046660	1	. Rota
6	045299	1	. . O-ring
7	045300	2	. . Seal (Viton)
8	045301	2	. . Bearing
9	045204	1	. . . Cover, bearing
10	040906	1	. Motor, hydraulic
11	040905	1	Repair kit, coupling
12	045530	1	Coupler, large
13	045529	1	Spacer, small
14	037894	1	Repair kit, roller

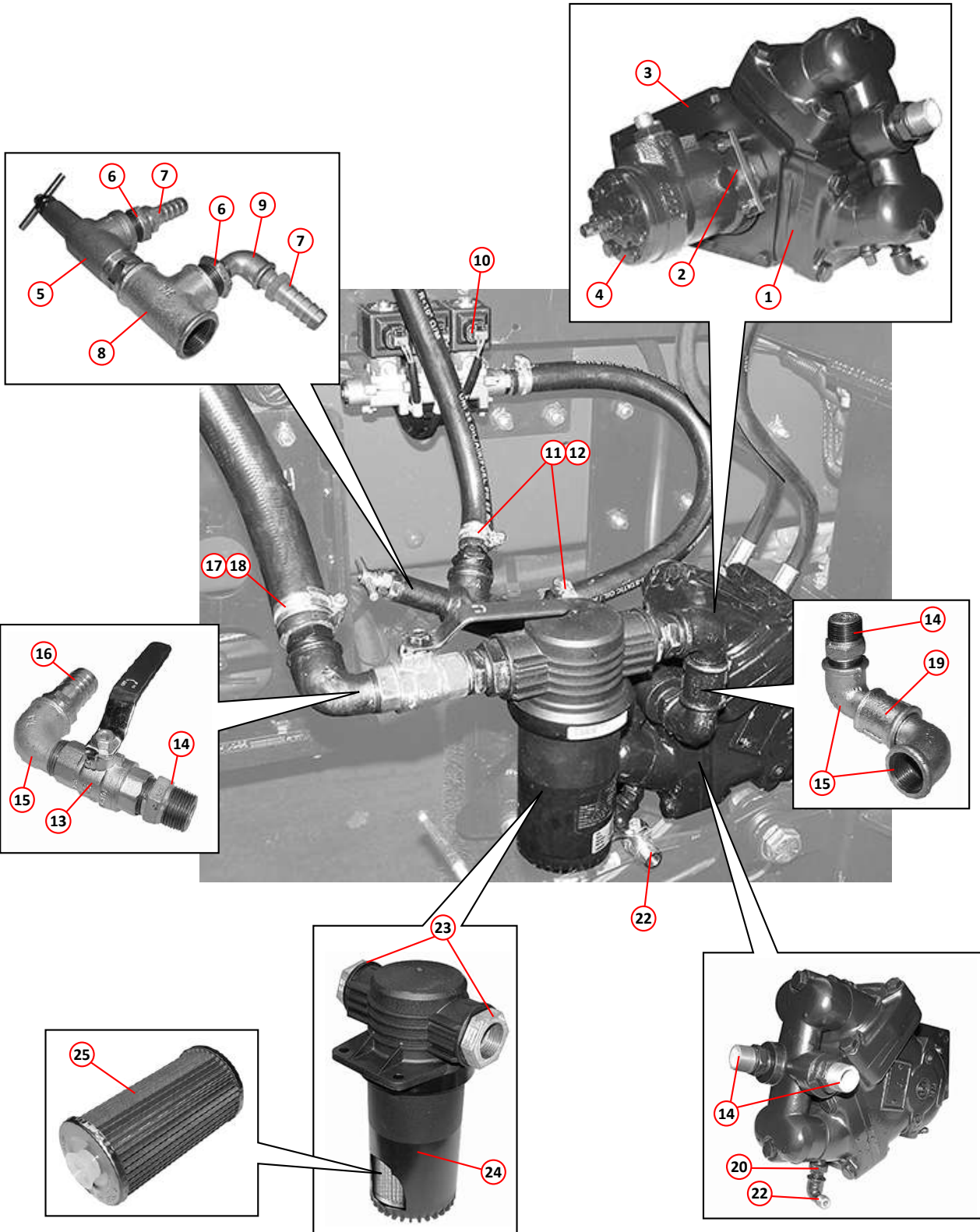


Low Pressure Water Pump - Roller - Components

Item	Part Number	Quantity	Description
Low Pressure Water Pump - Twin Diaphragm - Arrangement - Pre 2016			
1	024385 *	1	Pump, twin diaphragm, assembly
NI	010903	1	. Greasing point, straight, $\frac{1}{8}$ " BSP
NI	024241	1	. Locating ring
2	024245	2	. Clamp, pump
3	024243	1	. Plate, pump mounting
NI	014873	4	. Spacer 37 x 20 x 11
	011018	4	. . Bolt, M8 x 90mm
	011073	4	. . Nut, M8, Nyloc
NI	024908	4	. . Stud
	011073	4	. . . Nut, M8, Nyloc
4	013527	1	. Motor, hydraulic Page 270
5	010101	1	. Valve, pressure relief, $\frac{3}{4}$ " BSP
6	010946	2	. . Adaptor, galvanised, M/F, $\frac{3}{4}$ " x $\frac{3}{8}$ " BSP
7	010930	2	. . Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
8	010919	1	. . Tee, galvanised, F/F/F, $\frac{3}{4}$ " BSP
9	010913	1	. . Elbow, galvanised, M/F, $\frac{3}{8}$ " BSP
10		1	. Water valve assembly Page 172
11	010517	4	. . Clamp, worm drive, 18-25mm
12	011000	AR	. . . Tube, rubber, $\frac{5}{8}$ " bore
13	013757	1	. Valve, ball, $\frac{3}{4}$ " BSP
14	010916	2	. . Adaptor, galvanised, M/M, $\frac{3}{4}$ " BSP
15	010917	3	. . Elbow, galvanised, M/F, $\frac{3}{4}$ " BSP
16	010931	1	. . Hose Tail, $\frac{3}{4}$ " BSP x 1" hose
17	010518	2	. . Clamp, worm drive, 30-40mm
18	010959	AR	. . . Tube, rubber, 1" bore
19	010934	1	. . Socket, galvanised, F/F, $\frac{3}{4}$ " BSP
20	010944	1	. Adaptor, galvanised, M/M, $\frac{1}{4}$ " BSP
21	010910	1	. Elbow, galvanised
22	011743	1	. . Valve, Ball, $\frac{1}{4}$ " BSP
23	000154	2	. . Adaptor, galvanised, M/F, 1" x $\frac{3}{4}$ " BSP
24	023862	1	. Filter (complete)
25	023863	1	. . Filter, element
NI	023897	1	. . O-ring

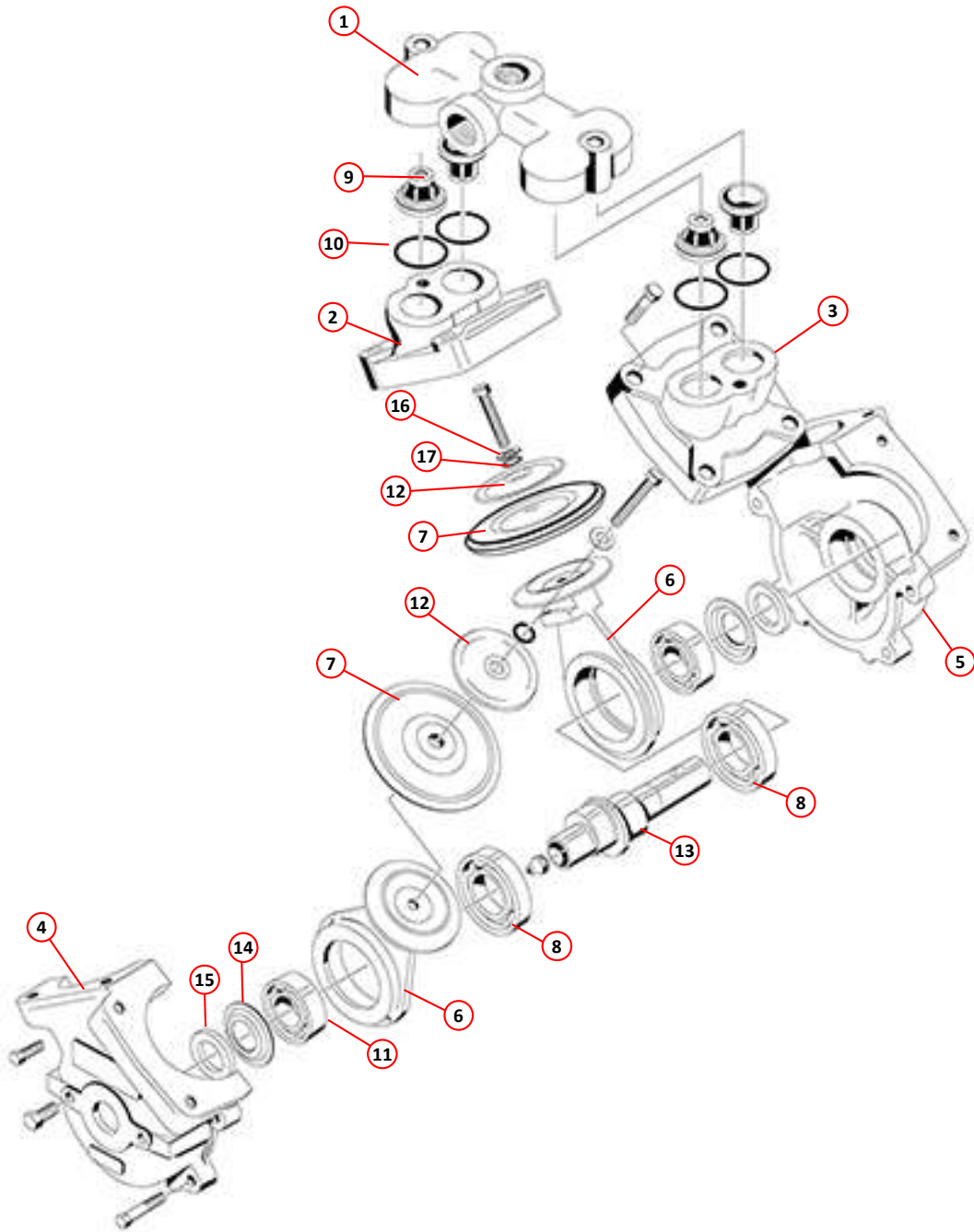
Notes:-

* A service exchange unit is available by ordering part number 024385SE.



Low Pressure Water Pump - Twin Diaphragm

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Low Pressure Water Pump - Twin Diaphragm - Components			
1	020460	1	Pump bridge
2	020464	1	Pump head (mod)
3	020463	1	Pump head
4	020461	1	Pump crankcase
5	020462	1	Pump crankcase (mod)
6	014682	2	. Conrod
7	013629	2	. Diaphragm
8	013522	2	. Bearing, ball 6007
9	013627	4	. Poppet valve
10	013628	1	. . Sealing ring
11	022726	1	. Bearing ball 6205
12	014882	2	. Pump backing plate
13	014869	1	. Pump eccentric
14	014881	1	. Retainer
15	014879	1	. . Felt washer
16	031560	2	. Seal
17	031561	2	. Washer



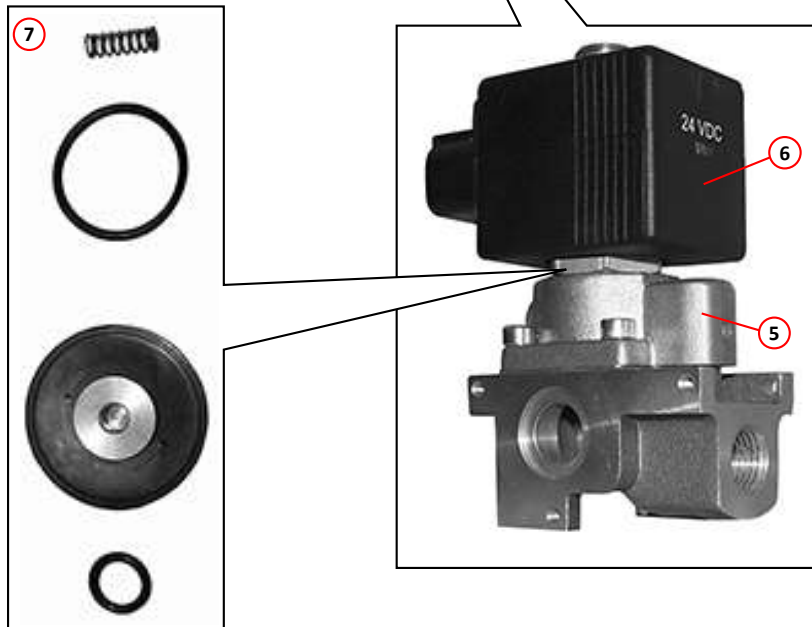
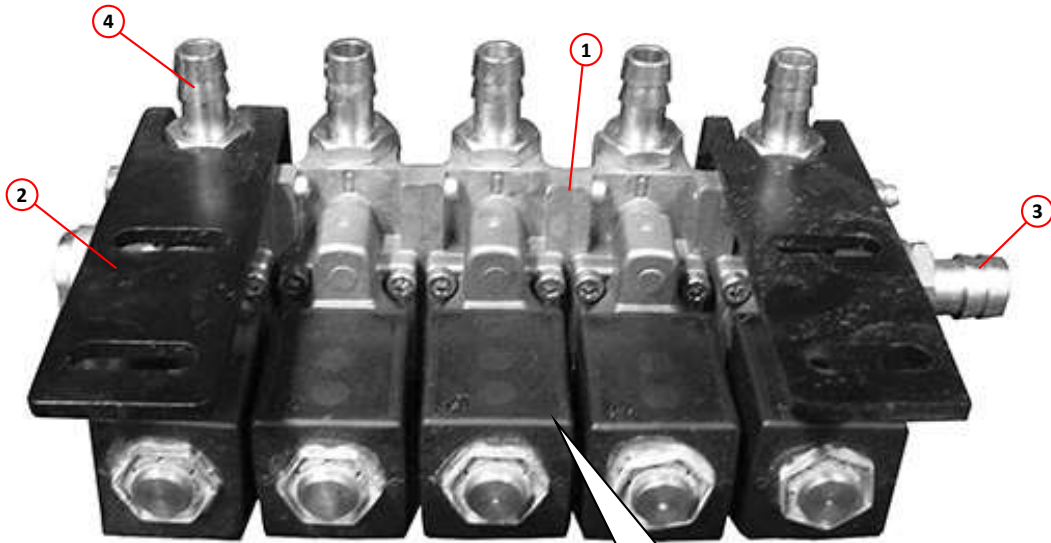
Low Pressure Water Pump - Twin Diaphragm - Components

Item	Part Number	Quantity	Description
Water Valve Assembly *			
1	037033	1	Water valve, 2 way assembly, complete
1	037034	1	Water valve, 3 way assembly, complete
1	037035	1	Water valve, 4 way assembly, complete
1	037036	1	Water valve, 5 way assembly, complete (shown)
1	037037	1	Water valve, 6 way assembly, complete
1	037038	1	Water valve, 7 way assembly, complete
2	034616	2	. Mounting bracket
3	010930	AR	. Hose tail, $\frac{3}{8}$ " BSP X $\frac{5}{8}$ " hose
NI	010517	1	. . Clamp, worm drive, 18-25mm
4	010922	AR	. Hose tail, $\frac{1}{4}$ " BSP x $\frac{3}{8}$ " hose
NI	010516	AR	. . Clamp, worm drive, 11-18mm
NI	010950	AR	. . Hose, plastic reinforced, $\frac{3}{8}$ " bore
5	037969	AR	. . Solenoid, complete body assembly, BSV122NC24D
6	037059	AR	. . Coil, 24 Volt, 8 Watt, BVC24D
7	034624	AR	. . Repair kit, BSVRK
8	037995	1	. Water splash cover
NI	038070	1	. Water splash cover (Merlin XP)
	011012	2	. . Set screw, M8 x 30mm
	011092	2	. . Washer, M8
	011072	2	. . Nut, M8
NI	000248	2	. . Plastic knob

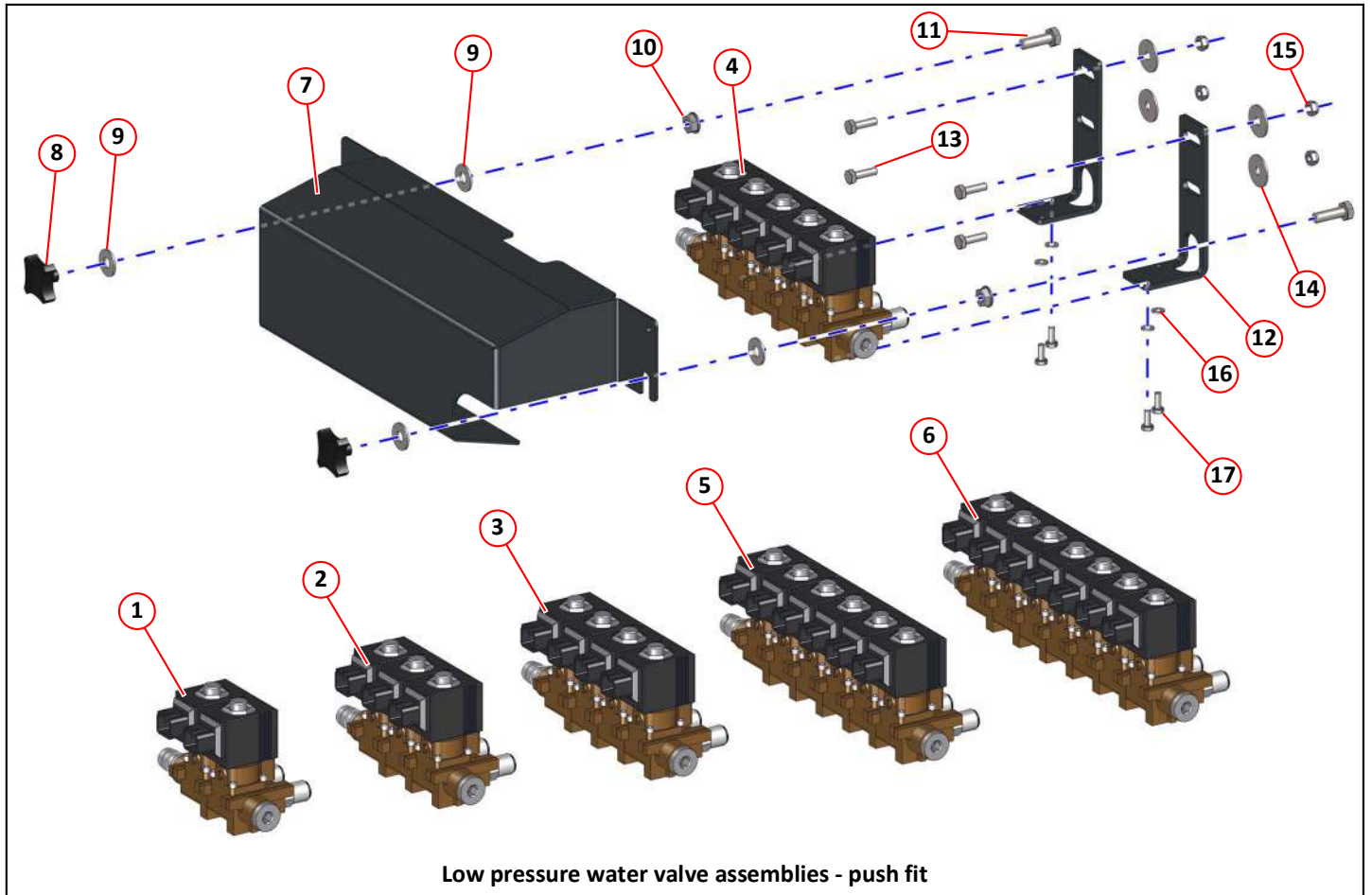
Notes:-

* The number of valves and related fittings, is dependent on chassis/options fitted, and therefore, which version of Item 1 has been installed.

View on Opposite Face



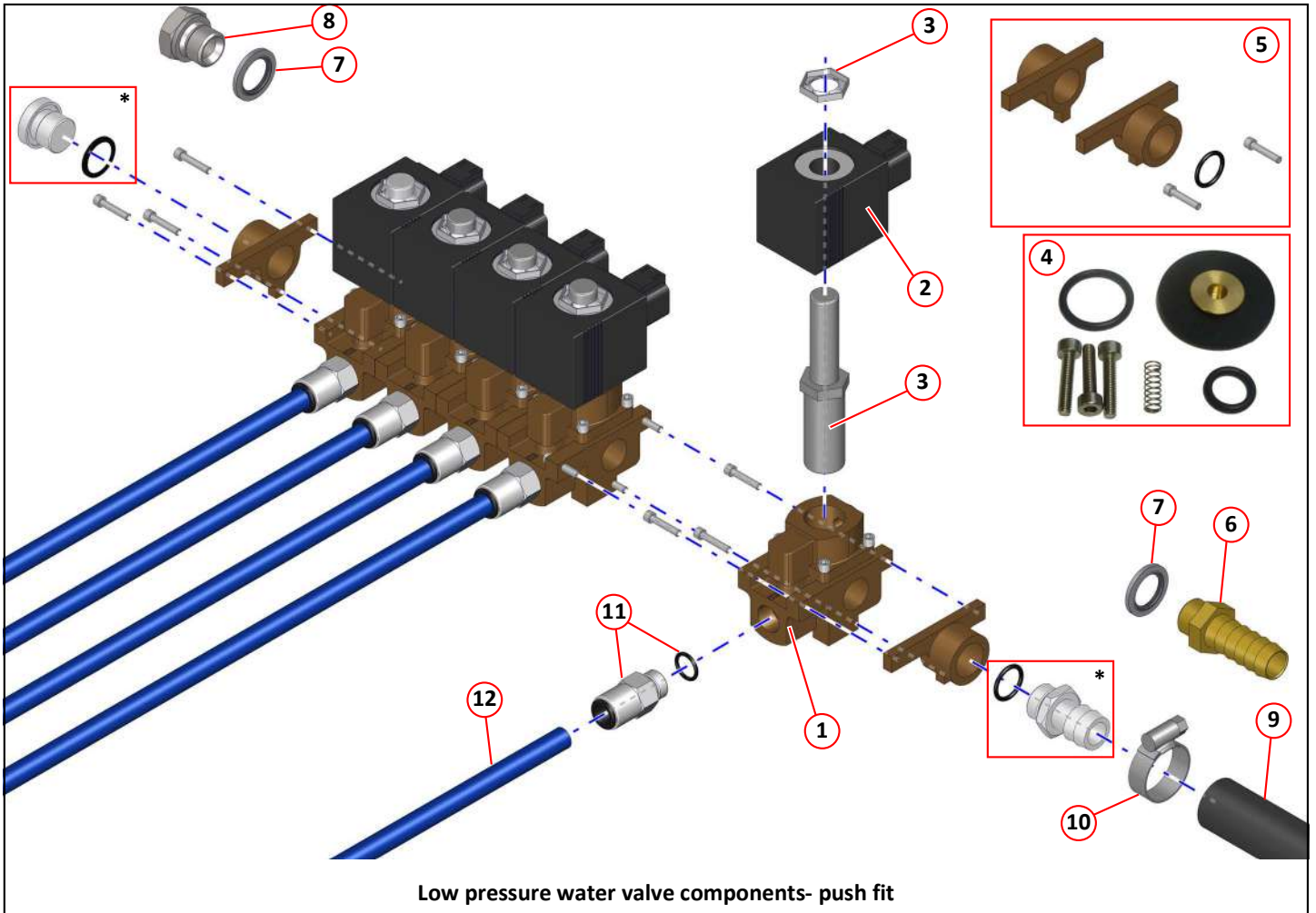
Water Valve Assembly



Low pressure water valve assemblies - push fit

Item	Part Number	Qty	Description
Low pressure water valve assemblies - push fit			
1	SCA047691	1	Water valve assembly push fit - 2 valves
2	SCA047693	1	Water valve assembly push fit - 3 valves
3	SCA047695	1	Water valve assembly push fit - 4 valves
4	SCA047697	1	Water valve assembly push fit - 5 valves
5	SCA047699	1	Water valve assembly push fit - 6 valves
6	SCA047701	1	Water valve assembly push fit - 7 valves
7	SCA037995	1	Water valve splash cover
8	SCA000248	2	Grip nut M8
9	SCA011092	4	Washer M8
10	SCA000185	2	Nut M8, plain faced flange, plated
11	SCA011011	2	Setscrew HT M8 x 25
12	SCA034616	2	Water valve mounting bracket
13	SCA011067	4	Setscrew HT M6 x 20
14	SCA011099	4	Washer, repair, 1/4" X 1" OD
15	SCA011071	4	Nyloc nut M6
16	SCA000410	4	Washer M5
17	SCA000097	4	Bolt M5 x12

i If using the 7 valve assembly then an extra bracket ⑫ and associated fittings are used.



Low pressure water valve components- push fit

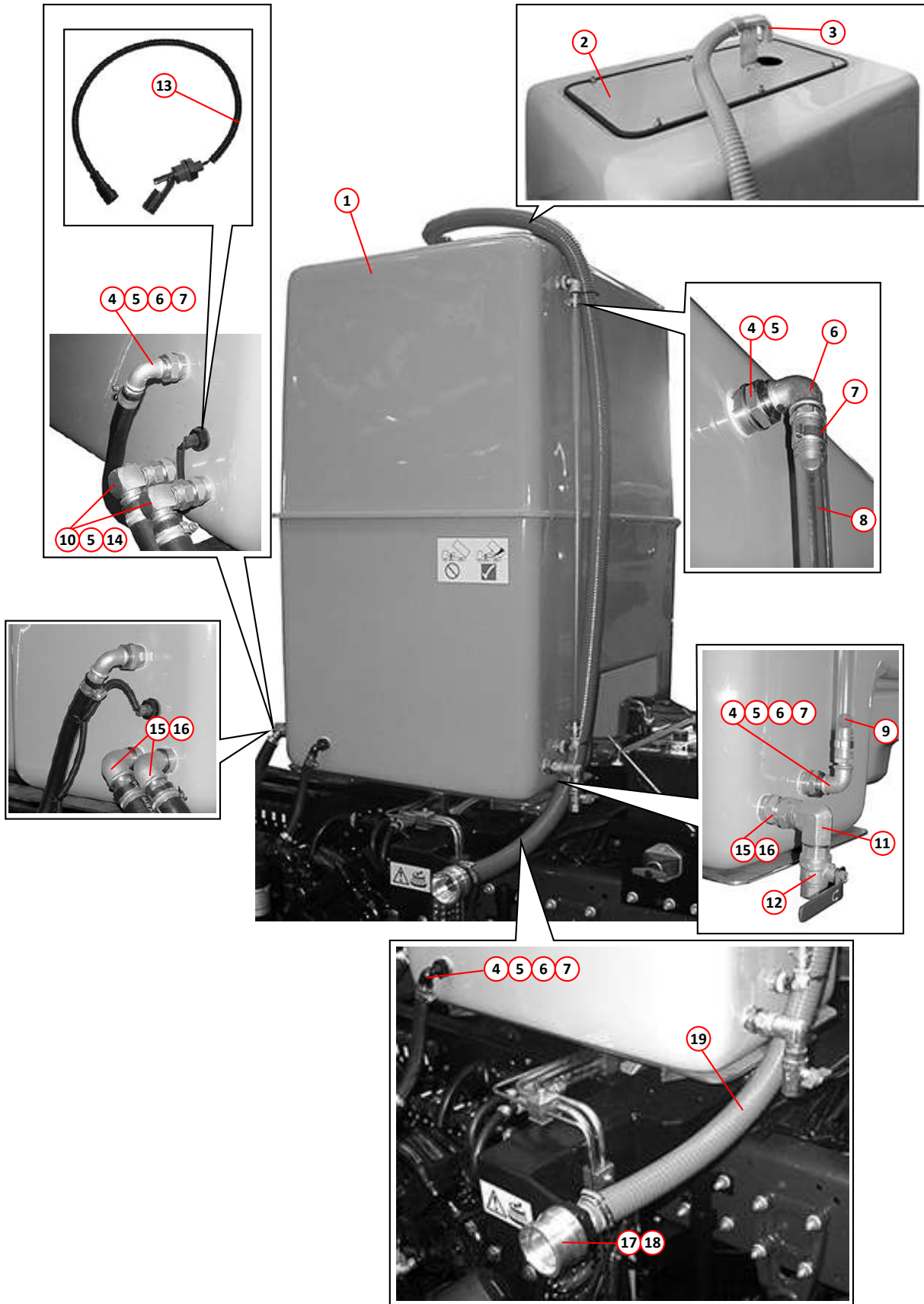
Item	Part Number	Qty	Description
Low pressure water valve components - push fit			
1	SCA037969	1	Water valve, includes items ② and ③
2	SCA037059	1	Coil 24V/8W, Deutsch connector
3	SCA034625	1	Solenoid valve, include nut
4	SCA035624	1	Service repair kit, water valve
5	SCA045753	1	Service kit, water valve
6	SCA010930	1	Adapter $\frac{3}{8}$ BSP $\frac{5}{8}$ hose tail
7	SCA011153	2	Dowty seal $\frac{3}{8}$ BSP
8	SCA011242	1	Plug $\frac{3}{8}$ BSP
9	SCA011000	1	Hose, $\frac{5}{8}$, fuel SAE100R6, cut to length required, from water pump
10	SCA010517	1	Jubilee clip, No OX [$\phi 18 - \phi 25$]
11	SCA047715	1	Connector, push in $\phi 10\text{mm} \times \frac{1}{4}$ BSP male
12	SCA041031	1	Blue flexible nylon tubing, $\phi 10\text{mm}$, cut to length as required

i * These are original fitment parts. See items ⑥, ⑦ and ⑧ for replacements.

Item	Part Number	Quantity	Description
GRP Water Tank Assembly - 900 litre and 1250 litre			
1	026324	1	Water tank, 900 litres
1	026325	1	Water tank, 1250 litres
	012969	14	. Washer, rubber, $\varnothing 40 \times 12 \times 6$
	011096	7	. Washer M12
	011077	7	. Nut, Nyloc, M12
2	025271 *	1	. Lid, water tank
	013951	AR	. . Lid seal
NI	025893	1	. Tank base (900 litre)
NI	028338	1	. Tank base (1250 litre)
	011051	5	. . Set screw, M12 x 25mm
	011096	10	. . Washer, M12
	011077	5	. . Nut, M12, Nyloc
3	024586 *	1	. Hydrant filler pipe
	011010	2	. . Set screw, M8 x 20mm
	011072	8	. . Nut, M8, Nyloc
	011092	6	. . Washer, M8
4	011224	4	. Adaptor, M/M, $\frac{3}{4} \times \frac{3}{8}$ BSP
5	011155	1	. . Seal, Dowty, $\frac{3}{4}$ BSP
6	010915	4	. Elbow, galvanised, F/F, $\frac{3}{8}$ BSP
7	010930	4	. Hose tail, $\frac{3}{8}$ BSP x $\frac{5}{8}$ hose
8	001046	AR	. Hose $\frac{5}{8}$ clear
9	025335	1	. . Ball, plastic, $\varnothing \frac{1}{2}$ "
	000202	2	. . O-Clip $\frac{7}{8}$
10	011161	3	. Adaptor, M/M, $\frac{3}{4}$ BSP
11	011174	1	. Elbow, swivel, M/F, $\frac{3}{4}$ BSP
12	013757	1	. . Ball valve $\frac{3}{4}$ BSP
13	036871	1	. Switch, water level Page 318
14	002079	2	. Elbow, swivel, hose tail, $\frac{3}{4}$ BSP x 1 hose (900 litre tanks)
15	010918	2	. Elbow, galvanised, M/F, $\frac{3}{4}$ BSP, (1250 litre tanks)
16	010931	1	. . Hose tail, $\frac{3}{4}$ x 1 tube, (1250 litre tanks only)
17	013169 *	1	. Hydrant adaptor
18	003026 *	1	. . Back-nut, $1\frac{1}{2}$ BSP
19	001045 *	AR	. . Hose, green, medium duty $1\frac{1}{2}$ "

Notes:-

* Reversed position on opposite side, on LH drive vehicles.

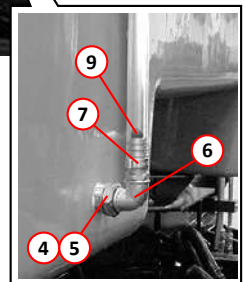
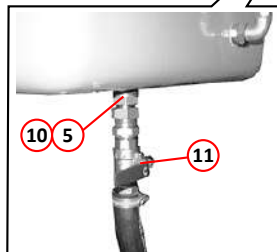
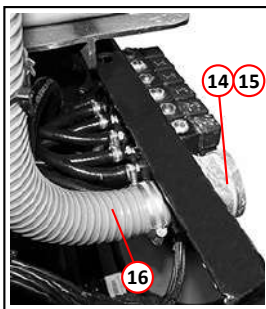
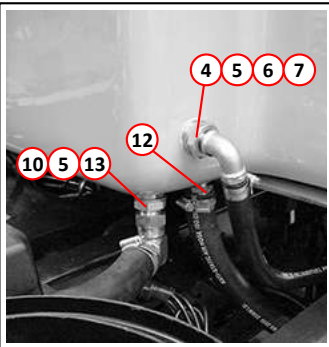
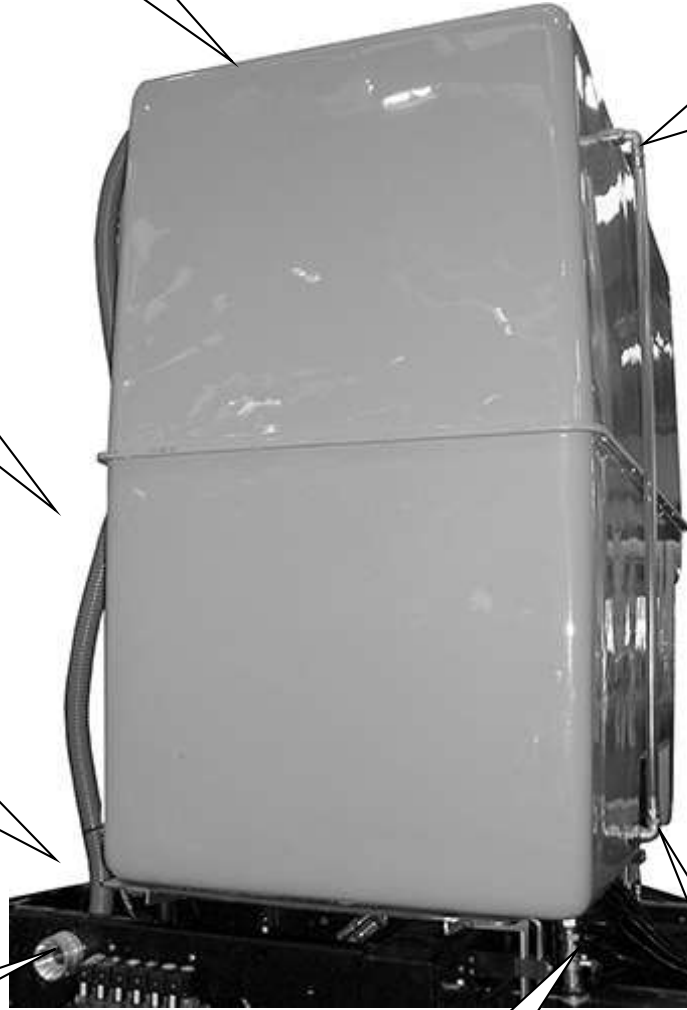
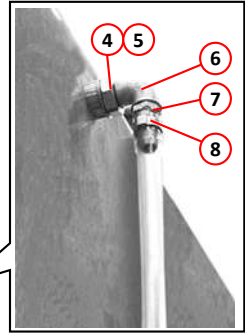
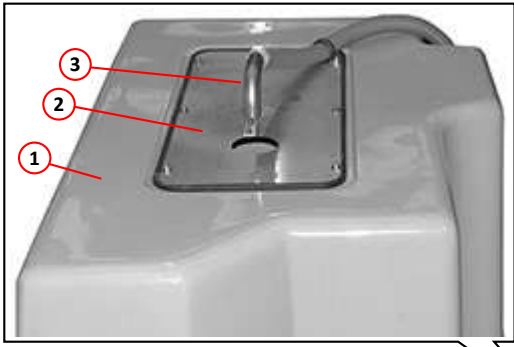


GRP Water Tank 900 and 1250 litre
Right Hand Drive Vehicle Shown

Item	Part Number	Quantity	Description
GRP Water Tank Assembly - 1800 litre			
1	026326	1	Water tank (GRP), 1800 litre
	012969	7	. Washer, rubber, $\varnothing 40 \times 12 \times 6$
	011096	7	. Washer M12
	011077	7	. Nut, M12, Nyloc
NI	014743	1	. Support mat, rubber
2	025271 *	1	. Lid, water tank
	013951	AR	. . Lid seal
NI	024984	1	. Tank base
	011051	6	. . Set screw, M12 x 25mm
	011096	12	. . Washer, M12
	011077	6	. . Nut, M12, Nyloc
3	024586 *	1	. Hydrant filler pipe
	011010	2	. . Set screw, M8 x 20mm
	011072	8	. . Nut, M8, Nyloc
	011092	6	. . Washer, M8
4	011224	4	. Adaptor, M/M, $\frac{3}{4}$ " x $\frac{3}{8}$ " BSP
5	011155	6	. . Seal, Dowty, $\frac{3}{4}$ " BSP
6	010915	4	. Elbow, galvanised, F/F, $\frac{3}{8}$ " BSP
7	010930	4	. Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
8	001046	AR	. Hose $\frac{5}{8}$ " clear
9	025335	1	. . Ball, plastic, $\varnothing \frac{1}{2}$ "
	000202	2	. . O-Clip $\frac{7}{8}$ "
10	011161	3	. Adaptor, M/M, $\frac{3}{4}$ " BSP
11	013757	1	. Ball valve $\frac{3}{4}$ " BSP
12	010931	2	. Hose Tail, $\frac{3}{4}$ " x 1" tube
13	002079	2	. Elbow, swivel, hose tail, $\frac{3}{4}$ " BSP x 1" hose
14	013169 *	1	. Hydrant adaptor
15	003026 *	1	. . Back-nut, $1\frac{1}{2}$ " BSP
16	001045 *	AR	. . Hose, green, medium duty $1\frac{1}{2}$ "
NI	036871	1	. Switch, water level Page 318

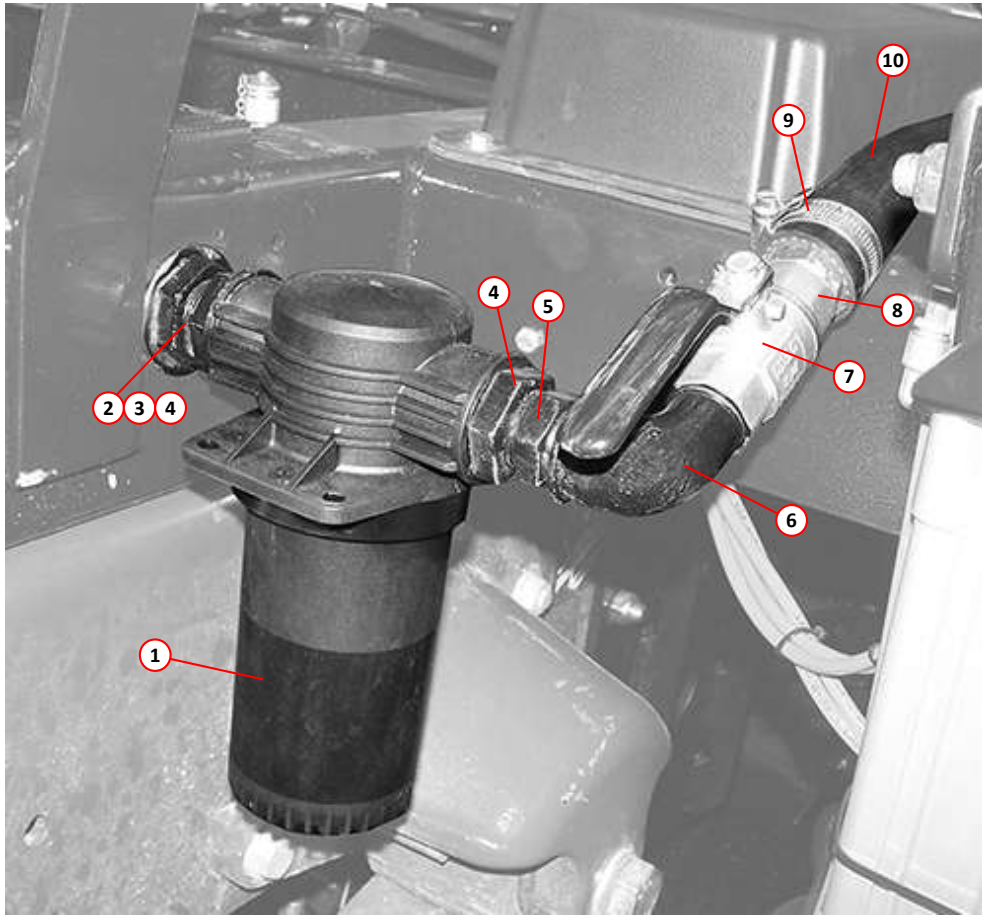
Notes:-

* Reversed position on opposite side, on LH drive vehicles.



GRP Water Tank 1800 litre
Right Hand Drive Vehicle Shown

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Water Filter Assembly - High-Pressure Pump			
1	023862	1	Filter, water
NI	023863	1	. Element, gauze
NI	023897	1	. O-Ring
2	024924	1	. Hose tail, galvanised, $\frac{3}{4}$ " BSP
3	010935	2	. Back nut, galvanised, $\frac{3}{4}$ " BSP
4	000154	2	. Adaptor, galvanised, M/M, $1\frac{1}{4}$ " x $\frac{3}{4}$ " BSP
5	010916	1	. Adaptor, galvanised, M/M, $\frac{3}{4}$ " BSP
6	010917	1	. Elbow, galvanised, M/F, $\frac{3}{4}$ " BSP
7	013757	1	. . Ball valve $\frac{3}{4}$ " BSP
8	010931	1	. . Hose tail, $1\frac{1}{4}$ " x $\frac{3}{4}$ " BSP
9	010518	2	. . . Clamp, worm drive, 30-40mm
10	010959	AR	. . . Hose, rubber, 1" bore



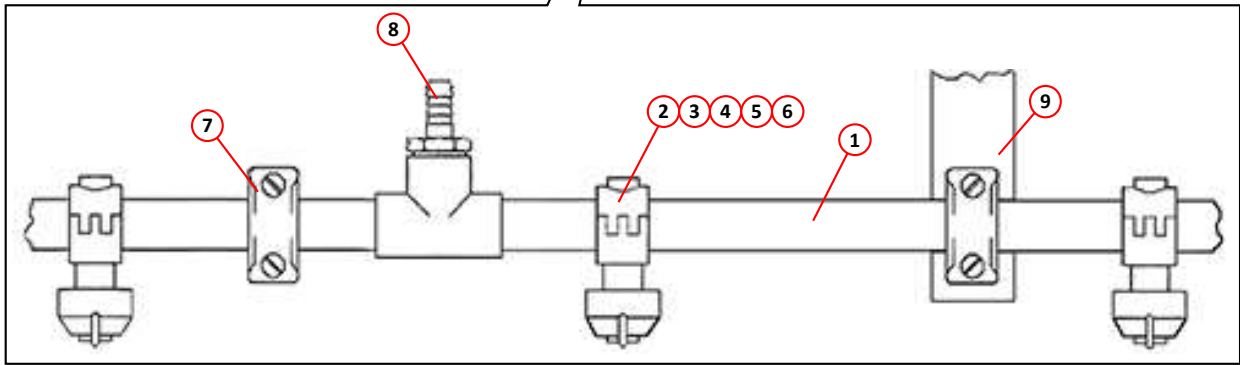
Water Filter Assembly - High Pressure Pump

Item	Part Number	Quantity	Description
Low Pressure Front Spray Bar - Plastic			
1	030323	1	Low pressure spray bar
2	030632	7	. Jet
3	030634	7	. Nozzle holder
4	030635	7	. Cap jet
5	030633	7	. Filter
6	030636	7	. Washer, rubber
7	031338	2	Clamp
8	031339	1	Hose tail
9	*	3	Bracket

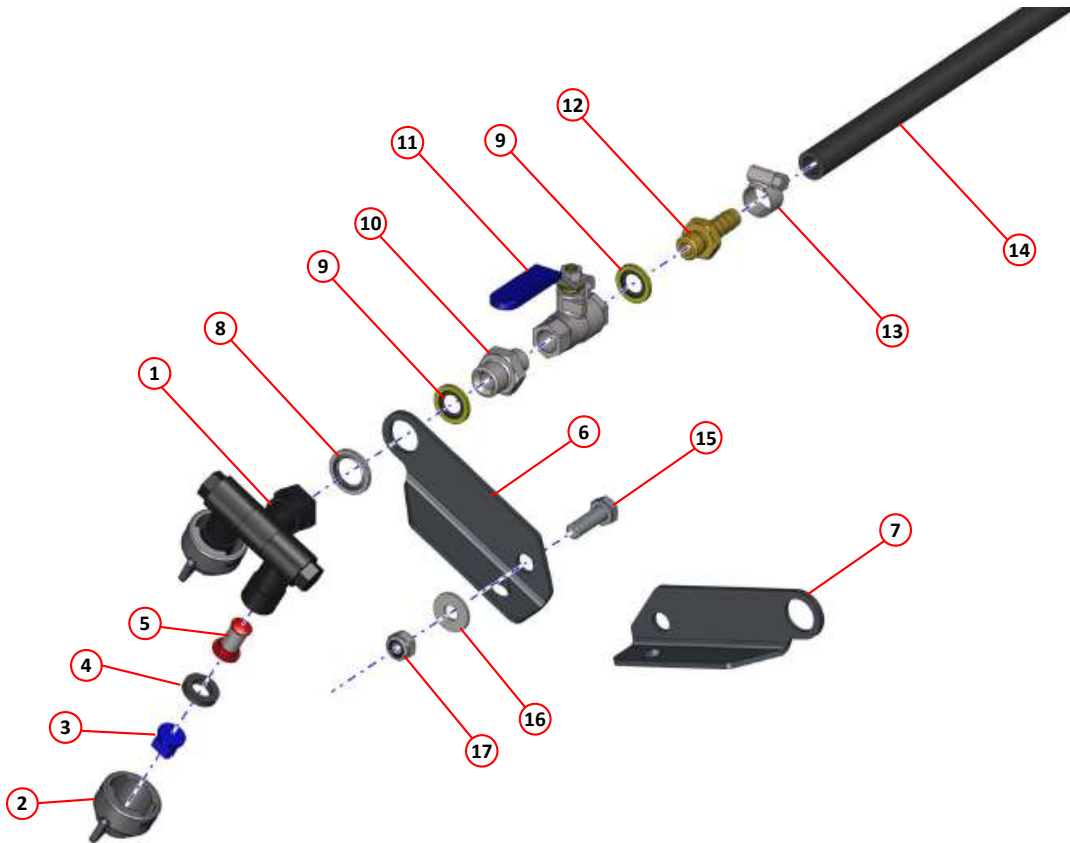
Item	Part Number	Quantity	Description
Low Pressure Side Brush Spray Nozzle			
1	036044	1	Spray jet assembly complete, includes items 2,3,4,5,6
2	030635	2	Spray body cap
3	030748	2	Spray jet
4	030636	2	Washer, rubber
5	030633	2	Filter
6	036042	1	Bracket, double spray jet, RH
7	036043	1	Bracket, double spray jet, LH
8	011153	1	Dowty seal $\frac{3}{8}$ " BSP
9	011152	2	Dowty seal $\frac{1}{4}$ " BSP
10	011199	1	Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
11	011743	1	Valve, ball, $\frac{1}{4}$ " BSP
12	010922	1	Hose tail
13	010516	1	Clamp, worm drive, 11-16mm
14	010950	AR	Hose, water
15	011031	1	Setscrew, M8 x 25mm, stainless steel
16	011092	1	Washer, M8
17	011073	1	Nut, M8, Nyloc

Notes:-

* This item is chassis specific, please contact Scarab Parts Department.

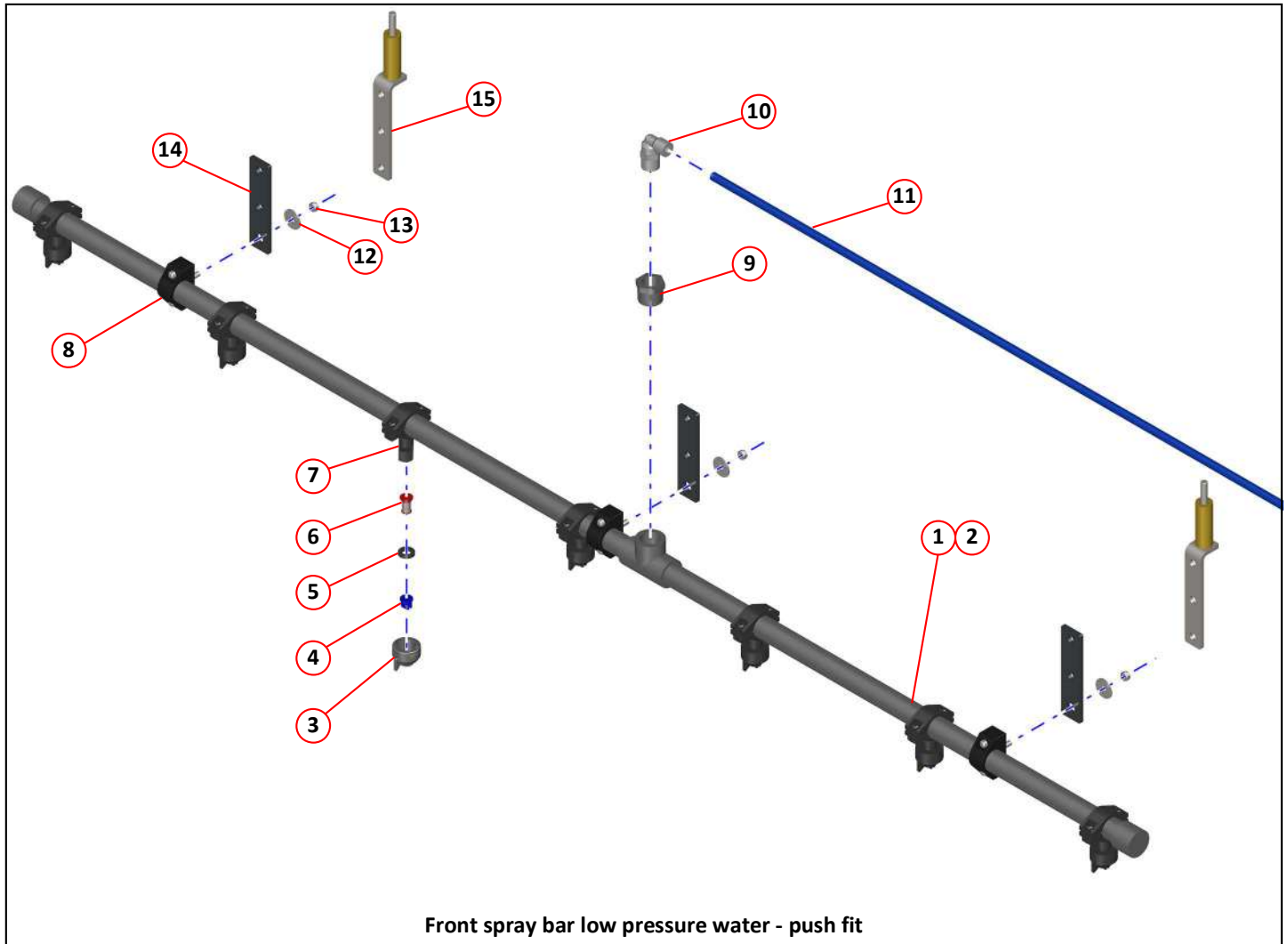


Low Pressure Spray Bar



Side Brush Low Pressure Spray Nozzle

Washing and Dust Suppression



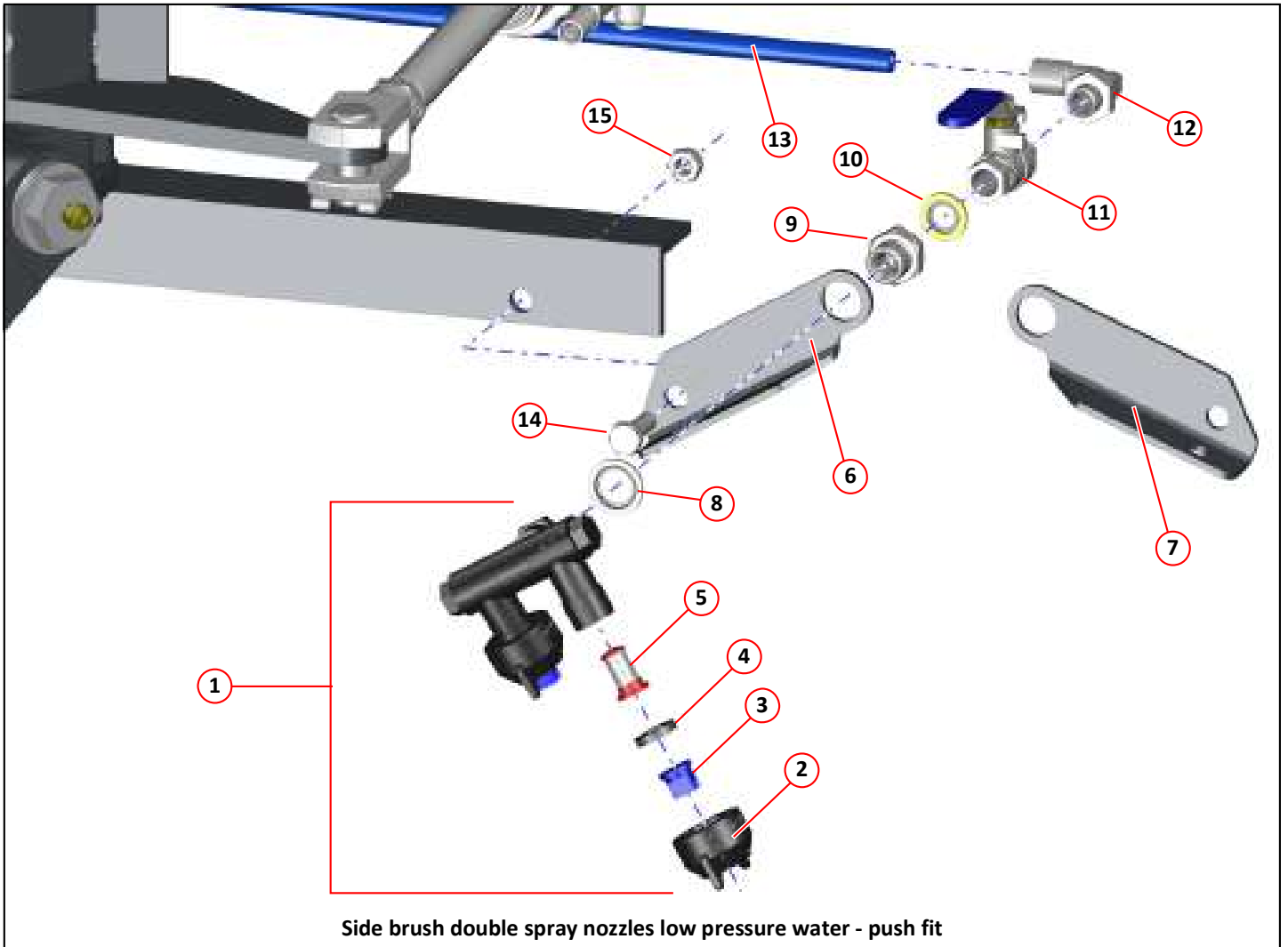
Item	Part Number	Qty	Description
			Font spray bar low pressure water - push fit
1	SCA047716	1	Front spray bar, low pressure, includes items ③, ④, ⑤, ⑥, ⑦, and ⑧
2	SCA047718	1	Front spray bar assembly, low pressure, includes items ①, ⑨, and ⑩
3	SCA030635	1	Nozzle cap, flat fan, per nozzle
4	SCA030748	1	Jet, blue, per nozzle
5	SCA030636	1	Rubber washer, per nozzle
6	SCA030633	1	Filter, 100 mesh, per nozzle
7	SCA030634	1	Nozzle holder, per nozzle
8	SCA031338	1	Clamp, per nozzle
9	SCA047717	1	Reducing bush, $\frac{3}{4}$ " to $\frac{1}{2}$ ", plastic
10	SCA006070	1	Elbow, swivel, \varnothing 10mm push fit to $\frac{1}{2}$ "
11	SCA041031	1	Blue flexible nylon tubing, \varnothing 10mm
12	SCA011099	1	Repair washer, $\frac{1}{4}$ " x 1", per bracket
13	SCA011071	1	Nyloc nut M6, per bracket
14	SCA030392*	1	Bracket, spray bar
15	SCA031921*	1	Bracket, spray bar

Notes:-

* Examples of spray bar mounting brackets, contact Parts Department with chassis information.

Washing and Dust Suppression

Part No. SCAZ039752 4.0.03 / E&OE

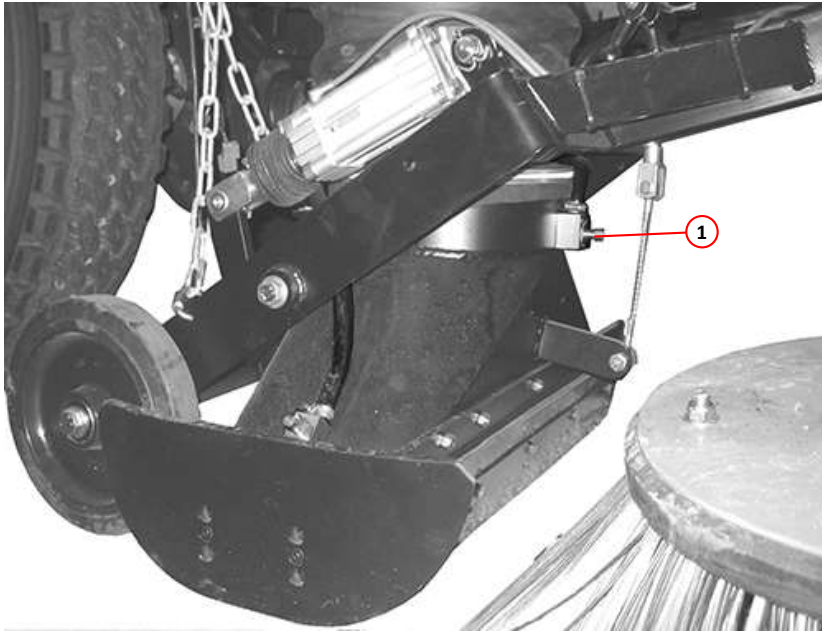


Side brush double spray nozzles low pressure water - push fit

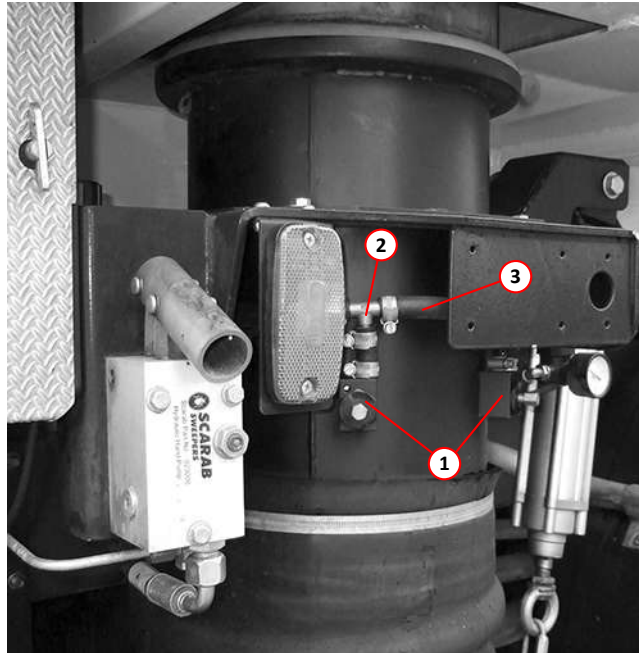
Item	Part Number	Qty	Description
Side brush double spray nozzles low pressure water - push fit			
1	SCA036044	1	Double swivel nozzle assembly
2	SCA030746	1	Nozzle cap, cone, per nozzle
3	SCA030748	1	Jet, blue, per nozzle
4	SCA030636	1	Rubber washer, per nozzle
5	SCA030633	1	Filter, 100 mesh, per nozzle
6	SCA036043	1	Nozzle bracket, L/H, for right hand side
7	SCA036042	1	Nozzle bracket, R/H, for left hand side
8	SCA011153	1	Dowty seal $\frac{3}{8}$ " BSP
9	SCA011199	1	Adapter $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
10	SCA011152	1	Dowty seal $\frac{1}{4}$ " BSP
11	SCA011743	1	Valve, ball, $\frac{1}{4}$ " BSP
12	SCA047602	1	Elbow, push in \varnothing 10mm x $\frac{1}{4}$ " BSP
13	SCA041031	1	Blue flexible nylon tubing, \varnothing 10mm
14	SCA011011	1	Setscrew HT M8 x 25
15	SCA011073	1	Nyloc nut M8

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Suction Box Dust Suppression			
1	013360	4	Jet assembly
	011001	4	. Bolt, M6 x 16mm
NI	003000	3	. Tee
NI	010950	AR	. . Hose, plastic reinforced, $\frac{3}{8}$ " bore
NI	010516	11	. . . Clamp, worm drive, 11-16mm

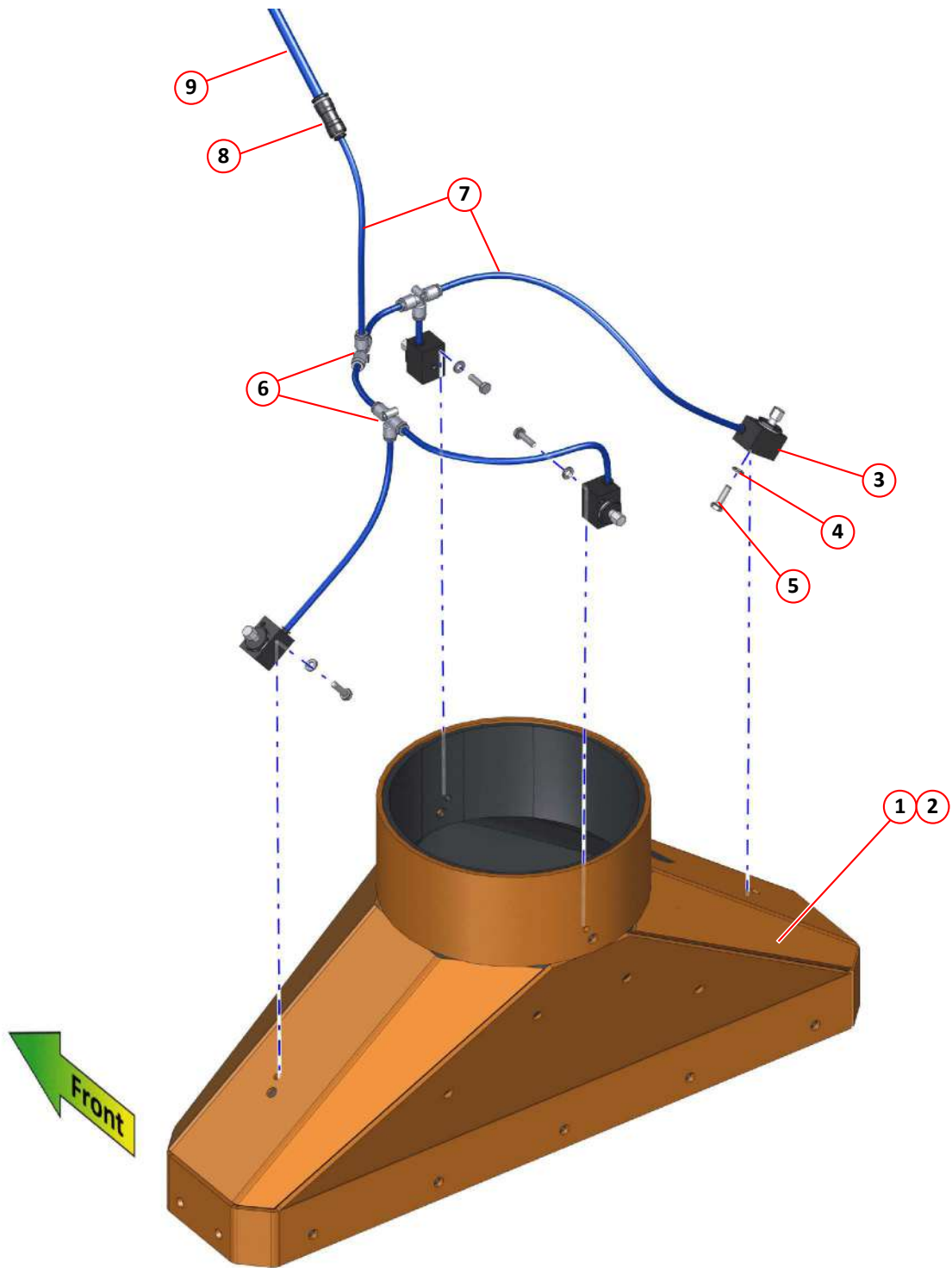
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Suction Tube Dust Suppression			
1	013360	4	Jet assembly
	011001	4	. Bolt, M6 x 16mm
2	003000	5	. Tee
3	010950	AR	. . Hose, plastic reinforced, $\frac{3}{8}$ " bore
	010516	18	. . . Clamp, worm drive, 11-16mm



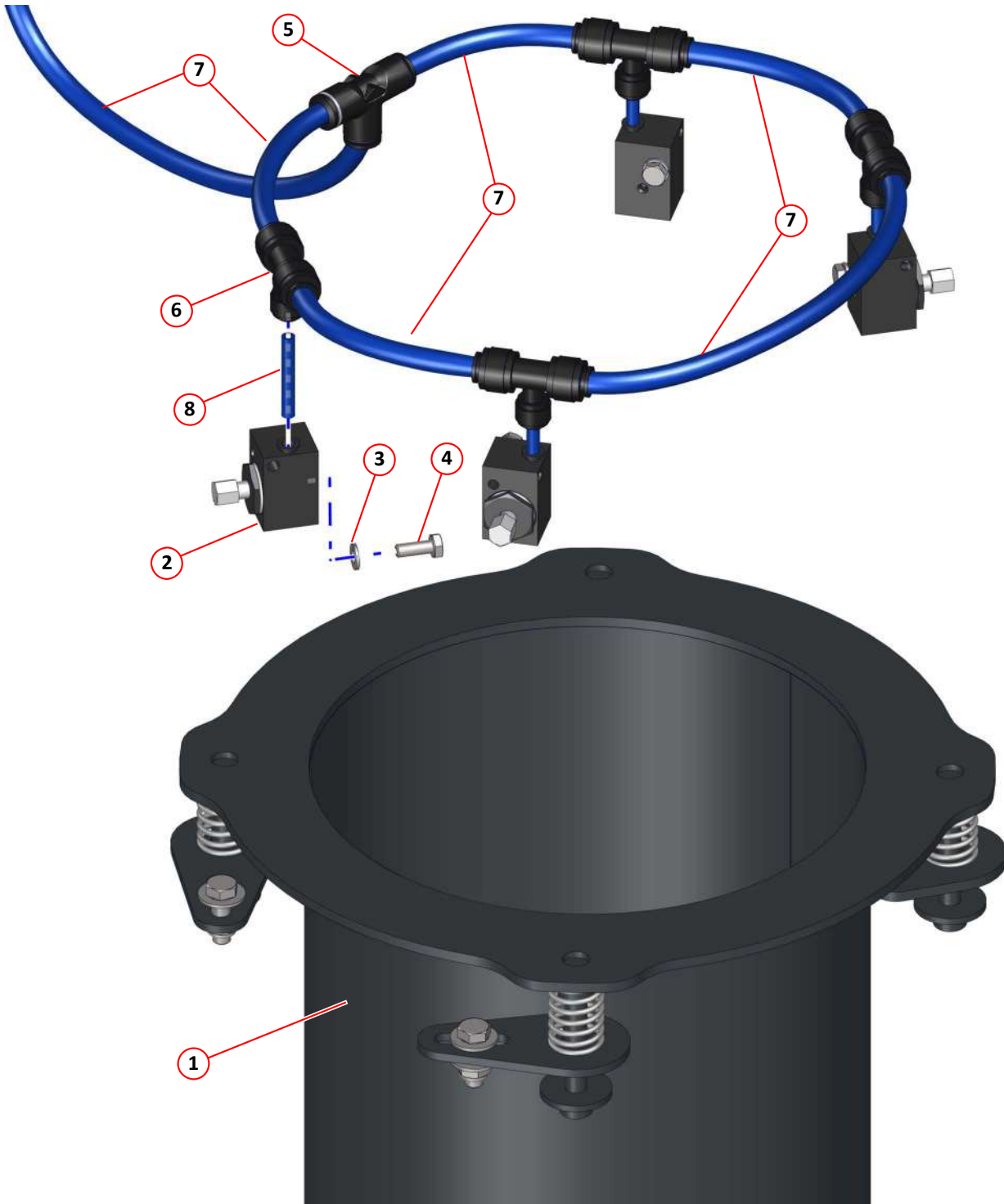
Suction Box Dust Suppression



Suction Tube Dust Suppression



Item	Part Number	Qty	Description
Suction nozzle low pressure water - push fit			
1	SCA047107	1	Suction nozzle
2	SCA047988	1	Suction nozzle, PU lined
3	SCA034342	4	Water nozzle, low pressure
4	SCA011091	4	Spring washer M6
5	SCA011067	4	Setscrew M6 x 20
6	SCA024647	3	6mm Tee, grey
7	SCA035733	6	Blue flexible nylon tubing, ø6mm
8	SCA041029	1	Push in adapter, ø10 to ø6mm
9	SCA041031	1	Blue flexible nylon tubing, ø10mm



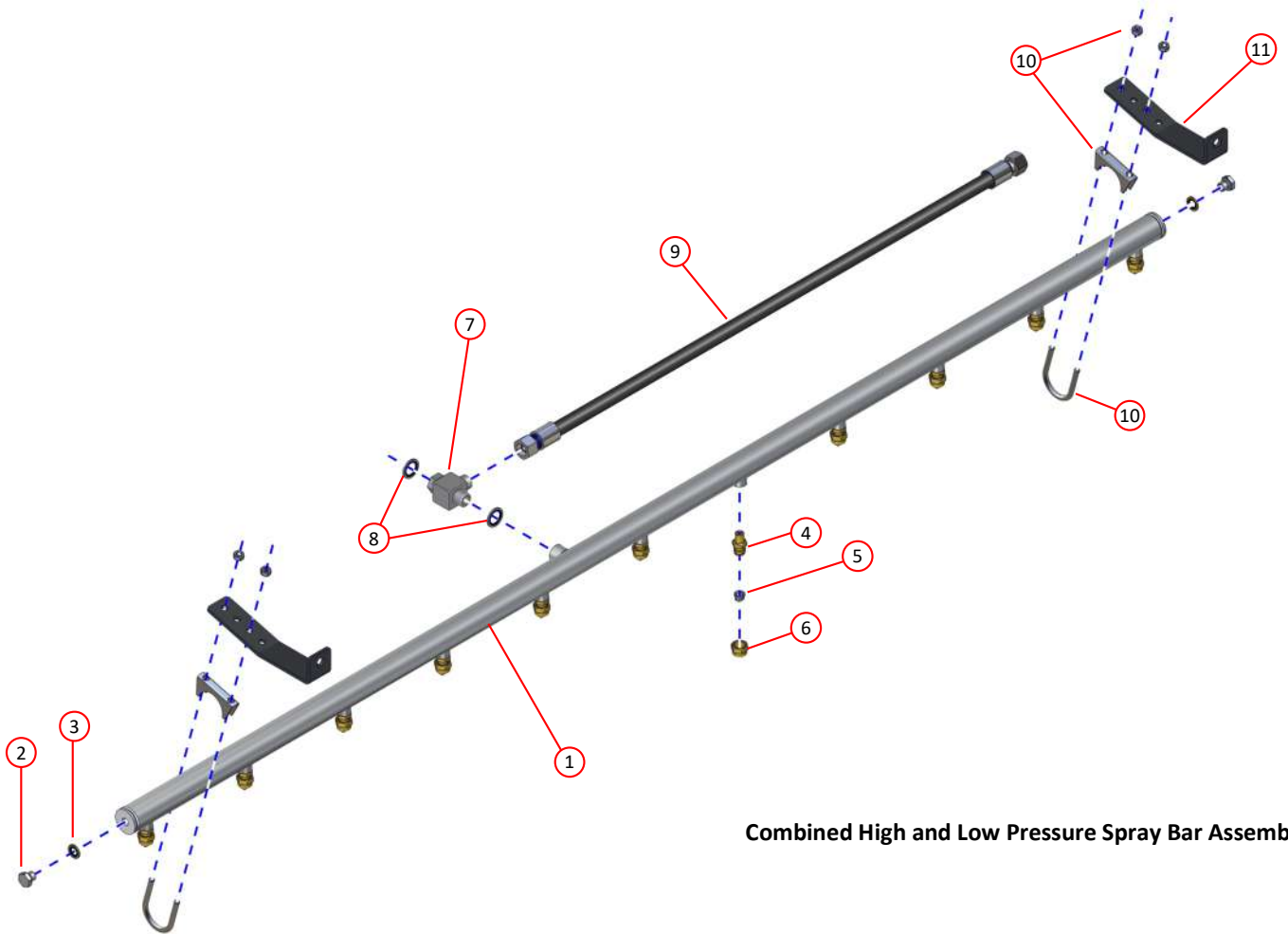
Item	Part Number	Qty	Description
1		1	Suction spigot water halo - push fit Suction spigot, sprung type
2	SCA034342	4	Water nozzle, low pressure
3	SCA011091	4	Spring washer M6
4	SCA011001	4	Setscrew M6 x 16
5	SCA041030	1	Push in tee, equal \varnothing 10mm
6	SCA047778	4	Push in tee, \varnothing 10mm x \varnothing 10mm \varnothing 6mm, reducer on branch
7	SCA041031	6	Blue flexible nylon tubing, \varnothing 10mm
8	SCA035733	4	Blue flexible nylon tubing, \varnothing 6mm

Item	Part Number	Quantity	Description
Combined High and Low Pressure Spray Bar - (Option)			
1	020405	1	Spray bar, stainless steel
2	011241	2	Plug $\frac{1}{4}$ " BSP
3	011152	2	Dowty seal $\frac{1}{4}$ " BSP
4	010112	11	Nozzle body
5	023377	11	Jet
6	030951	11	Nozzle cap
7	011188	1	Banjo elbow, $\frac{1}{2}$ " BSP (complete)
8	011154	2	Seal, Dowty, $\frac{1}{2}$ " BSP
9	001067	1	Hose, 4500mm long, straight ends, $\frac{1}{2}$ " BSP
10	014983	AR	U-Clamp
11	*	2	Bracket, spray bar
12	011173	2	Elbow, swivel, M/F, $\frac{1}{2}$ " BSP
13	011182	1	Tee, swivel, M/M/F, $\frac{1}{2}$ " BSP
14	003033	1	Valve, non-return, $\frac{1}{2}$ " BSP
15	011154	4	Seal, Dowty, $\frac{1}{2}$ " BSP
16	003034	1	Hose tail, $\frac{1}{2}$ " BSP x $\frac{3}{8}$ " hose
NI	010958	AR	Hose, plastic re-enforced, $\frac{3}{8}$ " bore (from water valve)
NI	010516	1	Clamp, hose, worm drive, 11-16mm
17	011173	2	Elbow, swivel, M/F, $\frac{1}{2}$ " BSP
18	011160	1	Adaptor, M/M, $\frac{1}{2}$ " BSP
19	025007	1	Bracket, angle, valve support
20	023176	1	Valve, ball, F/F, $\frac{1}{2}$ " BSP
21	011154	4	Seal, Dowty, $\frac{1}{2}$ " BSP
22	011160	1	Adaptor, M/M, $\frac{1}{2}$ " BSP
NI	001068	1	Hose, 4000mm long, straight ends, $\frac{1}{2}$ " BSP (from H-P pump)
23	023176	1	. Ball valve
24	025007	1	. . Bracket, valve support
25	011159	2	. . Adaptor, M/M, $\frac{3}{8}$ " BSP
26	011153	1	. . . Seal, Dowty, $\frac{3}{8}$ " BSP
27	011172	2	. . Elbow, swivel, M/F, $\frac{3}{8}$ " BSP
28	002110 †	1	. . Tee, M/F/M, $\frac{1}{2}$ " x $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
29	011172 †	AR	. . Elbow, swivel, M/F, $\frac{3}{8}$ " BSP

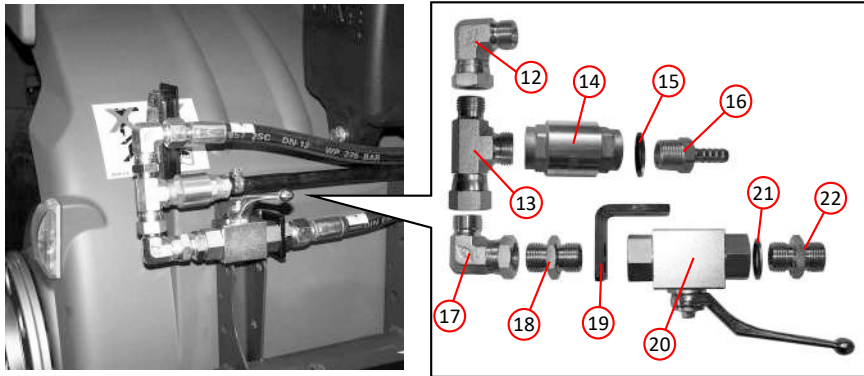
Notes:-

* Mounting brackets for the spray bar are dependant on the vehicle being fitted to. Please contact your local Scarab Dealer or the Scarab Parts Department regarding these parts.

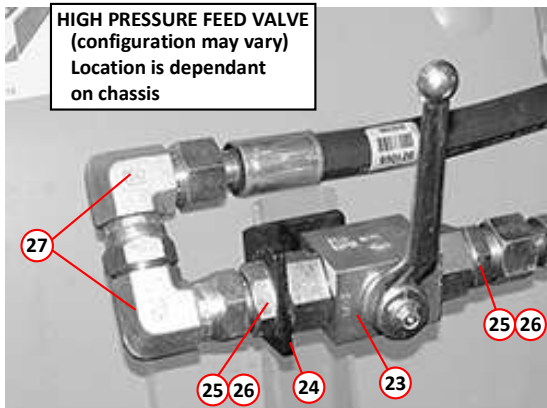
† Required when the high-pressure hose reel has been fitted.



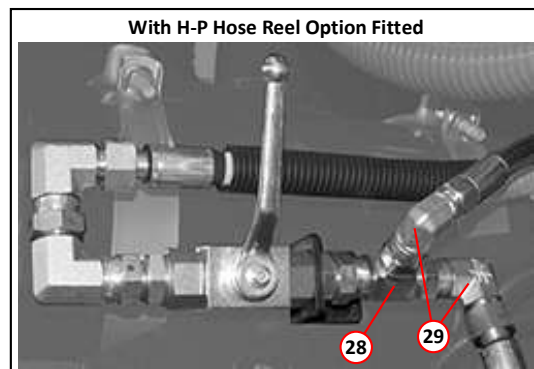
Combined High and Low Pressure Spray Bar Assembly



Combined High and Low Pressure Feed Valves



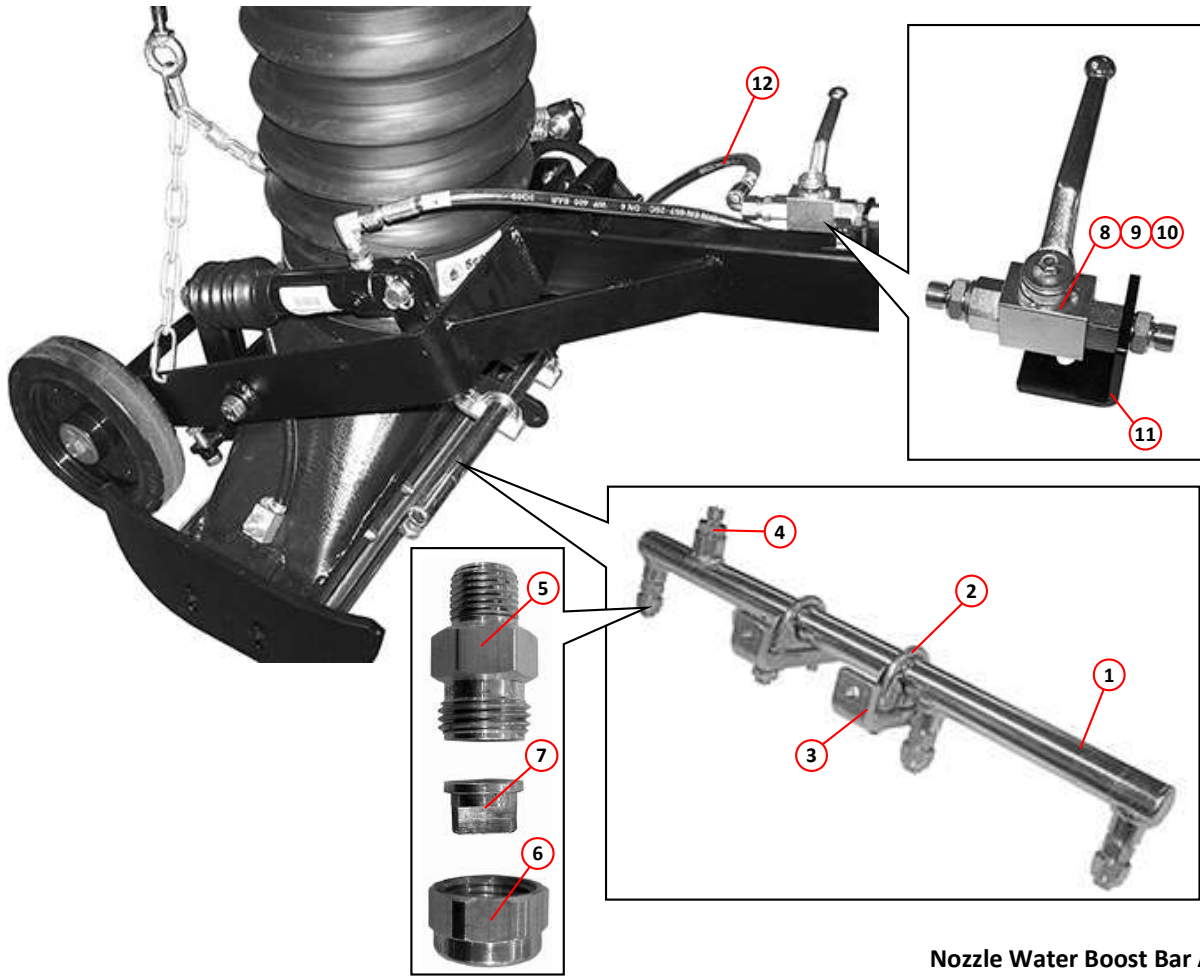
High Pressure Only Feed Valves



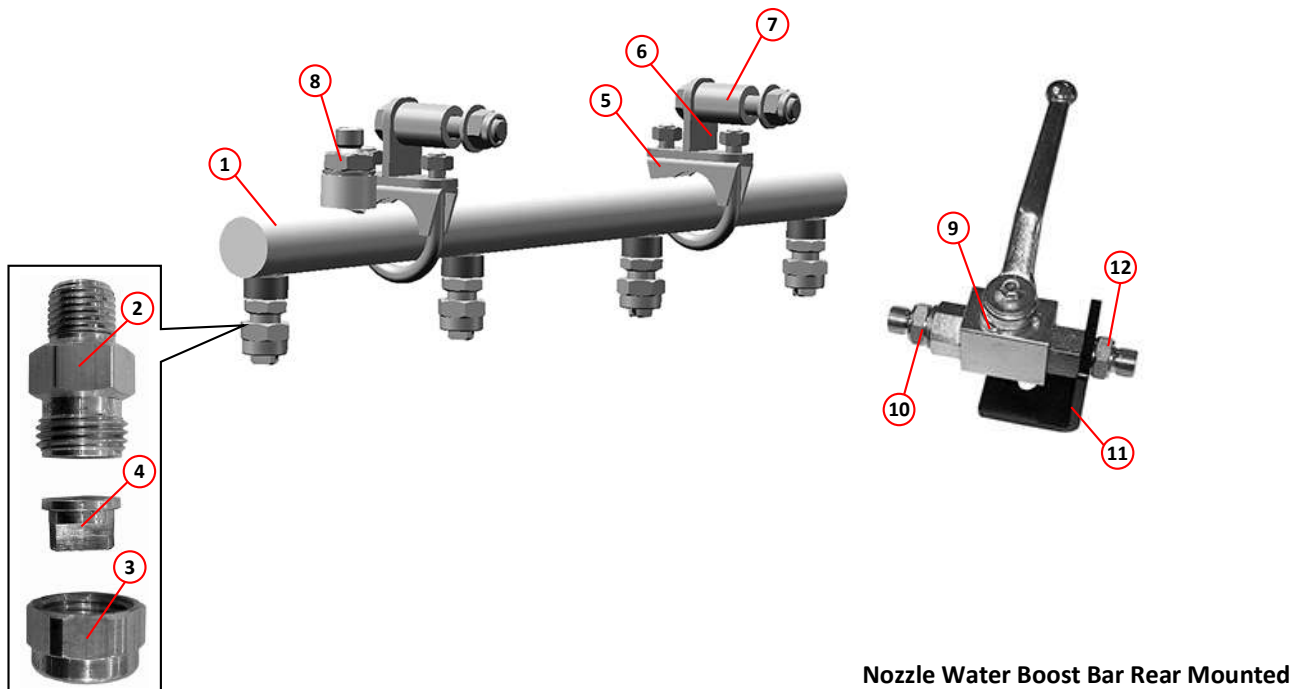
Item	Part Number	Quantity	Description
High and Low Pressure Nozzle Water Boost - (Option)			
1	020589	1	Spray bar - boost
1	028616	1	Spray bar - boost (high pressure)
2	020774	2	. Clamp
3	020590	1	. Bracket
	011051	2	. . Set screw, M10 x 25mm
	011075	2	. . Nut, M10, Nyloc
4	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP, (high pressure)
NI	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
NI	010923	1	. Hose tail, $\frac{3}{8}$ " BSP x $\frac{3}{8}$ " hose (low pressure)
NI	010950	AR	. . Hose, plastic reinforced, $\frac{3}{8}$ " bore (low pressure)
NI	010516	1	. . . Clamp, worm drive, 11-16 (low pressure)
5	010112	4	. Nozzle body
6	030951	11	. Nozzle cap
7	012316	AR	. Spray jet LF4-80
7	030251	AR	. Spray jet 4004
8	011257	1	. Ball valve, high pressure, $\frac{1}{4}$ " BSP
9	011158	2	. . Adaptor, M/M, $\frac{1}{4}$ " BSP
10	011152	1	. . . Seal, Dowty, $\frac{1}{4}$ " BSP
11	025007	1	. . Bracket, valve mounting
	011030	1	. . . Set screw, M10 x 20mm
12	001100	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 460mm, straight/90° ends (H/P supply)

} High pressure

Item	Part Number	Quantity	Description
Nozzle Water Boost Bar Rear Mounted High Pressure - (Option)			
1	020589	1	Spray bar - boost
2	010112	4	. Nozzle body
3	030951	4	. Nozzle cap
4	012316	4	. Spray jet LF4-80
5	020744	2	. Clamp, 'U'
6	041466	2	. Bracket
	011036	2	. . Bolt, M10 x 60mm
7	012981	2	. . Spacer
	011094	4	. . Washer, M10
	011075	2	. . Nut, M10, Nyloc
8	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP, (high pressure)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
NI	001104	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 900mm, straight/90° ends
9	011257	1	. Ball valve, high pressure, $\frac{1}{4}$ " BSP
10	011158	1	. . Adaptor, M/M, $\frac{1}{4}$ " BSP
	011152	1	. . . Seal, Dowty, $\frac{1}{4}$ " BSP
11	012548	1	. . Bracket, valve mounting
12	011269	1	. . Adaptor, bulkhead, M/M, $\frac{1}{4}$ " BSP
	011030	1	. . . Set screw, M10 x 20mm
	011095	1	. . . Washer, spring, M10



Nozzle Water Boost Bar Assembly



Nozzle Water Boost Bar Rear Mounted

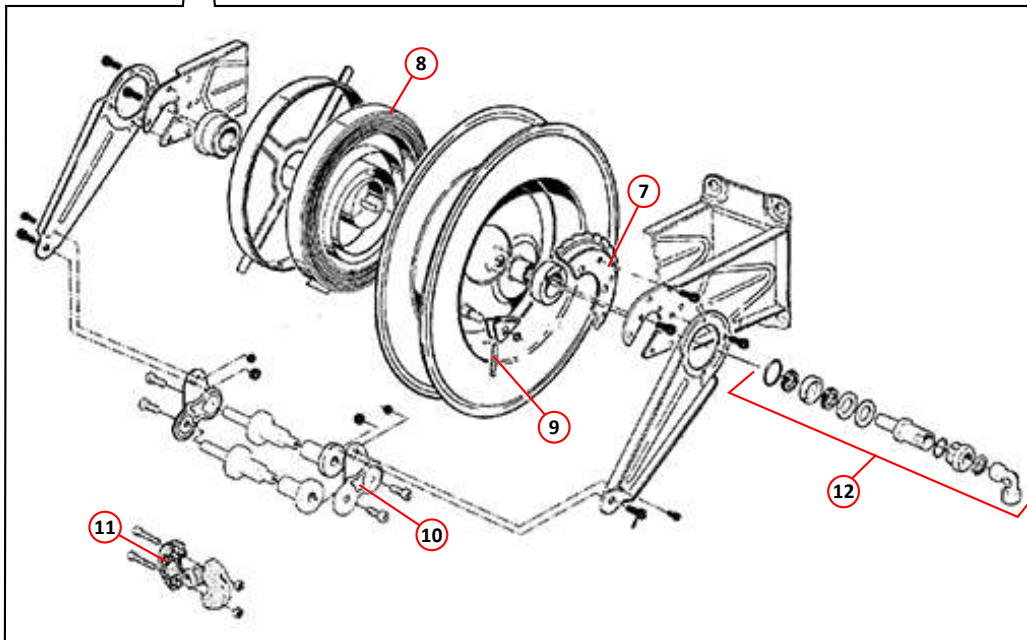
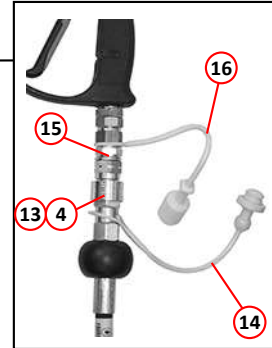
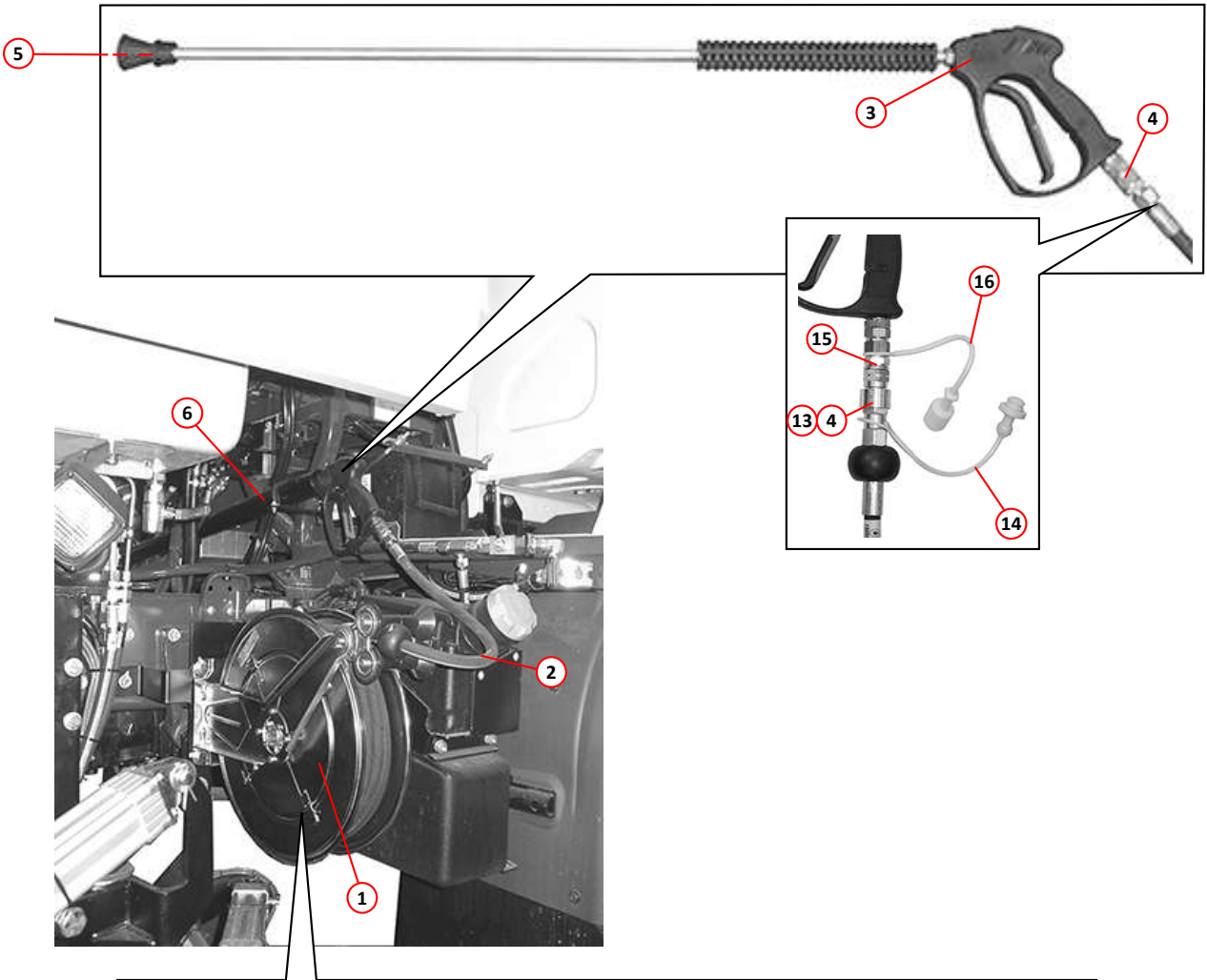
Item	Part Number	Quantity	Description
			Hose Reel and Lance *- (Option)
1	020451	1	Automatic hose-reel complete (less hose)
NI	026996	1	Automatic hose-reel (for use with 250 bar Pratissoli pump)
2	010601 †	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 13 metres, straight ends
3	010748	1	. Hand-lance
NI	030120	1	. Hand-lance (for use with 250 bar Pratissoli pump)
4	011159	1	. . Adaptor, M/M, $\frac{3}{8}$ " BSP
NI	002204	1	. . Adaptor, M/M, $\frac{1}{2}$ " BSP x $\frac{3}{8}$ " NPT (connection between hose and hose reel)
5	030252	1	. . Jet
6	025473	1	. . Lance stowage
NI	005055	2	. . . Clip 50mm I/D
7	030570	1	. Ratchet
8	026753	1	. . Rewind torsion spring
9	026754	1	. . Tension spring, ratchet pawl
10	025238	1	. Roller assembly, hose feed
11	026217	1	. Clamp (hose feed stop)
12	024230	1	. Swivel elbow assembly (water supply)
NI	024463	1	. . Swivel joint
13	023360	1	. . Coupling, quick release, female
14	014999	1	. . . Coupling plug
15	023359	1	. . Coupling, quick release, male
16	114998	1	. . . Coupling cap

} Used when lance
stowage not fitted

Notes:-

* Position of hose reel and lance are determined by chassis make and model.

† When Ordering a replacement hose for H-P systems using the Pratissoli pump, please contact the Scarab Parts Department, stating your model and serial number.



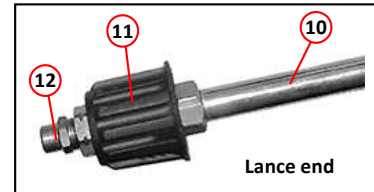
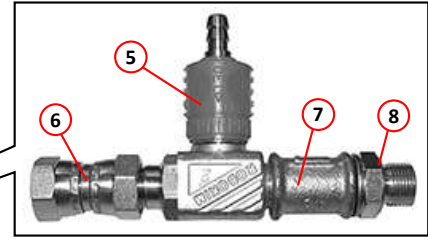
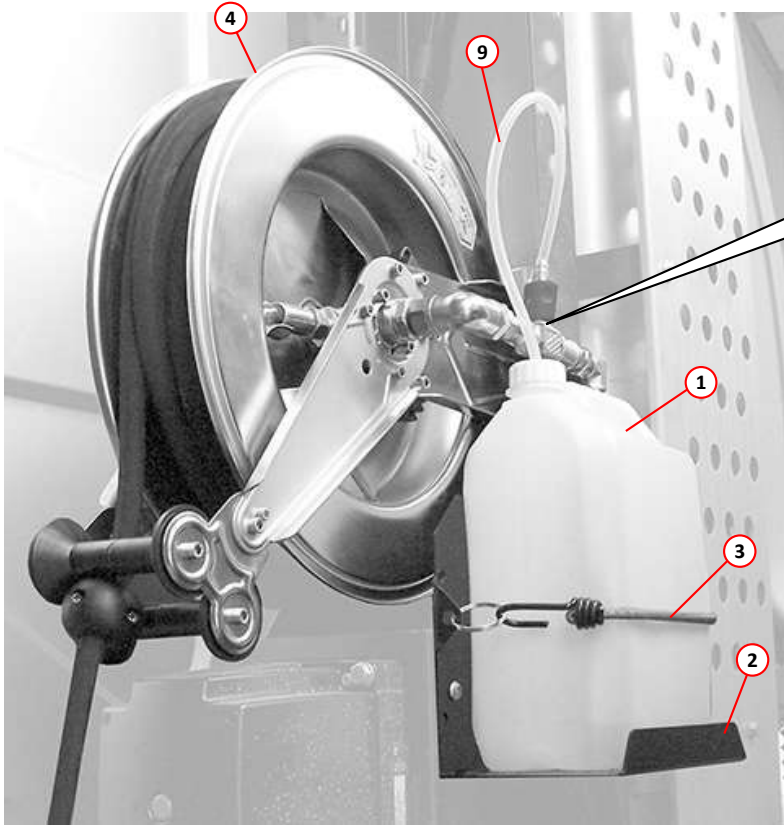
Automatic Hose Reel

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Hand Lance Detergent Kit - (Option)			
1	013553	1	. Bottle
9	010393	1	. . Bracket, bottle mounting
3	013602	1	. . Bungee cord, hook ends
4		1	Hose reel Page 194
5	013573	1	. Detergent Injector
6	011214	1	. . Adaptor, F/F, $\frac{3}{8}$ " BSP
7	010940	1	. . Adaptor, galvanised, F/F, $\frac{3}{8}$ " BSP
8	011159	1	. . . Adaptor, M/M, $\frac{3}{8}$ " BSP
9	013575	AR	. Tubing, silicon rubber
10		1	Hand lance Page 194
11	013574	1	. Detergent nozzle
12	030252	1	. . Jet, detergent nozzle

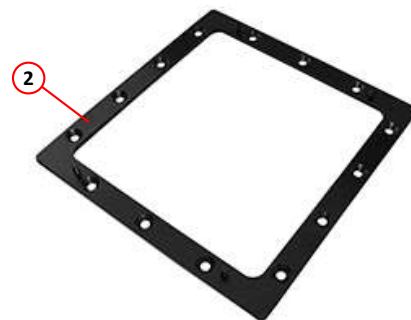
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Hand Wash Basin - (Option)			
1	028228	1	Teal hand basin - Electric 24 Volt
NI	*	2	. Support Leg
	011011	2	. . Set screw, M8 x 25mm
	011073	2	. . Nut, M8, Nyloc
2	033274	1	. Frame
	000003	2	. . Screw, socket countersunk, M8 x 20mm
	011071	4	. . Nut, M6, Nyloc
NI	032532	2	. Wiring loom

Notes:-

- * Teal hand basin support legs vary according to chassis manufacture, when ordering please contact your nearest Scarab Distributor or Scarab Parts Department.



Hand Lance Detergent Kit - Option

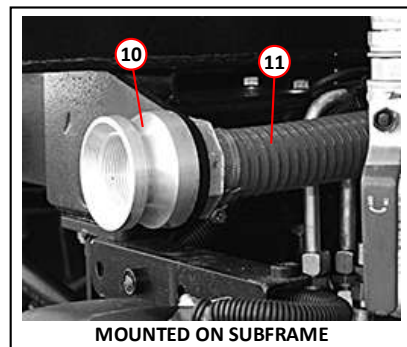
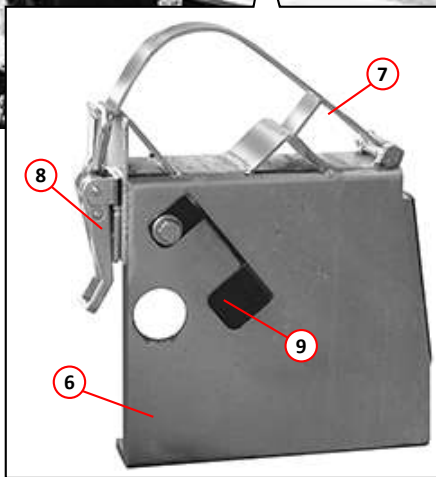
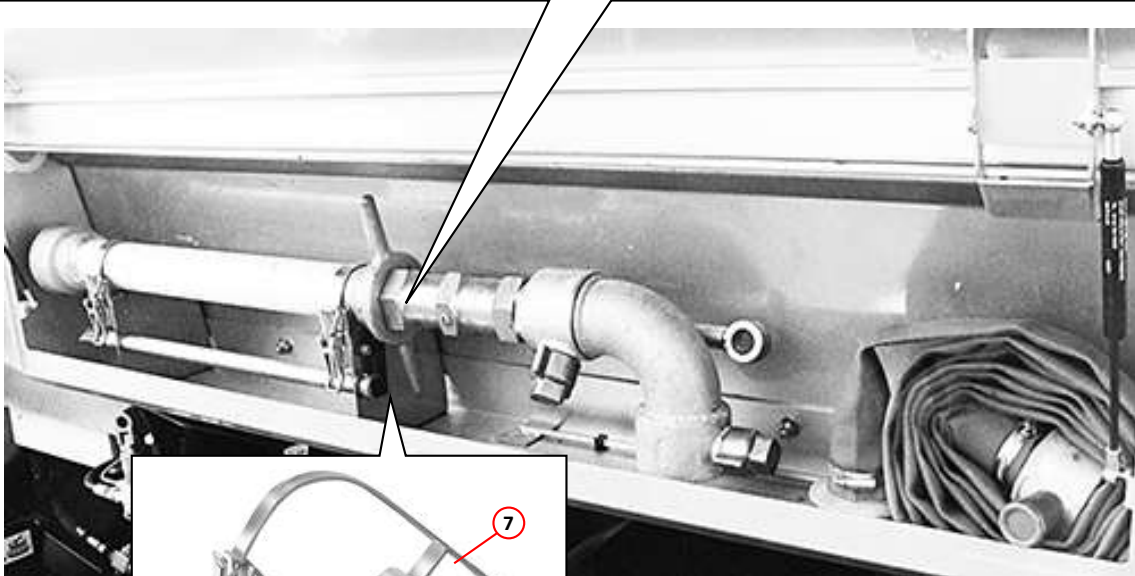
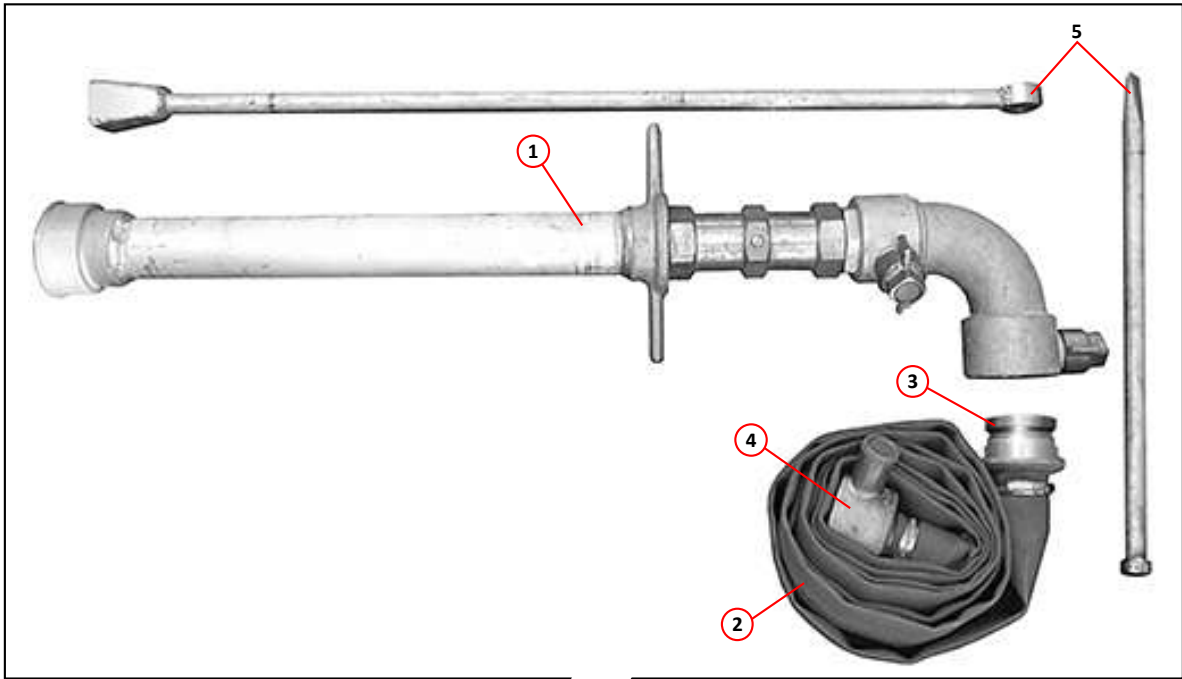


Teal Wash Basin

Item	Part Number	Quantity	Description
Locker Mounted Water Hydrant Kit * - (Option)			
1	014544	1	Standpipe
2	014547	1	. Hose, lay flat, 4 m long
3	014546	1	. Hydrant instantaneous coupling, 2½" male x 2" hose tail
4	013171	1	. Hydrant coupling, 2½" female x 2" hose tail
NI	012927	2	. . Hose clamp, worm drive, 40-55mm
5	014545	1	. Hydrant key and bar
6	020484	2	. Bracket, standpipe mounting
7	020483	2	. . Strap, standpipe mounting
8	010509	2	. . Fastener with hinged toggle
	000021	2	. . . Set screw, M6 x 40mm
	011002	4	. . . Screw, countersunk slot head, M6 x 16mm
	011071	6	. . . Nut, M6, Nyloc
	011010	4	. . . Set screw, M8 x 20mm
	011073	4	. . . Nut, M8, Nyloc
9	031504	1	. . . Hydrant bar stop (auxiliary tool locker only)
	011010	1	. . . . Set screw, M8 x 20mm
	011073	1	. . . . Nut, M8, Nyloc
10	025140	1	. Adaptor, male (with back nut)
11	001045	AR	. . Hose, green, medium duty 1½" bore
	003007	2	. . . Hose clamp, worm drive, 35-50mm

Notes:-

* Hydrant kits are located in the hopper locker (**Merlin/XP**) or, the auxiliary tool locker (**Magnum**).

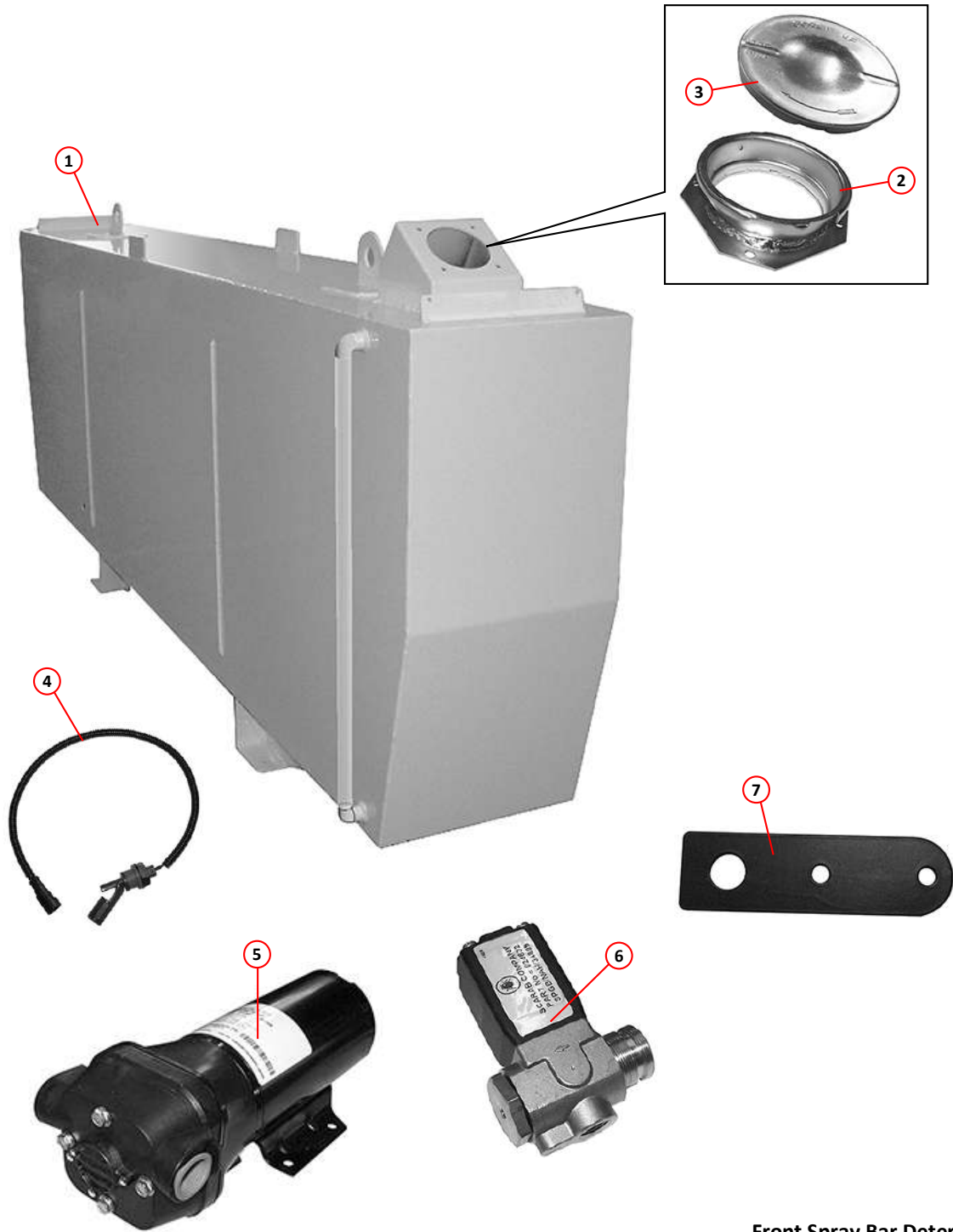


Locker Mounted Hydrant Kit

Item	Part Number	Quantity	Description
Front Spray Bar Detergent Tank Kit - (Option)			
1	*	1	Detergent tank
NI	*	1	. Base, detergent tank
2	014040	1	. Filler assembly
	000252	4	. . Set screw, M6 x 20mm, stainless steel
	000254	4	. . Washer, M6, stainless steel
	000253	4	. . Nut, M6, Nyloc, stainless steel
3	013661	1	. . Filler cap
4	036871	1	. Float switch Page 318
5	032718	1	. Detergent pump
6	024832	1	. Water valve
7	024835	1	. . Bracket, mounting, water valve
NI	030323	1	Spray bar Page 182

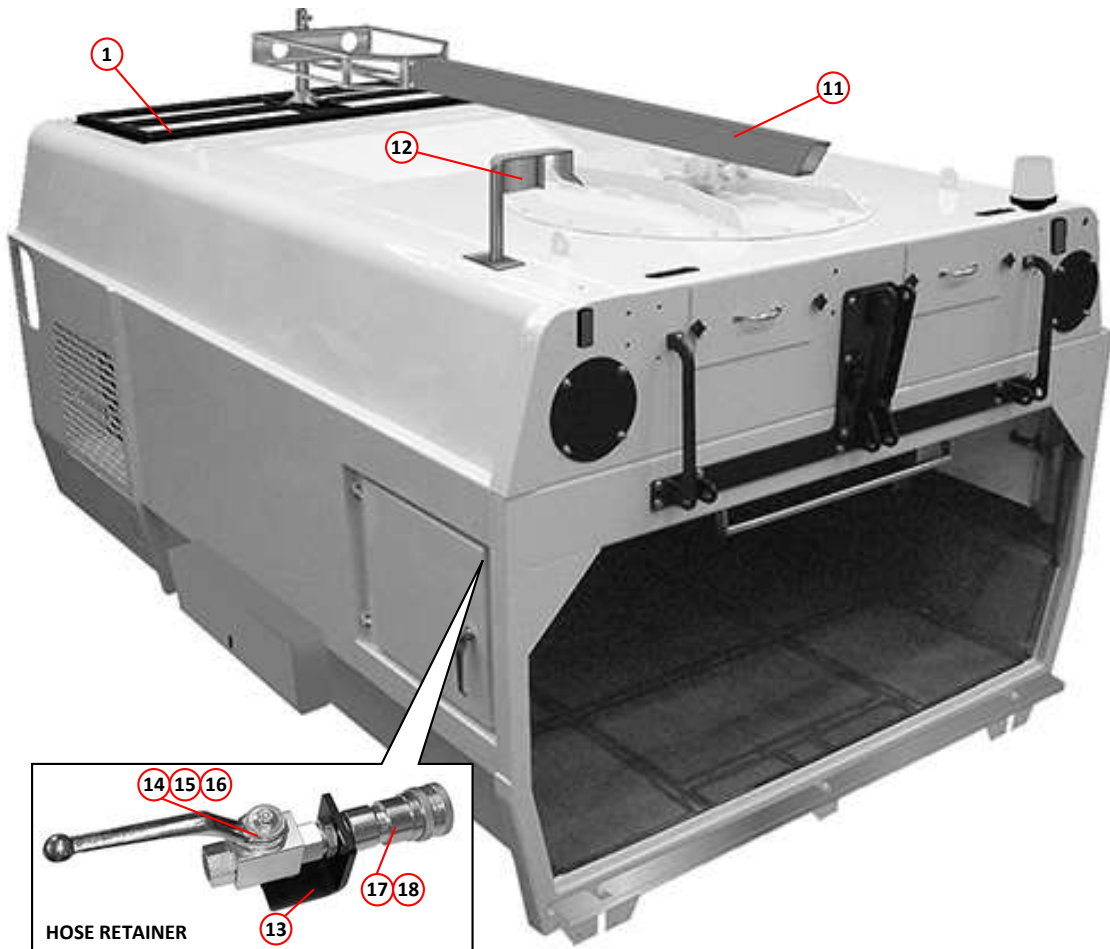
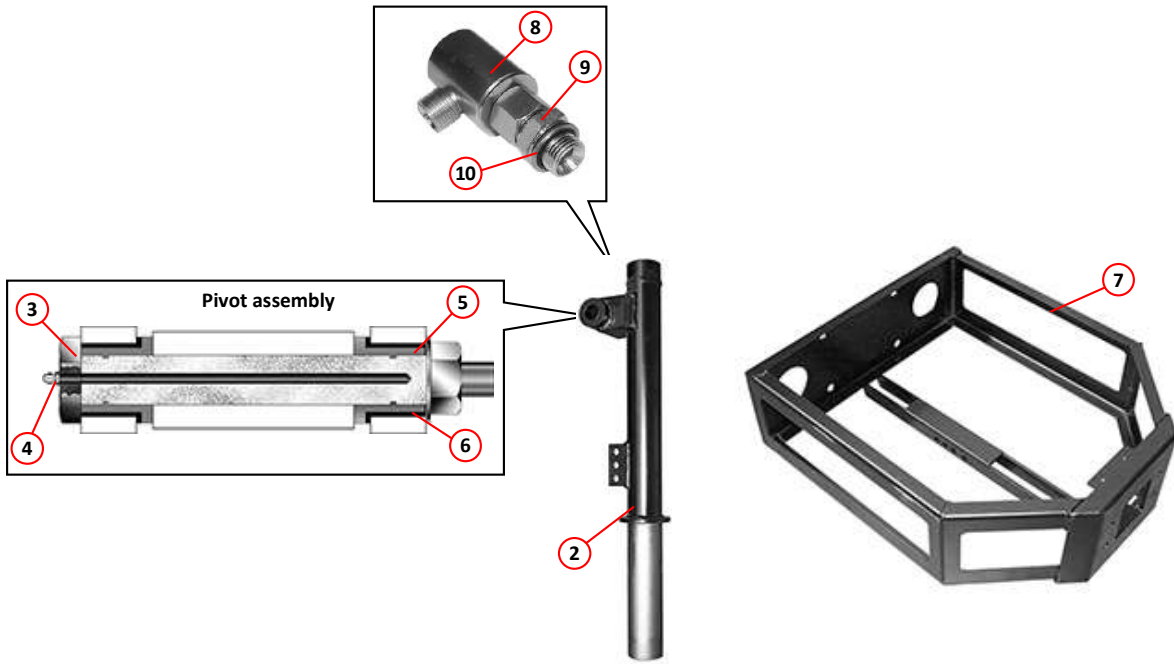
Notes:-

* The detergent tank and its base unit are chassis/model specific items. If a replacement tank is required, please contact the Scarab Parts Department stating your model and serial number.



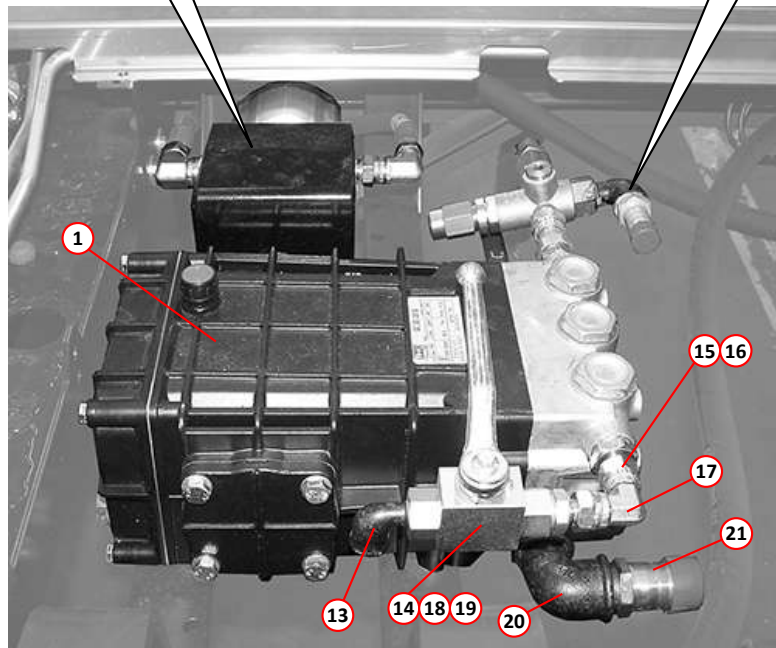
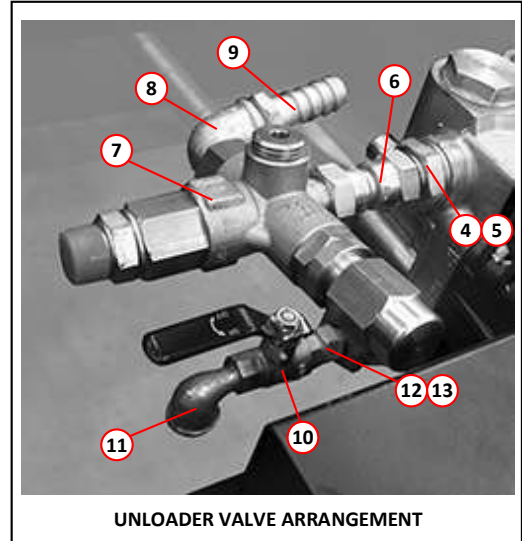
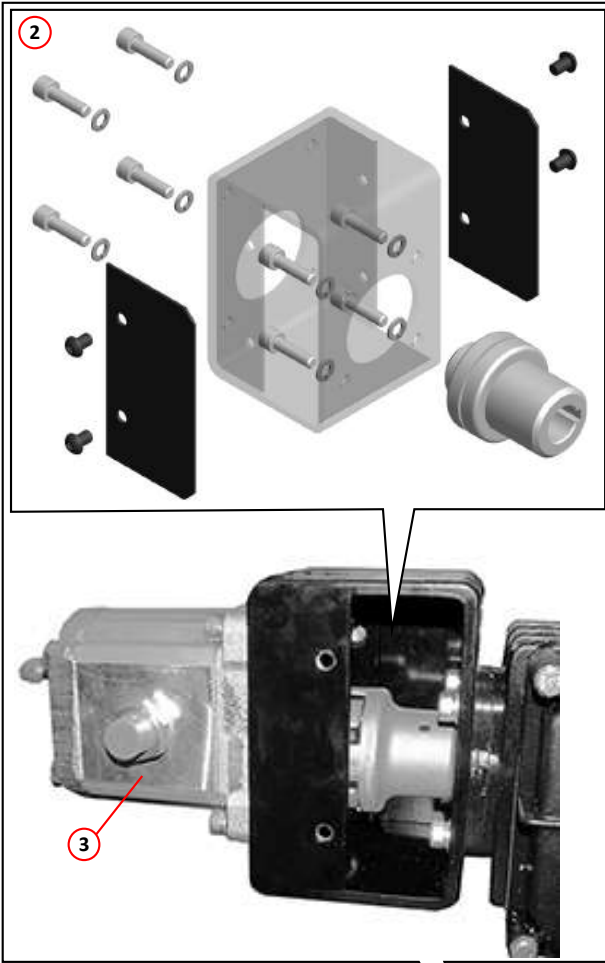
Front Spray Bar Detergent Tank Kit

Item	Part Number	Quantity	Description
Water Boom Assembly - Merlin and Magnum - (Option)			
1	028613	1	Support bracket (Merlin)
	011031	13	. Set screw, M10 x 25mm
	011074	13	. Washer, M10
	011075	13	. Nut, M10, Nyloc
NI	030522	1	Support bracket (Magnum)
	011031	8	. Set screw, M10 x 25mm
	011074	8	. Washer, M10
	011075	8	. Nut, M10, Nyloc
2	027945	1	Universal joint
3	014796	1	. Pivot bolt
4	010903	1	. Grease point $\frac{1}{8}$ " BSP
	011060	1	. Nut, M16, Nyloc
	011135	1	. Washer, M16
5	014799	2	. Spacer sleeve
6	013012	2	. Bush, king pin
7	027952	1	Hose-reel carrier
	000205	4	. Set screw, M14 x 25mm
	011127	4	. Nut, M14, Nyloc
NI	013486	2	. Gas strut
8	010422	2	. Rotating joint, M/F, $\frac{1}{2}$ " BSP
9	011160	2	. . Adaptor, M/M, $\frac{1}{2}$ " BSP
10	011154	2	. . Seal, Dowty, $\frac{1}{2}$ " BSP
11	027949	1	Hose support bar (Merlin)
NI	030523	1	Hose support bar (Magnum)
	011051	4	. Set screw, M12 x 25mm
	011077	4	. Nut, M12, Nyloc
NI	014799	3	. Spacer, $\varnothing 20 \times 41 \times 10.5$ bore
	011055	3	. Bolt, M12 x 65mm
12	028614	1	Stowage hook
	011031	2	. Set screw, M10 x 25mm
	011074	2	. Washer, M10
13	028155	1	Bracket, hose retainer
14	011257	1	. Ball valve $\frac{1}{4}$ " BSP
15	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
16	011152	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP
17	023360	1	. Quick-release coupling, female $\frac{3}{8}$ " BSP
18	011153	2	. . Seal, Dowty, $\frac{3}{8}$ " BSP
NI	035627	2	Side spacer bracket, hose-reel carrier. (1250 water tank)
NI	035628	1	Front spacer bracket, hose-reel carrier. (1250 water tank)
NI	023538	1	Hose reel assembly Page 194
NI	010970	1	. Hose, rubber, $\frac{1}{2}$ " BSP x 460mm, straight ends



Water Boom Assembly - Merlin and Magnum

Item	Part Number	Quantity	Description
High Pressure Water Pump - 30 litres/minute - Arrangement - (Option)			
1	039940	1	Pump, High-Pressure, 30 litres/minute - 160 bar
	011031	4	. Set screw, M10 x 25mm
	011095	4	. Spring washer, M10
2	036654	1	. Drive box kit (with cover plates)
	000017	4	. . Screw, socket cap head, M8 x 30mm
	011093	4	. . Spring washer, M8
3	025373	1	. Motor, hydraulic, 19cc, (Reversible) Page 270
	000017	4	. . Screw, socket cap head, M8 x 30mm
	011093	4	. . Spring washer, M8
4	011159	1	. . Adaptor, M/M, $\frac{3}{8}$ " BSP
5	011153	1	. . . Seal, Dowty, $\frac{3}{8}$ " BSP
6	011214	1	. . Adaptor, F/F, $\frac{3}{8}$ " BSP
7	010599	1	Valve unloader (160 bar pump only)
8	010913	1	. Elbow, galvanised, M/F, $\frac{3}{8}$ " BSP
9	010930	1	. , Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
10	011743	1	. Valve, ball $\frac{1}{4}$ " BSP, pump low pressure drain
11	010910	2	. . Elbow, galvanised, M/F, $\frac{1}{4}$ " BSP
12	003006	1	. Adaptor, galvanised, M/F, $\frac{3}{4}$ " x $\frac{1}{4}$ " BSP
13	010944	1	. Adaptor, galvanised, M/M, $\frac{1}{4}$ " BSP
14	011257	1	. Ball valve, $\frac{1}{4}$ " BSP, pump high pressure drain
15	011199	1	. . Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
16	011153	1	. . . Seal, Dowty, $\frac{3}{8}$ " BSP
17	011171	1	. . Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
18	011152	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP
19	011158	1	. . Adaptor, M/M, $\frac{1}{4}$ " BSP
20	010917	1	. Elbow, galvanised, M/F, $\frac{3}{4}$ " BSP
21	010931	1	. . Hose tail, $\frac{3}{4}$ " BSP x 1" hose

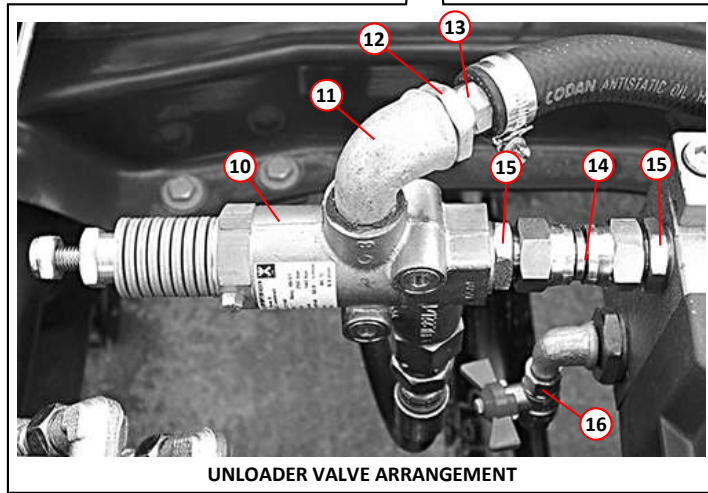
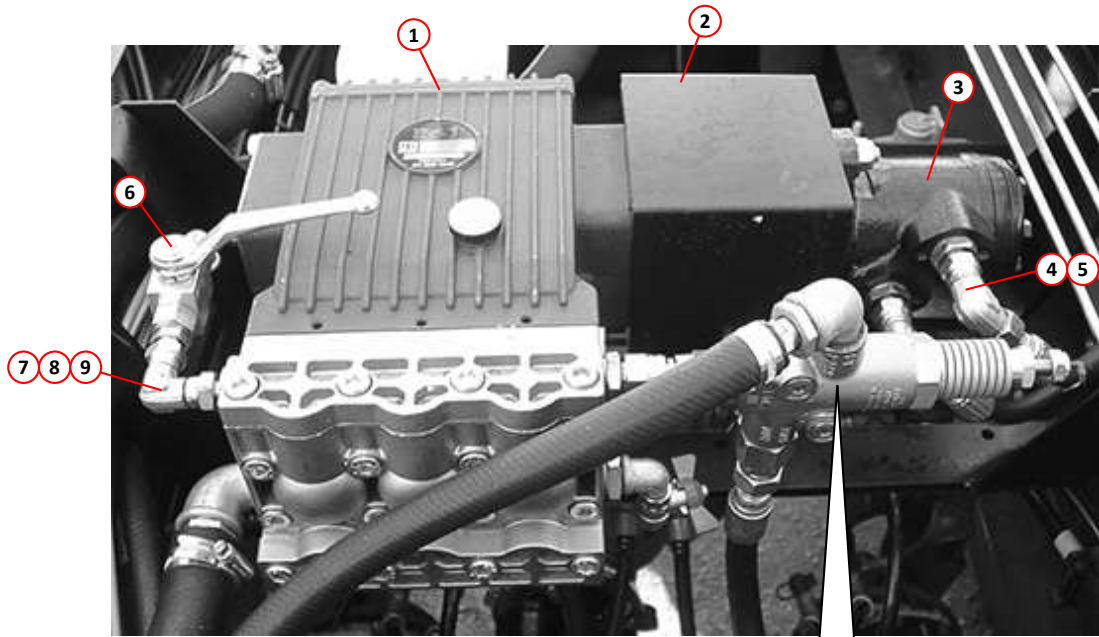


High Pressure Water Pump 30 Litres/Minute- Arrangement

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			High Pressure Water Pump - 30 litres/minute - Kit Parts- (Option)
1	045356	1	. Piston Bolt Repair (Kit 6), PUCP 606106
2	045357	1	. Water Seal (Kit 11), PUWS 606111
3	045358	1	. Brass Insert (Kit 18), PUPB
4	045359	1	. Valve (Kit 3), PUVA 606103
5	045360	1	. Ceramic Piston, PUCP 120533
6	045361	1	. Piston Oil Seal, PUOS 000743
7	045362	1	. Crankcase Cover Gasket, PUGA 060275
8	045363	1	. Shaft Oil Seal, PUOS 000738

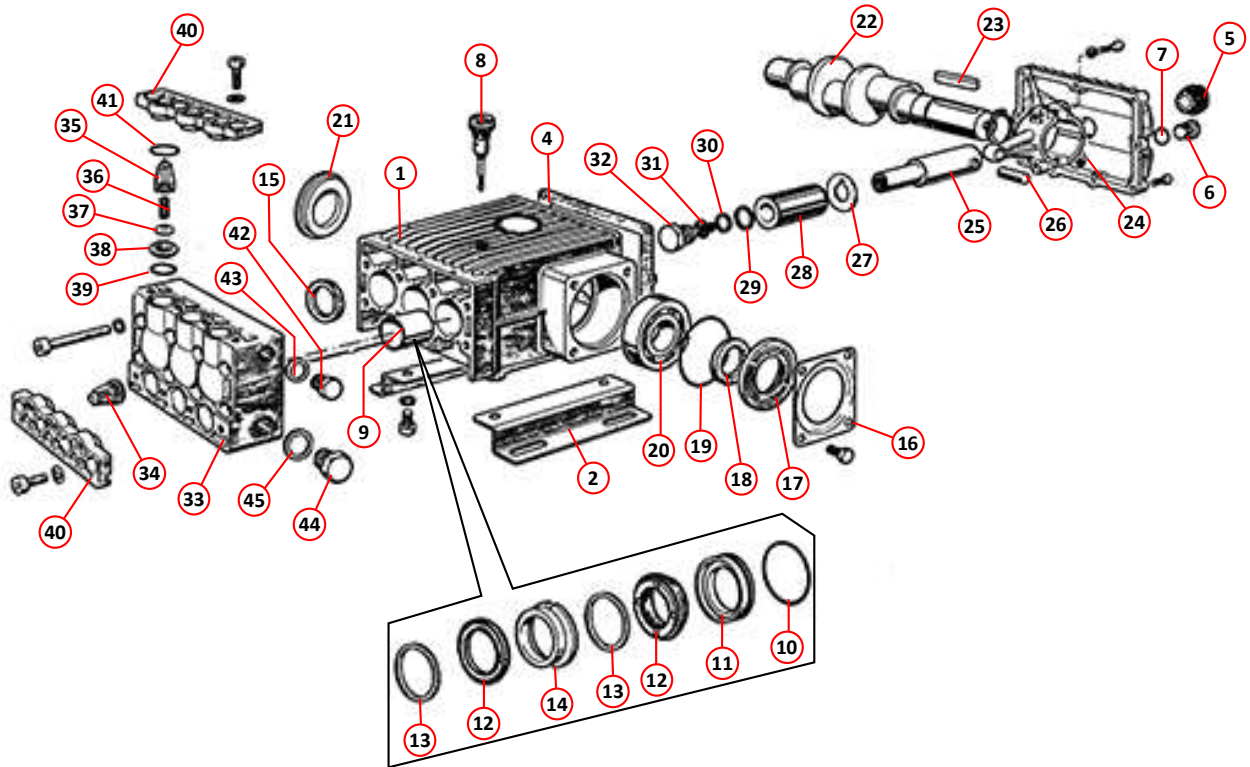
Item	Part Number	Quantity	Description
High Pressure Water Pump - 42 litres/minute - Arrangement - (Option)			
1	020308 *	1	Pump, high-pressure, 42 litres/minute
NI	020311	1	. Coupling half, 1 bore
NI	020309	1	. Coupling half, 35 bore
NI	020312	1	. Sleeve, coupling
2	020643	1	. . Guard, coupling
3	013527	1	Motor, hydraulic Page 270
4	011167	2	. Adaptor, $\frac{1}{2}$ " BSP x $\frac{3}{8}$ " BSP
NI	011154	1	. . Seal, Dowty, $\frac{1}{2}$ "
5	011172	2	. Elbow, swivel, M/F, $\frac{3}{8}$ " BSP
NI	020347	1	. Mounting bracket, motor
6	011257	1	Ball valve $\frac{1}{4}$ " BSP, pump high pressure drain
NI	010910	1	. Elbow, $\frac{1}{4}$ " BSP
7	011158	1	. Adaptor, $\frac{1}{4}$ " BSP x $\frac{1}{4}$ " BSP
NI	011152	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP
8	011169	1	. Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
9	011199	1	. . Adaptor, $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
NI	011153	1	. . . Seal, Dowty, $\frac{3}{8}$ "
10	022739	1	Valve, unloader ($\frac{1}{2}$ " BSP ports)
11	010942	1	. Elbow, M/F, $\frac{1}{2}$ " BSP
12	010914	1	. . Bush, reducing, $\frac{1}{2}$ " BSP x $\frac{3}{8}$ " BSP
13	010930	1	. . Hose tail $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " BSP
14	011178	1	. Adaptor, F/F, $\frac{1}{2}$ " BSP 16/8/8
15	011160	2	. . Adaptor, $\frac{1}{2}$ " x $\frac{1}{2}$ "
NI	011154	1	. . . Seal, Dowty, $\frac{1}{2}$ " BSP
16	011743	1	Valve, ball $\frac{1}{4}$ " BSP, pump low pressure drain

Notes:-
* For pump components see Page 210.



High Pressure Water Pump 42 Litres/Minute - Arrangement

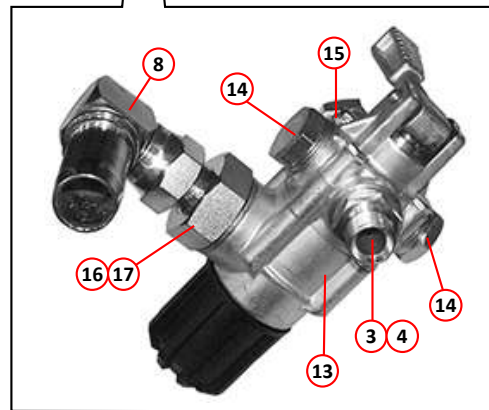
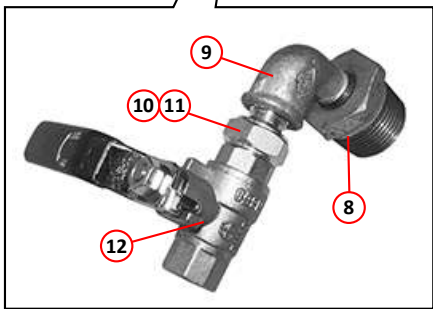
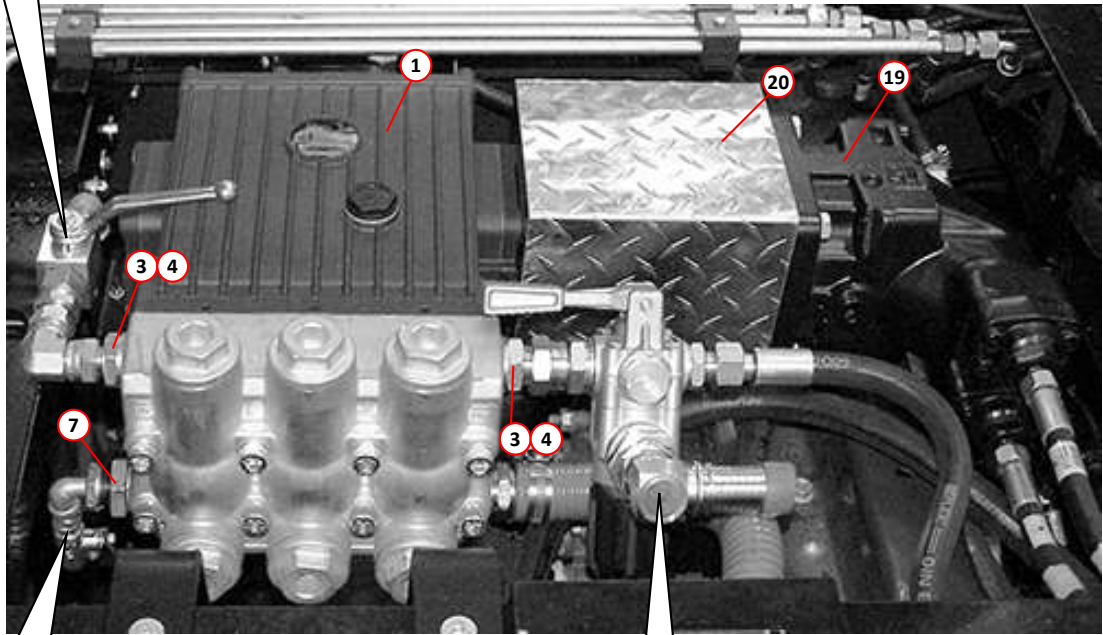
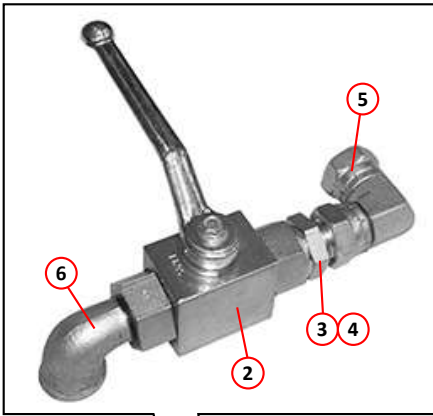
Item	Part Number	Quantity	Description
			High Pressure Water Pump - 42 litres/minute - Components - (Option)
1	022110	1	CRANKCASE
2	022136	2	. Foot
	022139	4	. . Bolt
	022138	4	. . Washer
3	022119	1	. Rear cover
	022126	9	. . Bolt
4	022112	1	. . Gasket, rear cover
5	022124	1	. . Oil sight glass
6	022125	1	. . Plug $\frac{3}{8}$ " BSPM x 13mm
7	022123	1	. . . O-Ring
8	022111	1	. Dipstick
9	022137	3	. Cylinder guide
10	022144	3	. O-Ring
11	022145	3	. Oil seal
12	022146	6	. Oil seal
13	022147	6	. Oil seal
14	022148	3	. Collar
15	022109	3	. Oil seal
16	022131	2	. Crankcase cover, bearing assembly
	022130	8	. . Bolt
17	022132	1	. Spacer
18	022133	1	. Seal
19	022134	2	. O-Ring
20	022135	2	. Bearing
21	022151	1	. Spacer
22	022118	1	CRANKSHAFT
23	022149	1	. Key
	022150	1	. Circlip
24	022120	3	. Connecting rod
25	022128	3	. . Piston guide
26	022127	3	. . . Pin
27	022129	3	. . . Washer
28	022117	3	. . . Piston
29	022116	3	. . . Washer
30	022115	3	. . . Washer
31	022114	3	. . . O-Ring
32	022113	3	. . . . Piston bolt
33	022143	1	HEAD
	022098	8	. Bolt, M10 x 80mm
	022099	8	. Washer
34	022105	6	. Valve, complete
35	022104	6	. . Valve
36	022103	6	. . Spring
37	022102	6	. . Valve ring
38	022101	6	. . Valve seat
39	022100	6	. . O-Ring
40	022107	2	. Cover
	022108	4	. . Bolt
	022099	4	. . Washer
41	022106	6	. . O-Ring
42	022125	2	. Plug $\frac{3}{8}$ " BSPM x 13mm
43	022142	1	. . Washer
44	022140	1	. Plug
45	022141	1	. . Washer



High Pressure Water Pump, 42 Litres/Minute - Components

Item	Part Number	Quantity	Description
High Pressure Water Pump - 42 litres/minute - Kit Parts			
NI	022152	1	Kit No 32 , Comprising 2 x Item 18
NI	022153	1	Kit No 37 , Comprising 3 x Item 15
NI	022154	1	Kit No 38 , Comprising 3 x Item 12
NI	022155	1	Kit No 39 , Comprising Items 10, 11, 12, 13 & 14
NI	022156	1	Kit No 40 , Comprising 3 x Items 10 & 11
NI	022157	1	Kit No 41 , Comprising 6 x Item 13
NI	022158	1	Kit No 42 , Comprising 6 x Item 14
NI	022159	1	Kit No 62 , Comprising 6 x Items 35, 36, 37, 38 & 39
NI	022160	1	Kit No 74 , Comprising 3 x Items 29, 30, 31 & 32

Item	Part Number	Quantity	Description
High Pressure Water Pump - 75 litres/minute - Arrangement - (Option)			
1	027862	1	Pump, high pressure, 75 litres/minute
2	023176	1	. Ball valve, drain, high pressure, $\frac{1}{2}$ " BSP
3	011160	1	. . Adaptor, M/M, $\frac{1}{2}$ " BSP
4	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
5	011173	1	. . Elbow, swivel, F/F, $\frac{1}{2}$ " BSP
6	010942	1	. . Elbow, galvanised, M/F, $\frac{1}{2}$ " BSP
7	000154	1	. Adaptor, galvanised, M/F, $1" \times \frac{3}{4}"$ BSP
8	003006	1	. Adaptor, galvanised, M/F, $\frac{3}{4}" \times \frac{1}{4}"$ BSP
9	010910	1	. Elbow, galvanised, M/F, $\frac{1}{4}"$ BSP
10	011158	1	. Adaptor, M/M, $\frac{1}{4}"$ BSP
11	011152	1	. . Seal, Dowty, $\frac{1}{4}"$ BSP
12	017743	1	. Ball valve, $\frac{1}{4}"$ BSP
13	020307	1	. Valve, unloader
14	011243	2	. . Plug, $\frac{1}{2}"$ BSP
15	022277	1	. . Adaptor, M/F, $\frac{1}{2}"$ BSP
16	011193	1	. . Adaptor, M/M, $1" \times \frac{3}{4}"$ BSP
17	011156	1	. . . Seal, Dowty, $1"$ BSP
18	011210	1	. . Hose tail, swivel elbow, $\frac{3}{4}"$ BSP x $1"$ hose
NI	003029	1	. Hose tail, $1"$ BSP x $1\frac{1}{4}"$ hose
19	027866	1	. Motor, hydraulic, pump drive Page 270
NI	021465	1	. . Bracket, motor mounting
	011034	4	. . Set screw, M10 x 40mm
	011095	4	. . Spring washer, M10
	011054	4	. . Set screw, M12 x 45mm
	011077	4	. . Nut, M12
NI	027863	1	. Coupling, pump drive
20	027931	1	. Cover, drive coupling
	011001	4	. . Set screw, M6 x 16mm
	011091	4	. . Spring washer, M6
	011090	4	. . Washer, M6



High Pressure Water Pump 75 Litres/Minute - Arrangement

Item Part Number
*

Quantity

Description

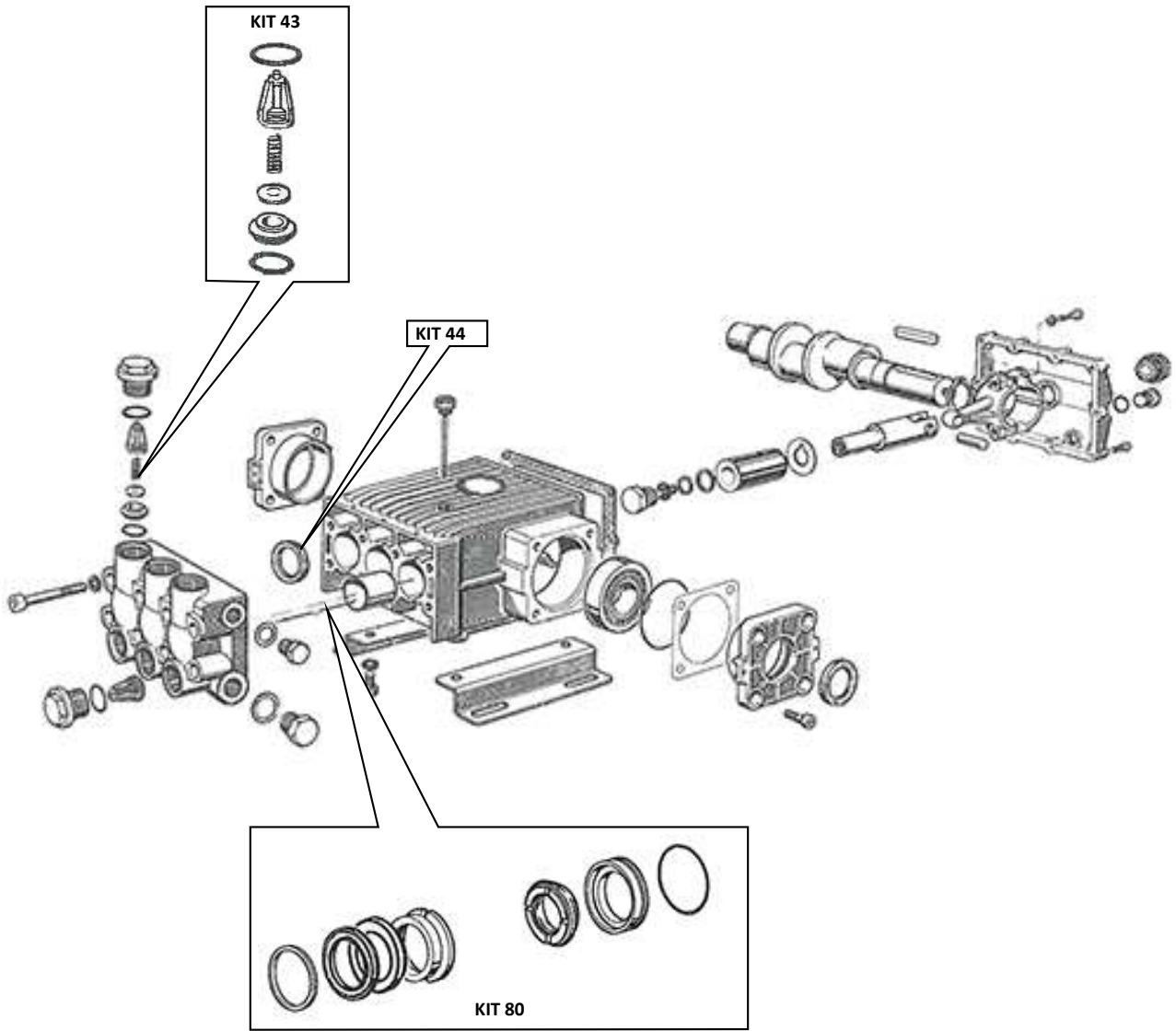
High Pressure Water Pump - 75 litres/minute - Components - (Option)

Notes:-

* Please contact Scarab Parts Department for all internal components of this pump.

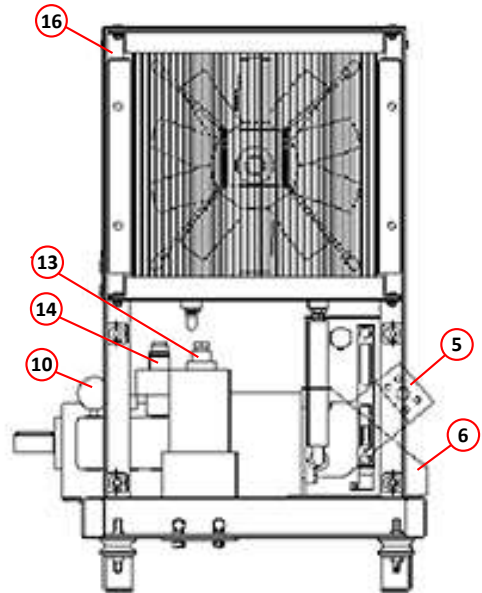
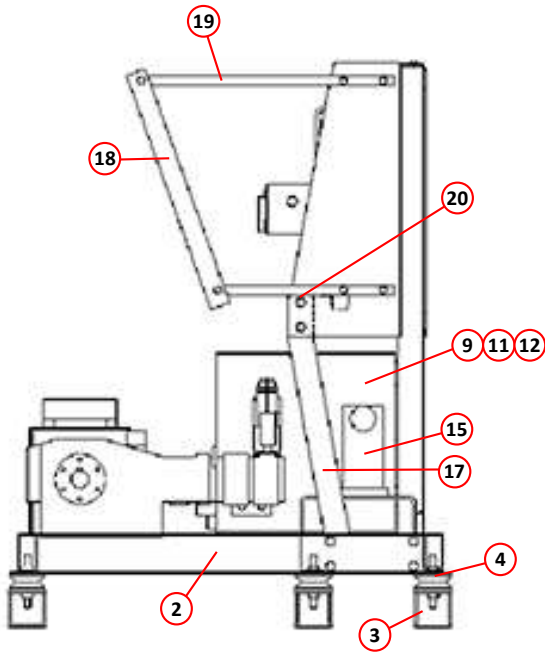
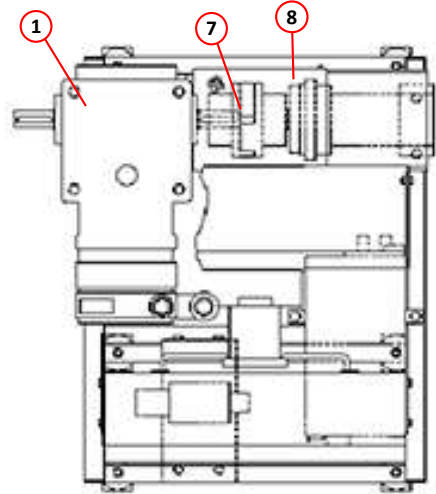
Washing and Dust Suppression

Part No. SCAZ039752 4.0.03 / E&OE



High Pressure Water Pump 75 Litres/Minute - Components

Item	Part Number	Quantity	Description
High Pressure Water Pump - Pratissoli 59 litres/minute - (Option)			
1	026992	1	Water pump, Pratissoli, 250 bar
2	026987	1	. Frame, water pump
3	026990	6	. . Mounting pad
4	026999	6	. . . A/V mount AVM 2314S
5	026993	1	. . Motor hydraulic A2FM90/61W-VBB
6	026988	1	. . . Mounting hydraulic motor
7	026884	1	. . Coupling 250 bar high-volume pump
8	026989	1	. . . Coupling cover
9	022616	1	Oil tank assembly
10	002105	1	. Pressure gauge 0-400 bar
11	025623	1	. Float switch
12	023515	1	. Temp switch N/O $\frac{3}{8}$ " BSP
13	026994	1	. Regulator valve
14	026995	1	. Safety valve (250 bar)
15	026998	1	. Manifold, control
NI	028595	1	. . Manifold mounting bracket
16	025374	1	Oil cooler assembly
17	026991	1	. Leg, cooler frame
18	027001	2	. Deflector, oil cooler
19	027013	4	. Top support, oil cooler
20	027014	4	. Bottom support, oil cooler
NI	003027	1	Tee 1" galvanised
NI	003028	1	Elbow 1" galvanised
NI	001091	1	Hose $\frac{3}{8}$ " x 2800mm, stainless steel
NI	001120	1	Hose $\frac{3}{4}$ " x 1000mm, stainless steel
NI	001122	1	Hose $\frac{3}{4}$ " x 1000mm, stainless steel
NI	001123	1	Hose $\frac{3}{4}$ " x 1300mm, stainless steel



Pratisoli 59 Litres/Minute 250 Bar High Pressure Pump

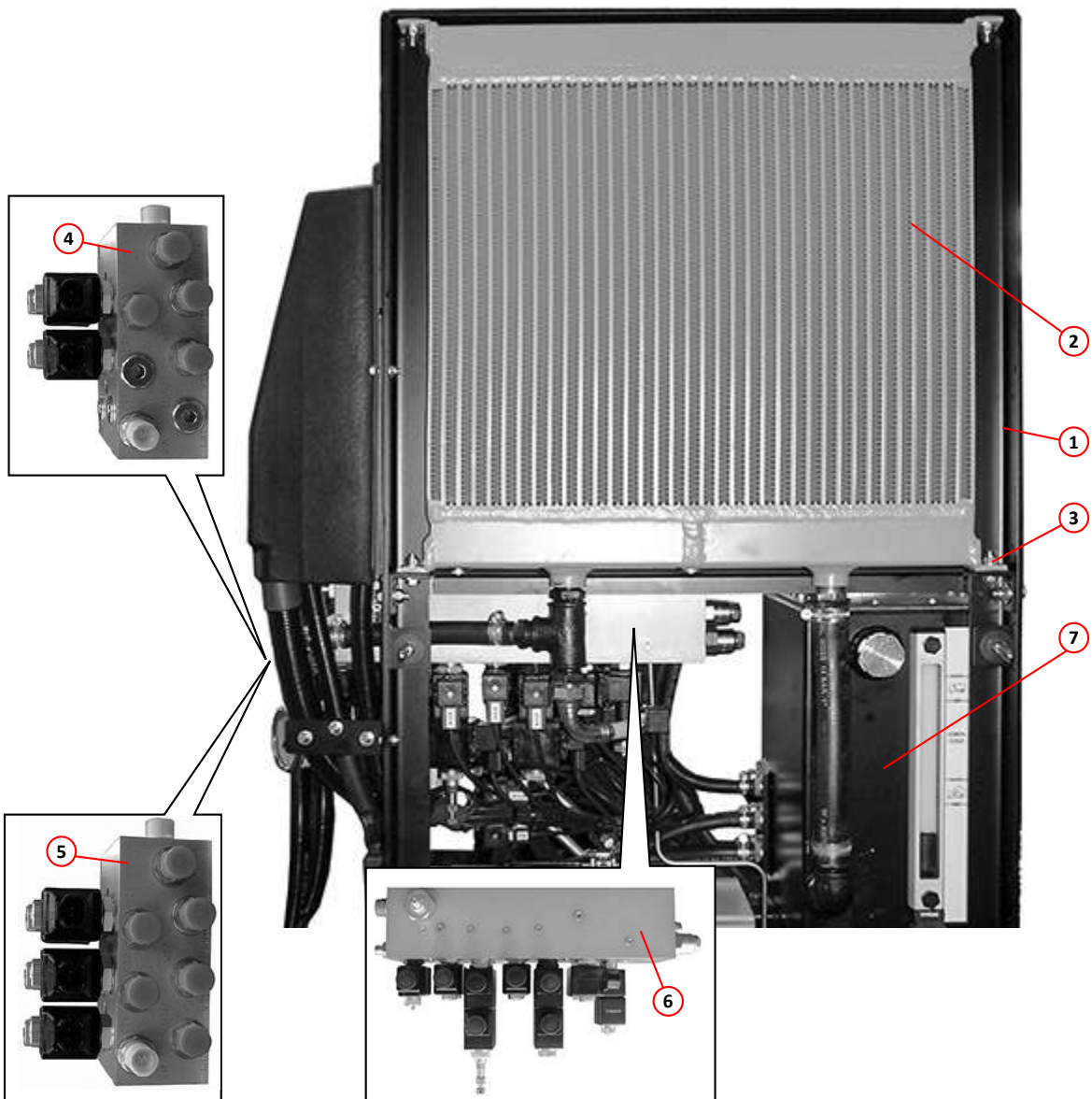
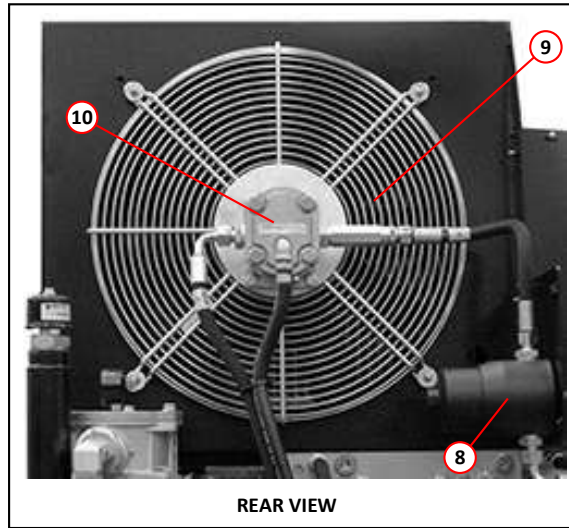
Hydraulic System and Gantry

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Item	Part Number	Quantity	Description
Gantry General Arrangement			
1	037086	1	Oil cooler frame Page 122
2	031732	1	. Oil cooler Page 222
3	030487	2	. . Bracket, oil cooler
	011011	6	. . . Set screw, M8 x 25mm
	011073	6	. . . Nut, M8, Nyloc
	011092	12	. . . Washer, M8
	028646	AR	. . . Washer, packing, rubber
4	*	1	. Valve block, options Page 238
	011143	1	. . Set screw, M6 x 70mm
	011071	1	. . Nut, M6, Nyloc
	011010	1	. . Set screw, M8 x 20mm
	011073	1	. . Nut, M8, Nyloc
5	*	1	. Valve block, brushes Page 238
	011143	1	. . Set screw, M6 x 70mm
	011071	1	. . Nut, M6, Nyloc
	011010	1	. . Set screw, M8 x 20mm
	011073	1	. . Nut, M8, Nyloc
6	*	1	. Valve block, main control Page 230, 234
7	022616	1	. Hydraulic oil tank, assembly, HYDROSTATIC Page 224
NI	023743	1	. Hydraulic oil tank, assembly, UNIDRIVE Page 226
8	025103	1	. Filter, high pressure Page 264
9	031734	1	. Cooler fan assembly Page 222
	023504	4	. . Anti vibration mounting
	023505	4	. . Anti vibration mounting
	011092	4	. . Washer, M8
	011013	4	. . Set screw, M8 x 35mm
	011073	4	. . Nut, M8 Nyloc
10	028752	1	. Motor. hydraulic, 16cc Page 272

Notes:-

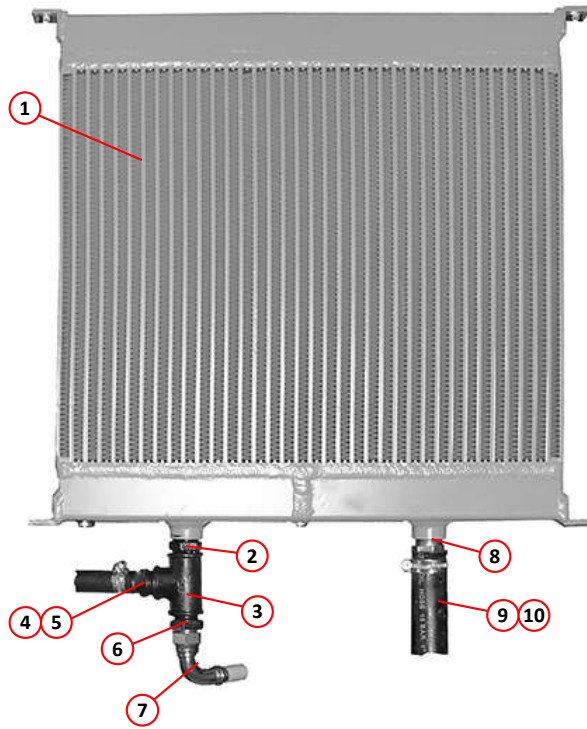
* Please contact your nearest Scarab Distributor or the Scarab Parts Department if you require to purchase these items.



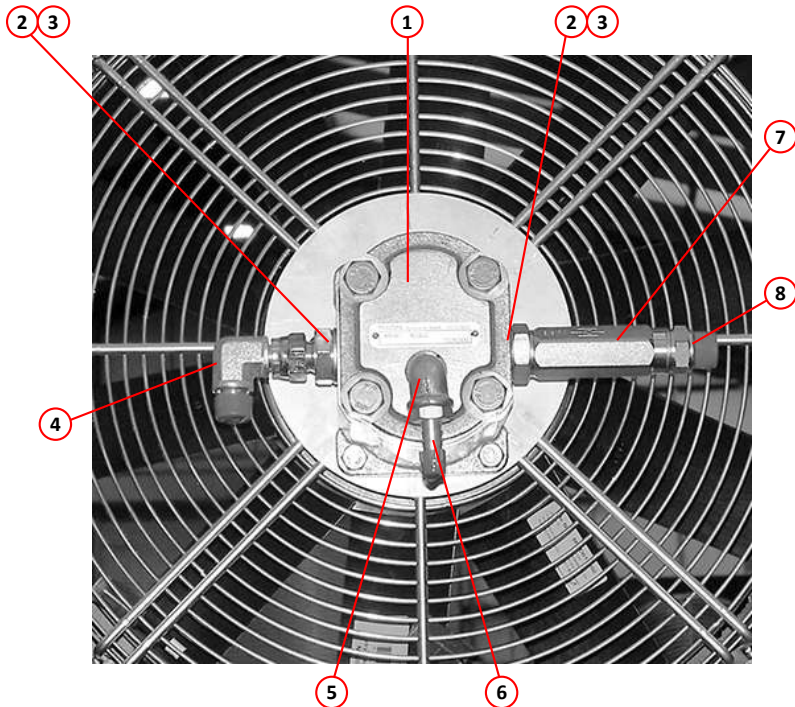
Gantry General Arrangement

Item	Part Number	Quantity	Description
Oil Cooler - Components			
1	031732	1	Oil cooler Page 220
2	010916	1	Adaptor, galvanised, M/M, $\frac{3}{4}$ " BSP
3	010919	1	Tee, galvanised, M/M, $\frac{3}{4}$ " BSP
4	010946	1	Adaptor, galvanised, M/F, $\frac{3}{4}$ " x $\frac{3}{8}$ " BSP
5	010930	1	Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
6	011166	1	Adaptor, $\frac{3}{4}$ " BSP x $\frac{5}{8}$ " hose
7	011234	1	Elbow, hose tail, $\frac{1}{2}$ " BSP x $\frac{5}{8}$ " hose
8	010931	1	Hose tail, $\frac{3}{4}$ " BSP x 1" hose
9	011000	1	Pipe, rubber, 1" bore x 200mm
10	010518	1	Clamp, worm drive, 30-40mm

Item	Part Number	Quantity	Description
Cooler Fan Motor - Assembly			
1	028752	1	Motor, hydraulic, 16cc Page 122
	020883	1	Bracket, fan mounting
2	011166	2	Adaptor, M/M, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
3	011152	2	Seal, Dowty, $\frac{1}{2}$ " BSP
4	011172	1	Elbow, swivel, M/F, $\frac{3}{8}$ " BSP
5	010910	1	Elbow, galvanised, M/M, $\frac{1}{4}$ " BSP
6	010922	1	Hose Tail $\frac{1}{4}$ " x $\frac{3}{8}$ " hose
7	011729	1	Valve, non return, M/M, $\frac{1}{4}$ " BSP
8	011167	1	Adaptor, M/M, $\frac{3}{8}$ " BSP



Oil Cooler

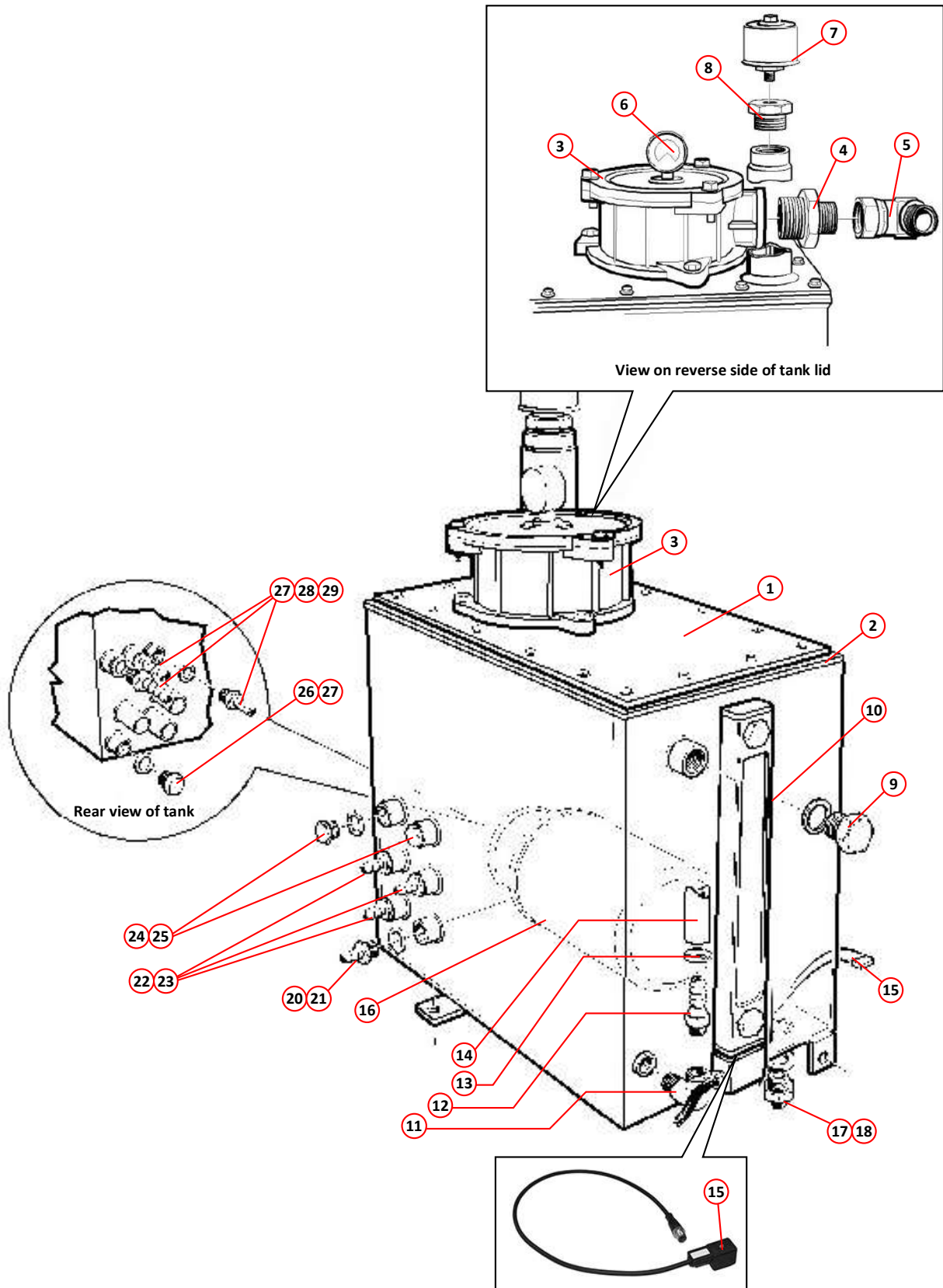


Cooler Fan Motor - Assembly

Item	Part Number	Quantity	Description
Hydraulic Tank Arrangement - Hydrostatic Machines			
1	022410	1	Tank, hydraulic oil, c/w lid Page 220
	011031	3	. Set screw, M10 x 25mm (tank to sub frame)
	011094	6	. Washer, M10
	011075	3	. Nut, M10, Nyloc,
	011111	16	. Screw, 10-32 x $\frac{1}{2}$ " (tank lid)
2	022478	1	. Gasket, tank lid
3	013123	1	. Filter, return
NI	024405	1	. . O-Ring kit for 013123
	011032	3	. . Set screw, M10 x 30mm
	011075	3	. . Nut, M10, Nyloc
NI	013125	1	. . Element, return filter
4	011184	1	. . Adaptor, M/M, $1\frac{1}{4}$ " x $\frac{3}{4}$ " BSP
NI	011150	1	. . . Seal, Dowty, $1\frac{1}{4}$ " BSP
5	011175	1	. . Elbow, swivel, M/F, $\frac{3}{4}$ " BSP
6	021719 *	1	. Gauge
7	020688	1	. Cap, filler/breather
NI	011156	1	. . Seal, Dowty, 1" BSP
8	020689	1	. . Plug, filler
9	011136	1	. Plug, blanking, $\frac{1}{4}$ " BSP
NI	011156	1	. . Seal, Dowty, 1" BSP
10	024039	1	. Gauge, fluid level Page 318
NI	021979	2	. . Washer, sealing, rubber
11	011234	1	. Elbow, galvanised, M/F, $\frac{3}{4}$ " BSP
12	010959	1	. . Hose tail, $\frac{3}{4}$ " BSP x 1" hose
13	010518	2	. . Clamp, worm drive, 30-40mm
14	011000	AR	. . Hose, Rubber 1" bore
15	010305	1	. Magnet
16	020687	1	. Element, suction filter
17	011224	1	. Adaptor, M/M, $\frac{3}{4}$ " x $\frac{3}{8}$ " BSP
18	011124	1	. . Seal, Dowty $\frac{3}{4}$ " BSP
19	036842	1	. Plug with cable and connector Page 316
20	010923	1	. Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
21	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
22	010923	4	. Hose tail, $\frac{3}{8}$ " BSP x $\frac{3}{8}$ " hose
23	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
24	011242	2	. Plug, blanking, $\frac{3}{8}$ " BSP
25	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
26	011124	1	. Plug, blanking, $\frac{3}{4}$ " BSP (single hydraulic pump)
27	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
27	010931	1	. Hose tail, $\frac{3}{4}$ " BSP x 1" hose (double hydraulic pump)
NI	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
28	011235	3	. Hose tail, $\frac{1}{2}$ " BSP x $\frac{5}{8}$ " hose
29	011154	1	. . Seal, Dowty, $\frac{1}{2}$ " BSP

Notes:-

* Gauge not fitted after December 2014.

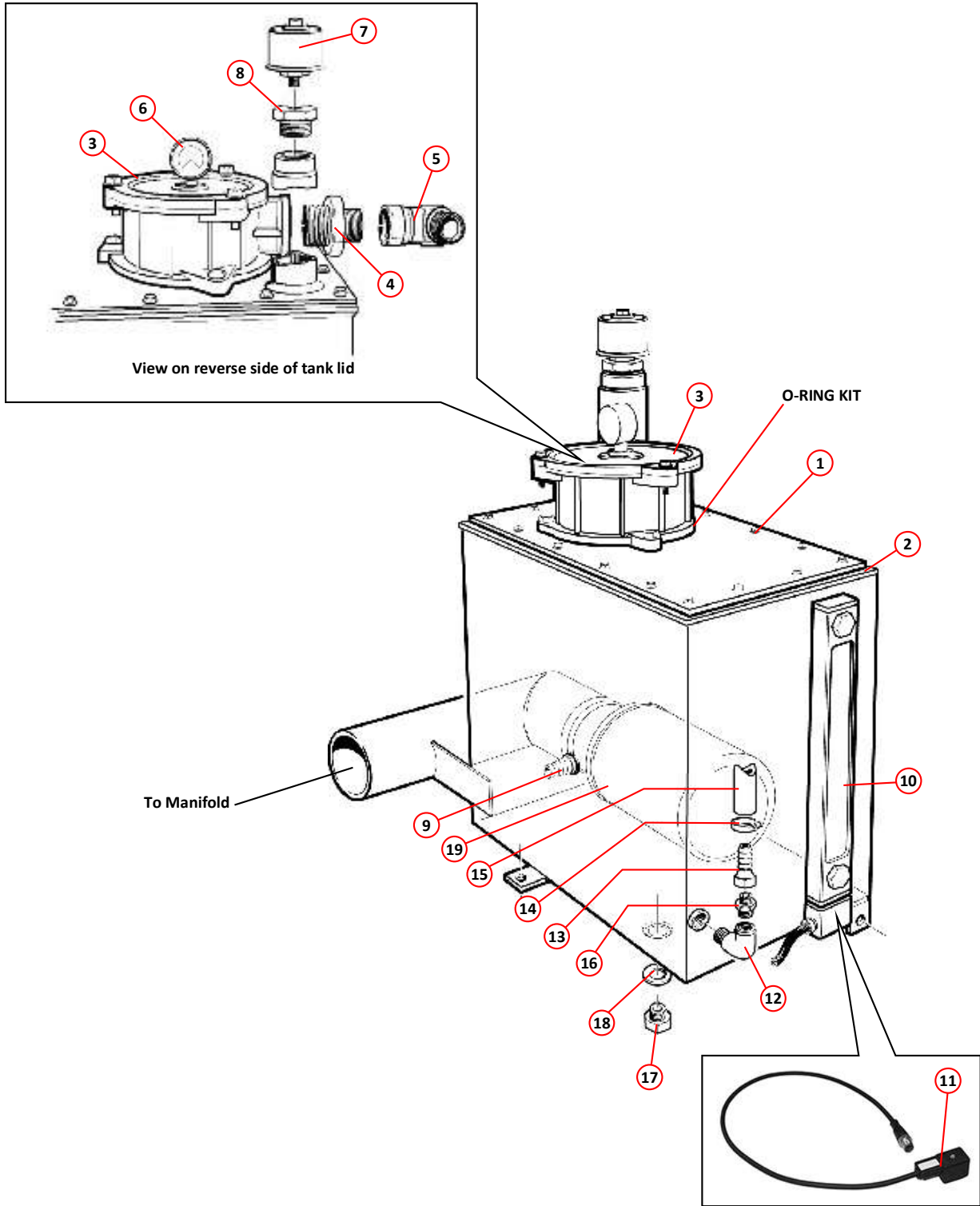


Hydraulic Tank Arrangement - Hydrostatic Machines

Item	Part Number	Quantity	Description
Hydraulic Tank Arrangement - UniDrive Machines			
1	023742	1	Tank, hydraulic oil, c/w lid Page 220
	011031	3	. Set screw, M10 x 25mm (tank to sub frames)
	011094	6	. Washer, M10
	011075	3	. Nut, M10, Nyloc,
	011111	16	. Screw, 10-32 x $\frac{1}{2}$ " (tank lid)
2	022478	1	. Gasket, tank lid
3	013123	1	. Filter, return
NI	024405	1	. . O-Ring kit for 013123
NI	013125	1	. . Element, return filter
	011032	3	. . . Set screw, M10 x 30mm
	011075	3	. . . Nut, M10, Nyloc
4	011252	1	. . Adaptor, M/M, $1\frac{1}{4}$ " x $\frac{3}{4}$ " BSP
NI	011150	1	. . . Seal, Dowty, $1\frac{1}{4}$ " BSP
5	011175	1	. . Elbow, swivel, M/F, $\frac{3}{4}$ " BSP
6	021719 *	1	. . Gauge
7	020688	1	. Cap, filler/breather
NI	011156	1	. . Seal, Dowty, 1" BSP
8	020689	1	. . Plug, filler
9	011235	1	. Hose tail, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose
NI	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
10	024039	1	. Gauge, fluid level (c/w screws - max torque = 10 Nm)
NI	021979	2	. . Washer, sealing, rubber
11	036842	1	. . Plug with cable and connector Page 316
12	011234	1	. Elbow, galvanised, M/F, $\frac{3}{4}$ " BSP
13	011160	1	. . Hose tail, $\frac{3}{4}$ " BSP x 1" hose
14	010517	2	. . Clamp, worm drive, 18-25mm
15	010959	AR	. . Hose, rubber $\frac{1}{4}$ " bore
16	011224	1	. Adaptor, $\frac{3}{4}$ " x $\frac{3}{8}$ " BSP
17	011244	1	. Plug, blanking, $\frac{3}{4}$ " BSP
18	011155	1	. Seal, Dowty, $\frac{3}{4}$ " BSP
19	020687	1	. Element, suction filter
NI	010305	1	. Magnet

Notes:-

* Gauge not fitted after December 2014.

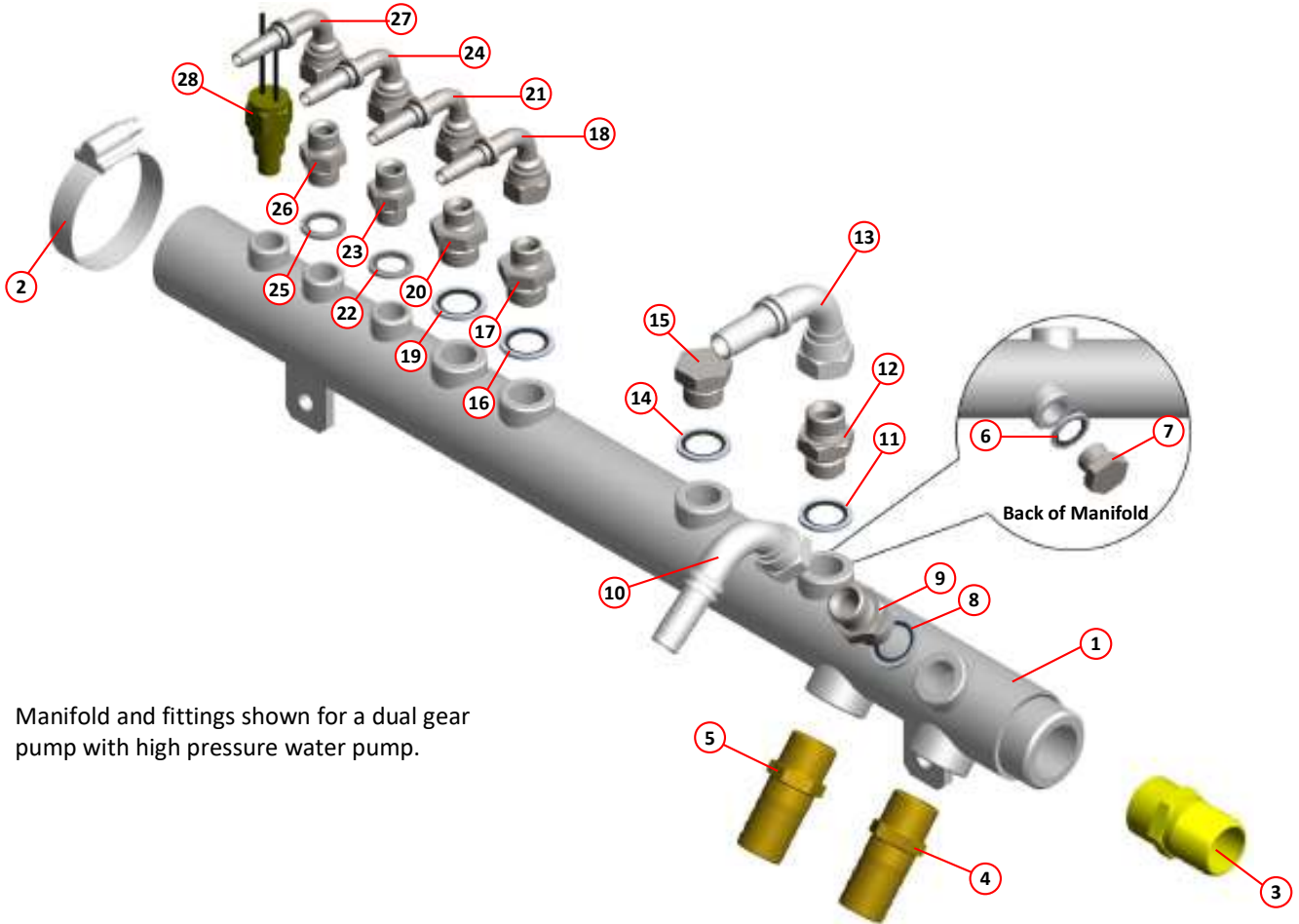


Hydraulic Tank Arrangement - UniDrive Machines

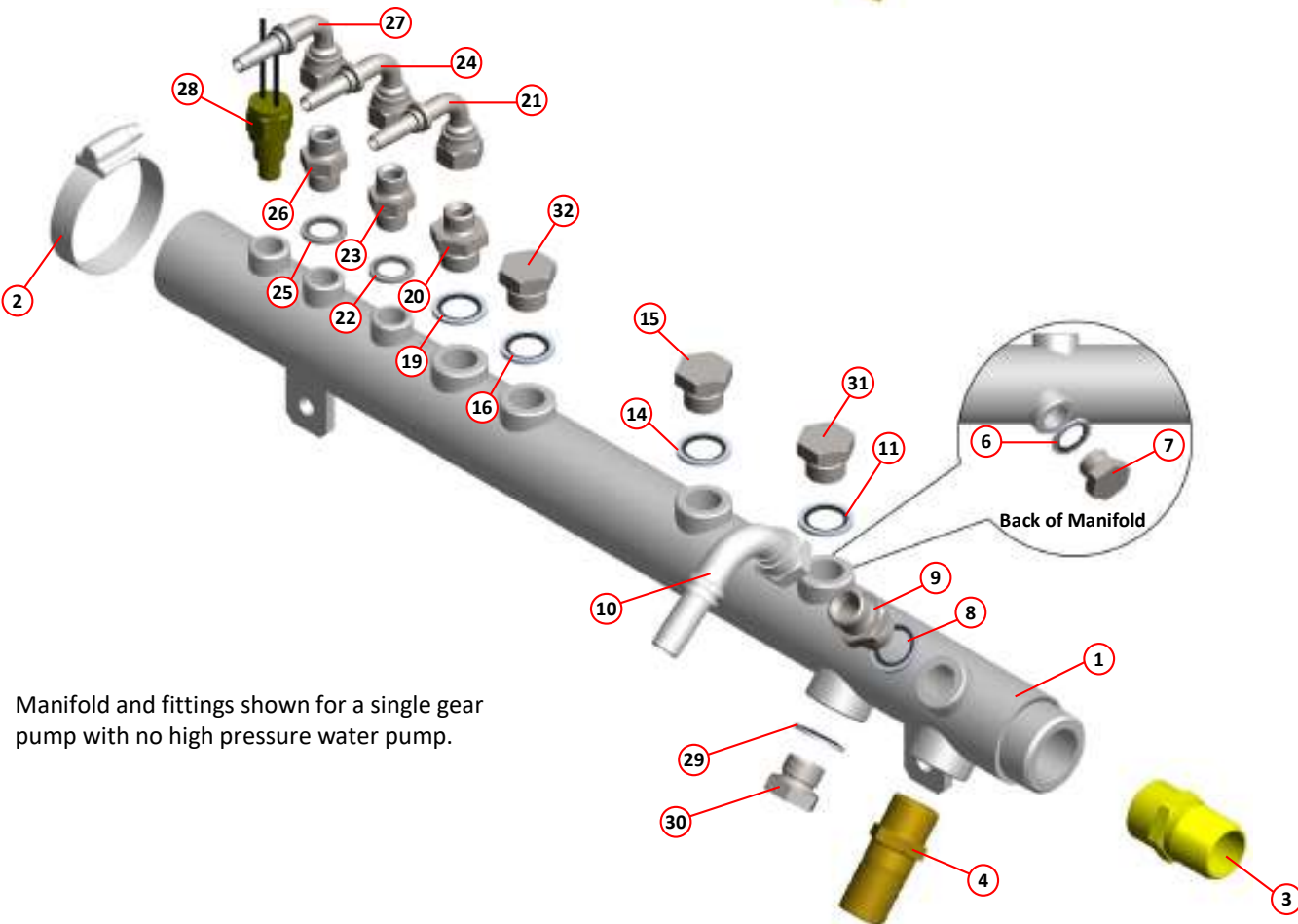
Item	Part Number	Quantity	Description
Hydraulic Manifold - UniDrive Machines *			
1	026701	1	Manifold, Merlin/Magnum Unidrive
NI	022762	1	Hose, rubber, 2" bore x 250mm
2	028778	2	Clamp, worm drive, hi-torque, size 70mm
3	003029	1	Hose tail, 1 ¹ / ₄ " BSP x 1" hose
4	010931	1	Hose tail, 3 ³ / ₄ " BSP x 1" hose
5	010931	1	Hose tail, 3 ³ / ₄ " BSP x 1" hose (Dual gear pump)
6	011154	1	Seal, Dowty, 1 ¹ / ₂ " BSP
7	011243	1	Plug, 1 ¹ / ₂ " BSP
8	011154	1	Seal, Dowty, 1 ¹ / ₂ " BSP
9	011160	1	Adaptor, M/M, 1 ¹ / ₂ " BSP
10	011234	1	Elbow, swivel, swept, 1 ¹ / ₂ " BSP x 5 ⁵ / ₈ " hose
11	011154	1	Seal, Dowty, 1 ¹ / ₂ " BSP
12	011160	1	Adaptor, M/M, 1 ¹ / ₂ " BSP
13	011234	1	Elbow, swivel, swept, 1 ¹ / ₂ " BSP x 5 ⁵ / ₈ " hose } Dual gear pump
14	011154	1	Seal, Dowty, 1 ¹ / ₂ " BSP
15	011243	1	Plug, 1 ¹ / ₂ " BSP
16	011154	1	Seal, Dowty, 1 ¹ / ₂ " BSP
17	011167	1	Adaptor, M/M, 1 ¹ / ₂ " x 3 ³ / ₈ " BSP
18	002048	1	Elbow, swivel, swept, 3 ³ / ₈ " BSP x 3 ³ / ₈ " hose } High pressure water pump
19	011154	1	Seal, Dowty, 1 ¹ / ₂ " BSP
20	011167	1	Adaptor, M/M, 1 ¹ / ₂ " x 3 ³ / ₈ " BSP
21	002048	1	Elbow, swivel, swept, 3 ³ / ₈ " BSP x 3 ³ / ₈ " hose
22	011153	1	Seal, Dowty, 3 ³ / ₈ " BSP
23	011159	1	Adaptor, M/M, 3 ³ / ₈ " BSP
24	002048	1	Elbow, swivel, swept, 3 ³ / ₈ " BSP x 3 ³ / ₈ " hose
25	011153	1	Seal, Dowty, 3 ³ / ₈ " BSP
26	011159	1	Adaptor, M/M, 3 ³ / ₈ " BSP
27	002048	1	Elbow, swivel, swept, 3 ³ / ₈ " BSP x 3 ³ / ₈ " hose
28	023515	1	. Switch, temperature operated (90° C), 3 ³ / ₈ " BSP Page 318
29	011155	1	. Seal, Dowty, 3 ³ / ₄ " BSP
30	011244	1	. Plug, 3 ³ / ₄ " BSP } Single gear pump
31	011243	1	. Plug, 1 ¹ / ₂ " BSP
32	011243	1	. Plug, 1 ¹ / ₂ " BSP (No high pressure water pump)
NI	011787	1	. Support bracket, front
NI	028537	1	. Support bracket, rear
NI	034014	1	. Support bracket, front, (XP)
NI	034015	1	. Support bracket, rear (XP)

Notes:-

* The hydraulic fittings are determined by the amount of options. Please contact the Scarab Parts Department quoting your machine's model and serial number, to ensure you procure the correct items.



i Manifold and fittings shown for a dual gear pump with high pressure water pump.

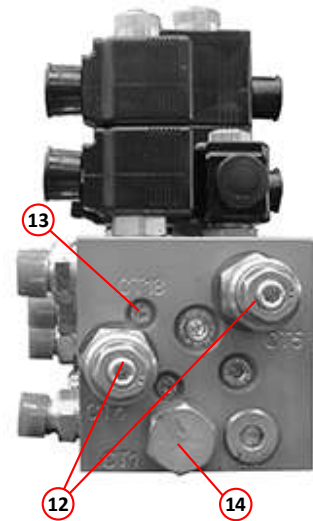
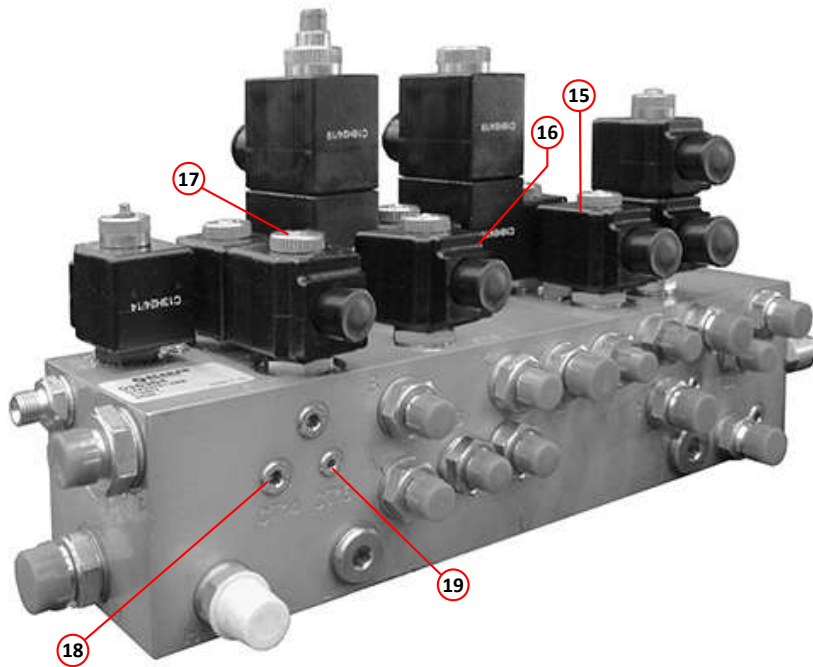
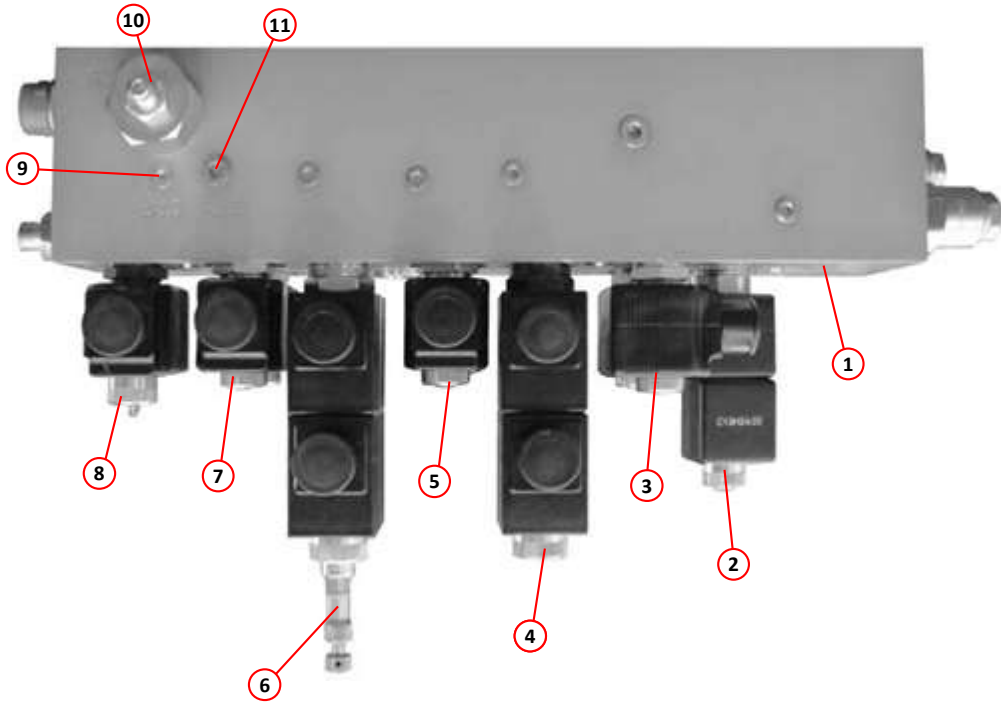


i Manifold and fittings shown for a single gear pump with no high pressure water pump.

Item	Part Number	Quantity	Description
Valve Block Assembly - Main Control			
1	*	1	Valve block, main control, assembly Page 220
2	034994	1	. Valve, solenoid, S271N (CT3)
	036922	2	. . Coil, 24 V, C13DM24/22 UN-D
	034996	1	. . . Seal kit, SK974
3	034982	1	. Valve, solenoid, S202N (CT9)
	036924	1	. . Coil, 24 V, C13DM24/14 UN-D
	034984	1	. . . Seal kit, SK1043
4	034992	1	. Valve, solenoid, S570N (CT2)
	036921	2	. . Coil, 24 V, C16DM24/19 UN-D
	034993	1	. . . Seal kit, SK1034
5	035210	1	. Valve, solenoid, S242N (CT7)
	036922	1	. . Coil, 24 V, C13DM24/22 UN-D
	034996	1	. . . Seal kit, SK974
6	035218	1	. Valve, solenoid, S571N-5 (CT19)
	036921	2	. . Coil, 24 V, C16DM24/19 UN-D
	034984	1	. . . Seal kit, SK1043
7	034982	1	. Valve, solenoid, S202N (CT12) complete with fly lead
	034986	1	. . Coil, 24 V, AXP25115
	034984	1	. . . Seal kit, SK1043
8	034999	1	. Valve, solenoid, S201N-3 (CT10)
	036924	1	. . Coil, 24 V, C13DM24/14 UN-D
	034984	1	. . . Seal kit, SK1043
9	035216	1	. Jet, M6 (ø0.7 orifice), AXP 14067 - 070 (CT17)
10	035212	1	. Valve, relief, 1VR100P20SA8TMUP (CT13)
11	036217	1	. Jet, M6 (ø2.0 orifice), AXP 6645 - 200 (CT15)
12	034997	2	. Valve, sequence, 1PSC30 - F - 20S (CT4/5)
	034998	2	. . Seal kit, SK395
13	035217	1	. Jet, M6 (ø1.0 orifice), AXP 14067 - 100 (CT18)
14	034990	1	. Valve, check, 4CK30 - 1S - 3 (CT1)
	034991	1	. . Seal kit, SK430
15	034982	1	. Valve, solenoid, S202N (CT8)
	036924	1	. . Coil, 24 V, C13DM24/14 UN-D
	034984	1	. . . Seal kit, SK1043
16	035241	1	. Cavity plug, AXP8444 -10T (CT6)
17	034982	1	. Valve, solenoid, S202N (CT11) complete with fly-lead
	034986	1	. . Coil, 24 V, AXP25115
	034984	1	. . . Seal kit, SK1043
18	035214	1	. Jet, M6 (ø2.8 orifice), AXP 6645 - 280 (CT14)
19	036218	1	. Jet, M6 (ø1.6 orifice), AXP 14067 - 160 (CT16)
NI	035241	AR	. Cavity plug, AXP8444-10T

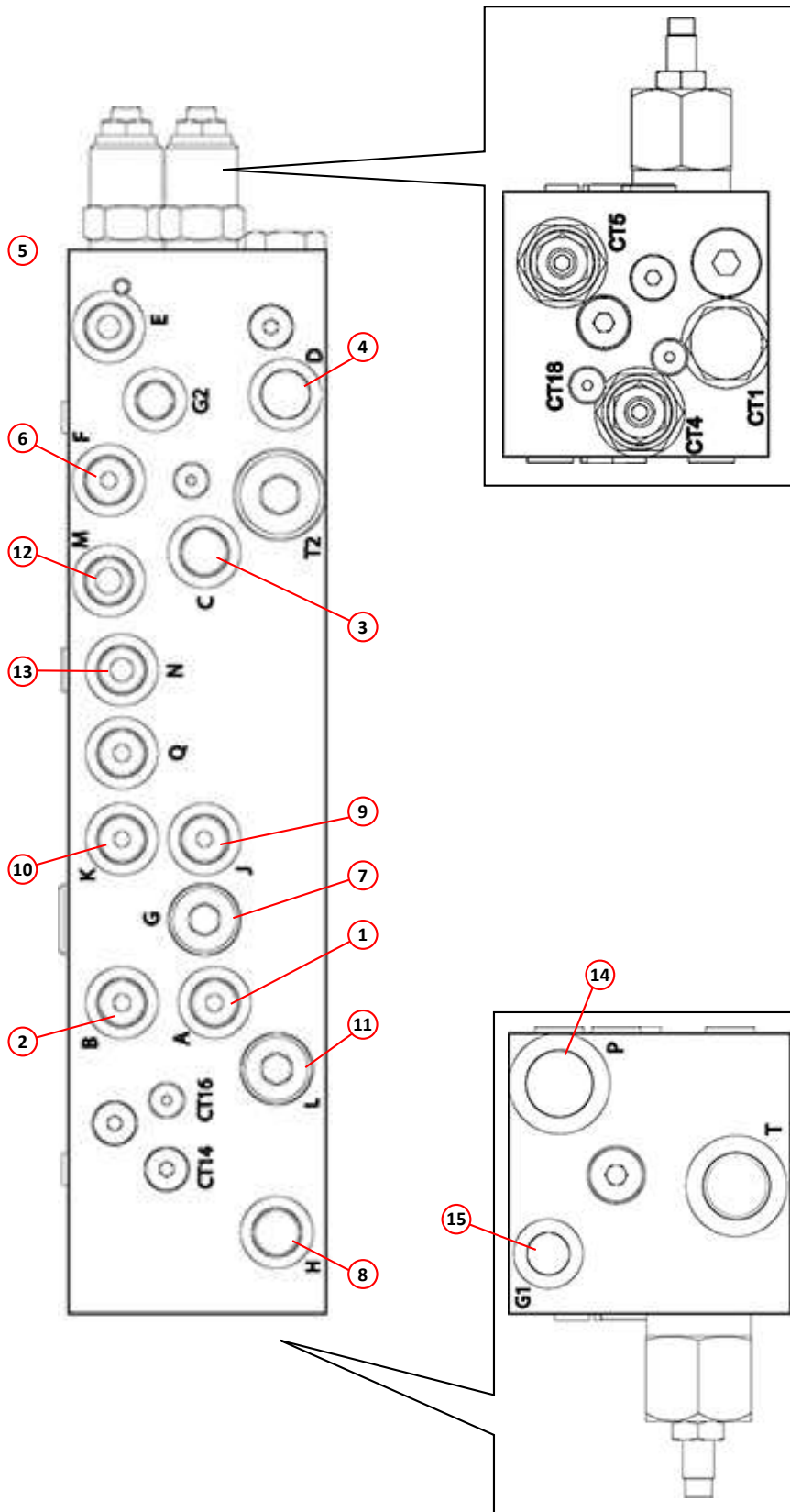
Notes:-

* Please contact the Scarab Parts Department quoting your machine's serial number and model.



Main Control Value Block

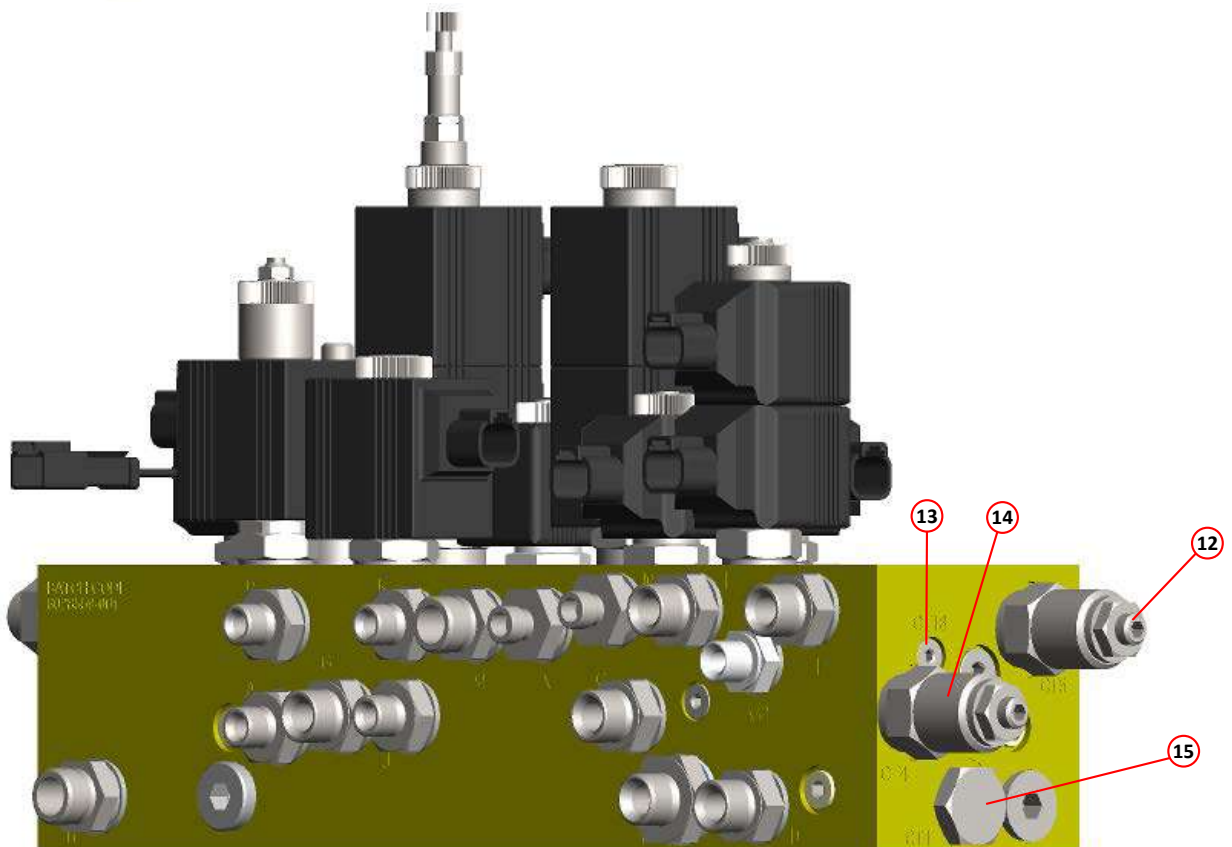
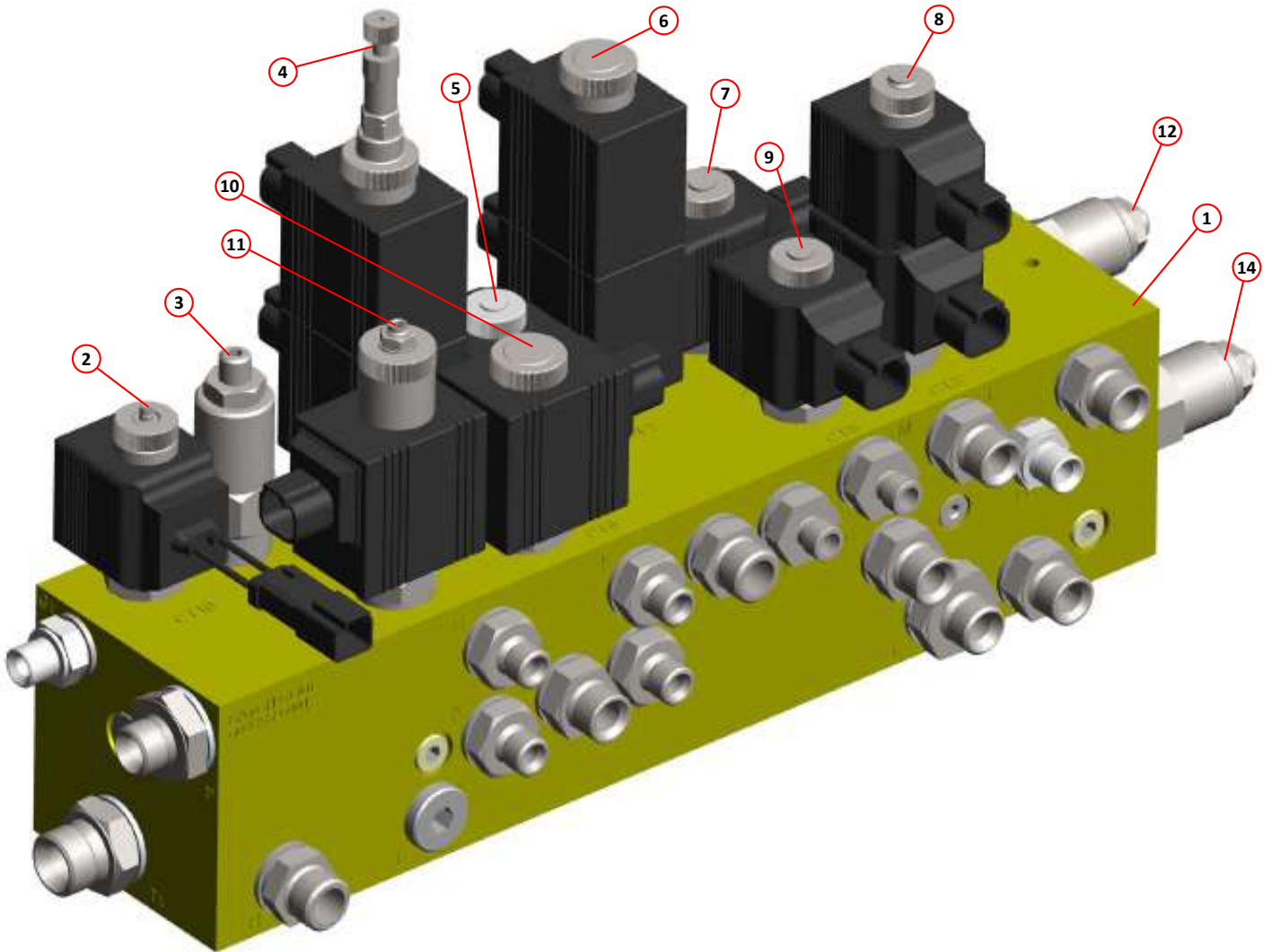
Item	Part Number	Quantity	Description
Valve Block Assembly - Main Control, Fittings			
1	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT A)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
2	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT B)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
3	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT C)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
4	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT D)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
5	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT E)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
6	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT F)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
7	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT G)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
8	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT H)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
9	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT J)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
10	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT K)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
11	035242	1	. Plug, $\frac{3}{8}$ " BSP (PORT L)
12	025160	1	. Stud, male, $\frac{3}{8}$ " BSP x 6mm pipe, (PORT M)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
13	025160	1	. Stud, male, $\frac{3}{8}$ " BSP x 6mm Pipe, (PORT N)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
14	011167	1	. Adaptor, M/M, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP (PORT P)
	011154	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP
	011205	1	. . . Elbow, swivel, M/F, $\frac{1}{4}$ " BSP
15	011158	1	. Adaptor, M/M, $\frac{1}{4}$ " BSP (PORT G1)
	011152	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP



Main Valve Block Fittings

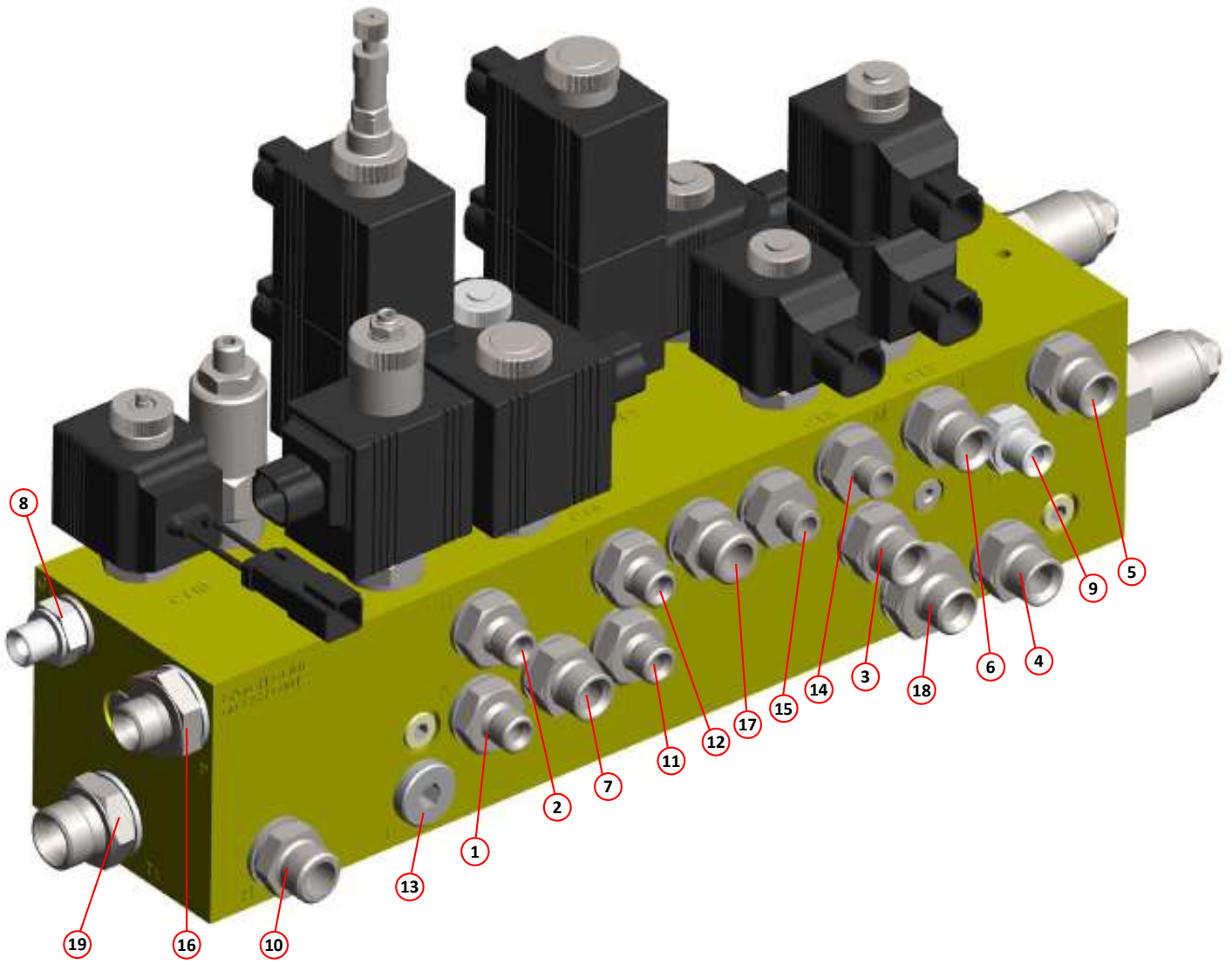
Item	Part Number	Quantity	Description
Valve Block - Main Control, Variable Brush Speed, Assembly			
1	*	1	Valve block, main control with variable brush speed, assembly Page 220
2	034999	1	. Solenoid valve, S201N-3 (CT10)
	034986	1	. . Coil, 24V/14W UN-D
	034993	1	. . . Seal kit, SK1034
3	039315	1	. Relief valve, 1DR30-P-40S (CT11)
4	035218	1	. Solenoid valve, 57IN-4 (CT19)
	036921	2	. . Coil, C16DM24/21 UN-D
	034993	1	. . . Seal kit, SK1034
5	035210	1	. Solenoid valve, S242HN (CT7)
	036922	1	. . Coil, C16DM24/22 UN-D
	034996	1	. . . Seal kit, SK974
6	034992	1	. Solenoid valve, 570N (CT2)
	036921	2	. . Coil, C16DM24/21 UN-D
	034993	1	. . . Seal kit, SK1034
7	034982	1	. Solenoid valve, S202N (CT9)
	036924	1	. . Coil, C13DM24/14 UN-D
	034993	1	. . . Seal kit, SK1034
8	034994	1	. Solenoid valve, S271N (CT3)
	036922	1	. . Coil, C16DM24/22 UN-D
	034996	1	. . . Seal kit, SK974
9	034982	1	. Solenoid valve, S202N (CT9)
	036924	1	. . Coil, C13DM24/14 UN-D
	034993	1	. . . Seal kit, SK1034
10	034979	1	. Solenoid valve, S502N (CT6)
	036921	2	. . Coil, C16DM24/21 UN-D
	034993	1	. . . Seal kit, SK1034
11	039316	1	. Solenoid valve, proportional, PFR2-4AN (CT12)
	036921	2	. . Coil, C16DM24/21 UN-D
	034993	1	. . . Seal kit, SK1034
12	034997	1	. Sequence valve, 1PSC30-F-20S (CT8)
13	035217	1	. M6 Jet (1.0 Orifice) AXP14067-100 (CT18)
14	034997	1	. Sequence valve, 1PSC30-F-20S (CT4)
15	034990	1	. Check valve, 4CK30-1S-3 (CT1)

Notes:-
 * This is a fully populated valve block. Please contact the Scarab Parts Department quoting your machine's serial number and model for variations of this block depending on the options fitted to your sweeper.



Main Control Value Block with Variable Brush Speed

Item	Part Number	Quantity	Description
Valve Block - Main Control, Variable Brush Speed, Fittings			
1	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT A)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
2	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT B)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
3	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT C)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
4	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT D)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
5	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT E)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
6	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT F)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
7	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT G)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
8	011158	1	. . Adaptor, M.M, $\frac{1}{4}$ " BSP (PORT G1)
	011152	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP
	011169	1	. . . Elbow, swivel, F/E, $\frac{1}{4}$ " BSP
	002014	1	. . . . Adaptor, M/F, $\frac{1}{4}$ " BSP
	002104	1	. . . . . Gauge, pressure, 0-250 Bar
9	020902	1	. Stud, male, 6L x, $\frac{1}{4}$ " BSP (PORT G2)
	011152	1	. . Seal, Dowty, $\frac{1}{4}$ " BSP
10	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP (PORT H)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
11	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT J)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
12	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (PORT K)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
13	035242	1	. Plug, VSR, $\frac{3}{8}$ " BSP (870VSR13) (PORT L)
14	025160	1	. Stud, male, $\frac{3}{8}$ " BSP x 6mm pipe (PORT M)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
15	025160	1	. Stud, male, $\frac{3}{8}$ " BSP x 6mm Pipe (PORT N)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
16	011167	1	. Adaptor, M/M, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP (PORT P)
	011154	1	. . Seal, Dowty, $\frac{1}{2}$ " BSP
17	020903	1	. Stud, male, 12 x, $\frac{3}{8}$ " BSP (PORT Q)
	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
18	011167	1	. Adaptor, M/M, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP (PORT T)
	011154	1	. . Seal, Dowty, $\frac{1}{2}$ " BSP
19	011160	1	. Adaptor, M/M, $\frac{1}{2}$ " BSP (PORT T1)
	011154	1	. . Seal, Dowty, $\frac{1}{2}$ " BSP
	011234	1	. . . Elbow, $\frac{1}{2}$ " BSP to $\frac{5}{8}$ " Hose

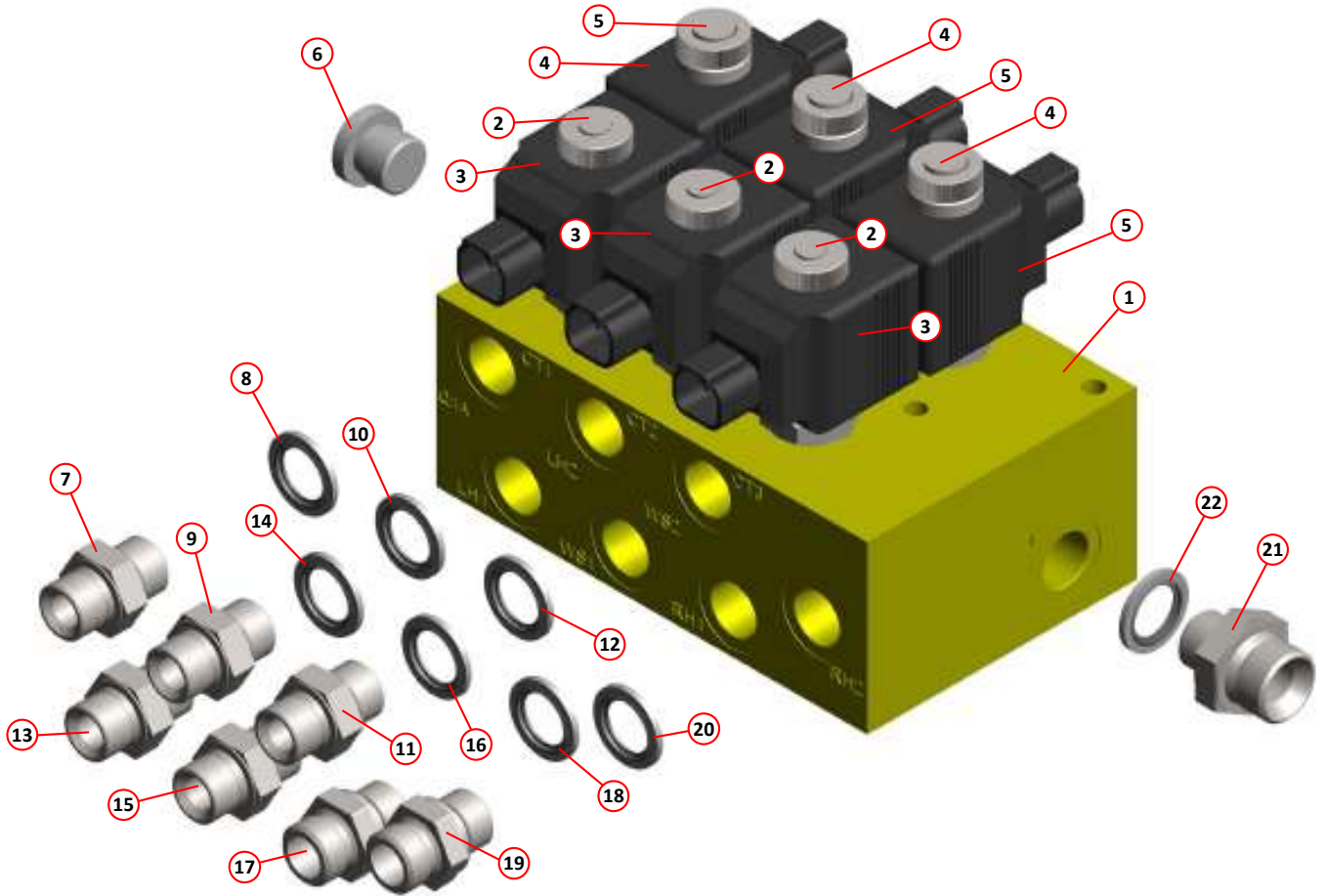


Main Control Valve Block - Variable Control - Fittings

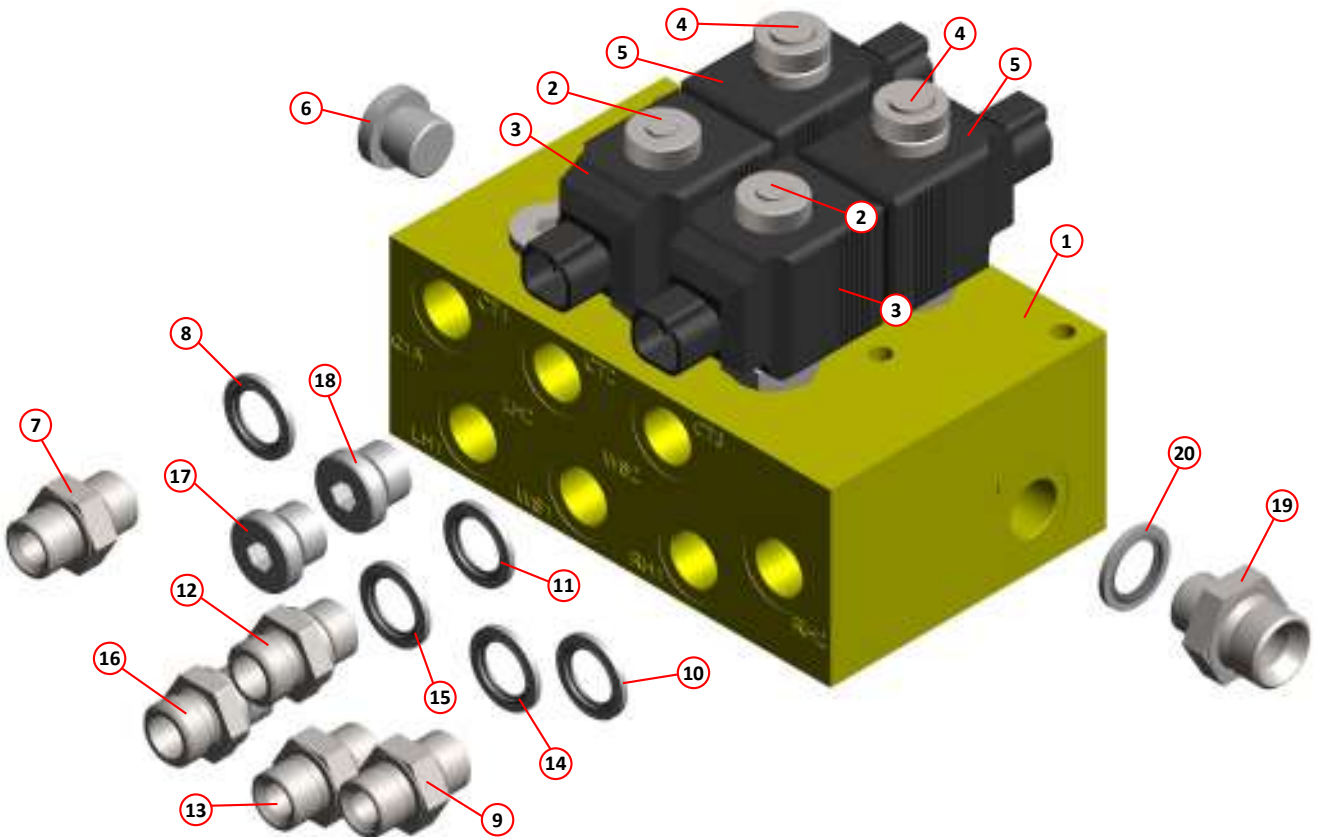
Item	Part Number	Quantity	Description
Valve Block Assembly - Brush Control			
1	*	1	Valve block Page 220
2	034982	3	Valve, solenoid, S202N
3	036924	3	Coil, 24 V, C13DM24/14 UN-D
NI	034984	3	Seal kit, SK1043
4	034985	3	Valve, solenoid, S203N
5	036924	3	Coil, 24 V, C13DM24/14 UN-D
NI	034984	3	Seal kit, SK1043
6	035242	1	Plug, $\frac{3}{8}$ " BSP (PORT Q1B)
7	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT Q1A)
8	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
9	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT LH2)
10	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
11	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT WS2)
12	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
13	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT LH1)
14	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
15	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT WS1)
16	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
17	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT RH1)
18	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
19	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT RH2)
20	011153	1	Seal, Dowty $\frac{3}{8}$ " BSP
21	020903	1	Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT T)
22	011153	1	Seal, Dowty, $\frac{3}{8}$ " BSP

Item	Part Number	Quantity	Description
Valve Block Assembly - Options			
1	*	1	Valve block Page 220
2	034982	2	. Valve, solenoid, S202N
3	036924	2	. . Coil, 24 V, C13DM24/14 UN-D
NI	034984	2	. Seal kit, SK1043
4	034985	2	. Valve, solenoid, S203N
5	036924	2	. Coil, 24 V, C13DM24/14 UN-D
NI	034984	2	. . Seal kit, SK1043
6	035242	1	. Plug, $\frac{3}{8}$ " BSP (PORT Q1B)
7	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT Q1A)
8	011153	1	. . Seal, Dowty $\frac{3}{8}$ " BSP
9	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT RH2)
10	011153	1	. . Seal, Dowty $\frac{3}{8}$ " BSP
11	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT WS2)
12	011153	1	. . Seal, Dowty $\frac{3}{8}$ " BSP
13	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT RH1)
14	011153	1	. . Seal, Dowty $\frac{3}{8}$ " BSP
15	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT WS1)
16	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
17	020903	1	. Plug, $\frac{3}{8}$ " BSP (PORT LH1)
18	020903	1	. Plug, $\frac{3}{8}$ " BSP (PORT LH2)
19	020903	1	. Stud, male, $\frac{3}{8}$ " BSP x 12mm pipe (PORT T)
20	011153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP

Notes:-
* Please contact the Scarab Parts Department if you require to order these items.



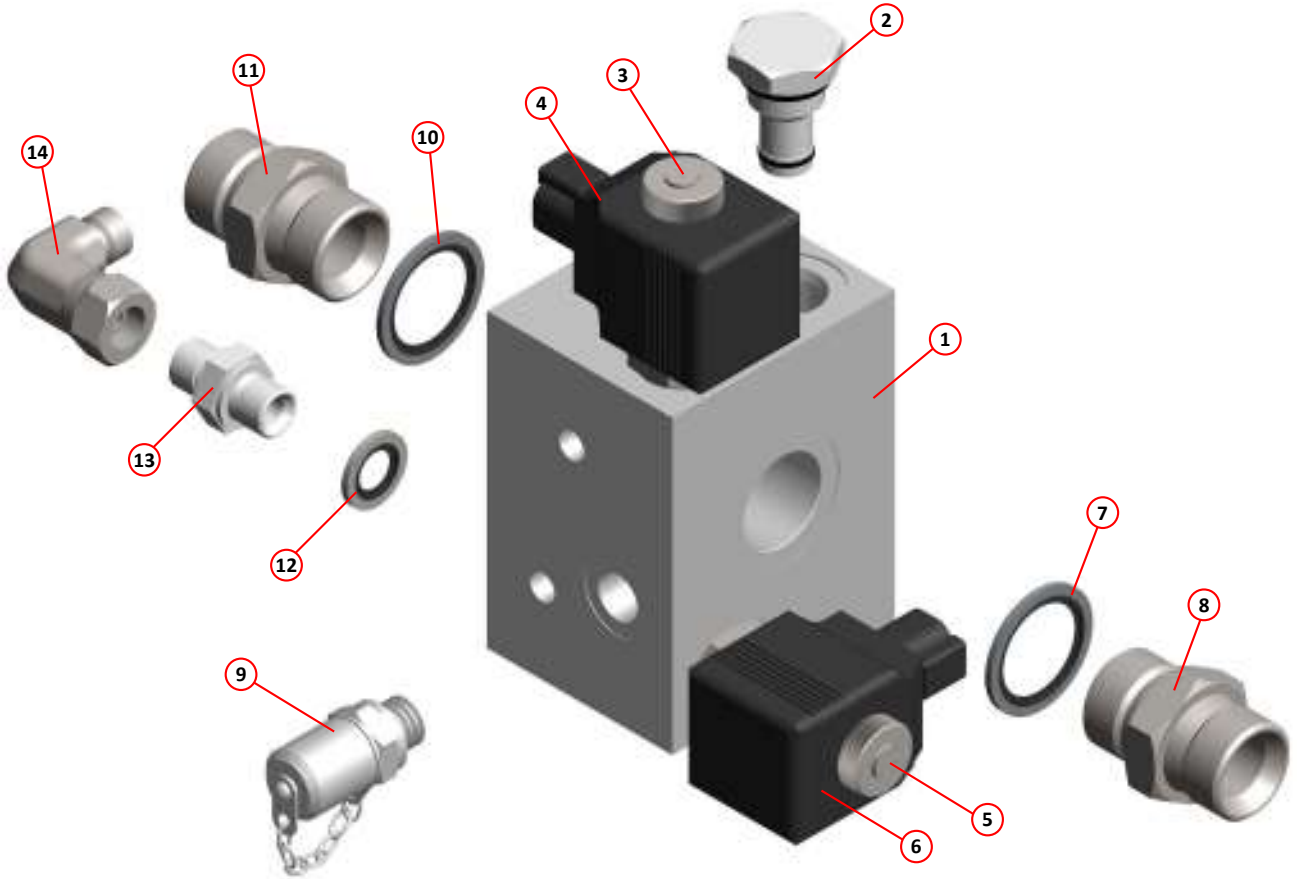
Brush Control Valve Block



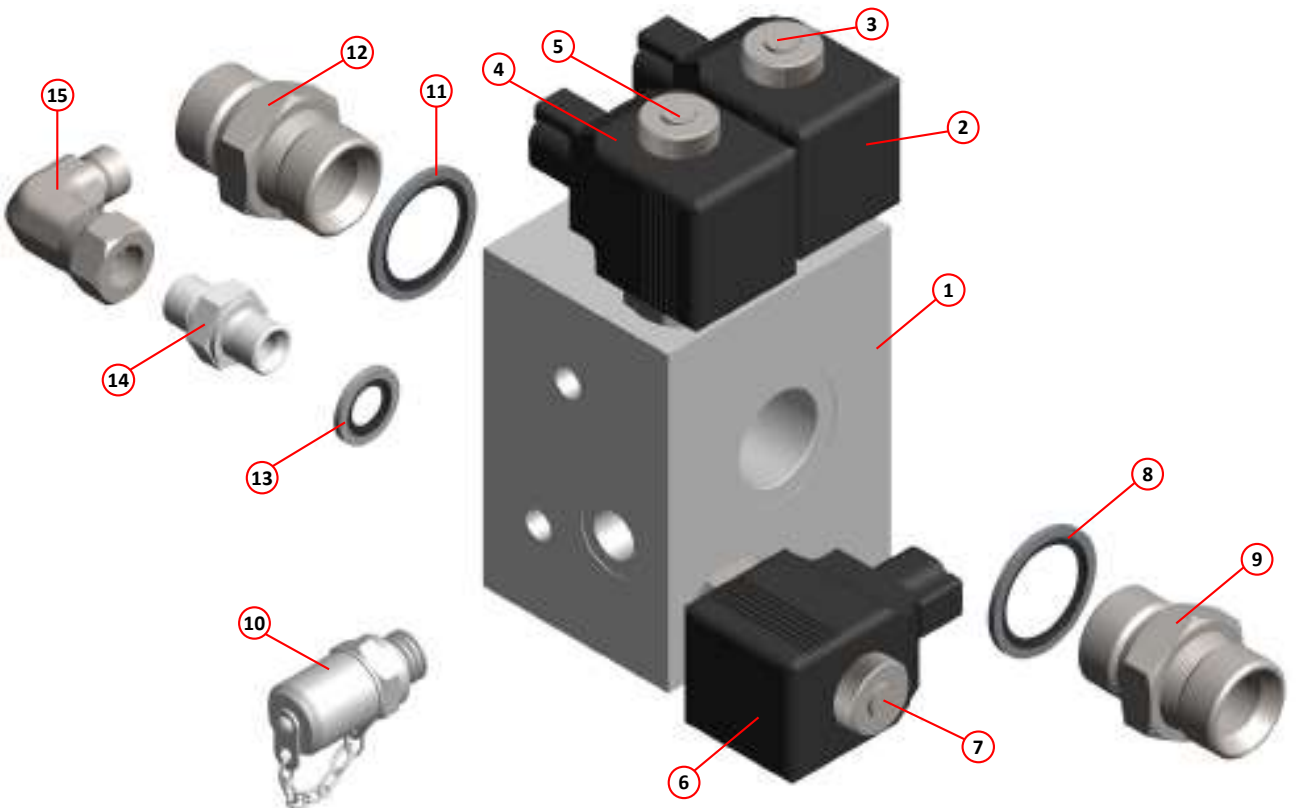
Options Valve Block
(Dual Sweep Model Shown)

Item	Part Number	Quantity	Description
Valve Block Assembly - Two Speed Suction Fan Boost			
1	036972	1	Valve Block. MR45183 (complete with items, 2,3,4,5,6)
2	035948	1	Plug
3	034982	1	Valve, solenoid, S202N
4	036924	1	Coil, 24 V, C13DM24/14 UN-D
NI	034984	1	Seal kit, SK1043
5	034982	1	Valve, solenoid, S202N
6	036924	1	Coil, 24 V, C13DM24/14 UN-D
NI	034984	1	Seal kit, SK1043
7	011155	1	Seal, Dowty, $\frac{3}{4}$ " BSP
8	011161	1	Adaptor, M/M, $\frac{3}{4}$ " BSP
9	013036	1	Test point, $\frac{1}{4}$ " BSP
10	011155	1	Seal, Dowty, $\frac{3}{4}$ " BSP
11	011161	1	Adaptor, M/M, $\frac{3}{4}$ " BSP
12	011152	1	Seal, Dowty, $\frac{1}{4}$ " BSP
13	011158	1	Adaptor, M/M, $\frac{1}{4}$ " BSP
14	011171	1	Elbow, swivel, M/F, $\frac{1}{4}$ " BSP

Item	Part Number	Quantity	Description
Valve Block Assembly - Three Speed Suction Fan Boost			
1	036974	1	Valve Block. MR45183 (complete with items, 2,3,4,5,6,7)
2	034982	1	Valve, solenoid, S202N
3	036924	1	Coil, 24 V, C13DM24/14 UN-D
NI	034984	1	Seal kit, SK1043
4	034982	1	Valve, solenoid, S202N
5	036924	1	Coil, 24 V, C13DM24/14 UN-D
NI	034984	1	Seal kit, SK1043
6	034982	1	Valve, solenoid, S202N
7	036924	1	Coil, 24 V, C13DM24/14 UN-D
NI	034984	1	Seal kit, SK1043
8	011155	1	Seal, Dowty, $\frac{3}{4}$ " BSP
9	011161	1	Adaptor, M/M, $\frac{3}{4}$ " BSP
10	013036	1	Test point, $\frac{1}{4}$ " BSP
11	011155	1	Seal, Dowty, $\frac{3}{4}$ " BSP
12	011161	1	Adaptor, M/M, $\frac{3}{4}$ " BSP
13	011152	1	Seal, Dowty, $\frac{1}{4}$ " BSP
14	011158	1	Adaptor, M/M, $\frac{1}{4}$ " BSP
15	011171	1	Elbow, swivel, M/F, $\frac{1}{4}$ " BSP



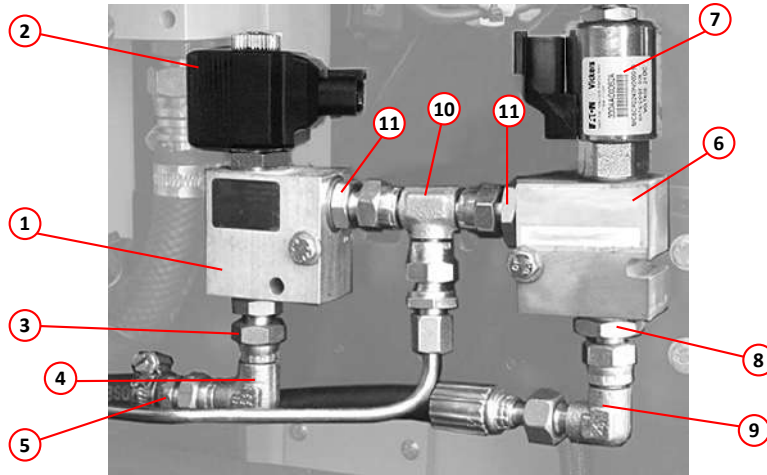
Valve Block - 2 Speed Suction Fan Boost



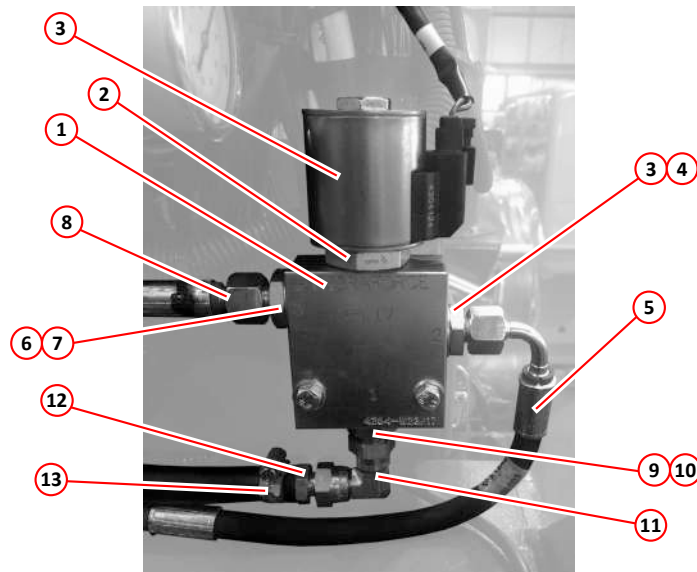
Valve Block - 3 Speed Suction Fan Boost

Item	Part Number	Quantity	Description
Valve Block Assembly - Variable Tilt Suction Nozzle			
1	037461	1	Valve block, solenoid, N/C
NI	034982	1	. Valve spool, solenoid
2	036924	1	. . Coil, 24V
3	011158	1	. . Adaptor, M/M, $\frac{1}{4}$ " BSP
NI	011150	3	. . . Seal, Dowty, $\frac{1}{4}$ " BSP
4	011169	1	. . . Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
5	010922	1	. . . Hose tail, $\frac{1}{4}$ " BSP x $\frac{3}{8}$ " hose
6	037464	1	Valve block, solenoid
NI	037670	1	. Valve spool, solenoid
7	037680	1	. . Coil, 24 Volt
8	011199	1	. . Adaptor, $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
NI	011153	1	. . . Seal, Dowty, $\frac{3}{8}$ " BSP
9	011171	1	. . . Elbow, swivel, M/F, $\frac{1}{4}$ " BSP
10	002005	1	Tee, swivel, F/F/F, $\frac{1}{4}$ " BSP
11	011158	1	. Adaptor, M/M, $\frac{1}{4}$ " BSP
NI	036917	2	Loom

Item	Part Number	Quantity	Description
Valve Block Assembly - Standard Tilt Suction Nozzle			
1	041953	1	Valve block, with solenoid N/C and coil
2	044499	1	Valve spool, solenoid
3	044048	1	Coil, 24V
3	011199	1	Adaptor, M/M, $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
4	011153	1	Seal, Dowty, $\frac{3}{8}$ " BSP
5	001103	1	Hose, $\frac{1}{4}$ " x 265, $\frac{1}{4}$ " BSP straight and 90° ends
6	011199	1	Adaptor, M/M, $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
7	011153	1	Seal, Dowty, $\frac{3}{8}$ " BSP
8	011326	1	Hose, $\frac{1}{4}$ " x 2440, $\frac{1}{4}$ " BSP straight ends
9	011199	1	Adaptor, M/M, $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
10	011153	1	Seal, Dowty, $\frac{3}{8}$ " BSP
11	011169	1	Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
12	011171	1	Adapter, $\frac{1}{4}$ " BSP x $\frac{3}{8}$ " hose tail
13	003004	1	Clamp, worm drive, size 00 (13-20mm)

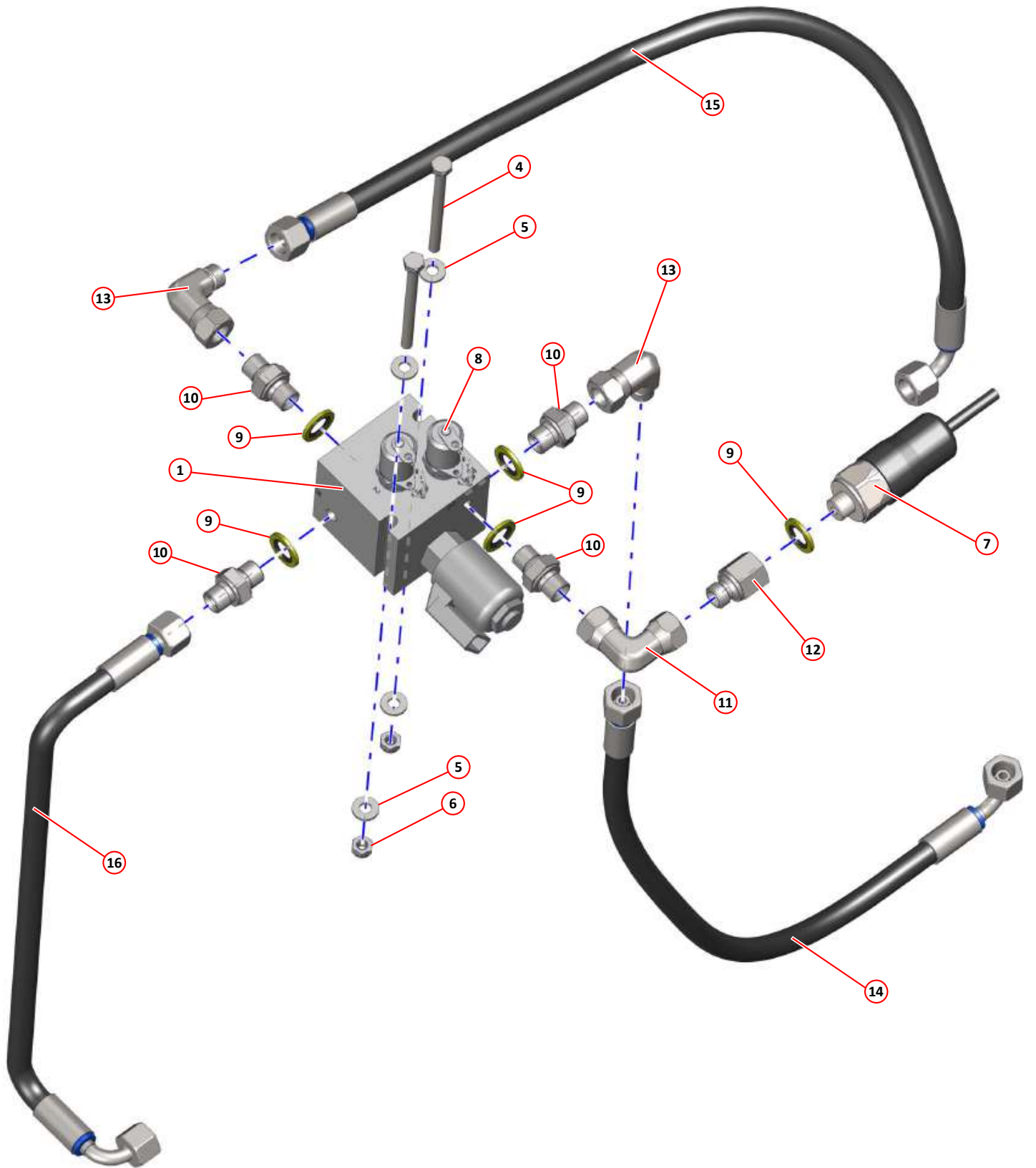


Valve Block - Variable Tilt Suction Nozzle



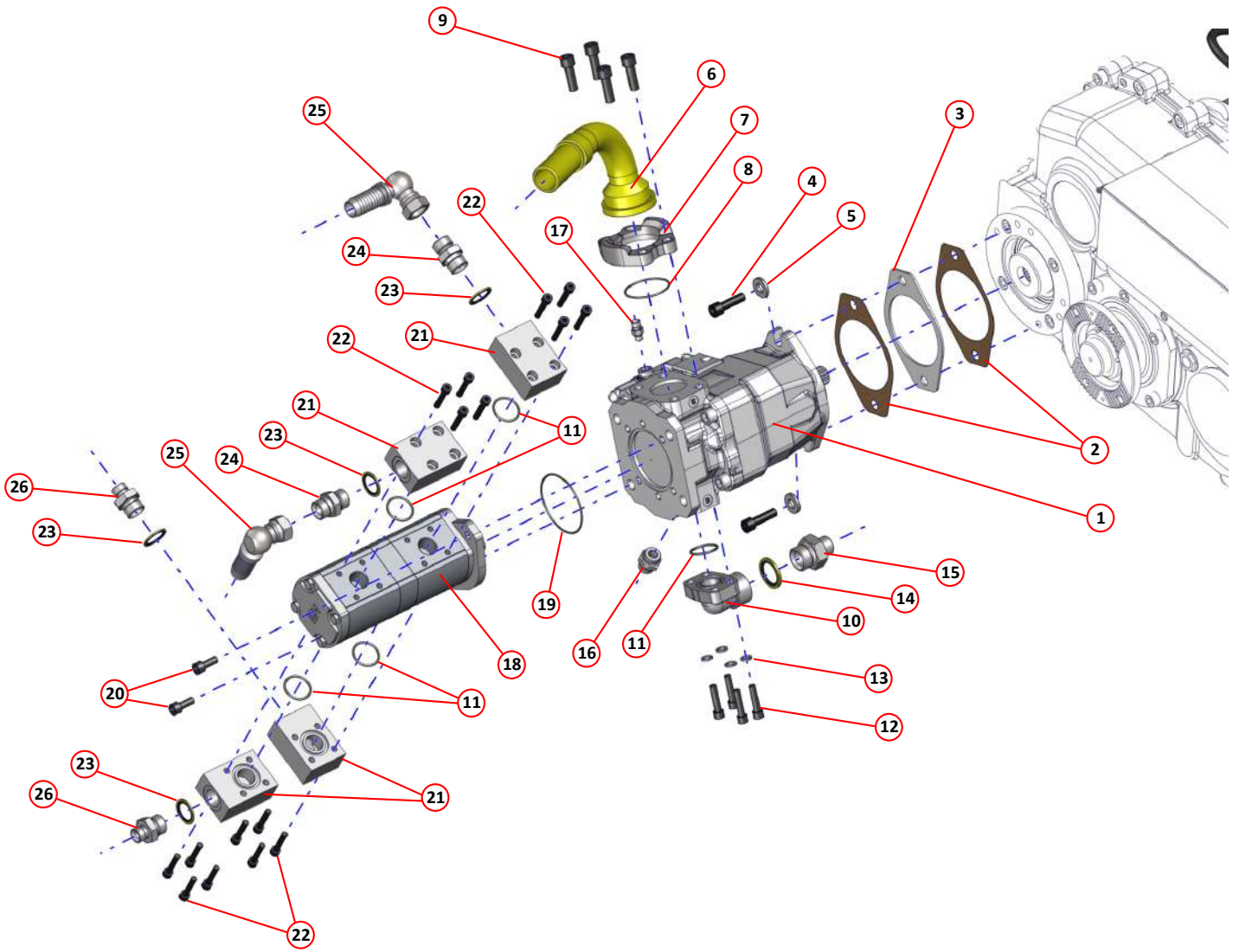
Valve Block - Standard Tilt Suction Nozzle

Item	Part Number	Quantity	Description
Valve Block Assembly - Transmission			
1	036905	1	Valve block (includes items 2, 3, solenoid valve and coil)
2	037679	1	Valve, SV11-8-3-0-00, (Port CT1)
3	037680	1	Coil 24V
4	000221	2	Bolt M6 x 80
5	011090	4	Plain washer M6
6	011071	2	Nut, M6 Nyloc
7	036872	1	Pressure switch, (Port P5) Page 318
8	013036	2	Test point $\frac{1}{4}$ " BSP, (Ports B1,2)
9	011152	5	Dowty seal, $\frac{1}{4}$ " BSP
10	011158	4	Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP (Ports 1A,3A,3B, P5)
11	011169	1	Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
12	002014	1	Adapter, fixed, M/F, $\frac{1}{4}$ " BSP
13	011171	2	Elbow, swivel, M/F, $\frac{1}{4}$ " BSP
14	001100	1	Hose, $\frac{1}{4}$ " x 460, ST/90
15	001251	1	Hose, $\frac{1}{4}$ " x 600, ST/90
16	001286	1	Hose, $\frac{1}{4}$ " x 500, ST/90



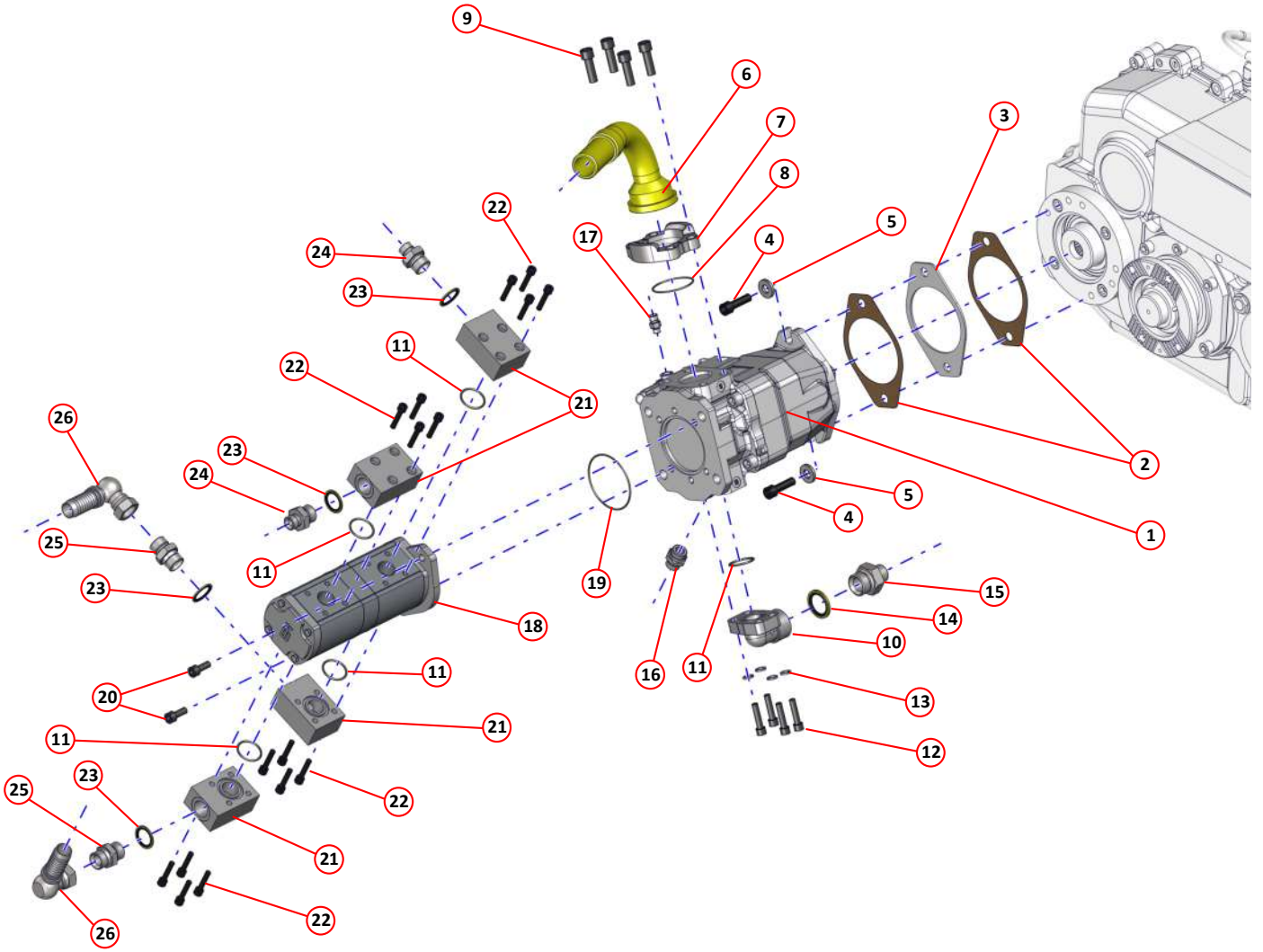
Valve Block - Transmission

Item	Part Number	Quantity	Description
Fan Pump 60cc and Gear Pumps 23cc/23cc, Rögelberg			
1	035885	1	Fan pump, HP A10V060, reverse rotation
2	025804	2	Gasket, cork, fan pump
3	038984	1	Shim, fan pump
4	011412	2	Socket cap screw, M12 x 40
5	039036	2	Spacer, 13.1 x 28 x $\frac{1}{4}$
6	002262	1	Elbow, 2" SAE to 1 $\frac{1}{2}$ " hose
7	002263	1	Flange, 2" SAE, split kit, 3000 PSI
8	002264	5	O-ring, 2 SAE
9	011108	4	Socket cap screw, $\frac{1}{2}$ " UNC x 1 $\frac{1}{2}$ "
10	014104	1	Flange elbow, 1 SAE standard pressure to 1" BSP
11	013517	5	O-ring, 1 SAE BS 219, nitrile 90 shore
12	000045	4	Socket cap screw, $\frac{3}{8}$ " UNC x 1 $\frac{1}{2}$ "
13	011406	4	Spring washer, $\frac{3}{8}$ " high pressure
14	011156	1	Seal, dowty, 1" BSP
15	011193	1	Adapter, 1" x $\frac{3}{4}$ " BSP
16	011226	1	Adapter, $\frac{7}{8}$ " SAE x $\frac{1}{2}$ " BSP, complete with O-ring
17	011227	1	Adapter, $\frac{7}{16}$ " SAE x $\frac{1}{4}$ " BSP, complete with O-ring
18	044619	1	Gear pump, 23CC LH double, reverse rotation
19	022294	1	O-ring, gear pump
20	011028	2	Socket cap screw, M10 x 25
21	026335	4	Adapter block, gear pump
22	000096	16	Socket cap screw, M8 x 40
23	011155	4	Seal, dowty, $\frac{3}{4}$ " BSP
24	011161	2	Adapter, $\frac{3}{4}$ " BSP x $\frac{3}{4}$ " BSP
25	002203	2	Elbow, $\frac{3}{4}$ " BSP to 1" hose
26	011166	2	Adapter, $\frac{3}{4}$ " BSP x $\frac{1}{2}$ " BSP



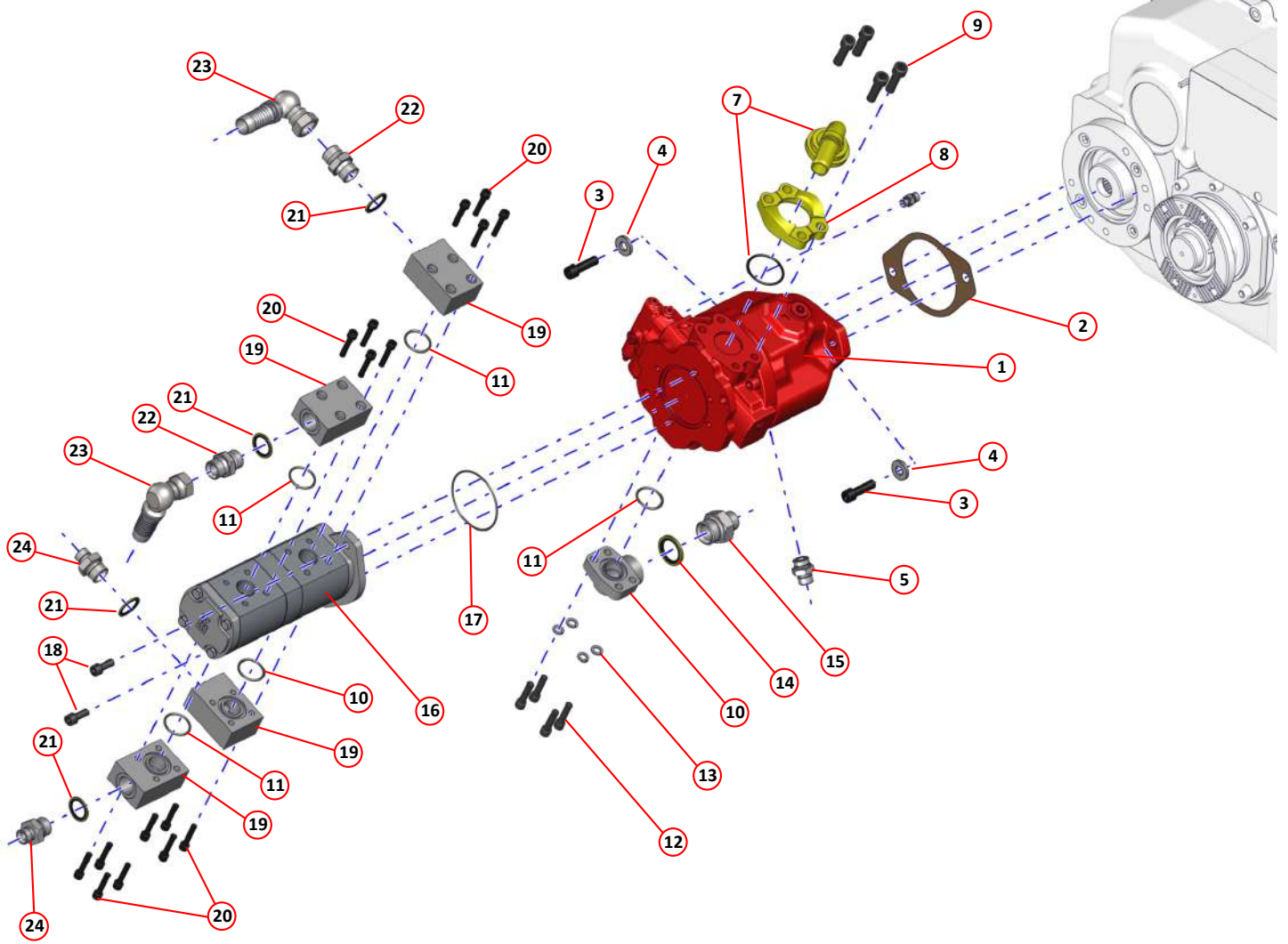
Fan Pump 60cc and Gear Pumps 23cc/23cc Arrangement
Rögelberg

Item	Part Number	Quantity	Description
Fan Pump 60cc and Gear Pumps 23cc/27cc, Rögelberg			
1	035885	1	Fan pump, HP A10V060, reverse rotation
2	025804	2	Gasket, cork, fan pump
3	038984	1	Shim, fan pump
4	011412	2	Socket cap screw, M12 x 40
5	039036	2	Spacer, 13.1 x 28 x $\frac{1}{4}$
6	002262	1	Elbow, 2" SAE to 1 $\frac{1}{2}$ " hose
7	002263	1	Flange, 2" SAE, split kit, 3000 PSI
8	002264	5	O-ring, 2 SAE
9	011108	4	Socket cap screw, $\frac{1}{2}$ " UNC x 1 $\frac{1}{2}$ "
10	014104	1	Flange elbow, 1" SAE standard pressure to 1" BSP
11	013517	5	O-ring, 1" SAE BS 219, nitrile 90 shore
12	000045	4	Socket cap screw, $\frac{3}{8}$ " UNC x 1 $\frac{1}{2}$ "
13	011406	4	Spring washer, $\frac{3}{8}$ " high pressure
14	011156	1	Seal, dowty, 1" BSP
15	011193	1	Adapter, $\frac{1}{7}$ " x $\frac{3}{4}$ " BSP
16	011226	1	Adapter, $\frac{7}{8}$ " SAE x $\frac{1}{2}$ " BSP, complete with O-ring
17	011227	1	Adapter, $\frac{7}{16}$ " SAE x $\frac{1}{4}$ " BSP, complete with O-ring
18	035860	1	Gear pump, 23cc /27cc LH double, reverse rotation
19	022294	1	O-ring, gear pump
20	011028	2	Socket cap screw, M10 x 25
21	026335	4	Adapter block, gear pump
22	000096	16	Socket cap screw, M8 x 40
23	011155	4	Seal, dowty, $\frac{3}{4}$ " BSP
24	011166	2	Adapter, $\frac{3}{4}$ " BSP x $\frac{1}{2}$ " BSP
25	011161	2	Adapter, $\frac{3}{4}$ " BSP x $\frac{3}{4}$ " BSP
26	002203	2	Elbow, $\frac{3}{4}$ " BSPP to 1" hose



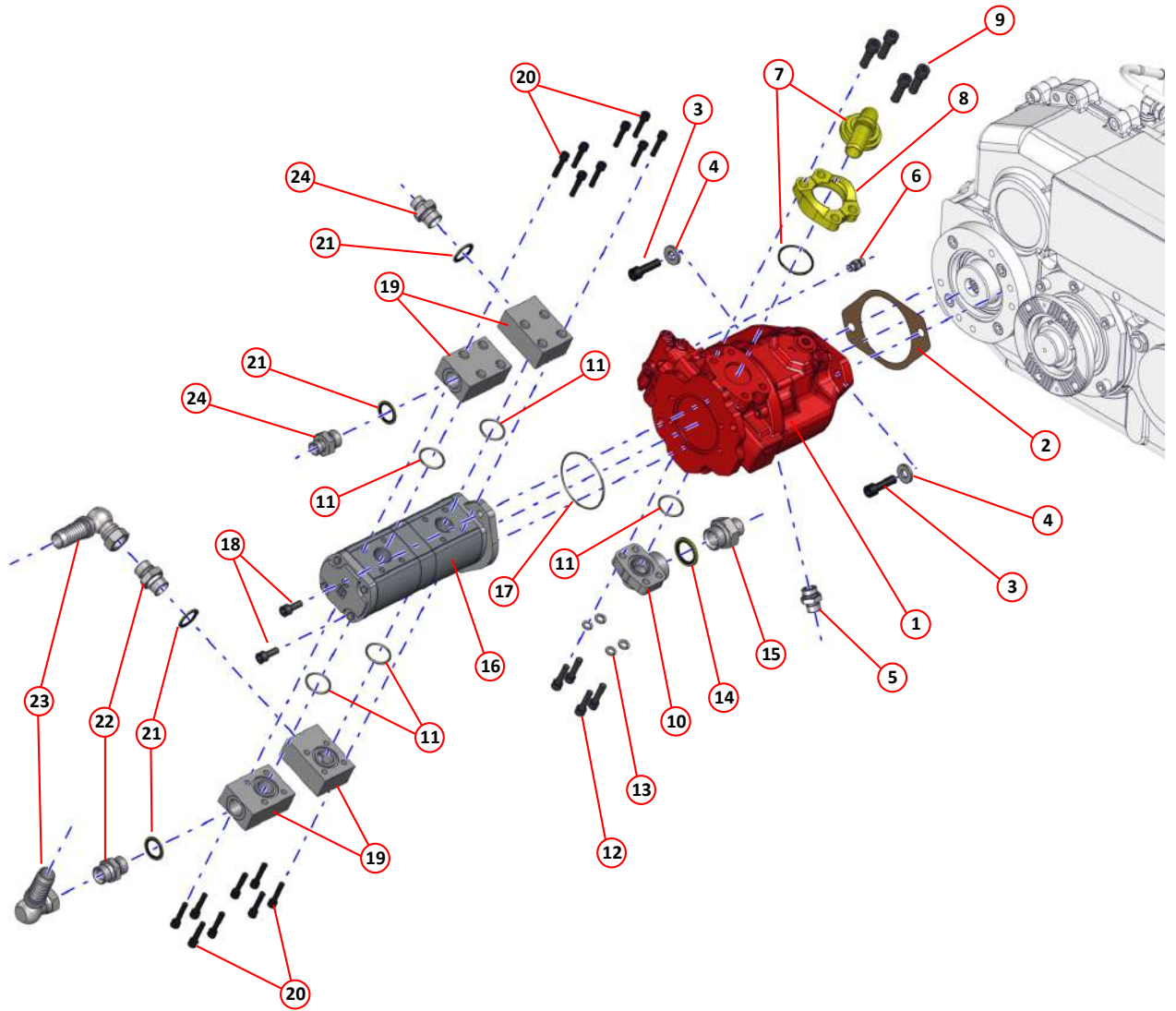
Fan Pump 60cc and Gear Pumps 23cc/27cc Arrangement
Rögelberg

Item	Part Number	Quantity	Description
Fan Pump 45cc and Gear Pumps 23cc/23cc, Rögelberg			
1	045423	1	Fan pump, HP A10V045, reverse rotation
2	025804	1	Gasket, cork, fan pump
3	011412	2	Socket cap screw, M12 x 40
4	039036	2	Spacer, 13,1 x 28 x 4
5	011226	1	Adapter, 7/8" SAE x 1/2" BSP, complete with O-ring
6	011227	1	Adapter, 7/16" SAE x 1/4" BSP, complete with O-ring
7	011231	1	Elbow, 1 1/2" SAE to 1" hose, complete with O-ring
8	011230	1	Flange, 1 1/2" SAE, pair, standard pressure
9	011108	4	Socket cap screw, 1/2" UNC x 1 1/2"
10	014104	1	Flange elbow, 1" SAE standard pressure to 1" BSP
11	013517	5	O-ring, 1" SAE BS 219, nitrile 90 shore
12	000045	4	Socket cap screw, 3/8" UNC x 1 1/2"
13	011406	4	Spring washer, 3/8" high pressure
14	011156	1	Seal, dowty, 1" BSP
15	011193	1	Adapter, 1" x 3/4" BSP
16	044619	1	Gear pump, 23cc /23cc LH double, reverse rotation
17	022294	1	O-ring, gear pump
18	011028	2	Socket cap screw, M10 x 25
19	026335	4	Adapter block, gear pump
20	000096	16	Socket cap screw, M8 x 40
21	011155	4	Seal, dowty, 3/4" BSP
22	011161	2	Adapter, 3/4" BSP x 3/4" BSP
23	002203	2	Elbow, 3/4" BSPP to 1" hose
24	011166	2	Adapter, 3/4" BSP x 1/2" BSP



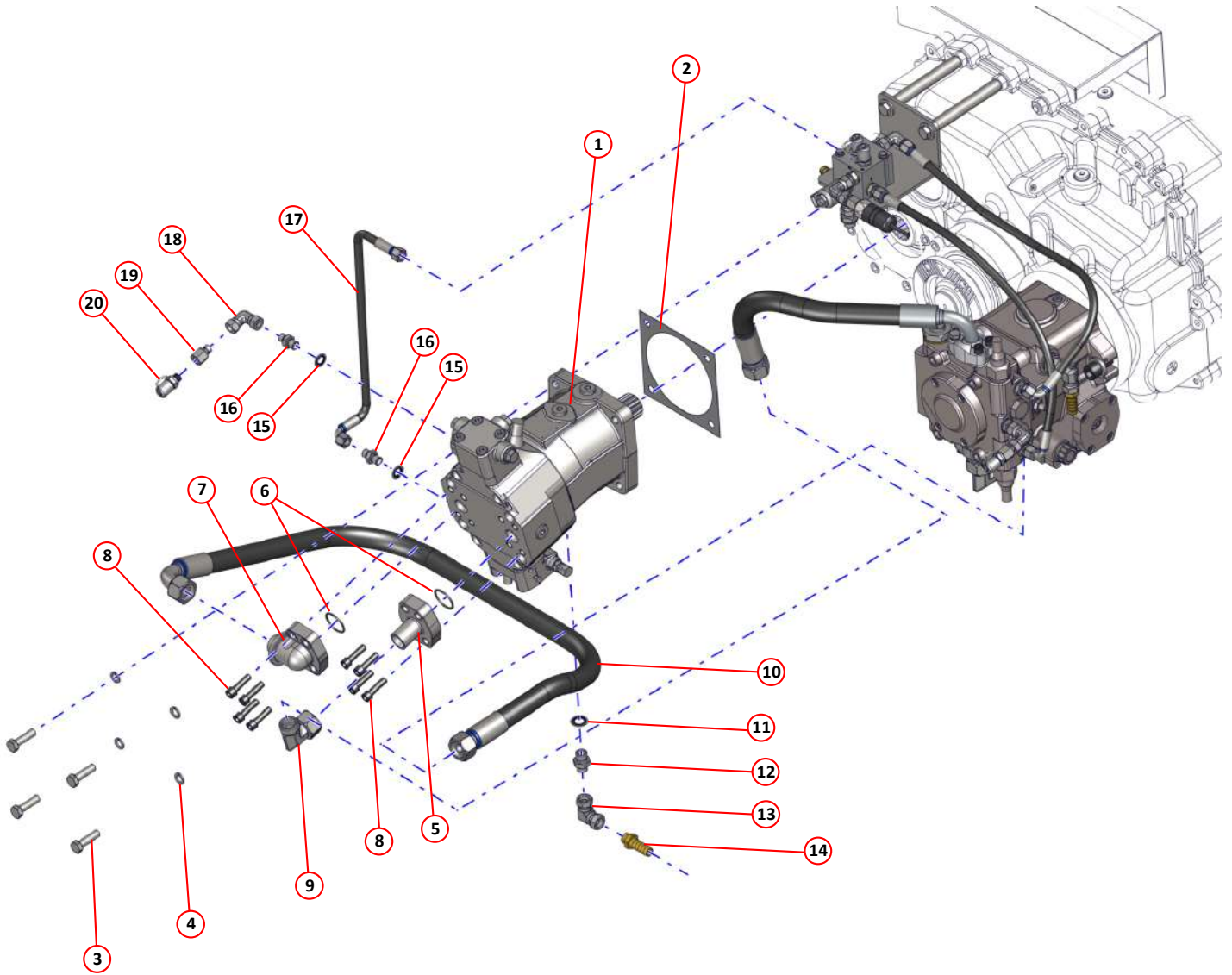
Fan Pump 45cc and Gear Pumps 23cc/23cc Arrangement
Rögelberg

Item	Part Number	Quantity	Description
Fan Pump 45cc and Gear Pumps 23cc/27cc, Rögelberg			
1	045423	1	Fan pump, HP A10V045, reverse rotation
2	025804	1	Gasket, cork, fan pump
3	011412	2	Socket cap screw, M12 x 40
4	039036	2	Spacer, 13,1 x 28 x 4
5	011226	1	Adapter, $\frac{7}{8}$ " SAE x $\frac{1}{2}$ " BSP, complete with O-ring
6	011227	1	Adapter, $\frac{7}{16}$ " SAE x $\frac{1}{4}$ " BSP, complete with O-ring
7	011231	1	Elbow, $1\frac{1}{2}$ " SAE to 1" hose, complete with O-ring
8	011230	1	Flange, $1\frac{1}{2}$ " SAE, pair, standard pressure
9	011108	4	Socket cap screw, $\frac{1}{2}$ " UNC x $1\frac{1}{2}$ "
10	014104	1	Flange elbow, 1" SAE standard pressure to 1" BSP
11	013517	5	O-ring, 1" SAE BS 219, nitrile 90 shore
12	000045	4	Socket cap screw, $\frac{3}{8}$ " UNC x $1\frac{1}{2}$ "
13	011406	4	Spring washer, $\frac{3}{8}$ " high pressure
14	011156	1	Seal, dowty, 1" BSP
15	011193	1	Adapter, 1" x $\frac{3}{4}$ " BSP
16	035860	1	Gear pump, 23cc /27cc LH double, reverse rotation
17	022294	1	O-ring, gear pump
18	011028	2	Socket cap screw, M10 x 25
19	026335	4	Adapter block, gear pump
20	000096	16	Socket cap screw, M8 x 40
21	011155	4	Seal, dowty, $\frac{3}{4}$ " BSP
22	011161	2	Adapter, $\frac{3}{4}$ " BSP x $\frac{3}{4}$ " BSP
23	002203	2	Elbow, $\frac{3}{4}$ " BSP to 1" hose
24	011166	2	Adapter, $\frac{3}{4}$ " BSP x $\frac{1}{2}$ " BSP



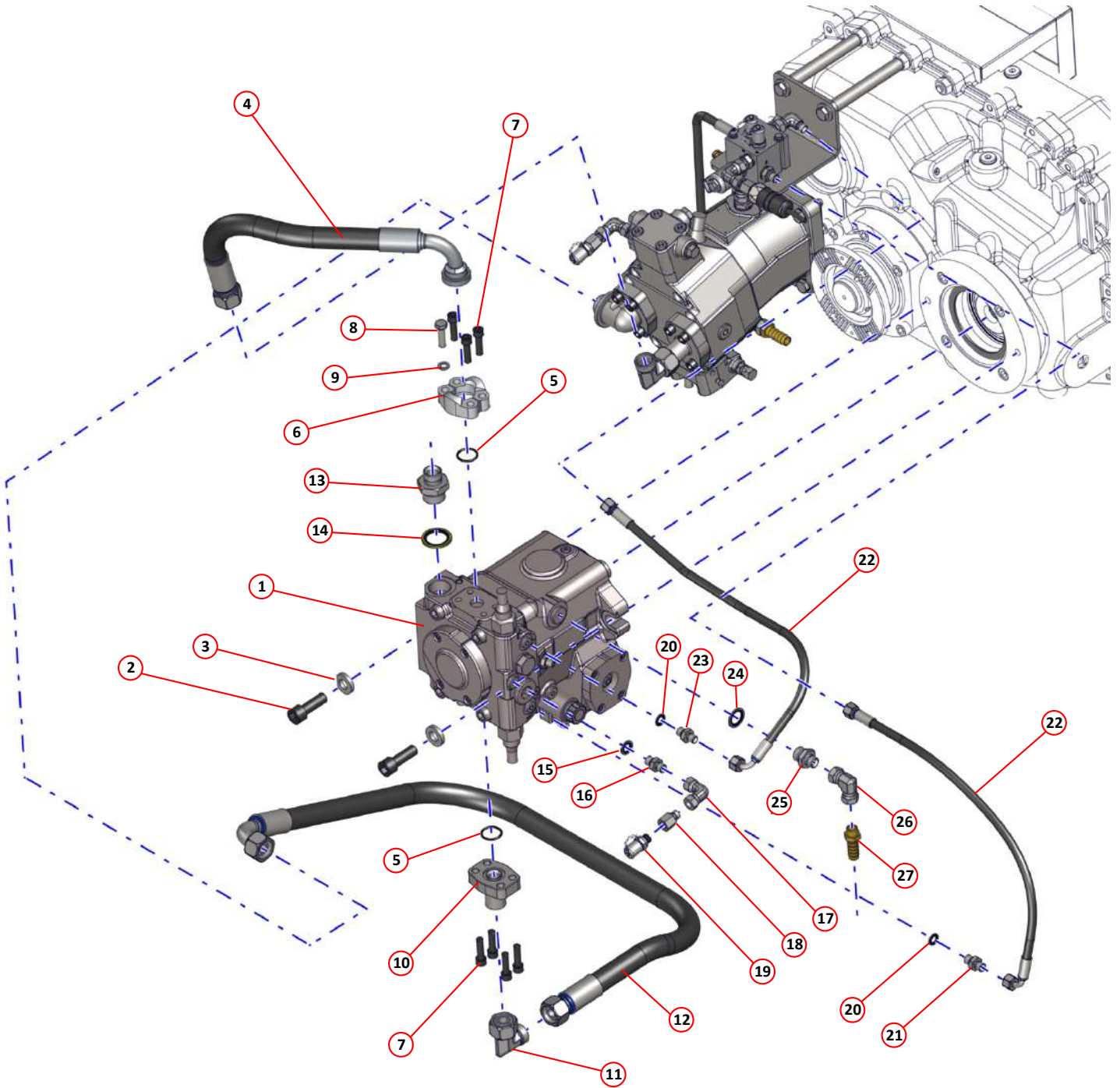
Fan Pump 45cc and Gear Pumps 23cc/27cc Arrangement
Rögelberg

Item	Part Number	Quantity	Description
			Transmission Motor, Rögelberg
1	040705	1	Motor, transmission, A6VM80, preset
2	021414	1	Gasket
3	011069	4	Bolt, M12 x 40
4	011097	4	Spring washer, M12
5	031482	1	Flange, 1", 6000 SAE. includes O-ring
6	013517	2	O-ring, 1" SAE BS 219, nitrile 90 shore
7	030932	1	Flange elbow, 1" SAE x 1" BSP, standard pressure
8	011029	8	Socket cap screw, M10 x35
9	030933	1	20S adjustable elbow
10	031479	1	Hose, bottom, hydrostatic transmission, 420 bar
11	011247	1	Seal, Dowty, M18
12	011248	1	Adapter, M18 x $\frac{3}{8}$ " BSP
13	011205	1	Elbow, swivel, female/female, $\frac{3}{8}$ " BSP
14	010930	1	Adapter, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose tail
15	011216	2	Seal, Dowty, M14
16	012474	2	Adapter, M14 x $\frac{1}{4}$ " BSP
17	001286	1	Hose, $\frac{1}{4}$ " BSP x 500 (straight/90°)
18	011169	1	Elbow, swivel, female/female, $\frac{1}{4}$ " BSP
19	002104	1	Adapter, fixed, male/female, $\frac{1}{4}$ " BSP
20	013036	1	Test point, $\frac{1}{4}$ " BSP



Transmission Motor Arrangement
Rögelberg

Item	Part Number	Quantity	Description
Transmission Pump, Rögelberg			
1	044620	1	Pump, transmission, A4VG56 24V RH rotation
2	000030	2	Socket cap head screw, M16 x 45
3	022695	2	Washer, 16.5 x 31.7 x 6
4	045966	1	Hose, top, hydrostatic transmission, 420 bar, complete with O-ring
5	013523	2	O-ring 25 O/D x ϕ 3.5 section
6	002000	1	Flange $\frac{3}{4}$ " SAE, split kit, 6000 PSI
7	011029	7	Socket cap head screw, M10 x35
8	011033	1	Set screw, M10 x35
9	011095	1	Spring washer, M10
10	031483	1	Flange, $\frac{3}{4}$ " SAE, 6000 PSI
11	030933	1	20S adjustable elbow
12	031479	1	Hose, bottom, hydrostatic transmission, 420 bar
13	022706	1	Adapter, M33 x $\frac{3}{4}$ " BSP
14	01156	1	Seal, Dowty, 1" BSP
15	011216	1	Seal, Dowty, M14
16	012474	1	Adapter, M14 x $\frac{1}{4}$ " BSP
17	011169	1	Elbow, swivel, female/female, $\frac{1}{4}$ " BSP
18	002104	1	Adapter, fixed, male/female, $\frac{1}{4}$ " BSP
19	013036	1	Test point, $\frac{1}{4}$ " BSP
20	011215	2	Seal, Dowty, M12
21	011935	1	Adapter, M12 x $\frac{1}{4}$ " BSP
22	001286	2	Hose, $\frac{1}{4}$ " BSP x 500 (straight/90°)
23	025041	1	Restrictor, No. 13, M12 x $\frac{1}{4}$ " BSP x $\frac{1}{32}$ "
24	011218	1	Seal, dowty, M18
25	012472	1	Adapter, M22 x $\frac{3}{8}$ " BSP
26	011205	1	Elbow, swivel, female/female, $\frac{3}{8}$ " BSP
27	010930	1	Adapter, $\frac{3}{8}$ " BSP x $\frac{5}{8}$ " hose tail



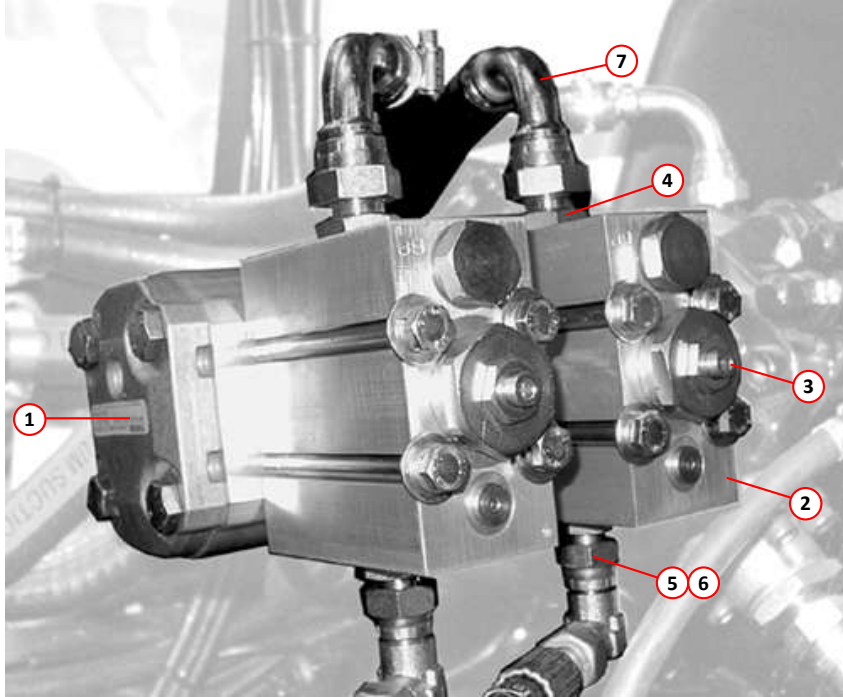
Transmission Pump Arrangement
Rögelberg

Item	Part Number	Quantity	Description
Gear Pump Arrangements			
1	024590	1	Double gear pump - complete assembly
NI	024592	1	. Gear pump 23cc (double)
NI	027865 *	1	. Gear pump 27cc/23cc, double
NI	030629	1	. . Seal kit, gear pump 23cc, double
NI	024589	1	Single gear pump - complete assembly
NI	024593	1	. Gear pump 23cc (single)
NI	028496 *	1	. Gear pump 27cc, single
NI	030628	1	. . Seal kit, gear pump 23cc, single
2	024537 †	1	. Valve, flow control
	000227	4	. . Bolt, M8 x 110mm
	000056	4	. . Bolt, M8 x 120mm
	011093	4	. . Spring washer, M8
NI	002127	1	. . O-Ring kit for 024537
3	031531	1	. . Valve, pressure relief
4	011160	2	. . Adaptor, M/M ^{1/2} BSP
NI	011154	1	. . . Seal, Dowty ^{1/2} BSP
5	011160	2	. . Adaptor, M/M ^{1/2} BSP
NI	011154	1	. . . Seal, Dowty ^{1/2} BSP
6	011172	2	. . Elbow, Swivel, M/F, ^{3/8} BSP
7	011234	2	. . Hose tail, swept 90° ^{3/8} BSP x ^{5/8} hose
NI	024591	2	Hose tail 1 BSP
NI	013518	2	O-Ring 31 ID x 3.5
NI	011012	8	Bolt, M8 x 30mm
NI	030132 †	1	Remote flow regulator kit (single)
NI	030133 †	1	Remote flow regulator kit (double)

Notes:-

* Used when a 75lpm high pressure water pump is fitted.

† On some chassis the flow control is remotely mounted. Not the same as described on Page 260.



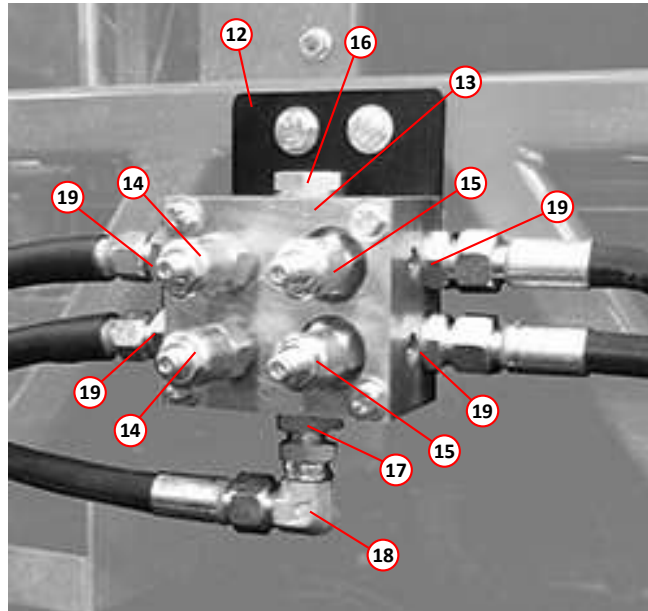
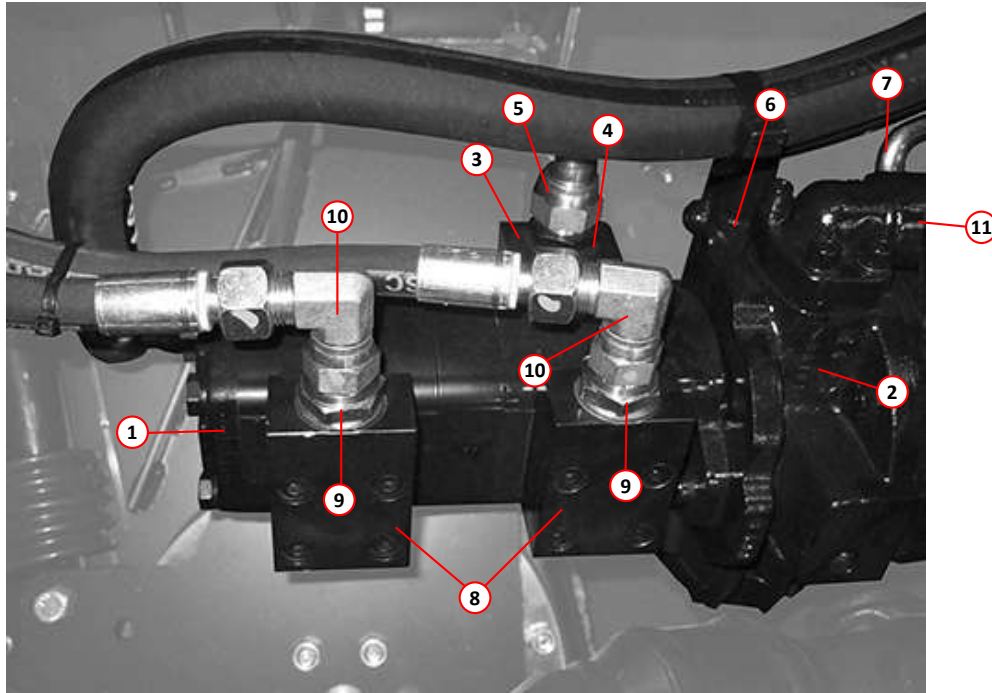
Gear Pump Arrangement
(Double Gear Pump Shown)

Item	Part Number	Quantity	Description
Gear Pump Arrangements with Remote Mounted Flow Control			
1	024590	1	Double gear pump - complete assembly (shown)
	031970	1	. Gear pump 23cc/23cc, double
NI	027865 *	1	. Gear pump 27cc/23cc, double
NI	030629	1	. . Seal kit, gear pump 23cc, double
1	024589	1	Single gear pump - complete assembly
NI	031971	1	Gear pump 23cc, single
NI	028496 *	1	Gear pump 27cc, single
NI	030628	1	. Seal kit, gear pump 23cc, single
2	023620	1	Pump, suction fan, A10V045 Page 268
3	026335 †	AR	Adaptor block
NI	013517	AR	. Seal, O-Ring
	000096	AR	. . Screw, cap head, M8 x 40mm
4	011151	AR	. Adaptor, M/M, ³ / ₄ BSP
NI	011155	AR	. . Seal, Dowty, ³ / ₄ BSP
5	002079	AR	. . Elbow, ³ / ₄ BSP x 1 hose
6	014217	1	DFR valve
7	011234	1	Elbow, ¹ / ₂ BSP x ⁵ / ₈ hose
NI	011160	1	. Adaptor, M/M, ¹ / ₂ BSP
NI	011154	AR	. . Seal, Dowty, ¹ / ₂ BSP
NI	010518	1	. . Clamp, worm drive, ø18mm-25mm
8	026335 †	AR	Adaptor block
NI	013517	AR	. Seal, O-Ring
	000096	AR	. . Screw, cap head, M8 x 40mm
9	011166	AR	. Adaptor, M/M, ³ / ₄ BSP x ¹ / ₂ BSP
NI	011155	AR	. . Seal, Dowty, ³ / ₄ BSP
10	011173	AR	. . . Elbow, M/F, ¹ / ₂ BSP
11	011196	1	Elbow, M/F, ³ / ₄ BSP
12	039953	1	Mounting bracket
	011038	2	. Set screw, M10 x 80mm
	011094	4	. . Washer, M10
	011075	2	. . . Nut, M10, Nyloc
NI	038512	1	. Flow control block (single), includes flow regulator and relief valve
13	038513	1	. Flow control block (double), includes flow regulators and relief valves
NI	039061	2	. . Plug, hollow, ¹ / ₄ SAE
	011020	4	. . Bolt, M8 x 100mm
	011092	8	. . . Washer, M8
	011073	4	. . . . Nut, M8, Nyloc
14	040288	AR	. . Flow regulator
15	039063	AR	. . Relief valve
16	011244	1	. . Plug, ³ / ₄ BSP
NI	011155	1	. . . Seal, Dowty, ³ / ₄ BSP
17	011166	1	. . Adaptor, M/M, ³ / ₄ BSP x ¹ / ₂ BSP
NI	011155	1	. . . Seal, Dowty, ³ / ₄ BSP
18	011173	AR	. . . . Elbow, M/F, ¹ / ₂ BSP
19	011160	AR	. . Adaptor, M/M, ¹ / ₂ BSP
NI	011154	AR	. . . Seal, Dowty, ¹ / ₂ BSP

Notes:-

* Used when a 75lpm high pressure water pump is fitted.

† Depending on chassis configuration these blocks could be rotated and different fittings attached.

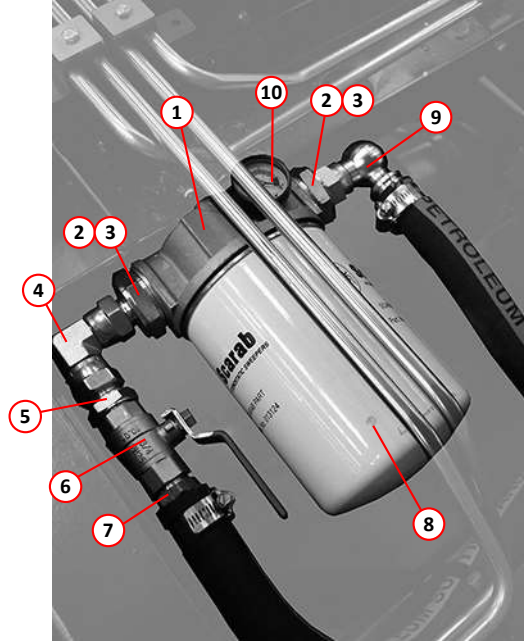


Remote Mounted Flow Control

Gear pump Arrangement with Remote Mounted Flow Control

Item	Part Number	Quantity	Description
Suction Filter Assembly			
1	013122	1	Filter, suction - complete with filter head
2	011184	2	. Adapter, M/M, 1 ¹ / ₄ " x 3 ³ / ₄ " BSP
3	011150	2	. . Seal, Dowty, 1 ¹ / ₄ " BSP
4	011174	1	. . Elbow, swivel, F/F, 3 ³ / ₄ " BSP
5	011161	1	. . Adapter, M/E, 3 ³ / ₄ " BSP
6	013757	1	. . Valve, ball, 3 ³ / ₄ " BSP
7	010931	1	. . Hose tail, 3 ³ / ₄ " BSP x 1" hose
8	013124	1	. Element, suction filter Page 282
9	002203	2	. Elbow, swivel, hose tail, 3 ³ / ₄ " BSP x 1" hose
10	021720	1	. Gauge
NI	026247	1	. Bracket, filter body
	011010	2	. . Set screw, M8 x 20mm
	011093	2	. . Spring washer, M8

Part Number	Quantity	Description
Hydraulic Service Kits - (Not Illustrated)		
030352	1	100 HOUR SERVICE KIT - HYDROSTATIC MACHINES
013124	1	. Filter, suction element
013125	2	. Filter, return element
030353	1	1800 HOUR SERVICE KIT - HYDROSTATIC MACHINES
013124	1	. Filter, suction element
013125	1	. Filter, return element
025104	1	. Filter, high-pressure
020687	1	. Filter, suction element
030357	1	100 HOUR SERVICE KIT - UNIDRIVE MACHINES
013125	1	. Filter, return element
005046	1	. Lubricant, 50ml bottle
020687	1	. Filter, suction element
030358	1	1800 HOUR SERVICE KIT - UNIDRIVE MACHINES
013125	1	. Filter, return element
025104	1	. Filter, high-pressure
020687	1	. Filter, suction element



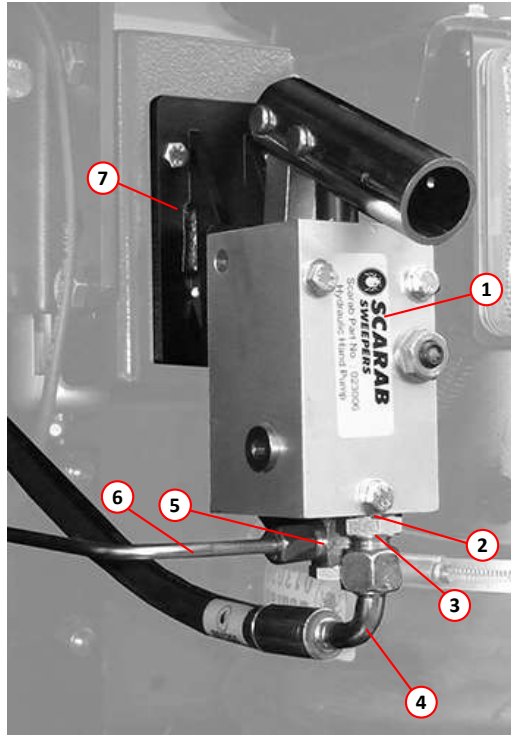
Suction Filter Assembly

Item	Part Number	Quantity	Description
Auxiliary Hand Pump			
1	023006	1	Hand pump
	011143	3	. Bolt, M6 x 70mm
	011071	3	. Nut, M6, Nyloc
NI	030103	1	. Handle
2	011153	3	. Seal, Dowty, $\frac{3}{8}$ " BSP
3	011199	1	. . Adaptor, M/M, $\frac{3}{8}$ " BSP x $\frac{1}{4}$ " BSP
4	001255	1	. . . Hose, rubber, $\frac{1}{4}$ " BSP x 475mm, straight+90° ends
5	002190	1	. Banjo, $\frac{3}{8}$ " BSP x 6mm pipe
6	025129	1	. . . Pipe, steel, 6mm (Magnum)
6	025194	1	. . . Pipe, steel, 6mm (Merlin)
7	038254	1	. Plate, pump mounting
	011001	3	. . Bolt, M6 x 16mm
	011071	3	. . . Nut, M6, Nyloc

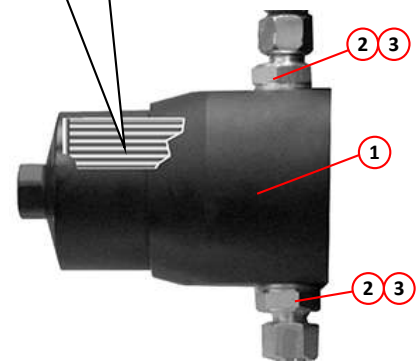
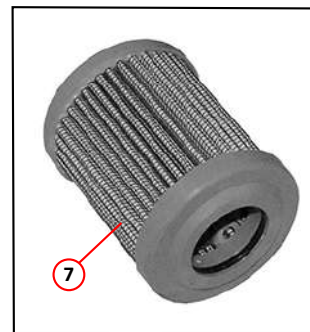
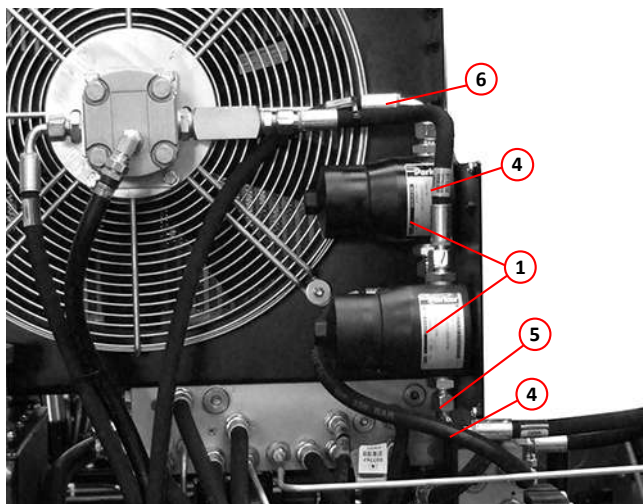
Item	Part Number	Quantity	Description
Filter(s), High Pressure - Components			
1	025103 *	2	. Filter, high pressure, wjth element
2	011167	4	. . Adaptor, M/M, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
3	011154	4	. . . Seal, Dowty, $\frac{1}{2}$ " BSP
4	011310	1	. . . Hose, rubber, $\frac{3}{8}$ " BSP x 300mm, straight ends
5	001255	2	. . . Hose, rubber, $\frac{3}{8}$ " BSP x 475mm, straight+90° ends
6	001084	1	. . . Hose, rubber, $\frac{3}{8}$ " BSP x 2300mm, straight+90° ends
7	025104	2	. . Element, filter

Notes:-

* May not have a second filter and its fittings, which is attached to the brush and LP water valve block, then item 6 connects direct into the brush and LP water valve block.



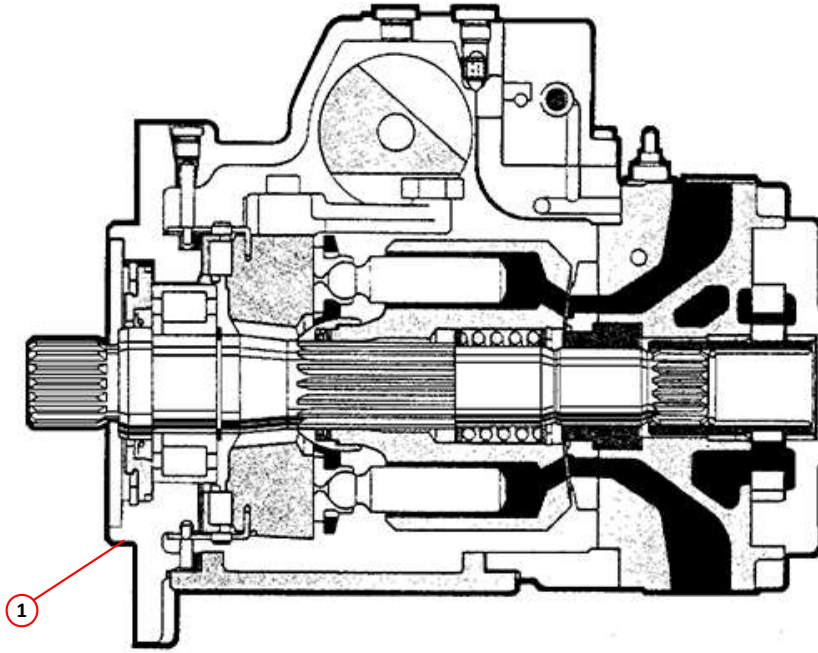
Auxiliary Hand Pump



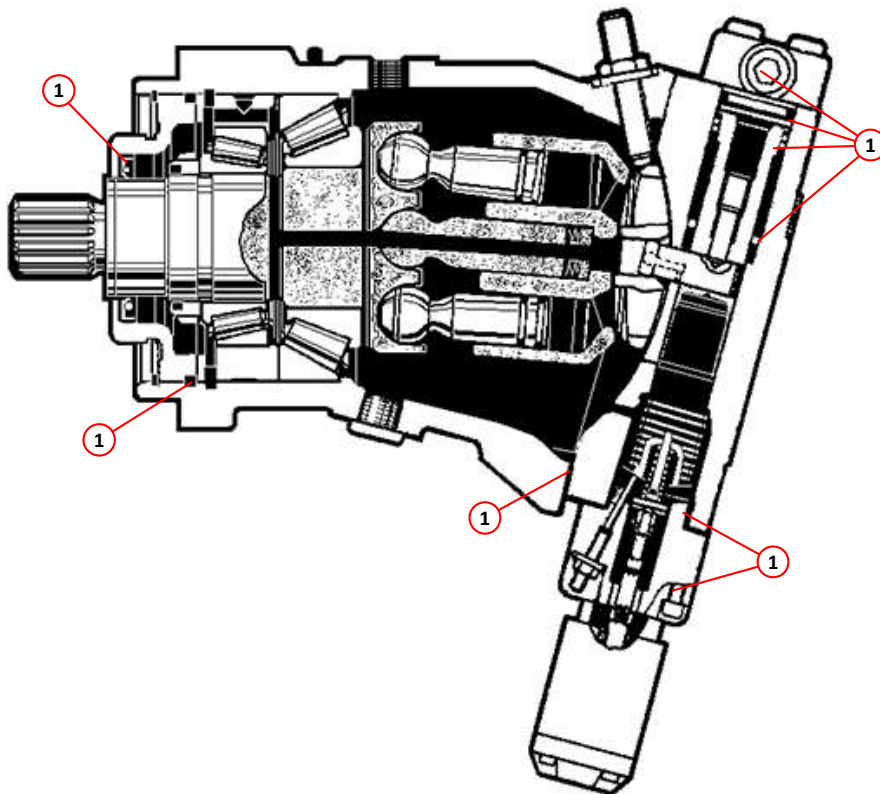
High Pressure Filter(s)

Item	Part Number	Quantity	Description
Hydrostatic Drive Pump			
1	037015	1	Hydrostatic drive pump Page 368
NI	037080	2	. Coil, Forward/Reverse
NI	031480	1	. Pipe, top, transmission (metal)
NI	031481	1	. Pipe, bottom, transmission (metal)

Item	Part Number	Quantity	Description
Hydrostatic Drive Motor			
	040705	1	Hydrostatic drive motor Page 368
	011069	4	. Set screw, M12 x 40mm
	011097	4	. Spring washer, M12
1	023224	1	. Seal Kit
NI	027887	1	. Change-over block
NI	000037	4	. . Set screw, M6 x 40mm
NI	028175	4	. Break-off pins
NI	028049	1	. Piston
NI	028047	1	. . Spring, large
NI	028050	1	. Cap
NI	028048	1	. . Spring, small
NI	024946	1	. O-Ring kit, bottom change-over block (has the following)
NI	024893	2	. . O-Ring, 5.28 x 1.78
NI	024894	3	. . O-Ring, 7.65 x 1.78
NI	024895	2	. . O-Ring, 9.25 x 1.78
NI	024896	1	. . O-Ring, 29.87 x 1.78
NI	024731	1	. Blanking plug



Hydrostatic Drive Pump



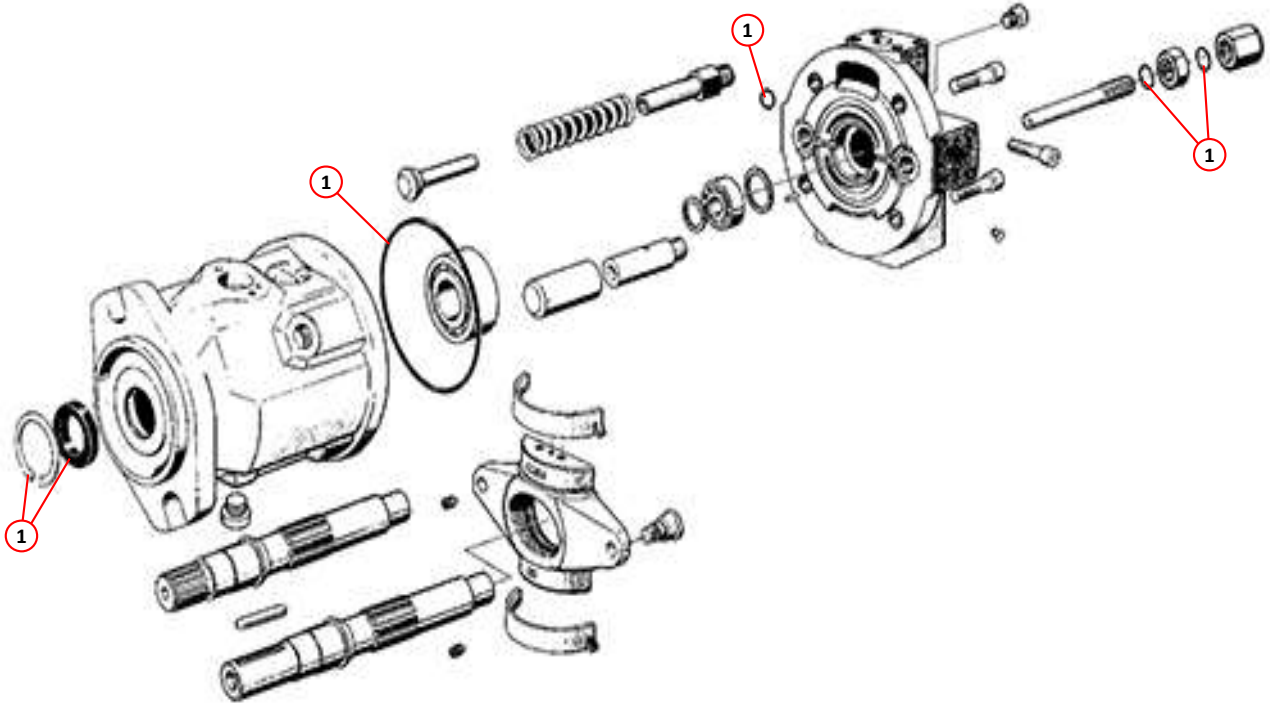
Hydrostatic Drive Motor

Item	Part Number	Quantity	Description
Suction Fan Pump and Related Spares			
	023620	1	Fan pump, A10V045
	026235	1	Fan pump, A10V060 high output (Magnum Unidrive)
	024770	1	Fan pump, A10V045 SAE B-B (French option)
	011053	2	. . Set screw, M12 x 35mm
	011097	4	. . Spring washer, M12
1	014552 *	1	. Seal kit, for pump (023620 Fan pump A10V045 only)
1	030561	1	. Seal kit, for pump (026235 Fan pump A10V060 only)
		1	. . O-Ring, ϕ 167mm
		4	. . O-Ring, ϕ 15mm
		3	. . O-Ring, ϕ 7.65mm
		1	. . O-Ring, ϕ 9.25mm
		2	. . O-Ring, ϕ 14mm
		1	. . O-Ring, ϕ 31.47mm
		1	. . Shaft seal (V-Ring)
		1	. . Circlip
		6	. . Seal, Dowty
NI	025804	1	. Gasket, fan pump to engine PTO (Unidrive installations only)
NI	024715	1	Splined adaptor (used on Mercedes chassis)
NI	014217	1	Flow-control valve

Item	Part Number	Quantity	Description
Suction Fan Motor			
1	024641	1	Motor, hydraulic, fan, VOAC F12-030-MF-CH-K Page 148
NI	000343	2	. Bolt, socket cap, M14 x 50mm
NI	011127	2	. . Nut, M14, Nyloc
2	011052	1	. Fan mounting bolt, M12 x 30mm
3	024791	1	. . Cap washer VOAC motor
4	035967	1	. Valve block assembly
5	013523	2	. . O-ring, ϕ 25mm ID
6	000048	8	. . Screw, socket cap head, M10 x 80mm
7	011095	8	. . . Spring washer, M10
8	011151	2	. . Adaptor, M/M, $\frac{3}{4}$ " BSP
9	011155	2	. . . Seal, Dowty, $\frac{3}{4}$ " BSP
10	011248	1	. . Adaptor, M18 x $\frac{3}{8}$ " BSP
11	011247	1	. . . Seal, Dowty, M18
12	010921	1	. . . Hose tail, $\frac{3}{8}$ " BSP nut x $\frac{3}{8}$ " hose
NI	025184	1	. . Speed sensor

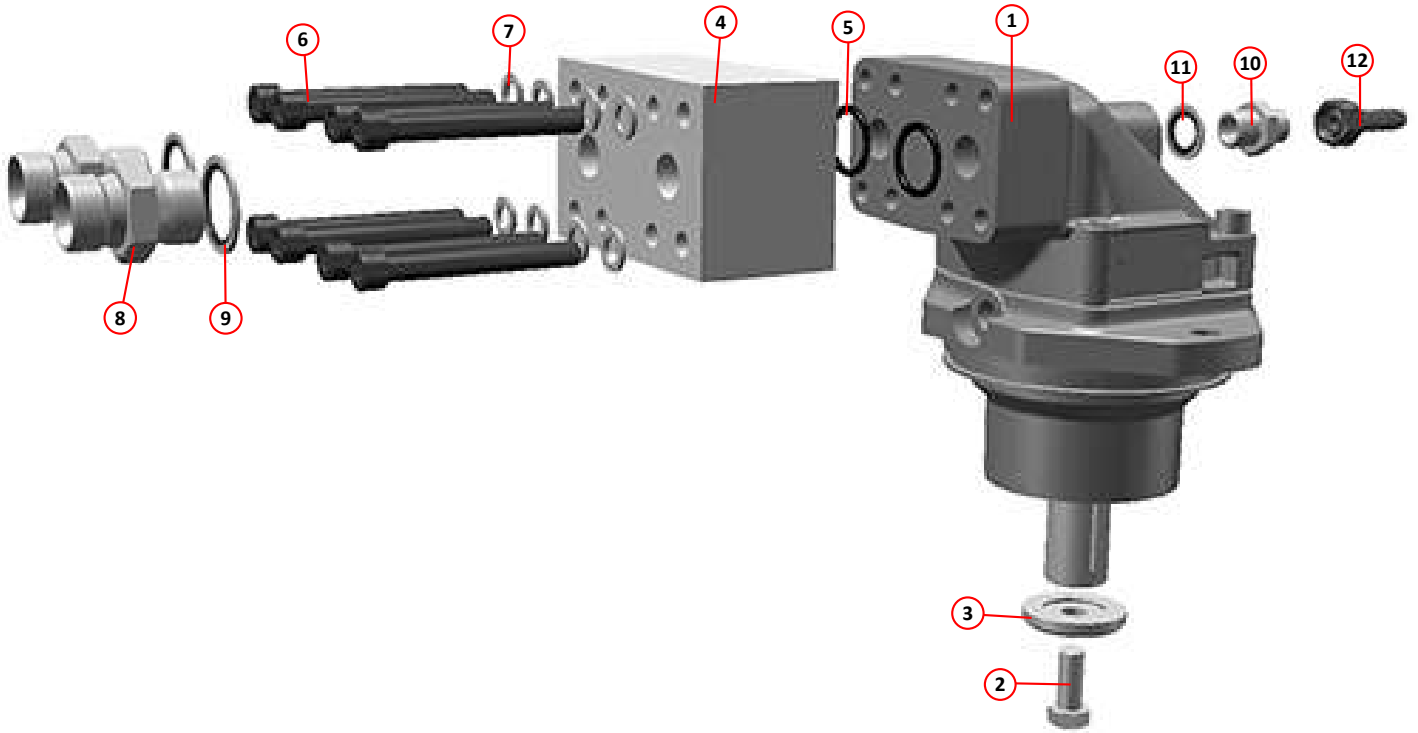
Notes:-

* Some items in the seal kit are intended for use in the pump's control valve.



i Ports are on sides and not as shown

Suction Fan Pump



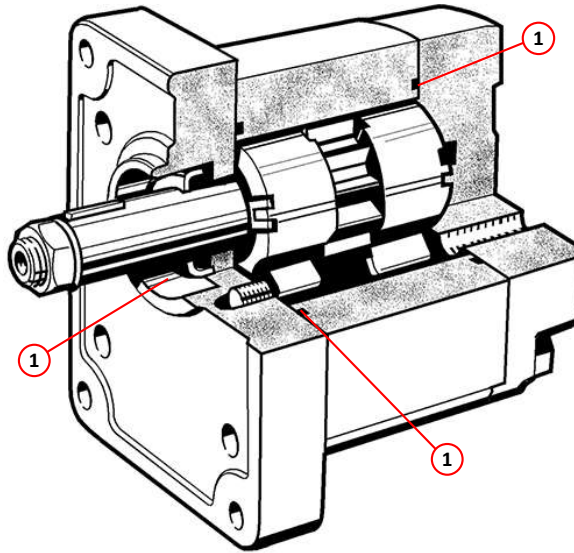
Suction Fan Motor Assembly

Item	Part Number	Quantity	Description
Motor - 30 Litre High Pressure Water Pump			
	025373	1	Motor, hydraulic, 19cc Page 204, 278
	000020	4	. Set screw, M6 x 30mm
	011090	8	. Washer, M6
	011071	4	. Nut, M6, Nyloc
1	*	1	. Seal kit

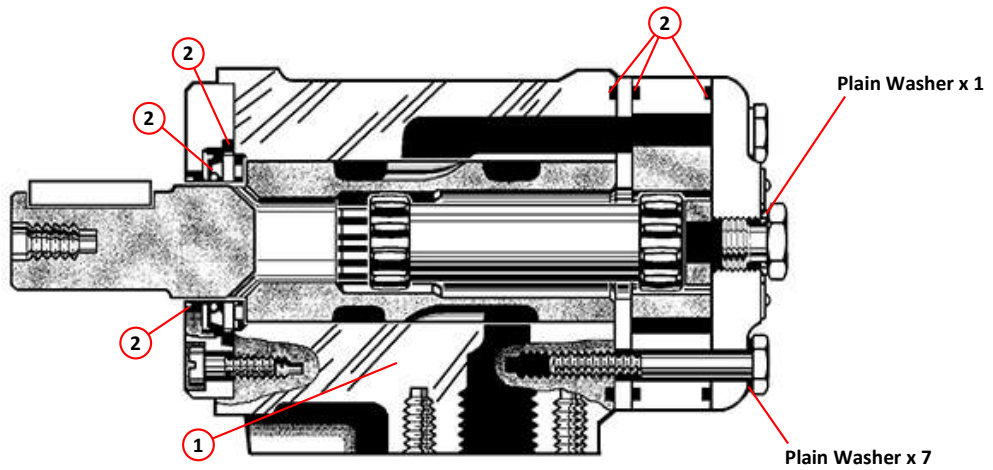
Item	Part Number	Quantity	Description
Motor - Low Pressure Water Pump			
Motor - 42 Litre High Pressure Water Pump			
1	013527	1	Motor, hydraulic, Page 208, 278
	011069	2	. Set screw, M12 x 40mm
	011077	2	. Nut, M12, Nyloc
2	*	1	. Seal kit
		1	. . Dust seal, shaft
		1	. . KBADH-Ring
		1	. . O-Ring
		3	. . O-Ring
		7	. . Plain washer
		1	. . Plain washer

Item	Part Number	Quantity	Description
Motor - 75 Litre High Pressure Water Pump			
1	027866	1	Motor, hydraulic Page 212, 278
	011034	4	. Set screw, M10 x 40mm
	011075	4	. Nut, M10, Nyloc
NI	*	1	. Seal kit
2	022698	2	. Flange, $\frac{3}{4}$ BSP
	000055	8	. . Set screw, socket cap head, M10 x 40mm
3	011155	2	. . Seal, Dowty, $\frac{3}{4}$ BSP
4	011224	2	. . . Adaptor, $\frac{3}{4}$ BSP x $\frac{3}{8}$ BSP
5	011218	1	. . Seal, Dowty, 22mm
6	012472	1	. . . Adaptor, 22mm x $\frac{3}{8}$ BSP

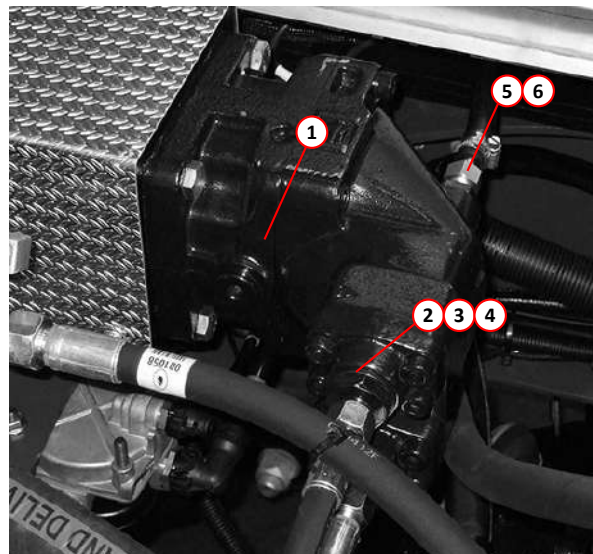
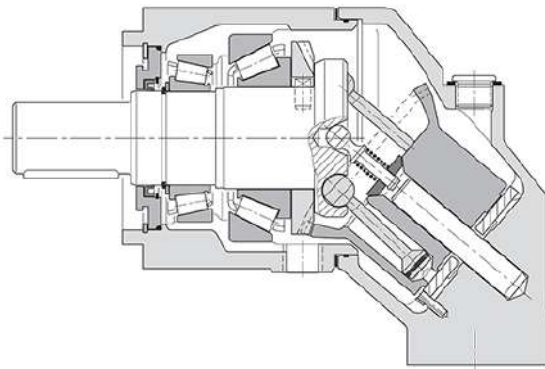
Notes:-
* Please contact Scarab Parts Department before ordering.



Hydraulic Motor - 30 Litre High Pressure Water Pumps



Hydraulic Motor - Low Pressure Water Pump and 42 Litre High Pressure Water Pump

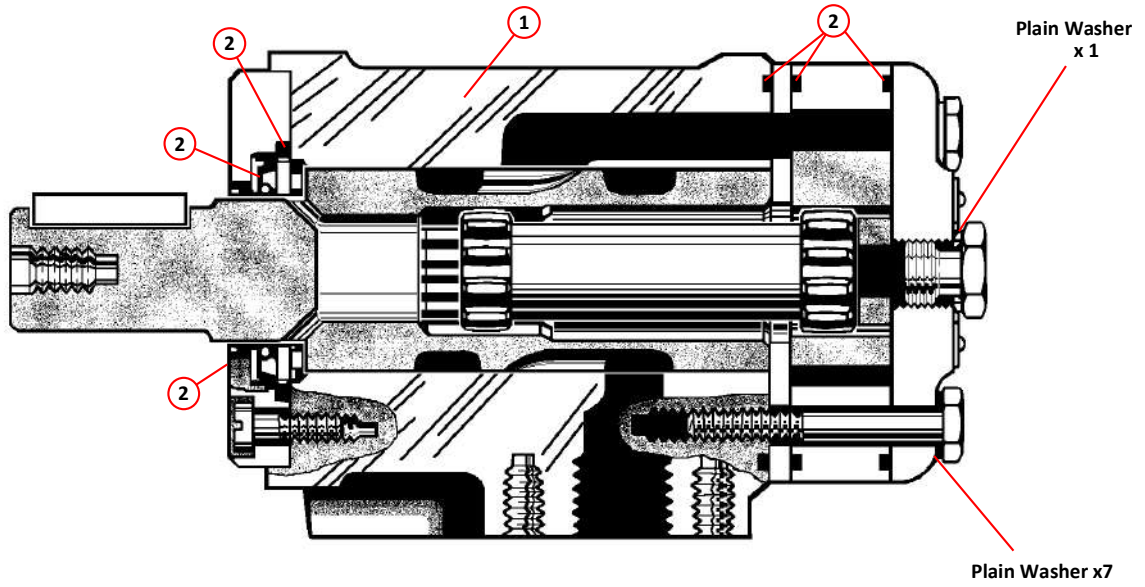


Hydraulic Motor - 75 Litre High Pressure Water Pump

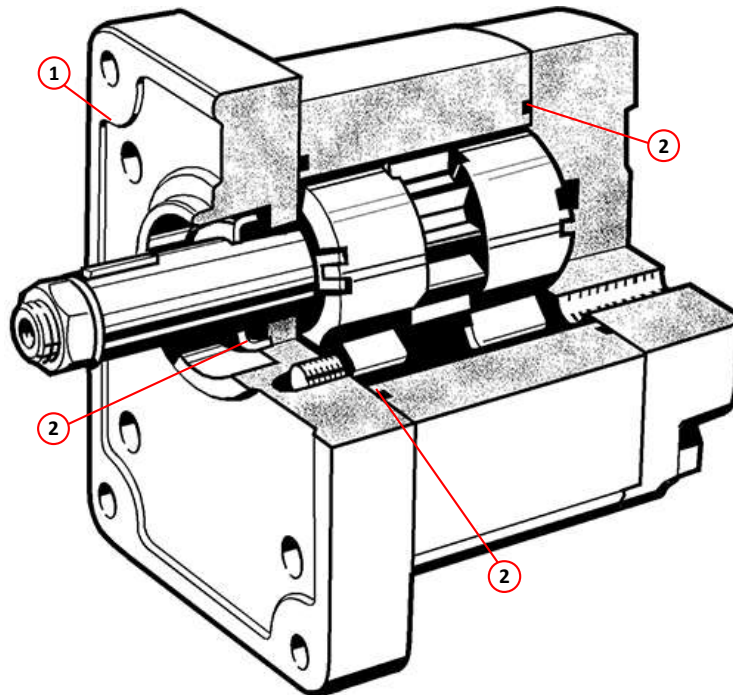
Item	Part Number	Quantity	Description
Brush Drive Motors			
1	010566	1	Motor, hydraulic, (wide sweep)
1	010749	1	Motor, hydraulic, (side/front brush)
	011053	2	. Set screw, M12 x 35mm
	011069	2	. Set screw, M12 x 40mm
	011077	2	. Nut, M12, Nyloc
2	*	1	. Seal kit

Item	Part Number	Quantity	Description
Cooling Fan Motor			
1	028752	1	Motor, hydraulic, 16cc Page 222
	000020	4	. Set screw, M6 x 30mm
	011090	8	. Washer, M6
	011071	4	. Nut, M6, Nyloc
2	*	1	. Seal kit

Notes:-
 * Please contact the Scarab Parts Department before ordering.



Hydraulic Motor - Wide Sweep, Front and Side Brushes



Hydraulic Motor - Cooling Fan

Item	Part Number	Quantity	Description
Brush and Nozzle Hydraulic Ram Assemblies			
1	024539	1	Ram, nozzle tilt Page 284
1	024539	1	Ram, side brush lift (RH & LH) Page 288
1	024539	1	Ram, wide sweep slewing Page 288
2	012539	1	. Restrictor, No. 5 White, M/M, $\frac{1}{4}$ " BSP
3	011152	1	. Seal, Dowty, $\frac{1}{4}$ " BSP
4	014473	1	. Bellows
NI	011629	1	. Seal kit, ram

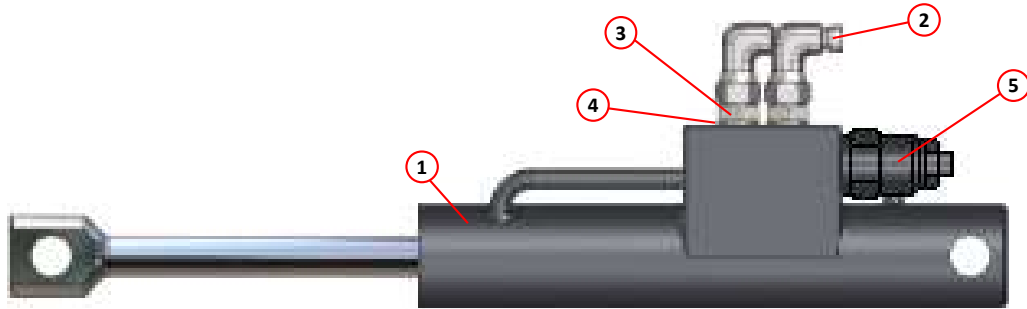
Item	Part Number	Quantity	Description
Rear Door Open/Close Hydraulic Ram Assembly			
1	022511	1	. Hopper rear-door open/close ram Page 286
2	011171	2	. Elbow, swivel, $\frac{1}{4}$ " BSP
3	011158	2	. Adaptor, M/M, $\frac{1}{4}$ " BSP
4	011152	2	. Seal, Dowty, $\frac{1}{4}$ " BSP
5	028178	1	. Check valve
NI	022777	1	. Seal kit, hydraulic ram

Item	Part Number	Quantity	Description
Rear Door Locking Hydraulic Ram Assembly			
1	022350	1	Hopper rear-door locking ram Page 286
2	002017	2	. Elbow, Banjo, M/M, $\frac{1}{4}$ " BSP
3	011152	4	. . Seal, Dowty, $\frac{1}{4}$ " BSP
NI	022776	1	. Seal kit, hydraulic ram

Item	Part Number	Quantity	Description
Hopper Lift Two Stage Hydraulic Ram Assembly			
1	024249	1	Hopper lift ram, dual stage Page 124, 286
2	027785	1	. Seal kit
NI	028178	1	. Check valve, (Integrated ICEB30F)
3	011159	1	. Adaptor, M/M, $\frac{3}{8}$ " BSP
NI	11153	1	. . Seal, Dowty, $\frac{3}{8}$ " BSP
4	012881	1	. Bearing, spherical



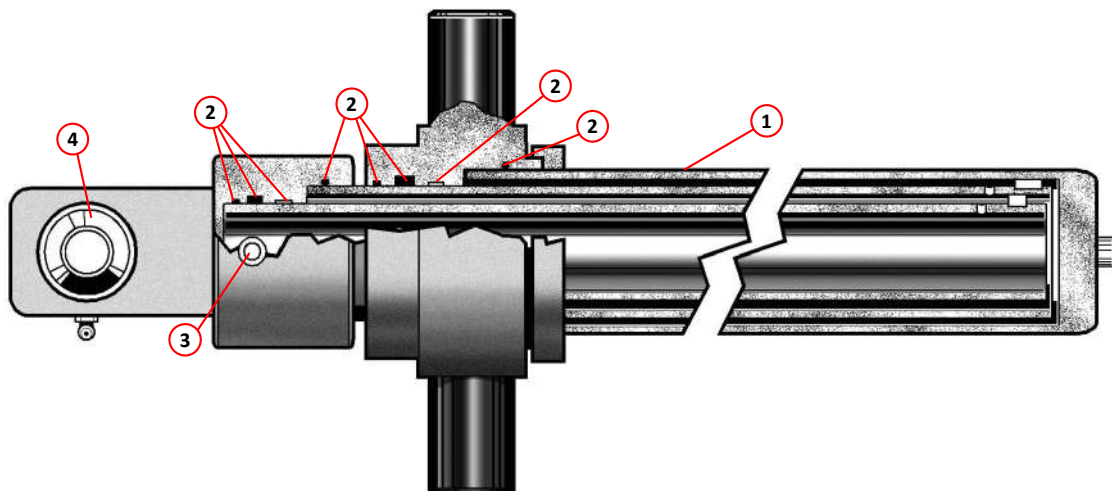
Hydraulic Brush Ram Assembly



Rear Door Open / Close Ram

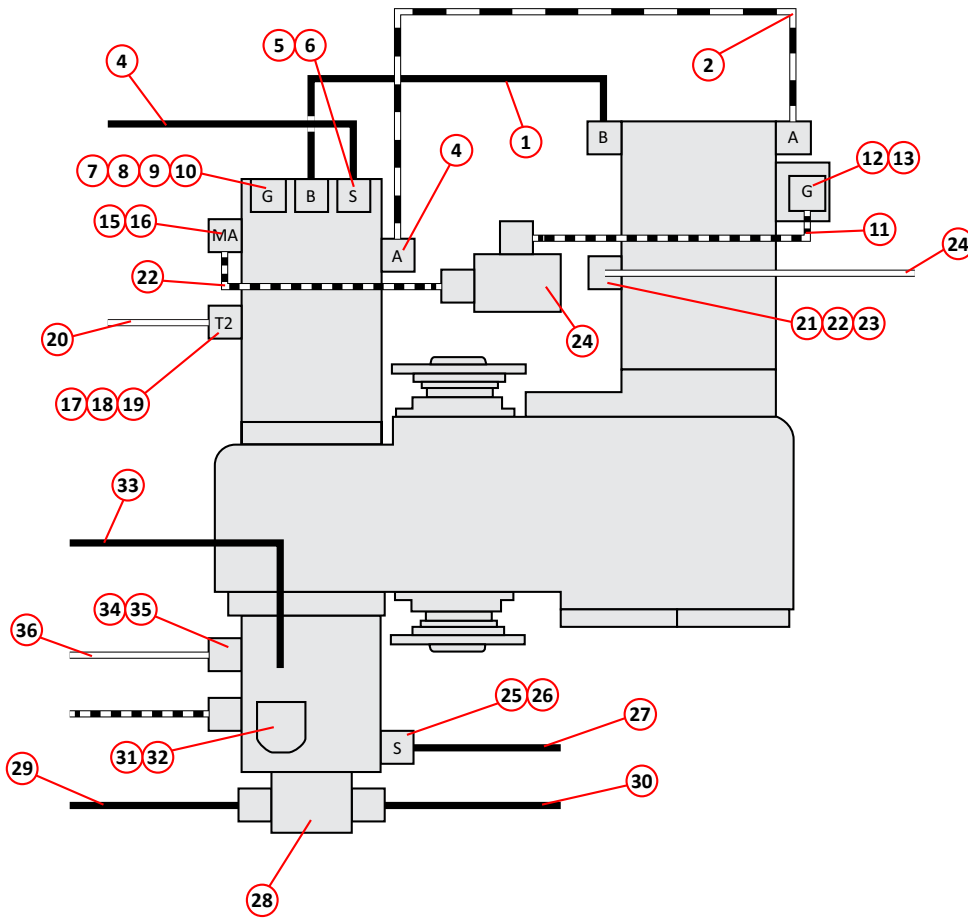


Hopper Rear Door Locking



Two Stage Hopper Lift Ram

Item	Part Number	Quantity	Description
Scarab Hydrostatic Gearbox Piping Arrangements			
1	031481	1	Transmission pipe, bottom assembly, metal c/w flanges
2	031480	1	Transmission pipe, top assembly, metal c/w flanges
3	022876	1	. Spacer, HP, $\frac{3}{4}$ " SAE x 10mm thick (between split flange & pump)
4	014827		Hose, rubber, 1" bore (from suction filter on chassis)
5	022706	1	. Adaptor, M33 x $\frac{3}{4}$ " BSP
NI	002019	1	. . Seal, Dowty, M33
6	011210	1	. . Elbow, $\frac{3}{4}$ " BSP x 1" hose
7	011158	1	Adaptor, M/M, $\frac{1}{4}$ " BSP
8	011169	1	. . Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
9	011935	1	Adaptor, M/F, $\frac{1}{4}$ " BSP x M12
NI	011150	4	. Seal, Dowty, $\frac{1}{4}$ " BSP
10	013035	1	. Coupling, pressure test point, M12
11	023741	1	Hose, rubber, $\frac{1}{4}$ " x 500mm, ($\frac{1}{4}$ " BSP x 8mm straight. pipe ends)
12	011158	1	. Adaptor, M/M, $\frac{1}{4}$ " BSP
13	002045	1	. . Banjo coupling, 14mm
14	027241	1	Valve Block Assembly - Transmission Page 244
15	011158	1	. Adaptor, M/M, $\frac{1}{4}$ " BSP
16	011169	1	. . Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
17	012472	1	Adaptor, M22 x $\frac{3}{8}$ " BSP
NI	011218	1	. Seal, Dowty, M22
18	011205	1	. Elbow, swivel, F/F, $\frac{3}{8}$ " BSP
19	010930	1	. . Tail piece, hose, $\frac{5}{8}$ " BSP x $\frac{5}{8}$ " hose
20	011000		. . . Hose, rubber, $\frac{5}{8}$ " bore (drive pump case-drain)
21	011248	1	Adaptor, M18 x $\frac{3}{8}$ " BSP
NI	011247	1	. Seal, Dowty, M18
22	011205	1	. Elbow, swivel, F/F, $\frac{3}{8}$ " BSP
23	010930	1	. . Tail piece, hose, $\frac{5}{8}$ " BSP x $\frac{5}{8}$ " hose
24	011000		. . . Hose, rubber, $\frac{5}{8}$ " bore (drive motor case-drain)
25	011230	2	Flange, split, $1\frac{1}{2}$ " SAE
	011108	4	. Cap screw, socket head, $\frac{1}{2}$ " UNC x $1\frac{1}{2}$ "
26	011231	1	. Elbow, hose, $1\frac{1}{2}$ " SAE x 1"
27	014827		Hose, rubber, 1" bore (from suction filter in hydraulic tank)
28			Gear Pump Page 258,260
29	014827	1	. Hose, rubber, 1" bore (tank suction filter/gear pump)
30	001020	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 2680mm (gear pump/main valve block)
31	014104	1	Elbow, 1" SAE x $\frac{3}{4}$ " BSP
	000045	4	. Cap screw, socket head, $\frac{3}{8}$ " UNC x $1\frac{1}{2}$ "
	011406	4	. Spring washer, $\frac{3}{8}$ "
32	011193	1	Adaptor, reducing, 1" BSP x $\frac{3}{4}$ " BSP
NI	011156	1	. Seal, Dowty 1"
33	011733	1	. Hose, rubber, $\frac{3}{4}$ " BSP, $\frac{5}{8}$ " bore x 510mm (fan pump/fan block)
34	011226	1	Adaptor, $\frac{7}{8}$ " UNF x $\frac{1}{2}$ " BSP
NI	011218	1	. Seal, Dowty, M22
35	011234	1	. Elbow, hose, 90° sweep, $\frac{1}{2}$ " BSP x $\frac{5}{8}$ "
36	011000		. Hose, rubber, $\frac{5}{8}$ " bore (fan pump case-drain)

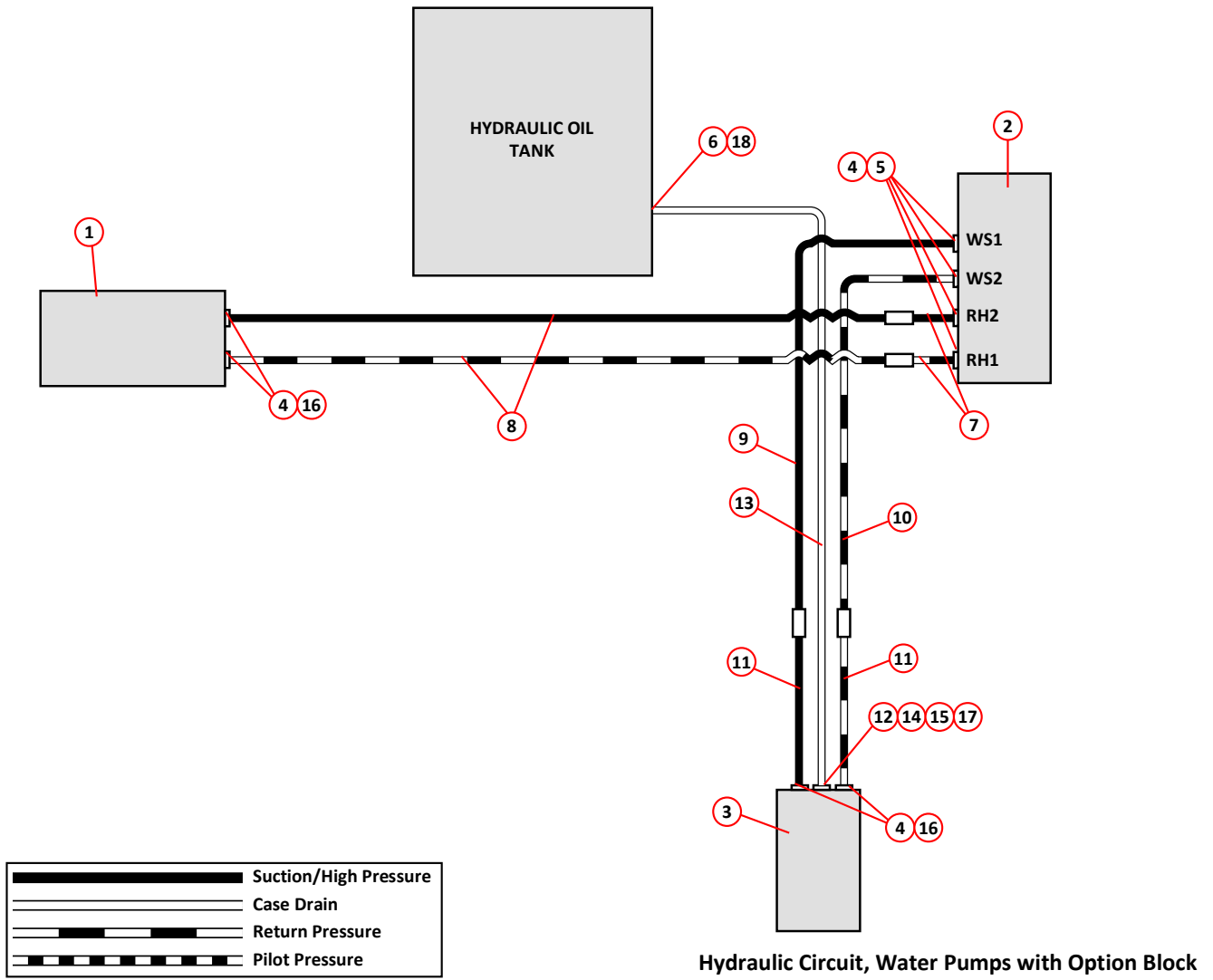


	Suction/High Pressure
	Case Drain
	Return Pressure
	Pilot Pressure

Scarab Transfer Gearbox - Piping Arrangement

Item	Part Number	Quantity	Description
Hydraulic Circuit, Water Pumps With Option Block			
1	025373	1	Motor, hydraulic, 30 LPM. HP water pump Page 270
1	013527	1	Motor, hydraulic, 42 LPM. HP water pump Page 270
1	027866	1	Motor, hydraulic, 75 LPM. HP water pump Page 270
2	*	2	. Valve block Page 230
3	013527	1	. Motor, hydraulic, LP water pump Page 270
4	011154	8	. . Seal, Dowty, $\frac{1}{2}$ " \times $\frac{3}{8}$ "
5	020903	4	. . Adaptor, $\frac{1}{2}$ " \times $\frac{3}{8}$ " BSP
6	011153	4	. . Seal, Dowty, $\frac{1}{2}$ "
7	031481	2	. . Pipe, steel
8	011305	2	. Hose, rubber $\frac{3}{8}$ " BSP x 1500mm (MERLIN)
8	011330	2	. Hose rubber $\frac{3}{8}$ " BSP x 1620mm (MAGNUM)
9	031508	1	. . Pipe, steel
10	031509	1	. . Pipe, steel
11	001255	2	. Hose, rubber, $\frac{3}{8}$ " BSP x 475mm, straight+90° ends
12	010910	2	. . Elbow, M/F, $\frac{3}{8}$ " BSP
13	010958	AR	. Hose, rubber $\frac{3}{8}$ " bore
14	010516	2	. . Hose clip, worm drive
15	010922	1	. . Hose tail $\frac{3}{8}$ " \times $\frac{1}{4}$ " BSP
16	011167	4	. . Adaptor $\frac{1}{2}$ " BSP \times $\frac{3}{8}$ " BSP
17	011152	1	. . . Seal, Dowty $\frac{1}{4}$ "
18	020923	1	. . Hose tail $\frac{3}{8}$ " BSP \times $\frac{3}{8}$ " hose

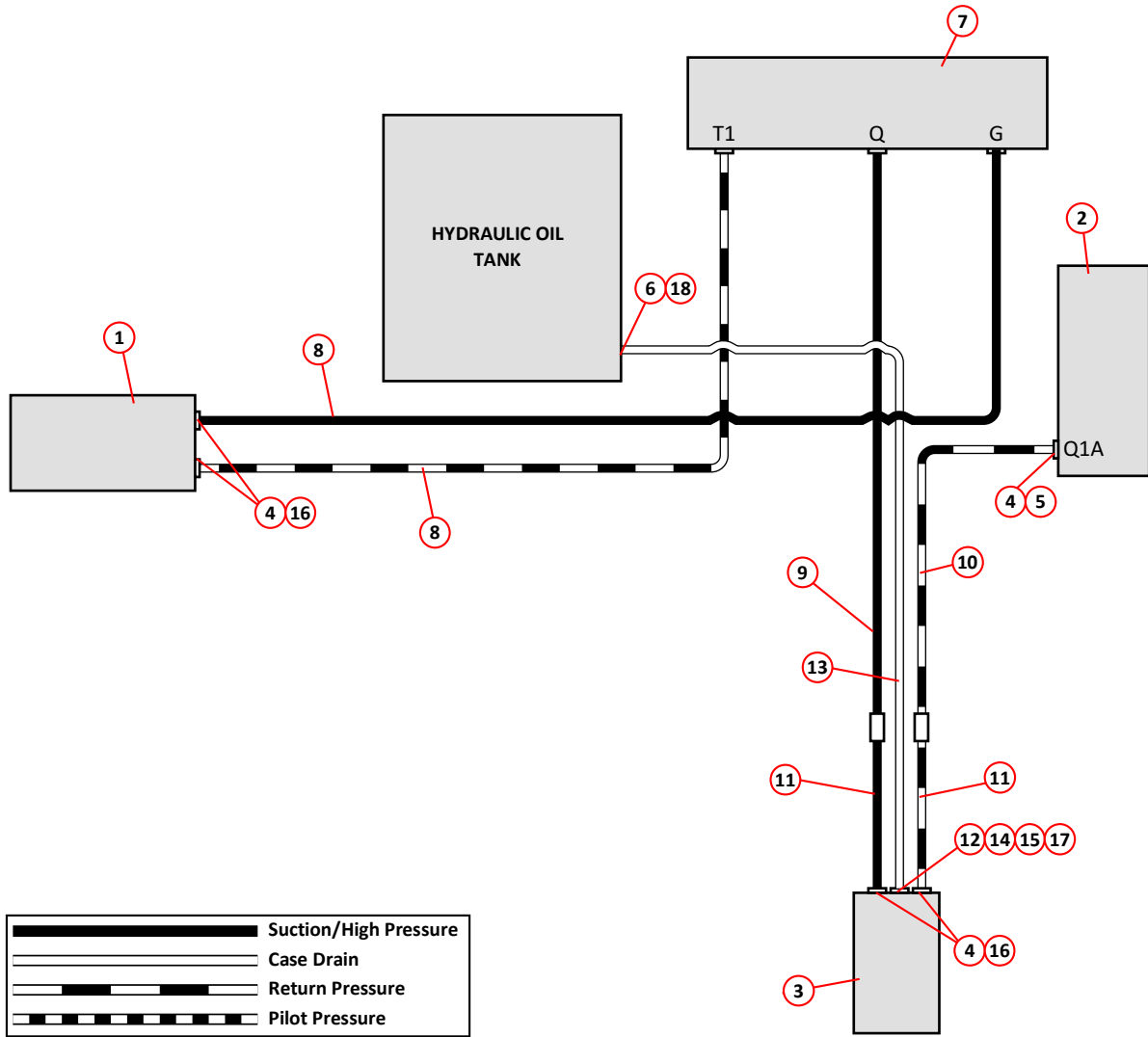
Notes:-
 * If you need to order this item then please contact the Scarab Parts Department quoting you machine's serial number and model.



Item	Part Number	Quantity	Description
Hydraulic Circuit, Water Pumps Without Option Block			
1	025373	1	Motor, hydraulic, 30 LPM. HP water pump Page 270
1	013527	1	Motor, hydraulic, 42 LPM. HP water pump Page 270
1	022769	1	Motor, hydraulic, 75 LPM. HP water pump Page 270
2	*	2	. Valve block, brush control Page 238
3	013527	1	. Motor, hydraulic. LP water pump Page 270
4	011154	8	. . Seal, Dowty, $\frac{1}{2}$ " $\frac{3}{8}$ "
5	020903	4	. . Adaptor, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
6	011153	4	. . Seal, Dowty $\frac{3}{8}$ "
7	*	1	Main valve block, Page 230, Page 234
8	001009	2	. Hose, Rubber $\frac{3}{8}$ " BSP x 2200mm
9	031588	1	. . Pipe, steel
10	031589	1	. . Pipe, steel
11	001255	2	. Hose, rubber, $\frac{3}{8}$ " BSP x 475mm, straight+90° ends
12	010910	2	. . Elbow, M/F, $\frac{3}{8}$ "
13	010958	AR	. Hose, rubber, $\frac{3}{8}$ " bore
14	010516	2	. . Hose clip, worm drive
15	010922	1	. . Hose tail, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
16	011167	4	. . Adaptor, $\frac{1}{2}$ " BSP x $\frac{3}{8}$ " BSP
17	011152	1	. . Seal, Dowty, $\frac{1}{4}$ "
18	020923	1	. . Hose tail, $\frac{3}{8}$ " BSP x $\frac{3}{8}$ " hose

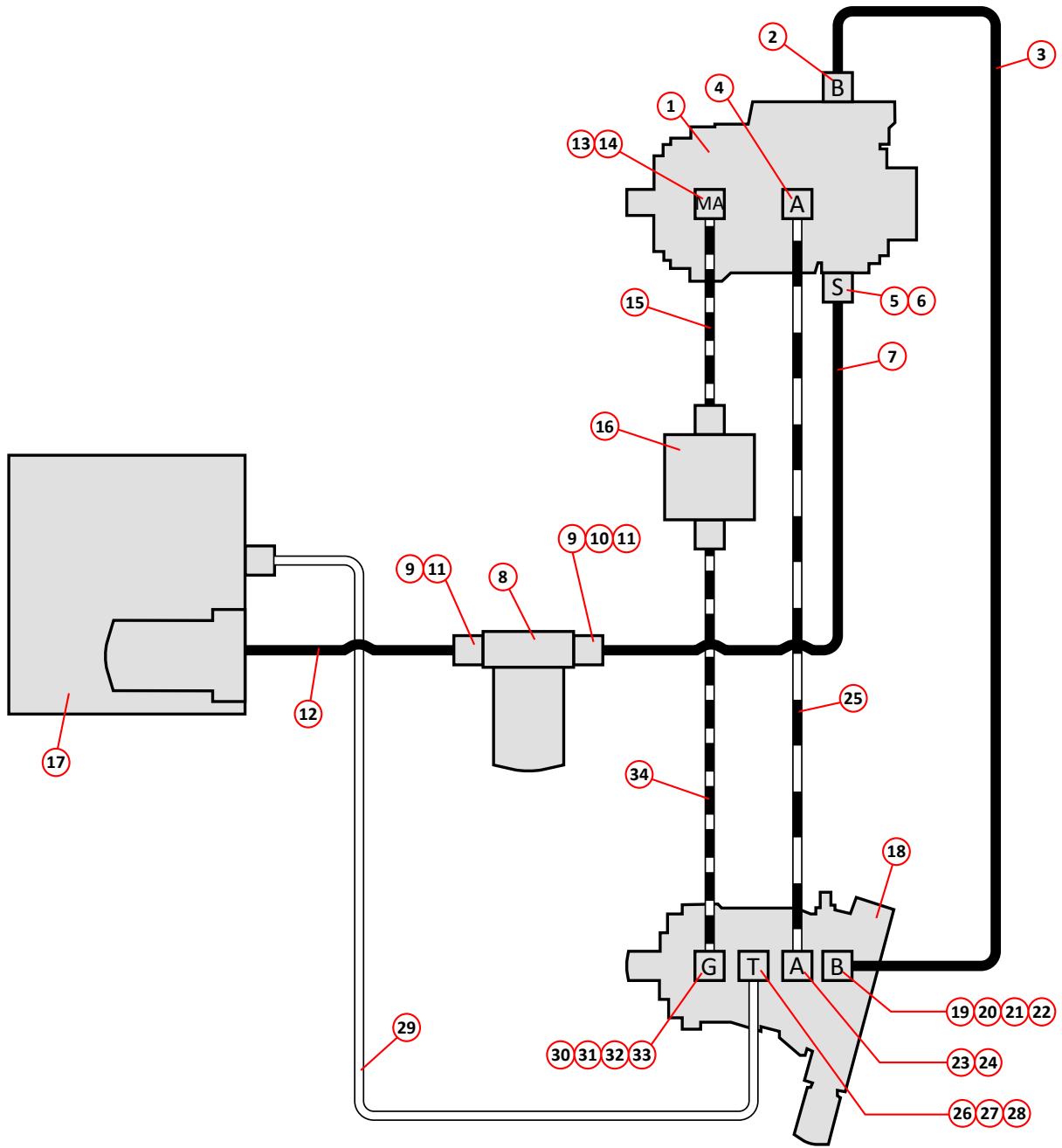
Notes:-

* If you need to order this item then please contact the Scarab Parts Department quoting you machine's serial number and model.



Hydraulic Circuit, Water Pumps without Option Block

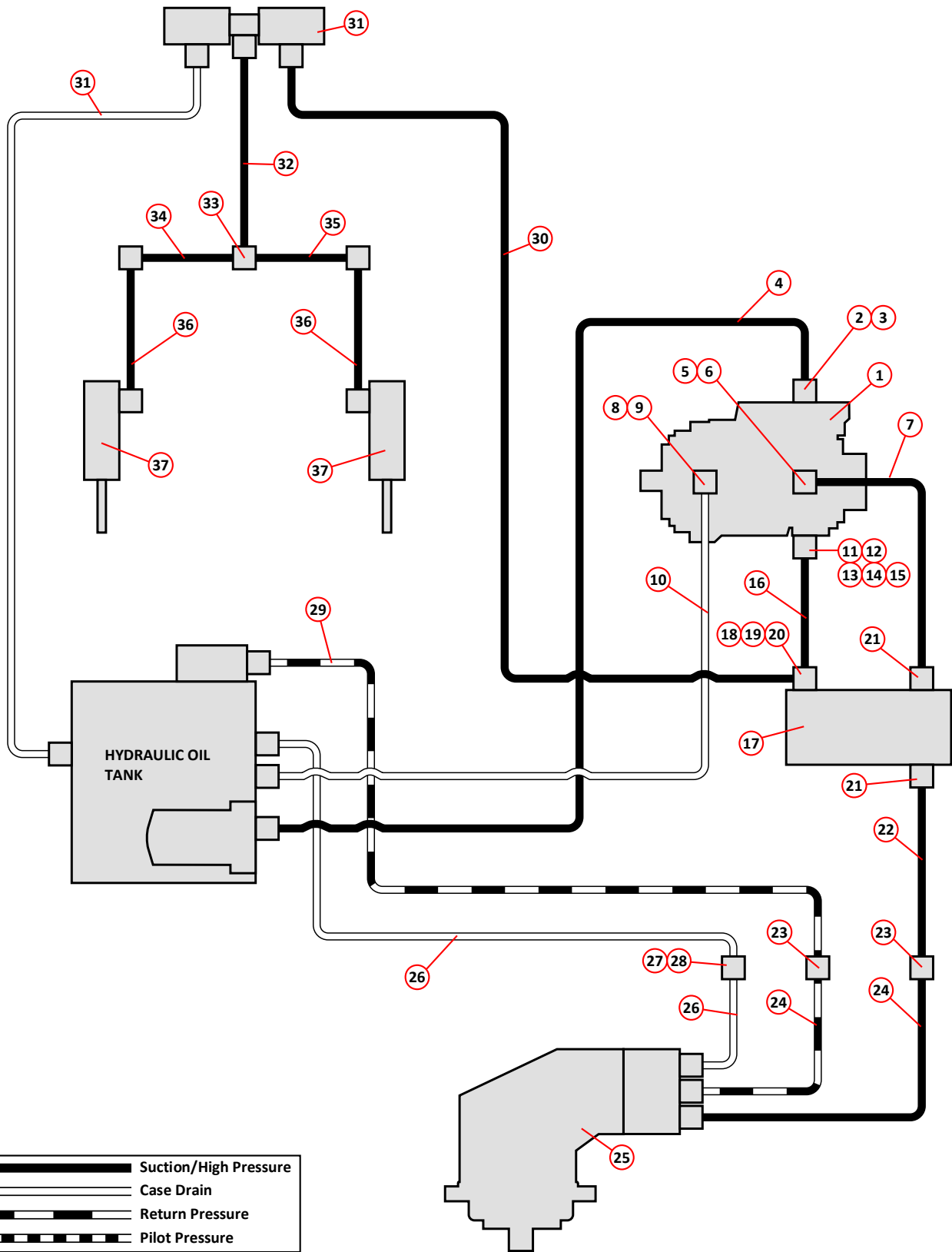
Item	Part Number	Quantity	Description
Hydraulic Circuit, Hydrostatic Drive			
1	028895	1	Pump, hydraulic, hydrostatic drive Page 266
2	002000	2	. Flange, split, $\frac{3}{4}$ " SAE
	011408	3	. . Cap screw, socket head, M10 x 30mm
	011032	1	. . Bolt, M10 x 30mm
	011095	1	. . Spring washer, M10
3	022700	1	. Hose assembly, transmission, $\frac{3}{4}$ " SAE
NI	013523	1	. . O-Ring
4	002000	2	. Flange, split, $\frac{3}{4}$ " SAE
	011408	3	. . Cap screw, socket head, M10 x 30mm
	011032	1	. . Bolt, M10 x 30mm
	011095	1	. . Spring washer, M10
5	022076	1	. Adaptor, M33 x $\frac{3}{4}$ " BSP
NI	002019	1	. . Seal, Dowty, M33
6	011210	1	. . Elbow, hose, $\frac{3}{4}$ " BSP x 1"
7	014827	AR	. Hose, rubber, 1" bore
8	013122	1	. . Filter, suction
	011010	2	. . Bolt, M8 x 20mm
	011093	2	. . Spring washer, M8
NI	013124	1	. . Element, suction filter Page 262
NI	021720	1	. . Gauge, pressure
9	011184	2	. . Adaptor, $1\frac{1}{4}$ " BSP x $\frac{3}{4}$ " BSP
NI	011155	2	. . . Seal, Dowty, $\frac{3}{4}$ "
10	013757	1	. . . Valve, ball, $\frac{3}{4}$ " BSP
11	011210	2	. . . . Elbow, hose, $\frac{3}{4}$ " BSP x 1"
12	014827	AR	Hose, rubber, 1" bore
13	011915	1	. Adaptor, $\frac{1}{4}$ " BSP x $\frac{1}{4}$ " BSP
NI	011150	3	. . Seal, Dowty, $\frac{1}{4}$ "
14	011169	1	. . Elbow, swivel, F/F, $\frac{1}{4}$ " BSP
15	011324	1	Hose, rubber, $\frac{1}{4}$ " BSP x 360mm
16	027241	1	Transmission valve assembly Page 244
17	022616	1	Tank assembly, hydraulic oil Page 224
18	022724	1	Motor, hydraulic, hydrostatic drive Page 266
19	002001	2	. Flange, split, 1" SAE
	011412	2	. . Cap screw, socket head, M12 x 40mm
	011069	2	. . Bolt, M12 x 40mm
20	002020	1	. . Elbow, 1" SAE x $\frac{3}{4}$ " BSP
21	011196	1	. . Elbow, 90° swept, $\frac{3}{4}$ " BSP
22	012228	1	. . . Stud, coupling adaptor, M/F, $\frac{3}{4}$ " BSP x $\frac{3}{4}$ " BSP
23	002001	2	. Flange, split, 1" SAE
	011412	3	. . Cap screw, socket head, M12 x 40mm
	011069	1	. . Bolt, M12 x 40mm
24	002020	1	. . Elbow, 1" SAE x $\frac{3}{4}$ " BSP
NI	013517	1	. . . O-Ring
25	022722	1	Hose, rubber, transmission, $\frac{3}{4}$ " SAE
26	011248	1	. Adaptor M18 x $\frac{3}{8}$ " BSP
NI	011247	1	. . Seal, Dowty, M18
27	011205	1	. . Elbow, swivel, F/F, $\frac{3}{8}$ " BSP x $\frac{3}{8}$ " BSP
28	010930	1	. . . Tail piece, hose, $\frac{5}{8}$ " BSP x $\frac{5}{8}$ "
29	011000	AR	Hose, rubber, $\frac{5}{8}$ " bore
30	011158	1	. Adaptor, $\frac{1}{4}$ " BSP x $\frac{1}{4}$ " BSP
NI	011150	2	. . Seal, Dowty, $\frac{1}{4}$ "
31	011169	1	. . Elbow, swivel, F/F, $\frac{1}{4}$ " BSP x $\frac{1}{4}$ " BSP, F/F
32	011935	1	. . . Adaptor, M/F, $\frac{1}{4}$ " BSP x M12
33	013035	1	. . . . Coupling, pressure test point, M12
34	011090	1	Hose, rubber, $\frac{1}{4}$ " BSP x 550mm



	Suction/High Pressure
	Case Drain
	Return Pressure
	Pilot Pressure

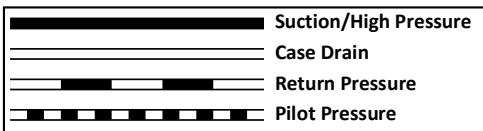
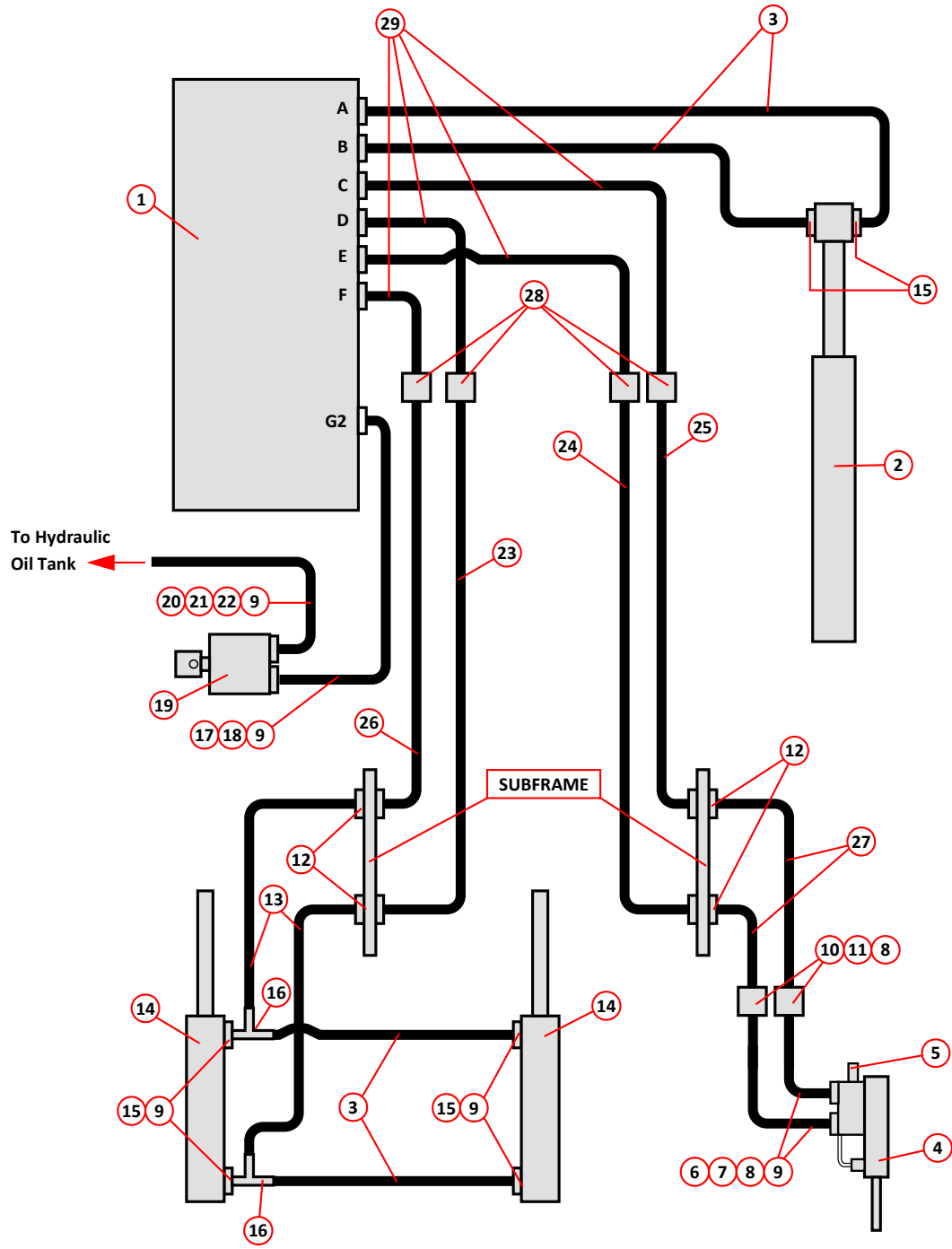
Hydraulic Circuit, Hydrostatic Drive

Item	Part Number	Quantity	Description
Hydraulic Circuit, Suction Fan and Variable Nozzle Tilt			
1	023620	1	Pump, hydraulic, suction fan Page 268
1	026235	1	Pump, hydraulic, suction fan (Magnum/Unidrive) Page 268
2	011230	1	. Flange, split, 1½ SAE
	011108	4	. . Cap screw, socket head, ½ UNC x 1½"
3	011231	1	. Elbow, hose, 1½ SAE x 1
4	014827	AR	Hose, rubber, 1 bore (from suction filter in hydraulic tank)
5	014104	1	. Elbow, 1 SAE x ¾ BSP
	000045	4	. . Cap screw, socket head, ¾ UNC x 1½"
	011406	4	. . Washer, spring, ¾"
6	002040	1	. . Adaptor, reducing, M/M, 1 BSP x 5/8 BSP
NI	011156	1	. . . Seal, Dowty, 1
7	023640	1	Hose, rubber, 5/8 BSP, 5/8 bore Megaflex (fan pump/fan block)
8	011226	1	. Adaptor, 7/8 UNF x 1/2 BSP
NI	011218	1	. . Seal, Dowty, M22
9	011234	1	. . Elbow, hose, 90° sweep, 1/2 BSP x 5/8 hose
10	011000		. Hose, 5/8 bore
11	011227	1	. . Adaptor, 7/16 UNF x 1/4 BSP
NI	011215	2	. . . Seal, Dowty, M12
12	011169	1	. . Elbow, swivel, F/E, 1/4 BSP
13	002014	1	. . . Adaptor, M/F, 1/4 BSP
14	013036	1	. . . . Coupling, pressure test point, 1/4 BSP
15	011227	1	. Adaptor, 7/16 UNF x 1/4 BSP
16	011324	1	. Hose, rubber, 1/4 BSP x 360mm (fan pump/fan block)
17		1	. Valve block, fan boost, suction fan Page 240
	011017	2	. Bolt, M8 x 60mm
	011092	2	. Washer, M8
	011073	2	. Nut, M8, Nyloc
NI	013036	1	. Coupling, pressure test point, 1/4 BSP
NI	011150	1	. . Seal, Dowty, 1/4
18	011158	1	. Adaptor, 1/4 BSP x 1/4 BSP
19	011171	1	. . Elbow, swivel, M/F, 1/4 BSP
20	002005	1	. . . Tee, F/M/M, 1/4 BSP
21	002041	2	. Adaptor, reducing, M/M, 3/4 BSP x 5/8 BSP
NI	011155	2	. . Seal, Dowty, 3/4
22	001038	1	. Hose, rubber 3/4 BSP x 3600 (Merlin/XP)
22	023642	1	. Hose, rubber 3/4 BSP x 3300 (Magnum)
23	002148	2	. . . Elbow, M/F, 3/4 BSP
24	001150	2	. Hose, rubber, 3/4 BSP x 2800mm (Merlin/Magnum)
24	001223	2	. Hose, rubber, 3/4 BSP x 2500mm (XP)
25	025564	1	. Hydraulic motor assembly, suction fan (Merlin)
25	025392	1	. Hydraulic motor assembly, suction fan (Magnum)
26	010958	AR	. Hose, 3/8 bore, low pressure, fan motor case-drain
27	013333	2	. . Hose connector 3/8
28	010516	2	. . . Hose clip, worm drive
NI	010923	1	. . Hose tail, 3/8 BSP x 3/8 hose
29	023641	1	. Hose, rubber 3/4 x 2900 (Merlin/XP)
29	001029	1	. Hose, rubber 3/4 x 3900 (Magnum)
30	011328	1	. Hose, rubber 1/4 BSP x 1780mm
31	025003	1	. Valve assembly, variable nozzle tilt Page 242
32	031747	1	. . Pipe, steel, 6mm
33	002085	1	. . Tee, 6mm pipe
34	03178	1	. . Pipe, steel, 6mm (LH)
35	031749	1	. . Pipe, steel, 6mm (RH)
36	010988	2	. . Hose, rubber 1/4 x 1473mm
37	024539	2	. Ram, hydraulic, nozzle tilt



Hydraulic Circuit, Suction Fan and Variable Nozzle Tilt

Item	Part Number	Quantity	Description
Hydraulic Circuit, Hopper and Rear Door			
1	028400	1	Valve block, main hydraulic Page 230, 234
2	024249	1	Ram, hydraulic, two stage, hopper lift Page 274
3	010987	2	. Hose, rubber, $\frac{1}{4}$ " BSP X 1660mm, hopper ram ports A & B
4	022511	1	Ram. hydraulic, door raise/lower Page 274
5	028178	1	. Valve, check
6	011324	2	Hose, rubber $\frac{1}{4}$ " BSP x 295mm
7	011158	2	. Adaptor, M/M, $\frac{1}{4}$ " BSP
8	011171	4	. Elbow, swivel, M/F, $\frac{1}{4}$ " BSP
9	011152	14	. Seal, Dowty $\frac{1}{4}$ " BSP
10	011269	2	. Adaptor, bulkhead, M/M, $\frac{1}{4}$ " BSP
11	000277	4	. Washer, M12
12	032773	4	. Adaptor, bulkhead, M12 x 6mm pipe
13	001060	2	Hose, rubber $\frac{1}{4}$ " BSP x 1020mm, straight+90° ends
14	022350	2	Ram, hydraulic, door locking Page 274
15	002017	4	. Elbow, Banjo, $\frac{1}{4}$ " BSP
16	011206	2	. Tee, M/F/F, $\frac{1}{4}$ " BSP
17	031498	1	. Pipe, steel 6mm
17	031496	1	. Pipe, steel 6mm (Magnum)
17	035705	1	. Pipe, steel 6mm, hinge down pneumatic box
17	035706	1	. Pipe, steel 6mm (Magnum), hinge down pneumatic box
18	002014	1	. Adaptor, $\frac{1}{4}$ " BSP x 6mm pipe
19	028307	1	Hand pump
20	011309	1	Hose, rubber, $\frac{3}{8}$ " x 432mm
21	011199	1	. Adaptor, M/M, $\frac{3}{8}$ " x $\frac{1}{4}$ " BSP
22	002014	1	. Adaptor, M/F, $\frac{1}{4}$ " BSP
23	032981	1	. Pipe, steel (Merlin)
23	032556	1	. Pipe, steel (Magnum)
23	032974	1	. Pipe, steel (XP)
24	032983	1	. Pipe, steel (Merlin)
24	032554	1	. Pipe, steel (Magnum)
24	032976	1	. Pipe, steel (XP)
25	032984	1	. Pipe, steel (Merlin)
25	032555	1	. Pipe, steel (Magnum)
25	032977	1	. Pipe, steel (XP)
26	032982	1	. Pipe, steel (Merlin)
26	032557	1	. Pipe steel (Magnum)
26	032975	1	. Pipe steel (XP)
27	001061	2	Hose, rubber, $\frac{1}{4}$ " BSP x 4100mm, straight+90° ends
27	001222	2	Hose, rubber, $\frac{1}{4}$ " BSP x 3800mm, straight+90° ends (XP)
28	020903	4	. Stud, $\frac{3}{8}$ " BSP x 12mm pipe
29	001254	4	Hose, rubber, $\frac{3}{8}$ " BSP x 1500mm, straight+90°

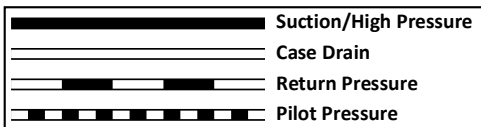
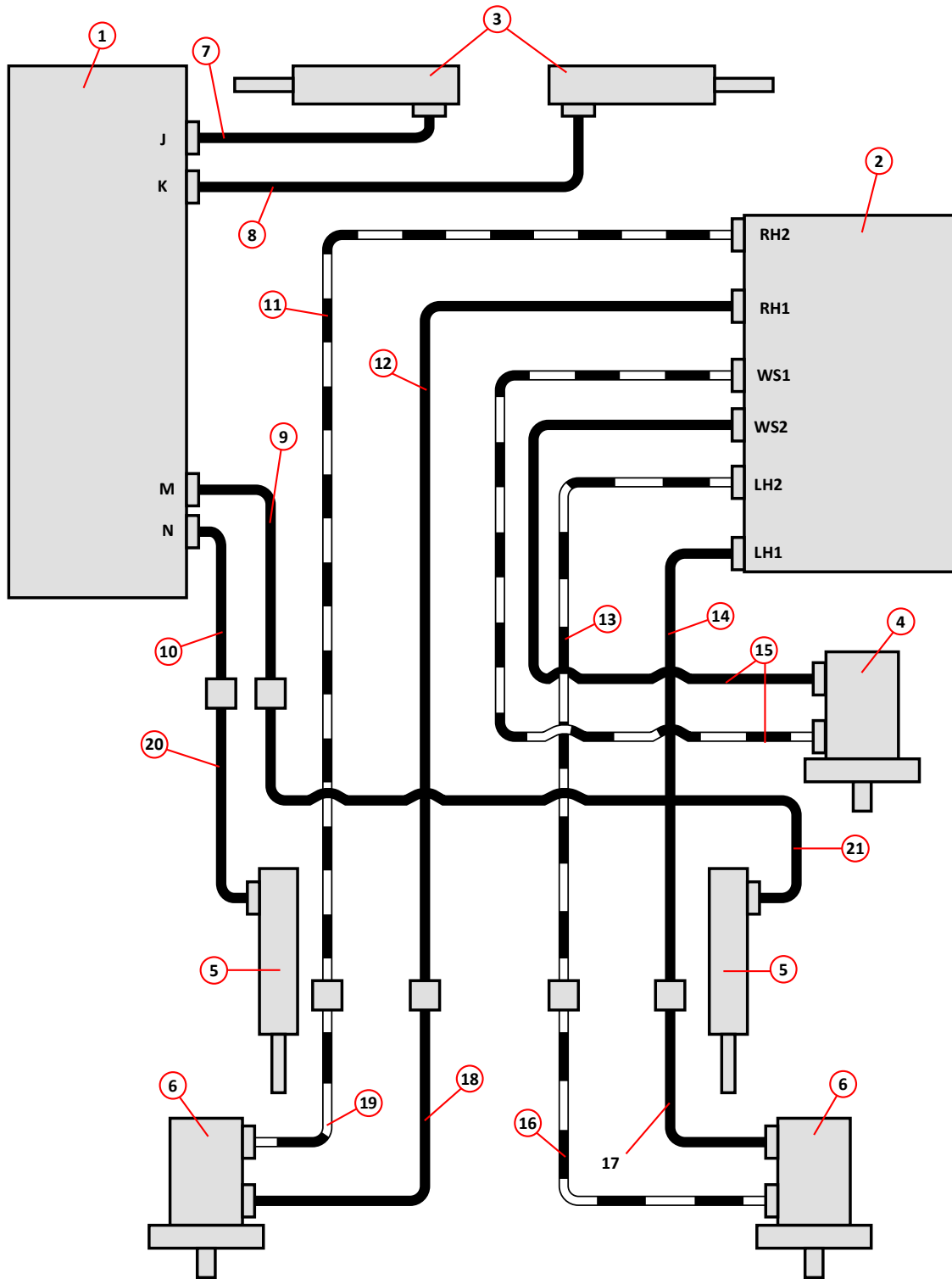


Hydraulic Circuit, Hopper and Rear Door

Item	Part Number	Quantity	Description	
Hydraulic Circuit, Side Brush and Wide Sweep				
1	028400	1	Valve block, main hydraulic	Page 230
2	024786	1	Valve block, brush control	Page 238
3	024539	2	Ram, hydraulic, wide sweep slew	Page 274
4	010566	1	Motor, hydraulic, wide sweep brush	Page 272
5	024539	2	Ram, hydraulic, side brush raise/lower	Page 274
6	010749	2	Motor, hydraulic, RH/LH side brush	Page 272
NI	011205	1	Elbow, $\frac{3}{8}$ " BSP F/F (Merlin) used with Item 14	
NI	020903	1	Stud, $\frac{3}{8}$ " BSP x 12mm pipe (Merlin) used with Item 14	
7	010985	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 2150mm	
8	001037	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 2650mm	
9	031545	1	. . Pipe, steel, 6mm (Merlin)	
9	032319	1	. . Pipe, steel, 6mm (XP)	
9	032320	1	. . Pipe, steel, 6mm (XP)	
9	031579	1	. . Pipe, steel, 6mm (Magnum)	
10	031470	1	. . Pipe, steel, 6mm (Merlin)	
10	032325	1	. . Pipe, steel, 6mm (XP)	
10	031580	1	. . Pipe, steel, 6mm (Magnum)	
11	031543	1	. . Pipe, steel, 12mm (Merlin)	
11	032322	1	. . Pipe, steel, 12mm (XP)	
11	031582	1	. . Pipe, steel, 12mm (Magnum)	
12	031544	1	. . Pipe, steel, 12mm (Merlin)	
12	032321	1	. . Pipe, steel, 12mm (XP)	
12	031582	1	. . Pipe, steel, 12mm (Magnum)	
13	031506	1	. . Pipe, steel, 12mm (Merlin)	
13	032324	1	. . Pipe, steel, 12mm (XP)	
13	031577	1	. . Pipe, steel, 12mm (Magnum)	
14	031507	1	. . Pipe, steel, 12mm (Merlin)	
14	032323	1	. . Pipe, steel, 12mm (XP)	
14	031578	1	. . Pipe, steel, 12mm (Magnum)	
15	011305	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1500mm	
16	011307 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1300mm (Merlin/Magnum)	
16	001042 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 680mm (XP)	
17	001224 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1250mm (Merlin)	
17	001023 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 710mm (XP)	
17	011307 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1300mm (Magnum)	
18	011307 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1300mm (Merlin/Magnum)	
18	001023 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 710mm (XP)	
19	001224 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1250mm (Merlin)	
19	001042 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 680mm (XP)	
19	011307 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 1300mm (Magnum)	
20	001160 *	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 950mm (Merlin)	
20	010991 *	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 550mm (XP)	
20	001101 *	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 1125mm (Magnum)	
21	011323 *	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 1020mm (Merlin)	
21	010991 *	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 550mm (XP)	
21	001101 *	1	. Hose, rubber, $\frac{1}{4}$ " BSP x 1125mm (Magnum)	

Notes:-

* Are for standard models, in certain cases the lengths may vary. If in any doubt contact Scarab Parts Department, quoting your machine's serial number and model.

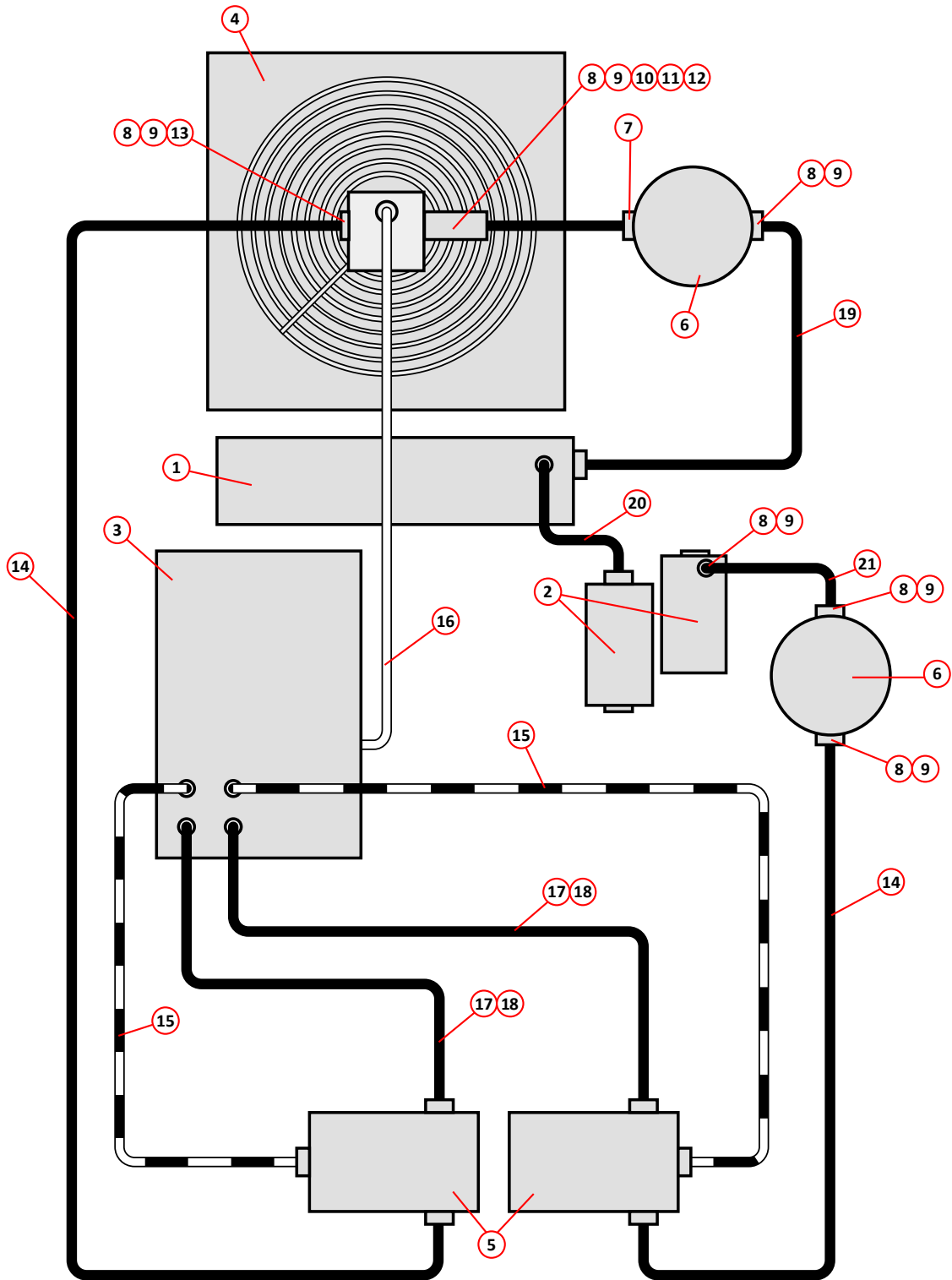


Hydraulic Circuit, Side Brush and Wide Sweep

Item	Part Number	Quantity	Description
Hydraulic Circuit, Gear Pump			
1	028400	1	Valve block, main hydraulic Page 230
2	024786	1	Valve block, brush and LP water control Page 238
3	022616	1	Hydraulic oil tank Page 220
4	028756	1	Oil cooler and fan assembly Page 220
5	024590	1	Gear pump Page 258,260
6	025103 *	2	Filter, high pressure Page 264
7	011310	3	. Hose, rubber, $\frac{3}{8}$ " BSP x 300mm, straight ends
8	011167	7	. . Adaptor, $\frac{1}{2}$ " x $\frac{3}{8}$ " BSP
9	011154	7	. . Seal, Dowty, $\frac{1}{2}$ " BSP
10	011729	1	. . Valve, non-return, M/M, $\frac{3}{8}$ " BSP
11	011153	1	. . Seal, Dowty $\frac{3}{8}$ " BSP
12	011159	1	. . Adaptor, M/M, $\frac{3}{8}$ " BSP
13	011172	3	. . Elbow, swivel, M/F, $\frac{3}{8}$ " BSP
14	001084	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 2330mm, straight+90° ends
15	011000	AR	. Hose, rubber, $\frac{5}{8}$ " bore
16	010958	AR	. Hose, rubber, $\frac{3}{8}$ " bore
17	014827	AR	. Hose, rubber, 1" bore (Red Line)
18	014828	4	. . Clamp, worm drive, hi-torque
10	001255	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 475mm, straight+90° ends
20	002092	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 320mm, straight+90° ends
21	001255 *	1	. Hose, rubber, $\frac{3}{8}$ " BSP x 475mm, straight+90° ends

Notes:-

- * May not have second filter and its fittings, which is attached to the brush and LP water valve block, then item 14 connects direct into the brush and LP water valve block.



	Suction/High Pressure
	Case Drain
	Return Pressure
	Pilot Pressure

Hydraulic Circuit, Gear Pump(s)

<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Clamps For Steel Piping		
027980	AR	Clamp block, single, 6mm
027981	AR	Clamp block, single, 12mm
027982	AR	Clamp block, single, 25mm
027983	AR	Clamp block, double, 6mm x 6mm
027984	AR	Clamp block, double, 12mm x 12mm
027985	AR	Clamp block, double, 6mm x 12mm
027986	AR	Clamp block, double, 12mm x 14mm
027987	AR	Clamp block, double, 17.2mm x 17.2mm
027988	AR	Clamp block, double, 18mm x 18mm
027989	AR	Top plate 2-hole, small
027990	AR	Top plate 2-hole, large
027991	AR	Bottom plate 2-hole, small
027992	AR	Bottom plate 2-hole, large
027993	AR	Bottom plate 1-hole, small
027994	AR	Bottom plate 1-hole, medium
027995	AR	Bottom plate 2-hole, large
027996	AR	Top plate 1-hole, small
027997	AR	Top plate 1-hole, medium
027998	AR	Top plate 1-hole, large

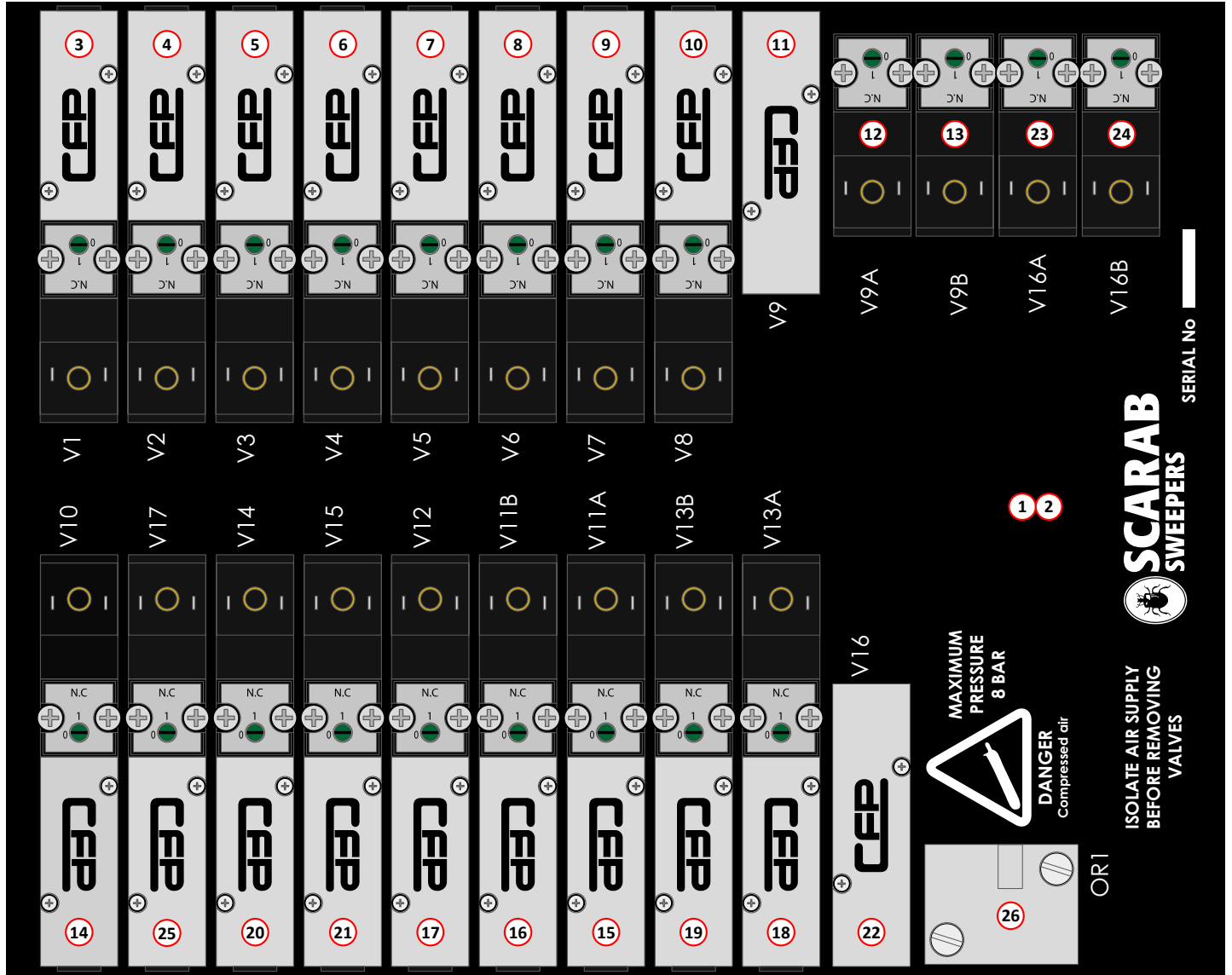
Pneumatic System

<i>Assembly/Description</i>	<i>Page</i>
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Cylinder Assembly, Ratchet Hopper Prop	310
Overhead Boom Air-Pressure Switch	310

Item	Part Number	Quantity	Description
Pneumatic Valve Control Block High Temperature (HAFNER)*			
1	045293	1	Pneumatic valve block, complete with high temperature valves (HAF)
2	045474	1	Pneumatic valve block, bare (HAF)
3	045385	1	V1 - 5/2 HT solenoid & spring valve 24v, LH side brush in/out
4	045385	1	V2 - 5/2 HT solenoid & spring valve 24v, LH suction nozzle lift/lower
5	045385	1	V3 - 5/2 HT solenoid & spring valve 24v, LH auto blanking flap open/close
6	045385	1	V4 - 5/2 HT solenoid & spring valve 24v, RH auto blanking flap open/close
7	045385	1	V5 - 5/2 HT solenoid & spring valve 24v, RH suction nozzle open/close
8	045385	1	V6 - 5/2 HT solenoid & spring valve 24v, RH side brush in/out
9	045385	1	V7 - 5/2 HT solenoid & spring valve 24v, central brush (wide sweep) swivel/slew
10	045385	1	V8 - 5/2 HT solenoid & spring valve 24v, rear boom flap
11	045383	1	V9 - 5/2 HT pilot/pilot valve, full pressure side brush
12	045381	1	V9A - 5/2 HT 15mm solenoid 24v, full pressure side brush down
13	045381	1	V9B - 5/2 HT 15mm solenoid 24v, full pressure side brush up
14	045385	1	V10 - 5/2 HT solenoid & spring valve 24v, hopper prop
15	045385	1	V11A - 5/2 HT solenoid & spring valve 24v, side brush pressure up
16	045385	1	V11B - 5/2 HT solenoid & spring valve 24v, side brush pressure down
17	045385	1	V12 - 5/2 HT solenoid & spring valve 24v, central brush (wide sweep) lift/lower
18	045385	1	V13A - 5/2 HT solenoid & spring valve 24v, central brush (wide sweep) up pressure
19	045385	1	V13B - 5/2 HT solenoid & spring valve 24v, central brush (wide sweep) down pressure
20	045385	1	V14 - 5/2 HT solenoid & spring valve 24v, auxiliary brush slide out
21	045385	1	V15 - 5/2 HT solenoid & spring valve 24v, auxiliary brush lower
22	045384	1	V16 - 5/3 HT pilot/pilot valve, air operated rear boom
23	045381	1	V16A - 5/2 HT 15mm solenoid 24v, air operated rear boom raise
24	045381	1	V16B - 5/2 HT 15mm solenoid 24v, air operated rear boom lower
25	045385	1	V17 - 5/2 HT solenoid/spring valve 24v, auxiliary brush swing in/out
26	032710	1	OR1 - OR gate valve
27	045385	A/R	5/2 HT solenoid and spring valve 24v (HAF)
NI	045386	A/R	5/2 HT spring valve body
NI	045388	A/R	Seal kit for Part No. 045386, contains 5 of $\varnothing 4 \times \varnothing 1.5$ o-rings
NI	045383	A/R	5/2 pilot/pilot valve
NI	045389	A/R	Seal kit for Part No. 045383, contains 5 of $\varnothing 4 \times \varnothing 1.5$ & 2 of $\varnothing 2 \times \varnothing 1.5$ o-rings
NI	045384	A/R	5/3 pilot/pilot HT valve
NI	045390	A/R	Seal kit for Pat No. 045384, contains 5 of $\varnothing 4 \times \varnothing 1.5$ & 2 of $\varnothing 2 \times \varnothing 1.5$ o-rings
NI	045387	A/R	Spare pilot solenoid gasket
<i>On back of valve block</i>			
NI	006067	11	$\frac{1}{8}$ " one way breather valve
NI	032709	2	Relief valve

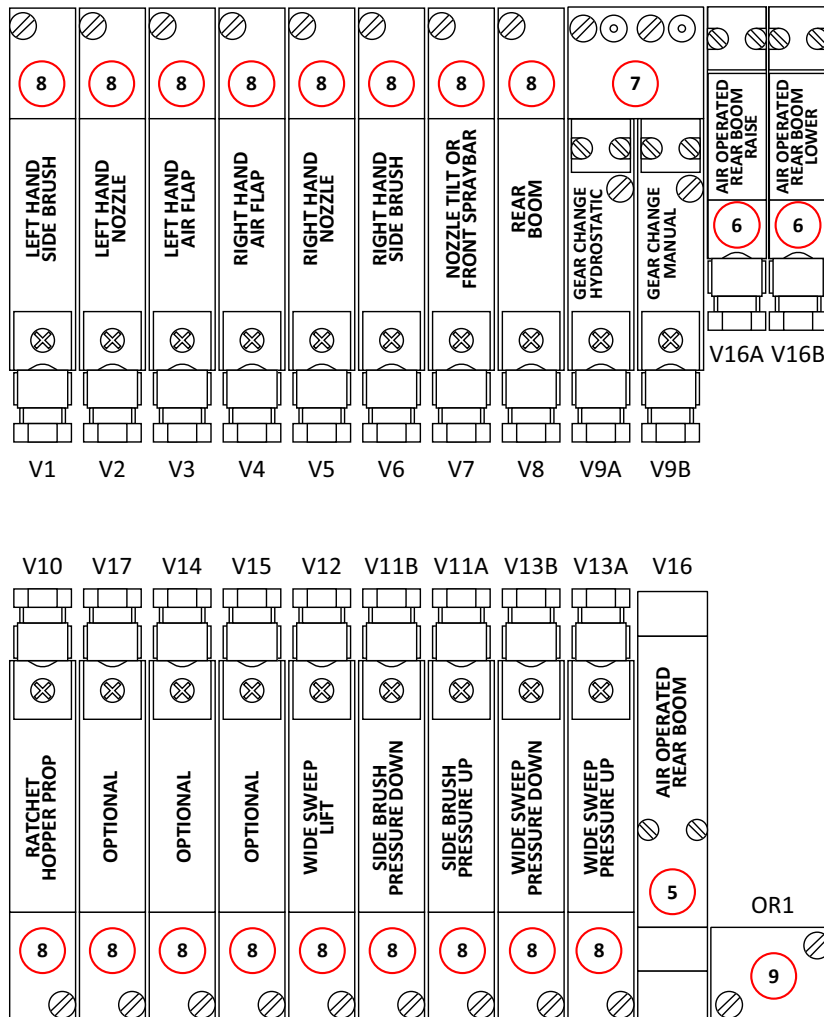
Notes:-

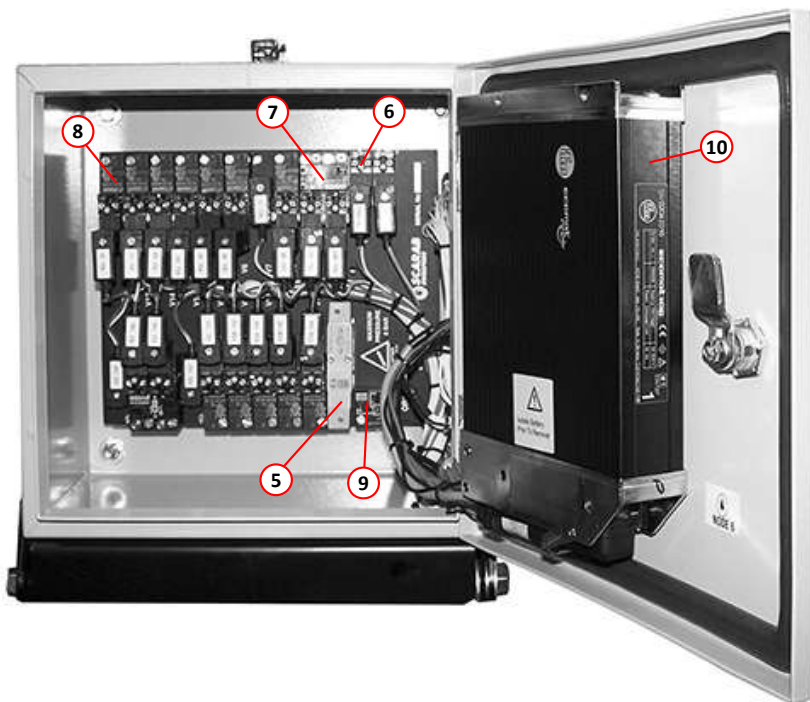
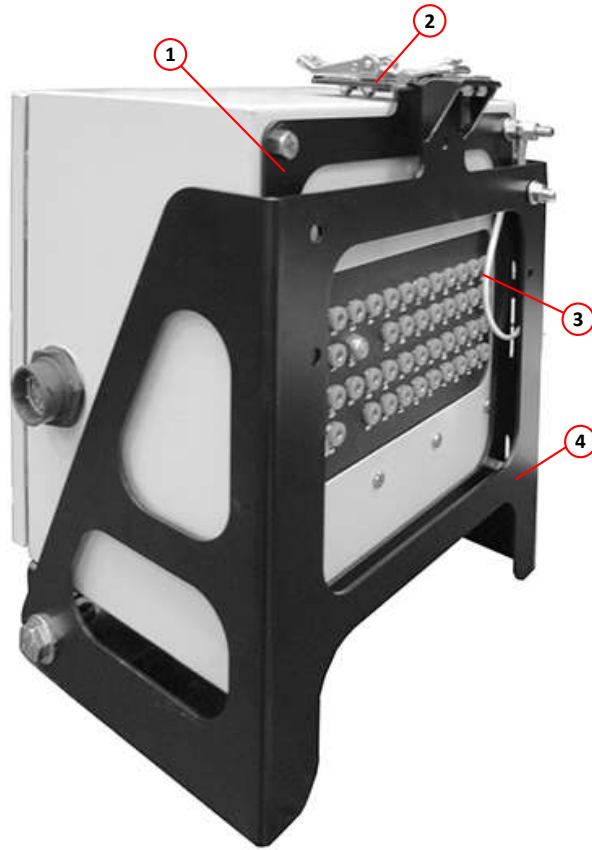
* This valve block is part of Pneumatic Control Cabinet 045292



Pneumatic Valve Control Block High Temperature (HAFNER)

Item	Part Number	Quantity	Description
Pneumatic Control Box - Hinged			
1	034113	1	. Support bracket, pneumatic control box
	011011	3	. . Set screw, M8 x 25mm
	011013	1	. . Set screw, M8 x 35mm
	011073	4	. . Nut, M8, Nyloc
2	010509	1	. . Latch
	021841	1	. . Hook, latch
	000161	6	. . . Screw, slotted countersunk, 2BA x $\frac{1}{2}$ "
	011078	6	. . . , Nut, 2BA
3	020711	1	. . . Leash
4	034114	1	. . Hinge bracket
	011052	2	. . . Set screw, M12 x 30mm
	011096	2	. . . Washer, M12
	011077	2	. . . Nut, M12, Nyloc
5	035675	AR	. Valve, 5/3 pilot/pilot, inc. solenoid, rear boom (option)
6	035685	2	. Valve, inc. solenoid
7	035674	1	. Valve, 4/2 pilot/pilot, inc. solenoid
8	035673	AR	. Valve, 4/2 pilot spring, inc. solenoid
9	032710	1	. Valve, OR-gate, wide sweep up/down pressure (option)
NI	035653	AR	. Blanking plate for valve 035673
NI	035671	1	. Blanking plate for valve 035675
NI	035672	1	. Blanking plate for valve 032710
10	036797	1	. Controller, CR0020, (Node 6) Page 316





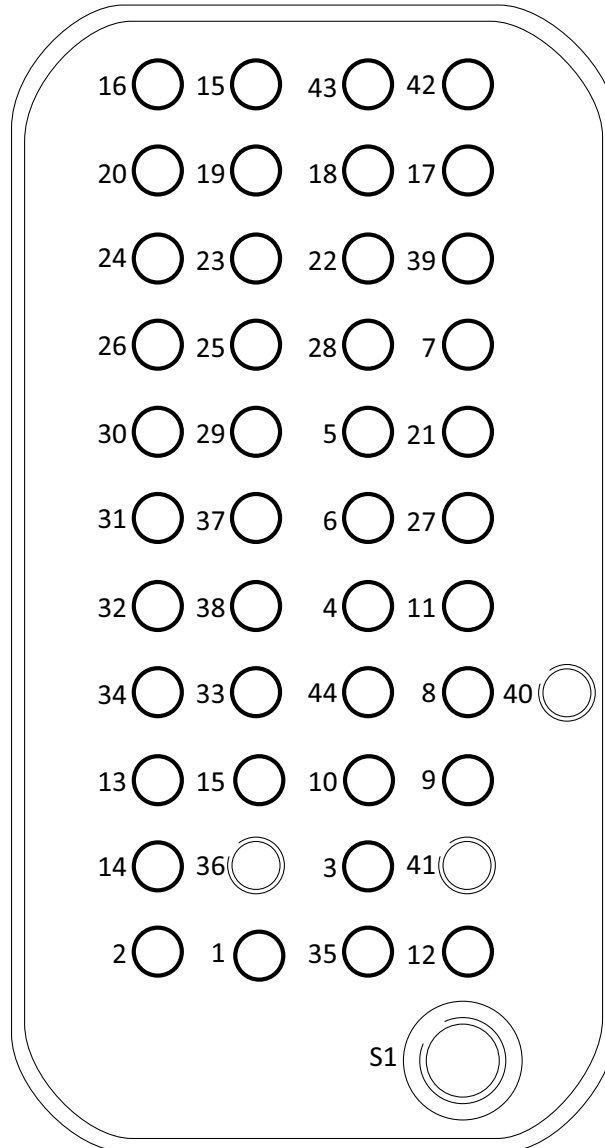
Pneumatic Control Box - Hinged

Table 1: Port Identification & Valve Reference Chart

PORT	FUNCTION	VALVE REF	DEVICE POSITION	CYLINDER POSITION
1	Main feed to P3. Wide sweep pressure UP/DOWN	V13A V13B	N/A	N/A
2	Wide sweep pressure UP	V13A	LIFT	RETRACT
2	Wide sweep LIFT	V12	LIFT	RETRACT
3	Wide sweep pressure DOWN	V13B	DOWN	EXTEND
4	Regulated feed from P3. - Wide sweep pressure UP/DOWN	V13A V13B	N/A	N/A
5	Right-hand side brush pressure DOWN	V11B	DOWN	EXTEND
6	Right-hand side brush pressure UP	V11A	UP	RETRACT
7	Main feed to P4. - Front brush pressure DOWN	V15	DROP	EXTEND
8	Rear boom LOWER	V16 V16B	LIFT	RETRACT
9	Rear boom RAISE	V16 V16A	DOWN	EXTEND
10	Reg. feed from P4. Front brush pressure DOWN	N/A	N/A	N/A
11	Reg. feed from P2. Side brush pressure UP/DOWN	V11A V11B	N/A	N/A
12	Main feed to P2. Side brush pressure UP/DOWN	V11A V11B	N/A	N/A
13	Gear change hydrostatic	V9B	HYDRO	EXTEND
14	Gear change manual	V9A	MANUAL	RETRACT
15	Ratchet Hopper Prop Down	V10	DOWN	EXTEND
16	Ratchet Hopper Prop Up	V10	UP	RETRACT
17	OPTIONAL	V14	N/A	N/A
18	OPTIONAL	V14	N/A	N/A
19	Left-hand side brush OUT	V1	OUT	RETRACT
20	Left-hand side brush IN	V1	IN	EXTEND
21	V11B Left-hand side brush pressure DOWN	V11B	DOWN	EXTEND
22	Left-hand nozzle LIFT	V2	LIFT	RETRACT
23	Left-hand air flap OPEN	V3	OPEN	EXTEND
24	Left-hand air flap CLOSED	V3	CLOSE	RETRACT
25	Right-hand air flap OPEN	V4	OPEN	EXTEND
26	Right-hand air flap CLOSED	V4	CLOSE	RETRACT
27	Left-hand side brush pressure UP	V11A	UP	RETRACT
28	Right-hand nozzle LIFT	V5	LIFT	RETRACT
29	Right-hand side brush OUT	V6	OUT	RETRACT
30	Right-hand side brush IN	V6	IN	EXTEND
31	Left-hand suction nozzle tilt or Front spray bar	V7	UP	EXTEND
32	Left-hand suction nozzle tilt or Front spray bar	V7	DOWN	RETRACT
33	Rear boom flap OPEN	V8	OPEN	RETRACT
34	Rear boom flap CLOSED	V8	CLOSE	EXTEND
35	Mains in (BLACK AIR PIPE)		N/A	N/A
36	Breather		N/A	N/A
37	Right-hand suction nozzle tilt or Front spray bar	V7	UP	EXTEND
38	Right-hand suction nozzle tilt or Front spray bar	V7	DOWN	RETRACT

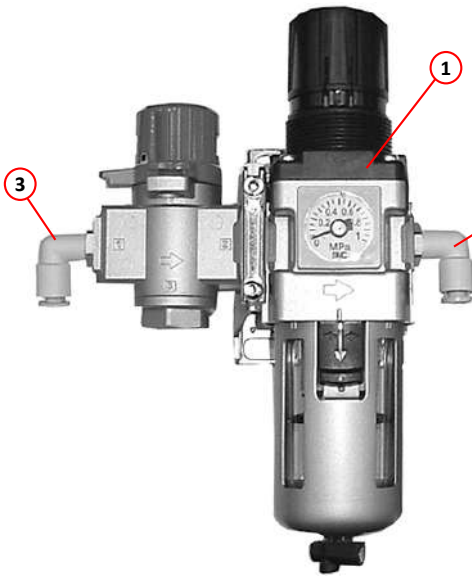
PORT	FUNCTION	VALVE REF	DEVICE POSITION	CYLINDER POSITION
39	OPTIONAL	V15	N/A	N/A
40	Left-hand side brush out, relief valve	N/A	N/A	N/A
41	Right-hand side brush out, relief valve	N/A	N/A	N/A
42	OPTIONAL	V17	N/A	N/A
43	OPTIONAL	V17	N/A	N/A
44	Reg. feed from P4. Front brush press. DOWN	N/A	DOWN	EXTEND

Bulkhead Connectors - Pneumatic Control Box

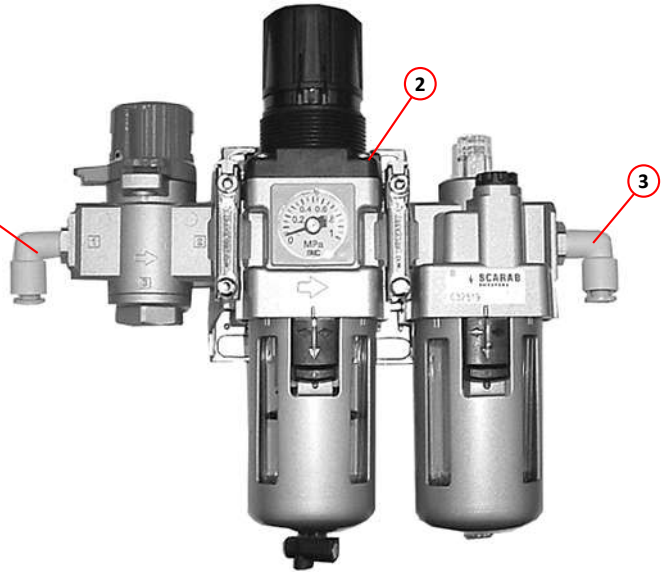


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Pneumatic Filter/Regulator/Lubricator			
1	032519	1	Pneumatic filter/regulator without lubricator, assembly
2	039753	1	Pneumatic filter/regulator with lubricator, assembly
3	024646	2	. Elbow, push-in, 6mm x $\frac{1}{4}$ " BSP
	011010	4	. Set screw, M8 x 20mm
	011092	8	. Washer, M8
	011073	4	. Nut, M8, Nyloc
NI	005046	50ml	. Lubrication fluid

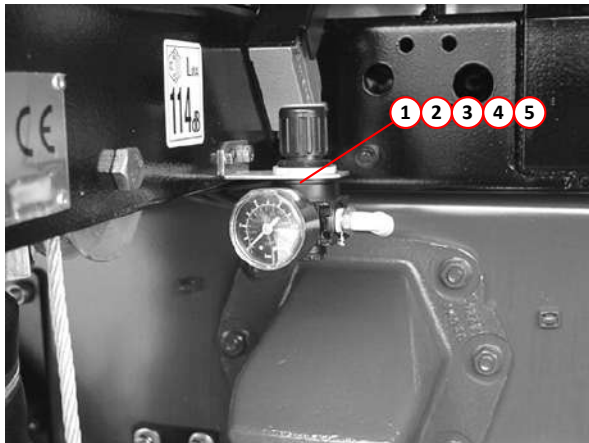
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Wide Sweep/Side Brush Pressure Regulator and Gauge - (Option)			
1	023242	1	Valve, pressure regulator - side brush
2	023246	1	. Gauge 0 - 10 bar, $\frac{1}{4}$ " BSP
3	023245	1	. Bracket
	011087	2	. . Set screw, M6 x 25mm
	011071	2	. . Nut, M6, Nyloc
4	024646	4	. Elbow, push-in, 6mm to $\frac{1}{8}$ " BSP
5	020735	1	. Connector, straight, $\frac{1}{8}$ " BSP



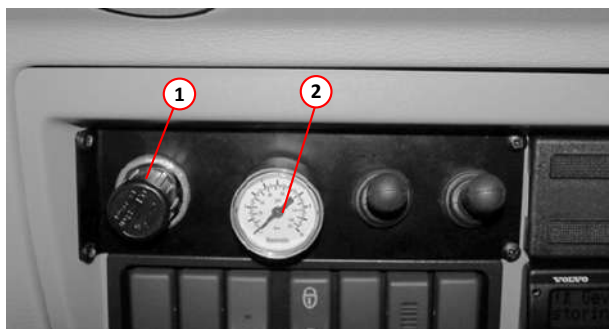
Pneumatic Filter / Regulator



Pneumatic Filter / Regulator / Lubricator



Wide Sweep Pressure Regulator Valve



Side Brush Pressure Regulator Valve

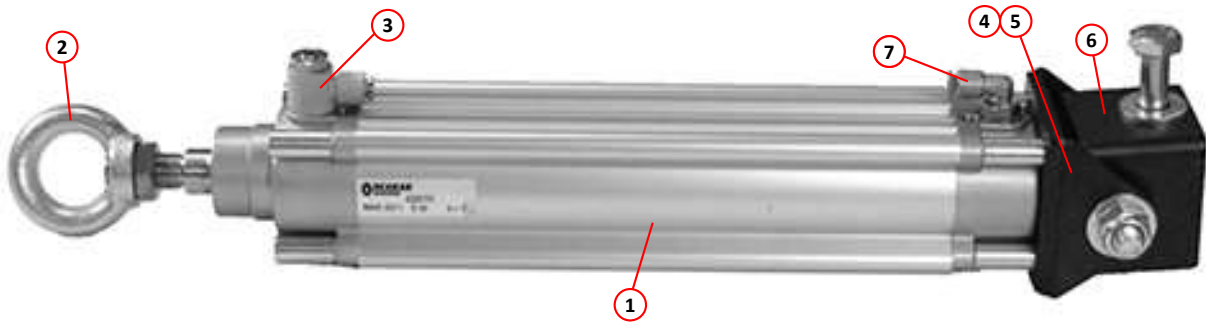
Item	Part Number	Quantity	Description
Cylinder Assembly, Side Brush - Pressure - (Option)			
Cylinder Assembly, Auxiliary Side Brush - Raise/Lower - (Option)			
1	020298	1	Pneumatic cylinder 50 x 160 Page 19, 22
NI	024990	1	. Seal kit, pneumatic cylinder
2	020299	1	. Clevis
3	022673	1	. . Retaining pin, clevis
4	022674	1	. . . Clip, clevis retaining pin
5	020534	1	. Pivot bracket
	011010	4	. . Set screws, M8 x 20mm
	011093	4	. . Washer, M8
6	023123	1	. Retaining pin
	011135	2	. Washer, M16
	011122	2	. Split pin, $\frac{3}{16}$ x $1\frac{1}{2}$ "
7	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Suction Nozzle - Raise/Lower			
1	030772	2	Pneumatic cylinder 50 x 200 Page 96
NI		1	. Seal kit, pneumatic cylinder
2	032293	1	. . Ring nut
3	021158	1	. Regulator, flow, push-in, $\frac{1}{4}$ " BSP x 6mm tube
4	030777	1	. Pivot bracket
5	000003	4	. . Screw, slotted countersunk, M8 x 20mm
6	030776	1	. Pivot block
	011057	1	. . Bolt, M12 x 100mm
	011096	2	. . Washer, M12
	011077	2	. . Nut, M12, Nyloc
7	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Suction Nozzle - Tilt			
1	023608	1	Pneumatic cylinder, 40 x 160 Page 88
2	020299	1	. Clevis
3	022673	1	. . Retaining pin, clevis
4	022674	1	. . . Clip, clevis retaining pin
5	023827	1	. Pivot bracket
	011010	4	. . Bolt, M8 x 20mm
	011093	4	. . Spring washer, M8
6	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube



**Side Brush Up / Down Pressure Cylinder
Auxiliary Side Brush Raise / Lower Cylinder**



Nozzle Lift Cylinder



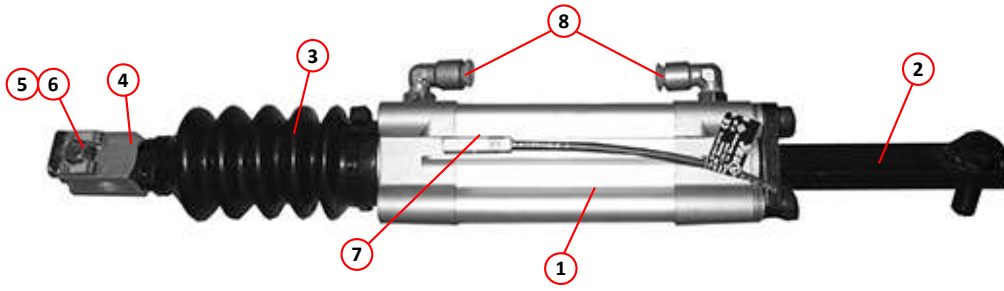
Suction Nozzle Tilt Cylinder

Item	Part Number	Quantity	Description
Cylinder Assembly, Gear Change (Hydrostatic Gearbox)			
1	020287	1	Cylinder, pneumatic, 32 x 50 Page 366
NI	024998	1	. Seal kit, pneumatic cylinder
2	020295	1	. Pivot bracket
	000038	4	. . Screw, socket cap head, M6 x 25mm
	011091	4	. . Spring washer, M6
	011090	12	. . Washer, M6
3	021511	1	. Bellows
4	020291	1	. Clevis
5	026163	1	. . Retaining pin, clevis
6	026164	1	. . . Clip, retaining pin
7	036800	2	. Sensor, magnetic, cylinder position Page 318
8	023203	2	. Elbow, push-in/ M/F, $\frac{1}{4}$ " BSP x 6mm tube

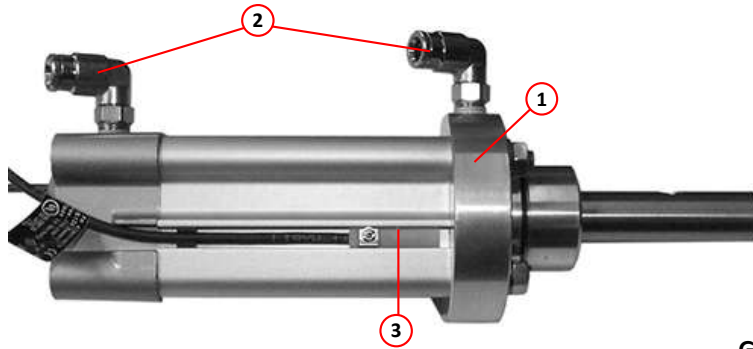
Item	Part Number	Quantity	Description
Cylinder Assembly, Gear Change (UniDrive Gearbox)			
1	026087	1	Pneumatic cylinder, 32 x 40
2	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube
3	036800	2	. Sensor, magnetic, cylinder position Page 318

Item	Part Number	Quantity	Description
Cylinder Assembly, Gear Change (HP Gearbox Left Side)			
1	035373	1	Pneumatic cylinder, 40 bore x 46 stroke Page 408
NI	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

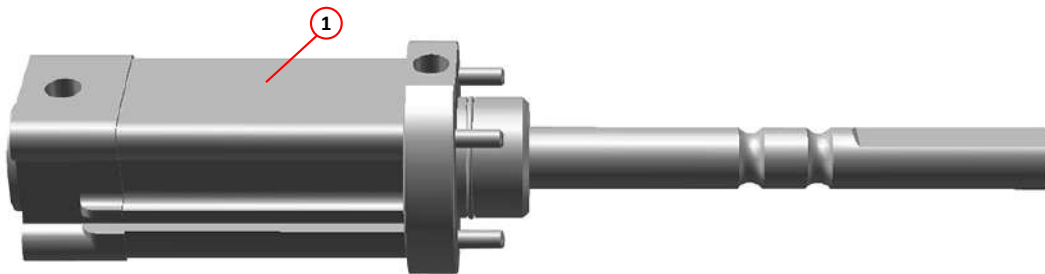
Item	Part Number	Quantity	Description
Cylinder Assembly, Gear Change (HP Gearbox Right Side)			
1	035374	1	Pneumatic cylinder, 40 bore x 52 stroke Page 408
NI	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube



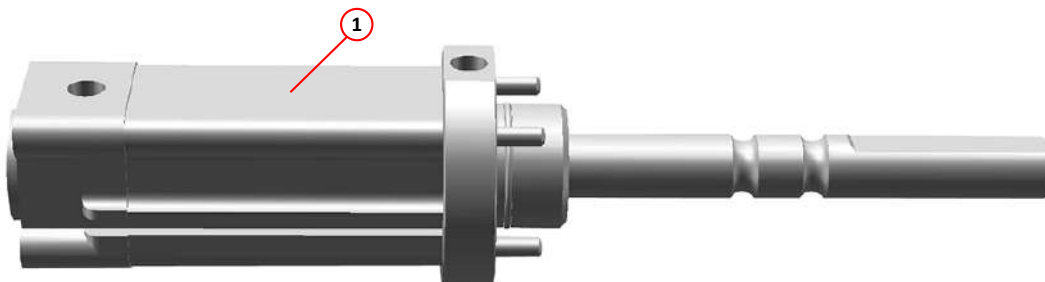
Gear Change Cylinder (Hydrostatic)



Gear Change Cylinder (UniDrive)



Gear Change Cylinder (HP Gearbox Left Side)



Gear Change Cylinder (HP Gearbox Right Side)

Item	Part Number	Quantity	Description
Cylinder Assembly, Wide Sweep - Raise/Lower			
1	020602	1	Pneumatic cylinder, 40 x 125 Page 74, 79
2	014469	1	. Clevis
3	025270	1	. . Retaining pin, clevis
4	023269	1	. . . Clip, clevis retaining pin
5	030532	1	. Pivot bracket
	011067	4	. . Set screw, M6 x 20mm
	011091	4	. . Spring washer, M6
6	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Side Brush - Swing Out			
1	020298	1	Pneumatic cylinder, 50 x 160 Page 19, 39
2	020299	1	. Clevis
3	022673	1	. . Retaining pin, clevis
4	022674	1	. . . Clip, clevis retaining pin
5	020534	1	. Pivot bracket
	011010	4	. . Set screw, M8 x 20mm
	011093	4	. . Spring washer, M8
6	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Auto Blanking			
1	021467	1	Pneumatic cylinder, 40 x 200 Page 140
2	014469	1	. Clevis
3	023270	1	. . Retaining pin, clevis
4	023269	1	. . . Clip, clevis retaining pin
5	014457	1	. Pivot bracket
	011087	4	. . Set screw, M6 x 25mm
	011090	12	. . Washer, M6
	011091	4	. . Spring washer, M6
6	021158	1	. Flow regulator
7	023203	1	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

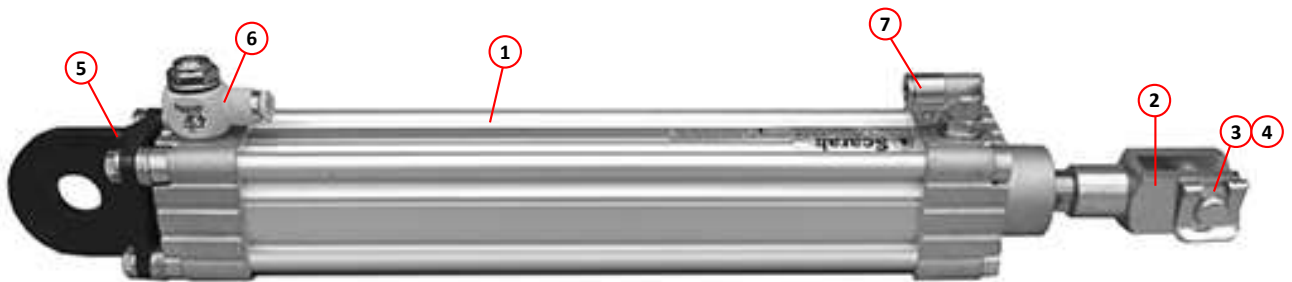
Item	Part Number	Quantity	Description
Cylinder Assembly, Magnum Plus Rear Door Auto Blanking			
1	020602	1	Pneumatic cylinder, 40 x 125 Page 144
2	014469	1	. Clevis
3	023270	1	. . Retaining pin, clevis
4	023269	1	. . . Clip, clevis retaining pin
5	014457	1	. Pivot bracket
	011067	4	. . Set screw, M6 x 20mm
	011091	4	. . Spring washer, M6
6	021158	1	. Flow regulator
7	023203	1	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube



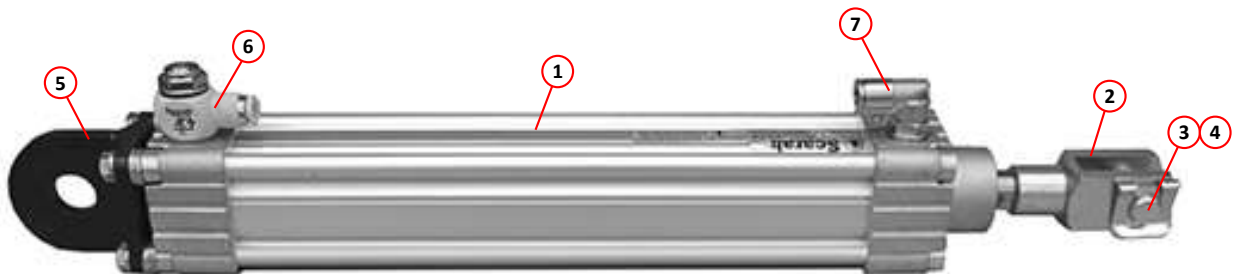
Wide Sweep Raise / Lower Cylinder



Side Brush Swing In / Out Cylinder



Auto Blanking Cylinder



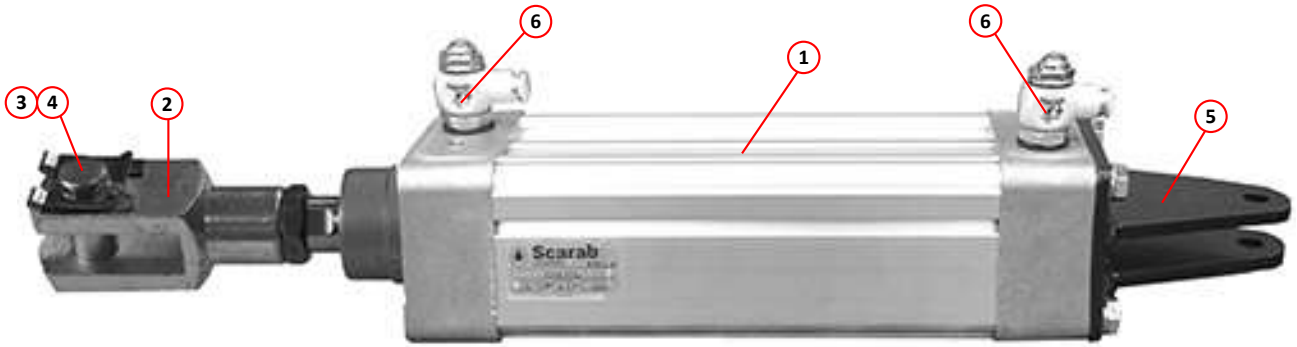
Rear Door Auto Blanking Cylinder

Item	Part Number	Quantity	Description
Cylinder Assembly, Rear Wander Boom - Raise/Lower			
1	028306	1	Pneumatic cylinder, 63 x 160 Page 100
2	020299	1	. Clevis
3	022673	1	. . Retaining pin, clevis
4	022674	1	. . . Clip, clevis retaining pin
5	028305	1	. Pivot bracket
	000257	4	. . Set screw, M8 x 25mm
	000265	4	. . Spring washer, M6
6	021158	2	. Flow regulator

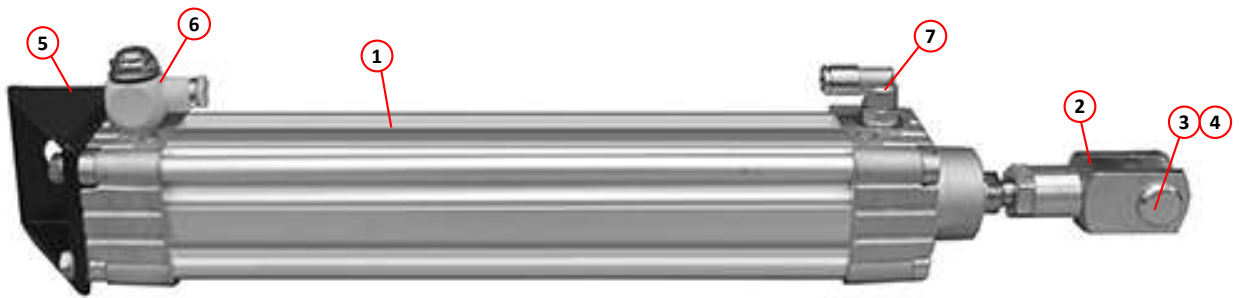
Item	Part Number	Quantity	Description
Cylinder Assembly, Rear Wander Boom - Blanking			
1	021467	1	Pneumatic cylinder, 40 x 200 Page 100
2	014469	1	. Clevis
3	023270	1	. . Retaining pin, clevis
4	023269	1	. . . Clip, clevis retaining pin
5	030532	1	. Pivot bracket
	011067	4	. . Set screw, M6 x 20mm
	011091	4	. . Spring washer, M6
6	021158	1	. Flow regulator
7	023203	1	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Automatic Hopper Prop - (Option)			
1	030156	1	Pneumatic cylinder, 40 x 250 Page 124
2	014469	1	. Clevis
3	023270	1	. . Retaining pin, clevis
4	023269	1	. . . Clip, clevis retaining pin
5	030100	1	. Pivot bracket
	011067	4	. . Set screw, M6 x 20mm
	011091	4	. . Spring washer, M6
NI	022673	1	. . Pin, turned, clevis retaining
NI	022674	1	. . . Safety clip
6	021158	2	. Flow regulator

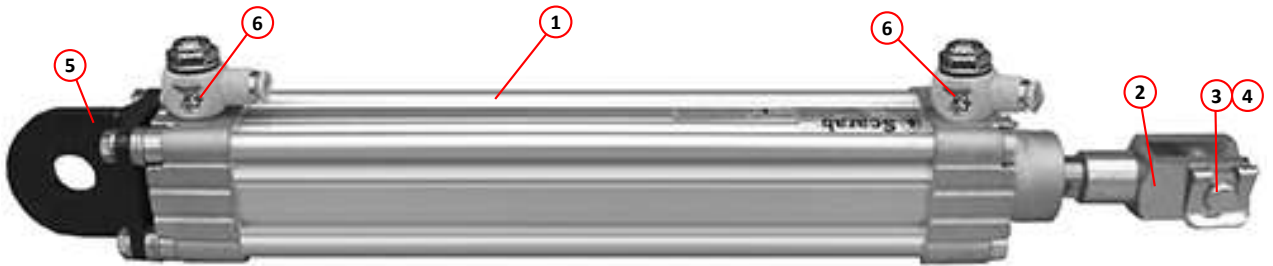
Item	Part Number	Quantity	Description
Cylinder Assembly, Auxiliary Side Brush - Extend/Retract			
1	026396	1	Pneumatic Cylinder, 63 x 320 Page 66
2	030859	1	. Pivot bracket
	011010	4	. . Set screw, M8 x 20mm
	011093	4	. . Spring washer, M8
3	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube



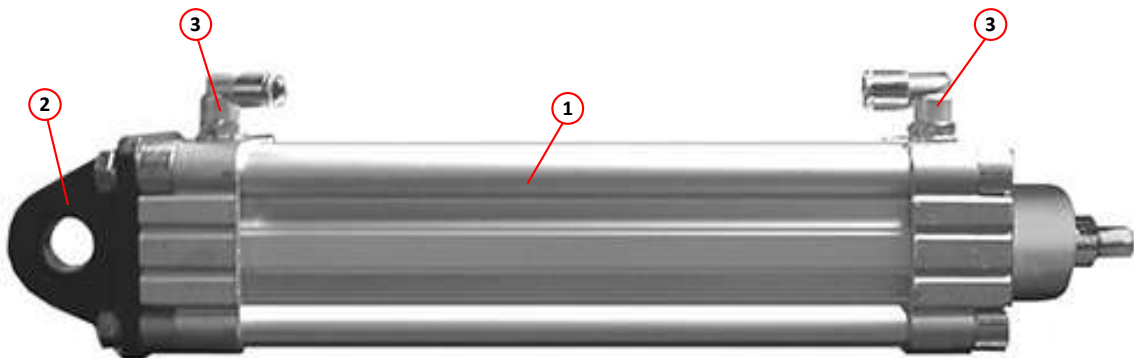
Rear Wander Boom Raise / Lower Cylinder



Rear Wander Boom Blanking Cylinder



Auto Hopper Prop Cylinder



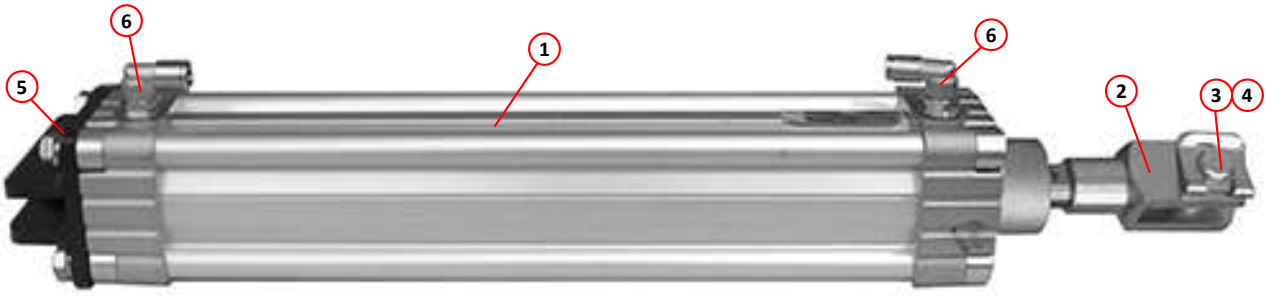
Auxiliary Side Brush Extend / Retract Cylinder

Item	Part Number	Quantity	Description
Cylinder Assembly, Auxiliary Side Brush - Swing In/Out			
1	021521	1	Pneumatic cylinder, 50 x 250 Page 66
2	020299	1	. Clevis
3	022673	1	. . Retaining pin, clevis
4	022674	1	. . . Clip, clevis retaining pin
5	030860	1	. Pivot bracket
	000257	4	. . Set screw, M8 x 25mm
	000265	4	. . Spring washer, M8
6	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Front Spray Bar - Raise/Lower			
1	020602	1	Pneumatic cylinder, 40 x 125
2	014469	1	. Clevis
3	023270	1	. . Retaining pin, clevis
4	023269	1	. . . Clip, clevis retaining pin
5	020731	1	. Pivot bracket
	011067	4	. . Screw, socket cap head, M6 x 20mm
	011091	4	. . Spring washer, M6
6	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

Item	Part Number	Quantity	Description
Cylinder Assembly, Ratchet Hopper Prop			
1	040456	1	Pneumatic cylinder, 32 x 50 spring return Page 124
2	020291	1	. Clevis
3	026163	1	. . Retaining pin, clevis
4	026164	1	. . . Clip, clevis retaining pin
5	039892	1	. Pivot bracket
	011067	4	. . Set screw, M6 x 20mm
	011091	4	. . Spring washer, M6
6	023203	2	. Elbow, push-in, M/F, $\frac{1}{4}$ " BSP x 6mm tube

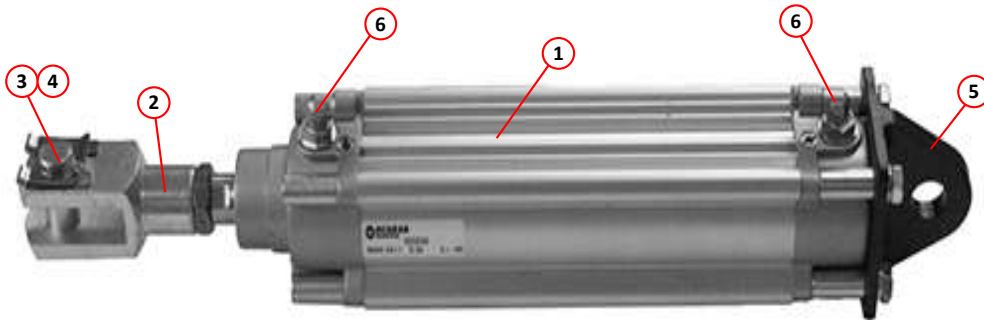
Item	Part Number	Quantity	Description
Overhead Boom Air-Pressure Switch			
1	028117	1	Switch, air-pressure, 5 bar, N/O



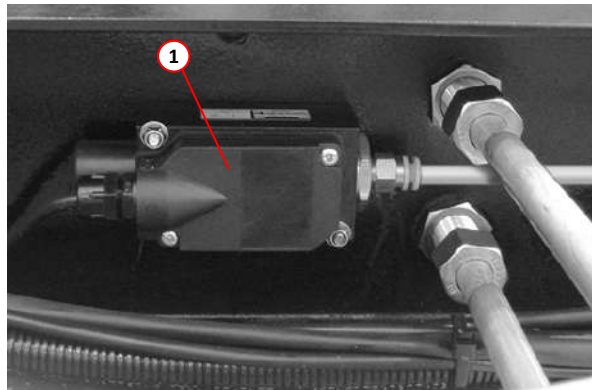
Auxiliary Side Brush In / Out Cylinder



Front Spray Bar Raise / Lower Cylinder



Ratchet Hopper Prop Cylinder



Overhead Boom Air Pressure Switch

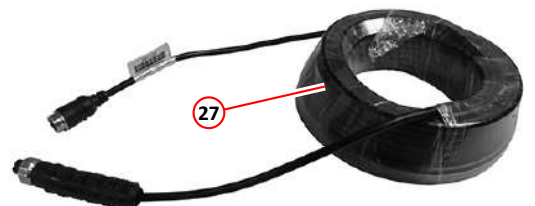
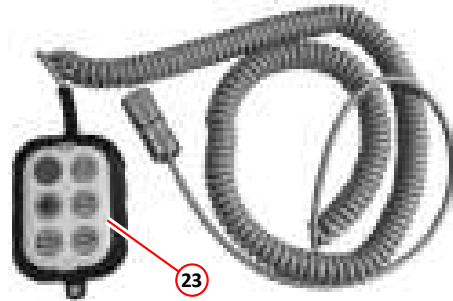
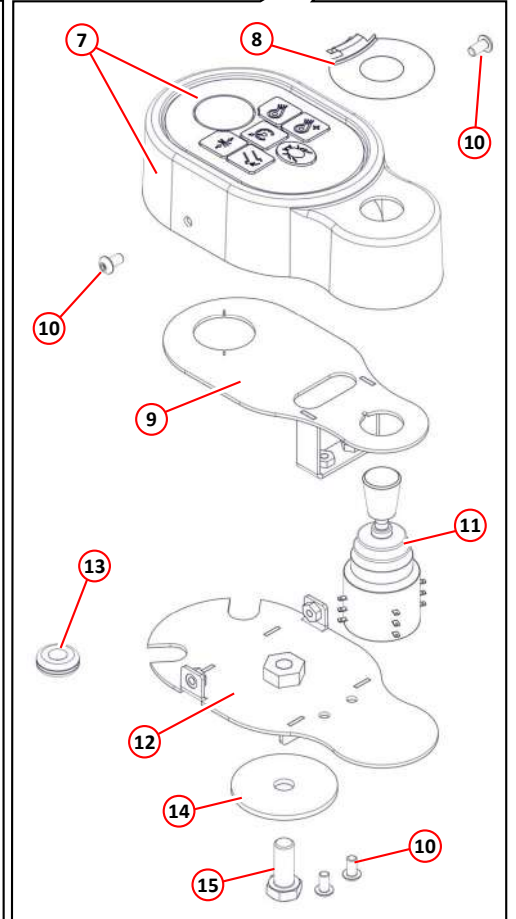
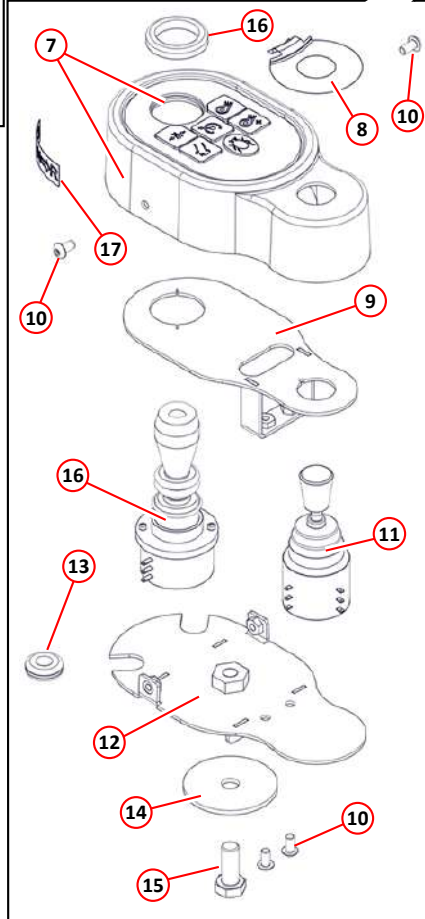
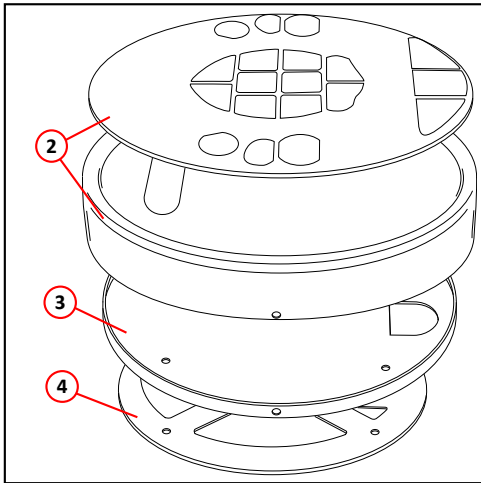
Electrical

<i>Assembly/Description</i>	<i>Page</i>
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Oil Cooler/Hydraulics Gantry - Electrical Items	316
List of Blade Type Fuses	316
Wiring Looms	316
Wiring Looms	318
Electrical Switches and Sensors	318
List of Mini Fuses	318
Additional Electrical Components	318

Item	Part Number	Quantity	Description
Electrical Components - Cab			
1		1	Keypad, main control panel (two speed brushes) Page 418
NI		1	Keypad, main control panel (variable brush speed) Page 420
2	038102 *	1	. Keypad and enclosure assembly (two speed brushes)
NI	037602 *	1	. Keypad and enclosure assembly (variable speed brushes)
3	037053	1	. Enclosure, back
4	037055	1	. . Fixing plate, main control panel
	000304	8	. . . Screw, socket button head, M4 x 10mm
	000134	8	. . . Nut, M4, Nyloc
5	036804	1	Auxiliary controller, left hand, complete, (Hydrostatic) Page 418
5	036805	1	Auxiliary controller, right hand, complete, (Hydrostatic) Page 418
5	037604	1	Auxiliary controller, left hand, complete, (Hydrostatic) (new fan symbol) Page 420
5	037605	1	Auxiliary controller, right hand, complete, (Hydrostatic) (new fan symbol) Page 420
6	036806	1	Auxiliary controller, left hand, complete, (UniDrive) Page 418
6	036807	1	Auxiliary controller, right hand, complete, (UniDrive) Page 418
6	037606	1	Auxiliary controller, left hand, complete, (UniDrive) (new fan symbol) Page 420
6	037607	1	Auxiliary controller, right hand, complete, (UniDrive) (new fan symbol) Page 420
7	038103*	1	Keypad and enclosure assembly
7	037608*	1	Keypad and enclosure assembly, (new fan symbols)
8	039545	1	Sticker, ergo joystick
9	037057	1	Support plate
10	000380	4	Socket dome screw M5 x 10, black
11	036873	1	Ergo joystick
12	037058	1	Back plate
13	046259	1	Blind grommet
14	037064	1	Lock washer
15	011031	1	Set screw M10 x 25
16	036874	1	Drive/neutral/reverse joystick
17	039546	1	Sticker, drive/neutral/reverse
18	042348	1	Display screen, CAN bus v3.0 ((programmed)
19	042360	1	Display screen, CAN bus v3.1 (programmed)
20	042340	1	Controller, CR0505
21	036799 †	3	Node, cabinet module (CR2012)
12	038985 †	3	Node, E9G212, cabinet module (CR2012)
22	014718	2	Relay, 24 V
23	044294	1	Hopper controller, complete includes holster
24	‡	1	Hopper controller (complete)
25	039060	2	LED current source
26	040353	1	Power supply, rear camera
27	040355	1	Cable, rear camera

Notes:-

- * These items are factory bonded as a single unit and must be purchased as such.
- † Contact Scarab Parts Department regarding these nodes.
- ‡ As of March 2016 if you have this controller then please order item 23instead.



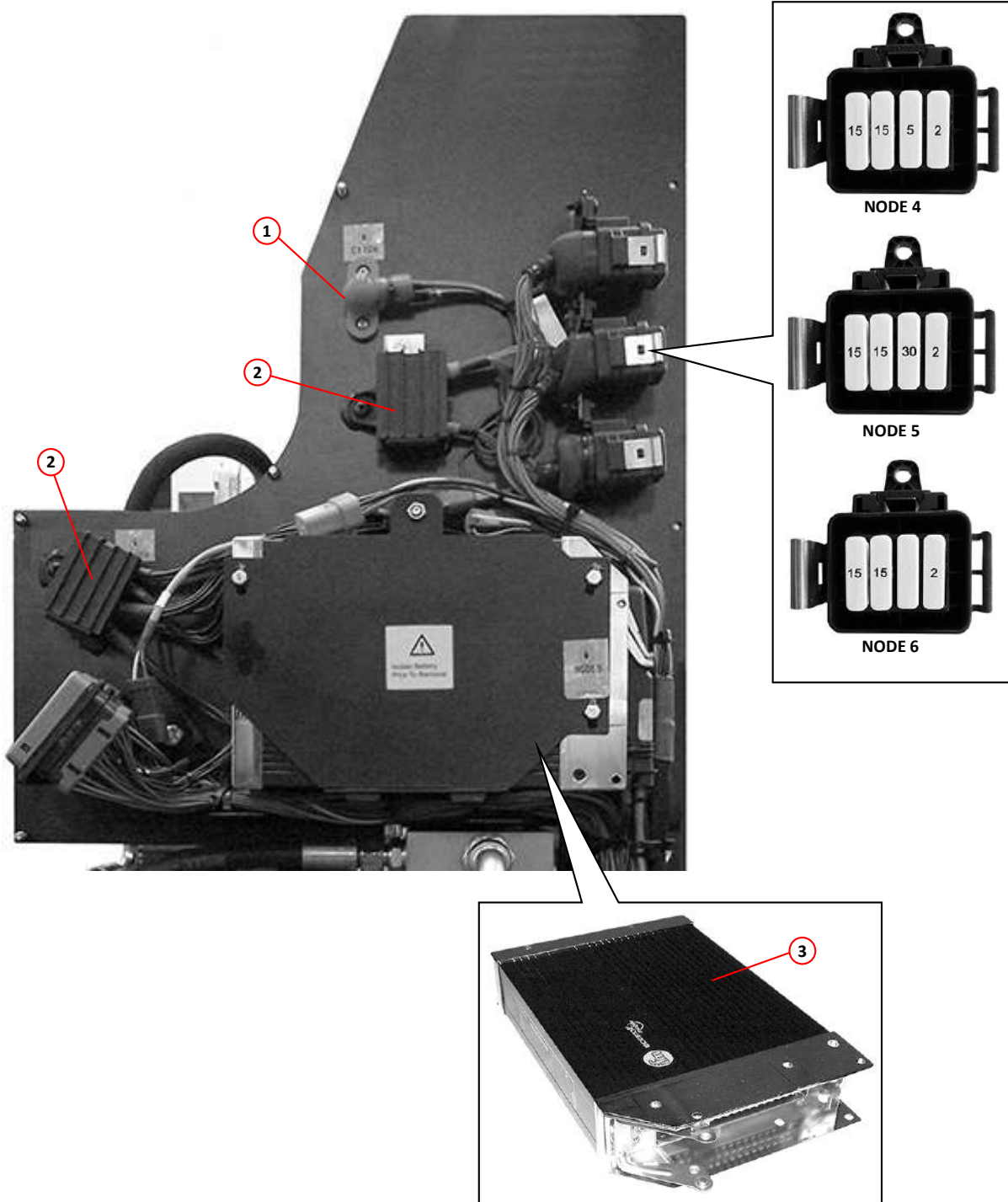
Electrical Components - Cab

Item	Part Number	Quantity	Description
Oil Cooler/Hydraulics Gantry - Electrical Items			
1	036843	1	Electrical power post, M6, Red
	100103	2	. Screw, pan Pozidriv, M5 x 12mm
2	036844	2	Electrical power connection link, Black
	100103	4	. Screw, pan Pozidriv, M5 x 12mm
3	042336	2	Controller, CR0020 Page 122

Item	Part Number	Quantity	Description
List of Blade Type Fuses - (Not Illustrated)			
	014286		5 Amp
	014287		7.5 Amp
	014288		10 Amp
	014289		15 Amp
	014290		20 Amp
	014291		25 Amp
	014292		30 Amp

Item	Part Number	Quantity	Description
Wiring Looms * - (Not Illustrated)			
	036842	1	Loom, hydraulic oil level Page 224,226
	036800	1	Loom and sensor, gear change cylinder
	036916	1	Loom, display screen, CAN bus 3 Page 418
	040349	1	Loom, display screen, CAN bus 3.1 Page 420
	036666	1	Loom, Node 3, cab Page 418,420
	036912	1	Loom, keypad, main control panel Page 418,420
	036914	1	Loom, keypad, main control panel, power/CAN bus Page 418,420
	036913	1	Loom, keypad, auxiliary control panel Page 418,420
	036915	1	Loom, keypad, auxiliary control panel, power/CAN bus Page 418,420
	037047	1	Loom, hopper controller (in cab)
	037069	1	Loom, hopper remote controller lead with connector
	036920	1	Loom, hopper auto prop (option) Page 126
	037331	1	Loom, brush pressure (option)
	036910	1	Loom, rear lights Page 120
	036907	1	Loom, clutch switch Page 418,420
	036909	1	Loom, load indicator (option)
	036917	1	Loom, variable tilt (option)
	036919	1	Loom, rear boom (option)
	032532	1	Loom, teal hand wash (option)
	036611	1	Loom, Node 4
	036612	1	Loom, Node 5
	036613	1	Loom, Node 6A
	036614	1	Loom, Node 6B
	038016	1	Loom, 3rd fan speed
	038017	1	Loom, 3rd fan speed switch
	036908	1	Loom, Rear boom switch
	036911	1	Loom, Hopper
	036873	1	Loom, Ergo joystick
	040353	1	Loom, power supply, rear camera
	040355	1	Loom, rear camera
	026332	1	Loom, tacho Page 418

Notes:-
 * If the loom you require is not in the above list, please contact your nearest Scarab Distributor or the Scarab Parts Department, quoting machine model and serial number.



Oil Cooler / Hydraulics Gantry - Electrical Items

<i>Part Number</i>	<i>Description</i>
	Wiring Looms * - (Not Illustrated) - (Continued)
036874	Loom, Forward/Reverse joystick
038123	Loom, Keypad extension
038163	Loom, Door pod, Dual steer (option)
038164	Loom, Twin core, Tyco positive
038165	Loom, Twin core, Tyco earth
038226	Loom, J1939 (Iveco)
038227	Loom, Expansion module (Iveco)

<i>Part Number</i>	<i>Description</i>
	Electrical Switches and Sensors - (Not Illustrated)
036800	Sensor, magnetic, cylinder position Page 366,408,414,304
036871	Float switch, water tank Page 176
036872	Pressure switch, hydro braking Page 244
024039	Switch & level gauge, hydraulic oil tank Page 224
037248	Toggle switch, on/off/on (option) Page 422
037249	Toggle switch, on/off (option) Page 422
032627	Sensor, hopper 'RAISED' Page 124
025184	Sensor, suction fan speed Page 148
046738	Gearbox speed sensor, 19mm, DTCO compliant Page 376,387,399
046739	Gearbox speed sensor, 34mm, DTCO compliant Page 360,362,414
030158	Switch, proximity (option) Page 126
023515	Switch, hydraulic oil temperature Page 228
022224	Sensor, clutch Page 422
022225	Magnet, clutch sensor Page 422

<i>Part Number</i>	<i>Description</i>
	List of Mini Fuses - (Not Illustrated)
004495	2 Amp
004392	7. 5 Amp
004393	10 Amp
004394	15 Amp
004395	20 Amp
004397	30 Amp

<i>Part Number</i>	<i>Description</i>
	Additional Electrical Components - (Not Illustrated)
037084	Work light, 24V/70W Page 94
047757	LED Work Light Page 94,100
014064	Beacon, 24V, (Standard) Page 132
030773	Rear marker lamp, hopper, (LED) Page 132
037048	Sounder Page 422
039660	M12 Plug to M12 Socket Jumper lead 1m
040354	Rear camera Page 150
041534	Camera splitter Page 420
040597	USB memory stick, 2GB

Notes:-
 * If the loom you require is not listed, please contact your nearest Scarab Distributor or the Scarab Parts Department, quoting machine model and serial number.

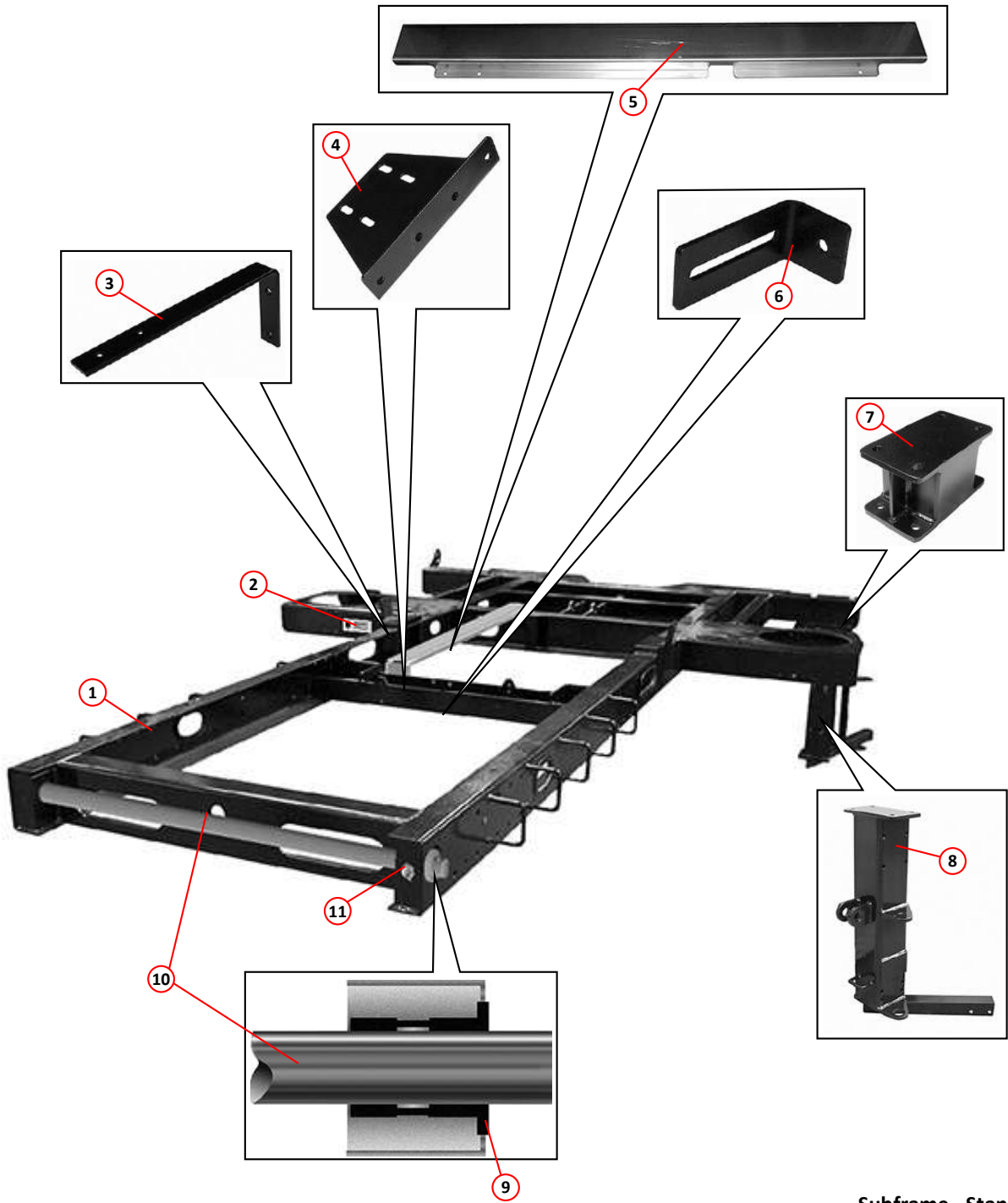
Subframe, Hopper and Related Equipment

<i>Assembly/Description</i>	<i>Page</i>
Subframe Standard Parts	320
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Oil Cooler and Hydraulics Gantry	324
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Additional Hopper/Rear Door Components	352
Rear Door - Spare Wheel Carrier - Magnum	354
Rear Door - Spare Wheel Carrier - Merlin	354
Chassis Mounted - Spare Wheel Carrier	356

Item	Part Number	Quantity	Description
Subframe Standard Parts			
1	024978	1	Subframe (Merlin)
NI	024246	1	Subframe (Magnum)
NI	032224	1	Subframe (Merlin XP)
2	021716	1	. Serial number & CE mark plate
3	032979	1	. Support, pipe, front (Merlin XP)
NI	026239	1	. Support, pipe, front
	011087	2	. . Set screw, M6 x 25mm
	011090	2	. . Washer, M6
	011071	2	. . Nut, M6, Nyloc
4	028010	1	. Support, pipe cover
	011067	2	. . Set screw, M6 x 20mm
	011099	2	. . Washer, repair, $\varnothing 1 \frac{1}{4}$ ID
	011071	2	. . Nut, M6, Nyloc
5	028127	1	. Pipe cover (Merlin)
NI	028009	1	. Pipe cover (Magnum)
NI	040681	1	. Pipe cover (Magnum with ratchet hopper prop)
6	030487	1	. Support, pipe, rear
	011067	1	. . Set screw, M6 x 20mm
	011071	1	. . Washer, M6
	011071	1	. . Nut, M6, Nyloc
7	031381 *	AR	. Stub, subframe leg, 100mm long (Merlin)
NI	031355 *	AR	. Stub, subframe leg, 120mm long (Merlin)
NI	030316 *	AR	. Stub, subframe leg, 180mm long (Merlin)
NI	031693 *	AR	. Stub, subframe leg, 220mm long (Merlin)
Ni	031415 *	AR	. Stub, subframe leg, 95mm long
NI	031416 *	AR	. Stub, subframe leg, 165mm long
	011052	4	. . Set screw, M12 x 30mm (Per stub)
	011077	4	. . Nut, M12, Nyloc, (Per stub)
8	027133 *	1	. Subframe leg, RH, (A) (Merlin)
NI	027132 *	1	. Subframe leg, LH, (B) (Merlin)
NI	027134 *	1	. Subframe leg, LH, (C) (Merlin)
NI	027134 *	1	. Subframe leg, RH, (D) (Merlin)
	000047	4	. . Bolt, M12 x 140mm (Per leg)
	011077	4	. . Nut, M12, Nyloc (Per leg)
NI	024247 *	1	. Subframe leg, LH, (J) (Magnum)
NI	024248 *	1	. Subframe leg, RH, (K) (Magnum)
NI	027753 *	1	. Subframe leg, LH, Hi-lift, (P) (Magnum)
NI	027754 *	1	. Subframe leg, RH, Hi-lift, (Q) (Magnum)
NI	030152 *	1	. Subframe leg, LH, (R) (Magnum)
NI	030153 *	1	. Subframe leg, RH, (S) (Magnum)
NI	030924 *	1	. Subframe leg, LH, (T) (Magnum)
NI	030925 *	1	. Subframe leg, RH, (U) (Magnum)
NI	030154 *	1	. Subframe leg, LH (Magnum) (8000/8500 only)
NI	030155 *	1	. Subframe leg, RH (Magnum) (8000/8500 only)
	011052	4	. . Set screw, M12 x 30mm (Magnum)
	011077	4	. . Nut, M12, Nyloc (Magnum)
9	020336	2	. Bush, hopper hinge pin
10	013065	1	. . Hopper hinge pin
	000096	2	. . . Screw, socket cap head, M8 x 40mm
	011073	2	. . . Nut, M8, Nyloc
11	010901	2	. Grease point, $\frac{1}{8}$ BSP x 90°

Notes:-

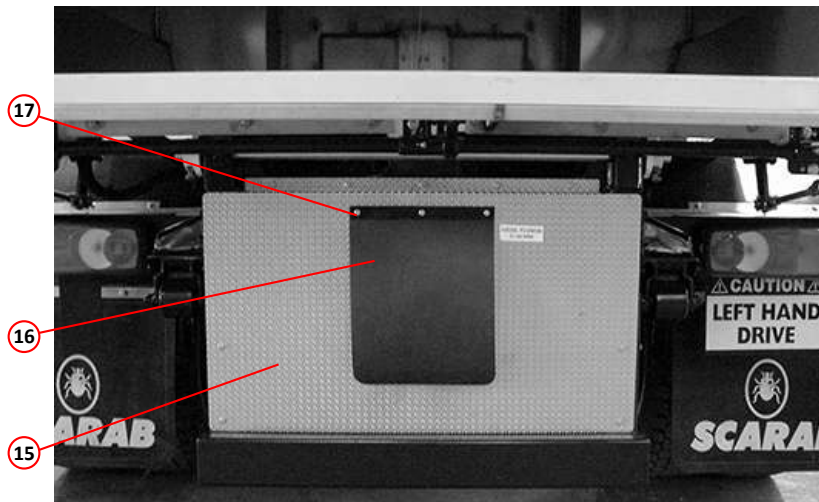
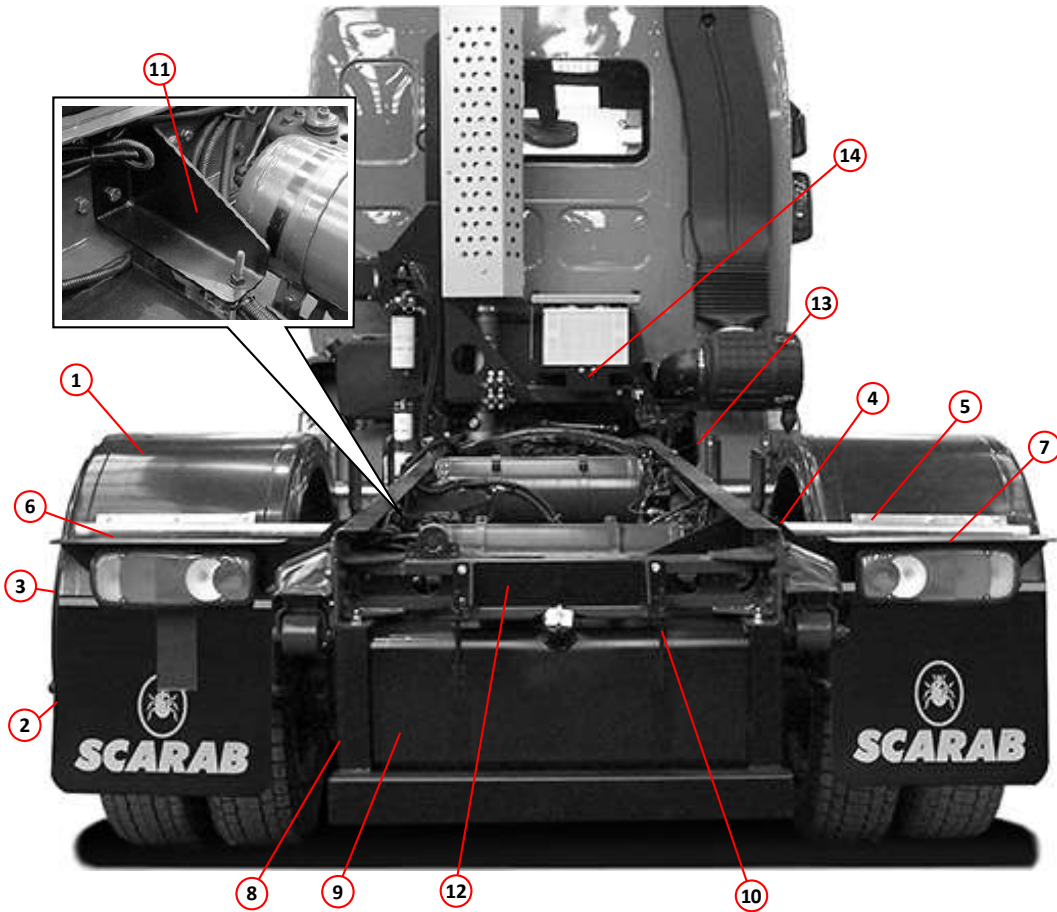
* The type of the subframe/stub and leg are dependent on many factors. Please contact the Scarab Parts Department quoting your machine serial number before ordering any parts.



Subframe - Standard Parts

Item	Part Number	Quantity	Description
Subframe - Additional Standard Scarab Parts - Fitted to Chassis			
1	*	1	Mudguard (Per side)
2	024992	1	. Mud flap (Per side)
NI	030140	1	. Mud flap, wide (Per side)
3	024993	1	. . Clamp, mud flap (Per flap)
NI	030187	1	. . Clamp, mud flap, wide (Per flap)
	011011	5	. . . Set screw, M8 x 25mm (Per clamp)
	011073	5	. . . Nut, M8, Nyloc (Per clamp)
4	013403	2	. Bracket, mudguard, straight (Per mudguard)
NI	020836	2	. Bracket, mudguard, cranked (Per mudguard)
	011032	3	. . Set screw, M10 x 30mm (Per bracket)
	011075	3	. . Nut, M10, Nyloc (Per bracket)
5	013404	2	. . Stay, mudguard (Per mudguard)
NI	012954	2	. . Stay backing plate (Per mudguard)
	011010	6	. . . Set screw, M8 x 20mm (Per stay)
	011073	6	. . . Nut, M8, Nyloc (Per stay)
6	*	1	. Bracket, rear lights LH
7	*	1	. Bracket, rear lights RH
	011083	2	. . Set screw, M12 x 1.25 pitch x 35mm
	011086	2	. . Nut, M12 x 1.25 pitch (Per bracket)
NI	036910	1	Loom, rear lights Page 316
8	*	1	Bracket, rear under-run
9	*	1	Fuel tank
10	*	2	. Strap, fuel tank
	011075	4	. . Nut, M10, Nyloc
11	*	1	. Bracket, front, fuel tank, LH
NI	*	1	. Bracket, front, fuel tank, RH
12	*	1	. Bracket, rear, fuel tank
13	*	AR	Bracket, connecting, chassis/subframe
14	*	1	Support frame, Battery
15	*	1	Rear cover, fuel tank
16	026709	1	Cover, Rubber, fuel filler, narrow
17	014741	1	. Clamp plate, fuel filler cover, narrow
	011087	3	. . Set screw, M6 x 25mm
	011071	3	. . Nut, M6, Nyloc
NI	032484	1	Cover, Rubber, fuel filler, wide
NI	032483	1	. Clamp plate, fuel filler cover, wide
	011087	3	. . Set screw, M6 x 25mm
	011071	3	. . Nut, M6, Nyloc
NI	*	1	. Fuel tank sender
NI	*	1	. . Gasket, fuel tank sender
NI	*	1	. Fuel filler cap

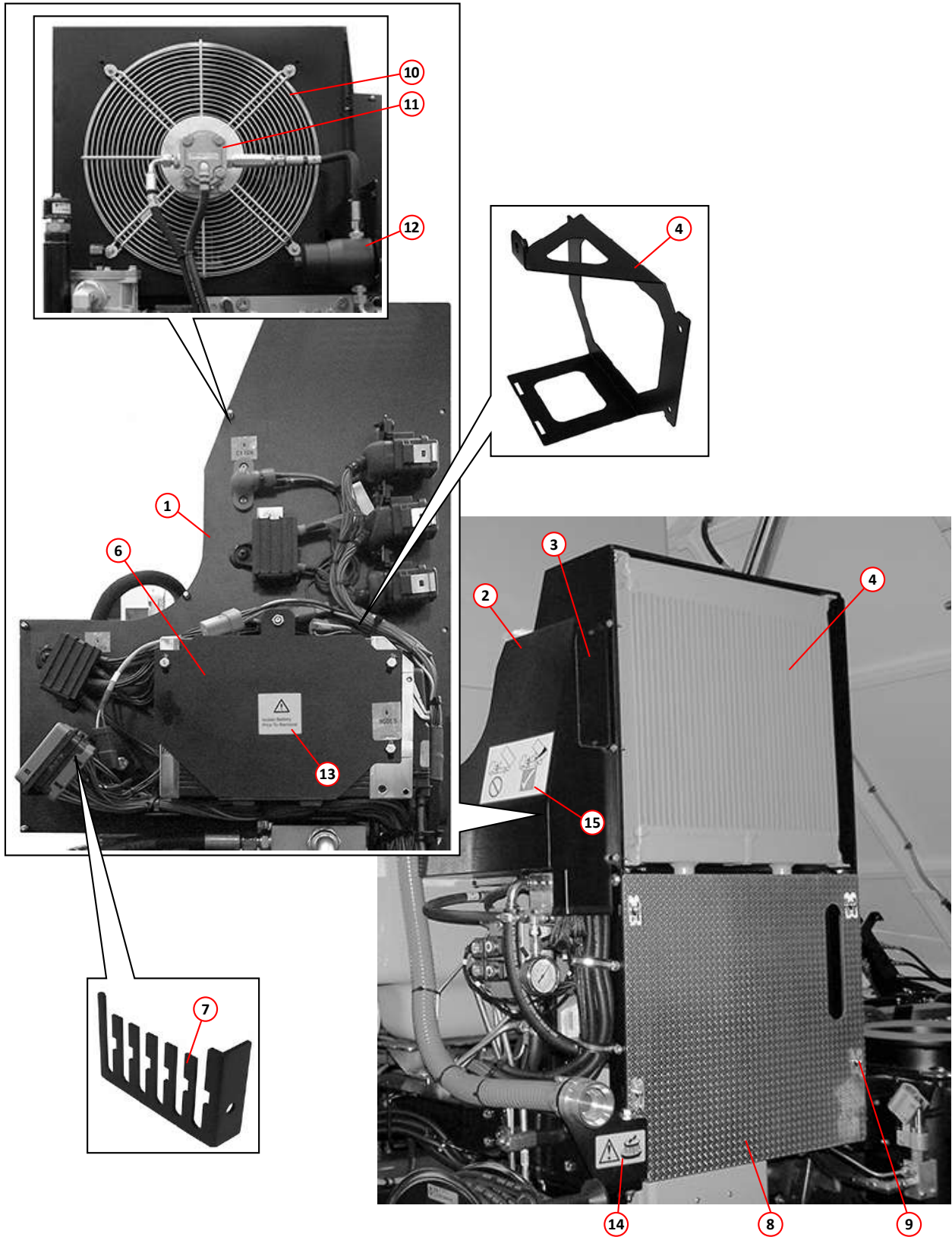
Notes:-
 * These items are chassis specific. When ordering, contact Scarab Parts Department, quoting machine serial number and chassis type.



i The photographs shown above are of a DAF chassis, other chassis configurations may differ.

Additional Standard Scarab Parts Fitted to Chassis

Item	Part Number	Quantity	Description
Oil Cooler and Hydraulics Gantry			
1	037086	1	Oil cooler frame Page 220
	011407	2	. . Bolt, M10 x 120mm
	011031	2	. . Set screw, M10 x 25mm
	011075	4	. . Nut, M10, Nyloc
NI	024838	1	. . Oil cooler leg
	011407	2	. . Bolt, M10 x 120mm
	011031	1	. . Set screw, M10 x 25mm
	011075	3	. . Nut, M10, Nyloc
2	037096	1	. . Node cover
	000402	7	. . Screw, Pozidrive, M5 x 20mm
	000155	7	. . Nut, M5, Nyloc
3	037097	1	. . Fuse cover
4	031732	1	. . Oil cooler Page 222
5	037203	1	. . Bracket, node carrier
	000155	3	. . Nut, M5, Nyloc
6	037204	1	. . Cover, node carrier
	000097	4	. . Set screw, M5 x 12mm
	011067	1	. . Set screw, M6 x 20mm
	011071	1	. . Nut, M6, Nyloc
7	037198	1	. . Bracket, splice saver
	011010	1	. . Set screw, M8 x 20mm
8	025383	1	. . Cover, hydraulic tank & valves
9	012253	4	. . Antiluce, Small
10	020883	1	. . Bracket, fan mounting
	000020	4	. . Set screw, M6 x 30mm
	011071	4	. . Nut, M6, Nyloc
	011099	4	. . Washer, repair, M6
	023504	4	. . Anti-vibration ring
	023505	4	. . Anti-vibration bush
11	028752	1	. . Motor, hydraulic, cooler fan Page 222
NI		1	. . Fan, oil cooler
12	025103	1	. . Filter, hydraulic, high pressure Page 264
NI	036797	2	. . Controller CR0020 Page 316
13	036170	1	. . Disconnect battery, caution label Page 426
14	022383	1	. . Brush rotating, warning label Page 426
15	022384	1	. . Hopper prop deployment, warning label Page 426

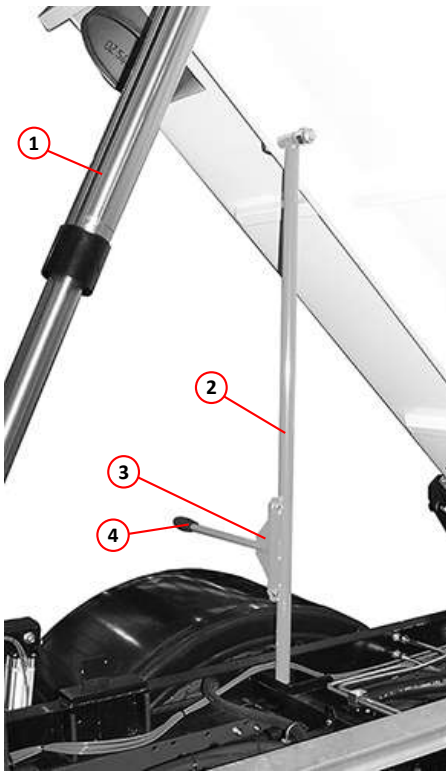


Oil Cooler and Hydraulics Gantry

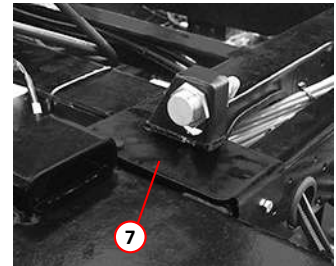
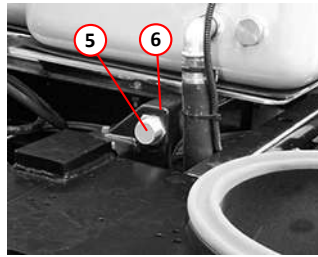
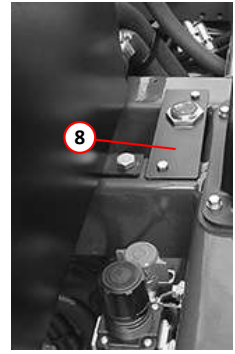
Item	Part Number	Quantity	Description
Manual Hopper Safety Prop			
1	024249	1	Hopper lift ram, dual stage Page 274
NI	039677	1	Hopper Prop, (Merlin)
2	039676	1	Hopper Prop, (Magnum)
	011083	1	. Bolt, 1 „ UNF x 6
	011062	1	. . Nut, 1 UNF, Nyloc
3	039675	1	. Hopper prop handle
	011032	2	. . Set screw, M10 x 30mm
	011075	2	. . . Nut, M10, Nyloc
4	039680	1	. . Hopper prop handle grip

Item	Part Number	Quantity	Description
Hopper Raised Sensor			
5	032627	1	. Sensor, 'HOPPER-RAISED' Page 318
6	039659	1	. . Bracket, hopper raised sensor (Merlin/Merlin XP)
7	039673	1	. . Bracket, hopper raised sensor (Magnum/Magnum+)
8	032908	1	. . Bracket, hopper raised sensor (vertical) (Merlin)
NI	032909	1	. . Bracket, hopper raised sensor (vertical) (Magnum)
	011067	2	. . . Set screw, M6 x 20mm
	011091	2	. . . . Washer, spring, M6
	011071	2	. . . . . Nut, M6, Nyloc

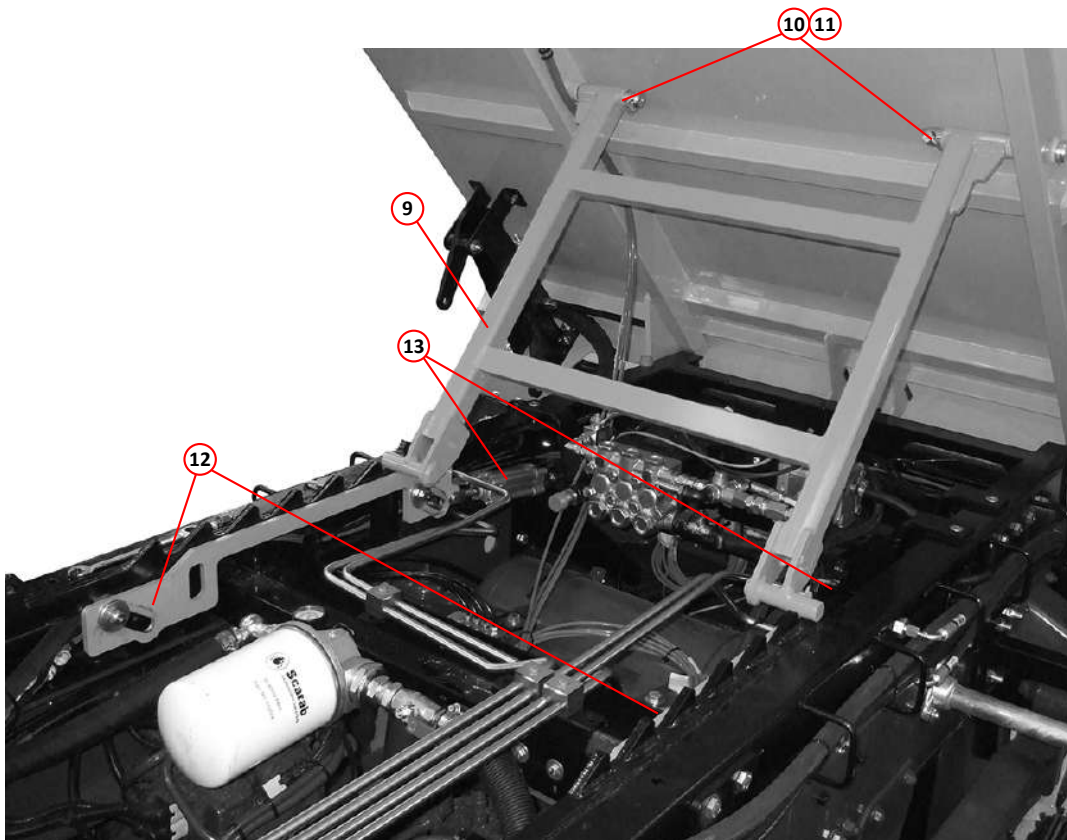
Item	Part Number	Quantity	Description
Ratchet Hopper Prop			
9	039901	1	Hopper Prop
10	040134	2	. Prop hinge pin
11	013053	2	. . Linch pin
12	039899	2	Lifting plate
	011094	4	. Washer, M10 special
	011075	2	. . Nut, M10, Nyloc
13	040456	2	Cylinder, pneumatic, 32 x 50 spring return Page 310
	011407	2	. Bolt, M10 x 120mm
	011094	2	. . Washer, M10
	011075	2	. . . Nut, M10, Nyloc



Manual Hopper Prop

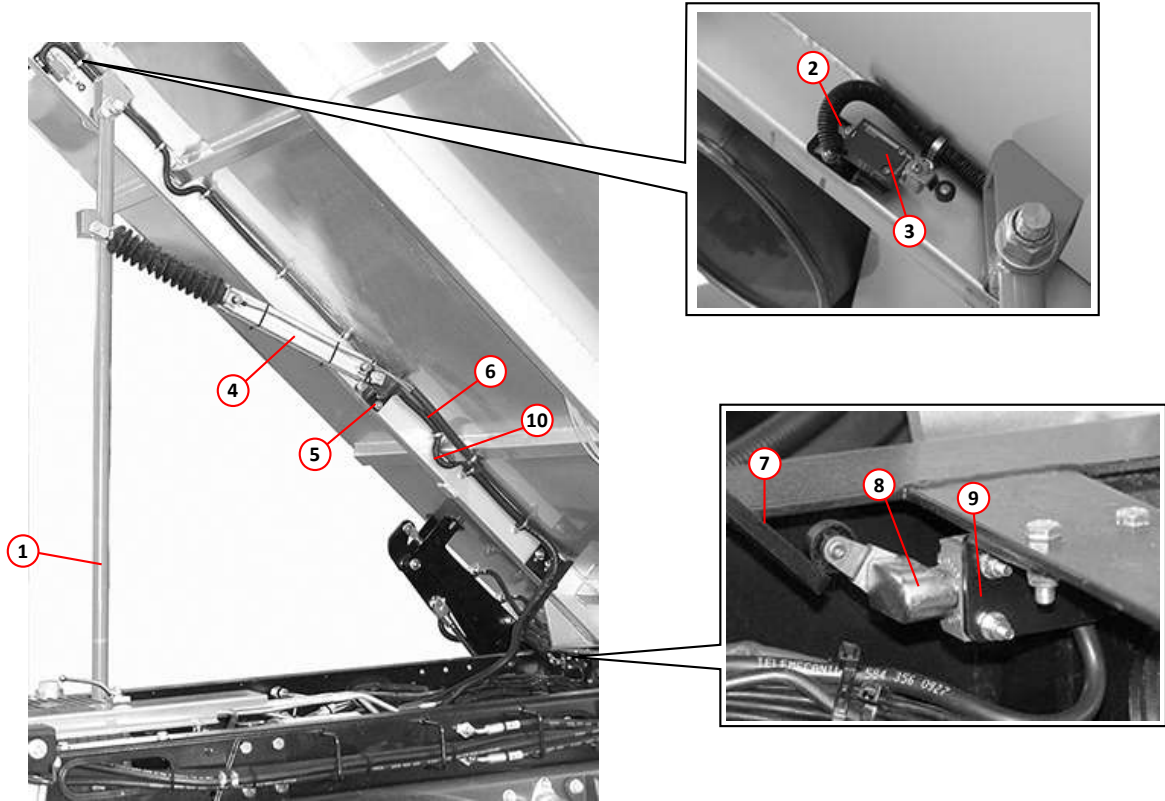


Hopper Raised Sensor



Ratchet Hopper Prop

Item	Part Number	Quantity	Description
Automatic Hopper Safety Prop Assembly - (Option)			
1	030380	1	Hopper Prop (MERLIN)
1	030099	1	Hopper Prop (MAGNUM)
	000316	1	. Bolt, 1" UNF x 7
	011062	1	. Nut, 1" UNF, Nyloc
2	030379	1	. Mounting bracket, proximity switch (MERLIN)
NI	030226	1	. Mounting, bracket, proximity switch (MAGNUM)
	000191	2	. . Screw, socket cap head, M4 x 25mm
	000134	2	. . Nut, M4, Nyloc
3	030158	1	. . Switch, proximity, upper
4	030156	1	. Cylinder, pneumatic, 40 x 250 Page 306
5	030377	1	. . Ram mounting bracket, catch pocket (MERLIN)
NI	030101	1	. . Ram mounting bracket, catch pocket (MAGNUM)
	011415	2	. . . Bolt, M8 x 80mm
	011073	2	. . . Nut, M8, Nyloc
6	024650	AR	. . Air pipe
7	030378	1	. Proximity actuator bracket (MERLIN)
NI	030174	1	. Proximity actuator bracket (MAGNUM)
	000221	2	. . Bolt, M6 x 80mm
	011071	2	. . Nut, M6, Nyloc
8	030158	1	. Switch, proximity, lower Page 318
9	030159	1	. . Mounting bracket, proximity switch
	011067	2	. . . Set screw, M6 x 20mm
	011071	2	. . . Nut, M6, Nyloc
	000191	2	. . . Screw, socket cap head, M4 x 25mm
	000134	2	. . . Nut, M4, Nyloc
10	036920	1	. Loom, hopper, auto prop Page 316

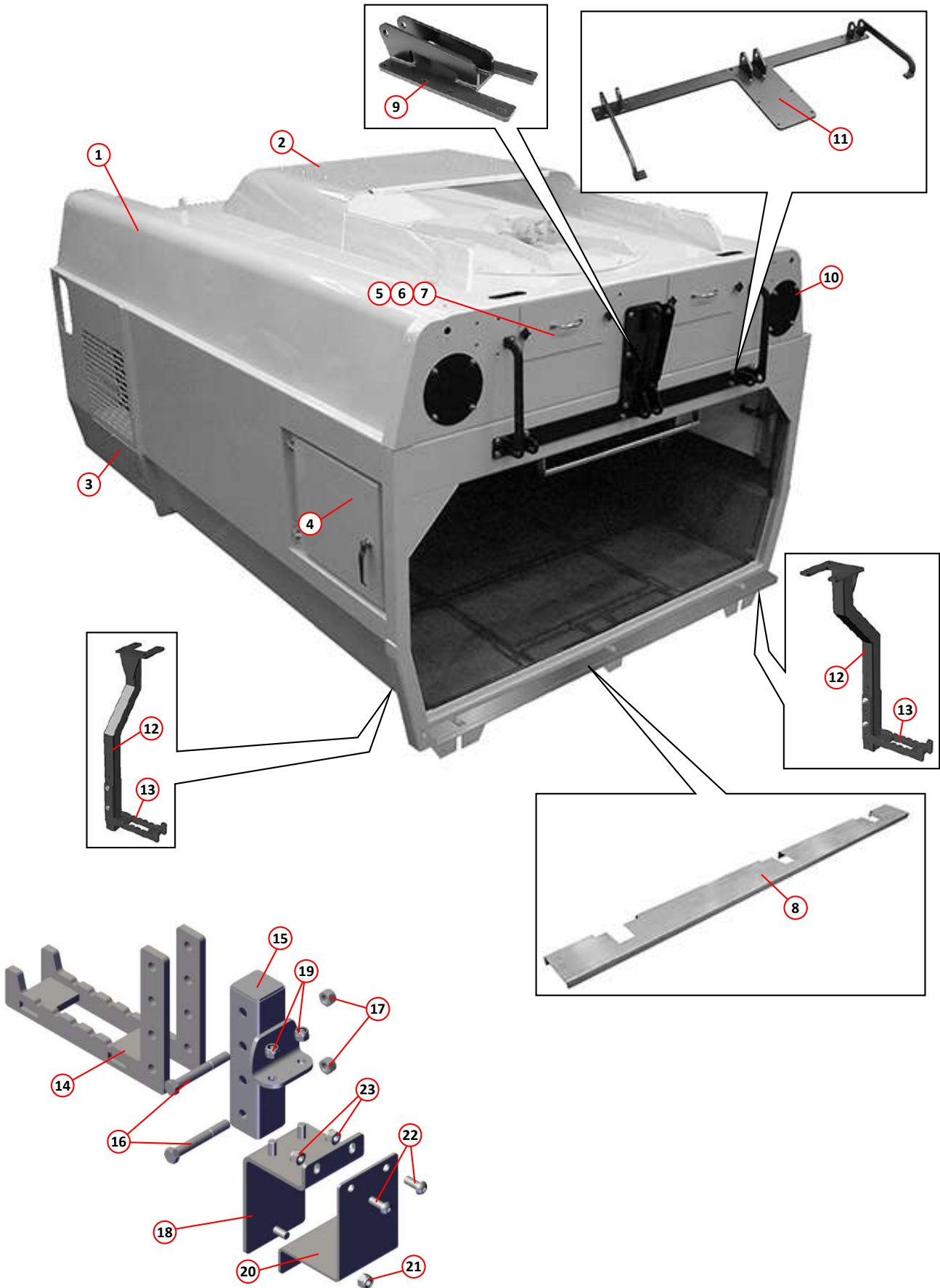


Automatic Hopper Prop Assembly

Item	Part Number	Quantity	Description
Hopper External Fittings			
1		1	Hopper
2	035797	1	. Cover, hopper
	000254	13	. . Washer, M6, stainless steel
	000250	13	. . . Set screw, M6 x 16, stainless steel
3	027755	1	. Access cover, valve block
	013645	AR	. . Seal strip
	011087	6	. . Set screw, M6 x 25mm
	011091	6	. . Washer, spring, M6
4	036363	2	. Door, side-loading hatch Page 332
5	030728	2	. Cover plate, fan housing
	010546	AR	. . Seal strip
6	000248	4	. . Plastic Knob
7	010502	2	. . Handle
8	030210	1	. Chute, discharge. (Merlin)
NI	028937	1	. Chute, discharge, (Magnum/8000/8500)
	000256	8	. . Set screw, M8 x 20, stainless steel
	000263	8	. . Nut, M8 Nyloc, stainless steel
	000270	16	. . Washer, M8, stainless steel
9	024346	1	. Mounting, adjustable, rear door ram Page 346
NI	025660	1	. Mounting, adjustable, rear door ram, (8000/8500) Page 346
	011032	10	. . Set screw, M10 x 30
	011033	2	. . Set screw, M10 x 35
	011074	12	. . Washer, M10
	011075	6	. . Nut, M10, Nyloc
10	025486	2	. Cover, wander boom aperture (1 only if rear boom fitted)
	011073	4	. . Nut, M8, Nyloc
	011092	4	. . Washer, M8
11	024345	1	. Plate, hinge, rear door Page 346
NI	025661	1	. Plate, hinge, rear door, (8000/8500) Page 346
	011034	6	. . Set screw, M10 x 40
	011075	6	. . Nut, M10, Nyloc
	011074	6	. . Washer, M10
	011014	2	. . Set screw, M8 x 40
	011073	2	. . Nut, M8, Nyloc
	011092	4	. . Washer, M8
Side Loading Hatch Access Steps *			
Hopper Mounted			
12		1	. Rear step mount
13	041290	1	. . Rear access step
	000139	2	. . . Bolt, M12 x 90
	011077	2	. . . Nut, M12, Nyloc
Rear Under Run/Rear Bumper Mounted (DAF 55 SHOWN)			
14	040153	1	Rear access step
15	041290	1	Mounting bracket rear access step
16	000139	2	Bolt, M12 x 90
17	011077	2	Nut, M12, Nyloc
18	042507	1	Clamp bracket
19	011075	2	Nut, M10, Nyloc
20	042508	1	Clamp plate
21	011075	1	Nut, M10, Nyloc
22	000344	2	Socket button head, M25 x 10, stainless steel
23	011075	2	Nut, M10, Nyloc

Notes:-

* Please contact Scarab Parts Department regarding these steps due to the variety of mounting options on differing chassis.

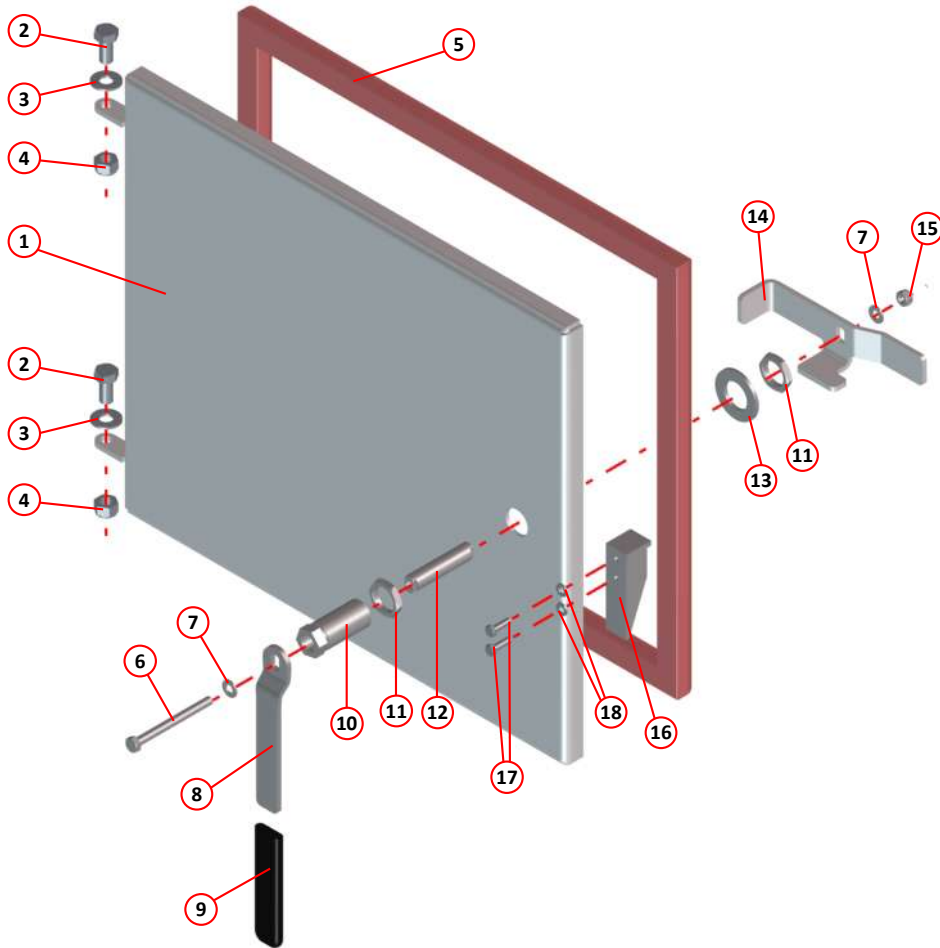


i Many variations of hopper exist therefore it is advisable to contact Scarab Parts Department, quoting the machines serial number when ordering associated replacement parts.

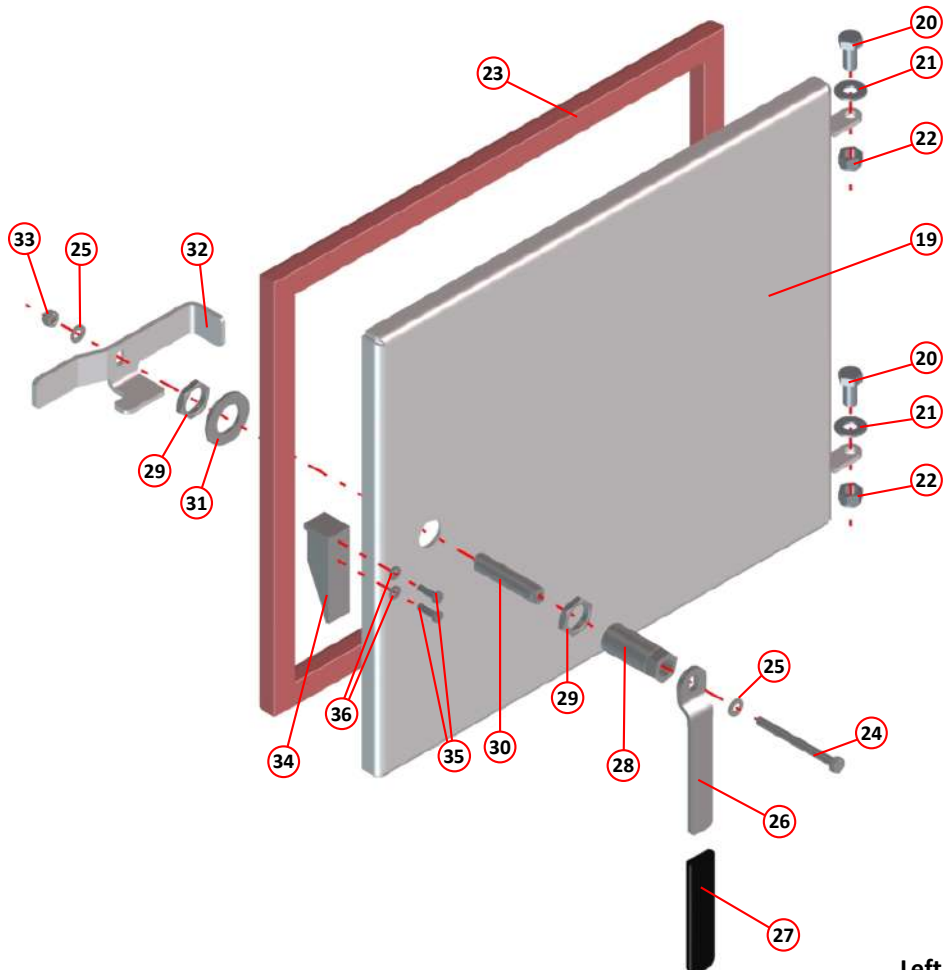
Hopper External Fittings

Item	Part Number	Quantity	Description
Hopper Left Side Loading Hatch			
1	036363	1	Side access door Page 330
2	000273	2	Set screw, M12 x 25mm, stainless steel
3	000277	2	Washer, M12, stainless steel
4	000275	2	Nut, M12, Nyloc, stainless steel
5	013599	1	Seal, side door
6	011019	1	Bolt, M8 x 90mm, stainless steel
7	011092	2	Washer, M8
8	027933	1	Handle
9	040032	1	Door handle sleeve
10	027935	1	Bearing, door catch
11	027937	2	Back nut, ³ / ₄ " BSP
12	027934	1	Spindle, door catch
13	000121	1	Washer, M27
14	040033	2	Door catch left hand
15	011073	1	Nut, M8, Nyloc
16	027932	1	Striker (located inside of hopper)
17	000252	2	Set screw, M6 x 20mm, stainless steel
18	000254	2	Washer, M6, stainless steel

Hopper Right Side Loading Hatch			
19	036363	1	Side access door Page 330
20	000273	2	Set screw, M12 x 25mm, stainless steel
21	000277	2	Washer, M12, stainless steel
22	000275	2	Nut, M12, Nyloc, stainless steel
23	013599	1	Seal, side door
24	011019	1	Bolt, M8 x 90mm, stainless steel
25	011092	2	Washer, M8
26	027933	1	Handle
27	040032	1	Door handle sleeve
28	027935	1	Bearing, door catch
29	027937	2	Back nut, ³ / ₄ " BSP
30	027934	1	Spindle, door catch
31	000121	1	Washer, M27
32	040034	2	Door catch right hand
33	011073	1	Nut, M8, Nyloc
34	027932	1	Striker (located inside of hopper)
35	000252	2	Set screw, M6 x 20mm, stainless steel
36	000254	2	Washer, M6, stainless steel



Left Side Loading Hatch



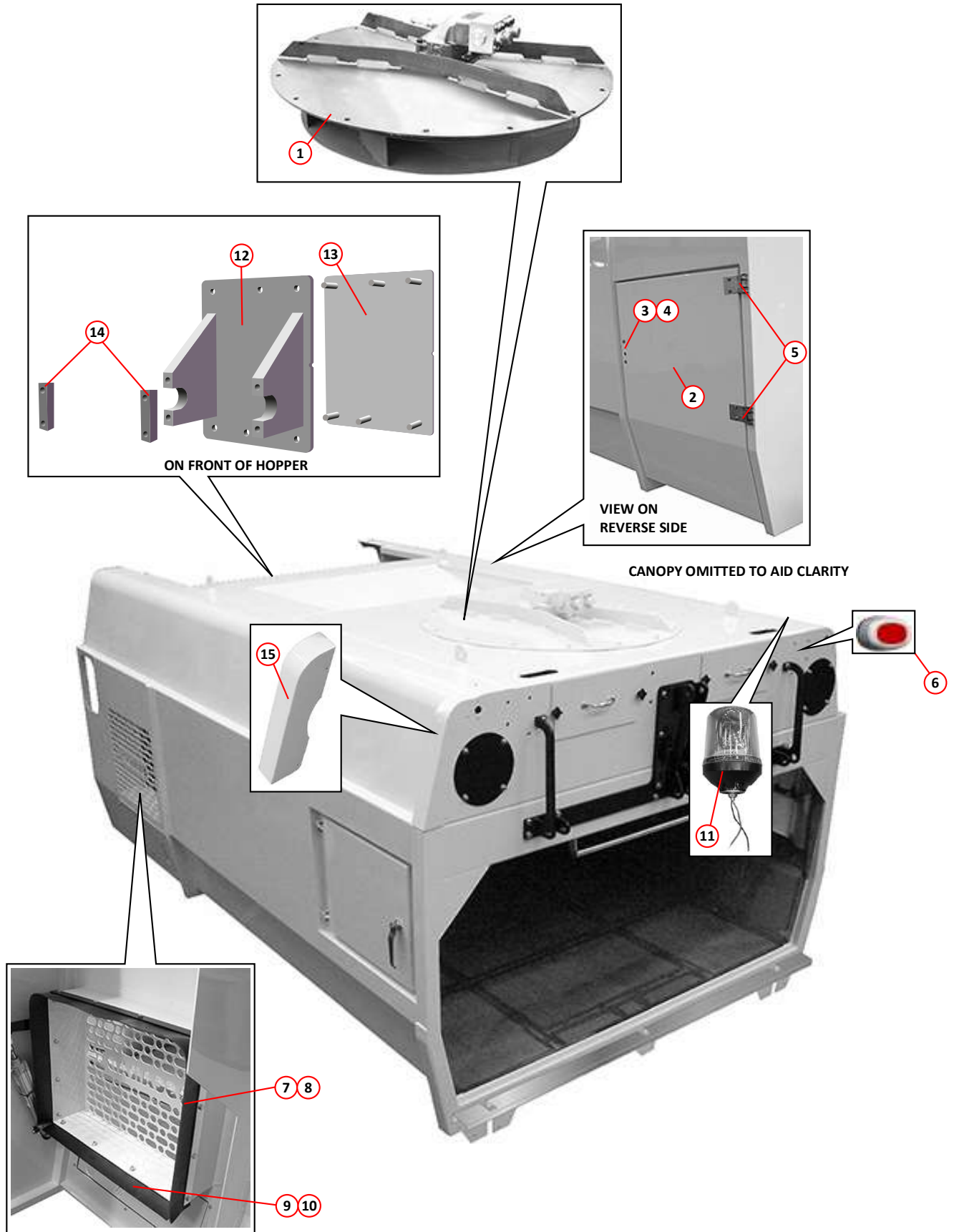
Left Side Loading Hatch

Subframe, Hopper and Related Equipment

Item	Part Number	Quantity	Description
Hopper External Fittings - Continued			
1		1	Suction fan assembly Page 350
	011075	16	. Nut, M10, Nyloc
	011074	16	. Washer, M10
2	025828	1	Locker door (Merlin)
NI	032228	1	Locker door (Merlin XP)
3	013072	1	. Door lock
4	013073	1	. Spacer
	000284	2	. . Set screw, M6 x 55mm
	011071	2	. . Nut, M6, Nyloc
5	011654	2	. Hinge
	000517	2	. . Countersunk screw, M6 x 55mm
	000250	2	. . Set screw, M6 x 16mm
	011071	4	. . Nut, M6, Nyloc
	011090	4	. . Washer, M6
NI	013069	1	. Key, locker door
6	030773	2	Rear marker light Page 318
	000028	4	. Screw, slotted round head, 2BA x $\frac{1}{2}$ "
	011078	4	. Nut, 2BA, Nyloc
7	024937	1	Seal, cooler, long
8	022604	2	Clamp, long
	011010	8	. Set screw, M8 x 20mm
	011073	8	. Nut, M8, Nyloc
	011092	8	. Washer, M8
9	022603	1	Seal, cooler, short
10	024983	2	Clamp, short
	011010	8	. Set screw, M8 x 20mm
	011073	8	. Nut, M8, Nyloc
	011092	8	. Washer, M8
11	014064	1	Beacon, standard fit Page 318
NI	036911	1	Loom, hopper components Page 316
12	010719 *	1	Pivot plate, hopper lift ram
NI	025581 *	A/R	. Spacer 4mm
13	040382 *	1	. Clamp plate (inside of hopper)
	011075 *	6	. . Nut, M10, Nyloc
	000270 *	6	. . Washer M10
14	034395 *	2	. . Ram pivot bar
	011034 *	4	. . . Bolt, M10 x 40mm
	011095 *	4	. . . Washer, spring, rectangular, M10
15	024784	1	. Capping, LH. (Merlin) (Rivet)
NI	040024	1	. Capping, LH. (Merlin) (Screw)
NI	025767	1	. Capping, LH. (Magnum/8000/8500) (Rivet)
NI	040014	1	. Capping, LH. (Magnum/8000/8500) (Screw)
NI	024789	1	. Capping, RH. (Merlin) (Rivet)
NI	040025	1	. Capping, RH. (Merlin) (Screw)
NI	025766	1	. Capping, RH. (Magnum/8000/8500) (Rivet)
NI	040013	1	. Capping, RH. (Magnum/8000/8500) (Screw)

Notes:-

* All these parts are required to retro fit the single piece pivot plate in place of the older 2 piece design.

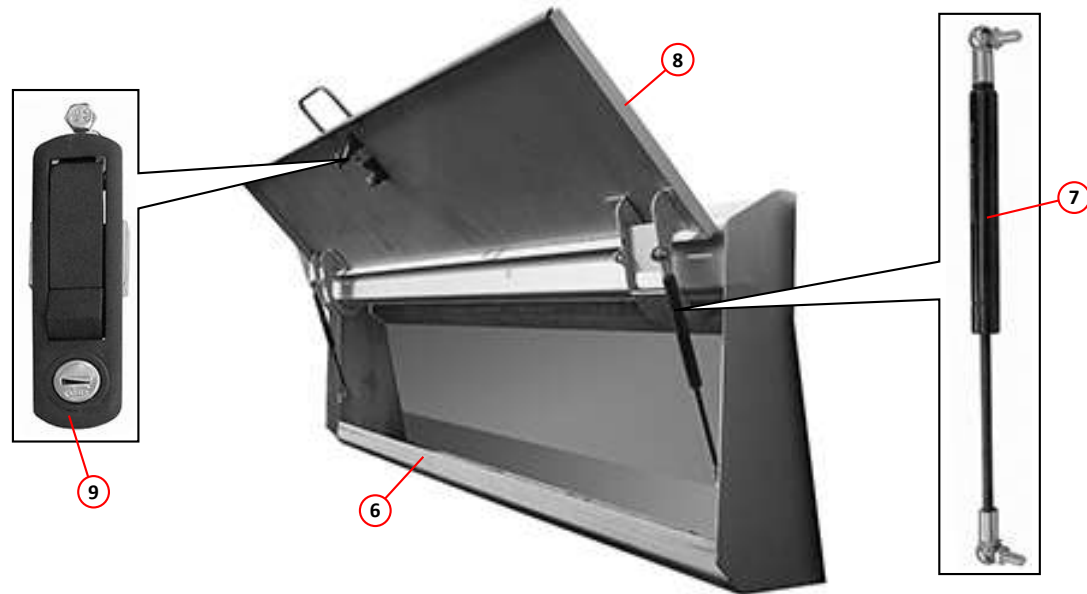
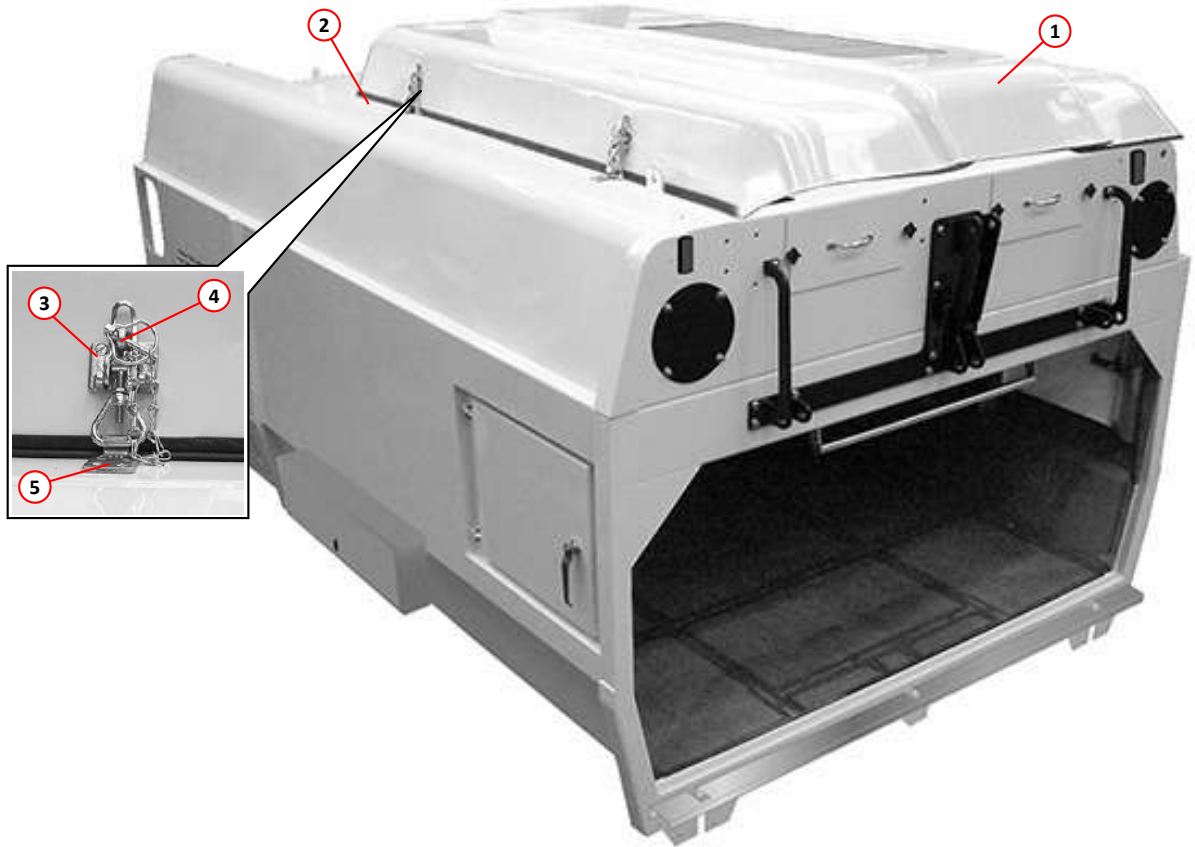


i Many variations of hopper exist therefore it is advisable to contact Scarab Parts Department, quoting the machines serial number when ordering associated replacement parts.

Hopper External Fittings

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Hopper External Fittings - Continued			
1	024704	1	Hopper cover, GRP (Merlin)
2	013952	AR	. Seal strip
	000005	15	. . Screw, slotted countersunk, 2BA x $\frac{3}{4}$ "
	011078	15	. . Nut, 2BA, Nyloc
3	022656	5	. Toggle clip fastener
4	013507	5	. Linch pin, complete with chain
5	022657	5	. Hook plate, toggle clip
6	031487	1	Ancillary tool locker body
	000344	4	. Screw, button socket head, M10 x 25mm stainless steel
	000269	4	. Nut, M10, Nyloc, stainless steel
	000270	4	. Washer, M10, stainless steel
7	033114	2	. Gas Strut
8	031489	1	. Locker door
	011019		. . Set screw, M8 x 90mm
	011073		. . Nut, M8, Nyloc
9	033115	1	. Locking latch


Option



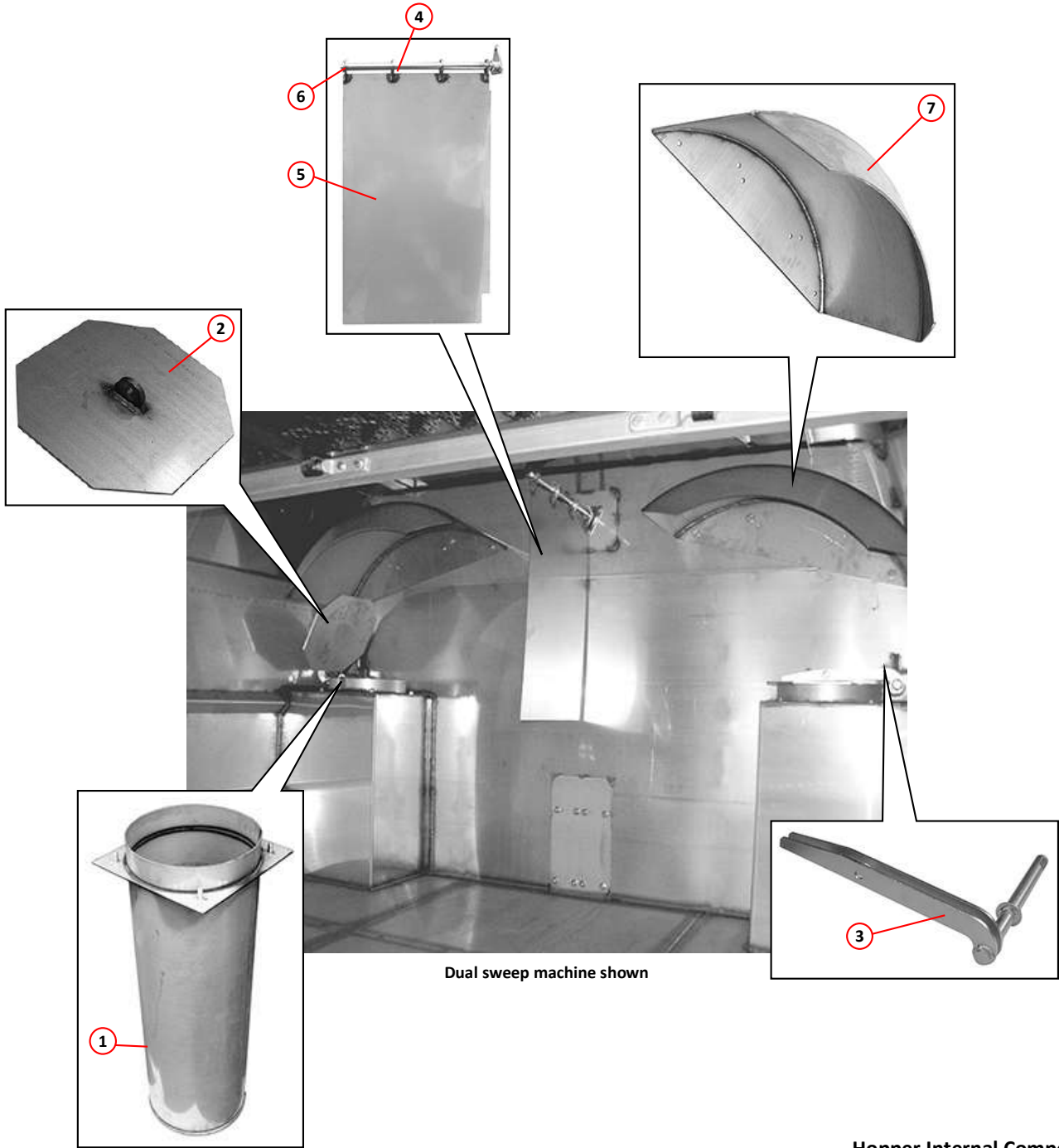
i Many variations of hopper exist therefore it is advisable to contact Scarab Parts Department, quoting the machines serial number when ordering associated replacement parts.

Hopper External Fittings

Item	Part Number	Quantity	Description
Hopper Internal Components			
1	025435 *	1	Suction tube 750mm (Merlin)
1	025401 *	1	Suction tube 850mm (Magnum)
1	025665 *	1	Suction tube 925mm (Magnum/8000/8500)
1	024732 *	1	Suction tube 600mm (Magnum/8000)
	005021	AR	. Sealing strip
	000269	4	. Nut, M10 Nyloc, stainless steel
	000270	4	. Washer, M10, stainless steel
2	021514 *	1	Cover lid, blanking Page 342
3	021518	1	. Flap arm, RH Page 342
NI	021517	1	. Flap arm, LH Page 342
4	030536	1	Mounting bar
	011032	3	. Set screw, M10 x 30mm
	011075	3	. Nut, M10, Nyloc
	011094	3	. Washer, M10
5	030535 *	1	. Deflector plate
6	030537	1	. Locking ring
	011031	1	. . Set screw, M10 x 25mm
	011095	1	. . Washer, spring, M10
7	022644 *	1	Deflector, universal
	011055	2	. Bolt, M12 x 65mm
	011051	4	. Set screw, M12 x 25mm

Notes:-

- * Can be supplied with PU compound, before ordering replacement parts, please contact Scarab Parts Department quoting your machine serial number.

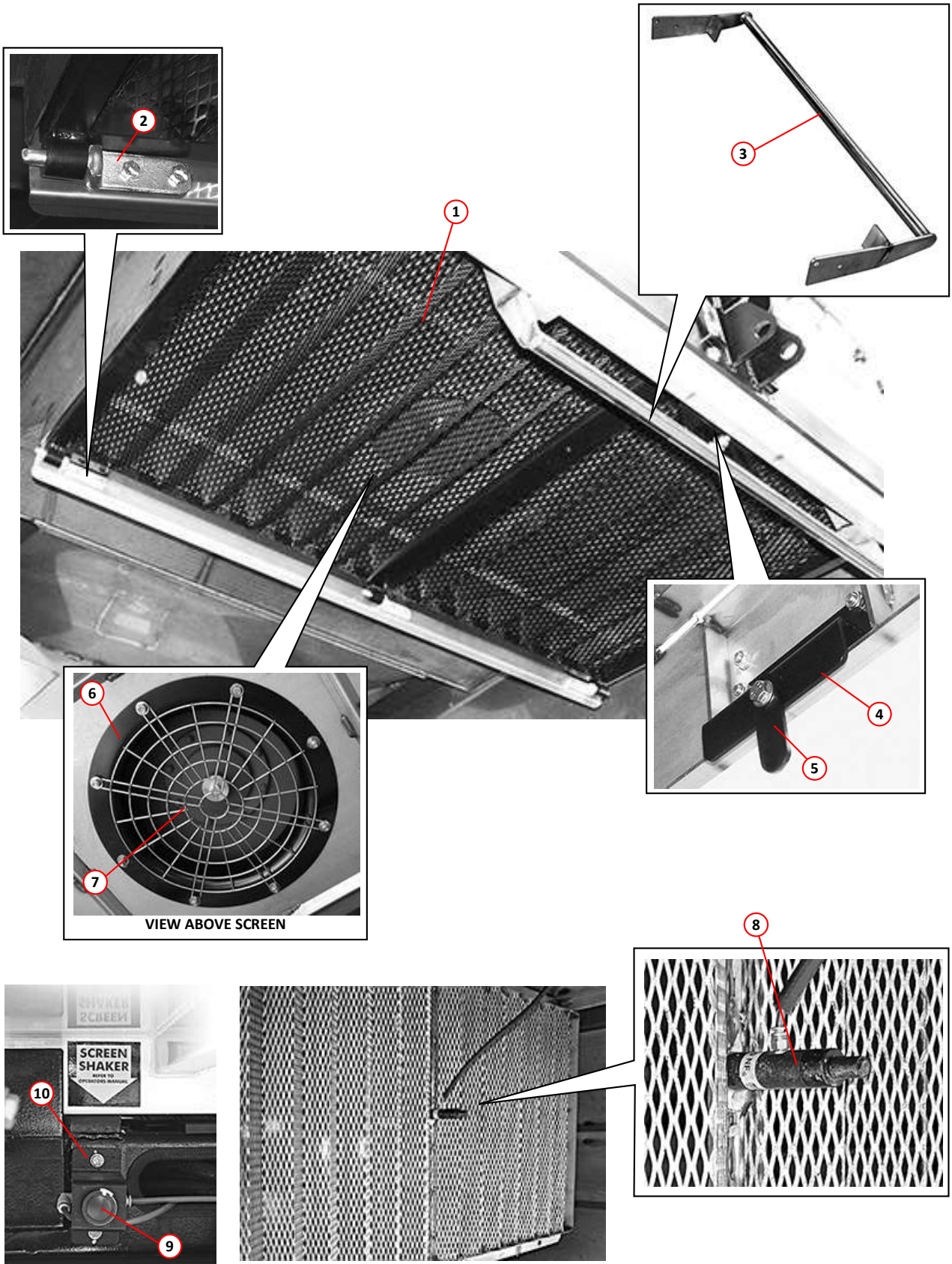


Dual sweep machine shown

Hopper Internal Components

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Hopper Internal Components - Continued			
1	031883	1	Screen, filter, stainless steel
1	024668	1	Screen, filter
2	025245	3	. Hinge, points
	000257	6	. . Set screw, M8 x 25mm, stainless steel
	000263	6	. . Nut, M8, Nyloc
3	028265	1	. Screen handle catch
	000257	4	. . Set screw, M8 x 25mm, stainless steel
	000263	4	. . Nut, M8, Nyloc, stainless steel
	011092	4	. . Washer, M8
4	028052	1	. Bracket, safety link
5	028053	1	. . Safety link
	000280	1	. . . Set screw, M10 x 25mm, stainless steel
	011075	1	. . . Nut, M10, Nyloc, stainless steel
	000270	2	. . . Washer, M10, stainless steel
6	032357	1	Cone, inlet, suction fan, stainless steel
6	024790	1	Cone, inlet, suction fan
7	039674	1	. Fan guard
NI	034091	1	. Repair ring (requires welding)
	000263	8	. Nut, M8, Nyloc, stainless steel
8	033618	1	Vibrator, screen shaker
9	033619	1	Screen shaker control valve
10	033620	1	. Mount, screen shaker control valve
	011087	2	. . Set screw, M6 x 25mm
	011071	2	. . Nut, M6, Nyloc

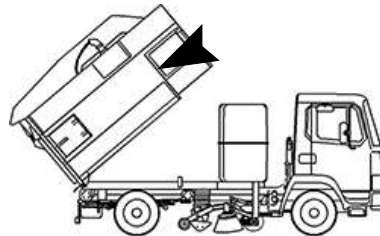

Option



Hopper Internal Components

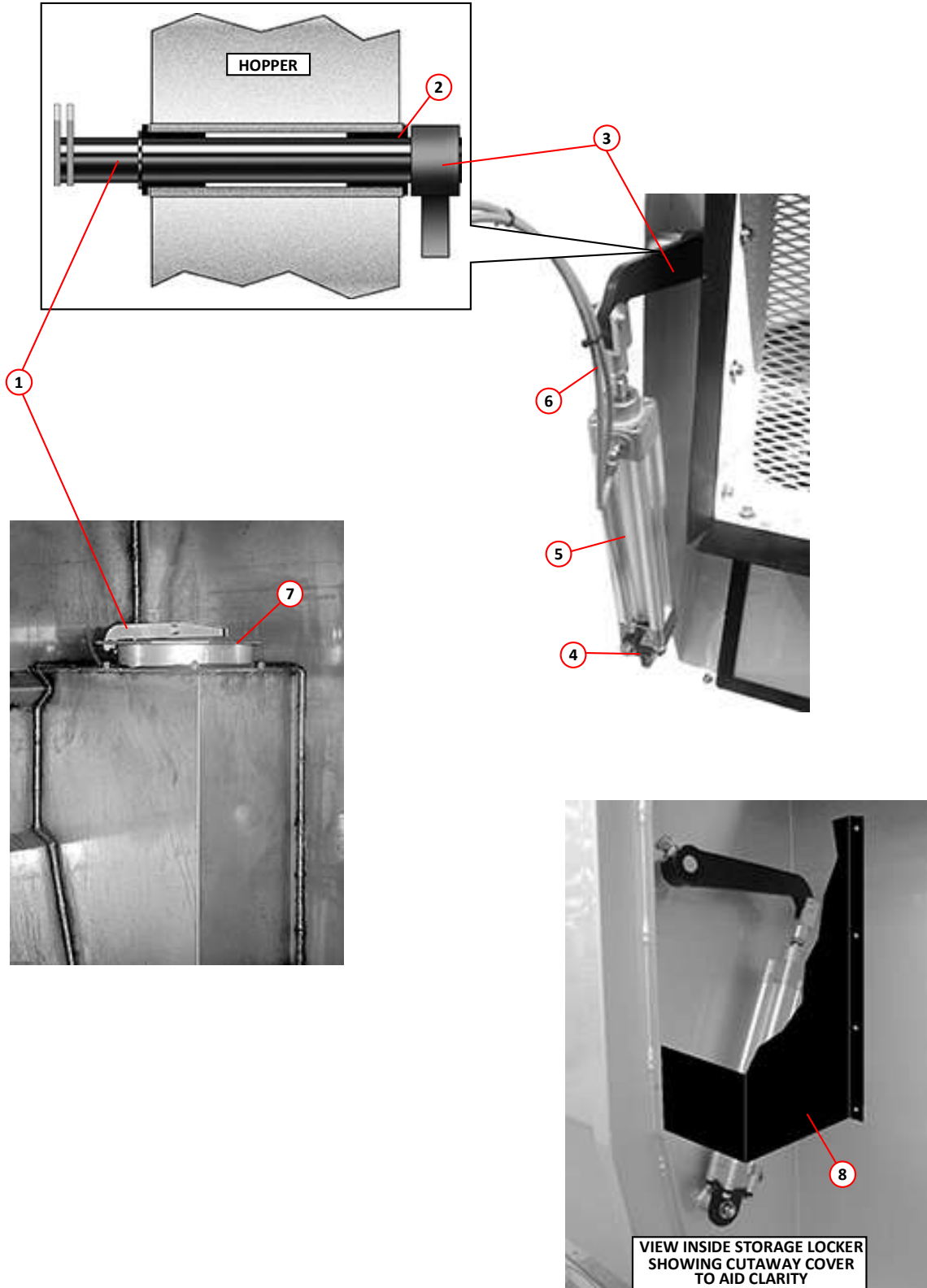
Item	Part Number	Quantity	Description
Auto Blanking Arrangement *			
1	021517	1	Flap arm, LH Page 338
NI	021518	1	Flap arm, RH Page 338
2	013488	2	. Bush
3	024772	1	. Flap lever
	000363	1	. . Set screw, M12 x 1.25 pitch x 25mm, stainless steel
	000279	1	. . Nut, M12 x 1.25 pitch, stainless steel
5	021467	1	Cylinder, pneumatic, 40 x 200 Page 308
	011075	1	. Nut, M10, Nyloc
6	024650	AR	. Tubing, air, flexible nylon, 6mm Superflex
7	021514 †	1	Flap lid, blanking Page 338
8	025486	1	Cover plate (Merlin)
NI	032343	1	Cover plate (XP)
NI	021547	1	Cover plate (Magnum)

AUTO-BLANKING RAMS



Notes:-

- * Items listed are identical for both left and right hand blanking assemblies, except for where identified specifically for one side.
- † Can be supplied with PU compound, before ordering replacement parts, please contact Scarab Parts Department quoting your machine serial number.

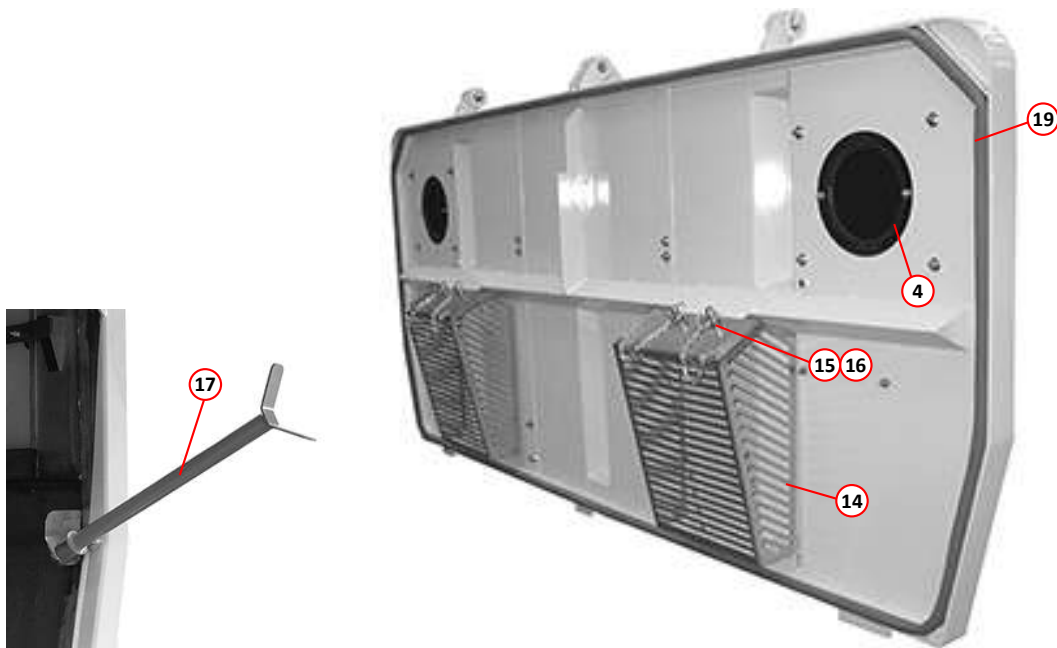
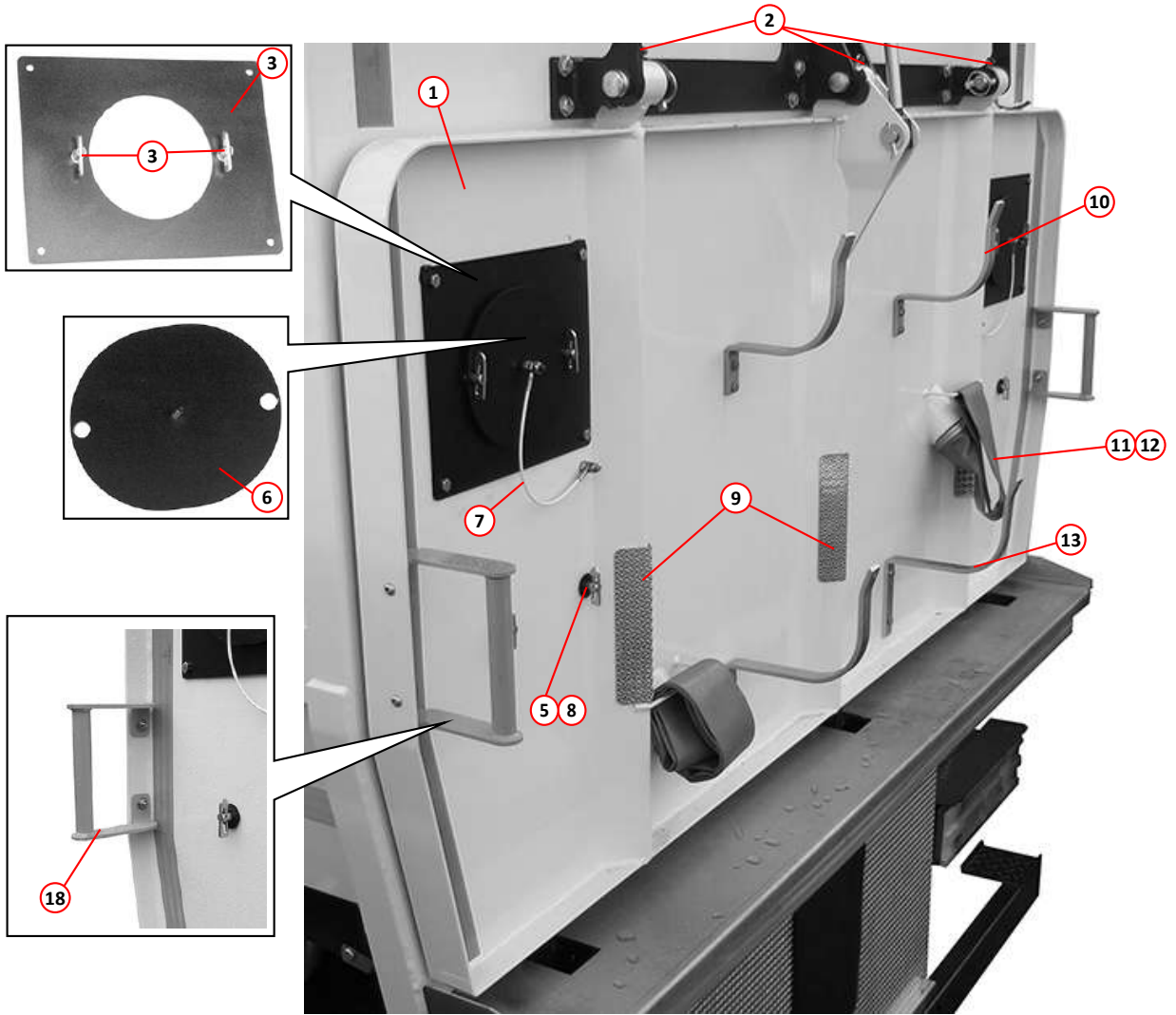


Auto Blanking - Arrangement

Item	Part Number	Quantity	Description
Rear Door Components			
1	023012 *	1	Rear door (Merlin)
NI	027902 *	1	Rear door (Magnum)
NI	032223 *	1	Rear door (XP)
2	010902	3	. Grease point, $\frac{1}{8}$ " BSP x 90°
3	023009	2	. Plate, wander hose, mounting
4	025222	AR	. . Sealing strip, Titanfast DX78
	000257	8	. . Set screw, M8 x 25mm, stainless steel
	000263	8	. . Nut, M8, Nyloc, stainless steel
5	012253	8	. Antiluce, small
6	012486	2	. Plate, blanking cap
7	020711	2	. . Leash cable
	000258	2	. . . Set screw, M8 x 30mm, stainless steel
	000262	4	. . . Nut, M8, stainless steel
	000263	4	. . . Nut, M8, Nyloc, stainless steel
8	021979	4	. . . Washer, rubber
9	031919	3	. Protector
10	010245	2	. Hook, wander hose, upper mounting
	000257	4	. . Set screw, M8 x 25mm, stainless steel
	000263	4	. . Nut, M8, Nyloc, stainless steel
11	010998	AR	. Hose, lay flat
12	012931	2	. . Clamp, worm drive, 70-90mm
13	022747	2	. Hook, wander hose, lower mounting
	000257	4	. . Set screw, M8 x 25mm, stainless steel
	000263	4	. . Nut, M8, Nyloc, stainless steel
14	022292	2	. Strainer (option)
15	013506	4	. . . Pin
16	013507	4	. . . Linch pin and chain
17	039683	1	. Safety prop, hopper rear door, usually stowed in locker
18	039593	2	. Grab handle, hopper door
	000281	4	. . Set screw, hex socket pan head, M8 x 25mm, stainless steel
	000264	4	. . . Washer, M8, stainless steel
	000263	4	. . . Nut, M8, Nyloc, stainless steel
19	030481	6.0 m	. Seal, rear door, circular section, (cut to length)

Notes:-

* Rear doors listed are for standard hoppers. Many variations of hopper and rear door exist and therefore it is advisable to contact Scarab Parts Department, quoting machine serial number when ordering.



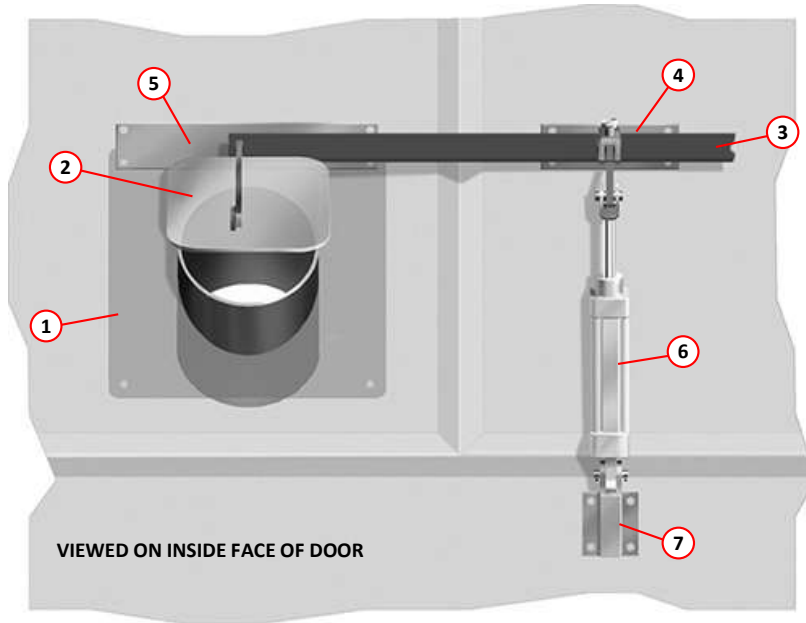
Rear Door Components

Item	Part Number	Quantity	Description
Rear Door Auto Blanking Assembly * - (Option)			
1	027674	2	Hose Spigot Plate
2	027675	2	. Flap Plate
3	027802	1	. Pivot Bar
4	027737	1	. . Adjuster bracket
5	027738	2	. . Pivot bracket
6	020602	1	Cylinder, pneumatic, 40 x 125 Page 306
7	027679	1	. Ram bracket

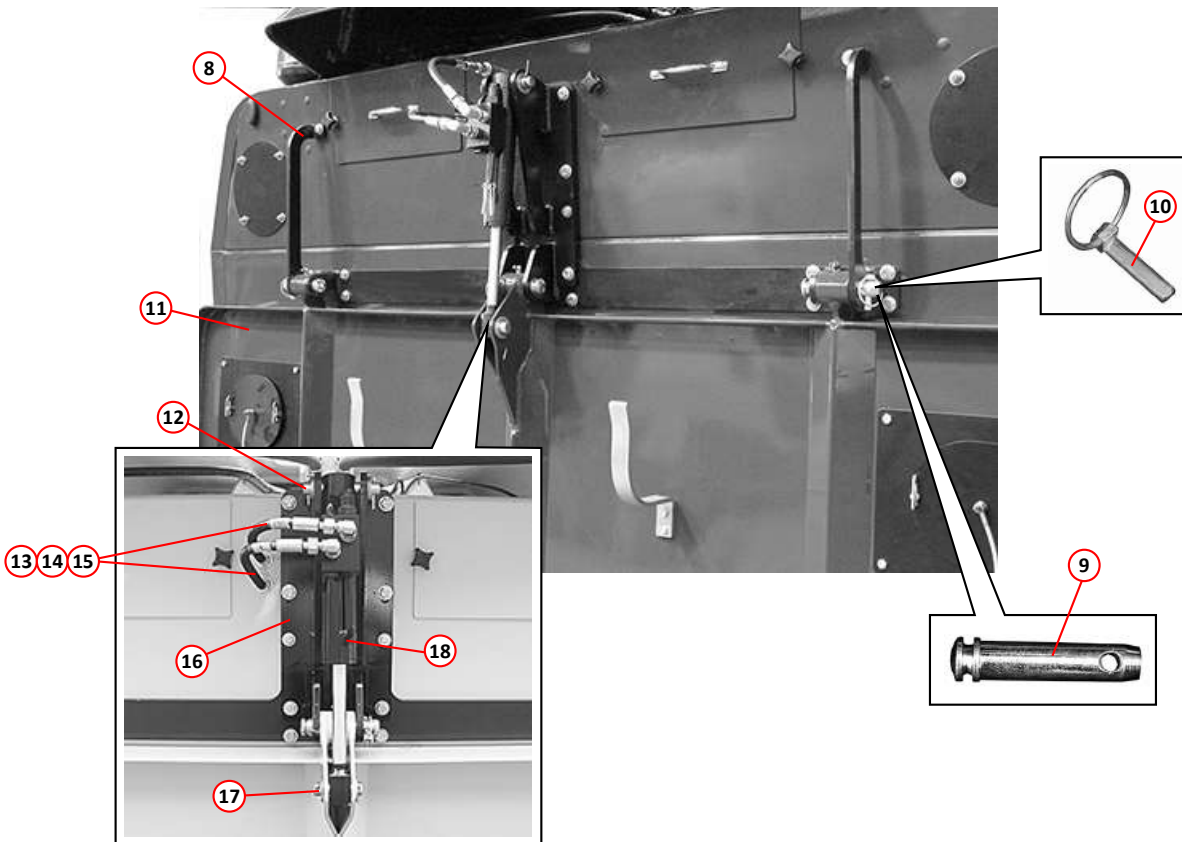
Item	Part Number	Quantity	Description
Rear Door Hinge and Ram Arrangement			
8		1	Hinge plate Page 330
9	013051	3	Hinge pin
10	013053	3	. Linch pin
11		1	Rear door assembly Page 344
12	022558	1	Pin, upper
	011102	4	. Washer, M20
	011122	2	. Split pin, $\frac{3}{16}$ " x $1\frac{1}{2}$ "
13	011317	2	Hose, rubber, $\frac{1}{4}$ " BSP x 295mm, straight ends
14	011269	2	Adaptor, bulkhead, M/M, $\frac{1}{4}$ " BSP
15	011171	2	Elbow, swivel, $\frac{1}{4}$ " BSP, M/F
16		1	Mounting plate, ram Page 330
17	014038	1	. Pin, lower
	011102	4	. Washer, M20
	011122	2	. Split pin, $\frac{3}{16}$ " x $1\frac{1}{2}$ "
18	022511	1	Ram assembly Page 274

Notes:-

* The rear door auto-blanking option is only fitted when the vehicle is equipped with a rear mounted suction nozzle assembly.

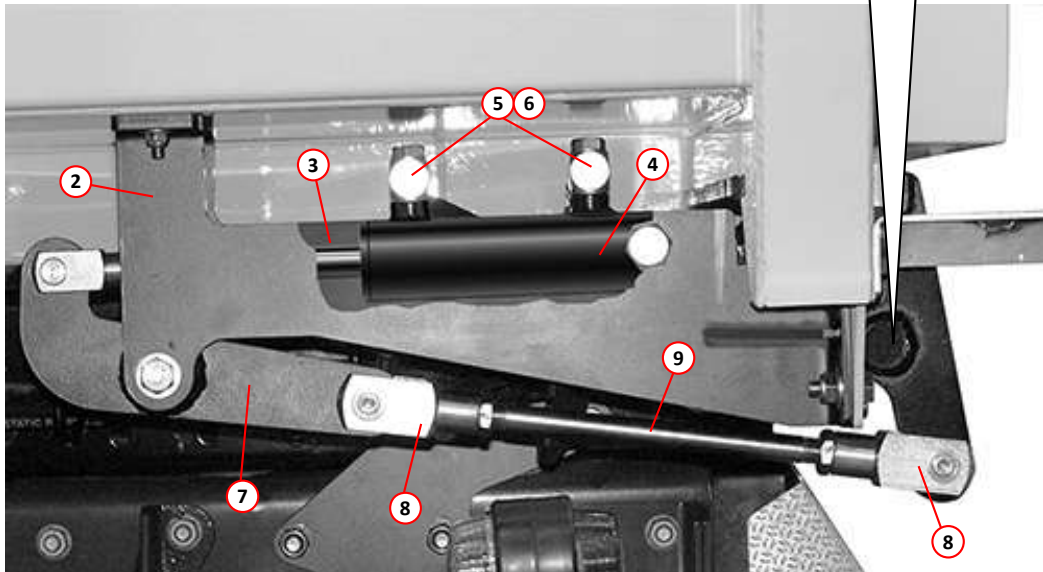
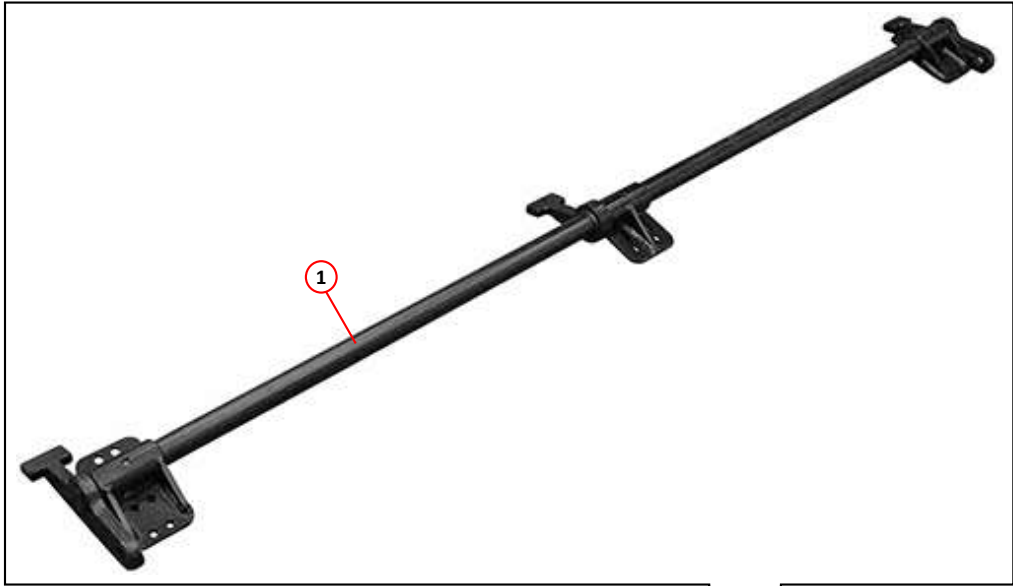


Rear Door Auto Blanking Assembly



Rear Door Hinge and Ram Arrangement

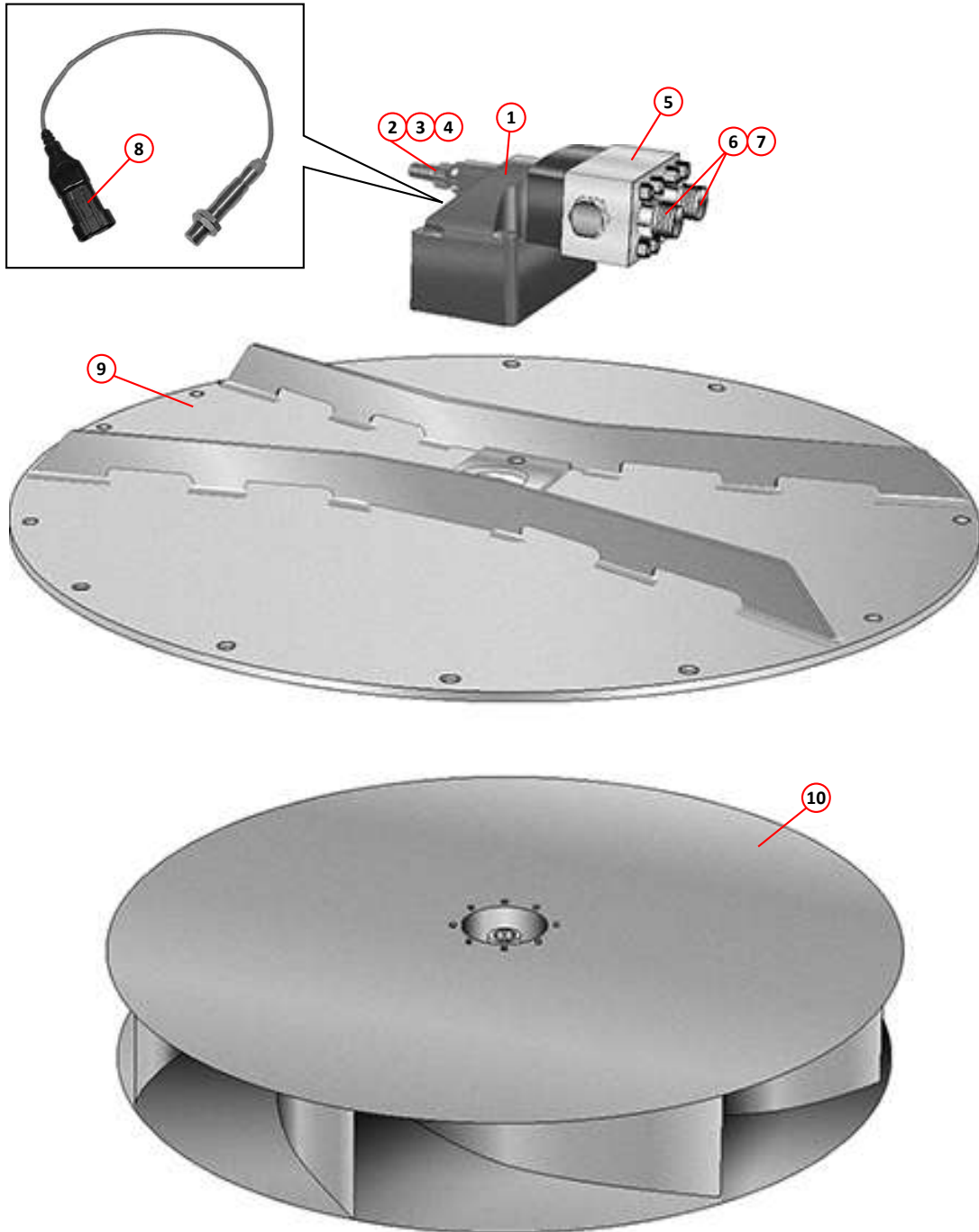
Item	Part Number	Quantity	Description
Rear Door Locking Arrangement			
1	030985	1	Locking bar assembly (Merlin/Merlin XP)
NI	027908	1	Locking bar assembly (Magnum)
NI	028089	1	Locking bar assembly (8000/8500)
	011032	8	. Set screw, M10 x 30mm
	011074	16	. Washer, M10
	011075	8	. Nut, M10, Nyloc
2	030984	1	Side plate, outer, rear door clamp, RH (Merlin)
3	030982	1	Side plate, inner, rear door clamp, RH (Merlin)
NI	030983	1	Side plate, outer, rear door clamp, LH (Merlin)
NI	030981	1	Side plate, inner, rear door clamp, LH (Merlin)
NI	028278	1	Side plate, outer, rear door clamp, RH (Magnum/8000/8500)
NI	028278	1	Side plate, inner, rear door clamp, RH (Magnum/8000/8500)
NI	028277	1	Side plate, outer, rear door clamp, LH (Magnum/8000/8500)
NI	027903	1	Side plate, inner, rear door clamp, LH (Magnum/8000/8500)
	000329	4	. Screw, socket button head, M8 x 20mm, stainless steel
	000270	4	. Washer, M8, stainless steel
	000263	4	. Nut, M8, Nyloc, stainless steel
	011031	4	. Set screw, M10 x 25mm
	011074	8	. Washer, M10
	011075	4	. Nut, M10, Nyloc
4	022350	2	. Ram, hydraulic Page 274
	011133	2	. . Bolt, M16 x 100mm
	011060	2	. . Nut, M16, Nyloc
5	002017	4	. . Adaptor, banjo, elbow, M/M, $\frac{1}{4}$ " BSP
6	011152	8	. . Seal, Dowty, $\frac{1}{4}$ " BSP
7	024999	2	. Lever, ram operating
NI	013488	4	. . Bush
NI	022451	2	. . Spacer
	000139	2	. . . Bolt, M12 x 90mm
	011077	2	. . . Nut, M12, Nyloc
8	020299	4	. . Clevis, M16
NI	022673	4	. . Pin, clevis fixing
NI	022674	4	. . Clip, clevis pin
9	022347	2	. . Connecting rod
	000138	4	. . . Nut, M16 x 1.5 pitch



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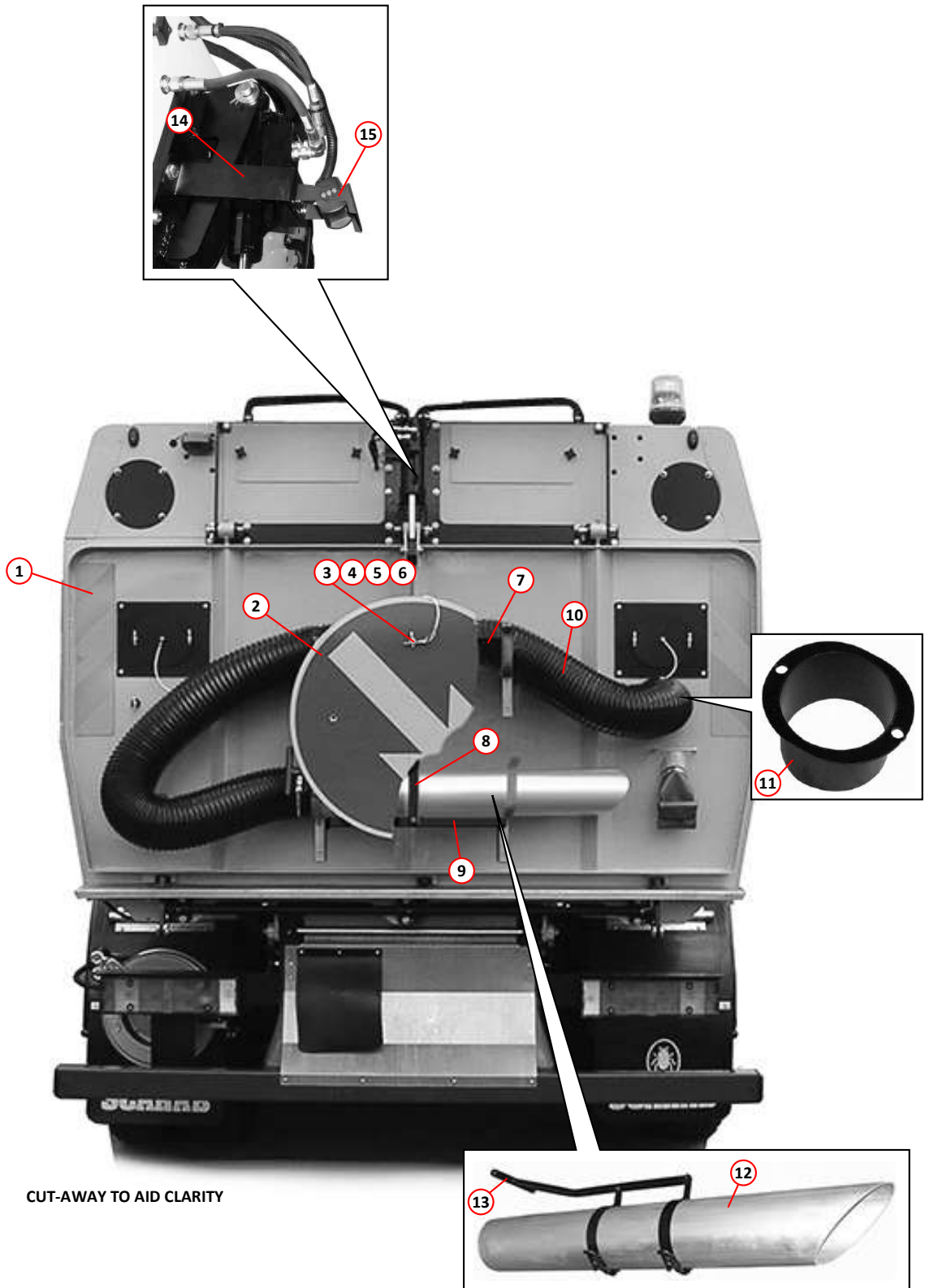
Rear Door Locking Arrangement

Item	Part Number	Quantity	Description
Suction Fan Arrangement			
1	024641	1	Motor, hydraulic, VOAC F12-030-MF-CH-K Page 268
2	011248	1	. Adaptor, M/M, M18 x $\frac{3}{8}$ " BSP
3	011247	1	. Seal, Dowty, M18
4	010921	1	. Hose tail, $\frac{3}{8}$ " BSP female x $\frac{3}{8}$ " hose
NI	027237	1	. Seal kit, for 024641 VOAC Fan Motor
5	035967	1	. Valve block
	000048	8	. . Screw, socket cap head, M10 x 80mm
	011095	8	. , Washer, spring, M10
6	011161	2	. . Adaptor, M/M, $\frac{3}{4}$ " BSP
7	011155	2	. . Seal, Dowty, $\frac{3}{4}$ " BSP
8	025184	1	. Speed sensor (green lead) Page 318
9	024679	1	Fan Plate
	011424	16	. Washer, M10
	011075	16	. Nut, M10, Nyloc
10	025241	1	Impeller
NI	030651	1	Impeller (stainless steel)
NI	041456	1	Impeller, high speed (stainless steel)
	011052	1	. Set screw, M12 x 30mm
	024791	1	. Cap Washer, VOAC Motor



Suction Fan Arrangement

Item	Part Number	Quantity	Description
Additional Hopper/Rear Door Components			
1	022389	2	. Marker plates
2	026694	1	. Directional arrow, ø750mm
3	012253	2	. . Antiluce, small
	012969	2	. . . Washer, rubber, ø40 x 12 bore x 6mm thick
4	020711	1	. . Leash cable
5	021944	1	. . . R-clip
6	023599	1	. . . Key pull
7	031976	1	. . . Upper support bar, directional arrow
8	031978	1	. . . Centre support bar, directional arrow
	000003	2	. . . . Screw, socket countersunk, M8 x 20mm
	011073	2	. . . . Nut, M8, Nyloc
	011092	2	. . . . Washer, M8
9	031977	1	. . . Lower support bar, directional arrow
10	010119	1	. Wander hose, ø160mm x 3 metre
11	012488	1	. . Coupling
NI	010519	2	. . . Clamp, worm drive, size 135-165mm
12	010587	1	. . Tube
13	040670	1	. . Handle
14	036437	1	Bracket, rear camera
15	040354	1	. Rear camera Page 318
NI	040353	1	Loom, power supply, rear camera Page 420,314,316
NI	040355	1	Loom, rear camera Page 420,314,316

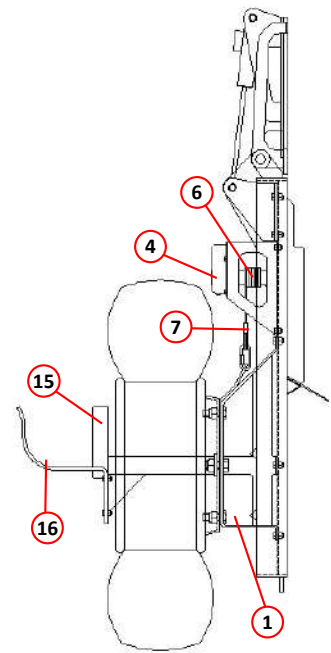
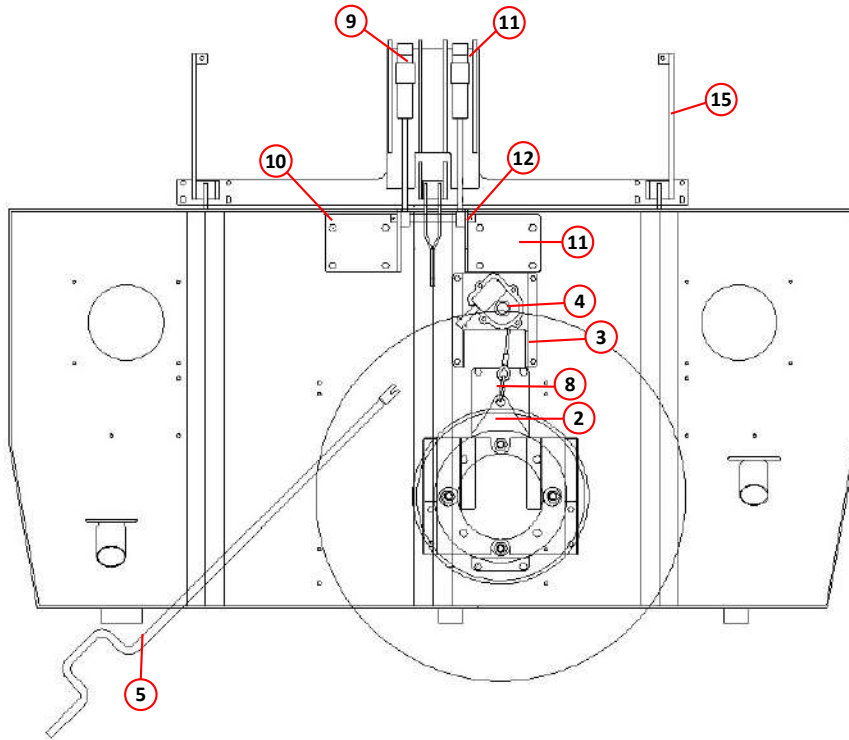


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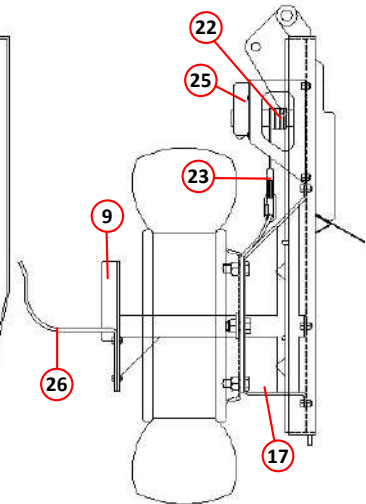
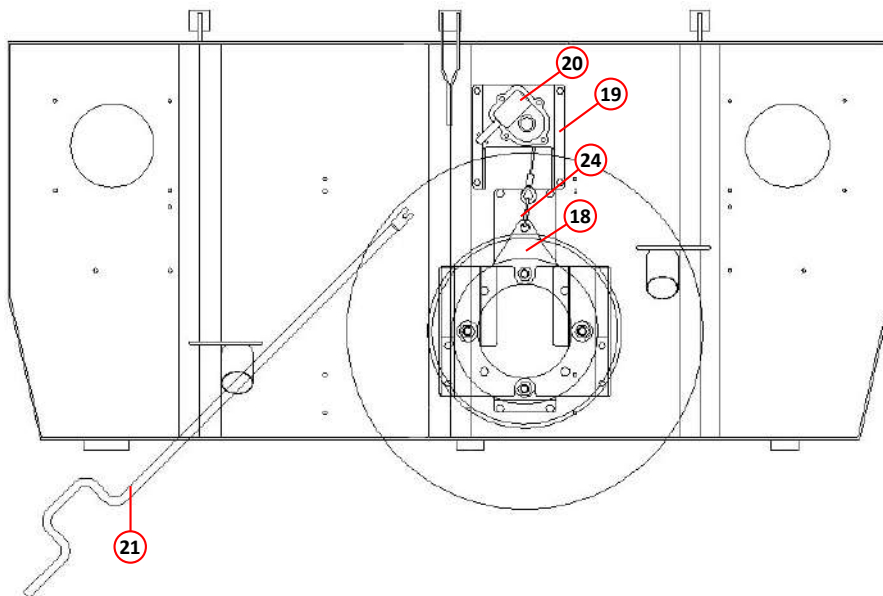
Additional Hopper/Rear Door Parts

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Rear Door - Spare Wheel Carrier - Magnum - (Option)			
1	026777	1	Bracket, spare wheel
	011082	4	. Nut, M20, Nyloc
2	026778	1	Lift plate
3	026779	1	Bracket, Winch
4	028406	1	Winch, modified
5	028407	1	Winch handle
6	028645	1	Cable, winch
7	014107	2	Cable grip 6mm
8	010606	1	Carabiner
9	022511	1	Ram
10	028523	1	Ram pivot LH
11	028524	1	Ram pivot RH
12	028525	1	Ram pin
13	025661	1	Ram mount, adjustable
14	025660	1	Hinge plate, adjustable
15	028684	1	Rear boom carrier
16	022747	2	Hose hook large

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Rear Door - Spare Wheel Carrier - Merlin - (Option)			
17	026777	1	Bracket, spare wheel
	011082	4	. Nut, M20, Nyloc
18	026778	1	Lift plate
19	026779	1	Bracket, winch
20	028406	1	Winch, modified
21	028407	1	Winch handle
22	028645	1	Winch cable
23	014107	2	Cable grip 6mm
24	010606	1	Carabiner
25	028684	1	Rear boom carrier
26	022747	2	Hose hook large



Spare Wheel Carrier - Magnum

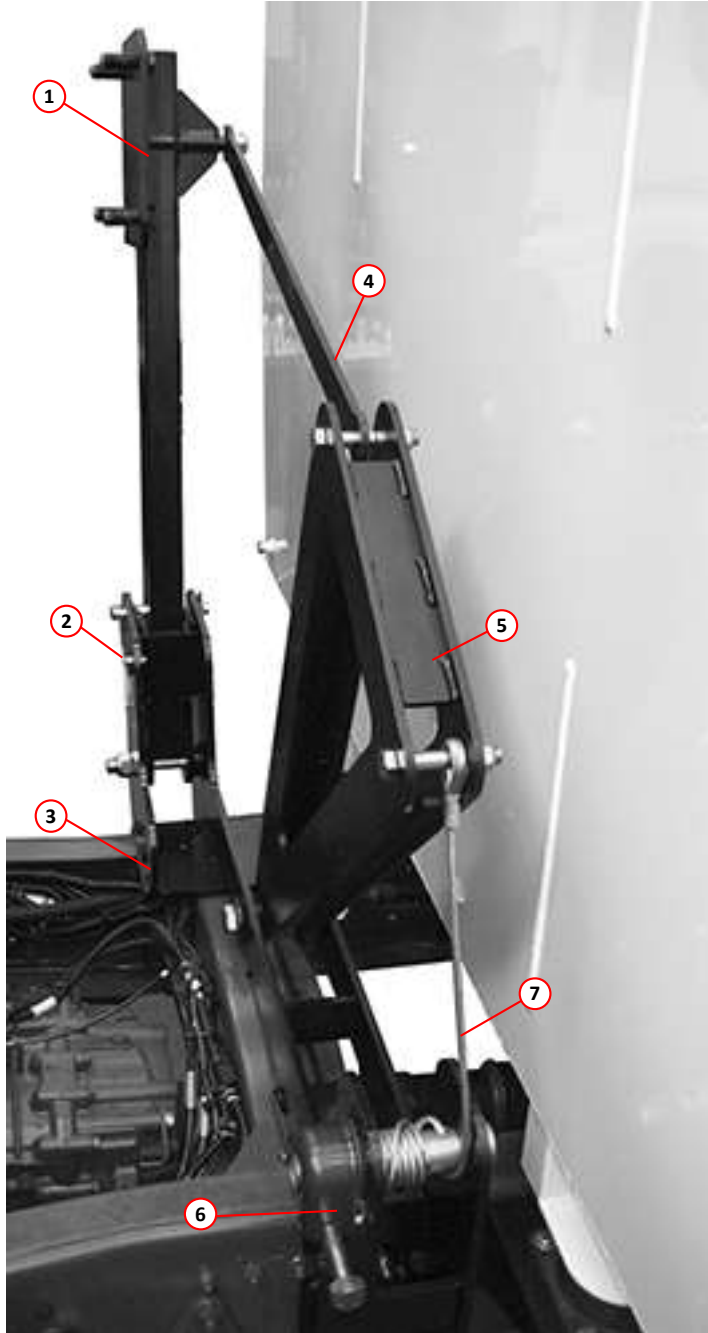


Spare Wheel Carrier - Merlin

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			Chassis Mounted - Spare Wheel Carrier - (Option)
1	*	1	Main arm & wheel mounting
	011086	1	. Nut, M16, Nyloc
	000241	2	. Bolt, M24 x 130mm
	000008	2	. Nut, M24, Nyloc
	032587	1	. Lock pin
NI	020711	1	. . Leash cable
NI	023599	1	. . Pull ring
NI	021944	1	. . D-clip
3	*	1	. Mounting bracket
	011052	6	. . Set screw, M12 x 30mm
	011086	6	. . Nut, M12, Nyloc
4	*	1	. Link arm
	000043	2	. . Bolt, M16 x 90mm
	011060	2	. . Nut, M16, Nyloc
5	032586	1	. 'V' Bracket
6	028406	1	. Winch
7	028645	1	Winch cable

Notes:-

* Before ordering these items please contact the Scarab Parts Department quoting machine serial number and model.



Spare wheel omitted to aid clarity

Spare Wheel Carrier

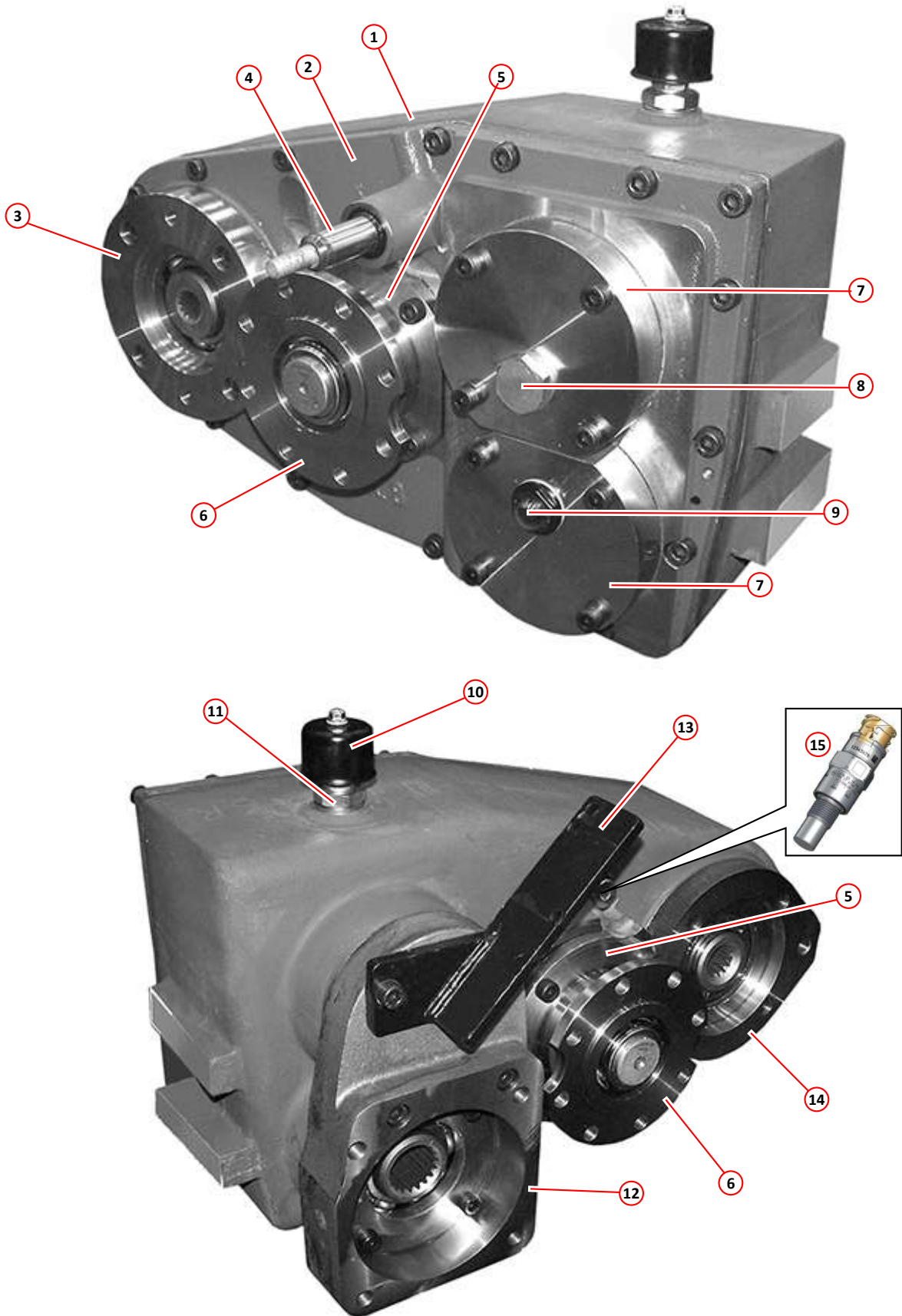
Transmission

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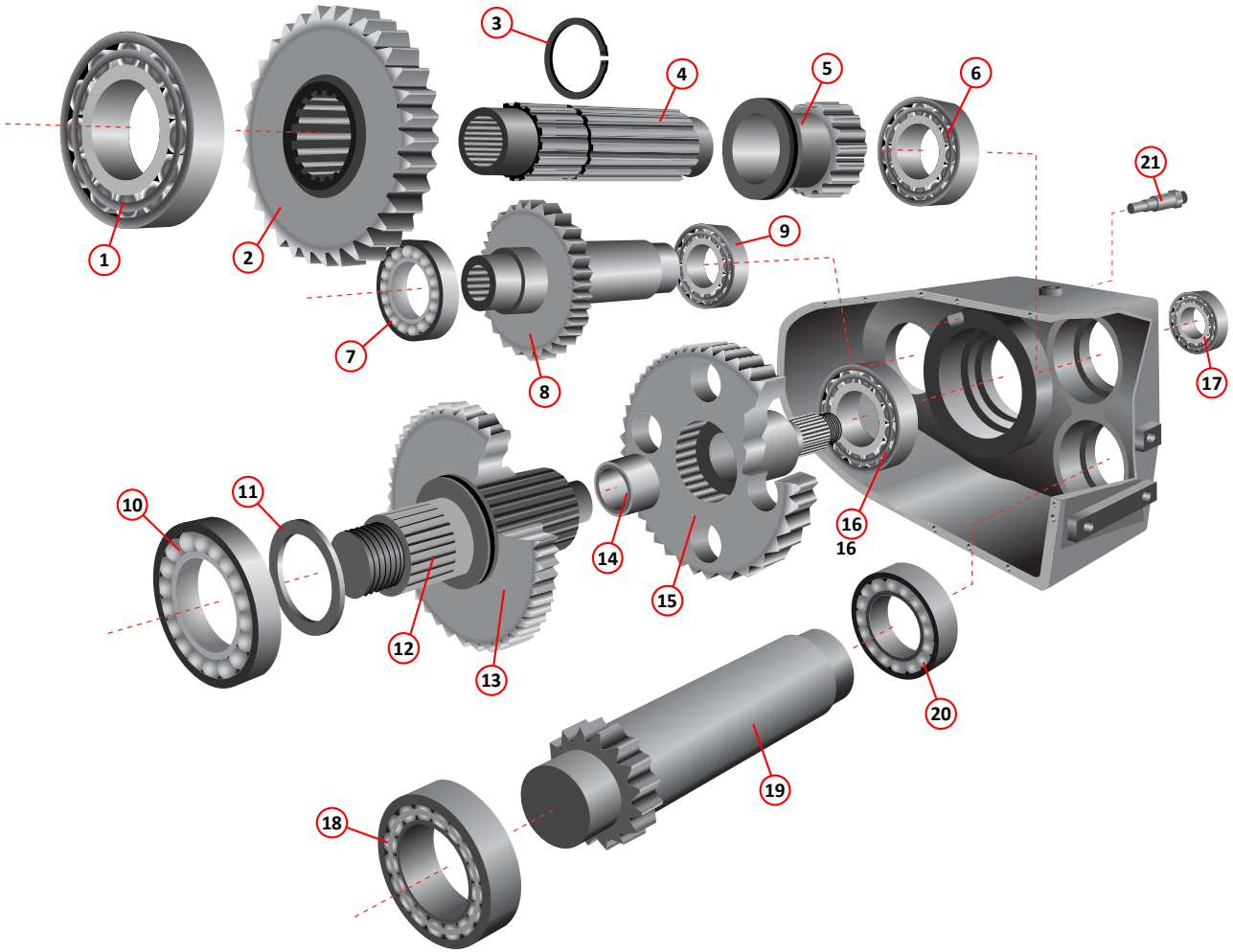
Item	Part Number	Quantity	Description
Scarab Hydrostatic Gearbox Assembly *			
1	014439	1	Casing, gearbox
2	014438	1	. Cover, gearbox
	011408	11	. . Screw, socket cap head, M10 x 30mm
		6	. . Screw, socket cap head, M10 x 35mm
NI	014505	1	. . Gasket, gearbox cover
3	014484	1	. . Boss, fan pump
	011028	4	. . . Screw, socket cap head, M10 x 25mm
4	024140	1	. . Shaft, selector
5	049730	1	. . Seal cap, gearbox v2
	011028	4	. . . Screw, socket cap head, M10 x 25mm
6	014433	1	. . Flange, input/output
7	014480	2	. . Bearing cap, motor/pinion gear shaft
	000070	8	. . . Screw, socket cap head, M10 x 50mm
NI	014503	2	. . Gasket, bearing cap
8	038570	1	. . . Plug, $\frac{3}{4}$ " BSP
9	014491	1	. . . Sight glass, gearbox oil level
10	020688	1	. . Filter/air breather
NI	011152	1	. . . Seal, Dowty, $\frac{1}{4}$ " BSP
11	021524	1	. . . Adaptor, $\frac{3}{4}$ " x $\frac{1}{4}$ " BSP, M/F
NI	011155	1	. . . . Seal, Dowty, $\frac{3}{4}$ " BSP
12	020341	1	. Motor plate (R type gearboxes)
	000070	6	. . Screw, socket cap head, M10 x 50mm
NI	014503	1	. . Gasket, motor plate
13	020501	1	. . Support bracket, gear change, pneumatic cylinder
14	014485	1	. Boss, gearbox pump
	011028	4	. . Screw, socket cap head, M10 x 25mm
15	046739	1	Gearbox speed sensor 34mm, DTCO 4 compliant Page 318

Notes:-

- * Service Exchange Units are available. When ordering a complete service exchange gearbox, please contact Scarab Parts Department quoting, your machine serial number and model.
For an exploded illustration of internal parts, refer to Page 362.
For more detail and an exploded illustration of external parts, refer to Page 364.



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Scarab Hydrostatic Gearbox Internal Parts			
1	014579	1	Roller bearing, NJ309-E-TVP2
2	014425	1	Gearwheel 40T
2	014426	1	Gearwheel 42T
3	014495	1	Circlip 52mm
4	014431	1	Splined shaft
5	014423	1	Gearwheel 19T
6	014579	1	Roller bearing, NJ309-E-TVP2
7	013773	1	Ball bearing, 6211
8	020343	1	Gearwheel 36T
8	014427	1	Gearwheel 38T
8	020034	1	Gearwheel 43T
9	014581	1	Roller bearing, NJ211EC
10	013771	1	Ball bearing, 6310NR
11	014421	1	Washer 51x65x3
12	014432	1	Splined shaft
13	020035	1	Gearwheel, 41T
13	014428	1	Gearwheel, 46T
13	020342	1	Gearwheel, 48T
14	014494	1	Needle bearing, K30x40x30
15	014422	1	Gearwheel, 62T
16	014493	1	Roller bearing, NJ314-E-TVP2
17	013771	1	Ball bearing, 6310NR
18	014581	1	Roller bearing, NJ211EC
19	020528	1	Gearwheel, 19T
19	020529	1	Gearwheel, 21T
20	013773	1	Ball bearing, 6211
21	046739	1	Gearbox speed sensor, 34mm, DTCO 4 compliant Page 318

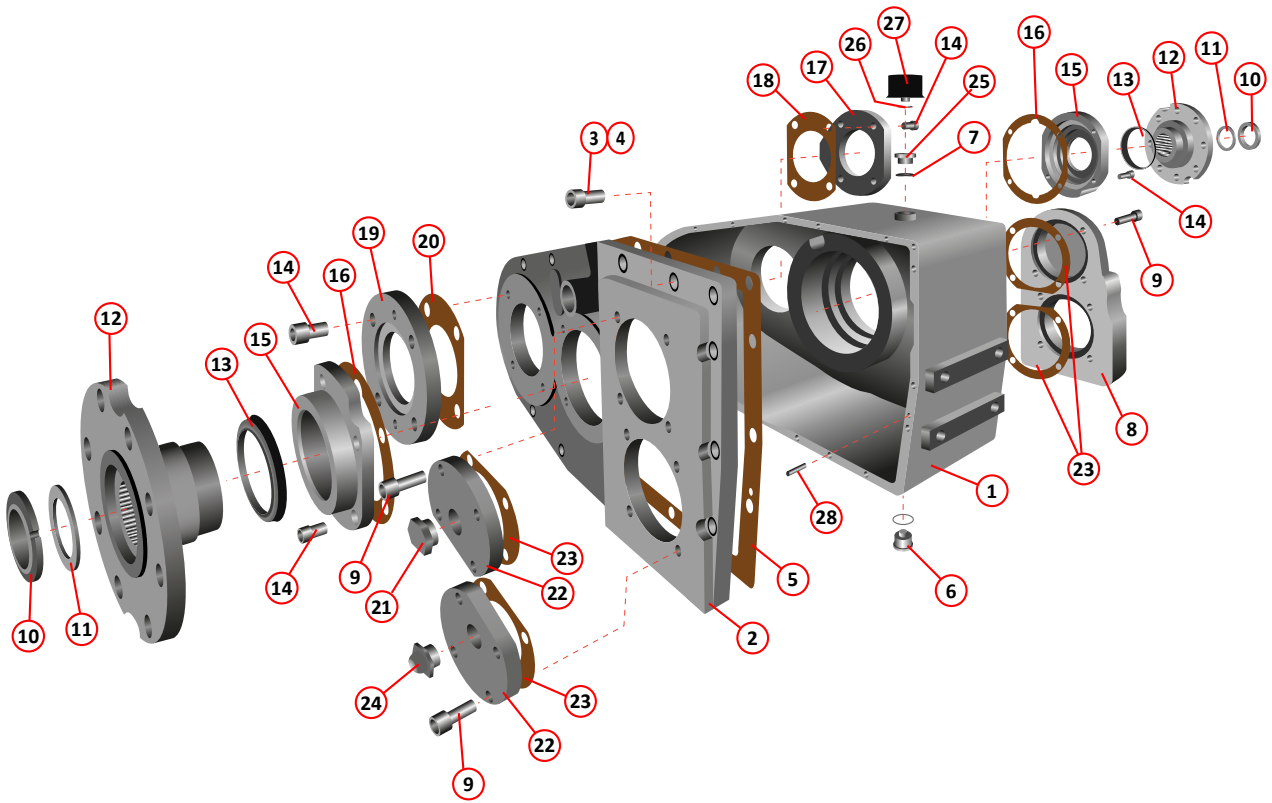


Scarab Hydrostatic Gearbox Internal Parts

Item	Part Number	Quantity	Description
Scarab Hydrostatic Gearbox External Parts			
1	014439	1	Gearbox casing
2	014438	1	Gearbox cover
3	011408	11	Socket cap head, M10 x 30mm
4	011029	6	Socket cap head, M10 x 35mm
5	014505	1	Gasket
6	021316	1	Plug, magnetic, $\frac{3}{4}$ " BSP
7	011155	1	Seal, dowty, $\frac{3}{4}$ " BSP
8	020341	1	Motor plate
9	000070	16	Socket cap head, M10 x 50mm
NI	014503	1	Gasket
10	014498 *	2	Lock ring M40 x 1.5mm
11	014499	2	Washer
12	014433	1	Flange
13	042297	1	Seal kit, 2 seals and fitting tool
14	011028	11	Socket cap head, M10 x 25mm
15	049730		1 Seal cap, gearbox v2
16	014502	2	Gasket
17	022392	1	Drive pump plate
18	014504	1	Gasket
19	014484	1	Fan pump plate
20	014504	1	Gasket
21	038570	1	Plug, $\frac{3}{4}$ " BSP
22	014480	2	Bearing cap
23	014503	4	Gasket
24	014491	1	Sight glass, gearbox oil level
25	021524	1	Adaptor, M/F, $\frac{3}{4}$ " BSP x $\frac{1}{4}$ " BSP
26	021524	1	Seal, dowty, $\frac{1}{4}$ " BSP
27	020688	1	Filler cap
28	014490	2	Dowel

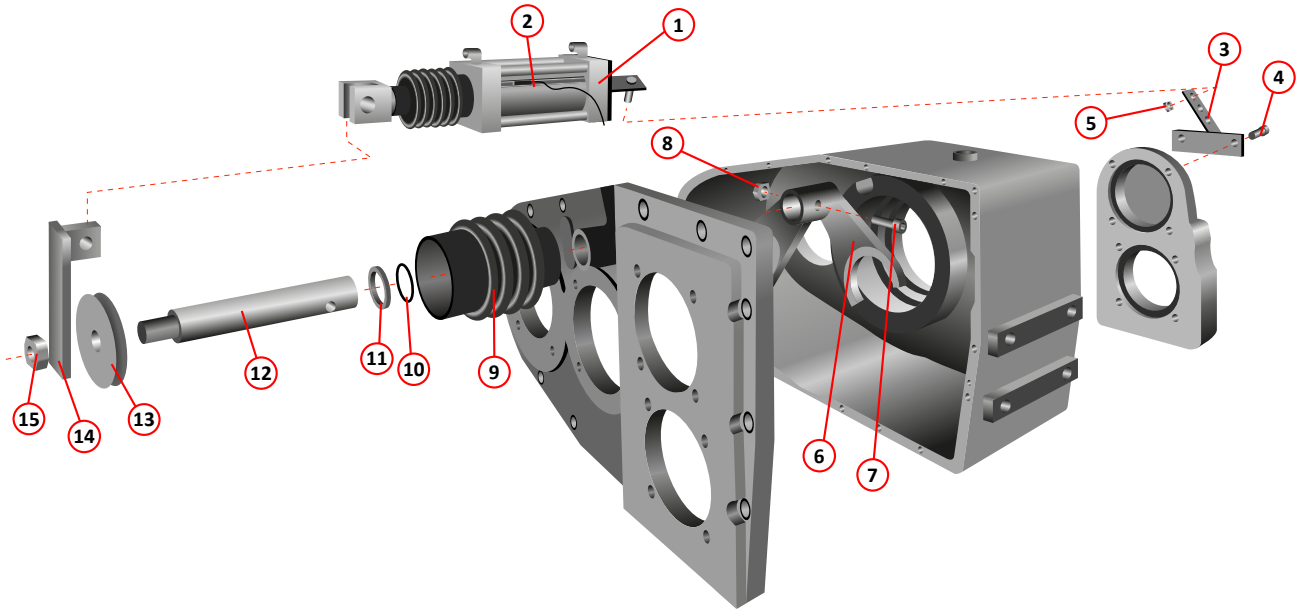
Notes:-

* Use special tool Part Number 021931 available from Scarab Sweepers Parts Department.



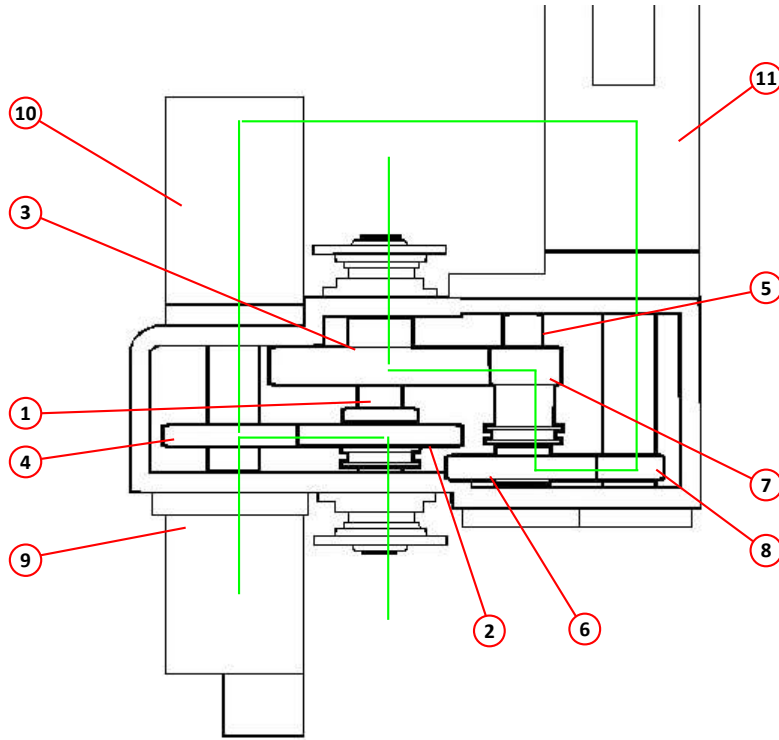
Scarab Hydrostatic Gearbox External Parts

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Scarab Hydrostatic Gearbox Changer Arrangement			
1	020287	1	Gear change pneumatic cylinder Page 304
2	036800	2	Magnetic sensor Page 318
3	020501	1	Support, pneumatic cylinder
4	000101	1	Socket cap head, M10 x 55mm
5	011075	1	Nut, M10, Nyloc
6	014486	1	Selector fork
7	000108	1	Socket cap head, M8 x 45mm
8	011073	1	Nut, M8, Nyloc
9	014473	1	Bellows
10	013774	1	O-ring, 22mm x 3.5mm
11	013775	1	Rubber seal
12	024140	1	Shaft
13	021089	1	Collar
14	020292	1	Arm
15	011076	1	Nut, M12

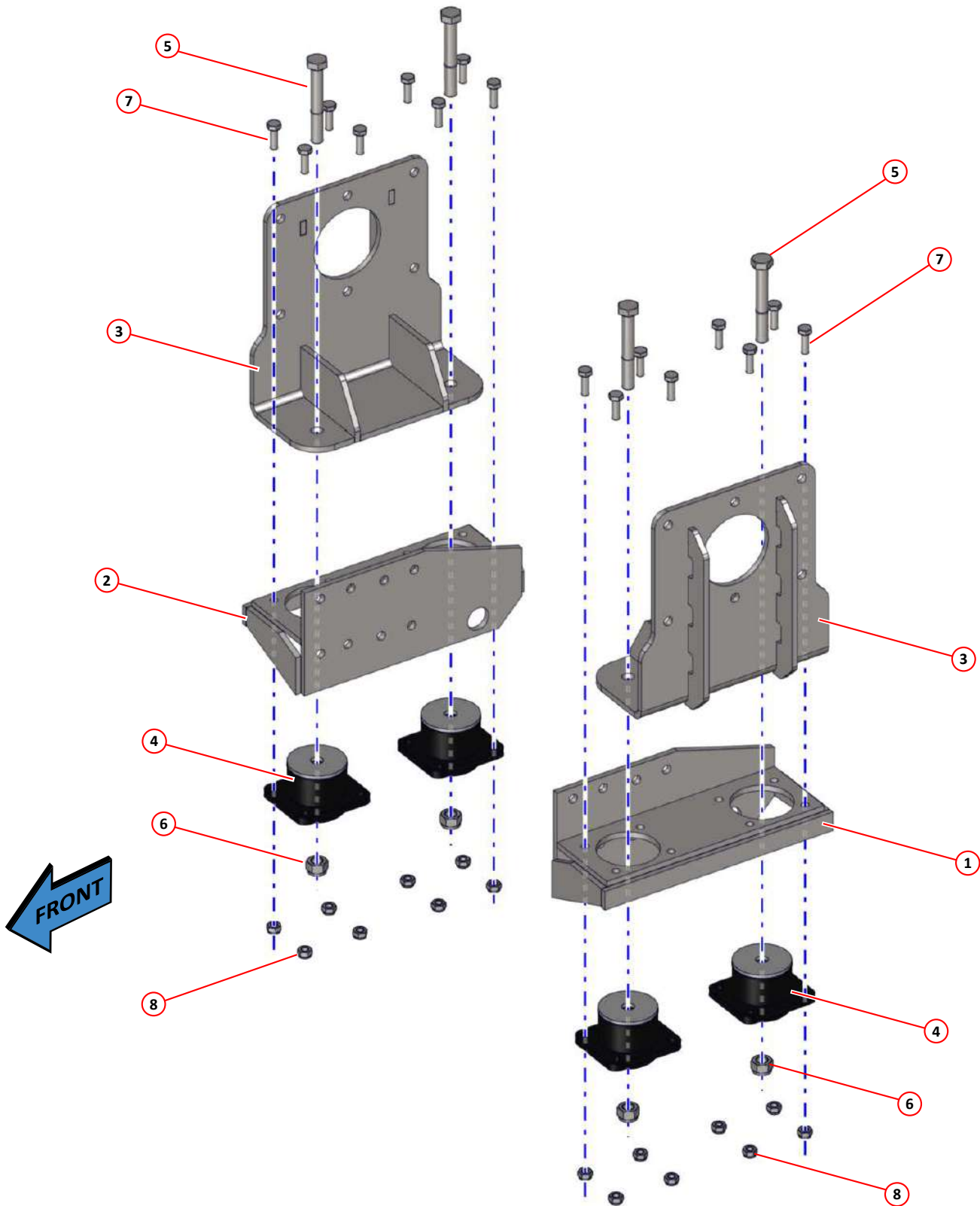


Scarab Hydrostatic Gearbox Changer Arrangement

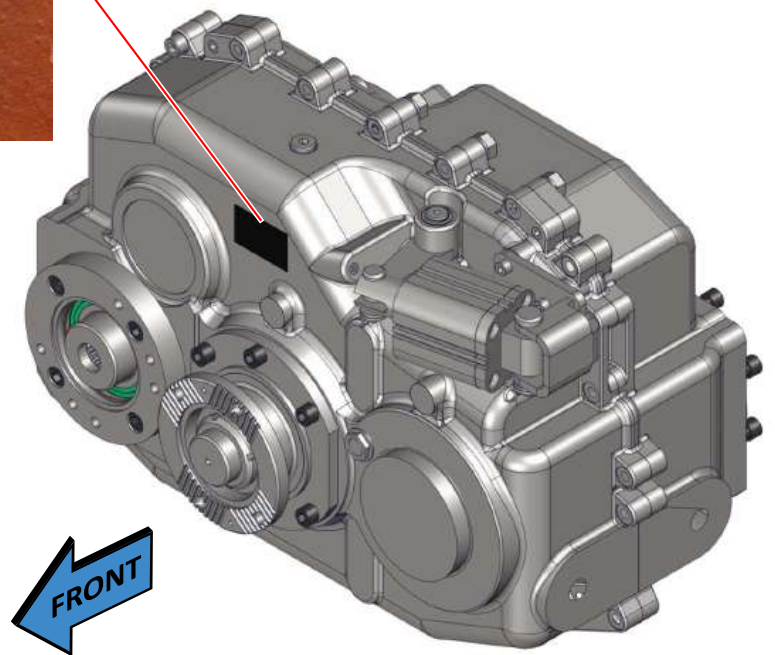
Item	Part Number	Quantity	Description
Gearbox Build, Pump, Motor & Ratio Configurations			
1	014432	1	Shaft, gearbox input
2	020035	1	Gear, input, 41 tooth (used on gearboxes, 6R, 9R)
2	014428	1	Gear, input, 46 tooth (used on gearboxes, 7R, 10R)
2	020342	1	Gear, input, 48 tooth (used on gearboxes, 8R, 11R)
3	014422	1	Gear, output, 62 tooth
4	020343	1	Gear, 36 tooth (used on gearboxes, 8R, 11R)
4	014427	1	Gear, 38 tooth (used on gearboxes, 7R, 10R)
4	020034	1	Gear, 43 tooth (used on gearboxes, 6R, 9R)
5	014431	1	Shaft, splined
6	014425	1	Gear, 40 tooth (used on gearboxes, 2F, 6R, 7R, 8R)
6	014426	1	Gear, 42 tooth (used on gearboxes, 9R, 10R, 11R)
7	014423	1	Gear, pinion, 19 tooth (used on all gearboxes)
8	020528	1	Gear, motor shaft, 19 tooth (used on gearboxes 9R, 10R, 11R)
8	020529	1	Gear, motor shaft, 21 tooth (used on gearboxes 6R, 7R, 8R)
9	023620	1	Pump, hydraulic, fan Page 268
9	024770	1	Pump, hydraulic, fan (French option) Page 268
NI	013301	2	. Gasket
10	037015	1	Pump, hydraulic, drive Page 266
NI	013196	2	. Gasket
11	040705	1	Motor Assembly, hydraulic, drive motor Page 266
NI	021414	2	. Gasket



Scarab Gearbox Pump, Motor and Ratio Build Configurations



Item	Part Number	Quantity	Description
Gearbox mounting - Standard			
1	027702	1	Bracket, gearbox standard, 3°, left hand, attaches to gearbox
2	027703	1	Bracket, gearbox standard, 3°, right hand, attaches to gearbox
3	047727	2	Gearbox bracket, standard, attaches to vehicle chassis
4	033838	4	Anti-vibration mounting, MS243/5 (HD type)
5	011423	4	Bolt HT M16 x 110
6	011060	4	Nyloc nut T M16
7	011032	16	Setscrew HT M10 x30
8	011075	16	Nyloc nut T M10

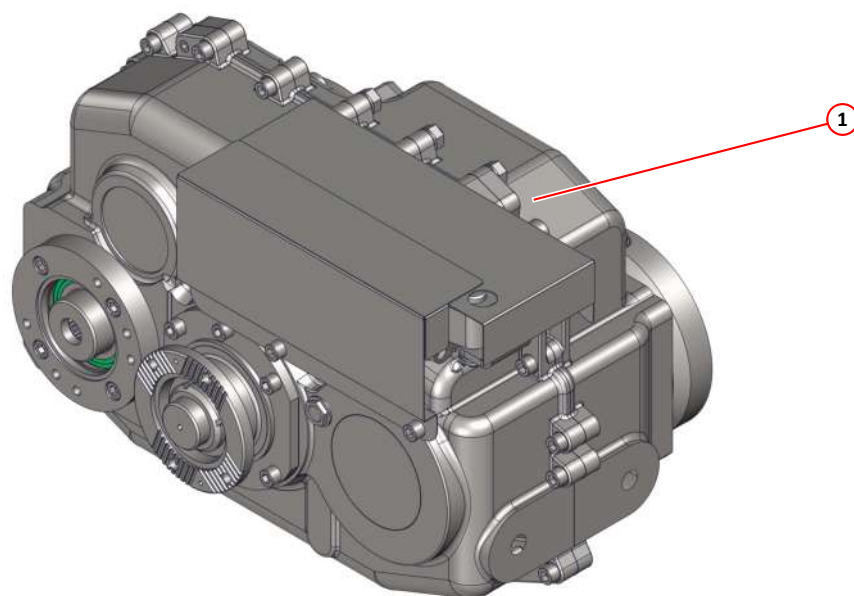


Rögelberg HP Gearbox Identification

Due to constant improvements and requirements there are differing part numbers for some of these gearboxes and it imperative that the correct identification of the gearbox is made before ordering any parts for these gearboxes.

The identification plate is located on the front of the gearbox. These numbers are as follows, top to bottom, gearbox type, Scarab part number, gearbox serial number.

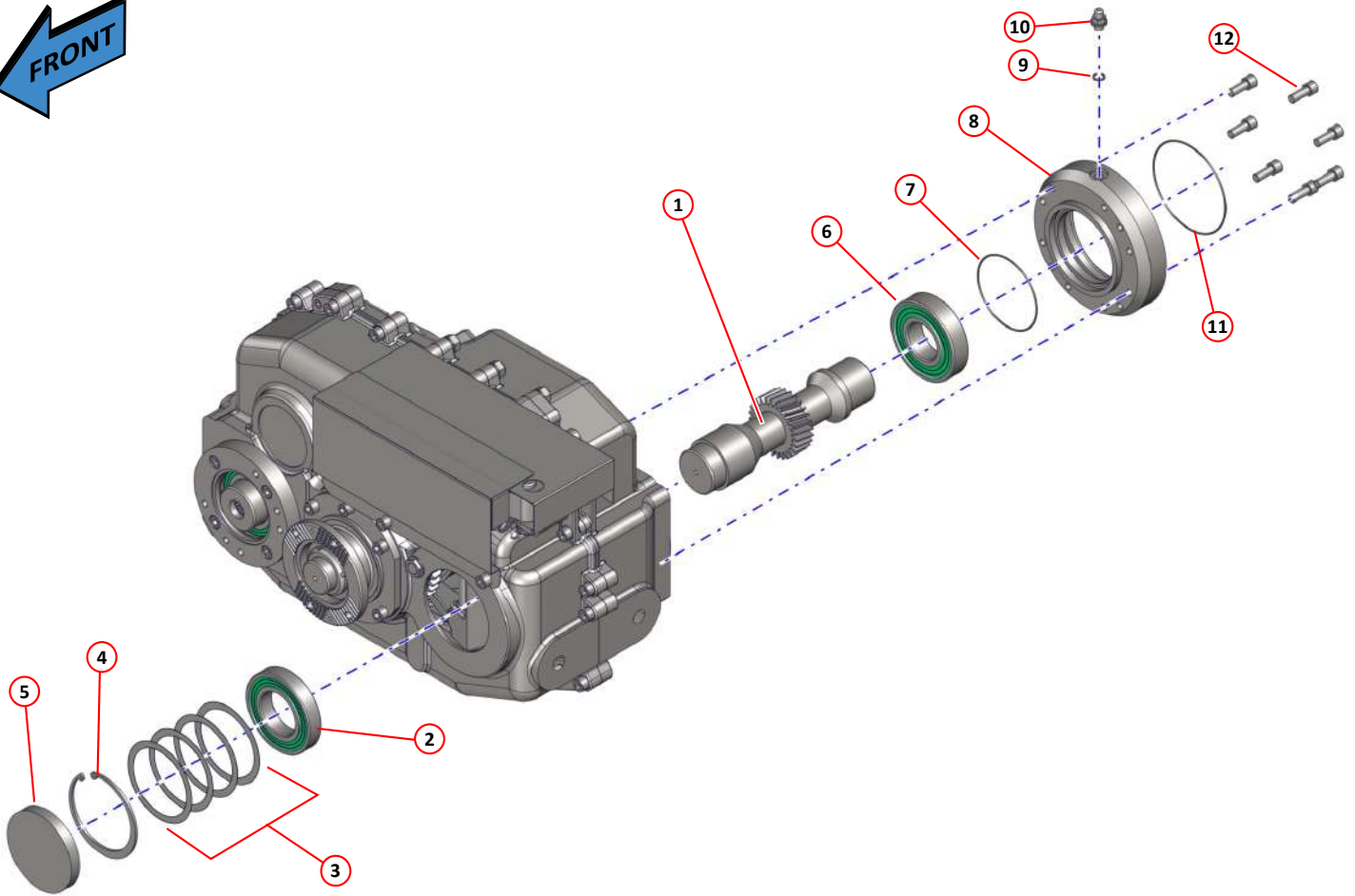
All three of these numbers must be quoted, along with the serial number of the sweeper, with any required parts for these gearboxes.



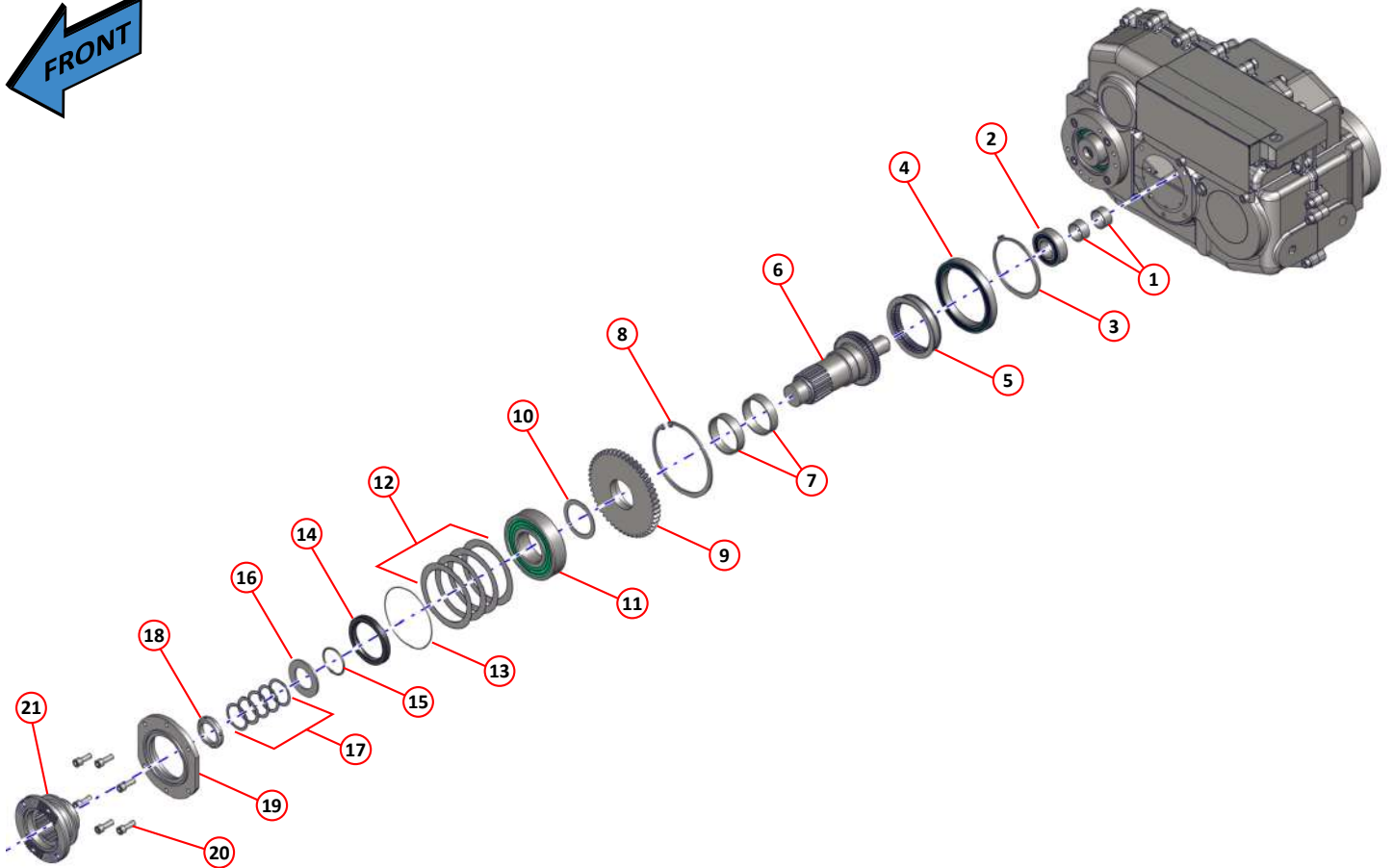
Item	Part Number	Type	Qty	Description
HP-R-1 Gearbox - Rögelberg				
1	SCA045327	6443-A-1	1	Rögelberg, complete assembly
1	SCA045327	6443-M-2	1	Rögelberg, complete assembly
1	SCA04xxxx	6443-M-5	1	Rögelberg, complete assembly
1	SCA047325	6443-M-8	1	Rögelberg, complete assembly
1	SCA047635	6443-M-11	1	Rögelberg, complete assembly

i If Type is not shown then it is for all versions of the HP-R-1 gearbox

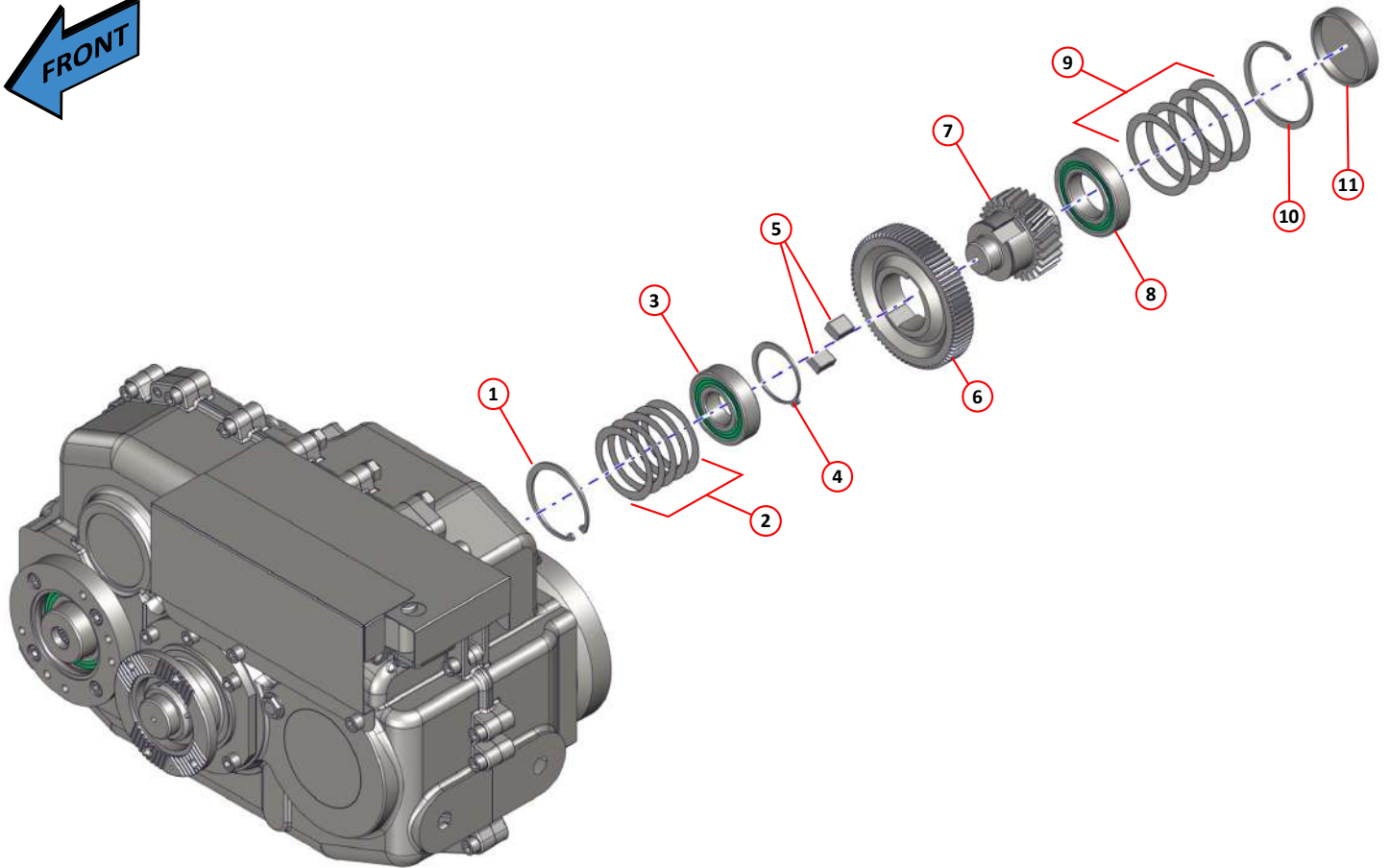
i The images shown on the following pages for the gearboxes and associated parts are reference only and are not representative of assembly or disassembly order.



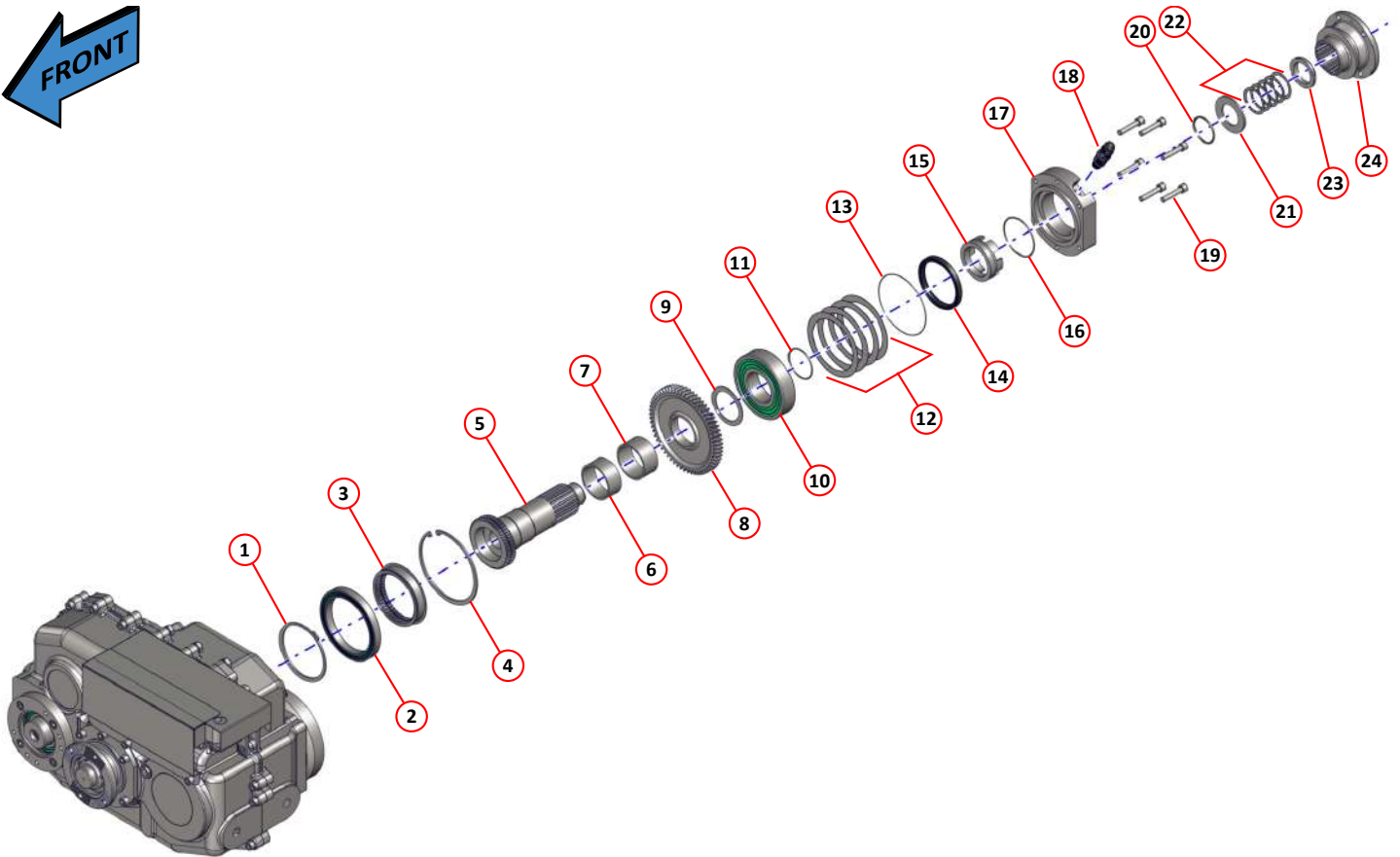
Item	Part Number	Type	Qty	Description
Pinion Shaft Drive Motor - HP-R-1 Gearbox - Rögelberg				
1	046306		1	Pinion shaft, drive motor
2	046334		1	Bearing, drive motor/pump
3	046371	As Req		Shim, DIN988, 100 x 120 x 0.5
3	046372	As Req		Shim, DIN988, 100 x 120 x 0.3
3	046373	As Req		Shim, DIN988, 100 x 120 x 0.1
4	046344		1	Retaining ring
5	046354		1	Plug cover
6	046335		1	Bearing, drive motor
7	046362		1	O-ring, drive pump/motor
8	046298		1	Flange, retaining
9	046411		1	Seal, breather
10	046408		1	Breather, M12 x 1.5
11	046363		1	O-ring, drive motor
12	046389		7	Bolt M12 x 30



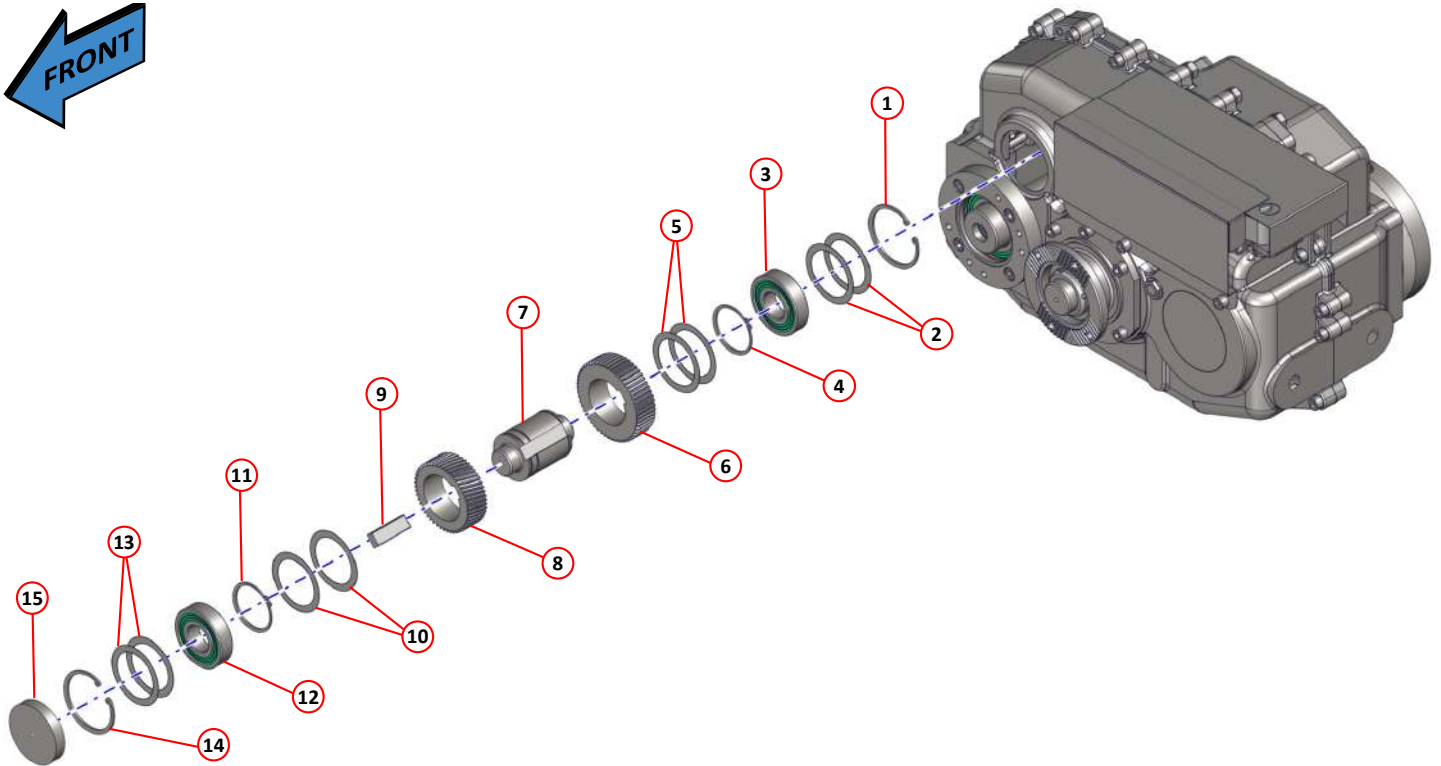
Item	Part Number	Type	Qty	Description
Pinion Shaft Input - HP-R-1 Gearbox - Rögelberg				
1	046340		2	Sleeve, input shaft
2	046331		1	Taper bearing, input
3	046345		1	Retaining ring, input/output
4	046336		1	Bearing, input/output
5	046311		1	Shifting ring, input
6	046300		1	Pinion shaft, input
7	046337		2	Needle bearing, input
8	046346		1	Retaining ring, input/output
9	046301		1	Spur gear, input
10	046316		1	Washer, output
11	046330		1	Bearing, input/output
12	046385		As Req	Shim, DIN988, 120 x 150 x 0.1
12	046386		As Req	Shim, DIN988, 120 x 150 x 0.3
12	046387		As Req	Shim, DIN988, 120 x 150 x 0.5
13	046358		1	O-ring, input/output
14	046350		1	Seal, radial shaft, input
15	046357		1	O-ring, input/output
16	046315		1	Washer, output/input
17	046374		As Req	Shim, DIN988, 50 x 62 x 1.0
17	046375		As Req	Shim, DIN988, 50 x 62 x 0.5
17	046376		As Req	Shim, DIN988, 50 x 62 x 0.3
17	046377		As Req	Shim, DIN988, 50 x 62 x 0.1
18	046403		1	Locknut, M50 x 1.5
19	046294		1	Flange, retaining, input
20	046389		6	Bolt M12 x 30
21	046299		1	Flange, input/output



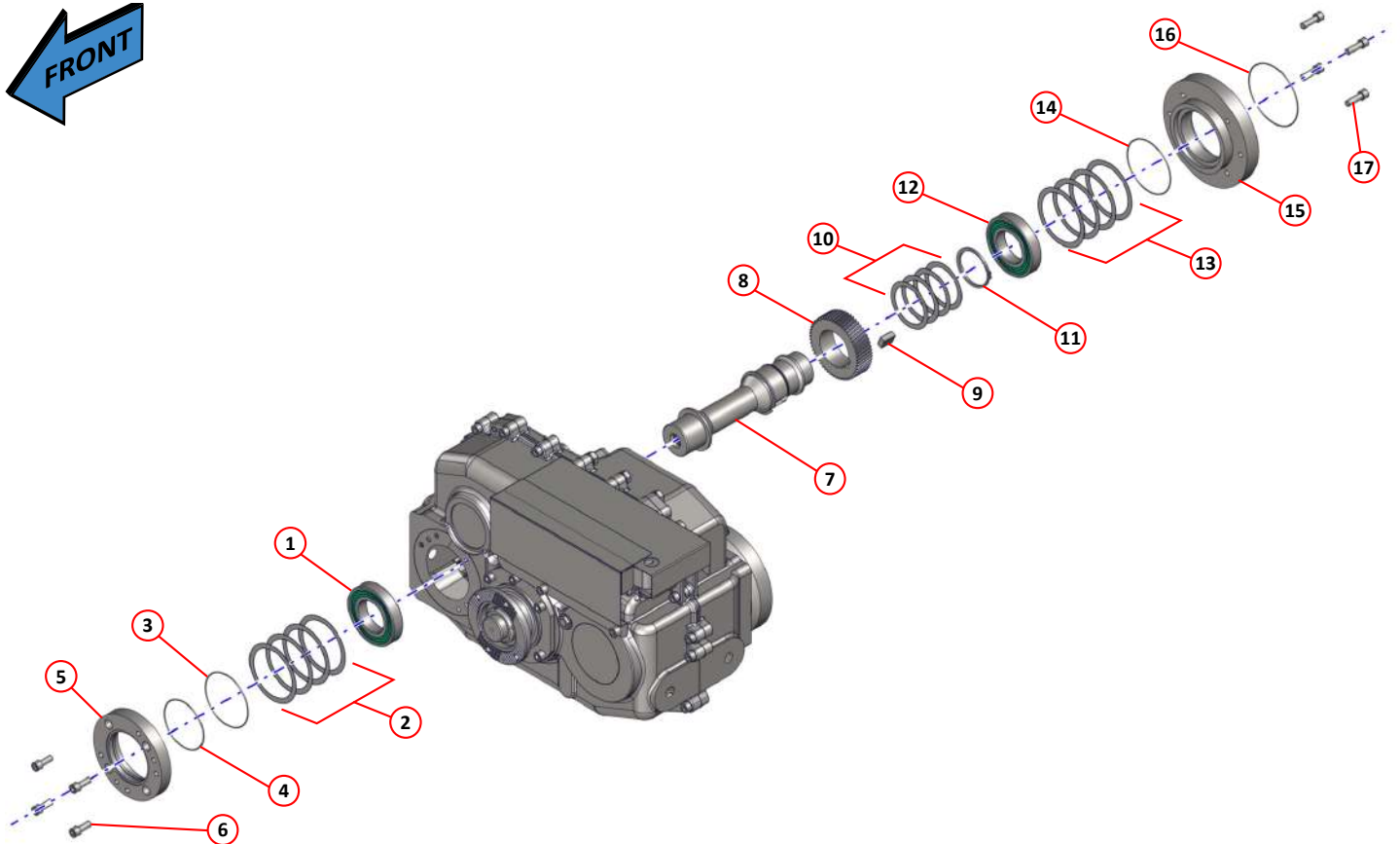
Item	Part Number	Type	Qty	Description
Pinion Shaft - HP-R-1 Gearbox - Rögelberg				
1	046342		1	Retaining ring, input/layshaft
2	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
2	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
2	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
3	046332		1	Taper bearing, input/layshaft
4	046341		1	Retaining ring, input/layshaft
5	046398		2	Key 20 x 12 x 2
6	046307		1	Spur gear
7	046308		1	Pinion shaft
8	046333		1	Taper bearing, layshaft
9	046365	As Req		Shim, DIN988, 80 x 100 x 0.5
9	046366	As Req		Shim, DIN988, 80 x 100 x 0.3
9	046367	As Req		Shim, DIN988, 80 x 100 x 0.1
10	046343		1	Retaining ring, layshaft
11	046356		1	Plug cover, layshaft



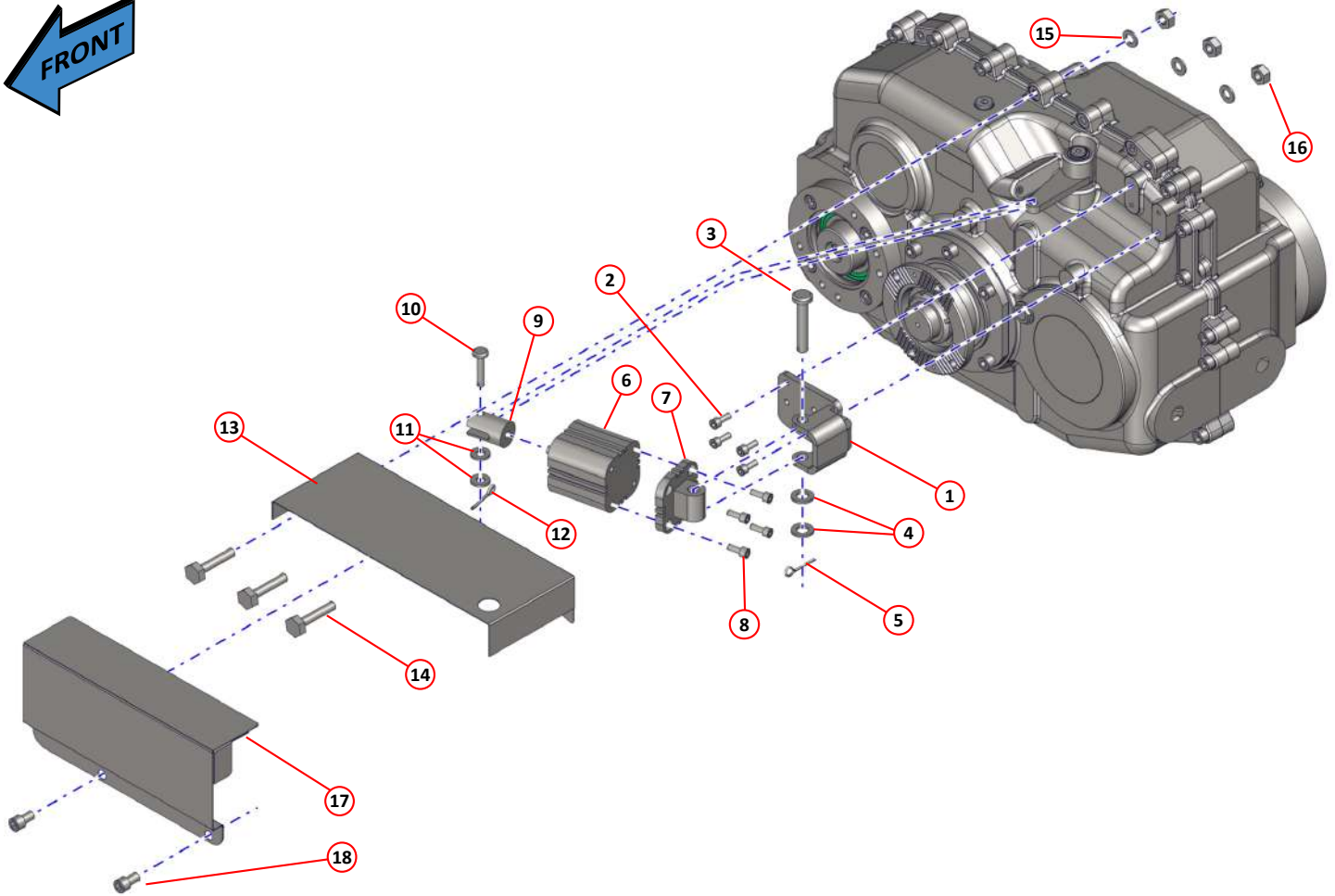
Item	Part Number	Qty	Description
Pinion Shaft Output - HP-R-1 Gearbox - Rögelberg			
1	046345	1	Retaining ring, input/output
2	046336	1	Bearing, input/output
3	046312	1	Shifting ring, output
4	046346	1	Retaining ring, input/output
5	046310	1	Pinion shaft, output
6	046338	1	Needle bearing, inner, output
7	046339	1	Needle bearing, outer, output
8	046309	1	Spur gear, output
9	046316	1	Washer, output
10	046330	1	Bearing, input/output
11	046359	1	O-ring, input/output
12	046385	As Req	Shim, DIN988, 120 x 150 x 0.1
12	046386	As Req	Shim, DIN988, 120 x 150 x 0.3
12	046387	As Req	Shim, DIN988, 120 x 150 x 0.5
13	046358	1	O-ring, input/output
14	046351	1	Seal, radial shaft, input
15	046314	1	Bushing, output
16	046364	1	O-ring, output
17	046295	1	Flange, retaining, output
18	046738	1	Gearbox speed sensor 19mm, DTCO 4 compliant Page 318
19	046377	6	Bolt M12 x 55
20	046357	1	O-ring, input/output
21	046315	1	Washer, output/input
22	046374	As Req	Shim, DIN988, 50 x 62 x 1.0
22	046375	As Req	Shim, DIN988, 50 x 62 x 0.5
22	046376	As Req	Shim, DIN988, 50 x 62 x 0.3
22	046377	As Req	Shim, DIN988, 50 x 62 x 0.1
23	046403	1	Locknut, M50 x 1.5
24k	046299	1	Flange, input/output



Item	Part Number	Type	Qty	Description
Shaft Input - HP-R-1 Gearbox - Rögelberg				
1	046342		1	Retaining ring, input/layshaft
2	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
2	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
2	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
3	046332		1	Taper bearing, input/layshaft
4	046341		1	Retaining ring, input/layshaft
5	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
5	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
5	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
6	046398		2	Key 20 x 12 x 2
7	046307		1	Spur gear
8	046308		1	Pinion shaft
9	046333		1	Taper bearing, layshaft
10	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
10	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
10	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
11	046343		1	Retaining ring, layshaft
12	046356		1	Plug cover, layshaft
13	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
13	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
13	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
14	046342		1	Retaining ring, input/layshaft
15	046353		1	Plug cover, input



Item	Part Number	Type	Qty	Description
Input Shaft Drive Pump - HP-R-1 Gearbox - Rögelberg				
1	046334		1	Bearing, drive motor/pump
2	046371		As Req	Shim, DIN988, 100 x 120 x 0.5
2	046372		As Req	Shim, DIN988, 100 x 120 x 0.3
2	046373		As Req	Shim, DIN988, 100 x 120 x 0.1
3	046362		1	O-ring, drive pump/motor
4	046360		1	O-ring, drive pump
5	046297		1	Flange retaining, drive pump, inner
6	046389		4	Bolt, M12 x 30
7	046305		1	Input shaft, drive pump
8	046421		1	Spur gear, drive pump
9	046400		1	Key 20 x 12 x 28
10	046382		As Req	Shim, DIN988, 75 x 95 x 0.5
10	046383		As Req	Shim, DIN988, 75 x 95x 0.3
10	046384		As Req	Shim, DIN988, 75 x 95 x 0.1
11	046349		1	Retaining ring, drive pump
12	046334		1	Bearing, drive motor/pump
13	046371		As Req	Shim, DIN988, 100 x 120 x 0.5
13	046372		As Req	Shim, DIN988, 100 x 120 x 0.3
13	046373		As Req	Shim, DIN988, 100 x 120 x 0.1
14	046362		1	O-ring, drive pump/motor
15	046296		1	Flange retaining, drive pump, outer
16	046361		1	O-ring, drive pump
17	046391		4	Bolt, M12 x 35



Item	Part Number	Type	Qty	Description
Shifting Pneumatic Cylinder - HP-R-1 Gearbox - Rögelberg				
1	046319		1	Mounting bracket, adapter ram
2	046392		4	Bolt, M8 x 20
3	046328		1	Clevis pin, rear
3	047336 *		1	Clevis pin, rear
4	046417		2	Washer, M16R
5	046395		1	Split pin, 4 x40
6	046396		1	Pneumatic cylinder
6	047343 *		1	Pneumatic cylinder
7	046397		1	Cylinder fixing eye
7	047343 *		1	Cylinder fixing eye
8	046392		4	Bolt, M8 x 20
9	046324		1	Clevis, adapter
9	047335 *		1	Clevis, adapter
10	046327		2	Clevis pin, front
11	046416		2	Washer, M12
12	046395		1	Split pin, 4 x40
13	046383		3	Cover, rear
14	046413 †		3	Bolt, M12 x 60
15	046414 †		3	Washer, M12
16	046415 †		3	Nut, hex , M12
17	046320		1	Cover, front
17	046320		1	Cover, front
18	046393		2	Bolt, M12 x 20

Notes:-

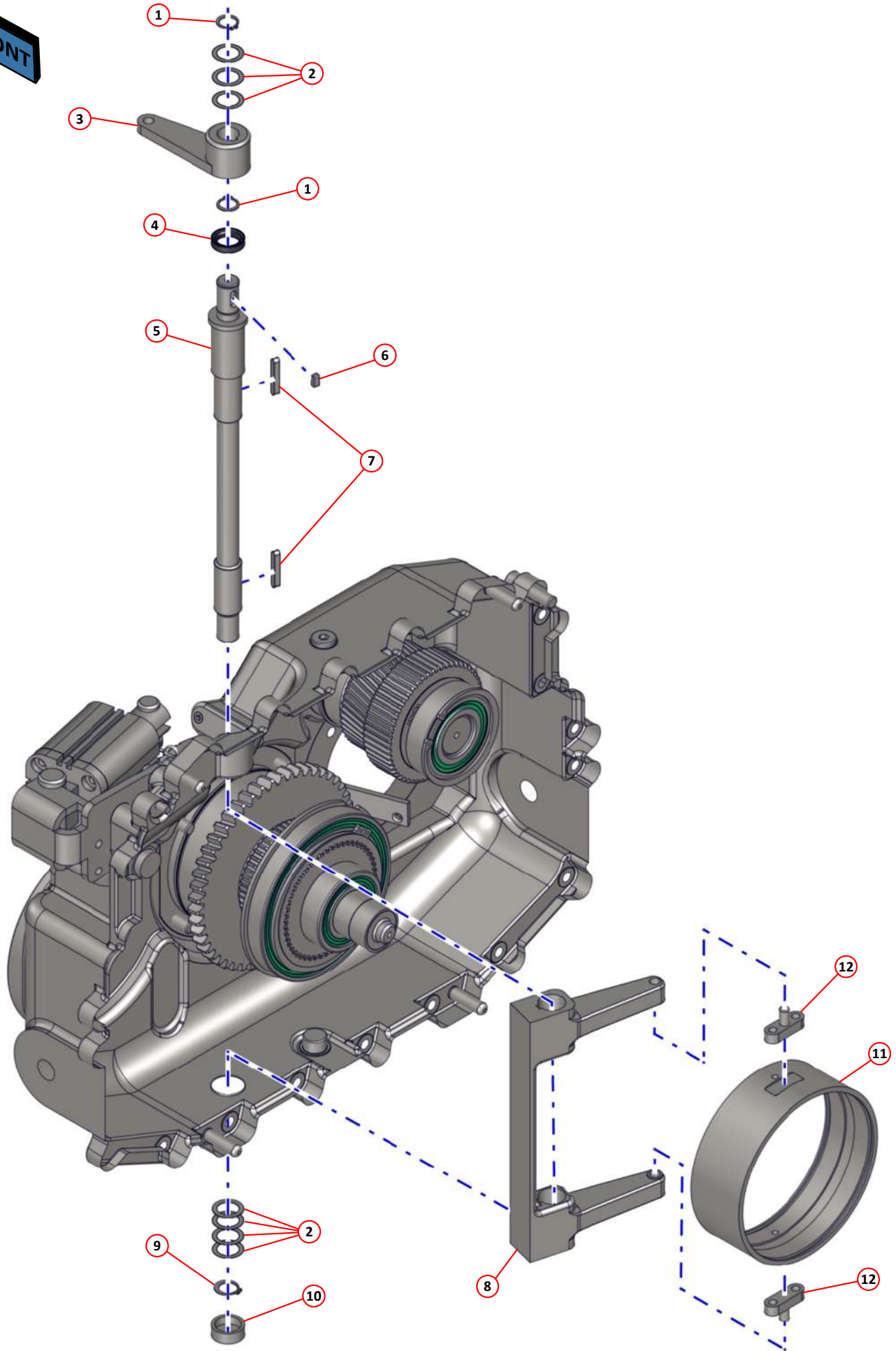
* For gearbox ID 6443-M-8 and 6443-M-11

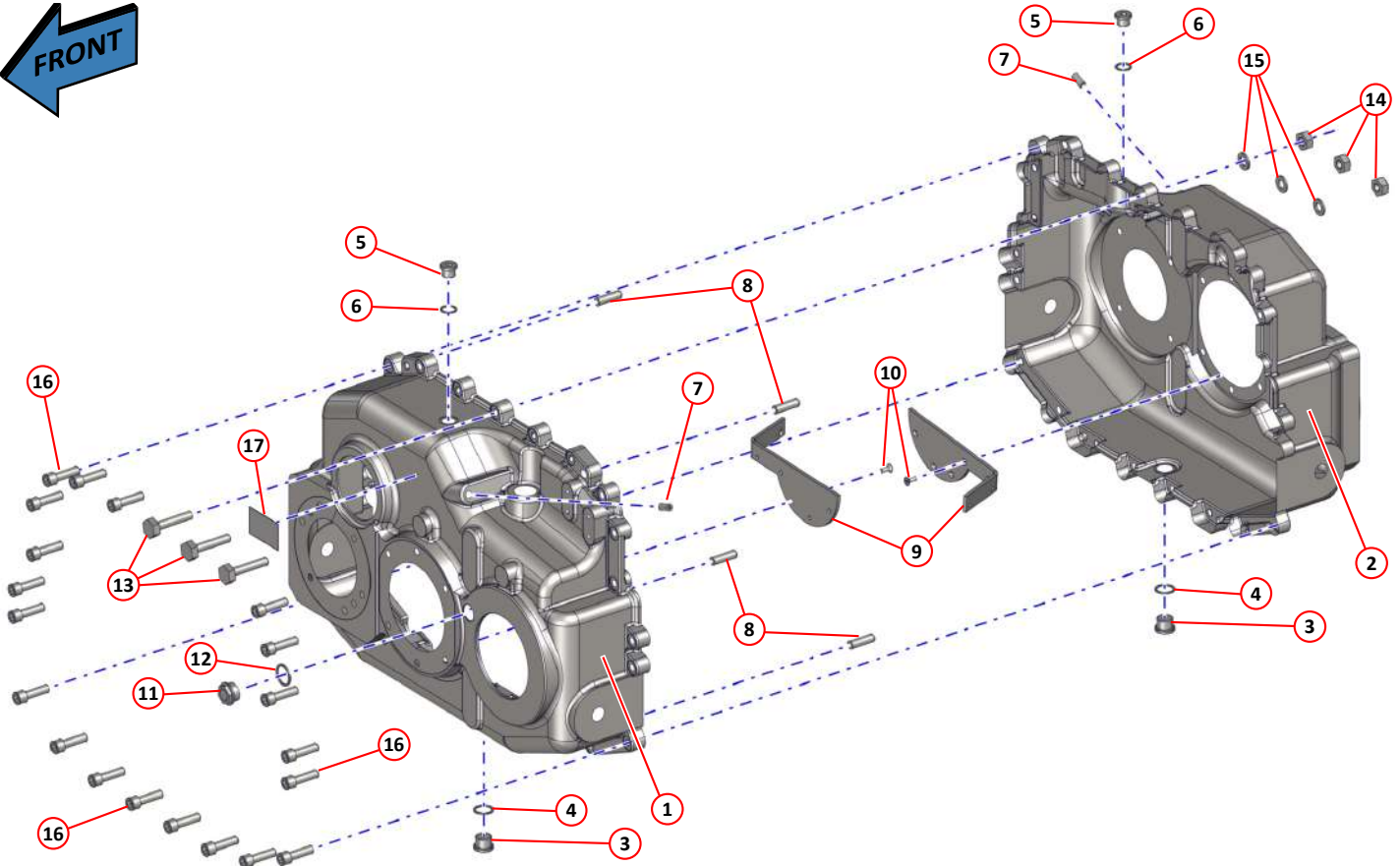
† These items are fixings of the case, shown here for reference. See page 382.

<i>Item</i>	<i>Part Number</i>	<i>Type</i>	<i>Qty</i>	<i>Description</i>
Selector Mechanism - HP-R-1 Gearbox - Rögelberg				
1	046347		2	Retaining ring, selector shaft
2	046378		As Req	Shim, DIN988, 20 x 28 x 0.5
2	047338 *		As Req	Shim, DIN988, 20 x 28 x 0.5
2	046379		As Req	Shim, DIN988, 20 x 28 x 0.3
2	047339 *		As Req	Shim, DIN988, 20 x 28 x 0.3
2	046380		As Req	Shim, DIN988, 20 x 28 x 0.1
2	044740 *		As Req	Shim, DIN988, 20 x 28 x 0.1
2	046381		As Req	Shim, DIN988, 20 x 28 x 1.0
2	047431 *		As Req	Shim, DIN988, 20 x 28 x 1.0
3	046322		1	Shifting lever
3	047334 *		1	Shifting lever
4	046352		1	Seal, radial shaft, selector shaft
5	046317		1	Switching threshold shaft
5	047330 *		1	Switching threshold shaft
6	046329		1	Key, selector shaft
6	047337 *		1	Key, selector shaft
7	046401		2	Key, 6 x 6 x 40
8	046318		1	Shifting fork
9	046348		1	Circlip, selector shaft
10	046355		1	Plug cover, selector shaft
11	046313		1	Shifting ring, output
12	046326		2	Key, shifting element

Notes:-

* For gearbox ID 6443-M-8 and 6443-M11



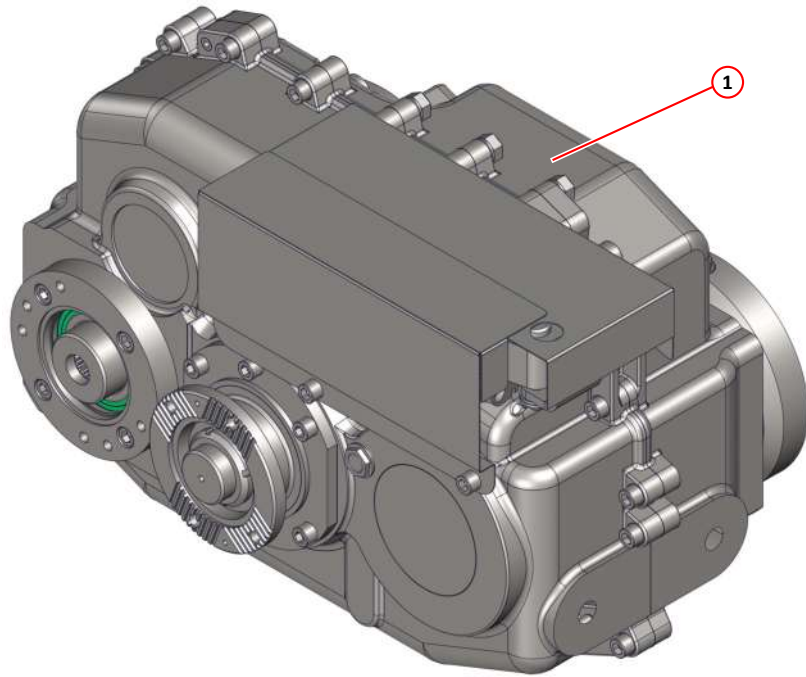


Item Part Number Type Quantity Description
Casings and fittings - HP-R-1 Gearbox - Rögelberg


Item	Part Number	Type	Quantity	Description
1	046292		1	Gearbox casing, front
1	047328 *		1	Gearbox casing, front
2	046293		1	Gearbox casing, rear
2	047329 *		1	Gearbox casing, rear
3	046405		2	Screw plug, M22 x 1.5
4	046409		2	Seal, 22 x 27
5	046406		2	Screw plug, M18 x 1.5
6	046410		2	Seal, 18 x 22
7	046412		2	Bolt, M10 x 20
8	046402		4	Pin, 12 x 40
9	046323		2	Steel plate cover
10	046394	As Req		Bolt, countersunk, CSK M6 x 12
11	046404		1	Sight glass, M26 x1.5
12	046418		1	Seal, 26 x 31 x 2
13	046413		3	Bolt, M12 x 60
14	046414		3	Washer 13
15	046415		3	Hex nut, M12
16	046388		18	Bolt, M12 x40
17	046419		1	Identification plate Page 371


Notes:-

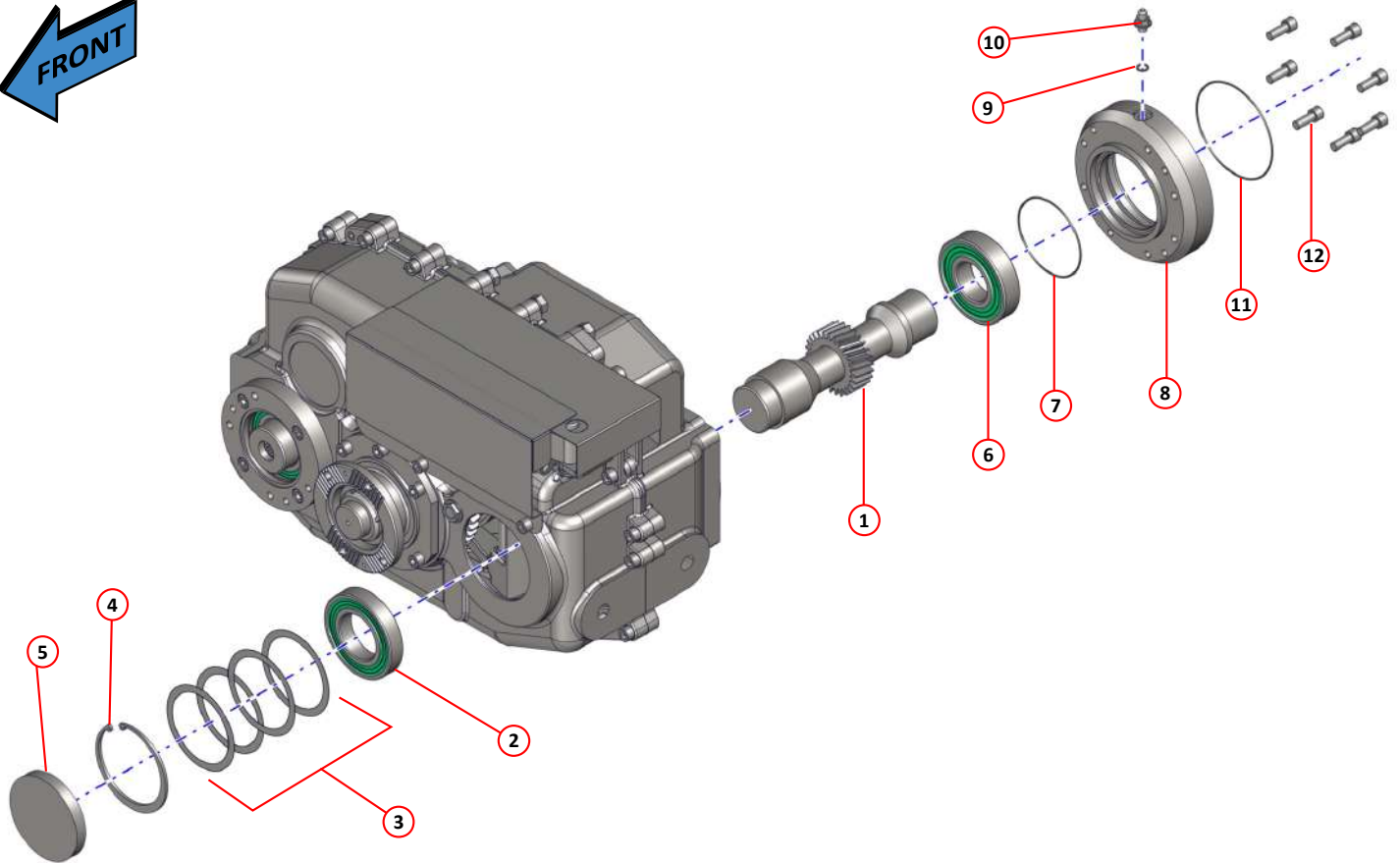
* For gearbox ID 6443-M-8 and 6443-M-11



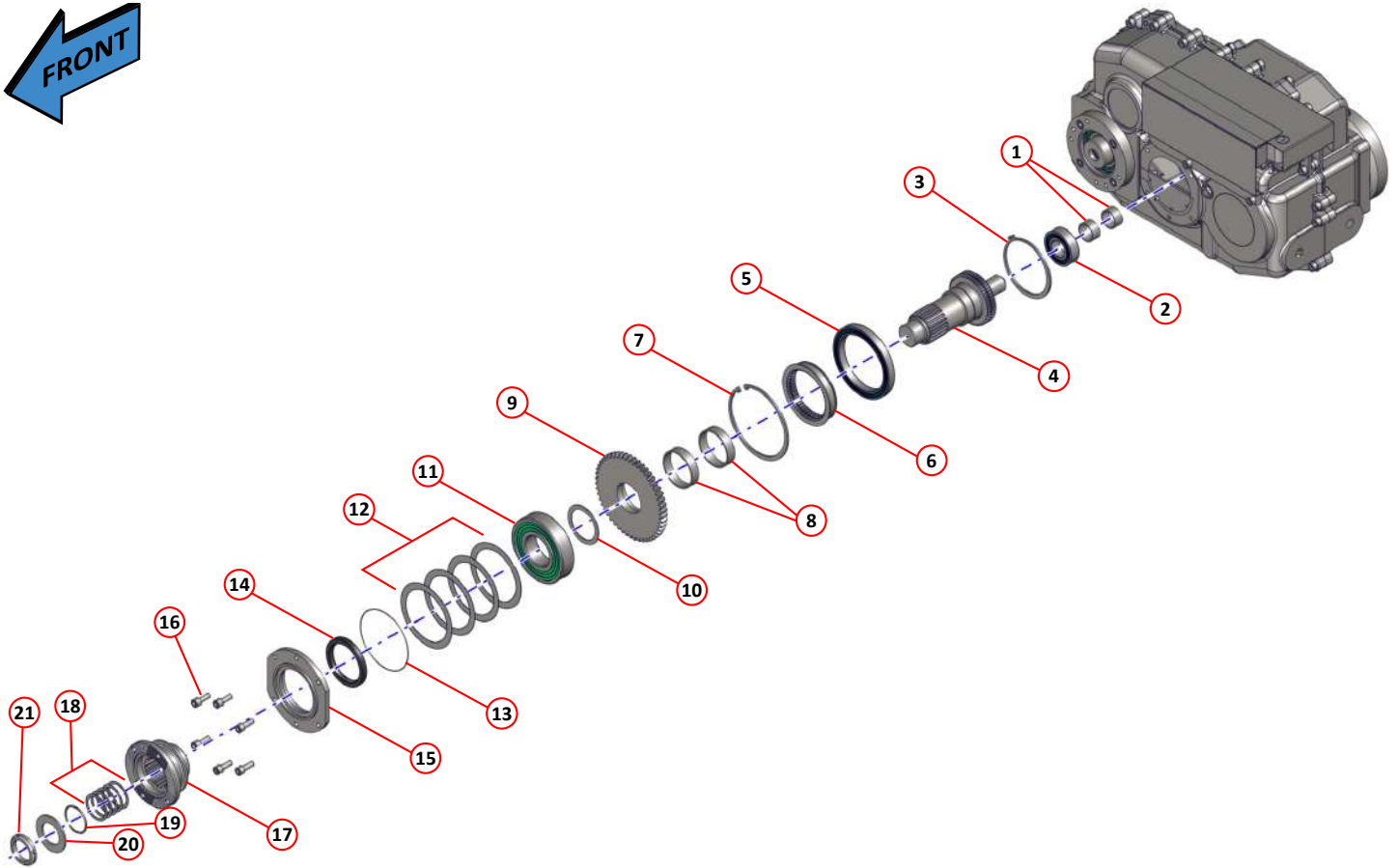
<i>Item</i>	<i>Part Number</i>	<i>Type</i>	<i>Qty</i>	<i>Description</i>
HP-R-2 Gearbox - Rögelberg				
1	SCA045328	6443-A-1	1	Rögelberg, complete assembly
1	SCA045328	6443-M-1	1	Rögelberg, complete assembly
1	SCA04xxxx	6443-M-4	1	Rögelberg, complete assembly
1	SCA047326	6443-M-7	1	Rögelberg, complete assembly
1	SCA047634	6443-M-10	1	Rögelberg, complete assembly

 If Type is not shown then it is for all versions of the HP-R-2 gearbox

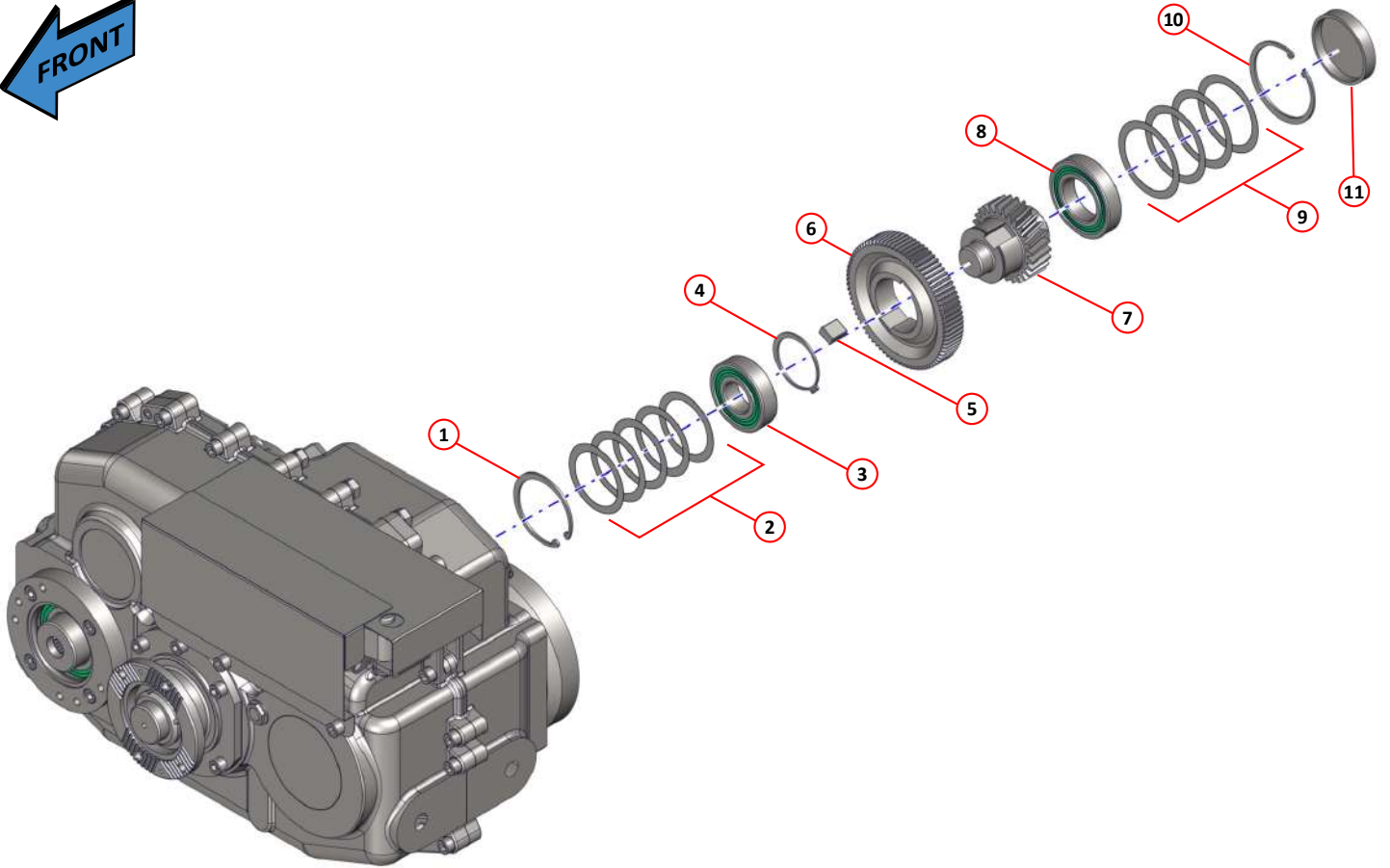
 The images shown on the following pages for the gearboxes and associated parts are reference only and is not representative of assembly or disassembly order.



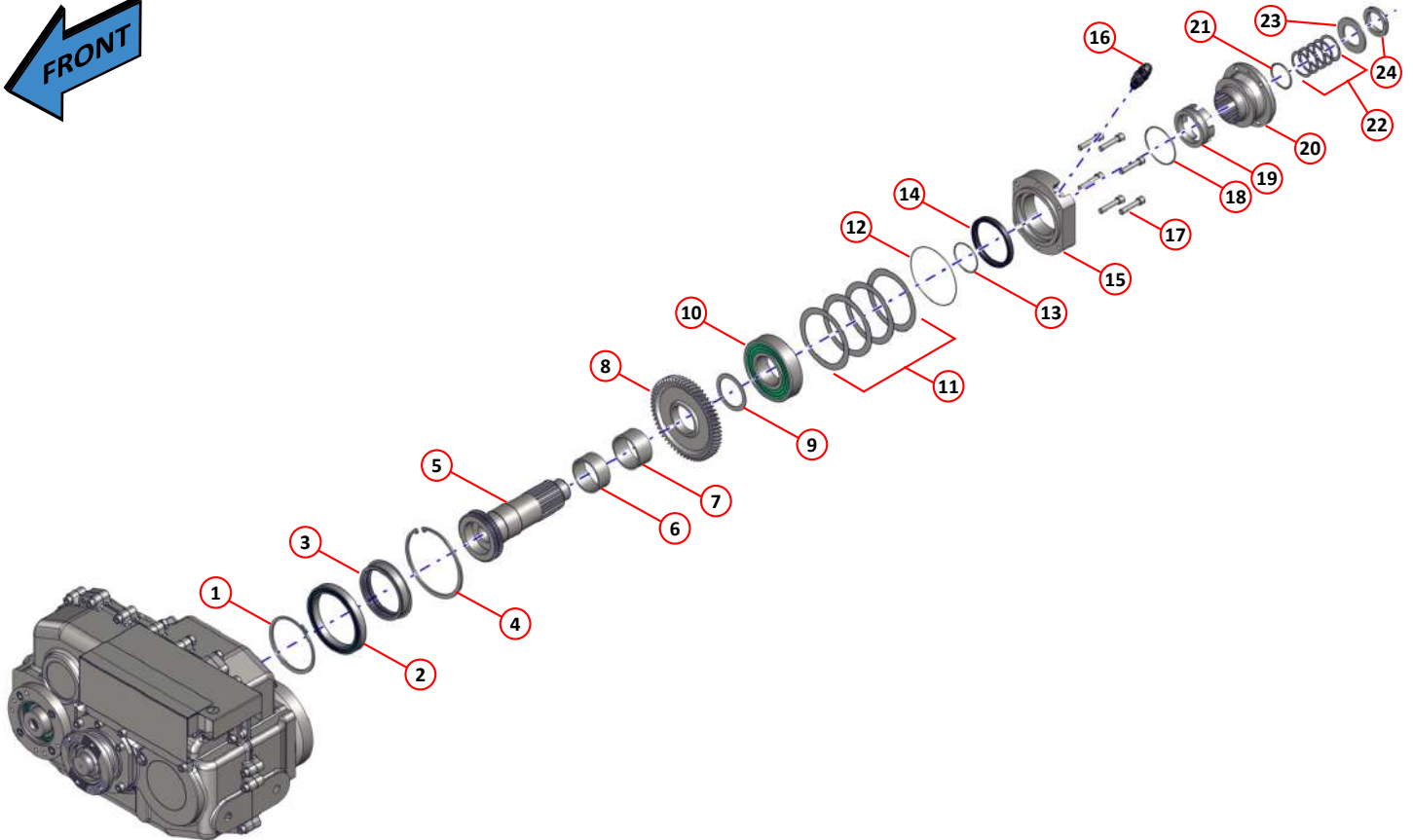
Item	Part Number	Type	Qty	Description
Pinion Shaft Drive Motor - HP-R-2 Gearbox - Rögelberg				
1	046306		1	Pinion shaft, drive motor
2	046334		1	Bearing, drive motor/pump
3	046371	As Req		Shim, DIN988, 100 x 120 x 0.5
3	046372	As Req		Shim, DIN988, 100 x 120 x 0.3
3	046373	As Req		Shim, DIN988, 100 x 120 x 0.1
4	046344		1	Retaining ring
5	046354		1	Plug cover
6	046335		1	Bearing, drive motor
7	046362		1	O-ring, drive pump/motor
8	046298		1	Flange, retaining
9	046411		1	Seal, breather
10	046408		1	Breather, M12 x 1.5
11	046363		1	O-ring, drive motor
12	046389		7	Bolt M12 x 30



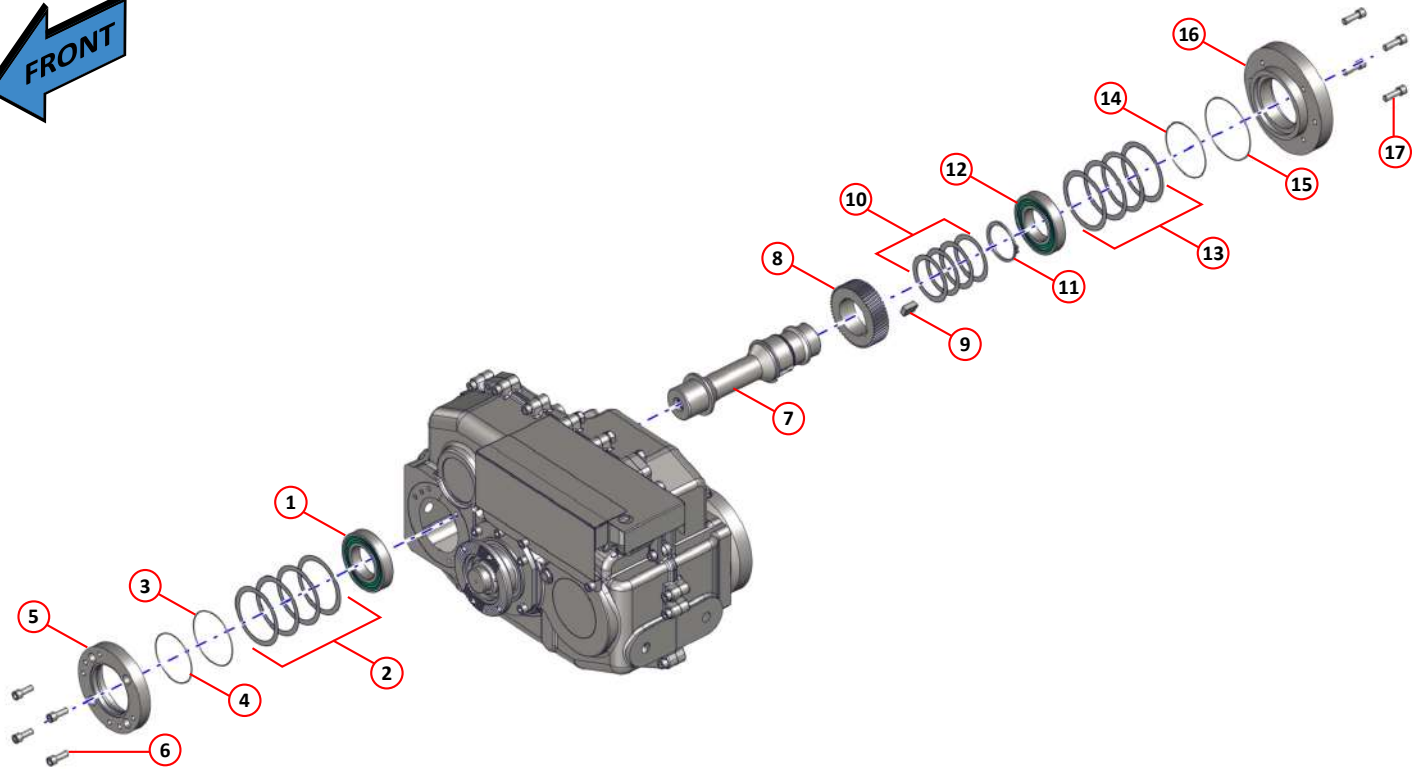
Item	Part Number	Type	Qty	Description
Pinion Shaft Input - HP-R-2 Gearbox - Rögelberg				
1	046340		2	Sleeve, input shaft
2	046331		1	Taper bearing, input
3	046345		1	Retaining ring, input/output
4	046300		1	Pinion shaft, input
5	046336		1	Bearing, input/output
6	046311		1	Shifting ring, input
7	046346		1	Retaining ring, input/output
8	046337		2	Needle bearing, input
9	046301		1	Spur gear, input
10	046316		1	Washer, output
11	046330		1	Bearing, input/output
12	046385		As Req	Shim, DIN988, 120 x 150 x 0.1
12	046386		As Req	Shim, DIN988, 120 x 150 x 0.3
12	046387		As Req	Shim, DIN988, 120 x 150 x 0.5
13	046358		1	O-ring, input/output
14	046350		1	Seal, radial shaft, input
15	046294		1	Flange, retaining, input
16	046389		6	Bolt M12 x 30
17	046299		1	Flange, input/output
18	046374		As Req	Shim, DIN988, 50 x 62 x 1.0
18	046375		As Req	Shim, DIN988, 50 x 62 x 0.5
18	046376		As Req	Shim, DIN988, 50 x 62 x 0.3
19	046377		As Req	Shim, DIN988, 50 x 62 x 0.1
19	046357		1	O-ring, input/output
20	046315		1	Washer, output/input
21	046403		1	Locknut, M50 x 1.5



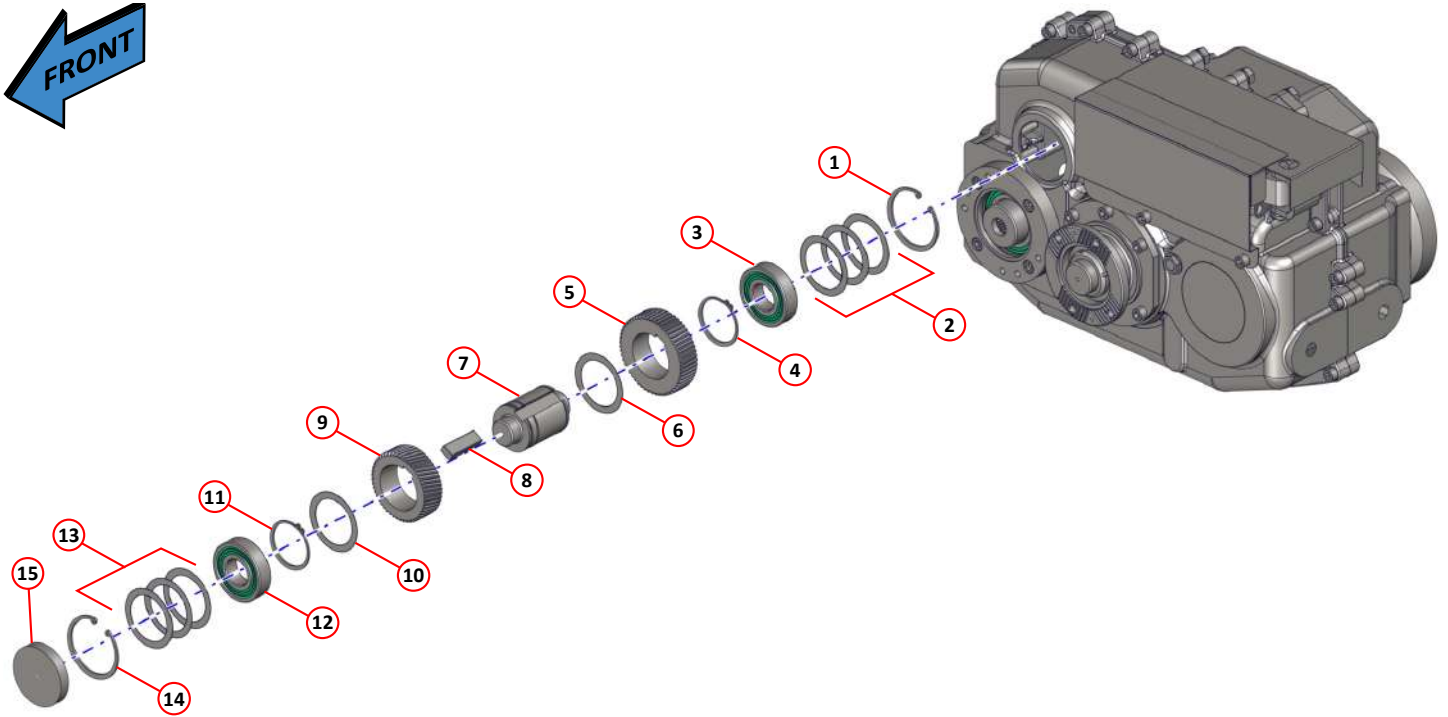
Item	Part Number	Type	Quantity	Description
Pinion Shaft - HP-R-2 Gearbox - Rögelberg				
1	046342		1	Retaining ring, input/layshaft
2	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
2	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
2	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
3	046332		1	Taper bearing, input/layshaft
4	046341		1	Retaining ring, input/layshaft
5	046398		2	Key 20 x 12 x 2
6	046307		1	Spur gear
7	046308		1	Pinion shaft
8	046333		1	Taper bearing, layshaft
9	046365	As Req		Shim, DIN988, 80 x 100 x 0.5
9	046366	As Req		Shim, DIN988, 80 x 100 x 0.3
9	046367	As Req		Shim, DIN988, 80 x 100 x 0.1
10	046343		1	Retaining ring, layshaft
11	046356		1	Plug cover, layshaft



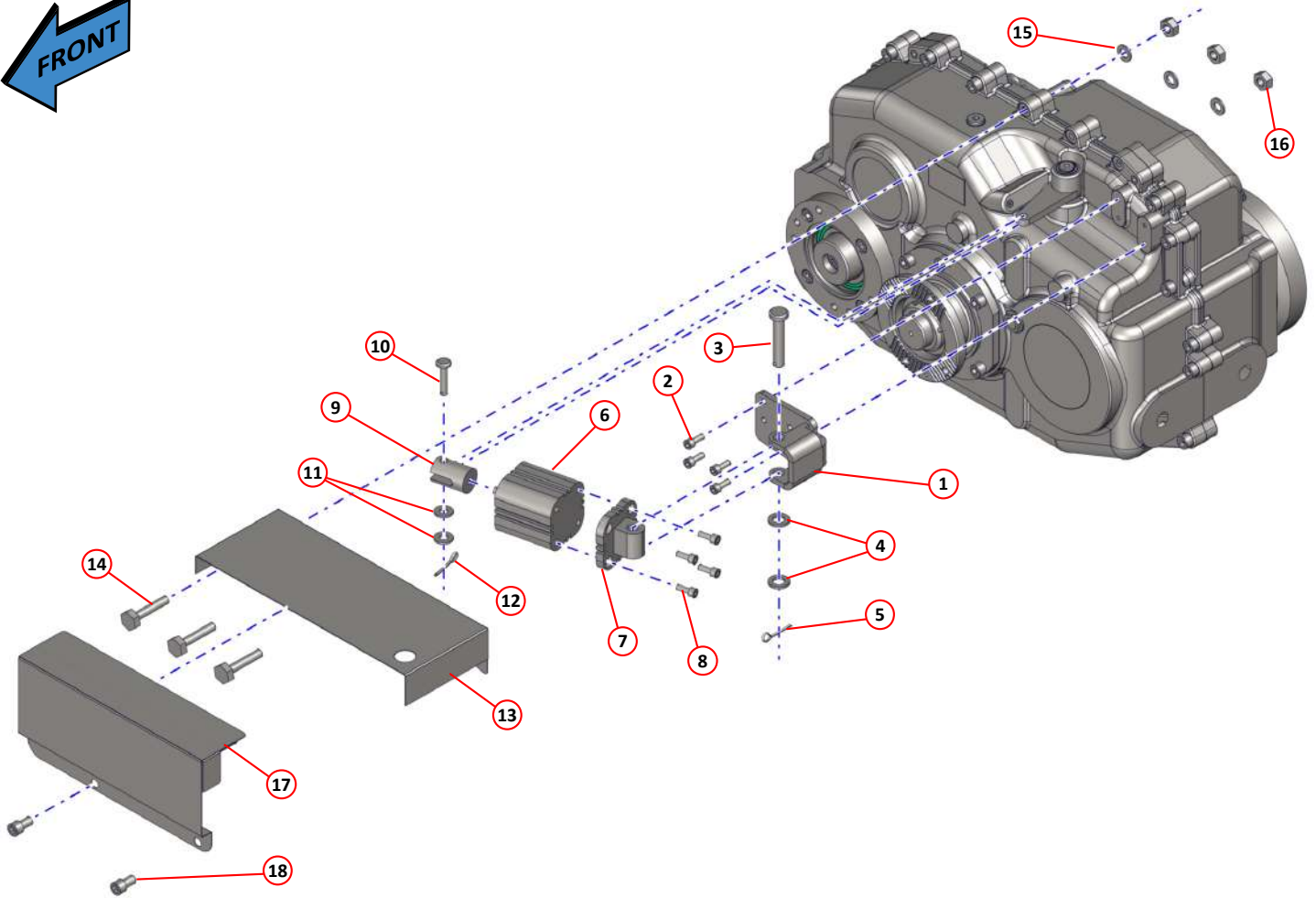
Item	Part Number	Type	Qty	Description
Pinion Shaft Output - HP-R-2 Gearbox - Rögelberg				
1	046345		1	Retaining ring, input/output
2	046336		1	Bearing, input/output
3	046312		1	Shifting ring, output
4	046346		1	Retaining ring, input/output
5	046310		1	Pinion shaft, output
6	046338		1	Needle bearing, output, inner
7	046339		1	Needle bearing, output, outer
8	046309		1	Spur gear, output
9	046316		1	Washer, output
10	046330		1	Bearing, input/output
11	046385		As Req	Shim, DIN988, 120 x 150 x 0.1
11	046386		As Req	Shim, DIN988, 120 x 150 x 0.3
11	046387		As Req	Shim, DIN988, 120 x 150 x 0.5
12	046358		1	O-ring, input/output
13	046359		1	O-ring, input/output
14	046351		1	Radial shaft seal, input
15	046295		1	Flange retaining, output
16	046738		1	Gearbox speed sensor, 19mm, DTCO 4 compliant Page 318
17	046390		6	Bolt, M12 x 55
18	046364		1	O-ring, output
19	046314		1	Bushing, output
20	046299		1	Flange, input/output
21	046357		1	O-ring, input/output
22	046374		As Req	Shim, DIN988, 50 x 62 x 1.0
22	046375		As Req	Shim, DIN988, 50 x 62 x 0.5
22	046376		As Req	Shim, DIN988, 50 x 62 x 0.3
22	046377		As Req	Shim, DIN988, 50 x 62 x 0.1
23	046315		1	Washer, output/input
24	046403		1	Locknut M50 x 1.5



Item	Part Number	Type	Qty	Description
Input Shaft Drive - HP-R-2 Gearbox - Rögelberg				
1	046334		1	Bearing, drive motor/pump
2	046371	As Req		Shim, DIN988, 100 x 120 x 0.5
2	046372	As Req		Shim, DIN988, 100 x 120 x 0.3
2	046373	As Req		Shim, DIN988, 100 x 120 x 0.1
3	046362		1	O-ring, drive pump/motor
4	046360		1	O-ring, drive pump
5	046297		1	Flange retaining, drive pump, inner
6	046389		4	Bolt, M12 x 30
7	046305		1	Input shaft, drive pump
8	046325		1	Spur gear, drive pump
9	046400		1	Key 20 x12 x 28
10	046382	As Req		Shim, DIN988, 75 x 95 x 0.5
10	046383	As Req		Shim, DIN988, 75 x 95x 0.3
10	046384	As Req		Shim, DIN988, 75 x 95 x 0.1
11	046349		1	Retaining ring, drive pump
12	046334		1	Bearing, drive motor/pump
13	046371	As Req		Shim, DIN988, 100 x 120 x 0.5
13	046372	As Req		Shim, DIN988, 100 x 120 x 0.3
13	046373	As Req		Shim, DIN988, 100 x 120 x 0.1
14	046362		1	O-ring, drive pump/motor
15	046361		1	O-ring, drive pump
16	046296		1	Flange retaining, drive pump, outer
17	046391		4	Bolt M12 x35



Item	Part Number	Type	Qty	Description
Shaft Input - HP-R-2 Gearbox - Rögelberg				
1	046342		1	Retaining ring, input/layshaft
2	046368		As Req	Shim, DIN988, 70 x 90 x 0.5
2	046369		As Req	Shim, DIN988, 70 x 90 x 0.3
2	046370		As Req	Shim, DIN988, 70 x 90 x 0.1
3	046332		1	Taper bearing, input/layshaft
4	046341		1	Retaining ring, input/layshaft
5	046302		1	Spur gear, input
6	046368		1	Shim, DIN988, 70 x 90 x 0.5
7	046303		1	Shaft, input
8	046399		1	Key 20 x 12 x 63
9	046304		1	Spur gear, input
10	046368		1	Shim, DIN988, 70 x 90 x 0.5
11	046341		1	Retaining ring, input/layshaft
12	046332		1	Taper bearing, input/layshaft
13	046368		As Req	Shim, DIN988, 70 x 90 x 0.5
13	046369		As Req	Shim, DIN988, 70 x 90 x 0.3
13	046370		As Req	Shim, DIN988, 70 x 90 x 0.1
14	046342		1	Retaining ring, input/layshaft
15	046353		1	Plug cover, input



Item	Part Number	Type	Qty	Description
Shifting Pneumatic Cylinder - HP-R-2 Gearbox - Rögelberg				
1	046319		1	Mounting bracket, adapter ram
1	047331*		1	Mounting bracket, adapter ram
2	046392		4	Bolt, M8 x 20
3	046328		1	Clevis pin, rear
3	047336 *		1	Clevis pin, rear
4	046417		2	Washer, M16R
5	046395		1	Split pin, 4 x40
6	046396		1	Pneumatic cylinder
6	047342 *		1	Pneumatic cylinder
7	046397		1	Cylinder fixing eye
7	047343 *		1	Cylinder fixing eye
8	046392		4	Bolt, M8 x 20
9	046324		1	Clevis, adapter
9	047335 *		1	Clevis, adapter
10	046327		2	Clevis pin, front
11	046416		2	Washer, M12
12	046395		1	Split pin, 4 x40
13	046383		3	Cover, rear
13	047333 *		3	Cover, rear
14	046413 †		3	Bolt, M12 x 60
15	046414 †		3	Washer, M12
16	046415 †		3	Nut, hex , M12
17	046320		1	Cover, front
17	047332 *		1	Cover, front
18	046393		2	Bolt, M12 x 20

Notes:-

* For gearbox ID 6443-M-7 and 6443-M-10

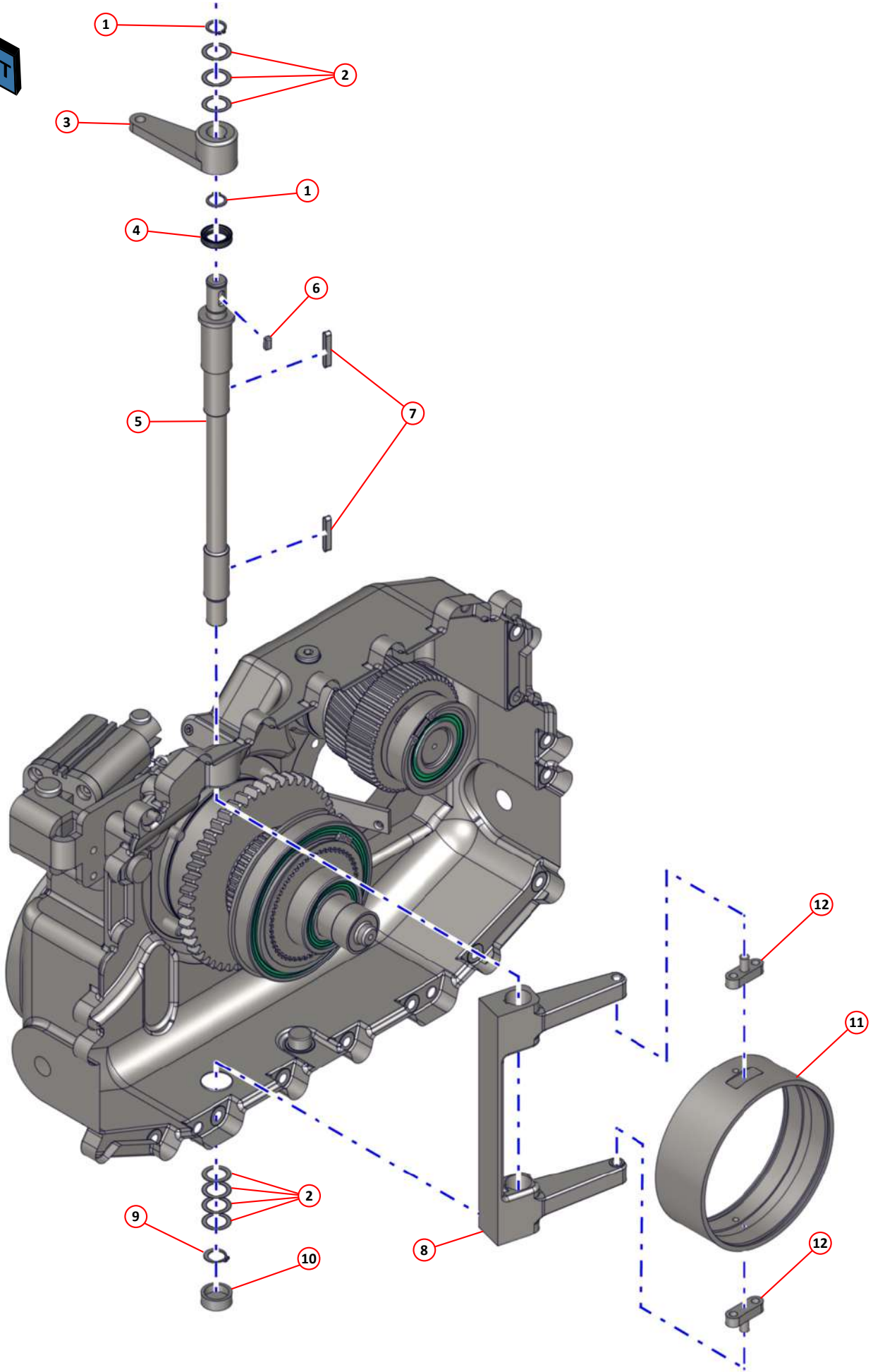
† These items are fixings of the case, shown here for reference. See page 394.

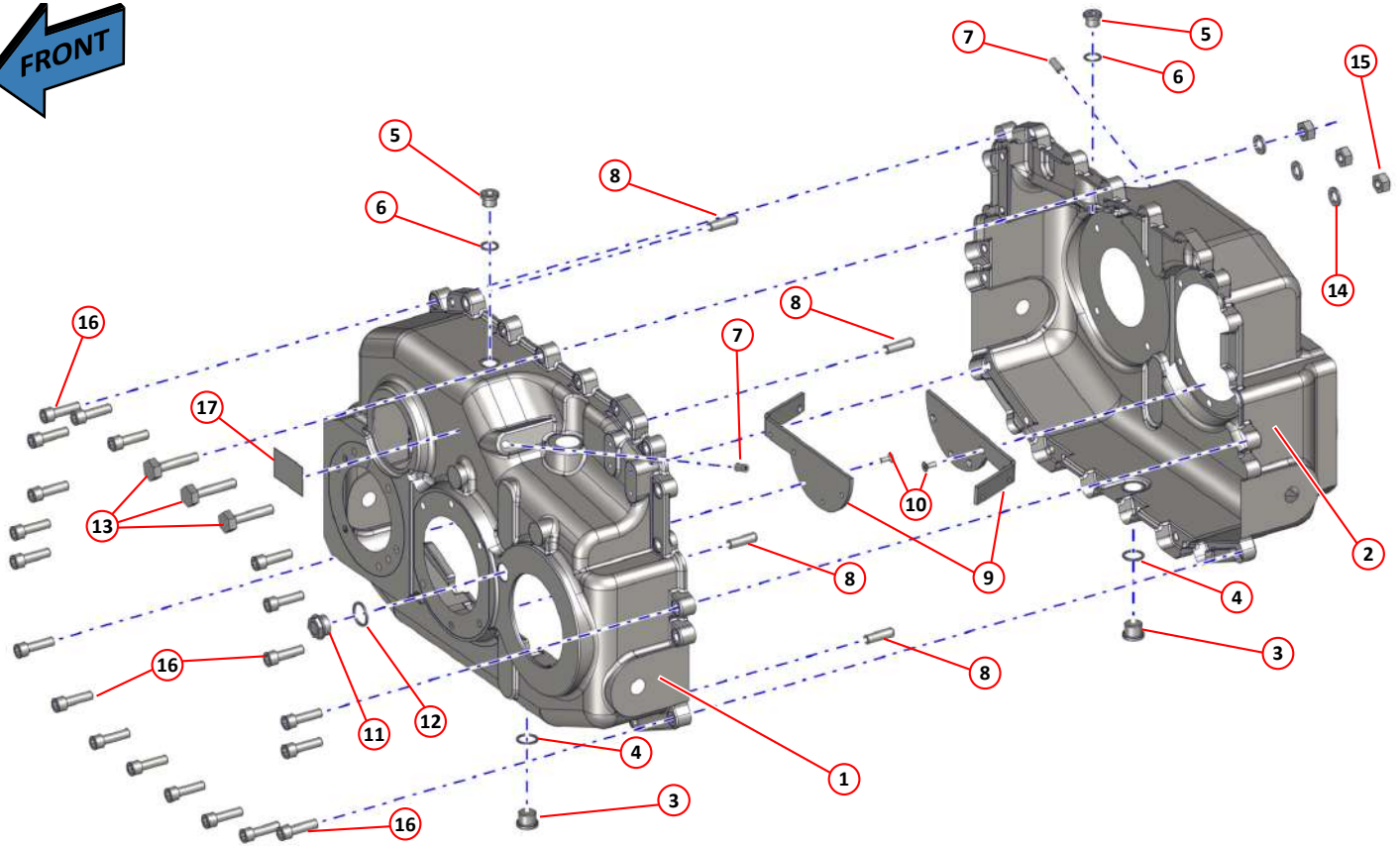
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Item	Part Number	Type	Qty	Description
				Selector Mechanism - HP-R-2 Gearbox - Rögelberg
1	046347		2	Retaining ring, selector shaft
2	046378		As Req	Shim, DIN988, 20 x 28 x 0.5
2	047338 *		As Req	Shim, DIN988, 20 x 28 x 0.5
2	046379		As Req	Shim, DIN988, 20 x 28 x 0.3
2	047339 *		As Req	Shim, DIN988, 20 x 28 x 0.3
2	046380		As Req	Shim, DIN988, 20 x 28 x 0.1
2	044740 *		As Req	Shim, DIN988, 20 x 28 x 0.1
2	046381		As Req	Shim, DIN988, 20 x 28 x 1.0
2	047431 *		As Req	Shim, DIN988, 20 x 28 x 1.0
3	046322		1	Shifting lever
3	047334 *		1	Shifting lever
4	046352		1	Seal, radial shaft, selector shaft
5	046317		1	Switching threshold shaft
5	047330 *		1	Switching threshold shaft
6	046329		1	Key, selector shaft
6	047337 *		1	Key, selector shaft
7	046401		2	Key, 6 x 6 x 40
8	046318		1	Shifting fork
9	046348		1	Circlip, selector shaft
10	046355		1	Plug cover, selector shaft
11	046313		1	Shifting ring, output
12	046326		2	Key, shifting element

Notes:-

* For gearbox ID 6443-M-7 and 6443-M10

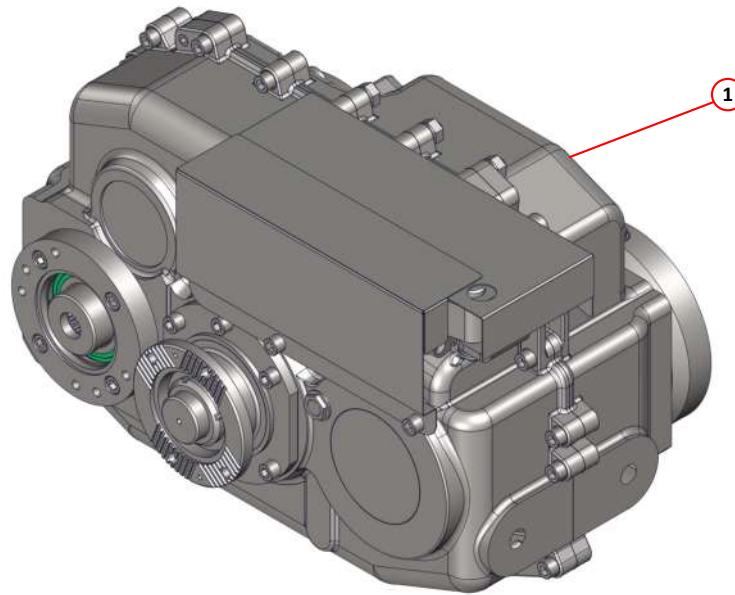





Item	Part Number	Type	Qty	Description
Casings and fittings - HP-R-2 Gearbox - Rögelberg				
1	046292		1	Gearbox casing, front
1	047328 *		1	Gearbox casing, front
2	046293		1	Gearbox casing, rear
2	047329 *		1	Gearbox casing, rear
3	046405		2	Screw plug, M22 x 1.5
4	046409		2	Seal, 22 x 27
5	046406		2	Screw plug, M18 x 1.5
6	046410		2	Seal, 18 x 22
7	046412		2	Bolt, M10 x 20
8	046402		4	Pin, 12 x 40
9	046323		2	Steel plate cover
10	046394	As Req		Bolt, countersunk, CSK M6 x 12
11	046404		1	Sight glass, M26 x1.5
12	046418		1	Seal, 26 x 31 x 2
13	046413		3	Bolt, M12 x 60
14	046414		3	Washer 13
15	046415		3	Hex nut, M12
16	046388		18	Bolt, M12 x40
17	046419		1	Name plate


Notes:-

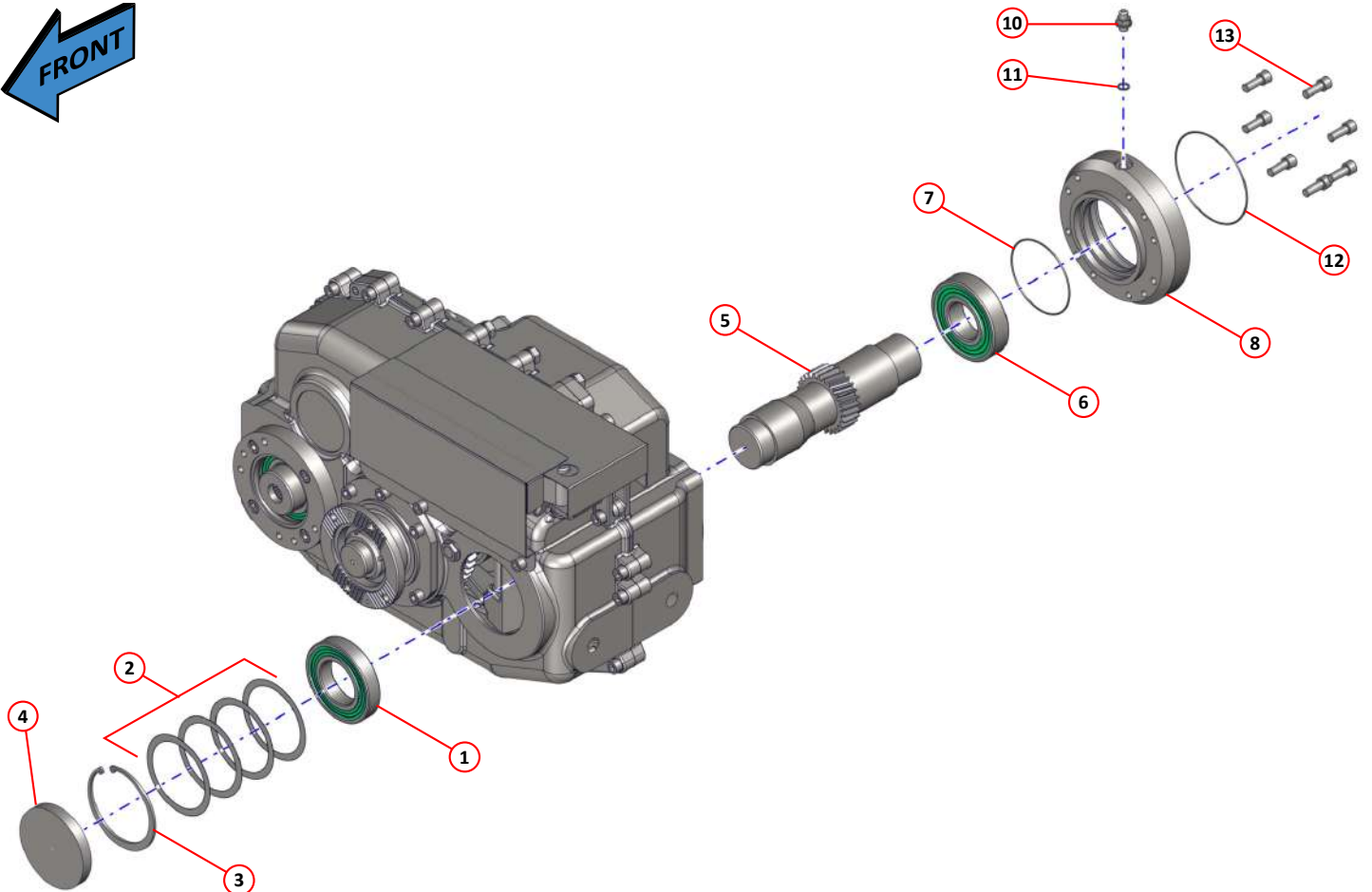
* For gearbox ID 6443-M-7 and 6443-M-10



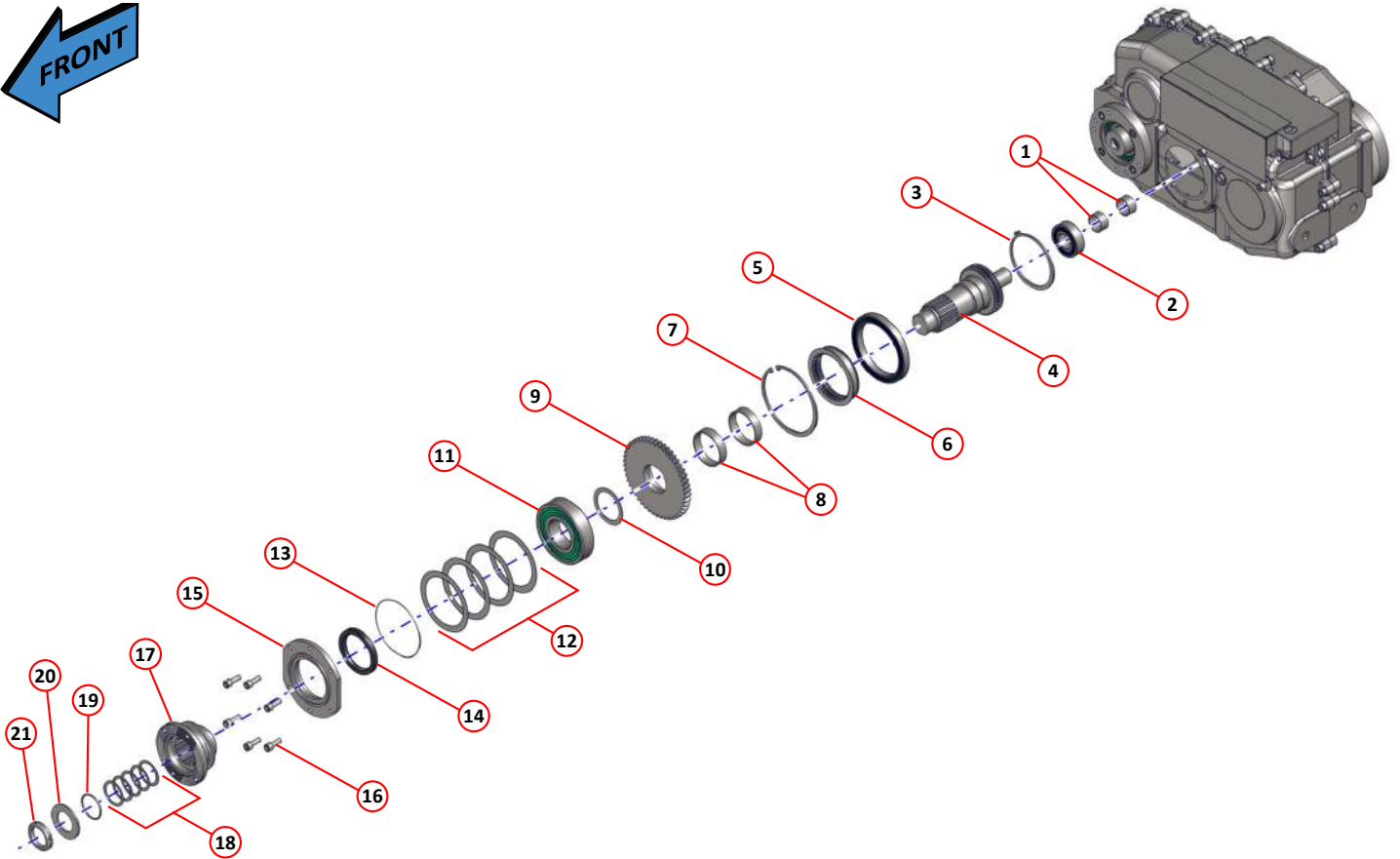
<i>Item</i>	<i>Part Number</i>	<i>Type</i>	<i>Qty</i>	<i>Description</i>
HP-R-6 Gearbox - Rögelberg				
1	SCA045329	6443-A-1	1	Rögelberg, complete assembly
1	SCA045329	6443-M-3	1	Rögelberg, complete assembly
1	SCA04xxxx	6443-M-6	1	Rögelberg, complete assembly
1	SCA047327	6443-M-9	1	Rögelberg, complete assembly
1	SCA047636	6443-M-12	1	Rögelberg, complete assembly

 If Type is not shown then it is for all versions of the HP-R-6 gearbox

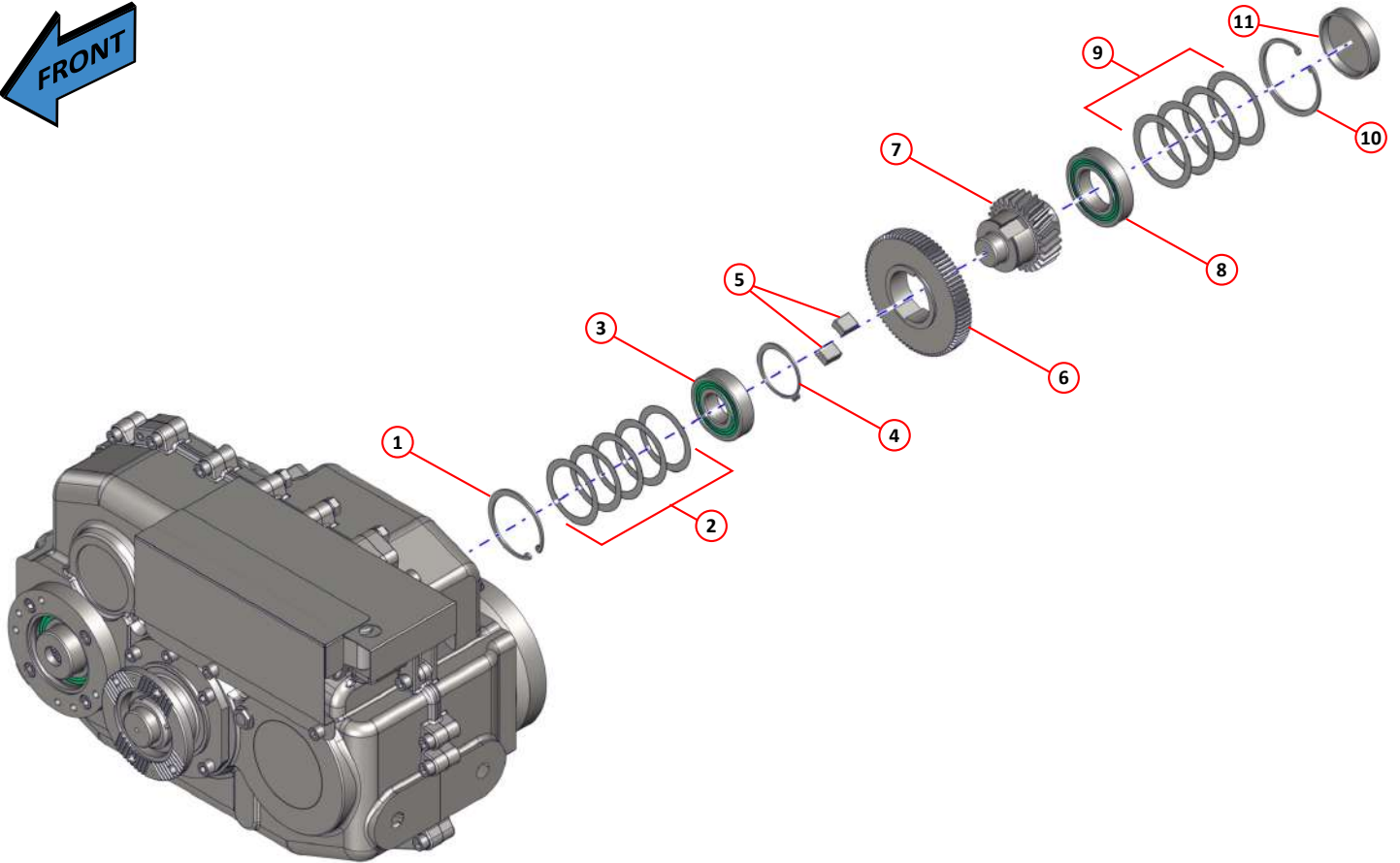
 The images shown in the following pages for the gearboxes and associated parts are reference only and is not representative of assembly or disassembly order.



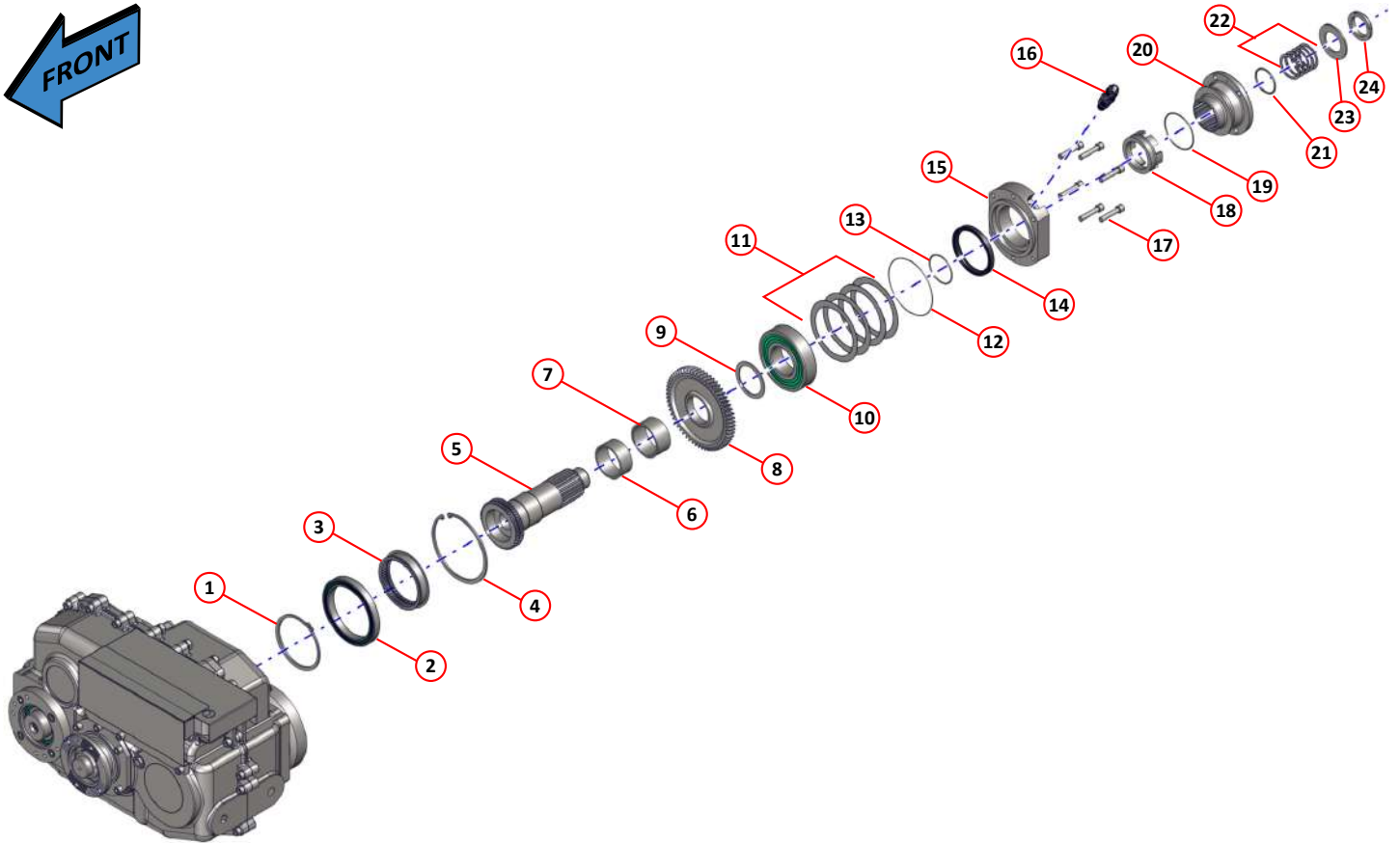
Item	Part Number	Type	Qty	Description
Pinion Shaft Drive Motor - HP-R-6 Gearbox - Rögelberg				
1	046334		1	Bearing, drive motor/pump
2	046371		As Req	Shim, DIN988, 100 x 120 x 0.5
2	046372		As Req	Shim, DIN988, 100 x 120 x 0.3
2	046373		As Req	Shim, DIN988, 100 x 120 x 0.1
3	046344		1	Retaining ring
4	046354		1	Plug cover
5	046422		1	Pinion shaft, drive motor
6	046335		1	Bearing, drive motor
7	046362		1	O-ring, drive pump/motor
8	046298		1	Flange, retaining
9	046411		1	Seal, breather
10	046408		1	Breather, M12 x 1.5
11	046363		1	O-ring, drive motor
12	046389		7	Bolt M12 x 30



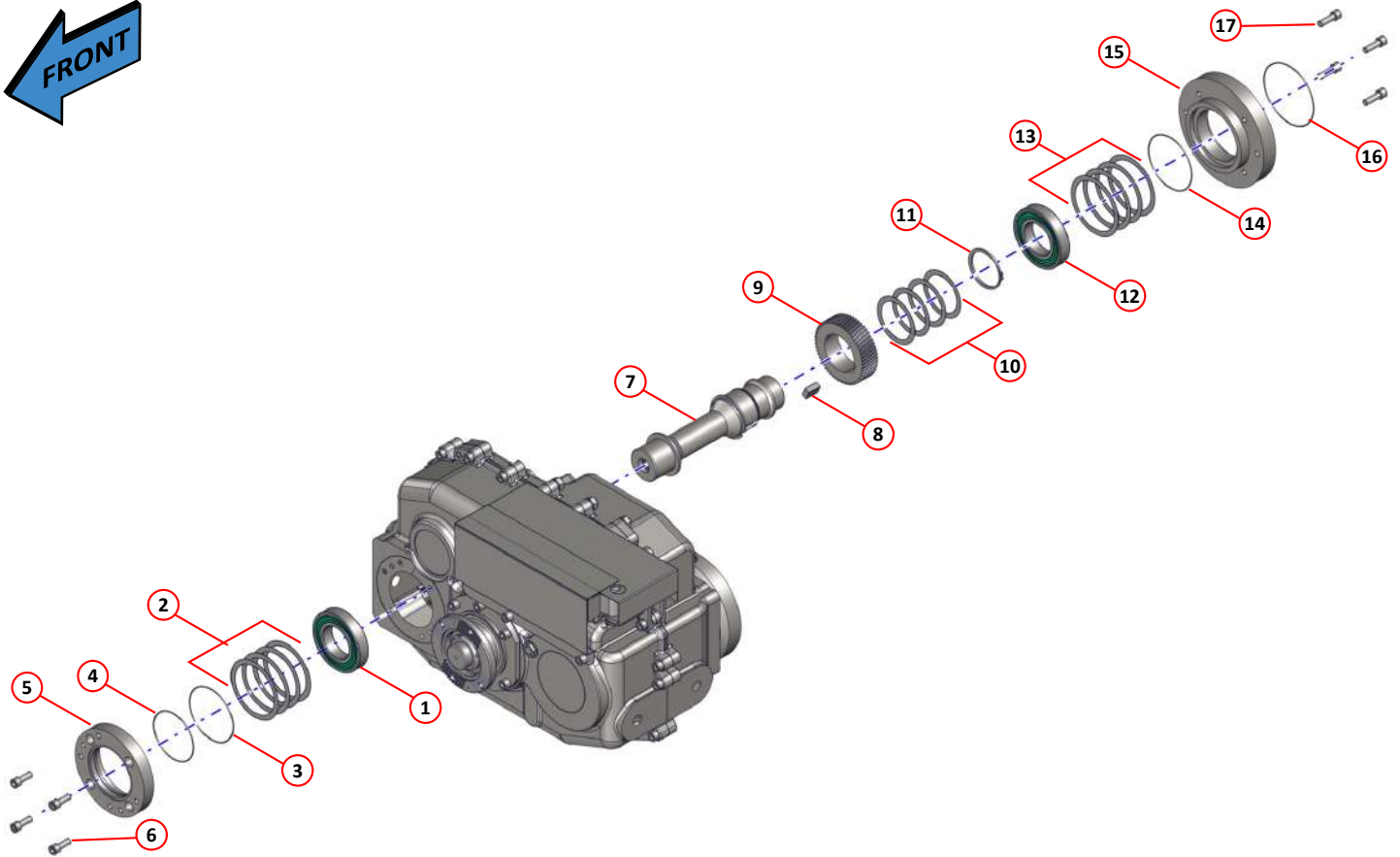
Item	Part Number	Type	Qty	Description
Pinion Shaft Input - HP-R-6 Gearbox - Rögelberg				
1	046340		2	Sleeve, input shaft
2	046331		1	Taper bearing, input
3	046345		1	Retaining ring, input/output
4	046300		1	Pinion shaft, input
5	046336		1	Bearing, input/output
6	046311		1	Shifting ring, input
7	046346		1	Retaining ring, input/output
8	046337		2	Needle bearing, input
9	046301		1	Spur gear, input
10	046316		1	Washer, output
11	046330		1	Bearing, input/output
12	046385		As Req	Shim, DIN988, 120 x 150 x 0.1
12	046386		As Req	Shim, DIN988, 120 x 150 x 0.3
12	046387		As Req	Shim, DIN988, 120 x 150 x 0.5
13	046358		1	O-ring, input/output
14	046350		1	Seal, radial shaft, input
15	046294		1	Flange, retaining, input
16	046389		6	Bolt M12 x 30
17	046299		1	Flange, input/output
18	046374		As Req	Shim, DIN988, 50 x 62 x 1.0
18	046375		As Req	Shim, DIN988, 50 x 62 x 0.5
18	046376		As Req	Shim, DIN988, 50 x 62 x 0.3
18	046377		As Req	Shim, DIN988, 50 x 62 x 0.1
19	046357		1	O-ring, input/output
20	046315		1	Washer, output/input
21	046403		1	Locknut, M50 x 1.5



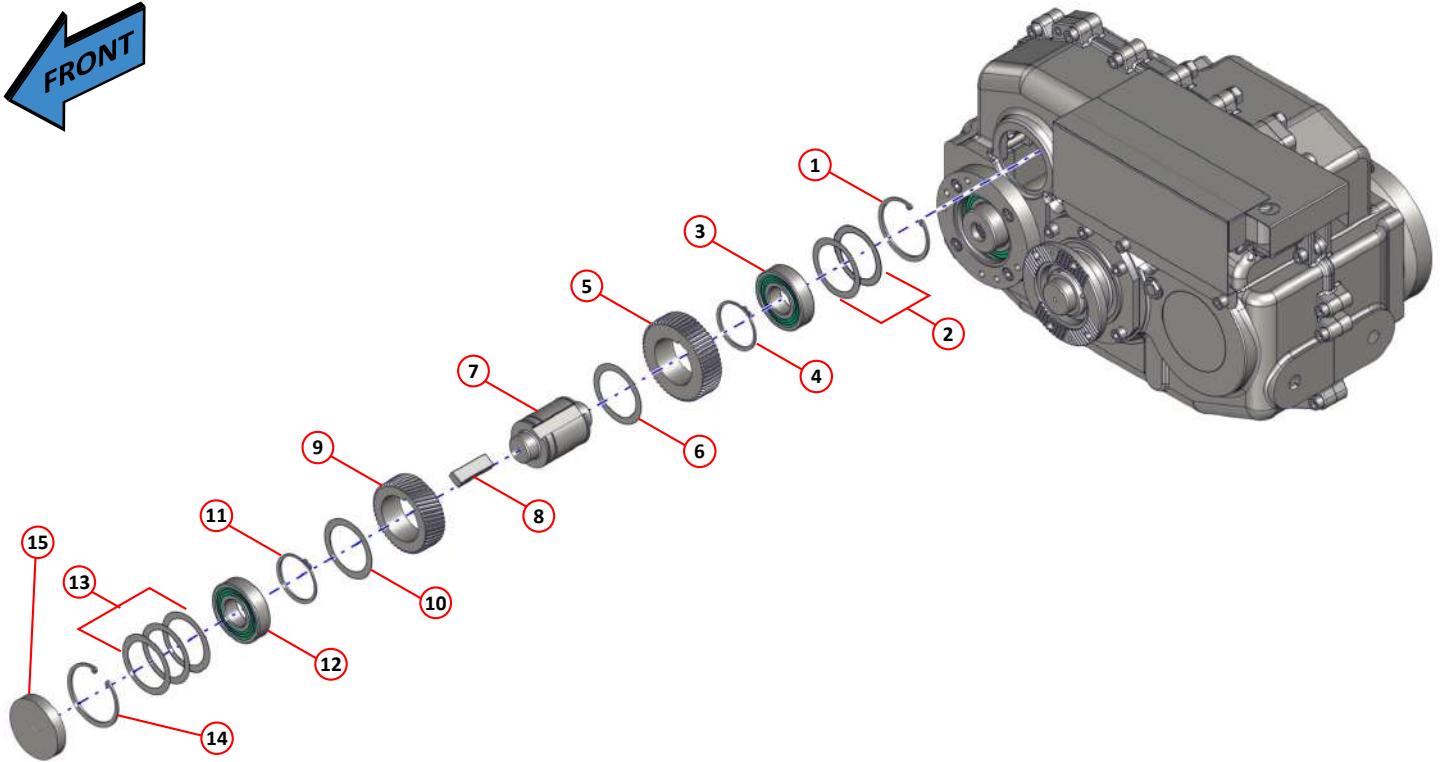
Item	Part Number	Type	Qty	Description
Pinion Shaft - HP-R-6 Gearbox - Rögelberg				
1	046342		1	Retaining ring, input/layshaft
2	046368	As Req		Shim, DIN988, 70 x 90 x 0.5
2	046369	As Req		Shim, DIN988, 70 x 90 x 0.3
2	046370	As Req		Shim, DIN988, 70 x 90 x 0.1
3	046332		1	Taper bearing, input/layshaft
4	046341		1	Retaining ring, input/layshaft
5	046398		2	Key 20 x 12 x 2
6	046423		1	Spur gear
7	046308		1	Pinion shaft
8	046333		1	Taper bearing, layshaft
9	046365	As Req		Shim, DIN988, 80 x 100 x 0.5
9	046366	As Req		Shim, DIN988, 80 x 100 x 0.3
9	046367	As Req		Shim, DIN988, 80 x 100 x 0.1
10	046343		1	Retaining ring, layshaft
11	046356		1	Plug cover, layshaft



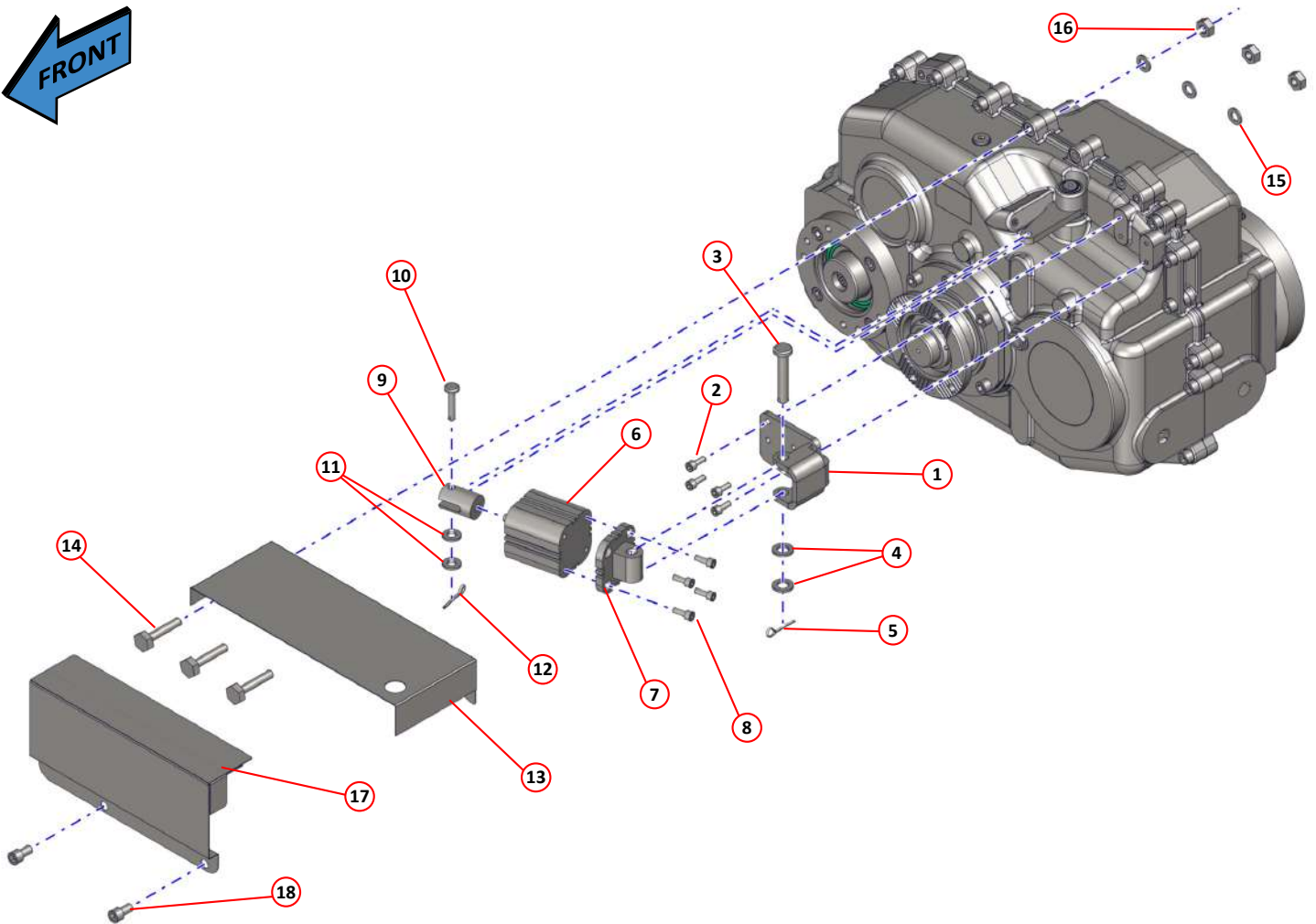
Item	Part Number	Type	Qty	Description
Pinion Shaft Output - HP-R-6 Gearbox - Rögelberg				
1	046345		1	Retaining ring, input/output
2	046336		1	Bearing, input/output
3	046312		1	Shifting ring, output
4	046346		1	Retaining ring, input/output
5	046310		1	Pinion shaft, output
6	046338		1	Needle bearing, output, inner
7	046339		1	Needle bearing, output, outer
8	046309		1	Spur gear, output
9	046316		1	Washer, output
10	046330		1	Bearing, input/output
11	046385		As Req	Shim, DIN988, 120 x 150 x 0.1
11	046386		As Req	Shim, DIN988, 120 x 150 x 0.3
11	046387		As Req	Shim, DIN988, 120 x 150 x 0.5
12	046358		1	O-ring, input/output
13	046359		1	O-ring, input/output
14	046351		1	Radial shaft seal, input
15	046295		1	Flange retaining, output
16	046738		1	Gearbox speed sensor, 19mm, DTCO 4 compliant Page 318
17	046390		6	Bolt, M12 x 55
18	046314		1	Bushing, output
19	046364		1	O-ring, output
20	046299		1	Flange, input/output
21	046357		1	O-ring, input/output
22	046374		As Req	Shim, DIN988, 50 x 62 x 1.0
22	046375		As Req	Shim, DIN988, 50 x 62 x 0.5
22	046376		As Req	Shim, DIN988, 50 x 62 x 0.3
22	046377		As Req	Shim, DIN988, 50 x 62 x 0.1
23	046315		1	Washer, output/input
24	046403		1	Locknut M50 x 1.5



Item	Part Number	Type	Qty	Description
Input Shaft Drive - HP-R-6 Gearbox - Rögelberg				
1	046334		1	Bearing, drive motor/pump
2	046371	As Req		Shim, DIN988, 100 x 120 x 0.5
2	046372	As Req		Shim, DIN988, 100 x 120 x 0.3
2	046373	As Req		Shim, DIN988, 100 x 120 x 0.1
3	046362		1	O-ring, drive pump/motor
4	046360		1	O-ring, drive pump
5	046297		1	Flange retaining, drive pump, inner
6	046389		4	Bolt, M12 x 30
7	046305		1	Input shaft, drive pump
8	046325		1	Spur gear, drive pump
9	046400		1	Key 20 x12 x 28
10	046382	As Req		Shim, DIN988, 75 x 95 x 0.5
10	046383	As Req		Shim, DIN988, 75 x 95x 0.3
10	046384	As Req		Shim, DIN988, 75 x 95 x 0.1
11	046349		1	Retaining ring, drive pump
12	046334		1	Bearing, drive motor/pump
13	046371	As Req		Shim, DIN988, 100 x 120 x 0.5
13	046372	As Req		Shim, DIN988, 100 x 120 x 0.3
13	046373	As Req		Shim, DIN988, 100 x 120 x 0.1
14	046362		1	O-ring, drive pump/motor
15	046296		1	Flange retaining, drive pump, outer
16	046361		1	O-ring, drive pump
17	046391		4	Bolt M12 x35



Item	Part Number	Type	Qty	Description
Shaft Input - HP-R-6 Gearbox - Rögelberg				
1	046342		1	Retaining ring, input/layshaft
2	046368		As Req	Shim, DIN988, 70 x 90 x 0.5
2	046369		As Req	Shim, DIN988, 70 x 90 x 0.3
2	046370		As Req	Shim, DIN988, 70 x 90 x 0.1
3	046332		1	Taper bearing, input/layshaft
4	046341		1	Retaining ring, input/layshaft
5	046302		1	Spur gear, input
6	046368		1	Shim, DIN988, 70 x 90 x 0.5
7	046303		1	Shaft, input
8	046399		1	Key 20 x 12 x 63
9	046304		1	Spur gear, input
10	046368		1	Shim, DIN988, 70 x 90 x 0.5
11	046341		1	Retaining ring, input/layshaft
12	046332		1	Taper bearing, input/layshaft
13	046368		As Req	Shim, DIN988, 70 x 90 x 0.5
13	046369		As Req	Shim, DIN988, 70 x 90 x 0.3
13	046370		As Req	Shim, DIN988, 70 x 90 x 0.1
14	046342		1	Retaining ring, input/layshaft
15	046353		1	Plug cover, input



Item	Part Number	Type	Qty	Description
Shifting Pneumatic Cylinder - HP-R-6 Gearbox - Rögelberg				
1	046319		1	Mounting bracket, adapter ram
1	047331*		1	Mounting bracket, adapter ram
2	046392		4	Bolt, M8 x 20
3	046328		1	Clevis pin, rear
3	047336 *		1	Clevis pin, rear
4	046417		2	Washer, M16R
5	046395		1	Split pin, 4 x40
6	046396		1	Pneumatic cylinder
6	046396 *		1	Pneumatic cylinder
7	046397		1	Cylinder fixing eye
7	046397*		1	Cylinder fixing eye
8	046392		4	Bolt, M8 x 20
9	046324		1	Clevis, adapter
9	046324 *		1	Clevis, adapter
10	046327		2	Clevis pin, front
11	046416		2	Washer, M12
12	046395		1	Split pin, 4 x40
13	046383		3	Cover, rear
13	047333 *		3	Cover, rear
14	046413 †		3	Bolt, M12 x 60
15	046414 †		3	Washer, M12
16	046415 †		3	Nut, hex , M12
17	046320		1	Cover, front
17	047332 *		1	Cover, front
18	046393		2	Bolt, M12 x 20

Notes:-

* For gearbox models 6443-M-9 and 6443-M-12

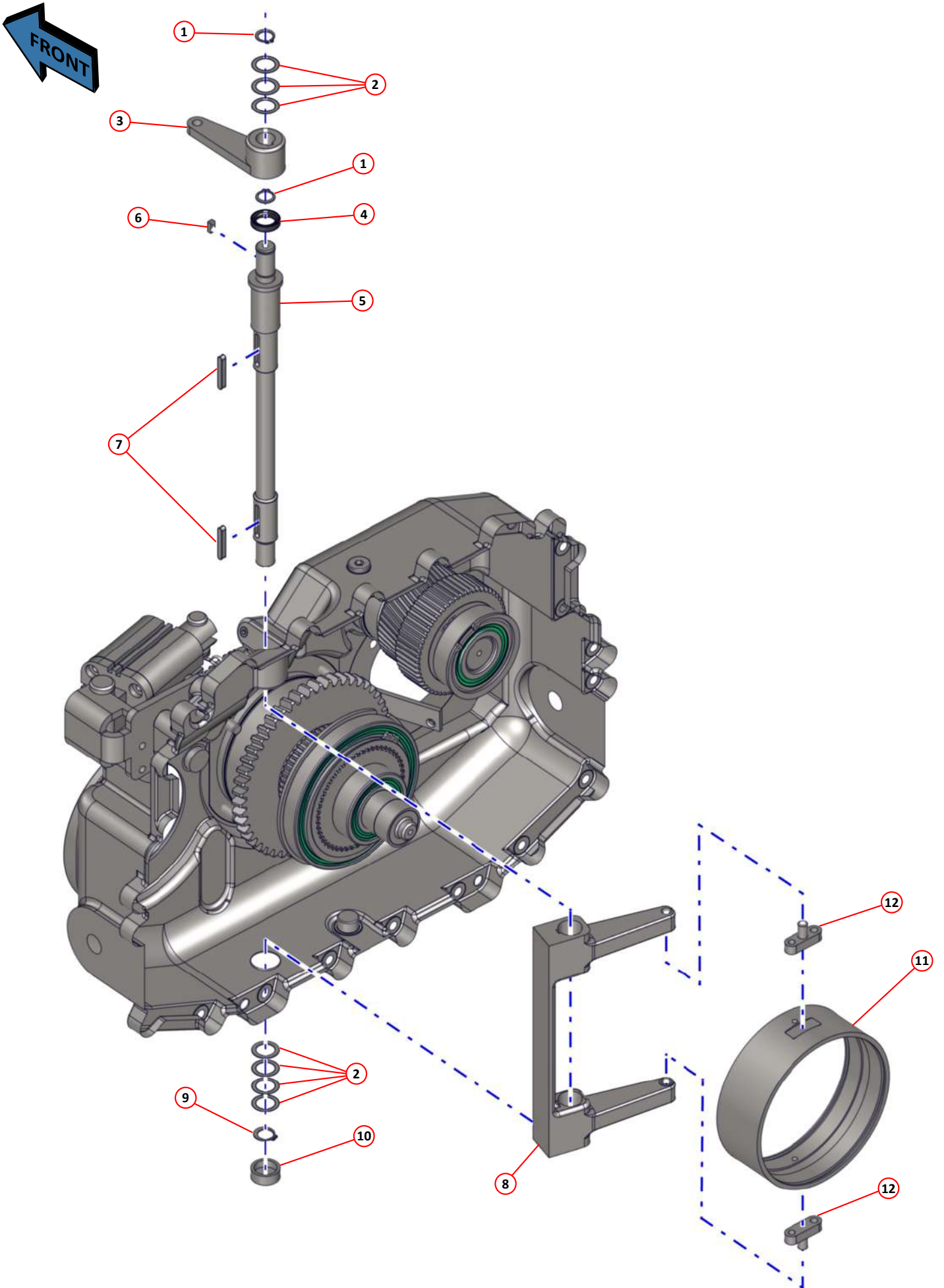
† These items are fixings of the case, shown here for reference. See page 406.

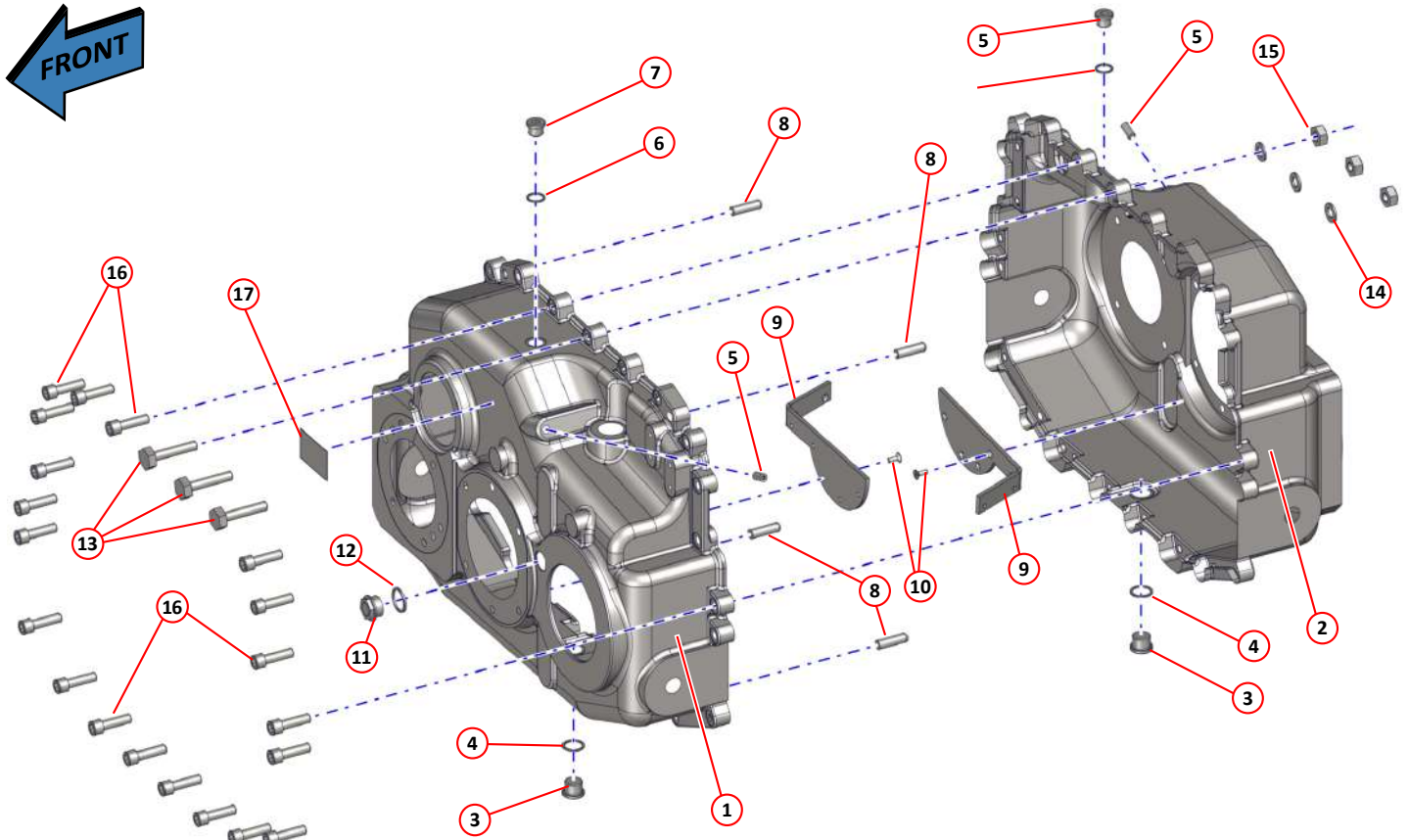
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Item	Part Number	Type	Qty	Description
				Selector Mechanism - HP-R-6 Gearbox - Rögelberg
1	046347		2	Retaining ring, selector shaft
2	046378		As Req	Shim, DIN988, 20 x 28 x 0.5
2	047338 *		As Req	Shim, DIN988, 20 x 28 x 0.5
2	046379		As Req	Shim, DIN988, 20 x 28 x 0.3
2	047339 *		As Req	Shim, DIN988, 20 x 28 x 0.3
2	046380		As Req	Shim, DIN988, 20 x 28 x 0.1
2	044740 *		As Req	Shim, DIN988, 20 x 28 x 0.1
2	046381		As Req	Shim, DIN988, 20 x 28 x 1.0
2	047431 *		As Req	Shim, DIN988, 20 x 28 x 1.0
3	046322		1	Shifting lever
3	047334 *		1	Shifting lever
4	046352		1	Seal, radial shaft, selector shaft
5	046317		1	Switching threshold shaft
5	047330 *		1	Switching threshold shaft
6	046329		1	Key, selector shaft
6	047337 *		1	Key, selector shaft
7	046401		2	Key, 6 x 6 x 40
8	046318		1	Shifting fork
9	046348		1	Circlip, selector shaft
10	046355		1	Plug cover, selector shaft
11	046313		1	Shifting ring, output
12	046326		2	Key, shifting element

Notes:-

* For gearbox models 6443-M-9 and 6443-M-12

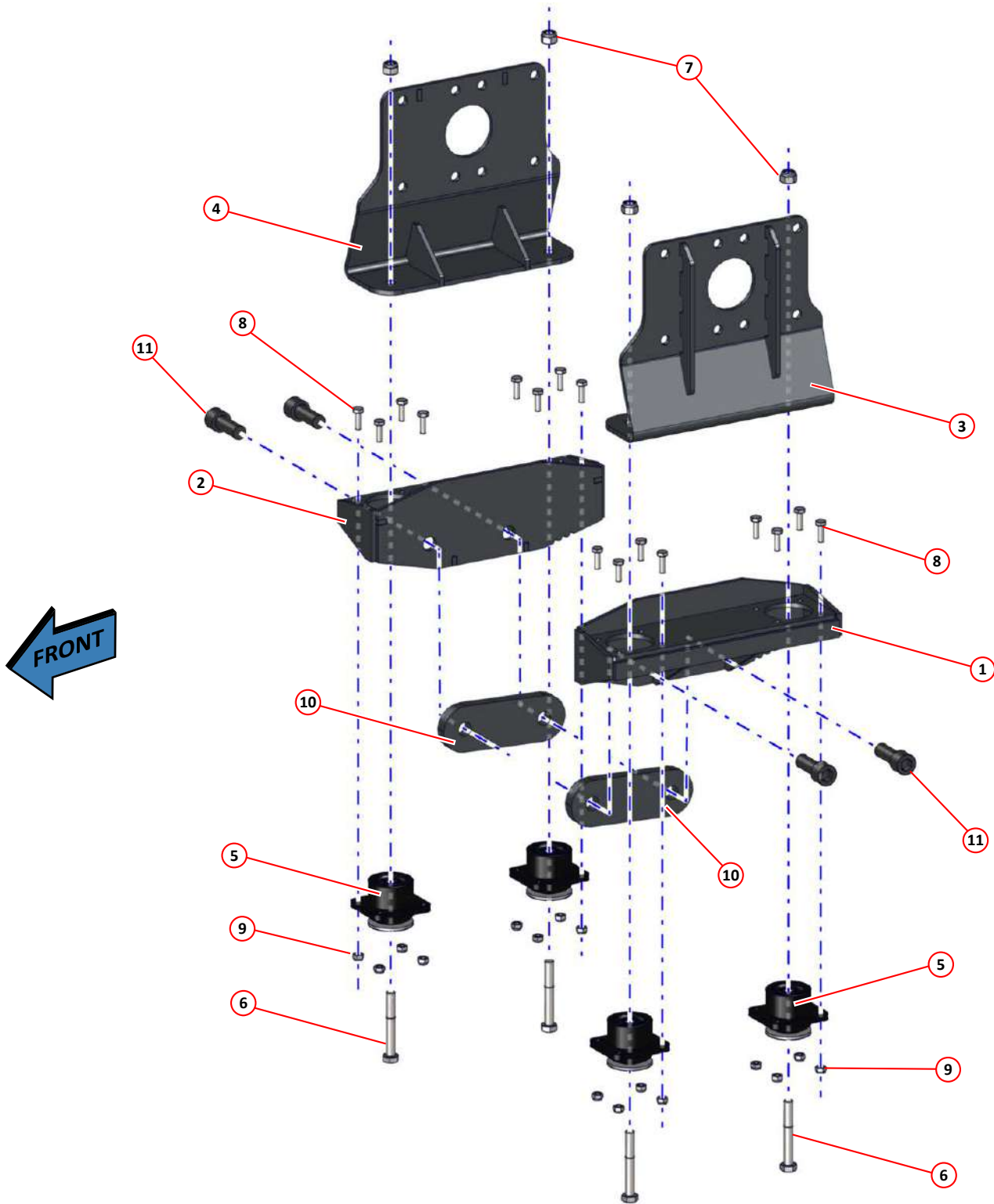




Item	Part Number	Type	Qty	Description
Casings and fittings - HP-R-6 Gearbox - Rögelberg				
1	046292		1	Gearbox casing, front
1	047328 *		1	Gearbox casing, front
2	046293		1	Gearbox casing, rear
2	047329 *		1	Gearbox casing, rear
3	046405		2	Screw plug, M22 x 1.5
4	046409		2	Seal, 22 x 27
5	046406		2	Screw plug, M18 x 1.5
6	046410		2	Seal, 18 x 22
7	046412		2	Bolt, M10 x 20
8	046402		4	Pin, 12 x 40
9	046323		2	Steel plate cover
10	046394		As Req	Bolt, countersunk, CSK M6 x 12
11	046404		1	Sight glass, M26 x1.5
12	046418		1	Seal, 26 x 31 x 2
13	046413		3	Bolt, M12 x 60
14	046414		3	Washer 13
15	046415		3	Hex nut, M12
16	046388		18	Bolt, M12 x40
17	046419		1	Name plate

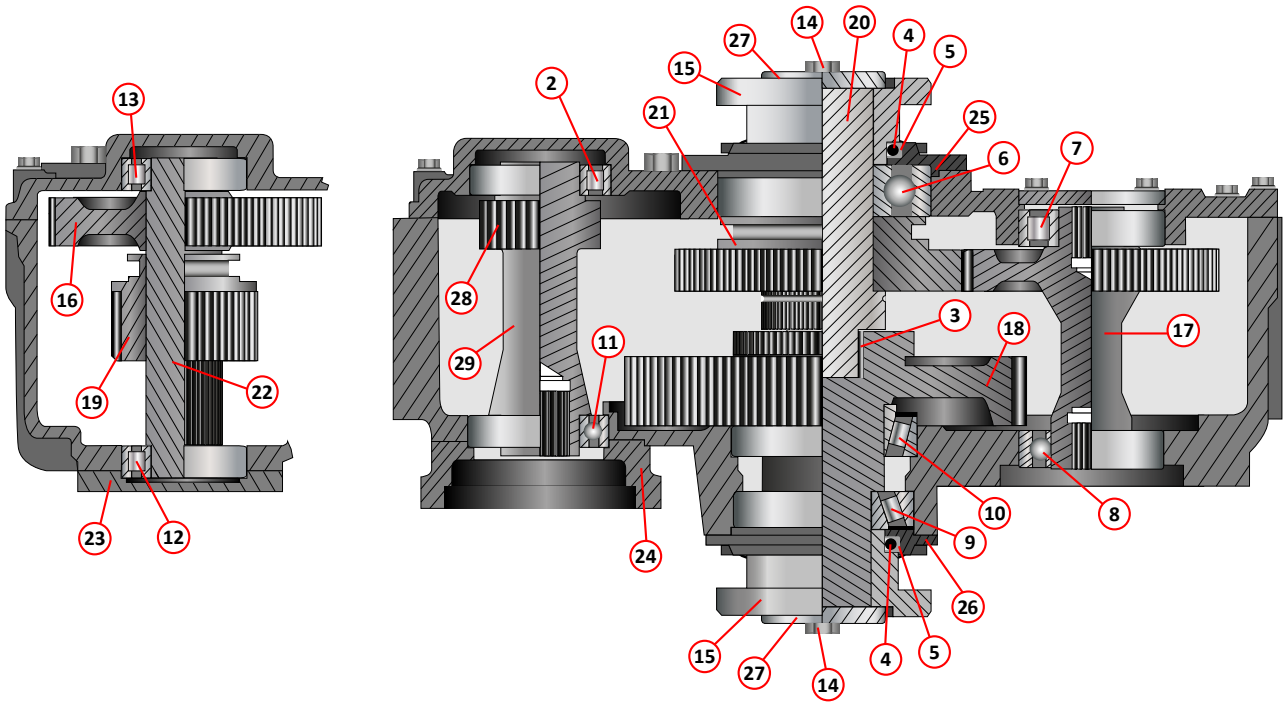
Notes:-

* For gearbox models 6443-M-9 and 6443-M-12



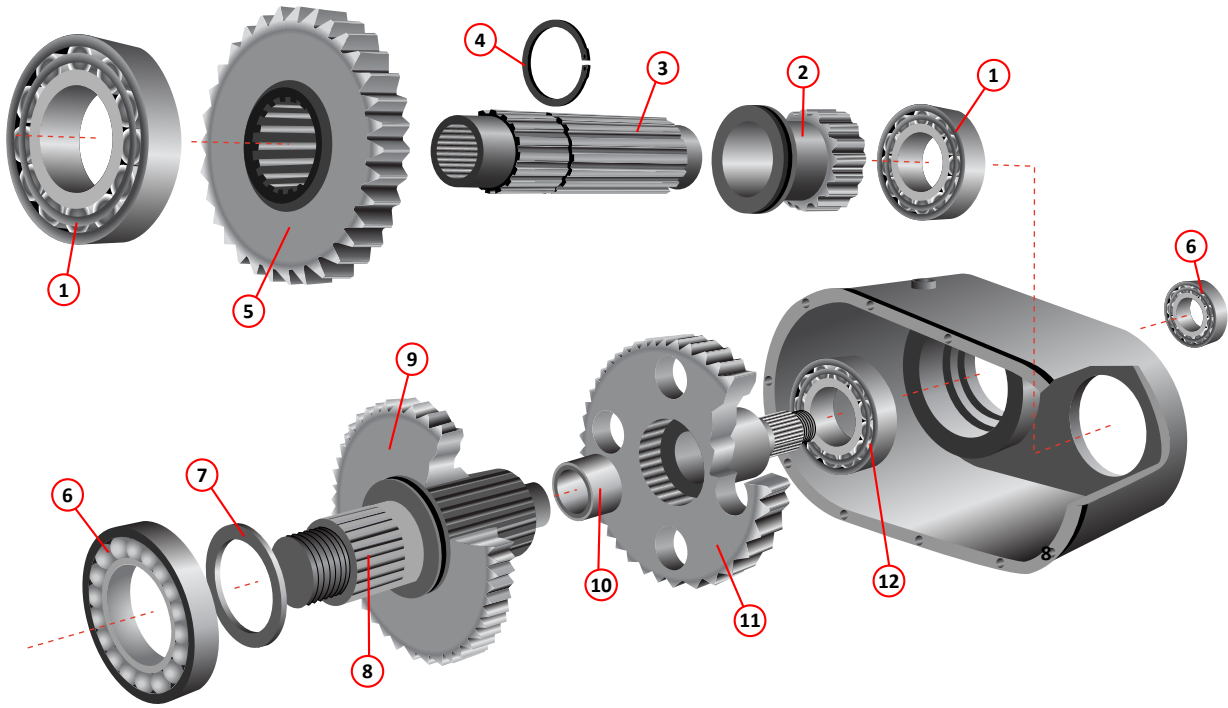
Item	Part Number	Quantity	Description
Gearbox mounting - Rögelberg			
1	045754	1	Bracket, gearbox Rögelburg, 3°, left hand, attaches to gearbox
2	045755	1	Bracket, gearbox Rögelburg, 3°, right hand, attaches to gearbox
3	048790	1	Gearbox bracket, Rögelburg, left hand, attaches to vehicle chassis
4	048791	1	Gearbox bracket, Rögelburg, right hand, attaches to vehicle chassis
5	033838	4	Anti-vibration mounting, MS243/5 (HD type)
6	011423	4	Bolt HT M16 x 110
7	011060	4	Nyloc nut T M16
8	011032	16	Setscrew HT M10 x30
9	011075	16	Nyloc nut T M10
10	044363	2	gearbox mounting plate
11	000501	4	Socket cap head screw M24 x60 12.9

Item	Part Number	Quantity	Description
Gearbox HP Types			
1	034563	1	Gearbox, HP, 1:1 Ratio Type 1
1	034435	1	Gearbox, HP, 0.75:1 Ratio Type 2
1	034515	1	Gearbox, HP, 0.75:1 Ratio Type 6
2	014581	1	Roller bearing
3	039290	1	Needle roller bearing
4	039291	1	Oil seal
5	039292	1	Dirt seal
6	039293	1	Ball bearing
7	014579	1	Roller bearing
8	039294	1	Ball bearing
9	039295	1	Taper roller bearing
10	039296	1	Taper roller bearing
11	013773	1	Ball bearing
12	014579	1	Roller bearing
13	014579	1	Roller bearing
14	039319	1	Tab washer
15	040211	2	Flange-companion KV150
16	040327	1	Motor wheel, 45T (for 034563 Type 1 gearbox)
16	040327	1	Motor wheel, 45T (for 034435 Type 2 gearbox)
16	040343	1	Motor wheel, 43T (for 034515 Type 6 gearbox)
17	040328	1	Motor shaft, 42T (for 034563 Type 1 gearbox)
17	040341	1	Motor shaft, 48T (for 034435 Type 2 gearbox)
17	040341	1	Motor shaft, 48T (for 034515 Type 6 gearbox)
18	040329	1	Gear-output
19	040330	1	Pinion-selector
20	040331	1	Shaft-input
21	040332	1	Input selector gear, 51T (for 034563 Type 1 gearbox)
21	040342	1	Input selector gear, 45T (for 034435 Type 2 gearbox)
21	040342	1	Input selector gear, 45T (for 034515 Type 6 gearbox)
22	040333	1	Shaft-transfer
23	040334	1	End cap
24	040335	1	Motor adaptor
25	040336	1	Seal housing
26	040337	1	Seal housing
27	040338	2	Washer
28	040339	1	Pump gear, 18T (for 034563 Type 1 gearbox)
28	040339	1	Pump gear, 18T (for 034435 Type 2 gearbox)
28	040344	1	Pump gear, 22T (for 034515 Type 6 gearbox)
29	040340	1	Pump shaft
30	035374	1	Cylinder, pneumatic, gear change Page 304
31	035373	1	Cylinder, pneumatic, gear change Page 304
NI	036800	2	Magnetic sensor Page 318



Rögelberg Gearbox HP Type Ratio Build Configurations

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Scarab Reduction Box Internal Parts			
1	014579	2	Roller bearing, NJ309-E-TVP2
2	014423	1	Pinion gear, 19-tooth
3	014431	1	Splined shaft
4	014495	1	Circlip, external, 52mm
5	014425	1	Gear, 40-tooth, (Ratio 4.75:1)
5	024852	1	Gear, 48-tooth, (Ratio 3.18:1)
6	013771	2	Ball bearing, 6310NR
7	014421	1	Washer, 51mm ID x 65mm OD x 3mm thick
8	014432	1	Splined shaft
9	023592	1	Gear, 41-tooth, (Ratio 4.75:1)
9	024851	1	Gear, 33-tooth, (Ratio 3.18:1)
10	014494	1	Needle bearing, K30 x 40 x 30
11	014422	1	. Gear, 62-tooth
12	014493	1	Bearing, roller, NJ314-E-TVP2



Scarab Reduction Gearbox Internal Parts

Item	Part Number	Quantity	Description
Scarab Reduction Box External Parts			
	024867	1	Gearbox, 3.18:1 ratio, Complete
	024868	1	Gearbox, 4.75:1 ratio, Complete
1	024855	1	Casing, gearbox
NI	024857	1	Gasket
3	024856	1	Cover, gearbox
4	011155	1	Seal, dowty, $\frac{3}{4}$ " BSP
5	021524	1	Adaptor, $\frac{3}{4}$ " x $\frac{1}{4}$ " BSP, M/F
6	011152	1	Seal, dowty, $\frac{1}{4}$ " BSP
7	020688	1	Filter/breather
8	014502	2	Gasket
9	049730	2	Seal cap, gearbox v2
10	011028	8	Socket cap head, M10 x 25mm
11	014433	2	Flange
12	014499	2	Washer 60 x 41 x 3
13	014498	2	Lock ring, M40 x 1.5
14	042297	1	Seal kit, 2 seals and fitting tool
15	014491	1	Sight glass, oil level
16	000070	8	Socket cap head, M10 x 50mm
17	014480	2	Bearing cap
18	014503	2	Gasket
19	011408	12	Socket cap head, M10 x 30mm
20	014490	2	Dowel pin
21	011244	1	Plug, $\frac{3}{4}$ " BSP
22	011155	1	Seal, dowty, $\frac{3}{4}$ " BSP
23	021316	1	Plug, magnetic, $\frac{3}{4}$ " BSP

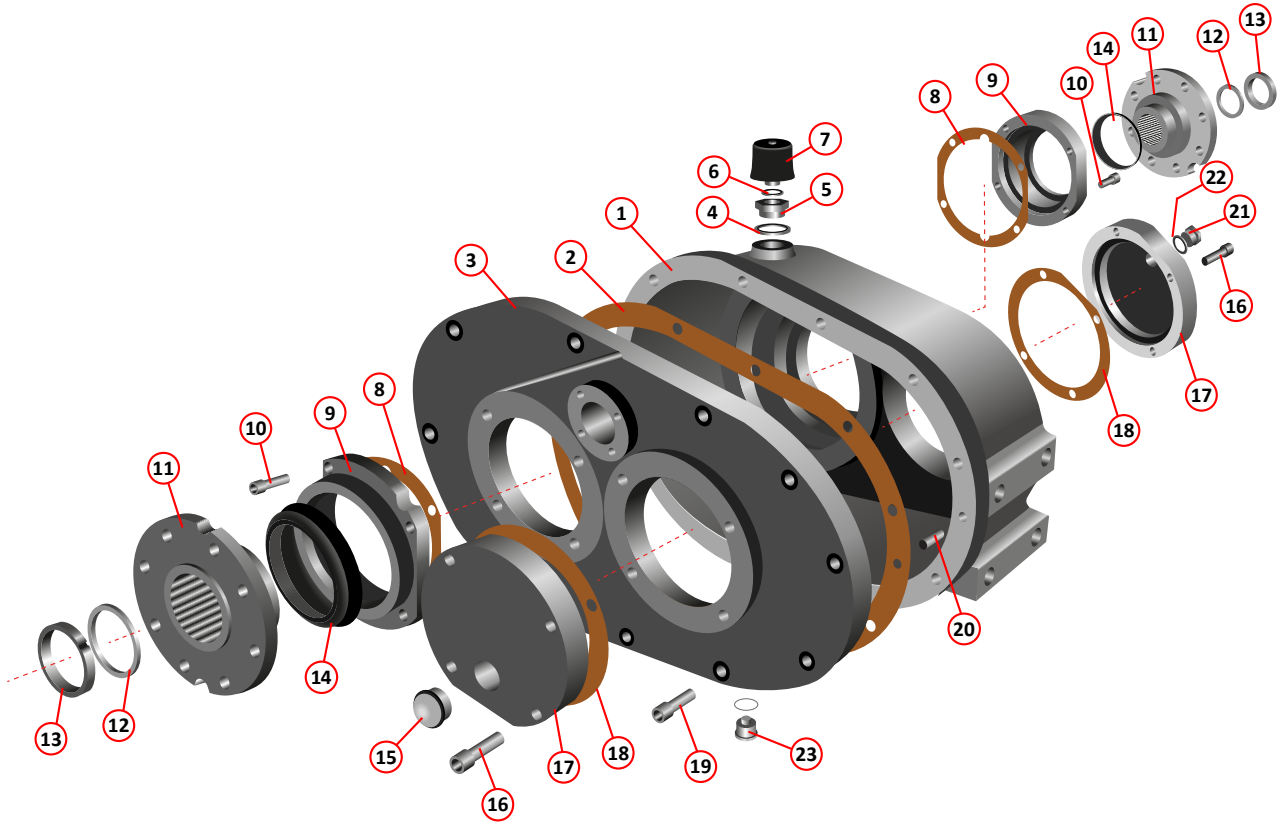
i Some vehicles are equipped with the Knowles reduction gearbox instead of the Scarab unit. If parts are required, please contact our parts department quoting your model/chassis type and the machine serial number.



Knowles Reduction Box



Scarab Reduction Box

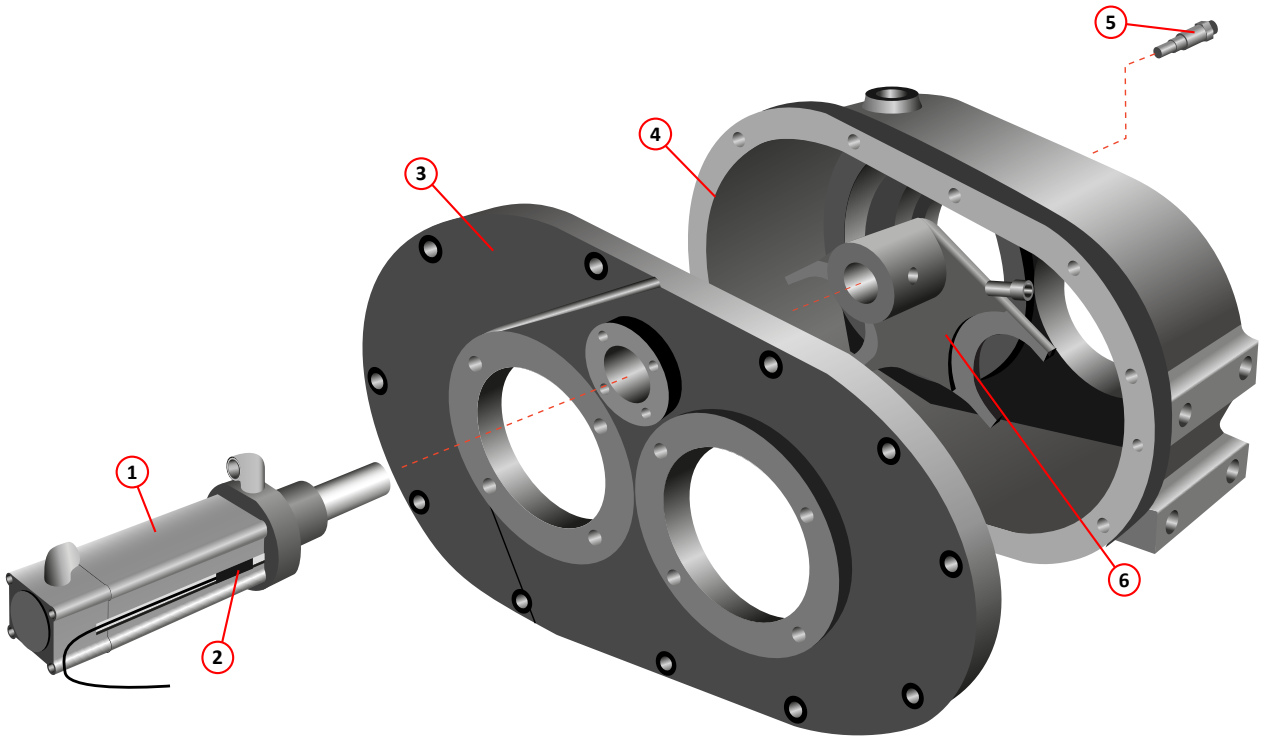


Scarab Reduction Gearbox External Parts

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Scarab Reduction Box - Changer Parts			
1	026087	1	Pneumatic cylinder Page 304
2	036800	2	Magnetic sensor Page 318
3	024856	1	Cover
4	024855	1	Case
5	046739	1	Gearbox speed sensor, 34mm, DTCO 4 compliant Page 318
6	024874	1	Selector fork
	000037	1	Socket cap head, M6 x 40mm

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Non Scarab Reduction Box PTO Seals			
NI	030571	1	PTO Seal (Ref. on Oil Seal 01055) Common to DAF/IVECO
NI	030572	1	PTO Seal (Ref. on Oil Seal 01018) Common to DAF/IVECO
NI	030573	1	PTO Seal (Ref. on Oil Seal 01016) Common to RENAULT
NI	030574	1	PTO Seal (Ref. on Oil Seal 01059) Common to SCANIA

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Non Scarab Reduction Box Seals			
NI	030575	1	Seal, Reduction box 24T (Ref. on Oil Seal 01002)
NI	030576	1	Seal, Reduction box 33T (Ref. on Oil Seal 01060)



Scarab reduction gearbox changer arrangement

Scarab Gearbox/Prop Shaft Installations

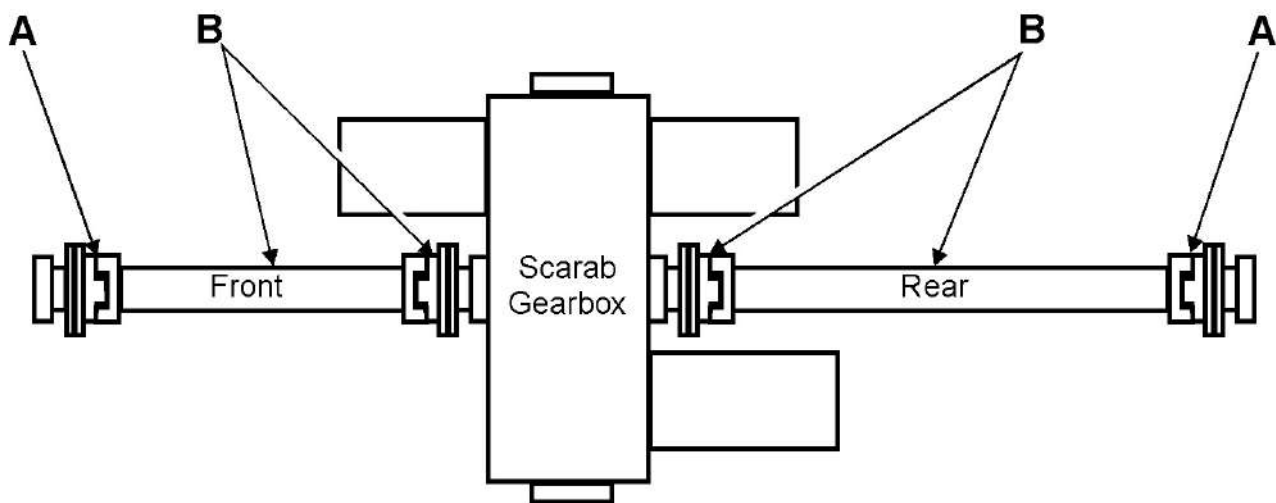
Scarab truck-mounted sweepers with either the hydrostatic gearbox or the unidrive reduction gearbox installed in the truck's drive train, do not utilise the original prop shaft. This is removed and is replaced by two shorter units, one forward of the Scarab gearbox and one to the rear.

This modification affects the procurement of replacement parts as follows:

- q The outer universal joints i.e. those adjacent to the differential housing and to the truck gearbox should be obtained direct from the truck manufacturer in question.
- q The inner universal joints i.e. those on the input and output sides of the Scarab transfer gearbox on the front and rear prop shafts can be obtained from Scarab Sweepers Limited.

It is not feasible to list in this document all prop shaft variations for all truck chassis configurations due to the need to accommodate chassis alterations introduced periodically by the manufacturers. This also applies to other installation items such as the brackets that mount the gearbox to the chassis.

To ensure, therefore, that the correct items are procured when needed, please consult the Scarab Parts Department, giving your chassis type, serial number and the Scarab Sweeper serial number.



- Input & Output U/J's Scarab part 014935

Legend:

- A - Procure from chassis manufacturer
- B - Procure from Scarab

Gearbox Mounting Arrangements

The mounting arrangements for all hydrostatic and reduction gearboxes on Scarab truck mounted sweepers are model/chassis specific. To procure replacement components, please contact the Scarab Parts department stating your model/chassis type and the machine serial number.

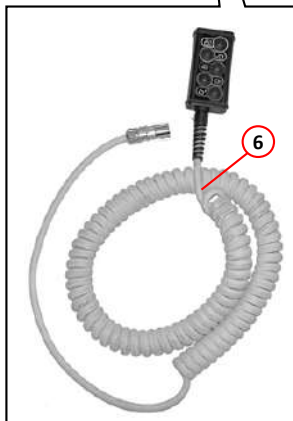
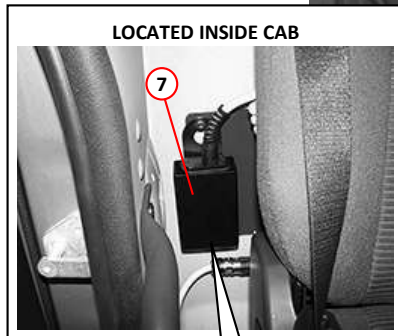
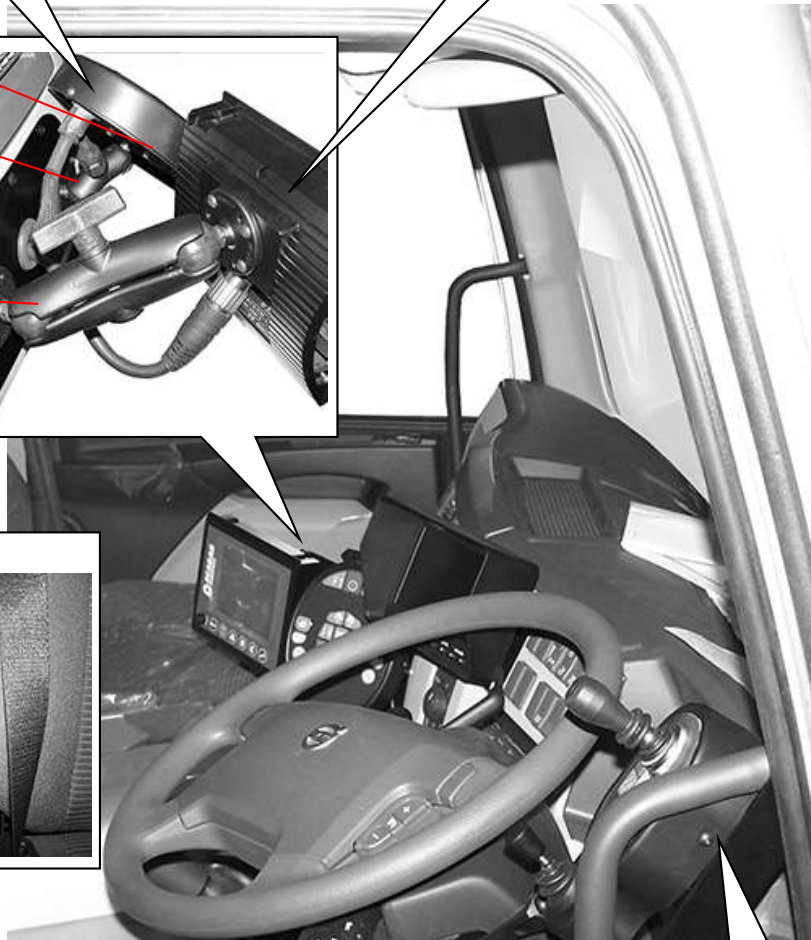
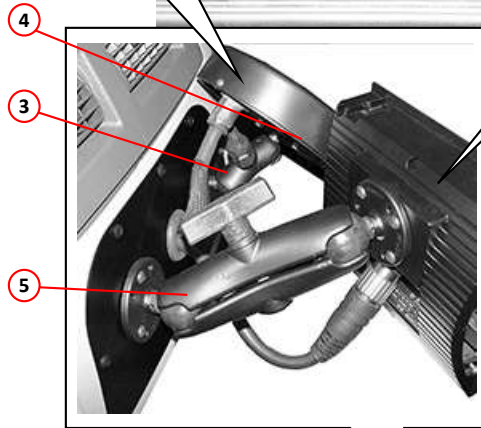
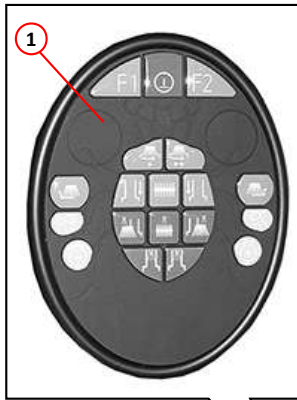
Cab and Instruments

<i>Assembly/Description</i>	<i>Page</i>
Cab Items - Controls - CAN bus 3	418
Cab Items - Controls - CAN bus 3.1	420
Additional Cab Items	422

Item	Part Number	Quantity	Description
Cab Items - Controls - CAN bus 3			
1		1	Main control panel, complete (two speed brushes) Page 314
2	037055	1	. Fixing plate, enclosure, main control panel
	000346	2	. . Screw, socket button head, M5 x 16mm
	000155	2	. . Nut, M5, Nyloc
3	037073 *	1	. Ball joint, control panel mounting
NI	036912	1	. Loom, main control panel Page 316
NI	036914	1	. . Loom, power, main control panel Page 316
4	042348	1	Display screen CANbus v3.0 (programmed) Page 314
5	030188*	1	. Ball joint, display screen
NI	036916	1	. Loom, display screen, CANbus 3 Page 316
6	†	1	Hopper controller, complete Page 314
NI	†	1	. Loom, hopper controller Page 316
7	†	1	. Storage pocket, hopper controller
8	037604	1	Auxiliary controller, left hand, complete, (Hydrostatic) Page 314
8	037605	1	Auxiliary controller, right hand, complete, (Hydrostatic) Page 314
9	036806	1	Auxiliary controller, left hand, complete, (UniDrive) Page 314
9	036807	1	Auxiliary controller, right hand, complete, (UniDrive) Page 314
10	037064	1	. Clamp, fixing plate
NI	036913	1	. Loom, auxiliary controller Page 316
NI	036915	1	. . Loom, power, auxiliary controller Page 316
11	‡	1	. Bracket, mounting, auxiliary controller
NI	036907	1	Loom, clutch switch Page 316
NI	026332	1	Loom, tacho Page 316
NI	036666	1	Loom, main controller, NODE 3 Page 316
12	044294	1	Hopper controller, complete with holster Page 314

Notes:-

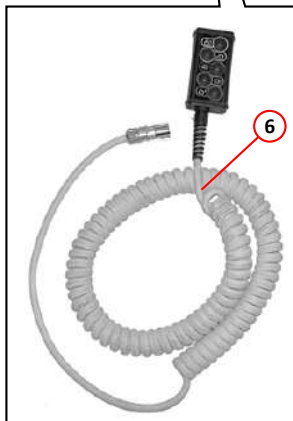
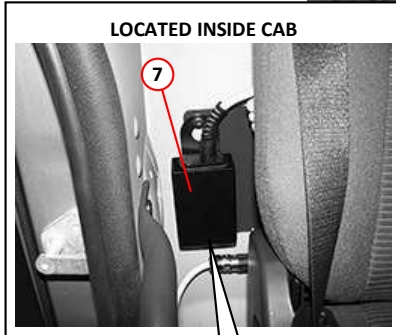
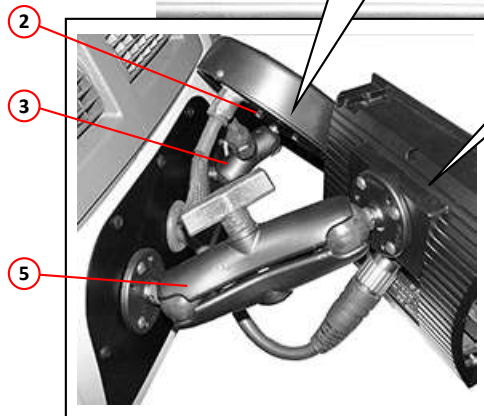
- * Screen and control mountings are dependant on chassis/cab layouts, please contact Scarab Parts Department.
- † As of March 2016 if you have one of these controllers then please order item 12 instead.
- ‡ This Item is chassis specific, please contact the Scarab Parts Department quoting Model, Chassis Type and Machine Serial Number.



Item	Part Number	Quantity	Description
Cab Items - Controls - CAN bus 3.1			
1		1	Main control panel, complete (variable brush speed) Page 314
2	037055	1	. Fixing plate, enclosure, main control panel
	000346	2	. . Screw, socket button head, M5 x 16mm
	000155	2	. . Nut, M5, Nyloc
3	037073 *	1	. Ball joint, control panel mounting
NI	036912	1	. Loom, main control panel Page 316
NI	036914	1	. . Loom, power, main control panel Page 316
4	042360	1	Display screen CANbus v3.1 (programmed)
5	030188*	1	. Ball joint, display screen
NI	040349	1	. Loom, display screen, CANbus 3.1 Page 316
6	†	1	Hopper controller, complete Page 314
NI	†	1	. Loom, hopper controller Page 316
7	†	1	. Storage pocket, hopper controller
8	037604	1	Auxiliary controller, left hand, complete, (Hydrostatic) (new fan symbol) Page 314
8	037605	1	Auxiliary controller, right hand, complete, (Hydrostatic) (new fan symbol) Page 314
9	037606	1	Auxiliary controller, left hand, complete, (UniDrive) (new fan symbol) Page 314
9	037607	1	Auxiliary controller, right hand, complete, (UniDrive) (new fan symbol) Page 314
10	037064	1	. Clamp, fixing plate
NI	036913	1	. Loom, auxiliary controller Page 316
NI	036915	1	. . Loom, power, auxiliary controller Page 316
11	‡	1	. Bracket, mounting, auxiliary controller
NI	036907	1	Loom, clutch switch Page 316
NI	026332	1	Loom, tacho
NI	036666	1	Loom, main controller, NODE 3 Page 316
NI	040353	1	Loom, power supply, rear camera Page 150,314,316
NI	040355	1	Loom, rear camera Page 150,314,316
12	041534	1	Camera splitter Page 318
13	044294	1	Hopper controller, complete includes holster Page 314

Notes:-

- * Screen and control mountings are dependant on chassis/cab layouts, please contact Scarab Parts Department.
- † As of March 2016 if you have one of these controllers then please order item 13 instead.
- ‡ This Item is chassis specific, please contact the Scarab Parts Department quoting Model, Chassis Type and Machine Serial Number.



Item	Part Number	Quantity	Description
Additional Cab Items			
1	023242	1	Regulator, pressure
NI	023203	2	. Elbow, push-fit, 6mm - $\frac{1}{4}$ " BSP
NI	023203	1	. Elbow, push-fit, 6mm - $\frac{1}{8}$ " BSP
2	023246	1	Gauge, pressure, 0 - 10 bar
NI	024643	1	. Connector, straight, push fit, 6mm - $\frac{1}{8}$ " BSP
	011094	1	. Washer, M10
3	037249	AR	Switch body, toggle, ON/OFF Page 318
NI	037248	AR	Switch body, toggle, ON/OFF/ON Page 318
NI	037009	1	. Loom up/down pressure
NI	*	1	. Plate, dash mounting (side brush)
4	037247	AR	. . Rubber boot, toggle switch
5	036799 †	3	Node, cabinet module (CR2012) Page 314
6	038985 †	3	Node, E9G212, cabinet module (CR2012) Page 314
7	036798	1	Controller, CR0505 Page 314
NI	037048	1	Sounder Page 318
8	039060	2	LED current source Page 314
9	022224	1	Clutch sensor Page 318
10	022225	1	Clutch sensor, magnet Page 318

Notes:-

- * This Item is chassis specific, please contact the Scarab Parts department quoting Model, Chassis Type and Machine Serial Number.
- † Contact Scarab Parts Department regarding these nodes.



Contact Scarab Parts Department regarding these nodes.

Labels and Decals

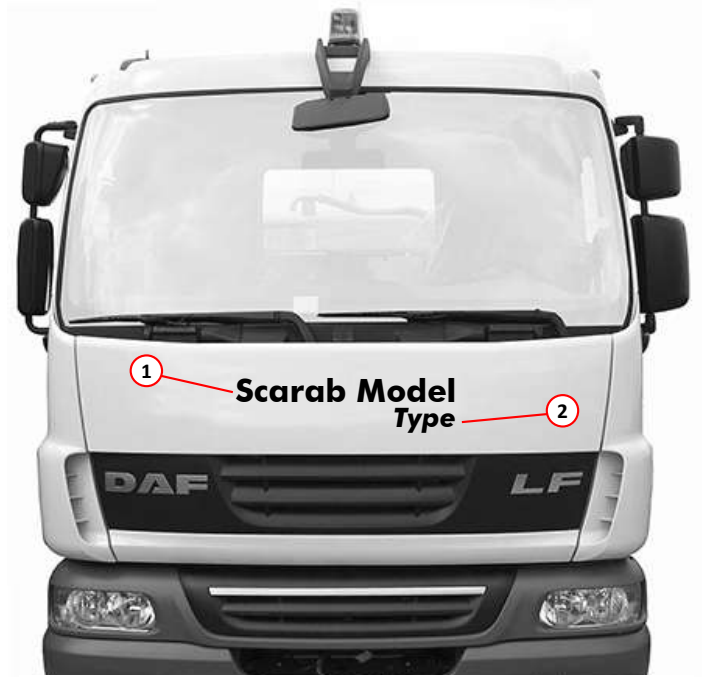
<i>Assembly/Description</i>	<i>Page</i>
Warning, Caution and Advice Labels	426
Badges and Vinyl Decals	428

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Warning, Caution and Advice Labels			
1	036222	2	Diesel Fuel Grade
2	028408	1	CAUTION, Left - Hand Drive
3	022384	3	WARNING, Hopper Prop Deployment Page 122
4	022383	6	WARNING, Brush Rotating Page 122
5	028408	1	Hydraulic Oil
6	034548	1	Hydraulic Oil Level
7	021061	1	WARNING, Fan Inspection (inside inspection cover)
8	027774	1	Sound Level (114 dB)
9	034814	1	EUnited - PM10
10	032409	1	WARNING, Battery Charging
11	021291	1	Max Height, 9' 10" (3m)
NI	037720	1	Max Height, 10' 4" (3.15m)
NI	021292	1	Max Height, 10' 9" (3.3m)
12	036170	1	Disconnect Battery Page 122
13	042983	AR	Scarab Fayat logo, black
NI	042984	AR	Scarab Fayat logo, white

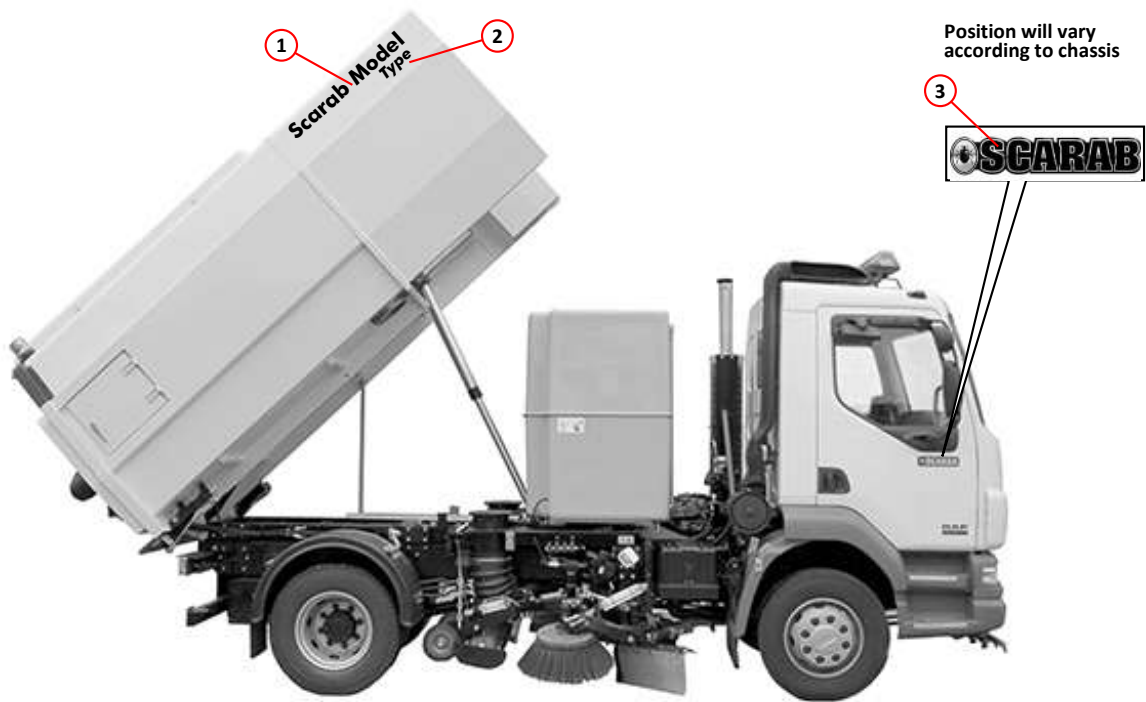


Warning, Caution and Advice Labels

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
Badges and Vinyl Decals			
1	026706	3	Vinyl Decal - SCARAB MAGNUM
	026019	3	Vinyl Decal - SCARAB MERLIN
	022893	3	Vinyl Decal - SCARAB MAJOR (France only)
NI	026092	3	Vinyl Decal - 5001
NI	026093	3	Vinyl Decal - 5501
NI	026094	3	Vinyl Decal - 7001
NI	026095	3	Vinyl Decal - 7501
NI	026096	3	Vinyl Decal - 8000
NI	034071	3	Vinyl Decal - 8001
NI	026097	3	Vinyl Decal - 8500
2	026020	3	Vinyl Decal - HYDROSTATIC
	026021	3	Vinyl Decal - UNIDRIVE
	032992	3	Vinyl Decal - XP Hydrostatic (Red)
	038147	3	Vinyl Decal - XP Unidrive (Green)
3	030200	2	Body badge, vacuum-plated plastic



Typical application shown but individual vehicles might differ depending upon livery requirements



Scarab Badges and Vinyl Decals

Multi-lingual glossary

<i>Description</i>	<i>Page</i>
English	292
Français	292
Italiano	292
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Svenska	311

English	Français	Italiano
A		
Access	Accès	Accesso
Accessories	Accessoires	Accessori
Accelerator	Accélérateur	Acceleratore
Actuator	Servomoteur	Attuatore
Adapter (adapt)	Adaptateur	Adattatore
Adapter Flange	Adaptateur à bride	Flangia adattatore
Adapter Plate	Adaptateur, à plaque	Piastra adattatore
Adapter, Straight	Adaptateur, droit	Adattatore in linea
Adjuster	Régulateur	Dispositivo di regolazione
Adjuster Kit	Régulateur, kit	Corredo dispositivo di regolazione
Adjuster Valve	Vanne de régulation	Valvola dispositivo di regolazione
Adjustable	Ajustable	Regolabile
Aerial	Antenne	Antenna
Air	Air	Aria
Air Cleaner	Filtre à air	Filtro aria
Air Conditioner	Climatiseur	Condizionatore aria
Air Cylinder	Cylindre d'air	Cilindro aria
Air Filter	Filtre à air	Filtro aria
Air Manifold	Collecteur d'air	Collettore aria
Air Mass Meter	Compteur d'air-massique	Flussometro di massa
Air Feed	Injecteur d'air	Alimentazione aria
Air Chute	Goulotte pneumatique	Lobo aria-aria
Air Outlet	Sortie d'air	Bocca di uscita aria
Air Muffler	Amortisseur d'air	Silenziatore aria
Air Pressure Regulator	Régulateur de pression d'air	Regolatore pressione aria
Air Ram	Vérin pneumatique	Pistone aria
Air Valve	Soupape d'air	Valvola di sfiato
Air Vent Pipe	Tuyau de refoulement d'air	Tubo di sfiato
Alternator	Alternateur	Alternatore
Alternator Interface	Alternateur, interface	Interfaccia alternatore
Aluminium (Alum)	Aluminium (alum)	Alluminio (Allum.)
Anchor	Ancre, dispositif d'ancrage	Ancora
Angle	Angle	Angolo
Antiluce Fastener	Fixation « Antiluce »	Dispositivo di fissaggio Antiluce
Amendment (Amdt.)	Modification (modif.)	Rettifica (rett.)
Amplifier	Amplificateur	Amplificatore
Arrangement	Disposition	Disposizione
Assembly (Assy)	Ensemble	Gruppo
Auto Blanking	Fermeture automatique	Autochiusura
Automatic	Automatique	Automatico

English	Français	Italiano
Auxiliary	Auxiliaire	Ausiliario
Axle	Essieu	Asse
Axle Beam	Essieu, fusée d'	Asta asse
Axle Bolt	Essieu, boulon d'	Bullone asse
Axle Breather	Essieu, reniflard d'	Sfiatatoio asse
Axle Carrier & Tube	Essieu, porte-essieu et tube	Supporto e tubo asse
Axle Front	Essieu, avant	Frontale asse
Axle Rear	Essieu, arrière	Retro asse
Axle Washer	Essieu, rondelle d'	Rondella asse
B		
Back Plate	Socle	Piastra di supporto
Bag	Sac	Borsa
Ball	Bille	Sfera
Ball End	Rotule	Estremità arrotondata
Ball Joint	Joint sphérique	Giunto sferico
Ball Valve	Vanne à boisseau	Valvola a sfera
Bar	Barre	Barra
Basin	Cuvette	Bacino
Battery	Batterie	Batteria
Battery Housing	Batterie, logement de	Sede batteria
Battery Terminals	Batterie, bornes	Terminali batteria
Battery Lead	Batterie, câble	Cavo batteria
Battery Tray	Batterie, plateau	Vassoio portabatteria
Beacon	Gyrophare	Segnale luminoso
Beacon Bar	Barre de gyrophare	Barra segnale luminoso
Beam	Phare	Fascio
Bearing	Roulement, palier	Cuscinetto
Bell Housing	Logement évasé	Sede campanello
Bellows	Soufflet	Soffietto
Belt	Courroie	Cinghia
Black	Noir	Nero
Blanking	Obturation	Tappaggio
Beeper	Signal	Emettitore di segnali acustici
Blind Rivet	Rivet aveugle	Ribattino con spina inserita
Block	Bloc	Blocco
Blue	Bleu	Blu
Board	Carton	Piastra
Body	Corps	Corpo
Bolt	Boulon	Bullone
hex hd (hexagonal head)	Boulon à tête 6 pans	testa esagonale
skt hd (socket head)	Boulon à tête creuse	brugola

English	Français	Italiano
csk hd (counter-sunk head)	Boulon à tête fraisée	svasato
Boom	Flèche	Braccio
Boost	Suralimentier	Spinta
Bore	Alésage	Camera cilindrica
Boss	Moyeu, bossage	Mozzo
Bottom	Fond	Fondo
Bottle	Bouteille	Flacone
Box	Boîte	Scatola
Brace	Tirant	Braccio
Bracket (Brkt)	Support	Staffa
Brake	Frein	Freno
Brass Wing Nut	Ecrou à oreilles, en laiton	Galletto di ottone
Breather	Reniflard	Sfiatatoio
Broom	Balai	Scopa
Brown	Marron	Marrone
Brush	Brosse	Spazzola
Base	Base	Base
Buffer	Tampon	Respingente
Build	Construire, modèle	Costruzione
Bulb	Ampoule	Lampadina
Bulkhead	Cloison	Paratia
Bumper	Pare-chocs	Paraurti
Bump Stop	Butoir	Respingente
Bungee Cord	Corde « Bungee »	Cavo elastico
Bush	Manchon / Bague	Boccola
Buzzer	Vibreux	Cicalino
Button	Bouton	Pulsante
C		
Cable	Câble	Cavo
Caliper	Calibre	Pinza
Cam Shaft	Arbre à cames	Albero a camme
Camera	Caméra	Camera
Canopy	Auvent / Capot	Tettuccio
Cap	Capuchon	Cappuccio
Capping	Chapeau	Cornice
Carabiner	Carabine	Carabiner
Carrier	Porte, support	Portante
Case	Boîtier	Scatola
Casing	Boîtier	Involucro
Catalogue	Catalogue	Catalogo
Cab	Cabine	Cabina

English	Français	Italiano
Catch	Cliquet, disp. d'arrêt	Fermo
Caution	Notice « attention »	Attenzione
Centre	Centre	Centro
Chain	Chaîne	Catena
Chassis	Châssis	Chassis
Check	Contrôle	Controllo
Check Valve	Soupape d'arrêt / Clapet	Valvola di ritegno
Chute	Goulotte	Scivolo
Circlip	Circlip	Anello elastico
Circuit	Circuit	Circuito
Clamp	Collier	Morsetto
Cleaner	Nettoyage, dispositif de	Detergente
Clevis	Chape	Maniglione
Clip	Pince	Clip
Clutch	Embrayage	Frizione
Coach	Carrosserie	Carrozzeria
Coil	Bobine	Bobina
Collar	Bague de serrage	Piattello
Complete	Complet (complète)	Completo
Components	Composants	Componenti
Compressor	Compresseur	Compressore
Cone	Cône	Cono
Connector	Connecteur	Connettore
Connecting	Connectant	Connessione in corso
Con Rod (Connecting Rod)	Bielle	Biella
Continued (Cont.)	Suite	Continuazione (cont.)
Control (Cntrl)	Contrôle	Controllo (Cntrl)
Controller	Contrôleur	Unità di controllo
Conventional	Conventionnel	Convenzionale
Conversion (Conv)	Conversion	Conversione (Conv)
Cooler	Refroidisseur	Refrigerante
Cooling	Refroidissement	Raffreddamento
Copper	Cuivre	Rame
Core	Ame	Nucleo
Cotter	Goupille	Chiavetta trasversale
Coupling	Raccord / Accouplement	Accoppiamento
Cover	Couvercle	Coperchio
Cowling	Capotage	Cappottatura
Crank-case	Carter-moteur	Basamento
Cranked	Contre-coudé	Gambo piegato
Cross Member	Traverse	Traversa
Crown Wheel	Couronne d'entraînement	Corona dentata

English	Français	Italiano
Curb	Bord, bordure	Bordo
Cylinder	Cylindre	Cilindro
D		
Damper	Amortisseur	Smorzatore
Deflector	Défecteur	Deflettore
Description	Description	Descrizione
Details	Informations	Dettagli
Detergent	Detergent	Detergente
Diagram	Diagramme	Diagramma
Dial	Cadran	Quadrante
Diaphragm	Diaphragme	Diaframma
Diode	Diode	Diodo
Dipped Beam	Feu de croisement	Anabbagliante
Dipstick	Jauge	Asta di livello
Dipstick guide	Jauge, guide de	Guida asta di livello
Dipstick tube	Jauge, tube de	Tube asta di livello
Directional	Directionnel	Direzionale
Dirt	Impureté	Sporco
Disc / Disk	Disque	Disco
Display	Écran d'affichage	Visualizzatore
Distributor	Distributeur	Distributore
Diverter	Diviseur	Diverter
Door	Porte	Sportello
Double	Double	Doppio
Dowel	Cheville	Perno di riferimento
Down	Bas	Giù
Dowty Seal	Joint « Dowty »	Chiusura ermetica Dowty
Drag Link Tube	Tube de tige directrice	Tirante longitudinale comando sterzo
Drain Plug	Bouchon de vidange	Tappo di scarico
Drive	Entraînement	Trasmissione
Drive Core	Entraînement, âme d'	Nucleo trasmissione
Drive Coupling	Entraînement, raccord d'	Accoppiamento trasmissione
Drive Dog	Entraînement, crabot d'	Innesco trasmissione
Drive Flange	Entraînement, bride d'	Flangia trasmissione
Drive Motor	Entraînement, moteur d'	Motore principale
Drive Pump	Entraînement, pompe d'	Pompa trasmissione
Drive Shaft	Entraînement, arbre d'	Albero comando
Drive Tube	Entraînement, tube d'	Tube trasmissione
Dual Sweep	Double balayage	doppia spazzata
Dump Valve	Soupape de décharge	Valvola di scarico rapido
Dust	Poussière	Polvere

English	Français	Italiano
E		
Eccentric	Excentrique	Eccentrico
Elbow	Coude	Gomito
Electric	Electrique	Elettrico
Electrical	Electrique	Elettrico
Element	Elément	Elemento
Enclosure	Enceinte	Alloggiamento
End	Extrémité	Estremità
End Plate	Extrémité, plaque d'	Piastra estremità
End Cap	Extrémité, chapeau d'	Cappuccio estremità
Engine	Moteur	Motore
Exchange	Echange	Scambio
Exhaust	Echappement	Scarico
Exhaust Gas Recirculation (EGR)	Recyclage de gaz d'échappement	Ricircolo gas di scarico
Expansion	Dilatation	Espansione
Extended	Dilaté	Esteso
Extension	Extension	Estensione
Extinguisher	Extincteur	Estintore
F		
Fan	Ventilateur	Ventola
Fastener	Fixation	Dispositivo di fissaggio
Feed	Alimentation	Alimentazione
Female	Femelle	Femmina
Filler	Remplisseur	Bocchettone di riempimento
Filter	Filtre	Filtro
Finisher	Finisseur	Finitore
Fire	Feu	Combustione
First	Premier	Primo
Fishtail	Queue de poisson / Cône	Coda di pesce
Fit	Emboîter / Monter	Montaggio
Fitting	Raccord	Montaggio
Fixing	Fixation	Rettifica
Flange	Bride	Flangia
Flap	Volet	Alettone
Flash	Flash	Flash
Flexible (Flexi)	Flexible	Flessibile (flexi)
Floor	Plancher	Pavimento
Floorplate	Plaque de sol	Base pavimento
Flow	Débit	Flusso
Fluid	Fluide	Fluido

English	Français	Italiano
Flywheel	Volant	Volano
Foam	Mousse	Schiuma
Fog	Brouillard	Nebbia
Foot	Pied	Piede
Forward	Avant	Avanti
Frame	Bâti	Telaio
Front	Avant	Anteriore
Fuel	Carburant	Combustibile
Function	Fonction	Funzione
Fuse	Fusible	Fusibile
G		
Gain	Gain	Guadagno
Galvanised	Galvanisé	Zincato
Gantry	Portique	Cavalletto
Gas	Gaz	Gas
Gas Strut	Jambe à gaz	Puntone gas
Gasket	Garniture d'étanchéité	Guarnizione
Gauge	Manomètre	Calibro
Gauze	Gaze	Garza
Gear	Engrenage	Ingranaggio
Geared	A engrenages	Ingranato
Gearbox	Boîte de vitesses	Scatola del cambio
General	Général(e)	Generale
Glass	Verre	Vetro
Glow Plug	Bougie de préchauffage	Spina a incandescenza
Gobbler (Nozzle Tilt)	Gobbler (Inclinaison d' Embout)	Gobbler (Ugello Inclinazione)
Grab	Grappin	1. Estrattore a pinza (n)
Grease	Graisse	Grasso
Greaser	Graisseur	Ingrassatore
Green	vert	Verde
Grey	gris	Grigio
Grill	gril	Griglia
Grip	manche	1. Presa (n)
Grub Screw	vis sans tête	Vite di riferimento
Grommet	virole	Anello di tenuta
Guard	Carter de protection	Riparo
Guide	Guide	Guida
H		
Hand	Côté	Mano
Hand Primer	Pompe à main, dispositif de	Pompetta di adescamento a mano

English	Français	Italiano
Hand Wash	Lavage à main	Lavaggio a mano
Handbrake	Frein à main	Freno a mano
Handle	Poignée	Maniglia
Hanger	Suspension	Supporto pendente
Harness	Harnais	Cablaggio
Head	Tête	Testa
Headlamp	Phare	Faro
Heat	Chaleur	Calore
Heatshield	Bouclier thermique	Scudo termico
Heater	Chauffage	Riscaldatore
High Pressure	Haute pression	Alta pressione
Hi Tip	Bennage en hauteur	Punta alta
Hinge	Charnière	Cerniera
Hinged	Charnière, à	Incernierato
Holder	Porte-outil	Staffa di supporto
Hooks	Crochets	Ganci
Hopper	Trémie	Serbatoio con scarico sul fondo
Horn	Avertisseur sonore	Avvisatore acustico
Hose	Tuyau flexible	Tubo flessibile
Hose Tail	Tuyau flexible, bout de	Raccordo tubo flessibile
Hot	Chaud	Caldo
Hour Meter	Compteur horaire	Contaore
Housing	Logement	Alloggiamento
Hub	Manchon	Mozzo
Hydraulic	Hydraulique	Idraulico
Hydrant	Bouche d'incendie	Idrante
Hydrant Filler	Bouche d'incendie, disp. de remplissage	Filtro idrante
Hydrant Hose	Bouche d'incendie, tuyau souple	Tubo idrante
Hydrostatic	Hydrostatique	Idrostatico
/		
Identification	Identification	Identificazione
Idle	Inactif / Ralenti	Inattivo
Ignition (Ign)	Contact	Accensione (Acc)
Illuminated	Eclairé	Illuminato
Illustrated	Illustré	Illustrato
Illustration	Illustration	Illustrazione
Impellor	Rotor / Turbine	Girante
Inclusive	Compris	Inclusivo
Information (Info)	Informations	Informazioni (Info)
In	Entré	Dentro
Inlet	Entrée	Ammissione

English	Français	Italiano
Inlet Cone	Entrée, cône d'	Cono di ammissione
Inlet Pipe	Entrée, tuyau d'	Tube di ammissione
Injection Pump	Pompe d'injection	Pompa d'iniezione
Injector	Injecteur	Iniettore
Injector Pipe	Tuyau d'injection	Tube iniettore
Input	Entrée	Ingresso
Inseal Strip	Bande d'étanchéité	Guarnizione sigillante
Insert	Insert	Inserto
Insertion	Insertion	Inserimento
Installation	Installation	Installazione
Instrument	Instrument	Strumento
Insulator	Isolateur	Isolante
Inter Cooler	Refrigerateur intermédiaire	Refrigeratore intermedio
Interior	Intérieur	Interno
Interim	Intérimaire	Interim
Internal	Interne	Interno
Item	Article	Articolo
J		
Jet	Jet	Getto
Joint	Joint	Giunto
Joystick	Joystick	Joystick
Jubilee Clip	Pince crocodile	Fermaglio Jubilee
Junction	Jonction	Incrocio
K		
Key	Clé	Chiave
Key Switch	Interrupteur à clé	Interruttore a chiavetta
Kerb	Bordure	Bordo (as in pavement)
King Pin	Axe-pivot	Perno di sterzaggio
King Post	Poinçon de faite	Puntone di sostegno
Kit	Kit	Corredo
Knob	Bouton	Manopola
L		
Label	Etiquette	
Lamp	Lampe	Lampada etichetta
Work Lamp	Lampe de travail	Lampada da lavoro
Head Lamp	Projecteur	Faro
Side Lamp	Lampe latérale	Luce di posizione
Lance	Lance	Lancia

English	Français	Italiano
Lap Joint	Joint à recouvrement	Giunto a sovrapposizione
Large	Grand	Grande
Latch	Verrou	Serratura
Lead	Fil	Cavo
L.E.D. (Light Emitting Diode)	Diode électroluminescente	LED (Diodo a emissione luminosa)
Leash	Laisse	Maglia
Left	Gauche	Sinistra
Left Hand Drive (LHD)	Conduite à gauche	Guida a sinistra (LHD)
Leg	Jambe	Gamba
Length	Longueur	Lunghezza
Lens	Objectif	Lente
Level	Niveau	Livello
Lever	Levier	Leva
Lid	Couvercle	Coperchio
Lift	Ascenseur	Sollevare
Lifting	Levage	Sollevamento
Light	Feux	Luce
Side Light	Feux latéraux	Luce di posizione
Head Light	Phare	Faro
Rear Light	Feu arrière	Fanale di coda
Brake Light	Feux stop	Luce freno
Interior Light	Eclairage intérieur	Luce abitacolo
Fog Light	Feu antibrouillard	Faro antinebbia
Linch Pin	Axe d'essieu	Acciarino
Lining	Revêtement	Rivestimento interno
Link	Maillon	Articolazione
Linkage	Tringlerie	Sistema di leve
Litre	Litre	Litro
List	Liste	Lista
Load	Charge	Carico
Located	Situé	Posizionato
Lock	Verrou	Fermo
Locknut	Ecrou de blocage	Controdado
Locker	Armoire	Armadietto
Locking	Verrouillage	Serraggio
Long	Long	Lungo
Loom	Métier	Cablaggio
Loop	Boucle	Circuito elettrico ad anello
Low Pressure	Basse pression	Bassa pressione
Lower	Baisser	Inferiore
Lubricant	Lubrifiant	Lubrificante
Lubrication	Lubrification	Lubrificazione

English	Français	Italiano
M		
Machine	Machine	Macchina
Magnet	Aimant	Magnete
Magnetic	Magnétique	Magnetico
Main	Principal(e)	Principale
Male	Mâle	Maschio
Management	Gestion	Gestione
Manifold	Collecteur	Collettore
Manual	Manuel	Manuale
Manufactured	Fabriqué	Fabbricato
Marker Lamp	Lampe signal	Lampada di segnalazione
Master	Maître	Principale
Master Cylinder	Maître-cylindre	Cilindro principale
Maximum (Max)	Maximum (maxi)	Massimo (max.)
Mesh	Tamis	Maglia
Metal	Métal	Metallo
Meter	Mètre	Calibro
Micro Switch	Micro-contact	Microinterruttore
Minimum (Min)	Minimum (mini)	Minimo (min.)
Mirror	Miroir	Specchio
Miscellaneous	Divers	Miscellanea
Modified	Modifié	Modificato
Module	Module	Modulo
Monitor	Moniteur	Monitor
Motor	Moteur	Motore
Mount	Monture	Montaggio
Mounted	Monté	Montato
Mounting	Châssis / Support	Montaggio
Mud Flaps	Bavettes de garde-boue	Paraspruzzi
Mud Guard	Garde-boue	Parafango
Muffler	Amortisseur	Marmitta
Multi Function	Multifonctions	Multifunzionale
N		
N/A (Not Applicable)	S/O (sans objet)	N/D (Non disponibile)
Narrow	Etroit	Stretto
Near side	Côté trottoir	Lato guida
Negative	Négatif	Negativo
Neutral	Neutre	Neutro
New	Nouveau (nouvelle)	Nuovo
Nipple	Manchon	Raccordo filettato

English	Français	Italiano
No	Non	N. (Numero)
Non Return	Anti-retour	Non ritorno
Normal	Normal	Normale
Note	Note	Nota
Nozzle	Embout / Buse	Ugello
Number	Numéro	Numero
Numerical	Numérique	Numerico
Nut	Ecrou	Dado
Nyloc Nut	Ecrou « Nyloc »	Dado Nyloc
Hex Nut	Ecrou hexagonal	Dado a testa esagonale
Plain Nut	Ecrou normal	Dado liscio
Self Locking Nut	Ecrou autobloquant	Dado autobloccante
Thin Nut	Ecrou mince	Dado sottile
Nylon Tube	Tube de nylon / Nylon, tube de	Tubo di nylon
O		
Obsolete	Périmé	Obsoleto
Off	Arrêt	1. Spento 2. Inattivo
Off Side	Côté route	Lato passeggero
Oil	Huile	Olio
Olive	Olive	Oliva
On	Marche	1. Acceso 2. Attivo
Open	Ouvrir	Aprire
Opened	Ouvert(e)	Aperto
Opening	Ouverture	Apertura
Operating	Fonctionnement, de	Operativo
Option	Option	Opzione
Optional	Optionnel(le)	Opzionale
Orange	Orange	Arancione
Original	Original	Originale
O Ring	Joint torique	Anello di tenuta toroidale
Out	Sorti(e)	1. Fuori 2. Esterno
Outer	Extérieur(e)	Esterno
Outlet	Sortie	Sbocco
Output	Production	Uscita
Overhead	Surélevé	in testa
Overload	Surcharge	Sovraccarico
P		
Packer	Garniture d'étanchéité	Imballatore
Panel	Panneau	Pannello
Part	Pièce	Ricambio

English	Français	Italiano
Pedal	Pédale	Pedale
Pick-up	Prendre / en lever	Ripresa
Pilot (pressure)	Pilote	Pilota
Pin	Cheville	Perno
Pinion	Pignon	Pignone
Pink	Rose	Rosa
Pipe	Tuyau	Tube
Piping	Tuyauterie	Tubazione
Piston	Piston	Pistone
Pivot	Pivot	Perno di testa
Plastic	Plastique, matière	Plastica
Plate	Plaque	Piastra
Plinth	Plinthe	Base
Plug	Bouchon / Prise électrique	Spina
Point	Point	Punto
Poppet Valve	Soupape / Clapet	Valvola supporto verticale
Ports	Orifices	Porte
Position	Position	Posizione
Positioned	Positionné(e)	Posizionato
Post	Montant	Montante
Potentiometer	Potentiomètre	Potenziometro
Power	Puissance	Potenza
Pneumatic (See Also Air)	Pneumatique	Pneumatico (vedi anche Aria)
Pressure	Pression	Pressione
Primer	Amorce / Apprêt	Innesco
Production	Production	Produzione
Prop	Support	Puntello
Propshaft	Arbre de transmission	Albero puntello
Pull	Tirer	Tirare
Pulley	Poulie	Puleggia
Pulsation	Pulsation	Pulsazione
Pulse	Impulsion	Polso
Pump	Pompe	Pompa
Purple	Violet	Porpora
Q		
Quick Release	Rapide, raccord	Disinnesco rapido
R		
Radiator (Rad)	Radiateur	Radiatore (rad)
Raise	Soulever	Sollevarre
Raised	Soulevé(e)	Sollevenuto

English	Français	Italiano
Ram	Vérin	Pistone
Ratio	Rapport	Rapporto
Rear	Arrière	Retro
Red	Rouge	Rosso
Reducer	Réducteur	Riduttore
Reducing	Réduction, de	Riduzione
Reduction	Roue / Enrouleur	Riduzione
Reel	Bobine	Bobina
Refer	Voir	Riferimento
Refill	Remplir	Rabbocco
Regulator	Régulateur	Regolatore
Related	Relatif	Correlato
Relay	Relais	Relè
Release	Dégagement	Disinnesco
Relief Valve	Soupape de sûreté	Valvola di sfogo
Remote	A distance / Distance, à	Remoto
Repair	Réparation	Riparazione
Replacement	Remplacement	Sostituzione
Resister	Résistance	Resistore
Refill	Remplir	Rabbocco
Regulator	Régulateur	Regolatore
Related	Relatif	Correlato
Relay	Relais	Relè
Release	Dégagement	Disinnesco
Relief Valve	Soupape de sûreté	Valvola di sfogo
Remote	A distance / Distance, à	Remoto
Repair	Réparation	Riparazione
Replacement	Remplacement	Sostituzione
Resister	Résistance	Resistore
Restrictor	Restriction	Limitatore
Retainer	Retenue, dispositif de	Fermo
Retaining	Retenue, de	Sostegno
Return	Retour	Ritorno
Reverse	Inverse	Retromarcia
Reversing	Recul	Inversione di marcia
Right	Droite	Destra
Right Hand Drive (RHD)	Conduite à droite	Guida a destra
Rim	Jante	Bordo
Ring	Bague	Anello
Road	Route	Strada
Rod	Tige	Asta
Rolling	Roulant, de roulement	Rotolante

English	Français	Italiano
Rotary	Rotatif	Rotante
Rotate	Tourner	Ruotare
Rotating	Tournant	Rotante
Rotation	Rotation	Rotazione
Rubber	Caoutchouc	Gomma
S		
Safety	Sécurité	Sicurezza
Scraper	Racleur	Raschietto
Screen	Ecran	Schermo
Screw	Vis	Scheggia
Hex hd (hexagonal head)	Vis à tête 6 pans	Testa esagonale
skt hd (socket head)	Vis à tête creuse	Brugola
csk hd (counter-sunk head)	Vis à tête fraisée	Svasata
Seal	Garniture d'étanchéité	Chiusura ermetica
Sealant	Étanchéifiant	Materiale di tenuta
Sealing	Étanchéité, d'	Sigillante
Seat	Siège	Sedile
Securing	Fixation, de	Fissaggio
Selector Shaft	Levier de commande	Albero selettore
Self Tapping	Auto-taraudeur	Autofilettante
Sender	Expéditeur / Transmetteur	
Sensor	Capteur	Sensore
Separation	Séparation	Separazione
Serial	Série, de	Seriale
Service Exchange (S/EX)	Echange standard	Scambio di servizio
Set screw	Vis de calage	Vite di fermo
Shaft	Arbre	Albero
Shells	Calandres	Gusci
Shield	Ecran	Scudo
Shim	Cale	Zeppa
Shock Absorber	Amortisseur	Ammortizzatore
Shoe	Patin	Scarpa
Short	Court(e)	Ganascia
Shovel	Pelle	Pala
Side Access Door	Porte d'accès latéral	Sportello accesso laterale
Sight	Vue	Mirino
Silencer	Silencieux	Silenziatore
Silicon	Silicone	Silicone
Single	Simple	Singolo
Skirt	Jupe	Bordatura
Slate	Ardoise	Ardesia

English	Français	Italiano
Sleeve	Gaine	Manicotto
Slew	Pivoter	Ruotare
Slewing	Orientation	Rotazione
Sliding	Coulissant	Slittamento
Slotted	Fente, A	Sfinestrato
Small	Petit(e)	Piccolo
Socket	Prise	Presa
Solenoid	Solénoïde / Noyau	Solenoido
Spacer	Pièce d'espacement	distanziatore
Spare	Rechange, pièce de	ricambio
Speakers	Haut-parleurs	altoparlanti
Special	Spécial(e)	speciale
Speed	Vitesse	velocità
Spherical	Sphérique	sferico
Spigot	Goujon / Tube de jonction	zipolo
Spindle	Broche	mandrino
Splined	Cannelé	linguetta
Split Pin	Goupille fendue	coppiglia
Splitter	Répartiteur	diviso
Spray	Pulvérisateur	spray
Spring	Ressort	molla
Stabiliser	Stabilisateur	stabilizzatore
Stabilising	Stabilisation	stabilizzante
Stack	Pile	pila
Standard	Standard	standard
Standpipe	Colonne montante	colonna in aumento
Starter	Démarrreur	starter
Steel	Acier	acciaio
Steering	Direction	lo sterzo
Stem	Tige	Guarnizione
Stiffener	Raidisseur	rinforzo
Stop	Arrêt	fermare
Storage	Rangement	conservazione
Stowage	Arrimage	stivaggio
Straight	Droit(e)	dritto
Strap	Attache	cinghia
Strip	Bande	Cintura
Strut	Jambe	il supporto
Stub	Souche	mozzicone
Stud	Goujon fileté	il perno
Studded	Barrettes, A	costellato
Studding	Colombage	coltellaccio

English	Français	Italiano
Sub Frame	Faux-châssis	sottotelaio
Suction Fan	Turbine d'aspiration	turbina di aspirazione
Suction Nozzle	Buse d'aspiration	ugello di aspirazione
Sump	Carter	i carter
Supply	Fourniture	fornitura
Support	Support	supporto
Suppression	Suppression	repressione
Suspension	Suspension	sospensione
Sweep	Balayage	spazzare
Sweeping	Balayant, de balayage	Formatura a sagoma
Swing	Balancement	Oscillazione
Switch / Switches	Interrupteur / Interrupteurs	Interruttore / Interruttori
Swivel	Pivotant	Parte girevole
System	Système	Sistema
T		
Tab Washer	Rondelle à languettes	Rondella di sicurezza
Tachograph	Tachygraphe	Tachigrafo
Tachometer	Tachymètre	Tacometro
Tandem	Tandem	Tandem
Tank	Réservoir	Serbatoio
Tapered	Conique	Conico
Taper Lock	Verrou conique	Serratura conica
Tee Key	Clé à béquille	Chiave a T
Temperature (Temp)	Température (temp.)	Temperatura (Temp)
Template	Gabarit	Sagoma
Tensioner	Tendeur	Tensiometro
Terminal	Borne	Terminale
Test	Test	Test
Thermostat	Thermostat	Termostato
Thick	Epais	Spesso
Thimble	Dé	Bussola
Thin	Mince	Sottile
Throttle	Accélérateur	Farfalla
Thrust	Poussée	Spinta
Tie Rod	Tirant	Tirante
Tilt	Inclinaison	Inclinazione
Tilting	Inclinable	Inclinazione
Timer	Minuterie	Timer
Timing	Minutage	Temporizzazione
Toggle	Bascule	Ginocchiera
Tool	Outil	Attrezzo

English	Français	Italiano
Toolbox	Boîte à outils	Cassetta attrezzi
Toothed	Dentelé(e)	Dentato
Top	Dessus	Cima
Tow	Remorquer	Rimorchio
Tow Ball	Boule de remorquage	Sfera rimorchio
Tow Bar	Barre de remorquage	Barra rimorchio
Tow Point	Point de remorquage	Punto di rimorchio
Track Rod	Barre d'accouplement	Barra di accoppiamento
Trailer	Remorque	Rimorchio
Transfer Gearbox	Boîte de transfert intermédiaire	Scatola del cambio a trasferimento
Transmission	Transmission	Trasmissione
Travel	Course	Corsa
Trunking	Jonction	Circuito di collegamento
Trunnion	Tourillon	Perno di articolazione
Tube	Tube	Tube
Tubing	Tubage	Tubazione
Turbocharger (Turbo)	Turbocompresseur	Turbocompressore
Twin	Jumelé	Gemello
Type	Type	Tipo
Typical	Typique	Tipico
Tyre	Pneu	Pneumatico
U		
Uncompressed	Non comprimé	Decompresso
Underside	Dessous	Disotto
Universal Joint (U/J)	Joint universel / Croisillon	Giunto universale
Union	Raccord	Unione
Unit	Unité	Unità
Un-Loader	Déchargeur	Scaricatore
Up	Dessus	Su
Update	Mise à jour	Aggiornamento
Usage	Utilisation	Utilizzo
V		
Valve	Vanne / Soupape	Valvola
Variant	Variante	Variante
Vehicle	Véhicule	Veicolo
Voltage	Tension	Voltaggio
W		
Wander Hose	Flexible aspirateur	Tube flessibile mobile

English	Français	Italiano
Warning	Avertissement	Avvertenza
Washer	Rondelle	Rondella
Water	Eau	Acqua
Wear	Usure	Usura
Weed Ripper	Désherbage, dispositif de	Sarchiatore
Welded	Soudé	Saldato
Wheel	Roue	Ruota
White	Blanc(he)	Bianco
Wide Sweep	Balayage large	Curvatura larga
Windscreen	Pare-brise	Parabrezza
Wiper	Essuie-glace	Tergicristallo
Wires	Câblage	Fili
Wiring – black, blue, brown, green, grey, orange, pink, purple, red, white yellow	Câblage – noir, bleu, marron, vert, gris, orange, rose, violet, rouge, blanc jaune	Cablaggio Nero, Blu, Marrone, Verde, Grigio, Arancione, Rosa, Porpora, Rosso, Bianco Giallo
Work Light	Lampe de travail	
X		
Xenon	Xénon	Xenon
Y		
Yellow	Jaune	Giallo

English	Español	Svenska
A		
Access	Acceso	Tillgång
Accessories	Accesorios	Tillbehör
Accelerator	Acelerador	Gaspedal
Actuator	Accionador, servomotor	Aktiverare
Adaptor (adapt)	Adaptador (Adapt.)	Övergång
Adapter Flange	Brida del adaptador	Övergångsfläns
Adaptor Plate	Disco del adaptador	Övergångsplatta
Adaptor, Straight	Tramo recto del adaptador	Rak övergång
Adjuster	Regulador	Justering
Adjuster Kit	Juego regulador	Justeringsatts
Adjuster Valve	Válvula del regulador	Ventiljustering
Adjustable	Ajustable	Justerbar
Aerial	Antena	Antenn
Air	Aire	Luft
Air Cleaner	Purificador de aire	Luftrenare
Air Conditioner	Aire acondicionado	Luftkonditionering
Air Cylinder	Cilindro de aire	Luftcylinder
Air Filter	Filtro de aire	Luftfilter
Air Manifold	Distribuidor de aire	Luftfördelare
Air Mass Meter	Medidor de masa de aire	Luftmätare
Air Feed	Inyector de aire	Luftförsörjning
Air Air Chute	Conducto neumático	Dränering
Air Outlet	Salida de aire	Överskottsluft
Air Muffler	Silenciador de aire	Luftljuddämpare
Air Pressure Regulator	Regulador de presión del aire	Luftregulator
Air Ram	Aire a presión	Luftkolv
Air Valve	Válvula de aire	Luftventil
Air Vent Pipe	Tubería del sistema de ventilación	Luftventilsrör
Alternator	Alternador	Generator
Alternator Interface	Acoplamiento del alternador	Generatorfäste
Aluminium (Alum)	Aluminio (Alum.)	Aluminium
Anchor	Anclaje	Ankare
Angle	Ángulo	Vinkel
Antiluce Fastener	Elemento de sujeción "Anti-luce"	Låsbeslag(sidodörr)
Amendment (Amdt.)	Corrección (Correc.)	Rättelse/förbättring
Amplifier	Amplificador	Elektrisk förstärkare

English	Español	Svenska
Arrangement	Disposición	Arrangemang
Ashtray	Cenicero	Askkopp
Assembly (Assy)	Conjunto (Conj.)	Sätta ihop
Auto Blanking	Borrado automático	Automatisk stängning
Automatic	Automático	Automatisk
Auxiliary	Auxiliar	Extra
Axle	Eje	Axel
Axle Beam	Viga del eje	
Axle Bolt	Perno del eje	Axelbult
Axle Breather	Respiradero del eje	
Axle Carrier & Tube	Tubo y soporte del eje	
Axle Front	Frontal del eje	Framaxel
Axle Rear	Trasera del eje	Bakaxel
Axle Washer	Arandela del eje	Axelbricka
B		
Back Plate	Contraplato	Bakstycke
Bag	Bolsa	Säck
Ball	Bola	Kula
Ball End	Lado esférico	
Ball Joint	Rótula	
Ball Valve	Válvula de bola	Kulventil
Bar	Barra	Ramp
Basin	Vasija	Skål
Battery	Batería	Batteri
Battery Housing	Alojamiento de la batería	Batterikåpa
Battery Terminals	Bornes de la batería	Batteriterminal
Battery Lead	Cable de la batería	Batteribly
Battery Tray	Bandeja de la batería	Batteri platta
Beacon	Faro	Varningsljus
Beacon Bar	Barra del faro	Takramp varningsljus
Beam	Haz	Strålkastare
Bearing	Cojinete	Lager
Bell Housing	Carcasa del embrague	Svänghjulsåpa
Bellows	Fuelle	Bälg
Belt	Correa	Remm
Black	Negro	Svart
Blanking	Borrado	Stängning
Beeper	Emisor de tonos	Backvanare
Blind Rivet	Remache ciego	Popnit
Block	Bloque	Stänga/sätta igen
Blue	Azul	Blå

English	Español	Svenska
Board	Tablero	Skiva
Body	Cuerpo	Kropp
Bolt	Perno	Bult
hex hd (hexagonal head)	cab. hexag. (cabeza hexagonal)	Bult (sexkanthuvud)
skt hd (socket head)	cab. hueca (cabeza hueca)	Bult försänkt huvud
csk hd (counter-sunk head)	cab. avell. (cabeza avellanada)	
Boom	Brazo	Bom
Boost	Empujar	Högeffekt
Bore	Calibre	Borra
Boss	Refuerzo	Knopp
Bottom	Inferior	Nertill
Bottle	Botella	Flaska
Box	Cuadro	Låda
Brace	Abrazadera	Band
Bracket (Brkt)	Soporte (Sop.)	Konsoll
Brake	Freno	Broms
Brass Wing Nut	Tuerca de mariposa de latón	Mässingsvingmutter
Breather	Respiradero	Luftare
Broom	Escobilla	Kvast
Brown	Marrón	Brun
Brush	Escobilla	Borste
Base	Base	Bas
Buffer	Amortiguador	Dämpare
Build	Construir	Bygga
Bulb	Bombilla	Lampa
Bulkhead	Mampara	Skott (i tank)
Bumper	Parachoques	Kofångare
Bump Stop	Tope	Underkörningsskydd
Bungee Cord	Cuerda elástica	
Bush	Casquillo	Bussning
Buzzer	Zumbador	Summer
Button	Botón	Knapp
C		
Cab	Cabina	Hytt
Cable	Cable	Wire
Caliper	Calibrador	
Cam Shaft	Árbol de levas	Kamaxel
Camera	Cámara	Kamera
Canopy	Cúpula	Kanape
Cap	Tapa	Kåpa
Capping	Cubierta	

English	Español	Svenska
Carabiner	Mosquetón	Karbidhake
Carrier	Soporte	Bärare
Case	Caja	Fall
Casing	Carcasa	Hölje
Catalogue	Catálogo	Katalog
Catch	Fiador	Fånga
Caution	Precaución	Varning
Centre	Centro	Mitten
Chain	Cadena	Kedja
Chassis	Chasis	Chassie
Check	Control	Kontrollera
Check Valve	Válvula de retención	Kontrollventil
Chute	Conducto	Dränering
Circlip	Resorte circular	Buntband
Circuit	Circuito	Strömkrets
Clamp	Grapa	Klämma
Cleaner	Limpiador	Rengörare
Clevis	Horquilla	
Clip	Pinza	Klämma
Clutch	Embrague	Koppling
Coach	Carrocería	Kaross
Coil	Bobina	Spole
Collar	Casquillo	Krage
Complete	Completo	Slutföra
Components	Componentes	Komponent
Compressor	Compresor	Kompressor
Cone	Cono	Konisk
Connector	Conector	Kontaktor
Connecting	Conexión en curso	Ansluta
Connection	Conexión	Anslutning
Con Rod (Connecting Rod)	Biela (Biela)	
Continued (Cont.)	Continuación (Cont.)	Fortsatt
Control (Cntrl)	Control (Cont.)	Kontroll
Controller	Controlador	Kontrollant
Conventional	Convencional	Vanlig
Conversion (Conv)	Conversión (Conv.)	Omställning
Cooler	Refrigerador	Kylare
Cooling	Refrigeración	Kylning
Copper	Cobre	Koppar
Core	Núcleo	Stomme
Cotter	Chaveta	Sprint/kil
Coupling	Acoplamiento	Koppling

English	Español	Svenska
Cover	Cubierta	Skydd
Cowling	Capó	
Crank-case	Cárter	Vevhus
Cranked	Acodado	Krökt
Cross Member	Travesaño	Tvärstag
Crown Wheel	Corona dentada	Kronhjul
Curb	Borde	Kansten
Cylinder	Cilindro	Cylinder
D		
Damper	Amortiguador	Dämpare
Deflector	Deflector	Riktare
Description	Descripción	Beskrivning
Details	Detalles	Detaljer
Detergent	Detergente	Rengöring
Diagram	Diagrama	Diagram
Dial	Cuadrante	Ring
Diaphragm	Diafragma	Diafragma
Diode	Diodo	Diod
Dipped Beam	Luz de cruce	Halvljus
Dipstick	Varilla de nivel de aceite	Olje/mätsticka
Dipstick guide	Guía de la varilla de nivel de aceite	Markering oljesticka
Dipstick tube	Tubo de la varilla de nivel de aceite	Rör oljesticka
Directional	Direccional	Riktningvisare
Dirt	Suciedad	Smutts
Disc/Disk	Disco	Lamell
Display	Pantalla	Skärm
Distributor	Distribuidor	Distributör
Diverter	Desviador de flujo	Omvändare
Door	Puerta	Dörr
Double	Doble	Dubbel
Dowel	Espiga	Plugg/tapp
Down	Abajo	Ner
Dowty Seal	Junta "Dowty"	
Drag Link Tube	Biela de arrastre	
Drain Plug	Tapón de drenaje	Dräneringsplug
Drive	Transmisión	Köra
Drive Core	Núcleo de la transmisión	Drivaxel
Drive Coupling	Acoplamiento de la transmisión	Drivkoppling
Drive Dog	Retén de la transmisión	
Drive Flange	Brida de la transmisión	Drivfläns

English	Español	Svenska
Drive Motor	Motor de la transmisión	Drivmotor
Drive Pump	Bomba de la transmisión	Drivpump
Drive Shaft	Eje de la transmisión	Drivaxel
Drive Tube	Tubo de la transmisión	
Dual Sweep	Doble barrido	Dubbelsug
Dump Valve	Válvula de descarga	Övertrycksventil
Dust	Polvo	Damm
E		
Earth, electrical (Ground)	Tierra	Jord
Eccentric	Excéntrico	Eccentrix
Elbow	Codo	Vinkel
Electric	Eléctrico	Elektrisk
Electrical	Eléctrico	Elektriska
Element	Elemento	Beståndsdel
Enclosure	Caja	Omgivet
End	Extremo	Slut
End Plate	Placa de tope	Skyddsplatta
End Cap	Tapa de extremo	Skyddskåpa
Engine	Motor	Motor
Exchange	Intercambio	Växla
Exhaust	Escape	Avgaser
Exhaust Gas Recirculation (EGR)	Recirculación de los gases de escape (EGR)	Avgasventil (EGR)
Expansion	Expansión	Expantion
Extended	Extendido	Förlängd
Extension	Extensión	Förlängning
Extinguisher	Extintor	Förlängare
F		
Fan	Ventilador	Fläkt
Fastener	Sujeción	Fäste
Feed	Alimentación	Försörjning
Female	Hembra	Kvinna
Filler	Embudo	Filler
Filter	Filtro	Filter
Finisher	Unidad de acabado	Avslutare
Fire	Fuego	Eld
First	Primero	Första
Fishtail	Cola de pez	fiskstjärt
Fit	Acoplar	Passa
Fitting	Conector	Montering/installation

English	Español	Svenska
Fixing	Fijación	Laga
Flange	Brida	Fläns
Flap	Aleta	Dörr / öppning
Flash	Centelleo	Blixt
Flexible (Flexi)	Flexible (Flex.)	Flexibel
Floor	Piso	Golv
Floorplate	Placa de piso	Golvplatta
Flow	Flujo	Flöde
Fluid	Líquido	Vätska
Flywheel	Volante	Stödhjul
Foam	Espuma	Skumm
Fog	Niebla	Dimma
Foot	Pie	Fot
Forward	Directa	Framåt
Frame	Bastidor	Ram
Front	Delantero	Fram
Fuel	Combustible	Drivmedel
Function	Función	Funktion
Fuse	Fusible	Säkring
G		
Gain	Ganancia	Vinna
Galvanised	Galvanizado	Galvaniserad
Gantry	Pórtico	Brygga/ställning
Gas	Gas	Gas
Gas Strut	Montante de gas	
Gasket	Junta	Packning
Gauge	Indicador	Tryckmätare
Gauze	Tela metálica	Flor(gasbinda)
Gear	Engranaje	Växel
Geared	Accionado por engranaje	Växlad
Gearbox	Caja de cambios	Växellåda
General	General	I allmänhet
Glass	Vidrio	Glas
Glow Plug	Bujía incandescente	Glödstift
Gobbler (Nozzle Tilt)	"Gobbler"	Tilt (sugbox)
Grab	Gancho	Fånga
Grease	Grasa	Smörja
Greaser	Engrasador	Fett
Green	Verde	Grön
Grey	Gris	Grå
Grill	Rejilla	Grill
Grip	Mango	Grepp

English	Español	Svenska
Grub Screw	Tornillo de presión	Avdragare
Grommet	Arandela	genomföring
Guard	Protección	Skydd
Guide	Guía	Guide
H		
Handbrake	Freno de mano	Handbroms
Hand	Manual, a mano	Hand
Hand Primer	Bomba de mano	Handcreme
Hand Wash	Lavado a mano	Handtvätt
Handle	Asa	Handtag/vred
Hanger	Soporte colgante	Hängare
Harness	Mazo de cables	Sele
Head	Cabeza	Huvud
Headlamp	Faro	Strålkastare
Heat	Calor	Värme
Heatshield	Pantalla térmica	Värmeplåt
Heater	Calentador	Värmare
High Pressure	Alta presión	Högtryck
Hi Tip	Punta alta	Högtipande
Hinge	Bisagra	Gångjärn
Hinged	Articulado	Gångjärns hängd
Holder	Portaherramientas	Hållare
Hooks	Ganchos	Krokar
Hopper	Tolva	Behållare
Horn	Claxon	Signalhorn
Hose	Tubo flexible	Slang
Hose Tail	Extremo de tubo flexible	Slangände
Hot	Caliente	Varm
Hour Meter	Cronómetro	Timräknare
Housing	Carcasa	Kåpa/skydd
Hub	Cubo	Centrum
Hydraulic	Hidráulico	Hydraulisk
Hydrant	Boca de riego	Brandpost
Hydrant Filler		Brandpost huvud
Hydrant Hose	Tubo flexible de la boca de riego	Brandpostslang
Hydrostatic	Hidrostático	Hydrostatisk
I		
Identification	Identificación	Identifiering
Idle	Ralentí	Idealisk
Ignition (Ign)	Encendido (Enc.)	Tändning

English	Español	Svenska
illuminated	Encendido	Eliminerad
illustrated	Ilustrado	Illustrerad
illustration	Ilustración	Illustration
impeller	Propulsor	Impeller
inclusive	Inclusivo	Inklusive
information (Info)	Información (Info.)	Information
in	Dentro, entrada	In
inlet	Admisión	Insläpp
inlet cone	Núcleo de admisión	Insläppskona
inlet pipe	Tubo de admisión	Insläppsrör
injection pump	Bomba de inyección	Injektionspump
injector	Inyector	Injektor
injector pipe	Tubo del inyector	Injektorrör
input	Entrada	Ingående
inseal strip	Banda de estanqueidad	
insert	Insertar	Lägga till
insertion	Inserción	Insättande/tillägg
installation	Instalación	Installation
instrument	Instrumento	Instrument
insulator	Aislante	Isolerare
inter cooler	Refrigerador intermedio	Laddluftkylare
interior	Interior	Inredning
interim	Intermedio	Interim
internal	Interno	Invändig
item	Elemento	Punkt/artikel
J		
Jet	Chorro, inyector	Jet
Joint	Articulación	Punkt
Joystick	Palanca de control	Joystick
Jubilee Clip	Pinza "Jubilee"	Slangklämma
Junction	Unión	Korsning
K		
Key	Tecla	Nyckel
Key Switch	Interruptor de llave, llave de contacto	Tändningslås
Kerb	Borde	Kantsten
King Pin	Pivote central	
King Post	Palo macho	
Kit	Juego	Satts
Knob	Mando	Knopp

English	Español	Svenska
L		
label	Etiqueta	Etikett
Lamp	Lámpara	Lampa
Work Lamp	Lámpara de trabajo	Arbetsljus
Head Lamp	Lámpara de cabeza	Strålkastare
Side Lamp	Lámpara lateral	Positionsljus
Lance	Lanza	Munstycke
Lap Joint	Articulación de solape	Fogpunkt
Large	Grande	Stor
Latch	Pestillo	Regla/stänga
Lead	Plomo, avance	Bly
L.E.D. (Light Emitting Diode)	LED (diodo emisor de luz)	L.E.D diod
Leash	Correa	Remm
Left	Izquierda	Vänster
Left Hand Drive (LHD)	Conducción por la izquierda (LHD)	Vänsterstyrning
Leg	Pata	Ben
Length	Longitud	Längd
Lens	Lentes	Glas
Level	Nivel	Nivå
Lever	Palanca	Spak/hävstång
Lid	Tapa	Lock
Lift	Levantar	Lyfta
Lifting	Levantamiento	Lyfter
Light	Luz	Ljus
Side Light	Luz lateral	Sidoljus
Head Light	Faro	Strålkastare
Rear Light	Luz trasera	Bakljus
Brake Light	Luz de freno	Bromsljus
Interior Light	Luz interior	Innebelysning
Fog Light	Luz antiniebla	Dimmljus
Linch Pin	Pasador con anilla abatible	
Lining	Revestimiento interior	Bromsbelägg/beklädnad
Link	Articulación	Länk
Linkage	Varillaje de mando	Länksystem
Litre	Litro	Liter
List	Lista	List
Load	Carga, cargar	Lasta
Located	Situado	Placerad
Lock	Cierre, bloqueo	Lås
Locknut	Contratuerca	Läsmutter

English	Español	Svenska
Locker	Taquilla	Skåp
Locking	Cierre	Låsa
Long	Largo	Lång
Loom	Cableado eléctrico	Hölje
Loop	Bucle	Förbinda
Low Pressure	Baja presión	Lågtryck
Lower	Inferior, bajar	Sänka
Lubricant	Lubricante	Smörjmedel
Lubrication	Lubricación	Smörjning
M		
Machine	Máquina	Maskin
Magnet	Imán	Magnet
Magnetic	Magnético	Magnetisk
Main	Principal	Huvud
Male	Macho	Man
Management	Gestión	Skötsel
Manifold	Distribuidor	Fördelare
Manual	Manual	Manual
Manufactured	Fabricado	Tillverkad
Marker Lamp	Luz de señalización	
Master	Principal	Huvud
Master Cylinder	Cilindro maestro	Huvudcylinder
Maximum (Max)	Máximo (Máx.)	Maximum
Mesh	Malla	Galler
Metal	Metal	Metall
Meter	Metro	Meter
Micro Switch	Microinterruptor	Mikrobrytare
Minimum (Min)	Mínimo (Mín.)	Minimum
Mirror	Espejo	Spegel
Miscellaneous	Varios	Ungefärlig
Modified	Modificado	Modifierad
Module	Módulo	Modul
Monitor	Monitor, controlar	Skärm
Motor	Motor	Motor
Mount	Montura	Montera
Mounted	Montado	Monterad
Mounting	Instalación, soporte	Montera
Mud Flaps	Aleta guardabarros	Stänkskydd
Mud Guard	Guardabarros	Stänkskärm
Muffler	Silenciador	Ljuddämpare
Multi Function	Multifunción, multiuso	Flerfunktion

English	Español	Svenska
N		
N/A (Not Applicable)		
Narrow	Estrecho	Nära
Near side	Lado izquierdo	Nära sidan
Negative	Negativo	Negativ
Neutral	Neutral, punto muerto	Neutral
New	Nuevo	Ny
Nipple	Manguito	Nippel
No. (Number)	Número	Nummer
Non Return	Sin retorno	Ingen återvändo
Normal	Normal	Normal
Note	Nota	Not
Nozzle	Boquilla	Munstycke
Number	Número	Nummer
Numerical	Numérico	Numrerad
Nut	Tuerca	Mutter
Nyloc Nut	Tuerca "Nyloc"	Nylocmutter
Hex Nut	Tuerca hexagonal	Mutter sexkant
Plain Nut	Tuerca lisa	Plan mutter
Self Locking Nut	Tuerca autoblocante	Låsmutter
Thin Nut	Tuerca fina	Mutter (tunn)
Nylon Tube	Tubo de nilón	Nylonslang
O		
Obsolete	Obsoleto	Föråldrad
Off	Apagado	Av
Off Side	Lado derecho	Vid sidan av
Oil	Aceite	Olja
Olive	Oliva	Oliv
On	Encendido	På
Open	Abrir	Öppen
Opened	Abierto	Öppnad
Opening	Apertura, abertura	Öppning
Operating	Funcionamiento	Köra
Option	Opción	Tillbehör
Optional	Opcional	Valfri/frivillig
Orange	Naranja	Orange
Original	Original	Orginal
O Ring	Junta tórica	O ring
Out (Extended)	Fuera	
Outer	Exterior	Yttre

English	Español	Svenska
Outlet	Salida	Överskott
Output	Producción	Utkommande
Overhead	En cabeza	Över huvudet
Overload	Sobrecarga	Överlasta
P		
Packer	Tapón estanco	Packare
Panel	Panel	Panel
Part	Pieza	Del
Pedal	Pedal	Pedal
Pick-up (sensor)	Elegir	Sensor
Pilot (pressure)	Piloto	Pilot (tryck)
Pin	Pasador	Pinne
Pinion	Piñón	Pinjong
Pink	Rosa	Rosa
Pipe	Tubo (rígido)	Rör
Piping	Tubería	Rördragning
Piston	Pistón	Kolv
Pivot	Pivote	Styrtapp
Plastic	Plástico	Plast
Plate	Disco, placa	Tallrik
Plinth	Base	Plint
Plug	Enchufe, tapón	Plugg
Point	Punto	Punkt
Poppet Valve	Válvula de resorte	
Ports	Puertos	Port/öppning
Position	Posición	Position
Positioned	Colocado	Placerad
Post	Poste, borna	Stolpe/stötta
Potentiometer	Potenciómetro	Potensiometer
Power	Potencia	Ström
Pneumatic (See Also Air)	Neumático (véase también Aire)	Pneumatisk
Pressure	Presión	Tryck
Primer	Cebador	Primer
Production	Producción	Produktion
Prop	Apoyo	Stöd/palla under
Propshaft	Árbol de transmisión	Kardanaxel
Pull	Tirar, tracción	Drag
Pulley	Polea	Remskiva
Pulsation	Pulsación	Pulserande
Pulse	Pulso	Puls
Pump	Bomba	Pump

English	Español	Svenska
Purple	Púrpura	Lila
Push	Empujar, empuje	Tryck
Q		
Quick Release	Suelta rápida	Snabbkoppling
R		
Radiator (Rad)	Radiador (Rad.)	Kylare
Raise	Levantar	Lyfta
Raised	Levantado	Lyft
Ram	Pistón	Kolv
Ratio	Relación	Radie
Rear	Trasero	Bak
Red	Rojo	Röd
Reducer	Reductor	Reducerare
Reducing	Reducción, reduciendo	Reducera
Reduction	Reducción	Reducering
Reel	Carrete	Hjul
Refer	Ver	Referera
Refill	Rellenar	Återfylla
Regulator	Regulador	Regulator
Related	Relacionado	Besläktad
Relay	Relé	Relä
Release	Liberación	Lösgöra
Relief Valve	Válvula de descarga	Övertrycksventil
Remote	Remoto	Mottagare
Repair	Reparar	Reparera
Replacement	Sustitución	Ersätta
Resister	Registrar, registro	Motstånd
Restrictor	Estrangulador	Strypning
Retainer	Fiador	Förskottshyra
Retaining	Retención	
Return	Retorno	Återvända
Reverse	Inverso	Backa
Reversing	Inversión	Backa
Right	Derecha	Höger
Right Hand Drive (RHD)	Conducción por la derecha (RHD)	Högerstyrd
Rim	Llanta	Kant/fals
Ring	Anillo	Ring
Road	Carretera	Väg
Rod	Varilla	Rulle

English	Español	Svenska
Rolling	Rodamiento	Rullande
Rotary	Giratorio, rotativo	Roterande
Rotate	Girar	Rotera
Rotating	Giratorio, rotativo	Rotera
Rotation	Giro	Rotation
Rubber	Goma	Gummi
S		
Safety	Seguridad	Säkerhet
Scraper	Escariador	Skrapa
Screen	Filtro, pantalla	Galler
Screw	Tornillo	Skruv
csk hd (counter-sunk head)	Cab. avell. (cabeza avellanada)	
Hex hd (hexagonal head)	Cab. hexag. (cabeza hexagonal)	Skruv sexkant
skt hd (socket head)	Cab. hueca (cabeza hueca)	Skruv (fösänkt)
Seal	Junta	Tätning
Sealant	Sellante	Flytande tätningmedel
Sealing	Sellado	Täta
Seat	Asiento	Säte
Securing	Fijación	Säkra
Selector Shaft	Eje selector	Väljaraxel
Self Tapping	Aterrajado automático	Självdränkande
Sender	Conmutador selector	Sändare
Sensor	Sensor	Sensor
Separation	Separación	Separerat
Serial	Serie	Serie
Service Exchange (S/EX)	Intercambio de servicio	Utbytesdel
Setscrew	Tornillo de fijación	Sättskruv
Shaft	Eje	Skaff
Shells	Cuerpos	Snäckor
Shield	Protector	Skjöld
Shim	Suplemento	Shims
Shock Absorber	Amortiguador	Stötdämpare
Shoe	Zapata	Sko
Short	Corto	Kort
Shovel	Pala	Skyffel
Side Access Door	Puerta de acceso lateral	Sidodörr
Sight	Vista	Sikt
Silencer	Silenciador	Ljuddämpare
Silicon	Silicona	Silikon
Single	Único, sencillo	Enkel

English	Español	Svenska
Skirt	Faldón	Kjol
Slate	Pizarra	
Sleeve	Manguito	Muff
Slew	Pivotar	Svänga/slira
Slewing	Pivotaje	Svängande/slirande
Sliding	Deslizamiento	Glidande
Slotted	Ranurado	Spräckt
Small	Pequeño	Liten
Socket	Casquillo	Socket
Solenoid	Solenoid	Solenoid
Spacer	Separador	Distans
Spare	Repuesto	Reserv
Speakers	Altavoces	Högtalare
Special	Especial	Special
Speed	Velocidad	Fart
Spherical	Esférico	Klotformig
Spigot	Espiga	Rör
Spindle	Husillo	Spindel
Splined	Acanalado	Flisad/splittrad
Splinter	Partícula	Skärva/splitter
Split Pin	Chaveta hendida	Låspinne
Splitter	Separador	Fördelare
Spray	Pulverizador, rociador	Spaya
Spring	Muelle	Fjäder
Stabiliser	Estabilizador	Stabiliserare
Stabilising	Estabilización	Stabilisera
Stack	Pila	Fullpropad med
Standard	Estándar	Standard
Standpipe	Tubo vertical	Vattenpost
Starter	Motor de arranque	Startmotor
Steel	Acero	Stål
Steering	Dirección	Styrning
Stem	Vástago	Stoppa
Stiffener	Contrafuerte, larguero	Förtjockare
Stop	Parar	Stopp
Storage	Almacenamiento	Lagra
Stowage	Estiba	Stuvningsutrymme
Straight	Recto	Rakt
Strap	Tira de sujeción	Sätta fast
Strip	Banda	Ta bort
Strut	Puntal	Balk/stötta
Stub	Tope	Stump/talong

English	Español	Svenska
Stud	Espárrago	
Studded	Con pasador	
Studding	Pasante	
Sub Frame	Bastidor auxiliar	Underram
Suction Box	Caja de succión	
Suction Fan	Ventilador de succión	Sugfläkt(turbin)
Suction Nozzle	Boquilla de succión	Sugmunstycke
Sump	Sumidero	Oljetråg
Supply	Suministro	Förse
Support	Asistencia, soporte	Stödja
Suppression	Supresión	Undertryck
Suspension	Suspensión	Fjädring
Sweep	Barrido	Sopa
Sweeping	Barrido, barriendo	Sopa
Swing	Oscilación	Svänga
Switch	Interruptor	Brytare
Switches	Interruptores	Brytare
Swivel	Giratorio	Svängbar
System	Sistema	System
T		
Tab Washer	Arandela con lengüeta	
Tachograph	Tacógrafo	Färdskrivare
Tachometer	Tacómetro	Hastighetsmätare
Tandem	Tándem	Tandem
Tank	Tanque	Tank
Tapered	Cónico	Avsmalnande
Taper Lock	Cierre cónico	Plugg
Tee Key	Llave en T	Gren
Temperature (Temp)	Temperatura (Temp.)	Temperatur
Template	Plantilla	Mall
Tensioner	Tensor	Sträckare
Terminal	Terminal	Terminal
Test	Prueba	Test
Thermostat	Termostato	Termostat
Thick	Espeso	Tjock
Thimble	Dedal	Fingerborg
Thin	Delgado	Smal
Throttle	Regulador de gases	Trottel
Thrust	Empuje	Tryck
Tie Rod	Barra de acoplamiento transversal de la dirección	

English	Español	Svenska
Tilt	Inclinar	Tilt
Tilting	Inclinación	Tilta
Timer	Temporizador	Timer
Timing	Sincronización	Tids anpassa
Toggle	Báscula	Vippa
Tool	Herramienta	Verktyg
Toolbox	Caja de herramientas	Verktygslåda
Toothed	Dentado	Signalhorn
Top	Superior	Topp
Tow	Remolque	Dra / bogsera
Tow Ball	Bola de remolque	Dragkula
Tow Bar	Barra de remolque	Dragkrok
Tow Point	Punto de remolque	Dragpunkt
Track Rod	Tirante transversal	
Trailer	Remolque	Släp
Transfer Gearbox	Caja de cambios transferencia, caja transfer	Tillsattsväxellåda
Transmission	Transmisión	Transmission
Travel	Recorrido, viaje	Resa
Trunking	Unión	
Trunnion	Muñón	
Tube	Tubo	Rör
Tubing	Sistema de tuberías	Rördragning
Turbocharger (Turbo)	Turbocompresor (Turbo)	Turbo
Twin	Gemelo, bimotor	Dubbel
Type	Tipo	Typ
Typical	Típico	Typisk
Tyre	Neumático	Däck
U		
Uncompressed	No comprimido	Okomprimerad
Underside	Inferior	Undersida
Universal Joint (U/J)	Junta cardánica (U/J)	Knutkors
Union	Unión	Förena
Unit	Unidad	Del
Un-Loader	Descargador	Avlastning
Up	Arriba	Upp
Update	Actualizar	Uppdatera
Usage	Uso	Andvändning
V		
Valve	Válvula	Ventil

English	Español	Svenska
Variant	Variante	Variant
Vehicle	Vehículo	Fordon
Voltage	Tensión	Volt
W		
Wander Hose	Tubo flexible móvil	Sugslang (lövsug)
Warning	Advertencia	Varning
Washer	Arandela	Bricka
Water	Agua	Vatten
Wear	Desgaste	Slitage
Weed Ripper	Escardador	Ogräs
Welded	Soldado	Svetsad
Wheel	Rueda	Hjul
White	Blanco	Vit
Wide Sweep	Barrido amplio	Vals
Windscreen	Parabrisas	Vindruta
Wiper	Limpiaparabrisas	Torkare
Wires	Cables	Ledningar
Wiring	Cableado	Ledningsdragning
Black, Blue, Brown, Green, Grey, Orange, Pink, Purple, Red, White Yellow	Negro, Azul, Marrón, Verde, Gris, Naranja, Rosa, Púrpura, Rojo, Blanco Amarillo	Svart Blå Brun Grön Grå Orange Rosa Lila Röd Vit Gul
Work Light	Lámpara de trabajo	Arbetsljus
X		
Xenon	Xenón	Xenon
Y		
Yellow	Amarillo	Gul
Yoke	Horquilla	Sammankoppla

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