

PARTS MANUAL

DENNIS



 *Arrow* 

COVERING MODELS

SFD121BR4WGL6

VEHICLE IDENTIFICATION PLATE

The VIN/Chassis number of each vehicle is stamped on a vehicle identification plate.

<p>W.P.O. <input style="width: 80%;" type="text"/></p> <p>VEHICLE TYPE <input style="width: 95%;" type="text"/></p> <p>ENGINE TYPE <input style="width: 95%;" type="text"/></p> <p>CAB TYPE <input style="width: 95%;" type="text"/></p> <div style="border: 1px solid black; width: 60px; height: 40px; margin: 10px auto;"></div>	<p style="text-align: center;">DENNIS SPECIALIST VEHICLES GUILDFORD, ENGLAND</p> <p>TA <input style="width: 95%;" type="text"/> A</p> <p>V.I.N. SFD B</p> <table style="width: 100%; border: none;"> <tr> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="float: right;">C</td> </tr> <tr> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="float: right;">D</td> </tr> <tr> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="float: right;">E</td> </tr> <tr> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="float: right;">F</td> </tr> <tr> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="border: 1px solid black; width: 45%; height: 25px;"></td> <td style="text-align: center;">Kg</td> <td style="float: right;">G</td> </tr> </table> <p style="text-align: center; margin-top: 10px;"> PLATED WEIGHTS DESIGN WEIGHTS </p>		Kg		Kg	C		Kg		Kg	D		Kg		Kg	E		Kg		Kg	F		Kg		Kg	G
	Kg		Kg	C																						
	Kg		Kg	D																						
	Kg		Kg	E																						
	Kg		Kg	F																						
	Kg		Kg	G																						

Typical Vehicle Identification Plate

Typical VIN

SFD	World Manufacturers identify	2	Series/Mark
1	Wheelbase	T (*)	Build Year
2	Engine	G	Build Plant
1	Transmission	L	Model
B	Air Conditioning	6	Frame Type
R	Hand of Drive	1234	Serial number

* Denotes build year in VIN number on front cover.

Typical vehicle type

ARROW

Please quote VIN, vehicle type and WPO numbers with any enquires concerning this vehicle

Key to VIN plate

A - Type approval number	E - Axle 1 weight
B - Vehicle identification number	F - Axle 2 weight
C - Gross weight	G - Axle 3 weight
D - Train weight	



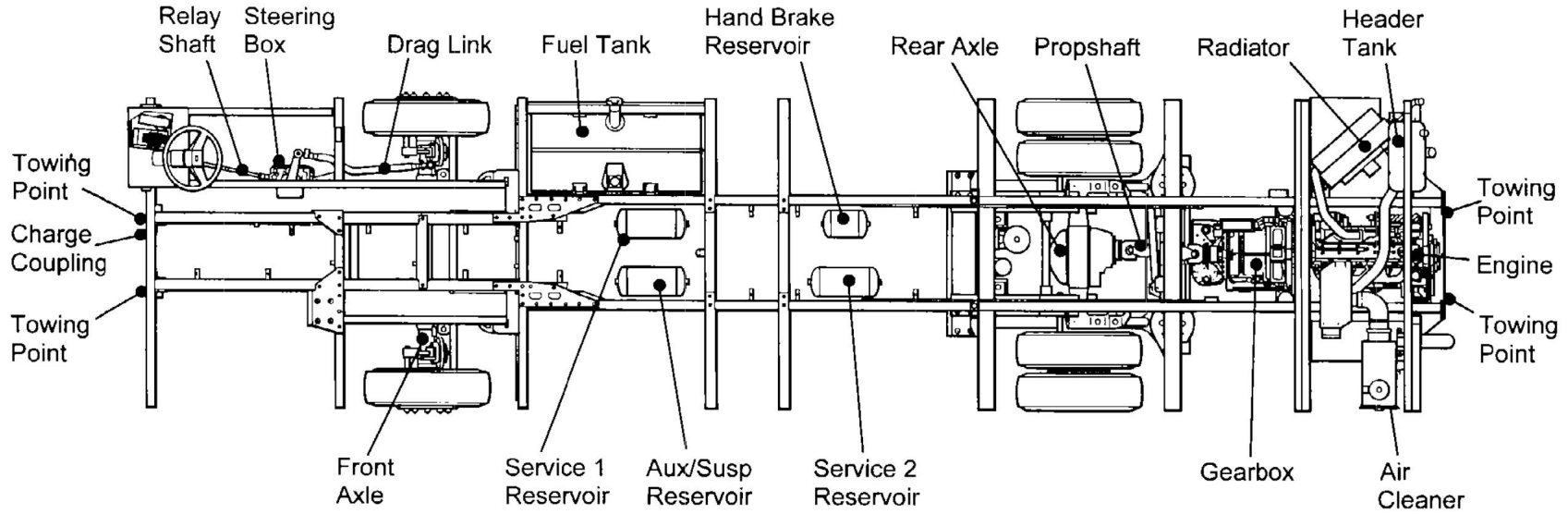
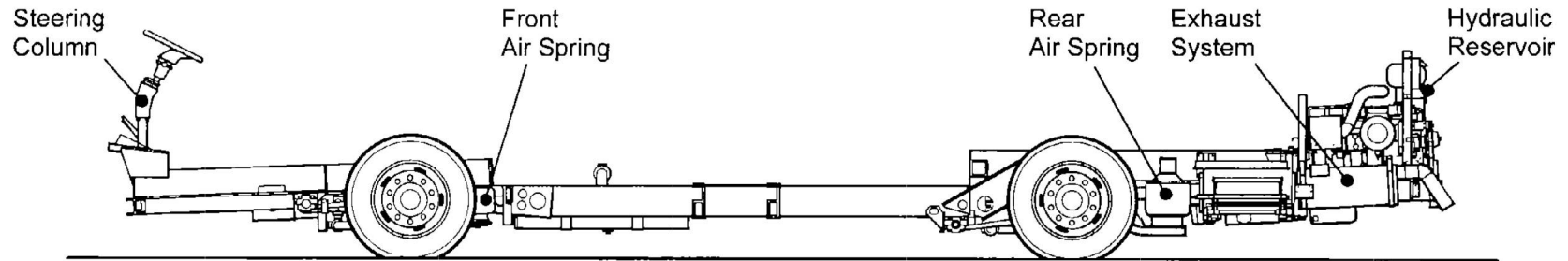
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DENNIS

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GENERAL LOCATIONS

PLEASE READ FOR YOUR OWN SAFETY**MINERAL OIL (ENGINE AND GEARBOX)**

This type of oil contains small quantities of polycyclic aromatic hydrocarbons, which can cause irritation, dermatitis and oil acne if allowed persistent contact with the skin. Toxicity through ingestion is of a low order, however this should be avoided.

HYDRAULIC FLUIDS

There are generally made from polyalkylene glycol ethers and can cause mild irritation of the skin and eyes. The toxicity through ingestion is generally regarded to be low order.

FRICTION MATERIAL DUST (BRAKE AND CLUTCH LININGS)

May consist of a high percentage of white asbestos bonded in a resin. Handling and fitting lined brake shoes or clutch plates is not regarded as a health risk. The dust produced by worn linings is degraded by the brake or clutch and is not believed to be hazardous. However it is prudent to avoid generating airborne dust concentration, therefore dust removal should be by the use of approved vacuum cleaner or by use of a damp cloth (for occasional exposure).

INSULATION MATERIALS

Man made fibres which include glass, rock, slag, and metal oxides. These may cause skin irritation. Inhalation of dust from the fibres should be kept below 1 fibre/ml.

FUEL

Diesel fuel is a mixture of hydrocarbons largely consisting of paraffinic hydrocarbons, with blended constituents such as refined vacuum distillants and catalytically cracked oil. Contact with the skin can cause irritation and dermatitis. Inhalation and ingestion are serious risks and can cause chemical pneumonitis.

EXHAUST EMISSIONS

Substances produced are carbon monoxide, hydrocarbons and oxides of nitrogen. Can be highly toxic if inhaled in sufficient quantity. Emissions in enclosed spaces should be minimised unless adequate extraction facilities are available.

WARNING! Those which may cause noxious fumes if allowed to burn:

Mineral oil (engine and gearbox): These do not present a fire or explosive hazard under normal circumstances.

Hydraulic fluids: These do not present a fire or explosive hazard under normal circumstances.

Fuel (diesel): Not classified as flammable for most purposes.

Rubber and synthetic alternatives (tyres, hoses, bushes, seals, insulation):
Natural and synthetic rubbers are combustible and will produce unpleasant and dangerous fumes. "Viton" seals are used in a small number of applications on the chassis and this material can leave highly corrosive residue if burned.

Coatings (Mebon chassis protection): Generally inert in the cured state, but should be removed from areas to be welded

PLEASE READ FOR YOUR OWN SAFETY**MOVING THE VEHICLE**

During movement of the vehicle chassis, the hazards involved are normally associated with all forms of powered transport.

Before driving the vehicle, the operator should familiarise himself/herself with the vehicle drivers handbook.

With the vehicle in the unbodied condition, the following areas may present hazards additional to those normally encountered on a vehicle:

- Projections - chassis cross members, exhaust tail pipe.
- Moving parts - Cooling fan, propshaft, brake levers, steering linkage.
- Temporary components - drivers seat.
- Noise - engine and exhaust noise may exceed the levels achieved on a bodied vehicle.

WORKING ON THE VEHICLE

Before commencing work on the vehicle, take note of all the instructions relating to safety and hazardous items. The following potential hazards should be considered.

Stored Energy: Certain components and systems on the vehicle contain stored energy which must not be released in a non approved manner.

- Tyre air pressure
- Braking system air pressure
- Park brake spring compression
- Cooling system pressure
- Chassis lifting - adequate support required during jacking or lifting

Hazardous materials: Certain components on the vehicle contain, or can produce, material which must be handled cautiously. These materials are as follows:

Those which must not be taken internally or contact the eyes, skin, or mouth:

Battery acid: Diluted sulphuric acid can cause skin burns, eye damage and internal damage if ingested. Vapour from the solution can also irritate the respiratory system and the eyes.

Cooling system antifreeze: Based on ethylene glycol, and has significant toxicity if ingested, but can also be absorbed through the skin. Causes mild eye and skin irritation. Hot fluid can also scald.

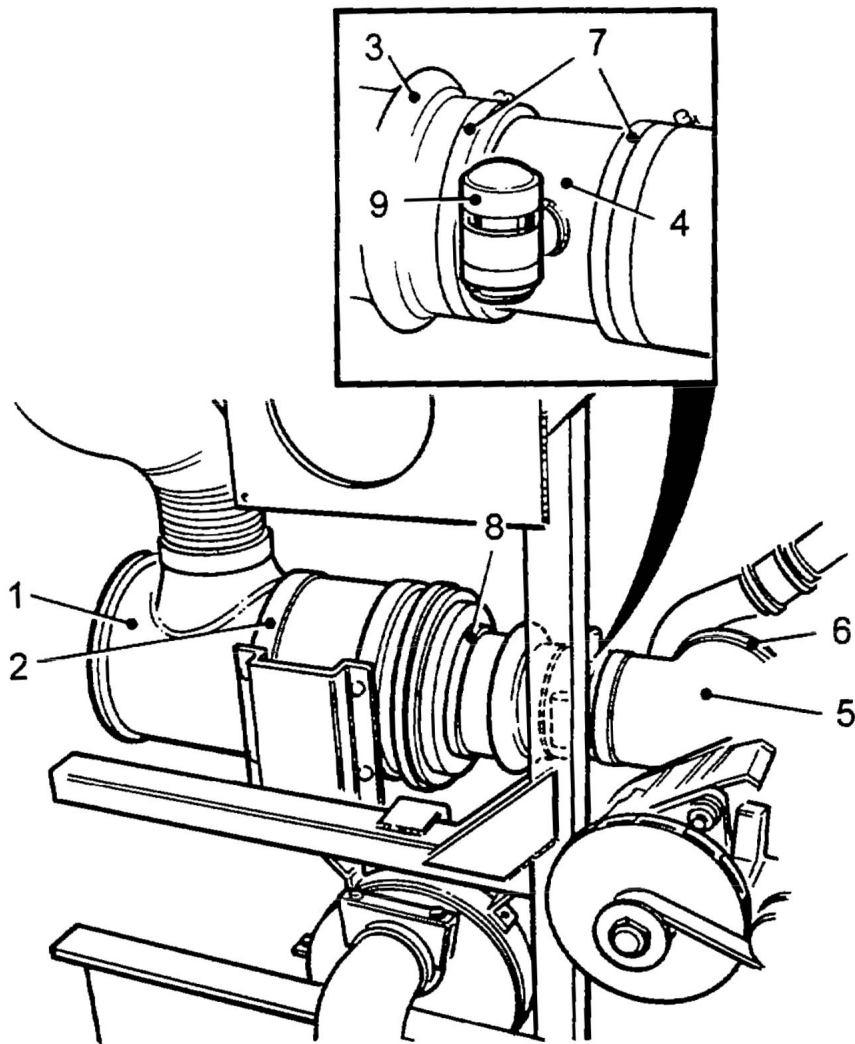


PARTS MANUAL

AIR CLEANER

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Air Cleaner	Page	4

AIR INTAKE SYSTEM



AIR INTAKE SYSTEM

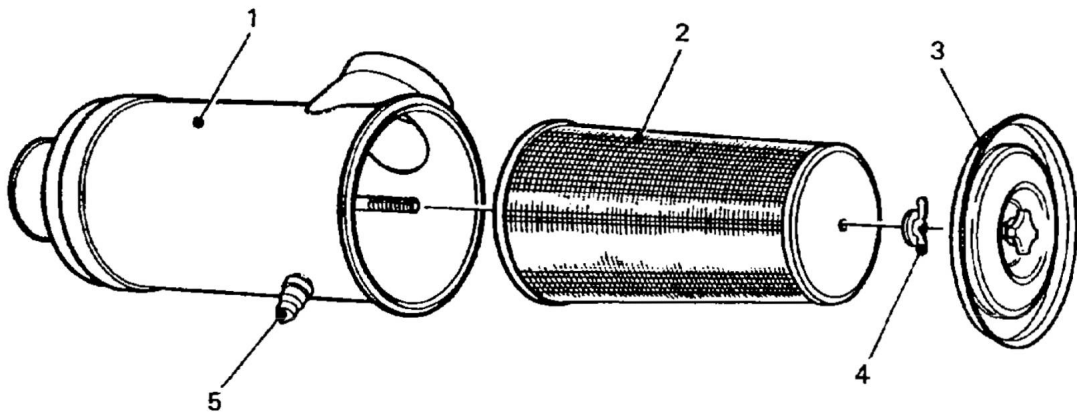
Unit N°: **AC500A**

Item N°.	Description	N°. Used	Part N°.	Remarks
1	AIR CLEANER , <i>see separate list</i>	1	651031	
2	Mounting band	2	651032	
	Screw	4	MCS 110 25P	
	Nut	4	MCN 510P	
3	Hump hose - 6" to 5"	1	651058	
4	Pipe - hose to elbow	1	413514	
5	Elbow - 5" to 4"	1	611605	
6	Hose clip - 4½"	1	611005-6	
7	Hose clip - 5½"	2	611005-2	
8	Hose clip - 6½"	1	611005-9	
9	Indicator - air cleaner restriction	1	654150	
	Hose, 19 mm i/d	a/r	401040-11	
	Clip	2	656818-5	

AIR CLEANER

Unit No: 651031

Item No.	Description	Nº. Used	Part No.	Remarks
	AIR CLEANER, complete	1	651031	
1	Body assembly	1	651031/2	
2	Element	1	651031/1	
3	Cover assembly	1	651031/3	
4	Nut and gasket assembly	1	650551/3	
5	Dust valve	1	611007/5	



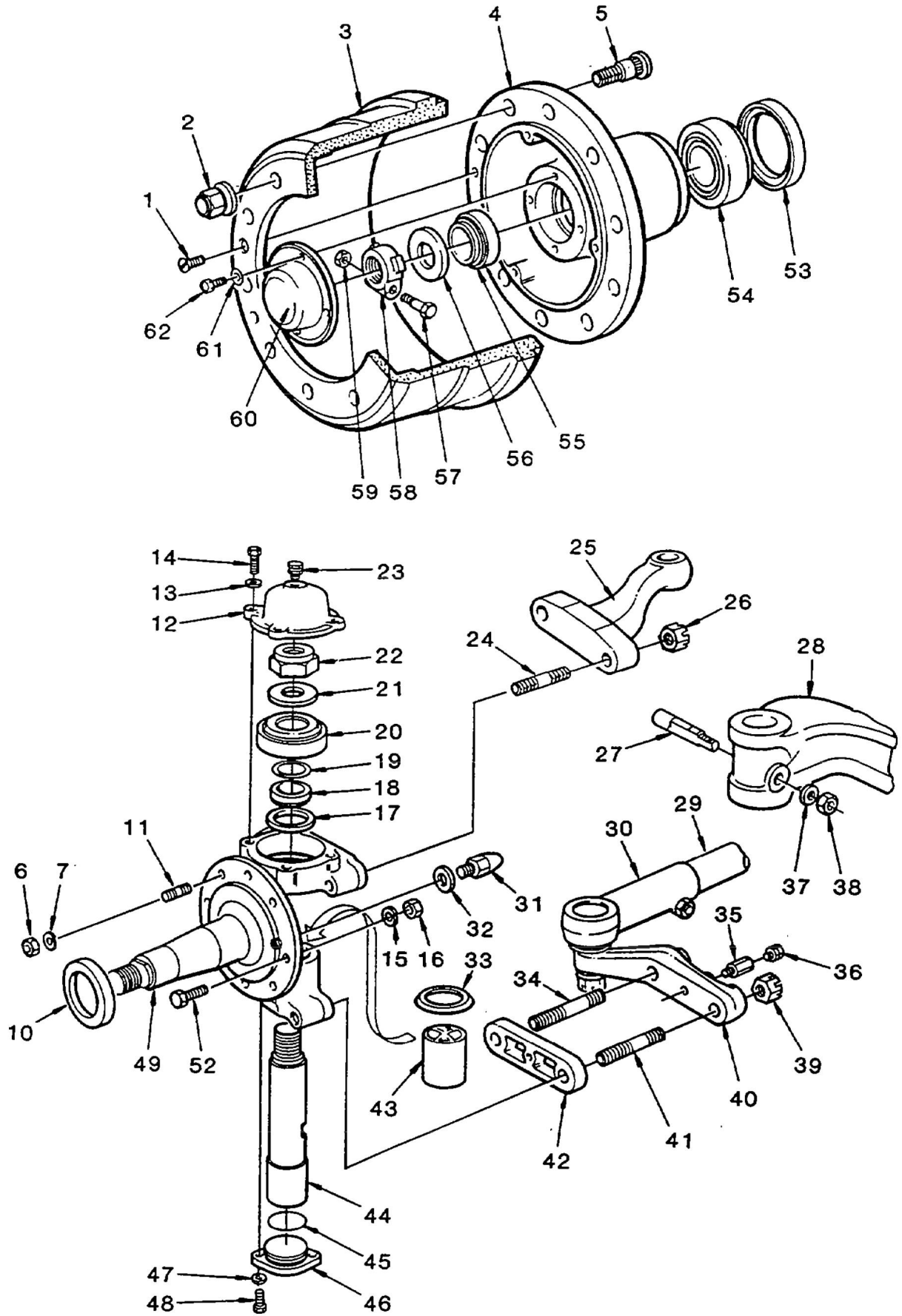


PARTS MANUAL

FRONT AXLE

Diagram	Pages	2 and 4
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Socket and Tie Rod Assembly	Page	8

FRONT AXLE

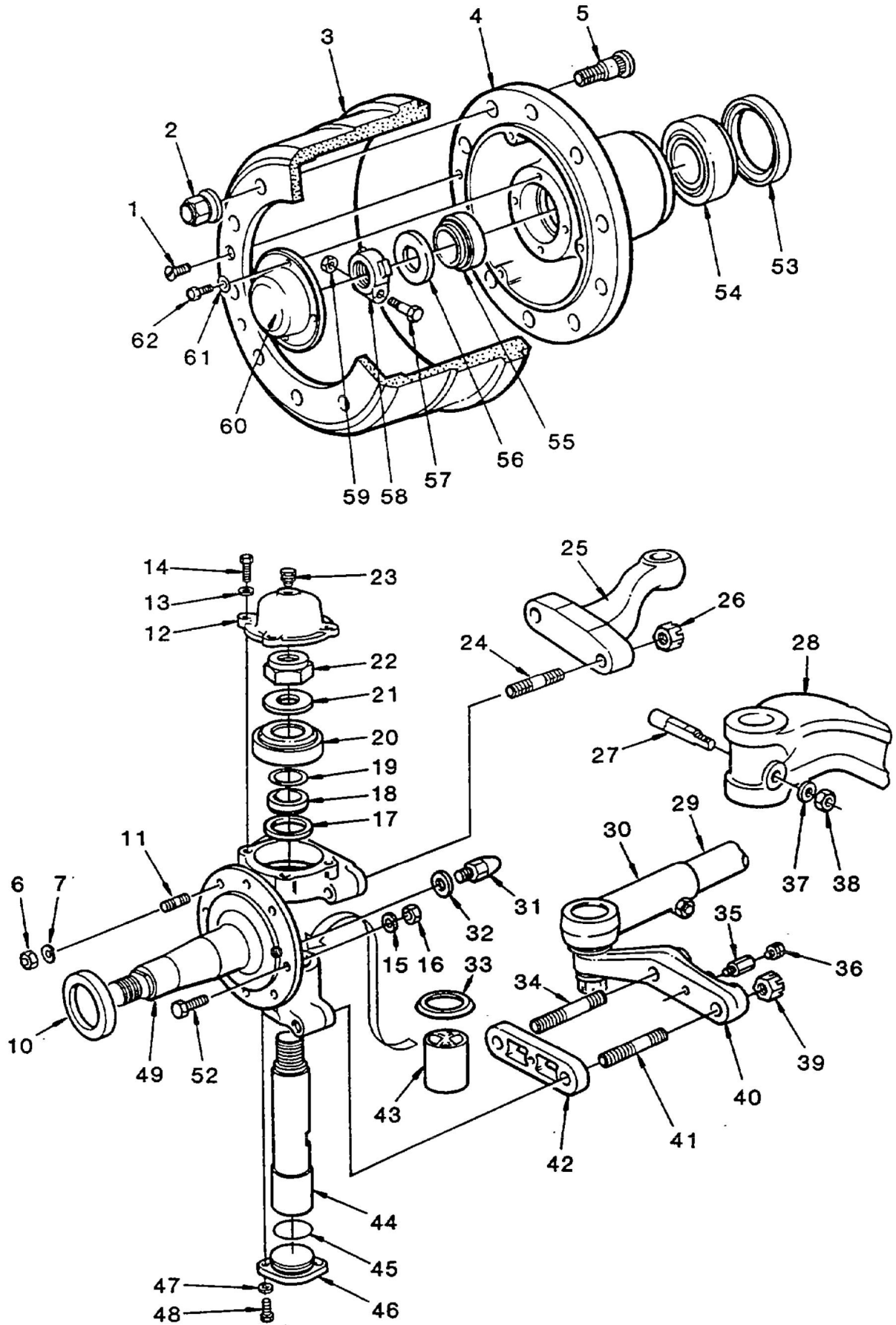


FRONT AXLE

Unit No: **AF500C**

Item No.	Description	No. Used	Part No.	Remarks
	FRONT AXLE ASSEMBLY - complete	1	655592	
	Brake Assembly - See Braking System	2		
	Hub Assembly	2	653710-1	
	Swivel Pin Kit - See Service Kit Section	A/R		
1	Setscrew, brake drum retaining	2	653509-1	
2	Wheel nut	20	650723-4	
3	Brake drum	2	611463-6	
4	Hub	2	653240-1	
5	Wheel stud	20	650723-2	
6	Nut, brake back plate	12	UFN 108AP	
7	Washer	12	WLC 8SP	
8	Not required			
9	Not required			
10	Distance piece, hub bearing	2	653243-5	
11	Stud, brake back plate	12	651042-7	
12	Cap, swivel top	2	650197-2	
	Joint, cap (not shown)	2	117823-46	
13	Spring washer	8	WLC 7SP	
14	Setscrew	8	650197-1	
15	Spring washer	4	WLC 8SP	
16	Nut	4	UFN 108AP	
17	Seal swivel bearing	2	652685-3	
18	Sleeve	2	652685-2	
19	Shim, 0.005 in	A/R	117823-37	
	Shim, 0.010 in	A/R	117823-17	
	Shim, 0.015 in	A/R	117823-105	
	Shim, 0.0035 in	A/R	653264-3	
20	Bearing	2	610101-23	
21	Washer	2	608155-7	
22	Nut	2	653243-2	
23	Nipple, swivel lubricator	2	607032-32	
24	Stud, top steering lever	2	650197-3	
24	Stud - LH	2	650418-9	
25	Steering lever, top	1	691907-14	
26	Nut	4	606624-7	
27	Cotter	2	606537-44	
28	Axle beam	1	653717-1	
29	Tie rod - See service kit section	1		
30	Socket - See service kit section	2		
31	Swivel stop nut (RH and LH)	2	650475-2	
	Swivel stop nut (RH only)	1	651106-5	
32	Adjusting washer, swivel stop	A/R	68256-61	
	- 0.125 in	A/R	68256-63	
	- 0.062 in	A/R	68256-64	
33	Oil seal	2	653243-4	
34	Stud, btm steering lever, long	2	606537-23	

FRONT AXLE



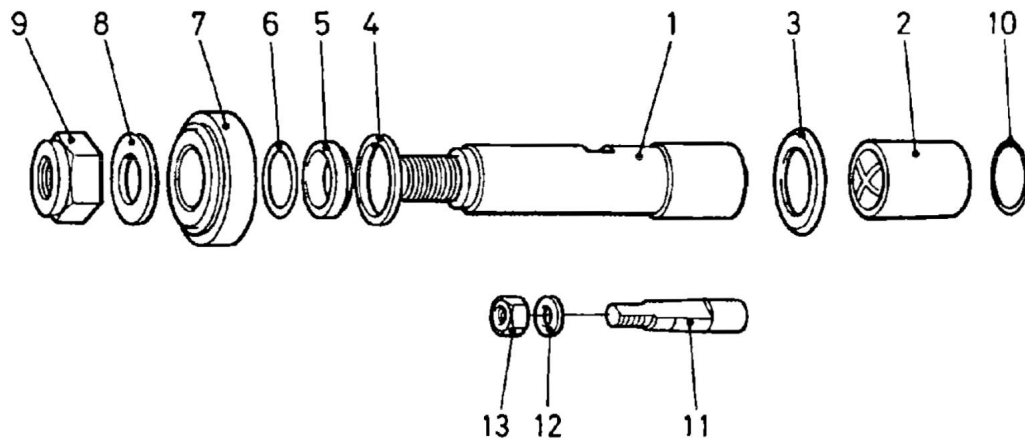
FRONT AXLEUnit No: **AF500C**

Item No.	Description	No. Used	Part No.	Remarks
35	Extension, for lubricator	2	609775-41	
36	Nipple	2	607032-32	
37	Washer	2	WLA 7SP	
38	Nut	2	UFN 107AP	
39	Nut	4	606624-7	
40	Bottom steering lever, RH	1	655086-2	
	Bottom steering lever, LH	1	655086-1	
41	Stud, btm steering lever, short	2	606537-24	
42	Not required			
43	Bush	2	653243-3	
44	Swivel pin	2	653243-6	
45	Oil seal	2	609847-9	
46	Cap, swivel bottom	2	653264-2	
47	Washer	4	WLC 6SP	
48	Setscrew	4	691907-9	
49	Swivel	2	653243-1	
50	Not required			
51	Not required			
52	Bolt - brake bracket	4	650418-8	
53	Hub oil seal	2	650475-1	
54	Hub bearing, inner	2	651366-10	
55	Hub bearing, outer	2	650418-3	
56	Washer	2	610064-3	
57	Pinch bolt	2	609775-36	
58	Hub bearing nut	2	691907-18	
59	Nut, pinch bolt	2	608893-27	
60	Hub cap	2	691907-22	
	Joint, hub cap, not shown	2	691907-24	
61	Spring washer	8	WLC 5 SP	
62	Setscrew, hub cap	8	691907-23	

SWIVEL PIN SERVICE KIT (Complete Axle Set)

Assembly No: 653168/1

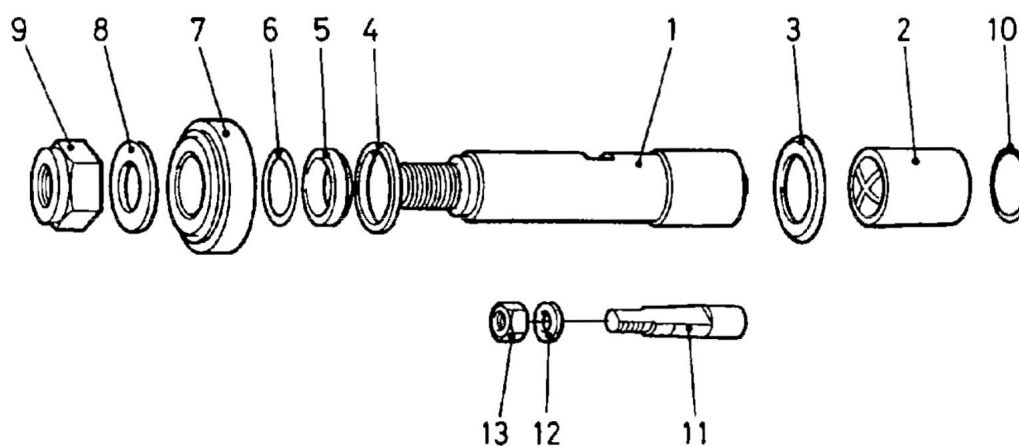
Item No.	Description	No. Used	Part No.	Remarks
	SWIVEL PIN SERVICE KIT (COMPLETE AXLE SET) comprising:-	1	653168/1	
1	Swivel pin	2	653243/6	
2	Bush, swivel pin, bottom	2	653243/3	
3	Seal, swivel bush	2	653243/4	
4	Grease seal, swivel bearing	2	652685/3	
5	Sleeve, swivel bearing	2	652685/2	
6	Shim, swivel bearing adjusting	2	117823/37	
	Shim, swivel bearing adjusting	4	117823/17	
	Shim, swivel bearing adjusting	4	117823/105	
	Shim, swivel bearing adjusting	2	653264/3	
7	Bearing, swivel pin	2	610101/23	
8	Washer, swivel pin	2	608155/7	
9	Nut, swivel pin	2	653243/2	
10	'O' ring, bottom cap	2	609847/9	
11	Pin cotter	2	606537/44	
12	Washer	2	WLA 7SP	
13	Nut, cotter	2	UFN 107 AP	
	Joint, swivel top cap (not shown)	2	117823/46	
	SWIVEL PIN SERVICE KIT As above but without swivel bearing (Item 7)	1	653168/2	



SWIVEL PIN SERVICE KIT (One Hub Set)

Assembly No: 653168/3

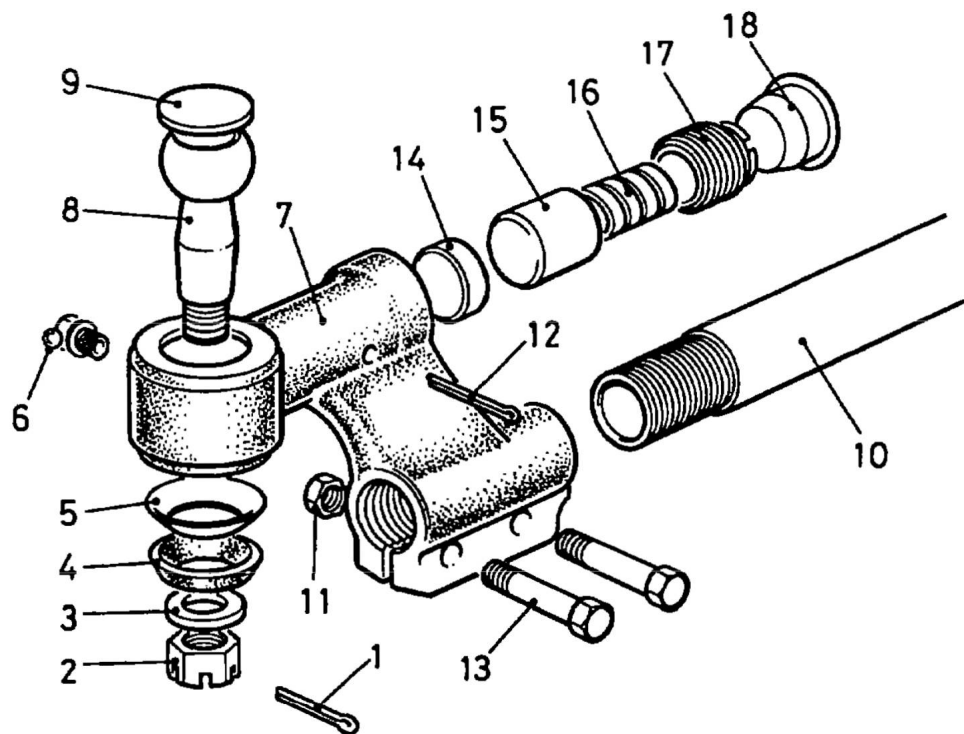
Item No.	Description	Nº. Used	Part No.	Remarks
	SWIVEL PIN SERVICE KIT (ONE HUB SET) comprising:-	1	653168/3	
1	Swivel pin	1	653243/6	
2	Bush, swivel pin, bottom	1	653243/3	
3	Seal, swivel bush	1	653243/4	
4	Grease seal, swivel bearing	1	652685/3	
5	Sleeve, swivel bearing	1	652685/2	
6	Shim, swivel bearing adjusting	1	117823/37	
	Shim, swivel bearing adjusting	2	117823/17	
	Shim, swivel bearing adjusting	4	117823/105	
	Shim, swivel bearing adjusting	2	653264/3	
7	Bearing, swivel pin	1	610101/23	
8	Washer, swivel pin	1	608155/7	
9	Nut, swivel pin	1	653243/2	
10	'O' ring, bottom cap	1	609847/9	
11	Pin cotter	1	606537/44	
12	Washer	1	WLA 7SP	
13	Nut, cotter	1	UFN 107 AP	
	Joint, swivel top cap (not shown)	1	117823/46	
	SWIVEL PIN SERVICE KIT As above but without swivel bearing (Item 7)	1	653168/4	



SOCKET AND TIE ROD ASSEMBLY

Assembly No: 650197/7

Item No.	Description	Nº. Used	Part No.	Remarks
	SOCKET AND TIE ROD ASSEMBLY, complete	1	650197/7	
	SOCKET ASSEMBLY - LH	1	610101/5	
	SOCKET ASSEMBLY - RH	1	610101/6	
1	Split pin	2	60664	
2	Nut	2	606624/7	
3	Washer	2	28377	
4	Dirt seal, rubber	2	606624/178	
5	Dirt seal, pressing	2	606624/177	
6	Lubricator	2	69791	
7	Body socket, RH	2	610101/1	
	Body socket, LH	2	610101/2	
8	Ball pin	2	606624/174	
9	Cover plate	2	117823/91	
10	Tie rod	1	650197/6	
11	Nut	4	610101/4	
12	Split pin	2	117823/22	
13	Pinch bolt	4	610101/3	
14	Rubbing pad	2	606624/175	
15	Thrust cap	2	606624/176	
16	Compression spring	2	606624/109	
17	Adjuster piece	2	606624/108	
18	Plastic plug	2	606624/180	



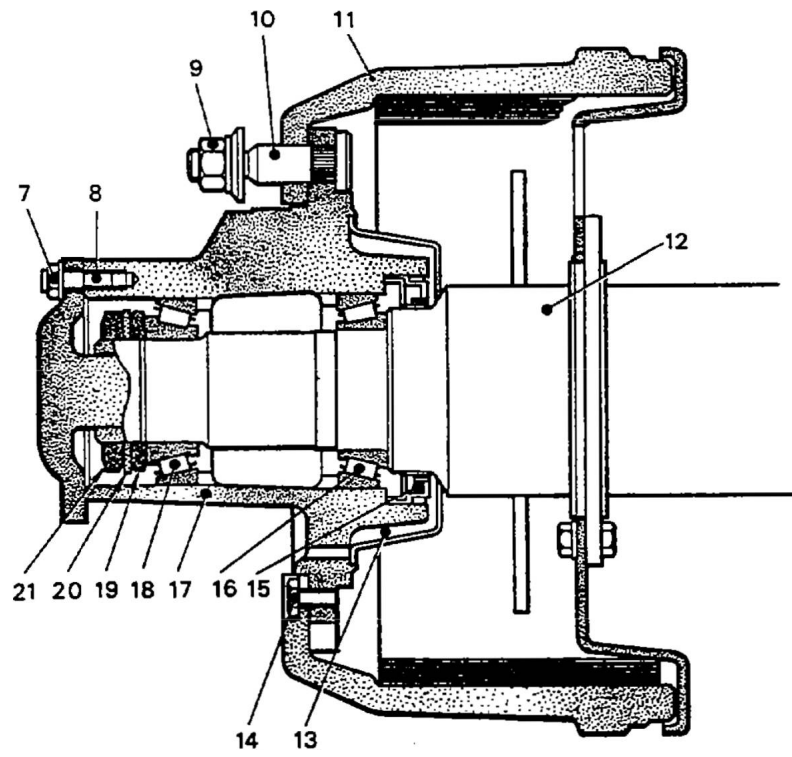
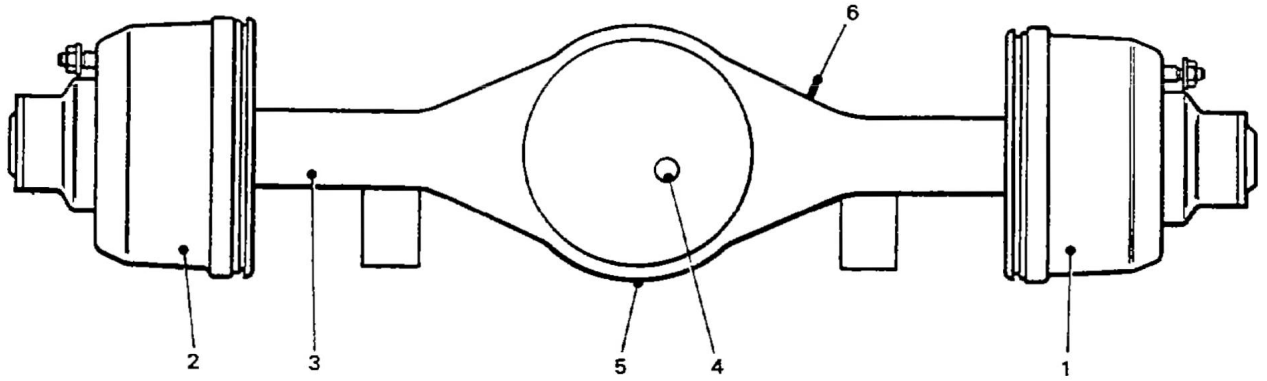


PARTS MANUAL

REAR AXLE

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REAR AXLE



REAR AXLE

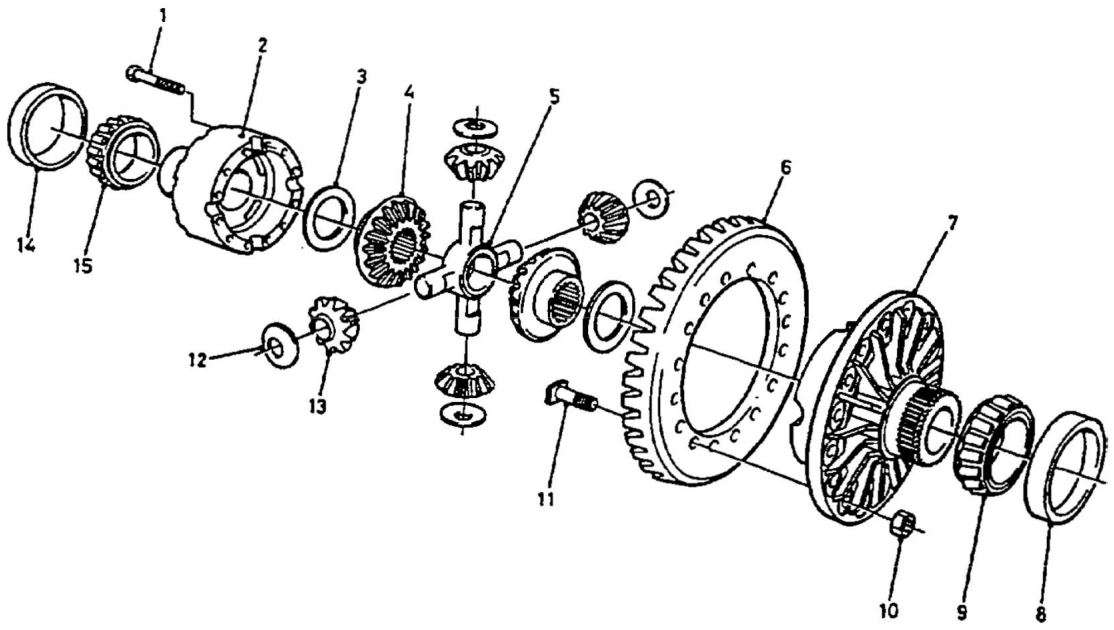
Unit No: **AR502B**

Item No.	Description	Nº. Used	Part No.	Remarks
	Rear axle - 4.88:1 ratio	1	656456	
1	Brake RH	}	See Braking System	
2	Brake LH			
3	Axle casing	1	656456-32	
4	Filler plug	1	68776-91	
5	Drain plug	1	654082-2	
6	Breather	1	655345-3	
	Hub and drum assembly	2	655282-2	
7	Nut - halfshaft	16	653730-26	
	Washer spring	16	655282-3	
8	Stud - halfshaft	16	653730-27	
9	Wheelnut	20	611850-8	
10	Wheelbolt	20	653730-29	
11	Brake drum	2	650711-8	
12	Axle shaft	2	656456-31	
13	Flinger	2	653730-31	
14	Bolt - drum to hub	10	650711-9	
15	Oil seal	2	656456-4	
16	Bearing - inner complete - comprising:-	2	609683-10	
	Cone	2	653730-33	
	Cup	2	653730-34	
17	Hub and flinger assembly	2	653730-35	
18	Bearing - outer complete - comprising:-	2	609777-38	
	Cone	2	653730-36	
	Cup	2	653730-37	
19	Adjustable nut	2	653730-38	
20	Lockwasher	2	653730-39	
21	Locknut	2	653730-40	

REAR AXLE HEAD ASSEMBLY

Assembly N°: 656456-1

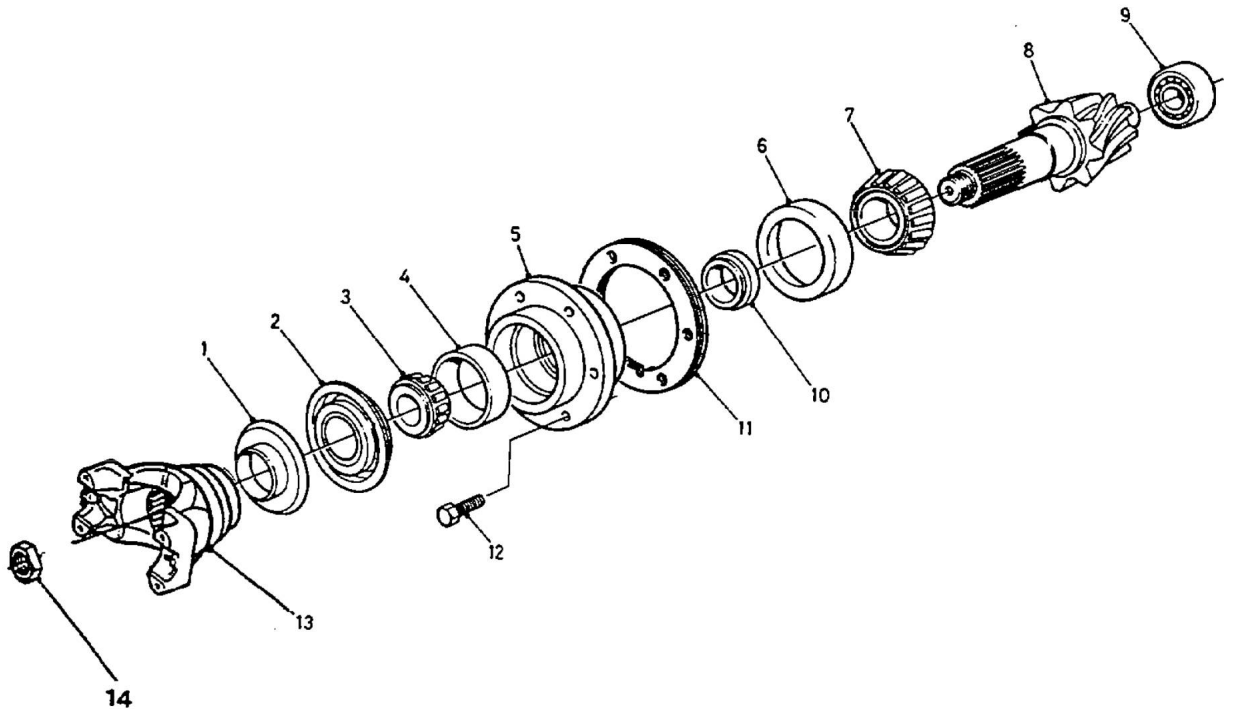
Item N°.	Description	N°. Used	Part N°.	Remarks
	HEAD ASSEMBLY Complete - 4.88:1 ratio	1	656456-1	
1	Capscrew	12	656456-6	
2	Differential case - plain	1	656456-5	
3	Thrust washer - side gear	2	656456-7	
4	Side gear	2	656456-29	
5	Differential spider	1	656456-10	
6	Crownwheel - supplied as matched pair with pinion 4.88:1	1	656456-24	
7	Differential case - flanged	1	656456-28	
8	} Bearing kit - LH	1	611850-4	
9				
10	Locknut	16	656456-12	
11	Bolt	16	656456-11	
12	Thrust washer - side pinion	4	656456-8	
13	Side pinion	4	656456-9	
14	} Bearing kit - RH	1	655746-6	
15				



REAR AXLE PINION ASSEMBLY

Assembly N°:

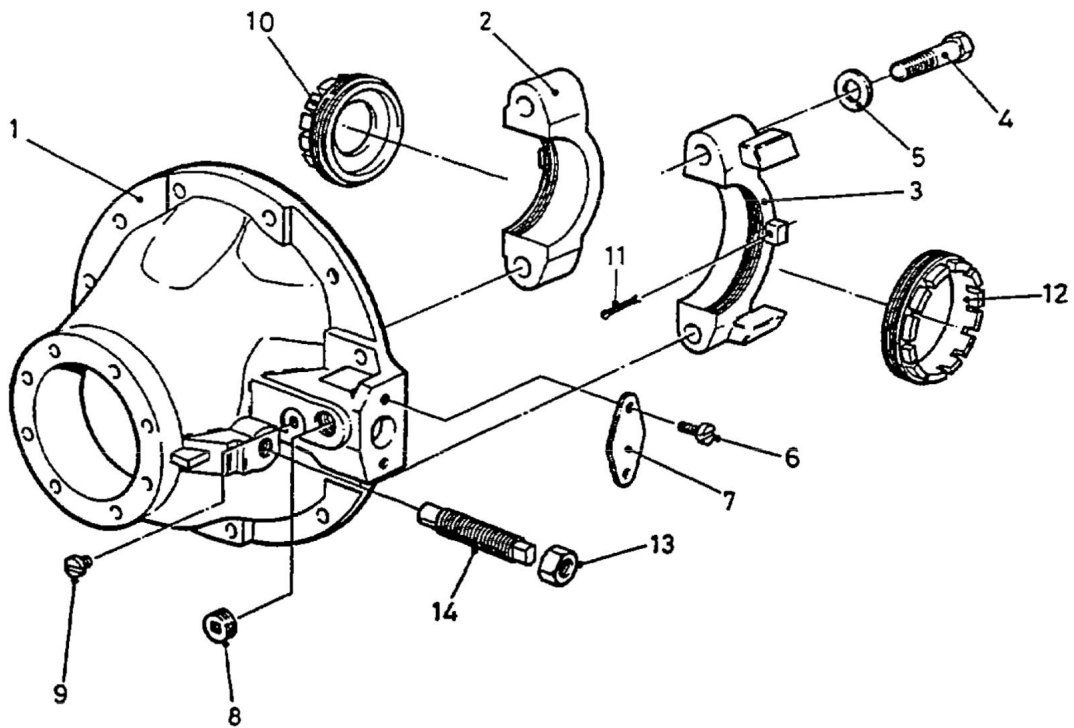
Item N°.	Description	N°. Used	Part N°.	Remarks
1	Mudslinger	1	656456-26	
2	Oil seal	1	656456-16	
3/4	Bearing - outer	1	656456-13	
5	Pinion bearing cage & cups comprising no's 4, 5 & 6	1	656456-27	
6/7	Bearing - inner	1	656456-14	
8	Pinion - supplied as matched pair with crownwheel 4.88:1	1	656456-24	
9	Bearing - pinion pilot	1	656456-15	
10	Spacer - pinion bearing	1	656456-18	
11	Shim (0.076 in)	A/R	656456-19	
	Shim (0.127 in)	A/R	656456-20	
	Shim (0.254 in)	A/R	656456-21	
	Shim (0.508 in)	A/R	656456-22	
	Shim (0.762 in)	A/R	656456-23	
12	Capscrew - pinion bearing cage	6	653730-18	
13	Coupling yoke	1	656456-25	
14	Nut - pinion 4.88:1 ratio	1	656456-17	



DIFFERENTIAL CARRIER ASSEMBLY

Assembly No.:

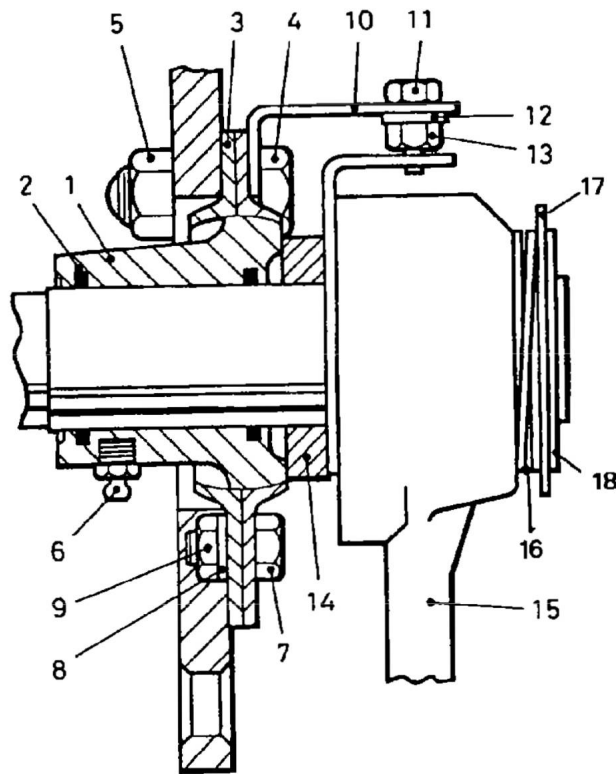
Item No.	Description	No. Used	Part No.	Remarks
	Carrier and caps assembly comprising No's 1-9	1	656456-2	
10	Bearing adjuster - right hand	1	656456-3	
11	Cotter pin	1	68776-59	
12	Bearing adjuster - left hand	1	653730-23	
13	Jam nut - thrust screw	1	652800-52	
14	Thrust screw	1	652800-14	



BRAKE CAMSHAFT BEARING

Assembly N°:

Item N°.	Description	N°. Used	Part N°.	Remarks
Camshaft bearing				
1	Bearing, spherical	2	609777-87	
2	Seal, bearing	4	609777-89	
3	Housing - spherical bearing	4	609777-88	
4	Bolt	6	610103-5	
5	Nut, nyloc	6	654082-22	
6	Not required			
7	Setscrew	6	609683-8	
8	Washer, spring	6	609777-82	
9	Nut	6	609777-86	
10	Bracket, abutment	2	410024	
11	Setscrew	2	409759	
12	Washer	2	WLA 6SP	
13	Nut	2	655422	
14	Spacer	2	415696	
15	Adjuster, slack	2	651777	
16	Spring, slack adjuster retaining	2	650418-42	
17	Washer, slack adjuster retaining	2	651042-8	
18	Circlip, slack adjuster retaining	2	606625-4	



REAR AXLE SERVICE KITS

Assembly N°:

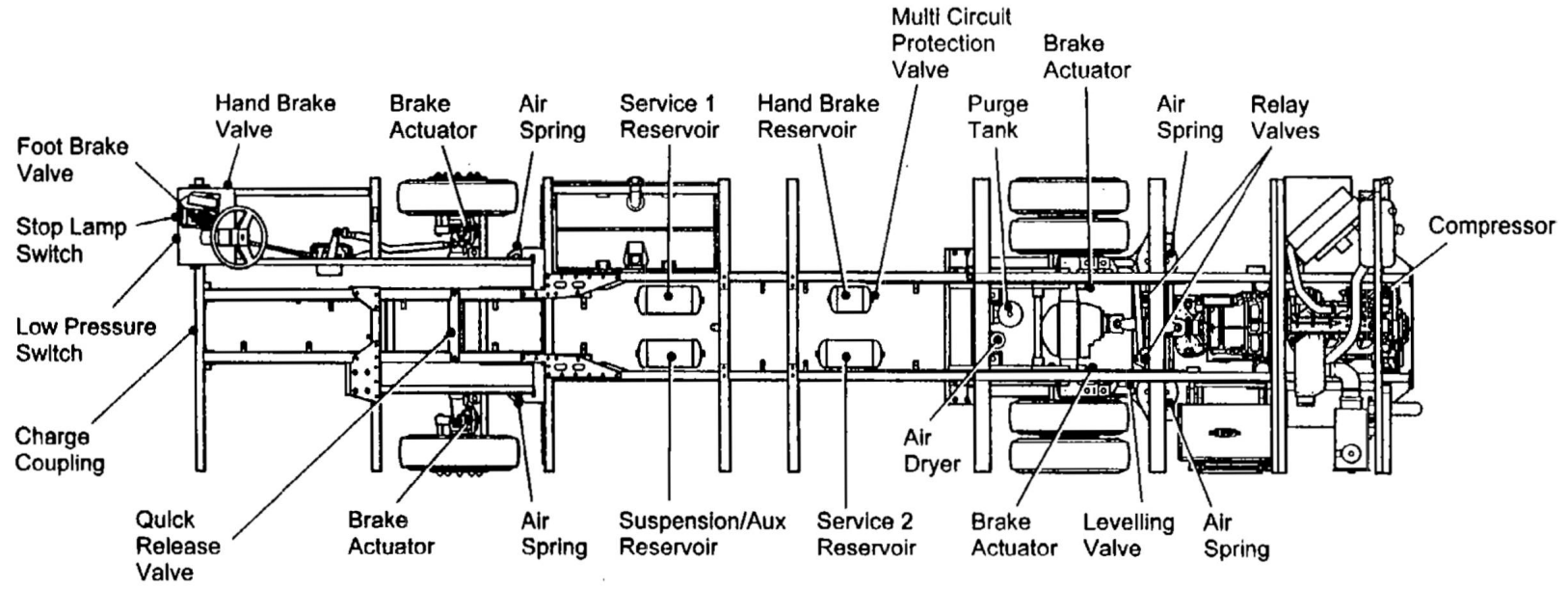
Item N°.	Description	N°. Used	Part N°.	Remarks
	The following Service Kits are available			
	Crown wheel & pinion gearset service kit consisting of :-			
	Gearset, 4.88:1 ratio	1	656456-24	
	Nut, pinion end	1	656456-17	
	Tag, torque	1		
	Crown wheel & pinion gearset 4.88:1 consisting of:		656456-24	
	Crownwheel	1		
	Pinion	1		
	Diff. side gear kit consisting of:-			
	Washer, thrust, side pinion	4	656456-8	
	Washer, thrust, side gear	2	656456-7	
	Pinion, diff.	4	656456-9	
	Gear, diff. side	2	656456-29	
	Spider, diff.	1	656456-10	



PARTS MANUAL

BRAKING SYSTEM

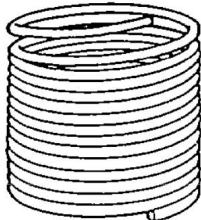
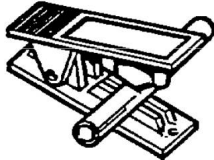
Air system locations	Page	2
Nylon brake tubing	Page	3
Braking system	Page	5, 7 & 9
Pipe fittings	Page	10 - 19
Air dryer	Page	20
Compressor	Page	21
Footbrake assembly	Page	23
Footbrake valve	Page	24
Differential protection valve	Page	25
Front brake assembly	Page	27
Rear brake assembly	Page	29
Automatic slack adjuster - front	Page	31
Automatic slack adjuster - rear	Page	33
Slack adjuster tool kit	Page	34



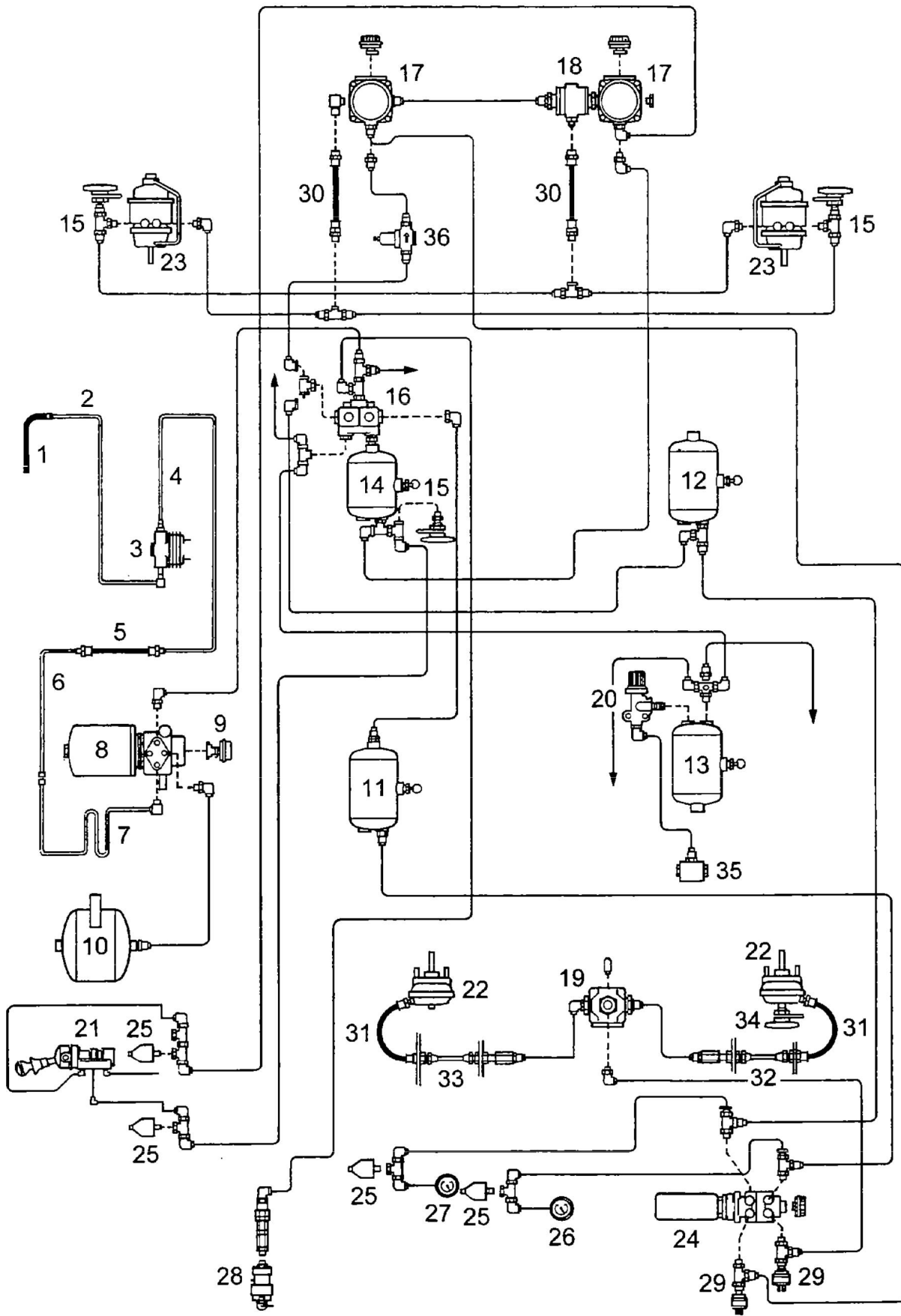
AIR SYSTEM LOCATIONS

NYLON BRAKE TUBING (metric)

Assembly N°:

Item N°.	Description	N°. Used	Part N°.	Remarks
	<p>Nylon Brake Tubing</p> <p>Red - 10 mm O.D. Red - 12 mm O.D. Red - 16 mm O.D.</p>  <p>Yellow - 6 mm O.D. Yellow - 12 mm O.D.</p> <p>Green - 6 mm O.D. Green - 10 mm O.D. Green - 12 mm O.D.</p> <p>Orange - 6 mm O.D. Orange - 12 mm O.D.</p> <p>Black - 4 mm O.D. Black - 6 mm O.D. Black - 10 mm O.D. Black - 12 mm O.D.</p> <p>Brake tubing cutter</p> 	<p>A/R A/R A/R</p> <p>A/R A/R</p> <p>A/R A/R A/R</p> <p>A/R A/R</p> <p>A/R A/R A/R A/R</p> <p>1</p>	<p>654991 654746 654745</p> <p>654744 654743</p> <p>654750 656415 654749</p> <p>654748 654747</p> <p>655022 654994 654992 654993</p> <p>610224</p>	<p>Air feed Circuit</p> <p>Service Brake</p> <p>Auxiliary Equipment</p> <p>Handbrake Circuit</p> <p>Gauge Lines Signal Lines Exhaust Brake Suspension System</p>

BRAKING SYSTEM DIAGRAM

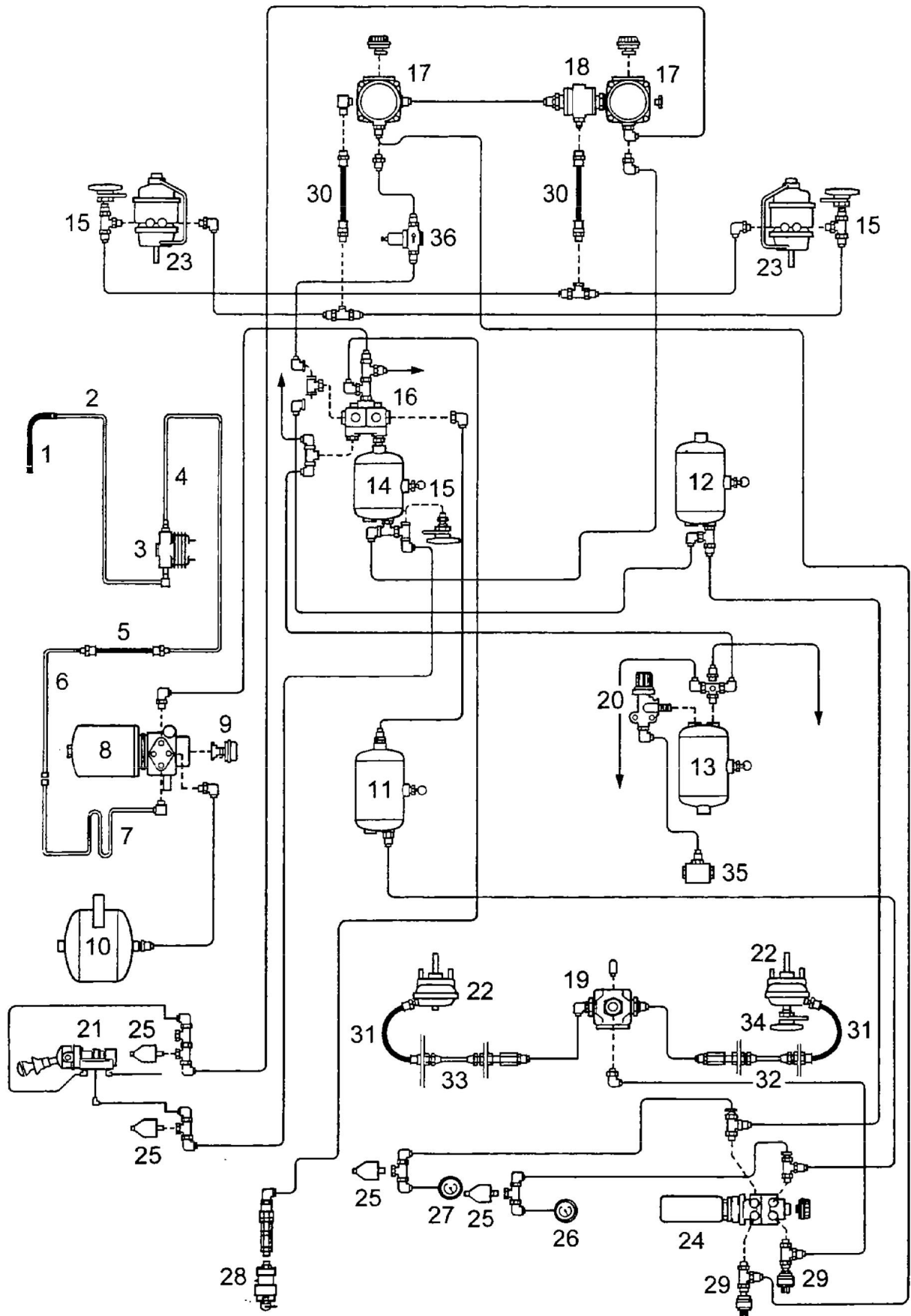


BRAKING SYSTEM

Unit No: **FB512A**

Item No.	Description	N ^o . Used	Part N ^o .	Remarks
	Front brake assembly R.H. See separate list	1	653710-2	
	Front brake assembly L.H. See separate list	1	653710-3	
	Rear brake assembly R.H. See separate list	1	653732	
	Rear brake assembly L.H. See separate list	1	653731	
	Slack adjuster Front	2	611484	
	Slack adjuster Rear	2	651777	
	Bracket, abutment	2	410024	
	Screw	2	409759	
1	Hose - air intake pipe to compressor intake pipe	1	401040-11	
	Clip	2	609295-3	
2	Pipe - compressor intake	1	422156	
	Elbow	1	652233	
	Extension, 3/4 in. NPTFX 3/4 in. o/d	1	412820	
3	Compressor - see separate list	1	653613	
4	Pipe - connector to hose	1	422155	
5	Hose - pipe to pipe	1	657022	
6	Pipe - hose to connector	1	422670	
	Adaptor, 7/8 in. 14 JIC	1	654917	
7	Pipe - coil	1	422669	
8	Air Dryer - see separate list	1	656882	
	Dessicant cartridge kit	1	652885-2	
9	Silencer	1	656302	
	Adaptor	1	656322	
10	Reservoir - purge tank - 4.25 litre	1	656805	
	Plug	1	654910	
	Plate	1	423075	
11	Reservoir - service 1	1	654979/9	
	Mounting bracket	2	413288	
	Clip	2	656616-2	
	Seating strip	a/r	656768	
	Plug	1	654910	
	Drain valve	1	609956	
12	Reservoir - service 2	1	654979-9	
	Mounting bracket	2	413288	
	Seating strip	a/r	656768	
	Clip	2	656616-2	
	Plug	1	654910	
	Drain valve	1	654728	

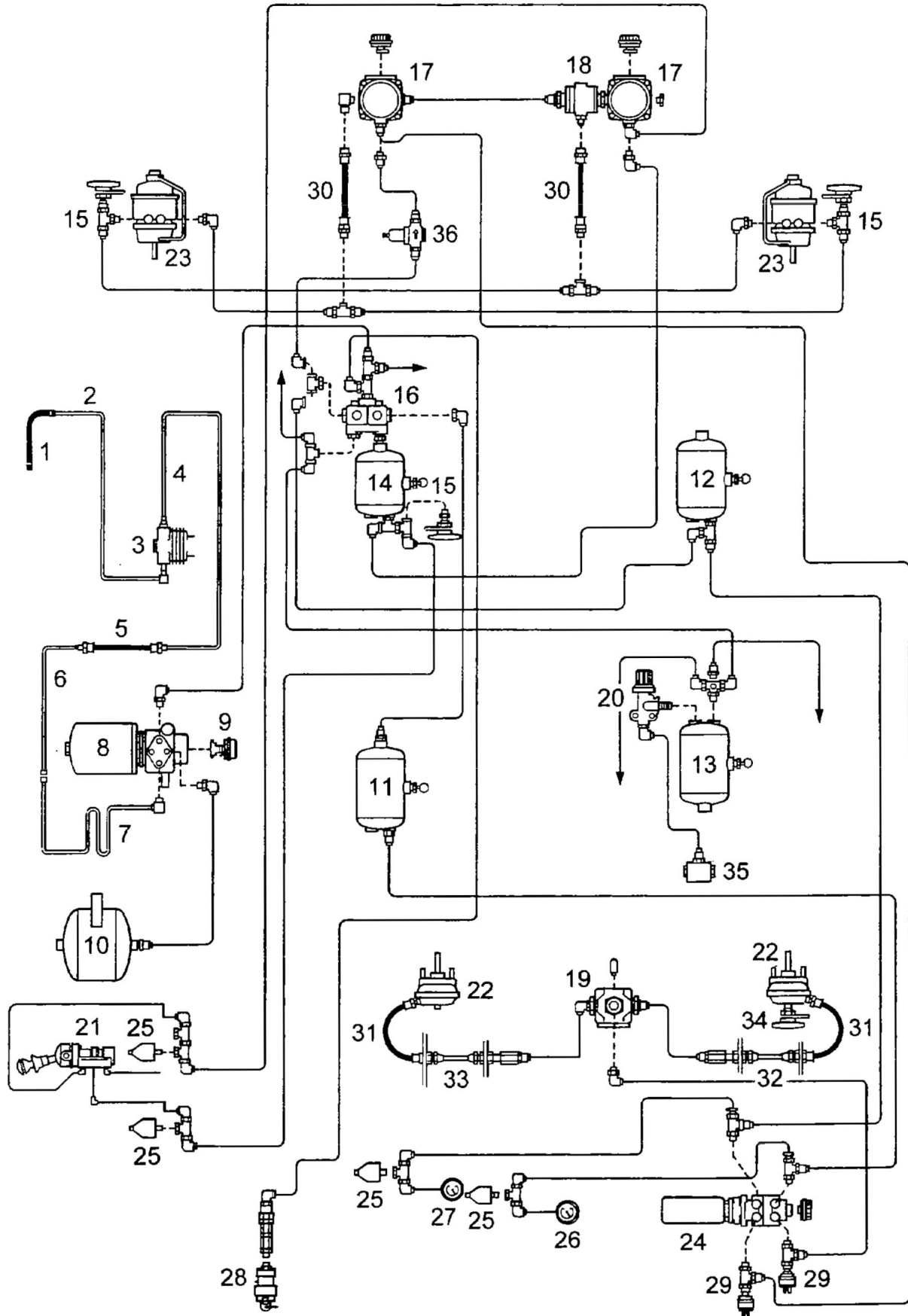
BRAKING SYSTEM DIAGRAM



BRAKING SYSTEMUnit N°: **FB512A**

Item N°.	Description	N°. Used	Part N°.	Remarks
13	Reservoir - auxiliary	1	654979-9	
	Mounting bracket	2	413288	
	Seating strip	a/r	656768	
	Clip	2	656616-2	
	Plug	1	654910	
	Drain valve	1	654728	
14	Reservoir - handbrake	1	654979-1	
	Mounting bracket	2	413287	
	Clip	2	656616-1	
	Drain valve	1	654728	
	Plug	1	654910	
15	Test connector	3	655026	
16	Multi circuit protection valve (non serviceable)	1	656242	
17	Relay valve (non serviceable)	2	653885	
	Plug	1	654910	
	Silencer	2	656302	
18	Double check valve	1	654734	
19	Quick release valve	1	654757	
	Service kit	1	609011-1	
	Silencer	1	655136	
20	Pressure protection valve (non serviceable)	1	612049	
	Adaptor	1	244613	
	Washer	1	401646	
	Adaptor 1/4D x 1/4D	1	609866	
21	Handbrake valve (non serviceable)	1	656324	
	Gaiter	1	612069-2	
	Knob	1	612069-3	
22	Brake actuator - front	2	656470	
	Service diaphragm	a/r	656471-2	
	Yoke	2	654579	
	Yoke pin	2	650461	
	Plain washer	2	WLA 6 SP	
	Nut	2	UFN 406AP	
	Split pin	2	SP 6 16ST	
	Adaptor	2	612444	

BRAKING SYSTEM DIAGRAM



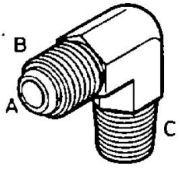
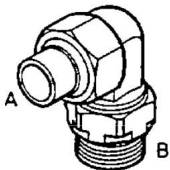
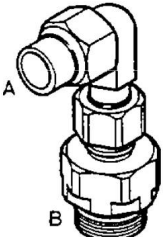
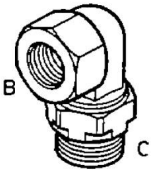
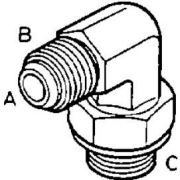
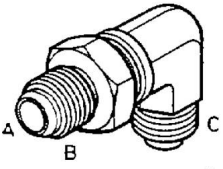
BRAKING SYSTEM

 Unit No: **FB512A**

Item No.	Description	No. Used	Part No.	Remarks
23	Brake actuator - rear - see separate list	2	656471	
	Spring portlon	a/r	656471-1	
	Service diaphragm	a/r	656471-2	
	Yoke	2	654579	
	Yoke pin	2	650461	
	Plain washer	2	WLA 6 SP	
	Nut	2	UFN 406AP	
	Split pin	2	SP 6 16ST	
	Boot	2	650440	
24	Footbrake valve see separate list	1	651847	
	Adaptor	2	244613	
	Swivel tee, M16	2	612079	
	Swivel M16 x 1.5	2	612090	
	Silencer	1	656360	
25	Low pressure switch	4	610582-A	
	Tee piece - for switches	2	654922	
26	Air gauge 1	1	653688	
27	Air gauge 2	1	653689	
	Seal	2	654939	
28	Charge coupling	1	606392	
	Plug and chain	1	606394	
	Non - return valve	1	654733	
	Seal, 16mm	1	655117	
	Seal, 22mm	1	652921	
29	Stop light switch	2	605208	
30	Hose	2	656243-1	
31	Hose	2	607879-21	
	Washer - star	4	WLG 12SP	
32	Pipe - LH	1	422145	
33	Pipe - RH	1	422146	
34	Test connector	1	654499	
	Pressure ring	1	654508	
	'O' ring	1	654509	
35	Tee piece - body builder take-off point	1	654922	
	Plug	2	655036	
36	Limiting valve	1	653540-80	
	Spanner - spring brake release	1	654352	TK500A
	NOTE: All standard brake pipe fittings are listed on the following pages			

PIPE FITTINGS

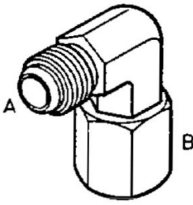
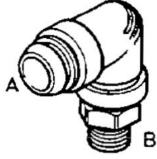
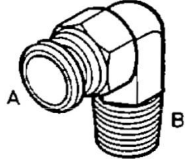
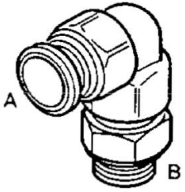
ELBOWS

Part No.	Pipe size A	Thread B	Thread C	
653484	20M	3/4 in NPTF	1 1/16 in	
654932	10M	1/4 in NPTF	9/16 in	
654919-1	10P	12	-	
654919-2	10P	16	-	
654919-3	12P	16	-	
654919-4	12P	22	-	
654919-5	6P	22	-	
654919-6	10P	22	-	
654919-7	16P	22	-	
654919-8	6P	16	-	
654919-9	8P	16	-	
654920-1	10P	12	-	
654920-2	12P	22	-	
654920-3	6P	16	-	
654920-4	12P	M16	-	
654920-5	10P	M22	-	
654920-6	10P	M16	-	
654920-7	6P	M12	-	
654920-8	12P	M12	-	
654925		16	22	
654933-1	10M	14	9/16 in JIC	
654933-2	10M	22	9/16 in JIC	
654933-3	12M	16	3/4 in JIC	
654933-4	12M	22	3/4 in JIC	
654933-5	16M	18	7/8 in JIC	
654796	20M	22	1 1/16 in JIC	
655023	10M	22		
654934	12M	3/4 in JIC	-	

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

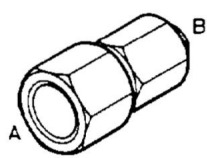
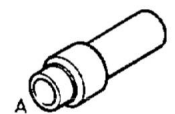
ELBOWS CONTINUED

Part No.	Pipe size A	Thread B	Thread C	
654935	20M	1 1/16 in JIC	-	
654947/1	12P	3/8 in	-	
654947/2	10P	3/8 in	-	
654947/3	12P	1/4 in	-	
654947/4	4P	1/8 in	-	
654947/5	10P	1/4 in	-	
654961	6P	1/8 in BSPT	-	
654962	10P	12	-	

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

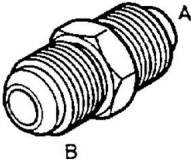
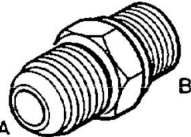
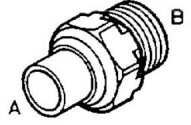
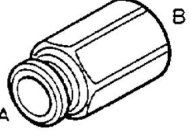
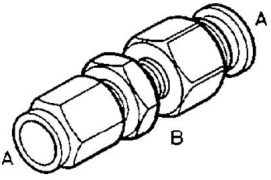
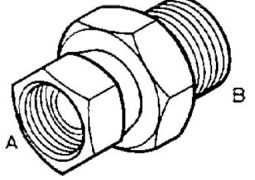
REDUCERS

Part No.	Pipe size A	Pipe size B	
654930 651947	20M 12M	16M 10M	
655941-1 655941-2	6M 12M		
655235	M22	M16	
655234	M22	M16	

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

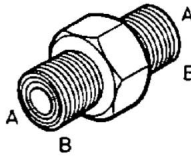
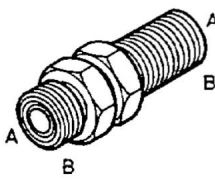
CONNECTORS

Part No.	Pipe size A	Thread B	
651717/1	20M	1 ¹ / ₁₆ in SAE/JIC	
651717/2	16M	7/8 in SAE/JIC	
654909/1	20M	26	
654909/2	20M	22	
654909/3	12M	16	
654909/4	10M	14	
654909/5	8M	12	
654909/6	16M	22	
654929	16M	16	
654921/1	10P	12	
654921/2	10P	16	
654921/3	10P	22	
654921/4	12P	16	
654921/5	12P	22	
654921/6	16P	16	
654921/7	16P	22	
654921/8	6P	12	
654921/9	6P	16	
654948	4P	1/8 in BSPP	
654949	10M/P	14	
654953	6	1/4 in BSPP	

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

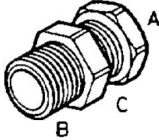

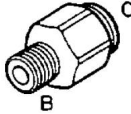
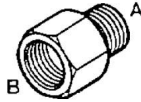
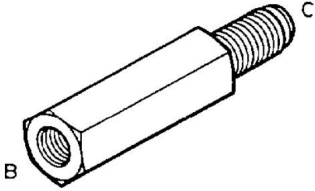
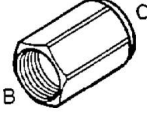
CONNECTORS CONTINUED

Part No.	Pipe size A	Thread B	
654955/1	16	1 in ORFS	
654955/2	20	1 3/16 in ORFS	
654957/1	16M	1 in SAE/ORFS	
654957/2	20M	1 3/16 in SAE/ORFS	

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

ADAPTORS

Part No.	Pipe size A	Thread B	Thread C	
654912	16P	1/2 in NPT	22	
654916/1 654916/2	16M 10M	3/4 in NPTF 1/2 in NPTF		
654927-1 654927-2 654927-3 654927-4 654927-5 654927-6 654927-7 654927-8 654927-9 654927-10		16 16 1/4 in 1 in 16 22 16 3/8 16 1/2	1/4 in 12 16 1/4 in 1/8 in 12 1/8 16 1/2 16	
654926 654927		6 M22	1/8 in BSP M16	
655035	-	16	3/4 in UNF	
654928	-	3/4 in UNF	16	

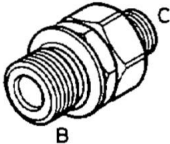
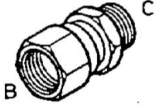

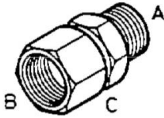

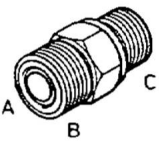
M = Metal pipe

P = Plastic pipe

Threads metric unless stated otherwise

PIPE FITTINGS

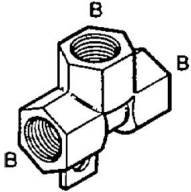
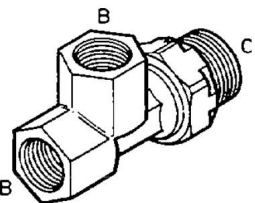
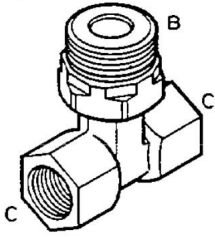
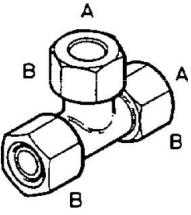
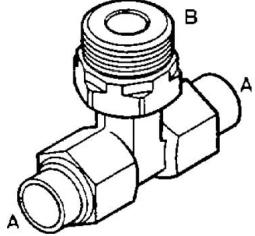
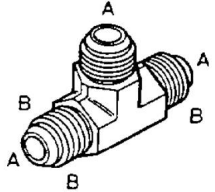
ADAPTORS CONTINUED

Part No.	Pipe size A	Thread B	Thread C	
654931	-	22	16	
654936	-	12	12	
654938	8M	12	-	
654942	8M	12	14	
654945	16M	1 in ORFS		
654959	12M	18	1 in ORFS	

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

TEE PIECES

Part No.	Pipe size A	Thread B	Thread C	
654922	p	16	-	
654923-1 654923-2 654923-3	- - -	16 16 22	16 22 22	
654924 655017	P	16 22	16 16	
654937	8M	14	-	
654940	12P	16	-	
654946/1 654946/2	16M 12M	7/8 in JIC 3/4 in JIC		

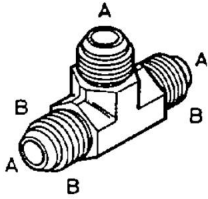
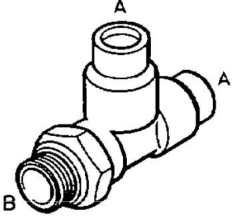
M = Metal pipe

P = Plastic pipe

Threads metric unless stated otherwise

PIPE FITTINGS

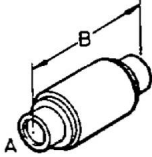
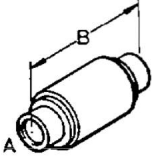
TEE PIECES CONTINUED

Part No.	Pipe size A	Thread B	Thread C	
654956	16M	1 in ORFS		
655016	16	22		

M = Metal pipe P = Plastic pipe Threads metric unless stated otherwise

PIPE FITTINGS

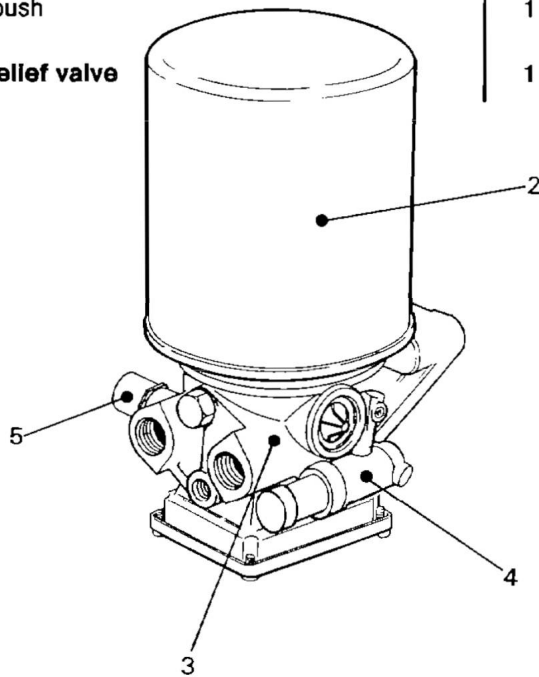
INLINE DOUBLE CONNECTORS

<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Part No.</th> <th style="text-align: left;">Pipe size A</th> <th style="text-align: left;">Length B</th> </tr> </thead> <tbody> <tr> <td>655416/1</td> <td>8M</td> <td>42MM</td> </tr> <tr> <td>655416/2</td> <td>10MM</td> <td>37MM</td> </tr> <tr> <td>655416/3</td> <td>12MM</td> <td>51MM</td> </tr> <tr> <td>655416/4</td> <td>16MM</td> <td>55MM</td> </tr> </tbody> </table>	Part No.	Pipe size A	Length B	655416/1	8M	42MM	655416/2	10MM	37MM	655416/3	12MM	51MM	655416/4	16MM	55MM	
Part No.	Pipe size A	Length B														
655416/1	8M	42MM														
655416/2	10MM	37MM														
655416/3	12MM	51MM														
655416/4	16MM	55MM														
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Part No.</th> <th style="text-align: left;">Pipe size A</th> <th style="text-align: left;">Length B</th> </tr> </thead> <tbody> <tr> <td>655416/5</td> <td>1/4"</td> <td>34</td> </tr> <tr> <td>655416/5</td> <td>3/8"</td> <td>47</td> </tr> <tr> <td>655416/5</td> <td>1/2"</td> <td>51</td> </tr> </tbody> </table>	Part No.	Pipe size A	Length B	655416/5	1/4"	34	655416/5	3/8"	47	655416/5	1/2"	51				
Part No.	Pipe size A	Length B														
655416/5	1/4"	34														
655416/5	3/8"	47														
655416/5	1/2"	51														

AIR DRYER

AssemblyNº: **656882**

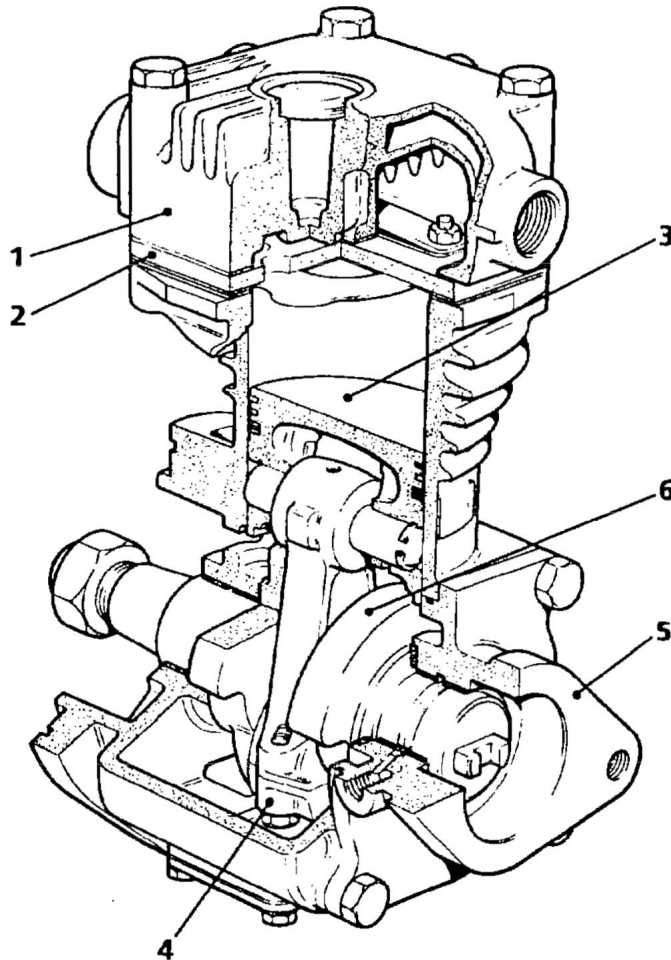
Item Nº.	Description	Nº. Used	Part Nº.	Remarks
1	AIR DRYER - complete	1	656882	AD6
2	Desiccant Cartridge Kit - comprising:- Desiccant cartridge 'O' ring 'O' ring Seal Sealing collar Grease sachet	1 1 2 1 1 1 1	652885-2	
3	Purge Valve Kit - comprising:- Aluminium washer Spring Gasket Bonded valve 'O' ring 'O' ring 'O' ring 'O' ring Pilot valve bush Check valve Spring 'O' ring Protection cap 'O' ring Spring Bonded valve	1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 2	654755-1	
4	Unloader service kit - comprising Protection cap 'O' ring Spring Bonded valve Pilot valve piston Pilot valve bush	1 1 1 1 2 1 1	653865-3	
5	Pressure relief valve	1	654755-5	



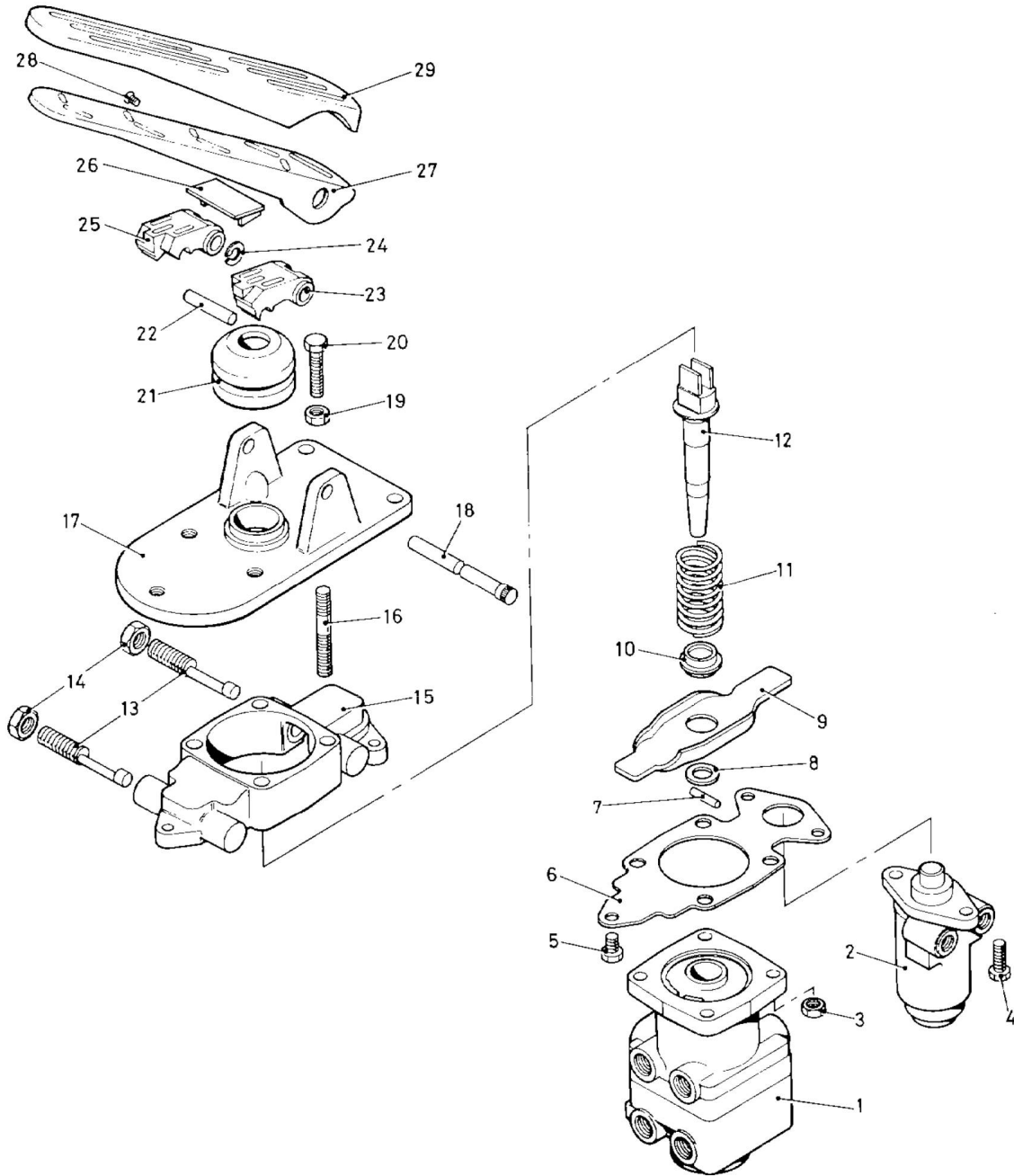
COMPRESSOR

AssemblyNo: 657033

Item No.	Description	No. Used	Part No.	Remarks
	COMPRESSOR	1	657033	1W250R - Reed valve
1	Cylinder head	1	653613-2	
	Cylinder head cover	1	653613-1	
2	Valve plate kit - comprising	1	653613-3	
	Valve plate assembly	1	657033-1	
	Gasket - cylinder head cover	1		
	Gasket - cylinder head	2		
	Gasket - valve plate	1		
	Gasket - valve plate	1		
3	Piston Assembly - STD	1	652439-5	
	Piston ring kit - STD	1	652439-2	
3	Piston Assembly - 0.25mm over size	A/R	652439-6	
	Piston ring kit - 0.25mm over size	A/R	652439-3	
3	Piston Assembly - 0.50mm oversize	A/R	652439-7	
	Piston ring kit - 0.50mm oversize	A/R	652439-4	
4	Con rod assembly	1	652439-9	
5	End cover assembly	1	652439-12	
	'O' ring - end cover	1	652439-11	
6	Crankshaft	1	652439-8	



FOOTBRAKE ASSEMBLY



FOOTBRAKE ASSEMBLY

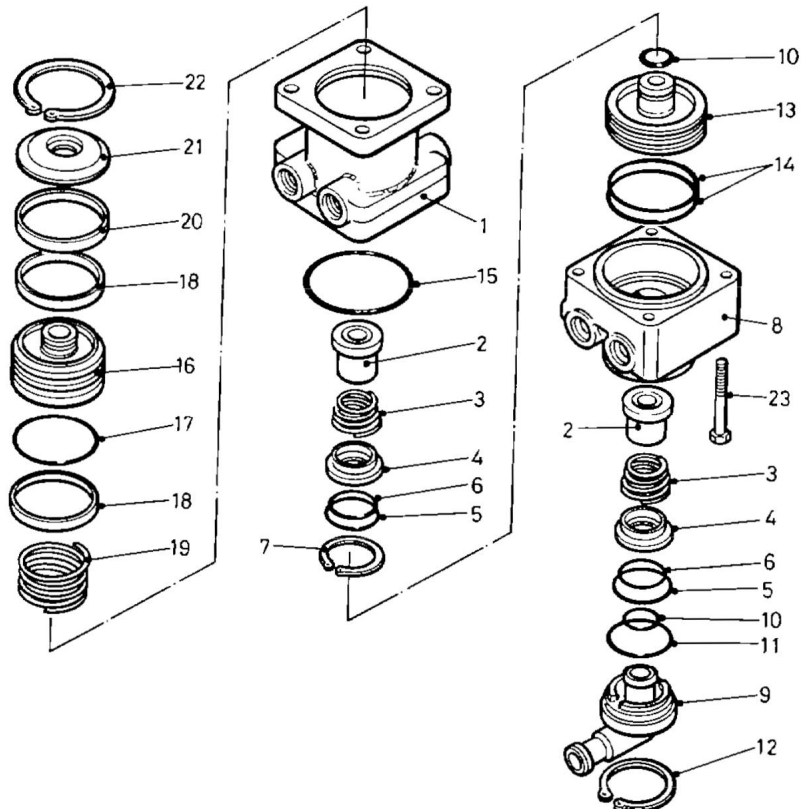
AssemblyNº: 651847

Item Nº.	Description	Nº. Used	Part Nº.	Remarks
	FOOTBRAKE ASSEMBLY - automatic gearbox	1	651847	
1	Valve - see separate list	1	651847/1	
2	Regulator valve	1	651847/2	
3	Nut	4		
4	Screw			
5	Bolt	1		
6	Plate	1	651847/3	
7	Roll pin	1		
8	Washer	1		
9	Lever	1	651847/4	
10	Bush	1	651847/5	
11	Spring	1	651847/6	
12	Piston	1	651847/7	
13	Screw	2	651847/8	
14	Nut	2		
15	Housing	1		
16	Stud	4		
	Operating plate assembly	1	651847/9	
17	Plate	1	651847/10	
18	Bolt	1	651847/11	
19	Nut	1		
20	Screw	1		
21	Gaiter	1	650353/11	
22	Roller	1		
23	Pad	1		
24	Circlip	1		
25	Pad	1		
26	Distance piece	1	651847/14	
27	Treadle plate	1		
28	Rivet	1		
29	Pedal pad	1	651847/16	

FOOTBRAKE VALVE

AssemblyNº: 651847

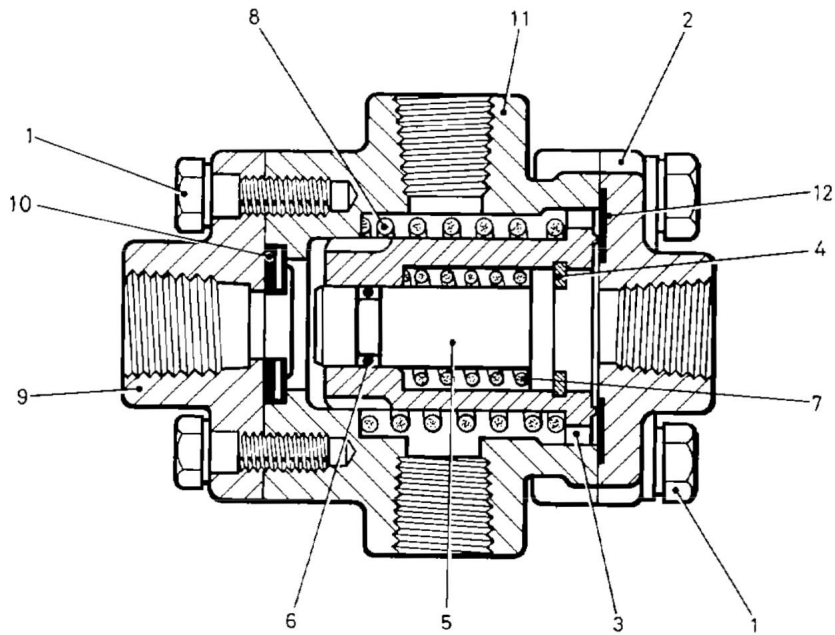
Item Nº.	Description	Nº. Used	Part Nº.	Remarks
	Valve	1	651847/1	
	Service repair kit - comprising items marked *	Kit	651847/17	
1	Housing	1		
2	* Valve	2		
3	* Spring	2		
4	Seating ring	2	651847/18	
5	* 'O' ring	2		
6	* 'O' ring	2		
7	Retaining ring - 38 × 1.5	1		
8	Lower housing	1		
9	Exhaust	1	651847/19	
10	* 'O' ring	2		
11	* 'O' ring	1		
12	Retaining ring - 47 × 1.5	1		
13	Piston	1	651847/20	
14	* 'O' ring	1		
15	* 'O' ring	1		
16	Piston	1	651847/21	
17	* 'O' ring	1		
18	* Guide ring	2		
19	Spring	1	651847/22	
20	Seating ring	1	651847/23	
21	* Gaiter	1		
22	Retaining ring - 60 × 2	1		
23	Screw - M6 × 55	4		



DIFFERENTIAL PROTECTION VALVE

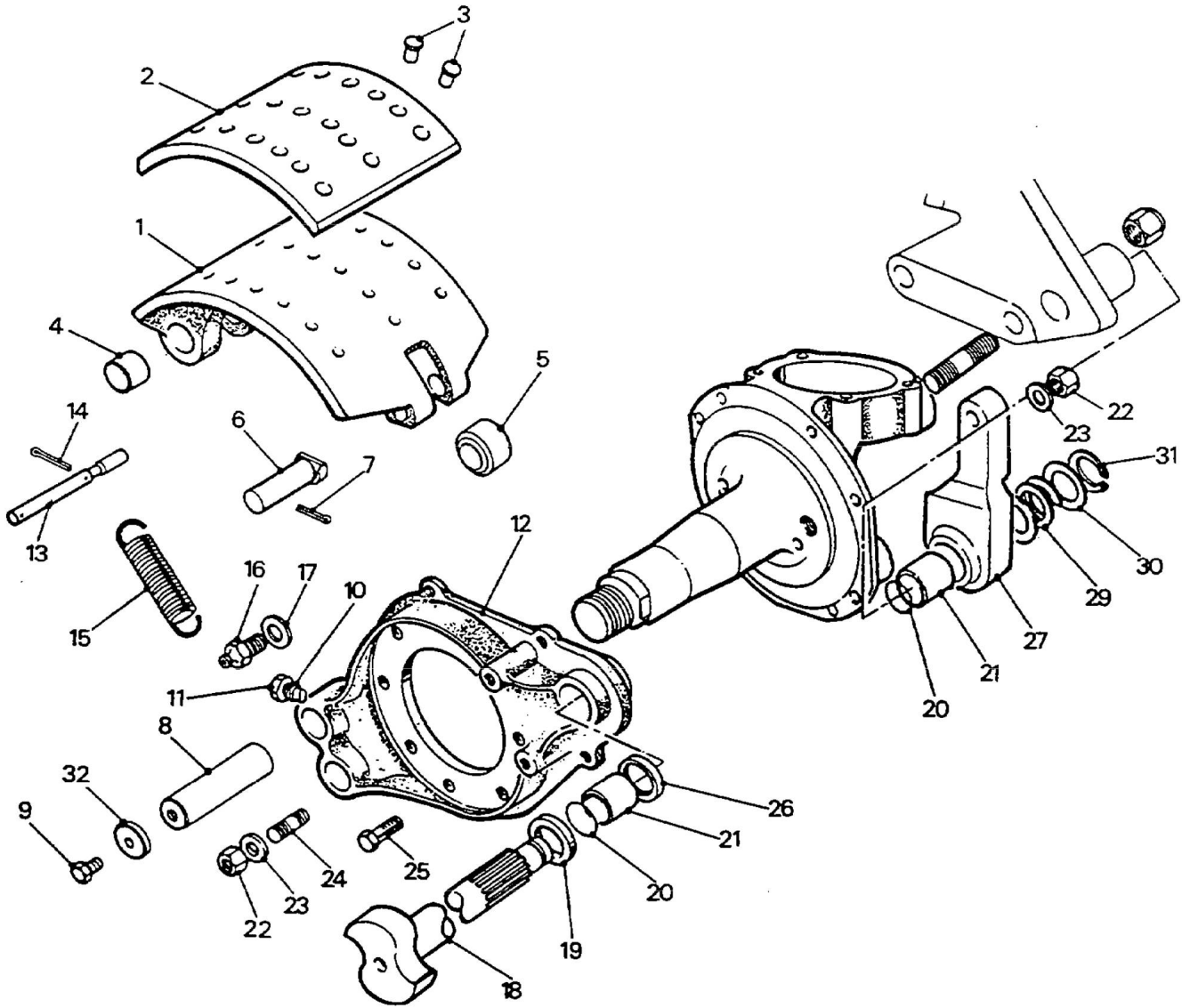
AssemblyNº: 650060

Item Nº.	Description	Nº. Used	Part Nº.	Remarks
	DIFFERENTIAL PROTECTION VALVE, complete		650060	
	Service Kit - comprising items marked (*)	1	609011/7	
1	Screw	6	650060/1	
2	Cover	1	650060/2	
3	Sleeve	1	650060/3	
*4	Circlip			
5	Plunger			
*6	'O' ring	1	650060/5	
*7	Spring, plunger return			
*8	Spring, sleeve return			
9	Cap	1	650060/9	
*10	Seat, valve			
11	Body	1	650060/11	
*12	Seal			



DIFFERENTIAL PROTECTION VALVE

'S' CAM FRONT BRAKE ASSEMBLY

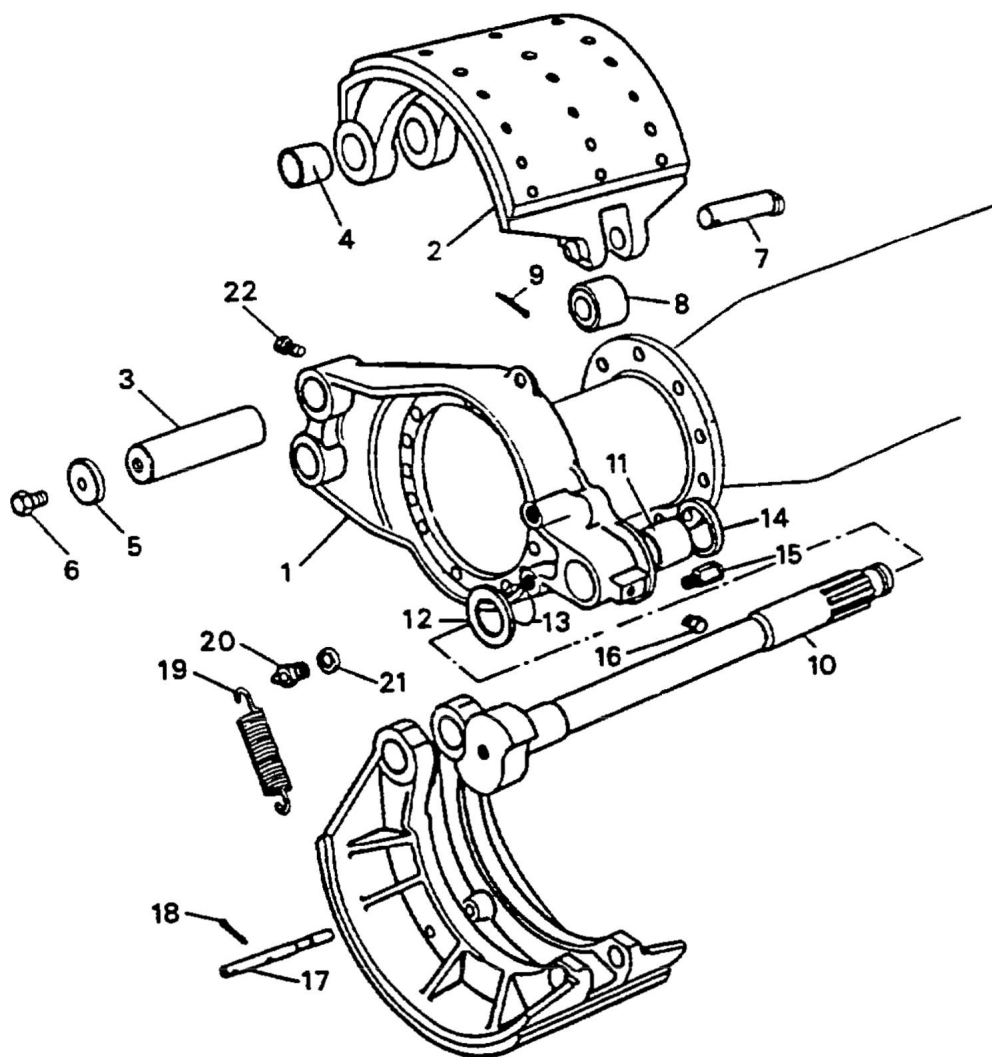


BRAKING SYSTEM

AssemblyNº: **653710/2**
653710/3

Item Nº.	Description	Nº. Used	Part Nº.	Remarks
	FRONT BRAKE ASSEMBLY, RH, complete	1	653710/2	
	FRONT BRAKE ASSEMBLY, LH, complete	1	653710/3	
	Brake shoe lined, comprising items 1 2 & 3	4	653710/4	
1	Brake Shoe	4	650418/20	
2	Brake Lining	4	653710/5	
3	Rivet	48	650418/23	
	Rivet	24	650418/24	
	Rivet	24	653710/6	
4	Bush, Pivot Pin	8	650418/25	
5	Roller, Brake shoe	4	650418/26	
6	Roller Pin, Brake shoe	4	650418/27	
7	Split Pin	4	650418/28	
8	Pivot pin, Brake shoe	4	650418/29	
9	Setscrew - pivot pin	4	650418/46	
10	Setscrew	4	650418/30	
11	Lockwire	A/R		
12	Brake bracket RH	1	651949/2	
12	Brake bracket LH	1	651949/3	
13	Anchor pin, Brake shoe	4	650418/31	
14	Split pin	4	650418/32	
15	Return spring, Brake shoe	4	650418/33	
16	Anchor pin, Brake bracket	4	650418/34	
17	Spring washer	4	WLC 8SP	
18	Brake cam RH	1	650418/35	
	Brake cam LH	1	650418/36	
19	Special washer	2	650418/37	
20	'O' ring	2	650418/38	
21	Bush, Brake cam	4	650418/39	
22	Nut, Brake bracket	12	606624/134	
23	Spring washer, Brake bracket	16	60465	
24	Stud, Brake bracket	12	651042/7	
25	Bolt, Brake Bracket	4	650418/8	
26	Oil seal, Brake cam	2	650418/40	
27	Slack adjuster, see separate list	2		
29	Brake Cam spring	2	650418/42	
30	Special washer, Brake cam end	2	651042/8	
31	Circlip, Brake cam	2	606625/4	
32	Washer - pivot pin	4	650418/45	
	<i>The parts in this list are not shown</i>			
	Dust cover	2	653710/7	
	Setscrew	12	UFS 105 6P	
	Spring washer	12	WLC 5 SP	
	Rubber plug	4	651107/10	
	Brake Chamber Bracket RH	1	651667/4	
	Brake Chamber Bracket LH	1	651667/5	
	Slack adjuster anchor bracket - RH	1	650418/48	
	Slack adjuster anchor bracket - LH	1	650418/49	
	Peg - anchor bracket	2	653509/15	
	Locknut	2	650418/53	
	Setscrew - anchor bracket	4	650418/50	
	Spring washer	4	650418/51	
	<i>No's shown are for two brake assemblies</i>			

'S' CAM REAR BRAKE ASSEMBLY

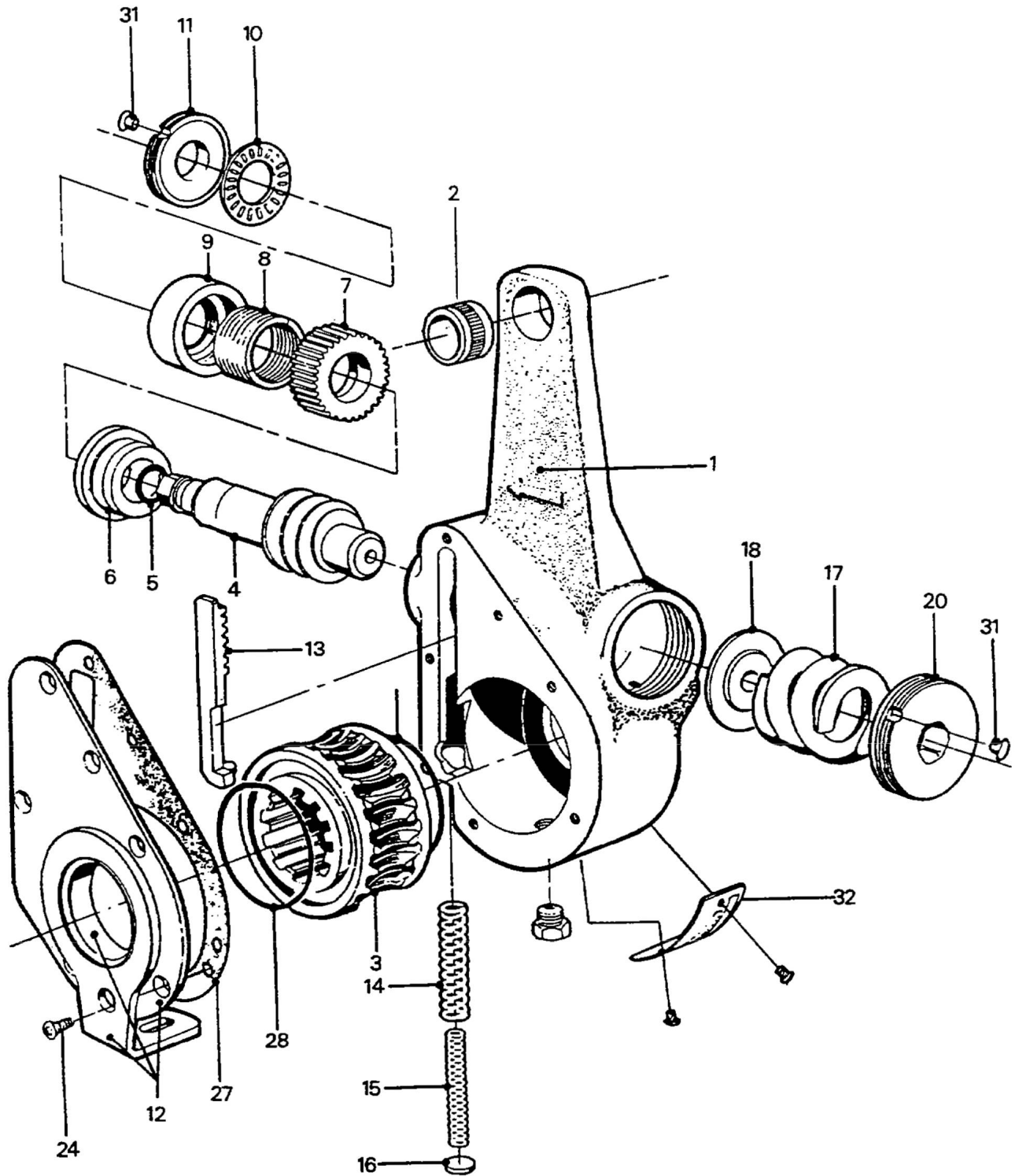


BRAKING SYSTEM

AssemblyNº: **653732**
653731

Item Nº.	Description	Nº. Used	Part Nº.	Remarks
	REAR BRAKE ASSEMBLY RH complete	1	653732	
	REAR BRAKE ASSEMBLY LH complete	1	653731	
1	Brake bracket	2	653732/1	
2	Brake shoe assembly, comprising	4	653732/2	
	Brake shoe	4	650419/47	
	Brake lining	4	653732/3	
	Rivet	24	650418/23	
	Rivet	24	650418/24	
	Rivet	48	653710/6	
3	Pivot pin	4	650418/29	
4	Bush	8	650418/25	
5	Special washer	8	650418/45	
6	Setscrew	4	650418/30	
7	Roller pin	4	650418/27	
8	Roller	4	650418/26	
9	Split pin	4	650418/28	
10	Brake cam RH	1	651108-1	
	Brake cam LH	1	651107-7	
11	Bush, brake cam	2	650418/39	
12	Special washer	2	650419/37	
13	'O' ring	2	651017/3	
14	Oil seal	2	650418/40	
15	Lubricator extension	2	650419/41	
	Greaser - 30 deg.	2	69791	
16	Taper plug	2	651107/5	
17	Brake shoe anchor pin	4	650418/31	
18	Split pin	8	650418/32	
19	Brake shoe return spring	4	650418/33	
20	Anchor pin	4	650418/34	
21	Spring washer	4	60465	
22	Setscrew, pivot pin	4	650418/46	
	<i>No's shown are for two brake assemblies</i>			
	Tool - brake shoe pivot pin removal	A/R	416450	
	Dust cover (not shown)	2	651336-5	

AUTOMATIC SLACK ADJUSTER

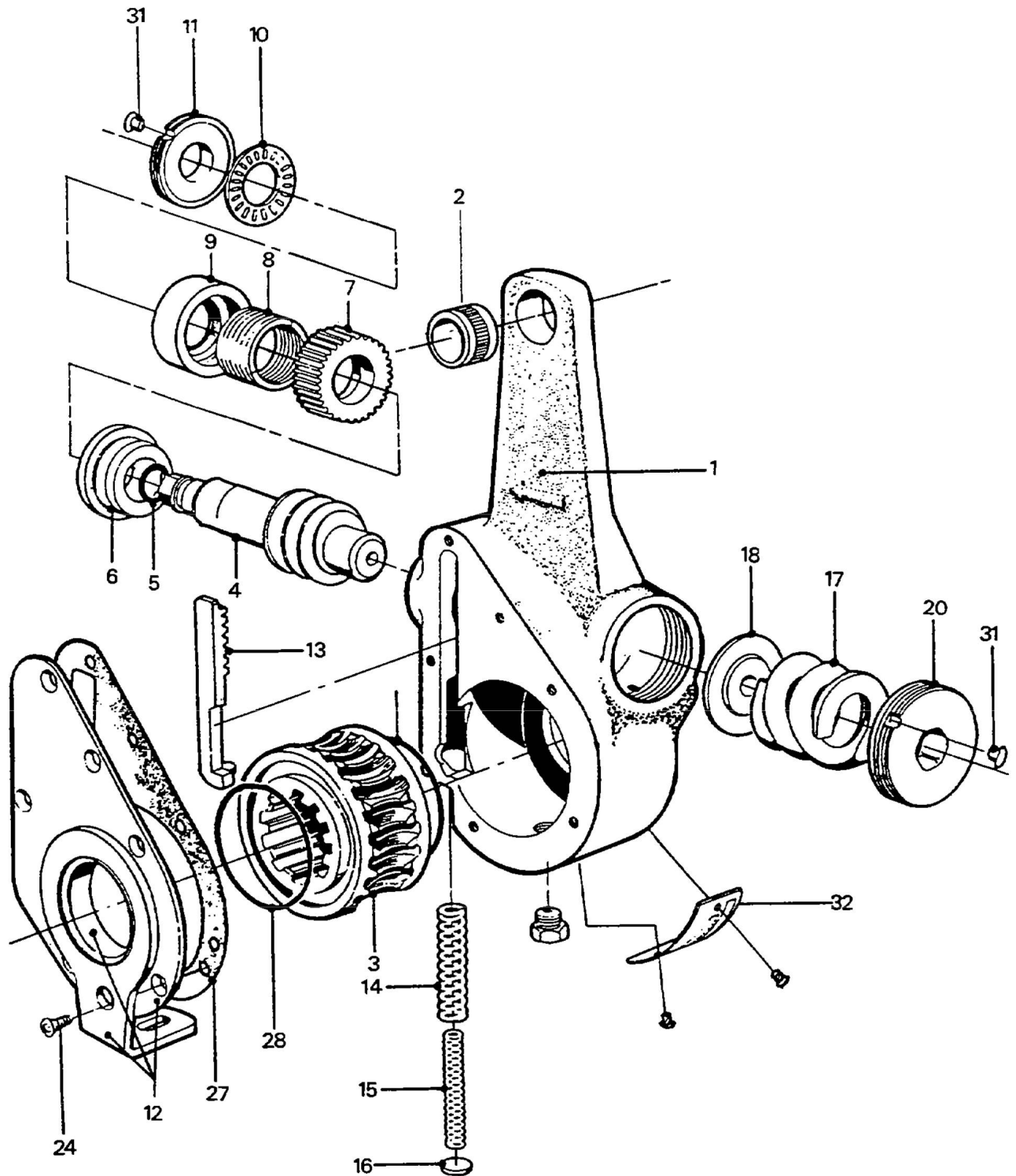


AUTOMATIC SLACK ADJUSTER

AssemblyN^o: 611484

Item N ^o .	Description	N ^o . Used	Part N ^o .	Remarks
1	ADJUSTER, front	2	611484	
	Service kit comprising item marked*	1	652051/2	
2	Bushing	1	611484/2	
3	Wheel, worm	1	612051/3	
4	Screw, worm	1	611484/4	
*5	'O' ring	1	612051/4	
6	Bearing	1	611484/6	
7)			
*8) Clutch, one way	1	611484/7	
9)			
*10	Bearing, needle	1	611484/8	
11	Cover, front screw	1	611484/9	
12	Unit, control, front brakes	1	651626/10	
13	Rack	1	611484/6	
*14	Spring, return, outer	1	612051/6	
*15	Spring, return, inner	1	612051/7	
*16	Plug, welch	1	612051/8	
*17	Spring, coil	1	611484/13	
*18	Disc, pressure	1	611484/14	
*20	Cover, rear screw	1	611484/15	
*24	Screw, cross slotted	6	612051/9	
*25	Nipple, grease	1	611484/20	
*27	Gasket	1	612051/11	
*28	'O' ring	1	612051/12	
30	Plug	1	612051/13	
*31	Rivet	2	611484/17	
32	Plate, type - including drive screws	1	611484/21	

AUTOMATIC SLACK ADJUSTER



AUTOMATIC SLACK ADJUSTER

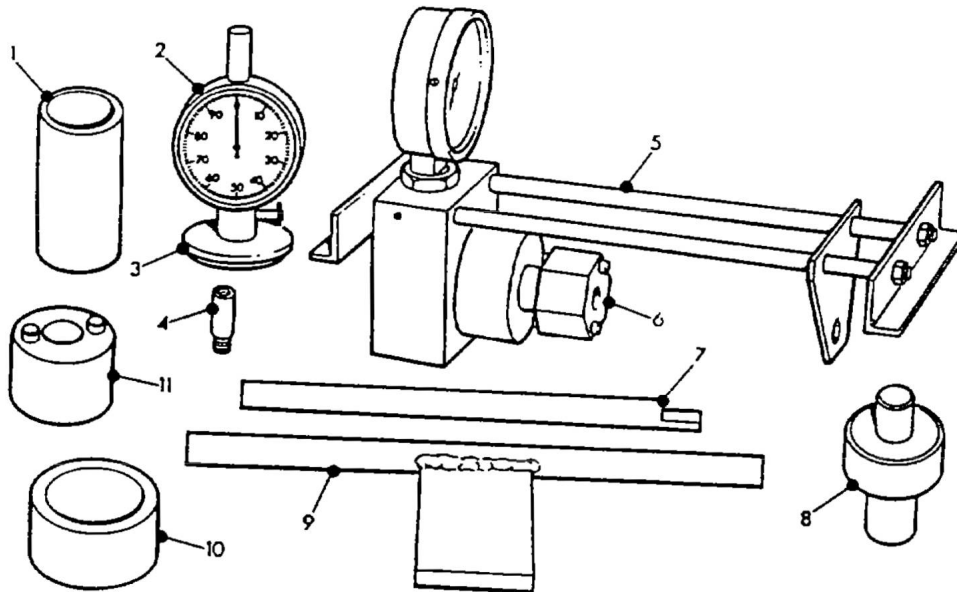
AssemblyN°: 651777

Item N°.	Description	N°. Used	Part N°.	Remarks
	ADJUSTER, rear	2	651777	
	Service kit comprising item marked*	1	652051/1	
1	ADJUSTER, Rear	2	651777	
2	Bushing	1	651622/1	
3	Wheel, worm	1	651622/2	
4	Screw, worm	1	611484/4	
*5	'O' ring	1	612051/4	
6	Bearing	1	611484/6	
7)			
*8) Clutch, one way	1	611484/7	
9)			
*10	Bearing, needle	1	611484/8	
11	Cover, front screw	1	611484/9	
12	Unit, control, rear brakes	1	651626/1	
13	Rack	1	611484/11	
*14	Spring, return, outer	1	612051/6	
*15	Spring, return, inner	1	612051/7	
*16	Plug, welch	1	612051/8	
*17	Spring, coil	1	611484/13	
*18	Disc, pressure	1	611484/14	
*20	Cover, rear screw	1	611484/15	
*24	Screw, cross slotted	6	612051/9	
*25	Nipple, grease	1	611484/20	
*27	Gasket	1	612051/11	
*28	'O' ring	1	612051/12	
30	Plug	1	612051/13	
*31	Rivet	2	611484/17	
32	Plate, type - including drive screws	1	611484/21	

TOOL KIT - AUTOMATIC SLACK ADJUSTER

AssemblyN^o: 611627/1

Item N ^o .	Description	N ^o . Used	Part N ^o .	Remarks
	TOOL KIT - complete - comprising :-	1	611627/1	
1	Mandrel	1	611627/3	
2	Indicator dial, test - not supplied as part of Tool Kit	1	611627/13	
3	Holder	1	611627/4	
4	Extension	1	611627/2	
5	End load tester	1	611627/6	
6	Wrench - hexagon	1	611627/11	
7	Spring, inserter	1	611627/5	
8	Mandrel	1	611627/10	
9	Spline key	1	611627/9	
10	Distance tube	1	611627/8	
11	Peg spanner	1	611627/7	
12	Peg spanner - not illustrated	1	611627/12	





Description Page 3

CAB FLOOR

Unit No:

C500D

Item No.	Description	Nº. Used	Part Nº.	Remarks
	Floor support	1	416951	
	Bracket, column support LH	1	416954	
	Bracket, column support RH	1	416955	
	Bracket - structure to column	2	414731	
	Channel - structure support	1	416946	
	Screw	12	655071	
	Drivers floorplate	1	417638	
	Plate - pedal mounting	1	417639	
	Cover plate - column to floorplate	1	417052	
	Cover plate - column to floorplate	1	420508	

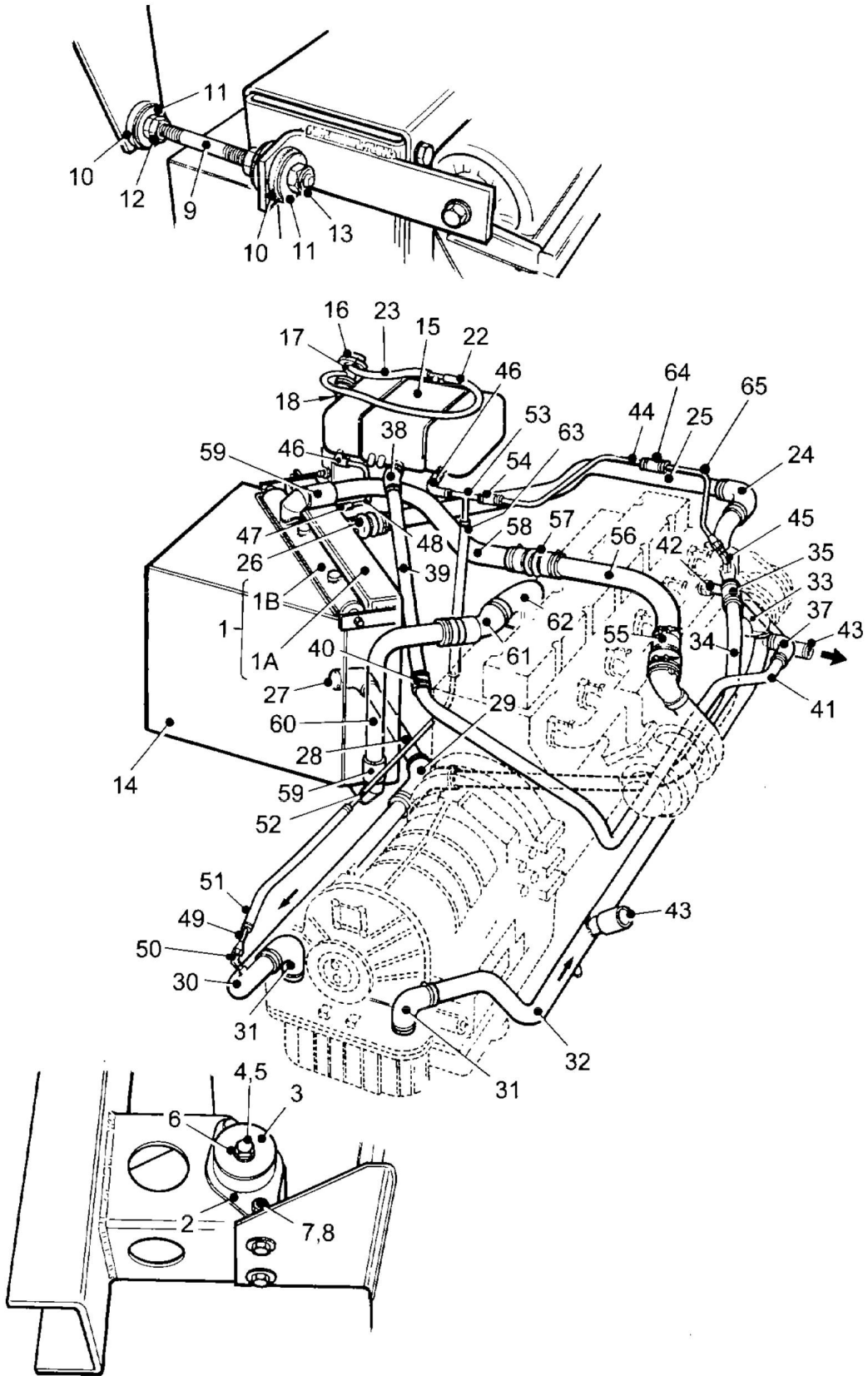


PARTS MANUAL

COOLING SYSTEM

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Coolant filter	Page	8

COOLING SYSTEM

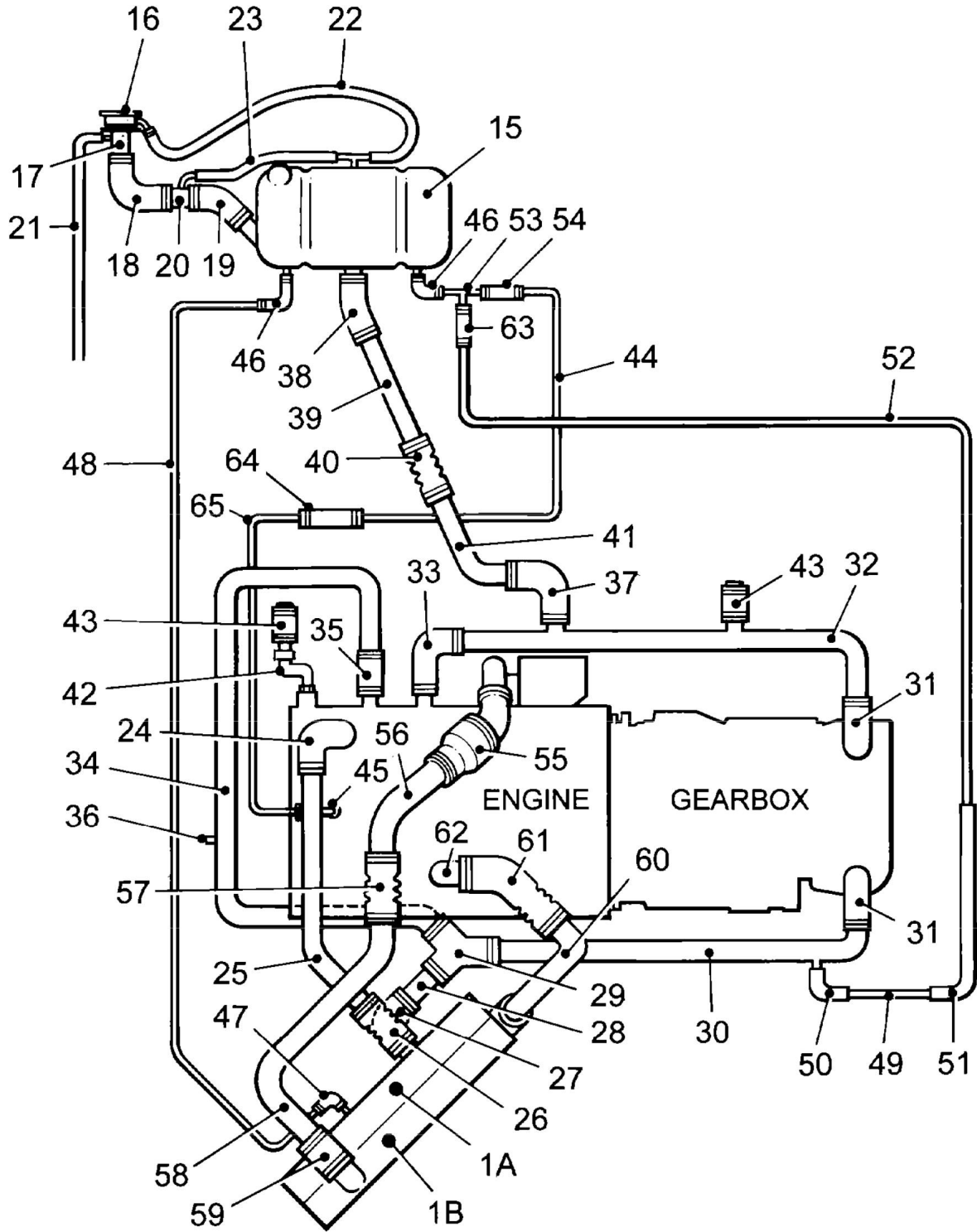


COOLING SYSTEM

Unit No: **R503D**

Item No.	Description	N ^o . Used	Part No.	Remarks
1	Radiator and Intercooler assembly consisting of:-	1	422069	
1A	Radiator	1	422069-1	
1B	Intercooler	1	420993	
2	Mounting rubber	2	690218	
3	Washer	2	190036	
4	Bolt, radiator to mounting	2	UFB 107 26SP	
5	Nut	2	UFN 507AP	
6	Plain washer	4	409042	
7	Screw, mounting to frame	4	MCS 108 20P	
8	Nut	4	MCN 508P	
9	Stay - radiator	1	412930	
10	Mounting rubber	4	211402	
11	Backing washer	4	211401	
12	Half nut	4	MCN 210P	
13	Nut	2	MCN 510P	
	Fan cowl	1	421997	
	Fan motor	1	655109	
	Seal kit	A/R	654207-1	
	Fan carrier	1	421995	
	Fan assembly	1	656756	
	Flange, for fan	1	406935	
	Countersunk screw	6	MCS 3408 25P	
	Nut	6	MCN 508P	
14	Radiator duct	1	424442	
	Bracket - duct to chassis	1	419774	
	Shield, debris	1	421953	
	Plate	1	424446	
	Panel, duct infill	1	415694	
	Angle	2	424448	
15	Header tank assembly, complete	1	424785	
	Header tank, moulding	1	419067	
	U-Bolt	2	417539	
	Probe - water level	3	652489	
	Grommet - for probe	3	652490	
16	Pressure Cap 0.5 bar	1	654109	
17	Filler neck	1	414519	
18	Elbow - filler neck to filler pipe	1	654298	
19	Elbow - filler pipe to header tank	1	419446	
	Clip	4	656818-9	
20	Filler pipe	1	414613	
21	Tube, overflow	A/R	654242	
22	Hose, bleed	1	410009/6	
23	Hose, bleed	1	410009/4	
	Clip	4	656818-1	
24	Elbow - engine out	1	410341	
	Clip	1	656818-11	
	Clip	1	656818-10	

COOLING SYSTEM

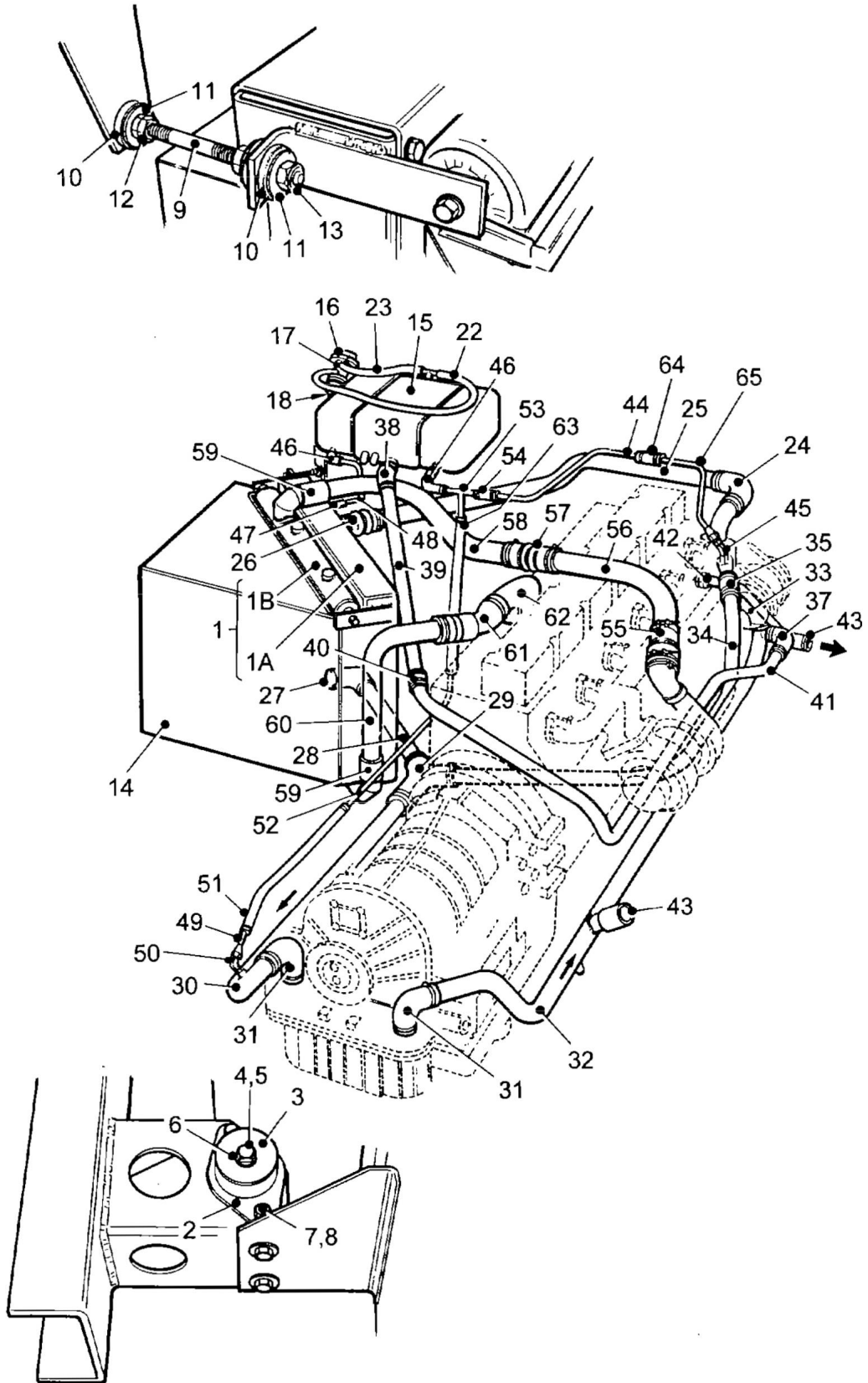


COOLING SYSTEM

Unit No: **R503D**

Item No.	Description	No. Used	Part No.	Remarks
25	Pipe - engine to radiator	1	422070	
	Gasket - thermostat	1	656223	
	Gasket - water outlet (thermostat housing)	1	656231	
26	Hose, convoluted - radiator in	1	400317	
	Clip	3	656818-11	
27	Elbow - radiator out	1	652006	
	Clip	1	656818-12	
	Clip	1	650369-12	
28	Pipe - radiator to Y-piece	1	422072	
29	Hose Y-piece	1	420637	
	Clip, 50 to 70mm	2	656818-11	
	Clip, 32 to 50mm	1	656818-9	
30	Pipe, Y-piece to gearbox	1	420846	
31	Elbow - gearbox cooler in and out	2	654308	
	Clip	4	656818-11	
32	Pipe - gearbox to engine	1	413488	
33	Elbow - engine in	1	410341	
	Clip	1	656818-11	
34	Pipe - bypass	1	420844	
35	Hose - engine in	1	652548	
	Clip	2	656818-7	
36	Plug, drain	1	5349-2	
	Seal	1	603677	
37	Elbow - pipe to pipe	1	651256	
	Clip	2	656818-9	
38	Elbow - header tank out	1	411037	
	Clip	2	656818-8	
39	Pipe - header tank to hose	1	424692	
40	Hose - pipe to pipe	1	657468	
	Clip	2	656818-9	
41	Pipe - hose to elbow	1	414410	
42	Pipe - heater take off	1	420302	
	Connector	1	652549	
43	Hose - heater take off and return	2	652548	
	Clip	4	656818-7	
44	Bleed pipe - header tank to hose	1	423790	
45	Elbow - bleed pipe to union	1	652468	
	Union	1	610800	
46	Hose elbow - pipe to tank	2	415735	
	Clip	4	656818-3	
47	Hose elbow - rad bleed	1	417487	
	Clip	2	656818-3	
48	Bleed pipe - rad to header tank	1	417489	
	Clip	2	656818-3	
49	Bleed pipe - elbow to hose	1	420747	
50	Elbow, 90 deg	1	607856	
51	Hose, pipe to pipe	1	242895-3	
	Clip	2	656818-3	
52	Bleed pipe - hose to tee	1	422367	
53	T piece - bleed pipe	1	421072	
54	Hose - bleed pipe connection	1	242895-11	
	Clip	2	656818-3	

COOLING SYSTEM



COOLING SYSTEM

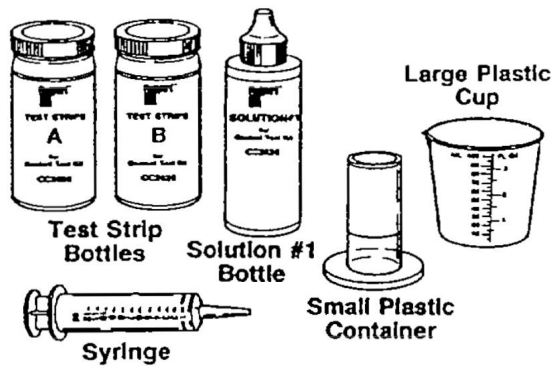
Unit N°: **R503D**

Item N°.	Description	N°. Used	Part N°.	Remarks
55	Hose, turbo outlet	1	415994	
	Clip, tee bolt	1	611005-15	
	Clip, tee bolt	1	611005-3	
56	Pipe, charge air to cooler	1	417110	
	Bracket - pipe to engine	1	416001	
57	Hose, charge air pipe connecting	1	413894	
58	Pipe, charge air to cooler	1	417111	
59	Hose connecting pipes to intercooler	2	413893	
	Clips	4	611005-3	
60	Pipe, charge air from cooler	1	415789	
61	Hose, charge air pipe to engine	1	415733	
	Clip	2	611005-4	
62	Manifold - hose to engine	1	413985	
	Gasket	1	263486	
63	Hose, bleed	1	242985-1	
	Clip	4	656818-3	
64	Hose, bleed pipe	1	242895-10	
	Clip	2	656818-2	
65	Bleed pipe, hose to engine	1	423791	

COOLANT FILTERS & DCA4 ADDITIVE

Unit No: **DCA4**

Item No.	Description	No. Used	Part No.	Remarks
	Coolant filter -			
	2 units DCA4		WF 2070	
	4 units DCA4		WF 2071	
	6 units DCA4		WF 2072	
	8 units DCA4		WF 2073	
	12 units DCA4		WF 2074	
	15 units DCA4		WF 2075	
	23 units DCA4		WF 2076	
	DCA4 liquid -			
	5 units DCA4		DCA 60L	
	20 units DCA4		DCA 65L	
	200 units DCA4		DCA 75L	
	2200 units DCA4		DCA 80L	
	Coolant test kit		CC2628	
	Note: Consult service manual for selection of correct filter			



SECTION 05



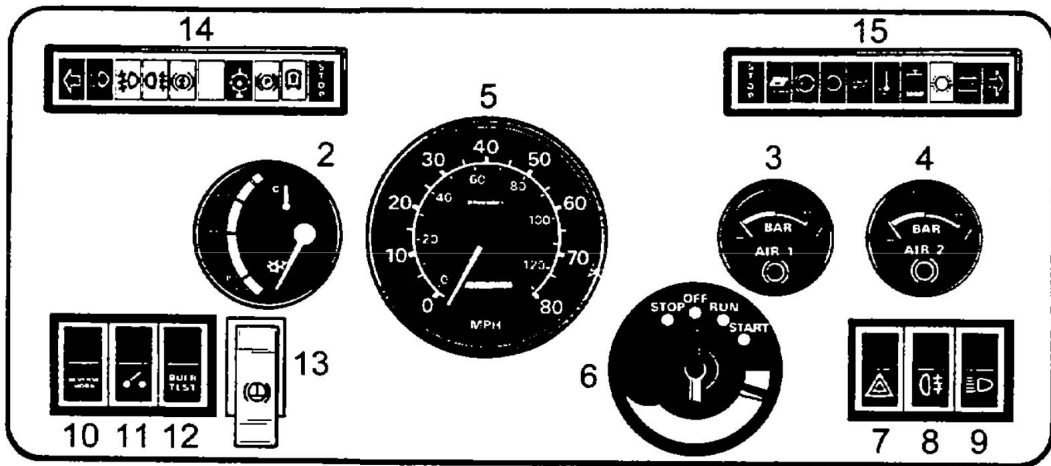
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ELECTRICAL SYSTEM

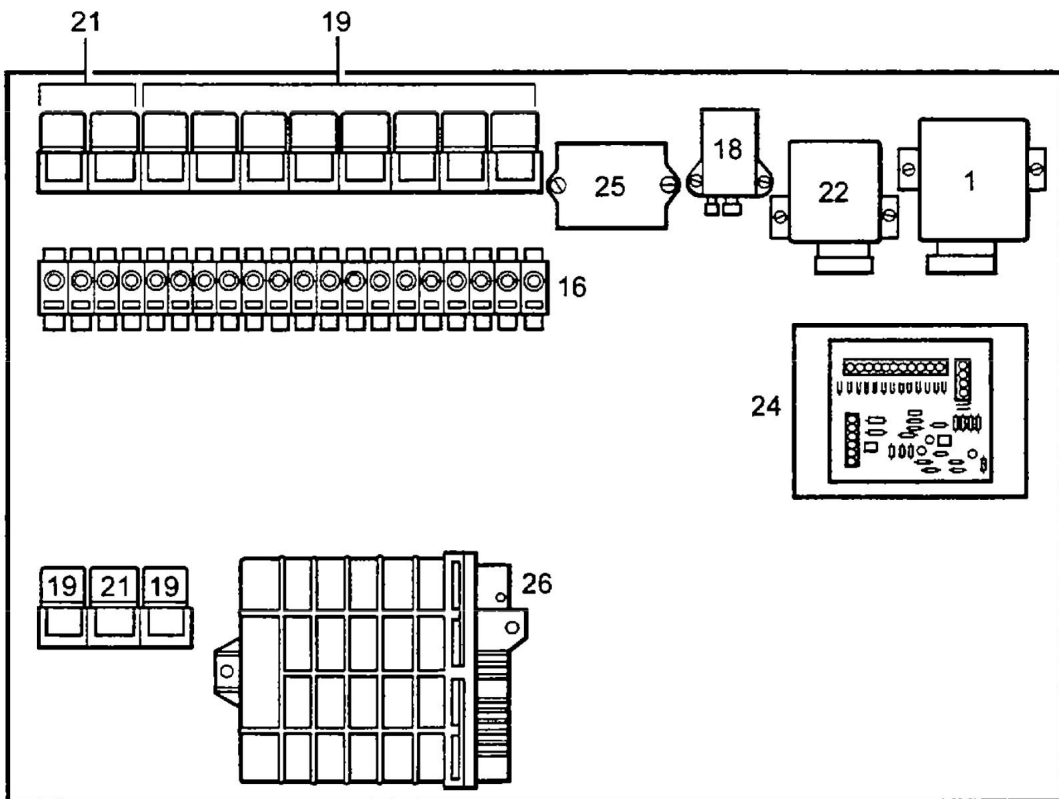
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DENNIS

ELECTRICAL SYSTEM



Instrument Panel



Front Electrical Distribution Centre

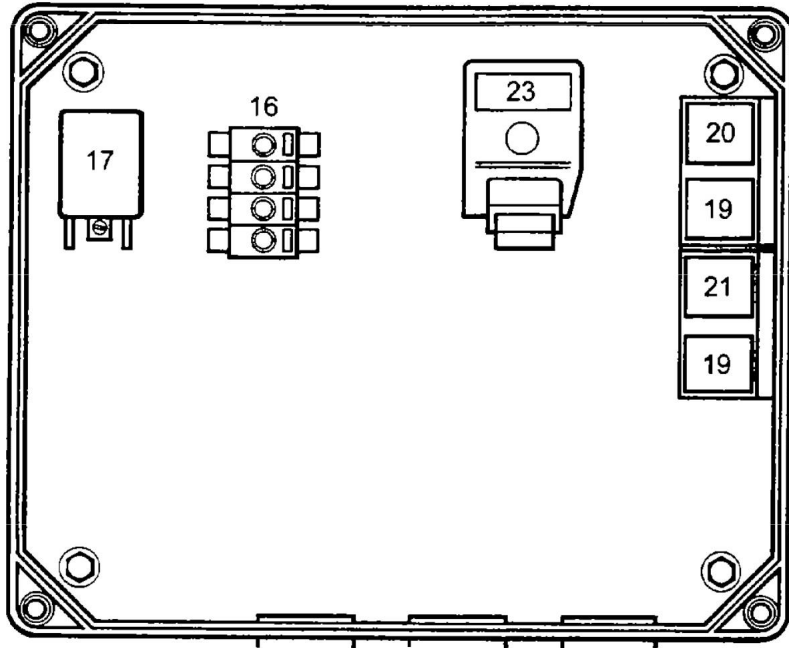
ELECTRICAL SYSTEM

Unit N°: **E502G**

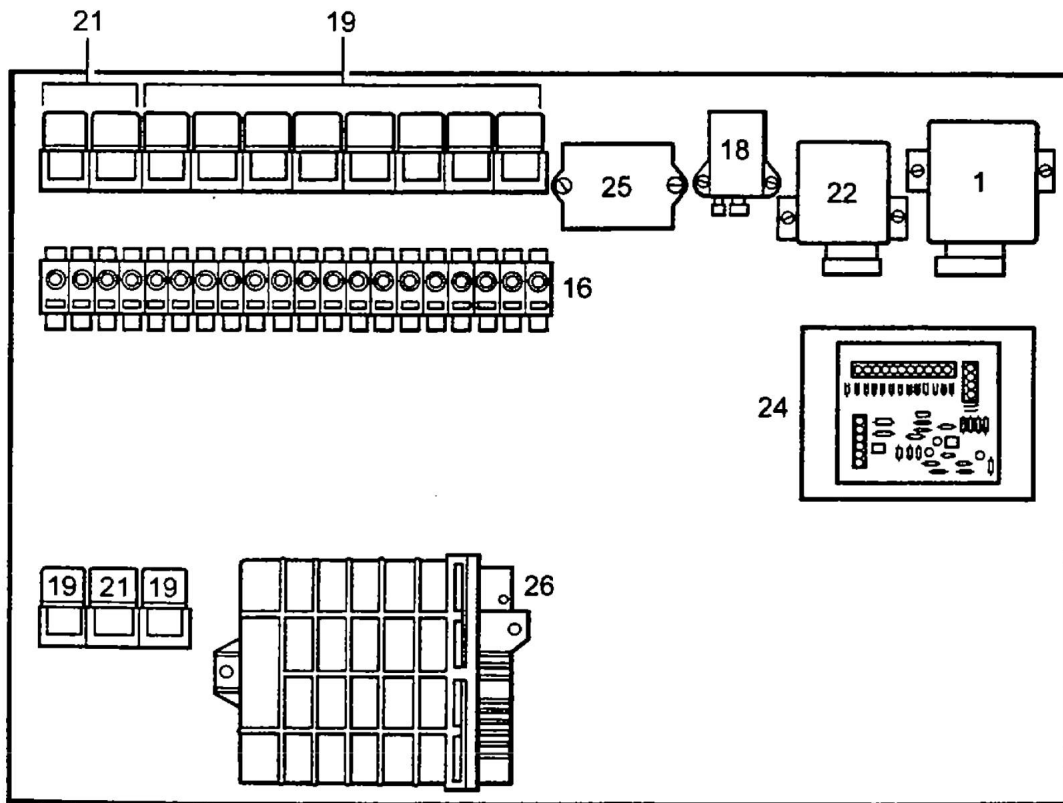
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Item N°.	Description	N°. Used	Part N°.	Remarks
MAIN COMPONENTS				
	Alternator , see engine & mounting			
	Starter Motor , see engine & mounting			
	Battery	4	656344	
	Horn - High Note	1	655689	
	Capacitor - horn/fan relay	2	652999	
1	Dim - Dip Unit	1	613624	
	Buzzer	3	609998	
	Aqualarm kit (inside rear E.D.C. lid)	1	652370	
2	Gearbox temperature gauge	1	651480-6	
3	Air gauge 1	1	653688	
4	Air gauge 2	1	653689	
5	Speedometer	1	656401-1	
Switches				
	Master Switch - remote	1	652960	
	Cover	1	419643	
6	Switch - ignition	1	651049	
	Nameplate - start switch	1	409473	
7	Switch - hazard	1	612314-101	
	Window - hazard	1	612319-46	
8	Switch - rear fog	1	612314-11	
	Window rear fog	1	612319-3	
9	Switch - Side/Head	1	612314-50	
	Window - side/head	1	612319-23	
11	Master switch	1	612314-11	
	Window - master switch	1	612319-19	
12	Switch - Bulb Test	1	612314-82	
	Window - bulb test	1	612319-67	
	Switch holder	2	612316	
	Switch - fan control 89°C	1	657682	Upper tapping in block
	Switch - temperature 106°C	1	657587	Lower tapping in block
	Switch - oil pressure	1	655307	
13	Switch - retarder on/off	1	654976	
14	Warning lamp holder - LH	1	653972	
15	Warning lamp holder - RH	1	653973	
	Switch - Rear Stop/Start/Rev	3	691220	
	Steering Column Switch	1	413224	

ELECTRICAL SYSTEM



Rear Junction Box



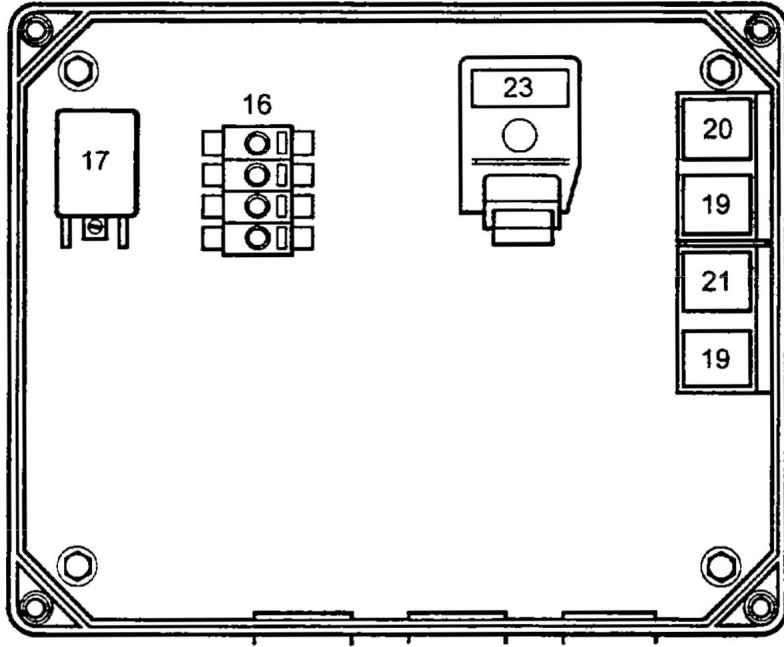
Front Electrical Distribution Centre

ELECTRICAL SYSTEM

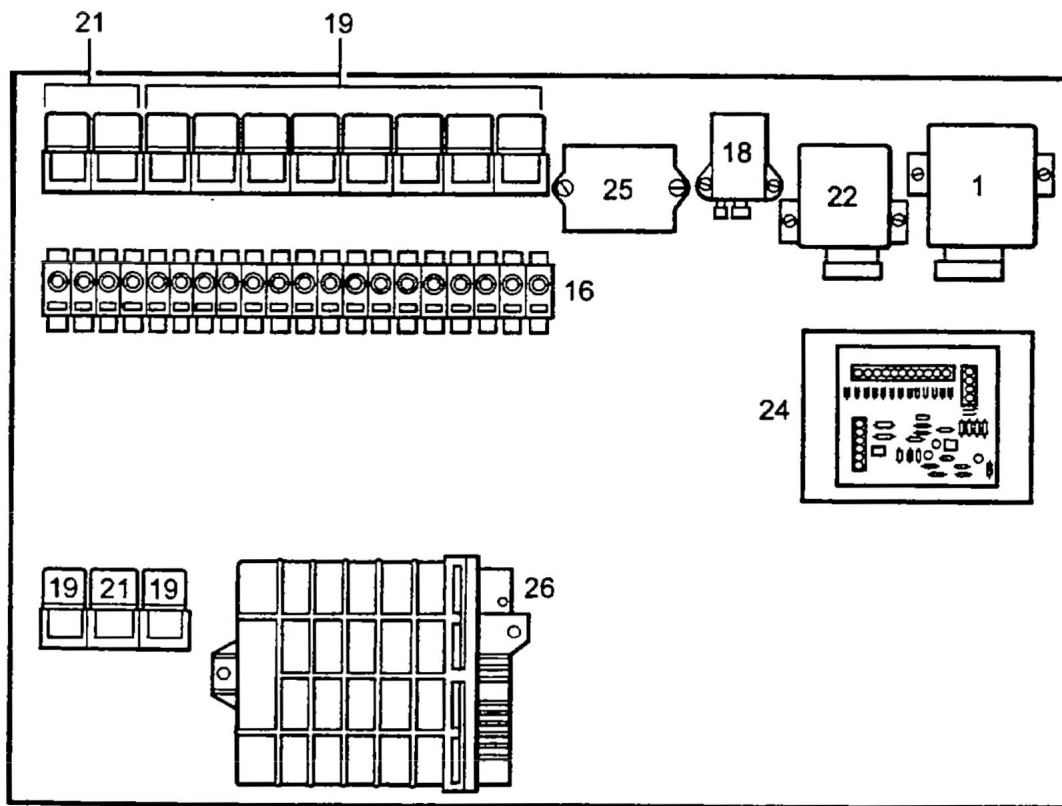
Unit N°: **E502G**

Item N°.	Description	N°. Used	Part N°.	Remarks
16	Circuit breakers			
	3 amp - starter relay/rear fogs/stop lights/rev. lights/	4	652561	
	5 amp - aqualarm/headlamps/ master switch/speedo/gauges/w/lights/ gearbox cooling fan/	6	612923	
	8 amp - side lights/front fogs/dim/dip/air dryer/ indicators/rev/inhibit/gearbox temp./ retarder reduction/	5	653781	
	10 amp - hazards/horn/rear start/cooling fan	2	652088	
	15 amp - engine stop front & rear/horn push/ head lamp flash	3	612924	
	Relays			
17	Relay, starter	1	652438	
18	Relay, ignition	1	651072	
19	Relay - normally open	14	650560	
	Relay normally open - (main beam, dip beam, L & RH indicators) situated behind dash panel	4	650560	
20	Relay - cooling fan	1	651438	
21	Relay - normally closed	3	650561	
22	Relay, flashers	1	611289	
23	Relay, starter lockout	1	654971	
	Fuses			
	Fast fuse box - 150A fuse	1	652102	
	Fuse 3A fuse } Aqualarm	1	651598-2	
	Holder, fuse }	1	651599	
	Bulbs			
	Bulb 3w Capless	10	653208	
	Bulb	16	610781	
	Harness			
	Harness - instrument panel	1	417882	
	Harness - front	1	418089	
	Harness - electrical distribution centre -	1	418117	
	Harness - chassis	1	418087	
	Harness - tail lights	1	417857	
	Harness - fast fuse	1	413843	
	Harness - boost socket to master switch	1	414690	
	Harness stop start switch	1	417858	
	Harness - engine	1	421597	
	Harness - sub - switch relays	1	417533	
	Harness - rear electrical distribution centre	1	417860	
	Harness - gearbox to electrical distribution centre	1	420447	
	Harness - top up/fill	1	417871	
	Cable - master switch to alternator	1	413842	
	Cable - battery to master switch	1	419074	
	Cable - battery negative	1	419075	
	Cable - starter to master switch	1	413998	

ELECTRICAL SYSTEM



Rear Junction Box



Front Electrical Distribution Centre

ELECTRICAL SYSTEM

Unit No: **E502G**

Item No.	Description	No. Used	Part No.	Remarks
	Harness continued			
	Cable - starter negative	1	413997	
	Bus bar	1	413841	
	Battery link	1	412876	
	Miscellaneous			
	Resistor assembly - 47 OHM - 25W	1	419546	
	Rubber boot, large	7	610369	
	Rubber boot, small	3	611783	
	Rubber boot (alternator '+' and '-' terminals)	2	654200	
	Panel, instrument (without fuel gauge)	1	416805	
24	Module - Lamp Test	1	652410	
	Twin Socket - circuit breakers	10	612925	
25	Connector box - front E.D.C.	1	609807	
	Terminal block - rear E.D.C.	1	611843-1	
	Connector box - rear E.D.C.	1	653816	
	Label - stop	1	400467	
	Label - start	1	400468	
	Label - reverse	1	400378	
	Label - reverse interlock	1	414566	
26	Electronic control unit (see gearbox section)			
	Coolant top up Indicator			
	Switch and warning light assembly comprising:-	1	655450	
	Lampholder	1	654500-4	
	Adaptor	2	654500-5	
	Contact	1	654500-6	
	Contact	1	654500-7	
	Enclosure	1	654500-8	
	Legend	1	654500-9	
	Buzzer	1	651235	
	Fuse holder - in line	1	651602	
	Socket, booster (optional)	1	653847	AL 503-1



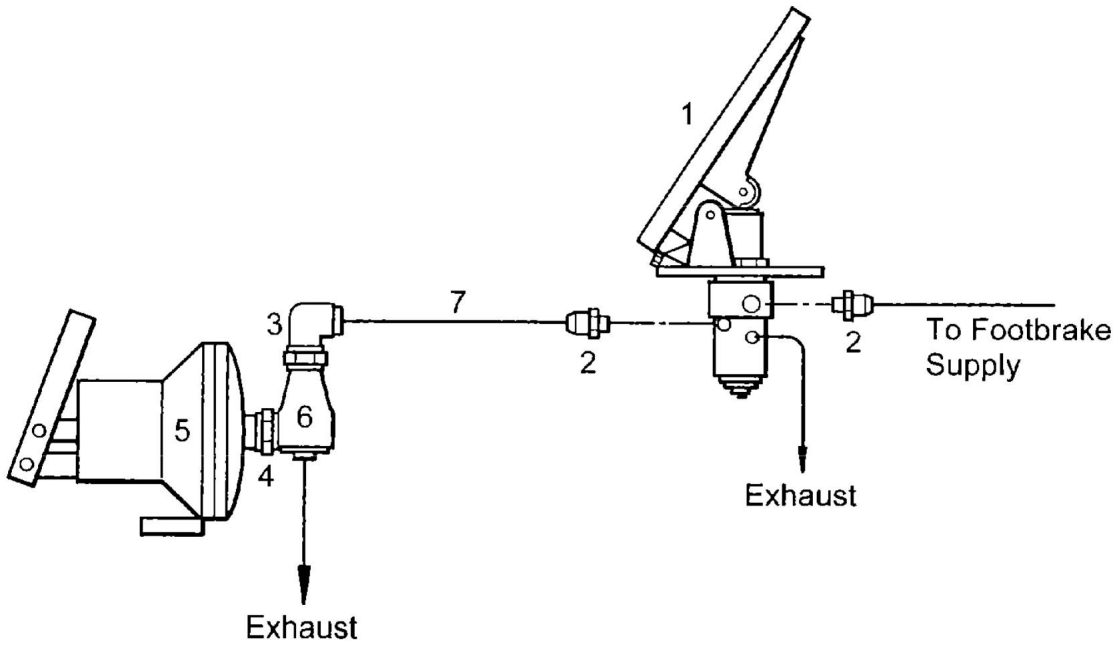
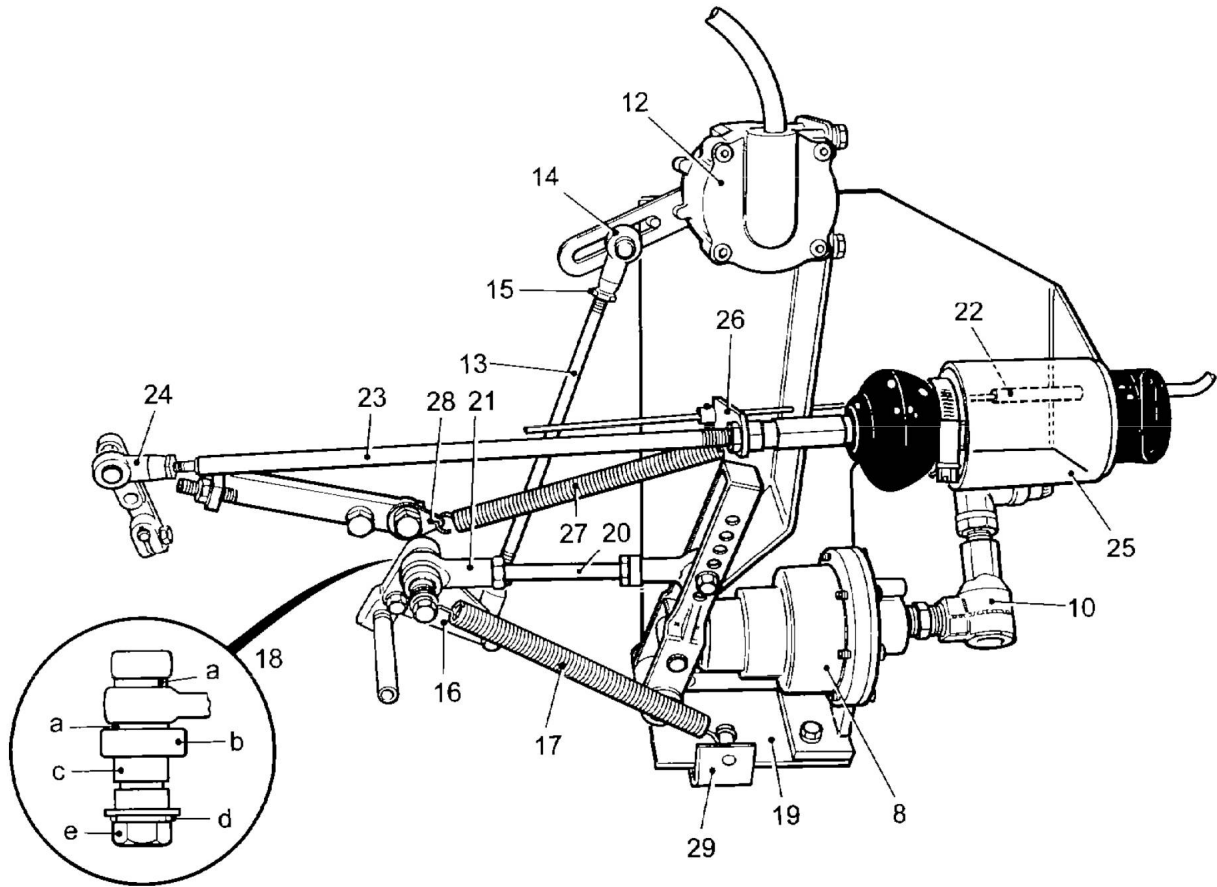
PARTS MANUAL

ENGINE CONTROLS

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DENNIS

ENGINE CONTROLS



ENGINE CONTROLS

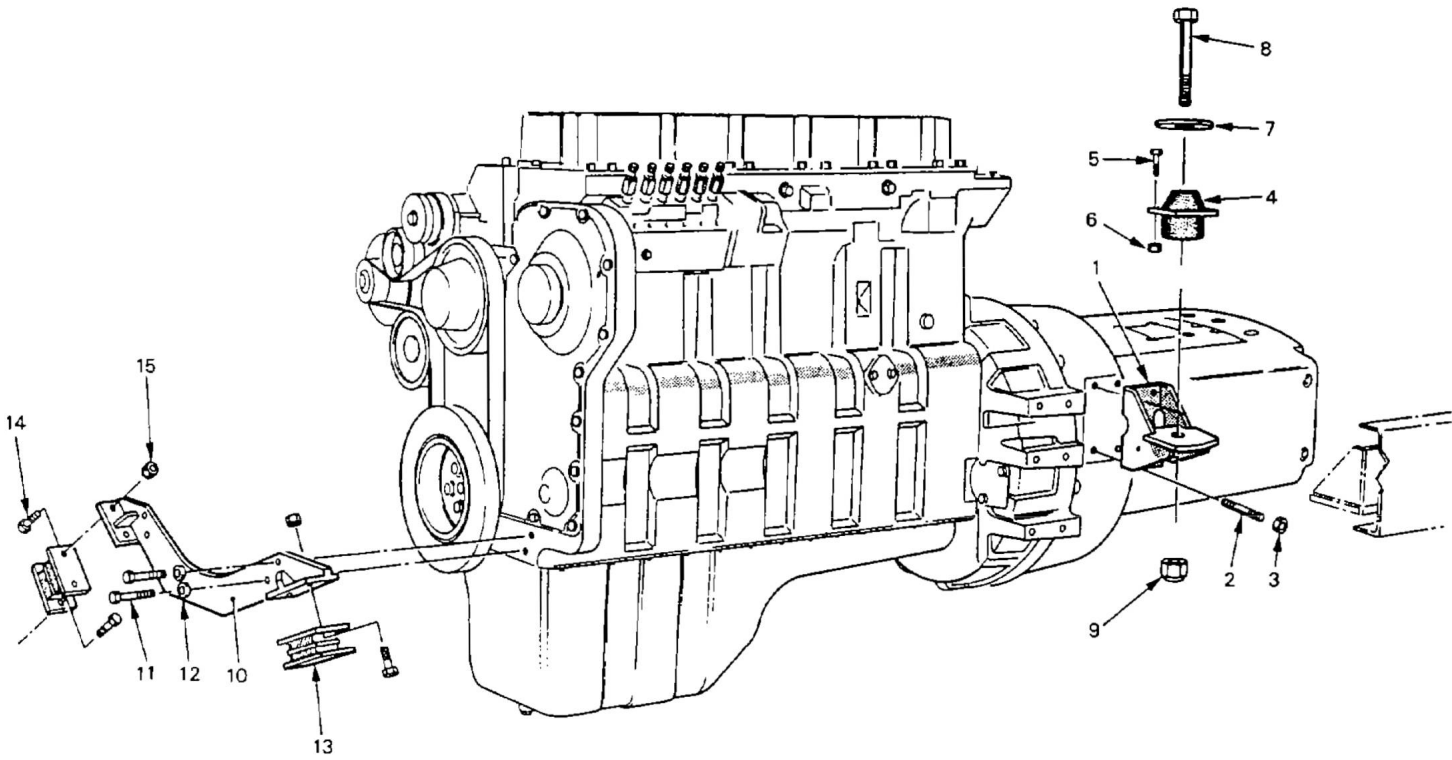
Unit N°: **EC500F**

Item N°.	Description	N°. Used	Part N°.	Remarks
1	Valve - accelerator pedal	1	655525	
	Service kit - valve only	A/R	654683-1	
	Service kit - valve and pedal	A/R	654683-2	
2	Union - reducing, 6mm x 1/4in. BSPP	2	654953	
3	Elbow, 6P x 1/8in. BSPT	1	654961	
4	Adaptor, 1/4in. D x 1/4in. D	1	609866	
5	Cylinder - throttle operating	1	654677	
	Service kit	A/R	654677-1	
6	Valve - quick release	1	654706	
7	Tube - 6mm nylon green	A/R	654750	
8 - 11	Items not used			
12	Load sensor	1	653709-3	
13	Rod - load sensor connecting	1	419611	
14	Balljoint	2	655388	
15	Nut	2	MCN 206P	
16	Lever - throttle control	1	419613	
17	Spring - throttle return	1	655330	
	Retainer	1	655331	
18	Anchor - spring			
18a	Washer	2	WMA 6SP	
18b	Spacer	1	400622-3	
18c	Anchor pin	1	419180	
18d	Washer spring	1	WMC 6SP	
18e	Bolt	1	MCB 106 60P	
19	Bracket - engine controls	1	419576	
20	Rod - throttle control	1	415720	
21	Balljoint	2	654766	
	Nut	2	UFN 504 AP	
22	Cable - manual stop	1	409241-6	
23	Rod - stop control	1	416087	
24	Ball joint	1	655388	
	Screw	1	MCS 106 25P	
	Washer - plain	2	WLB 4SP	
	Washer - spring	1	WMC 6SP	
	Nut	1	MCN 206P	
25	Solenoid - engine stop	1	650026	
26	Lever - manual stop	1	421667	
	Nipple	1	610797	
27	Spring - stop control	1	654763	
28	Anchor - spring	1	79074	
29	Post, spring	1	424549	
	Spider, spring securing	1	657445	
	Screw	1	MCS 106 20P	
	Nut	1	UFN 105 AP	
	Nut	1	UFN 205 AP	
	Washer	1	WMC 6AP	



Details Page 3

ENGINE AND MOUNTING



- | | |
|----------------------|-----------------------|
| 1. Mounting bracket | 8. Bolt |
| 2. Stud | 9. Nut |
| 3. Nut | 10. Mounting bracket |
| 4. Flexible mounting | 11. Bolt |
| 5. Bolt | 12. Spring washer |
| 6. Nut | 13. Flexible mounting |
| 7. Washer | 14. Setscrew |
| | 15. Nut |

ENGINE AND MOUNTING

Unit No: **EM503B**

Item No.	Description	No. Used	Part No.	Remarks
	ENGINE , Cummins C 245 Euro 2	1	655825	
1	Bracket, Rear engine mounting	2	414594	
2	Stud	8	408669	
	Spring washer (not shown)	8	WMC 16SP	
3	Nut	8	MCN 116P	
4	Mounting , Engine rear	2	653713	
5	Bolt	8	MCB 112 40P	
6	Nut	8	MCN 512P	
7	Washer	4	412711	
8	Bolt	2	MCB 124 210P	
9	Nut	2	MCN 524P	
10	Bracket, Front engine mounting	1	408956	
11	Bolt	4	10 MCB 112 75	
12	Spring washer	4	WMC 12SP	
13	Mounting , Metalastic	2	656091	
14	Screw - mounting to bracket	4	MCS 110 35P	
	Washer	4	WMA 10SP	
	Screw - mounting to frame	4	MCS 110 30P	
15	Nut	8	MCN 510P	
	Starter Motor	1	652225	
	Alternator - 120 amp	1	654436	
	Drive belt	1	3911577	
	Bolt	1	MCB 116 190P	
	Screw	1	MCS 116 55P	
	Plain washer	3	WMA 16SP	
	Nut	2	MCN 516P	
	Filler cap	1	68243-26	
	Pipe - oil filler	1	422088	
	Pipe - oil filler	1	413698	
	Hose - filler pipe to engine	1	415780	
	Dipstick	1	418275	
	Hose - dipstick	1	409923-8	
	Sleeve - in hose	1	652387	
	Spring clip	2	652389	
	Tube, dipstick	1	654050	
	Clip, dipstick tube	2	656818-7	
	Screw, gearbox to engine	7	MCS 110 35P	
	Plain washer	9	WMA 10SP	
	Bolt - flexplate to flange	8	654503	

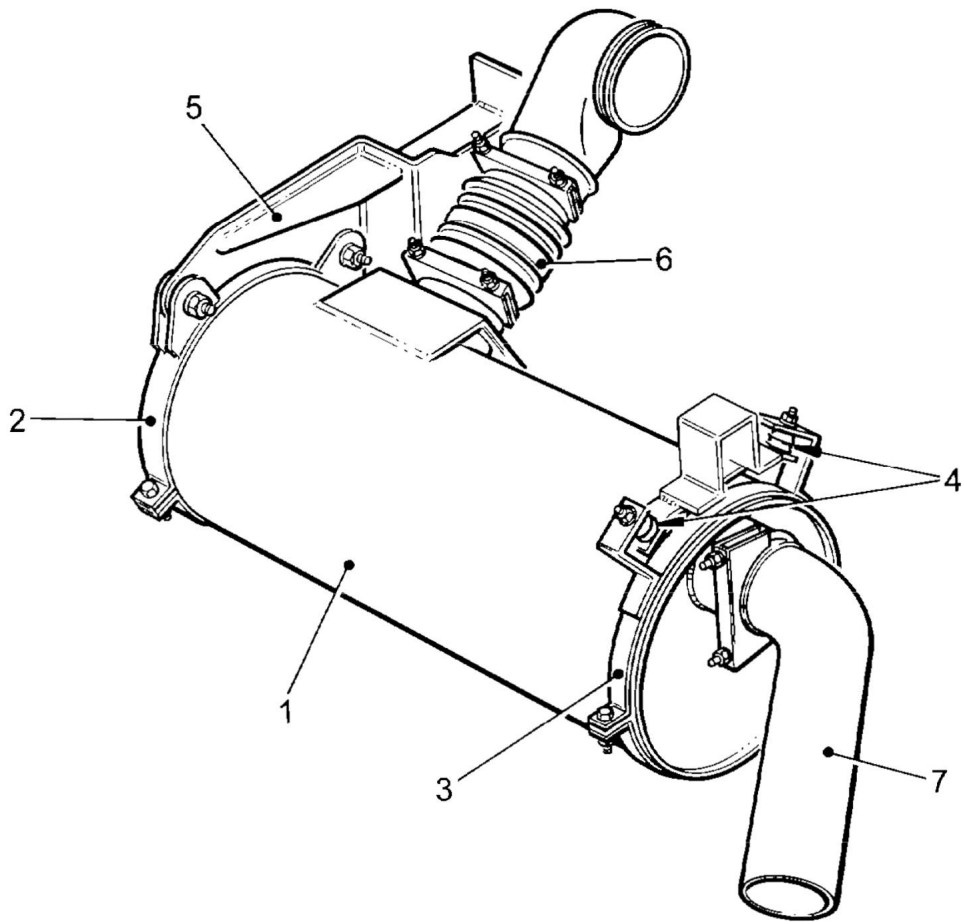


PARTS MANUAL

EXHAUST SYSTEM

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EXHAUST SYSTEM



EXHAUST SYSTEM

Unit No: **ES501K**

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Item No.	Description	No. Used	Part No.	Remarks
1	Silencer	1	416007	
2	Clip, front mounting	1	418209	
3	Clip, rear mounting	1	413014	
	Screw	2	MCS 110 35P	
	Nut	2	MCN 510P	
4	Mounting, flexible	2	656806	
	Nut	4	MCN 108P	
	Washer	4	WMC 85P	
5	Bracket, support, front	1	422999	
	Bush, EPDM filled	2	657860	
	Bolt	2	MCB 112 55P	
	Nut	2	MCN 112P	
	Washer	2	WMC 12SP	
	Bolt	1	MCS 110 35P	
	Nut	1	MCN 510P	
6	Bellows, turbo to silencer	1	656874	
	Clip	2	656160-22	
	Nut extension	2	420018	
	Screw	2	MCS 108 25P	
	Washer	2	WMC 8SP	
7	Tailpipe	1	419696	
	Clip	1	656160-22	
	Heatshield for turbocharger, on down pipe	1	419738	
	Strip, reinforcing	2	422237	
	Strip, reinforcing	2	422238	
	Bolt	1	MCB 110 90P	
	Washer	3	WMC 10SP	
	Spacer	1	400622-29	
	Clamp	1	656160-22	
	Nut	1	MCN 110 P	
	Screw	2	MCS 110 25P	
	Bracket	1	416699	



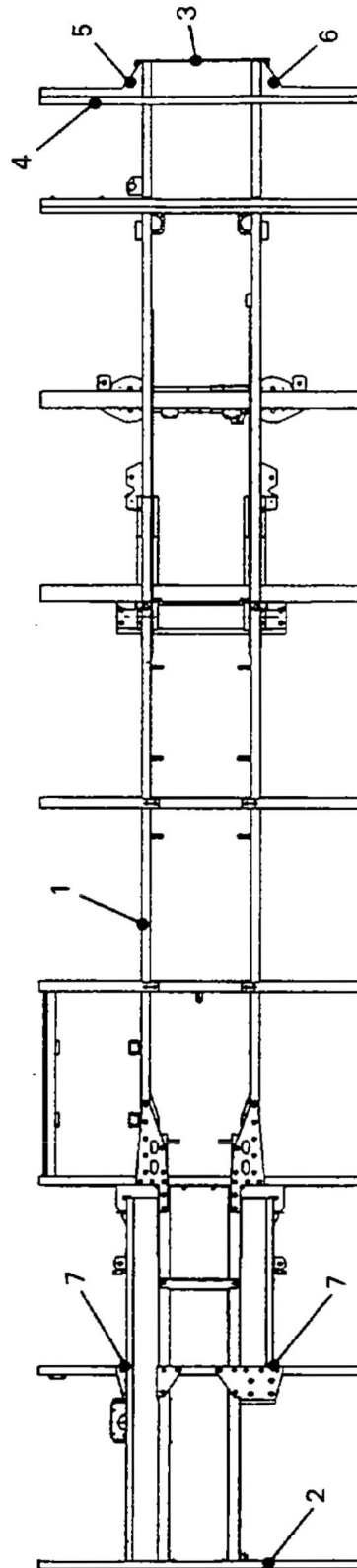
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FRAME

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DENNIS

FRAME



FRAME

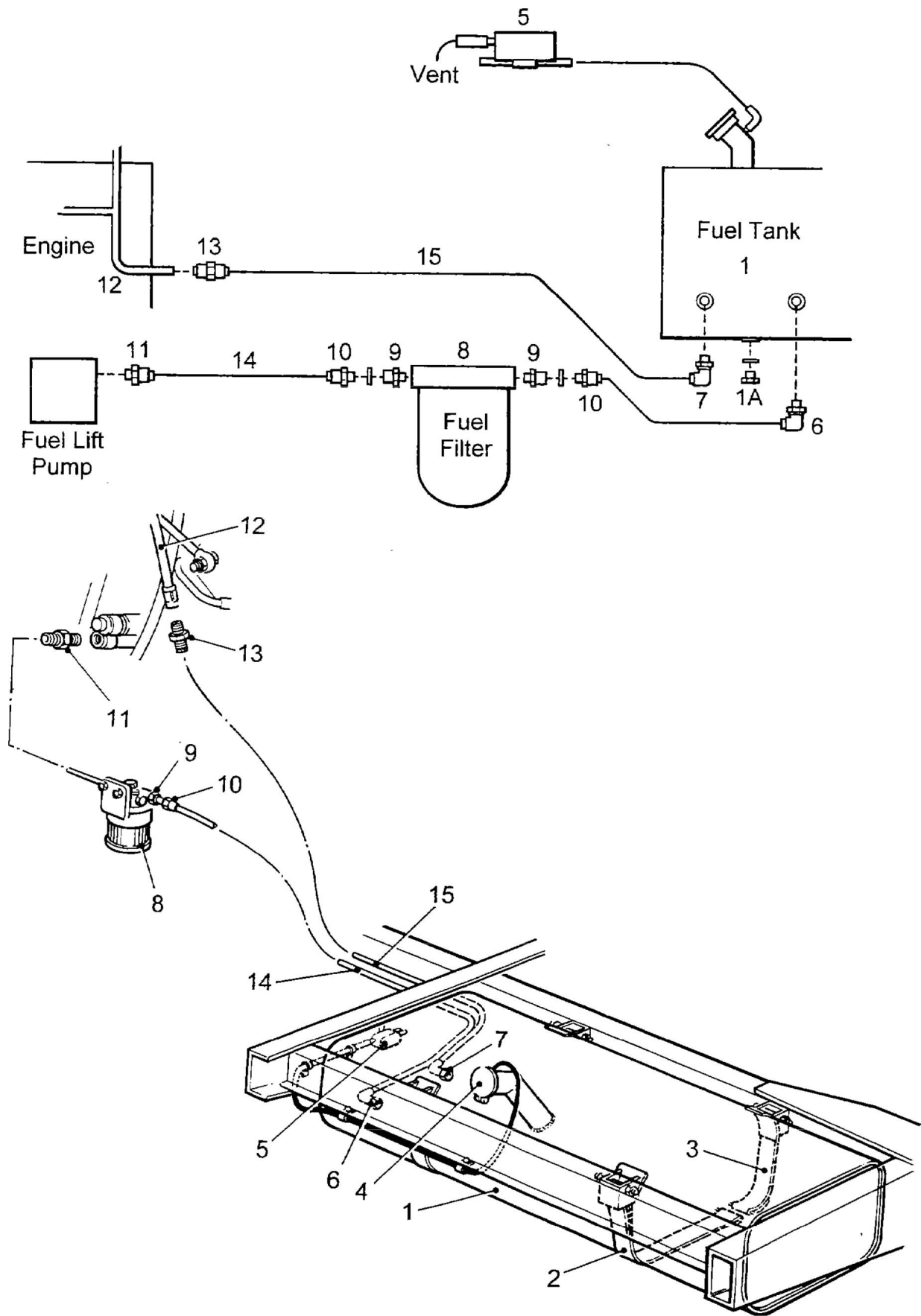
Unit N°: F504E

Item N°.	Description	N°. Used	Part N°.	Remarks
1	Frame assembly	1	422937	
2	Front channel	1	422349	
	Screw	12	MCS 112 30P	
	Nut	12	MCN 512P	
3	Rear crossmember	1	420444	
	Setscrew	10	MCS 112 35P	
	Nut	10	MCN 512P	
4	Frame, body and tank mounting	1	422091	
	Screw	8	MCS 110 30P	
	Nut	8	MCN 510P	
5	Channel, outer RH	1	420919	
6	Channel, outer LH	1	420023	
	Screw	8	MCS 110 35P	
	Nut	8	MCN 510P	
7	Plate, spring access	2	421394	
	Screw	24	MCS 116 35P	
	Nut	24	MCN 516P	
	Nameplate - 'DENNIS'	2	414815	
	Nameplate - 'ARROW'	2	421127	
	Plate, carrier to frame shim	2	414136	
	Panel, sound insulation, LH	1	419666-1	AL 507-1
	Panel, sound insulation, centre	1	419666-2	
	Panel, sound insulation, RH	1	419666-3	
	Screw	15	ST1910 6P	
	Washer	15	109400	
	Tape	a/r	651298	



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Description	Page	3

FUEL SYSTEM



FUEL SYSTEM

Unit N^o: **FS500K**

Item N ^o .	Description	N ^o . Used	Part N ^o .	Remarks
1	FUEL TANK (with provision for gauge)	1	420457	
1A	Plug - tank drain	1	5349-3	
	Seal	1	603678	
2	Tank Strap, Outer	2	413254	
3	Tank Strap, Inner	2	413257	
	Bolt	4	MCB 112 100P	
	Nut	4	MCN 512 P	
	Collar	2	413262	
	Trunion, plain	2	413261	
	Trunion, threaded	2	413260	
	Strip, rubber	4	413256-2	
	Stud	2	413259	
	Nut	2	MCN 512P	
4	Filler Cap	1	654219	
5	Breather valve (remote)	1	417362	
	Elbow - in filler neck, 1/4in. BSP x 8mm OD	1	655164	
	Nylon tube 8mm	a/r	651548	
	Tube, breather vent	a/r	654242	
6	Elbow, feed, in tank 3/8in BSP x 12mm OD	1	656181	
	Sleeve, tube support	1	655832-3	
7	Elbow, return, in tank, 3/8in BSP	1	655842	
	Sleeve, tube support	1	655832-1	
8	Fuel Filter	1	655747	
	Service kit	a/r	655747-1	
9	Reducer, 3/8in BSP	2	656798	
10	Connector, 3/8in BSP	2	656799	
	Sealing washer	2	603678	
	Sleeve, tube support	2	655832-3	
11	Connector, fuel pump	1	655553	
	Block, elbow	1	610711	
12	Fuel pipe assembly, pump to hose return	1	422111	
13	Connector, nylon to rigid pipe, 10mm x 14 od	1	654949	
	Sleeve, tube support	1	655832-1	
14	Nylon pipe - fuel feed 12mm - black	a/r	654993	
15	Nylon pipe - fuel return 10mm - red	a/r	654991	

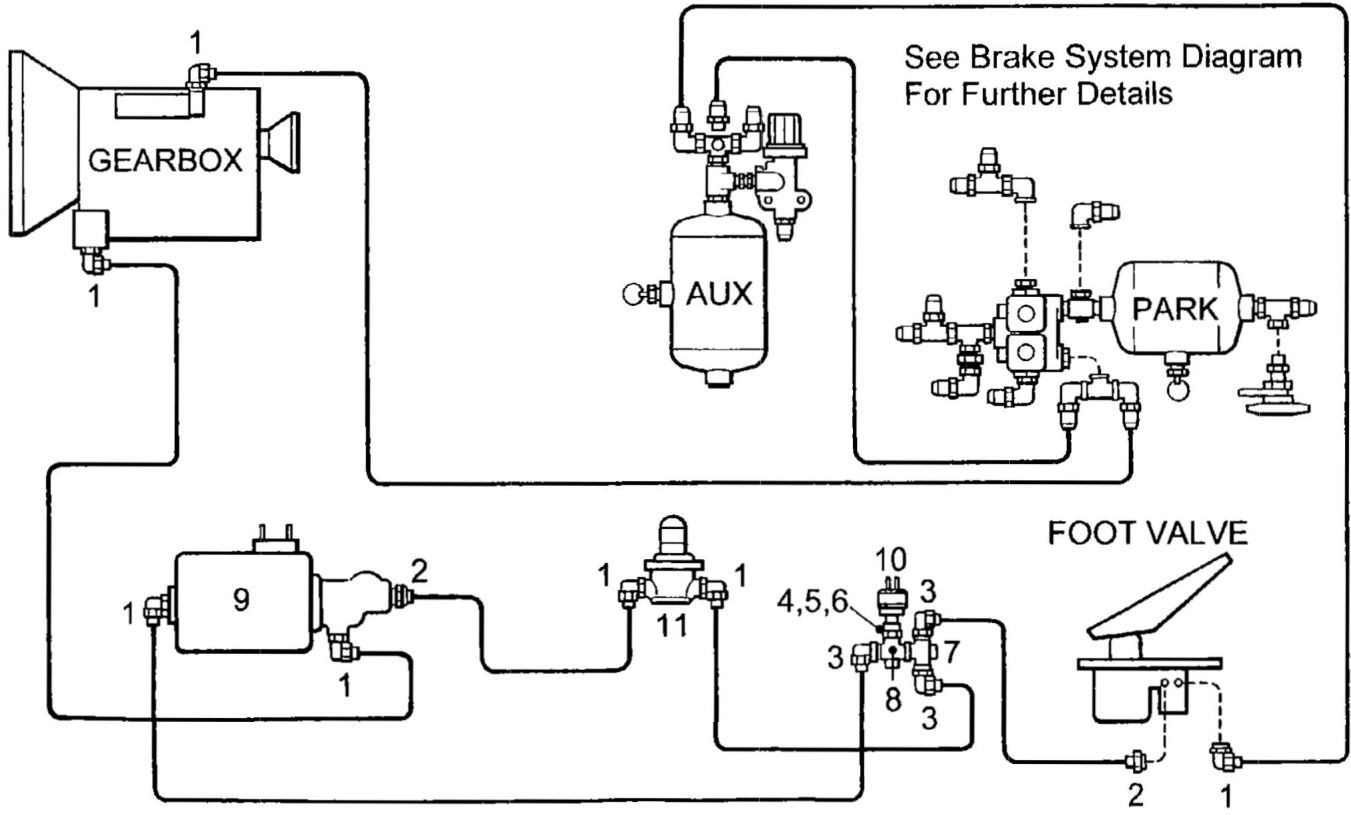


PARTS MANUAL

GEARBOX

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GEARBOX

Unit No: **GB503C**

Item No.	Description	Nº. Used	Part No.	Remarks
	Gearbox ZF4 HP500	1	655877	
	Oil filter kit - comprising filter and 'O' rings	1	652638-1	
1	Elbow - 10P x 12mm	7	654919-1	
2	Connector, 10P x 12mm	2	654921-1	
3	Elbow - 10P x 16mm	3	654919-2	
4	Adaptor - M16	1	612089	
5	Dowty seal	2	603677	
6	Adaptor	2	406981	
	Black nylon tube 10mm	A/R	654992	
7	Tee, 16mm x 16mm	1	654924	
8	Adaptor - 1/4 N.P.T.F.	1	406981	
9	Solenoid valve	1	653709-2	
	Adaptor	1	653915	
	Seal	1	603678	
10	Pressure switch	1	651480-7	
11	Pressure reducing valve	1	653709-1	
	Temperature sender	1	651480-9	
	Range selector - 5 button	1	653709-4	
	Dipstick	1	653709-6	
	Electronic control unit - 4 speed	1	656865	
	Switch - kickdown	1	655492	
	Note: For any further parts in this gearbox refer to manufacturers manual.			

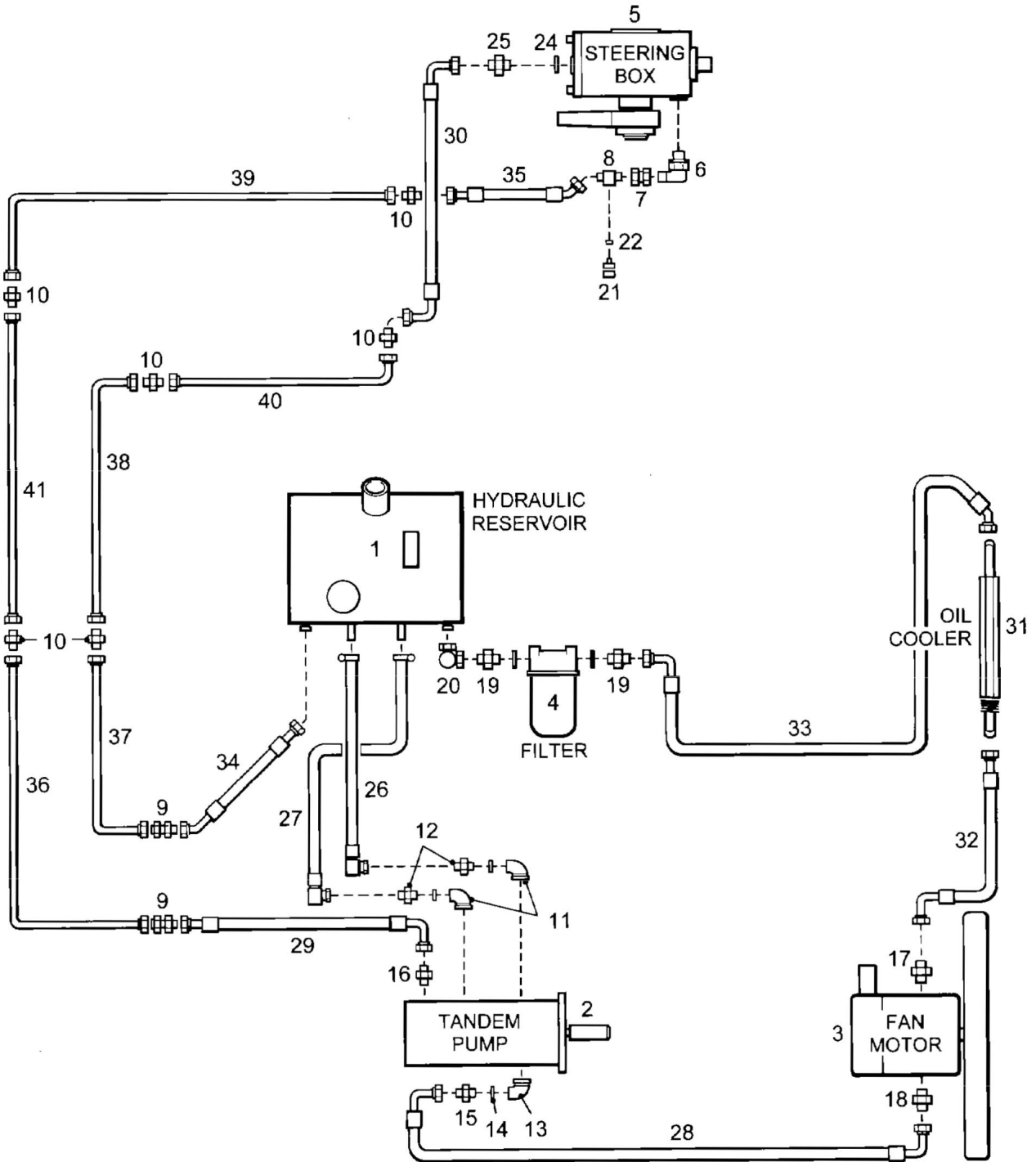


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HYDRAULIC SYSTEM

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HYDRAULIC SYSTEM DIAGRAM

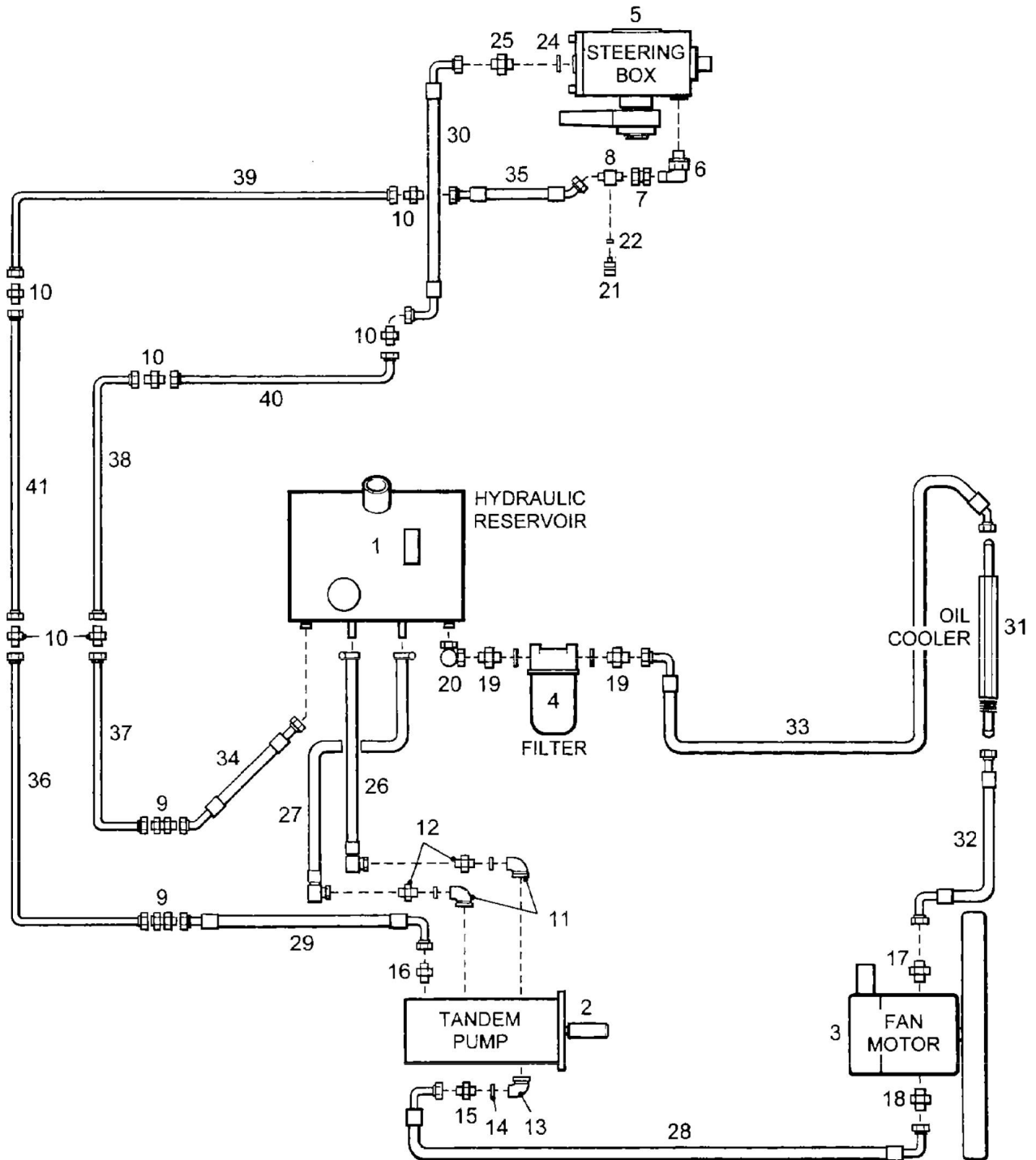


HYDRAULIC SYSTEM

Unit No: **HS512B**

Item No.	Description	N ^o . Used	Part N ^o .	Remarks
1	HYDRAULIC RESERVOIR <i>See separate list</i>	1	406290	
	Label (hydraulic oil only)	1	242814	
2	Tandem pump	1	655600	
	Capscrew	2	655145	
	Seal kit	1	655110-1	
3	Motor, fan drive	1	655109	
	Seal kit	1	654207-1	
4	Filter, complete	1	652364	
	Element	1	652364-1	
5	Steering box, see steering section			
6	Elbow - steering box inlet, 12m x 16mm x 3/4 in JIC	1	654933-3	
7	Adaptor 3/4 in 16 UNF	1	655040	
8	Tee, 1.6m x 1in ORFS	1	416915	
9	Connector, bulkhead 16m x 1in ORFS	3	654957-1	
10	Connector 16m x 1in ORFS	6	654955-1	
	Locknut	6	654958-1	
11	Elbow, 1/4 in	2	650101	
12	Adaptor, 1in BSP x 3/4in BSP	2	611733	
	Seal, pump	2	603680	
13	Elbow, 1/2in BSP	1	650266	
14	Seal	1	603679	
15	Adaptor, 1/2in x 1/2in BSP	1	650129	
16	Adaptor, M16 x 1/2in BSP	1	653810	
17	Adaptor, 7/8in. x 7/8in JIC	1	652202	
18	Adaptor, 1 1/16in. UNF x 1 1/16 in JIC	1	652203	
19	Adaptor 3/4in x 3/4in BSP	2	606122	
	Seal	2	603680	
20	Swivel elbow, 3/4 in. 1/2 in UNF	1	651322	
21	Test point	1	656394	
22	Seal	1	603676	
23	Not used			
24	Washer, copper	1	650840-3	
25	Adaptor, 1/2in BSP x 1/2in BSP	1	403197	
26	Hose, fan suction	1	414701	
27	Hose, steering suction	1	414702	
	Clip	2	656818-8	
28	Hose, fan pump to fan motor	1	414700	
29	Hose - steering pump to bulkhead	1	422185	
30	Hose - steering box return	1	422182	

HYDRAULIC SYSTEM DIAGRAM



HYDRAULIC SYSTEM

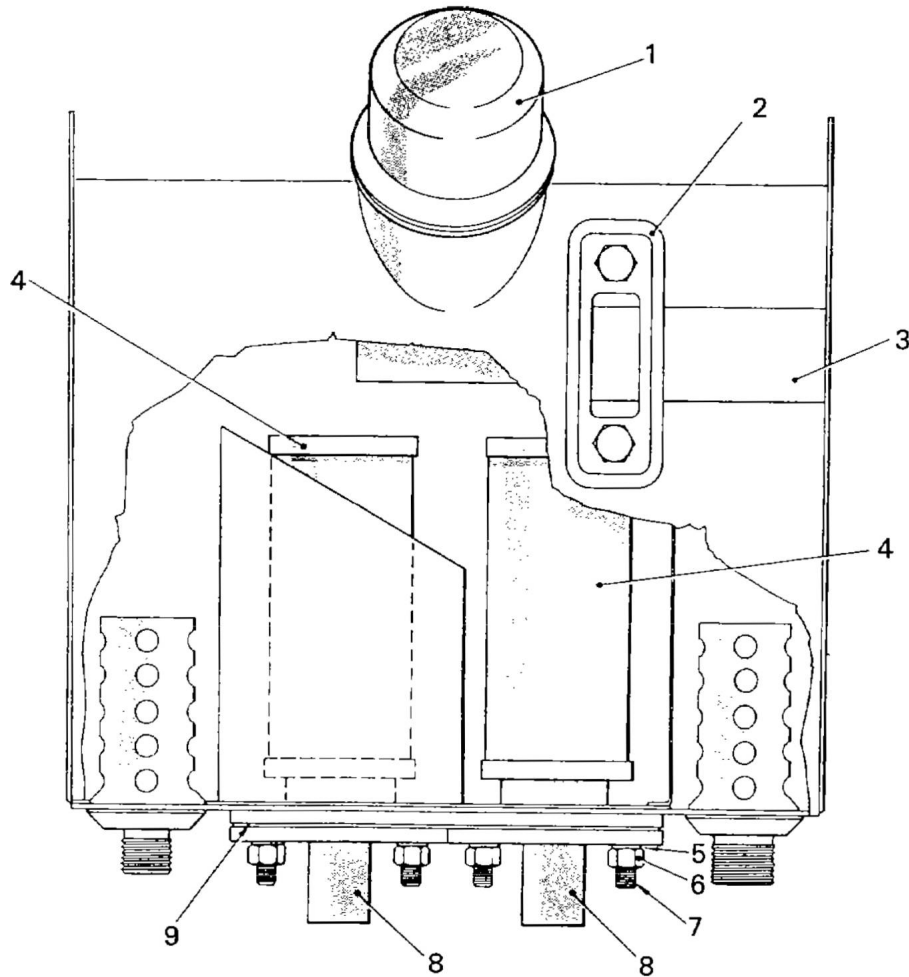
Unit N°: **HS512B**

Item N°.	Description	N°. Used	Part N°.	Remarks
31	Oil cooler	1	424665	
	Bracket - cooler to duct - LH	1	419472	
	Bracket - cooler to duct - RH (upper)	1	419481	
32	Hose - fan motor to cooler	1	419471	
33	Hose - cooler to filter	1	424681	
34	Hose, reservoir to bulkhead connection	1	422185	
35	Hose, connector to tee	1	422183	
36	Pipe, feed 1	1	422667	
37	Pipe, feed 2	1	422665	
38	Pipe, feed 3	1	422663	
39	Pipe, return 1	1	422664	
40	Pipe, return 2	1	422666	
41	Pipe, return 3	1	422668	

HYDRAULIC TANK

Assembly No: 406290

Item No.	Description	Nº. Used	Part Nº.	Remarks
	HYDRAULIC TANK ASSEMBLY , comprising	1	406290	
1	Filter, filler cap	1	608692	
2	Sight glass, oil level	1	650164	
3	Tank, weld assembly	1	406279	
4	Filter, suction	2	650031	
5	Washer	8	WMC 8SP	
6	Nut	8	MCN 208P	
7	Stud	8	401586/1	
8	Adaptor	2	401589	
9	Gasket	2	400197	



HYDRAULIC TANK



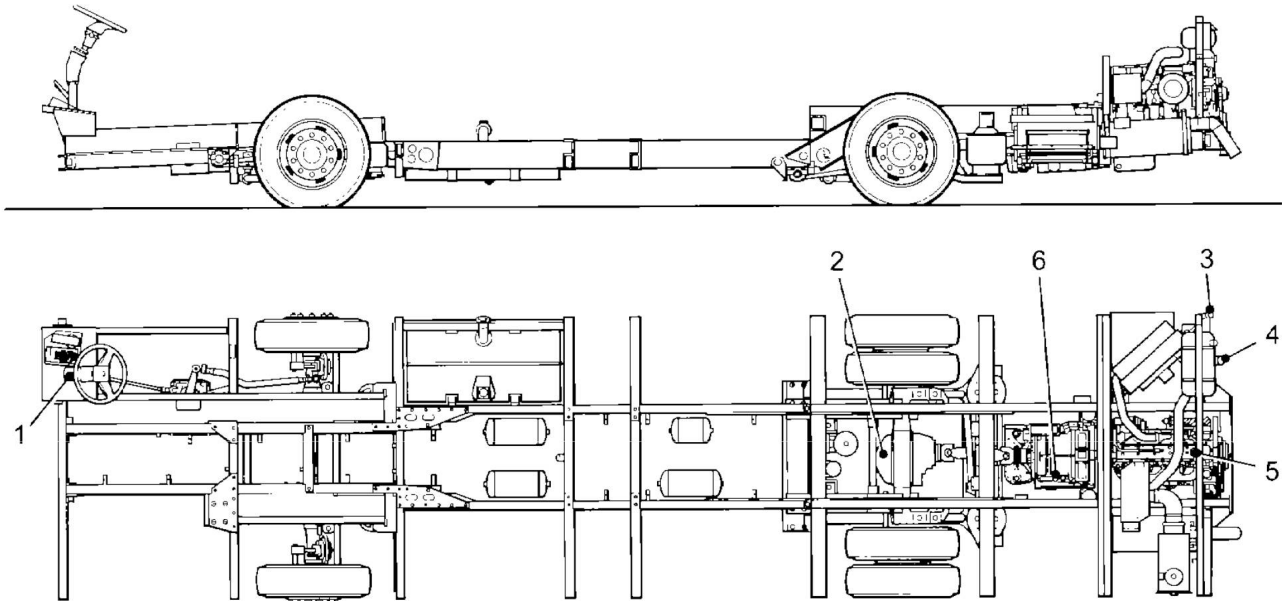
Lubrication Chart Page 3

RECOMMENDED LUBRICANTS & FLUIDS

Unit No: **FZ500A**

Amdt
220498

- | | |
|--------------------|-----------------------|
| 1. Steering column | 4. Hydraulic filler |
| 2. Rear axle | 5. Engine oil filler |
| 3. Coolant filler | 6. Gearbox oil filler |



Vehicle Component	Approx Quantity (litres)	Grade	Major Specification	Approved Brand
Engine	23.6	15W/40	API-CF-4/SG or CG-4/SH SAE15W40	Total Rubia XT 15W40
Gearbox	30 Initial fill 15 Oil change		Dexron II D or III	Total Dexron III
Rear Axle	15 - 16	SAE 85W/140	MIL-L-2105C API GL-5	Total EPB
Cooling System	45	-	Water/Anti freeze * 50/50 Mix	Total Universal Antifreeze
Hydraulic System	16.87	-	Dexron II D	Total Dexron II D
Steering Column	0.50	-	Dexron II D	Total Dexron II D
Grease points	A/R	-	Lithium based grease	Total Multis EP2

* Supplementary coolant additive is also required.



PARTS MANUAL

FASTENER IDENTIFICATION

Bolts and screws	Page	2 - 3
Nuts	Page	4
Washers	Page	5
Split pins	Page	6
Self tapping screws	Page	7
'P' clips	Page	8
Hose clips	Page	8
Sleeving	Page	9
Plastic ties	Page	9

FASTENER IDENTIFICATION

All attaching hardware (such as bolts, screws, nuts, washers etc.) are given a part number in a standard code which exactly identifies each item.

BOLTS AND SCREWS



The individual letters and numbers of the part number indicate the following:

GRADE (Para 3)	THREAD (Para 4)	TYPE (Para 5)	TOOL (Para 6)	HEAD (Para 7)	DIAMETER (Para 8)	LENGTH (Para 9)	FINISH (Para 10)
10	MC	S	3	3	10	80	P

GRADE OF MATERIAL

Blank	=	8.8 metric or "S" imperial
10	=	10.9 metric
12	=	12.9 metric
R	=	R grade nut (imperial)
T	=	T grade nut (imperial)
V	=	V grade bolt (imperial)
X	=	X grade (imperial)

Note: "R" grade nut is used with "V" grade bolt
 "T" grade nut is used with "X" grade bolt

THREAD

BA	=	BA
BF	=	B.S.F.
MC	=	Metric Coarse
MF	=	Metric Fine
UC	=	Unified Coarse
UF	=	Unified Fine
BC	=	B.S.W.

TYPE

B	=	Bolt	
G	=	Grubscrew	
N	=	Nut	
S	=	Screw	

FASTENER IDENTIFICATION

TOOL

Blank	=	Spanner
1	=	Screw driver (conventional)
2	=	Pozidrive or Philips type screwdriver
3	=	Alan key (hexagonal socket head)
4	=	Coach type head

HEAD

BOLTS AND SCREWS

1	=	Hexagonal
2	=	Square
3	=	Flat csk
4	=	Raised csk
5	=	Round
6	=	Cheese or cap
7	=	Raised csk for instruments
8	=	Mushroom or cup
9	=	Pan
10	=	Durlock

GRUBSCREWS

1	=	Plain
2	=	Cup
3	=	W - point
4	=	Cone
5	=	Half dog
6	=	Full dog

DIAMETER (TWO DIGITS)

BA sizes	=	gauge number
BSF, UNF, BSW	=	diameter in sixteenths of an inch
Metric	=	diameter in millimetres

LENGTH (TWO OR THREE DIGITS)

BA, BSF, UNF, BSW	=	length in eighths of an inch
Metric	=	length in millimetres

FINISH

C	=	Chrome plate
P	=	Cadmium or zinc plate, sheradized or passivated
S	=	Stainless
B	=	Black passivated



FASTENER IDENTIFICATION

NUTS

The individual letters and numbers of the part number indicate as follows:

THREAD (Para 4)	NUT	TYPE (Para 12)	SIZE (Para 13)	FINISH (Para 10)
BC	N	5	20	P

TYPE

- 1 = Full Plain
- 2 = Half plain (locknut)
- 3 = Castle
- 4 = Slotted
- 5 = Full, self locking
- 6 = Thin, self locking
- 7 = Full Nyloc or Simmonds
- 8 = Thin Nyloc or Simmonds
- 9 = Square

SIZE (TWO DIGITS)

- Thread diameter
- Metric - millimetres
- BSF, UNF, BSW - sixteenths of an inch

FASTENER IDENTIFICATION

WASHERS



The individual letters and numbers of the part number indicate as follows:

MEASURING SYSTEM (Para 15)	TYPE (Para 16)	SIZE (Para 17)	MATERIAL (Para 18)	FINISH (Para 19)
WM	C	10	5	P

MEASURING SYSTEM

- WB** = BA sizes
- WG** = Woodscrew gauge sizes
- WL** = Inch size
- WM** = Metric sizes

TYPE

- A** = Plain, flat
- B** = Spherical or Belleville
- C** = Single coil spring
- D** = Double coil spring
- E** = External star
- F** = Countersunk internal star
- G** = Internal star
- H** = Internal and external star
- J** = Cup

SIZE

One or two figures give the internal diameter in :-

- Screw gauge size
- BA number
- Sixteenths of an inch
- Millimetres

MATERIAL

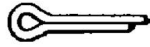
- A** = Aluminium
- B** = Brass
- C** = Copper
- S** = Steel

FINISH

- C** = Chrome plate
- N** = Nickel plate
- O** = Natural
- P** = Cadmium or zinc plate, sheradized or passivated
- B** = Brassed

FASTENER IDENTIFICATION

SPLIT PINS



The individual letters and numbers of the part number indicate the following :-

Split Pin	Diameter (Para 21)	LENGTH (Para 22)	Material (Para 23)
SP	6	12	ST

DIAMETER

One or two figures indicate diameter in sixty - fourths of an inch

LENGTH

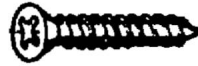
One or two figures indicate length in sixteenths of an inch

MATERIAL

BR = Brass
ST = Mild steel

FASTENER IDENTIFICATION

SELF TAPPING SCREWS



The individual letters and numbers of the part number indicate the following:-

SELF TAP	TOOL (PARA 25)	HEAD (Para 26)	SCREW GAUGE No. (Para 27)	LENGTH (Para 28)	FINISH (Para 19)
ST	1	3	08	5	P

TOOL

- Blank = Spanner
- 1 = Screw driver (conventional)
- 2 = Pozidrive or Philips type screwdriver
- 3 = Allen key (hexagonal socket head)
- 4 = NA
- 5 = Plain, i.e. hammer drive

HEAD

- 1 = Hexagonal
- 2 = Square
- 3 = Flat C'sk
- 4 = Raised cheese head (fillister)
- 5 = Round
- 6 = Cheese or cup
- 7 = Raised C'sk. (instrument)
- 8 = Mushroom or cup
- 9 = Pan

SIZE

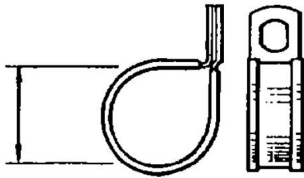
One or two figures give the diameter in screw gauge number.

LENGTH

One or two figures give the length in eighths of an inch

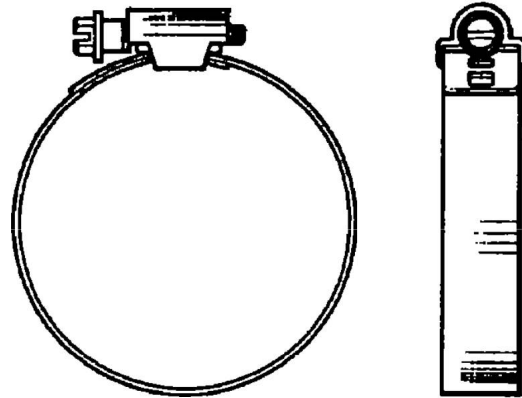
FASTENER IDENTIFICATION

'P' Clips



Inside diameter (mm)	Part No.
4	611673/1
5	611673/2
6	611673/3
7	611673/4
8	611673/5
9	611673/6
10	611673/7
11	611673/8
12	611673/9
13	610029/1
14	610029/2
17	610029/3
19	610029/4
21	610029/5
23	610029/6
24	610029/7
27	610029/8
31	610029/9
38	610029/10
39	610029/11
45	610029/12
51	610029/13
57	610029/14
70	610029/15
73	610029/16
90	610029/17

Hose Clips



Diameter Min (mm)	Diameter Max (mm)	Part No.
8	16	656818-1
12	20	656818-2
12	22	656818-3
16	25	656818-4
20	32	656818-5
23	35	656818-6
25	40	656818-7
30	45	656818-8
32	50	656818-9
40	60	656818-10
50	70	656818-11
60	80	656818-12
70	90	656818-13
80	100	656818-14
90	110	656818-15
100	120	656818-16
120	140	656818-17
140	160	656818-18

FASTENER IDENTIFICATION

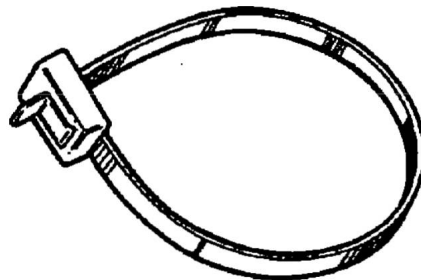
Protective sleeving



Inside diameter		
Closed (mm)	Max: open (mm)	Part No.
6.7	25.4	610561/1
9.3	44.5	610561/2
13.2	63.5	610561/3
19.9	127.0	610561/4
26.1	178.0	610561/5
14.0	75.0	610561/6

Cable ties

Length (mm)	
Length(mm)	Part No.
115	607008
130 - 3mm wide	653608
190 - extra wide	610808
266	607007



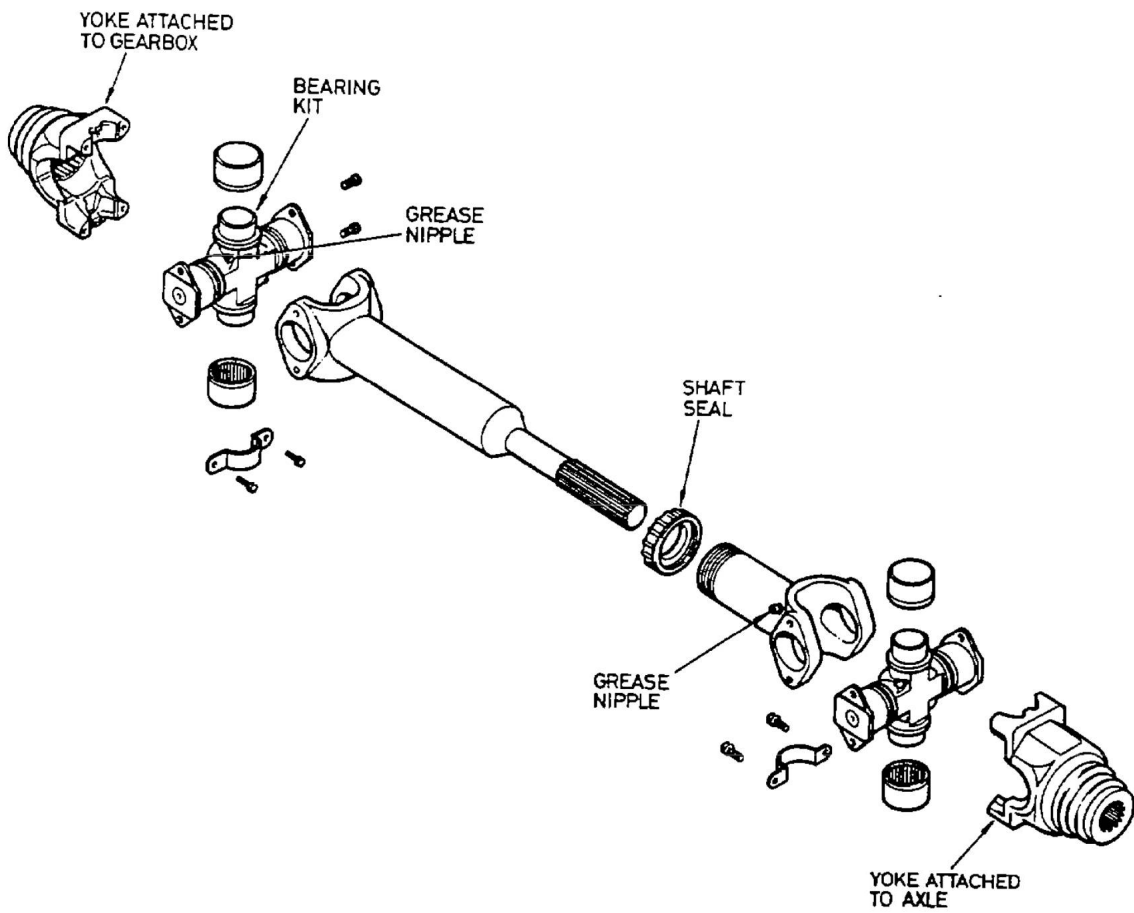


Description	Page	3
Diagram	Page	3

PROPELLER SHAFT

Unit No: P500F

Item No.	Description	N ^o . Used	Part No.	Remarks
	PROPELLER SHAFT	1	412677-6	
	Strap, for yoke	4	653700	
	Bolt, for yoke strap	8	653701	
	Bearing Kit	1	653895	





PARTS MANUAL

TACHOGRAPH

Description Page 3

DENNIS

TACHOGRAPH

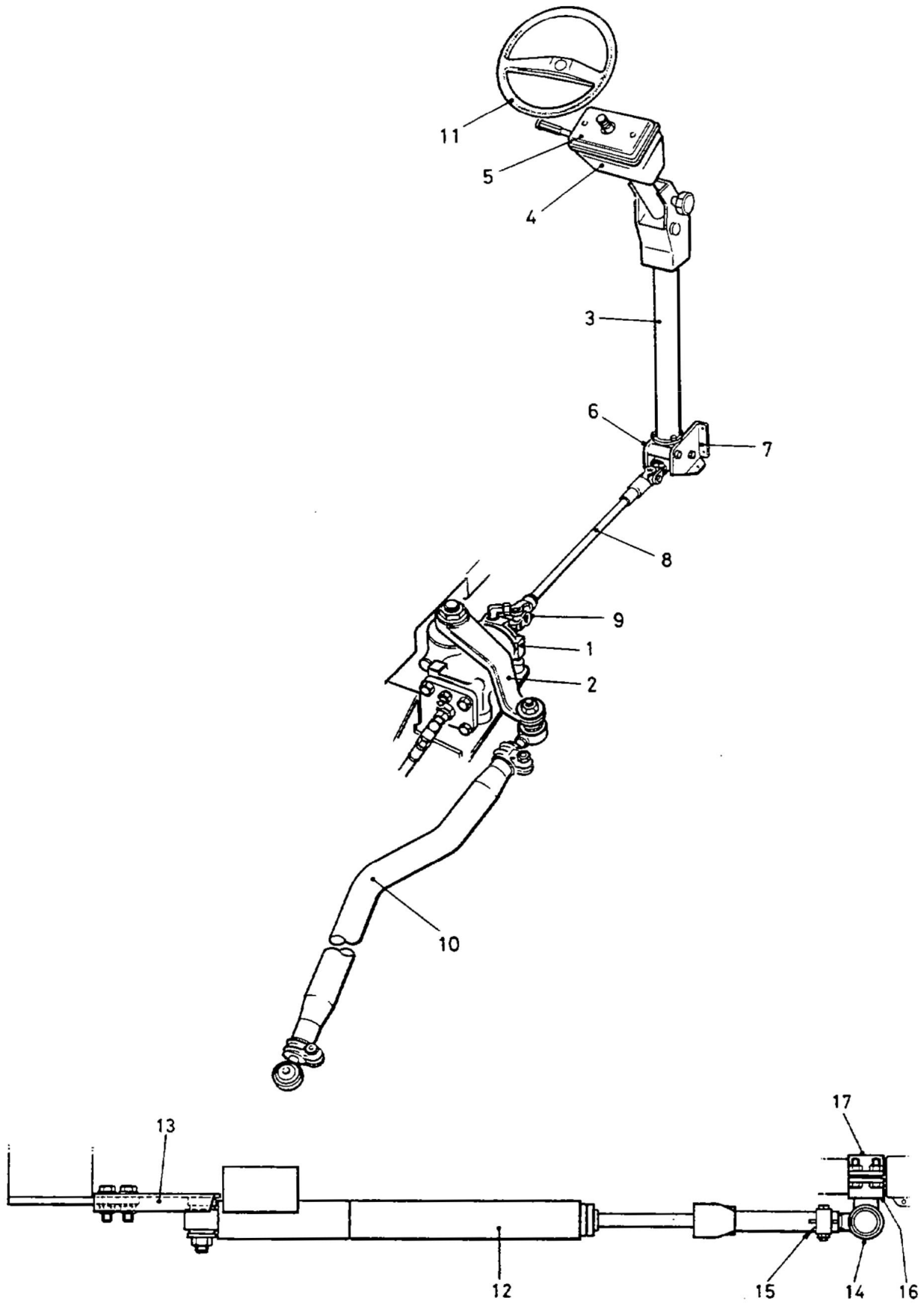
Unit N°: **TG500A**

Item N°.	Description	N°. Used	Part N°.	Remarks
	Sender, tachograph	1	652033	
	Cable, 15m	1	656229	
	Tachograph	1	652032	
	Plug and harness	1	652035	
	Holder, fuse	1	608547	
	Fuse, 10A	1	606439-10	



Description	Page	3
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STEERING ASSEMBLY



STEERING

Unit N°: **SG504A**

Item N°.	Description	N°. Used	Part N°.	Remarks
1	STEERING BOX	1	656503	
	Bolt, steering box to plate	3	408440-5	
	Spring washer, steering box to plate	3	WMC 20SP	
	Steering limiter assembly	A/R	656420	
2	Drop arm	1	419253	
	Lockwasher	1	650860-22	
3	Steering column - adjustable	1	656551	
4	Column shroud - base (RH direction indicator switch)	1	417228	
5	Column shroud - cover (RH direction indicator switch)	1	417230	
	Arm, shroud/retarder (RH direction indicator switch)	1	417598	
	Screw	2	MCS 105 16P	
	Nut, spire	4	652087	
	Screw	4	MCS 1906 16P	
6	Bracket - steering column mounting - LH	1	416954	
7	Bracket - steering column mounting - RH	1	416955	
8	Steering shaft assembly	1	412555-1	
9	Yoke Assembly	1	611511	
	Special bolt	3	400546	
	Nut	3	MCN 410P	
	Split pin	3	SP 5 14ST	
10	Drag link- comprising	1	417009	D500B
	Clamp	2	652551	
	Tube	1	653909	
	Balljoint - to drop arm (steering box)	1	655191	
	Balljoint - to steering arm (axle)	1	655192	
	Split pin	2	SP10 32ST	
11	Steering wheel	1	654698	
	Badge assembly comprising:-	1	417850	
	Cap	1	654699	
	Badge	1	415712	
12	Steering Damper	1	651164	
	Rubber bush - damper mounting	2	651164-1	
13	Bracket - damper mounting	1	416742	
	Nut	1	MCN 516P	
	Washer	1	404972	
14	Ball joint	1	651165	
15	Clamp	1	404973	
16	Abutment for damper	1	404974	
17	Clamp - to track rod	1	404975	

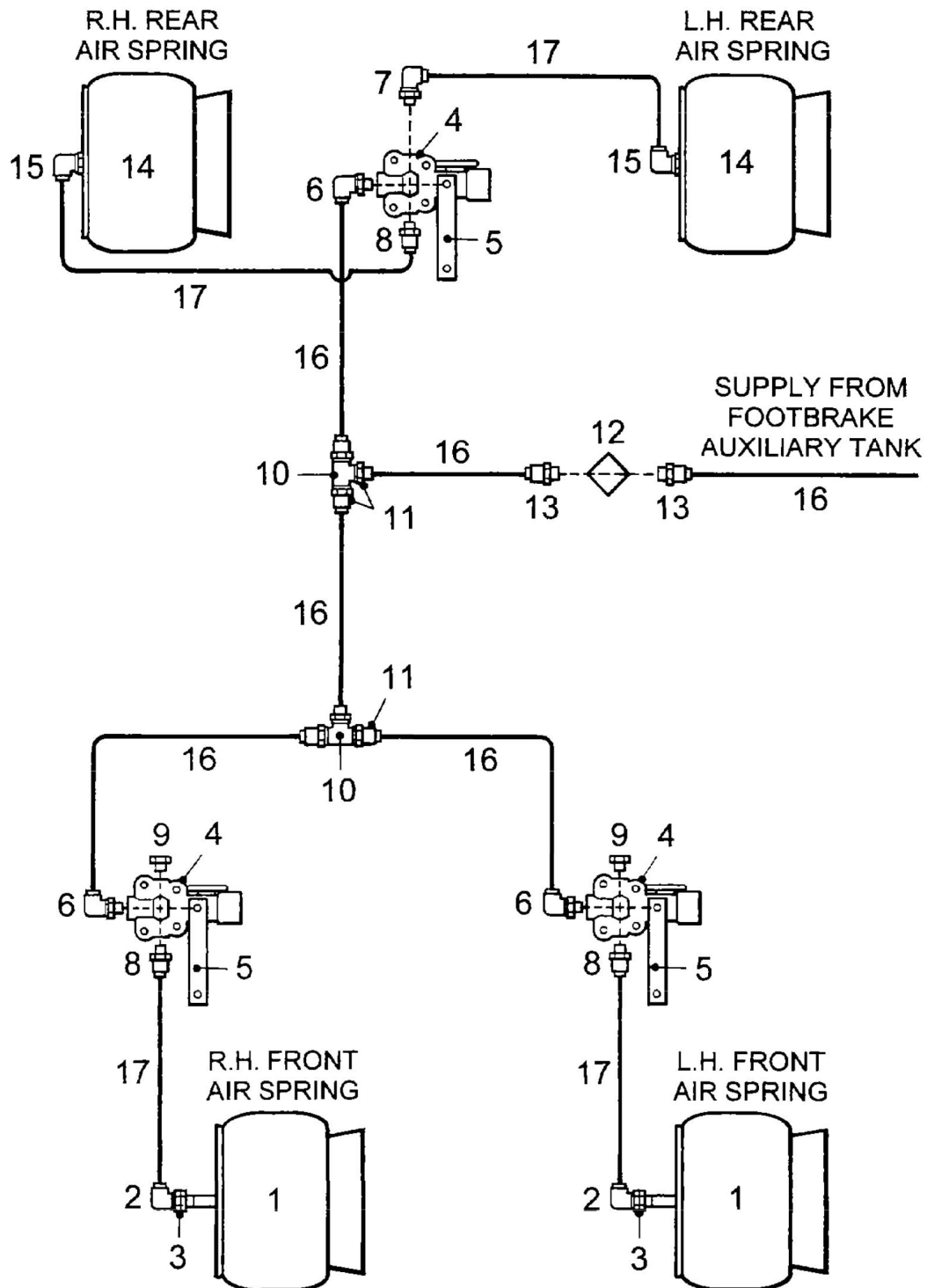


PARTS MANUAL

SUSPENSION SYSTEM

Suspension Air System	Page	3
Front Suspension	Page	5
Spring and Bush Assembly - Front	Page	6
Air Spring - Front	Page	7
Rear Suspension	Pages	9 - 11
Rear Spring Installation	Page	12
Air Spring - Rear	Page	13
Air Suspension Filter	Page	14

SUSPENSION AIR SYSTEM

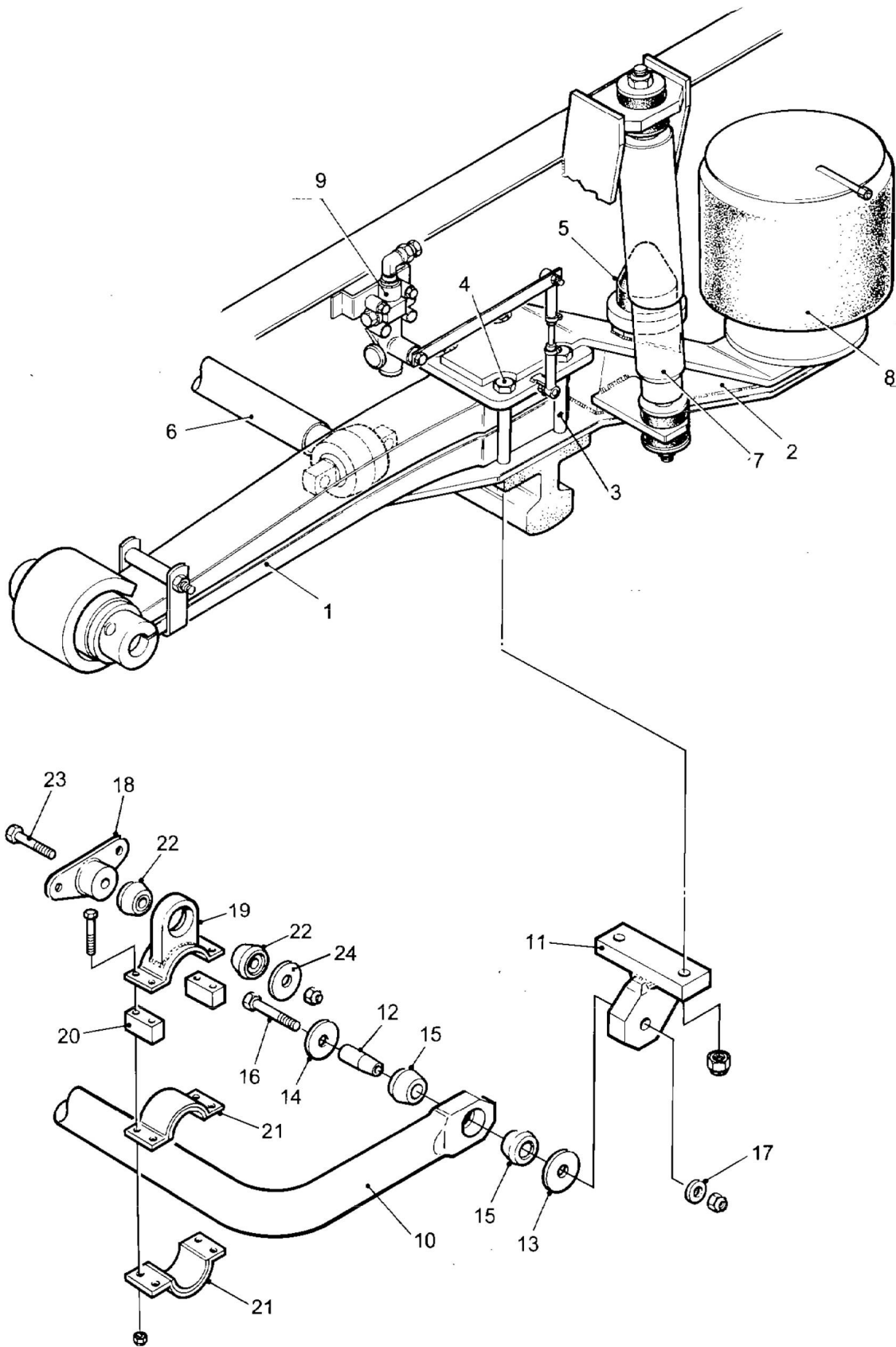


SUSPENSION AIR SYSTEM

Unit No: **SS500E**

Item No.	Description	Nº. Used	Part No.	Remarks
1	Spring, front air (see separate list)	2	655242	
2	Elbow 10mm P x 16mm	2	654919-2	
3	Connector 10mm P x 16mm	2	417930	
	Seal	2	603677	
4	Valve, levelling	3	652582	
5	Lever, levelling valve	3	406887	
	Connecting rod	3	408672-11	
6	Elbow 6mm P x 22mm	3	654919-5	
7	Elbow 10mm P x 12mm	1	654919-1	
8	Connector 10mm P x 12mm	3	654921-1	
9	Plug	2	654911	
10	T-piece 16mm	2	654922	
11	Connector 6mm P x 12mm	6	654921-9	
12	Filter (see separate list)	1	650303	
13	Connector 6mm P x 1/4in BSPT	2	654953	
14	Spring, rear air (see separate list)	2	655048	
15	Elbow 10mm P x 22m	2	654920-5	
16	Tube, nylon, black 6mm	a/r	654994	
17	Tube, nylon, black 10mm	a/r	654992	

FRONT SUSPENSION



FRONT SUSPENSION

Unit No: **SF501B
SS500E**

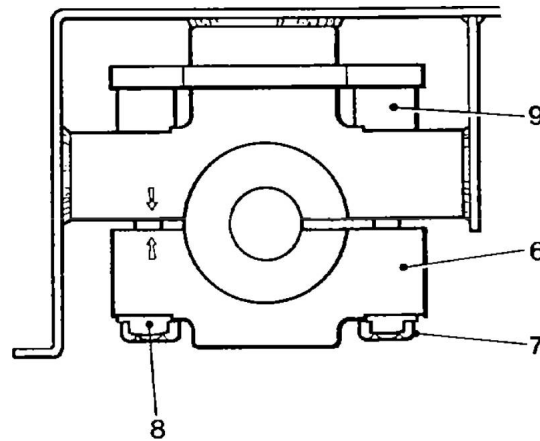
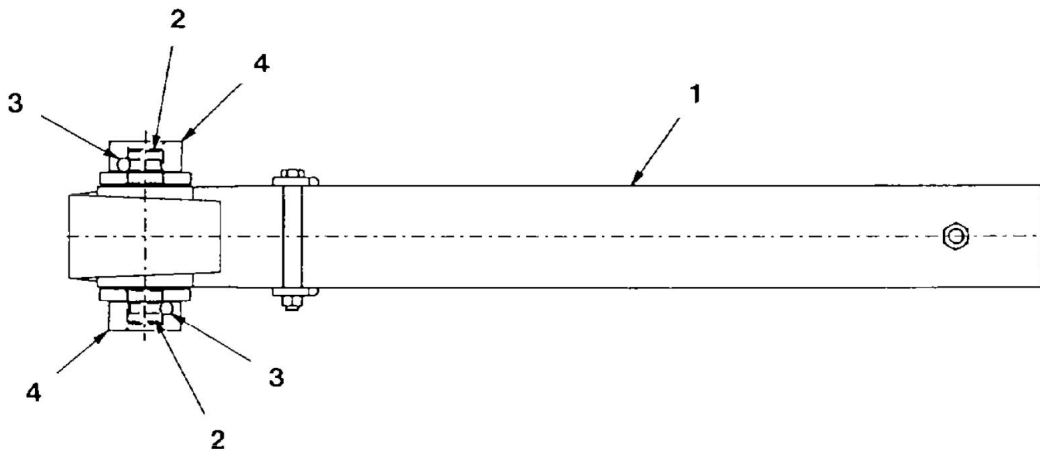
Amdt
121198

Item No.	Description	No. Used	Part No.	Remarks
1	SPRING AND BUSH ASSEMBLY, See separate list	2	414291	
2	Bracket, air spring mounting, left	1	420253	
	Bracket, air spring mounting, right	1	420252	
3	Bolt	4	408440-1	
4	Bolt	4	408440-3	
	Nut	8	10 MFN 520	
	Bolt	4	MCB 116 60P	
	Nut	4	MCN 516P	
5	Bump stop	2	417257	
	Nut	2	MCN 510P	
6	PANHARD ROD, complete	1	412147	
	Bolt	4	MCB 116 160P	
	Nut	4	MCN 516P	
	Joint, complete	2	653908	
	Repair kit	2	651697-1	
	Clamp	1	652055-1	
7	Shock Absorber	2	656668	DF 500D
	Mounting kit	4	656017	
	Grommet - damper brackets	2	68412	
8	AIR SPRING, See separate list	2	655242	
9	Levelling Valve	2	652582	SS 500E
	Levelling valve lever	2	406887	
	Connecting rod	2	408672/11	
	Rod end	4	651999	
10	Anti - roll bar	1	423952	
11	Bracket, front, LH	1	418868	
	Bracket, front, RH	1	418869	
12	Pin, anti-roll bar	2	404268	
13	Washer - outer	2	404265	
14	Washer - inner	2	404266	
15	Mounting, rubber	4	650994	
16	Bolt	2	MCB 112 110P	
	Nut	2	MCN 512P	
17	Washer, clamp	2	404267	
18	Plate, mounting	2	424257	
	Bolt - plate to frame	4	MCB 112 40P	
	Nut	4	MCN 512P	
	Washer	4	WMA 12SP	
19	Bracket	2	424241	
20	Spacer	4	423738	
	Bolt	8	MCB 112 55P	
	Nut	8	MCN 512P	
21	Bearing	2	423375	
22	Bush	4	657362	
23	Bolt	2	MCB 116 140P	
	Nut	2	MCN 516P	
24	Washer	2	WMA 16SP	

SPRING AND BUSH ASSEMBLY (front)

Assembly N°: 414291

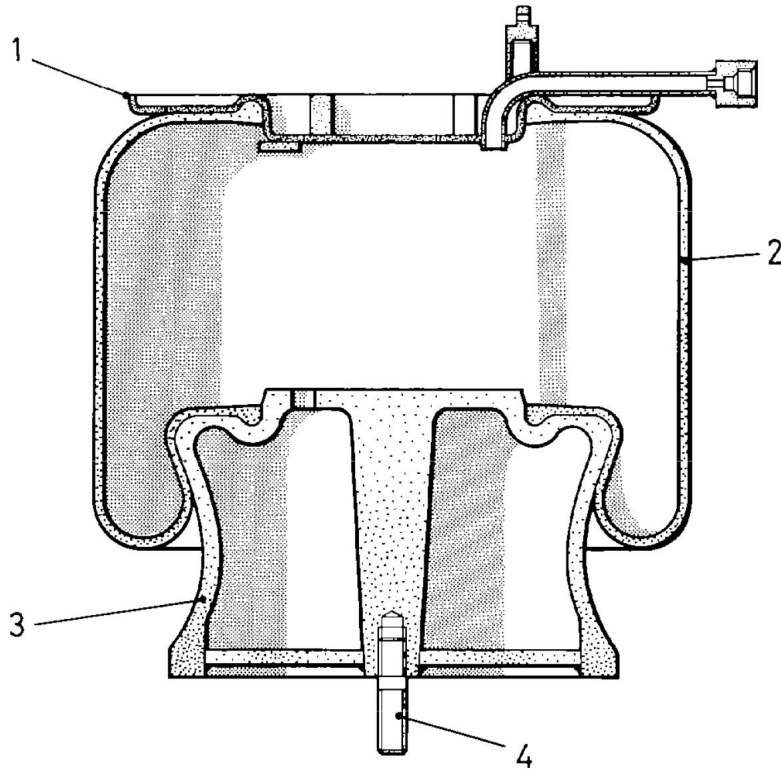
Item N°.	Description	N°. Used	Part N°.	Remarks
1	Spring - tapered leaf	1	412955	
2	Bush	1	412068	
3	Pin	2	419389	
4	Adaptor	2	416342	
5	Sealant	A/R	656042	
6	Clamp	2	419977	
7	Bolt, bush clamping	4	651680/2	
8	Tab washer	4	417607	
9	Locking plate	2	414080	



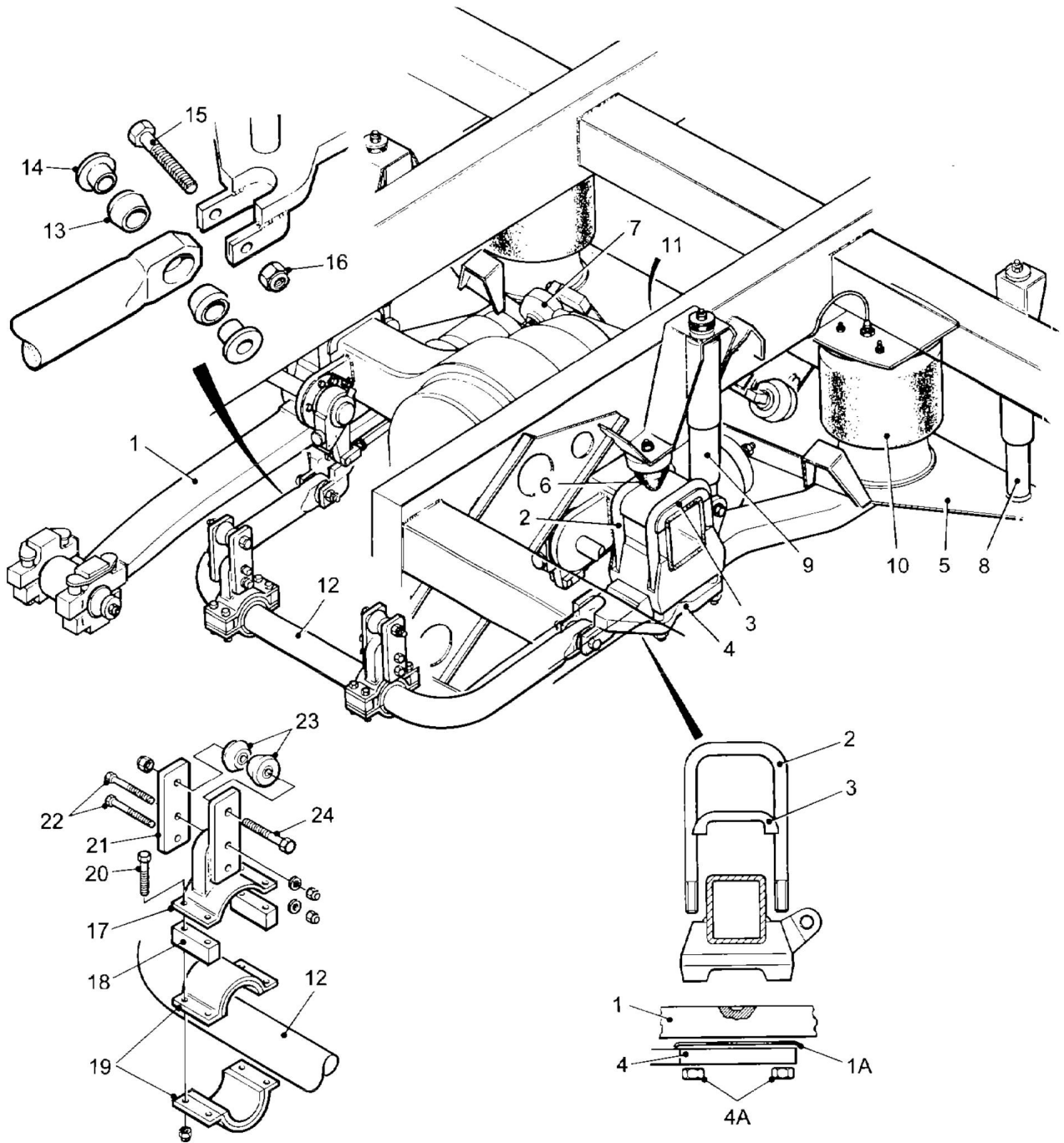
AIR SPRING (front)

Assembly N°: 653893
655242

Item N°.	Description	N°. Used	Part N°.	Remarks
1	Clamp plate (for 653893)	1	653893/1	
1	Clamp plate (for 655242)	1	655242/1	
2	Diaphragm	1	611896/12	
3	Piston	1	652398/1	
4	Stud	1	650883/2	



REAR SUSPENSION

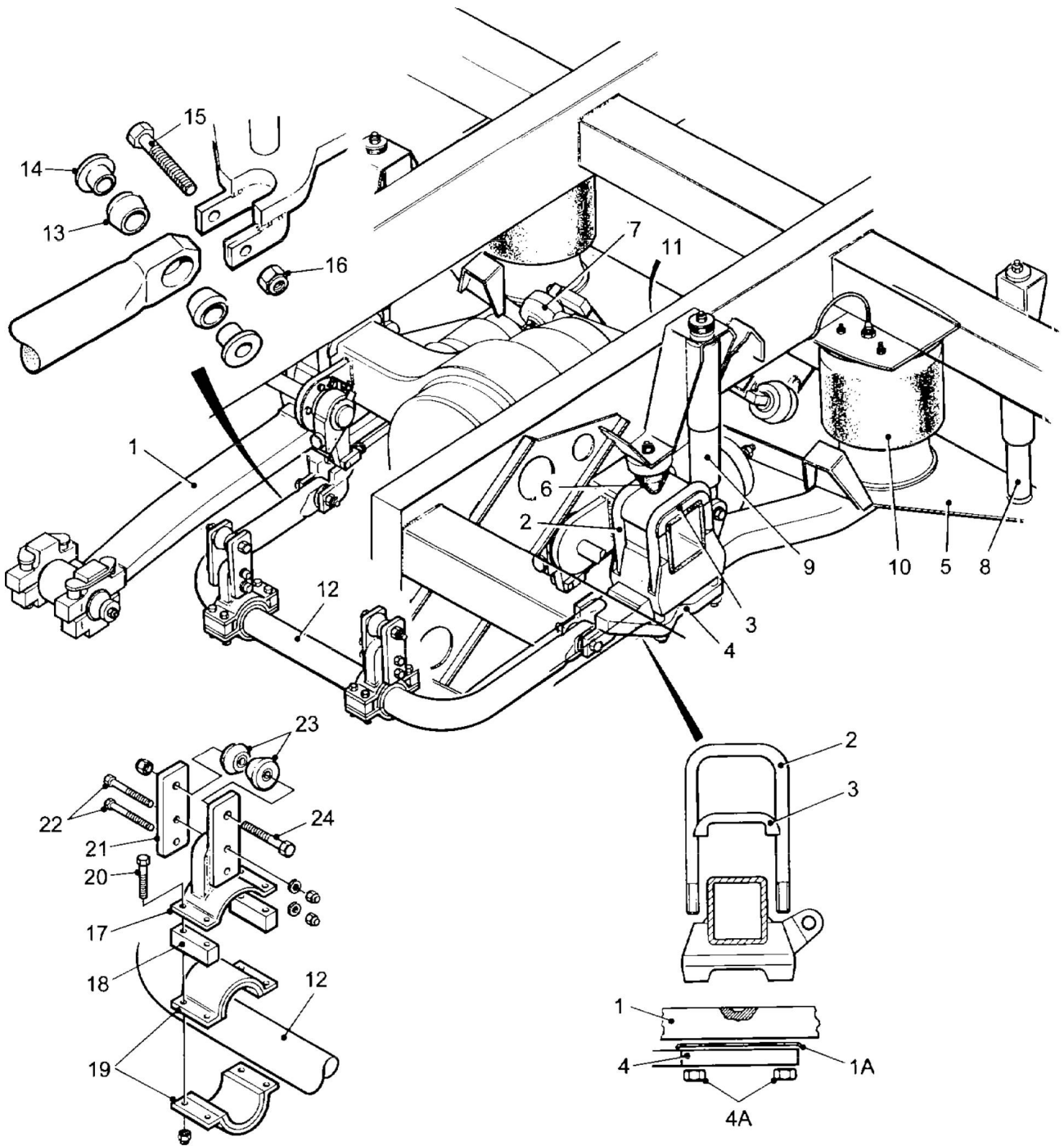


REAR SUSPENSION

Unit No: **SR502C SS500E**

Item No.	Description	No. Used	Part No.	Remarks
1	SPRING AND PIN ASSEMBLY see separate list	2	421788	
1A	Strip - spring protection	2	420472	
2	U-Bolt	4	412843	
3	Saddle	2	412845	
4	Plate, axle clamp LH	1	418943	
4	Plate, axle clamp RH	1	418944	
4A	Nut	8	MFN 524P	
5	Rear spring beam	1	423926	
	Bolt	4	MCB 116 100P	
	Nut	4	MCN 516P	
	Stud	4	413310	
	Setscrew	4	MCS 112 25P	
	Nut	4	MCN 112P	
	Spring Washer	8	WMC 12SP	
6	Bump stop	2	602543	
	Nut	2	MCN 512P	
7	PANHARD ROD, complete	1	412147	
	Bolt	4	MCB 116 130P	
	Nut	4	MCN 516P	
	Joint, complete	2	653908	
	Repair kit	2	651697-1	
	Clamp	1	652055-1	
8	Damper, rear	2	657392	DR500C
	Mounting kit	4	656017	
	Bush, collared	4	424586	
9	Damper, Front	2	657391	DR500C
	Mounting kit - top	2	656017	
	Mounting kit - bottom	2	654397-1	
	Bolt	2	MCB 120 110P	
	Nut	2	MCN 620P	
10	AIR SPRING, see separate list	2	655048	
	Stud - piston to beam	4	413310	
11	Levelling Valve	1	652582	SS500E
	Levelling valve lever	1	406887	
	Connecting rod	1	408672-11	
	Rod end	2	651999	
12	Anti-roll bar	1	423952	
13	Mounting rubber	4	650994	
14	Collar	4	409588	
15	Bolt	2	MCB 118 100P	
16	Nut	2	MCN 518P	

REAR SUSPENSION



REAR SUSPENSION

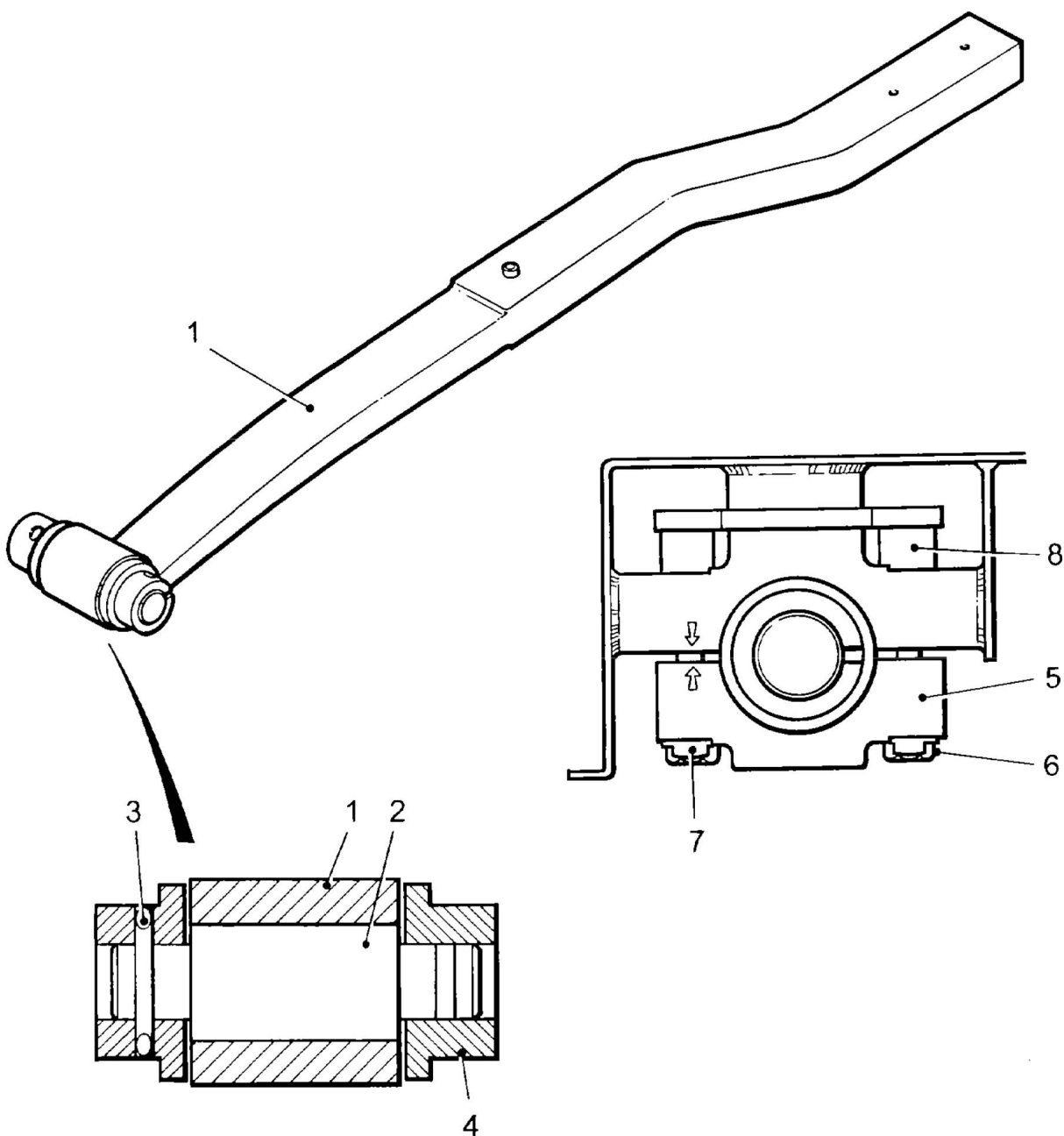
Unit N°: SR502C SS500E

Item N°.	Description	N°. Used	Part N°.	Remarks
	Link bracket assembly, consisting of:-	2	424239	
17	Bracket, attachment	1	424243	
18	Spacer	2	423738	
19	Bearing assembly	1	423375	
20	Bolt	2	MCB 112 55P	
	Nut	2	MCN 512P	
21	Plate, link	4	424245	
22	Bolt	4	MCB 112 90P	
	Nut	4	MCN 512P	
	Washer	4	WMA 12SP	
23	Mounting, rubber	4	657362	
24	Bolt	2	MCB 116 95P	
	Nut	2	MCN 516 P	
	Washer	2	WMA 16SP	

REAR SPRING INSTALLATION

Assembly No: SR 502C

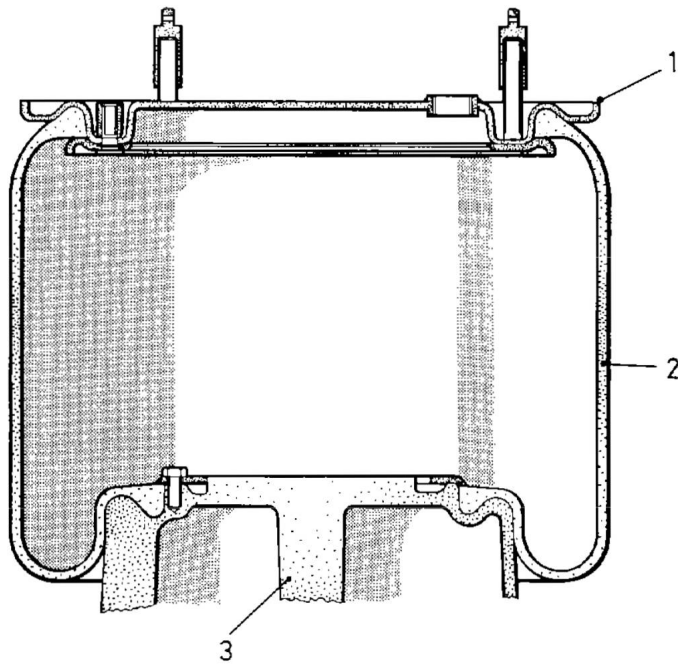
Item No.	Description	Nº. Used	Part No.	Remarks
	Spring and bush assembly comprising:-	2	421788	
1	Spring	1	419138	
2	Bush	1	412068	
3	Pin	2	419389	
4	Adaptor	2	416342	
5	Clamp	2	419977	
6	Bolt	4	651680/2	
7	Tab washer	4	653696/2	
8	Locking plate	2	414080	



AIR SPRING (rear)

Assembly No: 655048

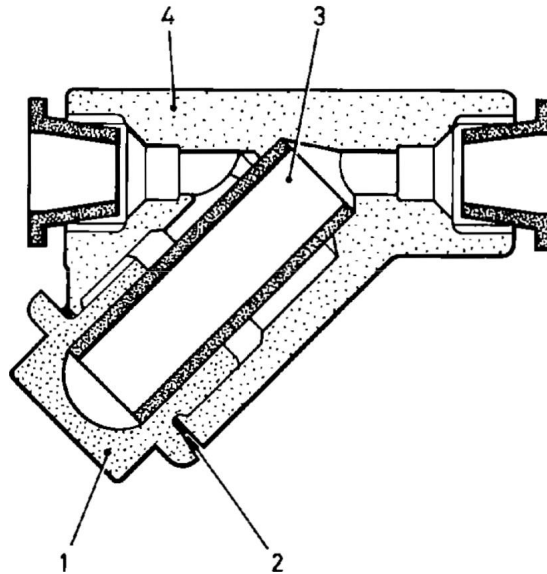
Item No.	Description	Nº. Used	Part No.	Remarks
1	Clamp plate assembly	1	653894-2	
2	Diaphragm	1	652722-39	
3	Piston	1	655048-1	
	Retaining plate assembly	1	652722-42	
	Retaining plate (small)	1	652722-43	
	Nut	6	652722-45	
	'O' ring	6	652722-46	
	Button head screw	6	652722-47	



AIR SUSPENSION FILTER

Assembly N°: 650303

Item N°.	Description	N°. Used	Part N°.	Remarks
	AIR SUSPENSION FILTER, COMPRISING	1	650303	
1	Plug	1	650303-1	
2	Washer	1	650303-2	
3	Filter element	1	650303-3	
4	Filter body	1	650303-4	





PARTS MANUAL

WHEELS AND TYRES

Description Page 3

DENNIS

WHEELS AND TYRES

Unit No: **W500A**

Item No.	Description	No. Used	Part No.	Remarks
	Wheel and tyre	6	653447/1	
	Wheel	6	650687	
	Tyre 275/70R x 22.5	6		
	Valve extension, front	2	68103	
	Valve extension, rear	4	67327	

