

M/c Serial No.



## ILLUSTRATED PARTS CATALOGUE

# SCARAB MINOR HYDROSTATIC WITH EURO 2 & 3 VM ENGINE

When re-ordering this document please quote the following part number:

**Manual Z028227**

Original Issue . . . . . Sept 2002  
Amdt. 1 . . . . . Feb 2003  
Amdt. 2 . . . . . Feb 2004

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.

## Scarab Sweepers Limited

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## **IMPORTANT NOTICE TO USERS**

This edition of the Scarab Minor Illustrated Parts Catalogue (IPC) incorporates important revisions to layout and information content of the manual, including both presentation and order of subject coverage.

To date, certain core sections, dealing with most of the main sub-systems of the Scarab Minor have been revised. The new coverage is as follows:

- Section A - Engine & Fuel System
- Section B - Hydrostatic Drive
- Section C - Sweeping & Suction Equipment
- Section D - Hopper & Related Equipment
- Section E - Washing & Dust Suppression System
- Section F - Chassis, Running Gear & Cab
- Section G - Hydraulic System, Related Equipment & Gantry
- Section H - Electrical System & Equipment
- Section J - Miscellaneous & Optional Equipment
- Section K - Multi-lingual Glossary of Terminology used in this Manual

The sections/sub-systems yet to be amended by this edition are:

- Section L - Indexes

## AMENDMENT RECORD

To record an amendment to the manual, enter the number of the amendment leaflet and the date of incorporation on this card. It is advisable to annotate each amendment with the Amendment Instruction (AI) number to avoid confusion when successive amendments to the same section are issued.

Pour enregistrer une modification apportée au manuel, inscrire sur cette feuille le numéro de la fiche de modification et la date de l'insertion, Il y a lieu de marquer chaque modification du numéro de la fiche pour éviter toute confusion lors de l'émission de modifications consécutives portant sur une même rubrique.

Um eine Abänderung in diesem Handbuch zu registrieren, soll man die Nummer des Abänderungsblattes und Datum dessen Eingliederung auf dieser Karte eintragen. Es ist ratsam, dass jede Abänderung mit der Blattnummer gekennzeichnet wird, so dass keine Verwechslung eintreten kann, wenn weitere Abänderungen des selbel Teils herausgegeben werden.

Para registrar una modificación del manual, anótese el número de la hoja de modificación y la fecha de incorporación en esta tarjeta. Es conveniente anotar las modificaciones con el número de la hoja para evitar confusiones cuando se publiquen modificaciones sucesivas de la misma sección.

Per annotare le modifichhe a manuale, registrare il numero dell' opuscolo modificato e la data d' incororazione, su questa scheda. Annotare cascuna modifica con il numero dell' opuscolo per evitare confusione, in caso di modifichhe successive alla stessa sezione.

Amdt/AI No.	Date Incorporated	Actioned By	Pages Affected By Amendment
Amdt.1/028227-1	January 2003	Scarab TPD	ii,iii, A1,3,5,13,17,18,19,21,25,26 C2,19,20,D1,2,3,4,7,E1,11,13,19, 21,22,27,F3,5,7,23,25,G1,2,3,4,5,9 ,21,H4,J1
Amdt.2/028227-2	February 2004	Scarab TPD	Full Document Update



## LIST OF EFFECTIVE PAGES

Section	Page Number	Status
PRELIM	All	Amdt.2
A	All	Amdt.2
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Section	Page Number	Status

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# 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 Minor Hydrostatic 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. Each section is a self-contained sub-division of the manual, 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; for example, the hydraulic traction pump and motor are called up in Section B - Hydrostatic Drive System because they are a part of that system, but for details of internal components and replacement parts the reader is directed by appropriate cross-references, to Section F - Hydraulic System and Equipment.

In support of the sections detailing the main sub-systems are two indexes (alphabetical and numerical) and these can be used to identify the correct location/items in the manual when either the part number or the parent assembly are unknown. These should be used as follows:

## WHEN THE PART NUMBER IS KNOWN

When a component's or an assembly's part number is known but the parent assembly is not known, refer to the Index Card at the front of this manual to locate the Numerical Index. Turn to the index and find the part number in the index listing. Note the section and page number(s) and then turn to the appropriate section/page(s). Scan the parts list on the relevant page(s) to locate the part number in question noting its item reference number (this is the number in the left hand column) and its quantity as required. Next, refer to the accompanying illustration and identify the item reference number and the component to which it refers.

## WHEN THE PART NUMBER IS NOT KNOWN

Two methods are available for locating and identifying a component or an assembly when its part number is not known. Firstly, refer to the Index Card at the front of this manual, then, if the item's description is known, refer to the Alphabetical Index to locate the appropriate section/pages. Alternatively, if the machine sub-system to which the item relates is known, refer to the Index Card to locate the appropriate section. Once the correct section is identified, use its Table of Contents to identify the page(s) covering the required information. Turn to the correct page(s) and then refer to the illustration to identify the component or assembly, noting its item reference number. Next, refer to the associated parts list opposite and locate the item reference number identified by the illustration, noting the item's part number, quantity and description as required.

## USING THE PARTS LISTS

The breakdown structure within each parts list reflects the inter-relationship of the various components in what is, loosely, an assembly/disassembly order, however, it must be stressed that this is not necessarily a true reflection of factory assembly/disassembly procedures, but is used to show logical groups of components. The order of information (L to R) is: Item/Part No./Quantity/Description.

The first item on a parts list (the main assembly in question) is always shown in bold uppercase, thus:

<b>065432</b>	<b>1</b>	<b>DESCRIPTION OF MAIN ASSY</b>
---------------	----------	---------------------------------

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

Attaching parts always immediately follow the assembly, sub-assembly or piece part to which they relate and are indented, for example:

	<b>065432</b>	<b>1</b>	<b>DESCRIPTION OF MAIN ASSY</b>
012345	4	.	Screw, hex hd, M25 x 100 mm long
012346	4	.	Nut, hex, Nyloc, M12

The breakdown parts are then listed as described earlier in this paragraph with each successive level being indented from its own parent level (as in the foregoing example, attaching parts are listed first), as follows:

**Continued ...**

# HOW TO USE THIS ILLUSTRATED PARTS CATALOGUE

## USING THE PARTS LISTS (Continued)

	065432	1	DESCRIPTION OF MAIN ASSY
	012345	4	. Screw, hex hd, M25 x 100 mm long
	012346	4	. Nut, hex, Nyloc, M12
1	064321	1	. Sub-Assy 1 of Main Assy
	012356	2	. . Screw, skt hd, M6 x 30 mm long
	012344	2	. . Washer, plain, 6 mm
	012355	2	. . Nut, hex, Nyloc, M6
2	045678	1	. . Sub-Sub-Assy 1 of Sub-Assy 1
3	032145	1	. . . Piece part 1 of Sub-Sub-Assy 1
4	032146	1	. . . Piece part 2 of Sub-Sub-Assy 1
5	032187	1	. . . Piece part 3 of Sub-Sub-Assy 1
6	045678	1	. . Sub-Sub-Assy 2 of Sub-Assy 1
7	032142	1	. . . Piece part 1 of Sub-Sub-Assy 2
8	032149	1	. . . Piece part 2 of Sub-Sub-Assy 2
9	064321	1	. Sub-Assy 2 of Main Assy
	012356	2	. . Screw, skt hd, M6 x 30 mm long
	012344	2	. . Washer, plain, 6 mm
	012355	2	. . Nut, hex, Nyloc, M6etc.

As the parts list develops it can be seen how the individual items comprising the Main Assembly are related and how this relationship is shown by indenting. In some cases these might be actual factory sub-assemblies but they could equally be no more than logical groupings of items that are related to one another, such as a gearbox shaft, the gears that fit on that shaft and the bearings that the shaft runs in.

## ITEM REFERENCE NUMBERS

Item reference numbers are used to cross-refer items from the parts lists to their associated illustrations and vice-versa. Normally, all items other than attaching parts are given a number, however, there are two exceptions:

Attaching parts that are not standard items e.g. a special screw, are given an item reference number.

Items that are not illustrated for a particular reason, e.g. where one half of a handed assembly is already illustrated, or where illustration of that item is superfluous, are listed as not illustrated (NI).

## SCARAB PARTS & SERVICE PROVIDERS

### AUSTRALIA

Rosmech  
2 Newfield Road  
Para Hills West SA 5096  
Tel: 08 8260 5855

### BELGIQUE

MOL Cy nv  
VDK Waste Systems  
Dikstmuidesteeweg  
B-8830  
Hooglede  
Tel: 32 51 701681

### DEUTSCHLAND

Terra-Trade Import/Export GmbH  
Terra-Vertrieb & Kundendienst West  
Kruger & Co KG  
Gewerbegebiet Nord  
Lauchaer Höhe  
D-99880 Waltershausen  
Tel: 49 3622 6410

### ESPAÑE

Piquersa Maquinaria  
Ctra. Nac. 340 km 445  
Rotonda Los Callejones s/n  
04009  
Almeria  
Tel: 34 950 62 50 60

### FRANCE

Dominique Declercq Distribution  
Avenue d'Immercourt ZI Est  
62000  
Arras  
Tel: 33 3 212 27590

### GREECE

D F Sarantopoulos  
210 Lenorman Street  
104 43 Athens  
Tel: 30 1 51 46 411

### IRELAND

Motor Distributors Ltd.  
Naas Road  
Dublin 12  
Tel: 353 1 4503333

### ITALIA

Enterprise CDS srl  
Via Biancospini, 19  
20146  
Milano  
Tel: 39 02 93568801

### NORTHERN IRELAND

McCreath Taylor (NI) Ltd.  
Unit 5, Flush Park Ind. Est.  
Knockmore Road,  
Lisburn  
Co. Antrim BT28 2DX  
Tel: 02892 662756

### NEDERLANDS

DHM  
Houtstraat 2A  
8471 ZX Wolvega  
Tel: 31 561 611 611

### NEW ZEALAND

Municipal Equipment Div.,  
TR Group Ltd.,  
P.O. Box 4344  
Palmerston North  
Tel: 0064 6 3561615

### PORTUGAL

Silvia Ltd.  
Avenida Infante Santo, 53, r/c  
Esq  
1300 Lisboa  
Tel: 351 1 397 40 18

### SCANDINAVIA

REN VÄG AB  
Gronbogartan 2  
503 68 Boras  
Tel: 46 33 106460

### SCOTLAND

Applied Sweepers Ltd.  
Bankside, Falkirk  
FK2 7XE  
Tel: 01324 611666

### UK (Northern England)

Londonderry Garage Ltd.  
Londonderry, Northallerton  
North Yorkshire DL7 9NB  
Tel: 01677 422185

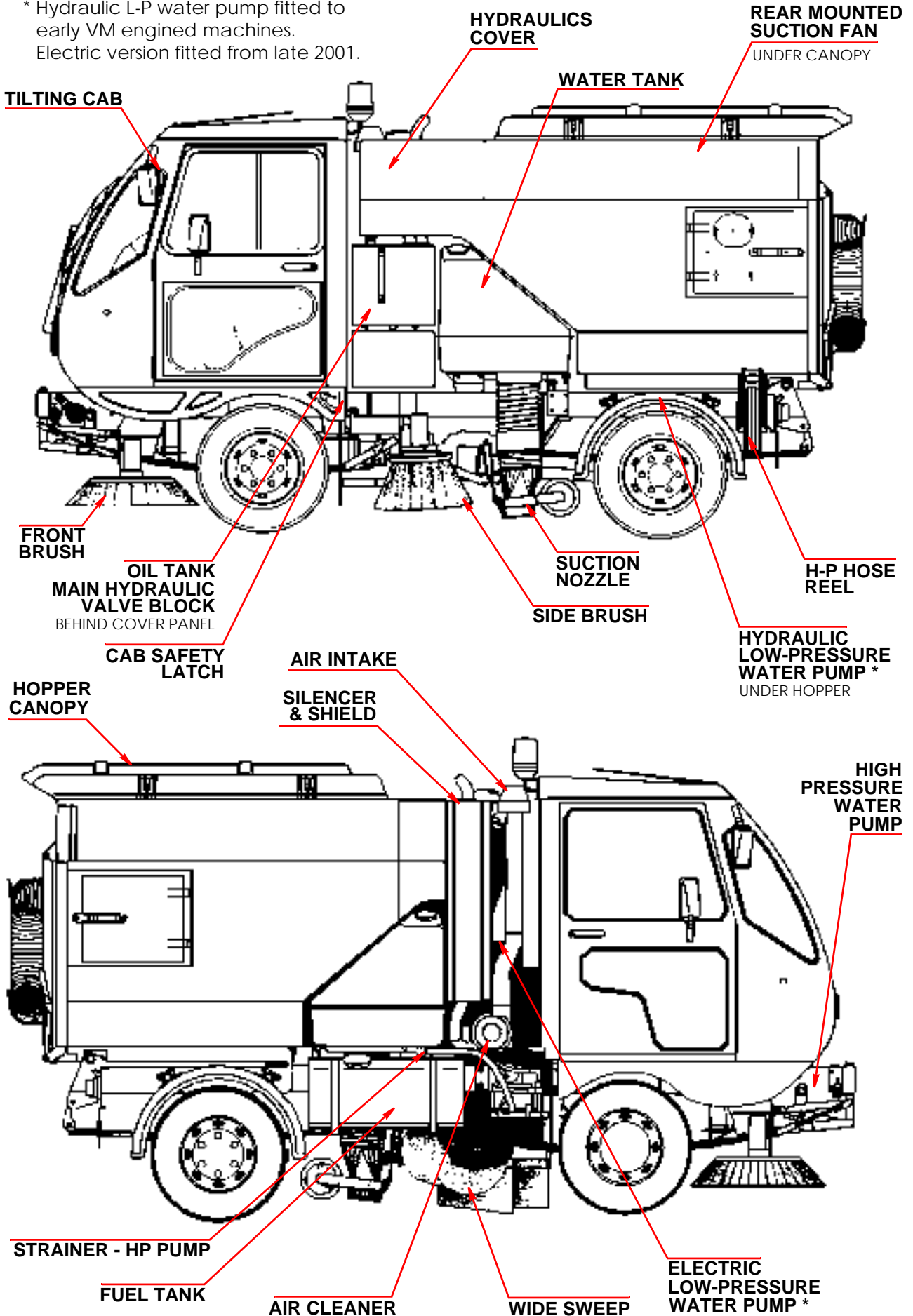
### UK (England & Wales)

Scarab Sweepers Ltd.  
Pattenden Lane  
Marden  
Kent TN12 9QD  
Tel: 01622 831006



# SCARAB MINOR - VM ENGINE

\* Hydraulic L-P water pump fitted to early VM engine machines.  
Electric version fitted from late 2001.



## OPERATOR'S ROUTINE MAINTENANCE SCHEDULE



### WARNING:

**ALWAYS REFER TO THE APPROPRIATE SECTION OF THE OPERATOR'S MANUAL FOR INSTRUCTIONS OBSERVING ALL WARNINGS & CAUTIONS. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY.**

MAINTENANCE PROCEDURE	DAILY CHECKS		WEEKLY CHECKS	MONTHLY CHECKS
	BEFORE	AFTER		
Check vehicle / body for safety: All lighting equipment, Tyres, Fuel, ALL Lubricant, Coolant, Fluid & Water levels	✓	✗	✗	✓
Check hydraulic oil level and inspect vehicle for signs of hydraulic leaks. Check oil cooler and radiator are clean	✓	✗	✗	✓
If vehicle not previously used by YOU, check suction fan is clean. Rectify as required	✓	✗	✗	✓
Check brushes/skirts for wear. Remove any entangled items, e.g. lengths of string	✓	✗	✗	✓
Check suction nozzle/flaps for damage/correct ground clearance. Wrong setting will impair suction performance	✓	✗	✗	✓
Check all equipment is stowed & brushes have been raised	✓	✗	✗	✓
Check water spray jets for blockages	✓	✗	✗	✓
Wash vehicle, particularly hopper screens & area above. Leave hopper door partially open, allowing air to circulate. Don't direct high-pressure water at electrical connections.	✗	✓	✗	✓
Wash suction fan thoroughly, using scraper provided and high-pressure jetting lance	✗	✓	✓	✓
Carry out a thorough inspection of the fan assembly to verify that it is in good condition	✗	✗	✗	✓
Wash oil cooler, ensuring that the fins are clean	✗	✓	✗	✓
Wash the radiator, ensuring that the fins are clean	✗	✓	✗	✓
Lubricate as appropriate, brush links, pivots & nozzle wheels	✗	✓	✗	✓
Remove and clean the water strainer elements	✗	✓	✗	✓
Grease prop. shaft and check for wear on U/Js	✗	✗	✓	✓
Check machine for wear/damage. Rectify as required	✗	✗	✗	✓
Raise/prop hopper. Run fan/brushes (normal speed). Check oil tank return filter gauge (if fitted), if in RED zone, replace element	✗	✗	✗	✓
Check for wear in suction tubes and deflectors	✗	✗	✗	✓
Check seals on hopper-door, side-hatches, suction-tubes	✗	✗	✗	✓
Check hopper and subframe-to-chassis mounting points	✗	✗	✗	✓
Check wiring and hoses for security of attachment and for signs of chafing. Rectify as necessary	✗	✗	✗	✓
Check oil level in high-pressure pump, top up as necessary	✗	✗	✗	✓
Clean air cleaner (more often in dusty conditions)	✗	✗	✗	✓

### In Frosty Weather

1. Drain the water tank (a drain tap is fitted to the underside of the tank).
2. Open the drain taps on each water pump.

### CAUTION

**Do not, under any circumstances, operate the high pressure pump without water.**

3. Switch on the water sprays and run low pressure pump until dry.
4. Remove the water-strainer elements.

## SERVICE FITTER'S MAINTENANCE SCHEDULE

ITEM No.	WORK TO BE CARRIED OUT EVERY:	1st 50 Hrs	300 Hrs	1800 Hrs
1	Change engine oil and oil filter	✓	✓	✓
2	Replace fuel filter and clean bowl	✓	✓	✓
3	Check condition and tension of V-belts	✓	✓	✓
4	Clean air filter pre-cleaner	✓	✓	✓
5	Replace air cleaner safety element	✗	✗	✓
6	Replace air filter element	✓	✓	✓
7	Check fuel pump filter	✗	✓	✓
8	Check engine for oil, fuel and coolant leaks	✓	✓	✓
9	Check torque tightness of wheel nuts	✓	✓	✓
10	Check torque tightness of axle U-bolts	✓	✓	✓
11	Check tyre condition and pressures	✓	✓	✓
12	Check windscreen wiper and washer operation	✓	✓	✓
13	Check operation of all warning instruments/lamps	✓	✓	✓
14	Check operation of all lighting equipment	✓	✓	✓
15	Check brake linings and related equipment	✗	✓	✓
16	Adjust brakes (inc. handbrake) as necessary	✓	✓	✓
17	Check wheel bearings and adjust as necessary	✓	✓	✓
18	Check king pins	✓	✓	✓
19	Check brake fluid level	✓	✓	✓
20	Clean radiator & oil cooler cores	✓	✓	✓
21	Check engine coolant level	✓	✓	✓
22	Change oil in rear axle	✓	✗	✓
23	Check level of rear axle oil	✗	✓	✗
24	Check level of battery electrolyte	✓	✓	✓
25	Check level of windscreen washer fluid	✓	✓	✓
26	Check security of drive flanges and condition of U/Js	✓	✓	✓
27	Check & grease prop shaft, steering, front axle & springs	✓	✓	✓
28	Lubricate all linkages	✗	✓	✓
29	Check doors, hinges and locks	✓	✓	✓
30	Check condition of cab mountings, lock & safety catch	✗	✓	✓
31	Check chassis for cracks, damage & corrosion	✓	✗	✓
32	Check steering-stop adjustment	✗	✓	✓
33	Check condition of vehicle (use safety check schedule)	✓	✓	✓
34	Check hydraulic system for leaks	✓	✓	✓
35	Renew hydraulic return filter	✓	✗	✓
36	Check gauge on hydraulic return filter, if fitted, (replace filter if necessary)	✗	✓	✗
37	Replace hydrostatic drive pressure filter	✓	✗	✓
38	Inspect suction filter in oil tank (replace if necessary)	✗	✗	✓
39	Change hydraulic oil	✗	✗	✓
40	Check level of hydraulic oil	✓	✓	✗
41	Remove debris from sweeping equipment	✓	✓	✓
42	Check sweeping equipment for wear and damage	✓	✓	✓
43	Lubricate sweeping equipment	✓	✓	✓

Continued..

## SERVICE FITTER'S MAINTENANCE SCHEDULE

ITEM No.	WORK TO BE CARRIED OUT EVERY:	1st 50 Hrs	300 Hrs	1800 Hrs
44	Check nozzle wheels and nozzle flap condition/settings	✓	✓	✓
45	Check sweeping equipment 'lift-in-reverse' function	✓	✓	✓
46	Check cleanliness and condition of hopper screens	✓	✓	✓
47	Check suction fan and clean as necessary	✓	✓	✓
48	Check hydraulic oil cooler (clean if necessary)	✓	✓	✓
49	Check suction fan speed	✓	✓	✓
50	Check water filters	✓	✓	✓
51	Check operation of all water spray jets	✓	✓	✓
52	Check all hopper suction seals	✓	✓	✓
53	Check correct closure of rear door (adjust if necessary)	✓	✓	✓
54	Check oil level in high-pressure water pump	✓	✓	✗
55	Change oil in high-pressure water pump (increase frequency of checks if usage is higher than normal)	✗	✗	✓
56	Road-test vehicle & verify ALL services function correctly	✓	✓	✓

### NOTE:

The foregoing are general recommendations only. Actual requirements will vary according to territory/conditions and vehicle usage. If in doubt, please contact your nearest Scarab agent.

## MANUAL GREASE POINT LOCATIONS

COMPONENT / ASSEMBLY	NUMBER OF GREASE POINTS
LEFT HAND SIDE BRUSH ASSEMBLY	3
RIGHT HAND SIDE BRUSH ASSEMBLY	3
SWING-OUT FRONT BRUSH ASSEMBLY	3
NON SWING-OUT FRONT BRUSH ASSEMBLY	3
LEFT HAND SUCTION BOX ASSEMBLY	2
RIGHT HAND SUCTION BOX ASSEMBLY	2
WIDE SWEEP ASSEMBLY	1
PROPSHAFT	3
STREETWASH SPRAY BAR OPTION	3
KING PINS (PER SIDE)	2
LEFT HAND AUTOMATIC BLANKING ASSEMBLY*	1
RIGHT HAND AUTO BLANKING ASSEMBLY*	1

\* Dual Sweep Machines Only

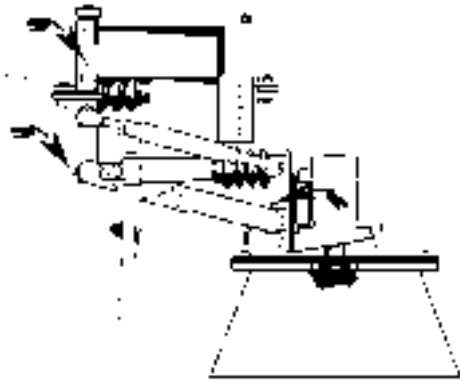
## RECOMMENDED LUBRICANTS & FLUIDS

COMPONENT	SPECIFICATION	SCARAB PART NO.	FILLING CAPACITY
VM ENGINE	-30°C to +30°C SAE 5W/30, 10W/50, 10W/60 -30°C to +15°C SAE 5W30/, 5W/40 -15°C to +15°C SAE 10W/30, 10W/40 -15°C to ABOVE +40°C SAE 15W/40, 15W/50, 20W/40, 20W/50	005001 (5 litre)	5 litre
COOLING SYSTEM	Water/Anti-freeze to suit conditions	005000 (5 litre)	10 litres
POWER STEERING	see Hydraulic Tank		N/A
HYDRAULIC TANK	HLP32 Hydraulic Oil	005005 (5 litre)	15 Litres
GREASE POINTS	Lithium Grease N.L.G.I. No. 2	005007 (400 g)	Refer to the Maintenance Sched.
WHEEL BEARINGS	Lithium Grease N.L.G.I. No. 2	005007 (400 g)	
REAR AXLE	SAE 90 EP Hypoid Gear Oil		1.7 litres
BRAKE SYSTEM	Brake Fluid to DOT 4	005004 (1 litre)	0.7 litres
H-P WATER PUMP	Motor Oil SAE 20W/30 or 20W/40	005001 (5 litre)	0.55 litres

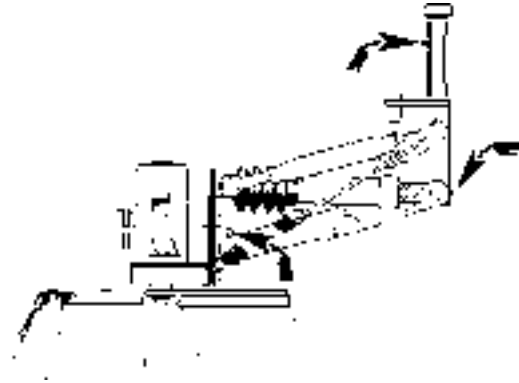
### NOTE:

If you have any concerns regarding the foregoing information, please contact the Service Department at Scarab Sweepers Limited, for further advice.

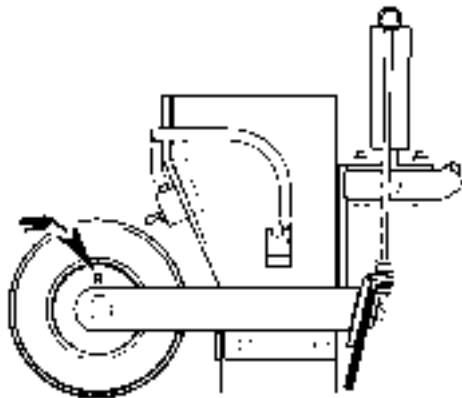
# MANUAL GREASE POINT LOCATIONS



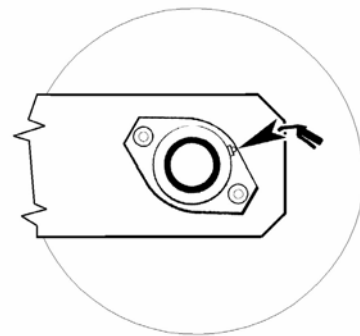
**SIDE BRUSH ASSEMBLY**



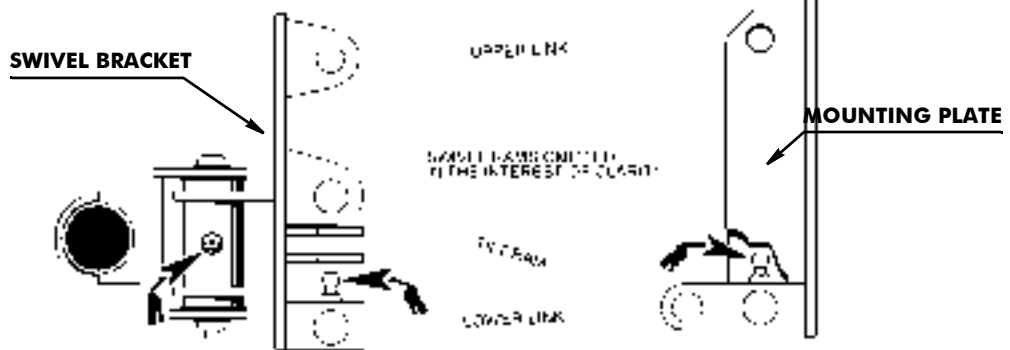
**FRONT BRUSH ASSEMBLY**



**SUCTION NOZZLE ASSEMBLY**



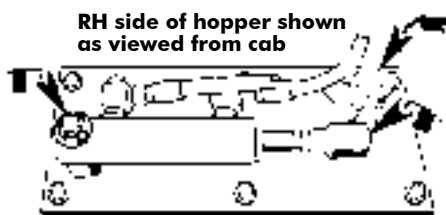
**WIDE SWEEP ASSEMBLY**



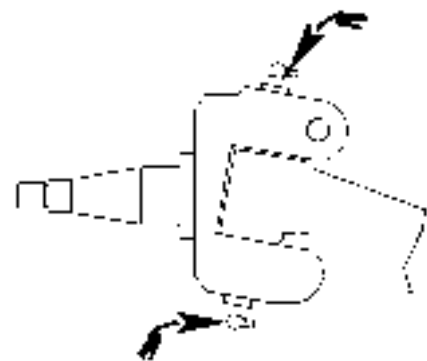
**STREETWASH CONVERSION SPRAY-BAR**



**PROP SHAFT**



**HOPPER AUTO-BLANKING MECHANISM**



**KING PINS**

## 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 the engine fitted in the Scarab Minor Sweeper 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. 1. Scarab Sweepers Limited (Hereinafter referred to as The Company) subject to Conditions 2 - 6 below warrants that any new Goods supplied to the Customer under the Contract [will correspond with their specification at the time of delivery and] will be free from defects in materials and workmanship for a period of [twelve] months from the date of actual delivery or [2,000] running hours from the date of actual delivery whichever is the sooner The Company does not warrant the condition or quality of any used Goods supplied to the Customer.

For further information, please refer to the Company's Terms and Conditions of Sale. In the event of conflict between this Warranty Statement and the Company's Terms and Conditions of Sale the latter will prevail.

# SAFETY FIRST

**IN THE INTERESTS OF YOUR HEALTH AND SAFETY, IT IS IMPORTANT THAT THE FOLLOWING POINTS ARE OBSERVED AT ALL TIMES:**

- **BEFORE DRIVING THE MACHINE CHECK THAT THE CAB SAFETY LOCK IS PROPERLY ENGAGED IN THE LOCKED POSITION.**
- **DO NOT DRIVE THE VEHICLE WITH THE HOPPER IN THE RAISED POSITION, EVEN IF THE HOPPER IS EMPTY.**
- **BEFORE DRIVING THE VEHICLE ENSURE THAT ALL RELEVANT VEHICLE CHECKS HAVE BEEN CARRIED OUT, THAT ALL EQUIPMENT IS STOWED AND THAT THE BRUSHES HAVE BEEN RAISED.**
- **ALWAYS USE THE HOPPER PROP TO SUPPORT A RAISED HOPPER AND NEVER WORK UNDER A RAISED HOPPER UNLESS THE PROP IS IN POSITION.**
- **BEFORE WORKING ON THE MACHINE:  
POSITION THE VEHICLE ON FIRM, LEVEL GROUND,  
APPLY THE HANDBRAKE,  
STOP THE ENGINE,  
REMOVE THE IGNITION KEY.**
- **BEFORE OPERATING EITHER THE HOPPER-TIP CONTROLS OR REAR DOOR, ENSURE THAT THERE IS SUFFICIENT CLEARANCE AND THAT IT IS SAFE TO DO SO.**
- **EXERCISE EXTREME CARE WHEN DISCHARGING THE HOPPER. FOLLOW THE INSTRUCTIONS DETAILED IN THIS MANUAL.**
- **BEFORE STARTING THE ENGINE ENSURE THAT ALL CONTROLS ARE SWITCHED OFF AND THAT THE VEHICLE IS IN NEUTRAL.**
- **DO NOT OVERLOAD THE HOPPER.**
- **HIGH PRESSURE WATER CAN BE HAZARDOUS, ALWAYS WEAR SUITABLE EYE PROTECTION WHEN OPERATING THE HIGH-PRESSURE WATER PUMP AND WHEN USING THE LANCE. DO NOT DIRECT THE WATER JET AT OTHER PERSONS. BEWARE OF ELECTRICAL INSTALLATIONS ON PUBLIC BUILDINGS & LAMP POSTS Etc. AND ALWAYS EXERCISE EXTREME CAUTION.**

**REMEMBER, FAILURE TO COMPLY CAN RESULT IN SERIOUS INJURY.  
IF IN DOUBT, ASK!**

## VEHICLE 'BEFORE USE' CHECKS

(All checks are visual unless otherwise stated)

1. CHECK THAT THE HYDRAULIC OIL LEVEL IS CORRECT.
2. CHECK FOR HYDRAULIC OIL LEAKS.
3. CHECK BRUSHES AND SKIRTS FOR WEAR AND REMOVE ANY ITEMS SUCH AS STRING WHICH MIGHT HAVE BECOME ENTANGLED.
4. CHECK THAT ALL EQUIPMENT IS CORRECTLY STOWED AND THAT ALL BRUSHES ARE IN THE RAISED POSITION.
5. CHECK WATER SPRAY JETS FOR BLOCKAGES.
6. CHECK GENERAL VEHICLE CONDITION FOR SAFETY.
7. CHECK EXTERIOR LIGHTING FOR CORRECT OPERATION AND GENERAL CLEANLINESS.
8. CHECK THE FOLLOWING FLUID LEVELS AND TOP UP AS REQUIRED:
  - (A) ENGINE OIL
  - (B) ENGINE COOLANT
  - (C) WINDSCREEN WASH
  - (D) BRAKE FLUID
  - (E) FUEL
9. CHECK TYRES FOR DAMAGE AND FOR CORRECT INFLATION PRESSURES.

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<b>ENGINE &amp; FUEL SYSTEM</b>	
<b>HYDROSTATIC DRIVE</b>	
<b>SWEEPING &amp; SUCTION EQUIPMENT</b>	
<b>HOPPER &amp; RELATED EQUIPMENT</b>	
<b>WASHING &amp; DUST SUPPRESSION SYSTEM</b>	
<b>CHASSIS &amp; RUNNING GEAR</b>	
<b>HYDRAULIC SYSTEM &amp; EQUIPMENT</b>	
<b>ELECTRICAL SYSTEM &amp; EQUIPMENT</b>	
<b>MISCELLANEOUS EQUIPMENT</b>	
<b>GLOSSARY / GLOSSAIRE / TERMINOLOGIA</b>	

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# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION A VM ENGINE SYSTEM

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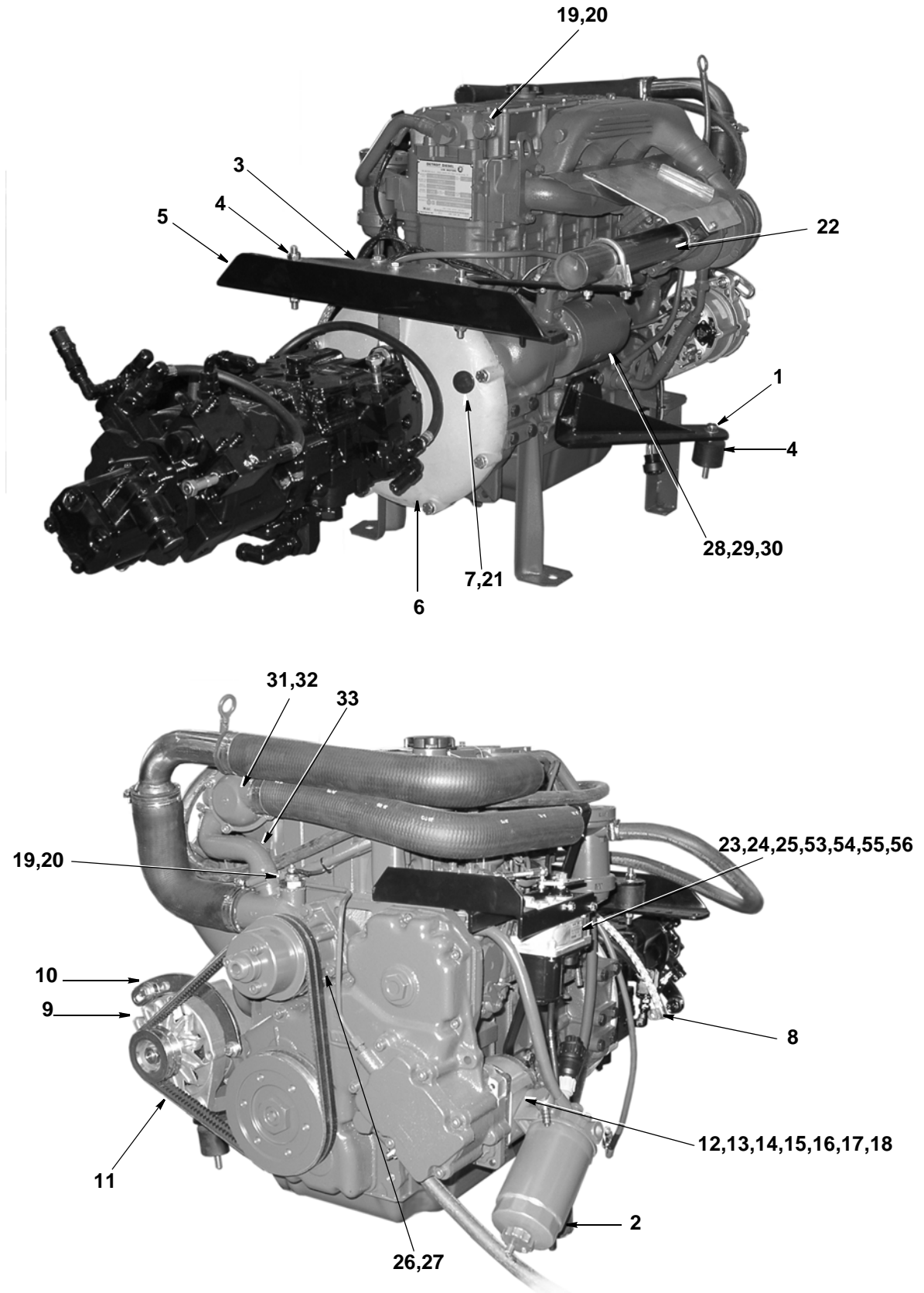
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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>VM ENGINE - GENERAL ARRANGEMENT</b>			
	026825	1	VM Engine <b>EURO 3 HR494 HT3</b>
	024454	1	VM Engine <b>EURO 2 HR494 HT2</b>
NI	025608	1	. . Gasket Set, full engine
NI	026451	1	. CYLINDER HEAD..... PAGE A5
NI	025607	1	. . Gasket, Cylinder Head
NI	025606	1	. . Gasket Set, liner
NI	T B D	1	. WATER MANIFOLD ..... PAGE A13
1	024721	1	. Engine Mount Front RH (UPTO June 2001)
	026431	1	. Engine Mount Front RH (FROM June 2001)
2	024772	1	. Engine Mount Front LH (UPTO June 2001)
	026430	1	. Engine Mount Front LH (FROM June 2001)
3	025228	1	. Engine Mount Rear
NI	011051	3	. . Bolt, hex hd, M12 x 20 mm Long
4	013409	4	. Rubber mount, engine
NI	011075	4	. . Nut, hex M10, Nyloc
NI	011094	4	. . Washer, plain, 10mm
5	013728	1	. Engine Cross member
6	025031	1	. Bell housing, Casting
NI	024498	1	. Bell housing, Fabricated (M/Cs fitted with Zeta 1 controller only)
NI	011043	7	. . Bolt, hex hd, M10 x 70 mm long
7	021175	1	. Bowex flange (Plastic)
NI	021675	1	. . Male coupling, Bowex (Metal Hub)
NI	011030	2	. . Bolt, hex hd, M8 x 30 mm long
NI	011036	1	. . Bolt, hex hd, M10 x 60 long
NI	028171	1	. PUMP, FUEL INJECTOR ( <b>Euro 3</b> )..... PAGE A19
NI	026309	1	. PUMP, FUEL INJECTOR ( <b>Euro 2</b> )..... PAGE A19
8	014156	1	. Earth strap
NI	011010	1	. . Bolt, hex hd, M8 x 20 mm long
9	026298	2	. ALTERNATOR 85 AMP ..... PAGE A21
10	026299	1	. . Adjuster, Alternator
11	027795	2	. . Belt, Alternator drive ( <b>Euro 3 Engines Only</b> )
11	025604	2	. . Belt, Alternator drive ( <b>Euro 2 Engines Only</b> )
11	025587	2	. . Belt, Alternator drive ( <b>In addition when Air Con Fitted</b> )
12	024496	1	. Pump, Power steering
13	011167	1	. . Adaptor, 1/2" x 3/8" BSP
14	011166	1	. . Adaptor, 1/2" x 3/4" BSP
15	011154	1	. . Seal, Dowty, 1/2" BSP
16	011155	1	. . Seal, Dowty, 3/4" BSP
17	011235	1	. . 1/2" BSP x 5/8" Hose tail
18	011172	1	. . Elbow, Swivel, 3/8" BSP, F/M
19	025577	1	. Water pump plug
20	023588	1	. Temp Sender unit
21	014490	3	. Dowel Pin
22	024497	1	. Exhaust adaptor
NI	025795	1	. . Support, Exhaust Adaptor
NI	025796	1	. . U Bolt
23	020822	1	. Actuator
24	025753	1	. . Bracket, Actuator ( <b>Zeta 2 only</b> )
24	026812	1	. . Bracket, Actuator ( <b>Euro 3 Only</b> )
25	025539	1	. . Clevis, Injection Pump ( <b>Zeta 1 only</b> )

**Continued...**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



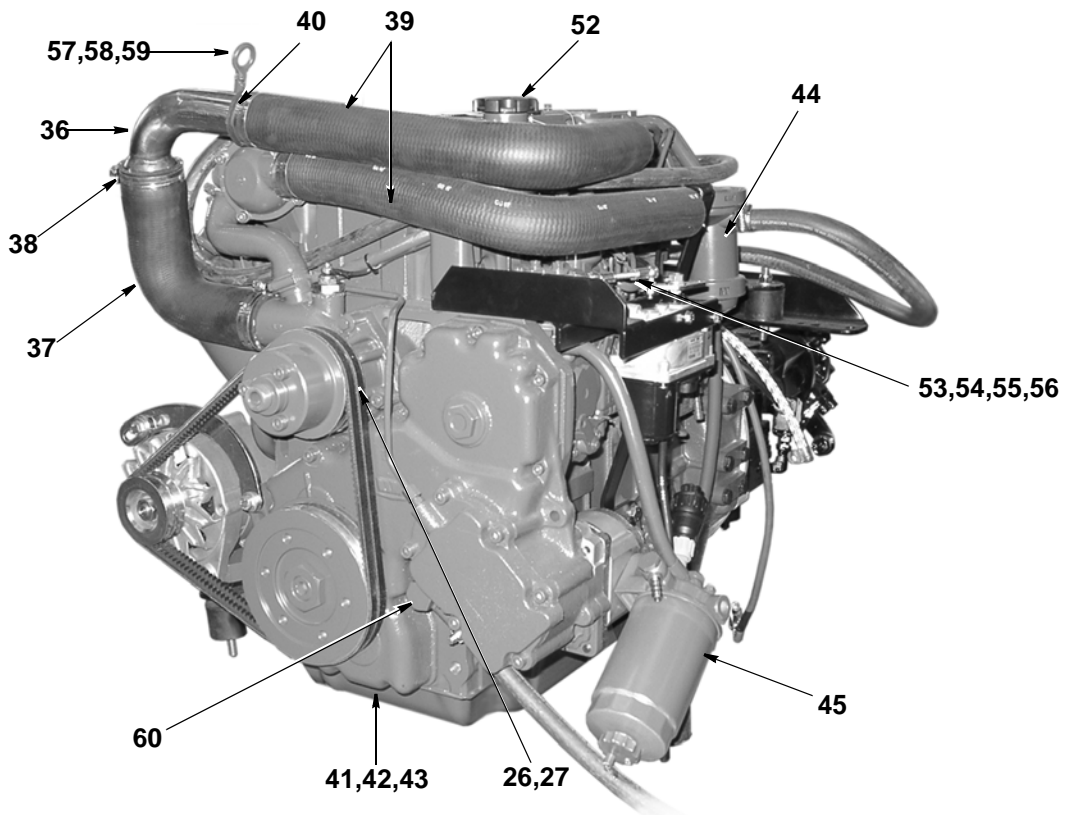
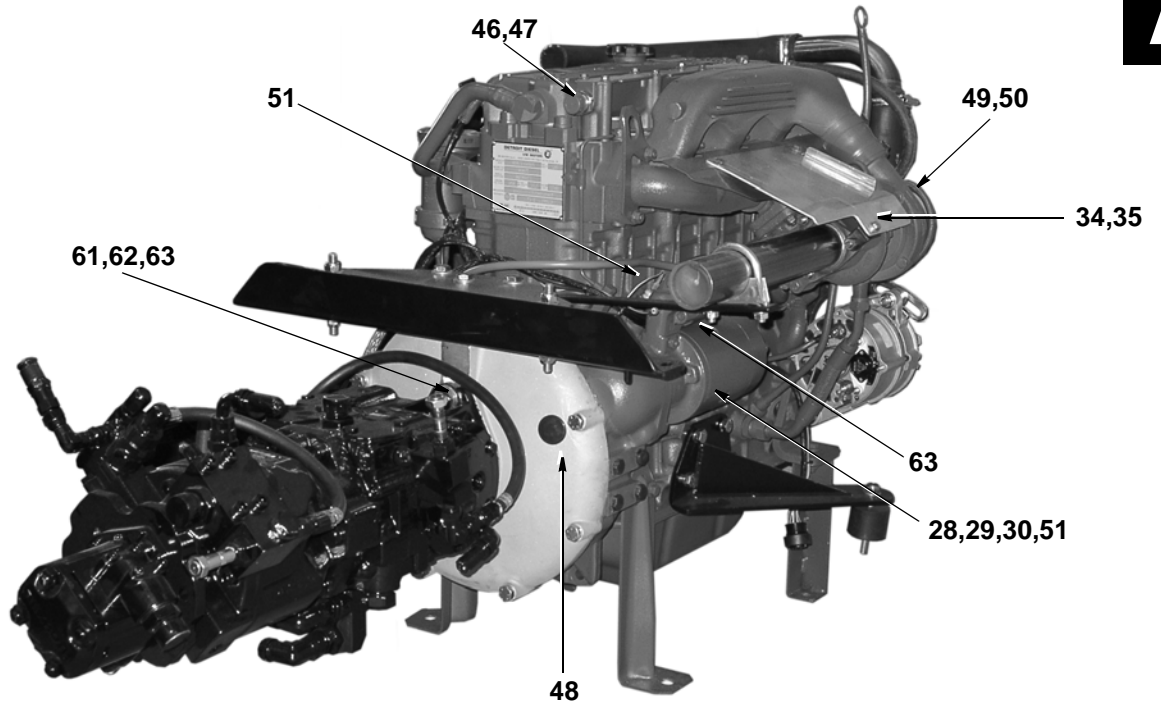
**VM ENGINE - GENERAL ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>	
<b>VM ENGINE - GENERAL ARRANGEMENT</b>				
26	028173	1	. WATER PUMP ( <b>Euro 3</b> ).....	PAGE A13
26	026292	1	. WATER PUMP ( <b>Euro 2</b> ).....	PAGE A13
27	026293	1	. . Gasket, Water Pump	
28	026296	1	. STARTER MOTOR .....	PAGE A19
29	026297	1	. . Solenoid, Starter Motor	
30	026295	1	. . Ring Gear, Starter Motor	
31	026281	1	. THERMOSTAT .....	PAGE A13
32	026282	1	. . O-Ring, Thermostat	
33	026294	1	. . Bypass Hose	
34	025683	1	. Heat Shield	
35	025813	1	. . Bracket, Heatshield	
NI	003000	1	. Brass Tee (not shown)	
36	025545	1	. Radiator Elbow Reducer	
37	025416	1	. Rubber elbow, 50 x 90'	
38	012928	2	. . Jubilee clip	
39	025417	2	. Radiator Pipe ( <b>Euro 2</b> )	
39	026890	1	. Radiator Pipe, Lower ( <b>Euro 3</b> )	
39	026889	1	. Radiator Pipe, Top ( <b>Euro 3</b> )	
40	012927	4	. . Jubilee Clip	
41	026519	1	. Sump .....	PAGE A11
42	026290	1	. . Sump Plug	
43	026289	1	. . Washer, Sump Plug	
44	026537	1	. OIL SEPERATOR .....	PAGE A15
NI	028051	1	. . Vacuum valve, one way (Complete with copper washers)	
45	025602	1	. FILTER ELEMENT, OIL .....	PAGE A21
46	002078	1	. Plug, M18 x 1/2" BSP	
47	011247	1	. Seal, dowty, M18	
48	025347	1	. Washer, plastic	
49	028172	1	. TURBO, ( <b>Euro 3 Engine</b> ) .....	PAGE A17
50	026284	1	. TURBO, FROM ENGINE No 64B - 44846( <b>Euro 2 Engine</b> ) .	PAGE A17
50	026283	1	. TURBO, UPTO ENGINE No 64B - 44845 ( <b>Euro 2 Engine</b> )..	PAGE A17
51	026308	1	. . Oil Pressure Switch	
52	026307	1	. Oil Cap and O Ring	
53	026828	1	Link Rod ( <b>Euro 3</b> )	
53	025964	0.65	Ball Joint and socket, M6 ( <b>Euro 2</b> )	
54	000147	2	. Studding M6	
54	011001	4	. Bolt, hex hd, M6 x 16 mm long	
55	025784	1	Rubber mounting kit	
56	000054	2	. Nut, hex, M6	
57	026303	1	Dipstick	
58	026302	1	. Tube, Dipstick	
59	026304	1	. O Ring, Dipstick	
60	028051	1	Elbow	
61	000204	2	Mounting bolts, M14 x 60mm	
62	020030	2	Washer M14	
63	011146	2	Nut, M14	
NI	026277	1	Buzzer switch (Positioned Cylinder 3)	
NI	030630	1	Cold Start relay switch (Positioned in Cylinder 2)	
NI	010516	4	. Jubilee Clip	
NI	001014	0.3	. Heater Hose, 10 mm	
NI	001013	1.0	. Heater Hose, 15 mm	
NI	001035	3.2	. Heater Hose 8 mm	
NI	025561	1	. PPU Plug Zeta E1 only	
NI	028660	1	Glow plug relay ( <b>Euro 2</b> )	
NI	028661	1	Glow plug relay ( <b>Euro 3</b> )	

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**VM ENGINE - GENERAL ARRANGEMENT**

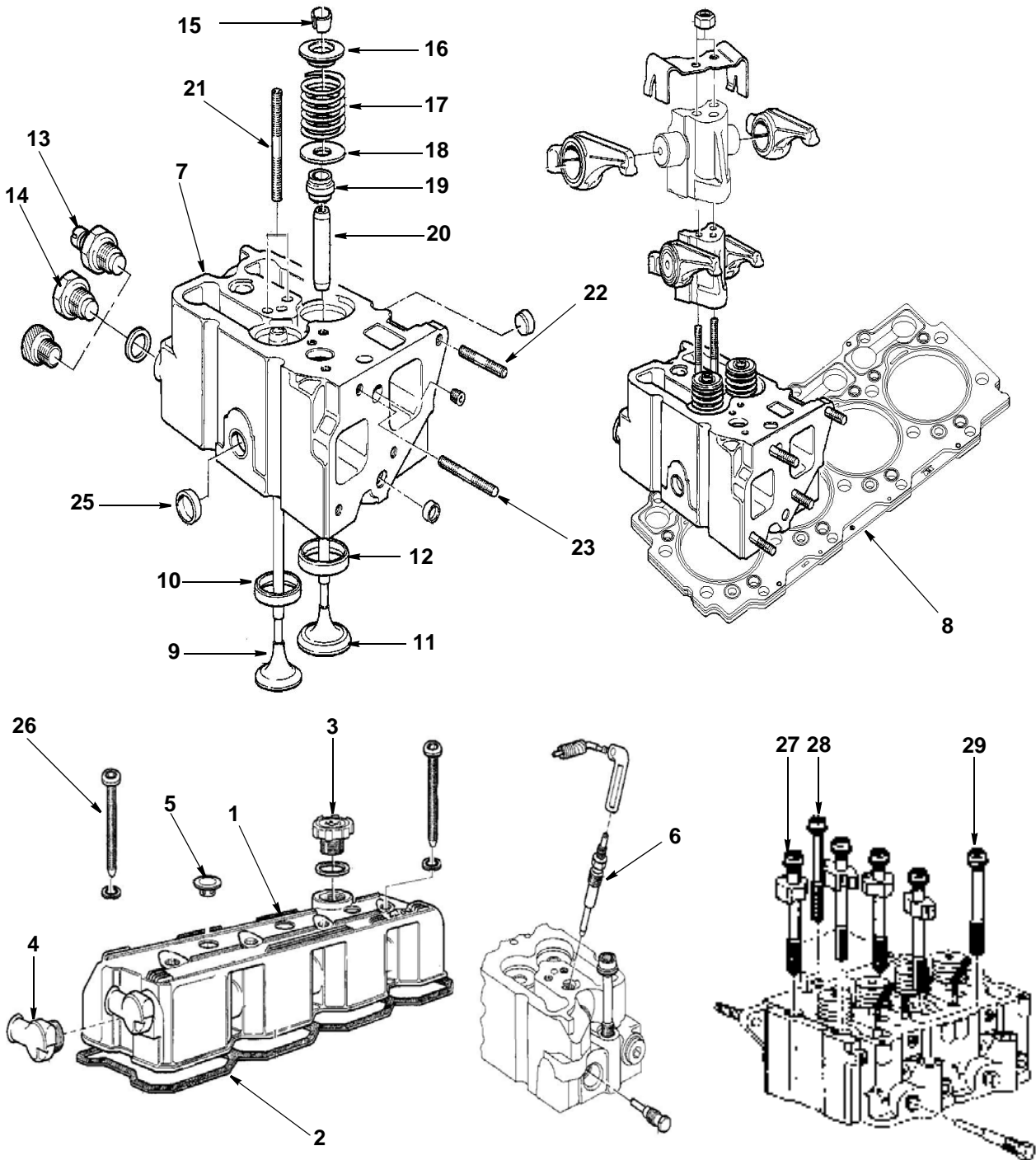
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CYLINDER HEAD ARRANGEMENT</b>			
1	026448	1	Cover, Cam
2	026449	1	. Gasket, Cam cover
3	026307	1	. Cap and seal, Oil
4	026450	1	. Adaptor, Breather
5	026447	1	. Plug, cam cover
6	026278	4	. Glow plugs
NI	028661	1	. . Glow plug relay ( <b>Euro 3</b> )
NI	028660	1	. . Glow plug relay ( <b>Euro 2</b> )
7	026451	4	Cylinder Head
8	026452	1	. Gasket, Cylinder head, 1.4l
	026453	1	. Gasket, Cylinder head, 1.5l
	026454	1	. Gasket, Cylinder head, 1.6l
9	026455	4	. Exhaust valve
10	026457	4	. . Valve seat, exhaust
11	026456	4	. Inlet valve
12	026458	4	. . Valve seat, inlet
13	026277	1	. Buzzer sensor (Positioned in Cylinder 3)
14	026459	4	. Plug
15	026460	16	. Collet
16	026461	8	. Top washer
17	026462	8	. Valve spring
18	026463	8	. Bottom washer
19	026464	8	. Stem seal
20	026465	8	. Guide valve + 0.00
20	026466	8	. Guide valve + 0.10
21	030714	8	. Pedestal Stud
22	030715	8	. Manifold stud
23	030716	8	. Manifold stud
24	030712	8	. Core plug
25	030713	8	. Core plug
26	030720	4	Rocker cover screw
NI	030630	1	Switch, cold start relay (Positioned in Cylinder 2)
27	030719	10	Headbolt
28	030718	4	Headbolt
29	030717	4	Headbolt
NI	026035	1	. Headbolt tool
NI	026036	1	. Headbolt tool
NI	026037	1	. Headbolt tool
NI	026038	1	. Headbolt tool

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





CYLINDER HEAD ARRANGEMENT

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



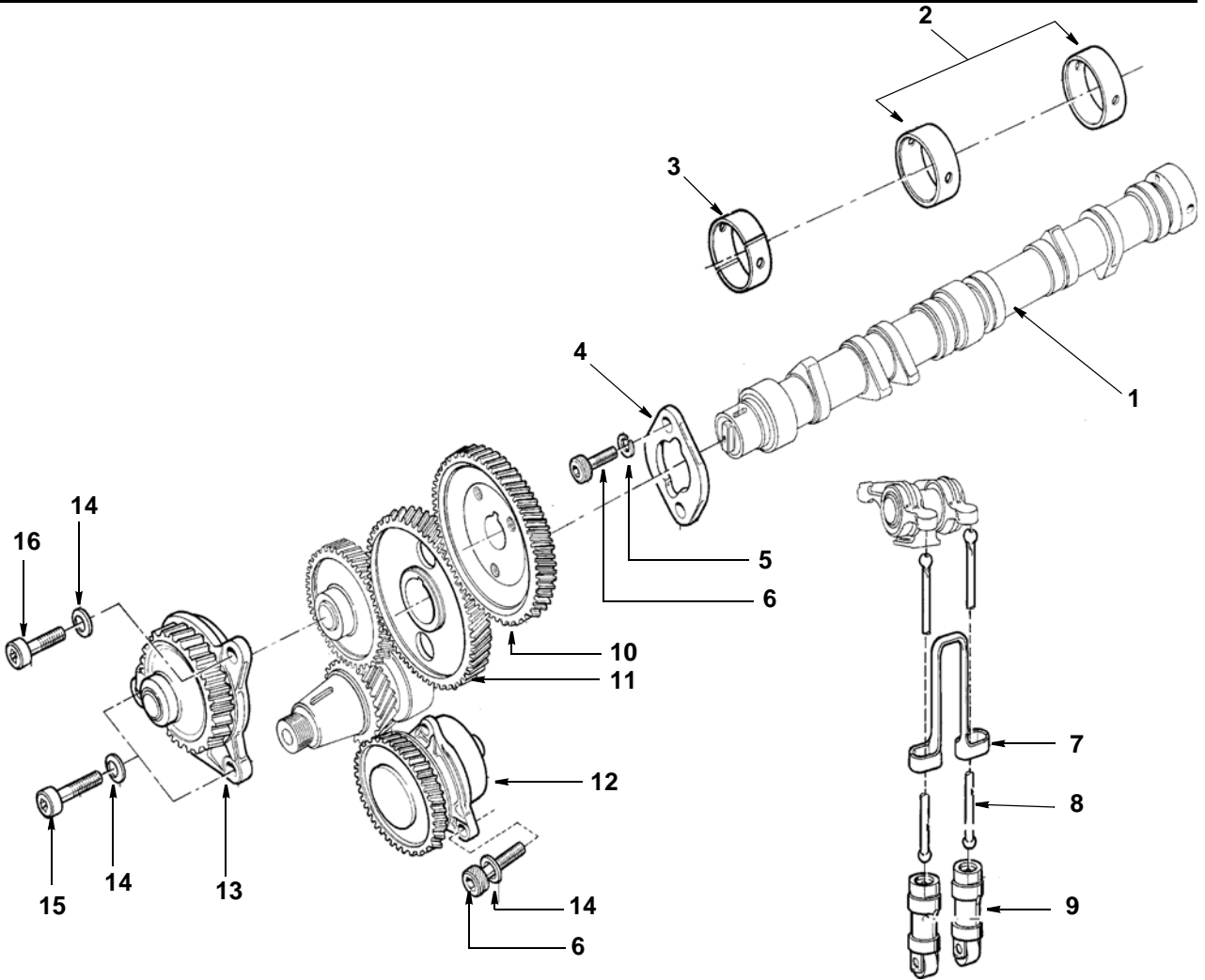
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAMSHAFT AND GEAR SET</b>			
1	026467	1	Camshaft
2	026472	1	. Shells 0.00
3	026473	1	. Shells 0.00
4	026476	1	. Gasket
5	026475	2	. Washer
6	026477	5	. Bolt
7	026481	4	. Support
8	026482	8	. Push Rods
9	026483	8	. Followers
10	026478	1	. Gear
11	026479	1	. Gear
12	026480	1	. Gear
13	026471	1	. Gear
14	026468	6	. Washer
15	026470	2	. Bolt
16	026469	1	. Bolt

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>POWER TAKE-OFF COMPONENTS</b>			
1	026295	1	Ring gear
2	026510	10	. Bolt
3	026508	1	Flywheel
4	026509	6	. Bolt
5	026296	1	Starter Motor
6	026574	1	. Relay
7	030564	1	O Ring, crankshaft
8	030565	1	O Ring, crankshaft
9	030721	1	Bell housing
10	030566	1	Seal, rear crankshaft

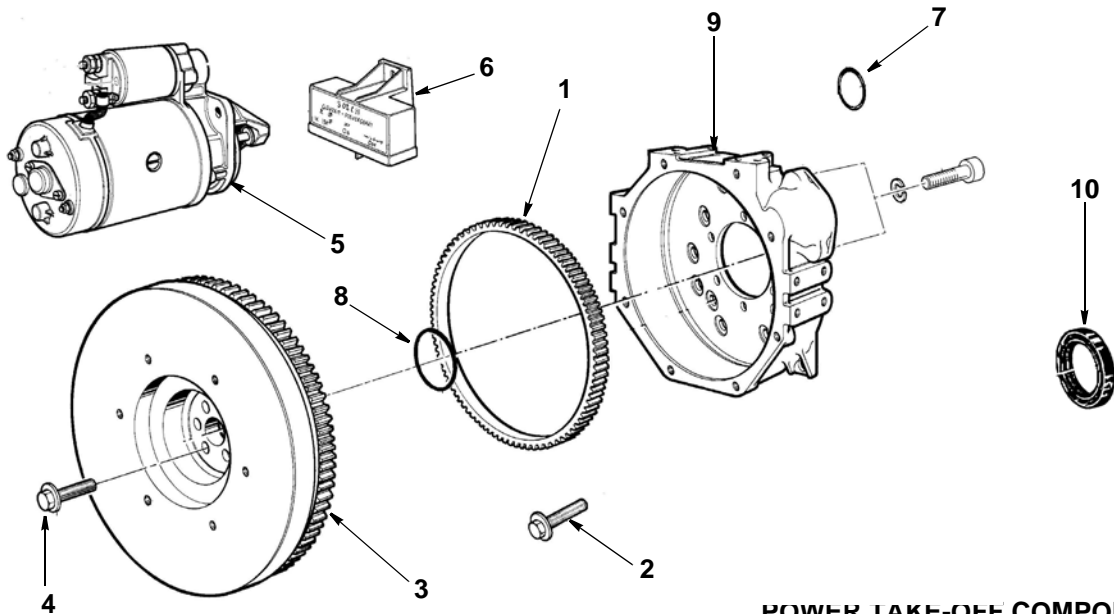
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**A**



**CAMSHAFT AND GEAR SET**



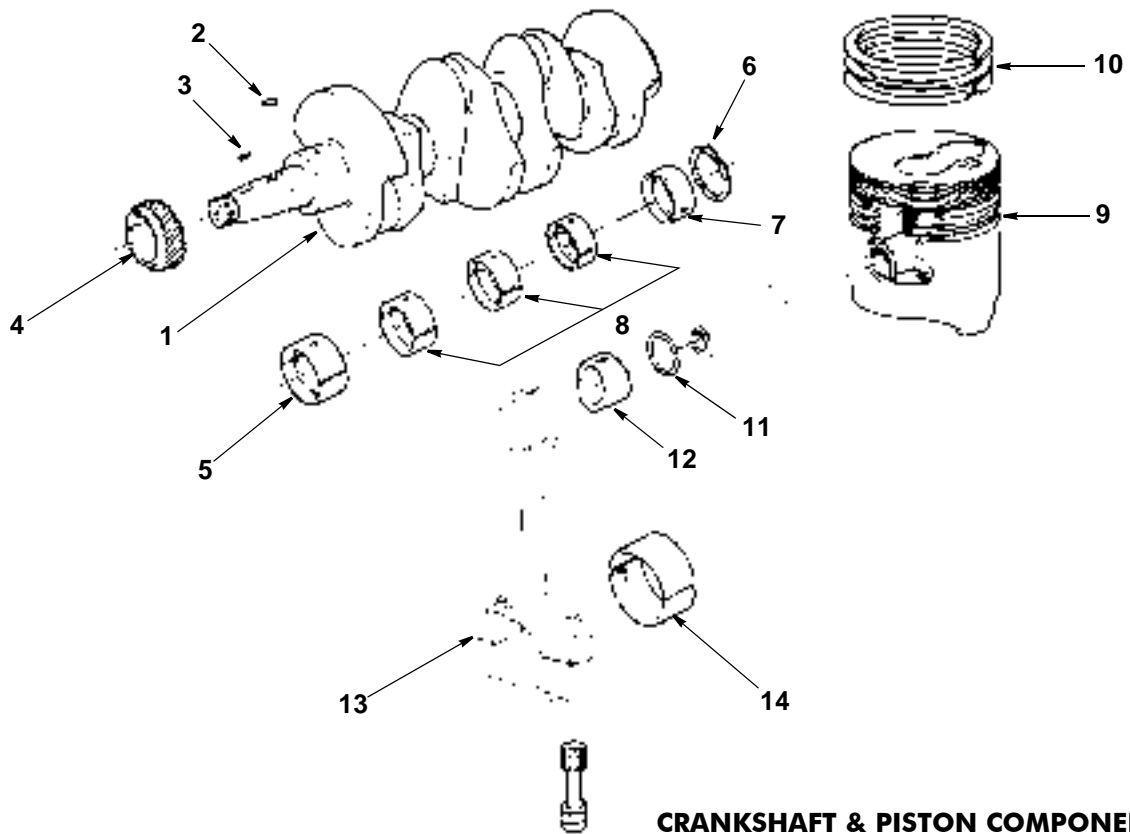
**POWER TAKE-OFF COMPONENTS**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CRANKSHAFT &amp; PISTON COMPONENTS</b>			
1	026484	1	Crankshaft
2	026485	1	. Key
3	026486	1	. Key
4	026487	1	. Gear, Crankshaft
5	026488	1	. Main shells + 0.00
	026489	1	. Main shells + 0.25
	026490	1	. Main shells + 0.50
6	026491	1	. Thrust washer + 0.00
	026492	1	. Thrust washer + 0.10
	026493	1	. Thrust washer + 0.20
7	026494	1	. Main shells + 0.00
	026495	1	. Main shells + 0.25
	026496	1	. Main shells + 0.50
8	026497	3	. Main shells + 0.00
	026498	3	. Main shells + 0.25
	026499	3	. Main shells + 0.50
9	026500	4	Piston, complete
10	026501	4	. Piston ring set
11	026507	4	. O'Ring
12	026506	4	. Gudgeon pin bush
13	026502	1	. Con rod, Kit
14	026503	4	. Big end shell - 0.00
	026504	4	. Big end shell - 0.25
	026505	4	. Big end shell - 0.50

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**CRANKSHAFT & PISTON COMPONENTS**

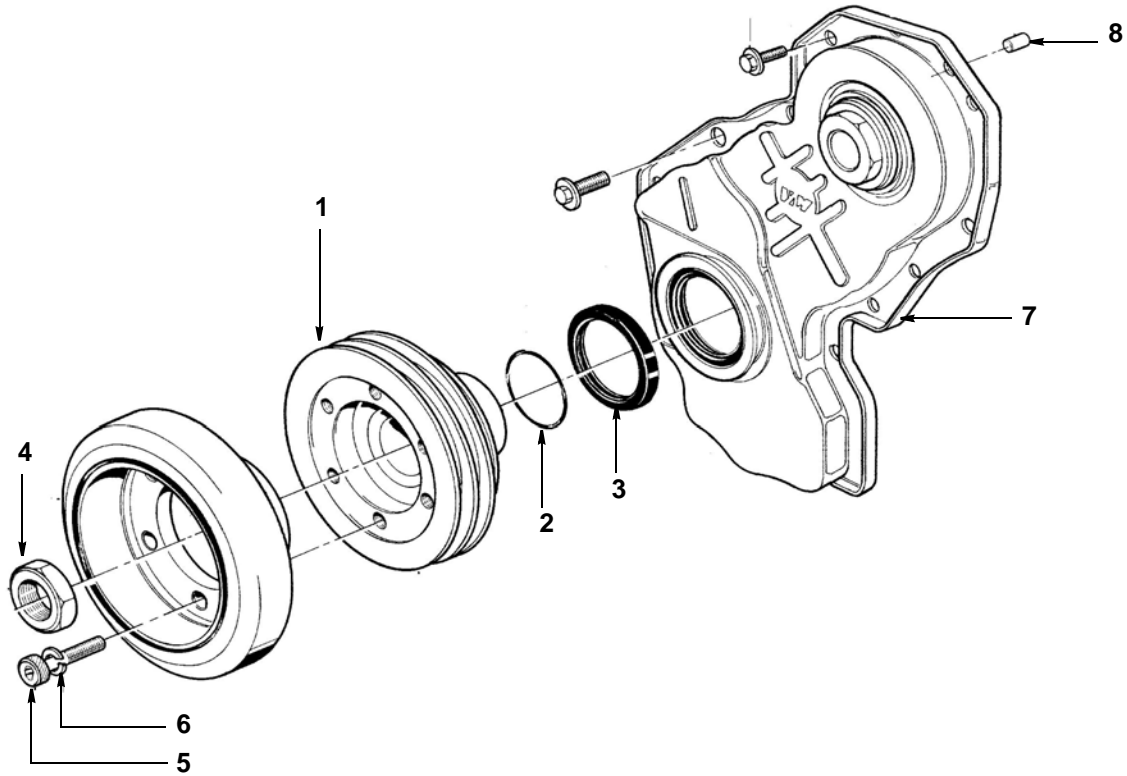
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



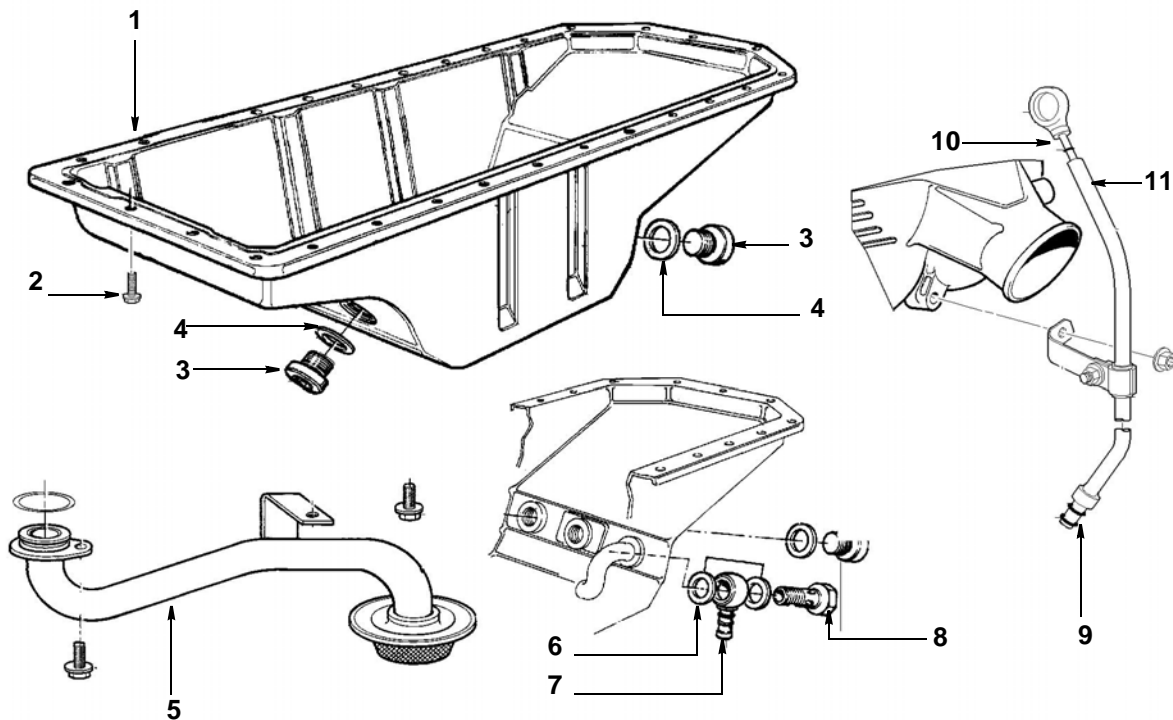
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>BOTTOM PULLEY ARRANGEMENT</b>			
1	026511	1	Pulley
2	026512	1	. O' Ring
3	026513	1	. Seal
4	026516	1	. Nut
5	026517	6	. Bolt
6	026518	6	. Washer
7	026514	1	Cover complete
8	026515	2	. Plug

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>SUMP ARRANGEMENT</b>			
1	026519	1	Sump complete with Gasket
2	026520	23	. Bolt
3	026288	2	. Plug
4	026289	2	. Washer
5	026521	1	. Feed Pipe
6	026522	2	. Washer
7	026523	2	. Banjo
8	026524	1	. Banjo Bolt
9	026525	2	. O' Ring
10	026303	1	Dipstick
11	026302	1	. Tube, Dipstick

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**BOTTOM PULLEY ARRANGEMENT**



**SUMP ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



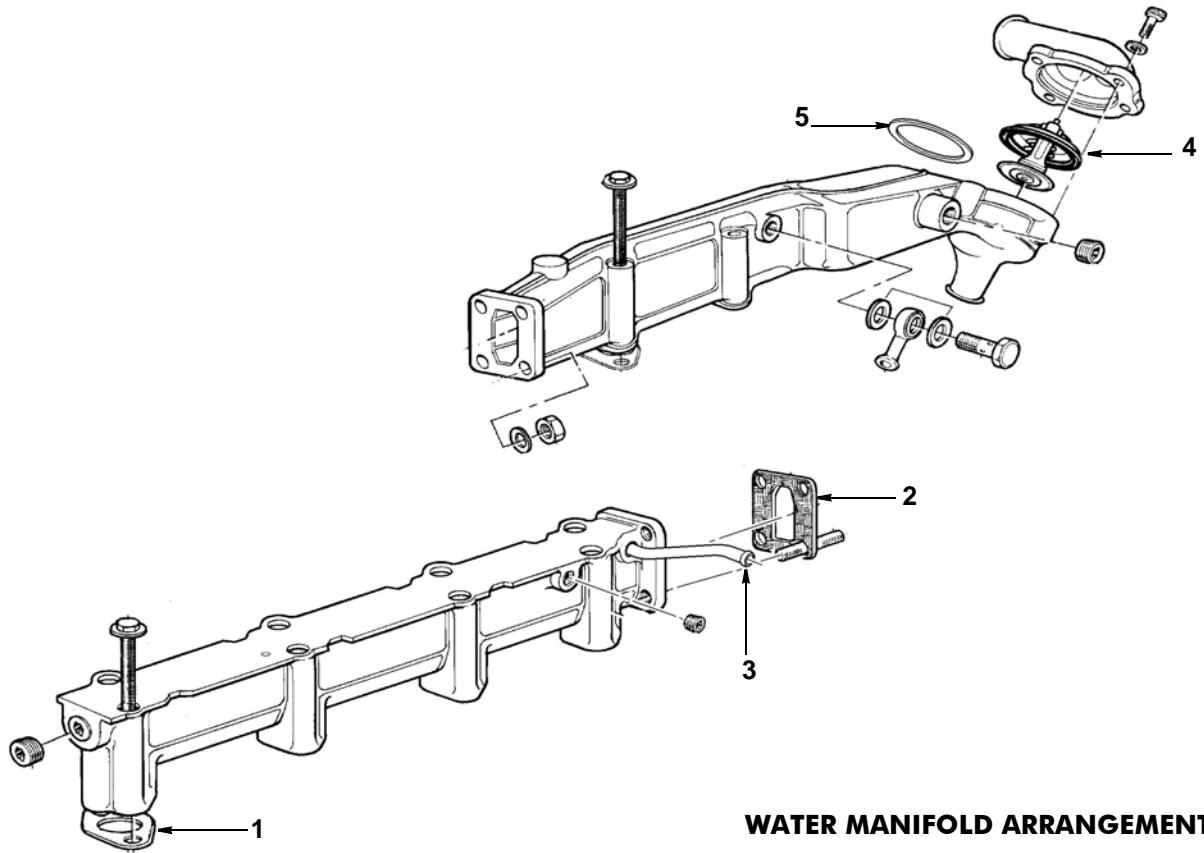
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>COOLING SYSTEM - WATER MANIFOLD</b>			
1	026300	4	Gasket
2	026301	1	Gasket
3	026527	1	Tube
4	026281	1	Thermostat
5	026282	1	O'Ring

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>COOLING SYSTEM - WATER PUMP</b>			
1	028173	1	Water pump (Euro 3) 6 bolt fixing
1	026292	1	Water pump (Euro 2) 4 bolt fixing
2	026293	1	. Gasket
3	028174	1	. Pulley (Euro 3)
3	026584	1	. Pulley (Euro 2)
4	026585	1	. Pipe
5	026294	1	. Pump Bypass hose
NI	027795	2	Belt, water pump (Euro 3)
NI	025604	2	Belt, water pump (Euro 2)

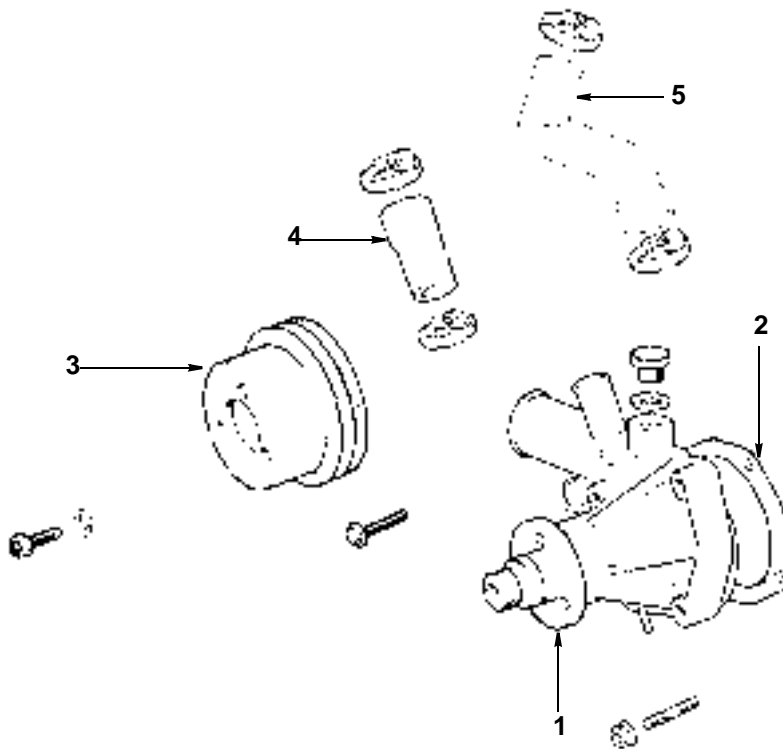
**NOTE: The following Euro 3 engine numbers 64B - 70252 to 64B - 70275** were fitted with 026292 Water pump, 026584 Pulley and 025604 Belts. Please quote your Vehicles Machine number if you are uncertain.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**WATER MANIFOLD ARRANGEMENT**



**WATER PUMP ARRANGEMENT**

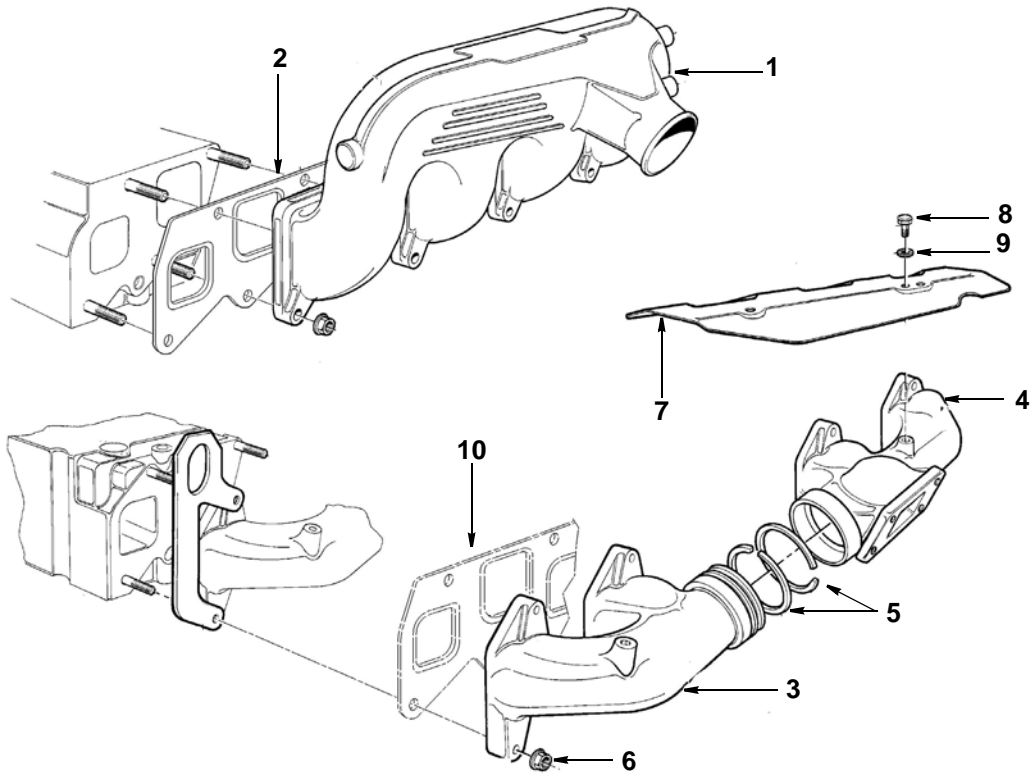
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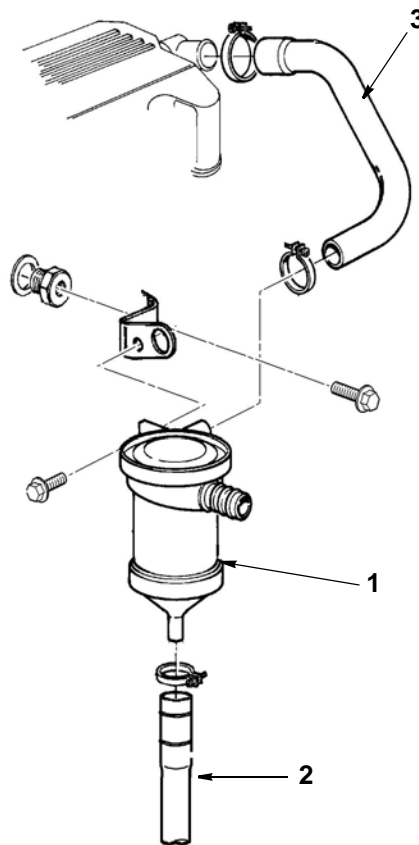
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>EXHAUST &amp; INLET MANIFOLDS</b>			
1	026529	1	Inlet Manifold
2	026291	1	. Gasket, Inlet Manifold
3	026531	1	Exhaust Manifold, Rear
4	026530	2	Exhaust Manifold, Front
5	026532	1	. Sealing Ring
6	026533	8	. Nut
7	026534	1	.. Heatshield
8	026535	2	... Bolt
9	026536	2	... Washer
10	T B D	4	Exhaust Gasket

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>OIL SEPARATOR ARRANGEMENT</b>			
1	026310	1	Separator
2	026595	1	. Pipe
3	026586	1	. Pipe

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**INLET & EXHAUST MANIFOLD**



**OIL SEPERATOR**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



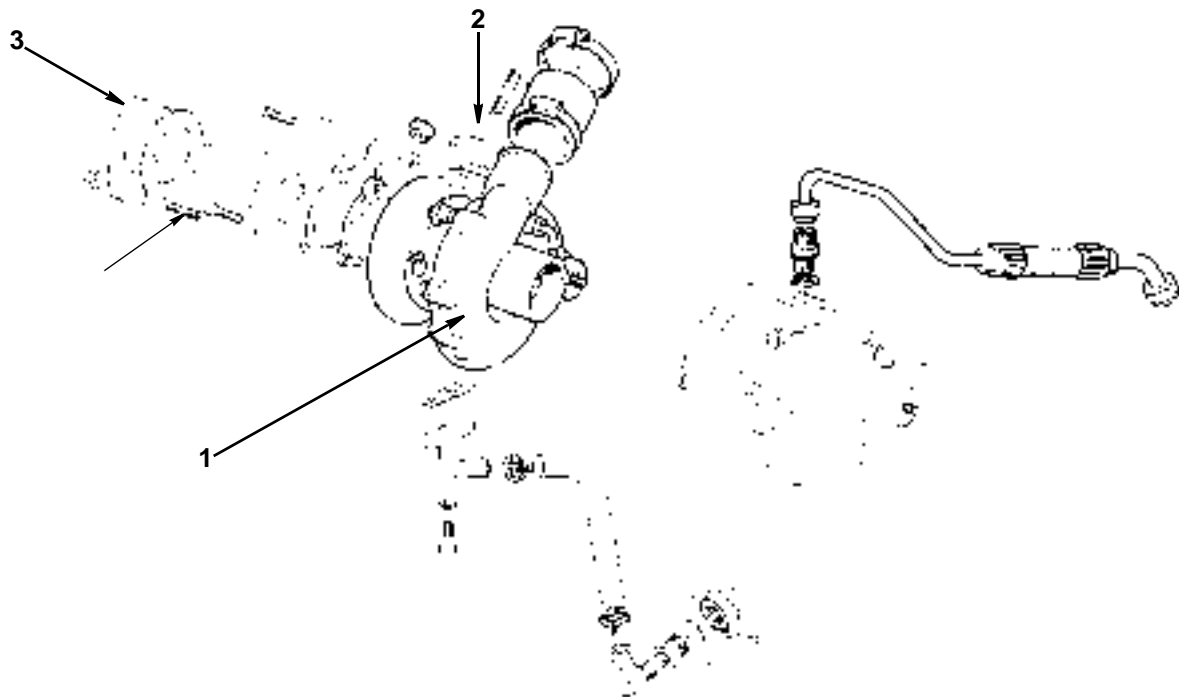
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>TURBO ARRANGEMENT - EURO 2 (Upto Engine No 64B-44845)</b>			
1	026283	1	*Turbo (MK1)
2	028797	1	. Gasket
3	026588	1	. Flange
4	028799	1	. Stud

\*NOTE: 026283 VM Turbo is now obsolete - Must fit 026284 Turbo complete with the parts listed below.

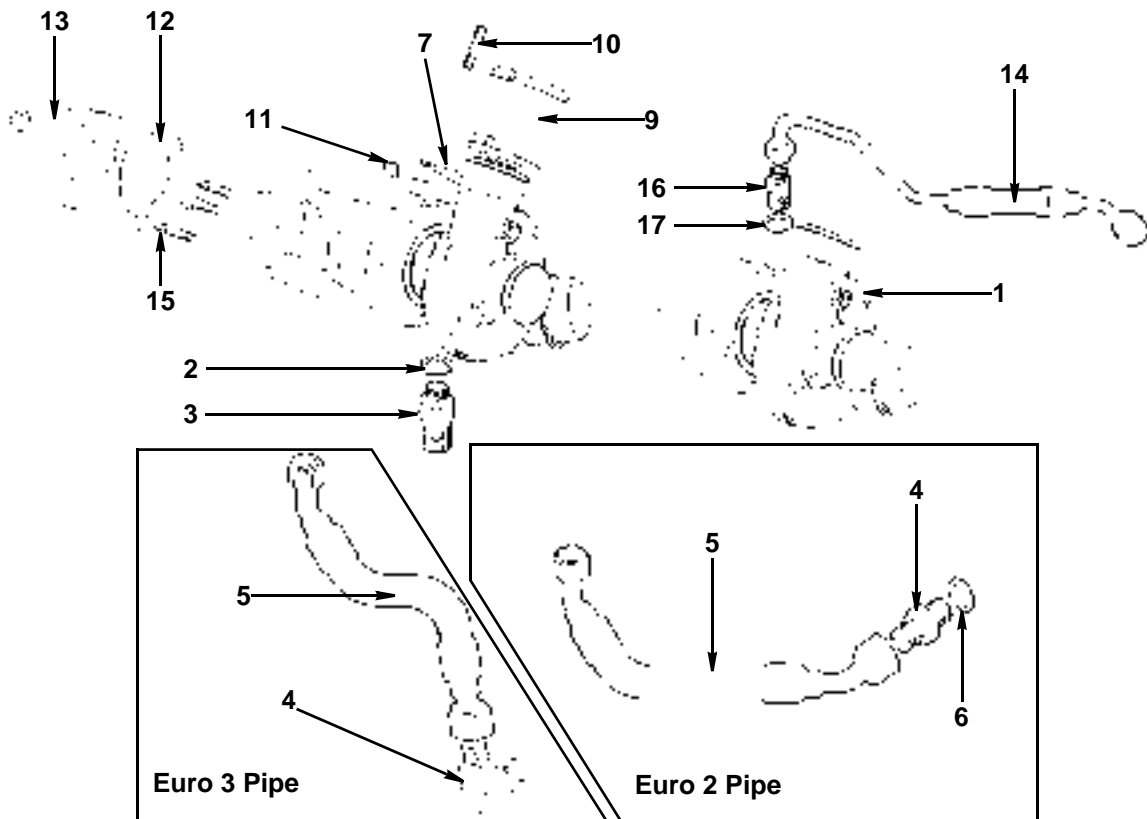
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>TURBO UPGRADE KIT - EURO 2 (Upto Engine No 64B-44845)</b>			
NI	026284	1	Turbo (Euro 2 MK2)
NI	026589	1	. Gasket
NI	028798	1	. Union
NI	026591	1	. Union
NI	026590	1	. Pipe
NI	028799	3	. Stud
NI	026587	1	. Gasket
NI	028800	1	. Manifold
NI	026451	1	. Hose
NI	028801	1	. Stud
NI	028802	1	. Nut

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>TURBO ARRANGEMENT - EURO 2 &amp; EURO 3 (From Engine No 64B-44846)</b>			
1	028172	1	Turbo (Euro 3)
1	026284	1	Turbo (Euro 2)
2	026589	1	. Gasket
3	028798	1	. Union
4	028804	1	. Elbow adaptor(Euro 3)
4	026591	1	. Union (Euro 2)
5	028803	1	. Ex Pipe (Euro 3)
5	026590	1	. Ex Pipe (Euro 2)
6	026592	1	. Washer (Euro 2)
7	026587	1	. Gasket
8	028800	1	. Manifold
9	026541	1	. Hose
10	028801	1	. Stud
11	028802	1	. Nut
12	026286	1	. Gasket
13	026588	1	. Flange
14	026538	1	. Pipe
15	028799	3	. Stud

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**TURBO ARRANGEMENT - EURO 2**  
**Upto Engine No 64B-44845**



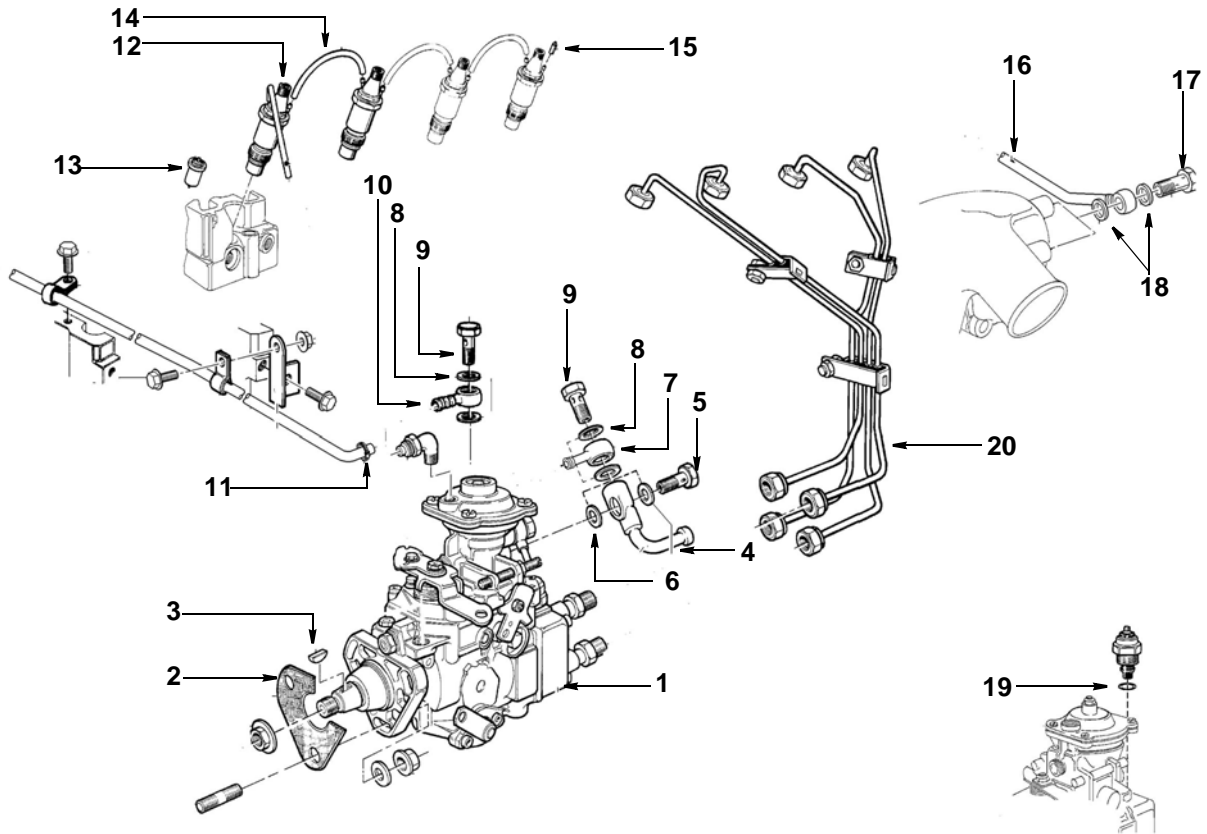
**TURBO ARRANGEMENT - EURO 2 & 3**  
**From Engine No 64B-44846**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>INJECTOR PUMP ARRANGEMENT</b>			
1	028171	1	Injector Pump ( <b>Euro 3</b> )
1	026309	1	Injector Pump ( <b>Euro 2</b> )
NI	028460	1	. Cold Advance Valve ( <b>Euro 3</b> )
2	026542	1	. Gasket
3	026543	1	. Key, Injector pump
4	026544	1	. Elbow, Special
5	026545	1	. . Bolt, Banjo special
6	026546	2	. . Seal, dowty
7	026547	1	. Banjo
8	026548	4	. Seal
9	026549	1	. Banjo Bolt
10	026550	1	. Banjo
11	026551	1	. Clip
12	026275	4	. Injector
13	026276	4	. Injector Nozzle
14	026552	3	. . Injector, Hose
15	026553	1	. . . Cap
16	026554	1	. Pipe
17	026555	1	. . Banjo bolt
18	026556	2	. . Seal, dowty
19	026594	1	. . O Ring
20	026557	1	. Injector pipe, Set
NI	026039	1	Injection pump tool
NI	026040	1	Injection pump tool

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**INJECTOR PUMP ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

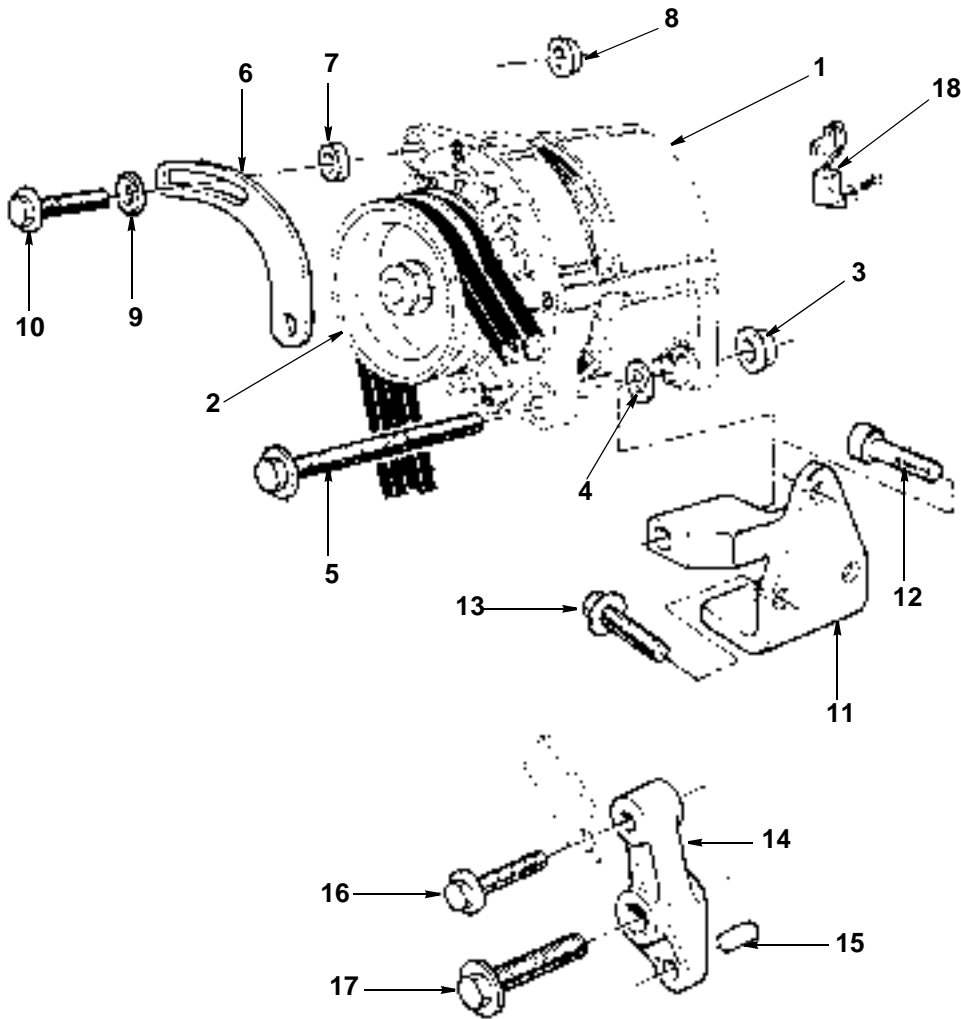


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>ALTERNATOR</b>			
1	026298	1	Alternator 85 AMP
1	026298SE	1	Alternator 85 AMP (Service Exchange)
2	026559	1	. Pulley
3	026565	1	. Nut
4	026564	1	. Washer
5	026596	1	. Bolt
6	026299	1	.. Adjuster
7	026562	1	... Nut
8	026563	1	... Nut
9	026561	1	... Nut
10	026560	1	... Bolt
11	026567	1	. Bracket
12	026566	1	.. Bolt
13	026568	1	.. Bolt
14	026569	1	. Adjuster Support
15	026570	1	.. Plug
16	026571	1	.. Bolt, Hex hd
17	026572	1	.. Bolt, Hex hd
18	026573	1	. Condenser
NI	028154	1	Cable, Starter/Alternator

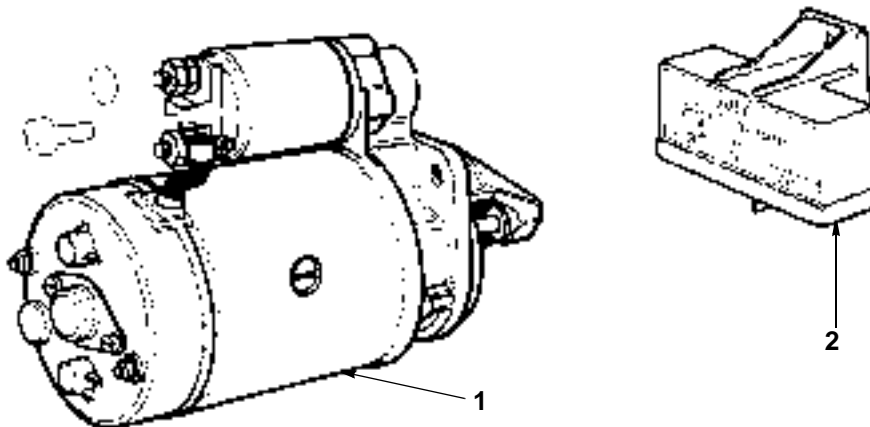
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>STARTER MOTOR</b>			
1	026296	1	Starter Motor
1	026296SE	1	Starter Motor (Service Exchange)
2	026574	1	. Relay

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**ALTERNATOR ARRANGEMENT**



**STARTER MOTOR**

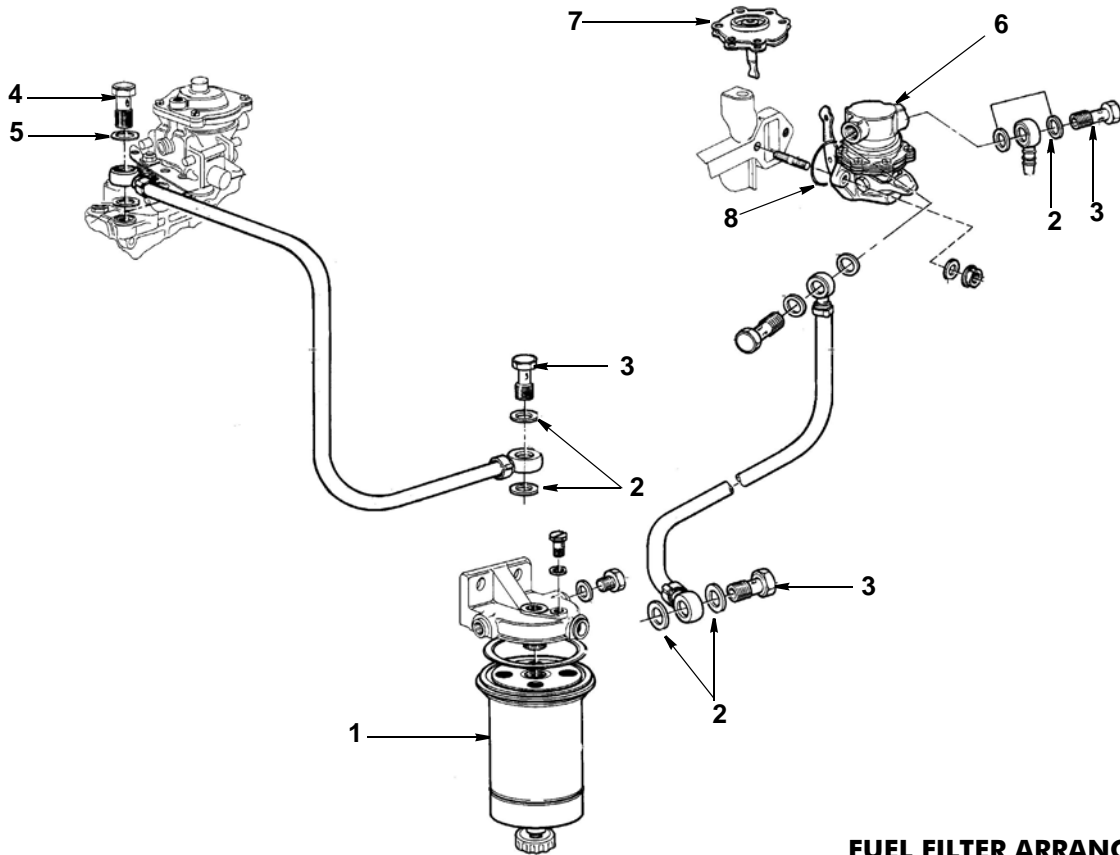
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



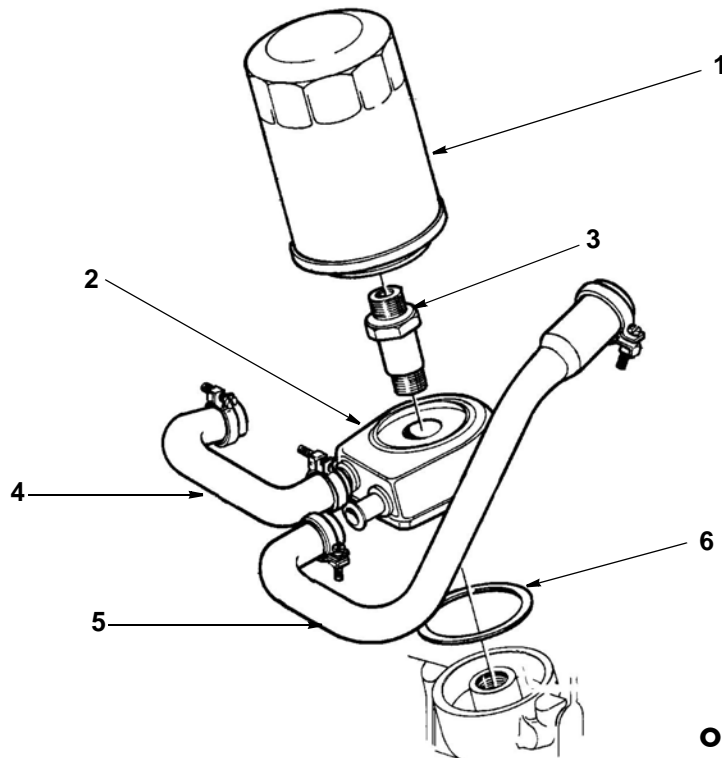
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FUEL FILTER ARRANGEMENT</b>			
1	025603	1	Fuel Filter
2	026575	9	. Seal, dowty
3	026576	4	. Bolt, Banjo special
4	026577	1	. Bolt, Banjo special
5	026578	1	. Seal, dowty
6	026305	1	. Pump
7	025605	1	. . Diagprahm
8	026306	1	. . O-Ring
9	025664	1	Bracket, Fuel Filter

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>OIL FILTER ARRANGEMENT</b>			
1	025602	1	Oil Filter
2	026579	1	. Cooler, Oil
3	026580	1	. Adaptor
4	026581	1	. Pipe
5	026582	1	. Pipe
6	026583	1	. Seal
NI	026308	1	Oil pressure switch (Located behind Starter Motor)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FUEL FILTER ARRANGEMENT**



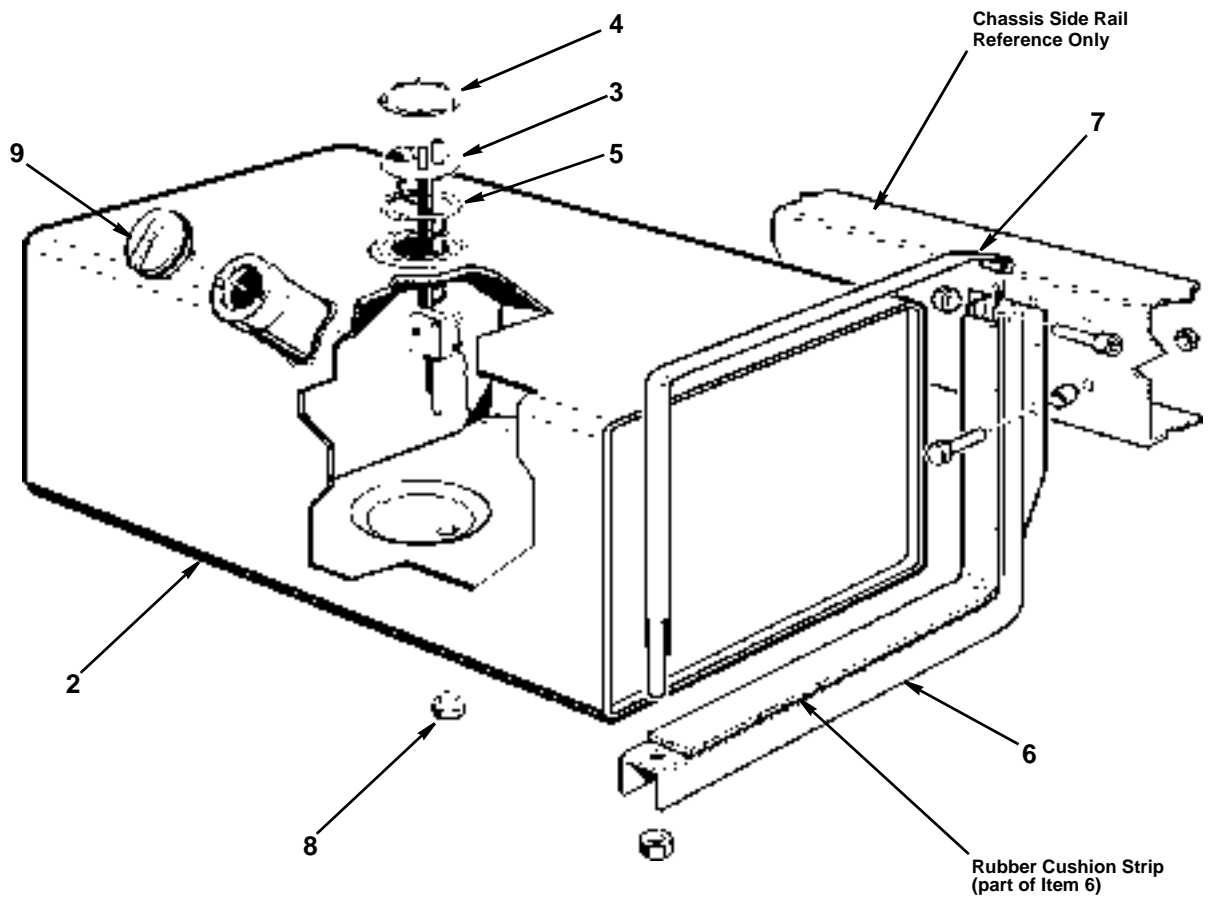
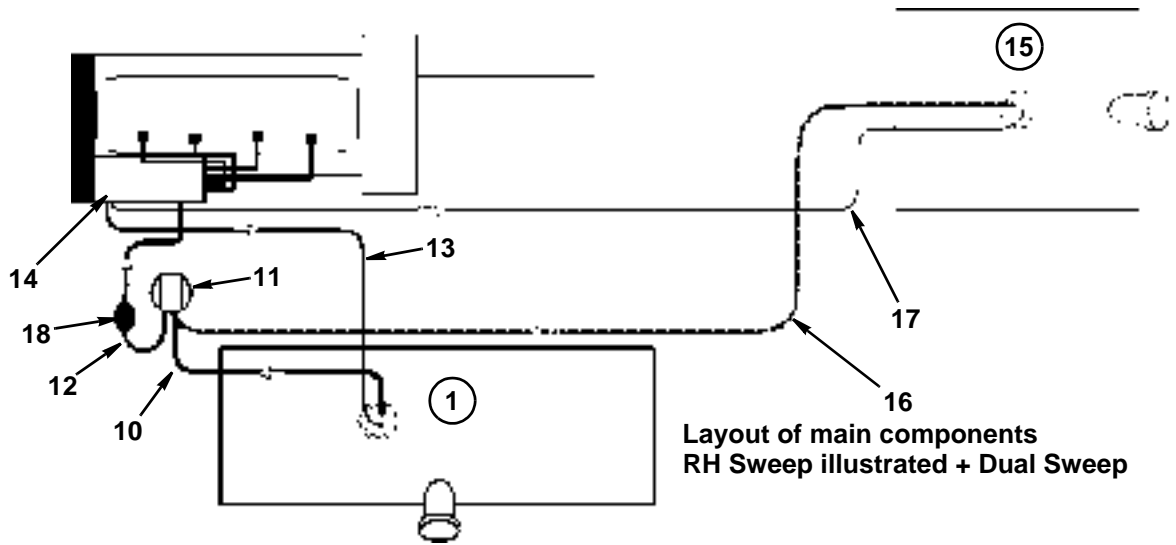
**OIL FILTER ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>013560</b>		<b>FUEL SYSTEM</b>
1	018204	1	. Fuel tank assembly (Comprises items 2 to 9 + harness)
2	013861	1	.. Tank, fuel (single sweep machines)
3	014168	1	.. Sender, fuel level
4	013842	1	... Ring, locking
5	013841	1	... Ring, sealing
NI	022237	1	... Harness, electrical, fuel sender unit
6	013953	2	.. Bracket, mounting, fuel tank
	011013	4	... Bolt, hex hd, M8 x 35 mm long
	014025	4	... Spacer
	011073	4	... Nut, hex, M8, Nyloc
7	013954	2	.. Strap, fuel tank
	000059	1	... Cap screw, skt hd, M8 x 50 mm long
	011073	1	... Nut, hex, M8, Nyloc
	000080	1	... Nut, hex, 5/16" UNF, Nyloc
8	010945	1	.. Drain plug, galvanised, fuel tank
9	014167	1	.. Cap, fuel tank
10	002007	1400 mm	.. Hose, fuel, 8 mm bore (Fuel Tank - Filter)
	010964	2	... Clip, hose, 9/16"
11	025603	1	. Filter, fuel
	011032	2	.. Bolt, hex hd, M10 x 30 mm long
	011075	2	.. Nut, hex, M10, Nyloc
12	002007	1300 mm	.. Hose, fuel, 8 mm bore (Fuel Filter - Injector Pump)
	010964	2	... Clip, hose, 9/16"
13	010957	2700 mm	.. Hose, fuel, 6 mm bore (Injector Pump - Tank)
	010960	2	... Clip, hose, 1/2"
14	NA	1	. VM INJECTOR PUMP ARRANGEMENT
15	024144	1	. Tank, fuel (Later dual sweep machines)
	011031	2	.. Bolt, hex hd, M10 x 25 mm long
	011043	2	.. Bolt, hex hd, M10 x 70 mm long
	011075	4	.. Nut, hex, M10, Nyloc
NI	024145	1	.. Bracket, left hand, fuel tank
	TBD	3	... Bolt, hex hd, M10 x
	011075	3	... Nut, hex, M10, Nyloc
NI	024146	1	.. Bracket, right hand, fuel tank
	TBD	3	... Bolt, hex hd, M10 x
	011075	3	... Nut, hex, M10, Nyloc
15	021436	1	. Tank, fuel (Rear Mounted Dual Sweep Machines)
NI	Ref Parts Dept	2	.. Strap, fuel tank
NI	021437	1	.. Bracket, left hand, fuel tank (Rear Mounted
NI	021438	1	.. Bracket, right hand, fuel tank
16	002007	As Req	.. Hose, fuel, 8 mm bore (Tank - Filter)
17	010957	As Req	.. Hose, fuel, 6 mm bore (Injector Pump - Tank)
18	024521	1	. Hand-primer, fuel bleeding (c/with hose clips)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FUEL SYSTEM ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION B HYDROSTATIC DRIVE

### TABLE OF CONTENTS

<b>Assembly/Description</b>	<b>Page</b>
Transmission Pump Assembly . . . . .	1
Transmission Pump Assembly From April/May 2001 . . . . .	3
Drive Motor Assembly . . . . .	5
Transmission Management Components . . . . .	7



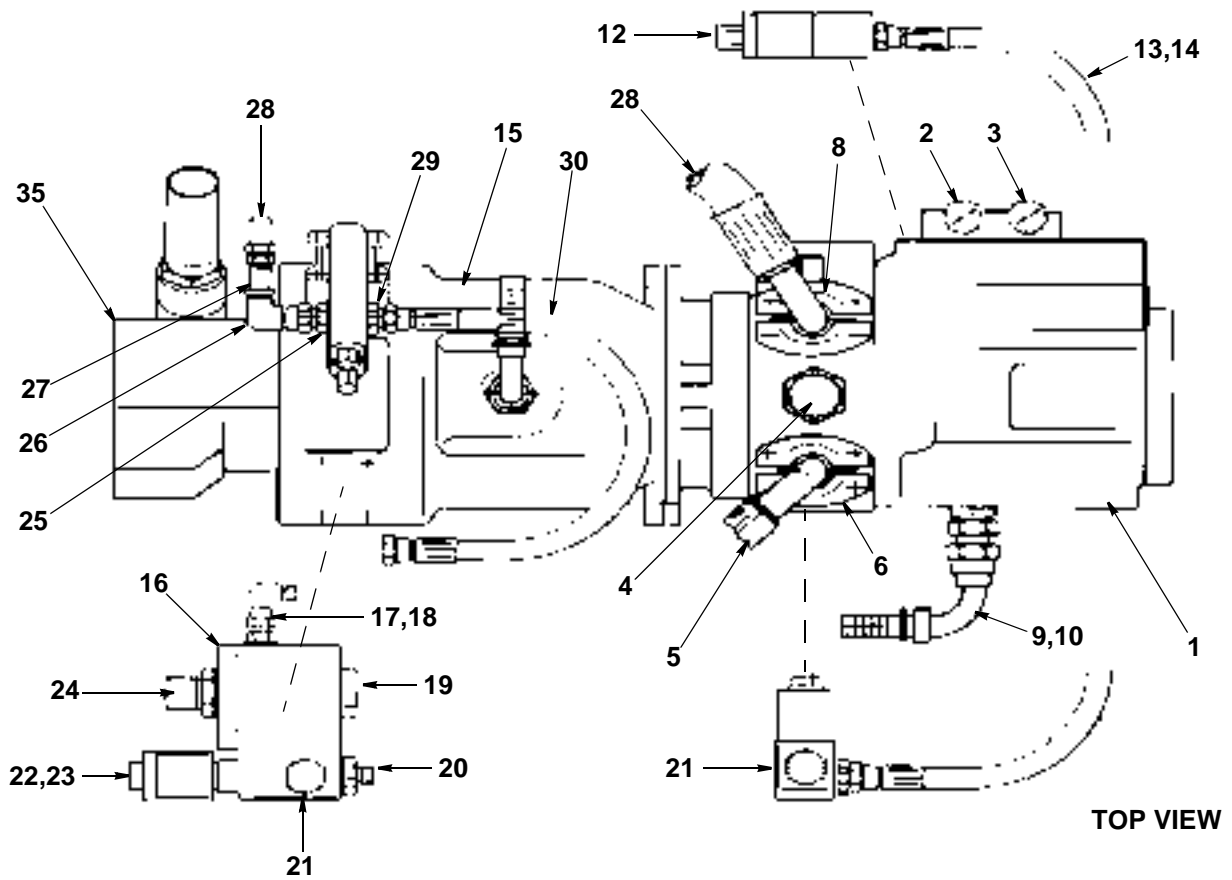
<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>PUMP ASSEMBLY (Upto April 2001)</b>			
1	024516	1	. Pump, transmission
2	026655	1	.. Coil, reverse drive
3	026655	1	.. Coil, forward drive
4	002084	1	.. Hosetail, straight, 3/4" BSP x 1"
5	025782	1	.. Hose assembly, transmission, long
6	002000	1	... Split flange, 3/4" SAE
	000045	4	.... Cap screw, skt hd, 3/8" UNC x 1 1/2"
7	025783	1	.. Hose assembly, transmission, short
8	002000	1	... Split flange, 3/4" SAE
	000045	4	.... Cap screw, skt hd, 3/8" UNC x 1 1/2"
9	011226	1	.. Adaptor, 7/8" UNF x 1/2" BSP
10	011234	1	... Elbow, swept, hosetail, 1/2" BSP x 5/8"
11	013888	1	.. Valve 1/4" BSP, reverse valve
NI	014655	1	... Coil, 12 Volt
NI	014687	1	.... Solenoid, GSO21100N
12	013887	1	... Valve, relief, 1/4" BSP
13	011227	1	.... Adaptor, 7/16" UNF x 1/4" BSP
14	011319	1	..... Hose assembly, 1/4" BSP x 360 mm Long
15	023620	1	. Pump, suction fan
NI	025239	1	.. Seal, main
16	013689	1	.. Valve block
NI	012623	1	... Restrictor No. 8
NI	013518	1	... O-Ring
NI	013526	1	... O-Ring
17	011163	1	... Adaptor, 1/4" BSP x 1/8" BSP
NI	011151	1	.... Seal, Dowty, 1/8" BSP
18	011171	1	... Elbow, swivel, 1/4" BSP
19	011244	1	... Plug, 3/4" BSP
NI	011155	1	.... Seal, Dowty, 3/4" BSP
20	011199	1	... Adaptor, 3/8" BSP x 1/4" BSP
NI	011153	1	... Seal, Dowty, 3/8" BSP
21	011242	1	... Plug 3/8" BSP
NI	011153	1	.... Seal, Dowty, 3/8" BSP
22	014654	1	.. Valve, solenoid
23	014655	1	.... Coil, 12 Volt
24	011161	1	... Adaptor, 3/4" BSP
NI	011155	1	... Seal, Dowty, 3/4" BSP
25	011227	1	.. Adaptor, 7/16" UNF x 1/4" BSP
26	011171	1	... Elbow, swivel, 1/4" BSP
27	010911	1	... Socket 1/4" BSP
28	013036	1	.... Test Coupling 1/4" BSP
29	011227	1	.. Adaptor, 7/16" UNF x 1/4" BSP
30	011318	1	... Hose assembly, 1/4" BSP x 240 mm long
31	011226	1	.. Adaptor, 7/8" UNF x 1/2" BSP
32	011234	1	... Elbow, swept, hosetail, 1/2" BSP x 5/8"
33	011230	1	.. Split Flange, 1 1/2" SAE
	011108	4	... Cap Screw, skt hd, 1/2" UNC x 1 1/2"
34	011231	1	... Hose Elbow, 1 1/2" SAE x 1"
NI	013516	1	... O-Ring
35	022584	1	.. Gear pump, single
35	020374	1	.. Gear pump, tandem double
36	011233	1	... Pump fitting
37	011210	1	.... Elbow, hosetail, 1" BSP x 3/4"

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

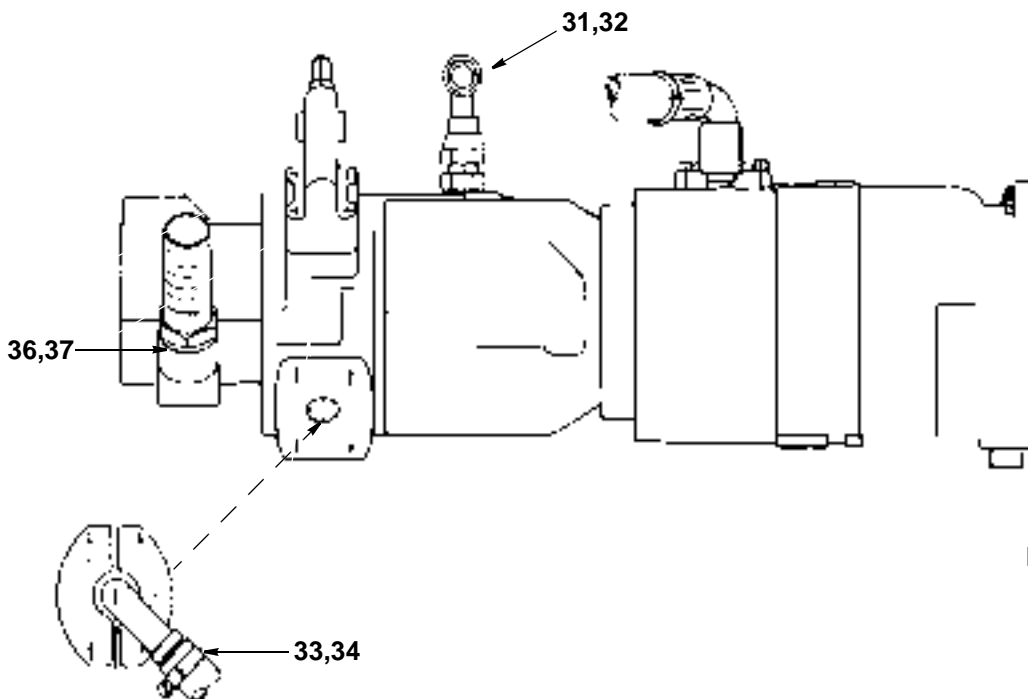




**B**



TOP VIEW



BOTTOM VIEW

**PUMP ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

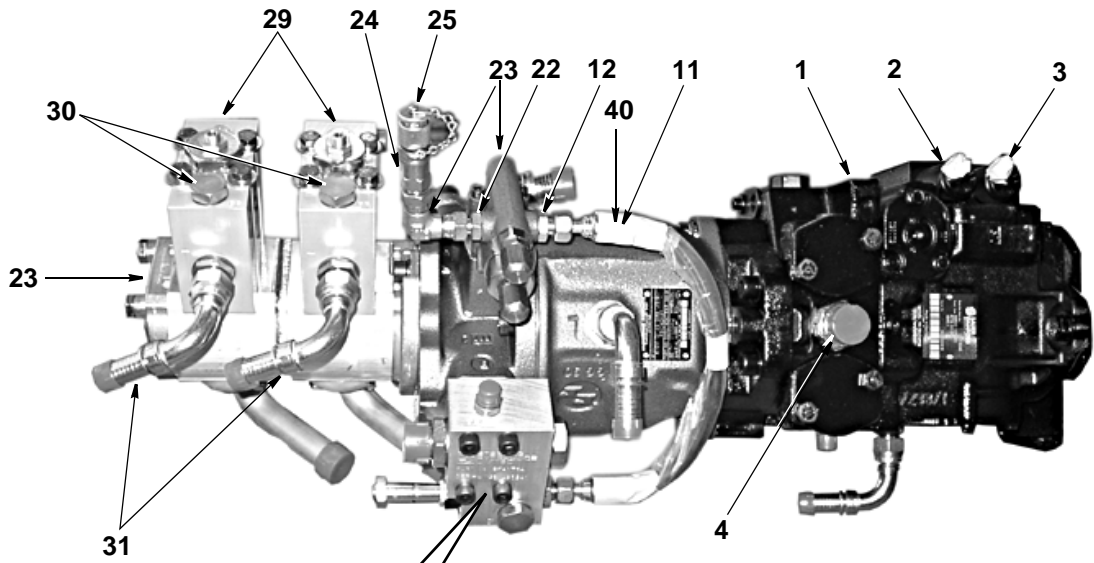


Item	Part Number	Quantity	Description
			<b>PUMP ASSEMBLY (From April/May 2001)</b>
	<b>025815/026331</b>		
1	024516	1	. Pump, transmission
2	026655	1	.. Coil, Reverse drive
3	026655	1	.. Coil, Forward drive
NI	026033	2	... Plug (Forward/Reverse Coils)
4	002084	1	.. Connector, straight, 3/4" BSP x 1" BSP
5	011226	2	.. Adaptor 7/8" UNF x 1/2" BSP
6	011173	2	... Elbow, swivel 1/2" BSP
7	011167	1	.. Adaptor, 1/2" BSP x 3/8" BSP
8	011234	1	... Elbow, swept, 1/2" BSP x 5/8" hosetail
9	028706	2	.. Pressure Relief Valve
10	023620	1	. Pump, suction fan
NI	025239	1	.. Seal, main
11	011318	1	.. Hose assembly, 1/4" BSP x 240 mm long
12	011227	1	... Adaptor 7/16" UNF x 1/4" BSP
13	013689	1	.. Valve block
NI	012623	1	... Restrictor No. 8
NI	013518	1	... O-Ring
NI	013526	1	... O-Ring
NI	011151	1	... Seal, Dowty, 1/8" BSP
14	011163	1	... Adaptor, 1/4" BSP x 1/8" BSP
15	011171	1	... Elbow, swivel, 1/4" BSP
NI	011155	1	... Seal, Dowty, 3/4" BSP
16	011244	1	... Plug, 3/4" BSP
NI	011153	1	... Seal, Dowty, 3/8" BSP
17	011199	1	... Adaptor, 3/8" BSP x 1/4" BSP
NI	011153	1	... Seal, Dowty, 3/8" BSP
18	011242	1	... Plug 3/8" BSP
19	014654	1	.. Valve, solenoid
20	014655	1	... Coil, 12 Volt
NI	011155	1	... Seal, Dowty, 3/4" BSP
21	011161	1	... Adaptor, 3/4" BSP
22	011227	1	... Adaptor 7/16" UNF x 1/4" BSP
23	011171	1	... Elbow, swivel, 1/4" BSP
24	010911	1	... Socket, 1/4" BSP
25	013036	1	... Test coupling, 1/4" BSP
26	012471	1	... Elbow 1 1/4" SAE
27	022675	1	... Flange kit, split, 1 1/4" BSP
28	024593	1	.. Gear pump, <b>single</b>
NI	030628	1	... Seal Kit, (Single gear pump 024593)
28	024592	1	.. Gear pump, <b>double</b> , tandem mounted
NI	030629	1	... Seal Kit, (Double gear pump 024592)
29	024537	2	... Valve flow control
NI	002127	as req	... O Ring Kit (024537 Valve flow control)
	000227	4	... Bolt, hex hd, M8 x 110 mm long
NI	011153	1	... Seal, Dowty
30	011242	1	... Plug
31	002079	1	... Elbow, 90° swept, 3/4" BSP, hosetail
32	011167	1	... Adaptor 1/2" BSP x 3/8" BSP
33	011172	1	... Elbow, swivel, 3/8" BSP
34	025037	2	... Elbow, suction
NI	013518	4	. O-Ring
NI	011154	4	. Seal, Dowty, 1/2" BSP
NI	011160	2	. Adaptor, 1/2" BSP
NI	025782	1	.. Transmission hose, short
NI	002000	1	... Flange split, kit, 3/4" SAE
NI	025783	1	.. Transmission hose, long
NI	002000	1	... Flange split, kit, 3/4" SAE
NI	030529	1	. Hydro braking Pressure Switch 220Bar Rising

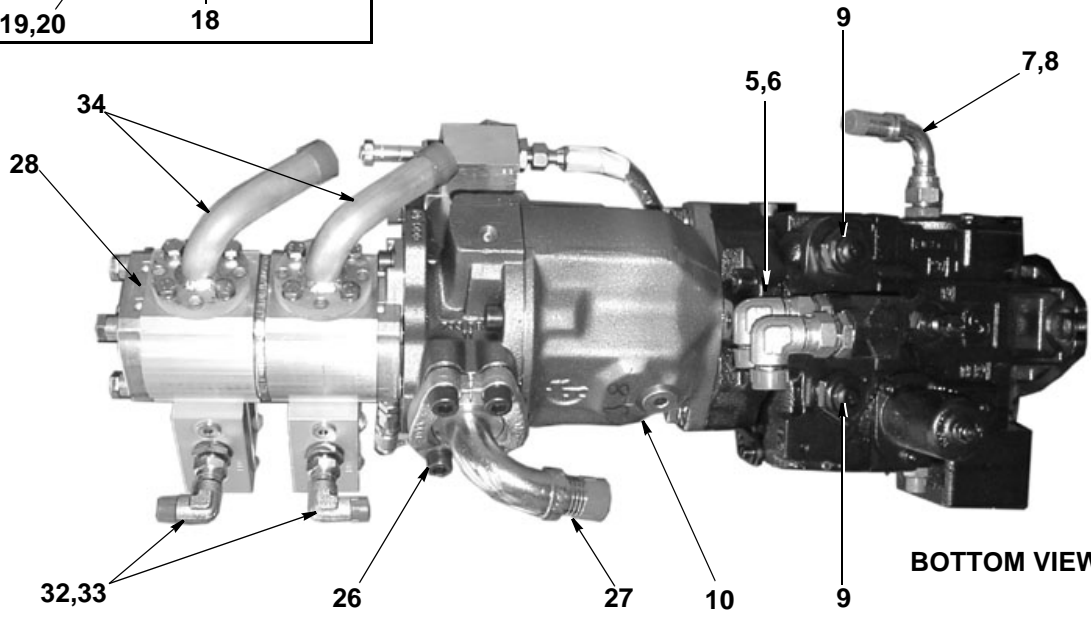
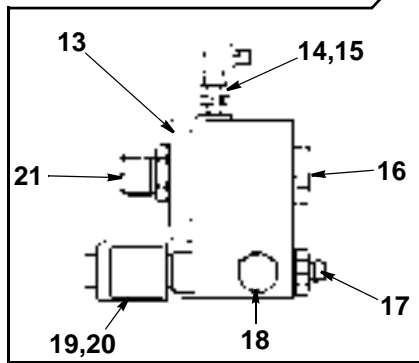
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**B**



TOP VIEW



BOTTOM VIEW

**PUMP ASSEMBLY**

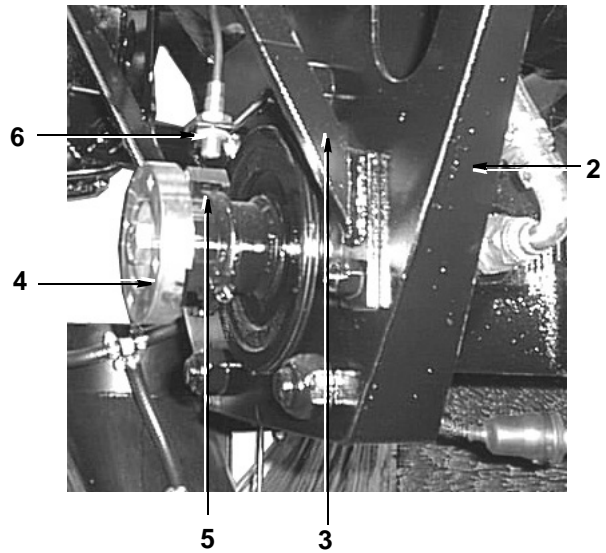
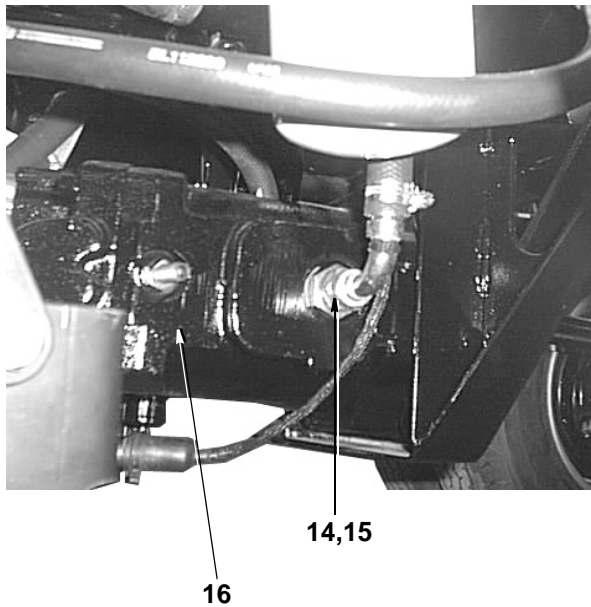
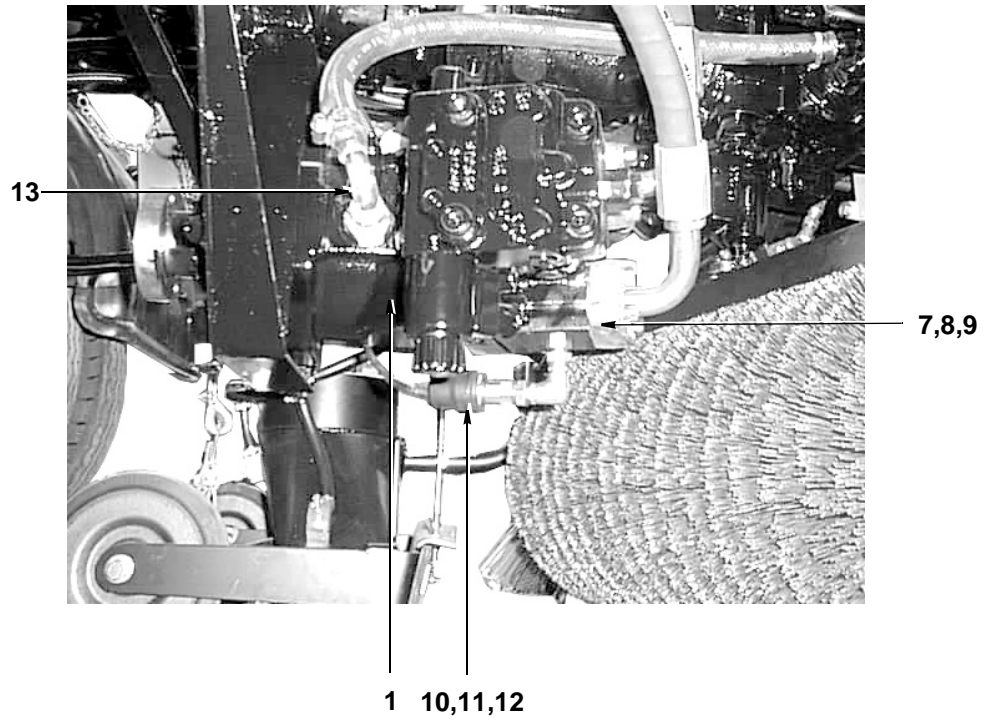
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>DRIVE MOTOR ASSEMBLY</b>			
1	024672SE	1	. Drive Motor, <b>51V110-T</b> (Please quote machine serial number)
1	013685SE	1	. Drive Motor, <b>51V110</b> (Please quote machine serial number)
	011137	4	.. Setscrew, hex hd, M18 x 50 mm long
	011139	4	.. Nut, hex, M18, Nyloc
NI	027238	1	.. Solenoid & Coil, 12 Volt, drive motor (Spare for 024672)
NI	026032	1	... Coil , 12 Volt, drive motor (Spare for 024672)
NI	026033	1	.. Plug, drive motor (Spare for 024672)
2	021329	1	.. Motor Support
	011031	4	... Setscrew, hex hd, M10 x 25 mm long
	011075	4	... Nut, hex, M10, Nyloc
NI	014693	1	... Buffer, rubber *
3	013955	2	... Strut
	011031	2	... . Setscrew, hex hd, M10 x 25 mm long
	011075	2	... . Nut, hex, M10, Nyloc
4	014747	1	.. Coupling
	013439	1	... Washer
	000025	1	... Setscrew, hex hd, 5/8" UNC x 1½" long
	000039	1	... Washer, spring, 5/8"
5	012771	1	.. Carrier, magnet
6	012774	1	.. Sensor lead
7	025783	1	.. Hose assembly, transmission, long
8	002001	2	... Flange split, 1"
	000036	4	... . Cap screw, skt hd, 7/16" UNC x 1¾" long
10	030529	1	.. Pressure switch, hydrostatic braking ( <b>From May 2003</b> )
NI	025040	1	... Restrictor No 12 , 9/16" x 1/4" BSP 1/32"
10	021875	1	.. Pressure switch, hydrostatic braking ( <b>Upto May 2003</b> )
11	002014	1	... Adaptor, 1/4" BSP, straight M/F
12	011171	1	... Elbow, swivel, 1/4" BSP
13	011174	2	.. Elbow, swivel, 3/4" BSP
14	011265	1	. Adaptor 1 1/16" UNF x 1/2" BSP
15	011234	1	.. Elbow, hosetail, 1/2" BSP x 5/8"
	000151	4	. Cap screw, skt hd, 7/16" UNC x 1½" long
16	026179	1	PPU (Pulse Pick Up)
NI	026775	1	.. Plastic Plug (PPU)
NI	025410	1	.. Connector Lead (PPU)
NI	020577	1	. V-Ring, motor
NI	025782	1	. Hose assembly, transmission, short
NI	013518	1	. O-Ring
NI	013523	1	. O-Ring
NI	014694	1	. Propshaft
	000078	4	.. Bolt, hex hd, 3/8" UNF x 1½" long
	011026	4	.. Setscrew, hex hd, 3/8" UNF x 1" long
	011405	8	.. Nut, hex, 3/8" UNF, Nyloc
NI	020109	2	.. Universal joint kit
NI	024129	1	.. Nipple, grease

\* NOTE: The rubber buffer modification is fitted to the right hand side of the transmission motor mount (all right hand sweep machines only) from August 2002. However, earlier machines might have been retro-fitted with this modification.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**DRIVE MOTOR ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>TRANSMISSION &amp; MANAGEMENT COMPONENTS STAGE 1</b>			
1	020823	1	Throttle pedal, Williams type
2	022391	1	Zeta controller
NI	020637	1	Pump, Transmission
NI	013685	1	Motor, Drive
NI	021801	1	Cable, Zeta

**STAGE 1** is recognized by old style cab and no actuator. UPTO END OF MAY 2000

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>TRANSMISSION &amp; MANAGEMENT COMPONENTS STAGE 2</b>			
1	025287	1	Throttle pedal, Sauer type
2	025278	1	Zeta controller
3	020822	1	Actuator
NI	024516	1	Pump, Transmission
NI	024672	1	Motor, Drive

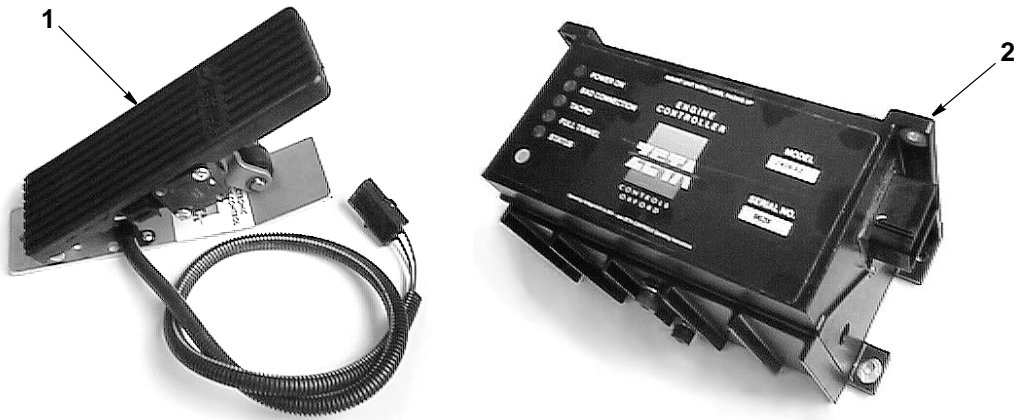
**STAGE 2** is recognized by old style cab and actuator. UPTO END OF MAY 2000

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>TRANSMISSION &amp; MANAGEMENT COMPONENTS STAGE 3</b>			
1	025287	1	Throttle pedal, Sauer type
2	025830SE	1	Zeta controller (Service Exchange)
3	020822	1	Actuator
NI	024516	1	Pump, transmission
NI	024672	1	Motor, Drive
NI	025725	1	Cab loom

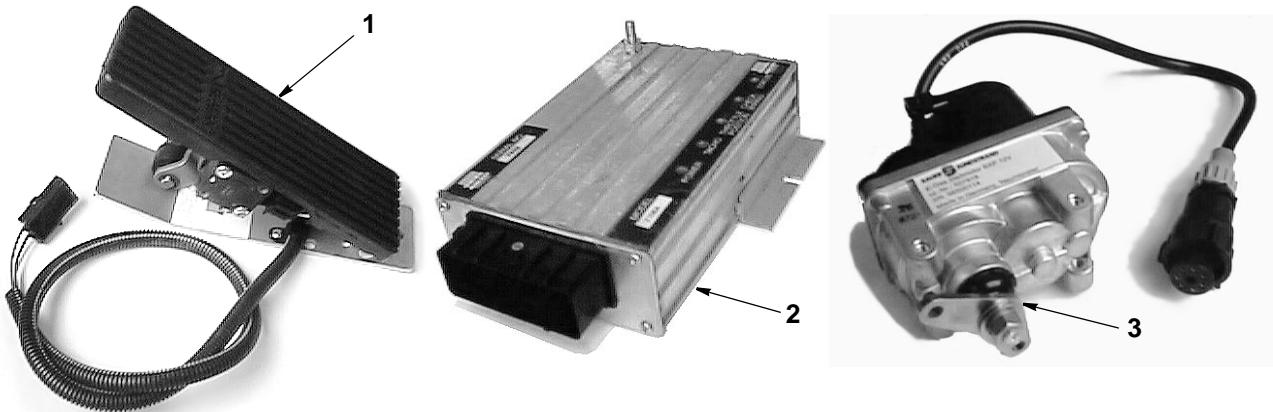
**STAGE 3** is recognized by new style Curved Cab. FROM JUNE 2000

You must give the machine's Serial No. When ordering Transmission and management components, due to the 3 stages of production.

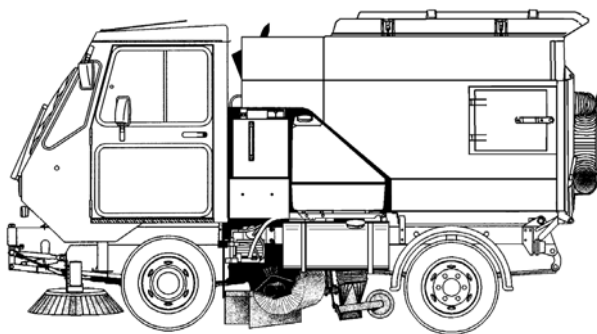
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



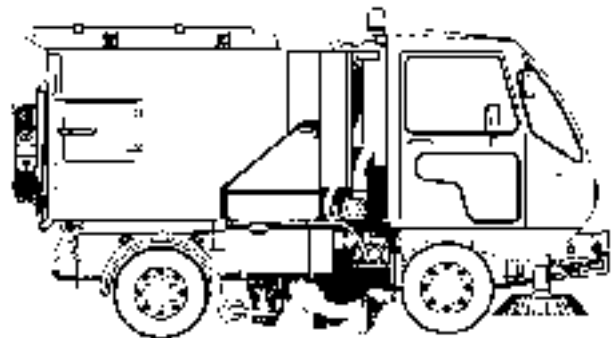
TRANSMISSION COMPONENTS STAGE 1



TRANSMISSION COMPONENTS STAGE 2 & 3



OLD STYLE CAB STAGE 1 & 2



NEW STYLE CAB STAGE 3

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION C SWEEPING & SUCTION EQUIPMENT

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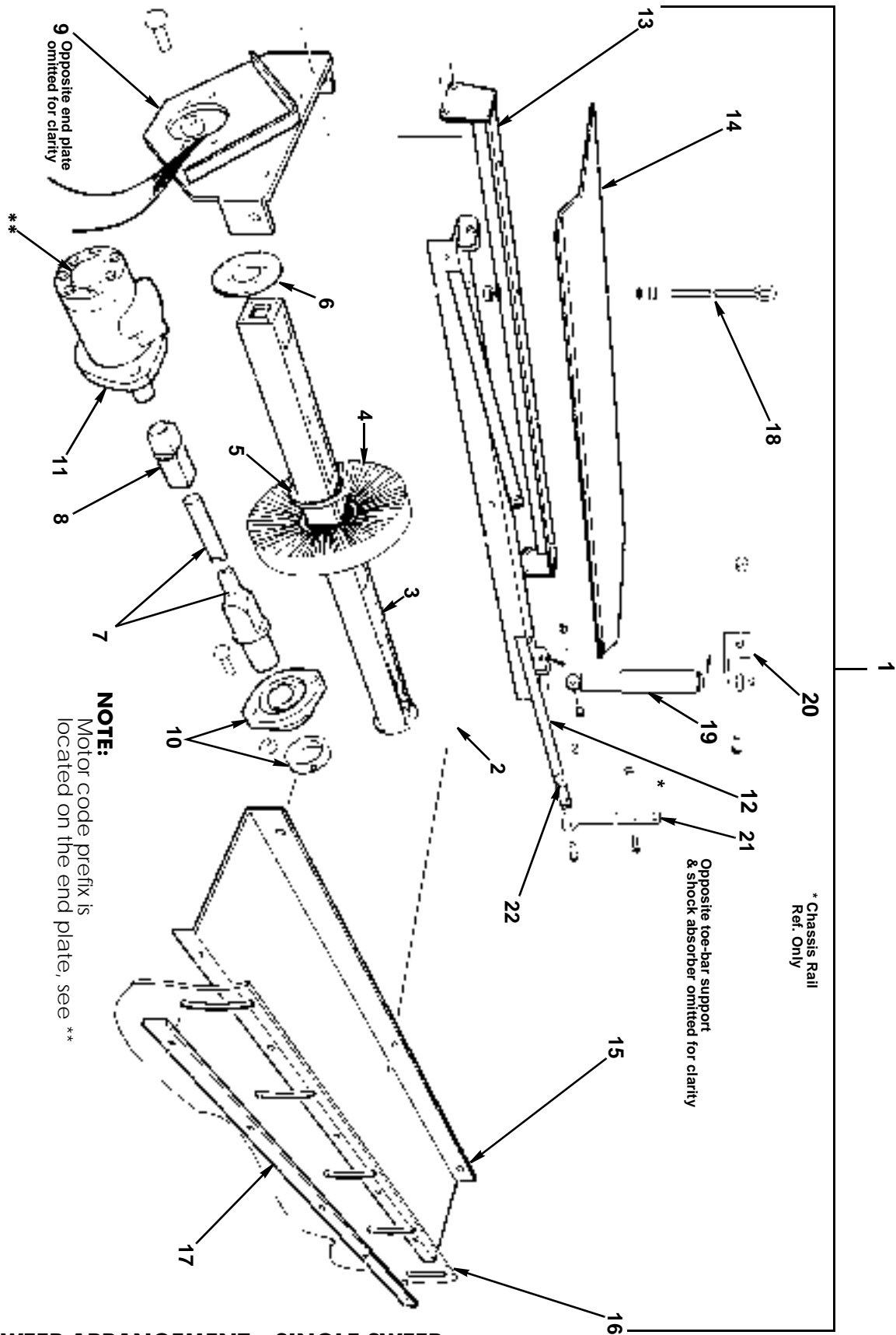
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<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>WIDESWEEP ARRANGEMENT - VM MINOR SINGLE SWEEP</b>			
1		1	. Widesweep brush assembly
2	023075	1	.. Brush core assembly, wide sweep (comprises items 3 through 6)
3	013647	1	... Core, wide sweep brush
4	023471	28	... Brush disc refill, polypropylene
5	023472	27	... Spacer ring, brush disc
6	013649	2	... End cap, brush core
	011417	4	... Cap screw, csk hd, 3/8" UNC x 1"
7	013652	1	.. Tube, brush drive
8	013648	1	... Shaft, drive
	011112	2	... . Setscrew, skt hd, M6 x 12 mm long
9	010682	2	.. End plate, wide sweep
10	010612	1	... Bearing (c/w collar)
	011053	2	... . Bolt, hex hd, M12 x 35 mm long
	011077	2	... . Nut, hex, M12, Nyloc
NI	005052	1	... . Nipple, grease
11	010749	1	... Motor, hydraulic, OMP200
	011053	2	... . Bolt, hex hd, M12 x 35 mm long
	011077	2	... . Nut, hex, M12, Nyloc
NI	023069	1	... . Seal kit, Danfoss motor
NI	011154	2	... . Seal, Dowty, 1/2" BSP
NI	011167	2	... . Adaptor, straight, 1/2" BSP x 3/8" BSP
NI	011221	2	... . Elbow, sweep, 3/8" BSP M/F
12	See Desc.	1	.. Tow bar, widesweep (RH = 023251, LH = 023252)
	011031	2	... Setscrew, hex hd, M10 x 25 mm long
	011075	2	... Nut, hex, M10, Nyloc
NI	023252	1	.. Towbar, widesweep, LHD (RHD = 023251)
13	023254	1	.. Brush bar
	011031	2	... Setscrew, hex hd, M10 x 25 mm long
	011075	2	... Nut, hex, M10, Nyloc
14	023253	1	... Cover, widesweep
	011030	6	... . Bolt, hex hd, M10 x 20 mm long
	011075	6	... . Nut, hex, M10, Nyloc
15	022362	1	... Hanger, widesweep skirt
	011030	3	... . Bolt, hex hd, M10 x 20 mm long
	011075	3	... . Nut, hex, M10, Nyloc
16	022652	1	... . Skirt, widesweep, Minor
17	022363	1	... . . Clamp, widesweep skirt, Minor
	011030	5	... . . . Bolt, hex hd, M10 x 20 mm long
	011075	5	... . . . Nut, hex, M10, Nyloc
18	010248	1	... Tensioner
NI	010525	1	... . Chain, welded, 3 links
NI	010606	2	... . Carabiner
19	012524	2	.. Shock absorber
	011035	1	... Bolt, hex hd, M10 x 50 mm long
	011075	1	... Nut, hex, M10, Nyloc
20	012548	1	... Bracket, mounting, shock absorber
	011031	1	... . Setscrew, hex hd, M10 x 25 mm long
	011075	1	... . Nut, hex, M10, Nyloc
21	See Desc.	2	.. Support, towbar, (LH = 023346, RH = 023347)
	011031	2	... Bolt, hex hd, M10 x 25 mm long *
	011075	2	... Nut, hex, M10, Nyloc
22	010689	1	... Bush
	011052	1	... . Bolt, hex hd, M12 x 25 mm long
	011077	1	... . Nut, hex, M12, Nyloc

\* Top bolt is replaced by 011038 + an extra M10 nut (011074) on cab safety-latch side of machine.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**WIDESWEEP ARRANGEMENT - SINGLE SWEEP**

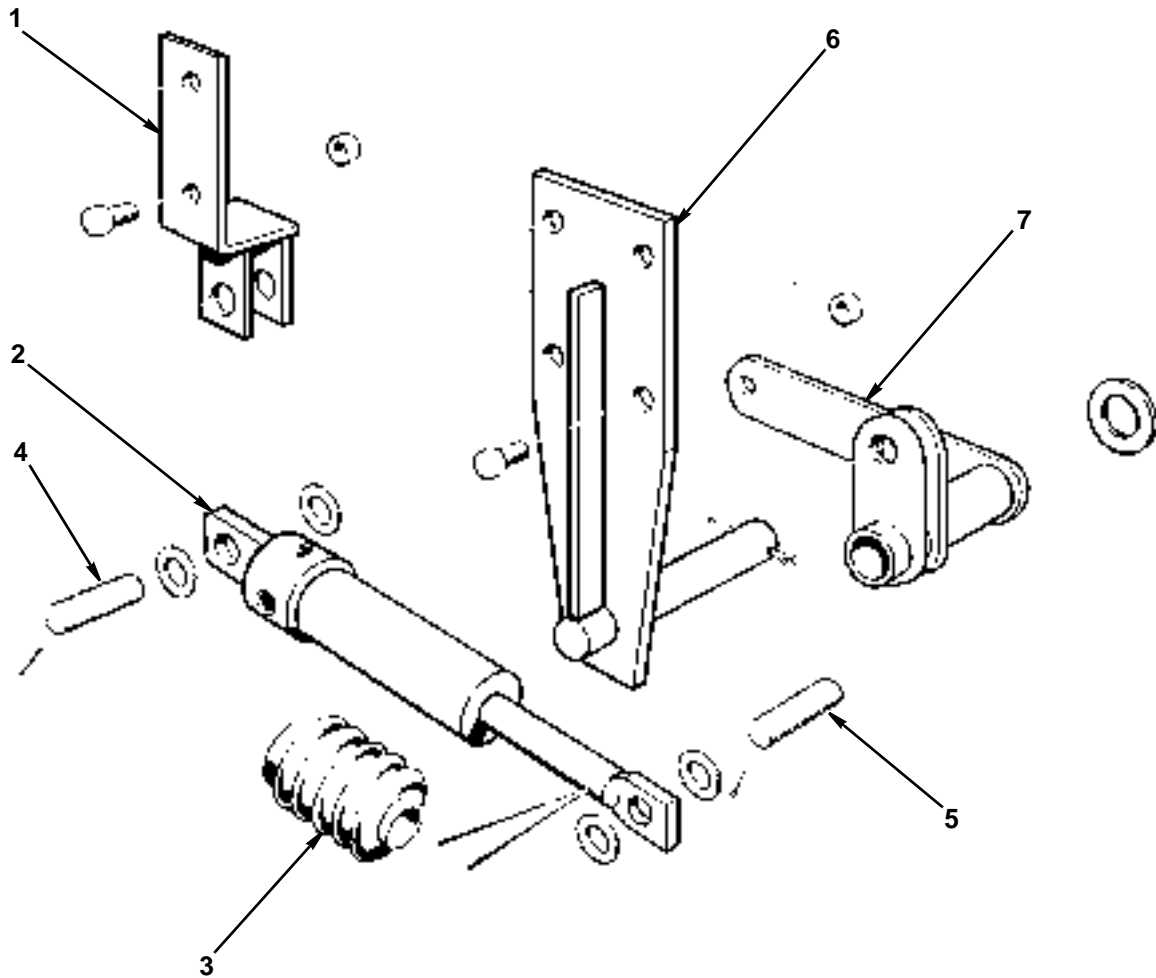
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WIDESWEEP-BRUSH LIFTING ARRANGEMENT</b>			
1	013855	1	. Bracket, hydraulic ram, widesweep lifting
	011011	2	. . Bolt, hex hd, M8 x 25 mm long
	011073	2	. . Nut, hex, M8, Nyloc
2	012974	1	. Ram, hydraulic, No. 2
2	027115	1	. Ram, hydraulic ( <b>Models with Steel Pipes &amp; New Valve block</b> )
NI	011629	1	. . Seal kit, ram
3	021510	1	. . Bellows
4	010067	1	. . Pin, drilled, ram anchoring
	011102	2	. . . Washer, plain, 20 mm
	011122	2	. . . Pin, split, cotter, 3/16" x 1½"
5	010067	1	. . Pin, drilled, ram/brush link connecting
	011102	2	. . . Washer, plain, 20 mm
	011122	2	. . . Pin, split, cotter, 3/16" x 1½"
6	013853	1	. Bracket, widesweep lift
	011011	4	. . Bolt, hex hd, M8 x 25 mm long
	011073	4	. . Nut, hex, M8, Nyloc
7	014231	1	. . Link, brush lift, RH
8	013854	1	. . Link, brush lift, LH
	011102	2	. . . Washer, plain, 20 mm
	011122	1	. . . Pin, split, cotter, 3/16" x 1½"

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



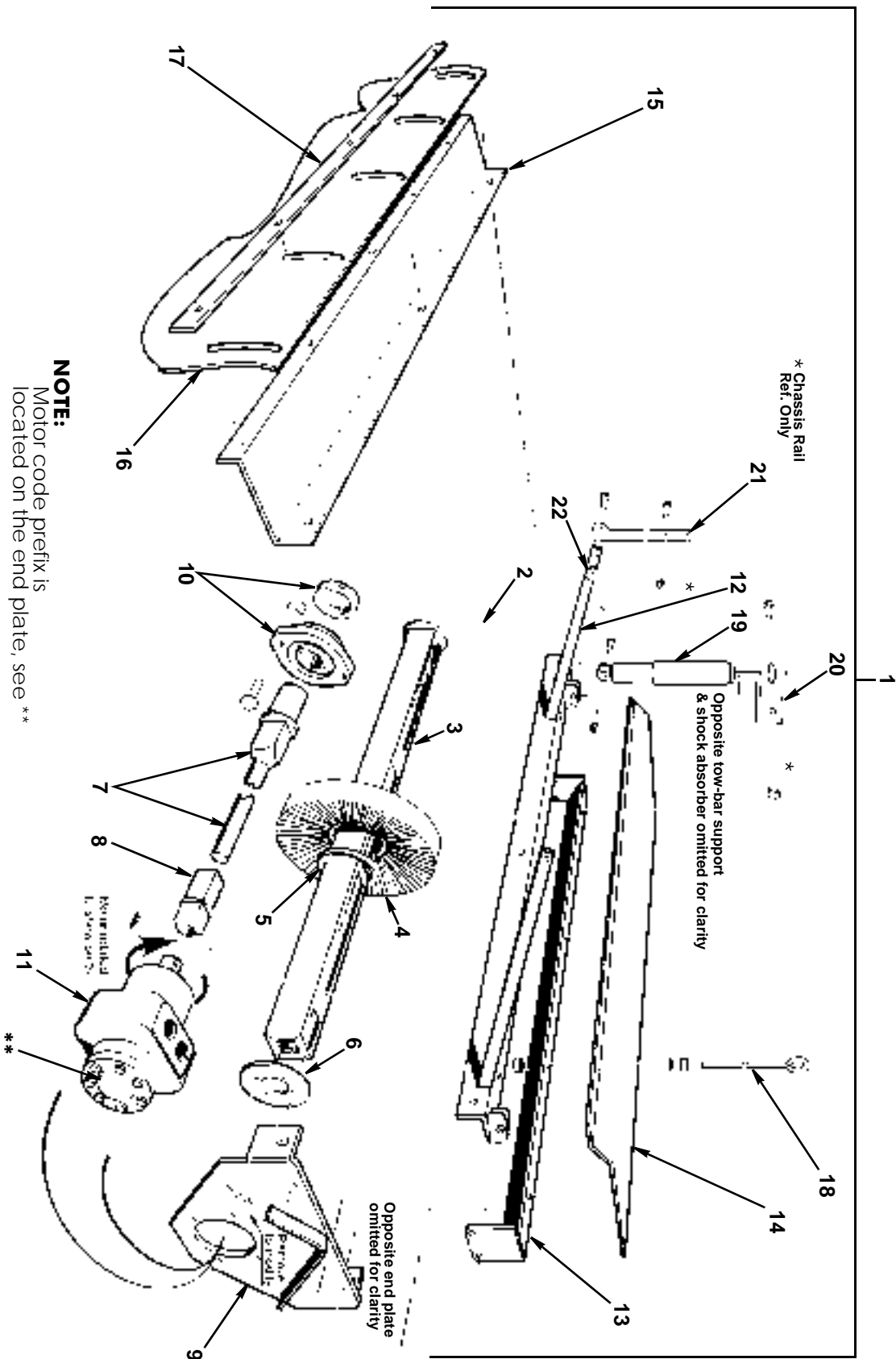
**WIDESWEEP-BRUSH LIFTING ARRANGEMENT**  
RH SWEEP ASSEMBLY ILLUSTRATED, LH ASSEMBLY SIMILAR

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>WIDESWEEP ARRANGEMENT - DUAL SWEEP MACHINES</b>			
1	023530	1	. Widesweep brush assembly - dual sweep
2	024382	1	.. Brush core assembly (comprises items 3 through 6)
3	023528	1	... Core, widesweep brush, dual sweep Minor
4	023471	25	... Brush disc refill, 12½" Dia. polypropylene
5	023472	24	... Spacer ring, brush disc
6	013649	1	... End cap, brush core
	011417	4	... Cap screw, csk hd, 3/8" UNC x 1"
7	023526	1	.. Tube, brush drive
8	013648	1	... Shaft, drive
	011112	2	... Setscrew, skt hd, M6 x 12 mm long
9	010682	2	.. End plate, widesweep
10	010612	1	... Bearing (c/w collar)
	011053	2	... Bolt, hex hd, M12 x 35 mm long
	011077	2	... Nut, hex, M12, Nyloc
NI	010901	1	... Nipple, grease
11	023503	1	... Motor, hydraulic, Danfoss, OMPW 200
	011053	2	... Bolt, hex hd, M12 x 35 mm long
NI	011154	2	... Seal, Dowty, ½" BSP
NI	011167	2	... Adaptor, straight, ½" BSP x 3/8" BSP
NI	011221	2	... Elbow, sweep, 3/8" BSP M/F
NI	023069	1	... Seal kit, Danfoss motor
12	023531	1	.. Tow bar, widesweep, dual sweep Minor
	011031	2	... Setscrew, hex hd, M10 x 25 mm long
	011075	2	... Nut, hex, M10, Nyloc
13	023527	1	Brush bar, widesweep, dual sweep Minor RH
	011031	2	... Setscrew, hex hd, M10 x 25 mm long
	011075	2	... Nut, hex, M10, Nyloc
14	023529	1	Cover, widesweep, dual sweep Minor
	023533	1	Clamp, widesweep skirt
	011030	6	... Bolt, hex hd, M10 x 20 mm long
	011075	6	... Nut, hex, M10, Nyloc
15	023534	1	Hanger, widesweep skirt, dual sweep Minor
	011030	3	... Bolt, hex hd, M10 x 20 mm long
	011075	3	... Nut, hex, M10, Nyloc
16	022652	1	... Skirt, widesweep, Minor
17	023533	1	... Clamp, widesweep skirt, Minor
	011030	5	... Bolt, hex hd, M10 x 20 mm long
	011075	5	... Nut, hex, M10, Nyloc
18	010248	1	... Tensioner
NI	010525	1	... Chain, welded, 3 links
NI	010606	2	... Carabiner
19	012524	2	.. Shock absorber
	011035	1	... Bolt, hex hd, M10 x 50 mm long
	011075	1	... Nut, hex, M10, Nyloc
20	012548	1	... Bracket, mounting, shock absorber
	011031	1	... Setscrew, hex hd, M10 x 25 mm long
	011075	1	... Nut, hex, M10, Nyloc
21	023346	2	.. Support, tow bar LHD {RHD 023347}
	011031	2	... Bolt, hex hd, M10 x 25 mm long *
	011075	2	... Nut, hex, M10, Nyloc
22	010689	1	... Bush
	011052	1	... Bolt, hex hd, M12 x 25 mm long
	011077	1	... Nut, hex, M12, Nyloc
*	Top bolt is replaced by 011038 + an extra M10 nut (011074) on cab safety-latch side of machine.		

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**WIDESWEEP ARRANGEMENT - DUAL SWEEP M/cs**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

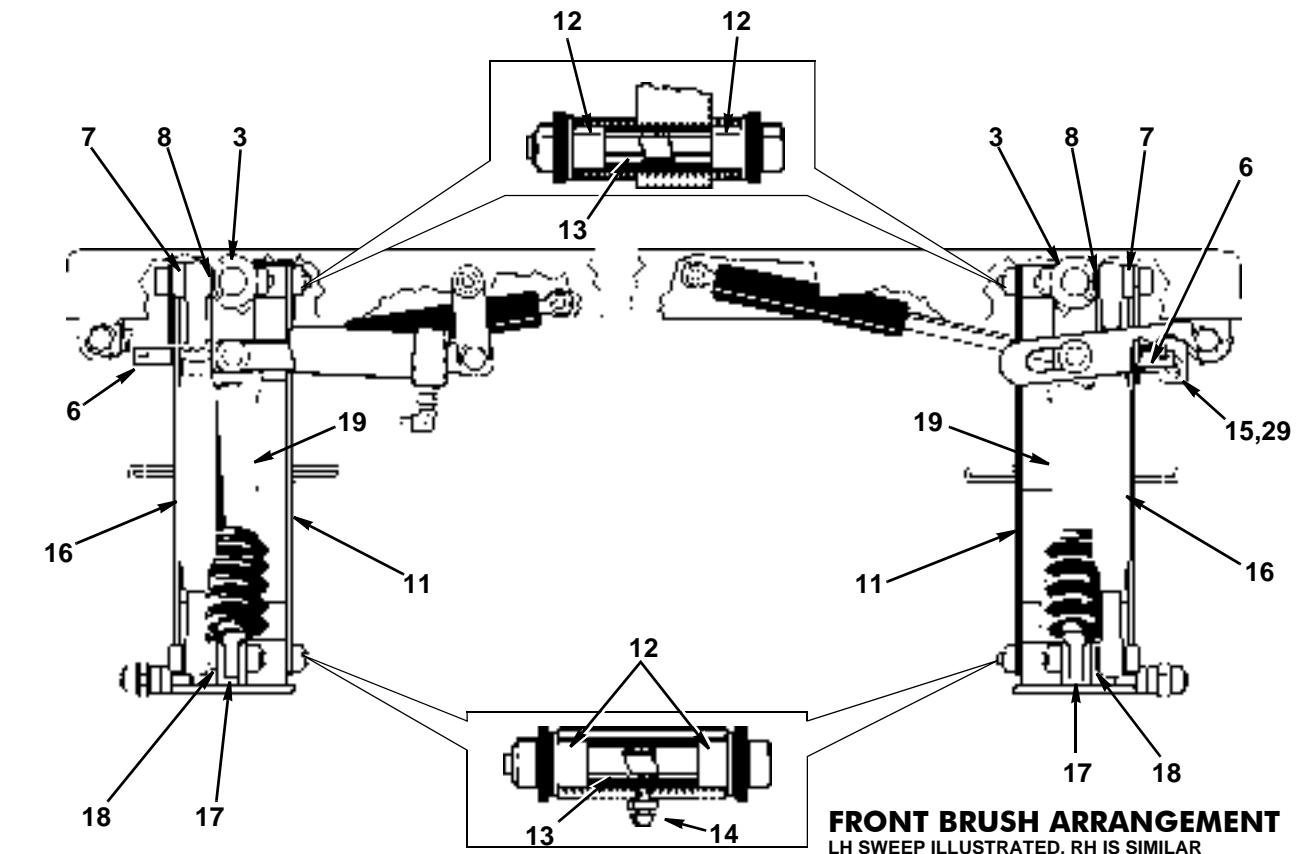
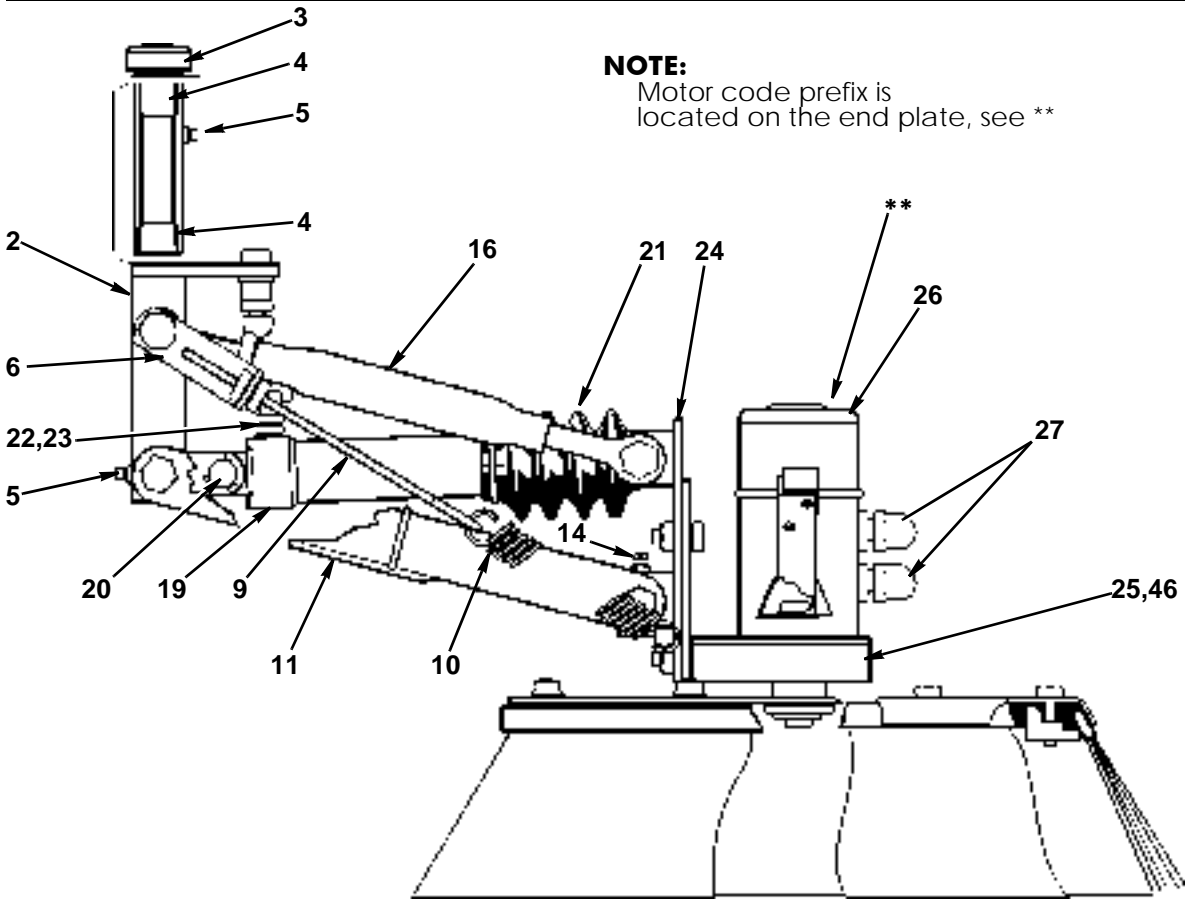


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FRONT BRUSH ARRANGEMENT</b>			
1	013420	1	. Front brush assembly (Near-side)
1	013540	1	. Front brush assembly (Off-side)
<b>NOTES:</b>			
1. Near-side refers to the side of the vehicle nearest to the kerb. Off-side refers to the side of the vehicle furthest from the kerb. In most cases the two front brush assemblies are arranged in this configuration regardless of driving position.			
2. Components are the same for both assemblies unless stated otherwise.			
2	013492	1	. . Pivot, brush
3	010768	1	. . . Collar, shaft, Ø 1"
4	013662	2	. . . Bush, brush pivots
5	010903	2	. . . Nipple, grease, 1/8" BSP, straight
6	013332	1	. . . Anchor, spring
	011423	1	. . . . Bolt, hex hd, M16 x 110 mm long *
	011060	1	. . . . Nut, hex, M16, Nyloc *
7	014129	1	. . . . Spacer, spring anchor *
8	020564	1	. . . . Spacer, 25 mm O/D x 16.5 mm I/D x 14 mm long *
9	010248	1	. . . . Tensioner (complete with lock nuts)
10	010521	1	. . . . Spring, 6" long
	011076	2	. . . . . Nut, hex, M12
	011096	2	. . . . . Washer, plain, 12 mm
	011077	1	. . . . . Nut, hex, M12, Nyloc
11	013494	1	. . . Link, brush
	011259	2	. . . . Bolt, hex hd, M12 x 130 mm long
	011077	2	. . . . Nut, hex, M12, Nyloc
12	013488	4	. . . . Bush
13	013491	2	. . . . Sleeve
14	010901	1	. . . . Nipple, grease, 135°, 1/8" BSP (fitted to swivel-plate end only)
15	014024	1	. . . . Bracket, spray nozzle (Off-side brush assemblies only)
	011030	1	. . . . . Screw, Hex hd, M10 x 20 mm long
	011075	1	. . . . . Nut, hex, M10, Nyloc
16	013487	1	. . . Link, top (for pivot-end attaching parts see *)
	011133	1	. . . . Bolt, hex hd, M16 x 100 mm long **
	011060	1	. . . . Nut, hex, M16, Nyloc **
17	013493	1	. . . . Spacer, ram sleeve **
18	020565	1	. . . . Spacer, 25 mm O/D x 16.5 mm I/D x 22 mm long **
19	014010	1	. . Ram, hydraulic, No 8 (for rod-end location see **)
19	027116	1	. . Ram, hydraulic ( <b>VM Models with Steel Pipes &amp; New valve block</b> )
20	010067	1	. . . . Pin, drilled, Ø 20 mm x 50 mm long
	011122	2	. . . . . Pin, split, 3/16" x 1½" long
21	021510	1	. . . . Bellows
22	011158	1	. . . . Adaptor, straight, ¼" BSP, M/M
NI	011150	1	. . . . . Seal, Dowty, ¼" BSP
23	011171	1	. . . . Elbow, swivel, 1/4" BSP
24	013489	1	. . Plate, swivel
25	021214	1	. . . Bracket, motor (Near-side brush assemblies only)
	011075	2	. . . . Nut, hex, M10, Nyloc
	011094	2	. . . . Washer, plain, 10 mm
26	010006	1	. . Motor, hydraulic, Danfoss OMP 315
	011069	2	. . . Bolt, hex hd, M12 x 40 mm long
	011077	1	. . . Nut, hex, M12, Nyloc
NI	023069	1	. . . Seal kit, Danfoss motor (Code 151-33 prefix motors only)
27	021395	2	. . . Elbow, positionable, 1/2" BSP x 3/8" BSP, M/M (comp/w seal)
NI	011172	2	. . . Elbow, swivel, 3/8" BSP, F/M

**Continued...**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



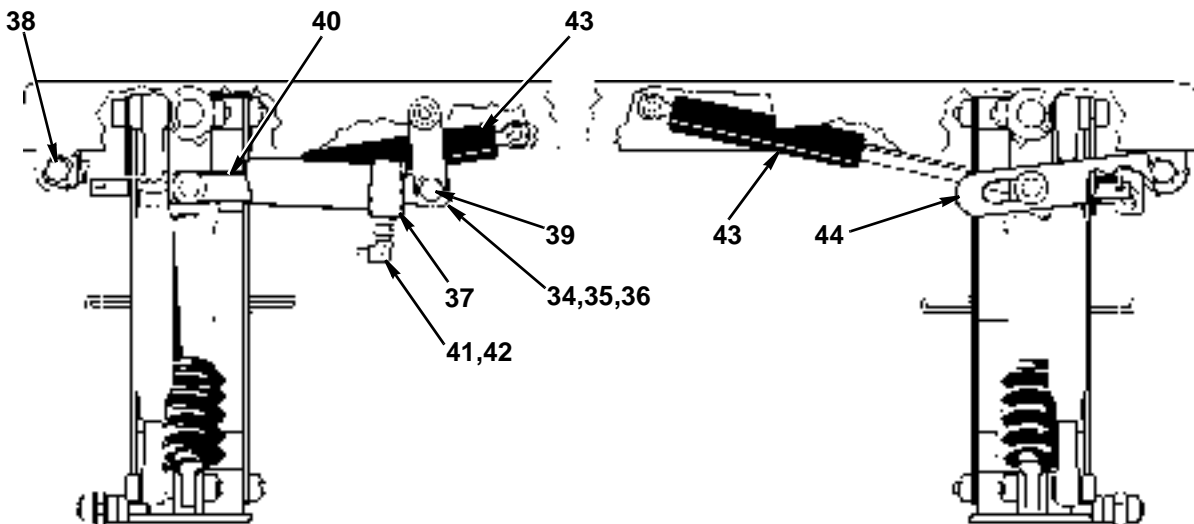
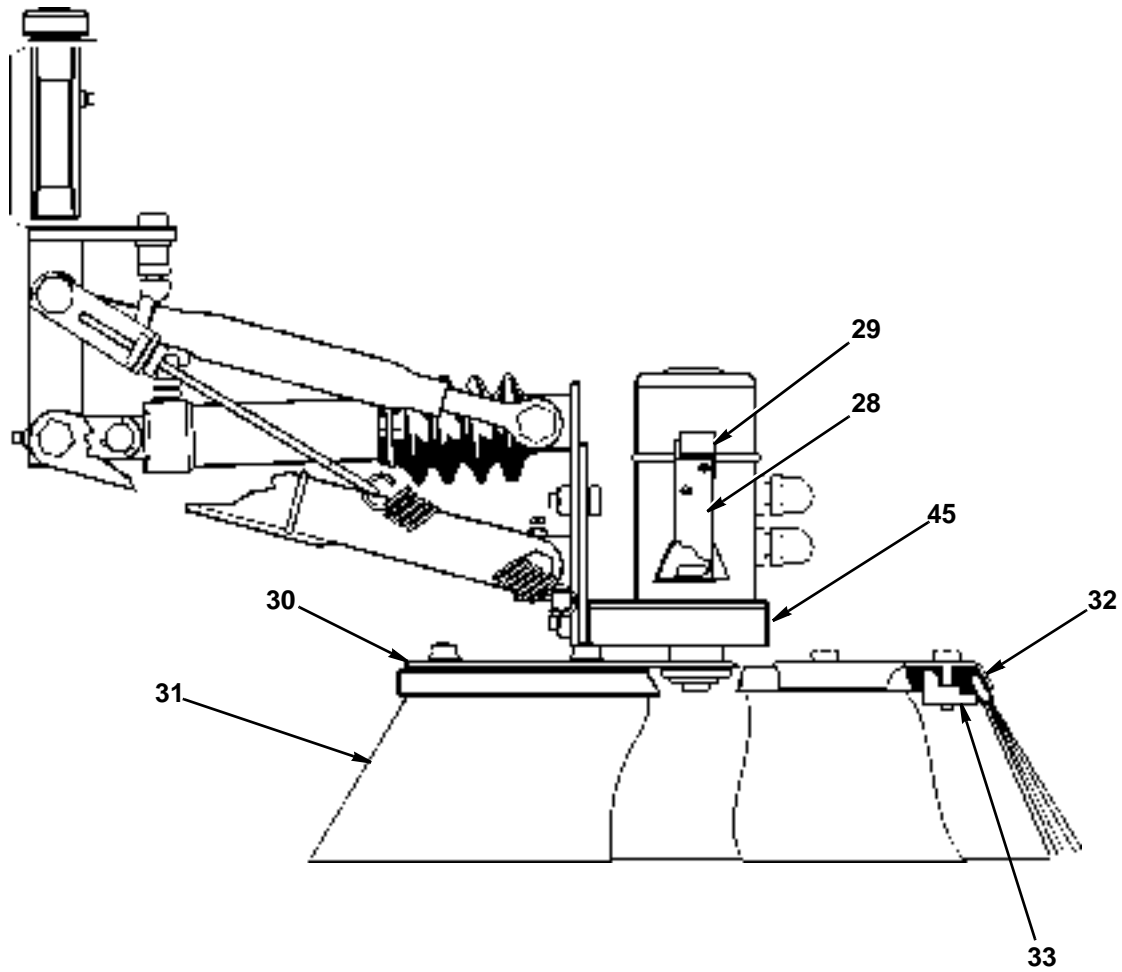


When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>FRONT BRUSH ARRANGEMENT</b>			
28	013304	1	. . . Bracket, spray jet (Near-side brush assemblies only)
29	013360	1	. . . . Nozzle, water spray
	011001	1	. . . . . Bolt, hex hd, M6 x 16 mm long
	011091	1	. . . . . Washer, spring, 6 mm
NI	013364	1	. . . . . Body
NI	013365	1	. . . . . Cap
NI	013525	1	. . . . . O-Ring
NI	013366	1	. . . . . Valve
NI	013783	1	. . . . . O-Ring
NI	013784	1	. . . . . Circlip
30	024139	1	. . . Disc, brush, slotted
	011011	1	. . . . Bolt, hex hd, M8 x 25 mm long
NI	011515	1	. . . . Key, Danfoss
	010004	1	. . . . Washer, special, Ø 45 mm x Ø 9 mm x 4 mm
	010005	1	. . . . Washer, tab
31	023469	1	. . . . Brush, polypropylene, Ø 400 mm (comp./w mounting bolts)
	000185	6	. . . . . Nut, flange, hex, M8
32	011695	1	. . . Disc, brush (Fitted to M/cs prior to late 1998)
	011011	1	. . . . Bolt, hex hd, M8 x 25 mm long
	010004	1	. . . . Washer, special, Ø 45 mm x Ø 9 mm x 4 mm
	010005	1	. . . . Washer, tab
33	011697	6	. . . . Clamp, brush (not fitted to current M/cs)
	011032	6	. . . . . Bolt, hex hd, M10 x 30 mm long
	011094	6	. . . . . Washer, plain, 10 mm
34	013496	1	. . Lever, pivot (Near-side brush assemblies only)
35	013488	2	. . . Bush (Near-side brush assemblies only)
36	013499	1	. . . Post (Near-side brush assemblies only)
	011262	1	. . . . Bolt, hex hd, M8 x 140
37	014902	1	. . Ram, hydraulic, No 10 (Near-side brush assys only)
37	027117	1	. . Ram, hydraulic ( <b>VM model with Steel pipes &amp; New valve block</b> )
38	010067	1	. . . . . Pin, drilled, 20 mm Dia x 50 mm long
	011122	2	. . . . . Pin, split, 3/16" x 1½" long
39	014038	1	. . . . . Pin, drilled, 20 mm Dia x 70 mm long
	011122	2	. . . . . Pin, split, 3/16" x 1½" long
NI	021510	1	. . . . . Bellows
NI	011629	1	. . . . . Seal kit, ram
40	013497	1	. . . . Link (Near-side brush assemblies only)
	011030	1	. . . . . Bolt, hex hd, M10 x 20 mm long
	011094	1	. . . . . Washer, plain, 10 mm
41	011158	1	. . . . . Adaptor, straight, ¼" BSP, M/M (Near-side brush assy's only)
NI	011150	1	. . . . . Seal, Dowty, ¼" BSP (Near-side brush assemblies only)
42	011171	1	. . . . . Elbow, swivel, 1/4" BSP (Near-side brush assemblies only)
43	013486	1	. . . . Strut, stabilising, gas operated (Spare ball joint = 022484)
	011075	1	. . . . . Nut, hex, M10, Nyloc
44	014904	1	. . Link, sliding, front brush swing-out (Off-side brush assy's only)
	011030	1	. . . Bolt, hex hd, M10 x 20 mm long
	010313	1	. . . Washer, thick, 40 mm O/D x 11 mm I/D x 5 mm
	011095	1	. . . Washer, spring, 10 mm
45	010007	1	. . Bracket, motor (Off-side brush assemblies only)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FRONT BRUSH ARRANGEMENT**  
LH SWEEP ILLUSTRATED, RH IS SIMILAR

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>SIDE BRUSH ARRANGEMENT</b>			
1	018211	1	. Side brush assembly (Left Hand)
1	018169	1	. Side brush assembly (Right Hand)
2	013485	1	.. Bracket, side-brush mounting, Left Hand
2	014229	1	.. Bracket, side-brush mounting, Right Hand
	011031	4	... Bolt, hex hd, M10 x 25 mm long
	011095	4	... Washer, spring, 10 mm
3	010903	1	... Nipple, grease, 1/8" BSP, straight
4	010247	1	... Skirt, rubber
5	014151	1	.... Clamp, rubber skirt
	011011	3	..... Bolt, hex hd, M8 x 25 mm long
	011073	3	..... Nut, hex, M8, Nyloc
6	013484	1	.. Pivot, brush, left hand
6	014226	1	.. Pivot, brush, right hand
7	010768	1	... Collar, shaft, Ø 1"
8	013662	2	... Bush, brush pivots
9	010903	2	... Nipple, grease, 1/8" BSP, straight
10	013495	1	... Link, brush
	011259	2	.... Bolt, hex hd, M12 x 130 mm long
	011077	2	.... Nut, hex, M12, Nyloc
11	013488	4	.... Bush
12	013491	2	.... Sleeve
13	013487	1	... Link, top
	011133	2	.... Bolt, hex hd, M16 x 100 mm long (* x 1)
	011060	2	.... Nut, hex, M16, Nyloc (* x 1)
14	020565	1	.... Spacer, 25 mm O/D x 16.5 mm I/D x 22 mm long (swivel end)*
15	020564	1	.... Spacer, 25 mm O/D x 16.5 mm I/D x 14 mm long (pivot end)
16	013493	1	.... Spacer, ram sleeve*
17	012973	1	.. Ram, hydraulic, No. 1 (swivel end located by *items)
17	027114	1	.. Ram, hydraulic ( <b>VM models with Steel pipes &amp; new valve block</b> )
18	010067	1	.... Pin, drilled, Ø 20 mm x 50 mm long
	011122	2	.... Pin, split, 3/16" x 1½" long
19	021510	1	.... Bellows
NI	011629	1	.... Seal kit, ram
20	011158	1	.... Adaptor, straight, ¼" BSP, M/M
NI	011150	1	.... Seal, Dowty, ¼" BSP
21	011171	1	.... Elbow, swivel, 1/4" BSP

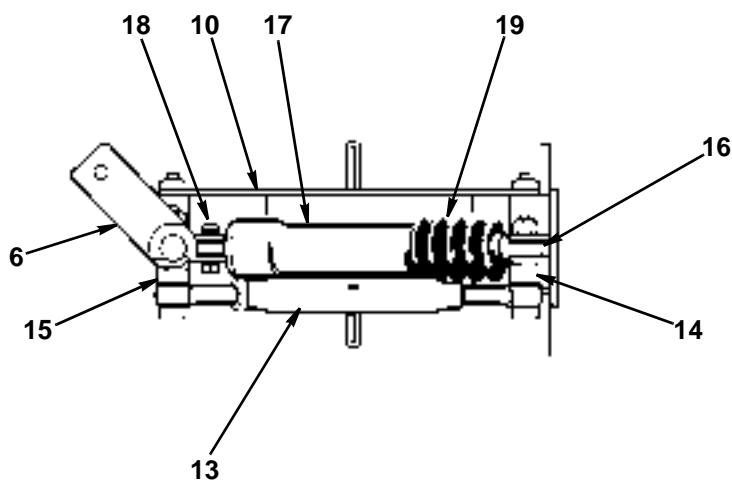
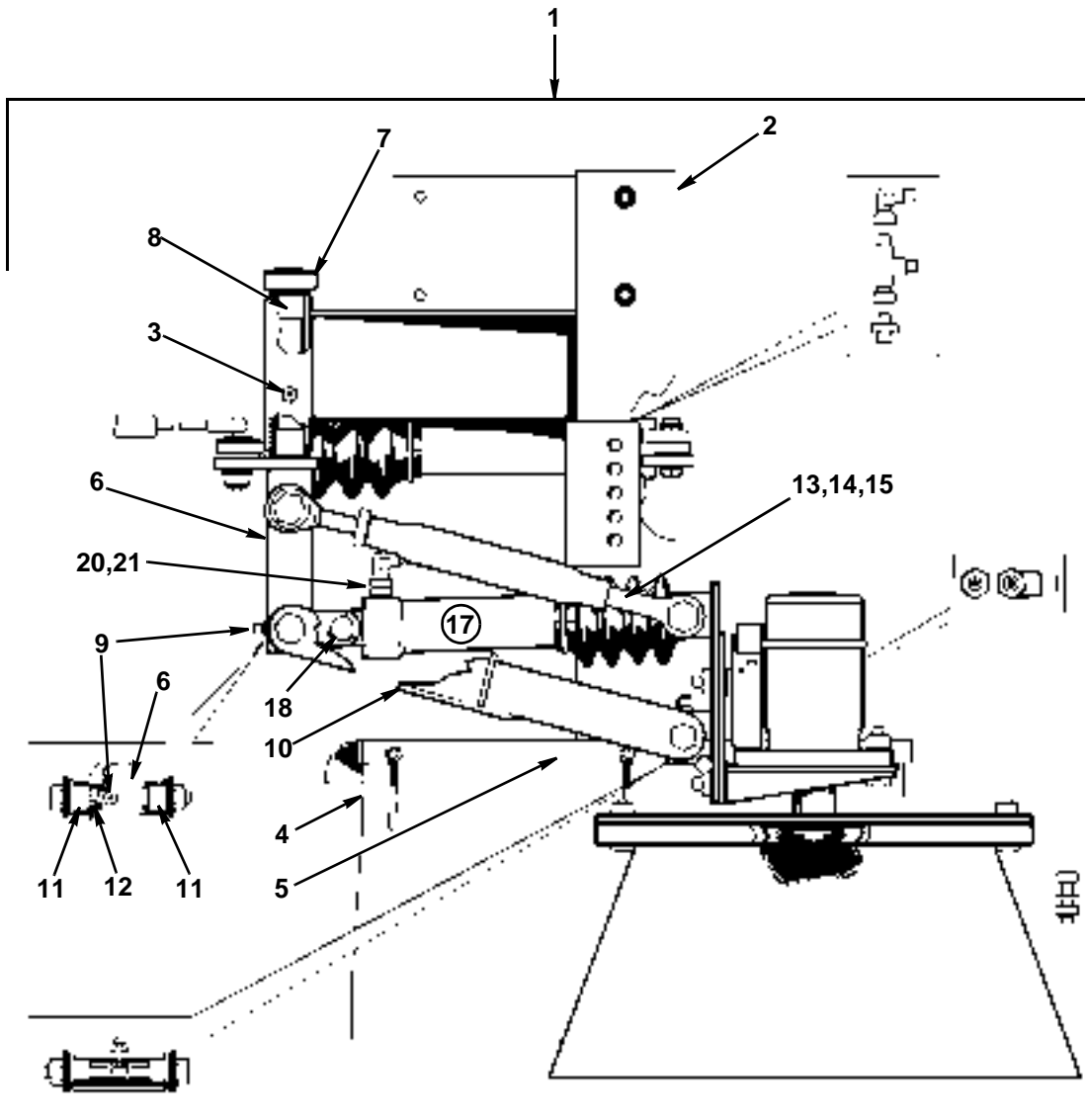
} Now available as Pin & Bush Kit. To procure order Part No. 024610

**NOTE:**

Components are the same for left-hand and right-hand assemblies unless stated otherwise.

**Continued...**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**SIDE BRUSH ARRANGEMENT**  
LEFT HAND ILLUSTRATED, RIGHT HAND REVERSE

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>SIDE BRUSH ARRANGEMENT (Continued)</b>			
22	013489	1	.. Plate, swivel
23	010901	1	... Nipple, grease, 135°, 1/8" BSP
24	010007	1	... Bracket, motor (Near-side brush assemblies only)
	011075	2	.... Nut, hex, M10, Nyloc
	011094	2	.... Washer, plain, 10 mm
25	010006	1	.. Motor, hydraulic, Danfoss OMP 315
	011069	2	... Bolt, hex hd, M12 x 40 mm long
	011077	1	... Nut, hex, M12, Nyloc
NI	023069	1	... Seal kit, Danfoss motor
26	011167	2	... Adaptor, straight, 1/2" BSP x 3/8" BSP
NI	011154	1	.... Seal, Dowty, 1/2" BSP
27	011172	2	... Elbow, swivel, 3/8" BSP, F/M
28	013304	1	.... Bracket, spray nozzle (located by inner motor mounting bolt)
29	013360	1	.... Nozzle, water spray
	011001	1	..... Bolt, hex hd, M6 x 16 mm long
	011091	1	..... Washer, spring, 6 mm
NI	013364	1	..... Body
NI	013365	1	..... Cap
NI	013525	1	..... O-Ring
NI	013366	1	..... Valve
NI	013783	1	..... O-Ring
NI	013784	1	..... Circlip
30	011688	1	... Hub, side brush (fitted to M/cs prior to late 1998)
31	011011	1	.... Bolt, hex hd, M8 x 25 mm long (5/16"UNC x 1 1/4" Whites motor)
	010004	1	.... Washer, special, Ø 45 mm x Ø 9 mm x 4 mm
	010005	1	.... Washer, tab
32	023470	1	.... Brush, side, steel
	011015	4	.... Bolt, hex hd, M8 x 45 mm long
	011092	4	.... Washer, plain, 8 mm
	011073	4	.... Nut, hex, M8, Nyloc
	000185	4	.... Nut, hex, flange, M8 (use only with Item 30)
33	014903	1	.. Ram, hydraulic, No. 11, swing-out function
33	027118	1	.. Ram, <b>(VM models with Steel Pipes &amp; New valve block)</b>
34	010067	1	... Pin, drilled (locates cylinder end of ram to Item 2)
	011102	2	.... Washer, plain, 20 mm
	011122	2	.... Pin, split, 3/16" x 1 1/2" long
	011102	3	.... Washer, plain, 20 mm
	011094	1	.... Washer, plain, 10 mm
NI	011629	1	... Seal kit, ram
35	021510	1	... Bellows
36	011158	1	... Adaptor, straight, 1/4" BSP, M/M
NI	011150	1	.... Seal, Dowty, 1/4" BSP
37	011206	1	... Tee fitting, nut-on-run, 1/4" BSP
38	011171	1	... Elbow, swivel, 1/4" BSP
39	013486	1	.. Strut, stabilising, gas operated (rod end locates to Item 6 & 33)
40	022484	1	... Ball Joint for item 39

**NOTE:**

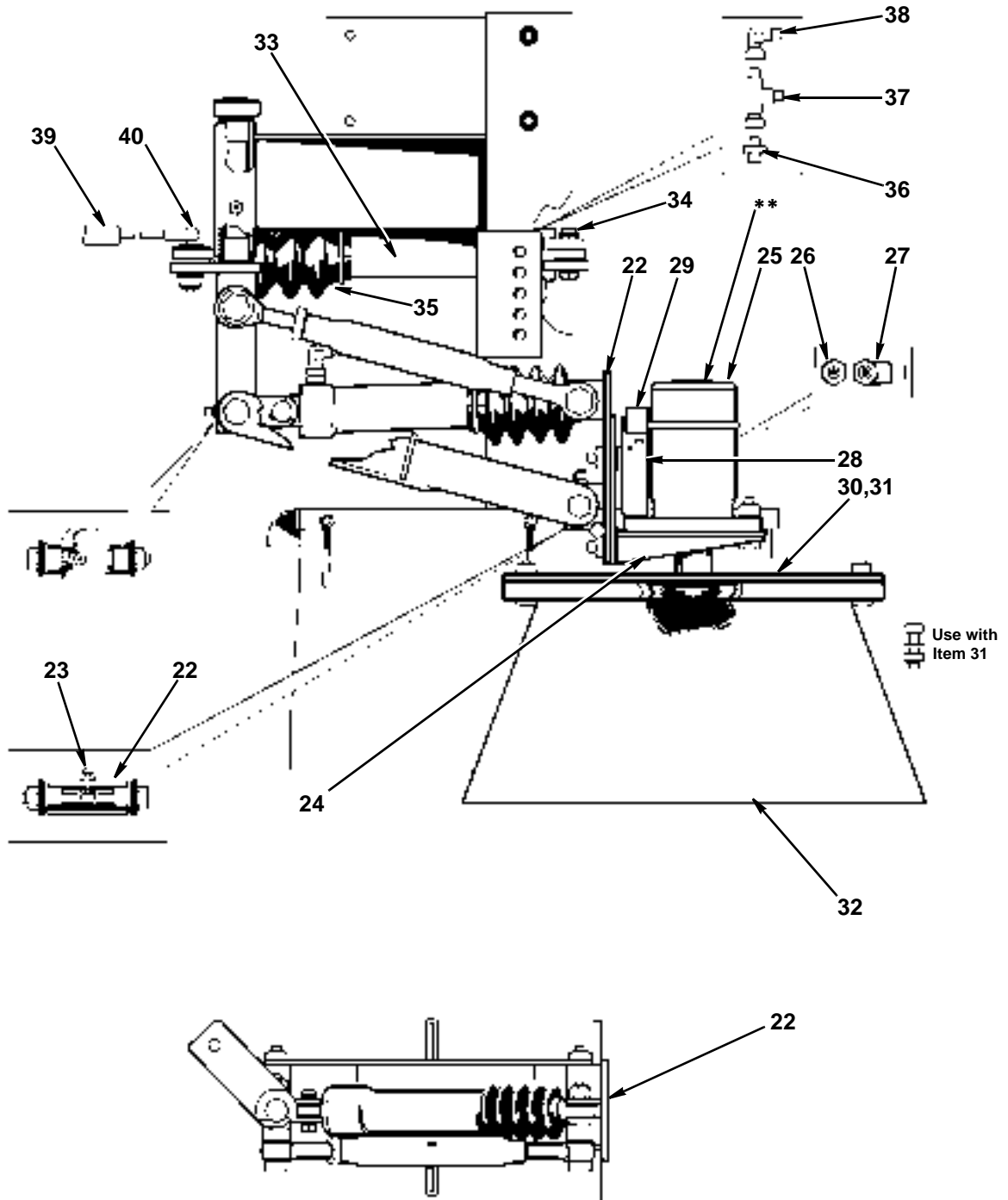
Components are the same for left-hand and right-hand assemblies unless stated otherwise.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**NOTE:**

Motor code prefix is located on the end plate, see \*\*



**SIDE BRUSH ARRANGEMENT**  
LEFT HAND ILLUSTRATED, RIGHT HAND REVERSE

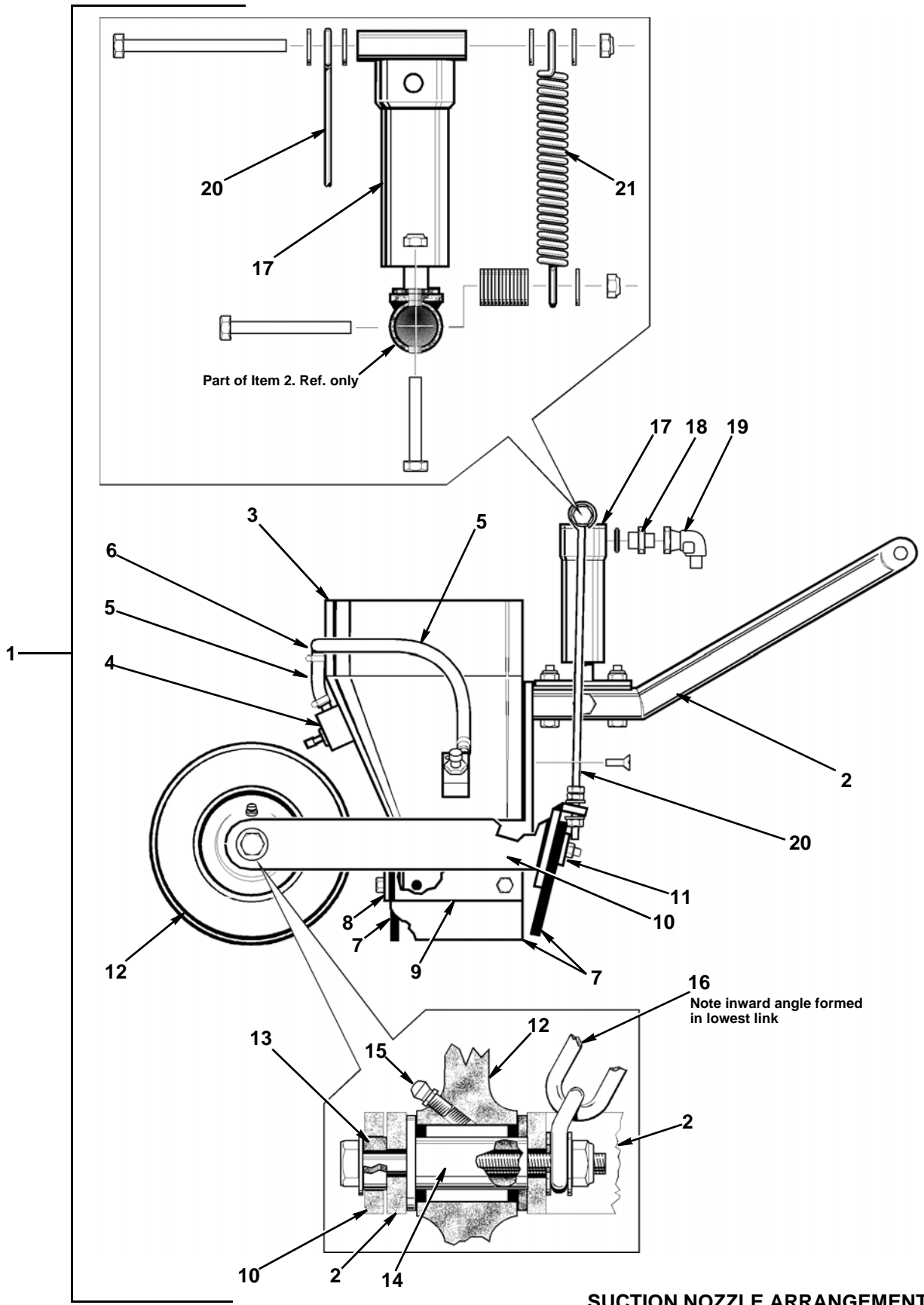
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



Item	Part Number	Quantity	Description
<b>SUCTION NOZZLE ARRANGEMENT</b>			
1	018207	1	. Suction nozzle assembly, left hand
1	023279	1	. Suction nozzle assembly, right hand
NI	023154	1	... Rubber Suction Hose
NI	014303	1	... Suction tube
2	013902	1	.. Carrier, nozzle
	011054	1	... Bolt, hex hd, M12 x 45 mm long
	011077	1	... Nut, hex, M12, Nyloc
3	013398	1	... Box, suction nozzle
	000129	4	.... Screw, csk skt hd, M8 x 25 mm long
	011073	4	.... Nut, hex, M8, Nyloc
4	013360	3	.... Nozzle, water spray
	011001	1	..... Bolt, hex hd, M6 x 16 mm long
	011091	1	..... Washer, spring, 6 mm
5	010950	As Req	... Hose, 3/8" water
6	003000	2	..... Tee fitting, water hose
	010516	8	..... Clip, hose
7	011593	1 set	.... Nozzle flap, rubber (comprising 1 front, 1 rear, 2 side)
8	011592	1	..... Clamp, nozzle flap (rear)
	011011	4	..... Bolt, hex hd, M8 x 25 mm long
9	013615	2	..... Clamp, nozzle flap (side)
	011011	2	..... Bolt, hex hd, M8 x 25 mm long
10	013903	1	.. Frame, gobbler
11	011592	1	... Clamp, nozzle flap (front)
	011073	4	.... Nut, hex, M8, Nyloc
12	013115	2	... Wheel, suction nozzle (use bearing Part No. 014540)
13	011724	1	.... Spacer, nozzle wheel
14	022451	1	.... Bush, nozzle wheel
	011105	1	.... Bolt, hex hd, M12 x 120 mm long
	011096	3	.... Washer, plain 12 mm
	011104	2	.... Washer, T3, HP steel
	011077	1	.... Nut, hex, M12, Nyloc
15	TBD	1	.... Nipple, grease
16	010525	2	.... Chain, nozzle lift, 8 links in length
NI	010606	1	..... Carabiner
17	012979	1	.. Ram No. 7, hydraulic, gobbler
17	027113	1	.. Ram ( <b>Models with Steel pipes and new valve block</b> )
	011036	2	... Bolt, hex hd, M10 x 60 mm long
	011075	2	... Nut, hex, M10, Nyloc
NI	011629	1	... Seal kit, ram
18	011158	1	... Adaptor, straight, 1/4" BSP, M/M
NI	011152	1	.... Seal, Dowty, 1/4" BSP
19	011171	1	... Elbow, swivel, 1/4" BSP
NI	010945	1	... Plug, 1/4" BSP
20	011811	1	... Rod, gobbler
	011092	1	.... Washer, plain, 8 mm
	011072	2	.... Nut, hex, M8
	011073	1	.... Nut, hex, M8, Nyloc
	011042	1	.... Bolt, hex hd, M10 x 110 mm long
	011094	4	.... Washer, plain, 10 mm
	011075	1	.... Nut, hex, M10, Nyloc
21	010521	1	... Spring, coil, gobbler
	011038	1	.... Bolt, hex hd, M10 x 80 mm long
	011094	13	... Washer, plain, 10 mm (space out between carrier & spring)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**SUCTION NOZZLE ARRANGEMENT**

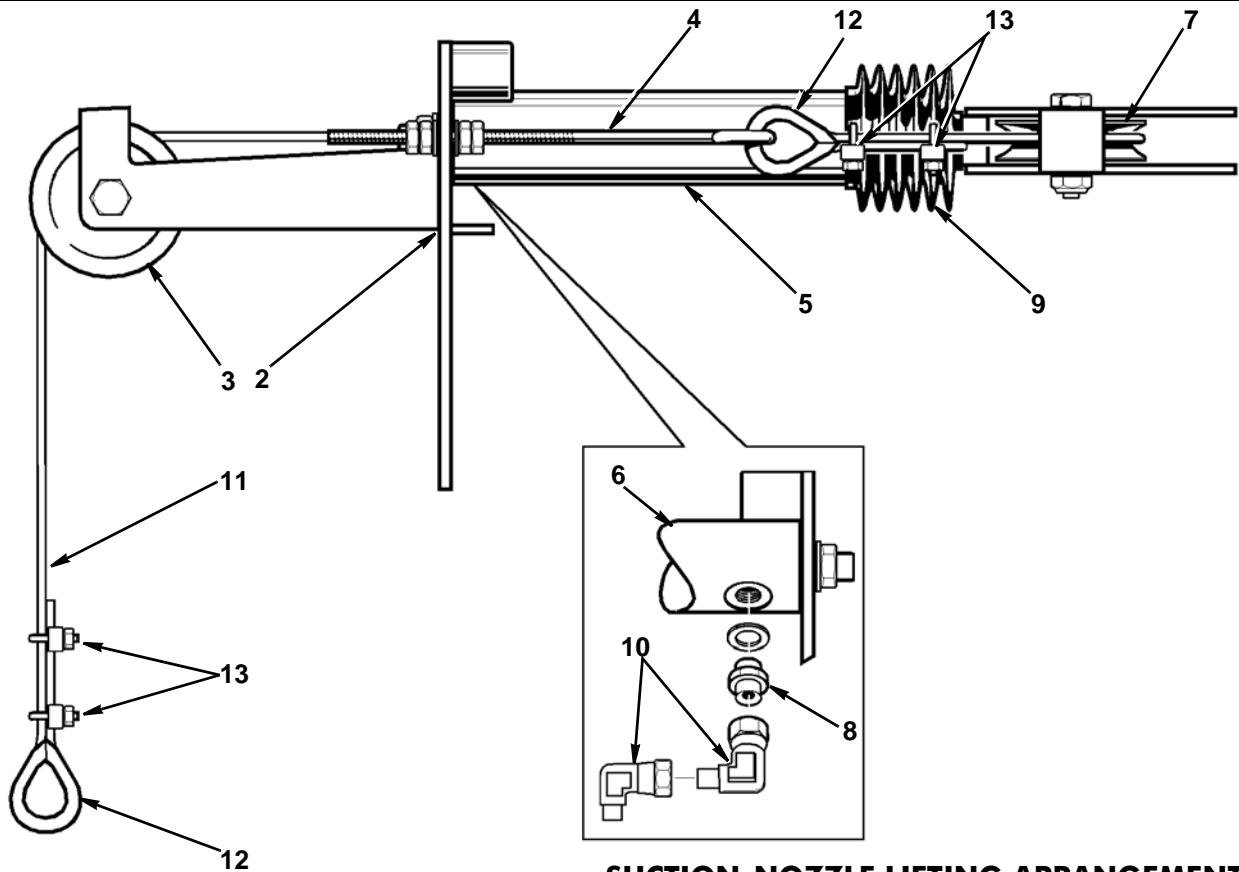
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



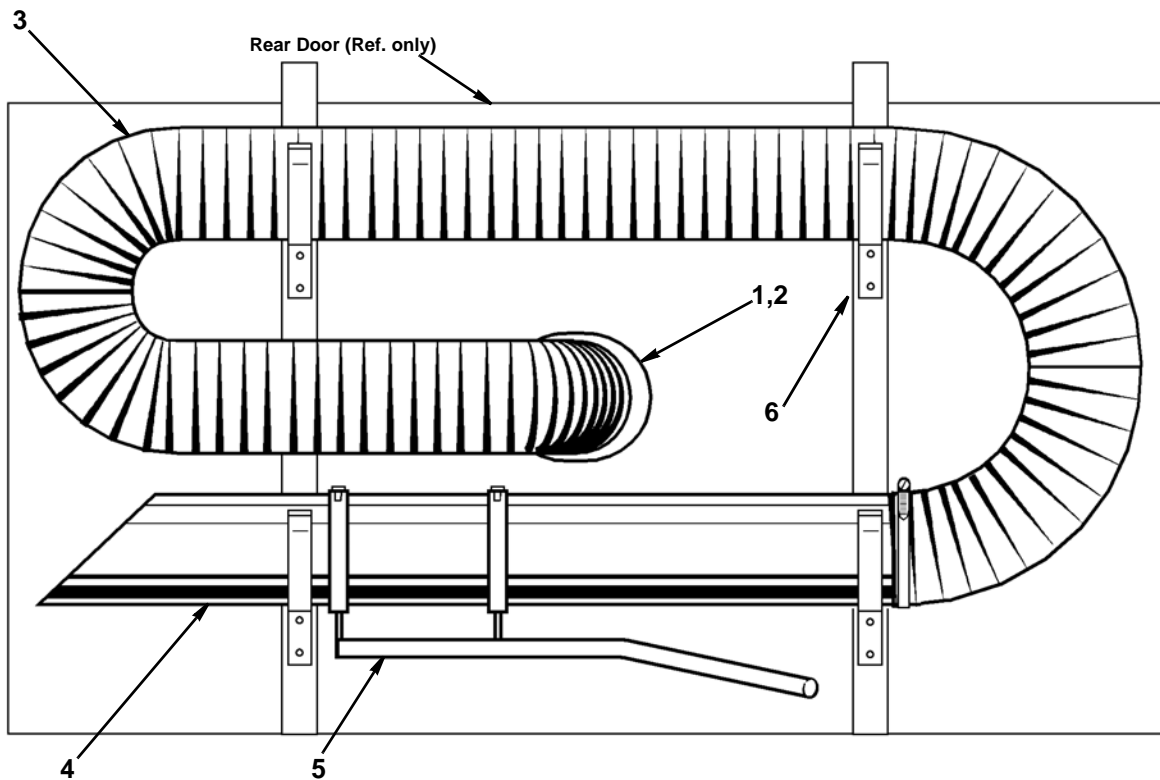
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>018203</b>	--	<b>SUCTION NOZZLE LIFTING ARRANGEMENT</b>
1	013440	1	. Ram assembly, suction lift, LH
NI	013440	1	. Ram assembly, suction lift, RH
2	013904	1	.. Bracket, pulley, LH
NI	014224	1	.. Bracket, pulley, RH
NI	023844	1	.. Bracket, pulley, LH (Dual Sweep M/cs only)
	011011	4	... Bolt, hex hd, M8 x 25 mm long
	011073	4	... Nut, hex, M8, Nyloc
3	010709	1	... Pulley (c/w bush) 3" (76.2 mm) Ø
	011035	1	.... Bolt, hex hd, M10 x 50 mm long
	011075	1	.... Nut, hex, M10, Nyloc
4	010248	1	... Tensioner (c/w nuts & washers)
5	012978	1	.. Ram assembly, hydraulic, No. 6 (comprises items 6 - 9 inclusive)
5	027119	1	.. Ram, hydraulic ( <b>Models with Steel pipes and new block</b> )
	011096	1	... Washer, plain, 12 mm, form C
	011077	1	... Nut, hex, M12, Nyloc
6	011817	1	... Ram, hydraulic, single-acting, 280/145
NI	011629	1	... Seal kit, ram
7	010709	1	... Pulley (c/w bush) 3" (76.2 mm) Ø
	011035	1	.... Bolt, hex hd, M10 x 50 mm long
	011075	1	.... Nut, hex, M10, Nyloc
8	011158	1	.... Adaptor, straight, ¼" BSP
	011152	1	..... Seal, Dowty, ¼" BSP
9	014473	1	.... Bellows
10	011171	2	... Elbow, swivel, ¼" BSP, F/M
11	027154	1	... Cable, steel with fabric core, 6 mm Ø
12	014108	1	.... Thimble, galvanised, 6 mm
13	014107	2	..... Cable grip, 6 mm

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			<b>STANDARD WANDER-HOSE ASSEMBLY</b>
1	012488	1	. Spigot (mounts to Antiluce fasteners on door/cat-flaps))
2	013537	1	.. Gasket
3	010119	3 m	. Hose, flexible } Optional
3	013619	4 m	. Hose, flexible }
	010519	2	.. Clip, hose, Jubilee
4	010587	1	. Pipe, nozzle
5	010321	1	.. Handle, wander hose
	010509	2	... Clip, toggle
	021841	2	... Hook, toggle clip
6	010245	4	... Hooks

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**SUCTION-NOZZLE LIFTING ARRANGEMENT**



**STANDARD WANDER-HOSE ASSEMBLY**

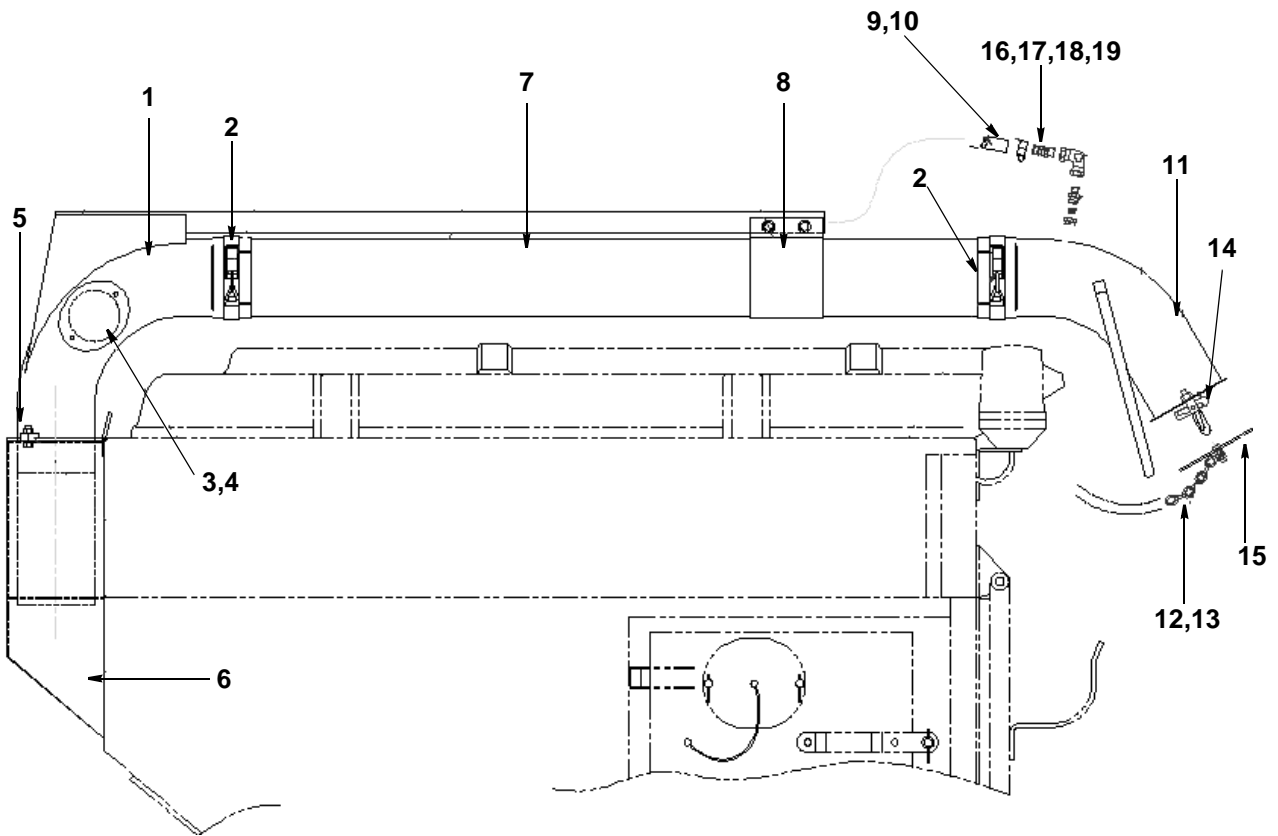
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>OVERHEAD BOOM ASSEMBLY</b>			
1	026089	1	Support elbow
2	011808	1	. Clip
3	010746	1	Cover, elbow
4	011079	2	. Wing nut
5	011697	2	Clamp
6	026090	1	Housing
7	020284	1	Ali suction tube 1560mm Lg
8	023493	1	. Strap, suction tube
9	010950	1	Hose 3/8" black
10	010516	2	. Jubilee clip
11	026088	1	Elbow
12	010526	1	Chain
13	013577	1	. Spring clip
14	012253	2	Antiluce small
15	012486	1	Cap plate
16	010112	1	Nozzle
17	012926	1	. Spray jet
18	010922	1	. Hosetail 1/4" x 3/8" Bsp
19	010928	1	. Brass Nut 3/8"
NI	010526	0.50	Chain Link small

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**OVERHEAD BOOM ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION D HOPPER & RELATED COMPONENTS

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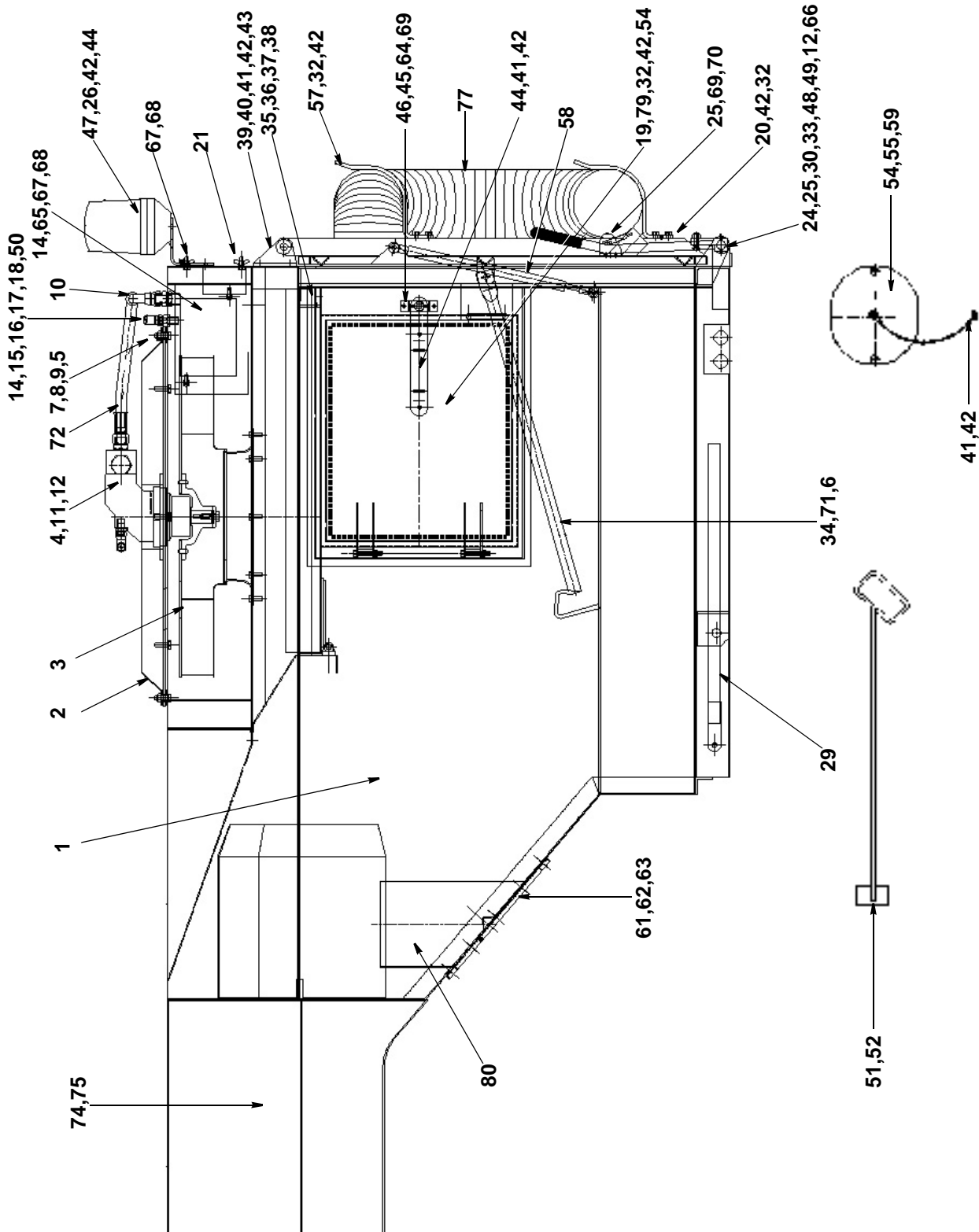


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HOPPER - GENERAL ARRANGEMENT (2.0 m<sup>3</sup>)</b>			
1	025415	1	Hopper complete assembly
2	025077	1	Fan plate
3	025240	1	Impellor
4	025564	1	Assembly Motor VOAC
5	011075	8	Nut, nyloc M10
6	024790	1	Inlet Cone
7	025242	8	Anti-vibration ring
8	025243	8	Anti-vibration bush
9	011424	1	Washer large M10
10	011195	2	3/4" Bulkhead adaptor
11	011403	2	Bolt, hex M14 x 50mm
12	011127	2	Nut, nyloc M14
13	013045	1	Cover plate
14	010516	1	Jubilee clip (M00)
15	010958	1	Hose 3/8" Bore
16	011172	1	Swivel elbow 3/8" BSP
17	010921	1	Hosetail 3/8" x 3/8"
18	010928	1	Nut, brass 3/8" BSP
19	021526	2	Cat flap doors
20	014736	1	Rear door
21	024773	2	Coverplate
22	014995	2	Handle
23	010077	4	Catch rear door
24	012427	4	Roll pin 6x30
25	010232	1	Bracket retaining
26	010297	1	Bracket beacon
27	025436	1	Capping LH
28	025437	1	Capping RH
29	011877	1	Hopper prop
30	014996	1	Spindle
31	010955	1	Hose 2" Layflat
32	011017	8	Hexbolt M8 x 60
33	014997	1	Plastic handle
34	020523	1	Prop door
35	025261	1	Main filter screen
36	025245	3	Gudgeon
37	013507	3	Linch pin & Chain
38	013506	3	Pin
39	025262	2	Hinge rear door
40	025263	2	Packer
41	011011	8	Bolt, hex M8 x 25mm
42	011073	8	Nut M8
43	011092	8	Washer M8
44	021523	2	Handle, catflap
45	013702	2	Antiluce
46	013699	1	Catch bracket
47	010304	1	Beacon
48	000135	4	Coach bolt M10 x 35mm
49	011074	8	Hex full nut M10
50	002008	1	Adaptor bulkhead 3/8"
51	013514	1	Fan scraper

**Continued...**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





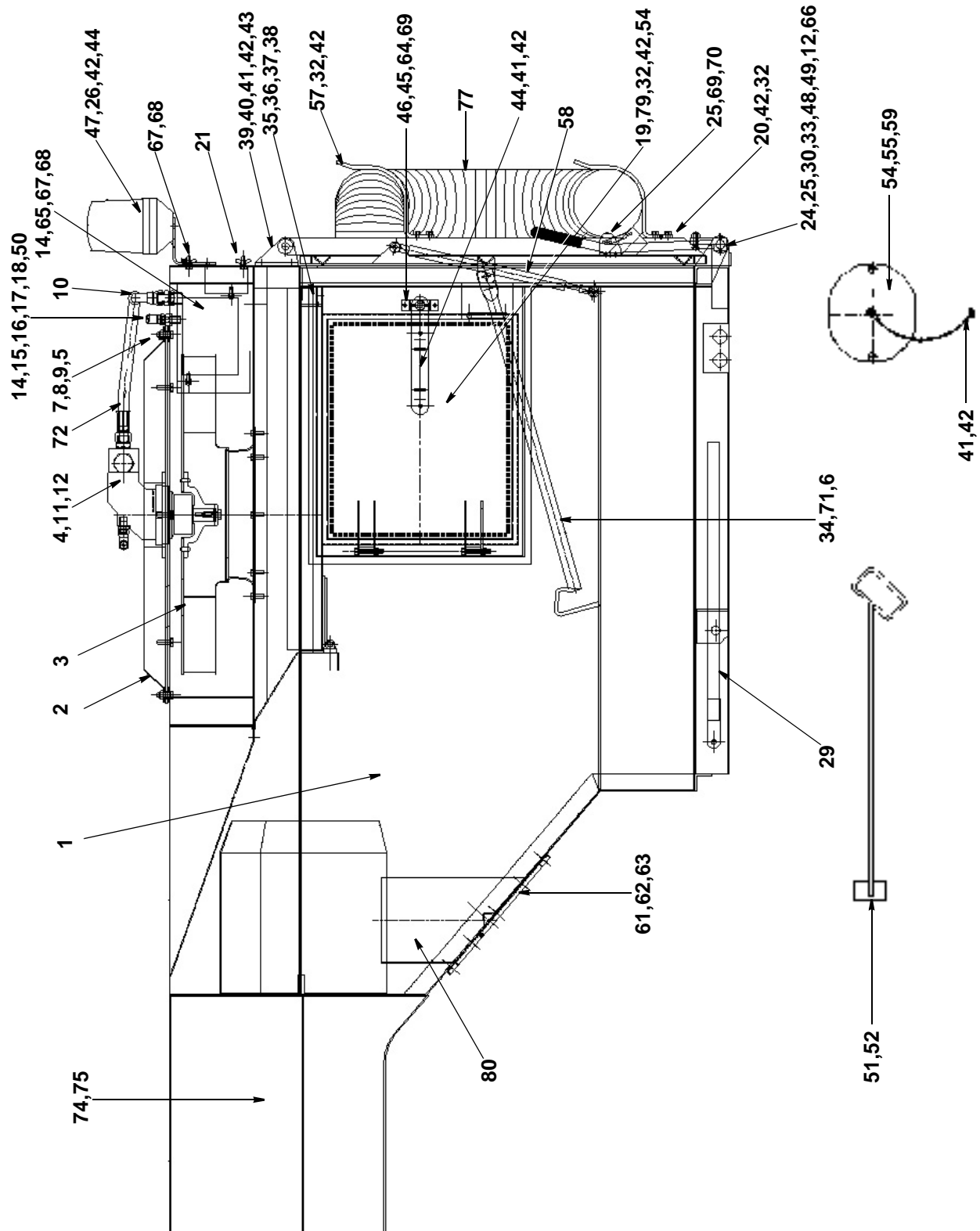
**HOPPER - GENERAL ARRANGEMENT 2.0m3**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HOPPER - GENERAL ARRANGEMENT (2.0 m<sup>3</sup>)</b>			
52	013631	2	Fir tree clip
53	013599	2	Seal, catflap doors
54	012486	3	Cap plate
55	012253	12	Antiluce
56	020711	3	Leash cable
57	010245	4	Hose hook
58	020521	1	Gas spring
59	025222	1	Gasket wander hose
60	010544	1	Rear door seal
61	013594	1	Seal, front aperture
62	014586	1	Seal frame
63	014587	1	Blanking frame
64	011001	2	Bolt, hex M6 x 16mm
65	010502	1	Pull handle
66	000111	1	Roll pin 6 x 40
67	011079	8	Wingnut M8 brass
68	011094	4	Washer M10
69	011071	4	Nut, nyloc M6
70	011002	2	Screw M6 x 16
71	011032	1	Bolt, hex M10 x 50mm
72	025555	2	Hose 3/4" x 600mm
73	025556	2	Hose 3/4" x 1650mm
74	025625	1	Hopper extension LH
75	025626	1	Hopper extension RH
76	025713	1	Brace, hopper extension
77	015033	1	Assembly wander hose
78	000211	2	Pitch locknut M12 x 1.25
79	021525	1	Catflap door RH
80	025529	1	Inlet tube..... D9
NI	028604	1	Deflector, cat flap door LH..... D9
NI	028605	1	Deflector, cat flap door RH
NI	022814	1	Bracket, remote door catch (Option)
NI	022815	1	Handle, remote hopper door (Option)
NI	022816	1	Spindle, remote hopper door (Option)
NI	SK0336	1	Hopper Repair Plate
NI	011010	13	. Bolt M8 x 20
NI	011073	13	. Nut M8

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**HOPPER - GENERAL ARRANGEMENT 2.0m3**

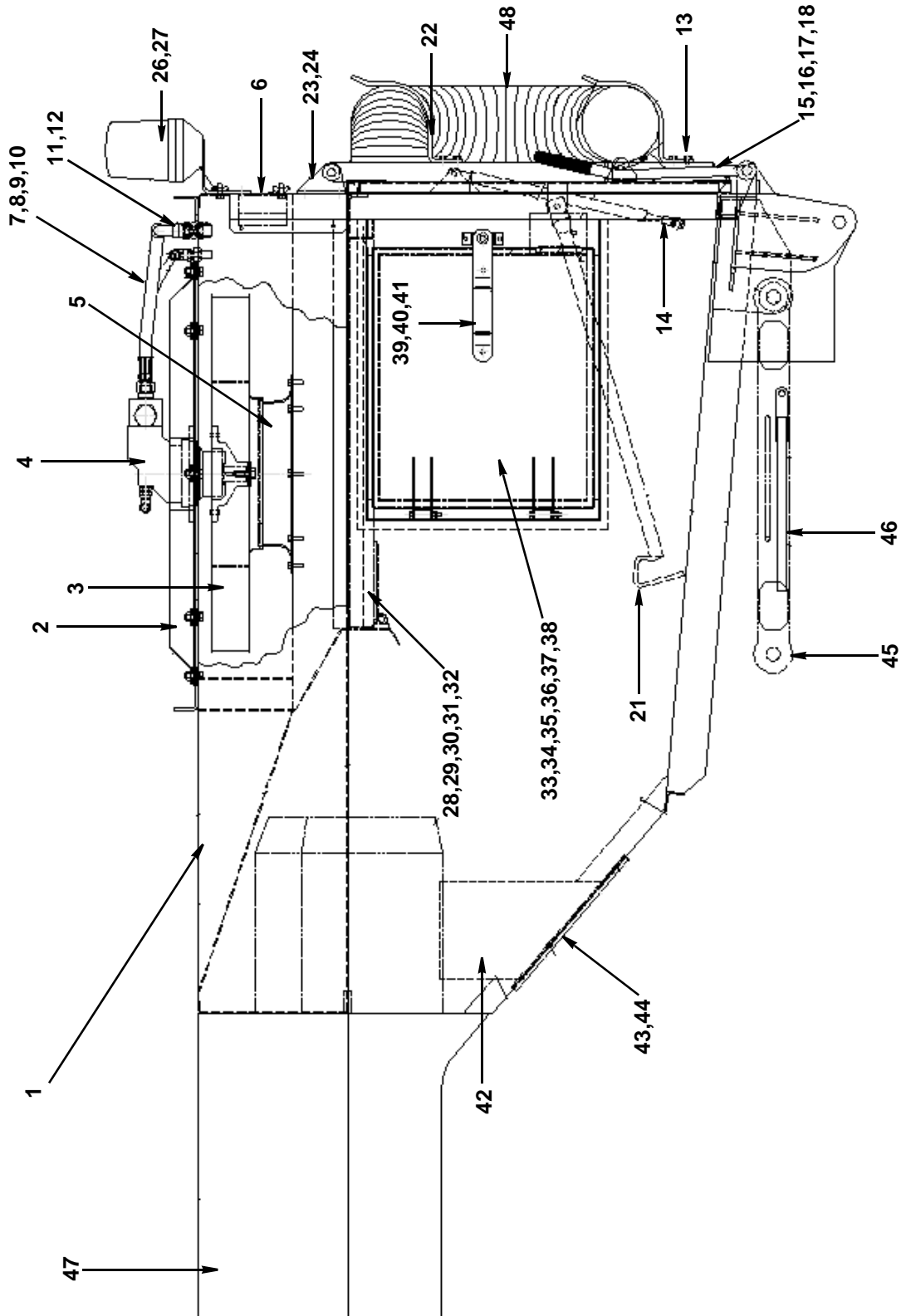
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HOPPER - GENERAL ARRANGEMENT (1.6 m<sup>3</sup> HI TIP)</b>			
1	025643	1	Hopper complete
2	025077	1	. Fan plate
	011075	8	..Nut, nyloc M10
	011424	8	..Washer 10 mm
3	025240	1	.. Impellor
4	025564	1	.. Fan motor assembly
5	024790	1	.. Inlet cone
6	024773	2	. Cover plate, hopper-top access
	011079	2	.. Wingnut, brass, M8
	000248	4	.. Hand nut, plastic <b>(replaces brass wing nut from 2002)</b>
NI	013045	1	. Cover plate, fan chamber access <b>(fitted upto July 2002)</b>
NI	027924	1	. Coverplate, fan chamber access <b>(fitted from July 2002)</b>
	011079	2	.. Wingnut, brass, M8
	011094	2	.. Washer M10
NI	010502	1	.. Pull handle
7	010958	As Req	. Hose 3/8" fuel
	010516	2	.. Clip, hose, Jubilee No. M00
8	010921	1	.. Hose stem 3/8" BSP
9	002008	1	... Adaptor bulkhead 3/8" BSP
10	011172	1	.. Elbow, swivel 3/8" BSP
11	025555	2	. Hose assembly 3/4" BSP x 600 mm long
12	011195	1	... Adapt bulkhead 3/4" BSP
	010928	1	... Nut, brass 3/8" BSP
13	014737	1	. Rear door, Hi-Tip
14	020521	2	. Gas strut, rear door
15	014996	1	.. Spindle, rear door catch
16	010077	4	... Catch rear door
	012427	1	.... Roll pin 6 mm x 30 mm
17	000135	1	.... Coach bolt M10 x 35 mm
	011074	2	.... Nut, hex M10
18	014995	1	.. Handle, door catch
	000111	1	... Roll pin 6 x 40
19	014997	1	... Plastic grip
20	010232	1	... Bracket, handle retaining
21	020523	1	.. Prop, rear door 90° Lift
NI	010544	1	.. Seal, rear door
22	010245	4	.. Hook, retaining, wander hose
	011017	2	... Bolt, hex M8 x 60 mm
	011073	2	... Nut, nyloc M8
NI	010955	As Req	.. Hose layflat 2"
23	025262	2	. Hinge, rear door
	011011	4	.. Setscrew M8 x 25 mm
	011073	4	.. Nut, nyloc M8
	011092	4	.. Washer 8 mm
24	025263	1	.. Packer, rear hinge
NI	012486	1	.. Cap plate
NI	025222	1	... Gasket , wander hose
NI	012253	4	... Catch, Antiluce, small
NI	020711	1	... Leash
25	025436	1	.. Capping LH
NI	025437	1	.. Capping RH

**Continued...**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



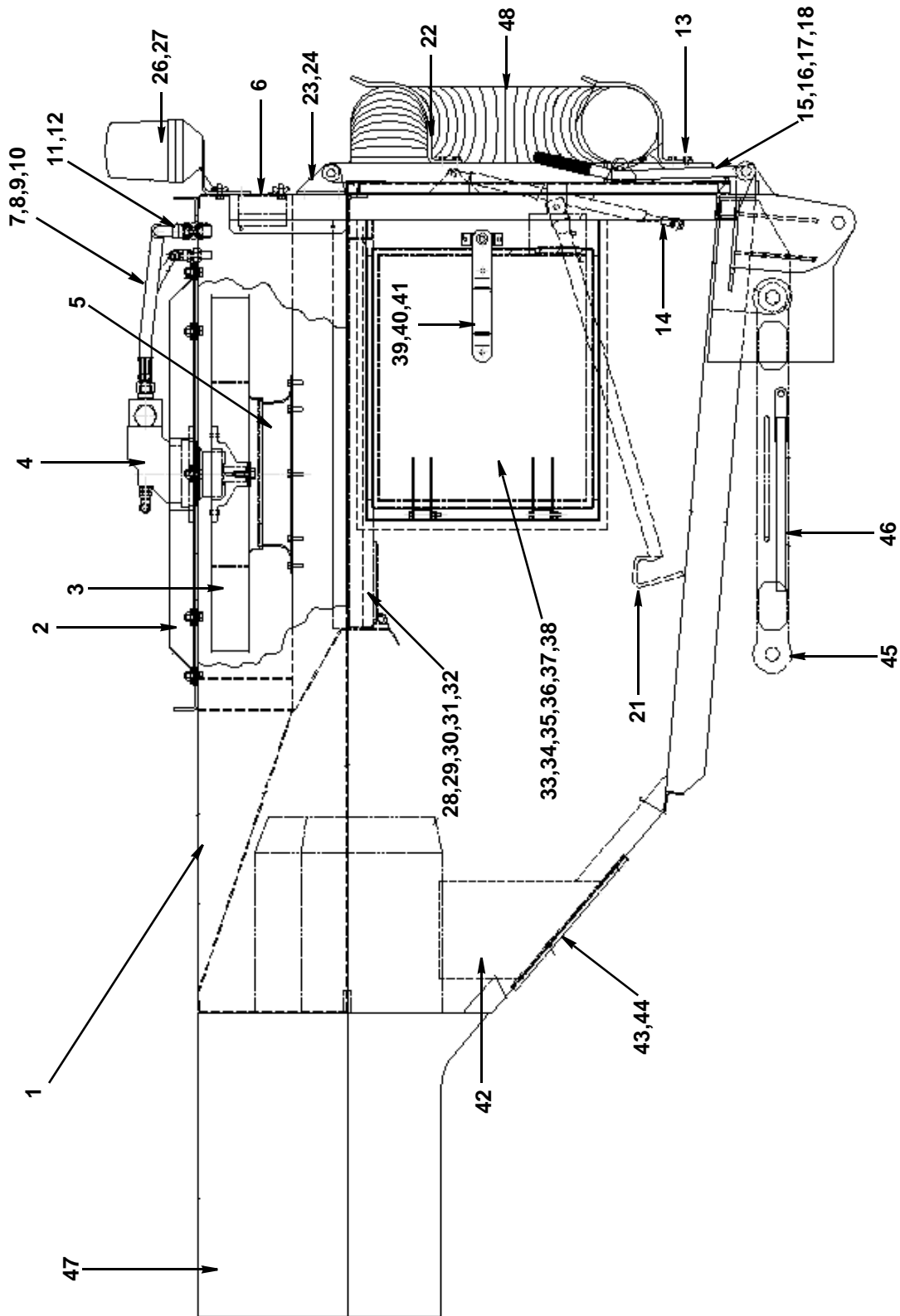
**HI-TIP 1.6 m<sup>3</sup> HOPPER**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HOPPER - GENERAL ARRANGEMENT (1.6 m<sup>3</sup> HI TIP) <i>Continued</i></b>			
26	010304	1	. . Beacon
27	010297	1	. . . Bracket beacon
	011011	2	. . . . Bolt, Hex hd, M8 x 25 long
	011073	2	. . . . Nut, M8
28	025261	1	. Screen
29	025245	3	. . Gudgeon
30	013507	3	. . Linch pin and chain
31	013506	3	. . Pin
32	027744	1	. . Handle
NI	021525	1	. Door, right hand, side access
33	021526	1	. Door, left hand, side access
34	013599	1	. . Seal, side door
35	012486	1	. . Cap plate
36	025222	1	. . . Gasket , wander hose
37	012253	4	. . . Antiluce small
38	020711	1	. . . Leash
39	021523	2	. . Handle, cat flap door
	011011	2	. . . Setscrew M8 x 25 mm
	011073	2	. . . Nut, nyloc M8
40	013702	2	. . Catch, Antiluce, medium
41	013699	1	. . . Bracket, Antiluce catch
42	025529	1	. Tube, suction inlet
NI	014587	1	. . Plate, suction tube, manual blanking
43	013594	1	. . Seal, front aperture
44	014586	1	. . Seal frame
45	011952	1	. Link
46	020775	1	. . Hopper prop
47	025625	1	. Hopper extension, left hand
NI	025626	1	. Hopper extension, right hand
NI	025713	1	. . Brace, hopper extension
48	015033	1	. Wander hose assembly
NI	013514	1	. Scraper, suction fan impellor
NI	028604	1	Deflector, cat flap door LH
NI	028605	1	Deflector, cat flap door RH
NI	SK0336	1	Hopper Repair Plate
NI	011010	13	. Bolt M8 x 20
NI	011073	13	. Nut M8

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**HI-TIP 1.6 m<sup>3</sup> HOPPER**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



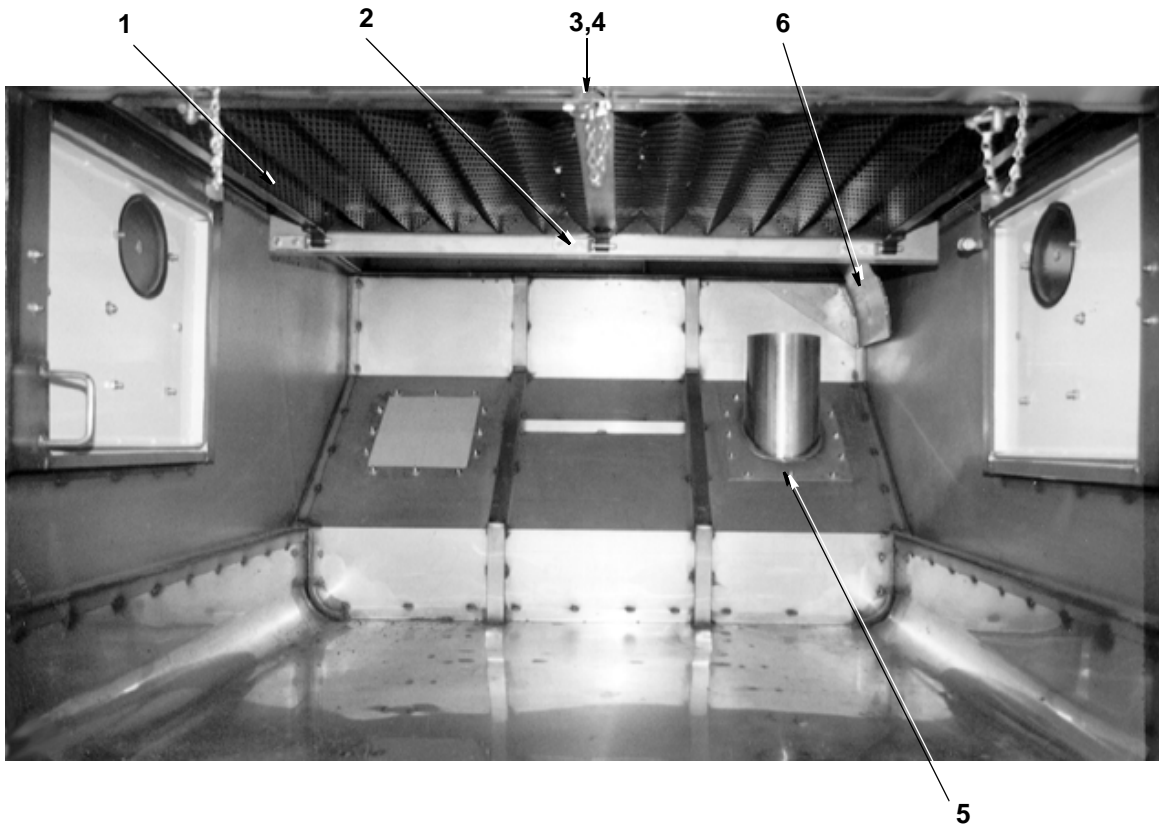
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>INTERNAL HOPPER COMPONENTS</b>			
1	025261	1	Screen
1	025668	1	Screen, Fine Mesh Type (Dual Sweep machines)
2	025245	3	. Gudgeon Pin
3	013506	3	. Pin
4	013507	3	. Linch Pin
NI	027744	1	. Handle, Screen Rear
5	025529	1	Inlet tube
NI	028822	1	Deflector, LH (Single sweep)
6	028823	1	Deflector, RH (Single sweep)
NI	025533	1	Deflector, L.H (Dual sweep)
6	025534	1	*Deflector, R.H (Dual sweep)

NOTE: Silvia Machines from WK4508 to WK4515 fitted with RH Deflector 028823

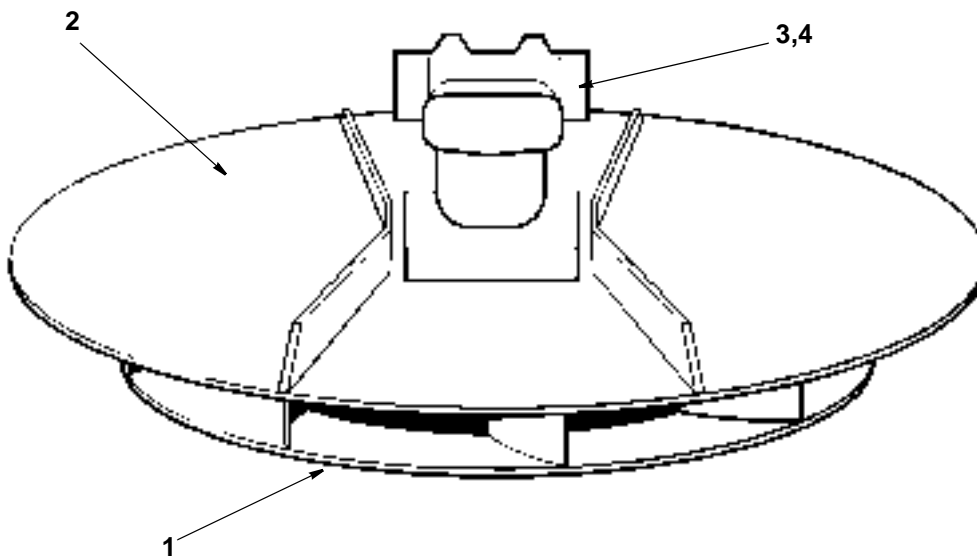
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FAN ASSEMBLY</b>			
1	025240	1	Impellor
NI	024790	1	Inlet cone
2	025077	1	Fan plate
NI	027071	8	. Washer, stepped
3	025564	1	Fan motor assembly
4	024641	1	. Motor, Fan
NI	027237	1	. Seal Kit, for 024641 Voac Fan Motor
NI	024791	1	. Washer, voac motor
NI	011052	1	. Setscrew, Hex hd, M12 x 30 mm long
NI	025390	1	. Valve block, voac motor
NI	002101	1	. . O Ring, (base of Voac Motor)
NI	011156	1	. . Seal, dowty (For Plug)
NI	000048	8	. Cap screw, Skt hd, M10 x 80 mm long
NI	011095	8	. Washer, spring, M10
NI	011155	2	. Seal, dowty, 3/4" BSP
NI	011247	1	. Seal, dowty, M18
NI	011248	1	. Adaptor, M18 x 3/8" BSP
NI	011172	1	. Elbow, swivel, 3/8" BSP
NI	010921	1	. Hose stem 3/8 x 3/8" BSP
NI	010928	1	. Nut, brass 3/8" BSP
NI	011161	2	. Adaptor, 3/4" BSP
NI	002076	1	. Plug M12 x 1"
NI	025242	8	Anti-Vibration Ring Mount
NI	025243	8	Anti-Vibration Bush

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**INTERNAL HOPPER COMPONENTS**



**FAN ASSEMBLY**

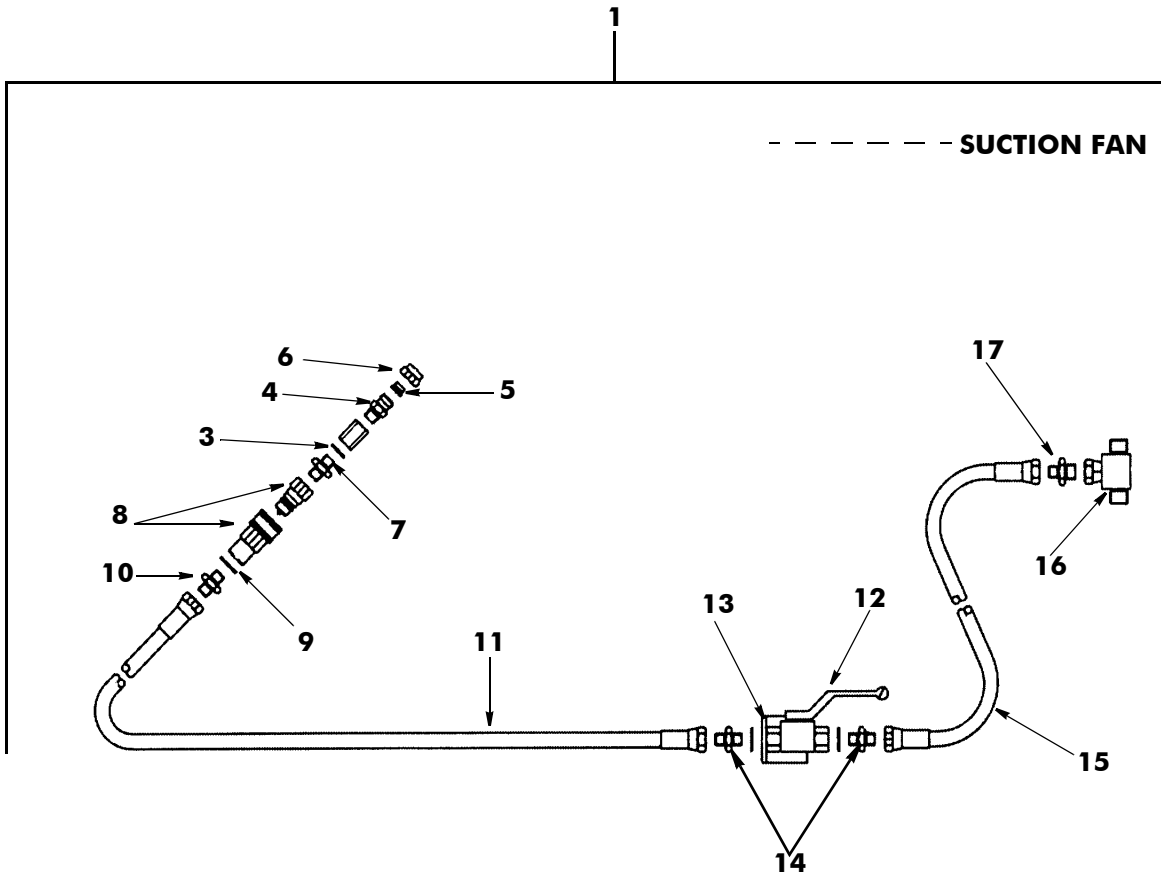
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FAN CLEANING JET ASSEMBLY</b>			
1	025399	1	. Fan cleaning jet, complete assembly (Comprising Items 2 to 17)
2	025405	1	. . Cover plate, fan housing with adaptor (fitted until 6/02 see *)
2	027925	1	. . Cover plate, fan housing (fitted from 6/02 *not inter-changeable)
3	011152	1	. . . 1/4" Dowty Seal
4	010112	1	. . . Nozzle adaptor
5	012926	1	. . . . Jet
6	010928	1	. . . . Nut
7	011158	1	. . . 1/4" M/M Adaptor
8	012985	1	. . Coupling, quick-release 1/4"
9	011152	1	. . . 1/4" Dowty Seal
10	011158	1	. . . 1/4" M/M Adaptor
11	001002	1	. Hose 1/4" x 2150 mm long
12	011257	1	. Ball Valve 1/4" x 1/4"
13	012548	1	. . Angle Bracket
14	011158	2	. . 1/4" M/M Adaptor
15	001027	1	. Hose 1/4" x 1270 mm long
16	011183	1	. 1/2" Tee
17	011165	1	. . 1/2" x 1/4" M/M Adaptor

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FAN CLEANING JET ASSEMBLY**

**D**

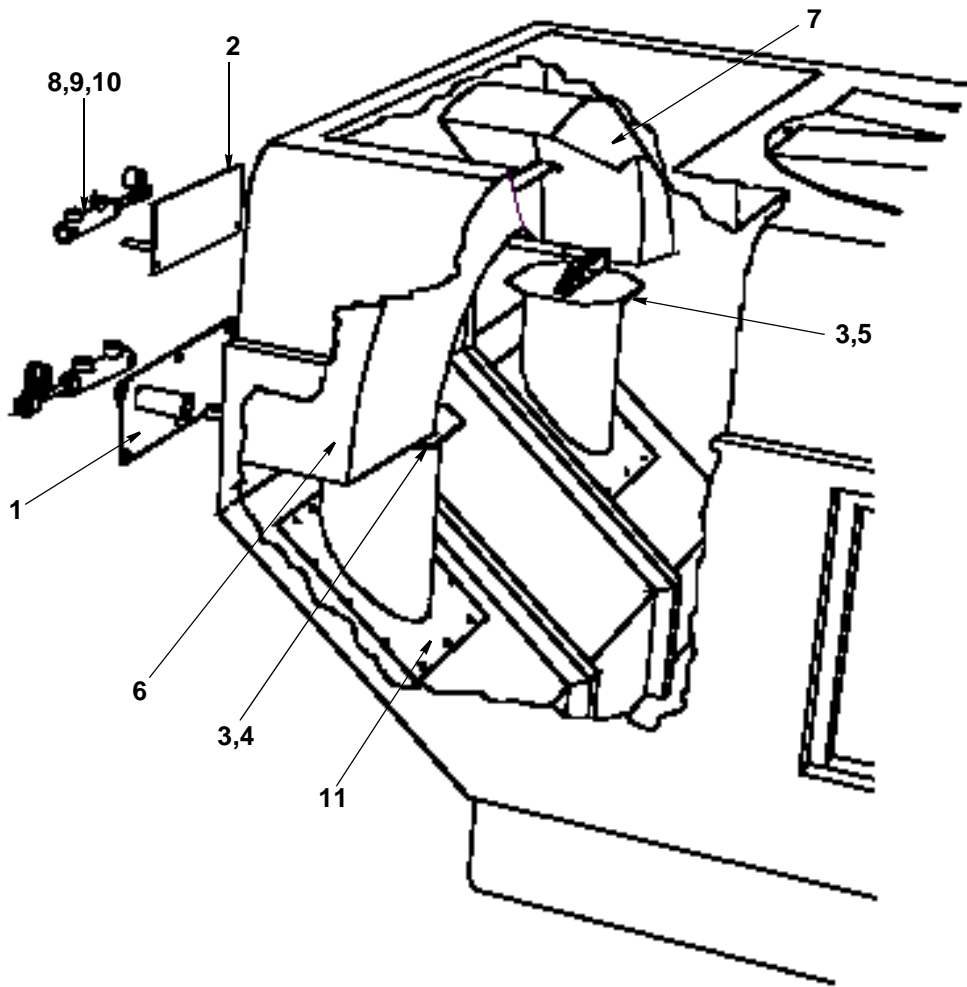
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>AUTO BLANKING MAIN ASSEMBLY</b>			
1	025531	1	Mounting plate, L.H
2	025532	1	Mounting plate, R.H
NI	011011	12	. Screw, Hex hd, M8 x 25 mm long
NI	011072	12	. Nut, M8
NI	011092	24	. Washer, M8
NI	010903	4	. Grease nipple 1/8" BSP
NI	013488	4	. Bush
3	025530	2	Flap
4	025526	1	Flap arm, L.H
5	025527	1	Flap arm, R.H
6	028822	1	Deflector, L.H <b>(From July 2003)</b>
6	025533	1	Deflector, L.H, Auto blanking <b>(Upto July 2003)</b>
7	028823	1	Deflector, R.H, <b>(From July 2003)</b>
7	025534	1	Deflector, R.H, Auto blanking <b>(Upto July 2003)</b>
NI	011051	8	. Screw, Hex hd, M12 x 25 mm long
NI	011076	8	. Nut, M12
NI	011096	16	. Washer, M12
8	022350	2	Ram
NI	011122	2	. Split pin
NI	011135	2	. Washer, M16
9	014469	2	. Clevis M12
10	025528	2	Lever
NI	000211	2	. Nut M12 x 1.25
NI	011031	2	. Screw, Hex hd, M10 x 25 mm long
NI	010991	2	Hose, 1/4" x 550Lg
NI	010981	2	Hose, 1/4" x 711Lg
11	025529	2	Inlet tube

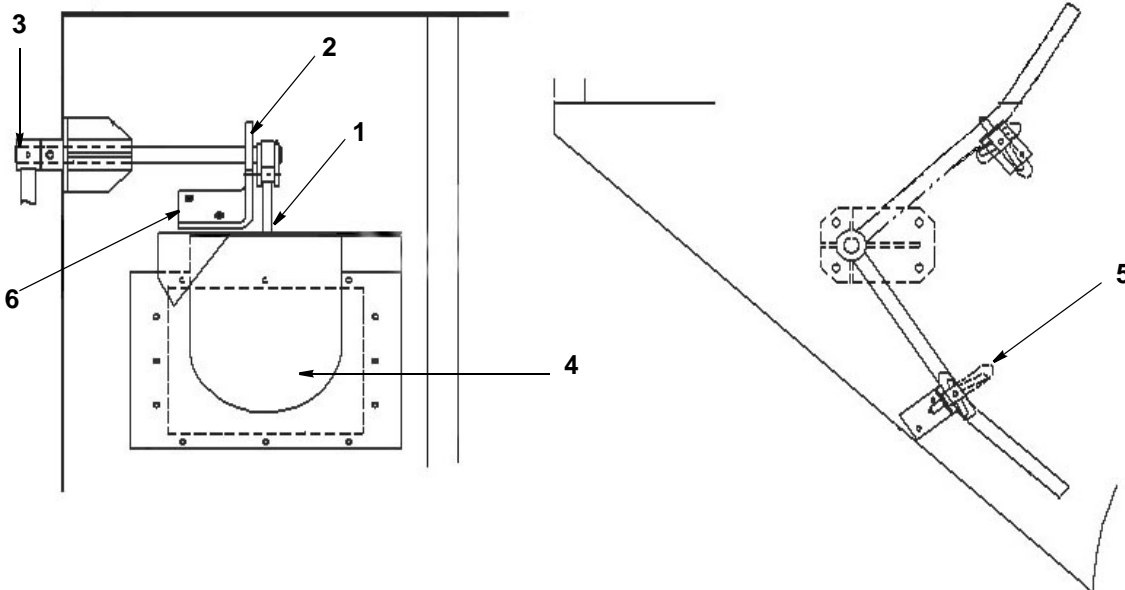
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>SK0299</b>			
<b>MANUAL BLANKING ASSEMBLY</b>			
1	023430	1	Flap
2	023439	1	Arm
3	013662	1	Bush
4	023440	1	Inlet Tube
5	013702	1	Antiluce
6	023054	1	Bearing
7	024048	1	Deflector

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**D**

**AUTO BLANKING ASSEMBLY**



**MANUAL BLANKING ASSEMBLY**

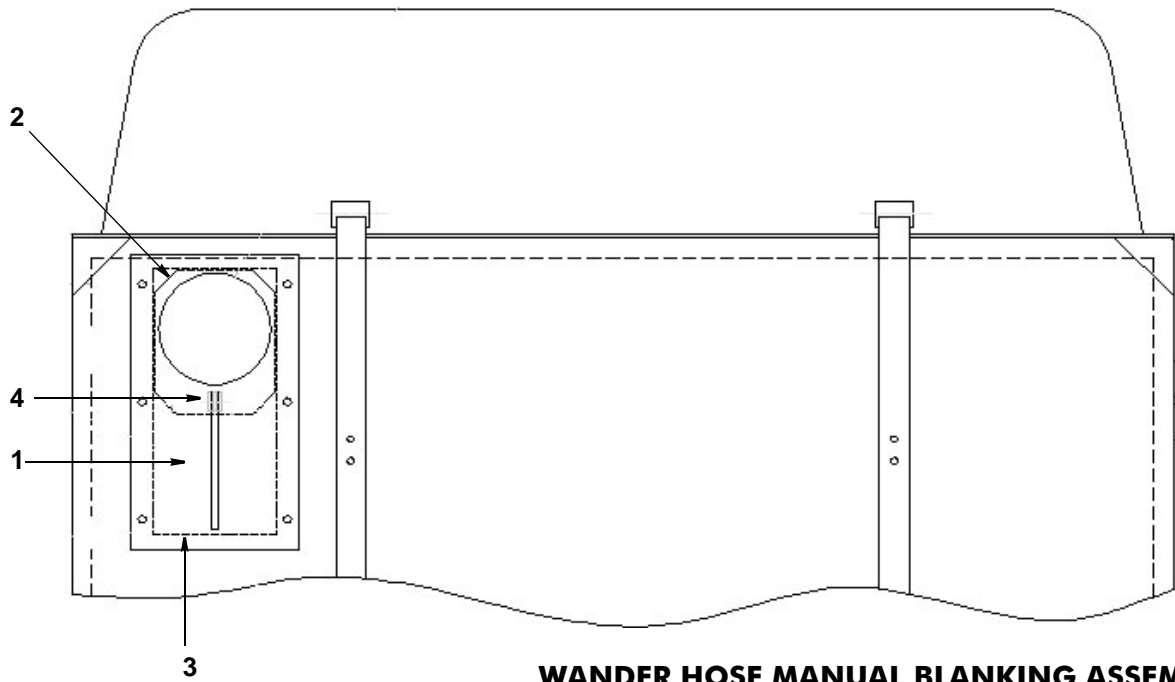
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



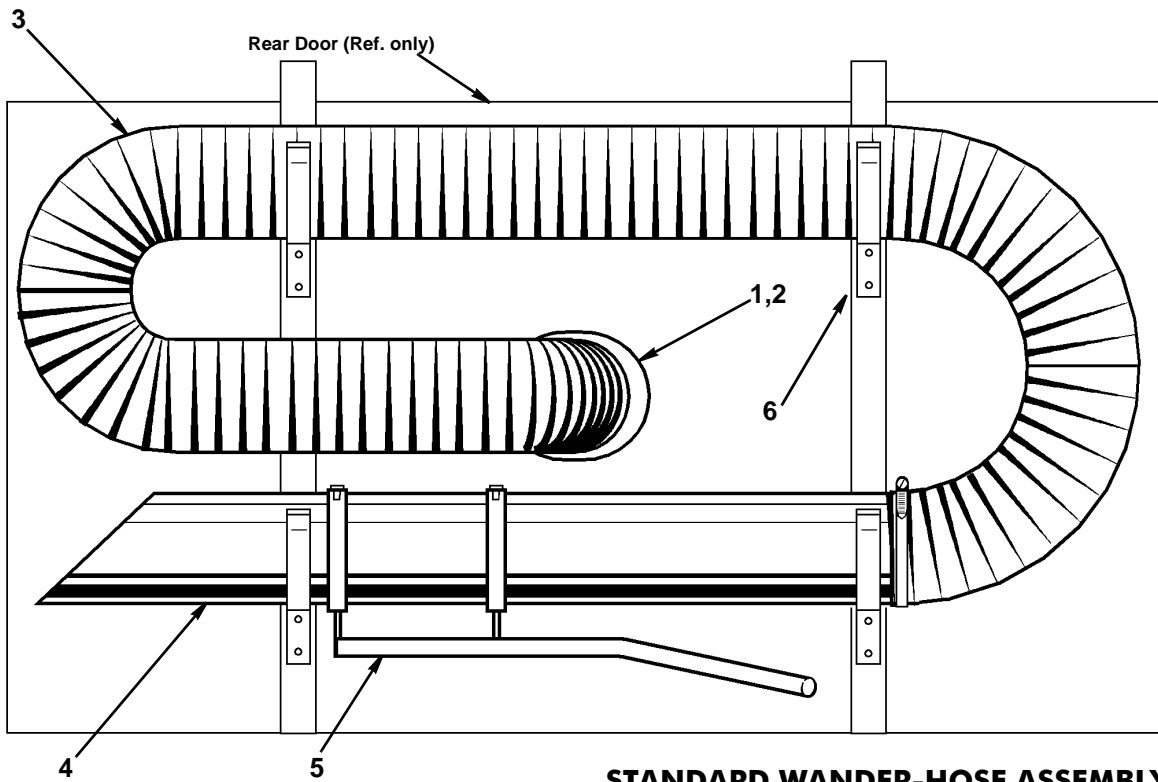
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WANDER HOSE MANUAL BLANKING ASSEMBLY</b>			
1	026819	1	Spigot, wander hose
2	026818	1	Blanking flap
3	026817	2	Gasket Spacer strip
4	013507	1	Pin & Chain

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>STANDARD WANDER-HOSE ASSEMBLY</b>			
1	012488	1	. Spigot (mounts to Antiluce fasteners on door/cat-flaps))
2	013537	1	. . Gasket
3	010119	3 m	. Hose, flexible } Optional
3	013619	4 m	. Hose, flexible }
	010519	2	. . Clip, hose, Jubilee
4	010587	1	. Pipe, nozzle
5	010321	1	. . Handle, wander hose
	010509	2	. . . Cip, toggle
	021841	2	. . . Hook, toggle clip
6	010245	4	. . . Hooks

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**WANDER HOSE MANUAL BLANKING ASSEMBLY**



**STANDARD WANDER-HOSE ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

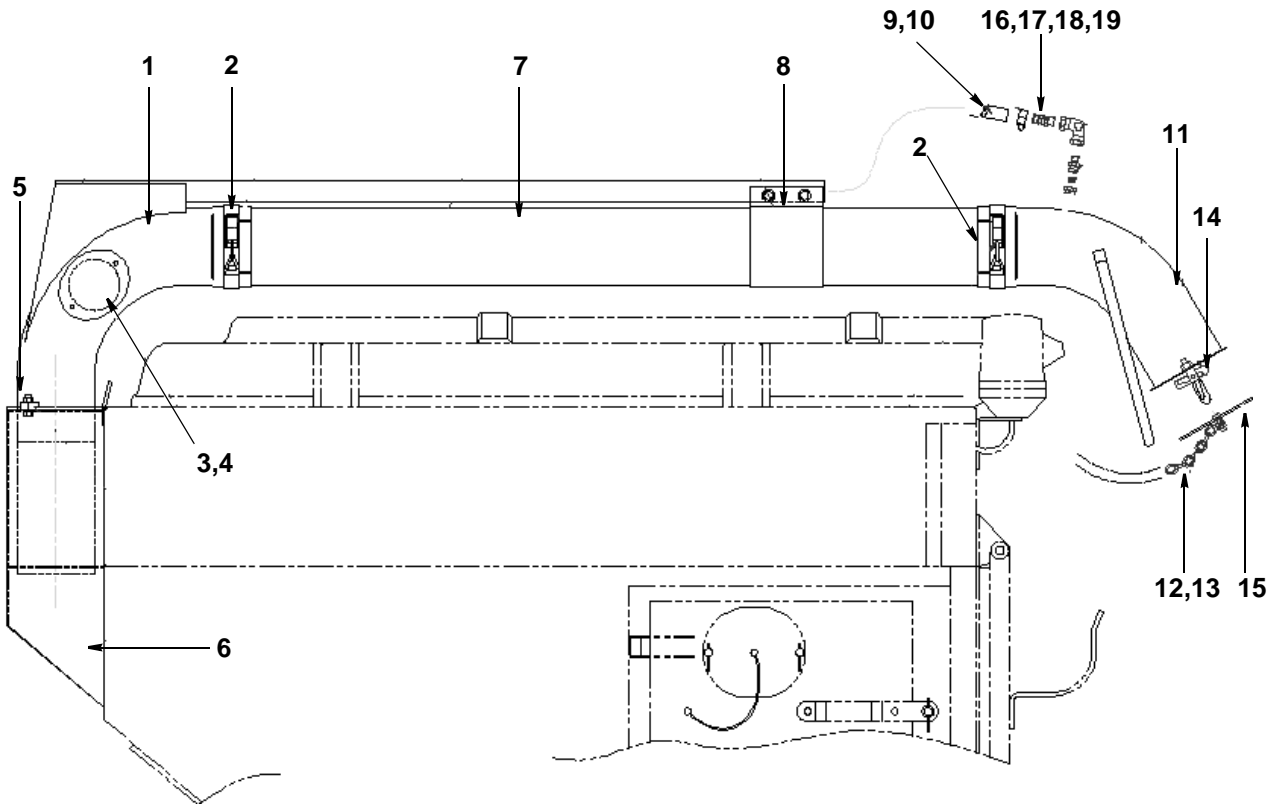




<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>OVERHEAD BOOM ASSEMBLY</b>			
1	026089	1	Support elbow
2	011808	1	. Clip
3	010746	1	Cover, elbow
4	011079	2	. Wing nut
5	011697	2	Clamp
6	026090	1	Housing
7	020284	1	Ali suction tube 1560mm Lg
8	023493	1	. Strap, suction tube
9	010950	1	Hose 3/8" black
10	010516	2	. Jubilee clip
11	026088	1	Elbow
12	010526	1	Chain
13	013577	1	. Spring clip
14	012253	2	Antiluce small
15	012486	1	Cap plate
16	010112	1	Nozzle
17	012926	1	. Spray jet
18	010922	1	. Hosetail 1/4" x 3/8" Bsp
19	010928	1	. Brass Nut 3/8"
NI	010526	0.50	Chain Link small

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**OVERHEAD BOOM ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRANT MOUNTING KIT</b>			
1	020484	2	Bracket, Standpipe mounting
2	020483	2	Strap, Standpipe mounting
3	013506	1	Pin
4	010509	2	Catch
5	000021	2	Bolt, hex, M6 x 40mm long
6	011002	4	Screw M6 x 16mm long
7	011010	4	Bolt, hex, M8 x 20mm long
8	011071	6	Nut M6
9	011073	5	Nut M8

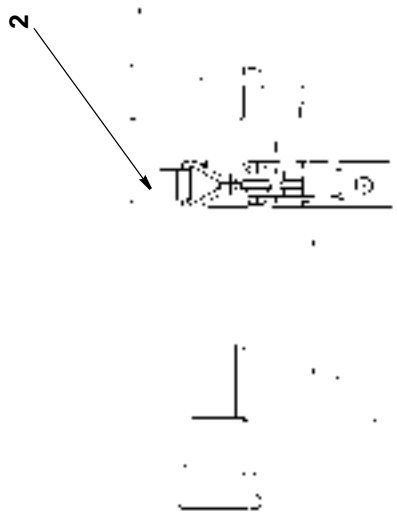
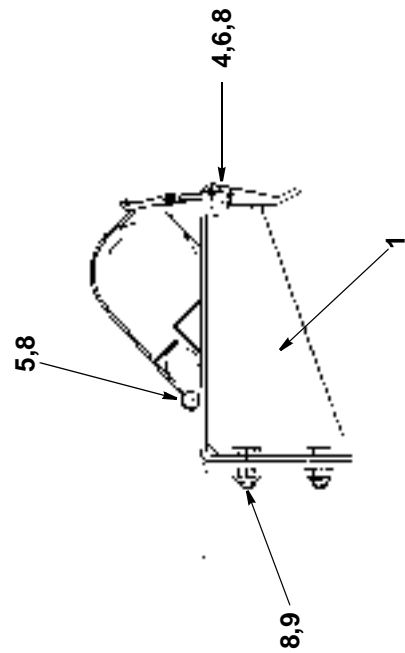
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRANT FILLER ASSEMBLY</b>			
1	013840	1	Filler Cap assy
2	010918	1	Elbow, 3/4"
3	011104	1	Washer, 1"
4	013169	1	Hydrant thread adaptor
NI	013661	1	Cap, hydrant filler
NI	014547	1	Hydrant Hose

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRANT KIT AND FILLER ASSEMBLY</b>			
NI	013820	1	Hydrant filler assy
NI	014547	1	Hydrant hose
NI	014544	1	Hydrant Standpipe
NI	014545	1	Hydrant Key & Bar
NI	013171	1	Hydrant Hosetail
NI	014546	1	Hydrant Male Inst

**NOTE:**

For details of the parts for the Hydrant Kit, please refer to Page **E29**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**HYDRANT MOUNTING KIT**

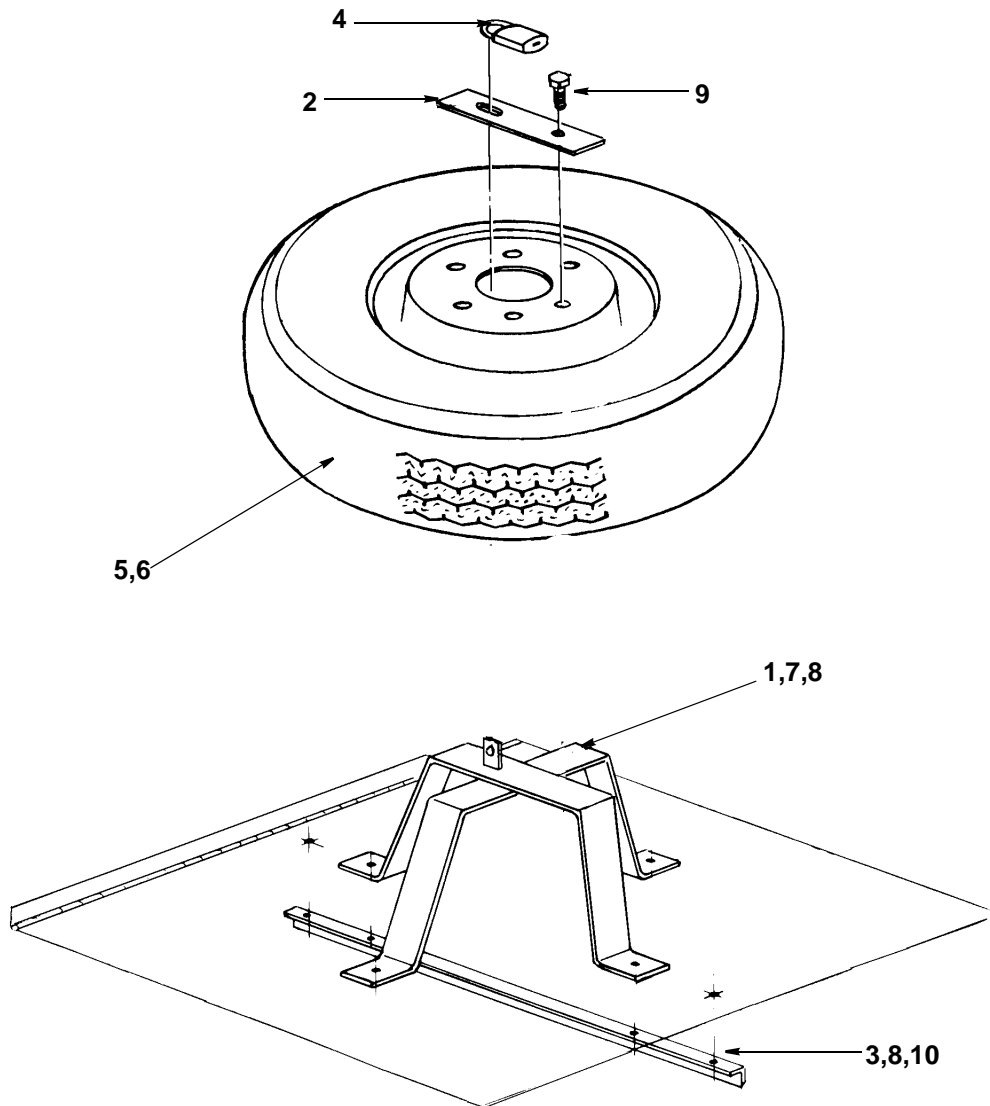
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>SPARE WHEEL &amp; CARRIER ASSEMBLY</b>			
1	014733	1	Spare wheel carrier
NI	021874	1	Spare wheel carrier (Boom)
2	014734	1	Lock strap
3	014735	1	Stiffener
4	014746	1	Padlock 50mm
5	014609	1	Wheel Rim
6	013463	1	Tyre 195R 14C
7	011031	4	Bolt, hex, M10 x 25mm long
8	011075	6	Nut M10
9	000024	1	Bolt, hex, M12 x 50mm long
10	011030	6	Bolt, hex, M10 x 20mm long

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**SPARE WHEEL & CARRIER ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION E WASHING & DUST SUPPRESSION SYSTEM

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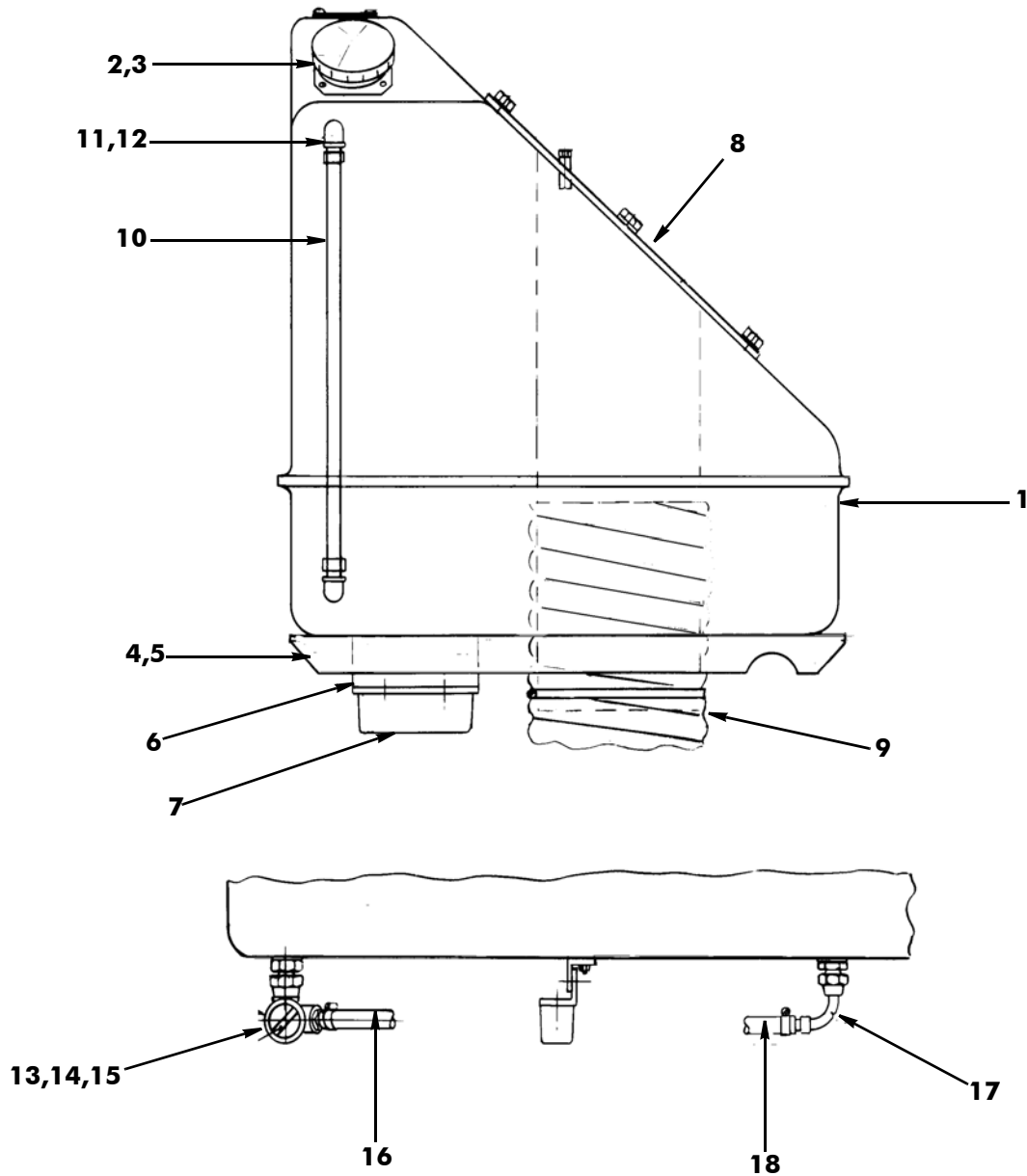
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<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WATER TANK ARRANGEMENT</b>			
1	014678	1	. Water tank
2	014040	1	.. Filler cap assembly
	011001	4	... Bolt, hex hd, M6 x 16 mm
	011090	4	... Washer 6 mm
3	013661	1	... Cap, filler
NI	020896	1	.. Disc, rubber (located centrally on top face of tank)
	011115	4	... Screw, Posidrive hd, self-tapping, No. 10 x 1/2" long
4	014278	1	. Bracket, mounting, base, left hand
	011010	3	.. Bolt, hex hd, M8 x 20 mm
	011073	3	.. Nut M8
	011092	3	.. Washer 8 mm
5	014279	1	. Bracket, mounting, base, right hand
	011010	3	.. Bolt, hex hd, M8 x 20 mm
	011073	3	.. Nut M8
	011092	3	.. Washer 8 mm
6	013462	2	. Bracket, mounting, rubber buffer
	011051	4	.. Bolt, hex hd, M12 x 25 mm
	011077	4	.. Nut M12
7	014693	2	. Buffer, rubber
	011034	2	.. Bolt, hex hd, M10 x 40 mm
	011075	2	.. Nut M10
	011094	2	.. Washer 10 mm
8	014303	1	. Suction tube
	011032	8	.. Bolt, hex hd, M10 x 30 mm long
	011075	8	.. Nut M10
	011094	8	.. Washer 10 mm
9	023154	1	.. Suction hose
	010519	2	... Jubilee clip No. 7
10	010951	0.50 m	.. Hose, 3/8" Clear
	010964	2	... O-Clips 9/16"
11	010912	2	... Elbow, galvanised, 1/4" BSP
12	010922	2	... Hose tail, 1/4" BSP x 3/8"
13	030597	1	.. Filter assembly, water (M/Cs with Electric Water Pump)
13	025290	1	.. Filter assembly, water (M/Cs with Hydraulic Water Pump)
NI	010121	1	... Water filter, 3/4" BSP
NI	021223	1	... Gauze, water Filter
NI	021222	1	... Cap, water Filter
NI	021221	1	... O-Ring, water Filter
14	011174	1	... Elbow, swivel 3/4" BSP
15	010931	1	... Hose tail, 3/4" BSP x 1"
16	010959	1.50 m	... Hose 1"
	012927	1	... Jubilee clip No. 2
17	011234	1	.. Hose elbow 1/2" BSP x 5/8"
18	011000	1	... Hose 5/8"
	010517	1	... Jubilee clip No. 0X
NI	023134	1	.. Alarm, low level water
NI	021804	1	... Switch, float
	010934	1	.. Socket, galvanised, 3/4" BSP
NI	011244	1	... Plug 3/4" BSP
NI	011241	1	.. Plug 1/4" BSP
NI	014272	2	Base clamp
NI	014273	2	Nozzle clamp
NI	011268	1	Adaptor, bulkhead 1/2" BSP

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**WATER TANK ARRANGEMENT**

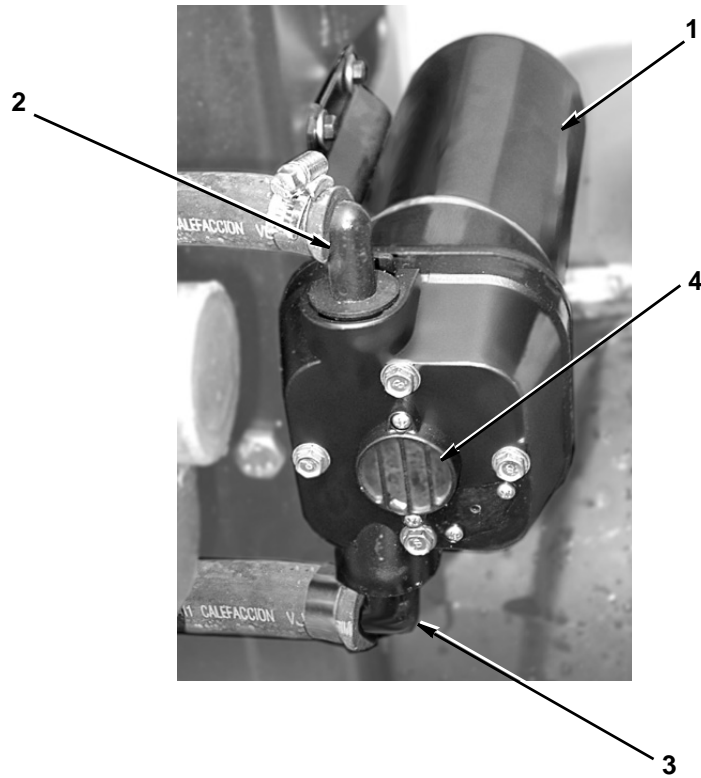
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			<b>WATER PUMP LOW PRESSURE ASSEMBLY 12 Volt</b>
1	026866	1	Electric water pump 12 Volt
2	026723	1	Elbow, delivery
3	026724	1	Elbow, suction
4	028176	1	Flange, blanking
NI	026867	1	Label
NI	027023	1	Electrical connector, 2 Way (Male)
NI	026891	1	Diaphragm kit
NI	026892	1	Valve kit

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



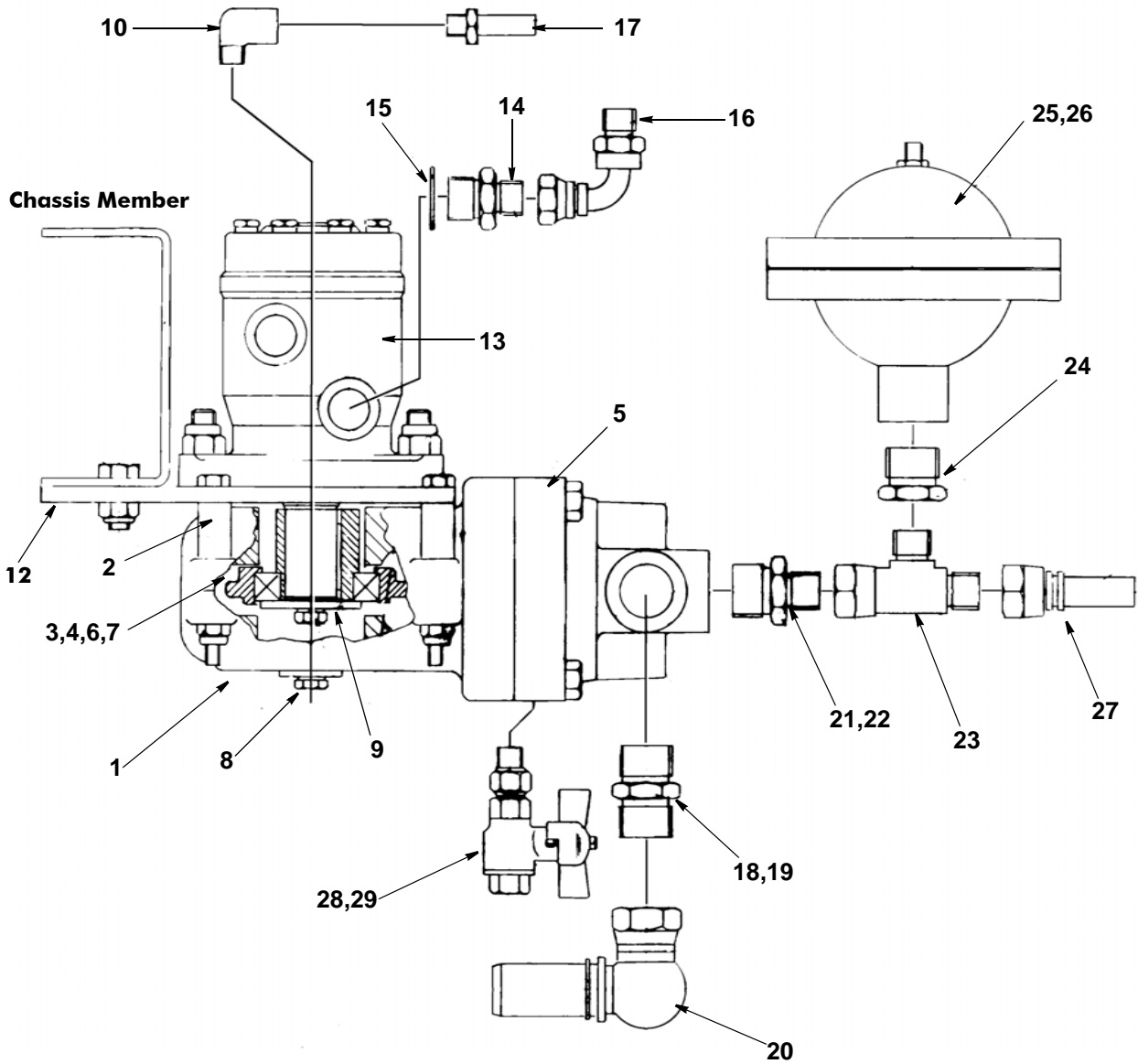
**ELECTRIC WATER PUMP**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



Item	Part Number	Quantity	Description
<b>LOW-PRESSURE WATER PUMP (HYDRAULIC DRIVE)</b>			
1	018215	1	. Water pump, single cylinder, Hardi
	011415	4	.. Bolt, hex, M8 x 80 mm
	011073	4	.. Nut, M8
2	012981	4	.. Spacer 27
3	013587	1	.. Casing, Hardi pump
4	013585	1	... Crankcase, modified
5	013589	1	.. Pump head, modified
NI	000319	4	... Bolt, hex 3/8" UNC x 1 3/4"
6	013519	1	.. Eccentric
7	013522	1	.. Bearing, ball 6007-2RS
NI	013627	2	.. Valve, Hardi pump
NI	013628	2	.. Seal, Hardi pump
NI	013629	1	.. Diaphragm, Hardi pump
NI	014682	1	.. Con Rod, Hardi pump
NI	020457	1	.. Crankcase
NI	020458	1	.. Crankcase, Motor side
NI	020459	1	.. Pump head
8	013591	1	.. Cover Plate
	011022	2	... Bolt, hex, 3/8" UNC x 3/4" BSP
	011095	2	... Washer, Spring, M10
9	010004	1	.. Washer, 9 x 50 x 4
	011010	1	... Bolt, hex, M8 x 20 mm
	011093	1	... Washer, spring, M8
10	010910	1	.. Elbow, M/F, 1/4" BSP
11	011152	2	... Seal, Dowty, 1/4" BSP
12	013834	1	. Pump plate
	011031	2	.. Bolt, hex, M10 x 25 mm
	011075	2	.. Nut, M10
13	013527	1	. Motor, Danfoss OMP 50
	011077	2	.. Nut M12
NI	010762	1	.. Seal kit, Danfoss
NI	023069	1	.. Seal kit, Danfoss
14	011167	2	.. Adapt 1/2" BSP x 3/8" BSP
15	011154	2	... Dowty Seal 1/2" BSP
16	011221	2	... Elbow, Sweep, 3/8" BSP
17	010922	1	... Hose tail 1/4" BSP x 3/8"
18	011161	1	. Adaptor, 3/4" BSP
19	011155	1	.. Seal, Dowty 3/4" BSP
20	011210	1	... Hose Elbow 1" BSP x 3/4" BSP
21	011166	1	. Adaptor, 1/2" BSP x 3/4" BSP
22	011155	1	.. Seal, Dowty 3/4" BSP
23	011182	1	... Tee Nut on Run 1/2" BSP
24	010962	1	... Bush, reducing, 3/4" BSP x 1/2" BSP
25	013582	1	. Damper, pulsation
26	021305	1	.. Diaphragm, pulsation damper
27	011235	1	.. Hose Tail 1/2" BSP x 5/8" BSP
28	011743	1	. Valve, ball, 1/4"
29	010944	1	.. Nipple, grease, 1/4" BSP
NI	011244	1	. Plug 3/4" BSP

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**LOW-PRESSURE WATER PUMP ARRANGEMENT  
HYDRAULIC DRIVE**

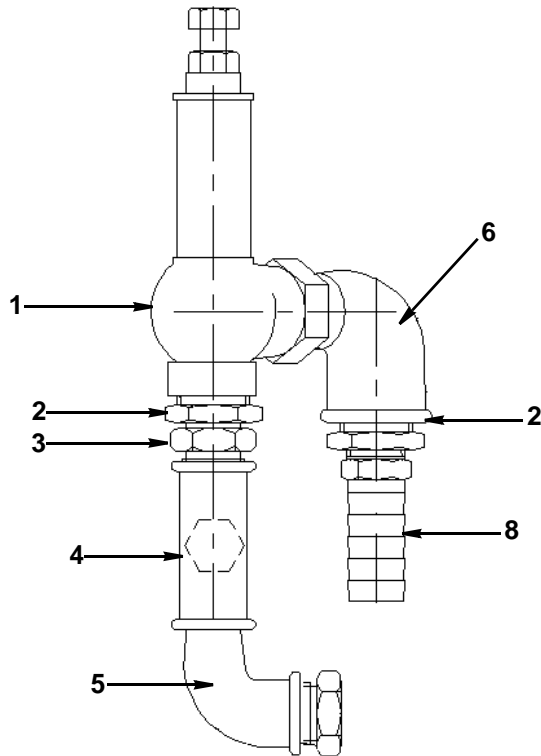
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



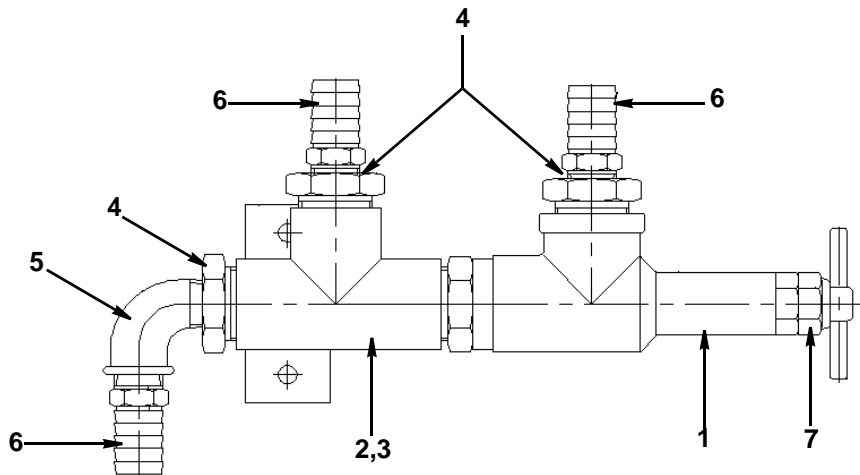
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WATER RELIEF VALVE (ELECTRIC L-P WATER PUMP)</b>			
1	026721	1	Valve, release, 3/4"
2	010914	2	Bush, reducing, 1/2" BSP x 3/8" BSP
3	010943	2	Nipple, grease, 3/8" BSP
4	010941	1	Tee, galvanised 3/8" BSP
5	010913	1	Elbow, galvanised 3/8" BSP
6	010942	1	Elbow, galvanised, M/F, 3/8" BSP
7	026869	1	Hosetail 3/8" BSP x 1/2" BSP
8	010930	3	Hose tail 3/8" BSP x 5/8" BSP

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>025618 WATER RELIEF VALVE ASSEMBLY</b>			
1	010101	1	Valve, release 3/4"
2	010919	1	Tee, galvanised 3/4"
3	014143	1	Water tee mod
4	010946	3	Bush, reducing, 3/4" BSP x 3/8" BSP
5	010913	1	Elbow, galvanised 3/8" BSP
6	010930	3	Hose tail 3/8" BSP x 5/8" BSP
7	011048	1	Nut, Nyloc 1/2" UNF

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**WATER RELIEF VALVE**  
**12 V Electric Water Pump**



**WATER RELIEF VALVE**  
**Hydraulic Water Pump**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



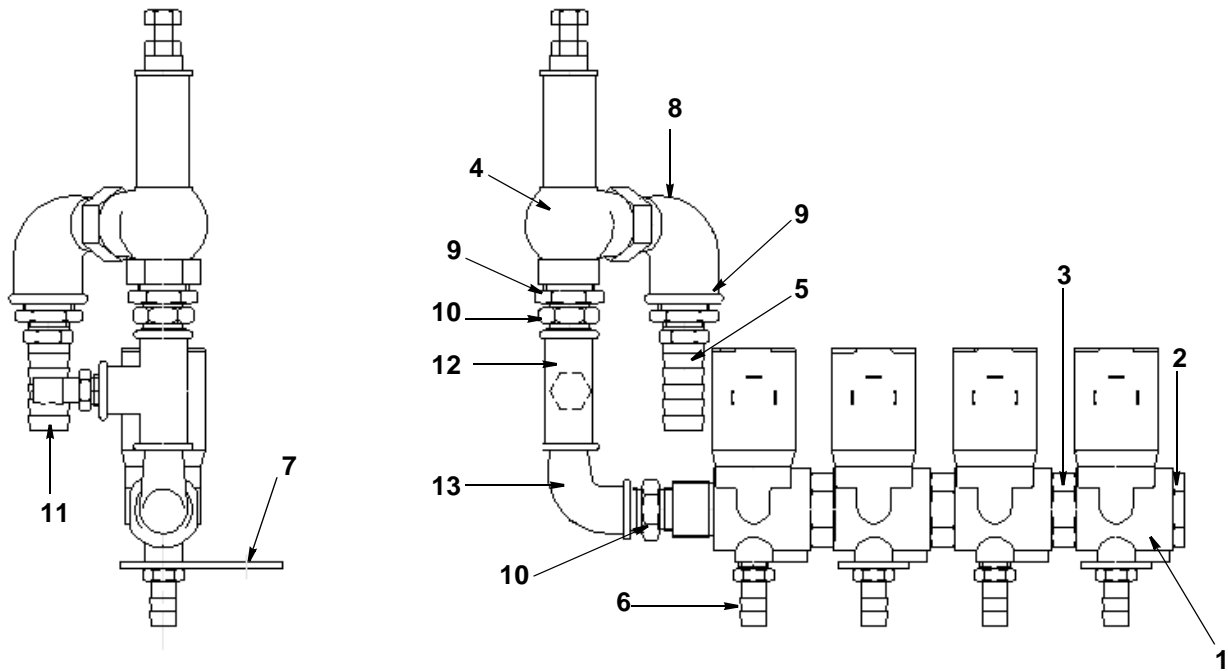


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>026725</b>		<b>WATER VALVES ARRANGEMENT (NORGREN)</b>
1	025353	3	Valve, water, Norgren 12 Volt
NI	026855	As Req	. Seal kit, water valve
2	024834	1	Valve plug
3	024833	2	Backnut , valve
4	026721	1	Pressure relief
5	010930	1	Hose tail 3/8" BSP x 5/8"
6	010922	3	Hose tail 1/4" BSP x 3/8"
7	025616	2	Bracket
8	010942	1	Elbow M/F 1/2" BSP
9	010914	2	Bush galvanised 1/2" BSP x 3/8" BSP
10	010943	2	Nipple 3/8" BSP
11	026869	1	Hose tail, 3/8" BSP x 1/2"
12	010941	1	Tee fitting, galvanised 3/8" BSP
13	010913	1	Elbow, galvanised, 3/8" M/F
NI	026721	1	Valve release (M/Cs With Electric Water Pump)
NI	010101	1	Valve release (M/Cs With Hyd Water Pump)

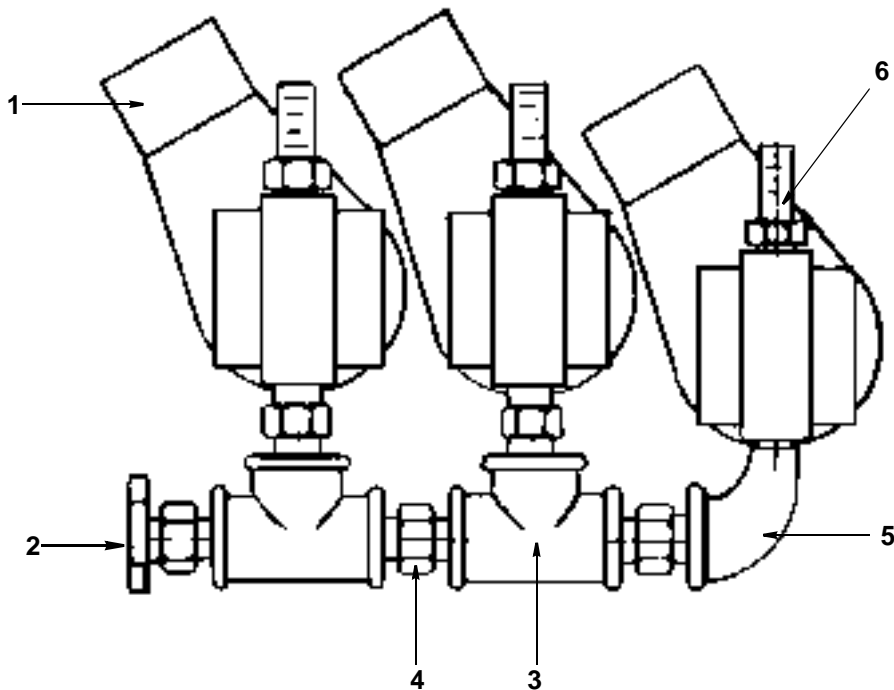
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>024596</b>		<b>WATER VALVES ARRANGEMENT (GOYEN)</b>
1	013847	3	Valve, water, Goyen 12 Volt
2	003006	1	Bush 3/4" x 1/4" BSP
3	010909	2	Tee fitting, 1/4" BSP
4	010944	2	Nipple, grease, 1/4" BSP
5	010910	1	Elbow, M/F, 1/4" BSP
6	010922	3	Hosetail, 1/4" x 3/8" BSP

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**WATER VALVE ASSEMBLY NORGREN**



**WATER VALVE ASSEMBLY GOYEN**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

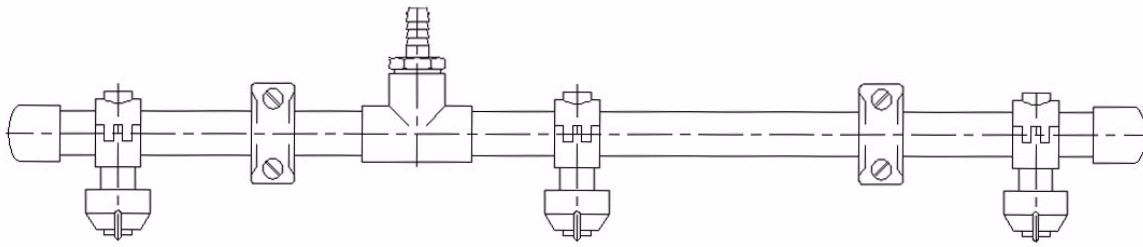




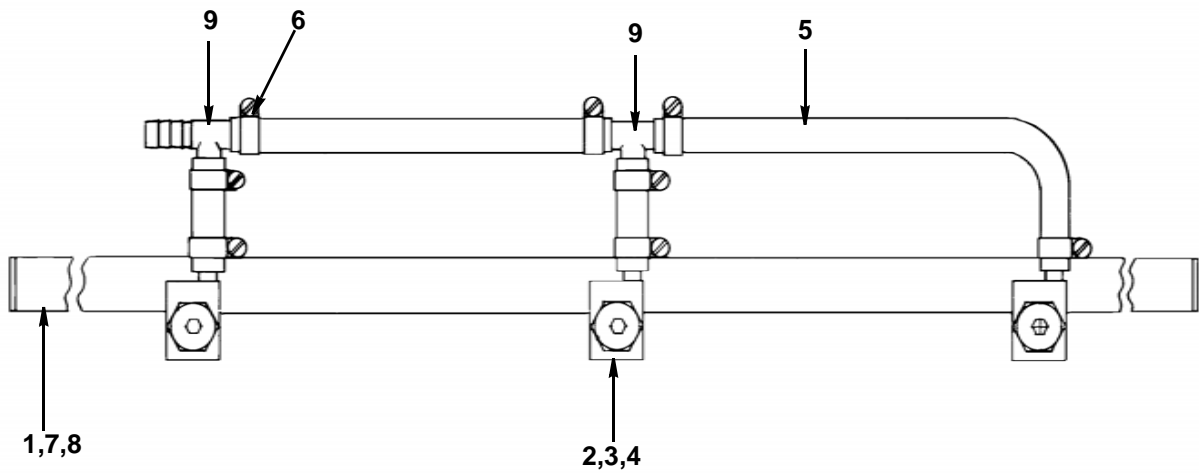
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>030203</b>		<b>LOW PRESSURE SPRAY BAR ASSEMBLY FROM 7-2003</b>
1	030203	1	Spray bar, plastic from July 2003
2	030637		. Jet, plastic
3	030633		. Filter
4	030634		. Nozzle holder
5	030635		. Jet Cap
6	030636		. Washer, rubber

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>018242</b>		<b>LOW PRESSURE SPRAY BAR ASSEMBLY UPTO 7-2003</b>
1	014135	1	Spray bar
2	013360	3	Nozzle assembly
3	011091	3	Washer, spring, 6 mm
4	011001	3	Bolt, hex, M6 x 16 mm long
5	010950	2 m	Hose, reinforced, 3/8"
6	010516	9	Jubilee clip No. M00 (16)
7	011073	2	Nut, M8
8	011010	2	Bolt, hex, M8 x 20 mm long
9	003000	2	Tee, brass , 3/8"

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**LOW PRESSURE WATER SPRAY BAR ASSY from 7-2003**



**LOW PRESSURE WATER SPRAY BAR ASSY upto 7-2003**

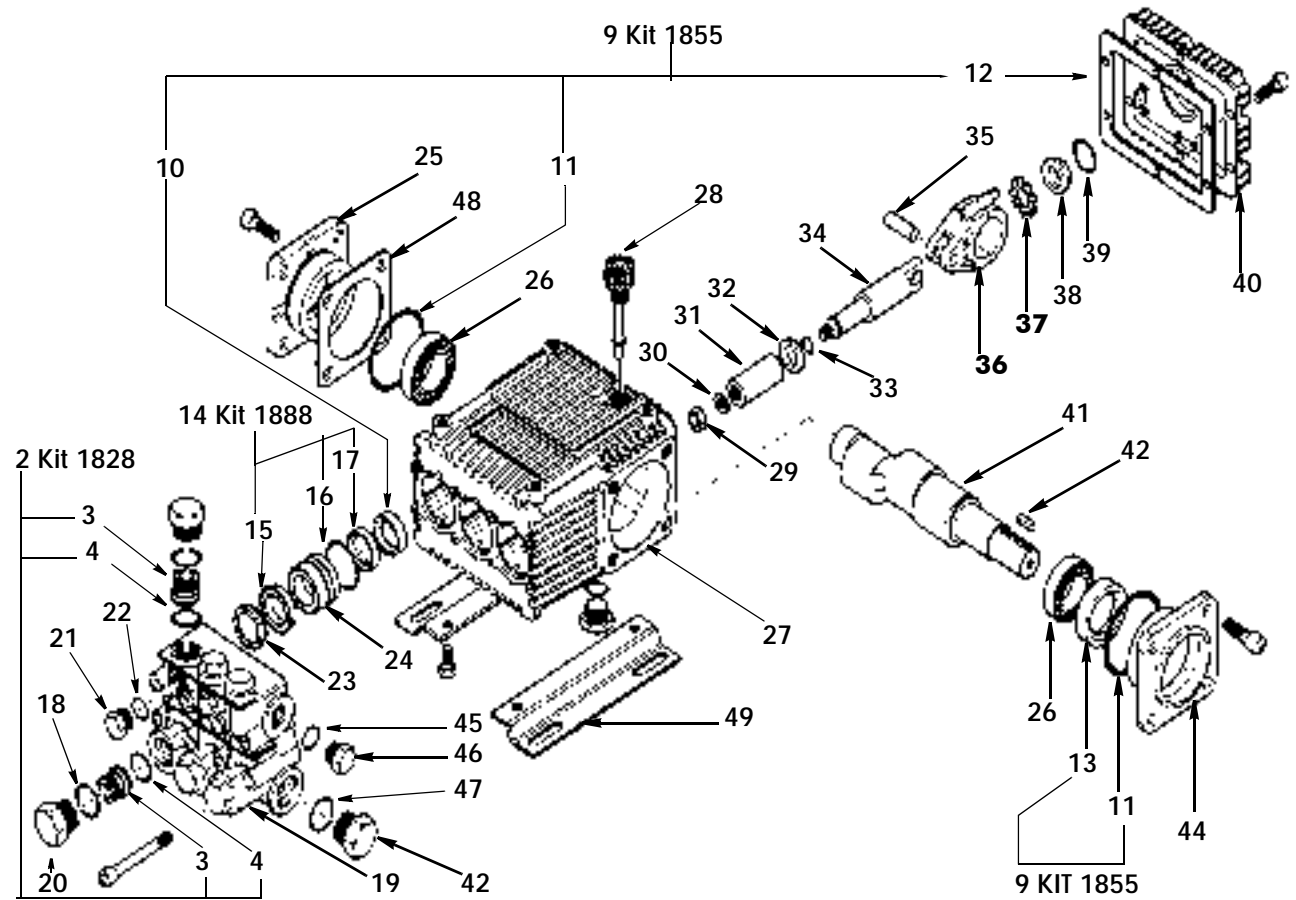


When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



Item	Part Number	Quantity	Description
			<b>HIGH PRESSURE PUMP 21 LITRE (Chrome Head type)</b>
1	014867	1	Pump 21 litre H.P
1	014867SE	1	Pump 21 litre H.P (Service Exchange Unit)
2	013554	1	<b>Poppet Valve Kit 1828</b> (see list below)
3	N/A	6	.. Valve (complete), kit 1828
4	N/A	6	.. O-Ring, kit 1828
5	N/A	6	.. Valve Seat, kit 1828
6	N/A	6	.. Valve, kit 1828
7	N/A	6	.. Valve Spring, kit 1828
8	N/A	6	.. Valve Cage, kit 1828
9	014462	1	<b>Water Valve Kit 1855</b> (see list below)
10	N/A	3	.. Oil Seal, kit 1855
11	N/A	2	.. O-Ring, kit 1855
12	N/A	1	.. Cap Seal, kit 1855
13	N/A	1	.. Oil Seal, kit 1855
14	021237	1	<b>Water Seal Kit 1888</b> (see list below)
15	N/A	3	.. Piston Seal, kit 1888
16	N/A	3	.. O-Ring, kit 1888
17	N/A	3	.. Gasket, kit 1888
18	021236	6	O-Ring
19	021238	1	Head
20	021268	6	Valve Plug
21	021239	2	Plug 1/4"
22	021240	2	O-Ring
23	021241	3	Bearing Gasket 22 dia
24	021242	3	Piston Guide Bush
25	021243	1	Closed Bearing Support
26	028705	2	Bearing <b>(RK BODY TYPE) - (XR TYPE 021244)</b>
27	021245	1	Pump Body (RK TYPE) C/W End Cap and 'O' Ring
28	021246	1	Oil Filler Plug
29	021247	3	Piston Seal Nut
30	021248	3	Washer
31	021249	3	Piston, 22 dia
32	021250	3	Separation Disc
33	021251	3	O-Ring
34	021252	3	Drive Piston
35	021253	3	Pin
36	021254	3	Connecting Rod (XR BODY TYPE)
37	021255	1	Circlip
38	021256	1	Oil Level plug
39	021257	1	O-Ring
40	021258	1	Rear Cap
41	021259	1	Eccentric Shaft (XR BODY TYPE)
42	021260	1	Key
43	021261	1	Plug
44	021262	1	Open Bearing Support
45	021263	2	O-Ring
46	021264	1	Plug
47	021265	1	O-Ring
48	021266	1	Lining 0.1
48	021267	1	Lining 0.2
49	014448	2	Mounting Bracket

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**21 LITRE HIGH PRESSURE PUMP  
(‘XR’ STYLE SHOWN)**

**NOTE: ‘XR’ PUMP FITTED UP TO 1999, THEREAFTER ‘RK’ STYLE PUMPS  
IT IS POSSIBLE TO FIT ALL ‘XR’ INTERNAL COMPONENTS INTO THE ‘RK’ BODY**

When ordering replacement parts, always give the machine’s Serial Number and specify Part Number, Quantity & Description

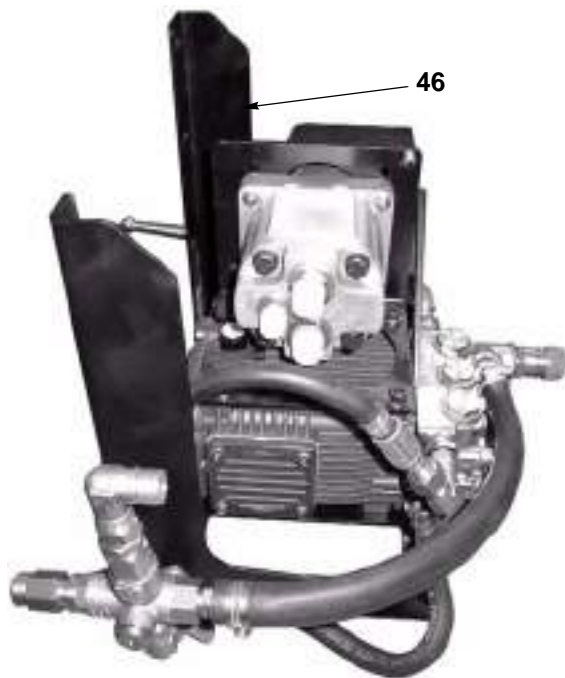
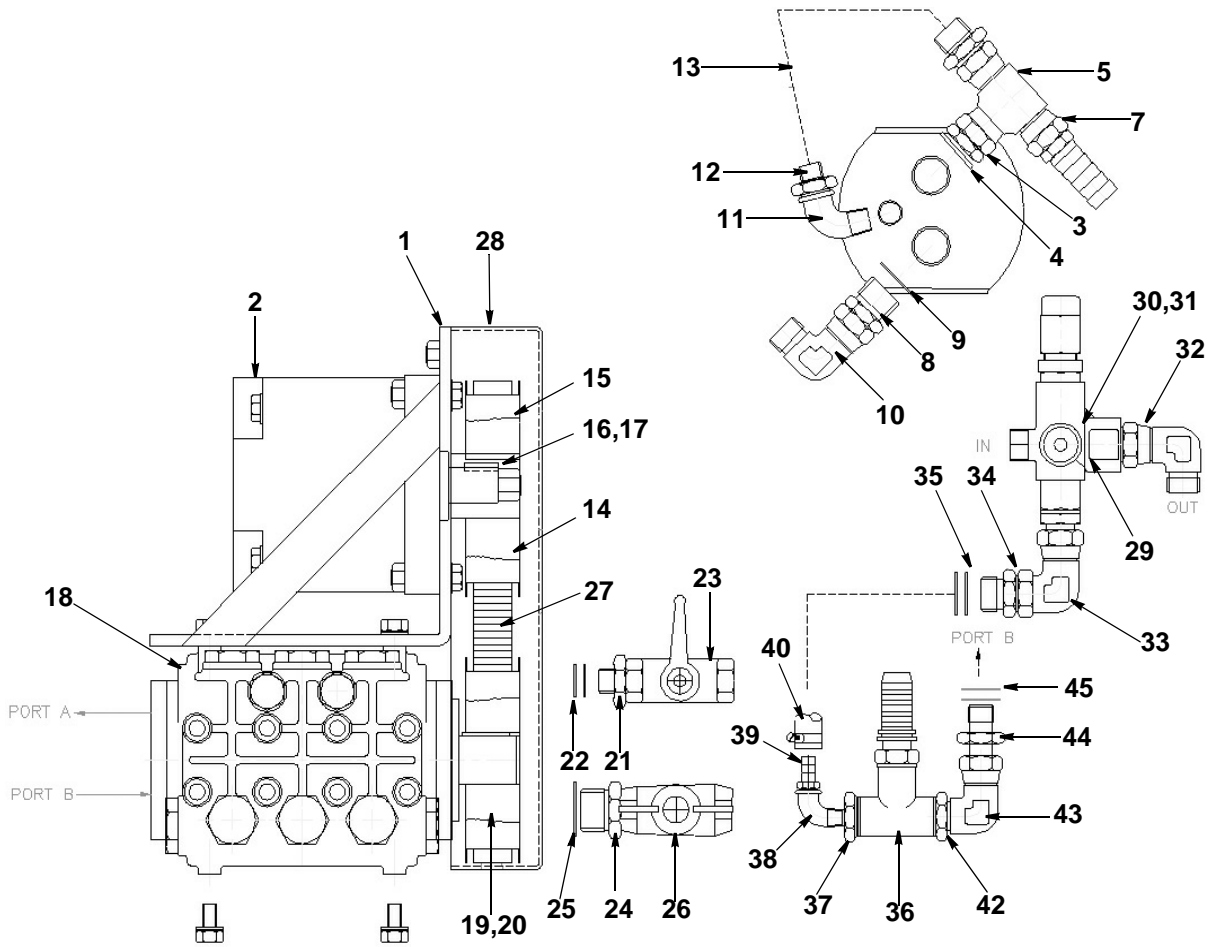


<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>HIGH PRESSURE PUMP ASSEMBLY</b>			
1	014449	1	. Bracket, motor
2	021315	1	.. Motor IMRO15
	011068	4	... Bolt, hex, M6 x 35 mm long
	011071	4	... Nut, M6
	011090	4	... Washer, plain, 6 mm
3	011167	1	... Adapter, 1/2" BSP 3/8" BSP
4	011154	1	... Seal, 1/2" BSP
5	011222	1	... Tee, 3/8" BSP
6	011159	1	... Adapter, 3/8" BSP x 1/4" BSP
7	010923	1	... Hosetail, 3/8" x 3/8" BSP
8	011167	1	... Adapter, 1/2" BSP x 3/8" BSP
9	011154	1	... Seal, 1/2" BSP
10	011172	1	... Elbow, 3/8" BSP
11	010910	1	... Elbow, 1/4" BSP
12	011159	1	... Adapter, 3/8" BSP x 1/4" BSP
13	011318	1	... Hose assembly 1/4" BSP x 240 mm long
14	012529	1	... Pulley, timing, 32 tooth
15	010575	1	... Bush, taperlock
16	014447	1	... Sleeve
17	011994	1	... Key
	000014	1	... Nut, 7/16" UNF
	000068	1	... Washer, plain, 7/16"
18	014867	1	. Pump, high-pressure XR21.15
NI	014448	2	.. Bracket, stand
	011010	8	.. Bolt, hex, M8 x 20 mm long
	011093	8	.. Washer, spring, 8 mm
19	014703	1	.. Pulley, timing, 40 tooth
20	014453	1	... Bush, Taperlock
21	011159	1	.. Adapter, 3/8" BSP
22	011153	1	... Seal, 3/8" BSP
23	011257	1	.. Valve, ball, 1/4" BSP
24	011165	1	.. Adapter, 1/2" BSP x 1/4" BSP
25	011154	1	... Seal, 1/2" BSP
26	011743	1	.. Valve, ball, 1/4" BSP
27	014454	1	. Belt, timing
28	014455	1	. Guard
	011071	2	.. Nut, M6
29	010599	1	. Valve, unloader
30	011241	2	.. Plug, 1/4" BSP
31	011152	1	... Seal, 1/4" BSP
32	011172	1	.. Elbow, 3/8" BSP
33	011205	1	.. Elbow, 3/8" BSP
34	011159	1	... Adapter, 3/8" BSP
35	011153	1	... Seal, 3/8" BSP
36	010919	1	. Tee, 3/4" BSP
37	010946	1	.. Bush, reducing, 3/4" BSP x 3/8" BSP
38	010913	1	... Elbow, 3/8" BSP
39	010930	1	... Hosetail, 3/8" x 5/8" BSP
40	011000	0.30 m	... Hose, 5/8"
	010517	2	... Jubilee Clip
41	010931	1	.. Hosetail, 3/4" x 1" BSP
42	010962	1	.. Bush, reducing, 3/4" BSP x 1/2" BSP
43	011173	1	... Elbow, 1/2" BSP
44	011160	1	... Adapter, 1/2" BSP
45	011154	1	... Seal, 1/2" BSP
46	028761	1	. Front Mounted Carrier

} **To Port A on H-P pump**

} **To Port B on H-P pump**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**HIGH PRESSURE PUMP ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

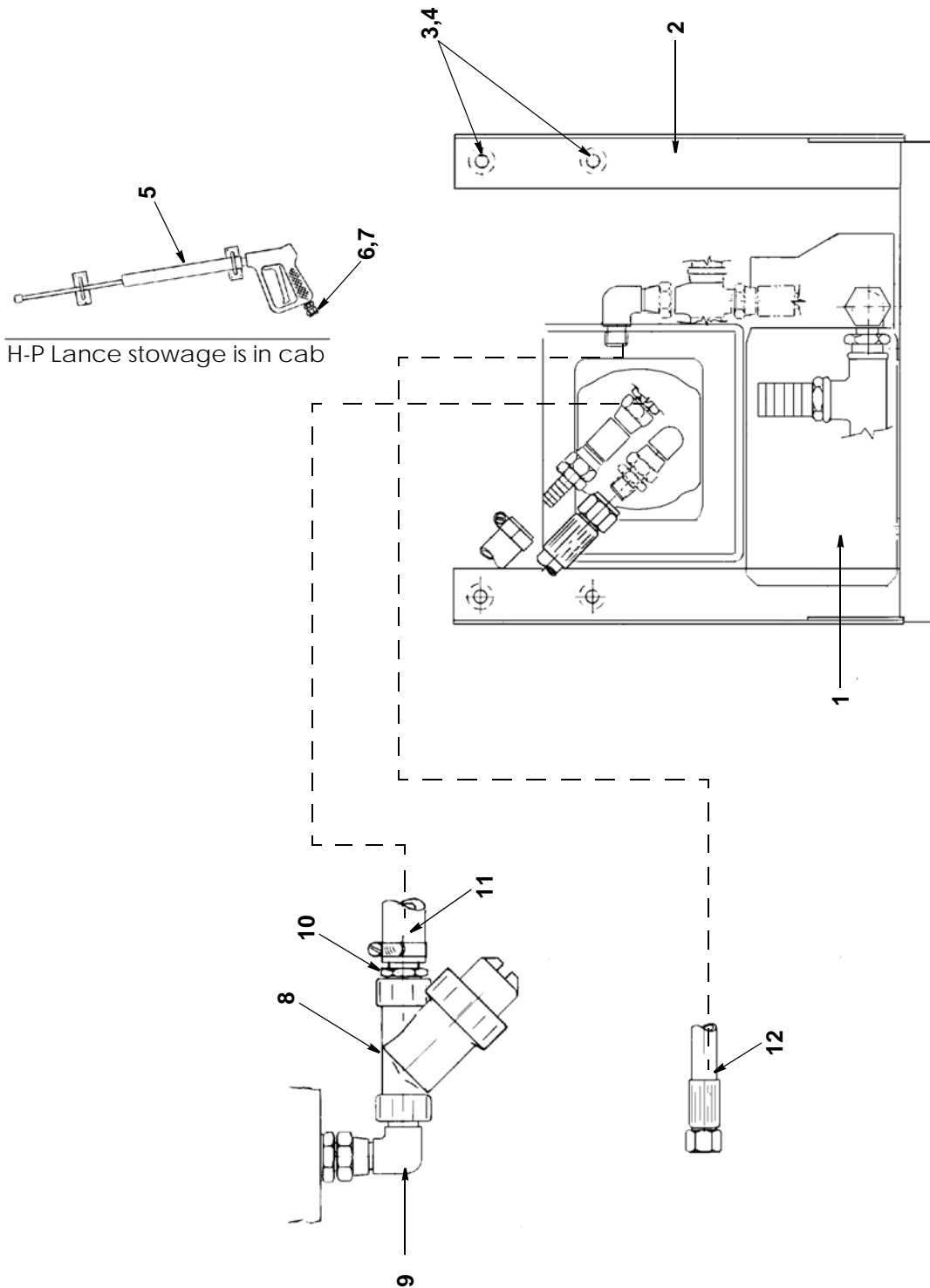




<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HIGH PRESSURE SPRAY SYSTEM</b>			
1	015017	1	. High-pressure pump assembly
2	028761	1	.. Carrier, High-pressure pump, front mounted (From June 2003)
2	014452	1	.. Carrier, high-pressure pump
3	011711	2	.. Spacer
4	012981	2	.. Spacer
5	010748	1	. Lance
NI	014666	1	.. Jet for lance
6	011159	1	.. Adapter
7	024463	1	... Swivel joint
8	025290	1	. Filter assembly
9	011174	1	.. Elbow
10	010931	1	.. Hosetail 3/4" x 1" BSP
11	010959	1.4 m	.. Hose
	010518	2	... Jubilee clip
12	011301	1	.. Hose assembly
NI	020451	1	. HOSE REEL, AUTO RETRACTING ..... PAGE E35

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**HIGH-PRESSURE SPRAY SYSTEM ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

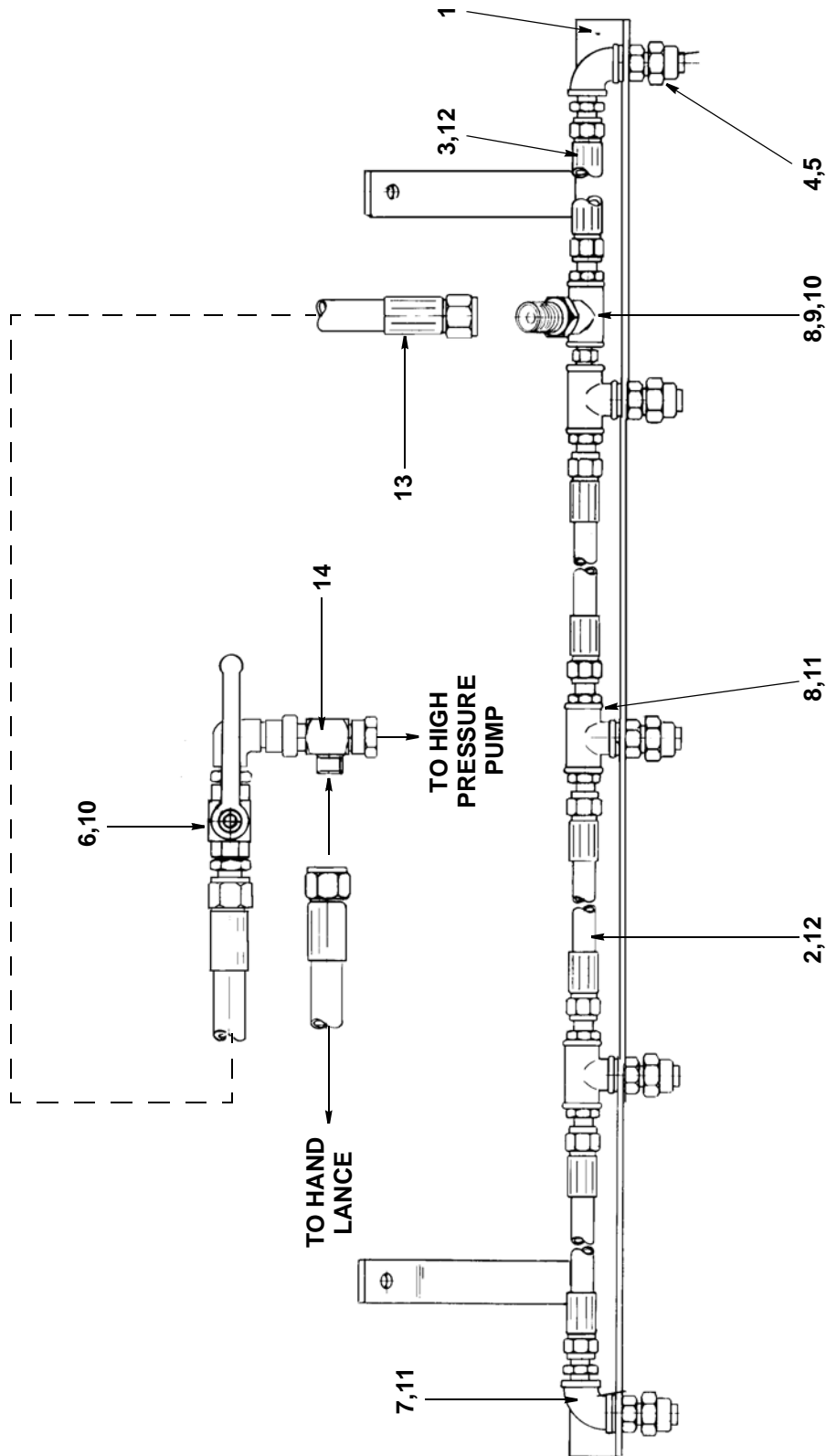


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>018252</b>		<b>HIGH PRESSURE SPRAY BAR ASSEMBLY - STEEL PIPE</b>
1	014267	1	Spray bar
NI	020904	1.20	Steel pipe
4	010112	5	Nozzle, brass
5	012316	5	Spray jet LF4-80
7	010912	2	Elbow, galvanised 1/4" BSP
8	010909	4	Tee, galvanised 1/4" BSP
9	010944	1	Nipple, hex 1/4" BSP
7	011199	1	Adapt 3/8" BSP x 1/4" BSP
8	011152	9	Seal, dowty 1/4" BSP
9	002086	8	Male stud 12mm x 1/4" BSP

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>018252</b>		<b>HIGH PRESSURE SPRAY BAR ASSEMBLY - RUBBER HOSE</b>
1	014267	1	Spray bar
2	011317	3	Hose assembly, 1/4" BSP x 295mm long
3	011318	1	Hose assembly, 1/4" BSP x 240mm long
4	010112	5	Nozzle, brass
5	012316	5	Spray jet
6	011257	2	Valve, ball, 1/4" BSP
7	010912	2	Elbow, 1/4" BSP
8	010909	4	Tee, 1/4" BSP
9	010944	1	Nipple, hex, 1/4" BSP
10	011199	3	Adapter, 3/8" BSP x 1/4" BSP
11	011152	9	Seal, dowty, 1/4" BSP
12	011158	8	Adapter, 1/4" BSP
13	011302	1	Hose assembly, 3/8" BSP x 2972mm long
14	011223	1	Tee nut on run, 3/8" BSP
15	011010	2	Bolt, hex, M8 x 20mm long
16	011073	2	Nut, M8

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			<b>COMPONENTS FOR ADJUSTABLE BRACKET OPTION</b>
NI	020709	2	Bracket adjuster
NI	020710	2	Nut plate
NI	012312	2	Hand screw
NI	012377	2	Spacers

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**HIGH-PRESSURE SPRAY BAR**

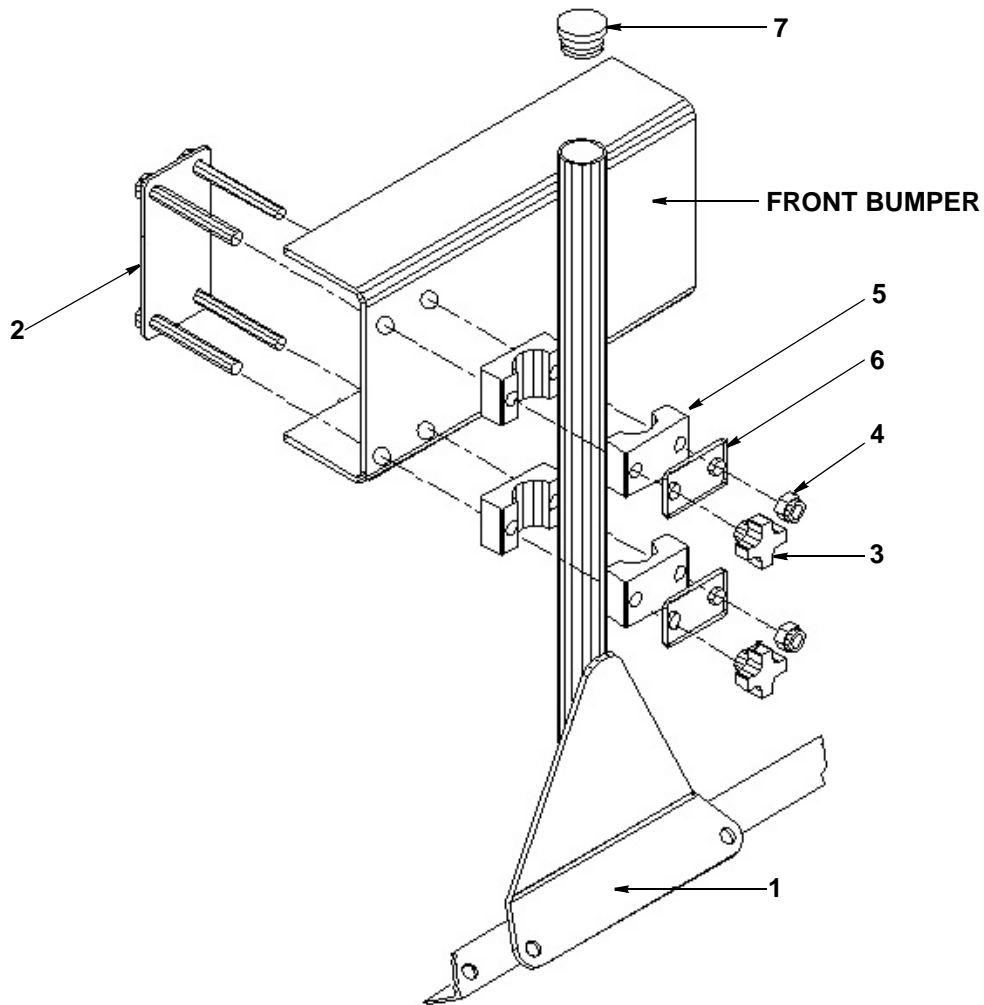
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>028005</b>		<b>ADJUSTABLE SPRAYBAR MOUNT (FRENCH MARKET)</b>
1	028006	1	Centre pivot, French Spraybar
2	028007	1	Clamp plate
3	000248	2	M8 Grip Nut with inset
4	011073	2	M8 Nyloc Nut
5	027982	4	Pipe Clamp Block 25mm Single
6	027990	2	Pipe Clamp Top Plate
7	026173	1	Plastic Plug 25.4 (Black)
8	018253	NI	Assy H.P.F.S.B Fit

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**ADJUSTABLE SPRAYBAR MOUNT**

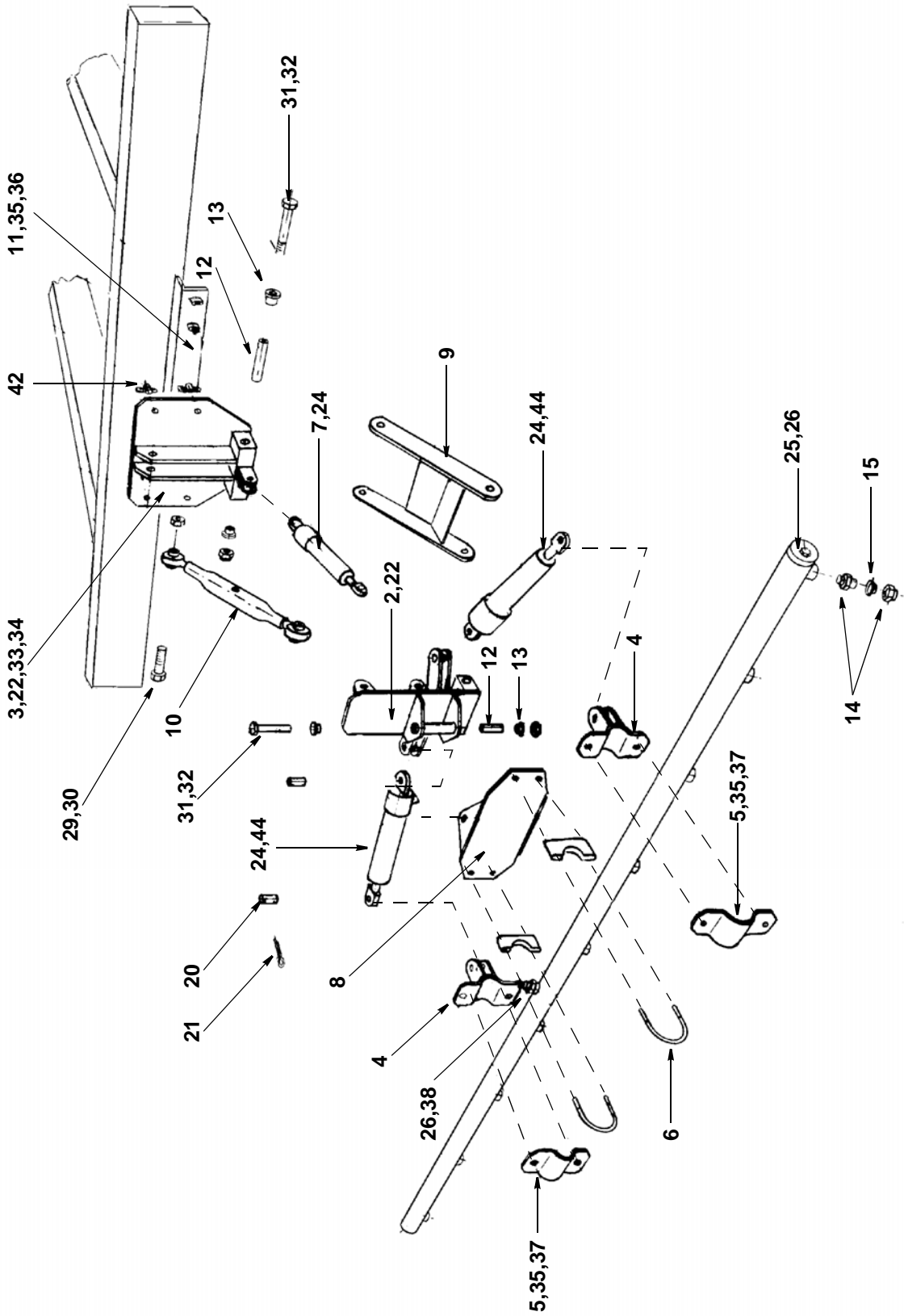


When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>STREETWASHER SPRAY BAR ASSEMBLY</b>			
1	014977	1	Spraybar
2	014978	1	Swivel bracket
3	014979	1	Mounting plate
4	014981	2	Ram pivot
5	014982	2	Clamp
6	014983	2	U clamp, 1 1/2"
7	012973	1	Ram, hydraulic, No 1
8	014984	1	Pivot bracket
9	013495	1	Link, lower
10	013011	1	Top link
11	014988	1	Coupling bracket
12	013491	3	Sleeve
13	013488	6	Bush
14	010112	9	Spray nozzle
15	020027	9	Spray jet
16	010980	1	Hose 1/4" x 432mm long
17	010990	1	Hose 1/4" x 600mm long
18	010980	1	Hose 1/4" x 432mm long
19	011308	1	Hose 3/8" x 500mm long
20	010067	6	Pin 20 x 50
21	011122	12	Split pin, 3/16" x 1 1/2"
22	010901	3	Grease nipple
23	011171	3	Swivel elbow 1/4" BSP M/F
24	012539	3	Restrictor No5
25	011241	2	Plug 1/4" BSP
26	011152	5	Seal, dowty, 1/4" BSP
27	012983	4	Coupling, quick release 3/8" BSP
28		4	Bulkhead adaptor, 3/8" BSP
29	011140	2	Bolt, hex, M18 x 90mm long
30	011139	2	Nut, M18
31	011259	3	Bolt, hex, M12 x 130mm long
32	011077	3	Nut, M12
33	011031	4	Bolt, hex, M10 x 25mm long
34	011075	4	Nut, M10
35	011010	6	Bolt, hex, M8 x 20mm long
36	011073	2	Nut, M8
37	011093	4	Washer, spring, M8
38	011199	8	Adaptor, 1/4" x 3/8" BSP
39	011153	8	Seal, dowty, 3/8" BSP
40	014998	4	Blanking cap
41	014999	4	Blanking plug
42	012253	4	Antiluce, small
43	011159	1	Adapter, 3/8" BSP equal
44	012974	2	Ram No2

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**STREETWASH SPRAY BAR ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



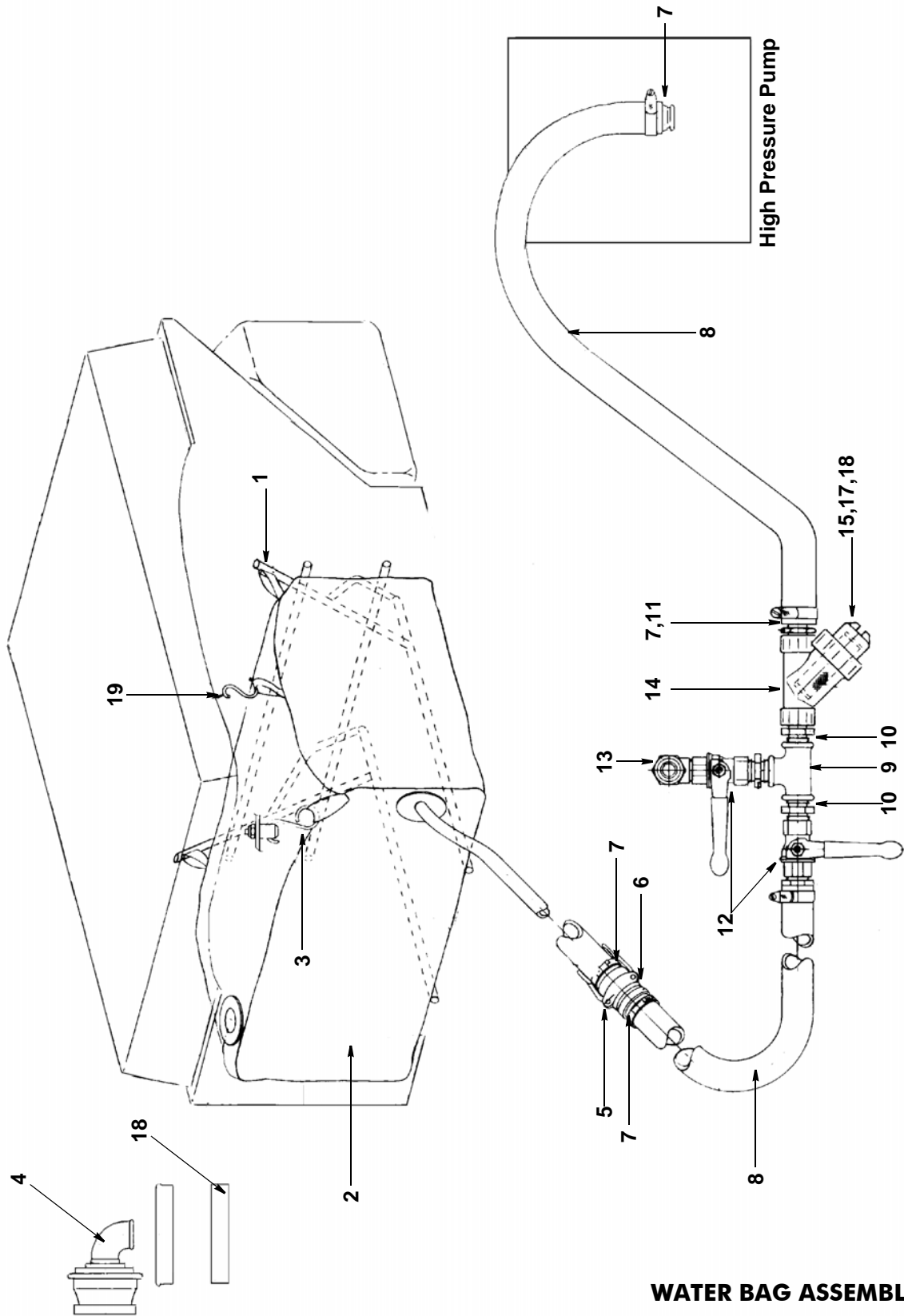


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WATER BAG LOW TIP ASSEMBLY</b>			
1	014859	1	Frame, Low tip
2	014865	1	Water bag
3	014864	4	Hook
4	013820	1	HYDRANT FILLER ..... PAGE E29
5	014749	1	Hose Coupling, Female
6	014789	1	Hose Coupling, Male
7	010518	5	Jubilee clip No1x (40)
8	010959	3.00m	Hose 1"
9	010919	1	Tee piece, 3/4" BSP
10	011161	3	Adapter, 3/4" BSP
11	010931	2	Hose tail, 3/4" x 1" BSP
12	013757	2	Valve, ball, 3/4" BSP
13	011174	1	Elbow, swivel, 3/4" BSP
14	025290	1	Filter assembly, water, 3/4" BSP
15	021223	1	. Strainer, water filter
16	013661	1	Filler cap
17	021222	1	Cap for water filter
18	021221	1	O-Ring for water filter
19	020313	2	Hook

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WATER BAG HIGH TIP ASSEMBLY</b>			
1	014444	1	Frame, High tip
2	014865	1	Water bag
3	014417	2	Hook
4	013820	1	Hydrant filler
5	014749	1	Hose coupling, Female
6	014789	1	Hose coupling, Male
7	010518	5	Jubilee clip No1x (40)
8	010959	3.00m	Hose 1"
9	010919	1	Tee piece, 3/4" BSP
10	011161	3	Adapter, 3/4" BSP
11	010931	2	Hose tail, 3/4" x 1" BSP
12	013757	2	Valve, ball, 3/4" BSP
13	011174	1	Elbow, swivel, 3/4" BSP
14	025290	1	Filter assembly, water, 3/4" BSP
15	021223	1	. Strainer, water filter
16	013661	1	Filler cap
17	021222	1	Cap, water filter
18	021221	1	O-Ring, water filter
19	020313	2	Hook

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**WATER BAG ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

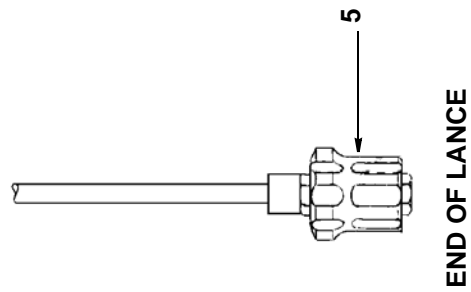
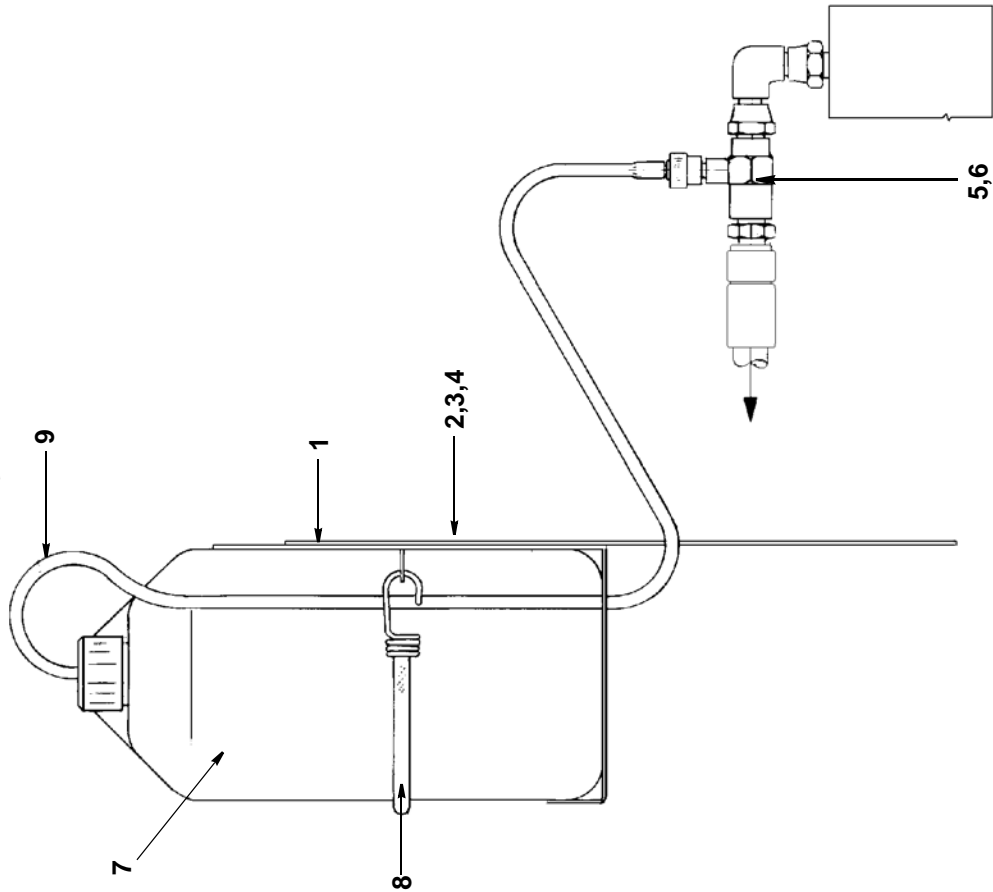




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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			<b>DETERGENT KIT</b>
1	022179	1	Tray, Detergent Bottle
2	010393	1	Bracket
3	011010	4	. Bolt, hex, M8 x 20 mm long
4	011073	4	. Nut M8
5	013573	1	Nozzle injector
6	013574	1	Nozzle
7	013553	1	Bottle
8	013602	1	Octopus Strap
9	013575	1	Silicone tube

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**DETERGENT ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

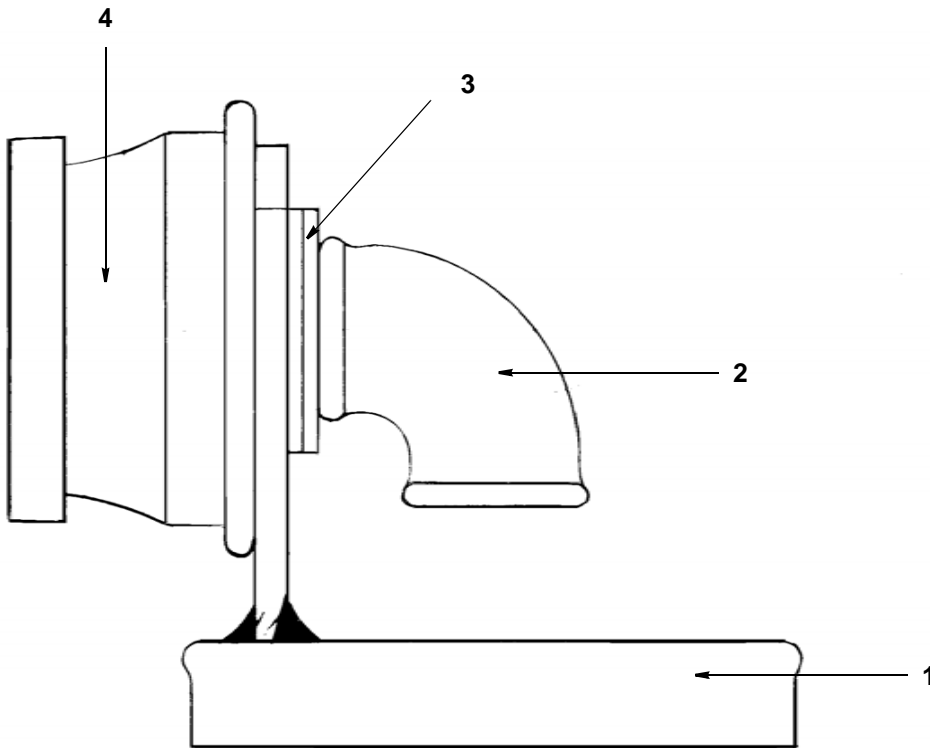




<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRANT FILLER ASSEMBLY</b>			
1	013840	1	Filler Cap assy
2	010918	1	Elbow, 3/4"
3	011104	1	Washer, 1"
4	013169	1	Hydrant thread adaptor
NI	013661	1	Cap, hydrant filler
NI	014547	1	Hydrant Hose

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRANT KIT AND FILLER ASSEMBLY</b>			
NI	013820	1	Hydrant filler assy
NI	014547	1	Hydrant hose
NI	014544	1	Hydrant Standpipe
NI	014545	1	Hydrant Key & Bar
NI	013171	1	Hydrant Hosetail
NI	028729	1	Hydrant hosetail 3/4" to 2 1/2" (Option)
NI	014546	1	Hydrant Male Inst

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



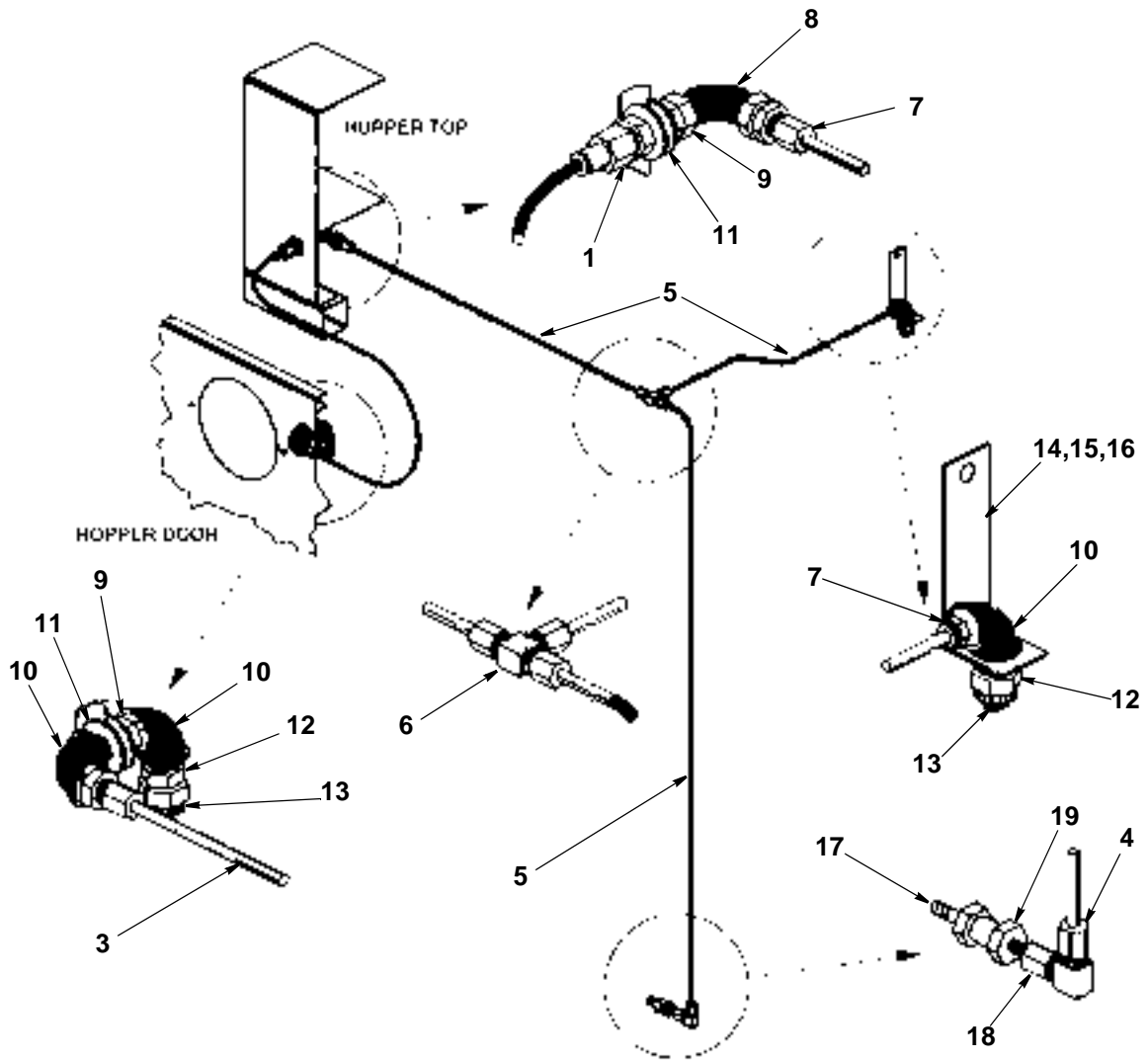
**HYDRANT FILLER ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>027160</b>		<b>WANDER HOSE DUST SUPPRESSION (ELECTRIC WATER PUMP)</b>
1	024649	1	Female union, 6 mm x 1/4" BSP
2	024644	1	Straight connector, 6 mm x 1/4" BSP
3	024650	0.5 m	Air pipe, green nylon, 6 mm
4	002053	1	Union Elbow, 6 mm x 6 mm
5	025723	3 m	Steel tube, SS, 6 mm
6	002085	1	Union tee, 6 mm x 6 mm x 6 mm
7	020902	2	Stud, 6 mm x 1/4" BSP
8	011169	1	Elbow, swivel, 1/4" BSP
9	011269	2	Bulkhead connector 1/4" BSP
10	010912	3	Elbow, galvanised, 1/4" BSP
11	000073	4	Washer, plain, 14 mm
12	010112	2	Nozzle
13	012316	2	Jet
14	011010	1	Bolt, hex hd, M8 x 20 mm long
15	011073	1	Nut, hex, M6
16	027161	1	Bracket, nozzle
17	010922	1	Hosetail 1/4" BSP x 3/8"
18	010911	1	Socket, galvanised, 1/4" BSP
19	002055	1	Standpipe 1/4" BSP x 3/8"

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**WANDER HOSE DUST SUPPRESSION**



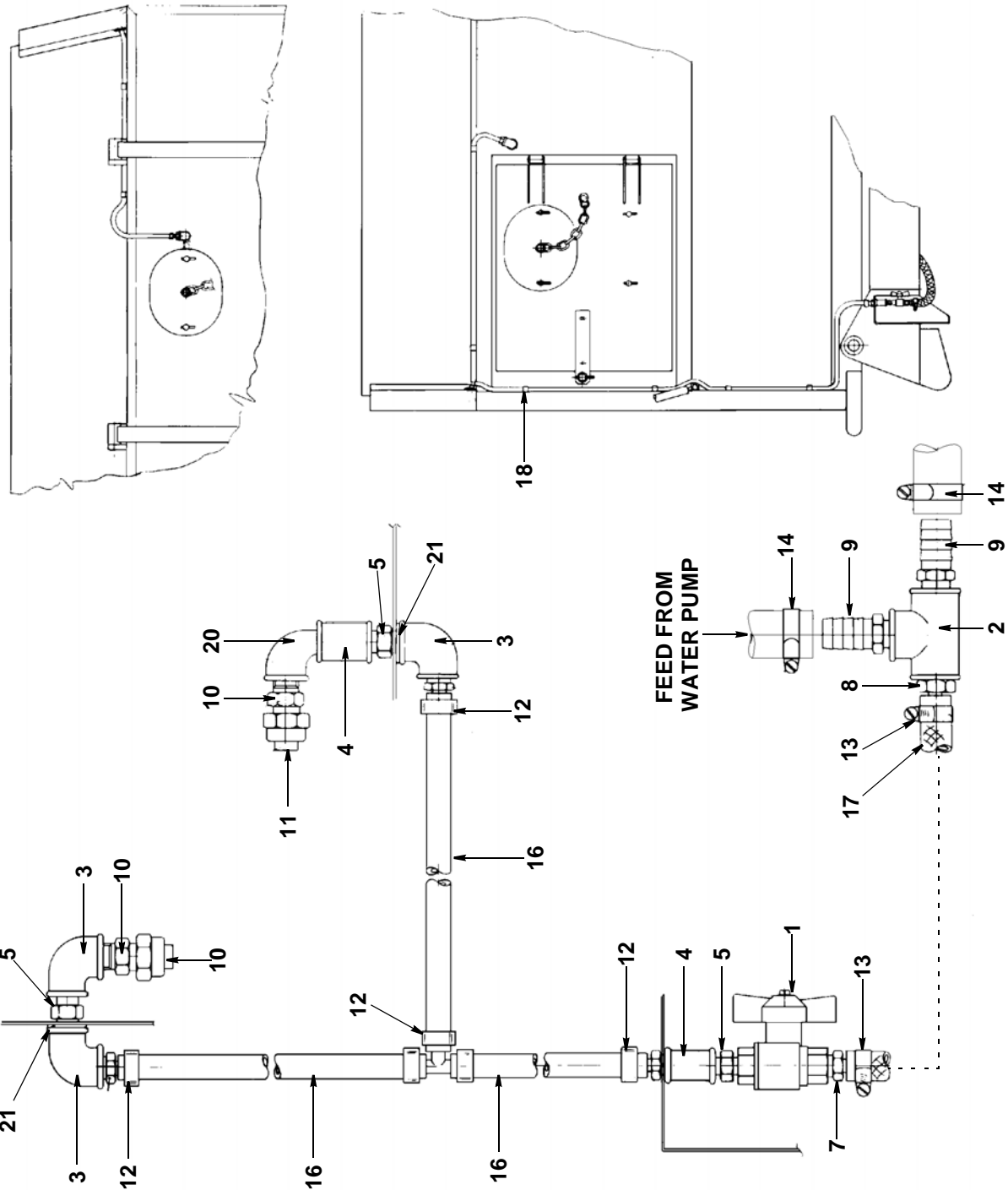
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WANDER HOSE DUST SUPPRESSION (HYDRAULIC WATER PUMP)</b>			
1	011743	1	Valve, ball, 1/4" BSP
2	010941	1	Tee, 3/8" BSP
3	010912	3	Elbow, 1/4" BSP
4	010911	2	Socket, 1/4" BSP
5	011158	2	Adapter, 1/4" BSP x 1/4" BSP
6	010925	3	Hosetail, 1/4" BSP
7	010922	1	Hosetail, 3/8" BSP
8	010923	1	Hosetail, 3/8" BSP
9	010930	2	Hosetail, 5/8" BSP
10	010112	2	Nozzle body
11	012316	2	Jet
12	010960	6	O-Clip
13	010516	2	Hose clip, worm drive (Jubilee)
14	010517	2	Hose clip, worm drive (Jubilee)
15	014679	1	Tee, plastic 3/8"
16	010952	3	Hose assembly, 1/4" BSP
17	010950	1.50 m	Hose 3/8"
18	003005	8	Clip
19	000062	8	Screw, self tapping
20	010910	1	Elbow, M/F 1/4" BSP
21	011152	2	Seal, Dowty 1/4" BSP

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**WANDERHOSE DUST SUPPRESSION KIT**

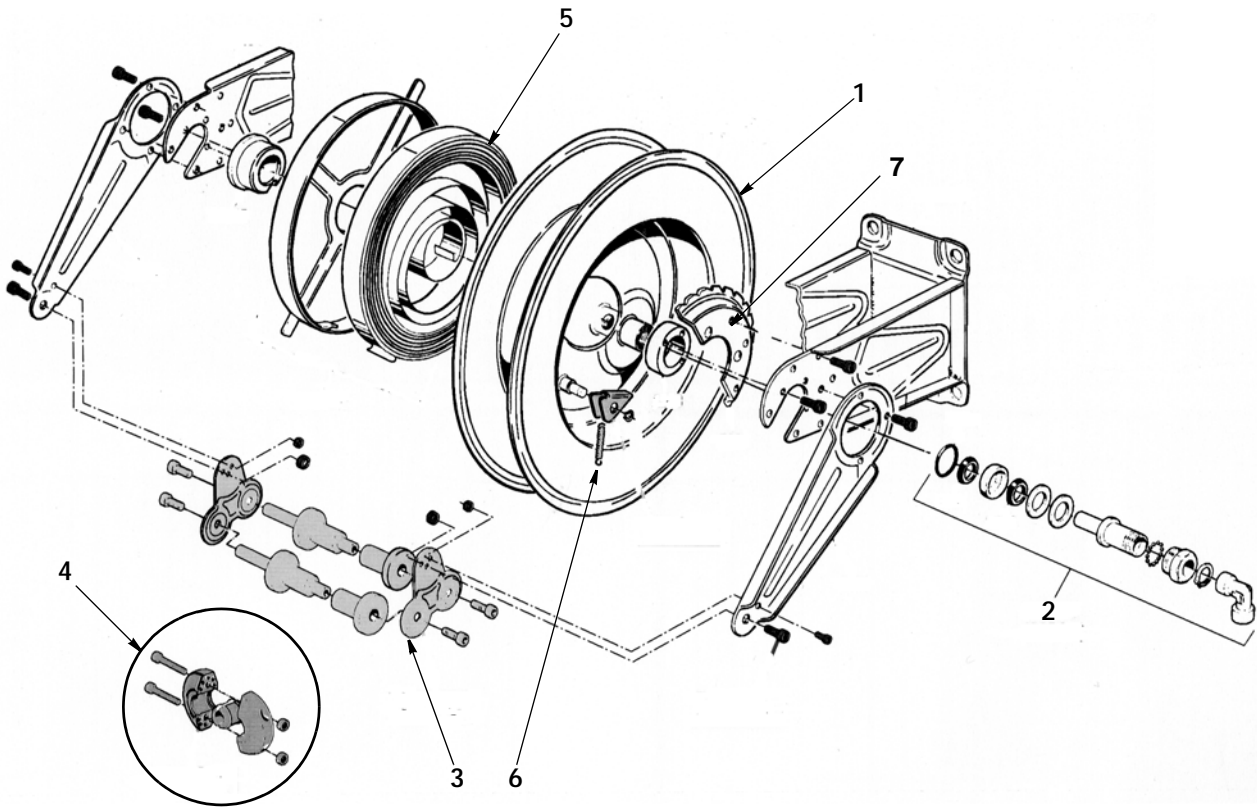
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part no</i>	<i>Quantity</i>	<i>Description</i>
<b>HOSE REEL ASSEMBLY (CHROME TYPE) - AUTOMATIC</b>			
1	020451	1	. Automatic hose reel complete (less hose)
2	024230	1	.. Swivel elbow assembly
3	025238	1	.. Roller assembly
4	026217	1	.. Clamp
5	026753	1	.. Spring, coiled (used on stainless steel reels only)
5	026752	1	.. Spring, coiled (used on green / blue painted reels only)
6	026754	1	.. Spring, tension
NI	010601	13 m	.. Hose, reinforced
7	030570	1	.. Ratchet

<i>Item</i>	<i>Part no</i>	<i>Quantity</i>	<i>Description</i>
<b>LOW WATER ALARM ASSEMBLY</b>			
	<b>028300</b>		
NI	021804	1	Float switch
NI	021815	1	. Insert, tank level
NI	013253	1	. Insert, blank
NI	013239	1	. Pilot lamp

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**AUTOMATIC HOSE REEL**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION F CHASSIS, RUNNING GEAR & CAB

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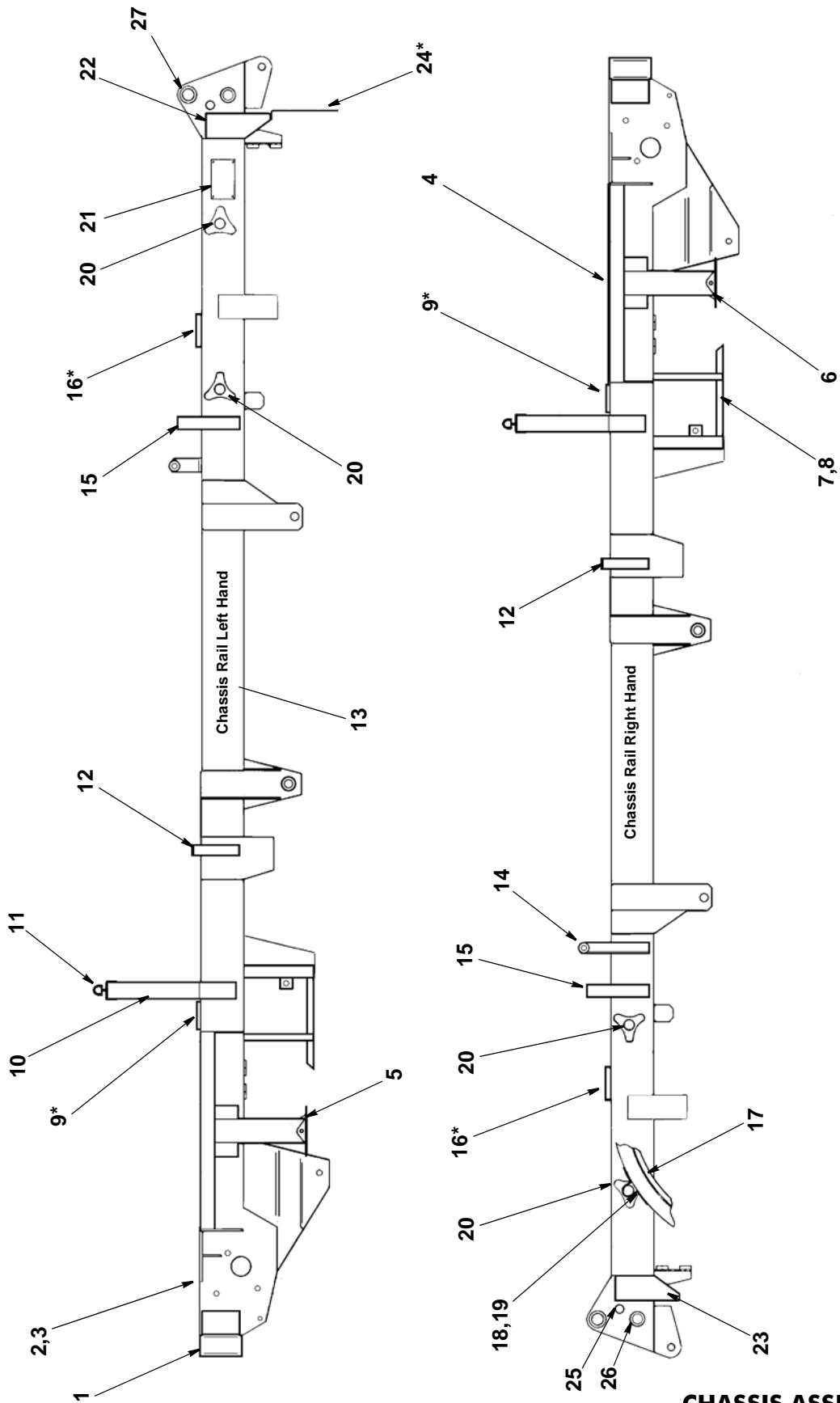
**FOR DETAILS OF THE GANTRY ASSEMBLY  
PLEASE REFER TO SECTION G OF THIS MANUAL**



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CHASSIS-RAIL MOUNTED BRACKETS &amp; FITTINGS</b>			
1	013498	1	. Bumper, front
	011031	6	. . Bolt, hex hd, M10 x 25 mm long
	011075	6	. . Nut, hex, M10, Nyloc
	013662	4	. . . Bush
2	014124	1	. Cover, left hand drive (LHD)
3	014398	1	. Cover, right hand drive
	011071	3	. . Nut, hex, M6, Nyloc
	011075	3	. . Nut, hex, M10, Nyloc
4	013426	1	. Floorplate
	000057	10	. . Screw, pan hd, M8 x 20 mm long
	011073	10	. . Nut, hex, M8, Nyloc
5	022320	1	. Step, left hand
6	022321	1	. Step, right hand
	011010	4	. . Bolt, hex hd, M8 x 20 mm long
	011073	4	. . Nut, hex, M8, Nyloc
7	021672	1	. Battery tray
	011010	4	. . Bolt, hex hd, M8 x 20 mm long
	011073	4	. . Nut, hex, M8, Nyloc
8	100053	1	. . Battery clamp
*9	014845	1	. Pocket, cab prop *
	011075	2	. . Nut, hex, M10, Nyloc
10	014834	1	. Cab locking strap
	011010	4	. . Bolt, hex hd, M8 x 20 mm long
	011073	4	. . Nut, hex, M8, Nyloc
11	021904	1	. . Eye bolt, cab lock
12	022464	2	. Bracket, cab bump-stop
	011011	2	. . Bolt, hex, M8 x 25mm long
	011073	2	. . Nut, hex, M8, Nyloc
13	014020	1	Handbrake abutment (Mounted on left hand chassis rail)
	011010	4	. . Bolt, hex hd, M8 x 20 mm long
	011073	2	. . Nut, hex, M8, Nyloc
	011075	2	. . Nut, hex, M10, Nyloc
14	013905	1	. Bracket, rear tank (Dual-sweep only)
	011011	2	. . Bolt, hex, M8 x 25mm long
	011073	2	. . Nut, hex, M8, Nyloc
15	013465	2	. Hopper guide
	011011	2	. . Bolt, hex, M8 x 25mm long
	011073	2	. . Nut, hex, M8, Nyloc
*16	011757	1	. Pocket, hopper prop *
	011001	2	. . Bolt, hex hd, M6 x 16 mm long
	011071	2	. . Nut, hex, M6, Nyloc
17	013402	2	. Mudguard
18	013404	4	. . Bracket, mudguard
19	012954	4	. . . Backplate, mudguard bracket
20	014162	4	. . Mudguard stay
	011032	3	. . . Bolt, hex hd, M10 x 30 mm long
	011075	3	. . . Nut, hex, M10, Nyloc
21	013938	1	. Label, load apportioning valve (LAV)
	011125	4	. . Rivet, blind, 3.2 mm x 10 mm long
22	013998	1	. Bracket, Rear light left hand
23	013999	1	. Bracket, Rear light right hand
	011011	2	. . Bolt, hex, M8 x 25mm long
	011073	2	. . Nut, hex, M8, Nyloc
*24	012934	1	Bracket, number plate *
	011010	4	. . Bolt, hex hd, M8 x 20 mm long
	011073	2	. . Nut, hex, M8, Nyloc
25	014001	2	. Bush
26	013996	2	. Bush
27	011640	1	. Pin hinge
	011116	4	. . Screw, 2BA x 3/8" long
	011078	4	. . Nut, hex, 2BA, Nyloc

Items identified by \* are fitted to the left or right hand chassis rail according to driving position

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**CHASSIS ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>STEERING ASSEMBLY</b>			
1	026422	1	. Steering box, LHD, Burman (Fitted from November 2001)
1	026423	1	. Steering box, right hand drive (Fitted from August 2002)
1	014643	1	. *Steering box, LHD, Adwest (Fitted upto October 2001)
1	014644	1	. *Steering box, right hand drive (Fitted upto August 2002)
	011054	1	.. Bolt, hex hd, M12 x 45 mm long
	011057	1	.. Bolt, hex hd, M12 x 100 mm long
	011077	2	.. Nut M12
	011030	2	.. Bolt, hex hd, M10 x 20 mm long
	011095	2	.. Washer, spring, 10 mm
	011009	1	.. Bolt, hex, 7/16" UNF x 1 1/4" long
	000064	1	.. Washer, spring, 7/16"
NI	027235	1	.. Seal kit Adwest box only
2	026424	1	.. Drop arm (Fitted from November 2001 on LHD Burman Box)
2	024437	1	.. Drop arm (Fitted upto October 2001 on LHD Adwest Box)
3	028180	1	... Ball Joint RH (Fitted from November 2001 on LHD Burmann Box)
3	014621	1	... Ball Joint RH (Fitted Upto October 2001 on LHD Adwest Box)
4	014921	1	.. Hose assembly, power steering
5	014922	1	.. Hose assembly, modified power steering
6	014942	1	. **Steering shaft assy
7	022485	1	.. Universal joint, steering column
	011015	1	... Bolt, hex hd, M8 x 45 mm long
	011073	4	... Nut M8
8	014473	1	.. Gaiter, steering shaft
9	013473	1	... Tube, Steering column
	011010	1	.... Bolt, hex hd, M8 x 20 mm long
	011016	4	.... Bolt, hex hd, M8 x 50 mm long
	011073	4	.... Nut M8
10	020283	1	... Packer (steering column)
11	013413	1	... Shaft, steering column
12	100070	1	. Lock assy
13	100071	1	.. Lockset with keys
14	100064	1	.. Bearing upper
	100100	1	.. Retaining washer
15	100065	1	.. Spring
	100033	1	... Circlip
16	100066	1	.. Cam
17	100518	1	. Switch assy, Direction Indicator
	100103	4	.. Screw, M5 x 12 mm long
18	100073	1	. Upper cover
	100041		.. Screw
19	100074	1	. Lower cover
	100041		.. Screw
20	100040	1	. Steering wheel
21	100101	1	.. Emblem (steering wheel)
NI	025599	1	. Control valve 8F4701 (Flow & Pressure)

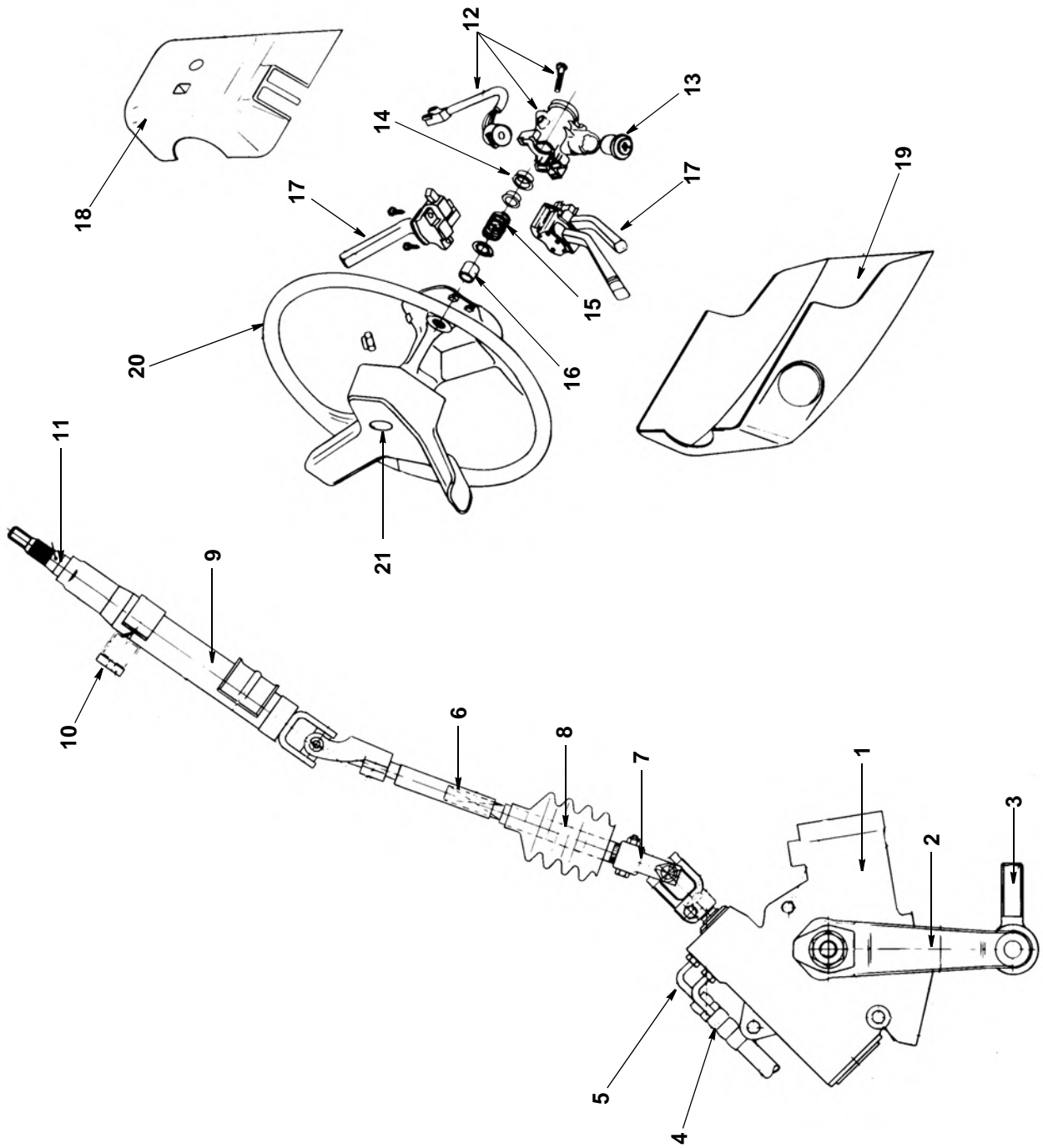
NOTE: \*Adwest steering box are no longer available please use the retro kit.

\*\* From April 2002 The Steering shaft will include the U.J Assembly.

<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>028609/10 STEERING RETRO KIT (Replaces Adwest for Burham Box)</b>			
NI	026422	1	Power Steering Box, LHD
NI	026423	1	Power Steering Box, RHD
NI	026424	1	Drop Arm
NI	028187	1	Drag Link Assembly
NI	011009	2	Bolt, hex, 7/16" UNF x 1 1/4"

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**STEERING ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



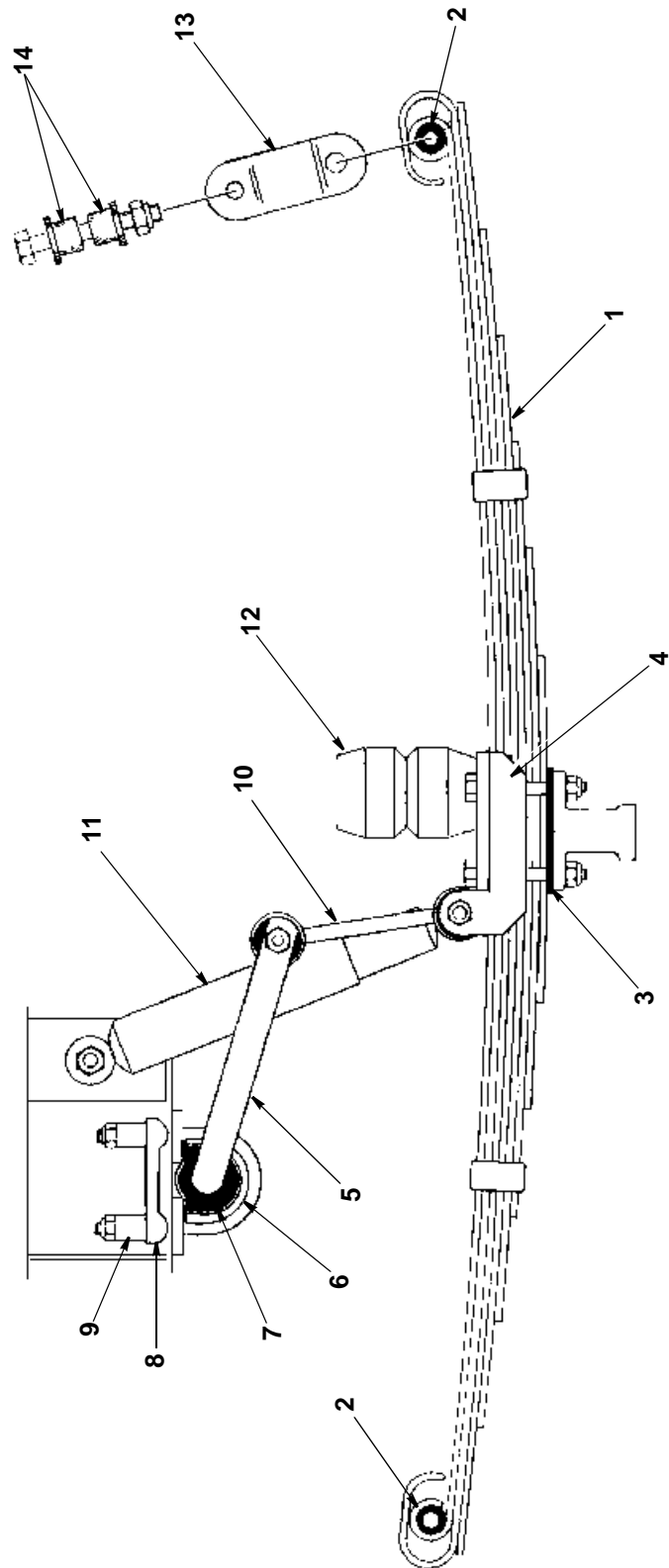
<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FRONT SUSPENSION ASSEMBLY</b>			
1	027666	2	. Spring, Front <b>(From June 2003)</b>
*1	020665	2	. Spring, Front* <b>(Upto June 2003)</b>
2	023627	2	.. Bush, rubber
NI	023626	1	.. Centre leaf retaining bolt
	011419	1	... Bolt, hex hd, M14 x 110 mm long
	011127	1	... Nut, hex, M14
3	023343	1	.. Packer, LHD M/cs only , <b>(From M/C H3019)</b>
NI	000066	4	... Bolt M14 x 140 mm (Packer bolts)
4	014639	1	.. Top plate, spring
	000102	4	... Bolt, hex, M14 x 100mm long
	011127	4	... Nut M14
5	027668	1	. Stabiliser bar, front <b>(From June 2003)</b>
5	020621	1	. Stabiliser bar, front <b>(Upto June 2003)</b>
6	026761	2	.. Clamp <b>(From June 2003)</b>
6	100133	2	.. Clamp, <b>(upto June 2003)</b>
7	026760	2	.. Bush <b>(From June 2003)</b>
7	100130	2	... Bush <b>(Upto June 2003)</b>
8	027671	2	... Plate <b>(From June 2003)</b>
8	100131	2	... Plate <b>(Upto June 2003)</b>
9	014508	4	.. Spacer, 20 x 12.5 x 24 mm long
	100132	2	... U-bolt
	100135	4	... Nut
10	100134	2	.. Link
	011077	1	... Nut M12
11	100035	2	. Shock absorber
NI	100453	2	... Bush repair kit (100035 Shock Absorber)
	TBD	1	.. Bolt, hex, M12 x 65 mm long
	011096	1	.. Washer M12
	013448	1	.. Washer
	011077	1	.. Nut, hex, M12
	011077	1	.. Nut, hex, M12
	013448	1	.. Washer
12	013755	2	. Bump stop
	011053	1	.. Bolt, hex, M12 x 35 mm long
	011096	1	.. Washer M12
	011077	1	.. Nut M12
13	013849	2	.. Shackle, spring, front
14	100013	2	... Bush, front spring shackle
	011064	1	... Bolt, hex hd, M12 x 100 mm long
	011077	1	... Nut, hex, M12

} Lower attachment point

} Upper attachment point

**NOTE:** \*As of June 2003 Part number 020665 Front Spring will be made obsolete, all customers wishing to order a new front spring must order 2 off 027666 Front Spring.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FRONT SUSPENSION ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



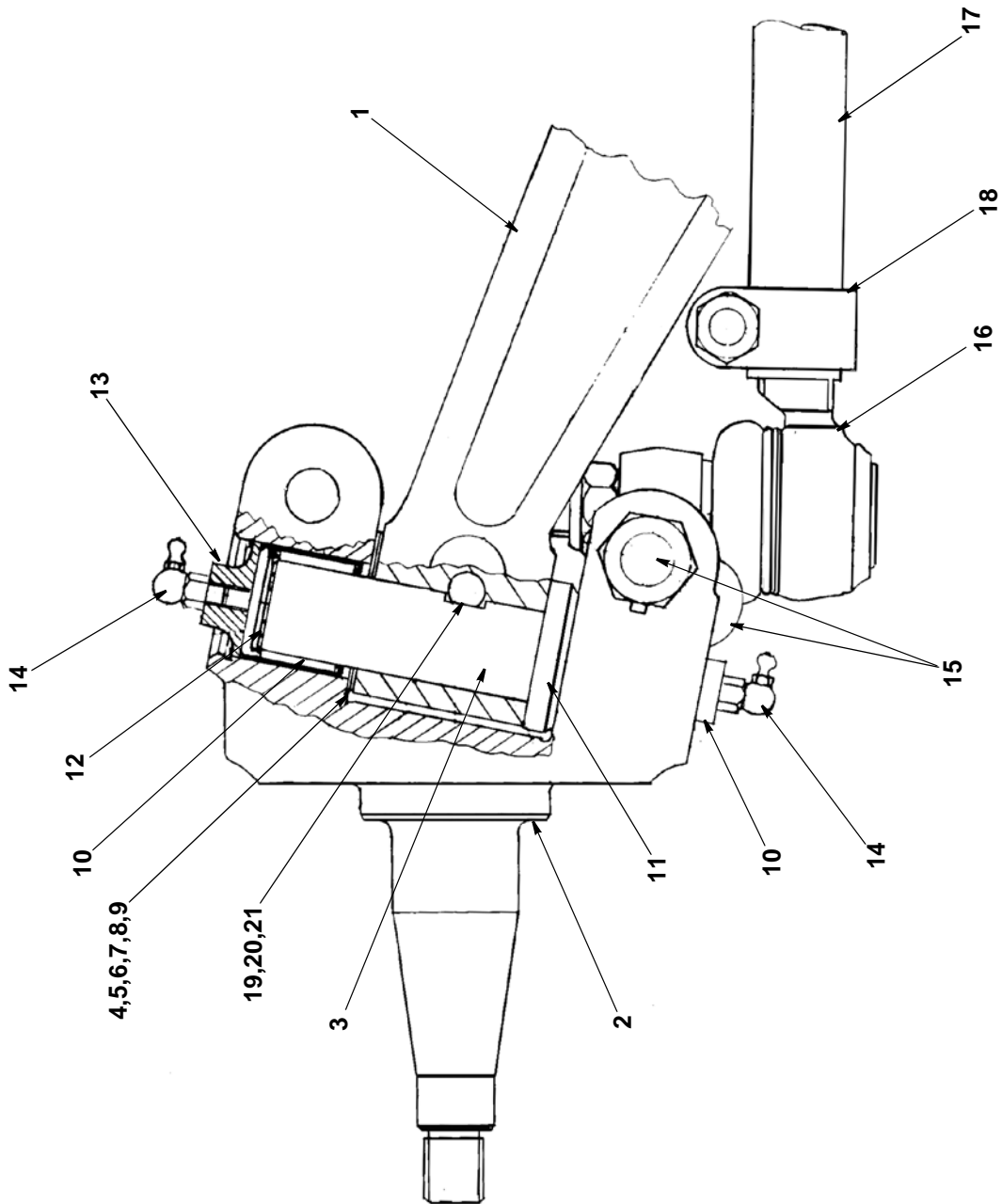
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FRONT AXLE - STEERING HUB ARRANGEMENT *</b>			
1	021611	1	. Axle beam
2	022861	1	.. Stub axle, right hand
NI	022860	1	.. Stub axle, left hand
3	021620	1	... Swivel pin
	021626	1	.... Nut
	021627	1	.... Washer
NI	021842	REF	Repair kit, swivel pin
4	021634	As Req	.... Shim .046 - .050
5	021635	As Req	.... Shim .051 - .055
6	021636	As Req	.... Shim .056 - .060
7	021637	As Req	.... Shim .061 - .065
8	021638	As Req	.... Shim .036 - .042
9	021639	As Req	.... Shim .066 - .070
10	021616	2	.... Bearing, needle roller
11	021619	2	.... Bearing, thrust
	021631	2	..... Circlip
12	021633	2	.... O-Ring
13	021610	2	... End cap
14	021632	1	.... Grease nipple, 1/4" UNF
15	022854	1	... Track rod arm, right hand
NI	021628	2	.... Key, woodruff
	021629	2	.... Nut, 5/8" UNF
NI	022855	1	... Track rod arm, left hand
NI	021628	2	.... Key, woodruff
	021629	2	.... Nut, 5/8" UNF
16	021646	1	.... Ball joint, RH (Fitted to all machines with Burman Boxes)
16	014621	1	.... Ball joint, RH (Fitted to all machines with Adwest Boxes)
17	021648	1	.... Track rod (Machines without Air Conditioning)
17	022670	1	.... Track rod (Machines fitted with Air Conditioning)
18	021644	2	.... Clamp track rod
NI	000249	2	.. Bolt, socket, M10 x 40mm (from 3/02)
NI	011074	2	.. Nut, hex, M10 (From 03/02)
NI	011014	2	.. Bolt, hex, M8 x 40 mm long (Upto 3/02)
NI	011072	2	.. Nut, M8 (Upto 3/02)
19	021622	2	... Cotter Pin
20	021626	2	... Nut
21	021627	2	... Washer

} Use as required to achieve a clearance of 0.0025 to 0.2030

} Steering stop adjustment

\* Right Hand assembly illustrated, Left Hand opposite.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FRONT AXLE (STEERING)\***

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



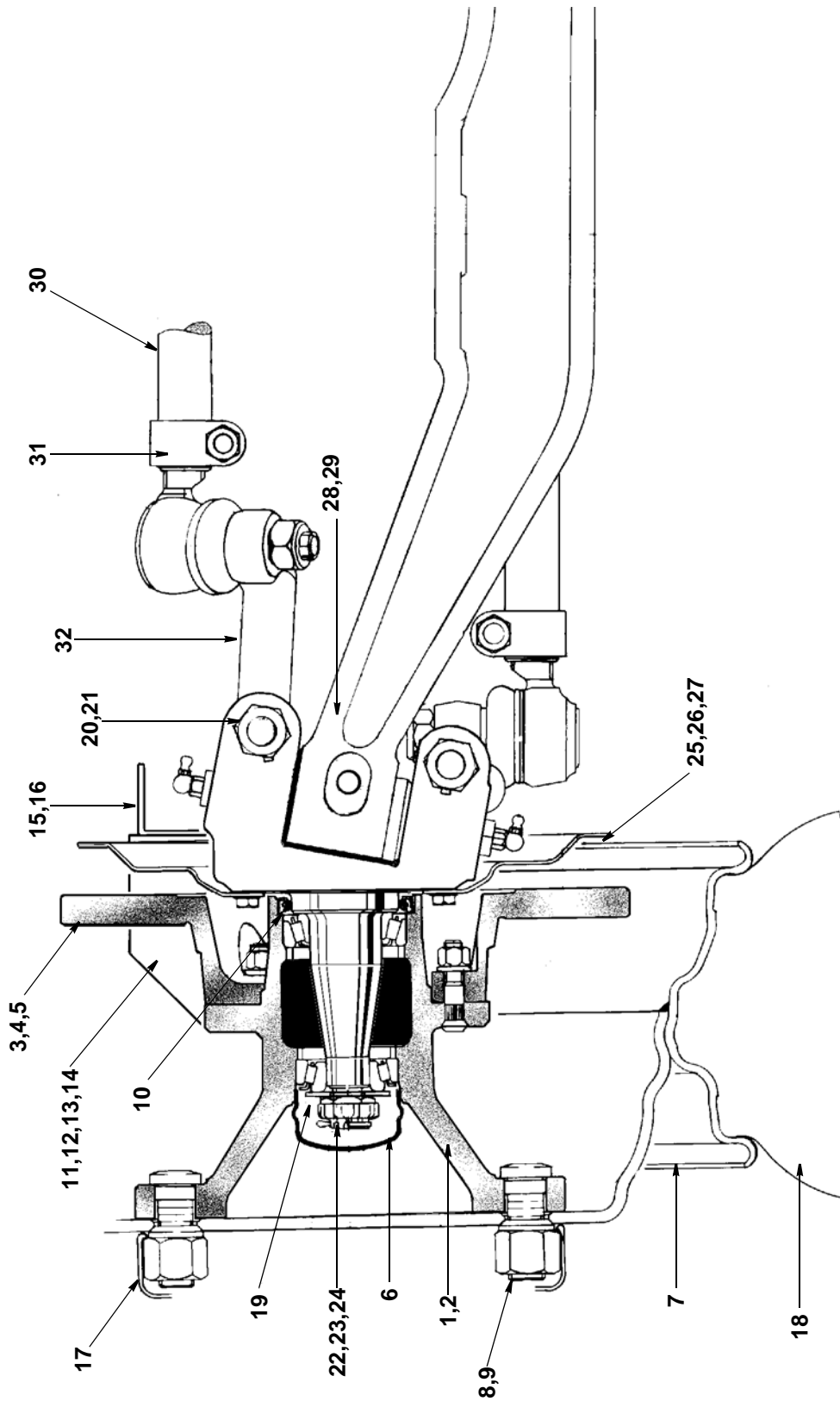
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FRONT AXLE (SCARAB TYPE) FROM M/C H2477</b>			
1	014592	1	Hub assy LH
2	014593	1	Hub assy RH
3	014594	2	Disc front
4	014595	10	Nut (Hub to Disc)
5	014596	10	Lock washer (Hub to Disc)
6	014605	2	Grease Cap
7	014609	2	Road Wheel
8	028807	6	Nut LH (Road wheel) 27mm A/F
9	028808	6	Nut RH (Road wheel) 27mm A/F
10	014626	2	Oil Seal
11	014601	1	Brake Caliper Assy LH
12	014602	1	Brake Caliper Assy RH
NI	000238	2	. . Bleed Nipple
13	011052	4	Bolt, hex, M12 x 30mm long
14	011097	4	Washer, spring, M12
15	014774	1	Caliper Hose bracket, LH
16	014775	1	Caliper Hose bracket, RH
17	014819	2	Hub Cover
18	013463	2	Tyre 195C x 14C
19	014768	2	Washer, Axle D
20	021629	2	Nut, 5/8" UNF
21	021628	2	Key woodruff
22	021641	2	Locking Cap
23	021642	2	Nut, 5/8" UNF
24	021643	2	Split Pin 1/8" x 1 1/2"
25	021671	2	Brake Disc Shield
26	011098	4	Washer, Spring, 1/4"
27	000063	4	Bolt, hex, 1/4" UNF x 1/2"
28	011014	2	Bolt, hex, M8 x 40mm long
29	011072	2	Nut, M8
30	028187	1	Drag link tube assembly inc ball joints ( <b>Burman Steering Box</b> )
	028186	1	. Ball Joint LH (Burman Steering Box)
	028180	1	. Ball Joint RH (Burman Steering Box)
30	028179	1	Drag link tube assembly inc ball joints ( <b>Adwest Steering Box</b> )
	028181	1	. Ball Joint LH (Adwest Box)
	028180	1	. Ball Joint RH (Adwest Box)
31	021644	2	Clamp
32	<b>SEE NOTE</b>	1	Steering arm
NI	100440	A/R	Brake Disc pad kit
NI	014619	A/R	Front hub bearing kit
NI	014627	A/R	Stud hub to Disc
NI	014597	A/R	Wheel Stud front LH
NI	014598	A/R	Wheel Stud front RH

**NOTE:** The Scarab front axle has been fitted to machines from Serial No H2477  
But due to continuous development, the steering arms used have changed as follows.

From Machine H2477 to H2830 order 022222 for RH Steering arm and 022223 for LH Steering arm.

From Machine H2831 to current machines order 022864 for RH Steering arm and  
022865 for LH Steering arm. Please note that Ball Joint will be at bottom.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



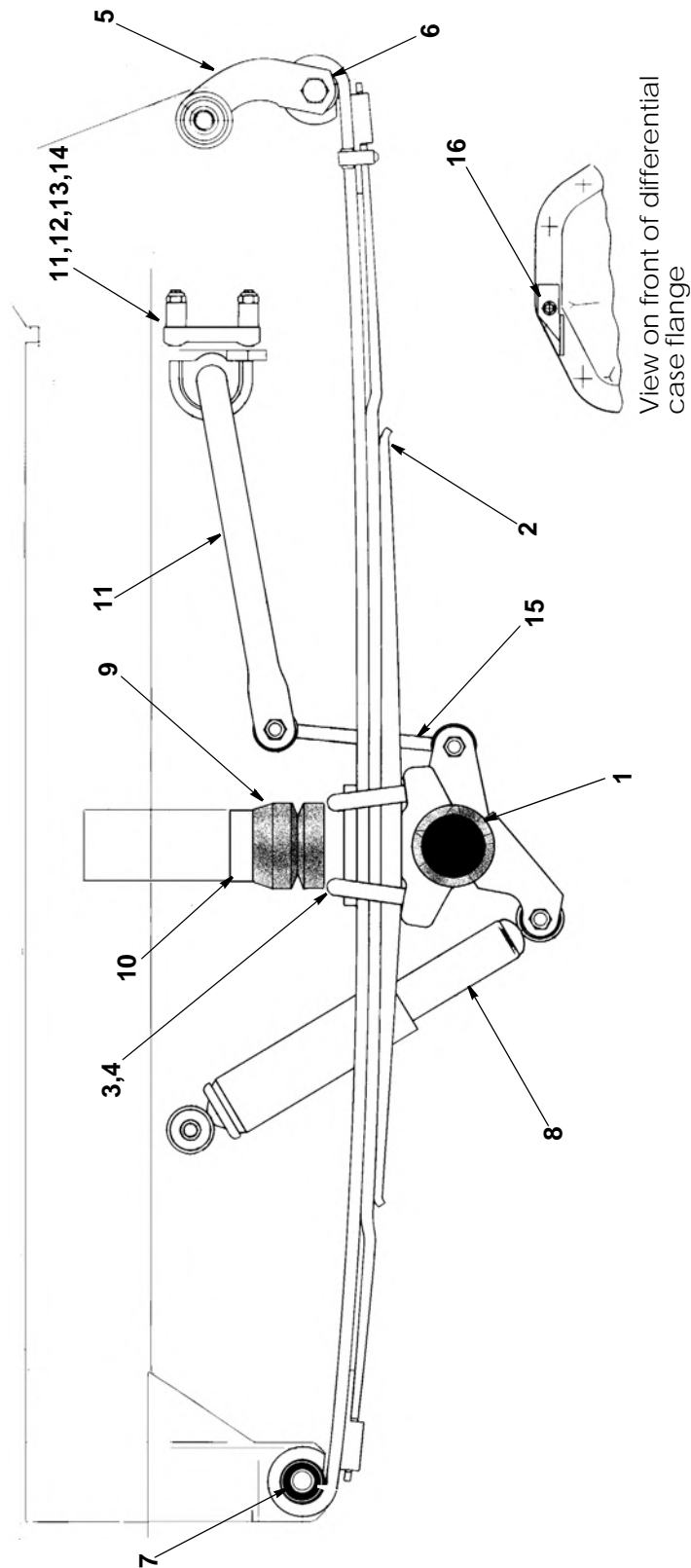
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>REAR SUSPENSION ASSEMBLY</b>			
1	025573	1	. AXLE ASSEMBLY, REAR.....Page F13
2	027667	1	.. Spring, Rear, <b>(From June 2003)</b>
2	100023	1	.. Spring, Rear, <b>(Upto June 2003)</b>
3	020657	1	... Plate
4	100025	2	... U bolt
	011060	4	.... Nut, M16
5	100029	2	... Shackle, spring
5	023345	1	... Shackle, spring, nearside (for use only on left hand drive M/cs)
	011423	2	.... Bolt, hex, M16 x 110 mm long
	011060	2	.... Nut, M16
6	100525	1	... Bush, rear
7	100524	1	... Bush, front
	011422	1	.... Bolt, hex, M20 x 110mm long
	011082	1	.... Nut, M20
8	100035	1	... Shock absorber
NI	100453	2	.... Bush Kit (Spares for 100035 Shock Absorber)
	013448	1	.... Washer
	011077	1	.... Nut, M12 } Upper mounting
	011055	1	.... Bolt, hex, M12 x 65 mm long } Lower mounting
	011077	1	.... Nut, M12 }
9	013755	1	.. Bump stop
	011053	1	... Bolt, hex, M12 x 35mm long
	011096	1	... Washer M12
	011077	1	... Nut M12
10	023342	1	... Packer, nearside bump stop(only on left hand drive M/cs)
11	027669	1	.. Stabiliser bar <b>(From June 2003)</b>
11	013848	1	.. Stabiliser bar <b>(Upto June 2003)</b>
12	027671	2	... Plate <b>(From June 2003)</b>
12	100131	2	... Plate <b>(Upto June 2003)</b>
NI	027670	4	... Bush <b>(From June 2003)</b>
NI	100130	4	... Bush <b>(Upto June 2003)</b>
13	100132	2	.... U Bolt
14	014508	4	.... Spacer 20 x 12.5 x 24 mm long
	100135	4	.... Nut
15	100134	2	... Link
	011077	2	.... Nut, M12
NI	014609	4	.. Road wheel
	028807	6	... Wheelnut, left hand 27mm A/F
	028808	6	... Wheelnut, right hand 27mm A/F
NI	013463	1	... Tyre 195R x 14C
16	014918	1	.. Bracket, LAV block
16	100095	2	Cable clip
17	100130	2	Insulator
20	100133	2	Clamp
23	100278	1	Cable, handbrake secondary
32	020315	2	Flexible valve extension and bracket
33	014628	12	Wheel cone

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**REAR SUSPENSION ASSEMBLY**

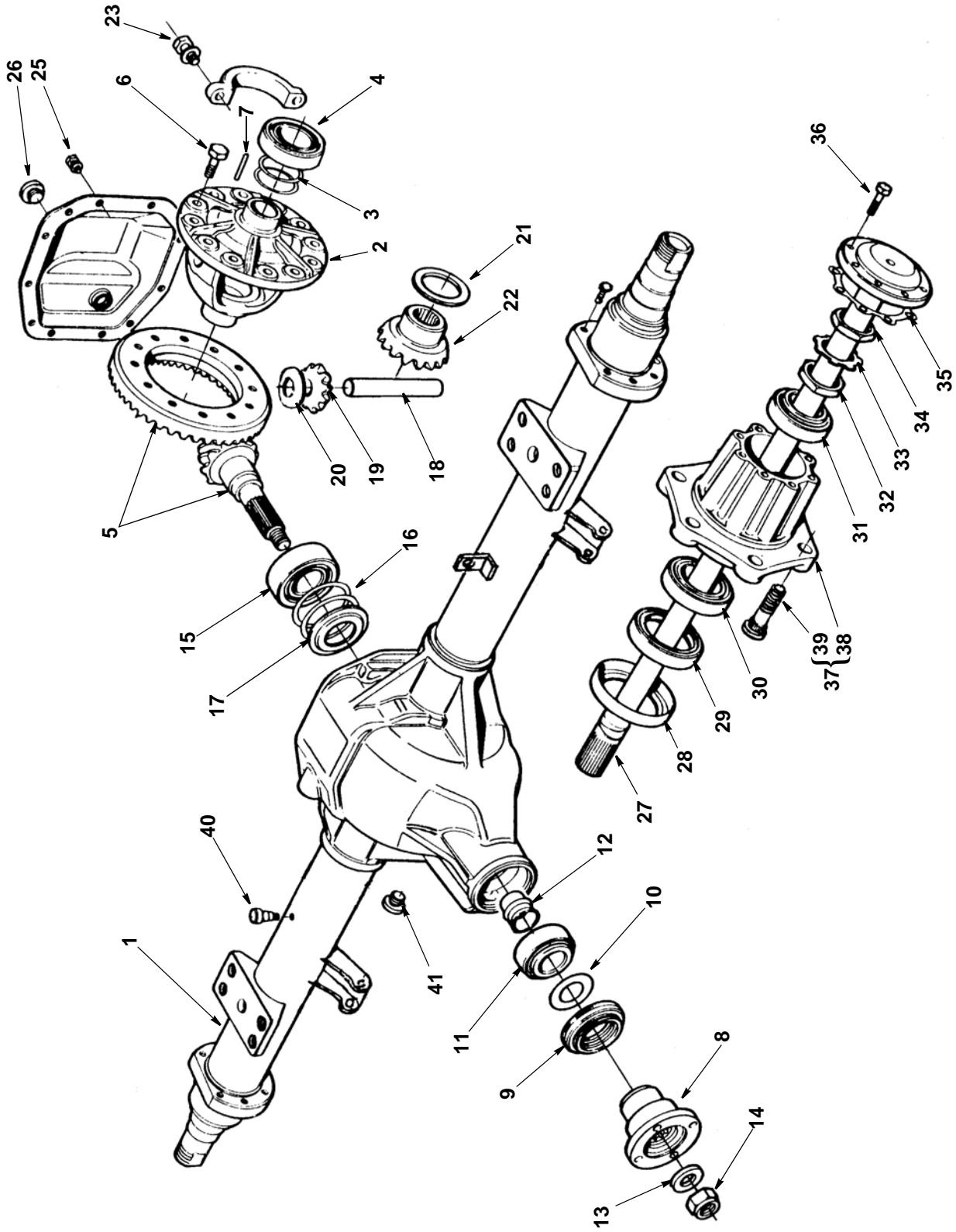
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>REAR AXLE ASSEMBLY</b>			
1	020210	1	Axle carrier and tube
2	020182	1	. Differential casing
3	020183	2	.. Differential shim 0.711
3	020185	2	.. Differential shim 0.787
3	020195	2	.. Differential shim 1.143
4	020196	2	.. Differential bearing
5	020163	1	.. Crown Wheel & Pinion gear set (also includes items marked *)
6	020197	12	... Bolt, crownwheel
7	020198	1	... Roll pin
8	020162	1	. Drive flange
9	020164	1	.. Pinion oil seal
10	020165	1	.. Pinion oil thrower
11	020166	1	.. Pinion tail bearing
12	020167	1	.. Collapsible spacer *
13	020169	1	... Pinion washer *
14	020168	1	... Pinion locknut
15	020179	1	.. Pinion head bearing
16	020171	2	... Pinion shim 0.5
16	020172	2	... Pinion shim 0.6
16	020177	2	... Pinion shim 0.550
16	020178	2	... Pinion shim 0.575
17	020170	1	... Oil baffle
18	020203	1	.. Cross shaft
19	020204	2	... Pinion mate
20	020225	2	... Thrust washer, pinion mate
21	020202	2	... Side gear
22	020201	2	... Thrust washer, side gear
23	020200	4	.. Bolt, bearing cap
24	020206	1	. Rear cover
25	020209	12	.. Bolt, rear cover
26	020208	1	.. Level plug
27	020214	2	. Half shaft
28	020215	2	.. Hub oil thrower
29	020216	2	.. Hub seal
30	020218	2	.. Hub bearing, Inner
31	020220	2	.. Hub bearing, outer
32	020221	2	.. Locknut, hub inner
33	020222	2	... Lock washer
34	020223	2	... locknut, hub outer
35	020224	2	... Gasket
36	020226	16	... Bolt, special, half shaft
37	020180	1	... Hub & stud assembly, left hand (includes items marked **)
38	020219	2	... Hub **
39	020213	6	... Wheel stud, left hand **
NI	020181	1	... Hub & stud assembly, right hand (includes items marked **)
	020219	2	... Hub **
	020217	6	... Wheel stud, right hand **
40	020211	1	. Axle breather
41	020212	1	. Drain plug, magnetic

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**REAR AXLE ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

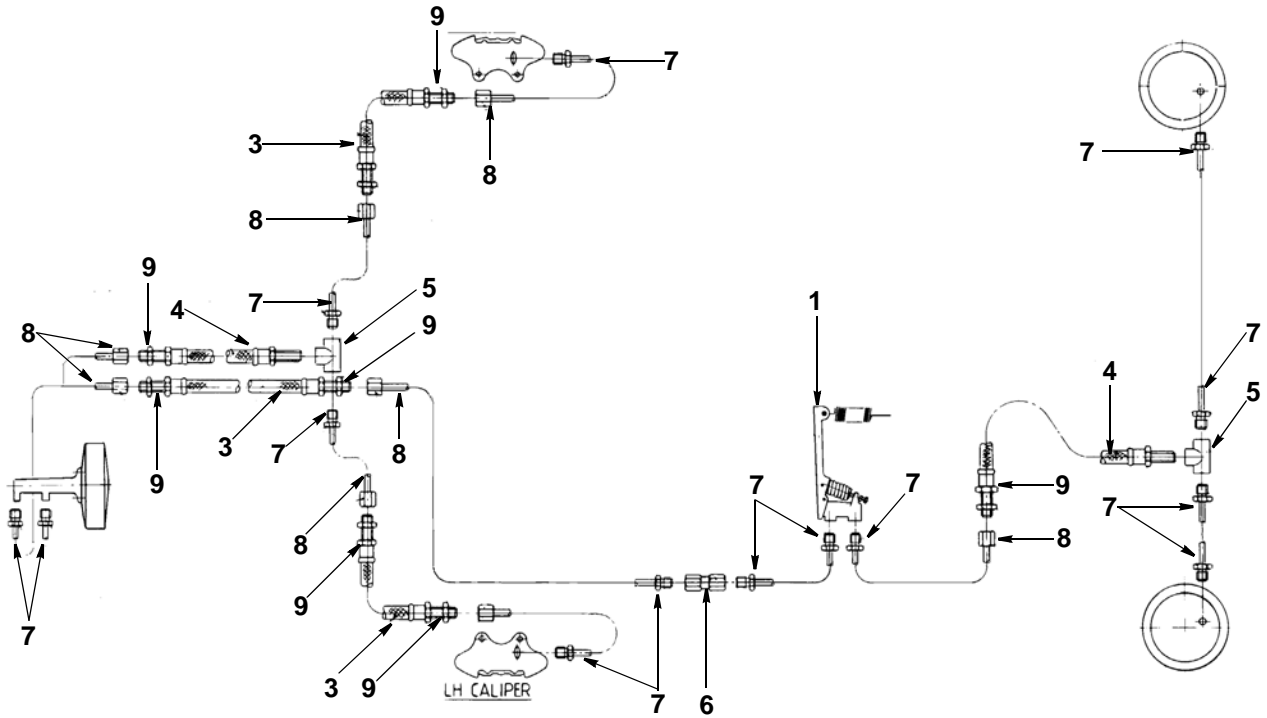




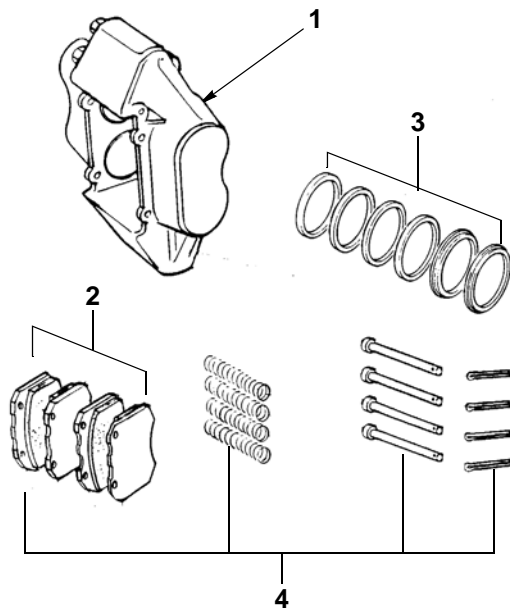
<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>BRAKING SYSTEM</b>			
1	014748	1	Brake LAV valve
2	014207	1	Kunifer 3/16" (25ft)
3	014816	3	Brake hose MEL 50815
4	014817	2	Brake hose MEL 50928
5	014818	2	. Adaptor, brake hose
6	014212	1	Connector, 3/16" Kunifer
7	014209	14	Nut, M10 Short, 3/16" Kunifer
8	014792	8	Nut, brake pipe, M10 x 1
9	000077	8	Nut, M10 x 1

<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FRONT BRAKE CALIPER</b>			
1	014601	1	Disc brake assembly, left hand (Pads not included)
NI	014602	1	Disc brake assembly, right hand (Pads not included)
	021772	2	. Bolt, caliper mounting
NI	023323	2	. Pin & Spring clip set
2	020138	1	. Disc pad set
3	020139	1	. Disc brake repair kit (1 wheel)
4	023323	1	. Pin and Spring Clip Kit
NI	000238	2	. . Bleed nipple

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**BRAKE SYSTEM ASSEMBLY**



**FRONT BRAKE CALIPER ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

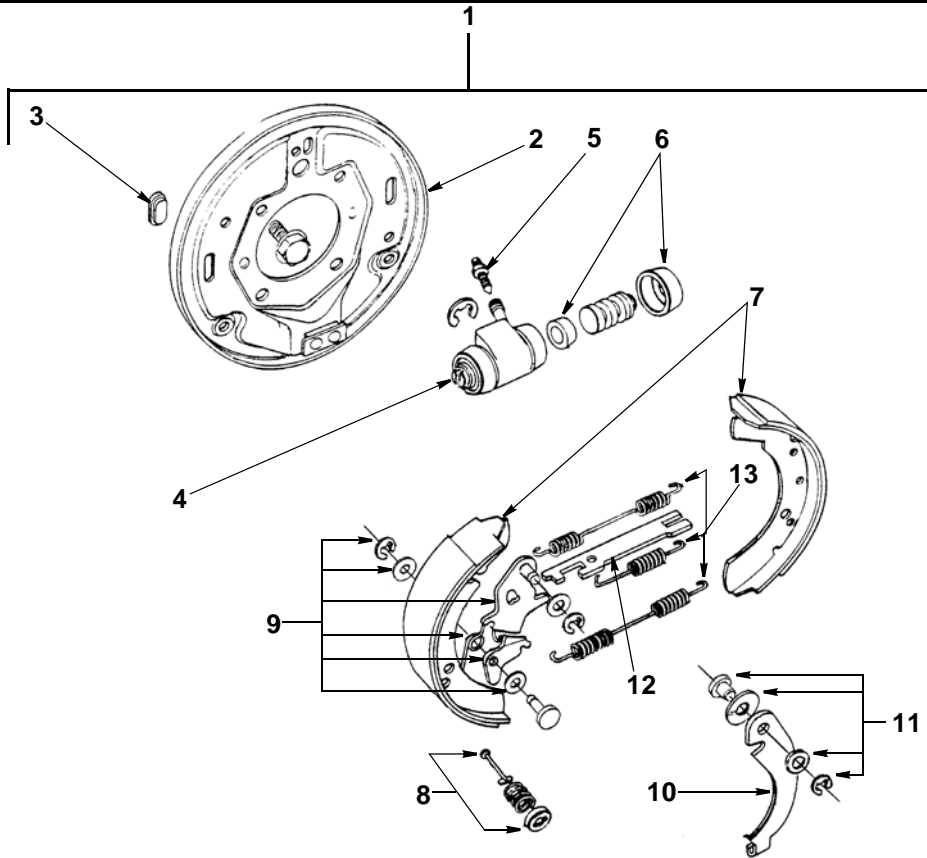




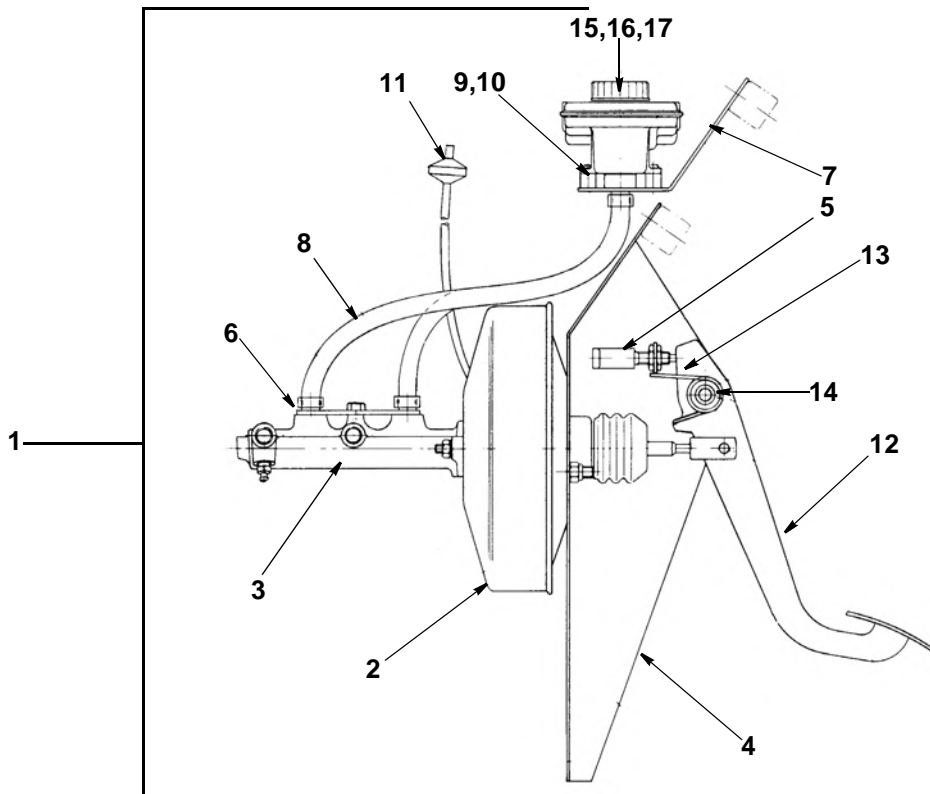
<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>REAR BRAKE ARRANGEMENT</b>			
1	020134	1	. Brake assembly, left hand complete (Comprises items 2-5 + 6-13)
NI	020133	1	. Brake assembly, RH complete(Comprises * items + 3,5,7-9,11,12)
2	020118	1	.. Backplate, left hand
NI	020117 *	1	.. Backplate, right hand
3	020119	2	... Plug ,rubber
4	020128	1	... Wheel cylinder, left hand
NI	020127 *	1	... Wheel cylinder, right hand
NI	003018	as req	.... Clip , wheel cylinder
5	020129	2	.... Bleed screw
6	020126	1	.... Seal kit, wheel cylinder
7	020120	1	.. Brake shoe kit
8	020125	2	... Shoe hold down kit
9	020121	1	... Adjuster kit
10	020124	1	.. Handbrake lever, left hand
NI	020123 *	1	.. Handbrake lever, right hand
11	020122	2	... Pivot pin kit
12	020132	1	.. Cross lever
13	020131	1	... Spring kit, left hand
NI	020130 *	1	... Spring kit, right hand
NI	020199	1	.. Brake drum

<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>BRAKE PEDAL ASSEMBLY</b>			
1	014648	1	. Brake master cylinder and Servo
	011075	3	.. Nut M10
2	100442	1	.. Servo assembly
3	100443	1	.. Master cylinder
NI	100444	1	... Repair kit, Master cylinder
4	025971	1	.. Mounting bracket, brake assembly
	000021	3	... Bolt, hex hd, M6 x 40mm long
	011071	3	... Nut, hex, M6, Nyloc
5	100021	1	... Switch, stoplight
	100022	1	.... Nut
6	014812	1	.. Adaptor plate, master cylinder
	000081	2	... Bolt, hex hd, 1/4" UNC x 1/2"
7	014813	1	. Mounting bracket, remote reservoir
	011003	2	.. Bolt, hex hd, M6 x 50mm long
	011071	2	.. Nut, hex, M6, Nyloc
8	014784	0.70 m	.. Hose 7.5 x 15 Dia
	010960	4	... 1/2 O Clips
9	014811	2	... Hosetail, remote reservoir
10	014783	2	... Seal, reservoir mounting
11	100123	1	.. Hose assy, servo vacuum
12	014256	1	. Brake pedal, left hand drive
12	014257	1	. Brake pedal, right hand drive
13	100044	1	.. Spring, brake pedal
14	013421	1	... Spacer, cab pivot
	000075	1	.... Bolt, hex, M10 x 130mm long
	011075	1	.... Nut, hex, M10, Nyloc
	100097	1	.... Clevis pin
	100108	1	.... Split pin
15	030027	1	.... Cap (Remote mounted reservoir)
16	030028	1	.... Cap float and switch (Remote mounted reservoir)
17	030029	1	.... Reservoir (Spare)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**REAR BRAKE ASSEMBLY**



**BRAKE PEDAL ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



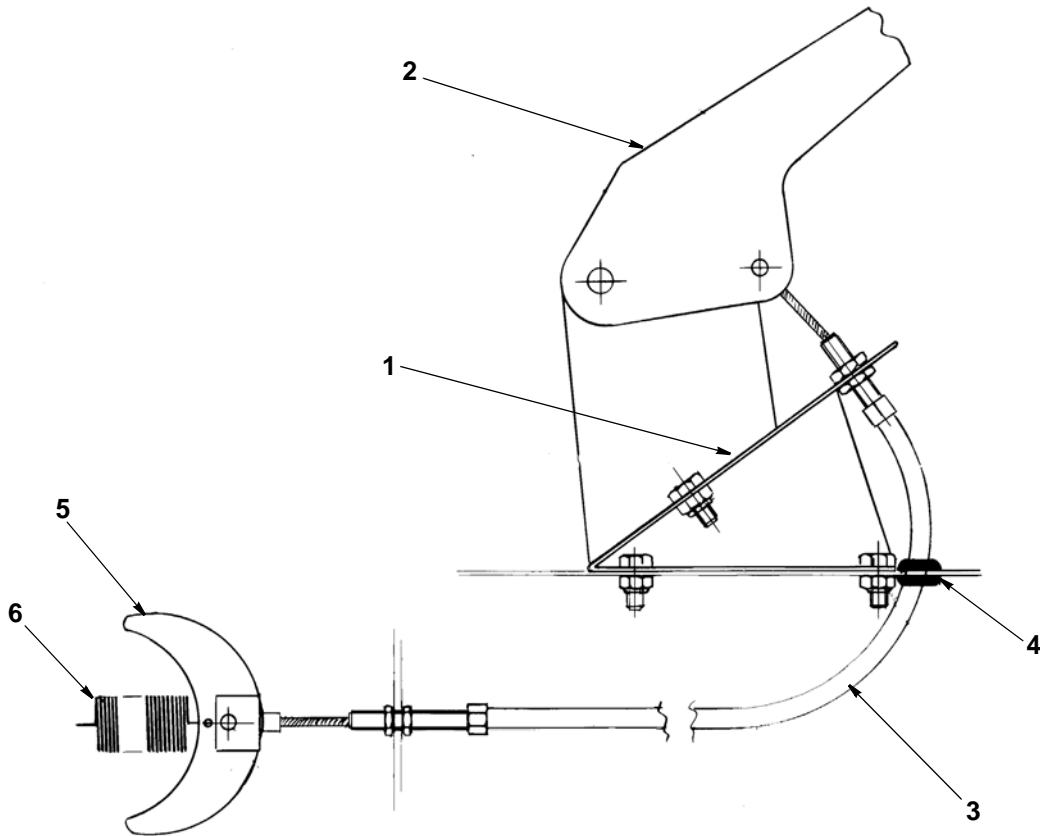


<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HANDBRAKE ASSEMBLY</b>			
1	026792	1	. Support, handbrake <b>(From August 2001*)</b>
1	013472	1	. Support, handbrake <b>(Upto August 2001)</b>
	011011	3	. . Bolt, hex hd, M8 x 25mm long
	011073	7	. . Nut, hex, M8, Nyloc
2	026811	1	. . Lever, handbrake <b>(From August 2001*)</b>
	100105	1	. . . Clevis pin
	100106	1	. . . . Split pin
3	014821	1	. . . Cable, handbrake, primary (8 mm Eyelet)
4	012876	1	. . . . Grommet, I/D 11 mm - O/D 19 mm
NI	027691	1	. . . Bush <b>(Handbrake cables before August 2001)</b>
NI	027790	1	. . . Pin Kit <b>(Handbrakes after August 2001)</b>
5	100096	1	. . Equalizer
	100097	1	. . . Clevis pin
	100108	1	. . . . Split pin
6	100047	1	. . . Spring, brake retracting
NI	100278	1	. . . Cable, secondary <b>(drum to drum)</b>

**Note:** If you require a Handbrake Lever for any machine built before August 2001 please be sure to order the *New Style* Support Bracket and any other parts marked \*. If in doubt, be sure to have your machine serial number to hand when ordering.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





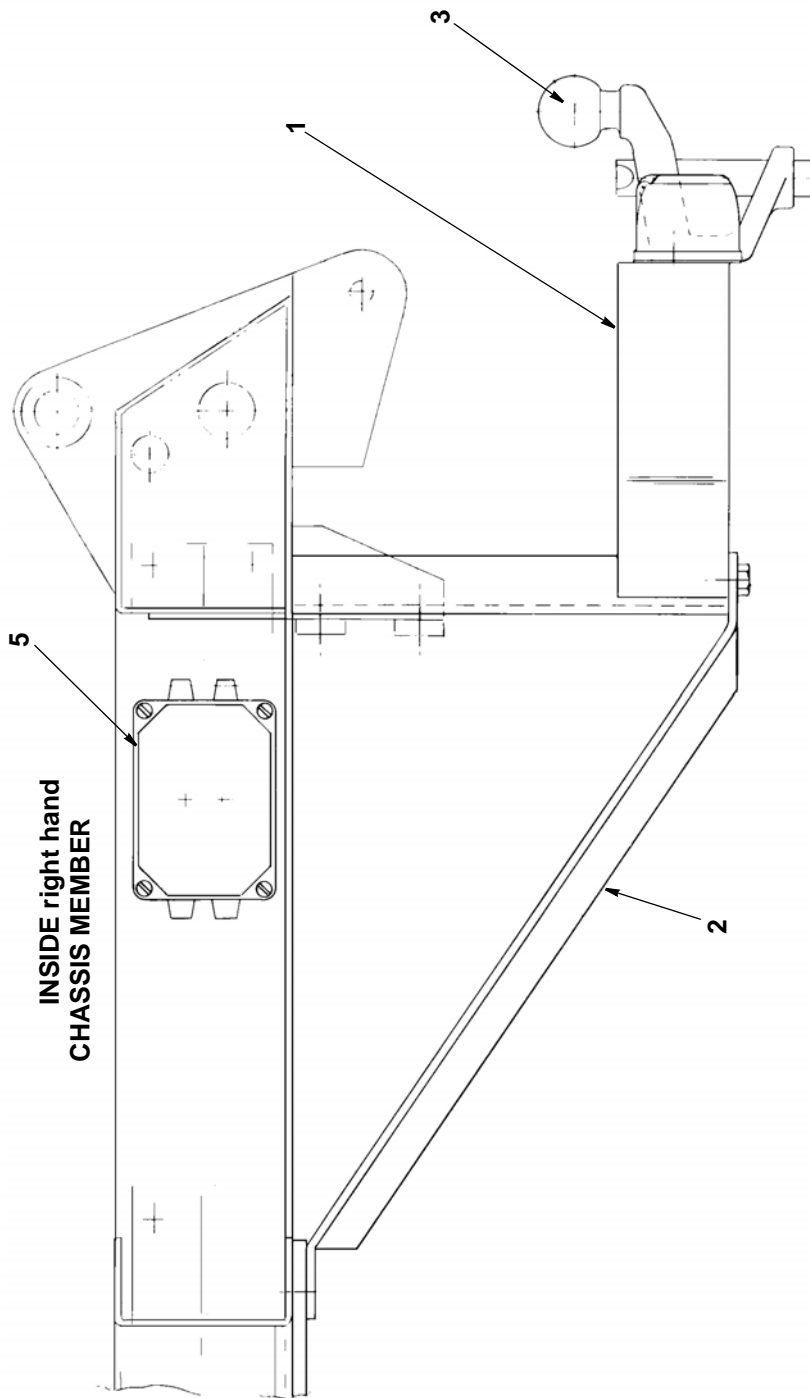
**HANDBRAKE ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025827</b>		<b>TOW BAR ASSEMBLY</b>
1	014237	1	. Bracket, Tow bar
2	014238	1	. . Bracket tie, Tow bar
	011010	2	. . . Bolt, hex, M8 x 20mm long
	011073	2	. . . Nut M8
	011032	1	. . . Bolt, hex, M10 x 30mm long
	011075	1	. . . Nut M10
3	014002	1	. . Tow ball
	011260	2	. . . Bolt, hex, M16 x 70mm long
	011060	2	. . . Nut M16
4	014239	1	. Trailer socket kit
5	012571	1	. Junction Box
NI	025824	1	. Enclosure IP66
NI	024065	1	. Gland
NI	028936	1	. . Wiring Loom, Tow bar

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



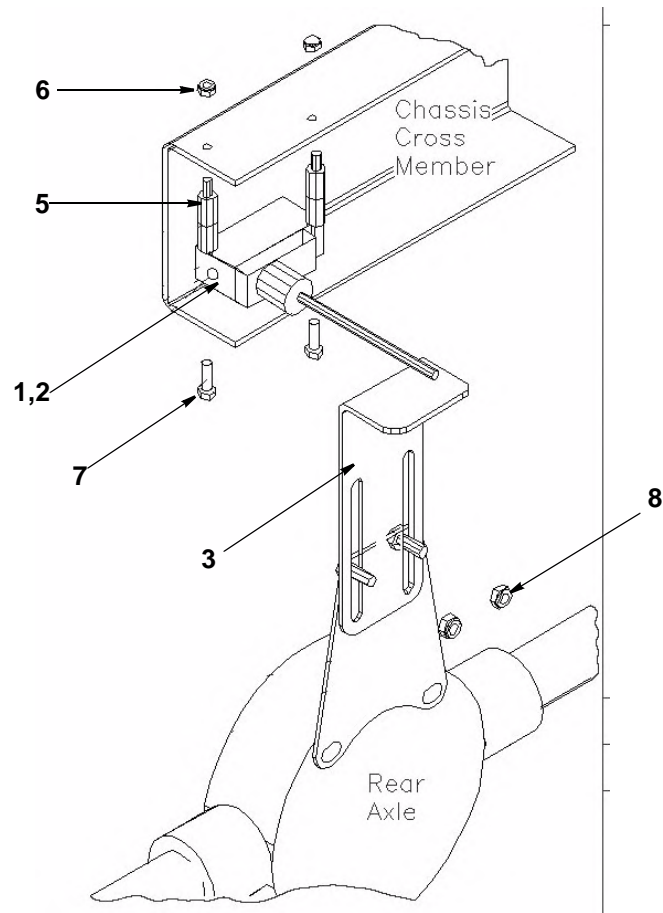
**TOW BAR ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>030462</b>		<b>ASSEMBLY BASIC LOAD SENSOR</b>
1	024064	1	Wobble stick
2	024065	1	. Cable gland
3	024066	1	. Adjuster bracket
4	024071	1	. Bracket load sensor
5	025720	4	. Insulated earth post
6	011071	2	. M6 Nut
7	000021	2	. M6 x 40mm Bolt
8	011073	2	. M8 Nut
NI	030577	1	Wiring Loom, Load Indicator
NI	030577	1	LED, Tri Colour 12v

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**BASIC LOAD SENSOR ASSEMBLY**

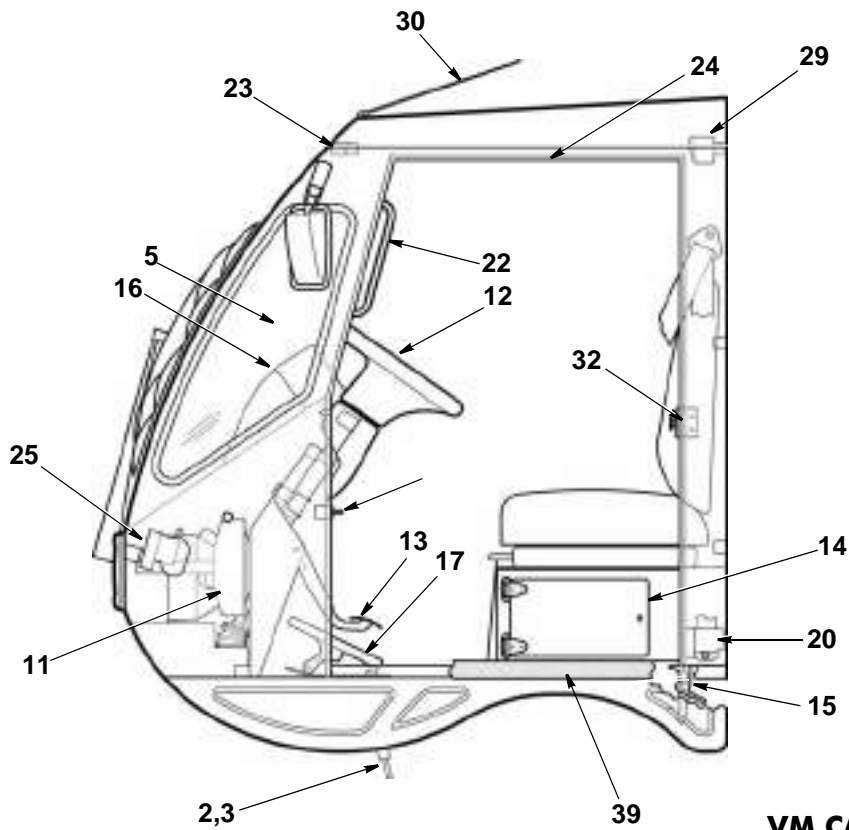
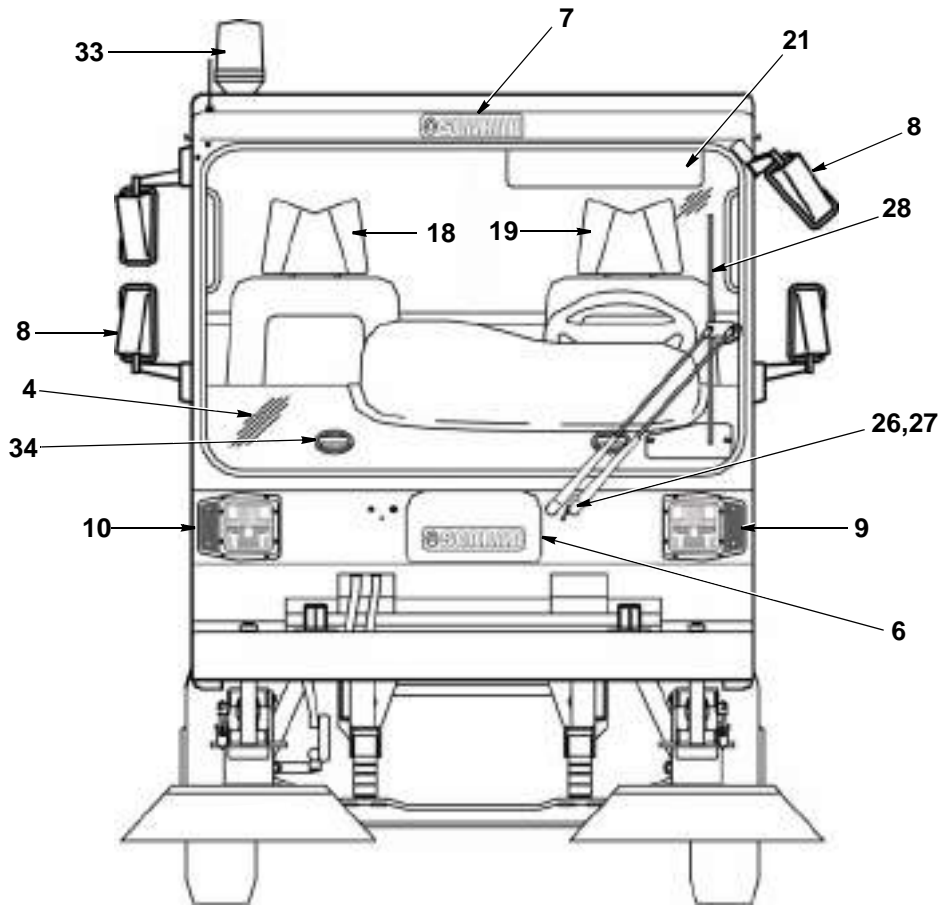
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<b>Item</b>	<b>Part Number</b>	<b>Quantity</b>	<b>Description</b>
<b>CAB ASSEMBLY CURVED WINDSCREEN</b>			
1	025420	1	. Cab, VM Curved Front
NI	026354	1	. Cab, VM Curved Front (Low Roof model)
NI	027734	2	.. Pivot Brkt, Cab
NI	027732	2	... Bush, brass, Cab Pivot
NI	027731	2	... Bush, rubber, Cab Pivot
NI	014349	1	.. Prop, Cab
NI	014351	1	... Brkt, Cap Prop
2	021993	2	.. Strut, Cab tilt
3	023110	2	... Bellows, Cab strut
4	025419	1	.. Windscreen
5	025418	2	.. Quarter light, curved
6	025717	1	.. Grill, GRP
NI	025718	1	... Bracket, mounting, GRP grill
7	014989	1	.. Badge, 'Scarab'
8	013941	4	.. Mirror assembly
9	025506	1	.. Headlamp left hand - Left hand DIP. U.K..... Page H4
9	025504	1	.. Headlamp left hand - Right hand DIP. Europe..... Page H4
10	025507	1	.. Headlamp right hand - Left hand DIP. U.K..... Page H4
10	025505	1	.. Headlamp right hand - Right hand DIP. Europe..... Page H4
11	025739	1	.. CAB HEATER ..... Page F43
12	023143	1	.. STEERING COLUMN ASSEMBLY ..... Page F3
13	025972	1	.. BRAKE PEDAL ASSEMBLY ..... Page F17
14	022950	1	.. STORAGE BOX ..... Page F35
15	018227	1	.. CAB-TILT SAFETY LATCH ..... Page F41
16	025770	1	.. INSTRUMENT PANEL ..... Page F37/39
NI	025752	1	.. Dash panel LH, Standard (025754 Dash Panel RH Model)
NI	026099	1	.. Dash panel LH (Air Conditioning Option)
NI	026100	1	.. Dash panel RH (Air Conditioning Option)
17	025287	1	.. Throttle Pedal
18	025927	1	.. Seat, left hand
19	025928	1	.. Seat, right hand
NI	025926	2	... Adaptor, Seat
20	020513	2	... Seat belt
21	013935	1	.. Sun visor
NI	013934	1	.. Ashtray
22	020272	2	.. Grab handle
23	013749	1	.. Interior Light
24	013951	8.80	.. Draught Excluder, Door
NI	013952	5.00	.. Seal, Cab base
25	013859	1	.. Motor, Wiper
26	022333	1	... Wiper Drive & Idler complete with wash/wipe kit
27	022334	1	... Wiper Blade
28	022365	1	... Wash wipe kit
NI	012344	1	.. Radio
29	013593	1	... Speakers
30	013592	1	... Aerial
NI	014076	1	... Extension lead, Aerial
31	028868	1	.. Check Strap, Left Hand Door <b>(From April 2003)</b>
31	014039	1	.. Check strap, left hand door <b>(Upto April 2003)</b>
NI	028869	1	.. Check Strap, Right Hand Door <b>(From April 2003)</b>
NI	014093	1	.. Check strap, right hand door <b>(Upto April 2003)</b>

**CONTINUED.....**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**VM CAB ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

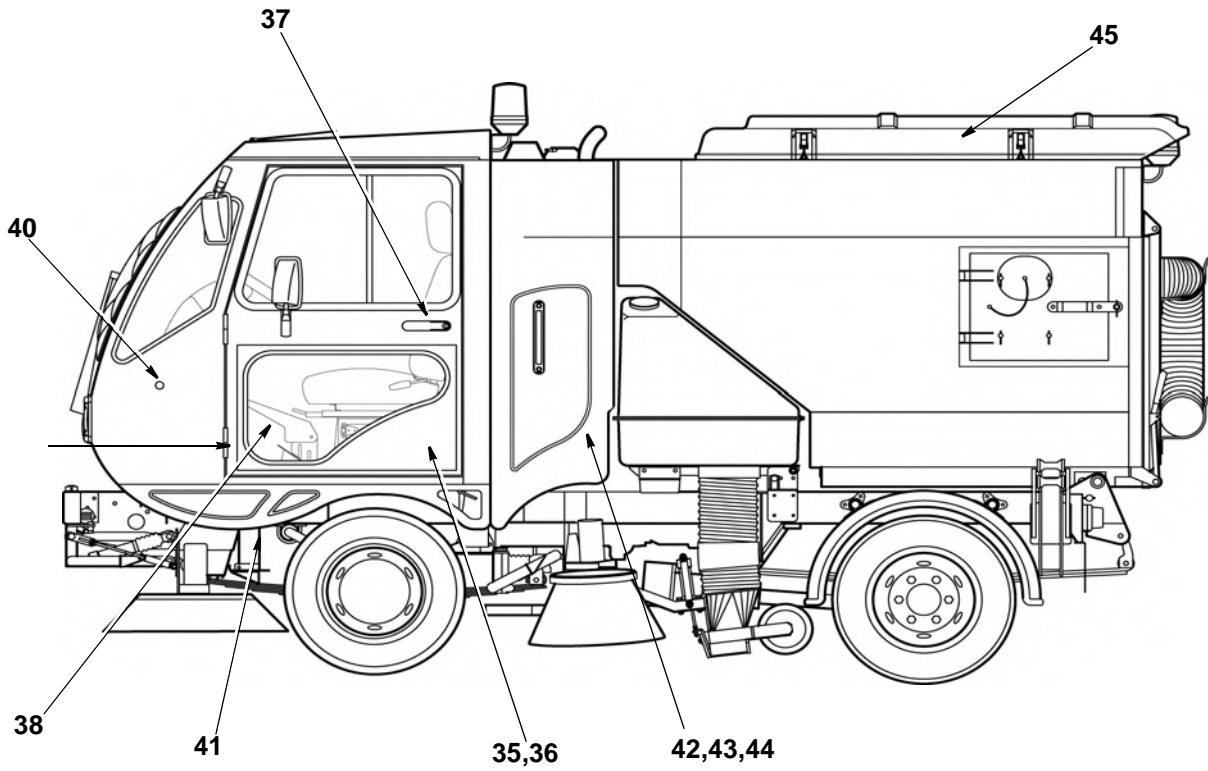




<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAB ASSEMBLY CURVED WINDSCREEN</b>			
32	013437	2	.. Brkt, Striker plate
33	010304	1	.. Beacon 12V
34	013812	4	.. Air outlet
NI	013813	1	... Pipe, Air vent
NI	030587	1	... Pump, washer bottle <b>(From Jan 2004)</b>
NI	030588	1	... Bracket, washer bottle 030587 <b>(From Jan 2004)</b>
NI	100086	1	... Pump Washer bottle <b>(Upto Dec 2003)</b>
NI	100087	1	... Pump, Washer bottle <b>(Upto Dec 2003)</b>
NI	100088	1	... Gland, Washer bottle <b>(Upto Dec 2003)</b>
NI	100046	1	... Cover, Washer bottle <b>(Upto Dec 2003)</b>
35	028579	1	... Door, left hand assembly <b>(From Jan 2003)</b> ..... F27
35	021852	1	... Door, left hand <b>(Upto Jan 2003)</b>
36	013683	1	... Window Sliding, left hand
NI	014052	1	... Cover plate, Inside left hand Door
NI	013931	1	... Lock, Inner left hand
NI	028580	1	... Door, right hand <b>(From Jan 2003)</b> ..... F27
NI	021853	1	... Door, right hand <b>(Upto Jan 2003)</b>
NI	013684	1	... Window Sliding, right hand
NI	014053	1	... Cover plate, Inside right hand Door
NI	013932	1	... Lock, Inner, right hand
37	013933	2	... Door Handle & Lock
38	025850	2	... Glass, Door Lower
NI	013946	8.50	... Glass weather strip
NI	014102	8.50	... Glass Filler strip
NI	013945	3.60	... Glass weather strip
NI	013947	3.60	... Glass Filler strip
39	021855	2	.. Tread plate
40	013748	2	.. Indicator, Side marker
41	025848	1	.. Cab Skirt, left hand
NI	025849	1	.. Cab Skirt right hand
42	025882	1	.. GRP, Cab extension panel
43	026417	4	... Bolts. Dzus Stud
44	023229	8	... Retainer washers, Dzus
45	028023	1	.. Canopy
NI	019123	1	.. Horn
NI	025779	1	.. Fuse Box assemblyH1
NI	025750	1	... Door, Fuse Box
NI	025725	1	.. Cab Loom
NI	004211	1	... 24 Way Fuse Box
NI	004212	1	... 10 Way Fuse Box
NI	004213	1	... 6 Way Relay Box
NI	026435	1	.. Foam roof lining
NI	028108	1	.. 12v Charger plug (Mobile Phone Charger)
NI	030589	1	.. Label, Hopper Up
NI	014726	1	.. Label, F/Brush Swing Out
NI	014727	1	.. Label, Brake Fluid Reservoir
NI	014728	1	.. Label, Heater Control
NI	014729	1	.. Label, Cab Lift
NI	014731	1	.. Label, For/Rev Lever
NI	022551	1	.. Label, Cruise Control
NI	021064	1	.. Label, Engine Speed
NI	025439	1	.. Smoke Decal
NI	022725	1	.. Label, Turbo Warning
NI	024564	1	.. Label, Sweeper Monitor

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





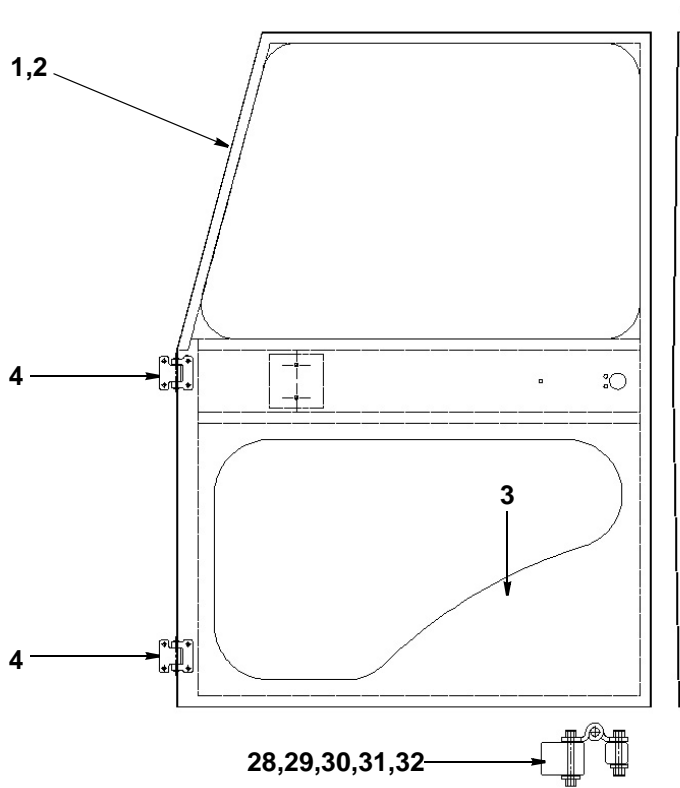
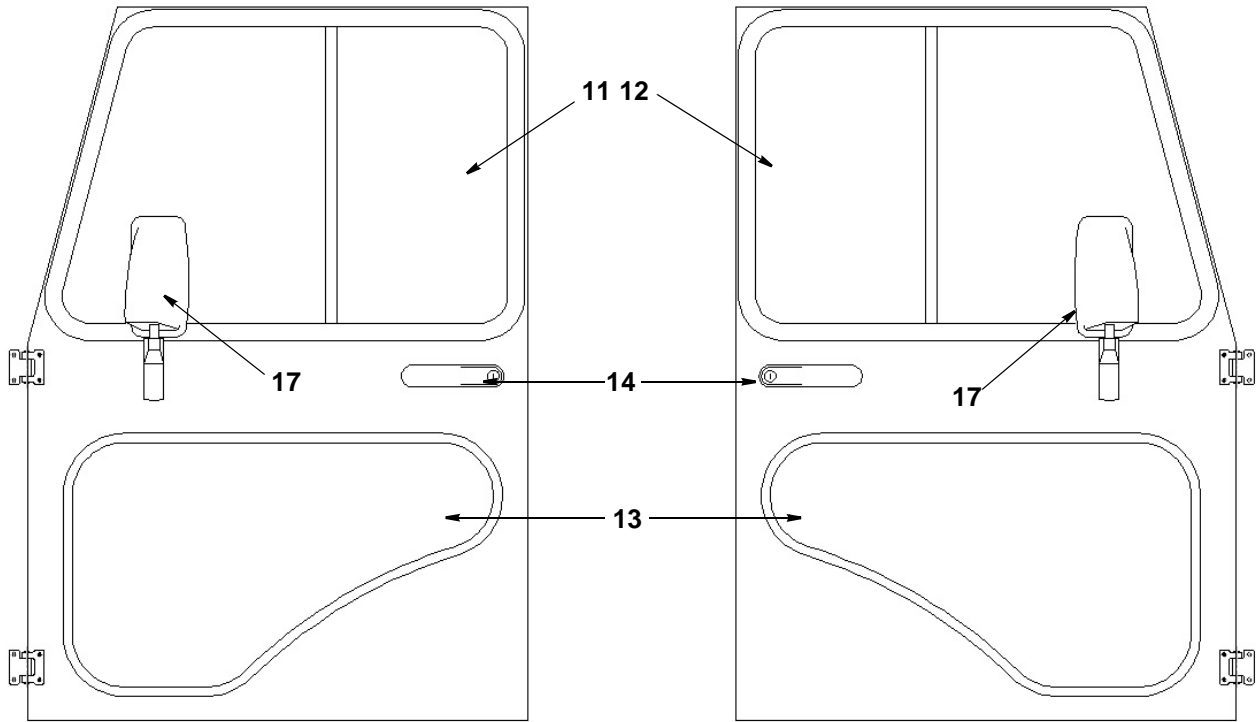
**VM CAB ARRANGEMENT**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>		<i>Description</i>
	<b>028581/2</b>	<b>LH</b>	<b>RH</b>	<b>CAB DOOR ASSEMBLYS - From Jan 2003</b>
1	028579	1	-	LH Door assembly
1	028580	-	1	RH Door assembly
2	028577	-	1	. Door frame LH
2	028578	1	-	. Door frame RH
3	028576	1	1	.. Door panel
4	028583	4	4	.. Hinge, door
5	000020	4	4	.. Setscrew, hex, M6 x 30mm
6	000254	4	4	.. Washer, plain M6
7	011071	4	4	.. Nut, nyloc M6
8	028774	1	1	... Reinforcing plate
9	028226	-	1	.... Door Cover assembly RH
9	028225	1	-	.... Door Cover assembly LH
10	011001	8	8	..... Setscrew M6 x 16mm
11	013684	-	1	.... Window sliding RH
12	013683	1	-	.... Window sliding LH
13	025850	1	1	... Glass, door lower
14	013933	1	1	.. Door handle, Outer
15	013931	1	-	... Lock, LH, Inner
16	013932	-	1	... Lock, RH, Inner
17	013941	1	1	.. Mirror, door (Universal)
18	026679	1	1	... Rubber 2080mm (door lower)
19	026680	1	1	... Filler strip 2080mm
20	011125	16	16	.. Blind rivet 3.2mm x 10m
21	020362	1	1	.. Inseal strip 3 x 15 x 25m (0.10)
22	011001	2	2	.. Setscrew M6 x 16mm
23	000063	2	2	.. Setscrew 1/4 UNF x 1
24	011087	2	2	.. Setscrew M6 x 25mm
25	011071	1	1	.. Nut, nyloc M6
26	011090	13	13	.. Washer M6
27	011091	2	2	.. Washer, spring M6
28	028750	4	4	Hinge Packer
29	028749	8	8	. Hinge washers
30	000253	8	8	. Nuts, M6
31	000288	4	4	. M6 Bolts, 35mm LG
32	000289	4	4	. M6 Bolts, 45mm LG
NI	028868	1	-	Check Strap, Left Hand Door
NI	028869	-	1	Check Strap, Right Hand Door

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**CAB DOOR ASSEMBLY - (FROM JAN 2003)**

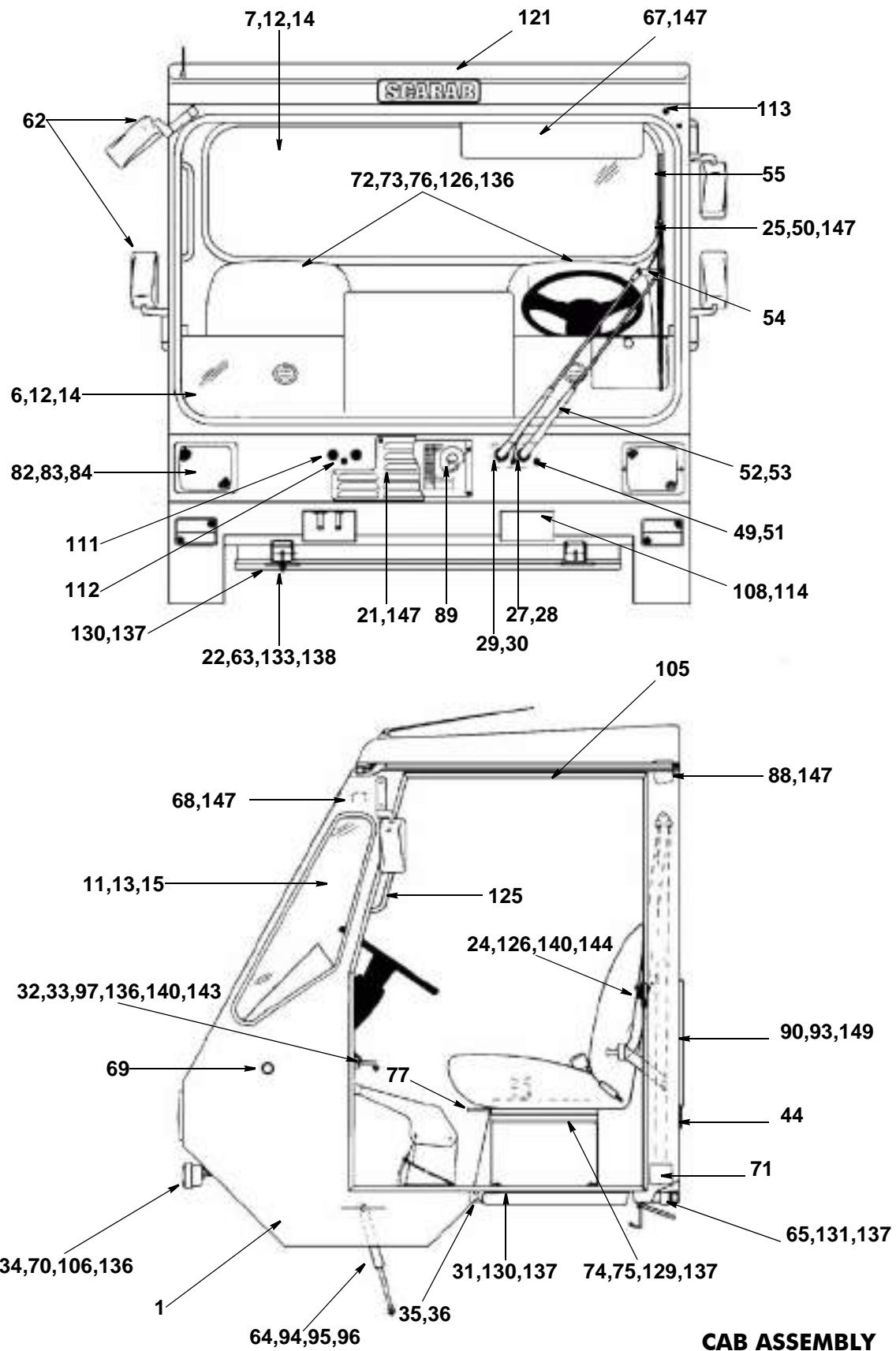
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAB ASSEMBLY FLAT WINDSCREEN</b>			
1	013431	1	Cab
	021851	1	Cab
2	013451	1	Door left hand
	021852	1	Door left hand
3	013452	1	Door right hand
	021853	1	Door right hand
4	014052	1	Cover plate left hand door
5	014053	1	Cover plate right hand door
6	013738	1	Windscreen
7	013739	1	Rear Screen
8	013683	1	Window Sliding left hand
9	013684	1	Window Sliding right hand
10	013741	2	Window Lower door
11	013742	2	Quarter Light, Window
12	013946	8.50	Weather strip
13	013945	3.60	Weather strip
14	014102	8.50	Filler strip
15	013947	3.60	Filler strip
16	014411	1	Cab Cover plate left hand drive (LHD)
17	014412	1	Cab Cover plate right hand drive
18	014123	1	Cover, Fuse Box
19	013447	1	Dash panel left hand drive (LHD)
20	013445	1	Cowl
21	013734	1	Grill
	021854	1	Grill
22	027734	2	Pivot Brkt, Cab
NI	027732	2	Bush, brass, Cab Pivot
NI	027731	2	Bush, rubber, Cab Pivot
24	013437	2	Bracket, striker
25	014079	1	Bracket, washer jet
26	013939	1	Label vin
27	013743	1	Spacer front, wiper motor
28	013744	1	Spacer rear, wiper motor
29	013745	1	Spacer front, wiper motor
30	013746	1	Spacer rear, wiper motor
31	014255	1	Bracket, seat
32	014039	1	Door Check strap left hand
33	014093	1	Door Check strap right hand
34	014321	2	Bracket Sidelight
35	014349	1	Prop, cab
36	014351	1	. Bracket, cab prop
37	014437	1	Label, headlamp
38	014726	1	Label, Front brush Swing Out
39	014727	1	Label, Brake fluid reservoir
40	014728	1	Label, Heater control
41	014729	1	Label, Cab lift
42	014731	1	Label, Forward/Reverse Lever
43	014849	1	Cover, Reservoir
44	011766	1	Suction Cover
45	014393	1	Dash panel right hand drive
46	020028	1	Label, Temp Warning
47	020023	1	Buzzer 12v

**CONTINUED.....**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



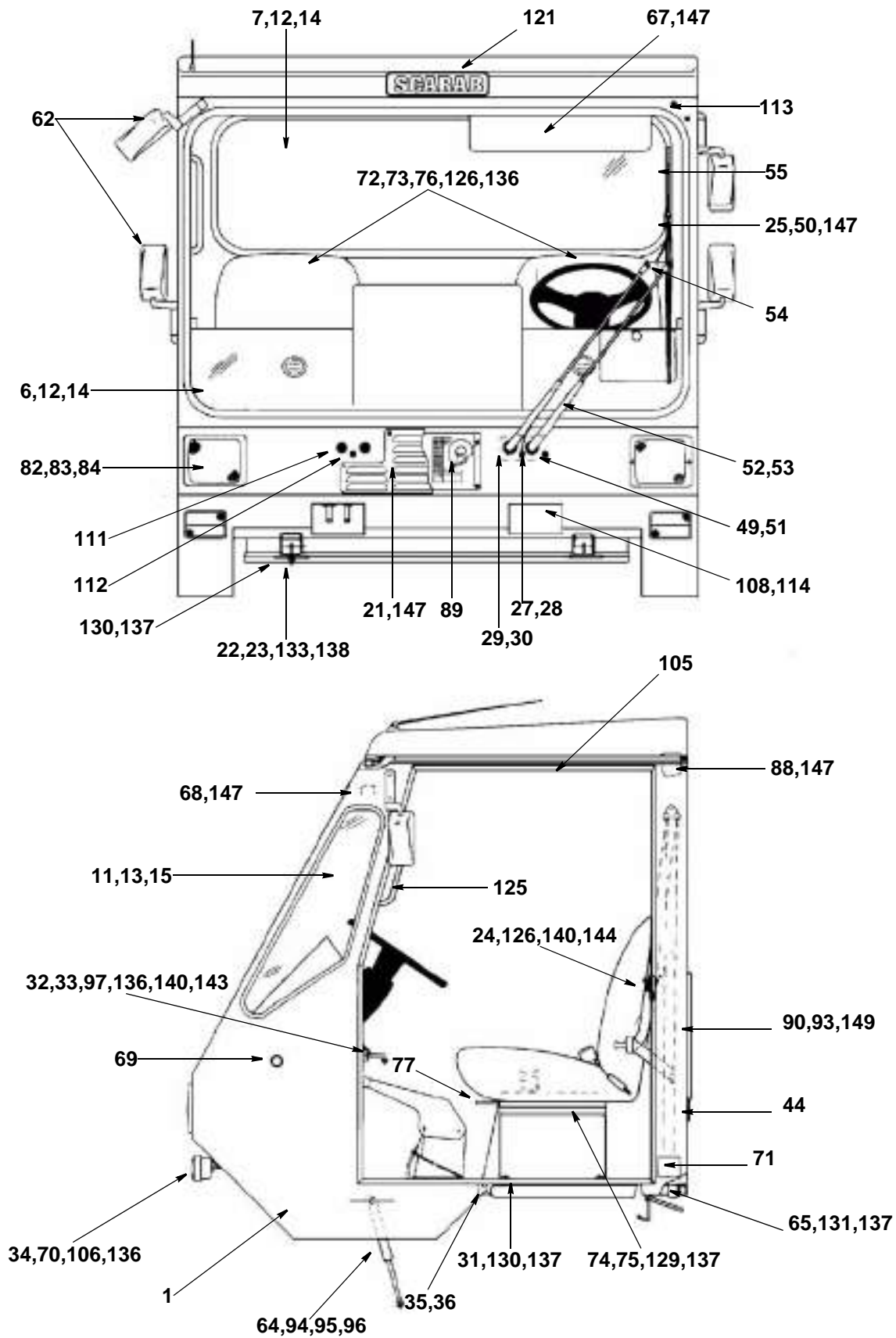
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAB ASSEMBLY FLAT WINDSCREEN</b>			
48	021064	1	Label, Engine Speed
49	014397	1	Wiper Motor, right hand drive
50	022365	1	. Wash/Wipe Kit
51	013859	1	. Wiper Motor, left hand drive (LHD)
52	013948	1	. Drive arm, Wiper
53	022333	1	. Idler arm, Wiper
54	013857	1	. Bracket, Wiper arm
55	022334	1	. Wiper blade
56	021843	1	Catch, Window left hand <b>(Upto Jan 98)</b>
57	021924	1	Catch, Window right hand <b>(Upto Jan 98)</b>
58	024819	1	Catch, Universal <b>(From Feb 98)</b>
59	013933	2	Door Handle
60	013931	1	Lock, Door left hand
61	013932	1	Lock, Door right hand
62	013941	4	Mirror complete
63	N/A		Part Deleted
64	021993	2	Gas Strut, Cab tilt
65	013466	2	Rubber Buffer
66	013934	1	Ashtray
67	013935	1	Sun Visor, Cab
68	013749	1	Interior Light
69	013748	2	Indicator, Side marker
70	013747	2	Lamp, Side/Flasher
NI	014339	2	. Spare Lens
71	020513	2	Seat belt
72	014333	1	Seat left hand
73	014334	1	Seat right hand
74	014345	1	. Seat Siderail left hand
75	014346	1	. Seat Siderail right hand
76	014335	4	. Seat Z bar
77	014336	1	. Seat handle
78	100086	1	Washer bottle
79	100087	1	. Pump, washer bottle
80	100088	1	. Gland, washer bottle pump
81	100046	1	. Cover, washer bottle
82	013969	2	Headlamp left hand dip
83	014228	2	Headlamp RH dip
84	013971	2	. Backshell, headlamp
85	021010	1	Lever, Forward/Reverse
86	012344	1	Radio
87	013592	1	. Aerial
88	013593	1	. Speakers (pair)
89	019123	1	Horn
90	014155	3	Guide blanking plate
91	013237	1	Switch, On/Off/Mom.On
92	013915	1	Switch, On/Off 2 Pole
93	010502	1	Pull Handle
94	014971	2	Clevis Pin 42Lg
95	014986	2	Clevis Pin 33Lg
96	000084	4	Split Pin 3/32 x 1
97	014188	4	Rubber Washer

**Continued...**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**CAB ASSEMBLY**

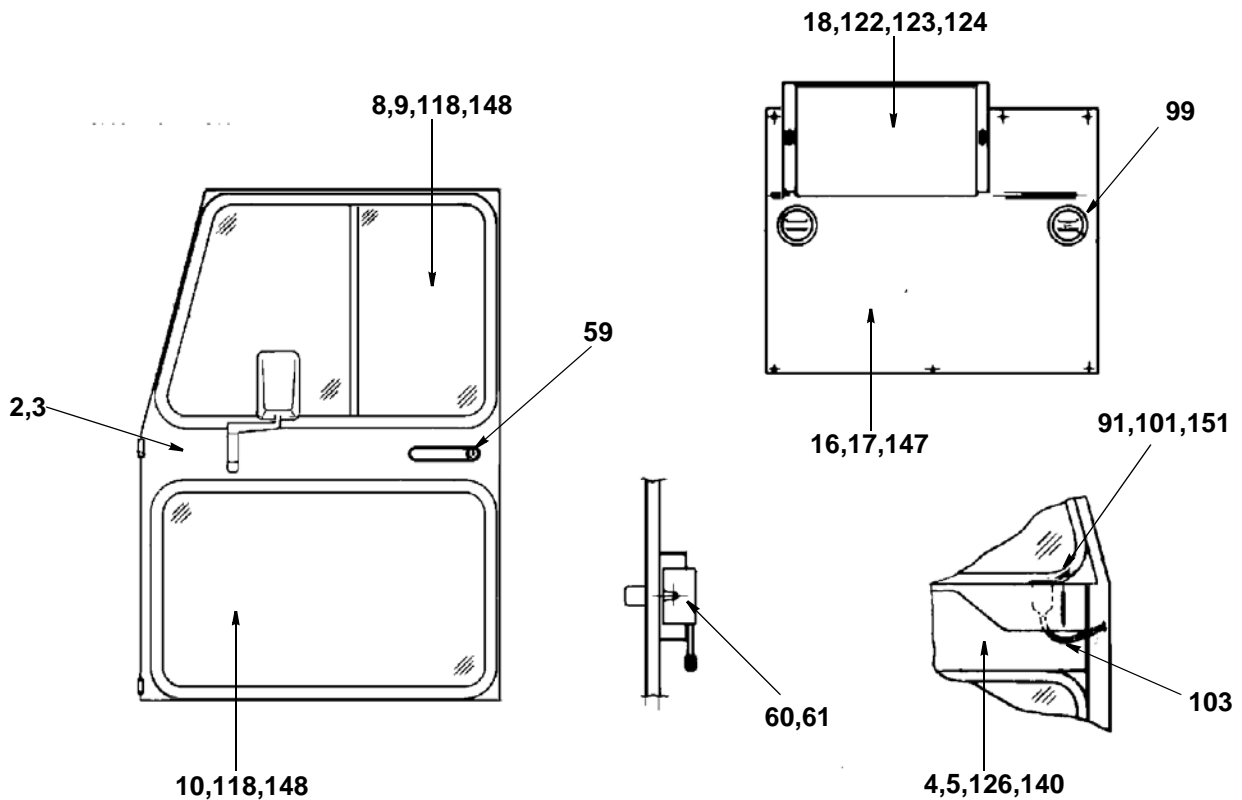
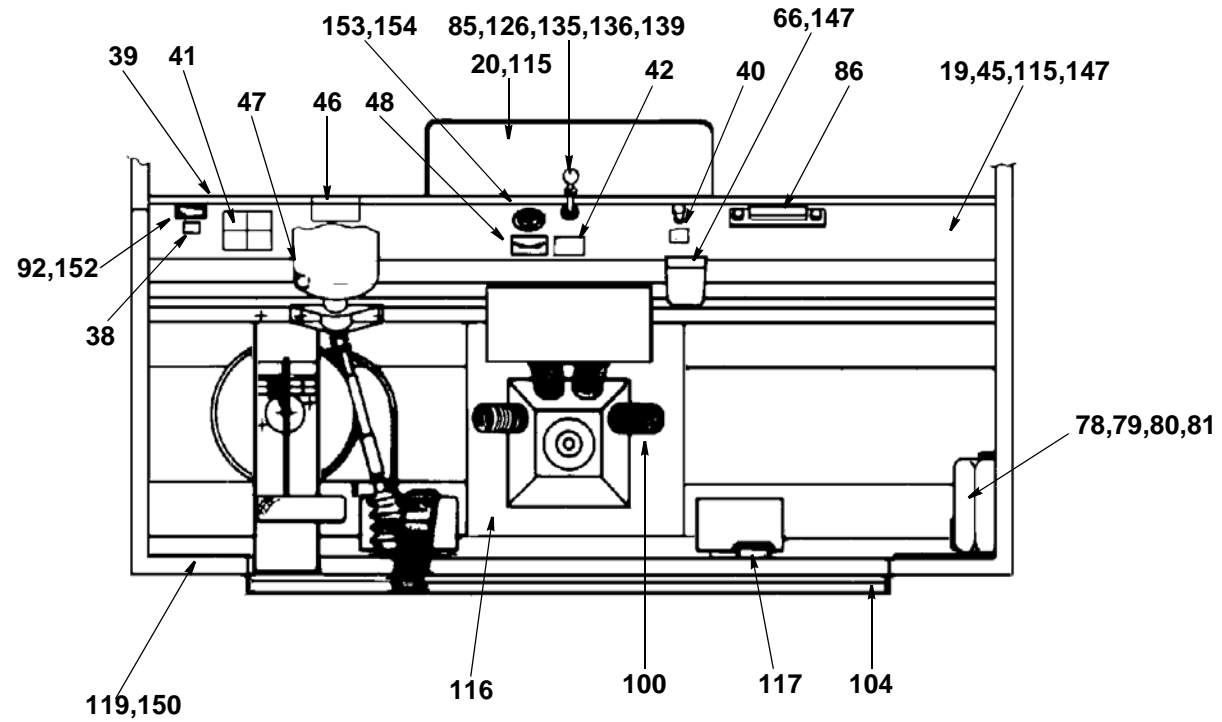
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAB ASSEMBLY FLAT WINDSCREEN</b>			
98	013865	1	Cab Locking Knob
99	013812	4	Air Outlet
100	013813	1	. Air Vent Pipe
101	013259	1	Blanking Cover
102	021857	1	Bracket, Washer Bottle
103	002007	0.30	Hose 8mm
104	013952	5.00	Cab Seal
105	013951	8.80	Draught Excluder
106	011756	2	Grommet
107	012542	2	Grommet
108	012876	1	Grommet
109	014184	1	Grommet
110	014185	1	Grommet blanking 19.0
111	014186	1	Grommet blanking 22.2
112	014187	1	Grommet blanking 12.7
113	014394	4	Grommet blanking 6.5
114	014681	2	Grommet blanking 31.8
115	014563	14	Fir Tree Button
116	014196	2	Pipe Clip, Double 5dia
117	014395	1	Grommet blanking 50dia
118	020362	20.00	Inseal strip 3 x 15 x 25m
119	020525	2	Tread plate
	021858	2	Tread plate
120	014164	1	Foam lining 25mm Grey
121	014989	1	Scarab Badge
122	021326	2	Receptacle, Fastener
123	021327	2	. Stud, Fastener
124	021328	2	. Retainer, Fastener
125	020272	2	Grab handle
126	011001	32	Bolt, hex, M6 x 16mm long
127	011067	2	Bolt, hex, M6 x 20mm long
128	011087	4	Bolt, hex, M6 x 25mm long
129	011010	5	Bolt, hex, M8 x 20mm long
130	011011	16	Bolt, hex, M8 x 25mm long
131	011013	4	Bolt, hex, M8 x 35mm long
132	011031	1	Bolt, hex, M10 x 25mm long
133	011038	2	Bolt, hex, M10 x 80mm long
134	000063	8	Bolt, hex, 1/4UNF x 1/2"
135	011116	6	Screw 2ba x 3/4"
136	011071	20	Nut M6
137	011073	16	Nut M8
138	011075	2	Nut M10
139	011078	2	Nut 2ba
140	011090	44	Washer M6
141	011092	8	Washer M8
142	011094	3	Washer M10
143	011099	6	Washer Repair
144	011091	16	Washer, Spring M6
145	011093	1	Washer, Spring M8
146	011098	8	Washer , Spring 1/4"
147	011115	25	Screw, Self Tapping, No10 x 1/2"
148	011125	69	Blind Rivet 3.2 x 10
149	011124	4	Blind Rivet 4.0 x 10
150	000060	20	Blind Rivet 3.2 x 10
151	013244	1	Insert, Nozzle
152	020536	1	. Insert, UP/DOWN
153	020509	1	Knob
154	020339	1	. Dial

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**CAB ASSEMBLY DOORS & INTERIOR**

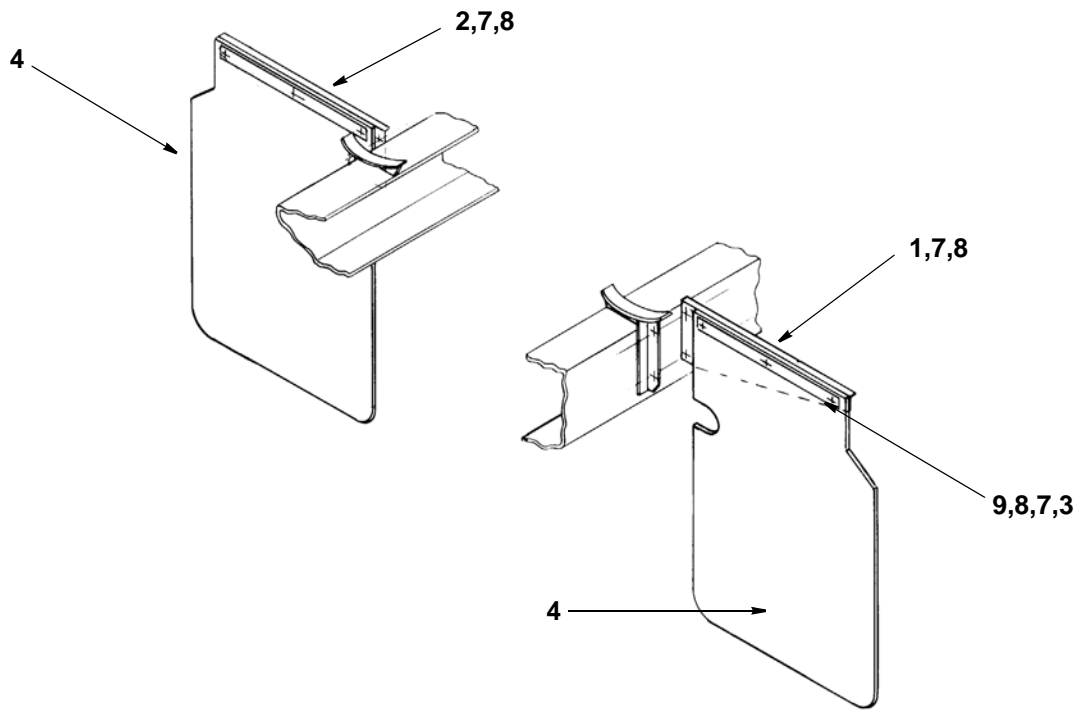
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



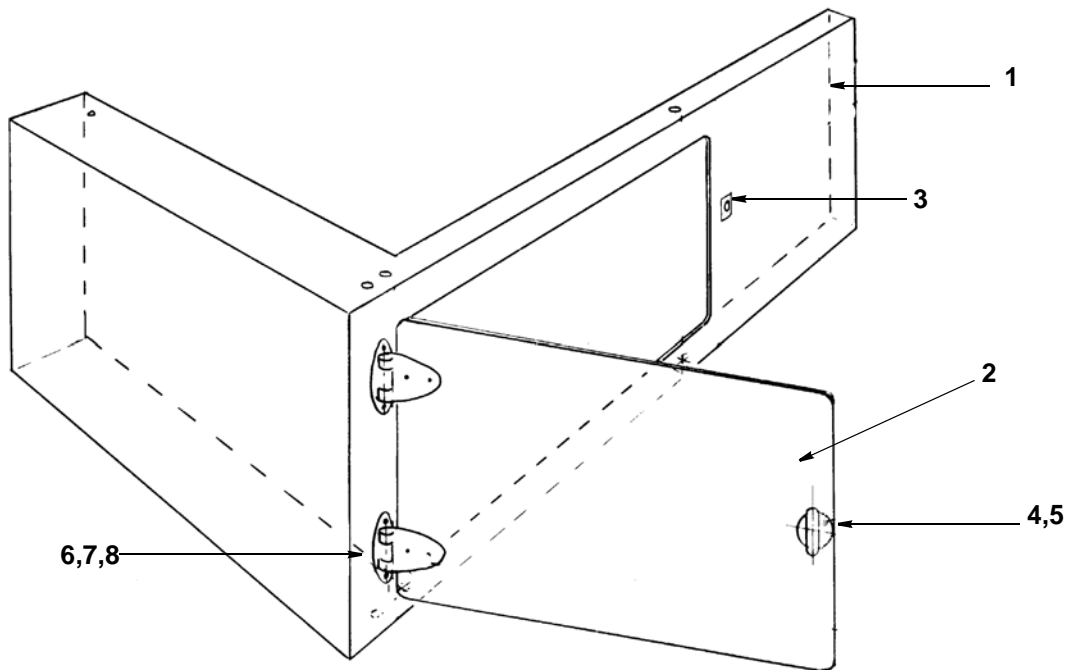
<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FRONT MUDFLAP ASSEMBLY</b>			
1	014738	1	Bracket, Mudflap left hand
2	014739	1	Bracket, Mudflap right hand
3	014741	2	Clamp Strip, Mudflap
4	014744	0.40	Rubber, 6mm Thick
	014745	REF	Mudguard, Front
5	011001	10	Bolt, hex, M6 x 16mm long
6	011071	10	Nut, hex, M6
7	011091	6	Washer, spring 6mm

<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAB STORAGE BOX ASSEMBLY</b>			
1	022795	1	Toolbox
2	014958	1	Door, toolbox
3	021326	1	Receptacle, fastener
4	021327	1	Stud, fastener
5	021328	1	Retainer, fastener
6	014959	2	Hinge
7	000086	8	Screw M3 x 20mm long
8	000085	8	Nut M3
9	011125	2	Rivet 3.2 x 10

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**FRONT MUDFLAP ASSEMBLY**



**CAB STORAGE BOX ASSEMBLY**

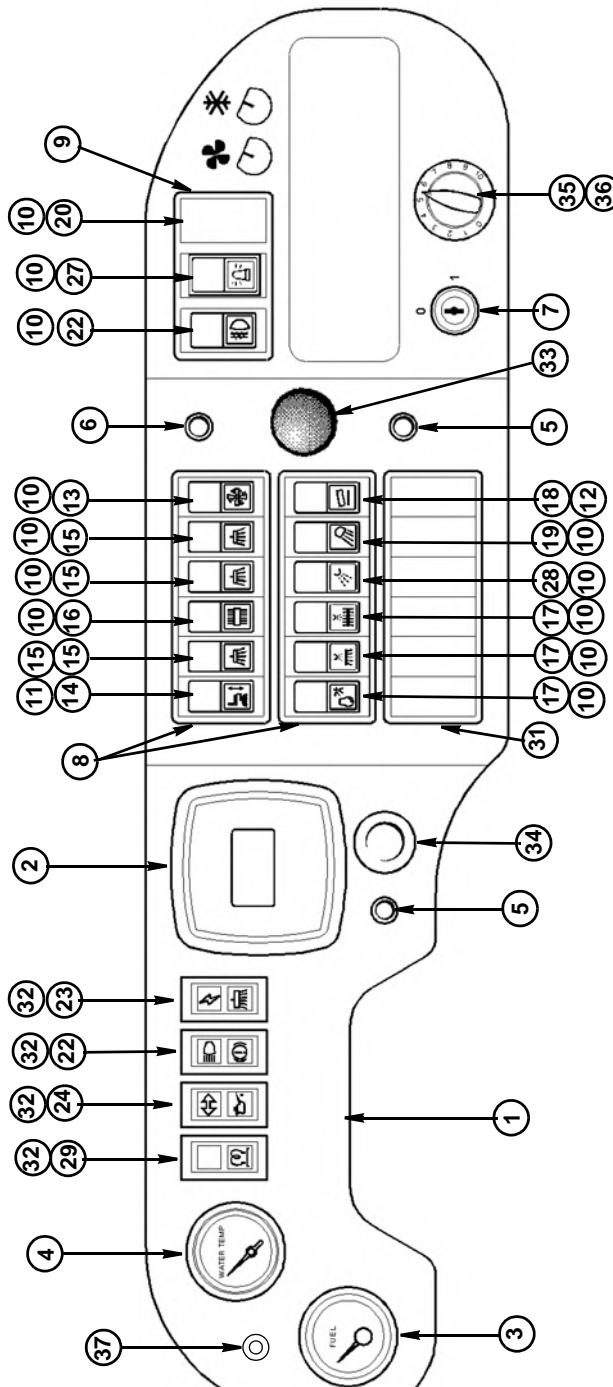
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025770</b>		<b>INSTRUMENT PANEL - GRP DASHBOARD</b>
1	025745	1	Instrument Panel, Left Hand
1	025746	1	Instrument Panel, Right Hand
2	012630	1	. Sweeper Monitor, RDS (Fitted until September 2002) *
2	027899	1	. Sweeper Monitor, RDS (Fitted from August 2002)
NI	027900	1	. . Kit, control panel (From August 2002)
3	013752	1	. Fuel gauge
4	023587	1	. Temperature gauge
5	023171	1	. Indicator LED, 12 Volt RED
6	023172	1	. Indicator LED, 12 Volt GREEN
7	013913	1	. Switch, Ignition
8	013242	2	. Housing, 6 Way
9	013914	1	. Housing, 3 Way
10	013915	13	. Switch, ON/OFF 2 Pole
11	013237	1	. Switch, ON/OFF/Momentarily ON
12	013238	1	. Switch, Mom.ON/OFF/Momentarily ON
13	013254	1	. Insert, Fan
14	013246	1	. Insert, Side Brush
15	013916	3	. Insert, Brush
16	013245	1	. Insert, Wide Sweep
17	013247	3	. Insert, Water
18	013255	1	. Insert, Hopper
19	013249	1	. Insert, Work Lamp
20	013252	1	. Insert, Beacon
21	013917	1	. Insert, Direction
22	013918	1	. Insert, Main Beam
23	013919	1	. Insert, Ignition
24	013920	1	. Insert, Oil
25	013921	1	. Insert, Brake
26	013922	1	. Insert, Fog Lamp
27	013923	1	. Insert, Heater
28	013257	1	. Insert, High Pressure Pump
29	025765	1	. Insert, Glow Plugs
30	013253	1	. Insert, Blank
31	013259	6	. Blanking Cover
32	013239	4	. Pilot Lamp
NI	004106	4	. Push on Terminals
NI	023764	6	. Angled Spade Terminal
33	021010	1	. Joystick
34	010641	1	. Switch, Push Button
35	020509	1	. Knob
36	020309	1	. Dial
37	030557	1	Tri coloured Led (Body Raising Kit)

\* (available as a Service Exchange unit)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



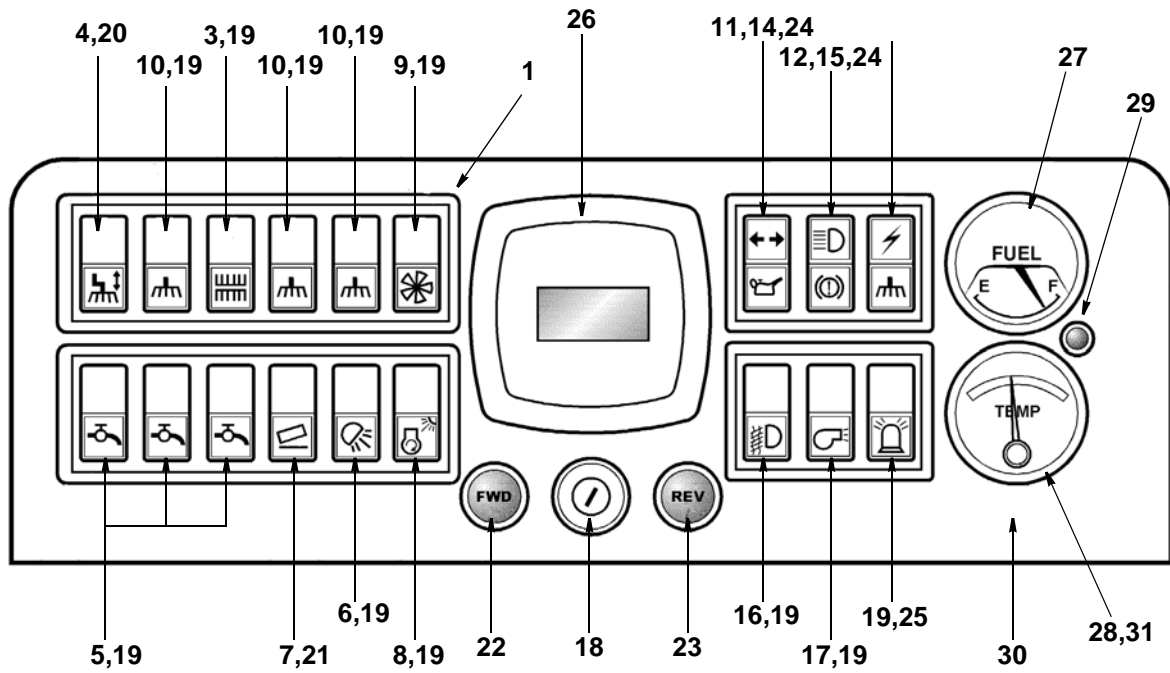
**INSTRUMENT PANEL - GRP DASHBOARD**  
(LEFT HAND DRIVE SHOWN - RIGHT HAND DRIVE OPPOSITE)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>INSTRUMENT PANEL - CENTRAL DASHBOARD ARRANGEMENT</b>			
1	013242	2	Housing, 6 way
2	013914	2	Housing, 3 way
3	013245	1	Insert, Widesweep
4	013246	1	Insert, Side brush
5	013247	3	Insert, Water
6	013249	1	Insert, Work Lamp
7	013255	1	Insert, Hopper
8	013257	1	Insert, High pressure pump
9	013254	1	Insert, Fan
10	013916	4	Insert, Brush
11	013917	1	Insert, Direction
12	013918	1	Insert, Main beam
13	013919	1	Insert, Ignition
14	013920	1	Insert, Oil
15	013921	1	Insert, Brake
16	013922	1	Insert, Fog Lamp
17	013923	1	Insert, Heater
18	013913	1	Switch Ignition
19	013915	13	Switch, On/Off , 2 Pole
20	013237	1	Switch, On/Off/Mom.On
21	013238	1	Switch, Mom.On/Off/Mom.On
22	013912	1	Warning Light Green
23	013911	1	Warning Light Red
24	013239	3	Pilot Lamp
25	013252	1	Fuel Gauge
26	012630	1	Sweeper Monitor, RDS (available as a Service Exchange unit)
27	013752	1	Fuel Gauge
28	013477	1	Water Temp Gauge
29	011772	1	Lamp, Amber
30	013444	1	Instrument Panel
31	023587	1	Water Temp Gauge (If Lucas Gauge Order Item 32 aswell)
32	023588	1	Temp Sensor (To be used with Datacom Gauge 023587)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**INSTRUMENT PANEL - CENTRAL DASHBOARD ARRANGEMENT**



When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

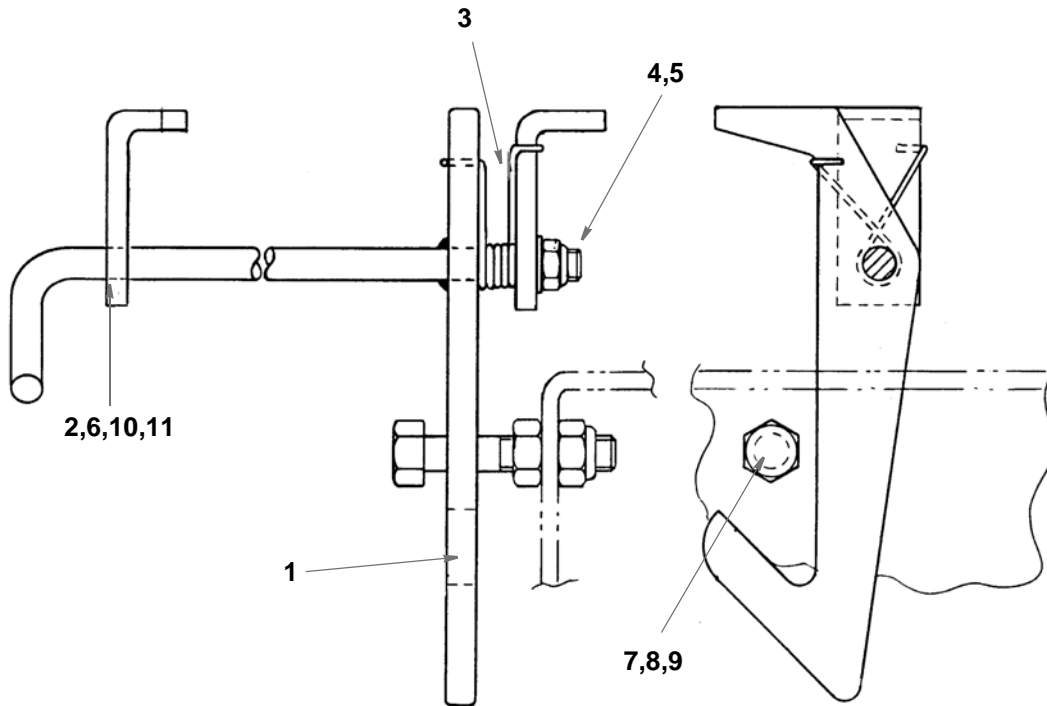


<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CAB SAFETY LATCH ASSEMBLY</b>			
1	025854	1	Cab Latch - VM Model
2	013942	2	Cab Latch Bracket
3	013944	1	Cab Latch Spring
4	011073	1	Nut M8
5	011092	1	Washer M8
6	011071	2	Nut M6
7	000040	1	Bolt, hex hd, M10 x 55mm long
8	011074	1	Nut M10
9	011075	1	Nut M10
10	011067	2	Bolt, hex hd, M6 x 20mm long
11	011090	2	Washer M6

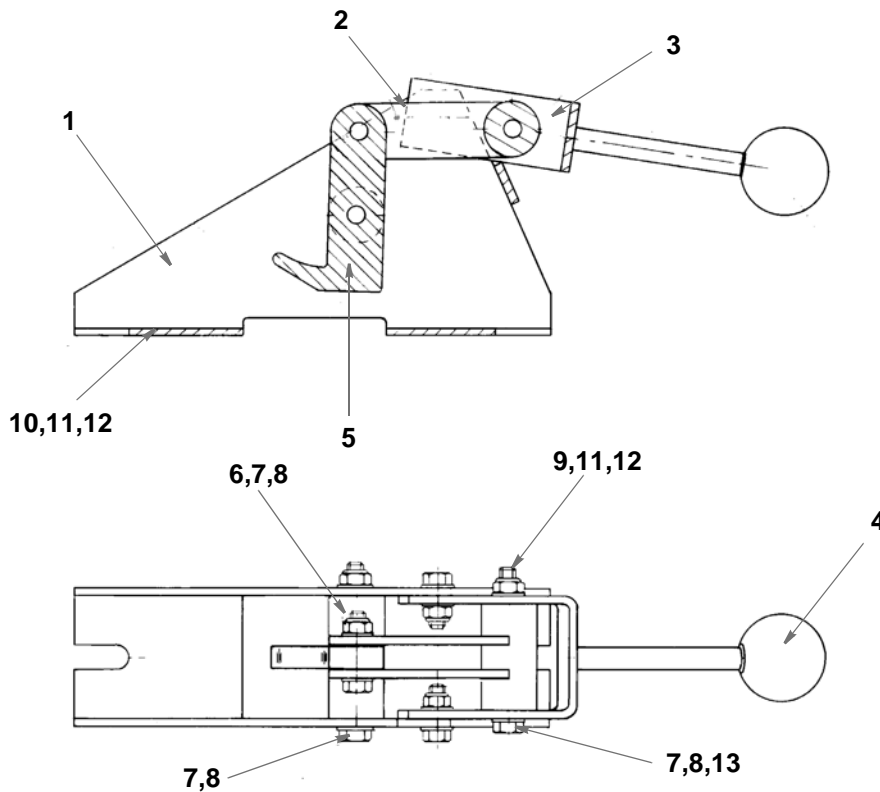
<i>item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>018227 CAB LOCKING ASSEMBLY</b>			
1	013866	1	Cab Lock Base
2	013869	1	Cab Lock Link Arm
3	013867	1	Cab Lock Handle
4	013865	1	Cab Lock Knob
5	013868	1	Cab Lock Hook
6	011087	1	Bolt, hex hd, M6 x 25mm long
7	011071	5	Nut M6
8	011090	10	Washer M6
9	000018	1	Bolt, hex hd, M6 x 55mm long
10	011010	2	Bolt, hex hd, M8 x 20mm long
11	011073	2	Nut M8
12	011092	2	Washer M8
13	011001	2	Screw

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**CAB SAFETY LATCH ASSEMBLY**



**CAB LOCKING ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



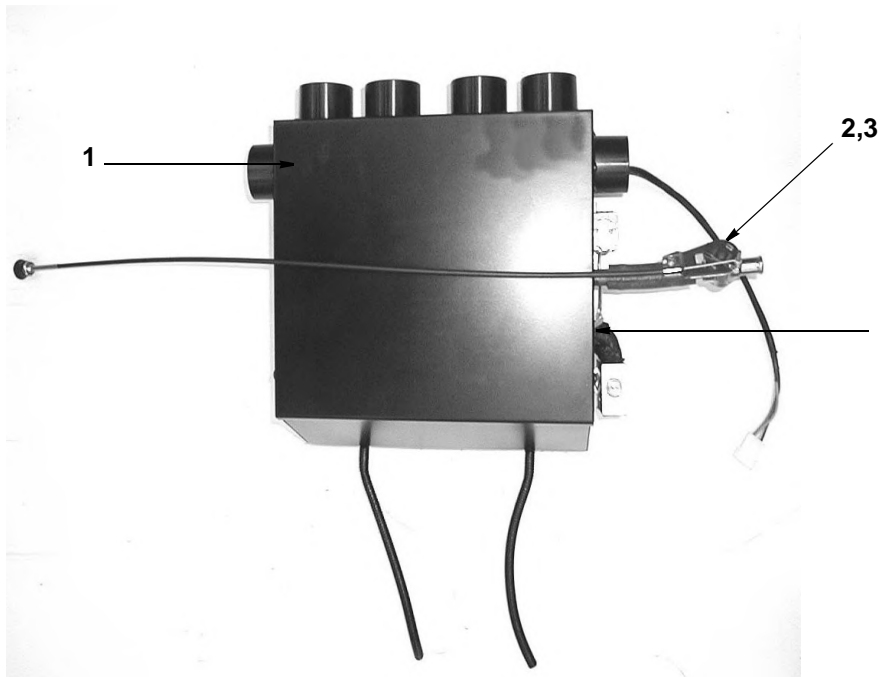


<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>026161</b>		<b>CAB HEATER ASSEMBLY From MAY 2001</b>
1	026161	1	Cab Heater 6 Ports
NI	027708	1	. Blower Assy
NI	027709	1	. Matrix
2	027710	1	Cable
3	014149	1	. Valve
NI	027712	1	Switch, 3 Speed (In Cab)
NI	027713	1	. Knob, for Switch
NI	027714	1	. On/Off Switch
NI	026099	1	Panel Cab Kit
NI	026242	1	Loom Cab
NI	026243	1	Loom Chassis
NI	013458	1	Relay 70 Amp 12v
NI	014290	1	Fuse 20 Amp Blade Type

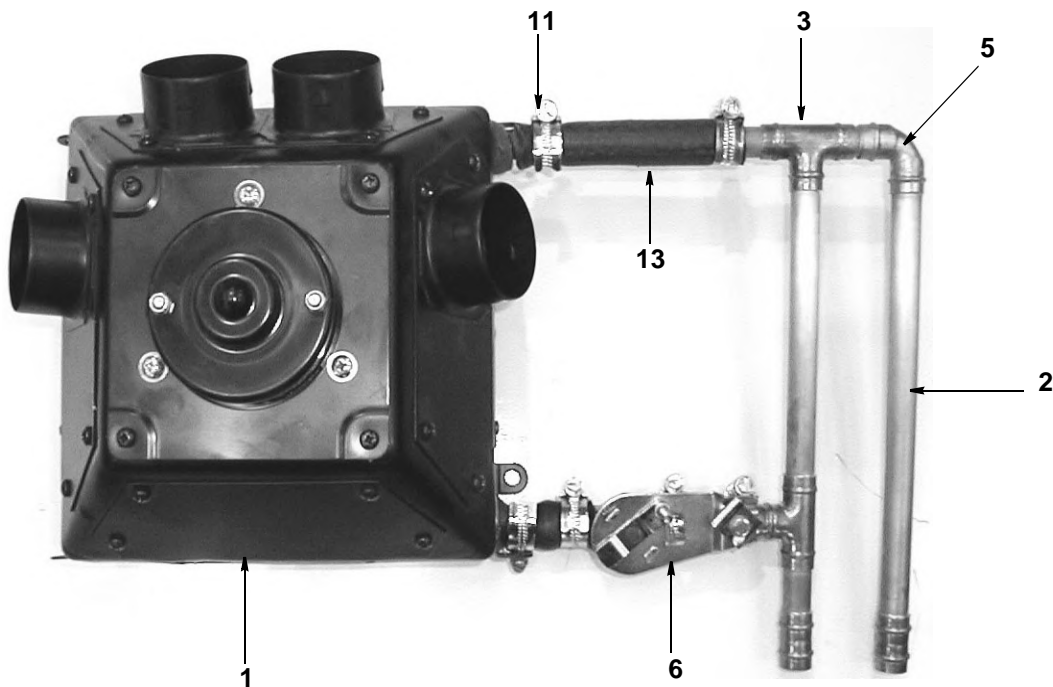
**NOTE:** For Air Conditioning see Section J2

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
			<b>CAB HEATER Upto MAY 2001</b>
1	013814	1	Cab Heater 4 Port
NI	021301	1	. Motor for Heater
NI	021302	1	. Fan for Heater
NI	021303	1	. Matrix for Heater
2	014127	1	Pipe work
3	014133	2	Tee piece, copper
4	014591	2	Connector 15 dia
5	014132	1	Elbow 15 dia
6	014149	1	Valve heater control
7	014131	1	Pipe 15 dia
8	010517	4	Jubilee Clip No 0x (25)
9	011010	4	Bolt, hex, M8 x 20mm long
10	011073	4	Nut M8
11	003004	6	Jubilee Clip No 0X (25)
NI	014128	1	Heater Control Cable
NI	001015	0.15	Hose 1/2 x 15m
NI	001013	0.10	Hose 5/8 x 15m
NI	026099	1	LH Kick panel
NI	026100	1	RH Kick panel
NI	014290	2	Fuse 20 amp
NI	013458	1	Relay 70 amp
NI	026242	1	Loom
NI	026243	1	Loom

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**CAB HEATER FROM 4/2001**



**CAB HEATER UPTO 4/2001**



When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## **SECTION G HYDRAULIC SYSTEM ,RELATED EQUIPMENT & GANTRY**

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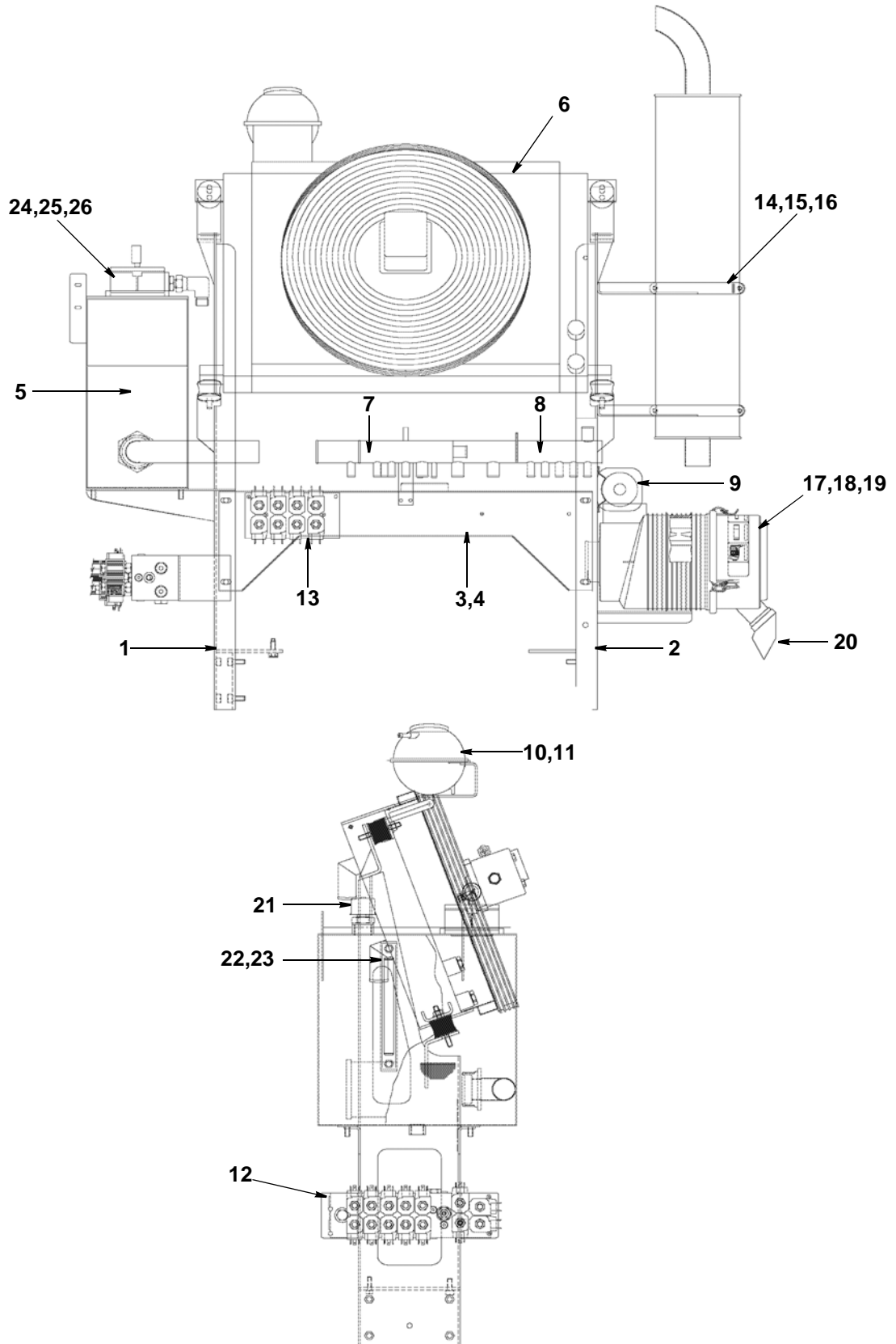
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**FOR DETAILS OF THE HYDRAULIC PUMP ASSEMBLY,  
PLEASE REFER TO SECTION B OF THIS MANUAL**



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025478/028293</b>		<b>GANTRY VM EURO3 GENERAL ARRANGEMENT</b>
1	025144	1	Gantry Frame LH Leg
2	025147	1	. Gantry Frame RH Leg
3	026728	1	. Gantry Crossmember Front
4	026729	1	. Gantry Crossmember Rear
5	025143	1	Oil Tank Assembly
6	025146	1	Radiator Assembly
NI	026890	1	. Pipe Lower, Radiator
NI	026889	1	. Pipe Top, Radiator
NI	026951	1	. Breather Pipe
7	026741	1	Manifold Oil Tank feed <b>(Single Sweep Minor only)</b>
7	027742	1	Manifold Oil Tank feed <b>(Dual Sweep Minor only)</b>
8	025148	1	Manifold Oil Return
9	026866	1	Water Pump, Electric
10	020517	1	Expansion Bottle
11	020518	1	. Cap, Expansion Bottle
12	026787	1	Valve Block Main Assembly
13	026790	1	Brush Block Assembly
14	025489	1	Exhaust Silencer
15	026727	2	. Bracket, Silencer
16	025551	2	. Clamp, Silencer
NI	026006	1	Flexible Exhaust Pipe
NI	012901	2	. U Clamp 2"
NI	013863	2	. Lap Joint, 2" S/S
NI	025967	1	Downpipe, Exhaust
NI	025697	1	Guard, Silencer
NI	026647	2	. Bracket, Guard
17	025279	1	Air Cleaner Assembly
18	025280	1	. Main Element, Air Cleaner
19	025281	1	. Safety Element, Air Cleaner
20	025450	1	. Vacuator, Air Cleaner
NI	026936	1	Air Intake Pipe/Brkt Extension
NI	026930	1	Air Intake Pipe (Rubber Moulding)
NI	026742	1	Air Pipe Moulded
21	020688	1	Breather
22	023155	1	Gauge, Fluid Level
23	021979	2	. Seal, Rubber
24	011723	1	Filter, return Complete
25	011972	1	. Spare Filter
26	022163	1	. O Ring Kit between tank and filter.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**VM EURO 3 GANTRY ARRANGEMENT**

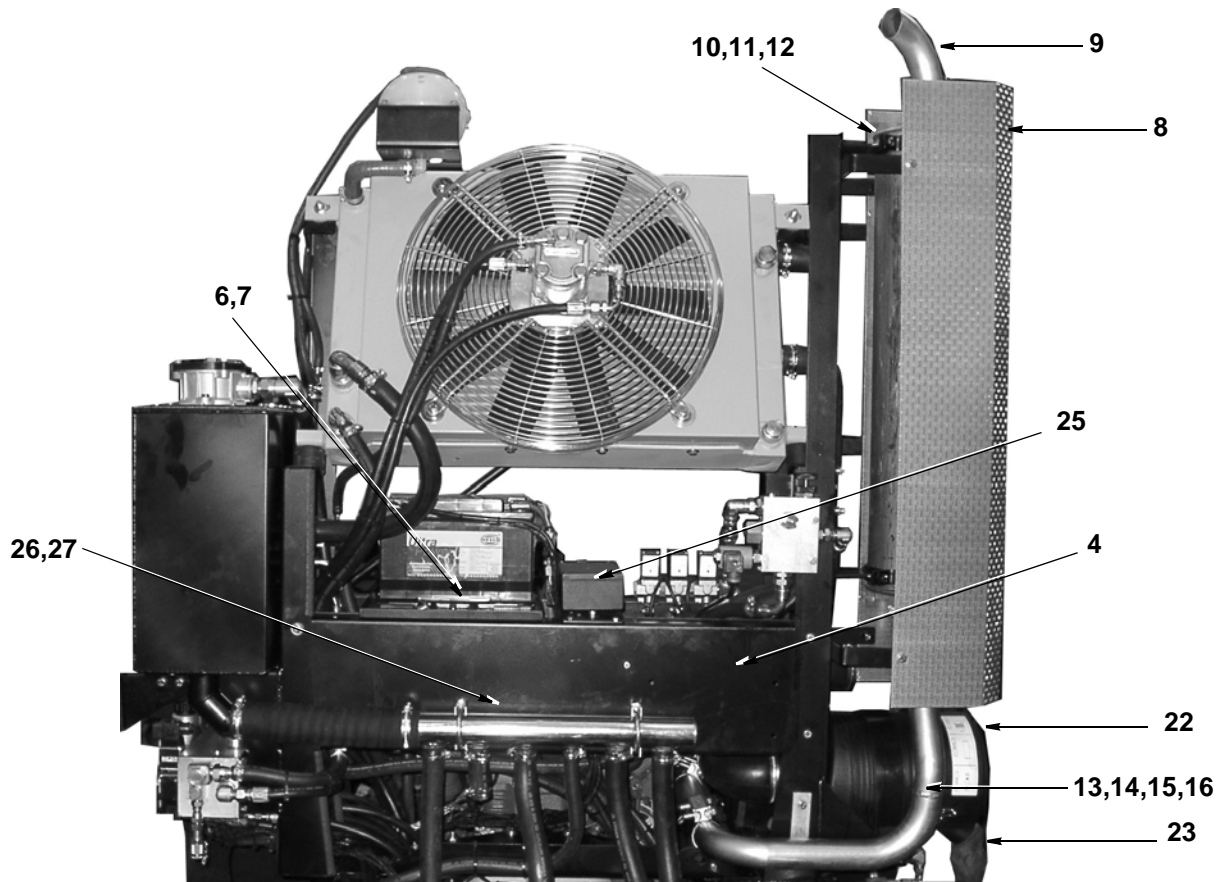
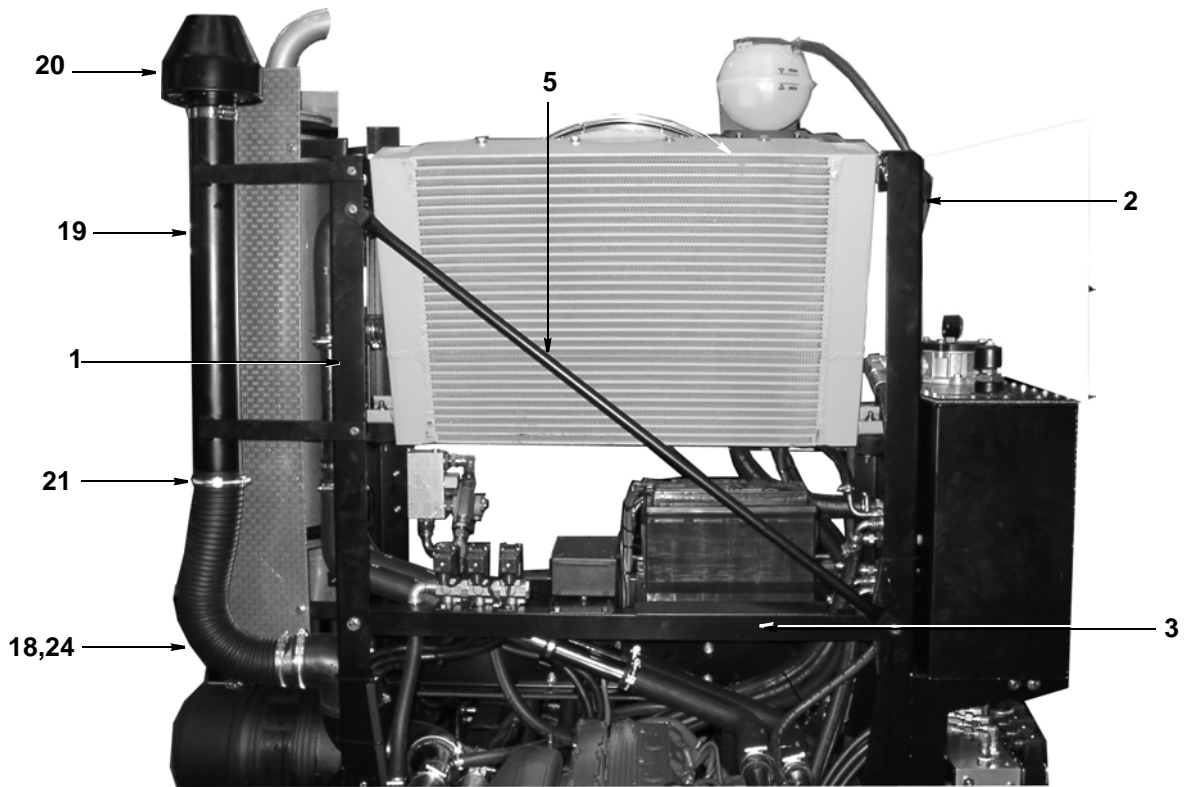
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025478</b>		<b>GANTRY VM EURO 2 GENERAL ARRANGEMENT</b>
1	025342	1	Gantry, R.H
2	025341	1	Gantry, L.H
NI	023848	1	. Gantry pad L.H
NI	023849	1	. Gantry pad R.H
3	025543	1	. Cross brace, Gantry
4	025544	1	. Cross member, Gantry
5	026170	1	. Cross brace, gantry
6	025558	1	. Tray, Battery
7	027898	1	. . Battery 12v 90AH
8	025697	1	Guard, Silencer
NI	025698	1	. Brkt Guard, Silencer
9	025489	1	. Silencer, Exhaust
10	014022	1	. Exhaust clamp
11	025551	2	. Clamp, Silencer
12	025552	1	. Support, Silencer
NI	024910	1	. U Clamp, Silencer
13	025967	1	. Downpipe, Exhaust
14	024910	1	. U Clamp 2 1/4"
15	026006	1	. Flexi pipe 660 long
16	013863	2	. Lap joint 2"
17	014886	0.16	. Hose flexible 3" Dia
18	014683	1	Air intake extension
19	025536	1	. Pipe, Air Intake (back of air cleaner)
20	020873	1	. Cap, Air Intake
21	012931	4	. Jubilee clip No 4
22	025279	1	Air cleaner assy
NI	025280	1	. Main element, Air cleaner
NI	025281	1	. Safety element, Air cleaner
NI	025540	1	. Connector, Air Cleaner
23	025450	1	. Vacuator valve, Air cleaner
NI	025443	1	. Ident Label, Air cleaner
NI	025444	1	. Plastic band, Air cleaner
24	013151	1	. Rubber elbow 3" x 90
25	025557	1	Relay Housing
26	025343	1	Manifold, Oil
27	012901	2	. Clamp 2"
NI	020975	1	. Connector
NI	022762	2	. Hose 51 bore cuffed ends
NI	010959	0.30	. Hose 1" fuel
NI	020977	1	. Clip, saddle
NI	012927	8	. Jubilee clip No 2
NI	012928	2	. Jubilee clip No 2X
NI	010518	2	. Jubilee clip No 1X
NI	011242	1	. Plug 3/8" BSP
NI	011244	1	. Plug 3/4" BSP
NI	025550	2	. Rubber reducing elbow 89 to 76
NI	025664	1	. Fuel filter bracket
NI	025647	1	. Pipe Support, eng rear
NI	025542	1	. Exhaust elbow 2" 90
NI	023194	1	. Cover, for valve block
NI	025599	1	. Regulating valve 8F4701 (Flow & Pressure)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**EURO 2 GANTRY ARRANGEMENT**

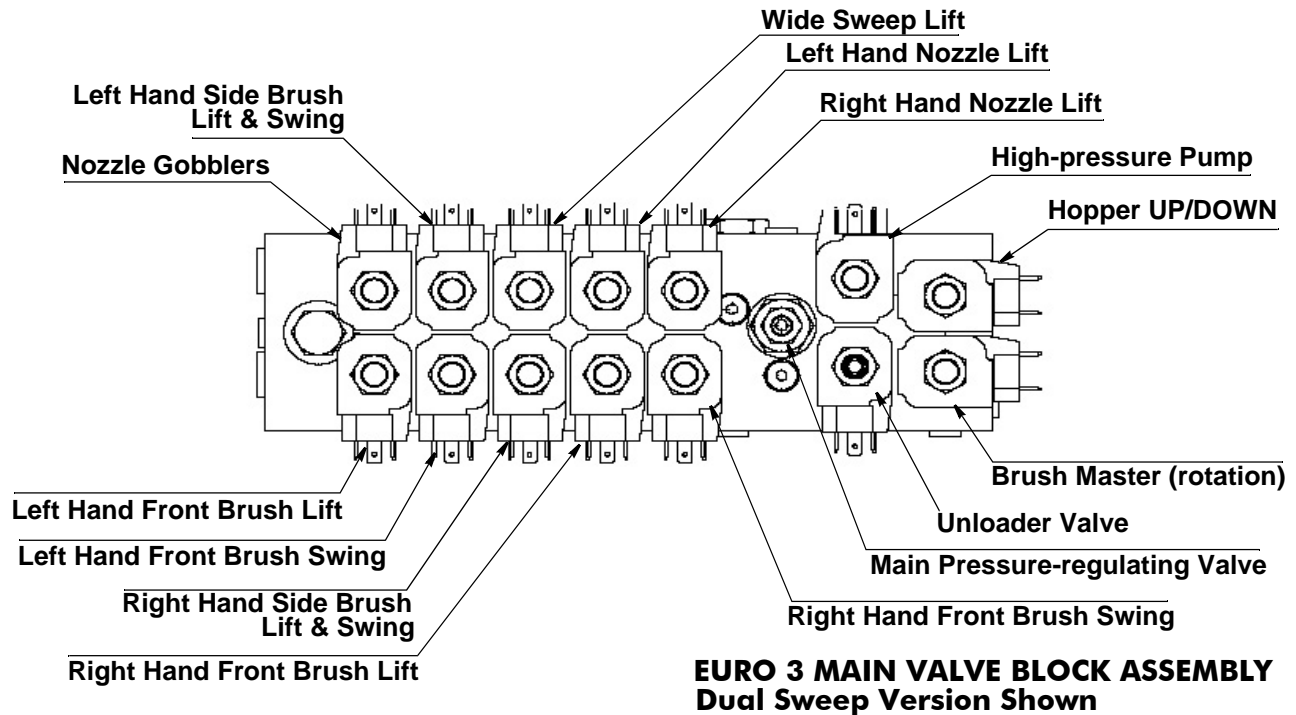
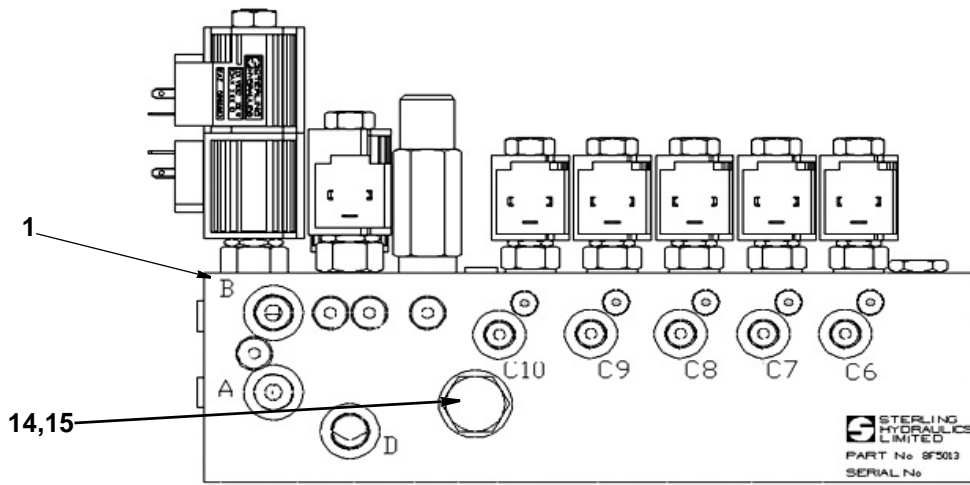
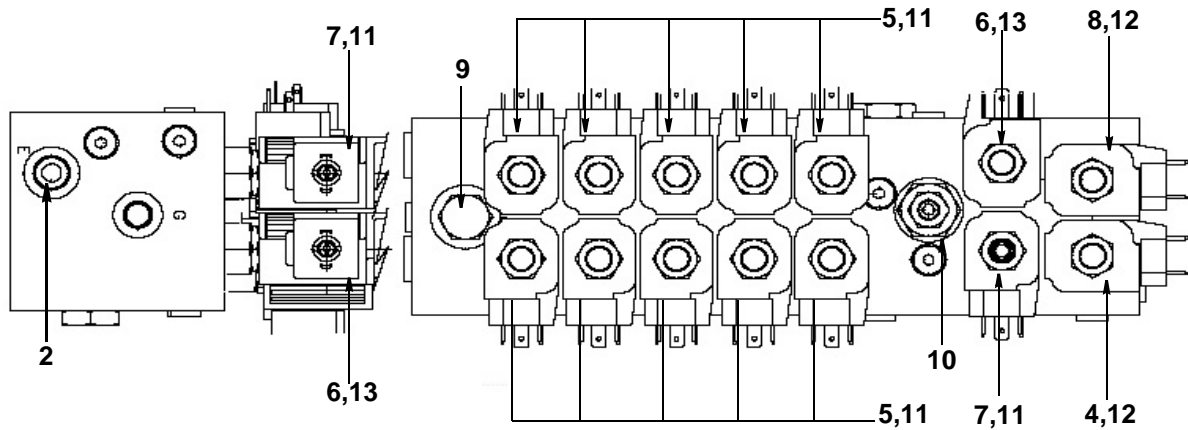
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>026787-9</b>		<b>MAIN VALVE BLOCK ASSEMBLY (Steel Piped Machines only)</b>
1	025121	1	Block 8H42995
2	011242	2	. Plug, 3/8" BSP
3	021395	1	. Positionable Elbow 1/2" BSP x 3/8" BSP M/M
4	004186	1	. Solenoid (GS045100N) *SEE NOTE
4	020005	1	. Solenoid (GS045300N) *SEE NOTE
5	014663	10	. Solenoid (GS023300N)
6	021744	1	. Solenoid (GS042100N)
7	014687	1	. Solenoid (GS021100N) (fitted until September 2002)
7	028347	1	. Solenoid (GS041300N) (fitted from August 2002)
8	020005	1	. Solenoid (GS045300N)
9	014662	1	. Check Valve (D02B2-0.2N)
10	004206	1	. Relief Valve (A04B2P232-170N)
11	014655	11	. Solenoid Coil (CCS012D 14w)
12	004208	4	. Solenoid Coil (CAS012D 18w)
13	021768	1	. Solenoid Coil (CAP012D 28w)
14	004204	1	. Check Valve (D04B2-21N)
15	004205	1	. Pilot Piston (PP045P)

**\*NOTE:** Machines fitted with Double Acting Hopper Ram (with built in Load Check Valve) use part no 020005, Machines without please use part no 004186.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**EURO 3 MAIN VALVE BLOCK ASSEMBLY  
Dual Sweep Version Shown**

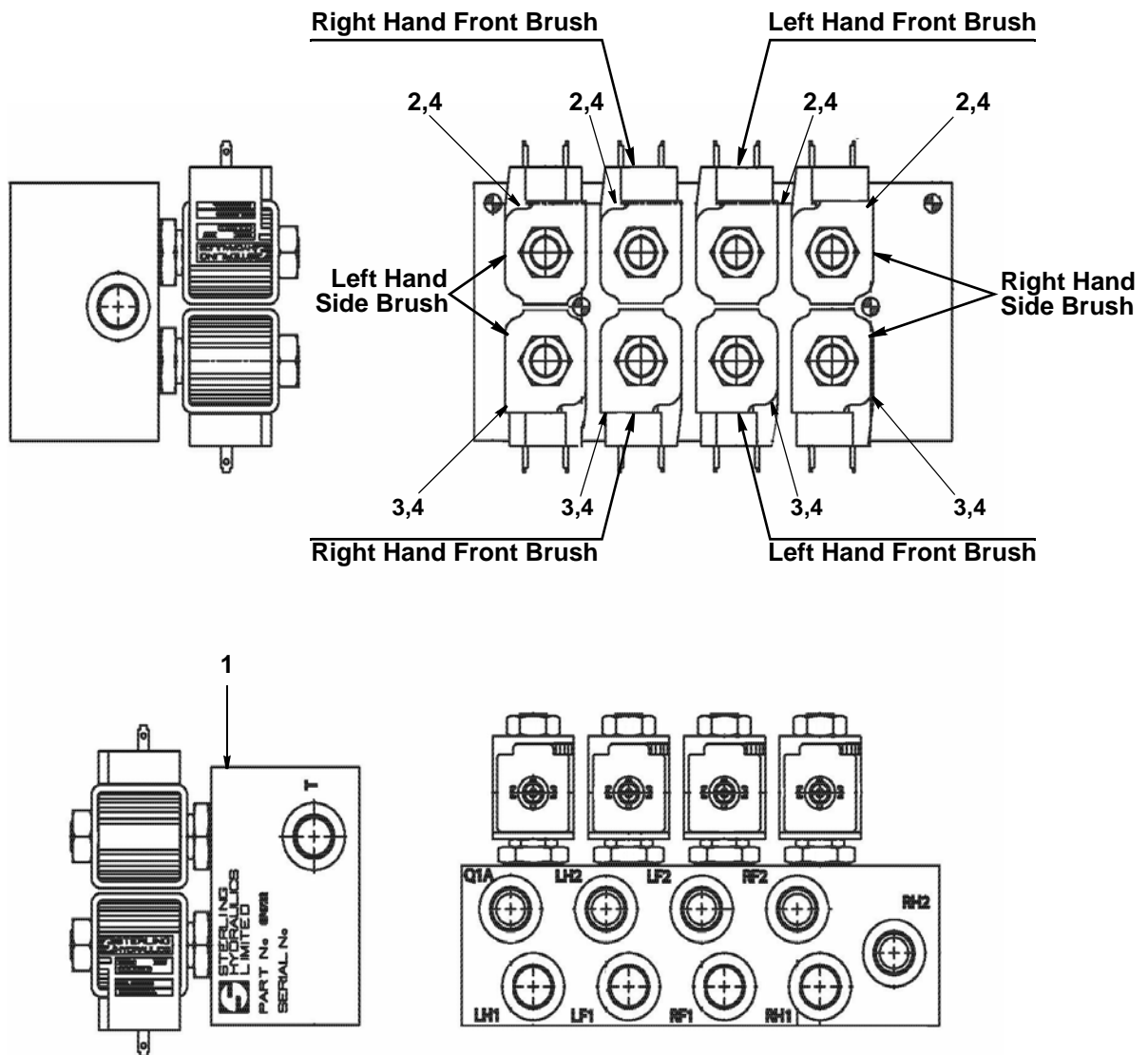
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>026790</b>		<b>BRUSH VALVE BLOCK (Steel Piped Machines only)</b>
1	025119	1	Valve Block 4 Spool, Sterling BSK15696-B
2	014661	4	. Solenoid Valve GS041200N
3	025890	4	. Solenoid Valve GS040200N
4	021753	8	. Solenoid Coil, CCP 19W, 12 Volt
NI	011153	11	. Seal, Dowty 3/8" BSP
NI	011159	3	. Adaptor 3/8" BSP
NI	020903	7	. Stud, male, 12 x 3/8" BSP
NI	011242	1	. Plug, 3/8" BSP
NI	000141	2	. Cap screw, Skt hd, M6 x 80 mm long
<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>028074</b>		<b>FRONT BRUSH STOP WHEN RAISED VALVE COMPONENTS</b>
NI	025890	2	Valve - GS040200N
NI	014661	2	Valve - GS041200N]
NI	021753	4	Coil 12v 19W
NI	028234	1	Wiring loom - Front brush stop

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**NOTE:**

Left or Right side brush valve positions will be blanked off according to build configuration unless M/C is dual sweep.

For special build configurations not covered here, i.e. utilising either of the spare side brush positions, please refer to your Scarab agent or to the Scarab Parts Department, stating M/C Serial Number and details of any non-standard fittings.

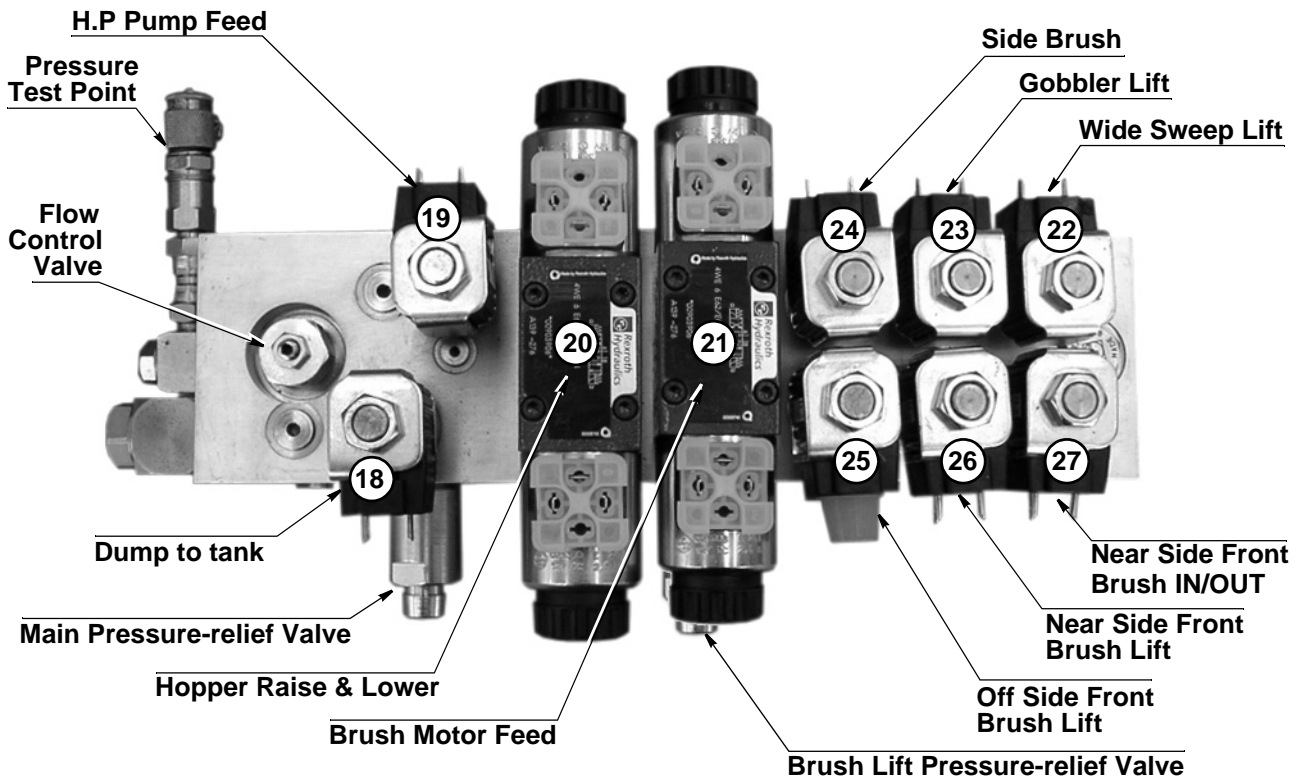
**BRUSH CONTROL VALVE BLOCK  
(Steel piped machines only)**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

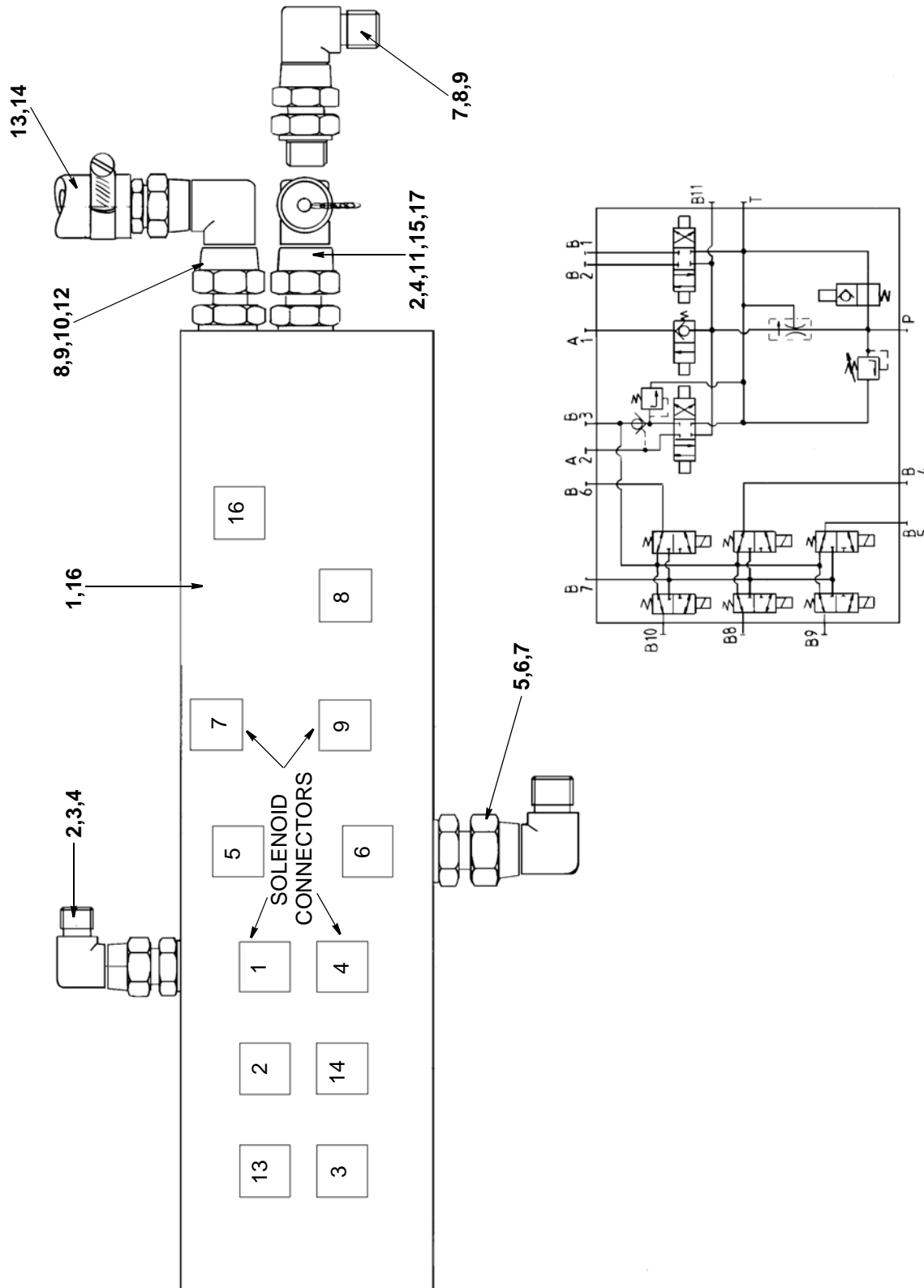




Item	Part Number	Quantity	Description
<b>MAIN VALVE BLOCK ASSEMBLY (Rubber Piped Chassis only)</b>			
1	013682	1	Valve block
2	011452	11	. Seal, Dowty, 1/4" BSP
3	012539	10	. Restrictor No. 5
4	011171	11	. Elbow, swivel, 1/4" BSP
5	011153	2	. Seal, Dowty, 3/8" BSP
6	011159	2	. Adaptor, 3/8" BSP
7	011172	3	. Elbow, swivel, 3/8" BSP
8	011154	2	. Seal, Dowty, 1/2" BSP
9	011167	2	. Adaptor, 1/2" BSP x 3/8" BSP
10	011205	1	. Elbow, swivel, 3/8" BSP F/F
11	011158	1	. Adaptor, 1/4" BSP
12	010930	1	. Hosetail, 3/8" BSP x 5/8" BSP
13	011000	0.02 m	. Hose 5/8"
14	010517	2	. Clip, hose, worm drive (Jubilee No. 0X)
15	013036	1	. Test coupling 1/4" BSP
16	011010	8	. Bolt, hex, M8 x 20 mm long
17	010911	1	. Socket 1/4" BSP
18	014661	1	. Valve, solenoid (GSO41200N) Coil = 014655
19	014664	1	. Valve, solenoid (GSO20200NNCH) Coil = 014655
20	014659	1	. Valve, solenoid (Black Coil = 014660 / Silver Coil 026046)
21	014659	1	. Valve, solenoid (Black Coil = 014660 / Silver Coil 026046)
22	014663	1	. Valve, solenoid (GSO23300N) Coil = 014655
23	014663	1	. Valve, solenoid (GSO23300N) Coil = 014655
24	014663	1	. Valve, solenoid (GSO23300N) Coil = 014655
25	014663	1	. Valve, solenoid (GSO23300N) Coil = 014655
26	014663	1	. Valve, solenoid (GSO23300N) Coil = 014655
27	014663	1	. Valve, solenoid (GSO23300N) Coil = 014655
NI	028707	As Req	. . O Ring, (GSO Valve spare)



When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**MAIN VALVE BLOCK ASSEMBLY  
(Rubber piped machines only)**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

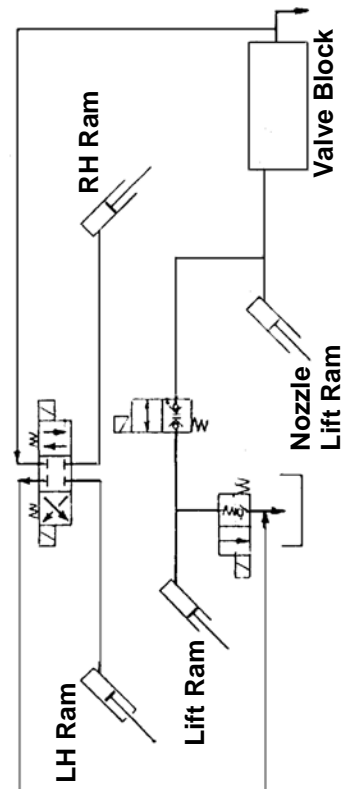
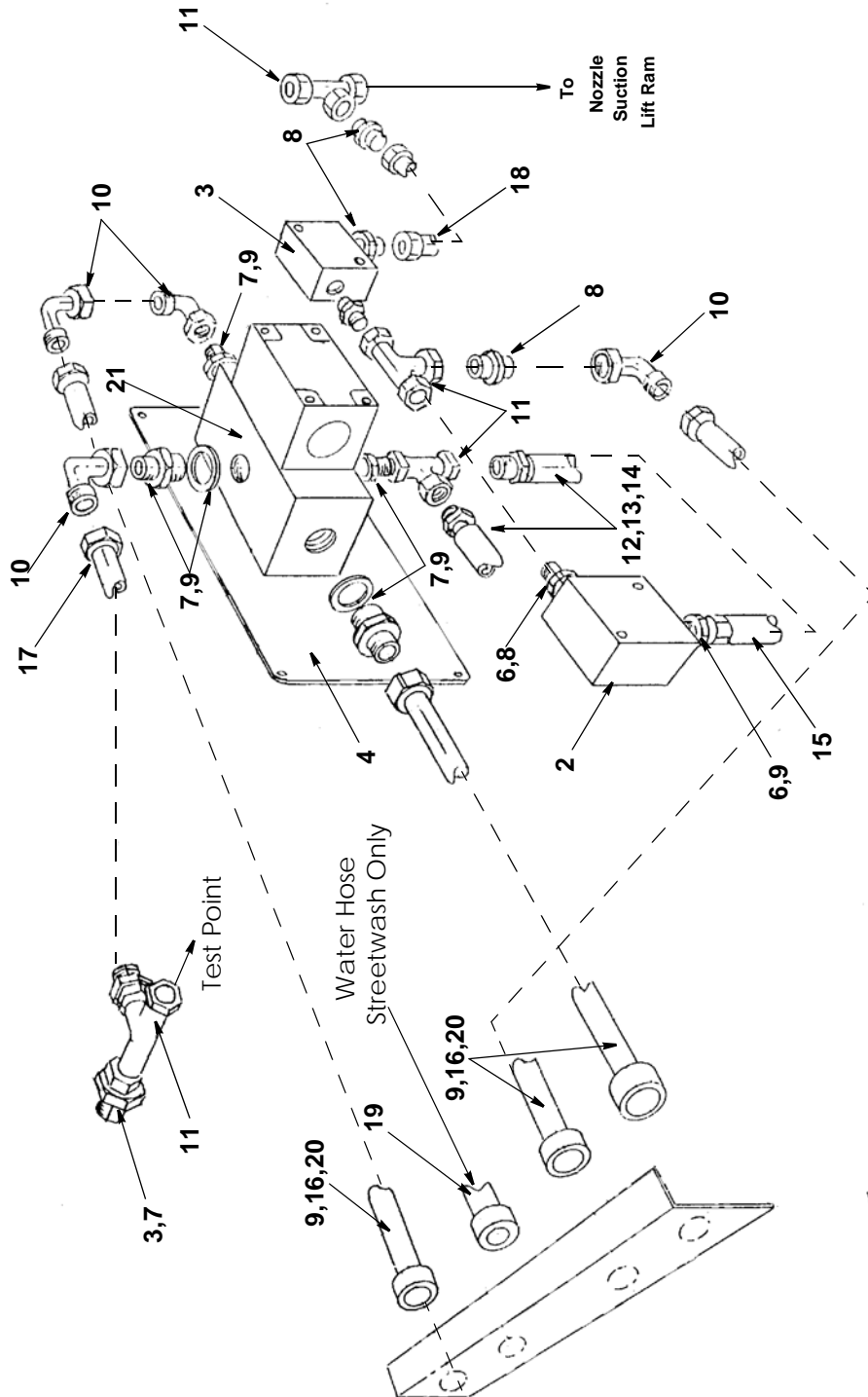




<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>CONTROL VALVE ASSEMBLY - STREET WASH KIT</b>			
1	020380	1	Front mount hydraulics assembly (left hand drive)
1	020381	1	Front mount hydraulics assembly (right hand drive)
2	012582	2	. Valve solenoid, 12 Volt
3	012874	1	. Valve solenoid, 12 Volt
4	020116	1	. Mounting plate
	011006	4	. . Cap screw, M6 x 70 mm long
	011070	8	. . Nut, hex, M6
	011014	4	. . Bolt, hex hd, M8 x 40 mm long
	011072	4	. . Nut, hex, M8
	011003	4	. . Bolt, hex hd, M6 x 50 mm
	000028	3	. . Screw, frd hd, 2BA x 1/2"
	011078	3	. . Nut, hex, 2BA
5	014025	12	. . Spacer
6	011152	2	. Seal, Dowty 1/4" BSP
7	011153	7	. Seal, Dowty 3/8" BSP
8	011158	2	. Adaptor, equal, 1/4" BSP
9	011199	8	. Adaptor, 1/4" x 3/8" BSP
10	011171	4	. Elbow, swivel, M/F, 1/4" BSP
11	002005	4	. Tee, 1/4" BSP, N/N/N
12	010958	2.0 m	. 3/8" Fuel hose
13	010516	4	. . Jubilee clip
14	010922	2	. Hosetail, 1/4" BSP x 3/8"
15	010921	1	. Hosetail
16	010984	3	. Hose assembly, 1/4" BSP x 2972mm
17	011317	1	. Hose assembly, 1/4" BSP x 295mm
18	010982	1	. Hose assembly, 1/4" BSP x 1168mm
19	011302	1	. Hose assembly, 3/8" BSP x 2972mm
20	011214	3	. Adaptor, F/F 3/8" BSP
21	023810	1	. Valve assembly "E" Spool
NI	023569	1	. . Contol valve "E" Spool
NI	021505	1	. . Cetop Subplate
NI	010112	1	. Nozzle, brass

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**CONTROL VALVE ASSEMBLY**

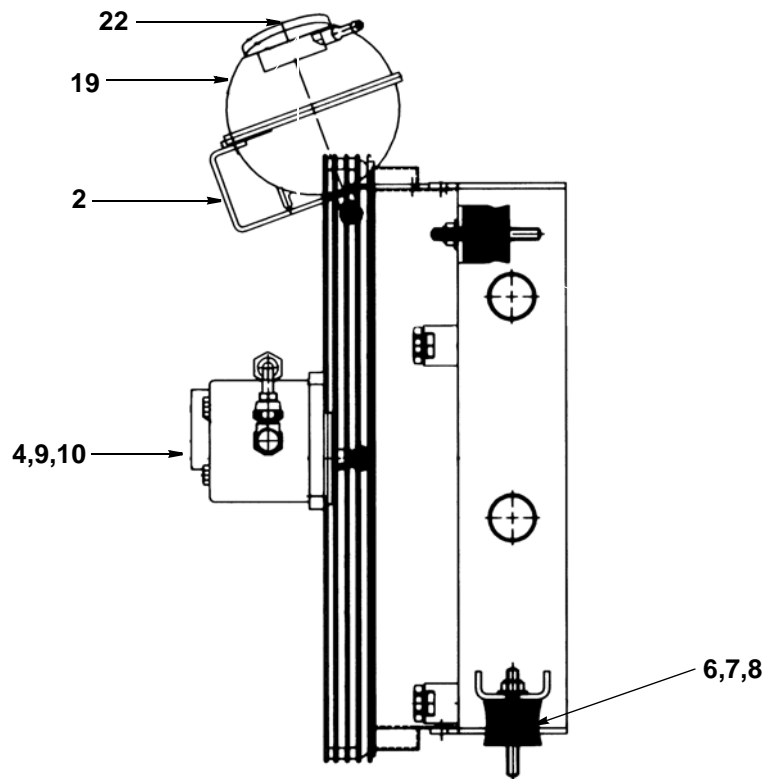
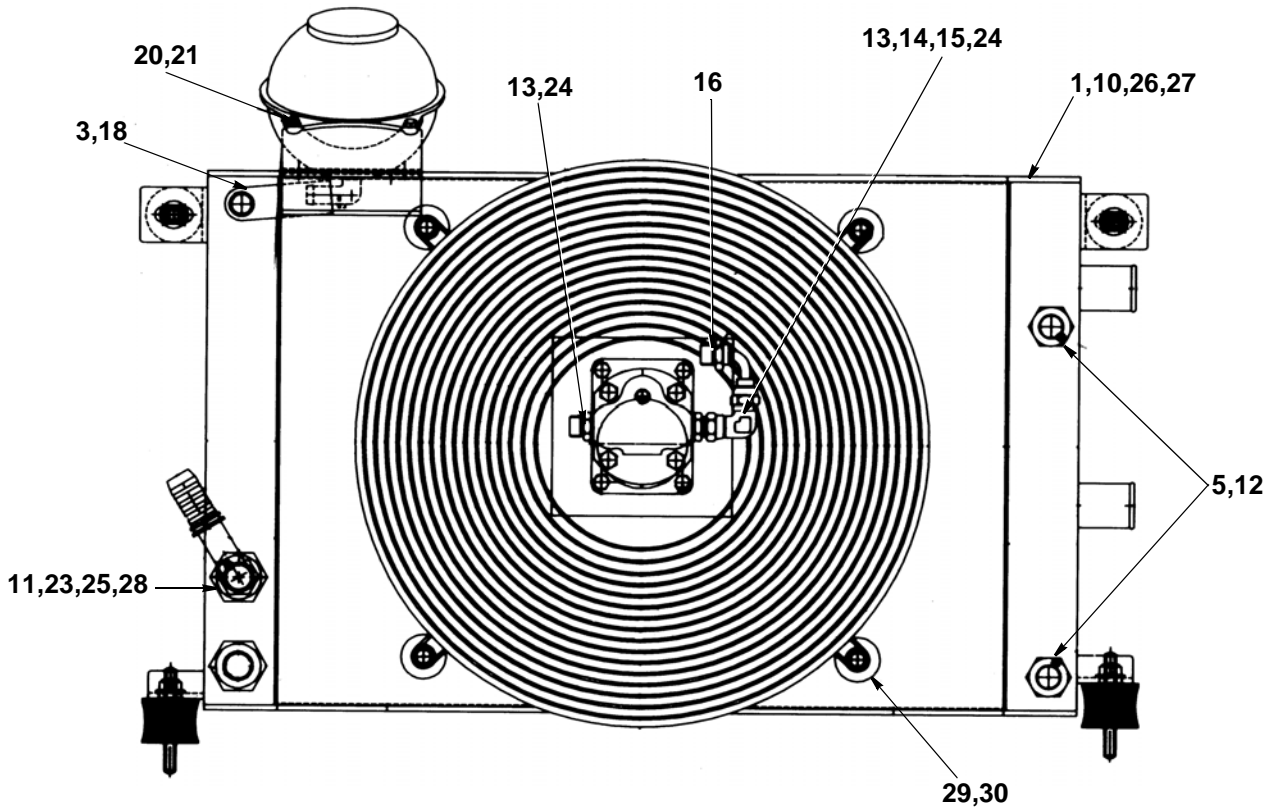
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>RADIATOR ASSEMBLY</b>			
1	025145	1	Radiator (M/Cs With Steel Piping Only)
1	025421*	1	Radiator (M/Cs With Rubber Piping)
NI	025900	1	. Fan (Spare)
NI	025901	1	. Grill
2	025537	1	. Bracket, Header Tank
3	025541	1	. Rubber Reducing Elbow
4	025372	1	. Motor Gear 14cc Reversible
5	011218	2	. Seal, Dowty
6	013409	4	. Engine Mountings
7	011075	4	. Nut, M10, Nyloc
8	011094	4	. Washer, plain, M10
9	011011	4	. Setscrew, Hex hd, M8 x 25 mm long
10	011073	12	. Nut, M8, Nyloc
11	002074	1	. Adaptor, M26
12	002075	2	. Plug, M22
13	011167	2	. Adaptor, 1/2" x 3/8" BSP
14	011214	1	. Adaptor, 3/8" x 16/6/6 f/f
15	011172	1	. Elbow, swivel, 3/8" BSP
16	011221	1	. Sweep Elbow 3/8" BSP
17	002048	1	. H.Swept Elbow Hose Tail, 3/8" BSP
18	010517	2	. Jubilee Clip 10
19	020517	1	. Expansion Bottle
20	011067	4	. . Setscrew, Hex hd, M6 x 20 long
21	020518	1	. . Cap, Expansion Bottle
22	011071	4	. . Nut, M6, Nyloc
23	011155	1	. Seal, Dowty, 3/4" BSP
24	011154	1	. Seal, Dowty, 1/2" BSP
25	002079	1	. Elbow, swept, 3/4" BSP 90
26	011092	20	. Washer, plain, M8
27	011010	8	. Setscrew, Hex hd, M8 x 20 long
28	002083	1	. Adaptor, M26 x 3/4" BSP
29	010313	4	. Washer 11 x 40 x 5 long
30	011012	4	. Setscrew, Hex hd, M8 x 30 long
NI	025546		. Rad Pipe 300
NI	025547		. Rad Pipe 400
NI	025548		. Rad Pipe 500

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**RADIATOR ASSEMBLY**

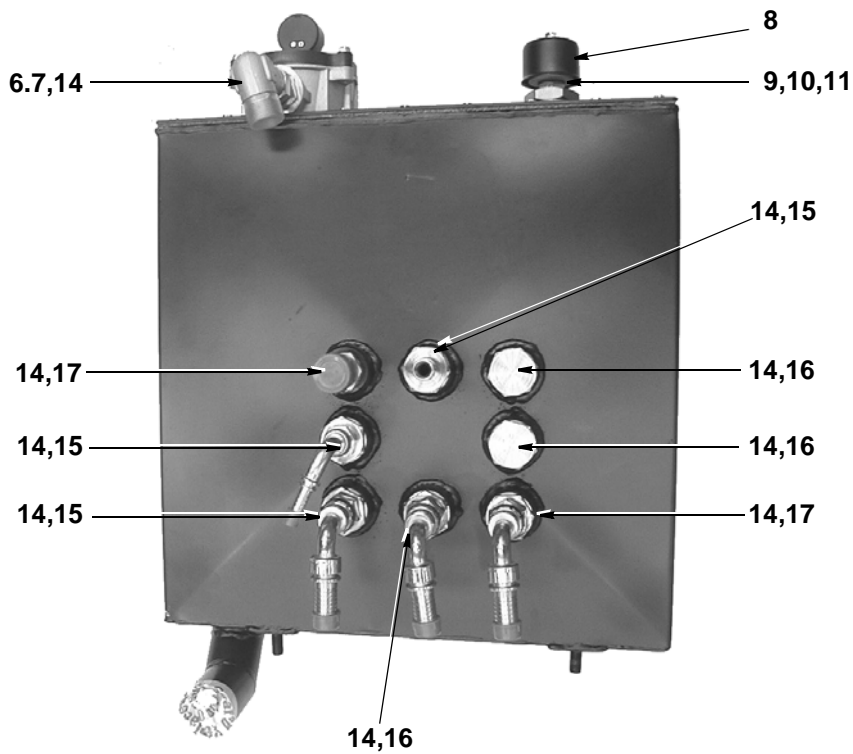
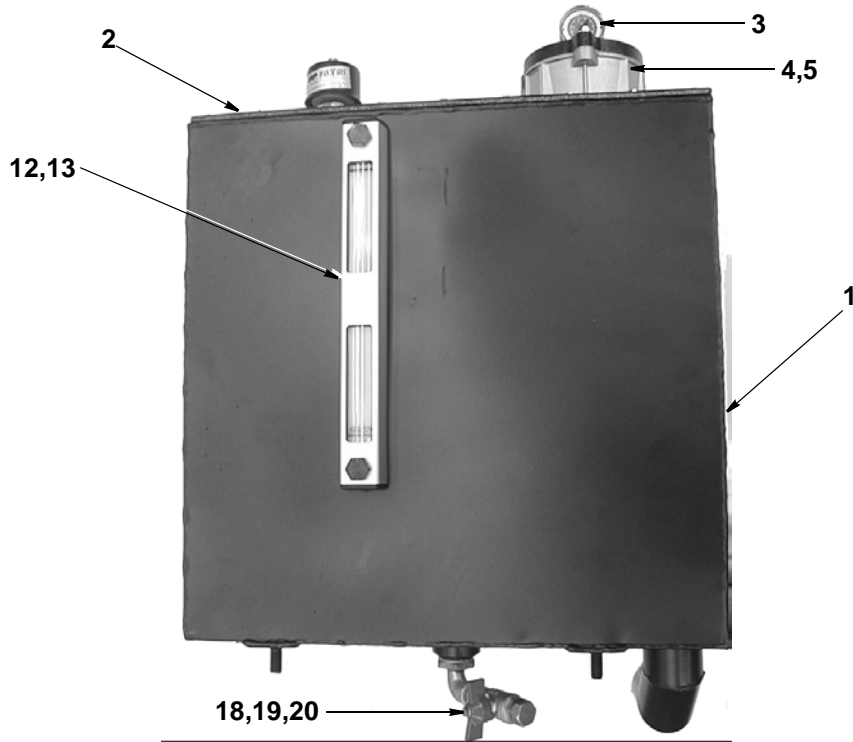


When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>OIL TANK ASSEMBLY</b>			
1	025142	1	Oil Tank (M/Cs With Steel Piping)
1	025339	1	Oil tank (M/Cs With Rubber Piping)
2	022781	1	. Lid, Oil tank
NI	011111	24	. Screw, Taptite, 10-32 x 1/2"
NI	022782	1	. Gasket, oil tank
NI	010305	1	. Magnet
3	021719	1	Gauge, filter return
4	011723	1	Filter, return
5	011972	1	. Filter, return element only
NI	022163	1	. . O Ring Kit
6	011174	1	. Elbow, swivel, 3/4" BSP
7	011161	1	. Adaptor, 3/4" BSP
8	020688	1	Filter, breather
9	020689	1	. Plug
10	011156	1	. Seal, Dowty 1" BSP
11	011152	1	. Seal, Dowty 1/4" BSP
12	023155	1	Gauge, fluid level
13	021979	2	. Rubber seal
14	011155	9	Seal, Dowty 3/4" BSP
15	011166	3	Adaptor 3/4 x 1/2" BSP
16	011224	3	Adaptor 3/4 x 3/8" BSP
17	011244	2	Plug 3/4" BSP
18	011743	1	Ball valve 1/4" BSP
19	010917	1	Elbow, M/F, 3/4" BSP
20	010944	1	Nipple 1/4" BSP
NI	011241	1	Plug 1/4" BSP
NI	020687	1	Filter, suction (inside oil tank)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**OIL TANK ASSEMBLY**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>STEEL PIPE LISTING</b>			
NI	026897	1	Hydraulic Pipe LF1 to LH Front Brush
NI	026898	1	Hydraulic Pipe LF2 to LH Front Brush
NI	026899	1	Hydraulic Pipe D to High Pressure Pump
NI	026902	1	Hydraulic Pipe High Pressure Pump Return
NI	026900	1	Hydraulic Pipe RF1 to RH Front Brush
NI	026901	1	Hydraulic Pipe RF2 to RH Front Brush
NI	027694	1	Hydraulic Pipe Widesweep to Manifold
NI	027695	1	Hydraulic Pipe Block to Widesweep
NI	026924	1	Hydraulic Pipe C1 to LH Front Brush Lift
NI	026925	1	Hydraulic Pipe C to LH Front Brush Swing
NI	026909	1	Hydraulic Pipe C4 to RH Front Brush Lift
NI	026912	1	Hydraulic Pipe C4 to RH Front Brush Lift
NI	026922	1	Hydraulic Pipe C7 to LH Side Brush Lift
NI	026914	1	Hydraulic Pipe A to Hopper
NI	026915	1	Hydraulic Pipe B to Hopper
NI	026917	1	Hydraulic Pipe C9 to LH Nozzle
NI	026921	1	Hydraulic Pipe C6 to LH Gobbler
NI	026918	1	Hydraulic Pipe Fan Pump to C
NI	026926	1	Hydraulic Pipe T to Return
NI	026896	1	Hydraulic Pipe F to Q1A
NI	027696	1	Hydraulic Pipe Valve Block LH1 to LH Side Brush
NI	027697	1	Hydraulic Pipe Valve Block LH2 to LH Side Brush
NI	027698	1	Hydraulic Pipe Valve Block C8 to Wide Sweep Lift

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>RUBBER HOSES L/H DRIVE M/CS WITH STEEL PIPING</b>			
1	001070	1	Hose 5/8" x 4350mm (ST/90) - FAN RETURN
2	001075	1	Hose 1/2" x 500mm (ST/90) - SAUER PUMP TO FILTER
3	001076	1	Hose 1/2" x 600mm (ST/90) - SAUER PUMP TO FILTER
4	001080	4	Hose 3/8" x 1030mm (ST/90) - L/H & R/H FRONT BRUSHES
5	001085	1	Hose 3/8" x 4300mm (ST/90) - HIGH PRESSURE TO HOSE REEL
6	001081	2	Hose 3/8" x 650mm (90/90) Rotated 90 - SIDE BRUSH
7	001083	1	Hose 3/8" x 1330mm (ST/90) - COOLING FAN MOTOR
8	001084	1	Hose 3/8" x 2330mm (ST/90) - COOLING FAN MOTOR
9	001088	1	Hose 3/8" x 580mm (ST/90) - HIGH PRESSURE FRONT SPRAY BAR
10	001100	1	Hose 3/16" x 460mm (ST/90) - L/H FRONT BRUSHES
11	001101	2	Hose 3/16" x 1125mm (ST/90) - L/H & R/H FRONT BRUSHES
12	001103	1	Hose 3/16" x 265mm (ST/90) - SIDE BRUSH
13	001103	1	Hose 3/16" x 265mm (ST/90) - WIDESWEEP LIFT
14	001105	1	Hose 3/16" x 400mm (ST/90) - SIDE BRUSH LIFT
15	001105	1	Hose 3/16" x 400mm (ST/90) -NOZZLE LIFT
16	010980	1	Hose 1/4" x 432mm - VALVE BLOCK TO FAN PUMP
17	011307	1	Hose 3/8" x 1300mm - COOLER TO VALVE BLOCK
18	001083	1	Hose 3/8" x 1330mm (ST/90) - POWER STEERING
19	010980	1	Hose 1/4" x 432mm - HOPPER VALVE TO RAM
20	001024	1	Hose 1/4" x 770mm - HOPPER RAM
21	010990	1	Hose 1/4" x 600mm - HOPPER VALVE TO PIPE
22	014157	1	Hose 5/8" x 2230mm (3/4" Ends) - FAN PUMP TO HOPPER
23	011324	1	Hose 1/4" x 360mm - GOBBLER TO STEEL PIPE
24	001019	1	Hose 3/8" x 820mm - COOLER TO TEE ON STEEL PIPE
25	011309	1	Hose 3/8" x 432mm - HIGH PRESSURE PUMP TO RETURN MANIFOLD

**Continued..**

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



Item	Part Number	Quantity	Description
<b>RUBBER HOSES L/H DRIVE M/CS WITH STEEL PIPING</b>			
26	011309	1	Hose 3/8" x 432mm - H/P PUMP TO VALVE BLOCK
27	011310	1	Hose 3/8" x 300mm - TEE TO TEE RETURN MANIFOLD
28	001008	1	Hose 3/8" x 650mm - RETURN TEE TO VALVE BLOCK
29	001088	1	Hose 3/8" x 580mm - WIDESWEEP TO STEEL PIPE
30	001104	2	Hose 3/16" x 795mm (ST/90) - STEEL PIPE TO HOPPER RAM

**NOTE:** The above hydraulic pipes are used on VM Minors incorporating Steel Pipes and the new style Valve block only, the new hoses have 90° Steel ends. The 1/4" hoses have also now changed to 3/16"

If in doubt contact the Parts Department quoting your Machine Serial number.

Item	Part Number	Quantity	Description
<b>RUBBER HOSES R/H DRIVE M/CS WITH STEEL PIPING</b>			
1	001070	1	Hose 5/8" x 4350mm (ST/90) - FAN RETURN
2	001075	1	Hose 1/2" x 500mm (ST/90) - SAUER PUMP TO FILTER
3	001076	1	Hose 1/2" x 600mm (ST/90) - SAUER PUMP TO FILTER
4	001080	4	Hose 3/8" x 1030mm (ST/90) - L/H & R/H FRONT BRUSHES
5	001082	2	Hose 3/8" x 700mm (90/90) Rotated 270 - SIDE BRUSH
6	001083	1	Hose 3/8" x 1330mm (ST/90) - COOLER TO VALVE BLOCK
7	001084	1	Hose 3/8" x 2330mm (ST/90) - COOLER TO GEAR PUMP
8	001085	1	Hose 3/8" x 4300mm (ST/90) - HIGH PRESSURE PUMP TO HOSE REEL
9	001086	1	Hose 3/8" x 1900mm (90/90) - RESTRICTOR TO POWER STEERING
10	001089	1	Hose 3/8" x 900mm (3/8"ST x 1/2"90) - COOLER TO RETURN TEE
11	001100	2	Hose 3/16" x 460mm (ST/90) - RH FRONT BRUSH SWING IN/OUT
12	001101	2	Hose 3/16" x 1125mm (ST/90) - R/H & L/H FRONT BRUSH LIFT
13	001103	1	Hose 3/16" x 265mm (ST/90) - R/H SIDE BRUSH
14	001105	1	Hose 3/16" x 400mm (ST/90) - R/H SIDE BRUSH
15	011105	1	Hose 3/16" x 400mm (ST/90) - WIDE SWEEP LIFT
16	001008	1	Hose 3/8" x 400mm - JETTER TO PRESSURE ADJUSTER
17	001008	2	Hose 3/8" x 650mm - R/H WIDESWEEP MOTOR
18	001008	1	Hose 3/8" x 650mm - VALVE BLOCK TO RETURN TEE
19	011309	1	Hose 3/8" x 432mm - JETTER TO RETURN MANIFOLD
20	001008	2	Hose 3/8" x 650mm - JETTER TO VALVE BLOCK
21	011310	1	Hose 3/8" x 300mm - TEE TO TEE RETURN MANIFOLD
22	010980	1	Hose 1/4" x 432mm - VALVE BLOCK TO FAN PUMP
23	010980	1	Hose 1/4" x 432mm - S/PIPE TO GOBBLER
24	010980	1	Hose 1/4" x 432mm - HOPPER VALVE TO S/PIPE
25	010990	1	Hose 1/4" x 600mm - HOPPER RAM TO VALVE BLOCK
26	001024	1	Hose 1/4" x 770mm - HOPPER RAM TO S/PIPE
27	014157	1	Hose 5/8" x 2230mm (3/4" Ends) - STEEL PIPE TO HOPPER RAM
28	001104	2	Hose 3/16" x 795mm (ST/90) - STEEL PIPE TO HOPPER RAM

**NOTE:** The above hydraulic pipes are used on VM Minors incorporating Steel Pipes and the new style Valve block only, the new hoses have 90° Steel ends. The 1/4" hoses have also now changed to 3/16"

If in doubt contact the Parts Department quoting your Machine Serial number.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





**Table 1: RUBBER HOSE LISTING - NON STEEL PIPE M/Cs**

<b>PART NUMBER</b>	<b>HOSE FUNCTION/CONNECTION DETAILS</b>	<b>HOSE SIZE</b>
010986	Hopper Ram to Valve Block (Raise)	1/4" x 2000 mm
011328	Hopper Ram to Valve Block (Lower)	1/4" x 1780 mm
010982	Nozzle Lift to Valve Block	1/4" x 1186 mm
010990	Trail Brush to Valve Block	1/4" x 600 mm
010982	Wide Sweep Lift to Valve Block	1/4" x 1186 mm
010982	Gobbler to Valve Block	1/4" x 1186 mm
010988	Fan Pump to Valve Block	1/4" x 1473 mm
011338	N/S Brush IN/OUT to Valve Block	1/4" x 3060 mm
011339	N/S Brush Lift to Valve Block	1/4" x 3130 mm
011340	O/S Brush Lift to Valve Block	1/4" x 3000 mm
011324	Trail Brush Lift to In/Out Ram	1/4" x 360 mm
010981	Transmission Pump Solenoid Valve to Motor	1/4" x 711 mm
010990	Transmission Pump to Motor	1/4" x 600 mm
011318	Transmission Pump Solenoid Valve to Reverse Valve	1/4" x 240 mm
011324	Fan Pump Control to X Port	1/4" x 360 mm
011302	High Pressure Pump to High Pressure Front Spray Bar	3/8" x 2972 mm
011306	High Pressure Pump to Valve	3/8" x 1400 mm
011301	High Pressure Pump to Rear Chassis	3/8" x 3250 mm
011344	Water Pump to Valve	3/8" x 2100 mm
011342	Water Pump to Trail Brush	3/8" x 2540 mm
011343	Trail Brush to Near Side Brush	3/8" x 4000 mm
011344	Nearside Brush to Offside Brush	3/8" x 2100 mm
011300	Offside Brush to Widesweep Brush	3/8" x 3560 mm
011311	Widesweep Brush to Return Tee	3/8" x 1100 mm
011305	Power Steering to Pump	3/8" x 1500 mm
011311	Diverter Valve A to Tee	3/8" x 1100 mm
011305	Diverter Valve B to Rad Fan	3/8" x 1500 mm
011310	Rad Fan to Tee	3/8" x 300 mm
011309	Tee to Valve Block Tee	3/8" x 432 mm
010959	Manifold to Transmission Pump	1" x 240 mm

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**Table 1: RUBBER HOSE LISTING - NON STEEL PIPE M/Cs**

<b>PART NUMBER</b>	<b>HOSE FUNCTION/CONNECTION DETAILS</b>	<b>HOSE SIZE</b>
010959	Manifold to Fan Pump	1" x 370 mm
010959	Manifold to Gear Pump	1" x 230 mm
010959	Water Pump to Tank Strainer	1" X 1400 mm
011000	High Pressure Pump to Manifold	5/8" x 1220 mm
011000	Transmission Pump to Cooler	5/8" x 920 mm
011000	Cooler to Manifold	5/8" x 1000 mm
011000	Transmission Motor to Transmission Pump	5/8" x 400 mm
011000	Fan Pump to Manifold	5/8" x 250 mm
011000	Valve Block to Manifold	5/8" x 210 mm
011000	Water Pump to Relief Valve	5/8" x 1570 mm
011000	Relief Valve Return to Tank	5/8" x 1300 mm
011000	Tank to Power Steering Pump	5/8" x 1600 mm
010958	Fan Motor Tee to Al. Block	3/8" x 500 mm
010958	Al.Block to Water Pump Tee	3/8" x 5000 mm
010958	Water Pump to Tee	3/8" x 150 mm
010958	Water Pump Tee to Manifold	3/8" x 1450 mm
010958	Radiator Motor to Tank	3/8" x 300 mm
010958	Power Steering Box to Tank	3/8" x 1500 mm
010957	Injection Pump to Tank	6 mm x 2700 mm
002007	Tank to Fuel Filter	8 mm x 1400 mm
002007	Fuel Filter to Injection Pump	8 mm x 1300 mm
014157	Fan Pump to Hopper	3/4" x 2230 mm
014158	Hopper Delivery to Fan	3/4" x 2540 mm
001004	Tee to Oil Tank	3/4" x 1300 mm
011733	Fan to Ally Block	3/4" x 508 mm

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HOPPER LIFT RAM &amp; COMPONENTS</b>			
NI	011577	1	Hopper Ram Standard (From Feb 2002 load check valve added)
	012203	1	. Seal Kit for 011577 Hopper Ram
	012539	as req	. Restrictor, white
NI	026720	2	Hopper Ram Hi Tip 1.3 metre
	027075	1	. Manifold (Fitted by Ram Trunnions)
	028455	1	. Check Valve, 4CK3015
NI	026719	2	Hopper Ram Hi Tip 1.6 metre

Note: From February 2002 the Standard Hopper Lift Ram 011577 Will have fitted a load check valve, these are fully interchangeable with older vehicles. If fitting to machines with steel pipes and the new valve block, than fit White restrictors.

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRAULIC BRUSH RAMS from 17.12.2001</b>			
NI	027114	as req	Ram No 1 Restricted (Standard)
NI	027188	as req	. Green restrictor
NI	027115	as req	Ram No 2 Restricted (Widesweep Lift)
NI	027188	as req	. Green restrictor
NI	027119	as req	Ram No 6 Restricted (Nozzle Lift)
NI	027804	as req	. Orange restrictor
NI	027113	as req	Ram No 7 Restricted (Gobbler)
NI	012539	as req	. White restrictor
NI	027116	as req	Ram No 8 Restricted (Front Brush Lift)
NI	027188	as req	. Green restrictor
NI	027117	as req	Ram No 10 Restricted (Front brush swing out)
NI	027188	as req	. Green restrictor
NI	027118	as req	Ram No 11 Restrictor ( Side brush swing out)
NI	027188	as req	. Green restrictor

**Note:** Prior to 17.12.2001 the following machines were also fitted with the new style ram. H4316, H4333, H4334, H4400, H4411, H4421

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>HYDRAULIC BRUSH RAMS upto 17.12.2001</b>			
NI	012973	as req	Ram No 1 standard
NI	012974	as req	Ram No 2 Widesweep Lift
NI	012978	as req	Ram No 6 Nozzle Lift
NI	012979	as req	Ram No 7 Gobbler
NI	014010	as req	Ram No 8 Front brush lift
NI	014902	as req	Ram No 10 Front brush swing out
NI	014903	as req	Ram No 11 Side brush swing out

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description

# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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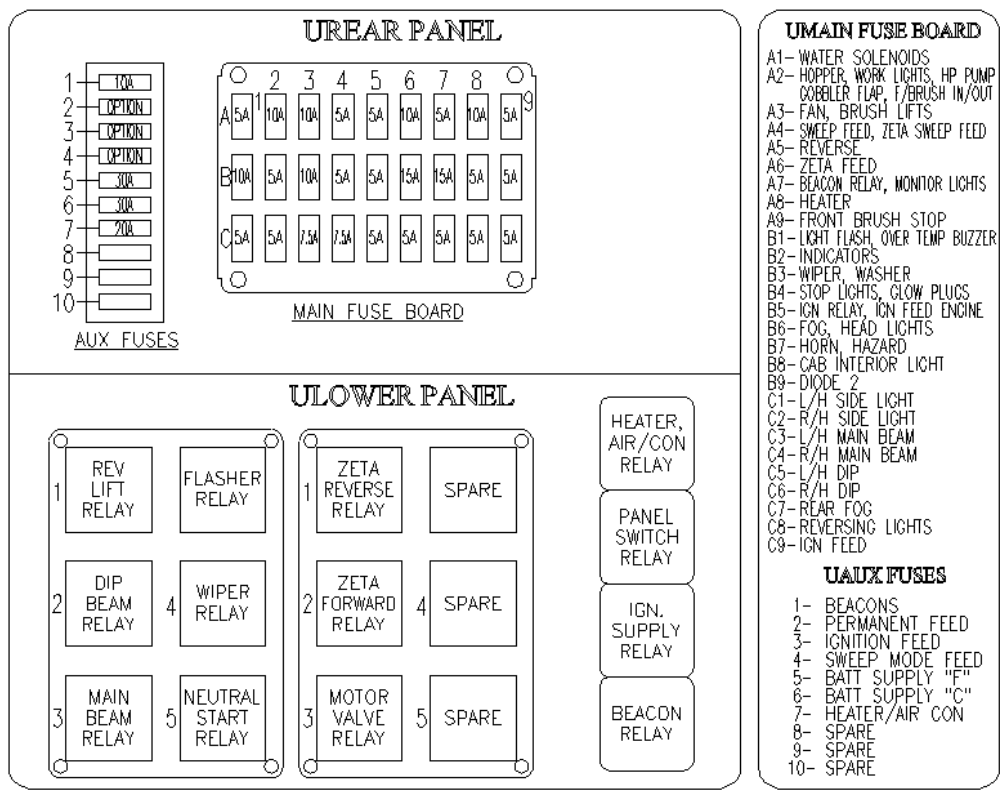
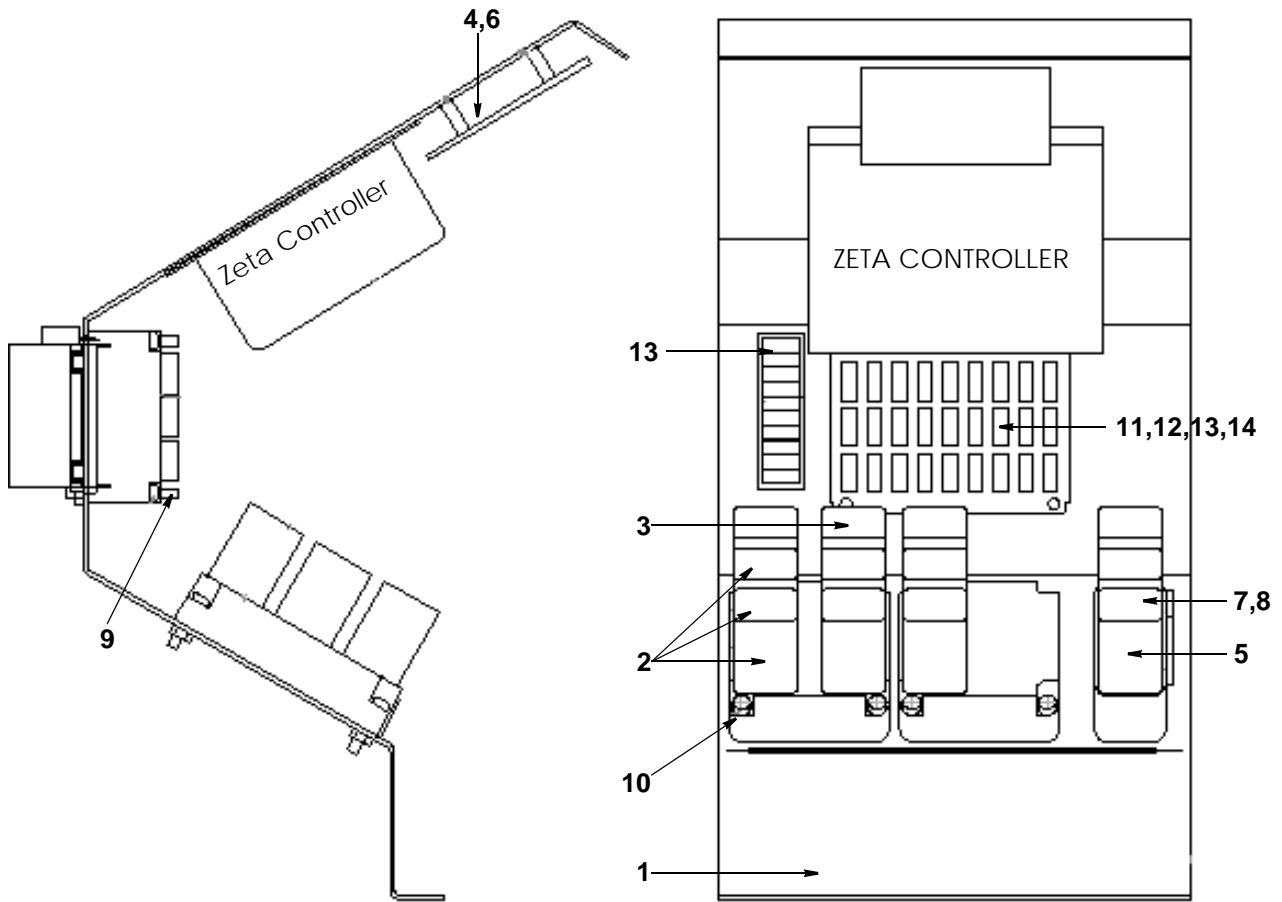
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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025779</b>		<b>FUSE PANEL ASSEMBLY</b>
1	025732	1	Fusebox enclosure
2	011768	8	Crossover relay
3	100125	1	Indicator relay
4	024985	4	Nylon pillar
5	013458	3	Relay 70amp 12v
6	000114	2	Nut M3
7	000097	1	Screw, hex M5 x 12 mm
8	000054	1	Nut M5
9	000215	4	Screw, pan M5 x 40 mm
10	000216	8	Screw, pan M5 x 25 mm
11	014286	17	Fuse 5amp Blade
12	014287	2	Fuse 7.5amp Blade
13	014288	7	Fuse 10amp Blade
14	014289	2	Fuse 15amp Blade
15	025797	1	Label, fuse layout
NI	025761	1	Diode board
NI	004213	1	6 way Relay box
NI	004212	1	10 way Fuse box
NI	004211	1	24 way Fuse box
NI	025725	1	Loom, zeta*
NI	027002	1	Loom, zeta*

Note. Please contact the parts department to check loom fitted to your machine.

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



FUSE PANEL ASSEMBLY

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description





<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WIRING LOOMS EURO 3 (Machines with Steel Pipes)</b>			
NI	027002	1	Cab loom
NI	027003	1	Wiring loom A "Battery"
NI	027004	1	Wiring loom B "Main Valve Block 1"
NI	027005	1	Wiring loom C "Main Valve Block 2"
NI	027006	1	Wiring loom D "Water"
NI	027007	1	Wiring loom E "Auxiliary fan"
NI	028357	1	Wiring loom F "Engine"
NI	027009	1	Wiring loom J "Battery/Air Con"
NI	027010	1	Wiring loom K "dual sweep"
NI	027012	1	Wiring loom L "dual door control"
NI	020322	1	Wiring loom G "Rear Light RH"
NI	020323	1	Wiring loom H "Rear Light LH"
NI	026242	1	Heater/air conditioner Loom - Cab
NI	026243	1	Heater/air conditioner Loom - Chassis
NI	025761	1	Diode board
NI	028234	1	Wiring Loom, front brush stop
NI	028936	1	Wiring loom, Tow bar
<b>VM MINOR EURO 2 WIRING LOOMS</b>			
NI	025725	1	Cab Loom
NI	025726	1	Zeta management
NI	025747	1	Wiring loom A
NI	020317	1	Wiring loom B
NI	025921	1	Wiring loom C
NI	025920	1	Wiring loom D
NI	025580	1	Wiring loom F - Engine (fitted to M/Cs with rubber hose hydraulics)
NI	027008	1	Wiring loom F - Engine (fitted to M/Cs with steel piped hydraulics)
NI	020322	1	Wiring Loom G "Rear Light RH"
NI	020323	1	Wiring loom H "Rear Light LH"
NI	026242	1	Heater/air conditioner Loom - Cab
NI	026243	1	Heater/air conditioner Loom - Chassis
NI	025761	1	Diode board

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>ELECTRICAL COMPONENTS - Head/Rear Lamps &amp; Marker Lights</b>			
NI	025506	1	Headlamp left hand - Left hand DIP. U.K
NI	025504	1	Headlamp left hand - Right hand DIP. Europe
NI	025507	1	Headlamp right hand - Left hand DIP. U.K
NI	025505	1	Headlamp right hand - Right hand DIP. Europe
NI	011498	As Req	. Headlamp Main, Spare bulb 12v 55w
NI	011499	As Req	. Headlamp Dip, Spare bulb 12v 55w
NI	011500	As Req	. Headlamp Sidelight, Spare bulb 12v 4w
NI	028191	1	Bulb Kit ( <b>France only</b> )
NI	013482	1	Rear Lamp LH
NI	014337	1	. Lens, rear lamp LH
NI	014677	1	. . Socket, connector
NI	013483	1	Rear Lamp RH
NI	014338	1	. Lens, rear lamp RH
NI	014677	1	. . Socket, connector
NI	013748	2	Side marker lamp

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>ELECTRICAL COMPONENTS - Work Lamps, Beacons &amp; Light bars</b>			
NI	028599	As Req	Work Lamp 55 w
NI	004232	As Req	. Bulb
NI	004231	As Req	. . Plug & terminals
NI	004055	As Req	. . Rubber boot
NI	025822	As Req	Work Lamp 12v 21w (VM With Curved Screen)
NI	004184	As Req	. Bulb 12v 21w
NI	023159	As Req	Work Lamp (VM without Curved Screen)
NI	004184	As Req	. Bulb 12v 21w
NI	010304	1	Beacon 12v
NI	011496	As Req	. Bulb, spare, LLB 448
NI	022097	As Req	. Lens, spare
NI	010297	1	. Bracket, beacon
NI	024173	1	Beacon bar 33"
NI	028552	1	Light bar 20"

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>ELECTRICAL COMPONENTS - Fuses</b>			
NI	014286	As Req	Fuse 5amp Blade type
NI	014287	As Req	Fuse 7.5amp Blade type
NI	014288	As Req	Fuse 10amp Blade type
NI	014289	As Req	Fuse 15amp Blade type
NI	014290	As Req	Fuse 20amp Blade type
NI	028106	As Req	Fuse 80amp MIDI

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>ELECTRICAL COMPONENTS - Battery</b>			
NI	027898	1	Battery 12 v 90AH UK017

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>ELECTRICAL COMPONENTS - In-Cab</b>			
NI	030220	1	Clock
NI	012344	1	Radio
NI	013749	1	Interior light
NI	028108	1	Mobile phone charger plug
NI	013239	4	Pilot lamps (Dash board)
NI	023171	1	LED 12v Red (Dash board)
NI	023172	1	LED 12v Green (Dash board)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



# ILLUSTRATED PARTS CATALOGUE

SCARAB VM MINOR

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## SECTION J MISCELLANEOUS EQUIPMENT

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<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>BEACON ON CAB</b>			
NI	010304	1	Beacon 12V
NI	010297	1	Bracket, Beacon
NI	014194	1	Grommet
NI	011010	2	Bolt, Hex, M8 x 20
NI	011073	2	Nut, M8
NI	011093	2	Spring Washer, M8

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>WORKING LIGHTS</b>			
NI	028599	As Req	Work Light (Hella Marine)
NI	023159	As Req	Work Light (Rubbolite)
NI	025822	As Req	Halogen Worklamps small

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>020360 KIT, BROOM HOLDER</b>			
NI	011893	2	Holster
NI	011131	8	Rivet 4.8mm x 12

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>020500 MOUNTING KIT, SHOVEL</b>			
NI	024393	1	Spade Hook
NI	014806	1	Clip
NI	011124	8	Rivet 4.00mm x 10

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>026352 MOUNTING KIT, BASKET</b>			
NI	025832	1	Basket

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FISH TAIL ASSEMBLY</b>			
NI	012873	1	Fish Tail
NI	010508	2	Wheel
NI	011808	1	Clamp
NI	011075	2	Nut, M10
NI	011094	4	Washer, M10

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>MONITOR &amp; SINGLE CAMERA SYSTEM</b>			
NI	028550	As Req	Monitor & Single camera setup (Vision Tech)

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>MONITOR &amp; TWO CAMERA SYSTEM</b>			
NI	028551	As Req	Monitor & Two camera setup (Vision Tech)

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025742</b>		<b>AIR CONDITIONING CAB-MOUNTED ASSEMBLY</b>
NI	025733	1	. Air Conditioning Kit
NI	028977	1	. . Condensor
NI	028976	1	. . Evaporator
NI	030569	1	. . Compressor
NI	025585	1	. Bracket
Ni	025586	1	. Pulley
NI	025587	1	. V Belt
NI	011033	5	. Bolt, Hex, M10 x 35mm
NI	011075	5	. Nut, Nyloc, M10
NI	011094	2	. Washer M10 x 45mm
NI	011095	3	. Spring Washer M10
NI	000072	3	. Setscrew, hex, M10 x 45mm
NI	020314	1	. Belt Adjuster
NI	026241	1	. Condensor Support
NI	026204	1	. L.E.D Green 12v
NI	026162	1	. Label 'Air Con'
NI	014096	1	. Grommet 35 Dia
NI	027009	1	. Wiring loom "J" , Battery/Air Con

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025584</b>		<b>AIR CONDITIONING ROOF-MOUNTED ASSEMBLY</b>
NI	014777	1	Air Conditioner
NI	014776	1	Compressor
NI	025585	1	. Bracket, for compressor
NI	021339	1	Pulley, air conditioner
NI	021341	1	Spacer pulley
NI	021342	1	V Belt
NI	014778	1	Mod to Cab fit
NI	011768	1	Relay 12v
NI	021338	1	Adjuster, air conditioner
NI	011031	2	Setscrew, Hex, M8 x 20 long
NI	011094	2	Washer, M10
NI	011095	2	Washer, Spring, M10
NI	011010	1	Setscrew, Hex, M8 x 20 long
NI	011092	2	Washer, M8
NI	011093	2	Washer, Spring, M8
NI	011033	3	Setscrew, Hex, M10 x 35 long
NI	011075	3	Nut, Nyloc, M10
NI	011011	1	Setscrew, Hex, M8 x 25 long
NI	000009	1	Bolt, Hex, M8 x 55 long
NI	014638	2	Spring Packer
NI	022670	1	Mod to Track rod
NI	021648	1	Track rod



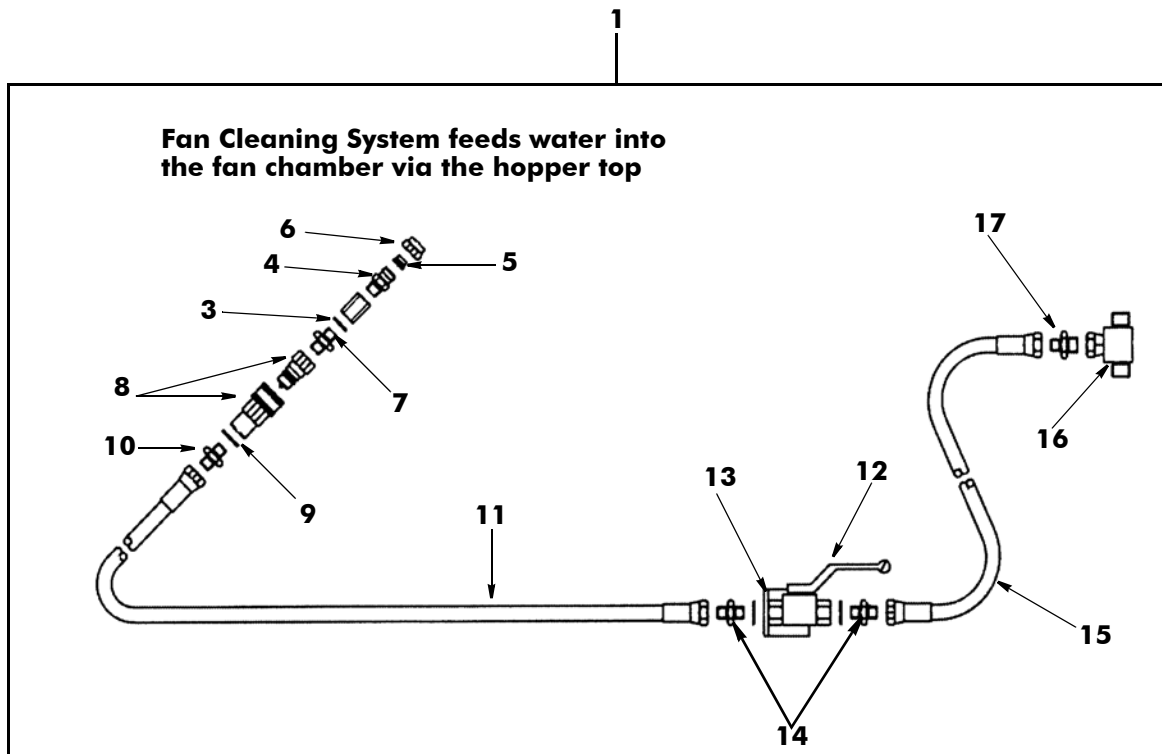
When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>FAN CLEANING JET ASSEMBLY</b>			
1	025399	1	. Fan cleaning jet, complete assembly (Comprising Items 2 to 17)
2	013045	1	Item deleted
3	011152	1	. . . 1/4" Dowty Seal
4	010112	1	. . . Nozzle adaptor
5	012926	1	. . . . Jet
6	010928	1	. . . . Nut
7	011158	1	. . . Adaptor, 1/4" BSP M/M
8	012985	1	. . Coupling, quick-release 1/4" BSP
9	011152	1	. . . Seal, Dowty 1/4" BSP
10	011158	1	. . . Adaptor, 1/4" BSP M/M
11	001002	1	. Hose assembly, 1/4" x 2150 mm long
12	011257	1	. Ball Valve 1/4" BSP x 1/4" BSP
13	012548	1	. . Angle Bracket
14	011158	2	. . Adaptor, 1/4" BSP M/M
15	001027	1	. Hose assembly, 1/4" BSP x 1270 mm long
16	011183	1	. Tee fitting, 1/2" BSP
17	011165	1	. . Adaptor, 1/2" BSP x 1/4" BSP M/M
NI	023359	1	. Quick release coupling 3/8" Male
NI	023360	1	. Quick release coupling 3/8" Female

<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
<b>AUDIBLE &amp; VISUAL BODY RAISED WARNING ASSEMBLY</b>			
NI	020023	1	Buzzer 12v
NI	024064	1	Micro Switch
NI	028644	1	Bracket, micro switch

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**FAN CLEANING JET ASSEMBLY**

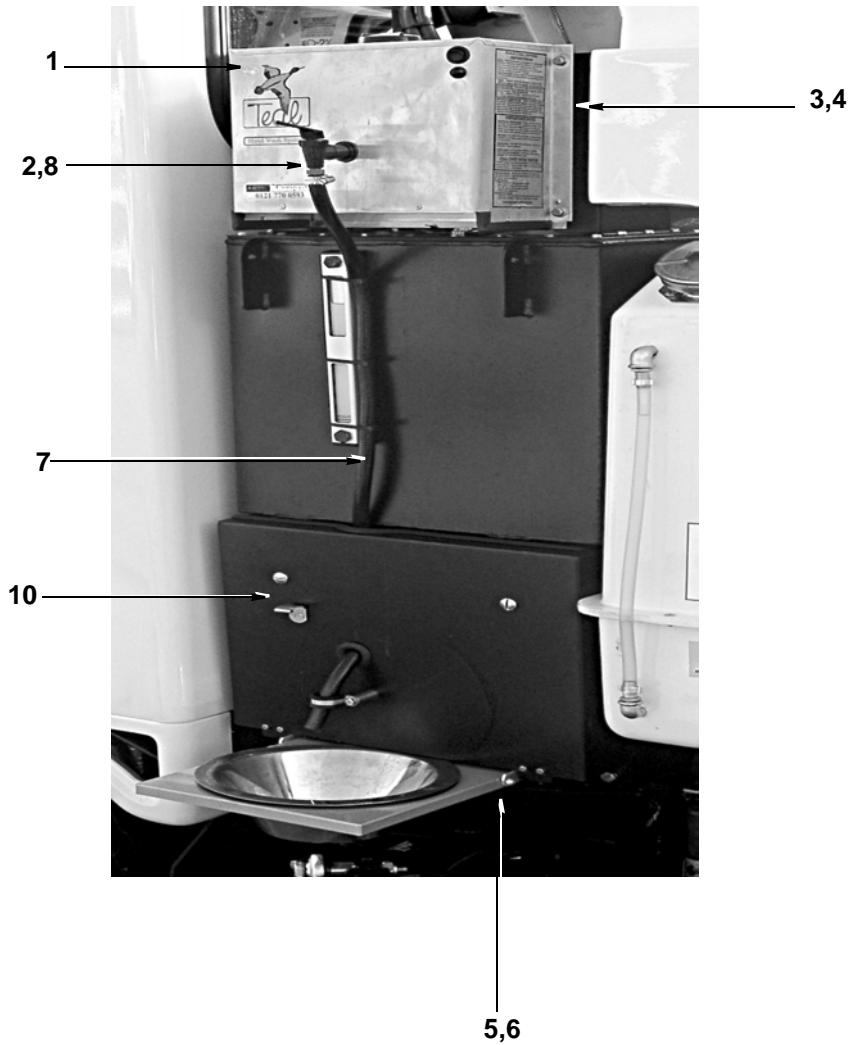


When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



<i>Item</i>	<i>Part Number</i>	<i>Quantity</i>	<i>Description</i>
	<b>025950</b>		<b>TEAL HAND WASH &amp; BASIN ASSEMBLY</b>
1	025948	1	Teal Hand Basin
2	025949	1	. Hosetail, M10 x 8
3	025951	1	. Bracket, LH
4	025952	1	. Bracket, RH
NI	011001	4	. Hex, Setscrew, M6 x 16 mm
NI	011071	4	. Nut M6
NI	011090	4	. Washer M6
5	025953	1	. Hinge, LH
6	025954	1	. Hinge, RH
NI	000097	4	. Hex, Bolt, M5 x 12mm
NI	000155	4	. Nut, M5
7	010950	1	. Hose 3/8"
8	010964	1	. O Clip 9/16"
NI	022868	1	. Grommet
NI	012542	1	. Grommet
10	023194	1	. Cover, Valve Block

When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



**TEAL HAND WASH UNIT**



When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description



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When ordering replacement parts, always give the machine's Serial Number and specify Part Number, Quantity & Description