



PARTS MANUAL

ALEXANDER DENNIS

EURO 2



Trident 

COVERING 2 - AXLE EURO2 CHASSIS MODELS

SFD111BR1*GX2
SFD113BR1*GX2
SFD121BR1*GX2
SFD123BR1*GX2
SFD311BR1*GX2
SFD312BR1*GX2
SFD313BR1*GX2
SFD321BR1*GX2
SFD322BR1*GX2
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SFD411BR1*GX2

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SFD321BR1*GX4
SFD321BR2*GX4

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Manufactured by:

DENNIS

Alexander Dennis

Dennis Way
GUILDFORD
Surrey GU1 1AF
England

Tel: (01483) 571271
Fax: (01483) 301697

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SECTION 1.1

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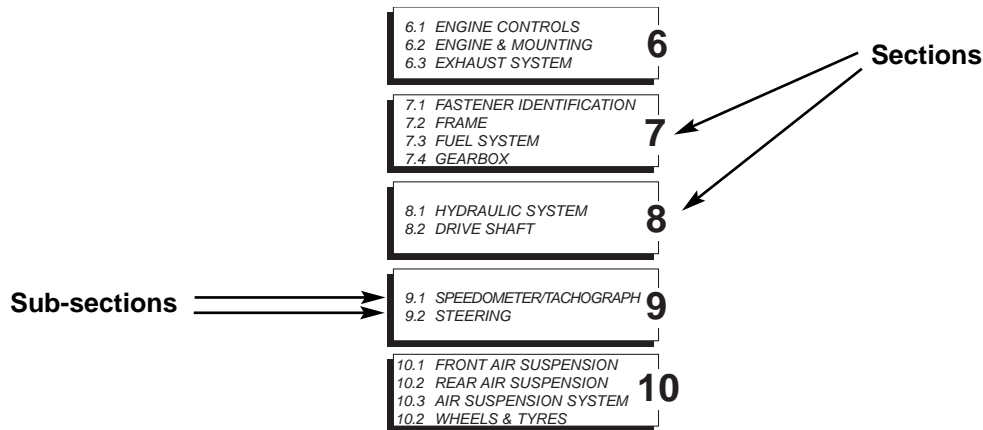
USING THIS MANUAL

Structure

The manual is divided into **10 Sections**. These sections are separated by **blue numbered dividers**.

Each of the manual's 10 Sections contains separate **Sub-sections**.

An **index listing both the Sections and Sub-sections** is at the front of the manual, following the cover page.



At the beginning of each Section is a **detailed index** of its contents.

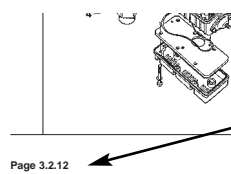
PARTS MANUAL **BRAKING SYSTEM**

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Page numbers indicate the **Section, Sub-section, and individual page number**.



The full number appears at the bottom of each page.

Abbreviations

- A/R** = As required
- c/w** = complete with

Amendments

The amendment date appears at the top of the page.



This symbol, next to an item line, indicates that the item has been amended for the current issue of the page.

PARTS MANUAL **ELECTRICAL**

AMENDED: 040898

ITEM NO	DESCRIPTION	NO USED	PART NO
	Alternator - Bosch T1	1	656804
1	Cover - air intake	1	656804-1
2	Shield - drive end	1	656804-2
3	Bearing	1	656804-3
4	Cover plate	1	656804-4
5	Rotor	1	656804-5
6	Collector ring	1	656804-6

Quick Reference Spares

Quick Reference Spares appears at the end of the first section of the manual (**Section 1.4**), and contains a list of service items, selected spares, and control units to save time when identifying the more common service spares. This is an aid - reference should always be made to the relevant section.

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SECTION 1.2

Contact Numbers	Page	1.2.2
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CONTACT NUMBERS

AMENDED:230407

AFTER MARKET SUPPORT LINE

0845 358 9988

FOR ALL ENQUIRIES

including :

Part Number Identification

Parts Ordering

Service Support

Warranty Support

Technical Support

FAX numbers :

Parts Ordering0845 358 9992

Technical Support01483 451458

Warranty/Service01483 301696

REGIONAL PARTS MANAGERS

AMENDED:230407

SOUTH EAST

REGIONAL PARTS MANAGER

MARK BOWLEY

E-MAIL :

mark.bowley@alexander-dennis.com

MOBILE :

07770 645212

MIDLANDS AND SOUTH WEST

REGIONAL PARTS MANAGER

KEVIN YEARDLEY

E-MAIL :

kevin.yeardley@alexander-dennis.com

MOBILE :

07979 705519

NORTH



REGIONAL PARTS MANAGER

LES RIVETT

E-MAIL :

les.rivett@alexander-dennis.com

MOBILE :

07843 357228

SCOTLAND AND IRELAND

REGIONAL PARTS MANAGER

JOHN McPHERSON

E-MAIL :

john.mcpherson@alexander-dennis.com

MOBILE :

07786 515652

HEAD OF UK & EIRE CUSTOMER MANAGEMENT

CUSTOMER MANAGEMENT

ROB WILLIAMS

E-MAIL :

rob.williams@alexander-dennis.com

MOBILE :

07764 922274

SERVICE CENTRES

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BRISTOL

BRISTOL SERVICE CENTRE: Folly Lane. St Philips. Bristol. BS2 0RH
TELEPHONE: 0117 955 0444 **FAX :** 0117 955 0666
OUT OF HOURS CONTACT : +44 (0) 7747 760 255

WARE

WARE SERVICE CENTRE: Widbury Hill. Ware. Hertfordshire. SG12 7AS
TELEPHONE: 01920 462383 **FAX :** 01920 463834
OUT OF HOURS CONTACT : +44 (0) 7881 917645

REGIONAL SERVICE MANAGERS

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LONDON

REGIONAL SERVICE MANAGER

STEVE EDMONDS

E-MAIL :

steve.edmonds@alexander-dennis.com

MOBILE :

07831 704251

SOUTH EAST



REGIONAL SERVICE MANAGER

GLENWILKIE

E-MAIL :

glen.wilkie@alexander-dennis.com

MOBILE :

07736 615459

SOUTH WEST

REGIONAL SERVICE MANAGER

STUART BOND

E-MAIL :

stuart.bond@alexander-dennis.com

MOBILE :

07836 249467

NORTH

REGIONAL SERVICE MANAGER

JOHN BRADLEY

E-MAIL :

john.bradley@alexander-dennis.com

MOBILE :

07768 921192

SCOTLAND & IRELAND

REGIONAL SERVICE MANAGER

DAVID ALLEN

E-MAIL :

david.allen@alexander-dennis.com

MOBILE :

07770 733779

UK FIELD SERVICE MANAGER

NIGEL PARKS

E-MAIL : nigel.parks@alexander-dennis.com

MOBILE :

07881 825840

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SECTION 1.3

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Working on the Vehicle	Page	1.3.3
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HEALTH & SAFETY

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Warning and Caution Symbols

Please take note of the following symbols, used throughout this manual which identify any health hazards or instructions to prevent any personal injuries or damage to the vehicle.

WARNING

Text with this heading and a shaded background is a reminder of an operation which, if not carried out with due care, could result in death or serious injury.

CAUTION

Text with this heading and a shaded background is a reminder of a potentially hazardous situation which, if not avoided, may result in minor or moderate personal injury.

CAUTION

Text with this heading and a shaded background is a reminder of an operation which, if not carried out with due care, could involve the risk of damage to material.

NOTE

Text with this heading and a shaded background refers to special methods, features or procedures.

Moving the Vehicle

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

Before driving the vehicle, operators should familiarise themselves with the vehicle operator's handbook.

With the chassis 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** - driver's seat.
- **Noise** - engine and exhaust noise may exceed levels achieved on a bodied vehicle.

Working on the Vehicle

Before commencing work on the vehicle, take note of all 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 is required during jacking or lifting. Specific advice given later in this manual should be followed.

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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.

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.

Friction Material Dust

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 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 the use of a damp cloth (for occasional exposure).

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.

Hydraulic Fluids

These 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.

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.

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.

HEALTH & SAFETY

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Viton 'O' rings and seals (fluoro-elastomers)

'Viton' material, used in the manufacture of oil seals and 'O' rings, produces a highly corrosive acid (hydrofluoric) when subjected to temperatures above 600°F. The resulting contamination can have extreme consequences on human tissue since it is almost impossible to remove after contact.

The following procedure is recommended when it is necessary to inspect any equipment that has been subjected to a high temperature i.e. fire.

1. **Visually** inspect for any gaskets or seals which have suffered from heat; they will appear black and sticky.
2. If this is affirmed:- **Do not touch**.
3. Make enquiries to ascertain material composition.
Any fluoro-elastomer (Viton, Flourel or Tecmoflon) should be considered dangerous but natural rubber and nitrile are non-hazardous.
4. If fluoro-elastomer seals have been used, then the affected area **MUST** be decontaminated before undertaking further work.
5. Disposable heavy duty gloves (neoprene) **MUST** be worn and the affected area decontaminated by washing thoroughly with limewater (calcium hydroxide solution).
6. Any cloths, residue and gloves used **MUST** be safely discarded after use.

Those which may cause noxious fumes if allowed to burn:

Coatings (Mebon chassis protection)

Generally inert in the cured state, but should be removed from areas to be welded.

Fuel (diesel)

Not classified as flammable for most purposes.

Hydraulic Fluids

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

Mineral oil (engine and gearbox)

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

Rubber and synthetic alternatives (tyres, hoses, bushes, seals, insulation)

Natural and synthetic rubbers are combustible and will produce unpleasant and dangerous fumes.

- Under no circumstances should fingers or any other part of your body be inserted into areas with moving parts. **SERIOUS INJURY MAY RESULT.**
- Remove rings, watches before working on the vehicle, particularly necessary when working on the electrical system.
- Wear eye protection when working underneath the vehicle.
- Use barrier cream or wear gloves as necessary to protect hands.
- Keep loose clothing and long hair away from moving parts.
- Never attempt to lift heavy components unaided.
- Wear hand and eye protection when working with glass.
- Switch off power at master switch before carrying out any electrical maintenance.

ENVIRONMENTAL WARNINGS

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WARNING

Used engine oil, hydraulic fluids, transmission fluid, antifreeze, (and their containers) batteries and tyres can be a hazard to health and the environment.

Fluids and other substances (e.g. used oil) and surplus parts must be disposed of in a safe and environmentally sound manner.

On no account must any of these items be placed in household refuse bins, or the fluids poured down drains.

Observe local regulations and laws on environmental protection and disposal of hazardous materials.

These should be disposed of using authorised waste disposal facilities.
Consult local authority for safe disposal facilities.

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SECTION 1.4

Special Tools	Page	1.4.3
Quick Reference Spares	Page	1.4.4 - 9

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Trident 2 special tools and diagnostic equipment**Gearbox - ZF HP500**

Mobidig diagnostic equipment (inc smart card)	6008 070 002
Smart card	6008 203 008
Pressure gauge 0 - 25 bar	1P01 136 670
Pressure gauge 0 - 10 bar * 2	1P01 137 856
Test union M10 x 1 (spare if required)	0637 839 504


Voith D863.3

Diagnostic software and interface lead	59.2500.20
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Braking System

Brake tube cutter	610224
Pressure gauges 0 - 10 bar * 4	local supply
Test hoses with ISO test connectors * 4	local supply
ISO test nipple nut -2 off (to make above)	SC1006
Front Axle Brakes - Kirkstall	
Brake cam bush & cam oil seal installer	E565
Brake shoe bush installer	E566
Rear Axle Brakes - Perrot	
 Rear brake shoe return spring remover / installer	ZQ40107
Brake wear indicator	429370

Rear Axle - ZF AV-132

Oil seal driver	5870 051 040
Driver handle	5870 260 004
Halfshaft Oil seal driver	5870 005 098
 Driver handle	5870 260 002
Hub Nut Spanner	5870 401 104

Front Axle - Kirkstall

Swivel pin dummy nut	SL225/19
UNIPAC bearing alignment sleeve	E543
Alignment Studs	E542

Engine - Cummins C Series

DCA4 test kit	CC 2628M
Engine barring tool	3824591
Injector puller	3823276

Chassis Electrics

Actia Aladin TMI diagnostic equipment	D3
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Cooling fan motor & ZF Steering

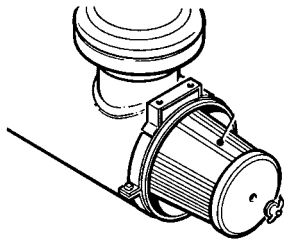
Pressure test point	Hose adaptor	SMA-3-2000
	Hose to gauge adaptor	MAV1/4-MA3

Miscellaneous

Towing eye	652433
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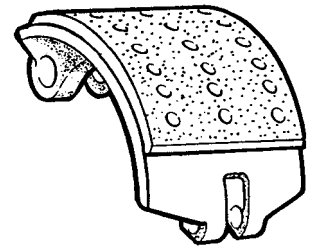
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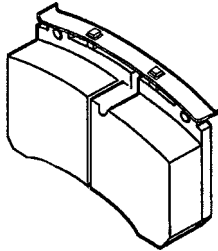
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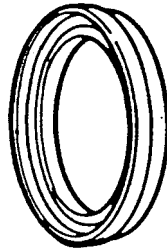
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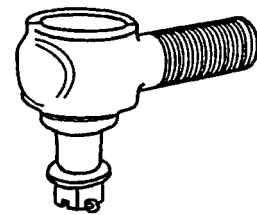
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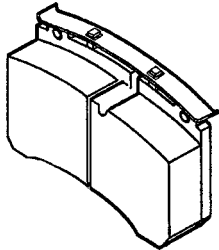
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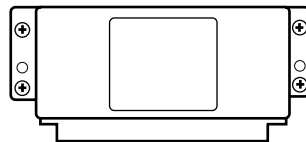
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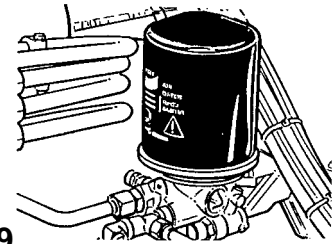
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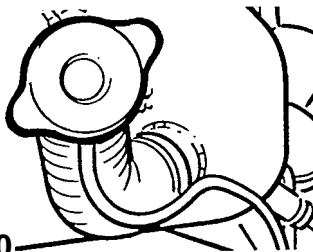
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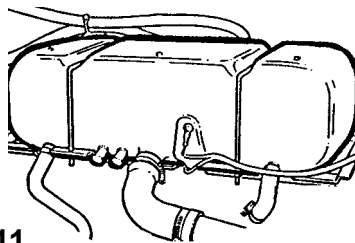
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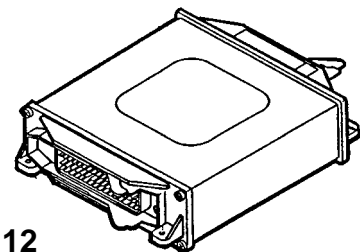
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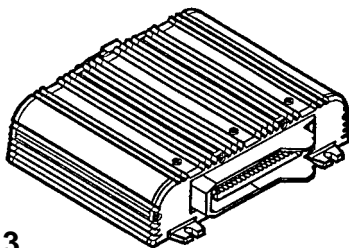
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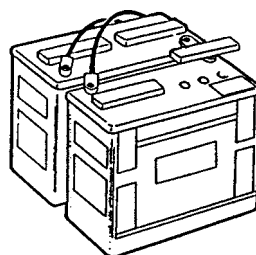
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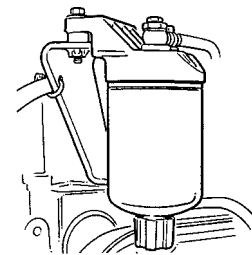
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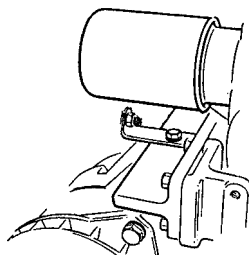
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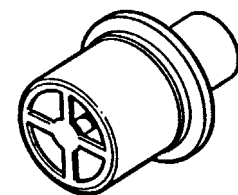
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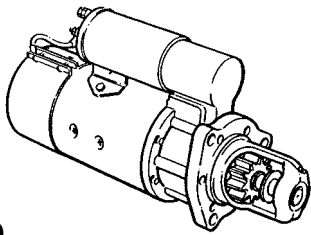


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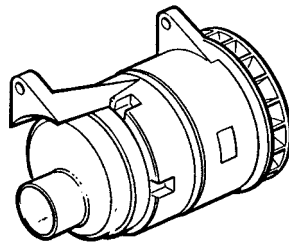
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	AIR CLEANER			
1	Element - Air cleaner - engine	1	651031-1	
2	Filter restriction indicator	1	658566	
	FRONT AXLE			
3	Brake shoe assembly	4	656007-25	
4	Kit - brake pad - front	1	658470-41	
5	'O' ring - hub cap	2	655387-2	
6	Socket - LH	1	656007-49	
	Socket - RH	1	655500-7	
	REAR AXLE			
3	Brake shoe assembly	4	656995-115	
	Seal - Drive shaft	2	656695-64	
	Seal - hub carrier	2	656695-65	
4	Repair kit - brake shaft	2	656995-111	
	Repair kit - brake shoe springs	2	656995-122	
	Repair kit - brake shoe roller	2	656995-123	
7	Kit - brake pad - rear	1	658470-41	
	BRAKING SYSTEM			
8	Electronic control unit - ABS	1	658880	
9	Cartridge kit - air dryer	1	656250-1	
	COOLING SYSTEM			
10	Pressure cap	1	654109	
11	Header tank assembly		425241	
	ELECTRICAL SYSTEM			
12	Electronic control unit - Voith	1	657042-2	
	Electronic control unit - ZF - 4 speed - C220	1	657490-2	
	Electronic control unit - ZF - 4 speed - C245	1	657465-2	
	Electronic control unit - ZF - 5 speed - C245	1	657044-2	
13	Electrical system control module	1	655706	
14	Battery - 12v	2	656334	
	ENGINE			
☞ 15	Element - fuel filter / water separator	1	ZZ11063	FS1251
16	Element - coolant filter - DCA4 - 2 units	AR	WF2070	
	Element - coolant filter - DCA4 - 4 units	AR	WF2071	
	Element - coolant filter - DCA4 - 6 units	AR	WF2072	
	Element - coolant filter - DCA4 - 8 units	AR	WF2073	
	Element - coolant filter - DCA4 - 10 units	AR	WF2077	
☞ 17	Element - Lubrication oil filter	1	ZZ11068	
18	Thermostat	1	3913028-101	

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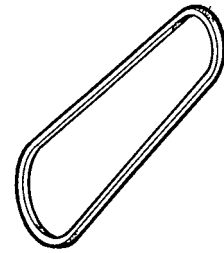
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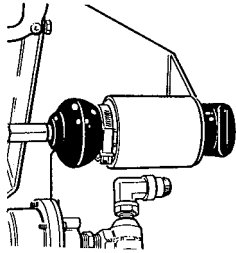
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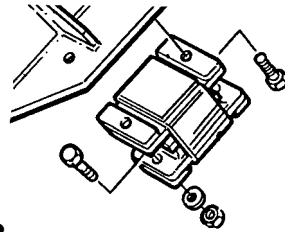
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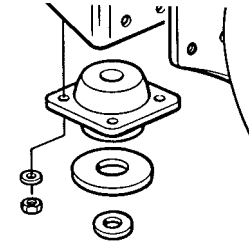
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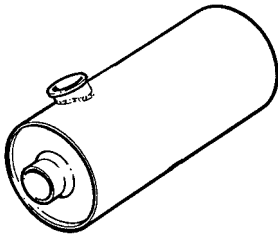
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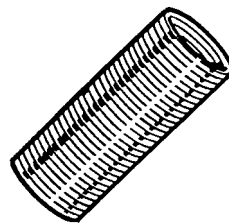
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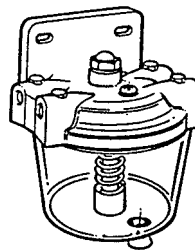
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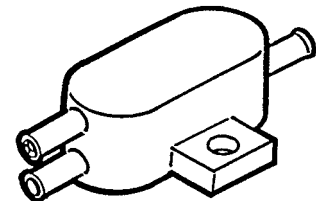
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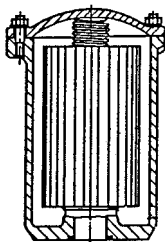
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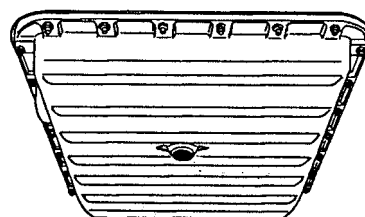
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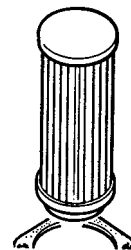
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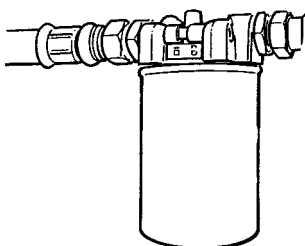
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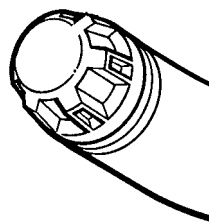
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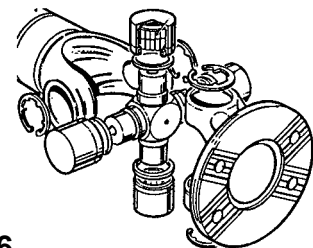
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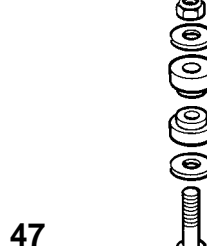
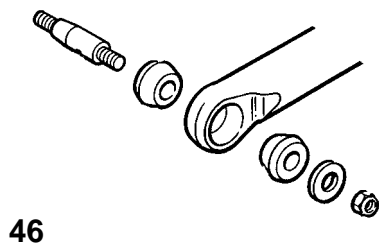
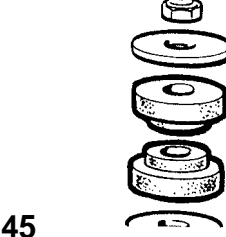
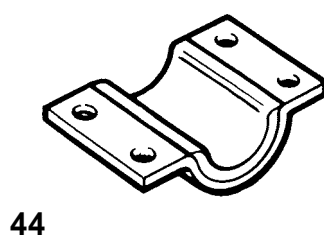
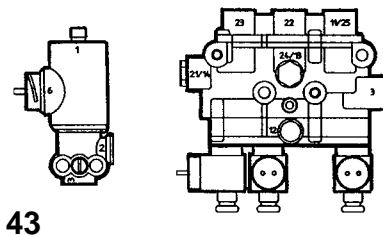
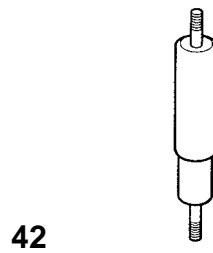
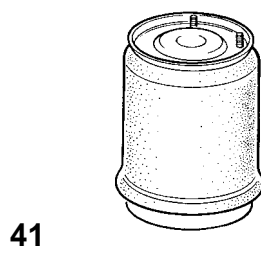
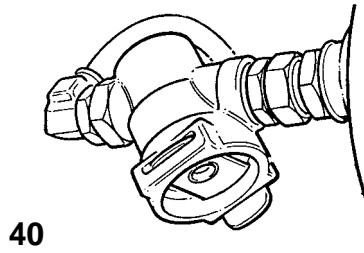
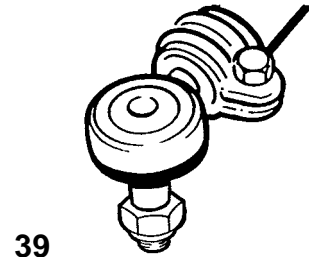
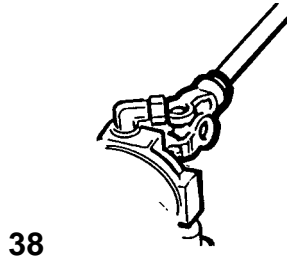
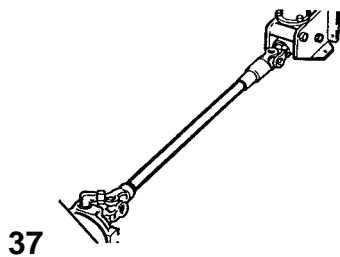
36



AMENDED:160101

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	ENGINE			
19	Starter motor	1	658032	
☞ 20a	Alternator -120A	2	656804	
☞ 20b	Alternator -140A	2	658123	
☞ 21a	Belt - Alternator - 120A	1	3915768-101	
☞ 21b	Belt - Alternator - 140A	1	3911583-101	
22	Engine stop solenoid	1	650026	
23	Engine mounting - rear	2	656679	
24	Engine mounting - side	2	654081	
	EXHAUST SYSTEM			
25	Silencer	1	423640	
26	Flexible pipe - mild steel	1	423676	
	Flexible pipe - stainless steel	1	425477	
27	Rubber mount	5	657151	
	FUEL SYSTEM			
28	Fuel filler cap	1	654219	
29	Element - fuel filter	1	654684-1	
30	Breather	1	653881	
	GEARBOX			
31	Filter kit - comprising: element, o ring & gasket	1	656011-1	Voith
	Filter kit - comprising: element, o ring & gasket	1	652638-1	ZF
32	Copper Seal - drain plug	1	650247-2	Voith
	Copper Seal - Converter drain plug	1	650247-5	Voith
	HYDRAULIC SYSTEM			
33	Element - Hydraulic tank filter	2	650031	
34	Element - Hydraulic filter	1	656730-1	
35	Filler breather assembly	1	657157	
	PROPSHAFT			
36	Joint kit	2	654309-1	

AMENDED:110101



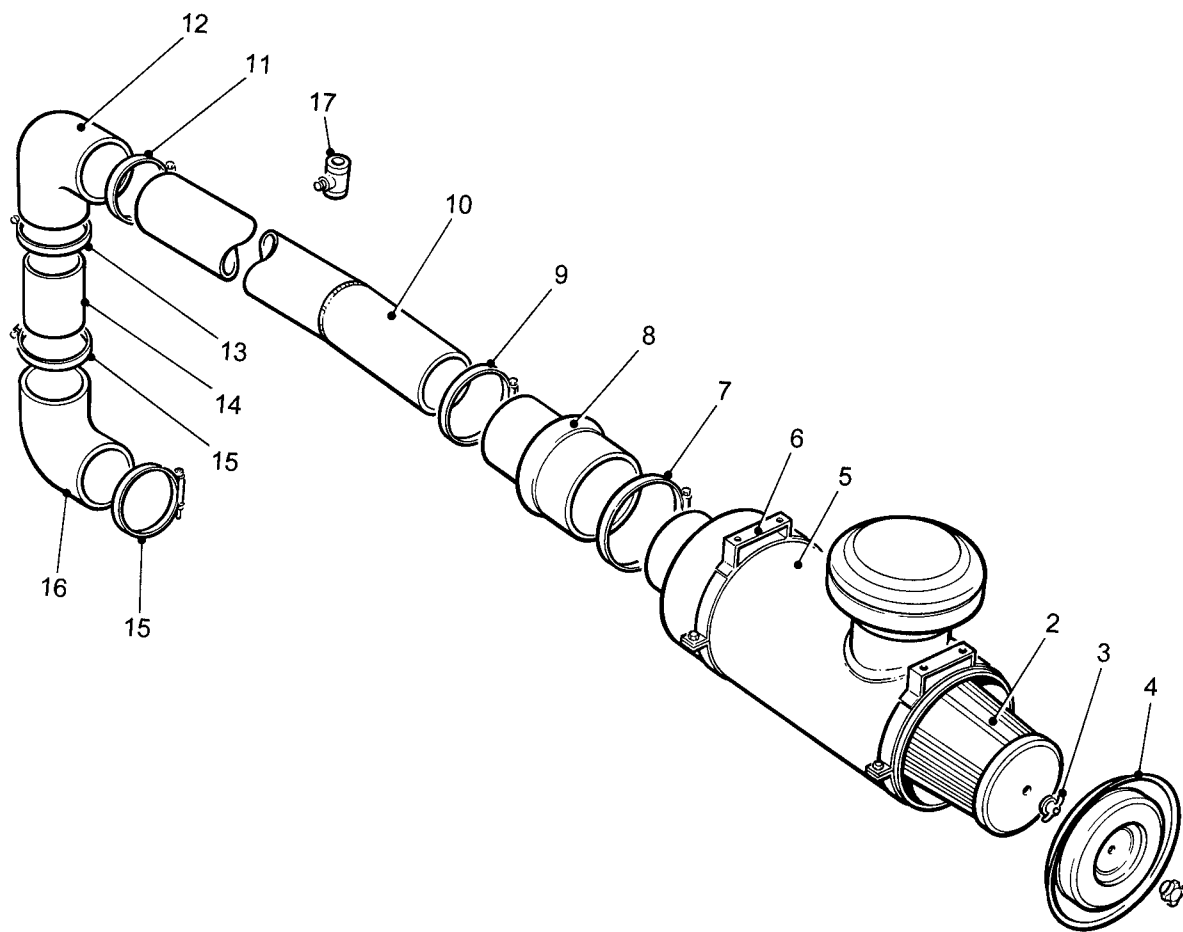
AMENDED:230407

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	STEERING GEAR			
37	Relay shaft	1	412555-5	
38	Yoke assembly	1	611511	
39	Ball joint	2	656692-1	
	AIR SUSPENSION			
40	Line filter	1	655710-1	
41	Diaphragm - Front	2	656298-2	
	Diaphragm - Rear	4	656299-2	
42	Damper - Front	4	657610	
	Damper - Rear	2	657611	
43	Solenoid valve - 3 way	1	656606	
	Solenoid valve - Single	1	656607	
☞ 44	Bush half- A.R.B - Front (<i>50mm diameter bar</i>)	4	434216	Replace all
☞	Bush half - A.R.B. - Rear (<i>60mm diameter bar</i>)	4	434214	Replace all
45	Rubber bush - shock absorber	16	657610-1	
46	Mounting rubber - A.R.B. - eye - rear	8	658973	
47	Mounting rubber - A.R.B. - link - rear	4	434947	

DENNIS

SECTION 2.1

System detailsPage 2.1.2 - 3



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	AIR CLEANER	1	651031	
2	Element Assembly	1	651031-1	
3	Nut & gasket assembly	1	650551-3	
4	Cover assembly	1	651031-3	
④	Seal - Cover Assembly	1	651031-5	
5	Body assembly	1	651031-2	
6	Mounting band - air cleaner	2	651032	
	Setscrew	4	MCS 110 20P	
	Nut	4	MCN 510P	
7	Clip	1	611005-9	
8	Hump hose	1	651058	
9	Clip	1	611005-2	
10	Air intake pipe	1	424185	
11	Clip	1	611005-2	
12	Elbow-reducing	1	611605	
13	Clip	1	611005-6	
14	Air intake pipe - short	1	424180	
15	Elbow	1	260840	
16	Clip	2	611005-6	
17	Restriction indicator	1	658566	
	Label - air cleaner	1	417594	

DENNIS

SECTION 2.2

Automatic lubrication system - OL1511-1& OL1511-2	Page	2.2.3
Remote greasing - AL1510	Page	2.2.4

PARTS MANUAL AUTOMATIC LUBRICATION SYSTEM

AMENDED:230407

UNIT NO:OL1511-1&OL1511-2

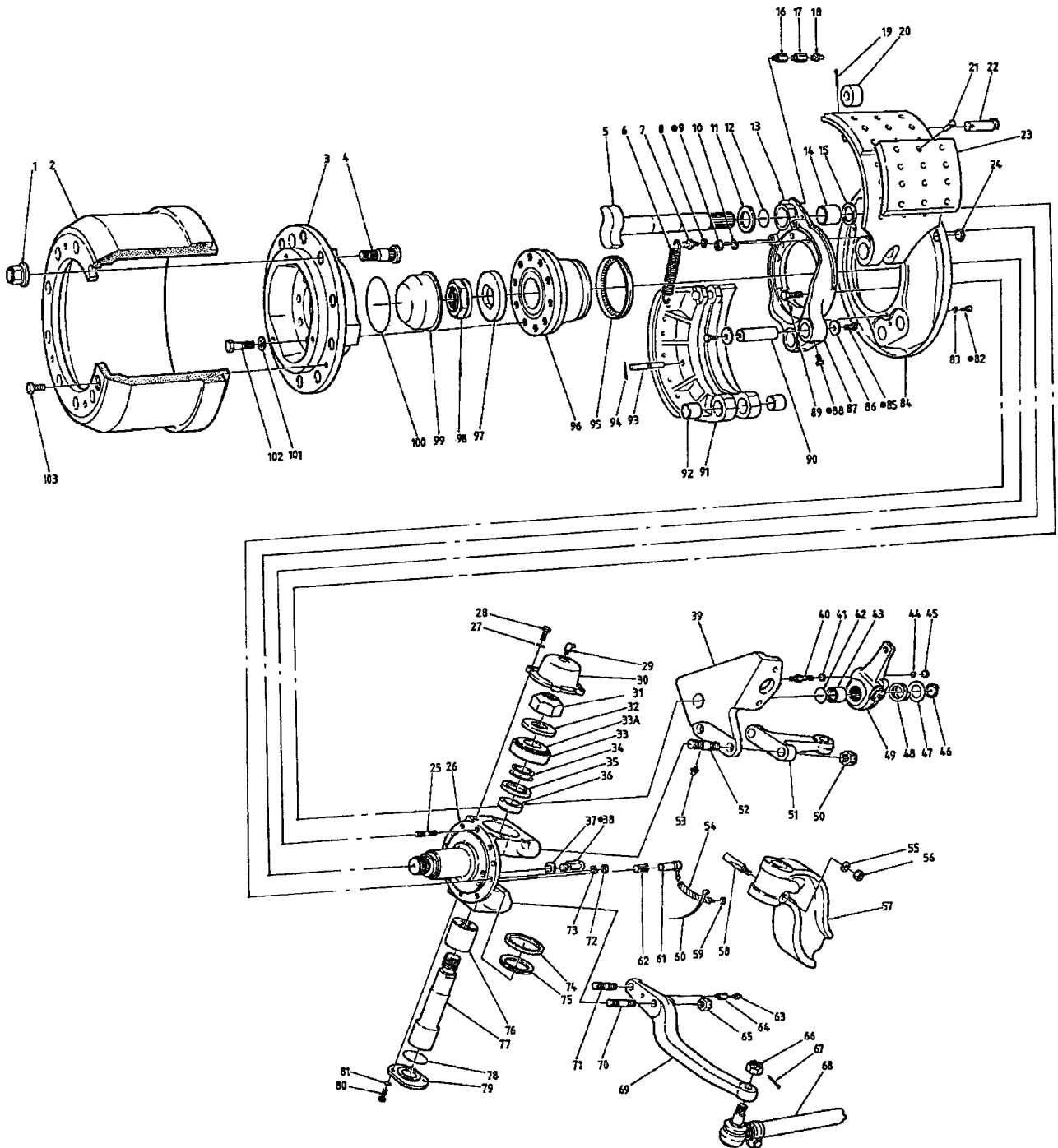
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Autolube pump assy -24 POINT	1	657386-1	
2	Timer unit	1	652426	
	Setscrew	2	MCS 106 16P	
	Washer- plain	2	WMA 6SP	
	Washer - spring	2	WMC 6SP	
	Connector	1	655241	
	Pin	2	655240	
3	Elbow	10	609497-3	
4	Adaptor - straight	4	609497-6	
5	Nylon tube - dia 5mm	5m	652786	
6	Air fitting	1	656326-1	
7	Extension	2	653318-22	
8	Harness - Autolube	1	657386-2	
9	Pump - 0.015cc	6	609502	
10	Pump - 0.025cc	4	609503	
11	Plug	10	609504	
12	Pump - 0.040cc	2	650534	
13	Tee piece - supply	1	654923-1	
14	Reducer	1	654927-5	
15	Washer- Aluminium	1	655003	
16	Grease - Autolube	3.5kg	652454	
1	Autolube pump assy - 14 POINT	1	658051-1	OL1511-2
	Reservior	1	611900-1	
	Setscrew	2	MCS 106 16P	
	Washer - plain	2	WMA6SP7	
	Washer - spring	2	109400	
	Connector	1	655241	
	Pin	2		
2	Elbow	10	657802-4	
3	Adaptor - straight	10	657801-4	
4	Nylon tube - dia 5mm	5m	652786	
5	Extension	2		
6	Harness - Autolube	1	658051-2	
7	Pump - 0.015cc		657803-2	
8	Pump- 0.025cc	4	657803-3	
9	Plug	10	609504	
10	Pump - 0.040cc	4	657803-4	
11	Soft Grease - Autolube — HT500	3.5kg		

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Adaptor plate -	1	657397-1	
2	Connector - straight - camshaft outer bearing	1	657801-4	
3	Connector - elbow - slack adjuster	2	657802-4	
4	Connector - elbow - brake drum	2	657802-6	
5	Loom assembly - LH	1	657397-2	
6	Loom assembly - RH	1	657397-3	

DENNIS

SECTION 2.3

Axle front - drum brakes	Page	2.3.2 - 7
Steering damper assembly	Page	2.3.9
Swivel pin service kit	Page	2.3.10 - 11
Axle front - disc brakes - swivel	Page	2.3.13
Swivel pin service kit	Page	2.3.15
Axle front - disc brakes - hub and brake	Page	2.3.17



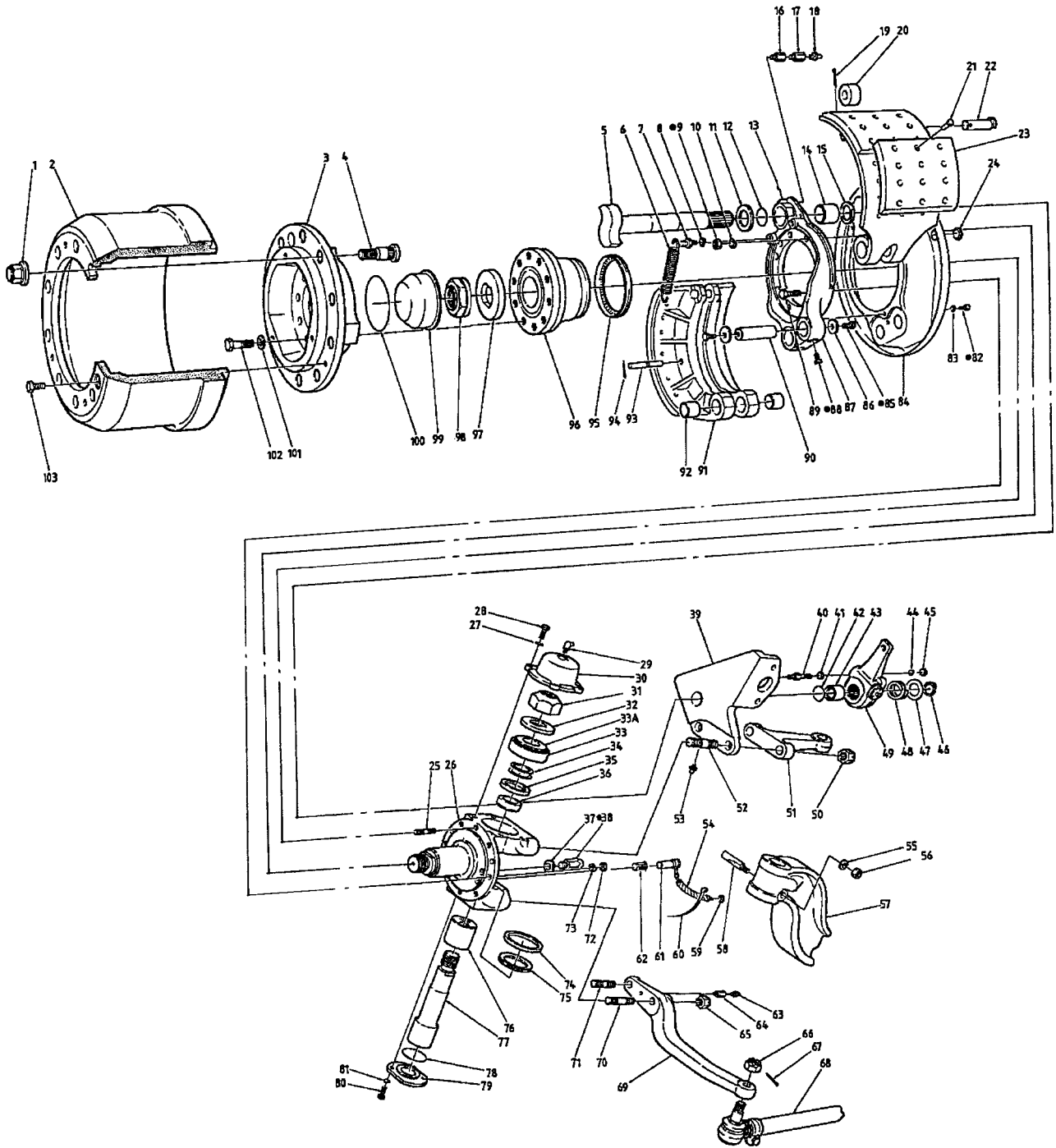
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Front axle - complete	1	656007	AF1510A
	Front axle - complete - steering damper type	1	658109	AF1510B
1	Wheel nut - capped	20	650723-4	610Nm
2	Brake drum	2	656007-55	
3	Hub	2	656007-2	
4	Wheel stud	20	650962-2	
5	Brake cam RH	1	656007-3	
	Brake cam LH	1	656007-4	
6	Brake shoe return spring	4	650418-33	
7	Brake bracket anchor pin	4	650418-34	
8	Brake bracket anchor pin washer	4	WLC 8SP	
9	Brake bracket nut	12	606624-1 34	
10	Brake bracket washer	12	WLC 8SP	
11	Brake cam head washer	2	656007-5	
12	Brake cam head 'O' ring	2	656007-6	
13	Brake bracket taper plug	2	651107-5	
14	Brake cam bush	2	656007-7	
15	Brake cam grease seal	2	656007-8	
16	Lubricator extension	2	651 042-6	
17	Lubricator extension	2	609775-41	
18	Lubricator	2	607032-32	
19	Brake shoe roller pin split pin	4	650418-28	
20	Brake shoe roller	4	656007-9	
21	Brake shoe rivet	96	656007-56	
22	Brake shoe roller pin	4	656007-11	
23	Brake liner	8	656007-12	
24	Brake liner inspection hole cover	4	651107-10	
25	Brake bracket stud	12	657863-4	
26	Swivel - R.H	2	658109-8	
26	Swivel - L.H	2	658109-9	
27	Swivel top cap washer	8	WLA7SP	
28	Swivel top cap setscrew	8	607901 -111	
29	Lubricator	2	69791	
30	Swivel top cap	2	6501 97-2	
31	Swivel pin nut	2	656007-14	
32	Swivel pin collet washer	2	6081 55-7	
33	Swivel pin bearing cup kit no.	2	610101-23	
33A	Swivel pin bearing cone 17898/75	2	610101-23	
34	Swivel bearing adjusting shim (0.005")	As	117823-37	
	Swivel bearing adjusting shim (0.010")	Reqd	117823-17	
	Swivel bearing adjusting shim (0.015")	"	117823-105	
	Swivel bearing adjusting shim (0.008")	"	653264-3	
	Swivel bearing adjusting shim (0.006")	"	653584-3	
35	Swivel bush seal	2	656007-15	
36	Swivel bearing sleeve	2	656007-16	

AXLE FRONT -DRUM BRAKE

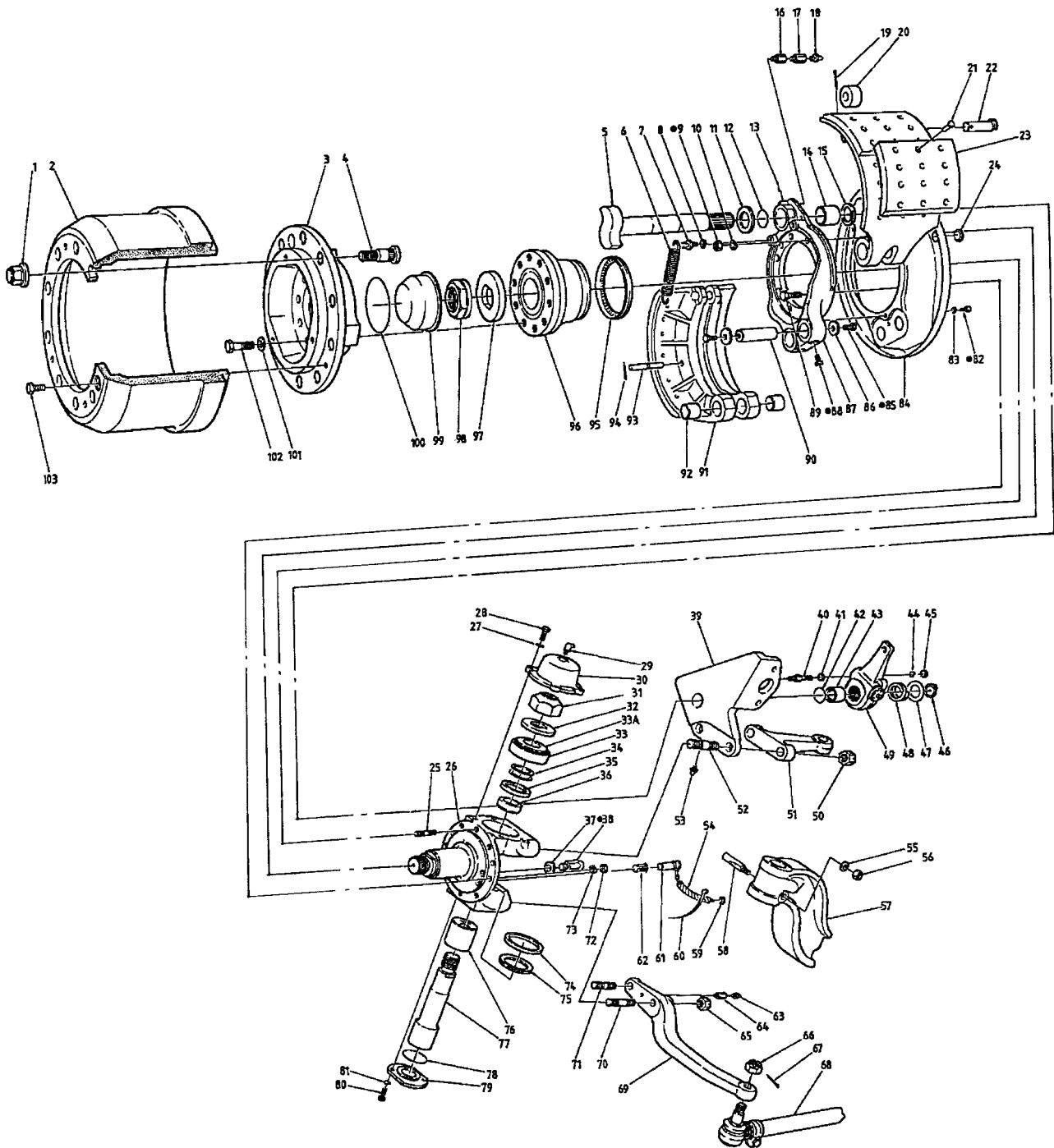
PARTS MANUAL

AMENDED:

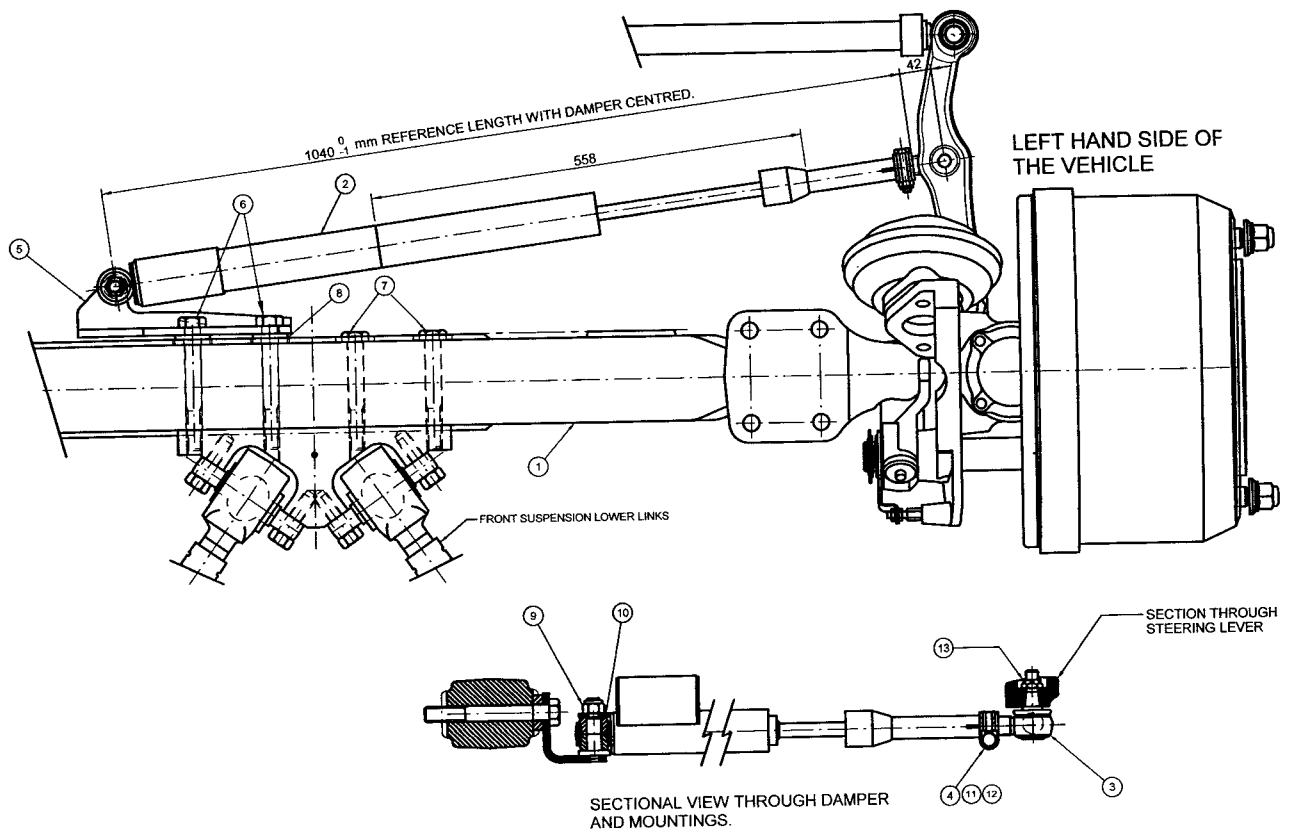
UNIT NO:AR1510A,B



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
37	Swivel stop screw adjusting washer	As	68256-61	
	Swivel stop screw adjusting washer	Reqd	68256-63	
	Swivel stop screw adjusting washer	"	68256-64	
38	Swivel stop screw	2	650418-12	
	Swivel stop screw	1	651106-5	
39	Brake chamber bracket RH	1	656007-17	
	Brake chamber bracket LH	1	656007-18	
40	Slack adjuster reaction stud	2	656007-19	
41	Slack adjuster reaction stud nut	2	651578-6	
42	Brake chamber bracket '0' ring	2	650418-38	
43	Brake chamber bracket bush	2	650418-39	
44	Slack adjuster reaction stud washer	2	651042-10	
45	Slack adjuster reaction stud nut	2	651578-6	
46	Brake cam circlip	2	606625-4	
47	Brake cam washer	2	651042-8	
48	Brake cam spring	2	650418-42	
49	Slack adjuster RH	1	656007-29	
	Slack adjuster LH	1	656007-30	
50	Top lever/chamber bracket nut	4	607901-96	
51	Top steering lever (RH)	1	656007-31	
52	Top lever/chamber bracket stud	2	609001-1	
	Chamber bracket stud	2	609001 -4	
53	Lubricator	2	607032-32	
54	Not required on this application	-	-	
55	Swivel cotter pin nut washer	2	28372	
56	Swivel cotter pin nut	2	UFN 107 AP	
57a	Axle casing - damper type	1	658109-5	AF1510A
57b	Axle casing - non-damper type	1	656007-32	AF1510B
58	Swivel cotter pin	2	656007-33	
59	Lubricator	2	607032-32	
60	Lubricator extension	2	609775-41	
61	Bottom lever nut	4	607901 -96	
60-62	Not required on this application	-	-	
63	Lubricator	2	607032-32	
64	Lubricator extension	2	609775-41	
65	Bottom lever nut	4	607901-96	
66-68	Socket & tie rod assembly	1	658109-12	
	Socket - LH	1	656007-49	
	Socket - RH	1	655500-7	
	Tie rod tube	1	658109-3	
	Nut - ball pin	2	658109-13	
	Split pin - ball pin nut	2	658109-11	
69	Bottom lever RH - damper	1	658109-1	AF1510A
	Bottom lever RH - non-damper	1	656007-34	AF1510B
	Bottom lever LH - damper	1	658109-2	AF1510A
	Bottom lever LH - non-damper	1	656007-35	AF1510B

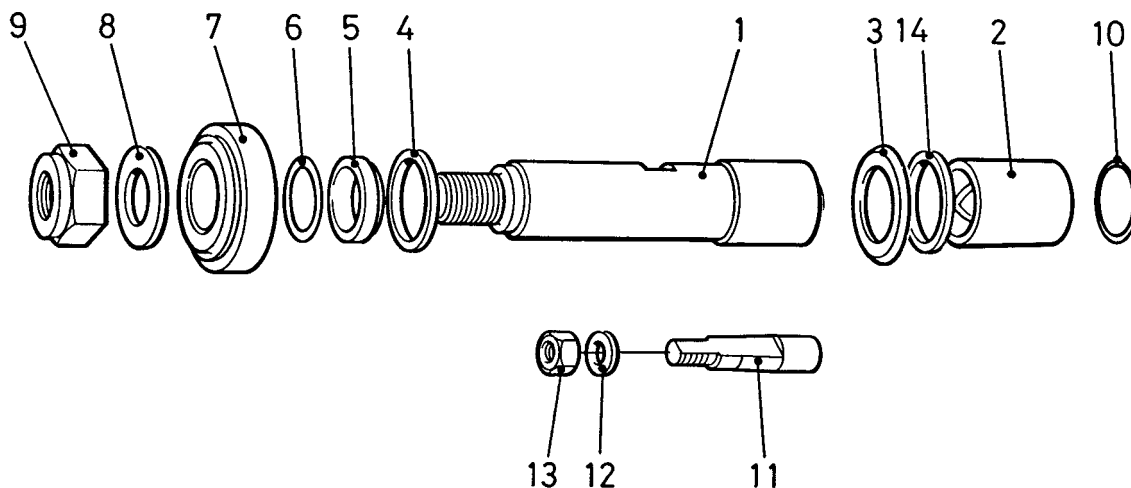


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
70	Bottom lever stud	2	656007-36	
71	Bottom lever stud	2	656007-37	
72	Brake bracket nut	8	606624-134	
73	Brake bracket washer	8	657863-4	
74	Swivel pin 'V' ring seal	2	655505-19	
75	Polyurethane seal	2	656007-38	
76	Swivel pin bottom bush	2	656007-39	
77	Swivel pin	2	656007-40	
78	Swivel bottom cap 'O' ring	2	656007-41	
79	Swivel bottom cap	2	656007-42	
	Pipe bracket - RH (not illustrated)	1	658109-6	
	Pipe bracket - LH(not illustrated)	1	658109-7	
80	Swivel bottom cap setscrew	2	657863-4	
81	Swivel bottom cap washer	2	60467	
82	Dust cover capscrew	10	656007-43	
83	Dust cover washer	10	651042-10	
84	Dust cover	2	656007-20	
85	Brake shoe pivot pin bush setscrew	2	650418-46	
86	Brake shoe pivot pin bush washer	8	656007-21	
87	Brake bracket RH	1	656007-22	
	Brake bracket LH	1	656007-23	
88	Brake shoe pivot pin lockscrew	4	650418-30	
89	Brake bracket bolt	8	650418-8	
90	Brake shoe pivot pin	4	656007-24	
91	Brake shoe lined assembly (pivot bush not included)	4	656007-25	
	Brake shoe bare	4	657863-2	
92	Brake shoe pivot pin bush	8	656007-26	
93	Brake shoe anchor pin	4	656007-27	
94	Brake shoe anchor pin split pin	4	650418-32	
95	Not required on this application	-	-	
96	Unitised bearing	2	655387-6	
97	Hub bearing 'D' washer	2	655387-5	
98	Hub bearing nut	2	655387-4	
99	Hub cap	2	655387-3	
100	Hub cap 'O' ring	2	655387-2	
101	Hub flange/unitised bearing bolt washer	20	653584-7	
102	Hub flange/unitised bearing bolt	20	658109-10	
103	Brake drum retaining screw	2	650419-90	
	Items required but not illustrated			
	Shim - axle stop	A/R	68256 - 61	Lock angles
	Shim - axle stop	A/R	68256 - 63	Lock angles
	Shim - axle stop	A/R	68256 - 64	Lock angles

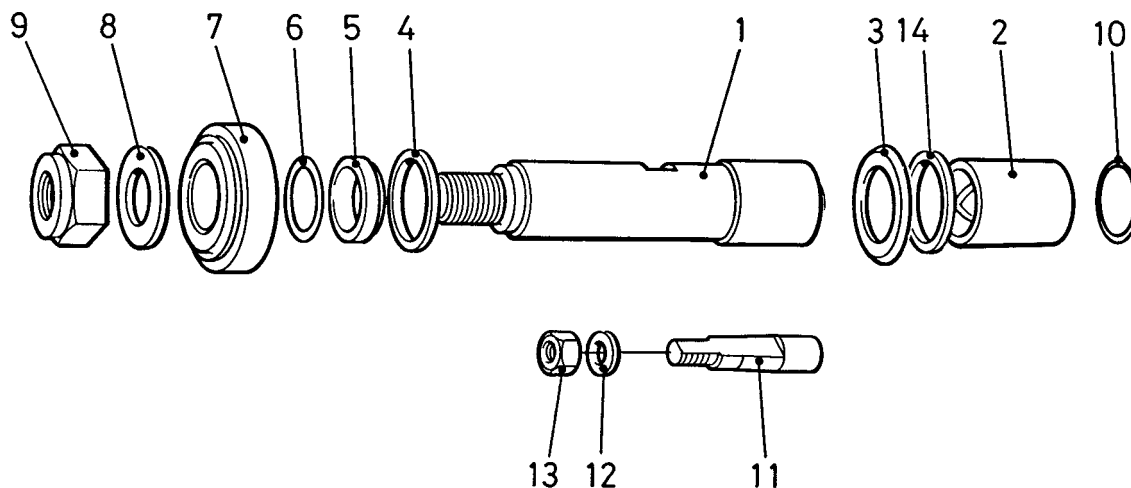


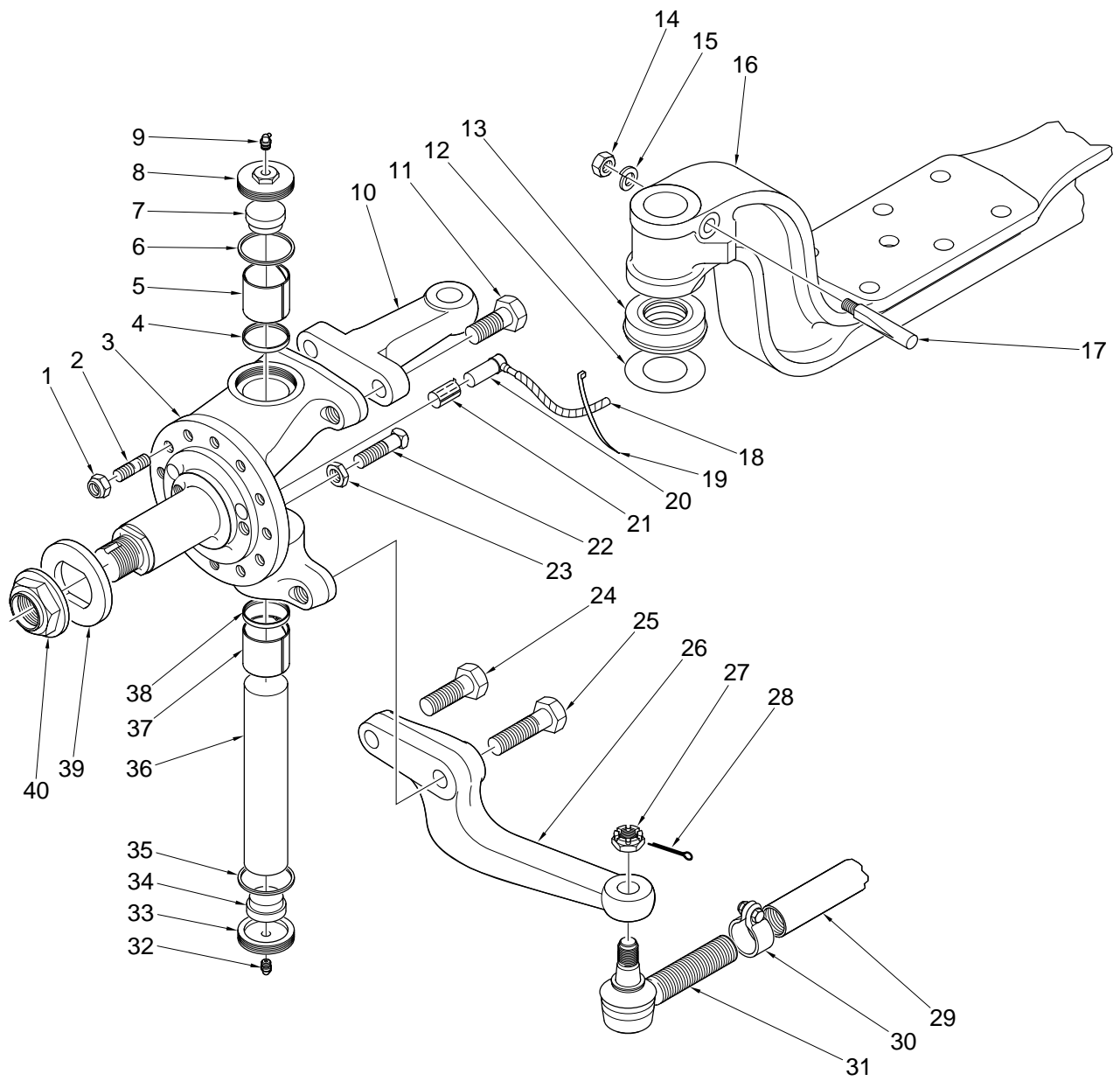
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	STEERING DAMPER			
1	Front axle	1	658109	
2	Steering damper	1	658110	
3	Ball joint	1	658607	
4	Clamp	1	657225	
5	Bracket - steering damper	1	427575	
☞	Bush - bracket	2	651164-1	
6	Bolt	2	10MCB 120 160D	
7	Bolt	2	10MCB 120 140D	
8	Spacer - bracket to axle	2	400622-97	
9	Nut	1	MCN 516P	
10	Washer - damper pin	1	404972	
11	Bolt		MCB 108 45P	
12	Nut	1	MCN 508P	
13	Nut	1	MFN 816P	115-145Nm
☞	Steering damper assembly (comprising : items 2,9,10,11,13)	1	658271	SL1185

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	SWIVEL PIN SERVICE KIT (Complete axle set) comprising:-	2	656007-46	
1	Swivel pin	1	656007-40	
2	Bush, swivel pin, bottom	1	656007-20	
3	Seal, swivel bush	1	656007-38	
4	Grease seal, swivel bearing	1	656007-15	
5	Sleeve, swivel bearing	1	656007-16	
6	Shim, swivel bearing adjusting (0.005")	1	117823-37	
	Shim, swivel bearing adjusting (0.010")	2	117823-17	
	Shim, swivel bearing adjusting (0.013")	4	117823-105	
	Shim, swivel bearing adjusting (0.008")	2	653264-3	
	Shim, swivel bearing adjusting (0.006")	2	653584-3	
7	Bearing, swivel pin	1	610101-23	
8	Washer, swivel pin	1	608155-7	
9	Nut, swivel pin	1	656007-14	
10	'O' ring, bottom cap	1	609847-9	
11	Pin cotter	1	656007-33	
12	Washer	1	WLA 7SP	
13	Nut, cotter	1	UFN 107 AP	
14	Swivel bush seal			
	SWIVEL PIN SERVICE KIT As above but without swivel bearing (item 7)	2	656007-47	

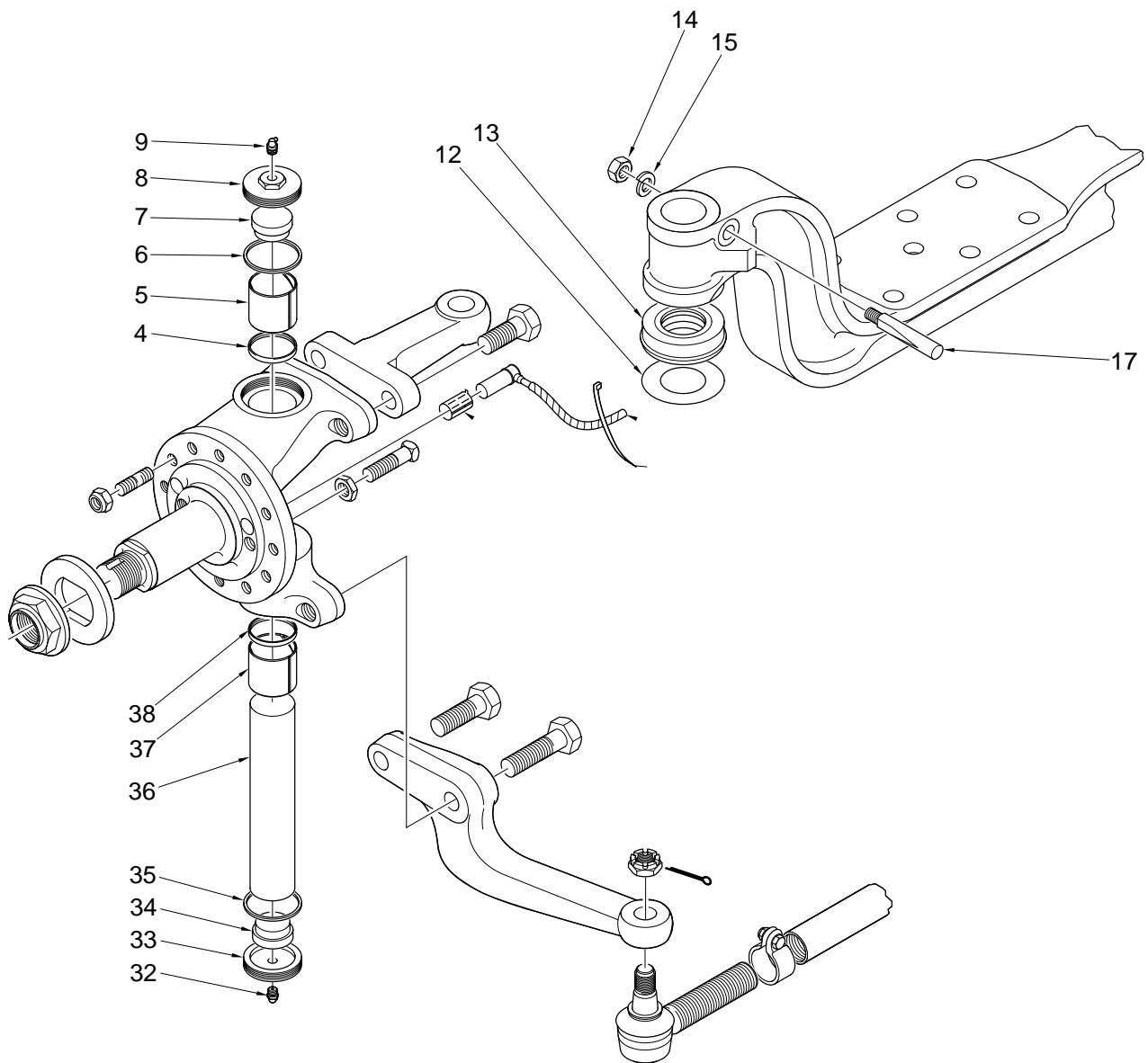


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	SWIVEL PIN SERVICE KIT (ONE HUB SET) comprising:-	1	656007-45	
1	Swivel pin	1	656007-40	
2	Bush, swivel pin, bottom	1	656007-20	
3	Seal, swivel bush	1	656007-38	
4	Grease seal, swivel bearing	1	656007-15	
5	Sleeve, swivel bearing	1	656007-16	
6	Shim, swivel bearing adjusting (0.005")	1	117823-37	
	Shim, swivel bearing adjusting (0.010")	2	117823-17	
	Shim, swivel bearing adjusting (0.013")	4	117823-105	
	Shim, swivel bearing adjusting (0.008")	2	653264-3	
	Shim, swivel bearing adjusting (0.006")	2	653584-3	
7	Bearing, swivel pin	1	610101-23	
8	Washer, swivel pin	1	608155-7	
9	Nut, swivel pin	1	656007-14	
10	'O' ring, bottom cap	1	609847-9	
11	Pin cotter	1	656007-33	
12	Washer	1	WLA 7SP	
13	Nut, cotter	1	UFN 107 AP	
14	Swivel bush seal			
	SWIVEL PIN SERVICE KIT As above but without swivel bearing (Item 7)	1	656007-47	

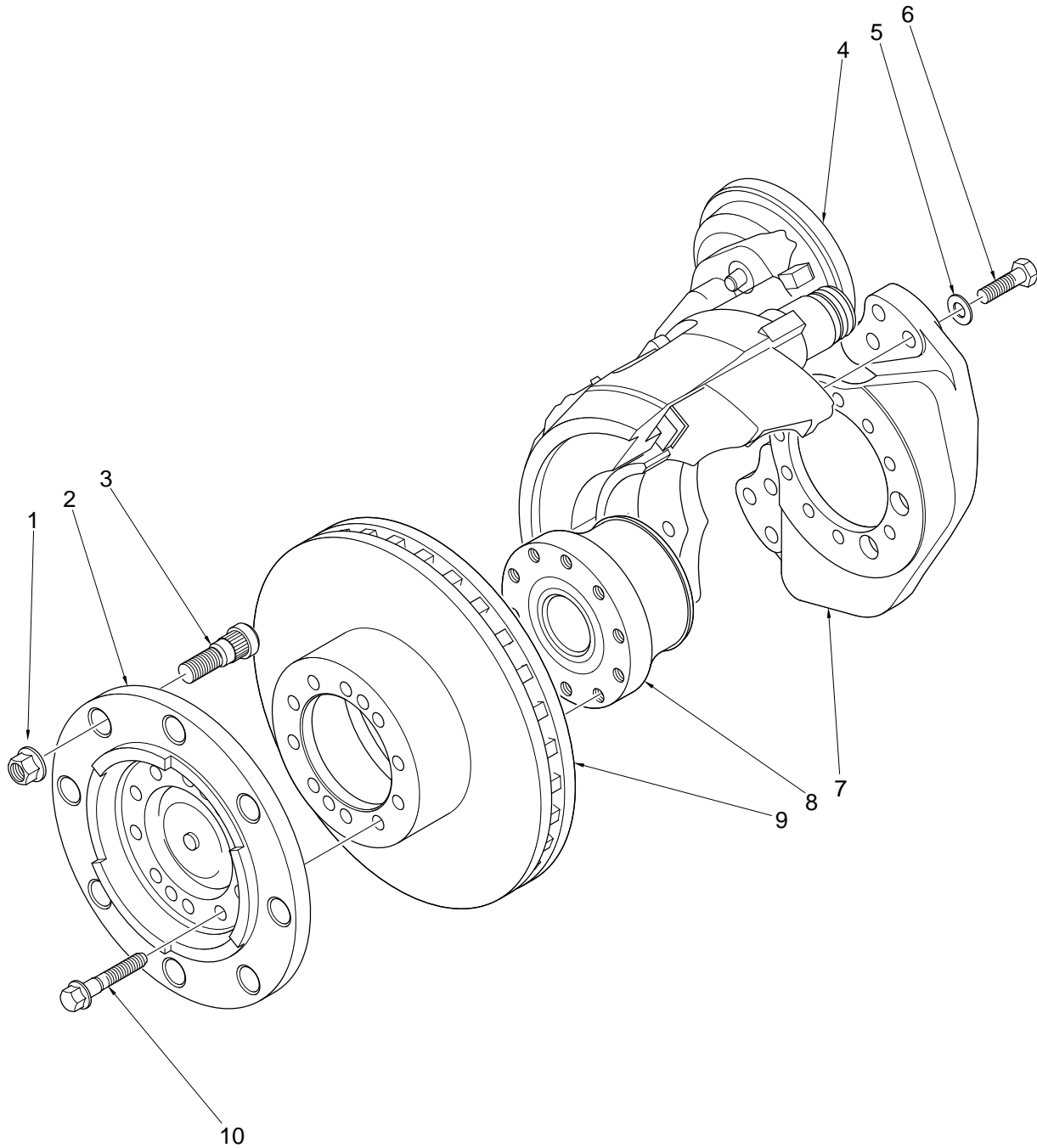




ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Axle -complete - disc brakes	1	658470	
	SWIVEL ASSEMBLY			
1	Brake bracket locknut	20	607901-62	
2	Brake bracket stud	20	658470-1	
3	Swivel	2	658470-2	
4	King pin oil seal (top)	2	658470-3	
5	King pin bush (top)	2	658470-4	
6	Top cap 'O' ring	2	658470-5	
7	Top cap foam insert	2	658470-6	
8	Top cap	2	658470-7	
9	Top cap lubricator	2	658470-8	
10	Top steering lever R/H	1	658470-9	
11	Top lever bolts	2	658470-10	
12	Swivel bearing. setting shim - 0.13 mm	A/R	658470-11	
	Swivel bearing. setting shim - 0.25 mm	A/R	658470-12	
	Swivel bearing. setting shim - 0.50 mm	A/R	658470-13	
	Swivel bearing. setting shim - 0.20 mm	A/R	658470-14	
13	King pin thrust bearing	2	658470-15	
14	Cotter pin nut 1/2" UNF	2	606624-134	
15	Cotter pin washer	2	60465	
16	Axle bed	1	658470-16	
17	Cotter pin	2	658470-17	
18	Not required on this application	-	-	
19	Not required on this application	-	-	
20	ABS sensor kit (per axle)	1	658470-52	
21	Sensor bush (supplied as part of item 20)	1	-	
22	Lockstop screw L/H & R/H	2	658470-18	
	Lockstop screw R/H	1	658470-19	
	Shim axle stop	2	68256-61	
	Shim axle stop	2	68256-62	
	Shim axle stop	2	68256-63	
23	Lockstop nut	3	658470-20	
24	Bottom lever bolt	26	658470-21	
25	Bottom lever bolt	2	658470-22	
26	Bottom lever R/H	1	658470-23	
	Bottom lever L/H	1	658470-24	
27	Ball pin nut	2	658470-25	
28	Split pin	2	658470-26	
29	Tie rod	1	658470-27	
30	Socket pinch bolt	2	658109-4	
31	Socket assembly R/H	1	655500-7	
	Socket assembly L/H	1	656007-49	
32	Bottom cap lubricator	2	658470-8	
33	Bottom cap	2	658470-7	
34	Bottom cap foam insert	2	658470-6	
35	Bottom cap 'O' ring	2	658470-5	
36	King pin	2	658470-28	
37	King pin bush (bottom)	2	658470-4	
38	King pin oil seal (bottom)	2	658470-3	
39	Thrust washer (hub bearing)	2	655387-5	
40	Hub nut	2	655387-4	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞	SWIVEL PIN SERVICE KIT - DISC BRAKES			
	Comprising items: 5,6, 8, 9, 12 to 15 17, 32 to 38			
	Axle set	1	658109-15	
	One hub set	1	658109-14	
	Comprising items: 5,6, 12 to 15 17, 32 to 38			
	Axle set	1	658109-17	
	One hub set	1	658109-16	

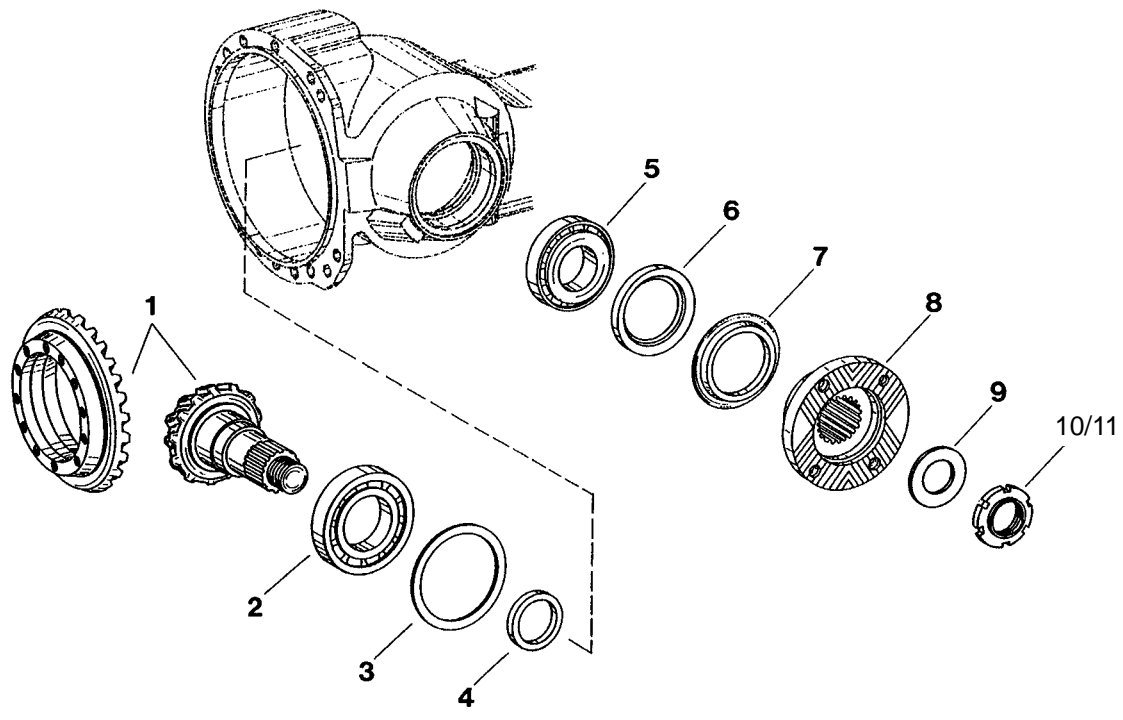


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	HUB AND BRAKE ASSEMBLY			
1	Wheel nut	20	657688-1	
2	Hub flange	2	658470-31	
3	Wheel stud (R/H Thread)	16	658470-32	
4	Brake Caliper assembly L.H (See Braking System)	1	658470-33	
	Brake Caliper assembly R.H (See Braking System)	1	658470-34	
5	Brake Caliper retaining washer	12	655387-25	
6	Brake Caliper retaining Bolt	12	658470-35	
7	Brake Bracket R/H	1	658470-36	
	Brake Bracket L/H	1	658470-37	
8	Unitised Hub Bearing	2	658470-38	
9	Brake Disc	2	658470-39	
10	Hub Flange Bolt	28	658470-40	
	Bracket - pipe support	1	429571	
	Bracket - pipe support	1	429581	
	Bolt	4	MCB 108 20P	
	Washer	4	WMC 8SP	
	Bracket - steering swivels	2	236452	
	Bolt	2	MCB 108 16P	
	Washer - spring	2	WMC 8SP	
	Hose assembly - Actuators to bracket/pipe	2	655025	
	Hose assembly - Bracket to bracket	2	429605	

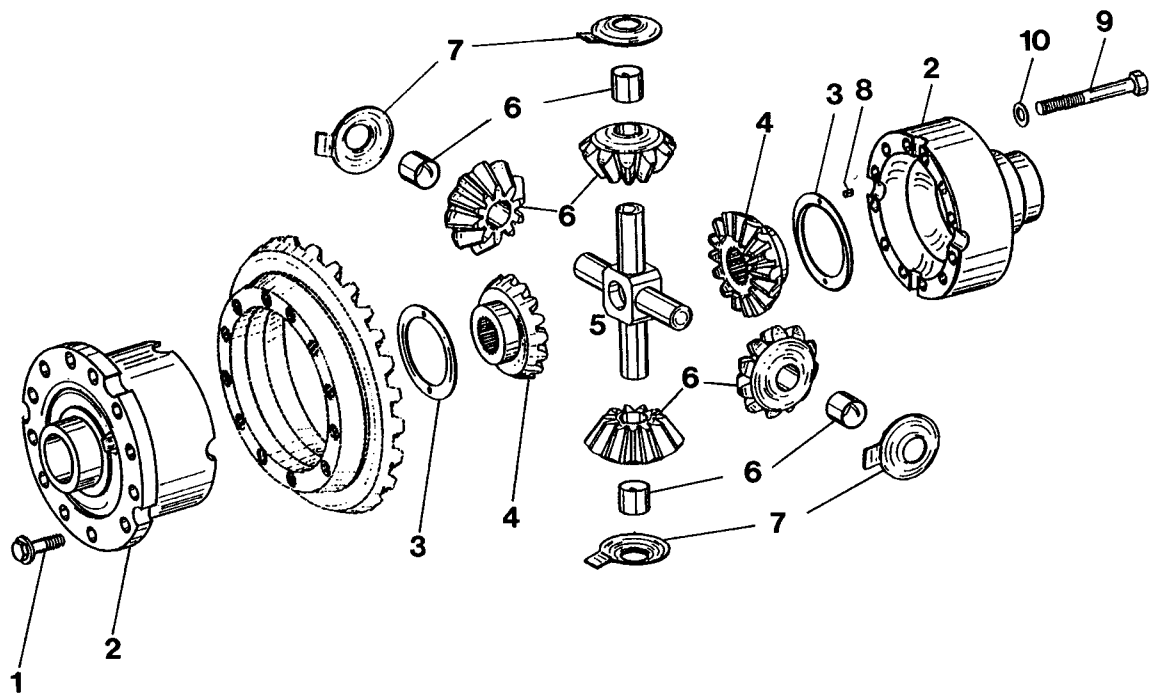
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SECTION 2.4

Input assembly	Page	2.4.2 - 3
Differential assembly	Page	2.4.2 - 3
Axle casing	Page	2.4.4 - 5
Gantry drive	Page	2.4.6 - 9
Output assembly	Page	2.4.10 - 11
Brake assembly - drum	Page	2.4.12 - 15
Brake assembly - disc	Page	2.4.16 - 17
Remote greasing	Page	2.4.18



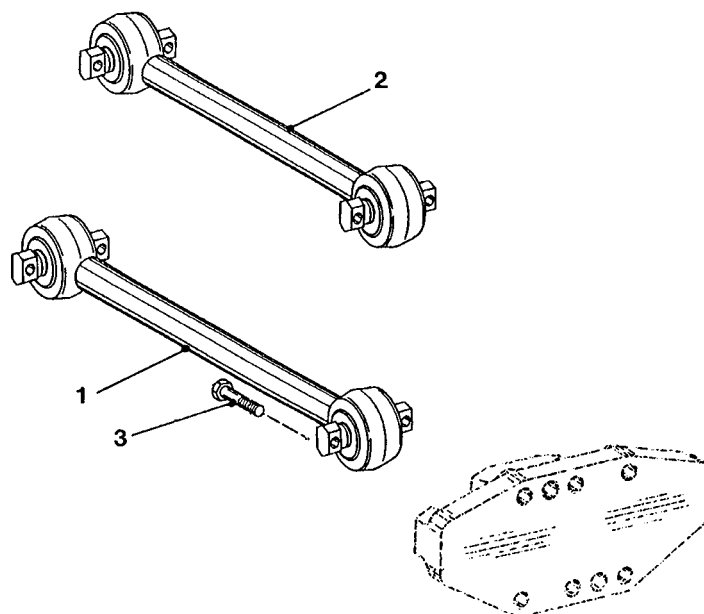
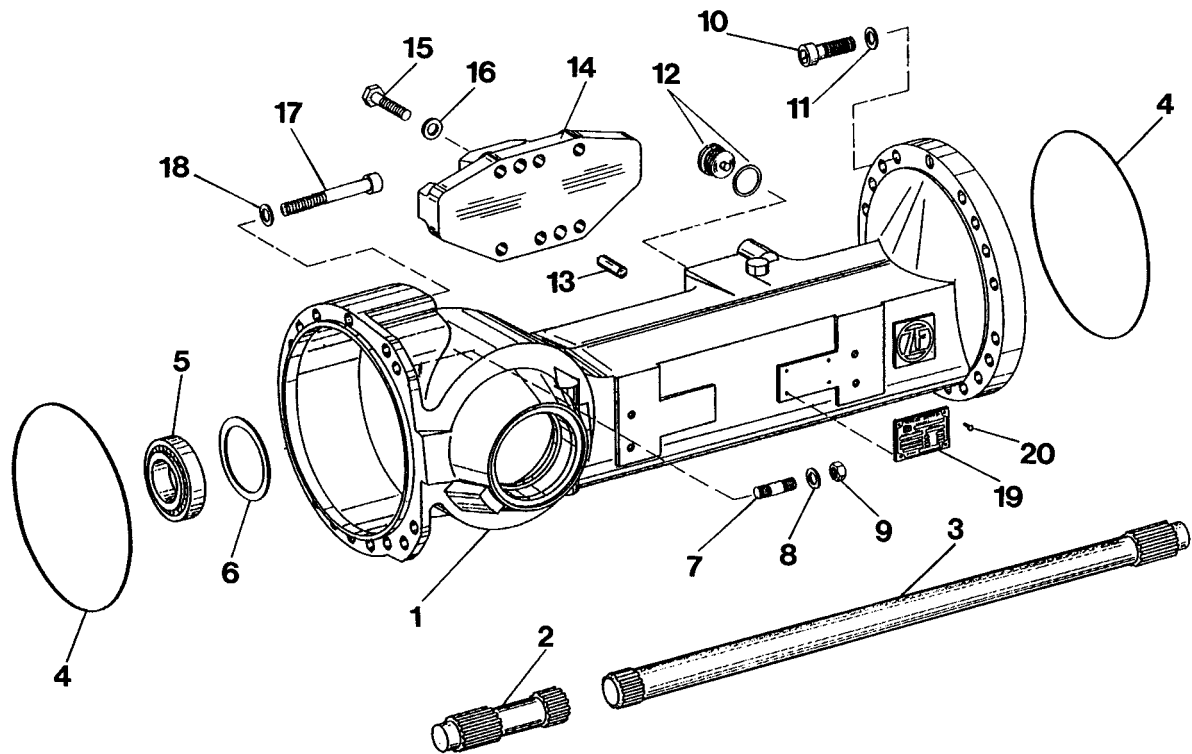
Input Assembly



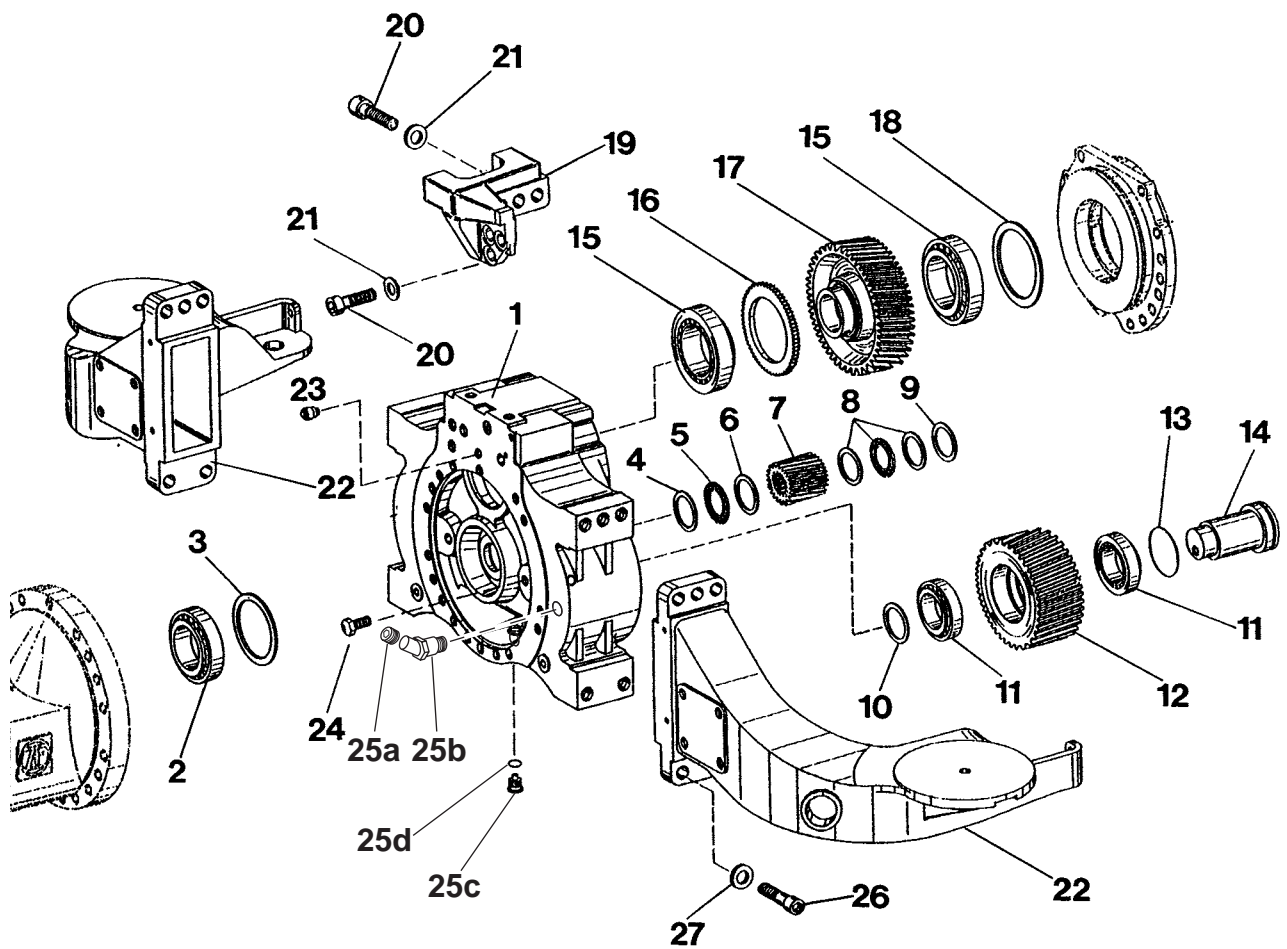
Differential Assembly

AMENDED:230407

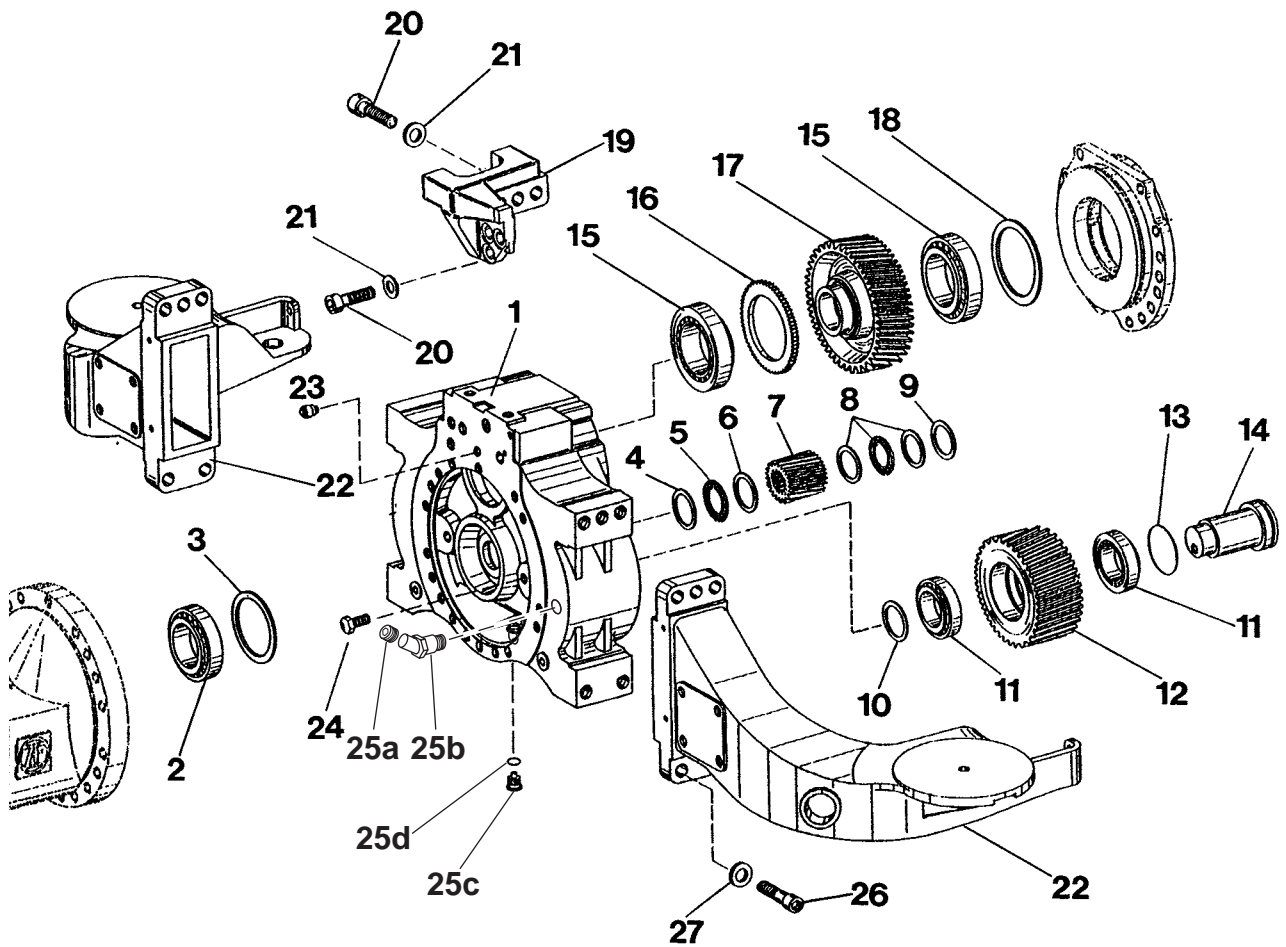
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	DRUM BRAKE VEHICLES			
	Used on and up to Chassis No 1298			
	Rear axle - 5.13:1 - Voith - drum brake	1	656995	AR1510A
☞	Torso rear axle - 5.13:1 - Voith - disc brake	1	656995-146--X	
	Rear axle - 5.74:1 - ZF - drum brake	1	656996	AR1510B
☞	Torso rear axle - 5.13:1 - Voith - disc brake	1	656996-6--X	
	INPUT			
1a	Bevel gear set- 5.13:1	1	656995-1	
1b	Bevel gear set - 5.74:1	1	656996-1	
2	Bearing	1	656995-2	
3	Shim	A/R	-	
4	Ring	A/R	-	
5	Bearing	1	656995-3	
6	Seal - shaft	1	656995-4	
7	Dust seal	1	656995-5	
8	Flange - input	1	656995-6	
9	Washer	1	656995-7	
10	Nut slotted	1	656995-8	
11	Loctite 262	A/R	656995-131	
	DIFFERENTIAL ASSEMBLY - DRUM BRAKE			
1	Locking screw - crownwheel	12	656995-10	
2a	Differential casing - LH & RH - drum brake	1	656995-11	
3	Thrust washer	2	656995-12	
4	Axle bevel gear	2	656995-13	
5a	Differential spider - drum brake	1	656995-14	
6a	Bevel gear set - c/w bushes - drum brake	1	656995-15	Set of 4
7	Thrust washer	4	656995-16	
8	Grooved pin	4	656995-17	
9	Setscrew - differential casing	12	656995-18	
10	Washer	12	656995-19	
11	Not required on this application	-	-	
	DISC BRAKE VEHICLES			
	Used on and after Chassis No 1299			
	Rear axle - 5.13:1 - Voith - disc brake	1	658517	AR1511A
☞	Torso rear axle - 5.13:1 - Voith - disc brake	1	659334-14--X	
	Rear axle - 5.74:1 - ZF - disc brake	1	658518	AR1511B
	INPUT - disc brake			
1a	Bevel gear set- 5.13:1	1	658517-4	
1b	Bevel gear set - 5.74:1	1	658518-1	
	DIFFERENTIAL ASSEMBLY - DISC BRAKE			
2b	Differential casing - LH & RH - disc brake	1	658517-1	
5b	Differential spider - disc brake	1	658517-3	
6b	Bevel gear set - c/w bushes - disc brake	1	658517-2	Set of 4
	ALL OTHER PARTS AS DRUM BRAKE VEHICLES			



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	DRUM BRAKE VEHICLES Used on and up to Chassis No 1298			
	AXLE CASING	V/Z		
1	Axle casing	1	656995-20	
2a	Stub shaft - short	1	656995-21	
3b	Stub shaft - long	1	656995-22	
4	O ring	2	656995-23	
5	Bearing	1	656995-24	
6	Shim	A/R	-	
7	Stud	4	656995-25	
8	Washer	4	656995-26	
9	Nut	4	656995-27	
10a	Capscrew	19/20	656995-28	
11	Washer	35/37	656995-26	
12	Drain plug - casing	1	658517-8	
	"O" ring - drain plug	1	656995-133	
13	Pin	2	656995-30	
14	Console	1	656995-31	
15	Setscrew	6	656995-32	
16	Washer	6	656995-33	
17	Capscrew	12/13	656995-34	
18	Washer	35/37	656995-26	
19	Type plate	1	656995-35	
20	Grooved stud	4	650795-8	
☞	Filler plug - M24	1	656995-132	
☞	"O" ring	1	656995-133	
	SUSPENSION			
1	Long control arm - 576 mm	2	656995-80	
2	Long control arm - 664 mm	2	656995-81	
3	Screw	8	656995-82	
	DISC BRAKE VEHICLES Used on and after Chassis No 1299			
	AXLE CASING - DISC BRAKES	V/Z		
2b	Stub shaft - short	1	658517-5	
3b	Stub shaft - long	1	658517-6	
10b	Capscrew	19/20	658517-7	
	ALL OTHER PARTS AS DRUM BRAKE VEHICLES			



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	DRUM BRAKE Used on & up to Chassis No 1298			
1a	Gantry housing - LH Voith 5.13:1	1	656995-36	
1b	Gantry housing - RH Voith 5.13:1	1	656995-37	
1c	Gantry housing - LH ZF 5.74:1	1	656996-2	
1d	Gantry housing - RH ZF 5.74:1	1	656996-3	
2	Bearing	1	656995-38	
3	Shim A/R	-	-	
4	Housing disc	2	656995-39	
5	Roller cage	2	656995-40	
6	Plate	2	656995-41	
7	Input gear	1	656995-42	
8	Axle bearing	2	656995-43	
9	Shim	A/R	-	
10	Shim	A/R	-	
11	Bearing - idle gear	8	656995-44	
12	Idler gear	4	656995-45	
13	'O' ring	4	656995-46	
14	Idle bearing pin	4	656995-47	
15	Bearing - output gear	2	656995-48	
16	Pulse disc	2	656995-49	
17	Output gear	2	656995-50	
18	Shim A/R	-	-	
19	Console - LH	1	656995-51	
	Console - RH	1	656995-52	
20	Capscrew	12	656995-53	
21	Washer	12	656995-33	
22a	Spring carrier - Front LH & Rear RH	2	656995-54	
☞	Bracket - Brake hose / autolube pipes LH	1	424124	
22b	Spring carrier - Front RH & Rear LH	2	656995-55	
☞	Bracket - Brake hose / autolube pipes RH	1	424125	
23	See SL kit below	-	-	
24	Setscrew	4	656995-57	
25a	Level plug - gantry	1	656995-132	
25b	Kit - Axle filler mod : 45° elbow, nut & "O"ring	1	656996-5	
25c	Drain plug - gantry-	2	656995-125	
25d	"O" ring - drain plug	2	658517-9	
26	Capscrew	20	656995-59	
27	Washer	20	656995-60	

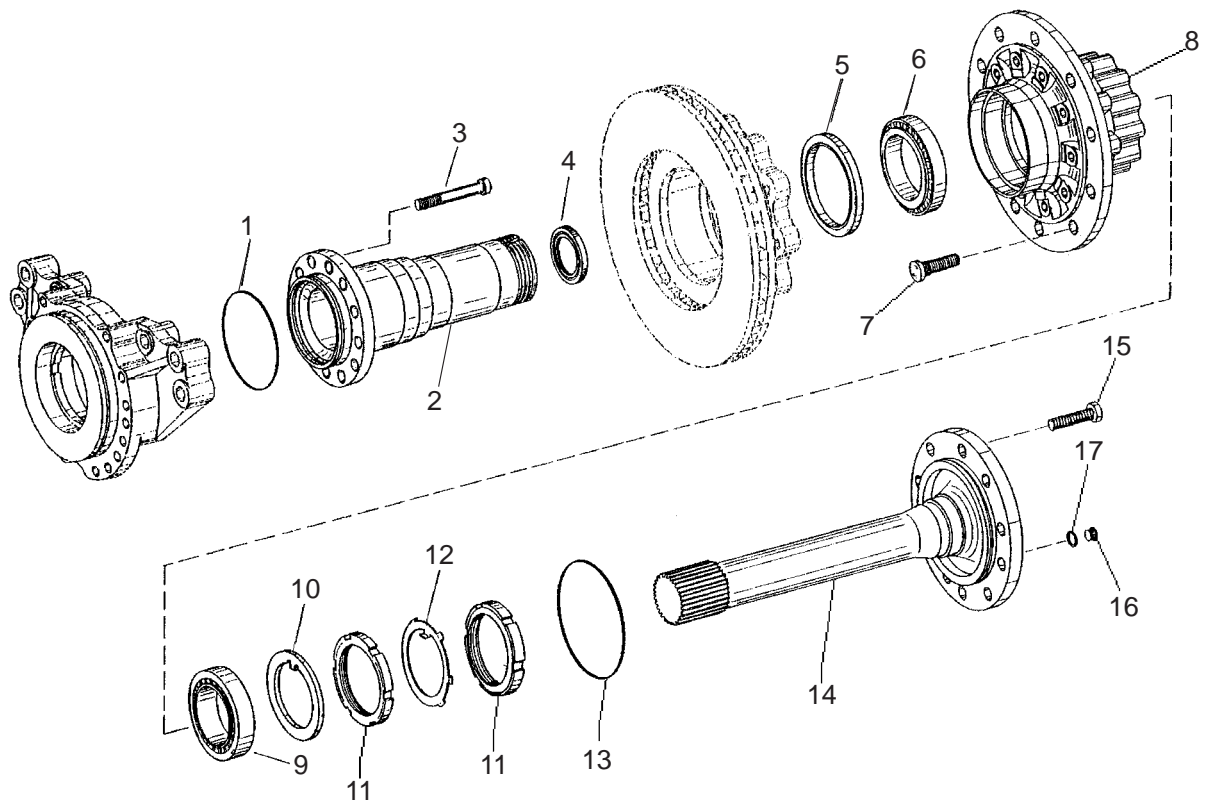
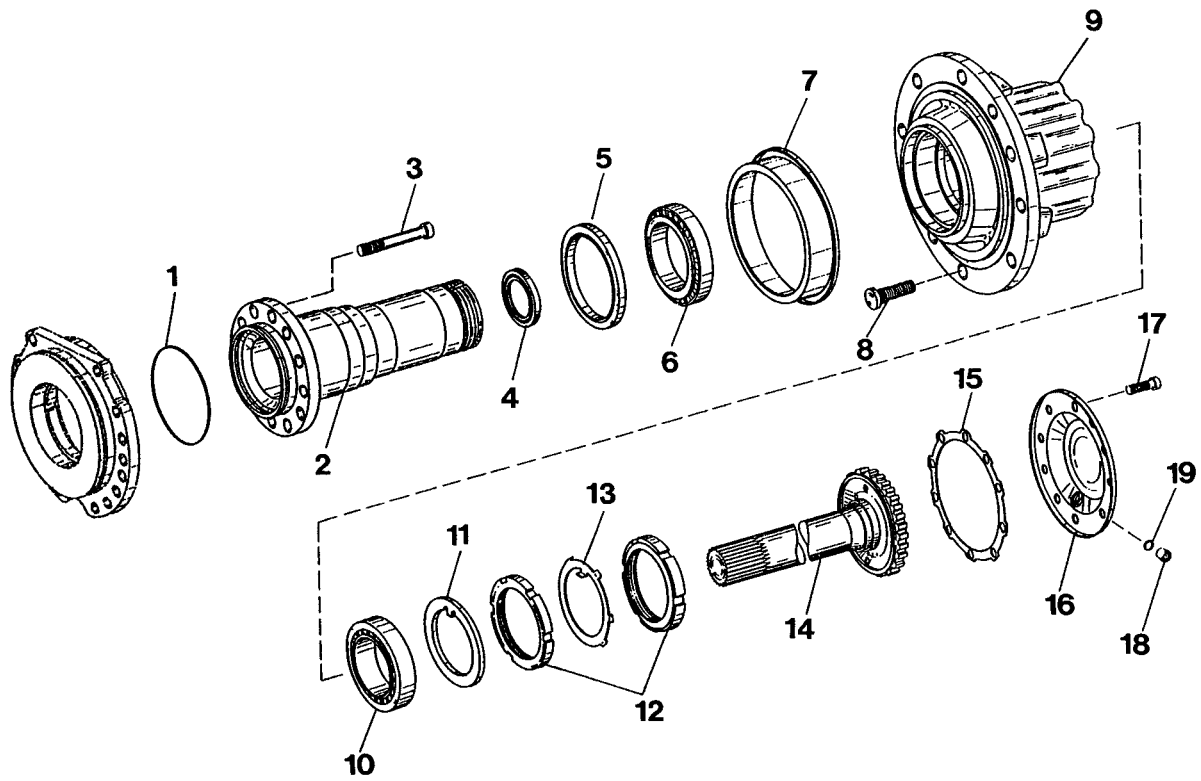


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	DISC BRAKE VEHICLES			
	Used on and after Chassis No 1299			
1e	Gantry housing - LH Voith 5.13:1	1	658517-41	
1f	Gantry housing - RH Voith 5.13:1	1	658517-42	
1g	Gantry housing - LH ZF 5.74:1	1	658518-2	
1h	Gantry housing - RH ZF 5.74:1	1	658517-3	
22c	Spring carrier - RH	2	658517-12	
22d	Spring carrier - LH	2	658517-11	
	BREATHER RELOCATION KIT			SL1692
23	Breather - (not included in kit)	1	656995-56	
	Breather pipe	1.4m	654994	
	Elbow	1	659962	
	Cable tie	3	607007	
	NOTE : This kit relocates ther rear axle breather exit to the end of the suspension link arm.			

REAR AXLE - OUTPUT ASSEMBLY PARTS MANUAL

AMENDED:140601

UNIT NO:AR1510A & B

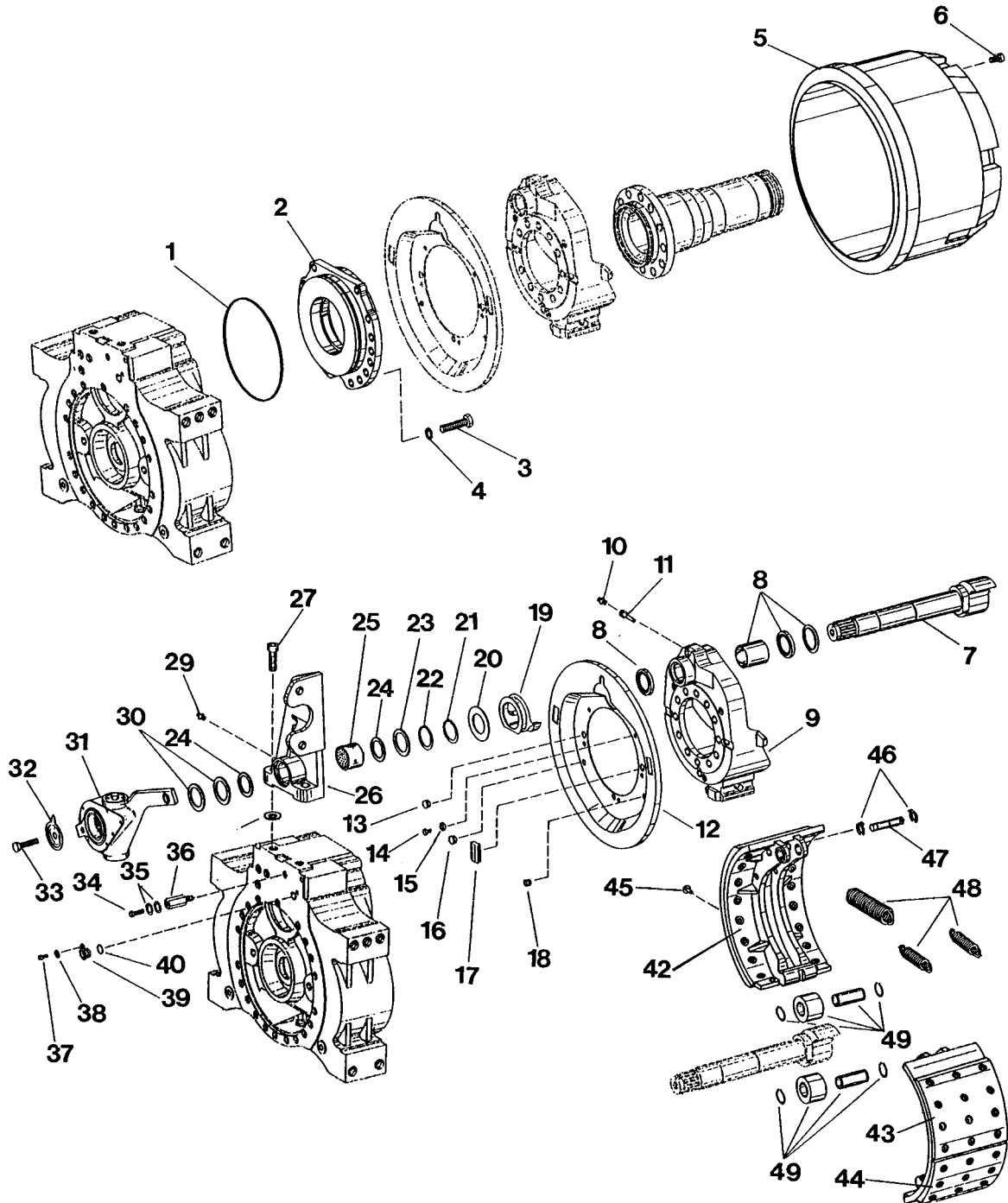


PARTS MANUAL REAR AXLE - OUTPUT ASSEMBLY

AMENDED:060111

UNIT NO:AR1510A & B

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
DRUM BRAKE VEHICLES				
Used on and up to Chassis No 1298				
1	O ring	2	656995-61	
2	Hub carrier	2	656995-62	
3	Cap screw - hub carrier	24	656995-63	
4	Seal - flange shaft	2	656995-64	
5	Seal - hub carrier	2	656995-65	
6	Bearing - hub carrier	2	656995-66	
7	Oil collector plate	2	656995-71	
8a	Wheel bolt	20	656995-72	
8b	Wheel bolt - Dacromet coated	20	656995-136	
	Wheel nut - non capped	20	651043-4	610 Nm
	Cover - wheel nut	20	245183-2	
9	Hub	2	656995-73	
10	Bearing flange	2	656995-74	
11	Support shim	2	656995-67	
12	Slotted nut	4	656995-68	
13	Tab washer	2	656995-69	
14	Flange shaft	2	656995-70	
15	Gasket	2	656995-76	
16	Cover	2	656995-77	
17	Cap screw	20	656995-78	
18	Screw plug	2	656995-79	
19	Sealing ring	2	656995-75	
DISC BRAKE VEHICLES				
Used on and after Chassis No 1299				
1	O ring	2	656995-61	
2	Hub carrier	2	656995-62	
☞ 3	Cap screw - hub carrier	24	658517-45	
4	Seal - flange shaft	2	658517-18	
5	Seal - hub carrier	2	656995-65	
6	Bearing - hub carrier	2	658517-15	
7	Wheel bolt	20	658517-17	
	Wheel nut	20	651043-4	610 Nm
	Cover - wheel nut	20	245183-2	
8	Hub	2	658517-14	
9	Bearing flange	2	656995-74	
10	Support shim	2	656995-67	
11	Slotted nut	4	656995-68	
12	Tab washer	2	656995-69	
13	'O' ring	2	658517-43	
14	Flange shaft	2	658517-16	
15	Screw	20	658517-19	
16	Screw plug	2	656995-79	
17	Sealing ring	2	656995-75	
☞	Disc brake	2	658517-37	



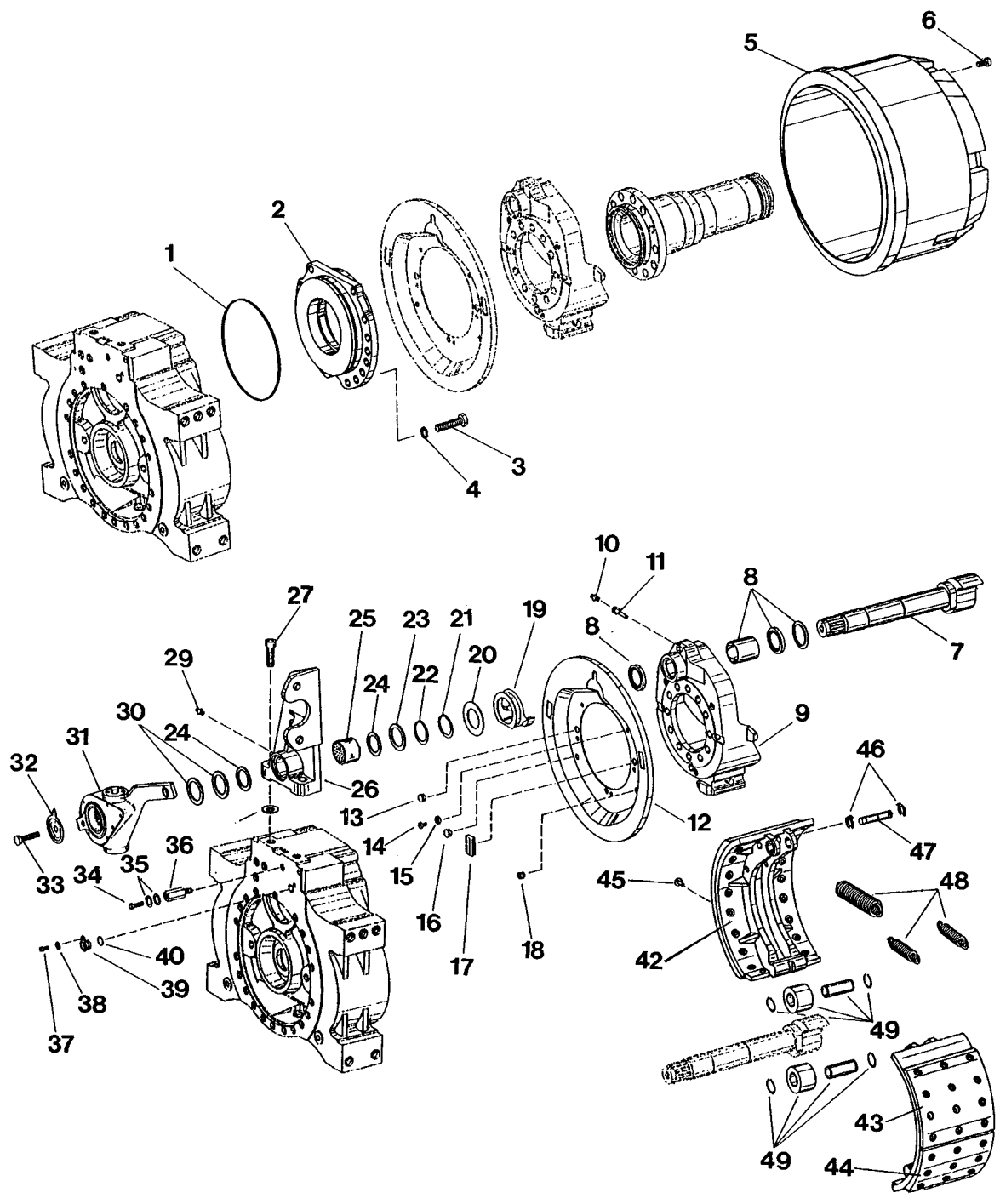
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Used on and up to Chassis No 1298			
1	O ring - Bearing bush	2	656995-83	
2	Bearing bush	2	656995-84	
3	Setscrew	32	656995-85	
4	Washer	32	656995-86	
5	Brake drum	2	656995-87	
6	Cap screw - brake drum	2	656995-88	
7	Brake shaft - LH	1	656995-89	
	Brake shaft - RH	1	656995-90	
8	Repair kit - brake shaft	2	656995-127	
9	Brake anchor	2	656995-91	
☞	Dowel - locating	2	656995-135	
10	Lubricating nipple	2	656995-92	
11	Screw neck	2	656995-93	
12	Back plate	2	656995-94	
13	Plug	2	656995-128	
14	Tapping screw	2	656995-129	
15	Washer	2	656995-130	
16	Plug	2	656995-128	
17	Plug	2	656995-126	
18	Cable duct	2	656995-138	
19	Gasket	2	656995-95	
20	Washer (See item 8)	2	-	
21	Retaining ring	2	656995-96	
22	Retaining ring	2	656995-96	
23	Washer	2	656995-97	
24	Sealing ring	4	656995-98	
25	Bush - brake shaft	2	656995-99	
26	Actuator mounting bracket - LH	1	656995-100	
	Actuator mounting bracket - RH	1	656995-101	
27	Capscrew	4	656995-102	
☞28a	Shim 0.2 mm	A/R	656995-141	
☞28b	Shim 0.3 mm	A/R	656995-142	
☞28c	Shim 0.4 mm	A/R	656995-140	
☞28d	Shim 1.0 mm	A/R	656995-143	
☞28e	Shim 1.5 mm	A/R	656995-144	
29	Lubricating nipple	2	656995-103	
☞30a	Shim - 2.0 mm	A/R	656995-97	
☞30b	Shim - 3.5 mm	A/R	656995-147	
31	Brake adjuster - LH	1	656995-104	
	Brake adjuster - RH	1	656995-1 05	
32	Washer	2	656995-106	
33	Setscrew	2	656995-107	
34	Setscrew	2	656995-108	
35	Washer	2	656995-109	

DRUM BRAKE ASSEMBLY

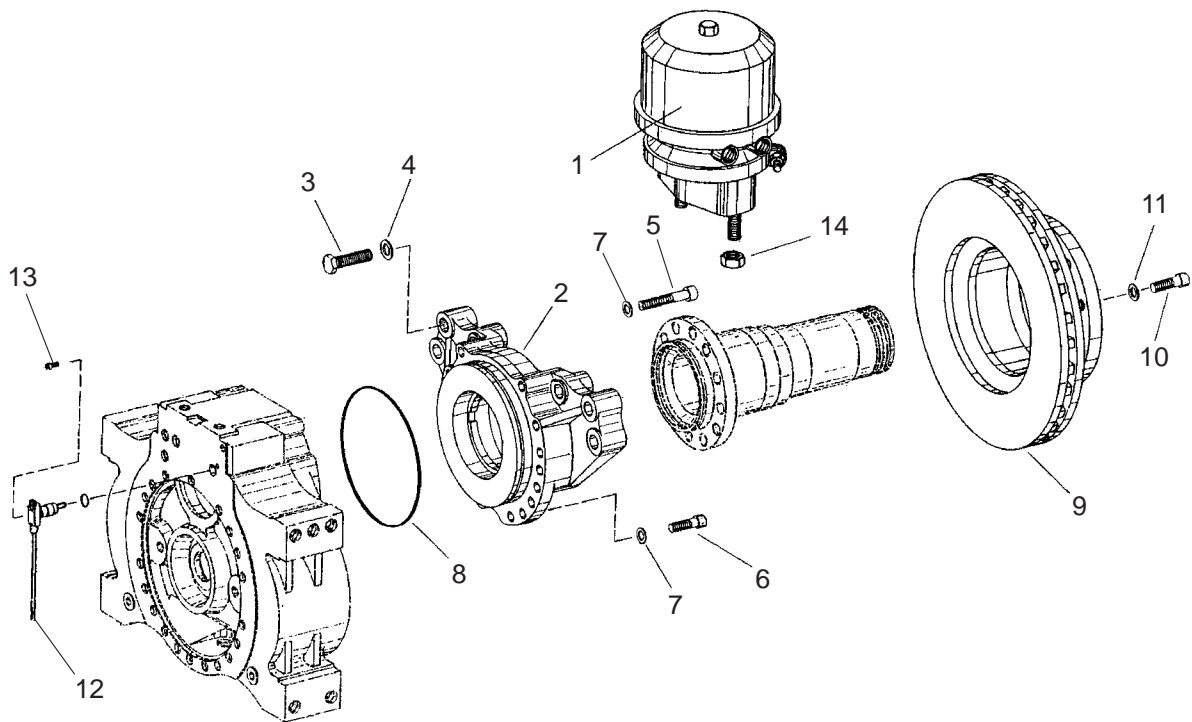
PARTS MANUAL

AMENDED:

UNIT NO:AR1510A & B



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
36	Extension adaptor - slack adjuster anchor	2	656995-110	
37	Cap screw	2	656995-111	
38	Washer	2	656995-112	
39	Cover	2	656995-113	
40	'O' ring	2	656995-114	
41	Brake shoe assembly	4	656995-115	
42	Brake shoe - bare	4	656995-116	
43	Brake lining kit) <i>Not available separately</i>	1	656995-117	Axle set
44	Brake lining kit) <i>Replace both with Lining Kit</i>			
45	Rivet	96	656995-119	
46	Retaining ring - brake shoe pin	8	656995-120	
47	Brake shoe pin		656995-121	
48	Repair set - springs		656995-122	
49	Repair set - roller/pin/retaining ring		656995-123	
	SLACK ADJUSTER SPACER KIT			SL1885
	Spacer - slack adjuster	2	400622-105	
	Bolt	2	10MCB-108-45D	32Nm
	Washer - plain (either side of bracket)	4	WMA-8SP	



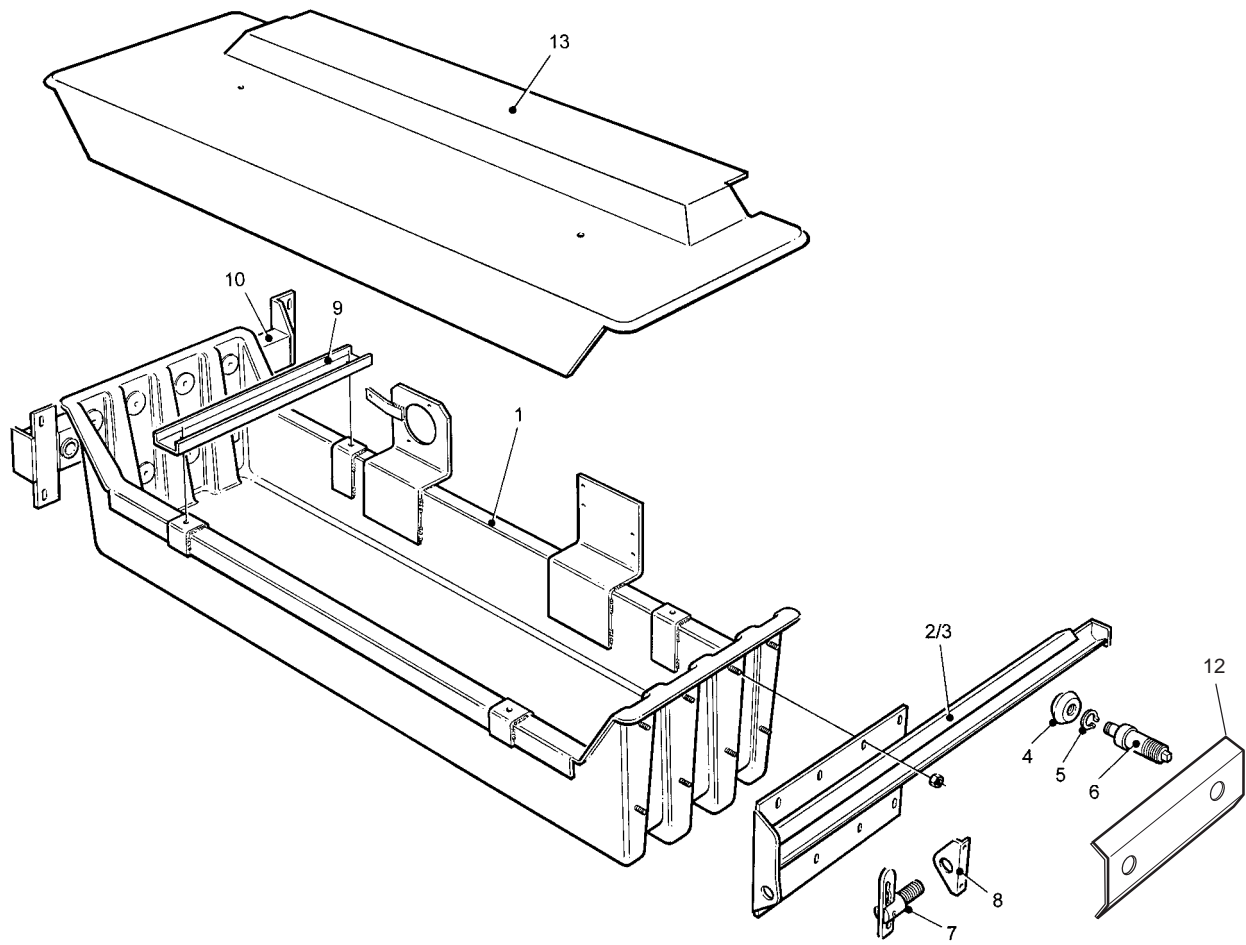
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	DISC BRAKE VEHICLES Used on and after Chassis No 1299			
1a	Rear brake actuator -LH - (See separate list)	1	658517-38	
1b	Rear brake actuator -RH - (See separate list)	1	658517-39	
2	Brake anchor plate	2	658517-20	
3	Bolt - brake carrier to brake anchor	12	658517-21	M18x1.75x10.9
4	Washer - brake anchor	12	656995-33	
5	Cap screw - 70mm Lg anchor plate to gantry	20	658517-22	
6	Cap screw - 115mm Lg anchor plate to gantry	12	658517-23	
7	Washer - capscrew anchor plate	32	656995-26	
8	"O" ring - brake anchor plate	2	656995-83	
9	Brake disc	2	658517-3	
10	Cap screw - brake disc	20	658517-24	
11	Washer - cap screw - brake disc	20	658517-25	
12	Revcounter	2	658517-26	
13	Capscrew- rev counter	2	656995-111	
14	Locking nut - brake actuator	2	658517-27	

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	REMOTE GREASING KIT	1	657397	AL1510-1
	Harness - RH	1	657397-1	
	Harness - LH	1	657397-2	
	Connector - elbow	2	657397-3	
	Connector - elbow	2	657397-4	
	Connector - straight	2	657397-5	
	Adaptor - battery plate	6	657397-6	
☞	Tubing - 50m Coil	1	657397-7	

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SECTION 3.1

Battery carrier - (Used on & up to Chassis No :1298)	Page	3.1.3
Battery carrier - (Used on & after Chassis No 1299)	Page	3.1.4
Battery carrier slides - SL1340	Page	3.1.4



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Used on and up to Chassis No 1298			
1	Battery carrier tray assembly	1	425071	BC 1510A
	Battery carrier tray assembly - cover type	1	425792	BC 1510B
	Mat - carrier tray	2	424496	
2a	Slide - LH	1	420618	
3a	Slide - RH	1	420619	
	Setscrew	14/16	MCS 108 25P	
	Setscrew	2	MCS 108 30P	
	Washer- plain	4	WMA 8SP	
	Washer - large	28	652361	
	Nut	16	MCN 708P	
4	Roller assembly comprising:	4	420616	
	Roller	4	656359	
	Bearing	4	420617	
	Loctite	A/R	606614	
5	Circlip	4	656382	
6	Shaft - roller	4	420701	
	Nut	4	MCN 220P	
	Washer - plain	4	WMA20SP	
	Washer	4	109400	
7	Fastener "Antiluce"	2	656376	
	Nut	2	MCN 512P	
8a	Retaining bracket	2	421060	
	Setscrew	3	MCS 110 25P	
	Washer	4	WMA 10SP	
	Nut	3	MCN 510P	
9a	Battery Retainer - c/w rubber strip	2	426414	
9b	Battery Retainer - cover type	2	425791	
	Setscrew	4	MCS 106 45P	
	Washer - plain	8	WMA 6SP	
	Washer - spring	8	WMC 6SP	
	Nut	8	MCN 106P	
10a	Support arm - rear	1	422251	
	Setscrew	4	MCS 110 30P	
	Washer	4	WMA 10SP	
	Nut	4	MCN 510P	
11	Battery 12v	2	656334	
12a	Shield - front and rear	2	422843	
13	Battery cover assembly (on and after chassis No 330)	1	425509	
	Tie	2	657722	
	Nut	2	MCN 105P	
	Screw	2	MCS 1905 12P	

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞	Used on and after Chassis No 1299 All other items as previous page			BC1510C
2b	Slide - LH	1	430386	
3b	Slide - RH	1	430628	
10b	Support arm - rear	1	430396	
	Setscrew	4	MBS 110 35P	
	Washer	4	WMA 10SP	
	Nut	4	MCN 510P	
12b	Shield - rear	1	422843	
12c	Shield - front	1	430434	
☞	BATTERY BRACKET AND RUNNER All other items as previous page		SL1340	
2c	Slide - LH	1	429206	
3c	Slide - RH	1	429208	
8b	Retaining bracket	2	429212	
	Tie - battery cover	2	657336	
	Rework drawing - battery cover	1	SK10600	

DENNIS

SECTION 3.2

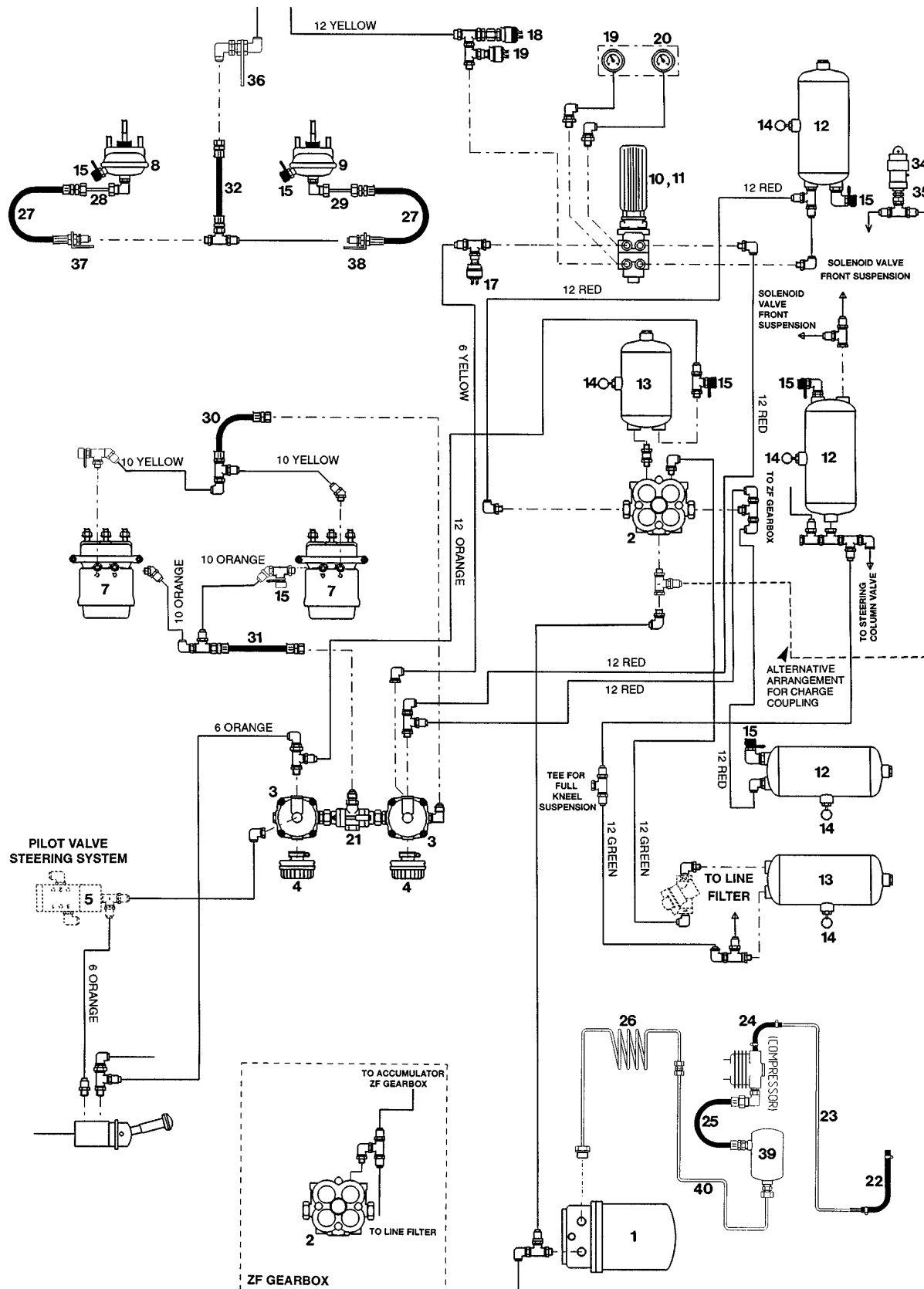
Braking system - <i>Used on and up to Chassis No 1298</i>	Page	3.2.2 - 5
Pipe fittings	Page	3.2.6 - 7
ABS Braking system - <i>Used on and after Chassis No 1299</i>	Page	3.2.8 - 9
ABS Pipe fittings	Page	3.2.10 - 11
Brake chambers and actuators	Page	3.2.12 - 13
Front brake caliper	Page	3.2.14 - 15
Rear brake caliper	Page	3.2.16 - 17
Footbrake valve assembly - ZF	Page	3.2.18 - 19
Footbrake valve assembly - Voith	Page	3.2.20 - 21
Air Dryer - <i>Used on and up to Chassis No 1298</i>	Page	3.2.22 - 23
Air Dryer - <i>Used on and after Chassis No 1299</i>	Page	3.2.24 - 25
Handbrake interlock	Page	3.2.26 - 27
Compressor	Page	3.2.28 - 29

BRAKING SYSTEM

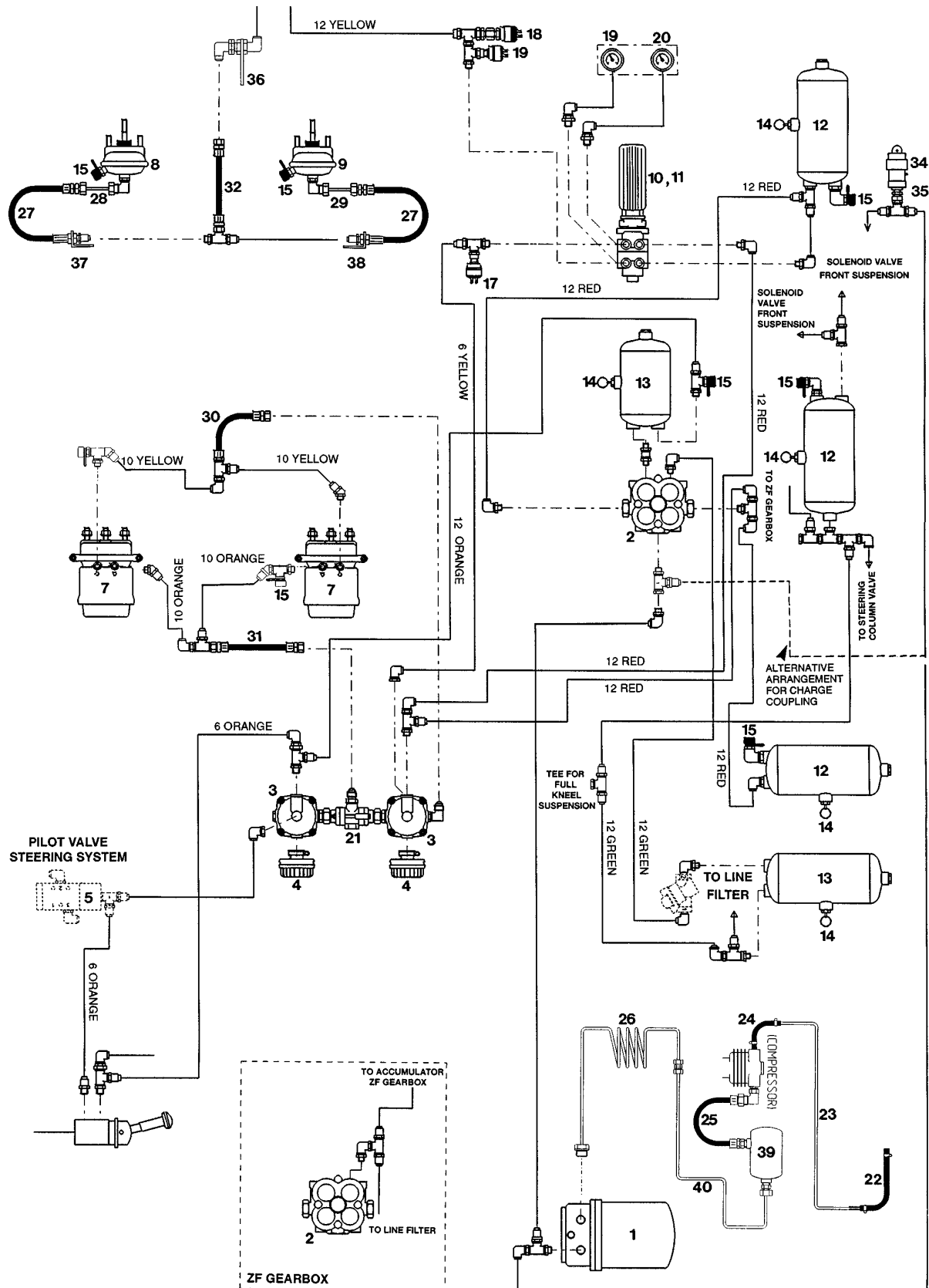
PARTS MANUAL

AMENDED:

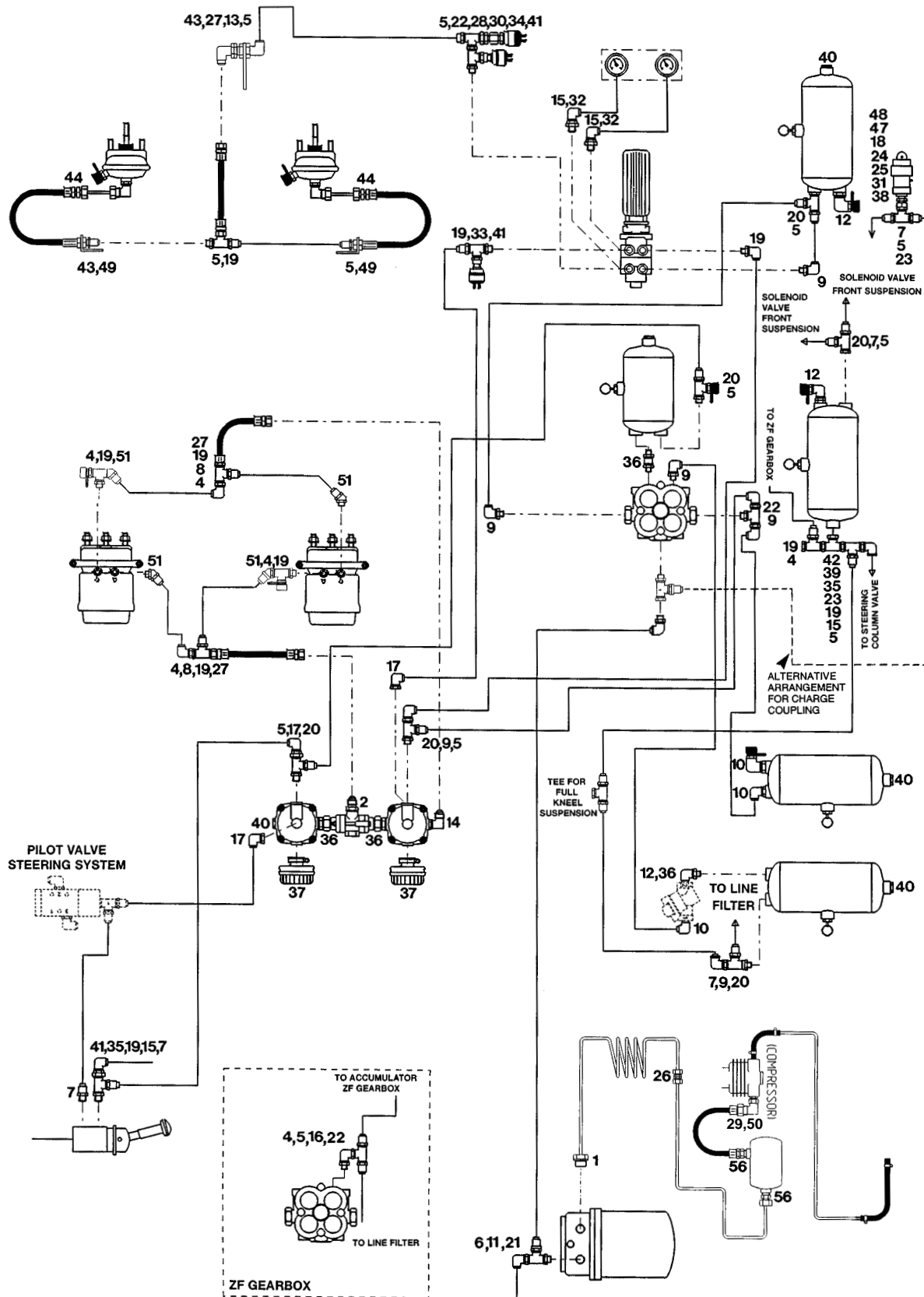
UNIT NO:FB1510A&B



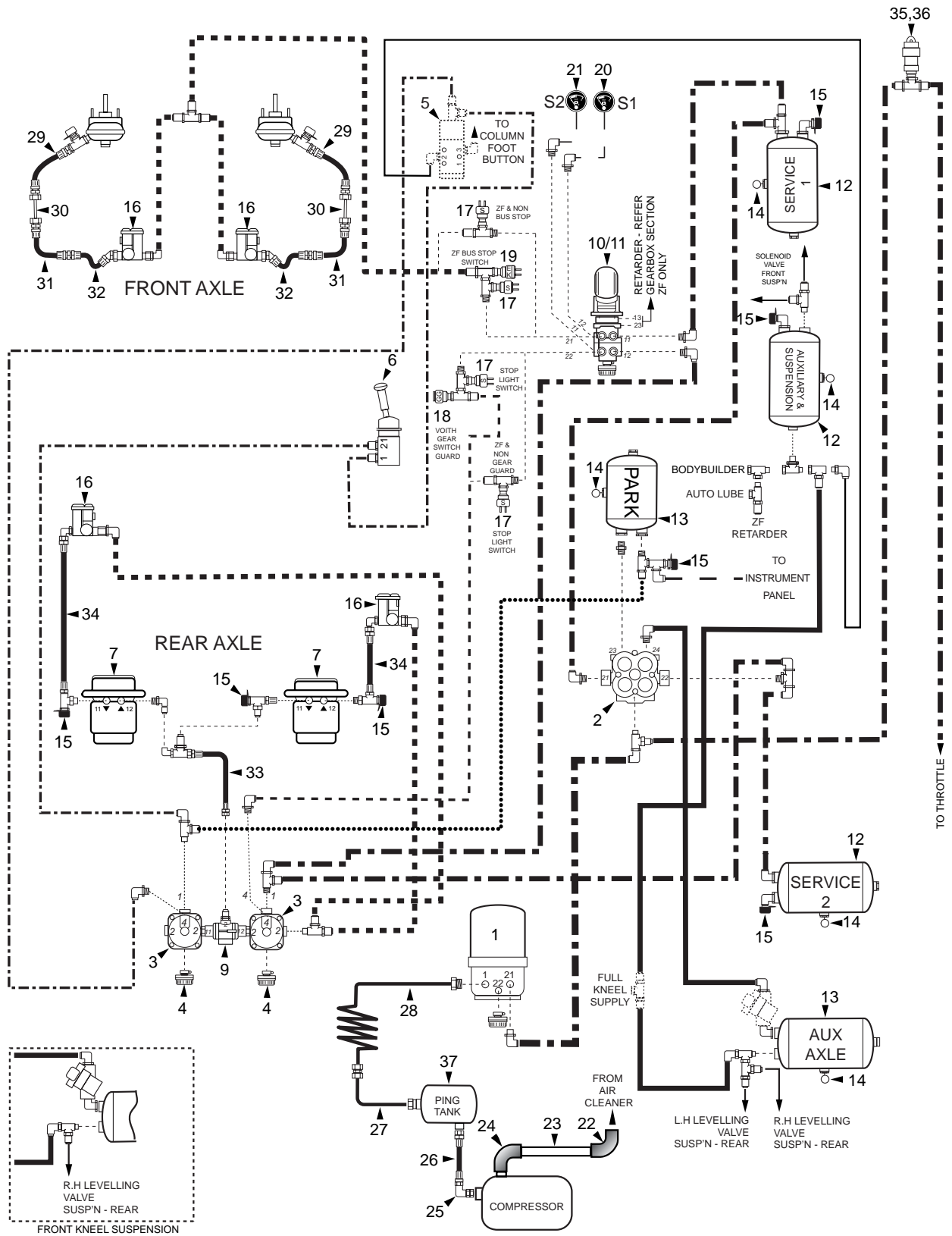
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞ 1	Air dryer (see separate list)	1	-	
2	Quadruple - circuit protection valve	1	656249	
3	Relay valve - integral silencer	2	659372	
4	Silencer - air dryer & relay valve 653885 external silencer	2	656302	
5	Pilot valve (see steering gear)	1	654201	SG1510A
6	Handbrake valve	1	657493--X	
☞	Micro switch - handbrake valve	1	656324-3	
7	Brake actuator rear	2	657687	
8	Brake chamber - front LH (see separate list)	1	423749	
9	Brake chamber - front RH (see separate list)	1	423750	
☞ 10	Footbrake valve - Voith (see separate list)	1	657185	
11	Footbrake valve - ZF (see separate list)	1	657186	
12	Reservoir - 25 litre	3	654979-9	
13	Reservoir - 20 litre	2	654979-6	
☞	Tee bolt clip - 10"	A/R	656616-2	
14	Drain valve	5	654728	
15	Test point	8	655026	
16	Charge coupling	1	606392	
17	Stop switch	2	659171	
18	Pressure switch - Voith - "Bus stop"	1	652061-1	
	Pressure switch - ZF - "Bus stop"	1	656626-6	
19	Gauge - Air 1 - c/w integral Low Pressure switch	1	656130	
20	Gauge - Air 2 - c/w integral Low Pressure switch	1	656131	
☞	Switch - low pressure	2	656447	
☞	Connector	2	654948	
☞	Washer	2	654949	
21	Double check valve	i	654734	
22	Hose elbow - air intake pipe to pipe	1	656513	
23	Pipe assembly-elbow to elbow	1	424178	
24	Hose elbow - pipe to compressor	1	424150	107 - 119 Nm
	Clip	4	656818-7	
☞ 25a	Hose assembly - compressor to ping tank - 580 mm	1	657446-3	FB1510
☞ 25b	Hose assembly - compressor to ping tank - 760mm	1	657446-2	PFB1510
26	Pipe assembly - cal - comp to air dryer	1	424179	
	Clip	8	653488-6	
	Cover plate	16	653489-1	
	Clip	1	653487-3	
27	Hose assembly - front brake chamber	2	657728	
28	Pipe assembly - hose to chamber - LH	1	421107	
29	Pipe assembly - hose to chamber - RH	1	421108	
30	Hose assembly - relay valve to tee	1	655749	
31	Hose assembly - check valve to tee	1	655749	
32	Hose assembly - tee to bulkhead elbow	1	655749	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
33	Compressor (See separate list)	1	657463	
34	Charge coupling	1	606392	
35	Non return valve	1	654733	
36	Bracket - front center hose	i	423320	
37	Bracket- front brake hose to axle - LH	1	421957	
38	Bracket - front brake hose to axle - RH	1	421958	
37	Pink tank (straight threaded ports)	1	660090	(657314)
	Bracket - ping tank	1	426689	
	Clip	1	611005-7	
40	Pipe assembly - ping tank to coil (<i>Replaces 657446-2</i>)	1	426686	(See Item 25b)
41	Line Filter (<i>See Suspension System</i>)	1	655710	
	Element	1	655710-1	

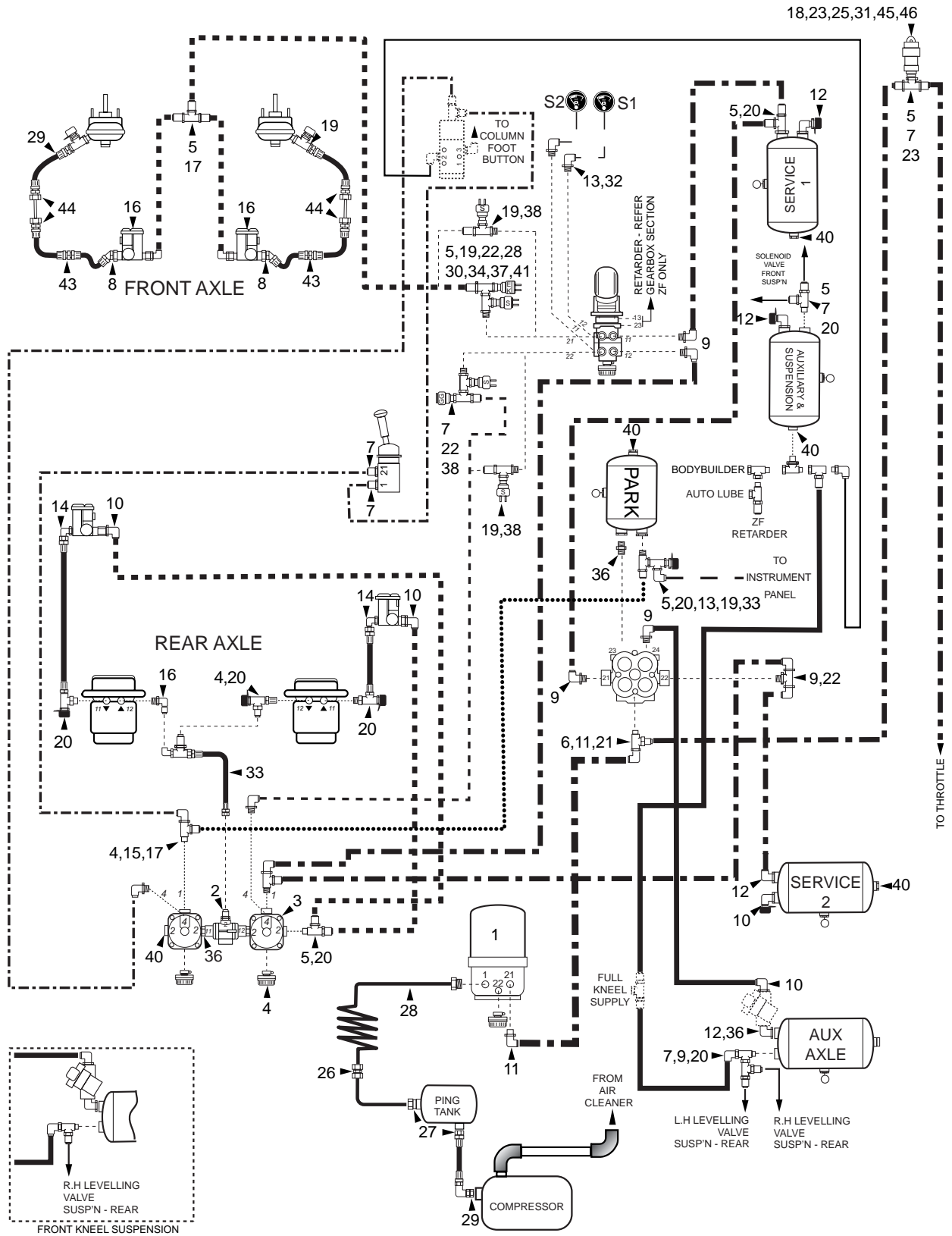


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Connector	1	654909-2	
2	Connector	2	654909-3	
3	Connector	2	65491 9-4	
4	Connector	8	654921-2	
5	Connector	13	654921-4	
6	Connector	1	654921-5	
7	Connector	5	654921-9	
8	Elbow	2	654919-2	
9	Elbow	8	654919-3	
10	Elbow	3	654919-4	
11	Elbow	1	654919-7	
12	Elbow	3	654925	
13	Elbow	3	654933-3	
14	Elbow	1	654933-4	
15	Elbow	4	654947-4	
16	Elbow	1	657240	
17	Elbow	3	654919-8	
18	Dowty washer	1	652921	
19	Tee piece	11	654923-1	
20	Tee piece	6	654923-2	
21	Tee piece	1	654923-3	
22	Tee piece	4	654924	
23	Tee piece	2	655017	
24	Dowty washer	1	655117	
25	Bulkhead connector	1	654912	
26	Bulkhead connector	1	656489	
27	Bulkhead connector	3	651447	
28	Adaptor	1	418461	
29	Adaptor	1	654909-1	
30	Adaptor	1	654938	
31	Connector	1	655234	
32	Reducer	2	654926	
33	Reducer	2	654927-1	
34	Reducer	1	654927-2	
35	Reducer	1	654927-5	
36	Nipple	4	654931	
37	Silencer	1	656302	
38	Cap & chain	1	606394	
39	Plug	3	612747	
40	Plug	4	654910	
41	Washer	4	655003	
42	Washer	1	655603	
43	Locknut	1	612487	
44	Locknut	2	654960	
45				
46	Clear tube - actuator	A/R	654242	
47	Tube nut	1	655233	
48	Washer	1	WMG22SP	
49	Locknut	2	657835-1	
50	Swivel elbow	1	654935	
51	Elbow - 45°	4	658017	
52	Connector	2	651716	
☞ 54	Adaptor - (must be used with ping tank 660090)	2	654909-22	



			KEY TO PIPE SIZES

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Air dryer (see separate list)	1	657516	
2	Quadruple - circuit protection valve	1	656249	
3	Relay valve - integral silencer	2	659372	
4	Silencer - air dryer & relay valve 653885 external silencer	3	658644	
5	Pilot valve (see steering gear section)	1	654201	
6	Handbrake valve	1	657493--x	
	Clear tube - exhaust	A/R	651787	
7	Brake actuator rear (see separate list)	2	658517-38	
8a	Brake chamber - front LH (see separate list)	1	658470-47	
8b	Brake chamber - front RH (see separate list)	1	658470-48	
9	Double check valve	1	654734	
10	Footbrake valve - Voith (see separate list)	1	656185	
11	Footbrake valve - ZF (see separate list)	1	657186	
12	Reservoir - 25 litre - Service 1&2 , Aux & Susp'n	3	654979-9	
13	Reservoir - 20 litre - Park, Aux & Susp'n 2	2	654979-6	
	Tee bolt clip - 10"	10	656616-2	
14	Drain valve	5	654728	
15	Test point	8	655026	
16	ABS valve	4	658879	
	Bracket - bulkhead rear - LH	i	424124	
	Bracket- bulkhead rear - RH ABS	1	428340	
17	Stop switch	2	659171	
18a	Pressure switch - Voith - "Bus stop"	1	657042-6	
18b	Pressure switch - ZF - "Bus stop"	1	656626-6	
19	Pressure switch - "gearguard"	1	658313	
20	Gauge - Air 1 - c/w integral Low Pressure switch	1	656130	
21	Gauge - Air 2 - c/w integral Low Pressure switch	1	656131	
22	Hose elbow - air intake pipe to pipe	1	650513	
23	Pipe assembly-elbow to elbow	1	424178	
	Clip	4	656818-7	
24	Hose elbow - pipe to compressor	1	424150	
25	Elbow - pipe to compressor	1	654935	107 - 119 Nm
26	Hose assembly - compressor to ping tank	1	657446-3	
27	Pipe assembly - ping tank to coil	1	426686	
28	Pipe assembly - air dryer coil	1	430083	
29	Hose assembly - front brake chamber	2	655025	
	Bracket - front air pipes	2	417043	
	Locknut	2	654960	
	Clip	2	610029-9	
30a	Pipe assembly - front brake chamber hose -	2	429605	133 leg x 104 leg
	Bracket - pipe assembly	2	236452	
30b	Pipe assembly - front brake chamber hose -	2	429605	188 leg x 104 leg
	Bracket - pipe assembly	2	431400	
31	Hose assembly - pipe to hose	2	659092	
32	Hose assembly - ABS valve	2	657727	
33	Hose assembly - relay valve to tee	1	655749	
34	Hose assembly - ABS valve to actuator	2	655749	
35	Charge coupling	1	658019	
	Cap & chain	1	606394	
36	Non return valve	1	654733	
37	Pink tank (straight threaded ports)	1	660090	(657314)
	Bracket - ping tank	1	426689	
	Clip	1	611005-7	



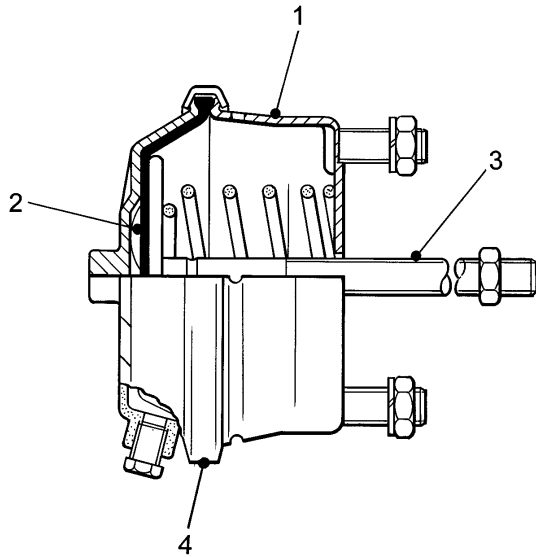
			KEY TO PIPE SIZES

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Connector	-	654909-2	
2	Connector	-	654909-3	
3	Connector	-	65491 9-4	
4	Connector	-	654921-2	
5	Connector	-	654921-4	
6	Connector	-	654921-5	
7	Connector	-	654921-9	
8	Connector	-	654909-7	
9	Elbow	-	654919-3	
10	Elbow	-	654919-8	
11	Elbow	-	654919-7	
12	Elbow	-	654925	
13	Elbow	-	654947-4	
14	Elbow	-	654933-4	
15	Elbow	-	654919-2	
16	Elbow	-	654919-6	
17	Tee piece - bracketed	-	654922	
18	Dowty washer	-	652921	
19	Tee piece	-	654923-1	
20	Tee piece	-	654923-2	
21	Tee piece	-	654923-3	
22	Tee piece	-	654924	
23	Tee piece	-	655017	
24	Dowty washer	-	655117	
25	Bulkhead connector	-	654912	
26	Bulkhead connector	-	656489	
27	Adaptor - (must be used with ping tank 660090)	2	654909-22	
28	Adaptor	-	418461	
29	Adaptor	-	654909-1	
30	Adaptor	-	654938	
31	Connector	-	655234	
32	Reducer	-	654926	
33	Reducer	-	657950-2	
34	Reducer	-	654927-2	
35	Reducer	-	654927-5	
36	Reducer	-	654931	
37	Reducer	-	657950-1	
38	Reducer	-	654927-7	
39	Plug	-	612747	
40	Plug	-	654910	
41	Washer	-	655003	
42	Washer	-	655603	
43	Locknut	-	657835-1	
44	Locknut	-	654960	
45	Tube nut	-	655233	
46	Washer	-	WMG 22SP	

BRAKE ACTUATOR & CHAMBERS PARTS MANUAL

AMENDED:161001

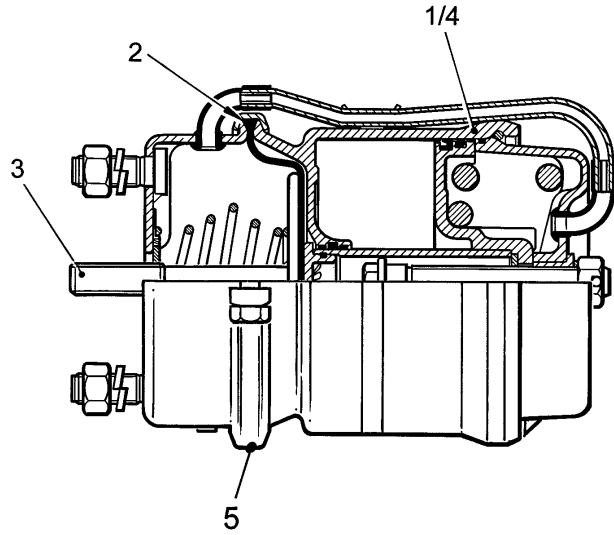
UNIT NO:FB1510A&B.FB1512A,B,D&F



Front Brake Actuator-Drum

DIAGRAM CURRENTLY
UNAVAILABLE

Front Brake Actuator-Disc



Rear Brake Actuator-Drum

DIAGRAM CURRENTLY
UNAVAILABLE

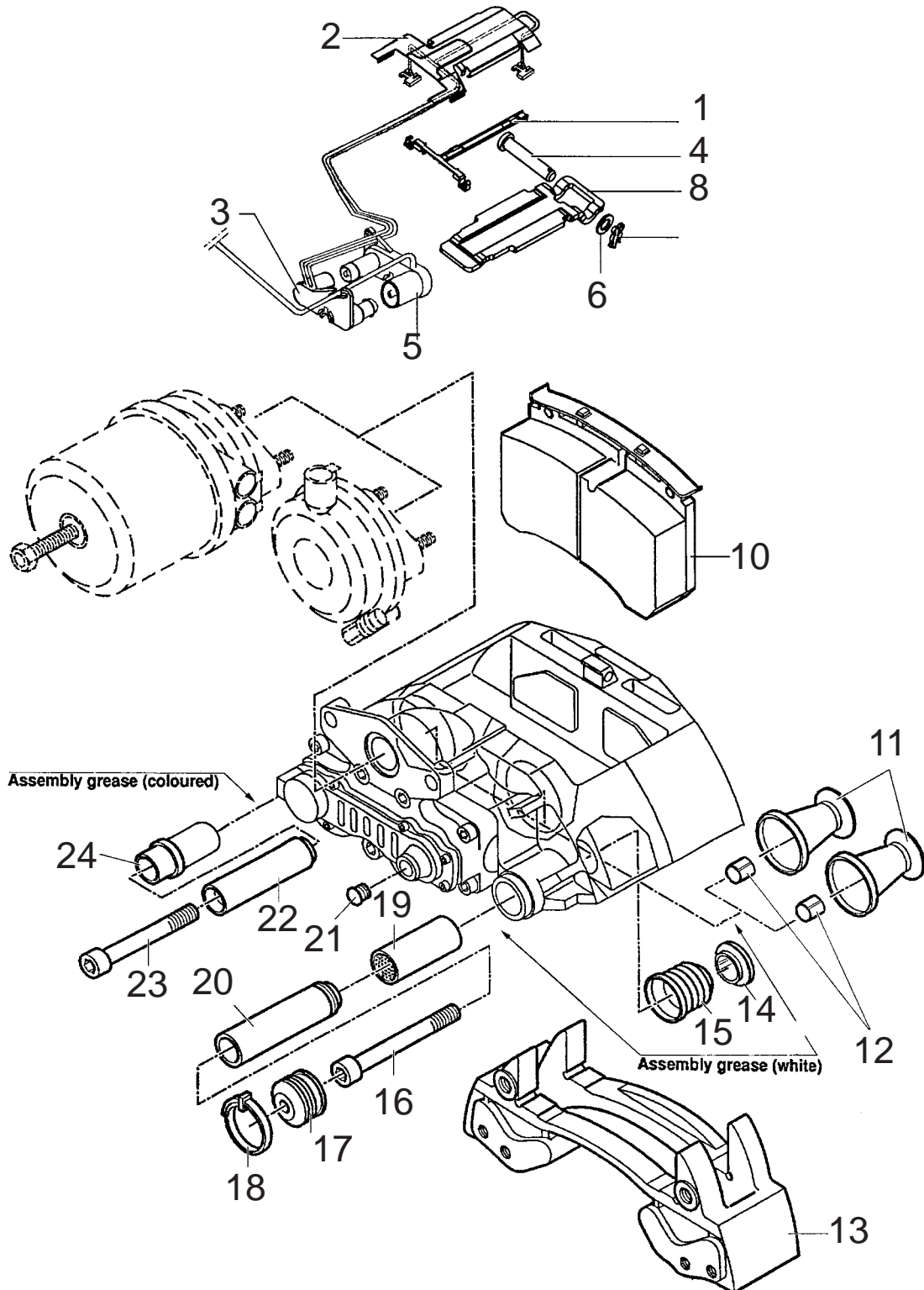
Rear Brake Actuator-Disc

PARTS MANUAL BRAKE ACTUATOR & CHAMBERS

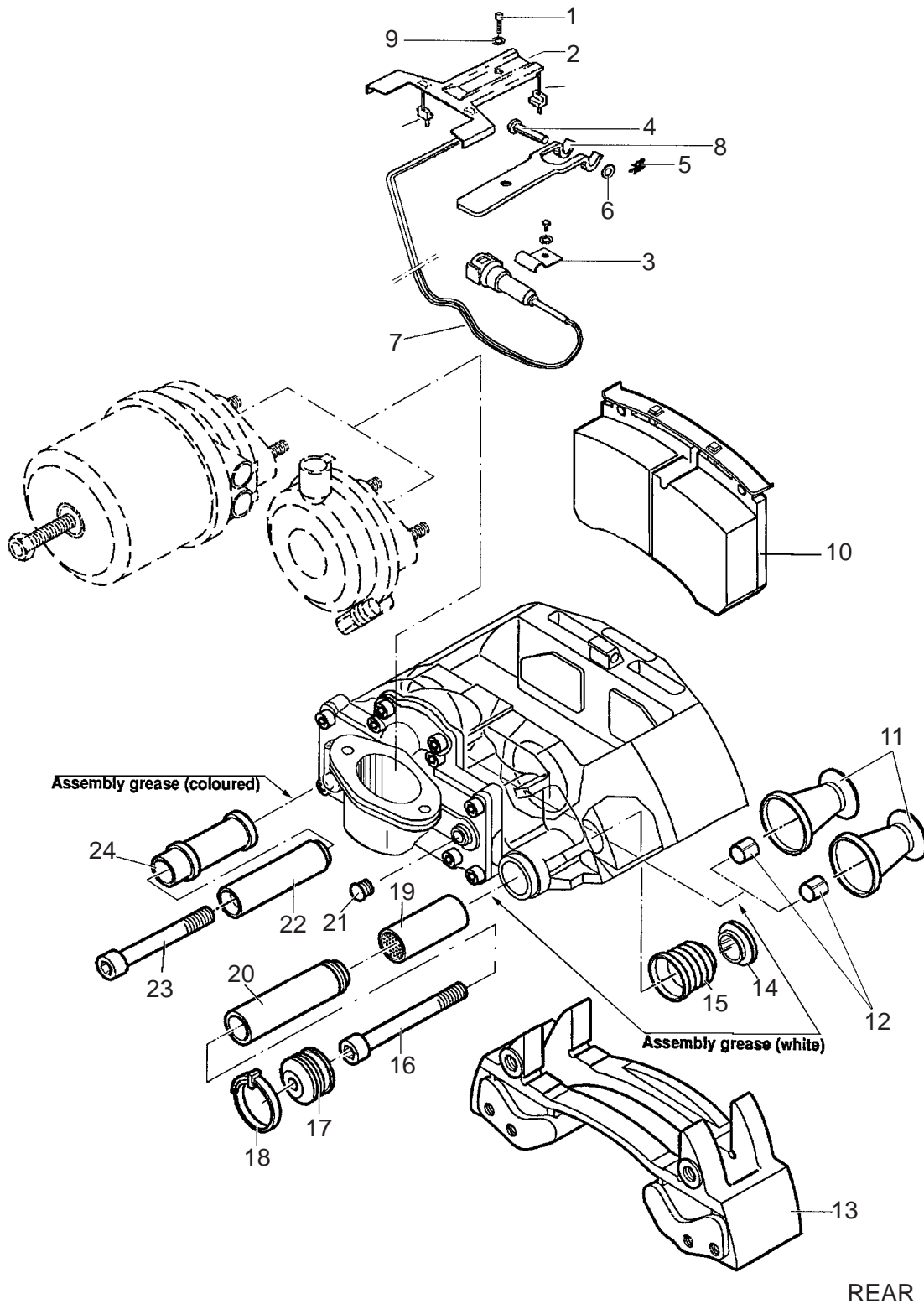
AMENDED:230407

UNIT NO:FB1510A&B.FB1512A,B,D&F

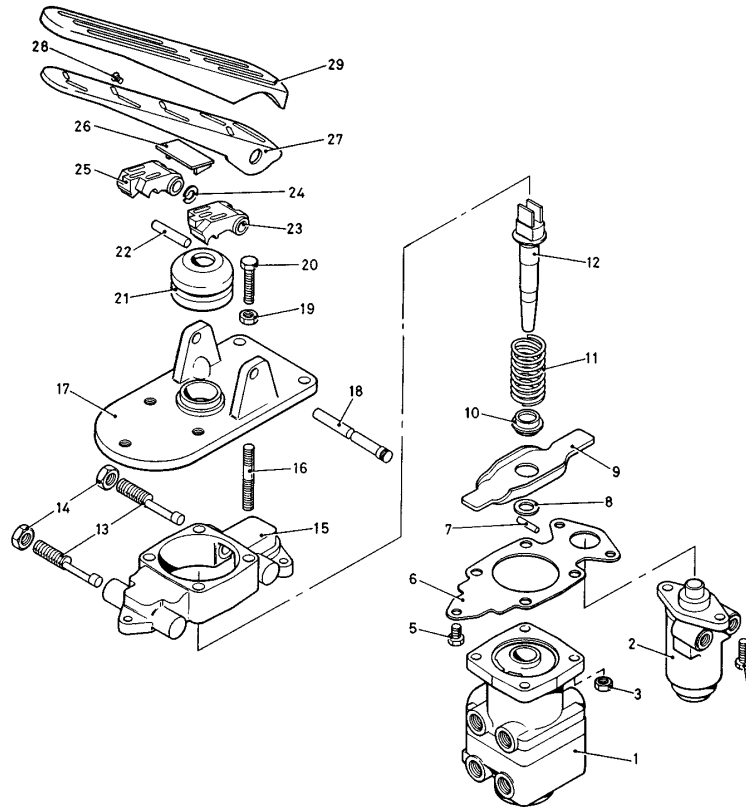
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
DRUM BRAKE VEHICLES				
Used on and up to Chassis No 1298				
FRONT BRAKE CHAMBER - DRUM - T24				
1a	Brake chamber - LH	1	423749	(Mounting Nuts 122 Nm)
1b	Brake chamber - RH	1	423750	
☞	Rubber boot	2	650440	
2	Diaphragm	2	654472-2	
3	Non pressure plate assembly	2	657209-1	
☞ 4	Clamp ring kit	2	650763-1	
5	Rationalised brake actuator	2	657209-3	
	Yoke and pin assembly	2	654007	
Used on and up to Chassis No 0131				
REAR BRAKE ACTUATOR - DRUM- T27/98				
1	Brake actuator - T27/98 (Service/Exchange)	2	656471--X	
☞	Retaining plate onto actuator	2	650440-1	
2	Diaphragm - T27	2	656471-2	
3	Spring portion (Service / Exchange)	2	656471-1--X	
☞	Rubber boot	2	650440	
☞ 4	-	-	-	
5	Clamp ring kit	2	654466-2	
	Yoke and pin assembly	2	654497	
Used on and after Chassis No 0132				
REAR BRAKE ACTUATOR - DRUM- T24/98				
1	Brake actuator - T24/98	2	657687	
2	Diaphragm - T24	2	654472-2	
3	Spring portion (Service / Exchange)	2	657687-2--X	
4	Brake actuator (Service/Exchange)	2	657687-1 --X	
	Yoke and pin assembly	2	654497	
DISC BRAKE VEHICLES				
Used on and after Chassis No 1299				
FRONT BRAKE CHAMBER - DISC				
☞ 1a	Brake chamber - LH	1	658470-47	
☞ 1b	Brake chamber - RH	1	658470-48	
2	Diaphragm	2	658470-44	
REAR BRAKE ACTUATOR - DISC				
1	Brake actuator	2	658517-38	
2	Diaphragm	2	658470-44	



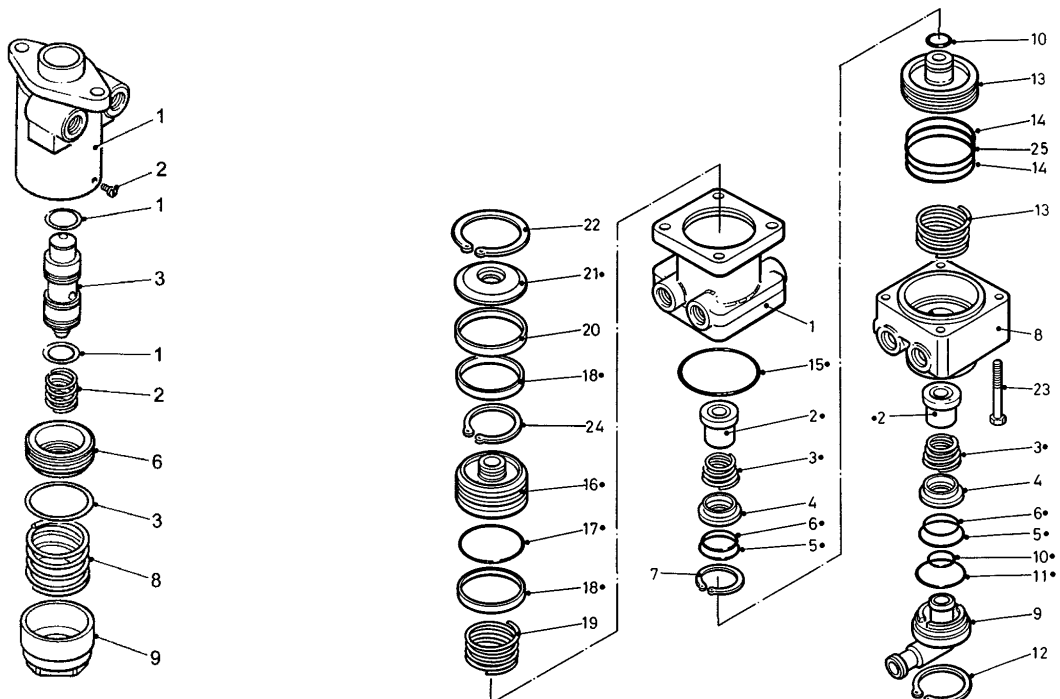
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Caliper LH - exchange - same as 658470-42 but without items 1,2,3,7,9,10,13	1	658470-45	
	Caliper RH - exchange - same as 658470-43 but without items 1,2,3,7,9,10,13	1	658470-46	
	Kit - brake pads (axle set) comprising items 4,5,6,10,21	1	658470-41	
	Disc - front brake	2	658470-39	
☞	Kit - carrier and guide comprising items 13,16,18, 20,,22,23	a/r	658470-38	
	Kit - guide and seals comprising items 14,15,16,17, 18, 19,20,22,23,24	a/r	657303-128	
	Kit - guide seals comprising items 14,15,17,18,21	a/r	657303-129	
☞	Insulated tappet - with boot comprising items 11,12	a/r	659334-5	
	Cap - item 21	1	657303-131	
	Kit - pad holder (axle set) comprising items 4,5,6,8	1	658470-51	
	Kit - wear indicator (axle set) comprising items 1,2,3,5	1	658470-50	
	Kit - cap - comprising items 17,18	1	657303-137	
	Kit - rubber bush - comprising items 22,23,24	1	657303-138	
	Assembly grease - coloured	1	657303-139	
	Assembly grease - white	1	657303-140	
☞	Brake caliper grease	1	658470-53	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Caliper LH - exchange - same as 658517-36 but without items 1,2,3,7,9,10,13	1	658517-34	
	Caliper RH - exchange - same as 658517-35 but without items 1,2,3,7,9,10,13	1	658517-33	
	Kit - brake pads (axle set) comprising items 4,5,6,10,21	1	658470-41	
	Disc - rear brake	2	657303-126	
	Kit - carrier and guide comprising items 13,16,18,20,22,23	a/r	658517-28	
	Kit - guide and seals comprising items 14,15,16,17,18,19,20,22,23,24	a/r	658517-29	
	Kit - guide seals comprising items 14,15,17,18,21	a/r	657303-129	
	Insulated tappet - with boot comprising items 11,12	a/r	659334-5	
	Cap - item 21	1	657303-131	
	Kit - pad holder (axle set) comprising items 4,5,6,8	1	657303-133	
	Kit - pad holder (axle set) comprising items 1,2,4,5,6,8,9	1	657303-134	
	Kit - wear indicator - with cable (axle set) comprising items 1,3,7,9	1	658517-31	
	Kit - wear indicator (axle set) comprising items 1,3,9	1	658517-32	
	Kit - cap - comprising items 17,18	1	657303-137	
	Kit - rubber bush - comprising items 22,23,24	1	657303-138	
	Link harness - pad wear sensor	2	431818	
	Assembly grease - coloured	1	657303-139	
	Assembly grease - white	1	657303-140	
	Brake caliper grease	1	658470-53	



Footbrake Valve



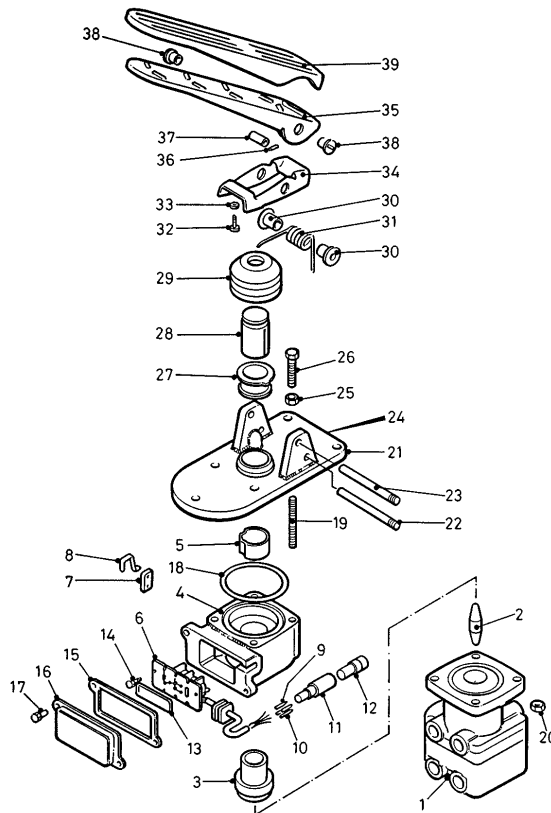
Retarder Valve Repair Kit

PARTS MANUAL FOOTBRAKE VALVE ASSEMBLY - ZF

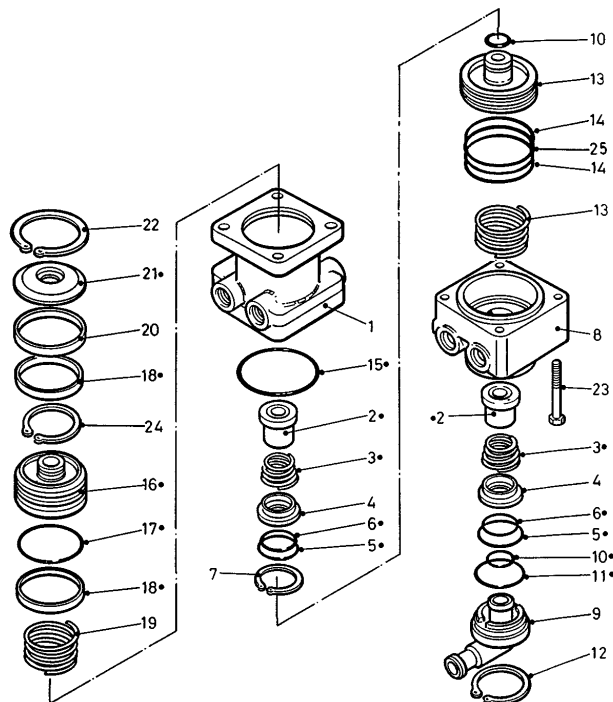
AMENDED:180101

UNIT NO:657186

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Footbrake valve	1	657186	
1	Valve basic (see list below)	1	657186-2	
17-28	Mounting plate and treadle assembly	1	657186-1	
☞	Silencer	1	656302	
☞ 29	Pedal rubber	1	652967-3	
	 Service repair kit - Valve - comprising items marked *	 1	 657186-4	
1	Housing	1		
2	* Valve	2		
3	* Spring	2		
4	Seating ring	2		
5	* 'O' ring	2		
6	* 'O' ring	2		
7	Retaining ring - 38 x 1.5	1		
8	Lower housing	1		
☞ 9	Exhaust	1	657186-7	
10	* 'O' ring	2		
11	* 'O' ring	2		
12	Retaining ring - 47 x 1.5	1		
13	Piston	1		
14	* 'O' ring	2		
15	* 'O' ring	1		
16	Internal seal - piston assembly	1		
17	* 'O' ring	1		
18	* Guide ring	2		
19	Seating ring	1		
20	Seating ring	1		
21	* Gaiter	1		
22	Retaining ring - 60 x 2	1		
23	Screw	4		
24	Retaining ring	1		
25	Ring	1		
	 Retarder valve	 1	 657186-3	
1-3	Retarder valve kit	1	657186-5	

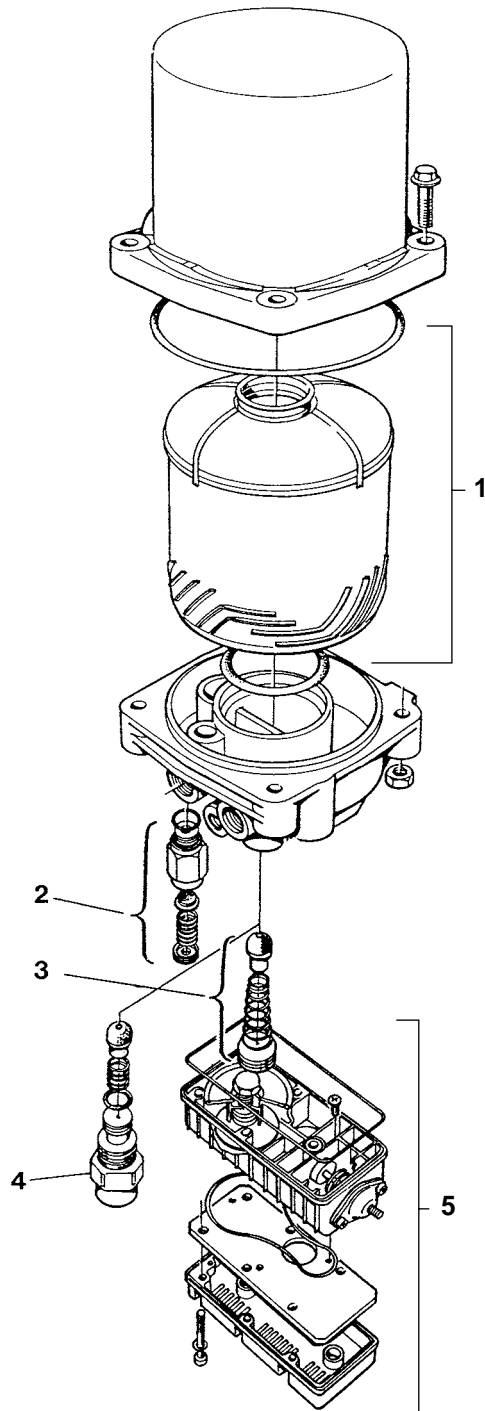


Footbrake Valve

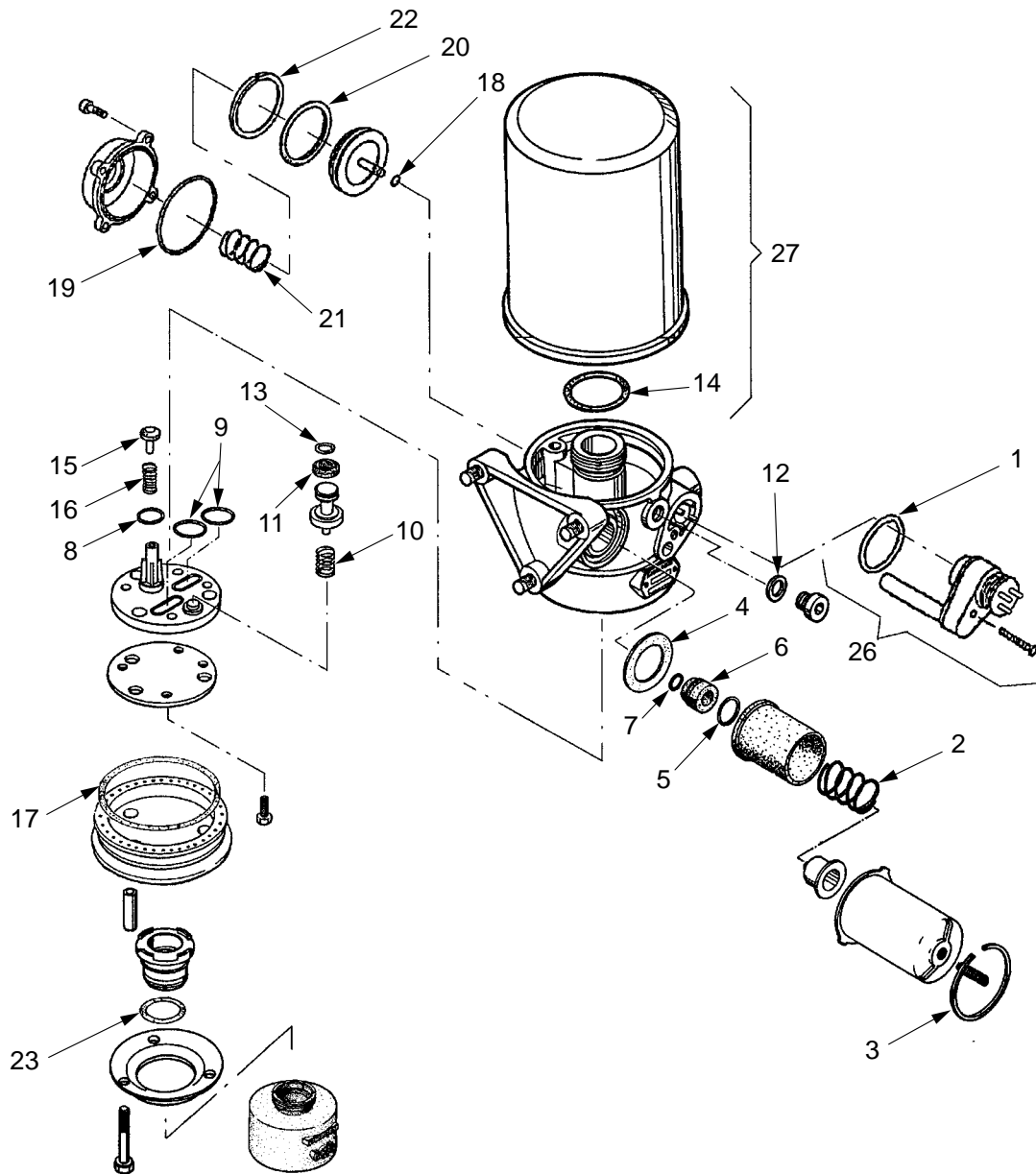


Service Repair Kit Basic Valve

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Footbrake valve	1	657185	
1	Valve basic (see list below)	1	657186-2	
6-11	Microswitch assembly	1	657185-2	
21-38	Mounting plate and treadle assembly	1	657186-1	
☞	Silencer	1	656302	
☞ 39	Pedal rubber	1	652967-3	
	Service repair kit - Valve - comprising items marked *	kit	657186-4	
1	Housing	1		
2	* Valve	2		
3	Spring	2		
4	Seating ring	2		
5	* 'O' ring	2		
6	* 'O' ring	2		
7	Retaining ring - 38 x 1.5	1		
8	Lower housing	1		
9	Exhaust	1		
10	* 'O' ring	2		
11	* 'O' ring	2		
12	Retaining ring - 47 x 1.5	1		
13	Piston	1		
14	* 'O' ring	2		
15	* 'O' ring	1		
16	Internal seal - piston assembly	1		
17	* 'O' ring	1		
18	* Guide ring	2		
19	Seating ring	1		
20	Seating ring	1		
21	Gaiter	1		
22	Retaining ring - 60 x 2	1		
23	Screw	4		
24	Retaining ring	1		
25	Ring	1		



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Used on and up to Chassis No 1298			
	Air dyer unit - complete	1	658011	Haldex
1	Cartridge kit	1	656250-1	
2	Safety valve	1	656250-2	
3	Check valve	1	656250-3	
4	Regeneration valve	1	658011-4	
5	Unloading and Governor valve - complete	1	656250-5	
	AIR DRYER SHIELD			SL1431
	Shield - air dryer (<i>behind existing mounting bracket</i>)	1	430644	
	Bolt - lower fixings	3	MCB 112 30P	
	Washer - plain	1	WMA 12SP	

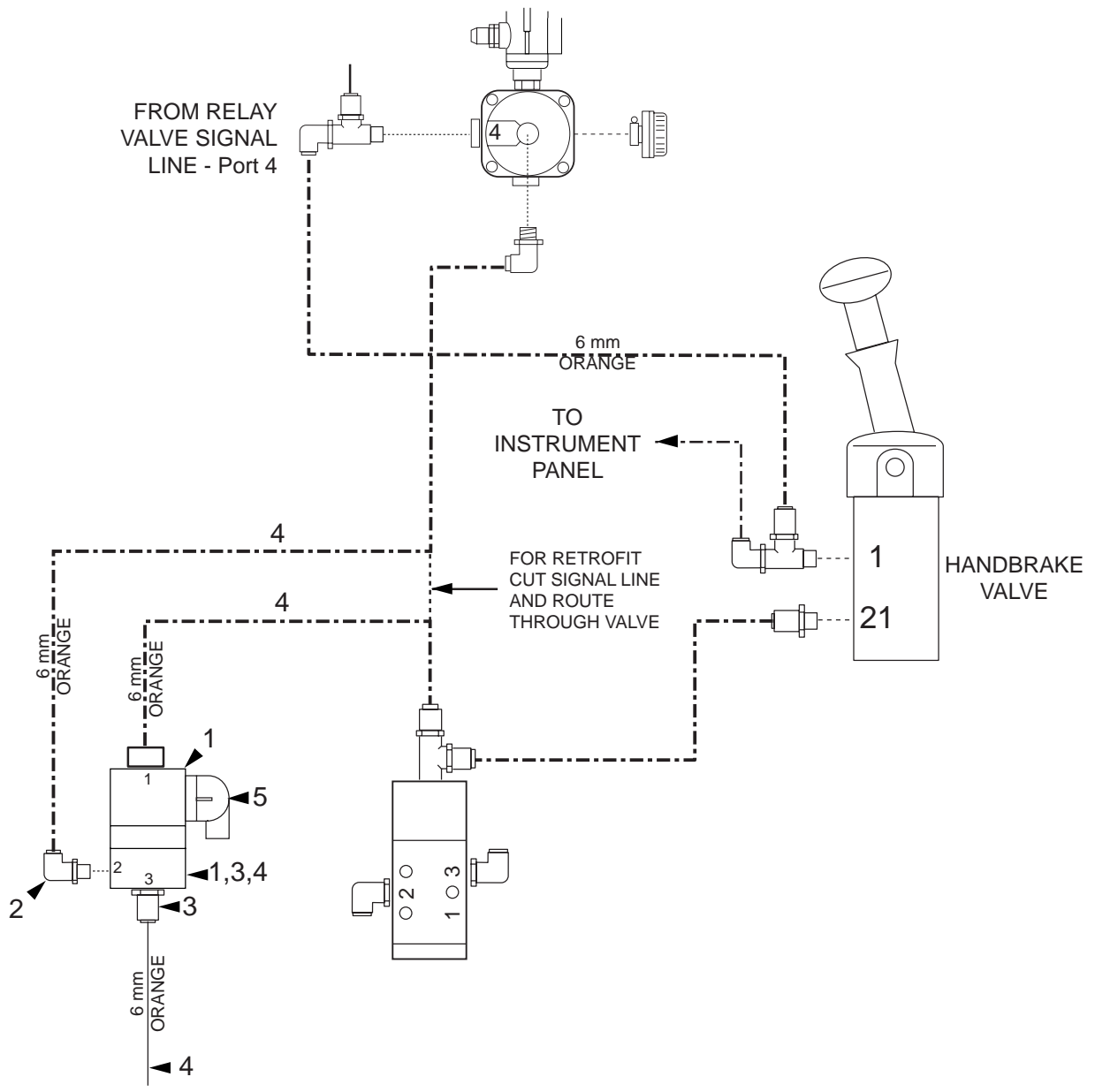


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Air dryer unit - complete	1	657516	Knorr
	Nut	3	MCN 512P	
	Repair kit - comprising items 1 - 25	1	657516-1	
	Heater plug - comprising item 26	1	658208-2	
	Filter cartridge - comprising item 27	1	658208-3	
	Silencer assembly	1	658644	
	Pipe assembly - compressor to air dryer	1	430083	SL1419

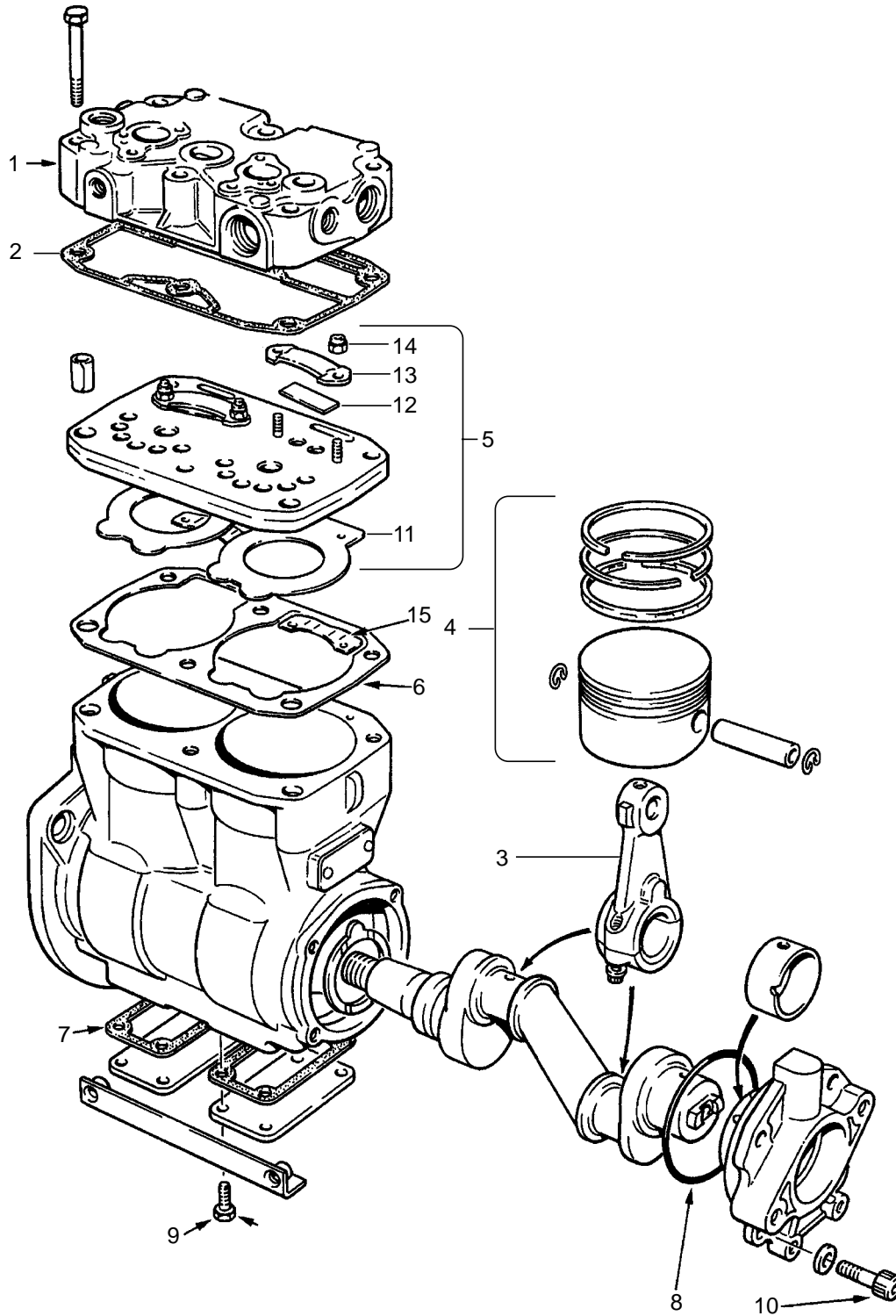
HANDBRAKE INTERLOCK PARTS MANUAL

AMENDED:

UNIT NO:AL1511-1



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Solenoid valve	1	655776	
	Nut	1	654339	
	Olive	1	654340	
	Support	1	655832-2	
	Bolt	2	MCB 108 5SP	
	Nut	2	MCN 708P	
2	Elbow	1	654919-5	Port 2
3	Connector	1	654921-8	Port 3
4	Pipe-Nylon-orange-6mm	0.1m	654748	
5	Connector "Kostal"	1	652285	

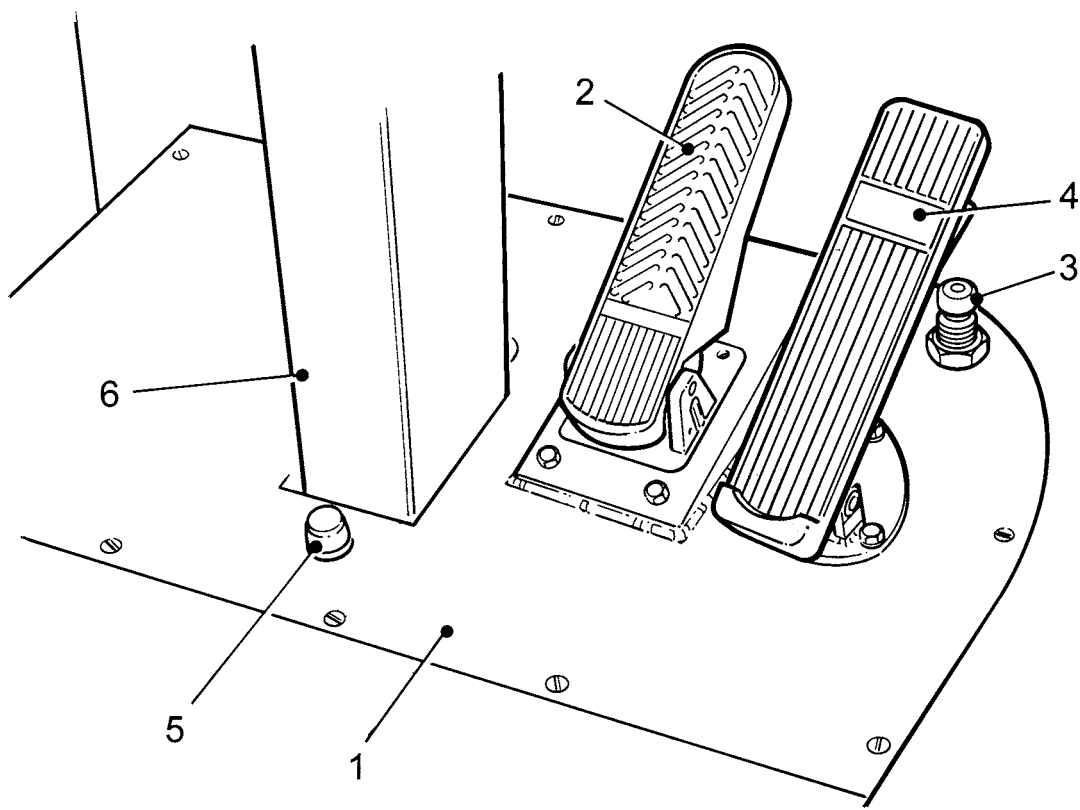


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	TWIN CYLINDER COMPRESSOR			
	Seal and gasket kit - Items 2,6,7,8,9,10	1	657463-1	
	Reed valve kit - Items 11,12,13,14,15	1	657463-2	
	Cylinder head kit - Items 1,2	1	657463-3	
1	Cylinder head	1	-	
2	Gasket - cylinder head to valve	1	-	
3	Con rod assembly	2	657463-4	
4	Standard piston assembly	2	657463-5	
5	Valve plate assembly	1	657463-6	
6	Gasket - valve plate to crankcase	1	-	
7	Sump gasket	2	652439-11	
8	End cover 'O' ring	1	-	
9	Screw - sump	8	-	7Nm
10	Screw - end cover	4	-	20Nm
11	Inlet reed	2	-	
12	Delivery reed	2	-	
13	Delivery bridge	2	-	
14	Delivery bridge nut	4	-	7Nm
15	Wave spring	2	-	
	Gasket - compressor to engine	1	3916042-101	
	Gasket - hydraulic tandem pump to compressor	1	658063	

DENNIS

SECTION 4.1

Cab FloorPage 4.1.3

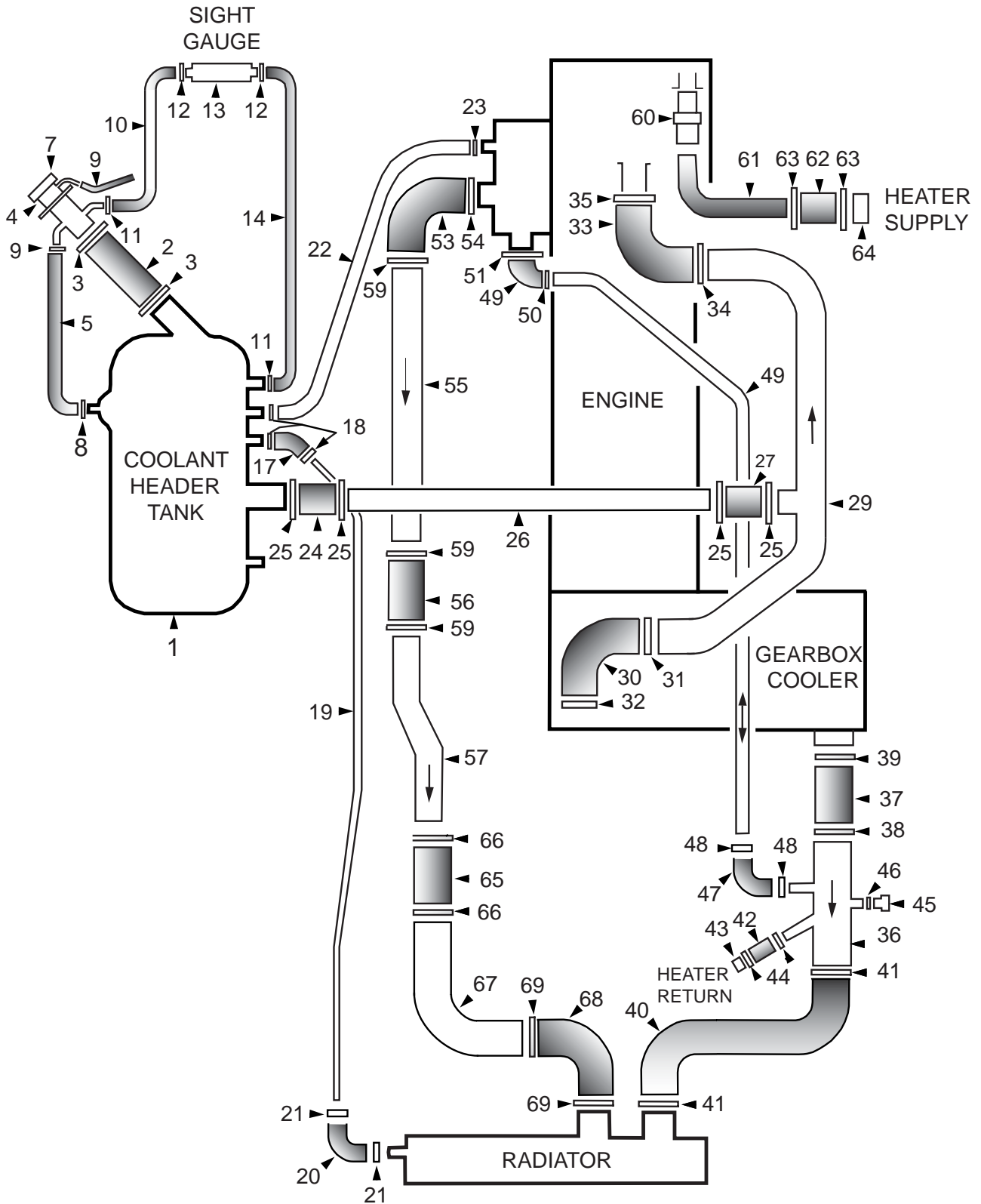


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1a	Floor plate assembly	1	423046	C1510A
1b	Floor plate assembly	1	429925	C1510C
	Screw	12	MCS 1306 20PB	
	Plate - cover - steering column	1	421808	
	Screw	8	ST-1908 3P	
	Plinth - brake valve	1	421934	
	Nut	3	MCN108P	
2	Footbrake pedal - Voith (See braking system)	1	657185	FB 1510A
☞ 3	Switch - kickdown - Voith	1	656011-6	
2	Footbrake pedal - ZF (See braking system)	1	657186	FB 1510B
3	Switch - kickdown - ZF	1	655492	
☞	Connector - kickdown switch	1	655488	
	Housing - footbrake pedal	1	421934	
	Setscrew	3	MCS 108 103P	
	Nut	3	MCN 508P	
	Screw	4	655071	
4	Throttle pedal	1	657300	EC 1510A
	Bolt	3	MCB 108 30P	
	Nut	3	MCN 508P	
	Treadle overhaul kit	1	654683-3	
	Long pin	1	-	
	Short pin	2	-	
	'E' clip	6	-	
	Roller	1	-	
	Treadle spring	1	-	
	Kickdown spring	1	-	
	Bushing	2	-	
	Striker kit	1	657300-1	
	Striker	1	-	
	Spacer	2	-	
	Screw	2	-	
	Nut	2	-	
	Valve assembly - complete	1	654683-5	
	Overhaul kit c/w cartridge	1	654683-1	
	Spring kit	1	654683-6	
5	Foot button valve	1	657404	
6	Steering column adjustable (See Steering section)	1	657115	

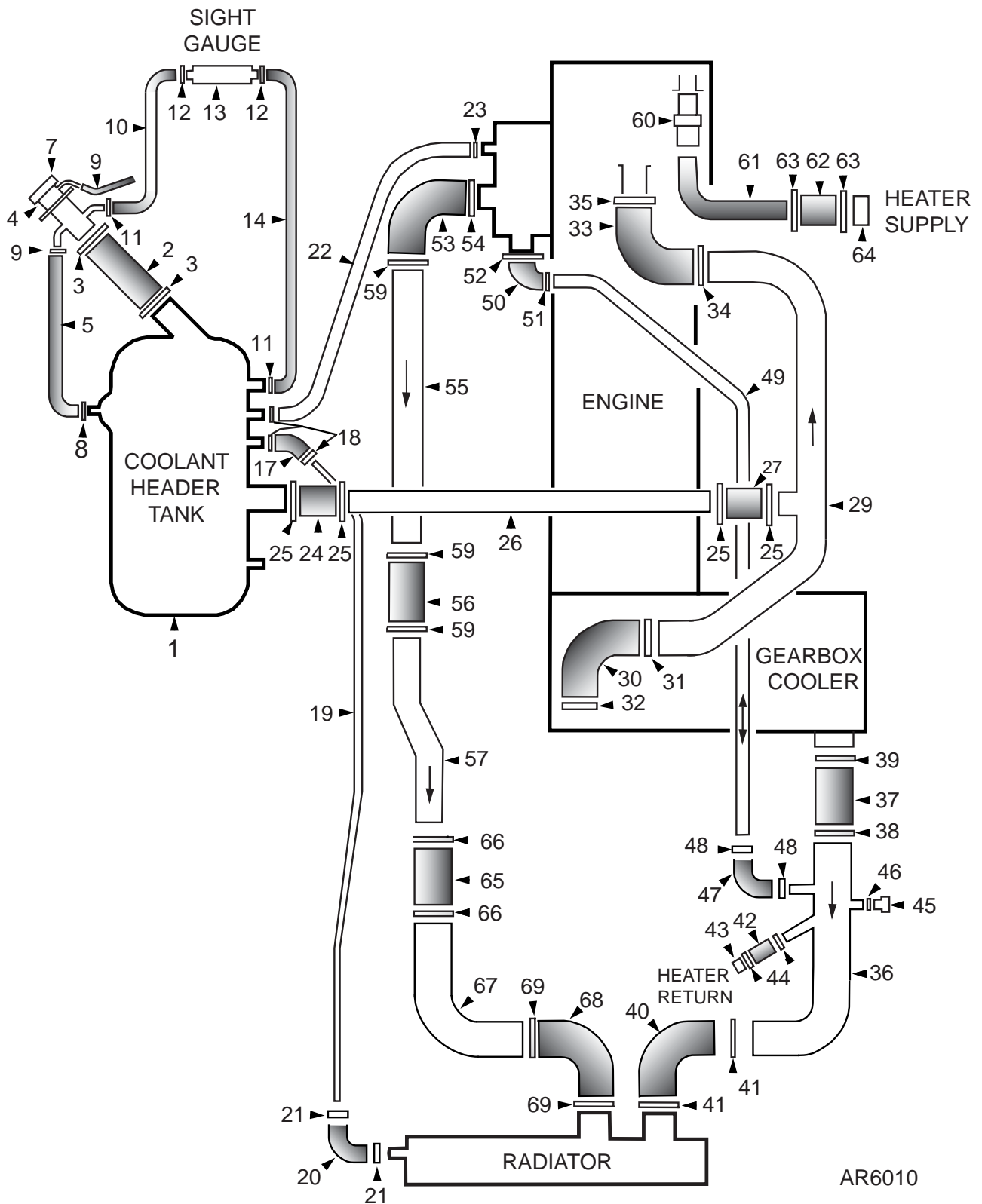
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SECTION 5.1

Cooling system - Voith gearboxPage	5.1.2 - 5
Cooling system - ZF gearboxPage	5.1.6 - 9
Radiator assembly .....	.Page	5.1.10 - 13
Intercooler and pipework assembly .....	.Page	5.1.14 - 15

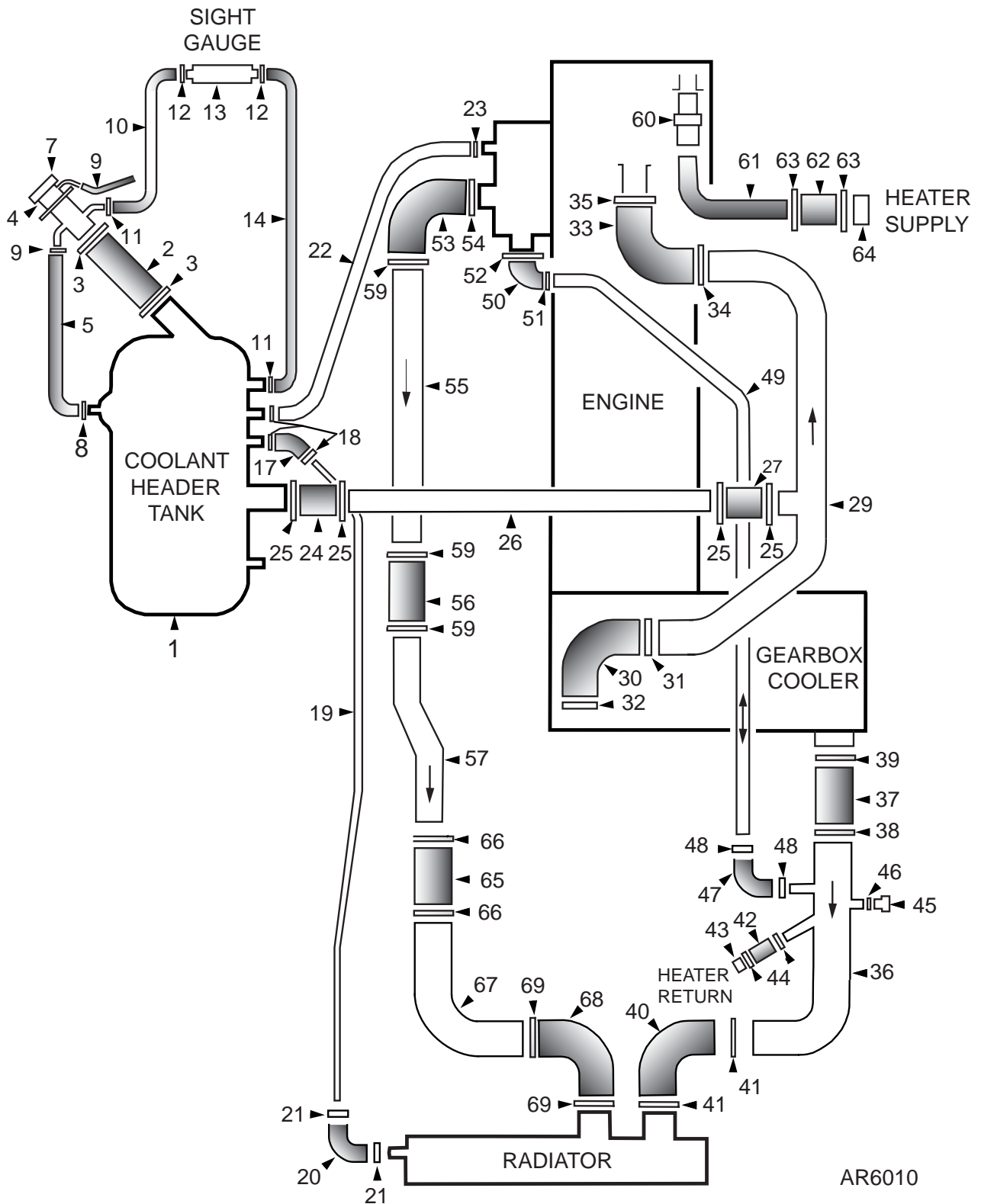


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Header tank assembly - sight glass	1	425241	
	Probe - coolant level	1	652489	
	Grommet - coolant probe	1	652490	
	Clamp header tank	2	426013	SL1109
	Nut - self locking	1	MCN 708P	
	Bolt	2	MCB 108 225P	
	Washer- plain	2	WMA 85P	
	Nut-full	2	MCN 108P	
2	Hose - tank fill	1	252245-3	
3	Clip	2	656818-10	
4	Filler neck	1	424295	
5	Hose - breather - tank to neck	1	423098-340	
6	Clip - filler neck	1	656818-3	
	Clip - tank	1	656818-1	
7	Pressure cap	1	654109	
8	Clip-tank	1	656818-2	
9	Hose - drain	1	654242	
10	Hose - upper - sight gauge	1	424329	
11	Clip-filler neck	1	656818-2	
12	Clip - sight gauge	1	656818-3	
13	Sight gauge assembly	1	425557	
	Front plate - sight glass	1	430896	
	Screw	4	MCS 1903 16P	
	Glass tube	1	424128	
	Grommet	2	657359	
	Bracket - sight glass	1	425025	
	Nut	2	MCN 103P	
14	Hose - lower - sight gauge	1	424330	
15	Clip tank	1	656818-2	
16	Clip - sight gauge	1	656818-3	
17	Hose elbow - tank to bleed pipe	1	425444	
18	Clip	2	656818-2	
19	Bleed pipe	1	425496	
20	Hose - radiator to bleed pipe	1	425444	
21	Clip	2	656818-2	
22	Hose	1	242895-5	
23	Clip	2	656818-3	
24	Hose elbow - tank outlet	1	425317	
25	Clip-tank	1	656818-7	
	Clip - pipe	3	656818-9	
26	Pipe-fill	1	424174	
27	Hose - fill pipe	1	400424	
28	Clip	2	656818-6	
29	Pipe assembly - gearbox cooler to engine	1	425501	
30	Hose elbow - gearbox cooler	1	424684	
31	Clip-pipe	1	656818-10	
32	Clip - engine	1	656818-11	
33	Hose elbow - engine	1	410341	
34	Clip - pipe	1	656818-7	
35	Clip - engine	1	656818-8	
36	Pipe - gearbox / radiator / bypass	1	425499	
	Bracket - pipe support	1	426390	



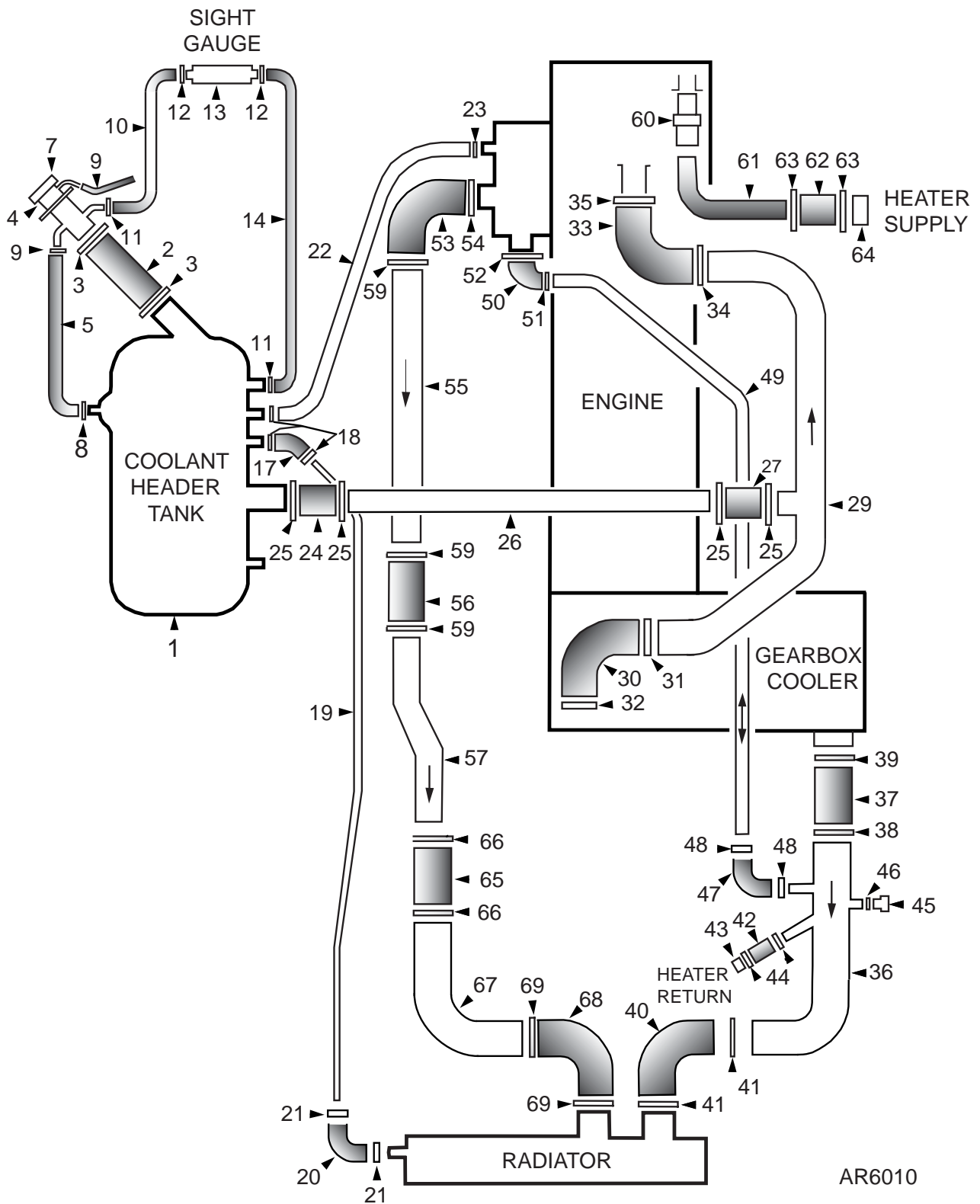
AR6010

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
37	Hose - gearbox cooler to pipe	1	400293	
38	Clip - pipe	1	656818-10	
39	Clip - gearbox	1	656818-11	
40	Hose "S" - radiator	1	425438	
41	Clip	2	656818-10	
42	Hose - heater return	1	650514-2	
43	Plug	1	420746	
44	Clip - heater return	2	656818-5	
45	Plug	1	5349-2	
46	Bonded seal	1	603677	
47	Hose elbow - bypass pipe	1	694266	
48	Clip	1	656818-4	
49	Pipe - bypass	1	425500	
50	Hose elbow - reducing - engine	1	424461	
51	Clip - pipe	1	656818-4	
52	Clip - engine	1	656818-6	
53	Hose elbow - engine to pipe	1	656538	
54	Clip - engine	1	656818-10	
	Clip - pipe	1	656818-9	
55	Pipe	1	424169	
56	Hose convolute - pipe to pipe	1	400317	
57	Pipe	1	425497	
58	Hose - pipe to radiator	1	400317	
59	Clip	4	656818-10	
60	Connector	1	652549	
61	Pipe - heater feed	1	424175	
62	Hose - heater feed	1	650514-2	
63	Clip	2	656818-5	
64	Plug	1	420746	
65	Hose - pipe to pipe	1	424684	
66	Clip	2	656818-10	
67	Pipe - hose to elbow	1	425498	
68	Hose elbow - radiator inlet	1	654308	
69	Clip	2	656818-10	



AR6010

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Header tank assembly - sight glass	1	425241	
	Probe - coolant level	1	652489	
	Grommet - coolant probe	1	652490	
	'U' bolt - tank	1	423593	
	Nut - self locking	1	MCN 508P	
2	Hose-tank fill	1	252245-3	
3	Clip	2	656818-10	
4	Filler neck	1	424295	
5	Hose - breather - tank to neck	1	423098-340	
6	Clip - filler neck	1	656818-3	
	Clip - tank	1	656818-1	
7	Pressure cap	1	654109	
8	Clip-tank	1	656818-2	
9	Hose - drain	1	654242	
10	Hose - upper- sight gauge	1	424329	
11	Clip - filler neck	1	656818-2	
12	Clip - sight gauge	1	656818-3	
13	Sight gauge	1	425557	
14	Hose - lower - sight gauge	1	424330	
15	Clip tank	1	656818-2	
16	Clip - sight gauge	1	656818-3	
17	Hose elbow - tank to bleed pipe	1	425444	
18	Clip	2	656818-2	
19	Bleed pipe	1	425496	
	Bracket - bleed pipe	1	426665	
20	Hose - radiator to bleed pipe	1	425444	
21	Clip	2	656818-2	
22	Hose	1	242895-5	
23	Clip	2	656818-3	
24	Hose elbow - tank outlet	1	425317	
25	Clip-tank	1	656818-7	
	Clip - pipe	3	656818-9	
26	Pipe-fill	1	424174	
27	Hose-fill pipe	1	400424	
28	Clip	2	656818-6	
29	Pipe assembly - gearbox cooler to engine	1	425504	
30	Hose elbow - gearbox cooler	1	424684	
31	Clip - pipe	1	656818-10	
32	Clip - engine	1	656818-11	
33	Hose elbow - engine	1	410341	
34	Clip - pipe	1	656818-7	
35	Clip - engine	1	656818-8	
36	Pipe - gearbox / radiator / bypass	1	425506	
	Bracket - pipe support	1	426390	
37	Hose - gearbox cooler to pipe	1	424684	
38	Clip - pipe	1	656818-10	
39	Clip - gearbox	1	656818-11	
40	Hose elbow - radiator	1	654308	
41	Clip	2	656818-10	
42	Hose - heater return	1	650514-2	
43	Plug	1	420746	
44	Clip - heater return	2	656818-5	



AR6010

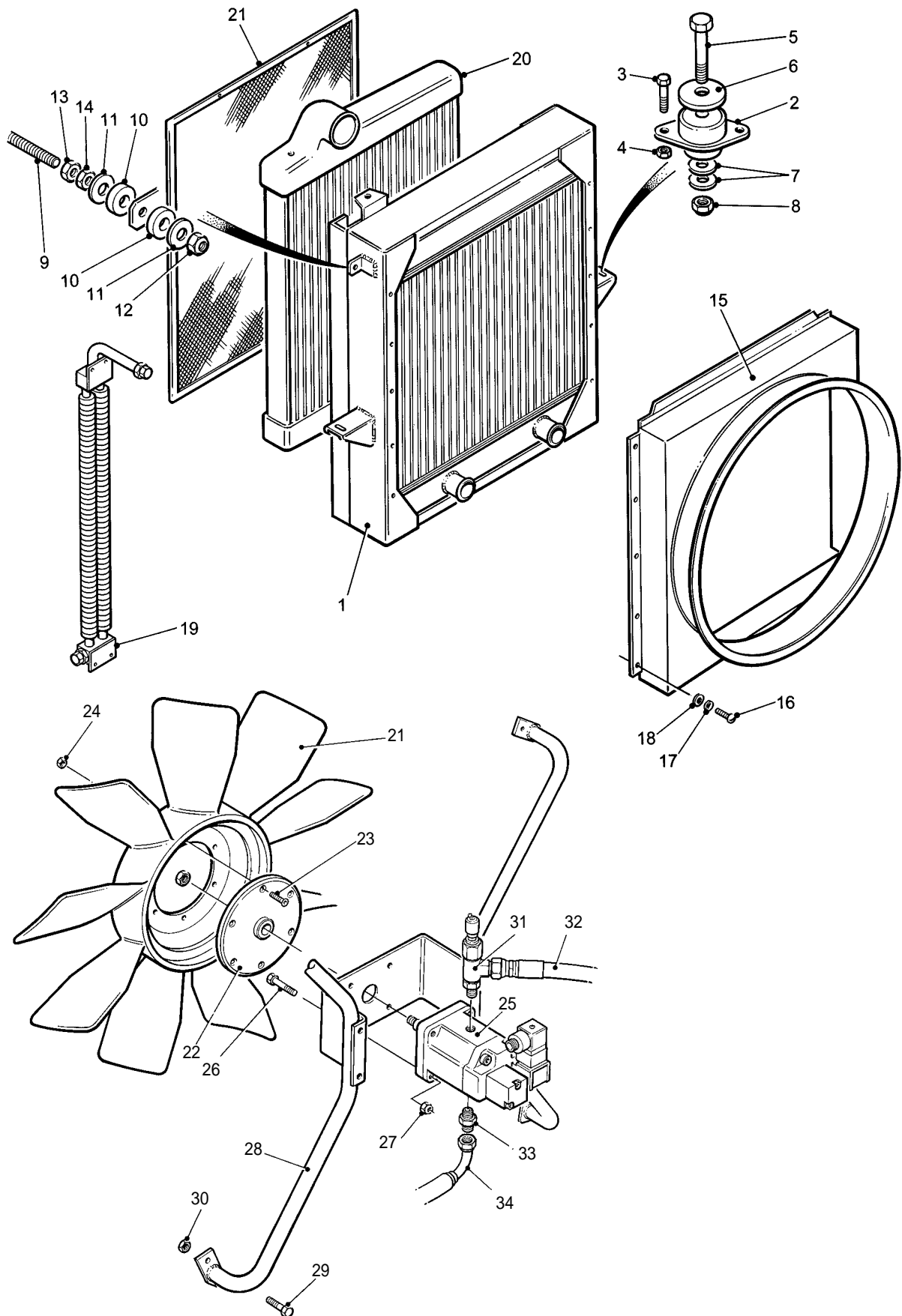
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
45	Plug	1	5349-2	
46	Dowty seal	1	603677	
47	Hose elbow - bypass pipe	1	694266	
48	Clip	2	656818-4	
49	Pipe - bypass	1	425505	
50	Hose elbow - reducing - engine	1	424461	
51	Clip - pipe	1	656818-4	
52	Clip - engine	1	656818-6	
53	Hose elbow - engine to pipe	1	410344	
54	Clip - engine	1	656818-8	
	Clip - pipe	1	656818-9	
55	Pipe	1	424169	
56	Hose - pipe to pipe	1	400317	
57	Pipe	1	425497	
58	Hose convolute - pipe to radiator	1	400317	
59	Clip	4	656818-10	
60	Connector	1	652549	
61	Pipe - heater feed	1	424175	
62	Hose - heater feed	1	650514-2	
63	Clip	1	656818-5	
64	Plug	1	420746	
65	Hose - pipe to pipe	1	424684	
66	Clip	2	656818-10	
67	Pipe - Hose to elbow	1	425498	
68	Hose elbow - radiator inlet	1	654308	
69	Clip	2	656818-10	
	Bracket - heater pipe	1	424540	
	Bracket - twist	1	426660	
	Bracket - bulkhead rear	1	426666	
	HEATER PIPES			
☞	Pipe - top - rear	1	430997	
☞	Pipe - top - front	1	430998	
	Pipe - top - rear	1	426696	
	Pipe - bottom - front	1	426697	
	Clip	16	610029-8	
	Bracket - heater pipe	1	403863	

COOLING PACK ASSEMBLY

PARTS MANUAL

AMENDED:230407

UNIT NO:R1510A&B



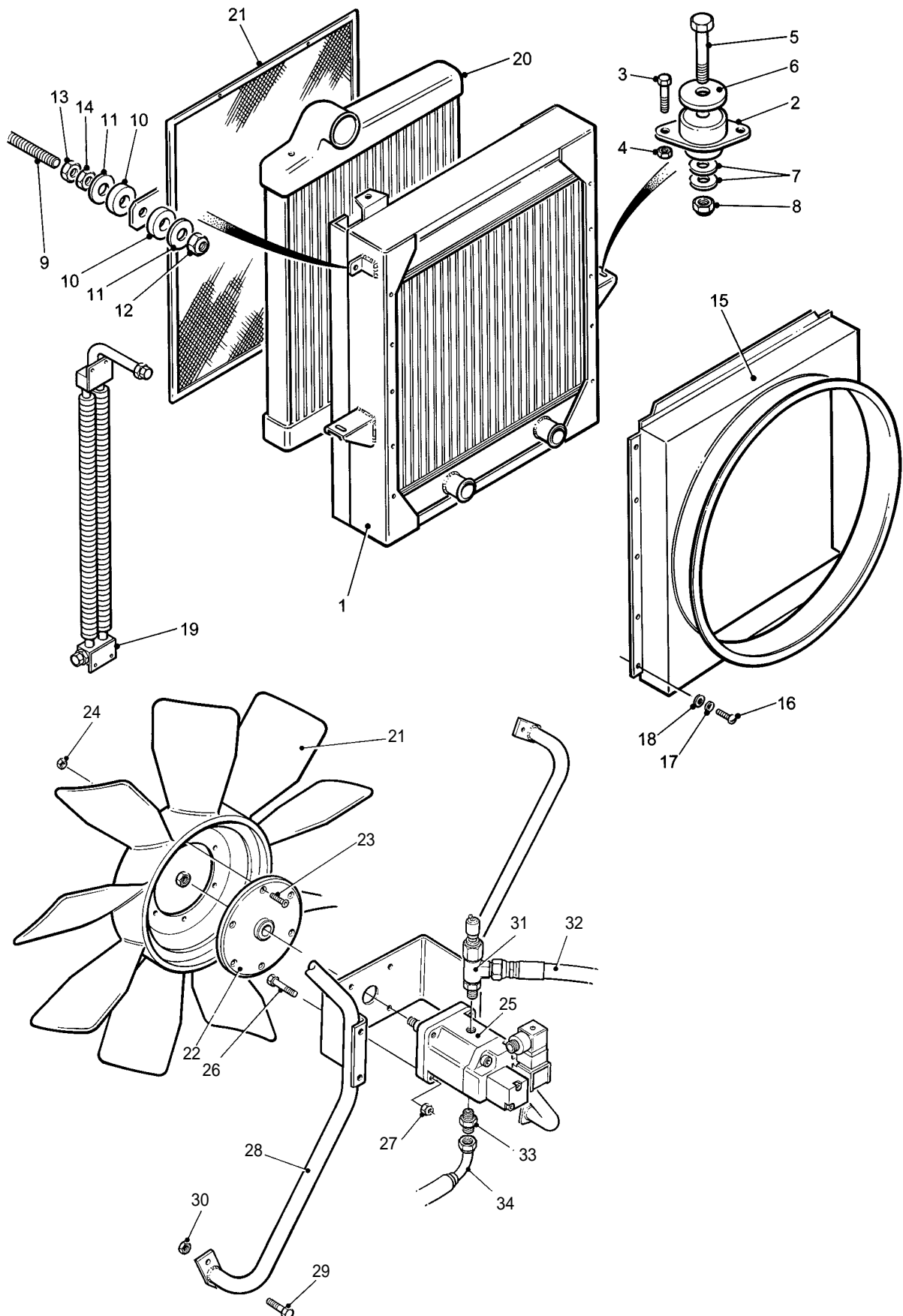
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Radiator cooling pack	1	425472	
1a	Radiator insert - peg type fixing	1	427381	Mk2
	Radiator frame - peg type fixing	1	659187	
1b	Radiator insert - Bolt type fixing	1	425472-1	Mk1
	Radiator frame - bolt type fixing	1	425472-7	
	Hose adaptor - radiator top tank	1	659650	
	Recirculating shield - RH	1	425472-9	
	Recirculating shield - LH	1	425472-8	
2	Metacone mount - radiator	2	690218	
3	Setscrew	4	MCS 108 20P	
4	Nut	4	MCN 508P	
5	Bolt	2	UFB 107 26SP	
6	Washer	2	190036	
7	Clamp - washer	4	409042	
8	Nut	2	UFN 507 AP	
9	Stay - radiator	1	419390	
10	Mounting rubber	4	211402	
11	Backing washer	8	211401	
12	Nut - self locking	2	MCN 510P	
13	Nut-half	2	MCN 210P	
14	Nut-plain	2	MCN 110P	
☞ 15	Radiator cowl	2	425472-3	
16	Setscrew	10	MCS 108 20P	
17	Washer - spring	10	MCN 508P	
18	Washer-plain	10	652361	
19a	Oil cooler	1	426463	
☞ 19b	Oil cooler	1	428035-1	
20	Charge air cooler assembly (see separate list)	1	426717	
21a	Flyscreen	1	426716	
	<i>Early style clips</i>			
	Captive screw - 7/8" lg approx	4	657440	
	Retainer	4	657441	
	Clip on receptacle	4	657442	
☞	Clip - flyscreen (Spire type)	4	425472-14	
☞ 21b	Flyscreen	1	428035-3	
	<i>Later style clips</i>			
	Captive screw - 1/2" lg approx	4	425472-15	
	Retainer	4	425472-13	
	Clip	4	425472-14	
21	Fan blade - plastic	1	656756	
☞ 22	Fan hub - fan blade to motor	1	406935	
☞ 23	Screw - csk - socket head	6	MCS 3408 25P	
☞ 24	Nut - self locking	6	MCN 708P	

COOLING PACK ASSEMBLY

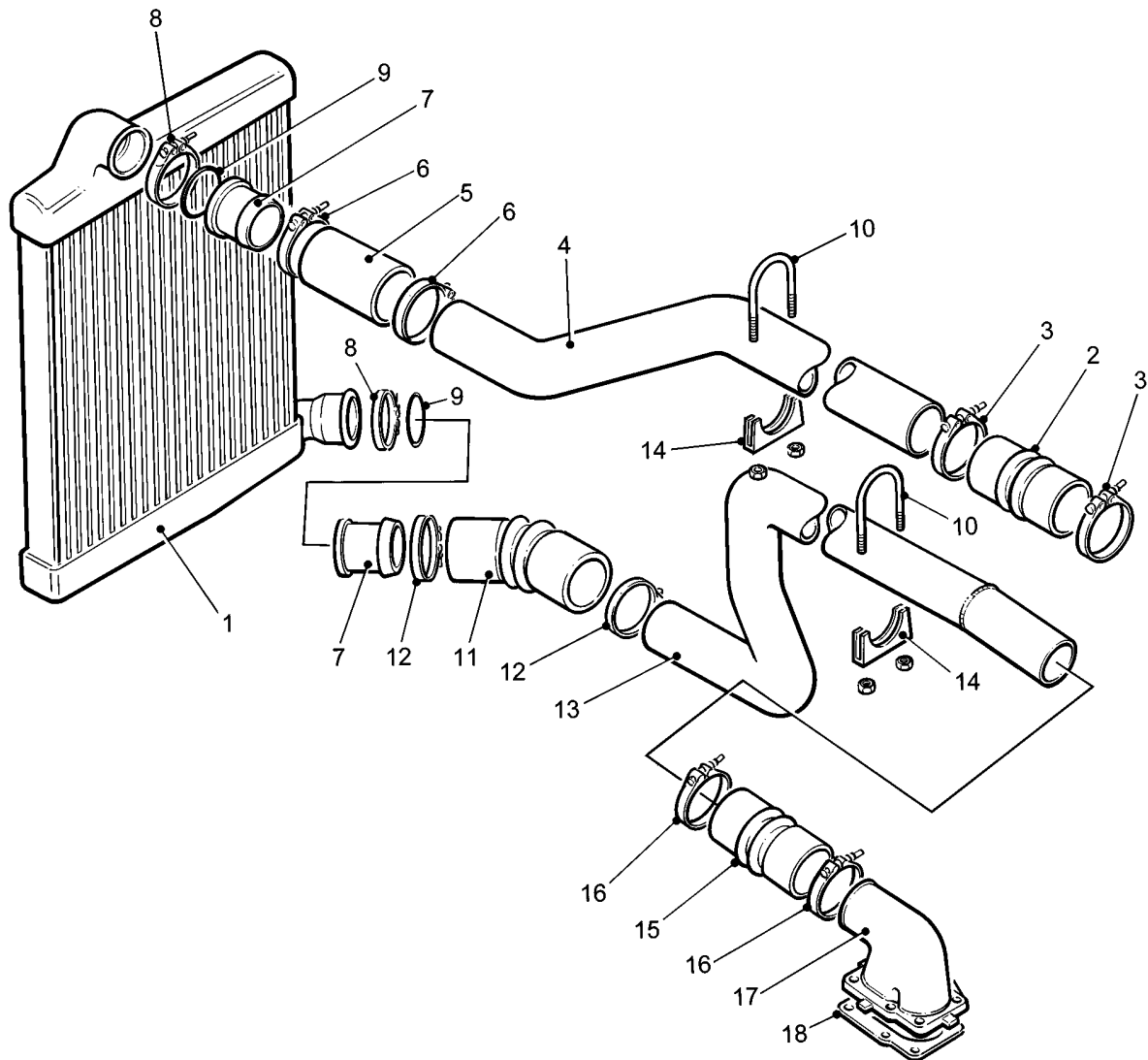
PARTS MANUAL

AMENDED:230407

UNIT NO:R1510A&B



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
25	Fan motor	1	655597	
☞	Seal kit	1	655536-1	
	Solenoid valve	1	655109-2	
☞	Nut - fan motor	1	650155-15	
☞	Washer - fan motor nut	1	650155-13	
21	Fan blade	1	656756	
22	Fan hub - fan blade to motor	1	406935	
23	Screw - csk - socket head	6	MCS 3408 25P	
24	Nut - self locking	6	MCN 708P	
25	Fan motor	1	655597	
☞	Nut - fan motor	1	650155-15	
☞	Washer - fan motor nut	1	650155-13	
	Seal kit	1	655536-1	
26	Bolt	4	MCB 108 35P	
27	Nut - self locking	4	MCN 708P	
☞ 28	Fan carrier mounting arm	2	425472-4	
☞	Fan carrier (<i>top hat</i>)	1	425472-12	
☞	Bolt	4	MCB 108 25P	
☞	Nut	4	MCN 708P	
29	Bolt	4	MCB 108 25P	
30	Nut - self locking	4	MCN 708P	
31	Tee piece-inlet	1	656611-1	
	Reducer	1	654945	
	Test point	1	656394	
32	Hose assembly - tee to motor	1	425490	
33	Connector - outlet	1	657098	
34	Hose assembly - motor to hose	1	425491	
	Bracket - pipe support - fan cowl	1	401825	
	Setscrew	1	MCS 108 30P	
	Washer - plain	1	WMA 85P	
	Washer - spring	1	WMC 85P	

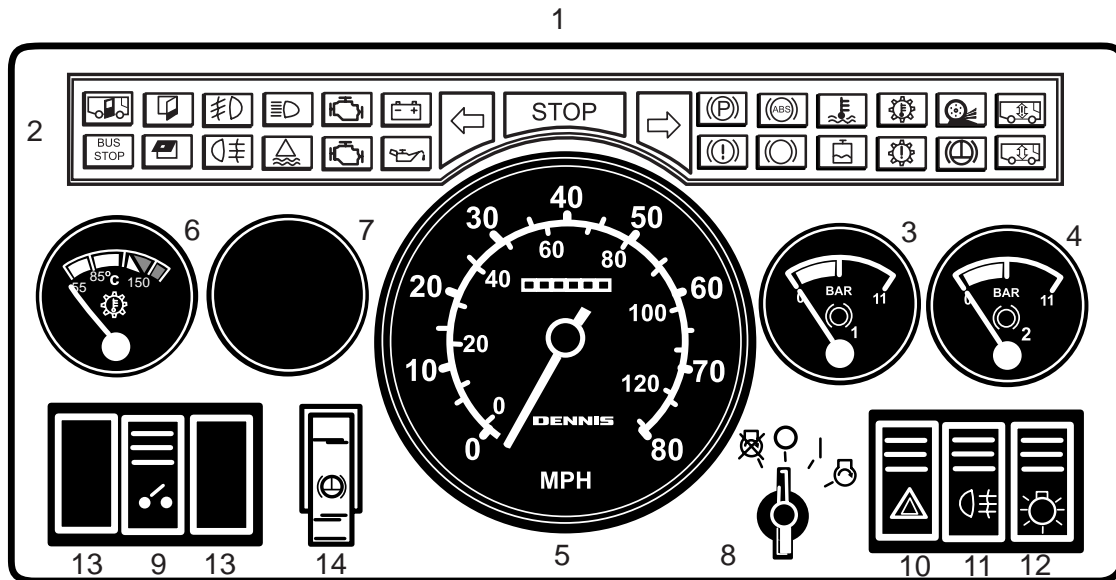


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Intercooler assembly	1	426717	
2	Hose - convolute - turbo to pipe	2	413894	
3	Clip	1	611005-3	
☞ 4	Pipe - turbo to intercooler	1	425502	
5	Hose - pipe to intercooler	1	413894	
6	Clip	2	611005-3	
7	Adaptor - intercooler hose	2	423453	
8	Clamp	2	657159	
9	O ring	2	657158	
10	U clamp - pipe to engine frame	1	656160-17	
11	Hose 45° - intercooler to pipe	1	415733	
12	Clip	2	611005-3	
☞ 13	Pipe - intercooler to engine	1	425503	
14	U clamp - pipe to hydraulic reservoir	1	656160-17	
15	Hose-pipe to inlet manifold	1	413894	
16	Clip	2	611005-3	
	Bracket	2	426681	
☞ 17	Inlet manifold	1	413985	
18	Gasket	1	3279117-101	

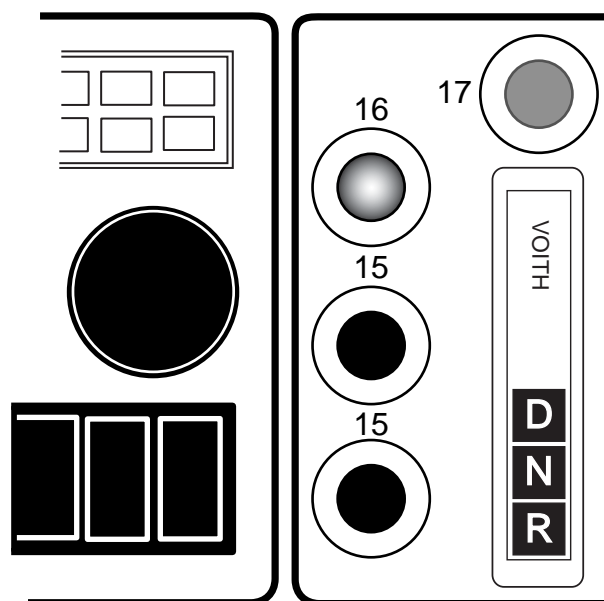
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SECTION 5.2

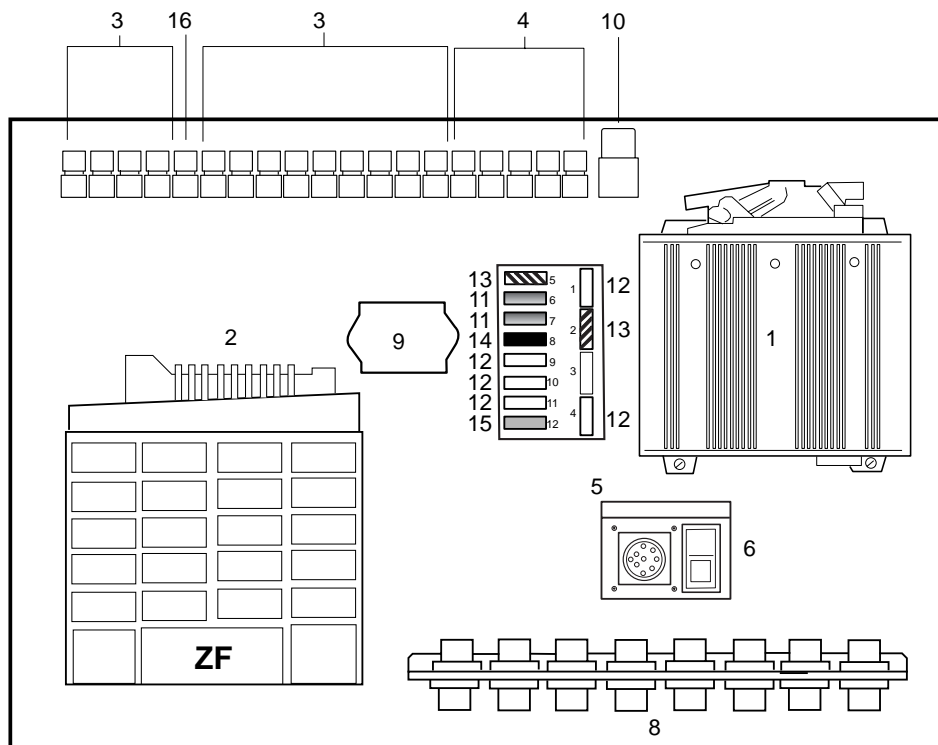
Instrument panel	Page	5.2.2 - 3
Electrical distribution centre (EDC)	Page	5.2.4 - 5
Electrical distribution centre (EDC) - ABS	Page	5.2.6 - 7
Rear electrical distribution centre (REDC)	Page	5.2.8 - 9
Engine	Page	5.2.8 - 9
Boost socket	Page	5.2.8 - 9
Harnesses & cables - 120A alternator- On & up to Chassis No1298	Page	5.2.10
Harnesses & cables - 140A alternator - On & after Chassis No1299	Page	5.2.11
Switches	Page	5.2.12
Miscellaneous	Page	5.2.12
Battery boost - remote - AL1513-1	Page	5.2.12
ZF gearbox interlock - AL1248	Page	5.2.12
Indicator buzzer - SL1238	Page	5.2.12
Fusible battery link - OL1514	Page	5.2.12
Alternator - 120A	Page	5.2.14 - 15



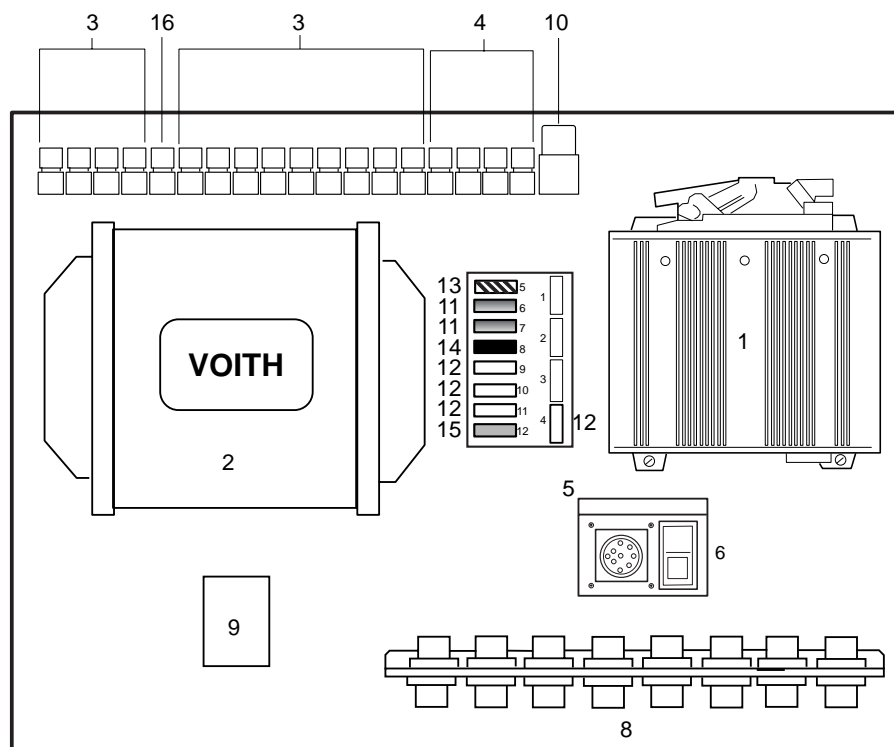
Instrument Panel



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	MAIN COMPONENTS			
	Starter motor	1	658032	
	Horn - high tone	1	655689	
	INSTRUMENT PANEL ASSEMBLY			
1	Instrument panel assembly - (See Speedo/Tacho section)	-	-	
☞ 2	Instrument Panel	1	ZZ11308	
3	Gauge air pressure - no.1	1	656130	
4	Gauge air pressure - no.2	1	656131	
☞ 5a	Speedometer - digital odometer - mph	1	658178	
☞ 5a	Tachograph - 1 day - Dual Scale	1	656253	
6	Gauge - gearbox oil temperature - ZF	1	656133	
7	Blank - gauge	1	656134	
8	Switch - starter - ignition	1	651049	
9	Switch - master	1	657311-11	
	Len - master	1	612319-19	
10	Switch - hazard warning	1	657311-66	
	Lens - hazard	1	612319-46	
11	Switch - rear fog	1	657311-11	
	Lens - rear fog	1	612319-3	
12	Switch - master light	1	657311-50	
☞	Lens - master switch	1	612319-106	
13	Blank- switch	2	612317	
14	Retarder switch	1	654976	
15	Push button - black - air suspension (Kneel / full kneel)	2	656214	
	Switching element	2	656211	
16	Push button - blue - air suspension (Raise)	1	656215	
	Switching element	1	656211	
17	Push button - yellow - reverse interlock	1	656599	
	Switching element	1	656211	
	Label - reverse inhibit	1	400378	
	For instrument panel spares see Page 9.1.4 - 5			

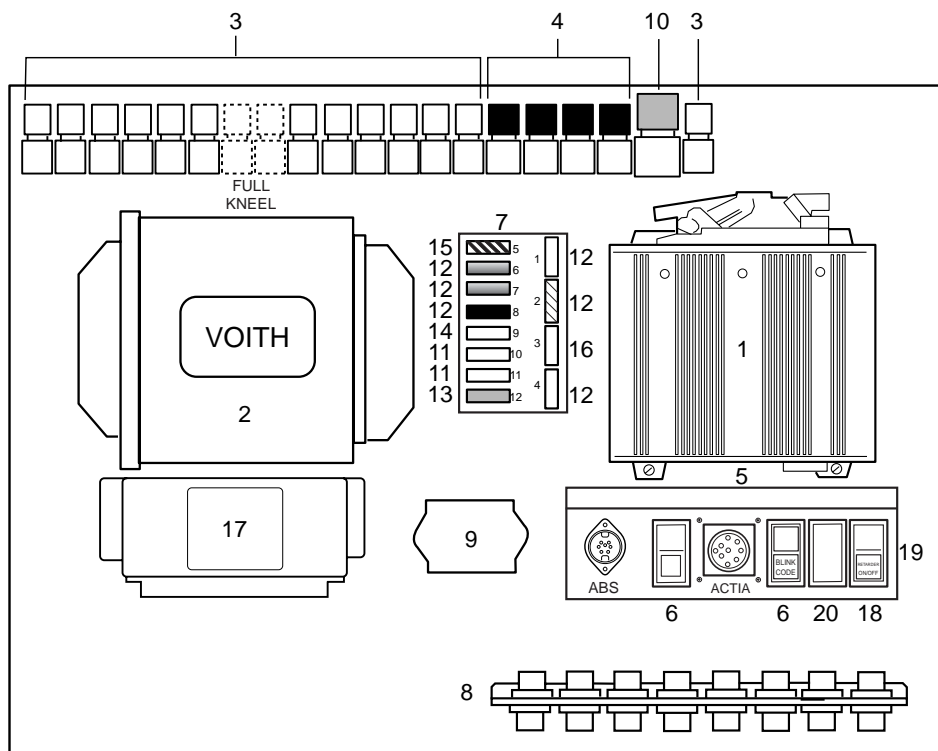


Electrical Distribution Centre - (E.D.C.) - ZF



Electrical Distribution Centre - (E.D.C.) - Voith

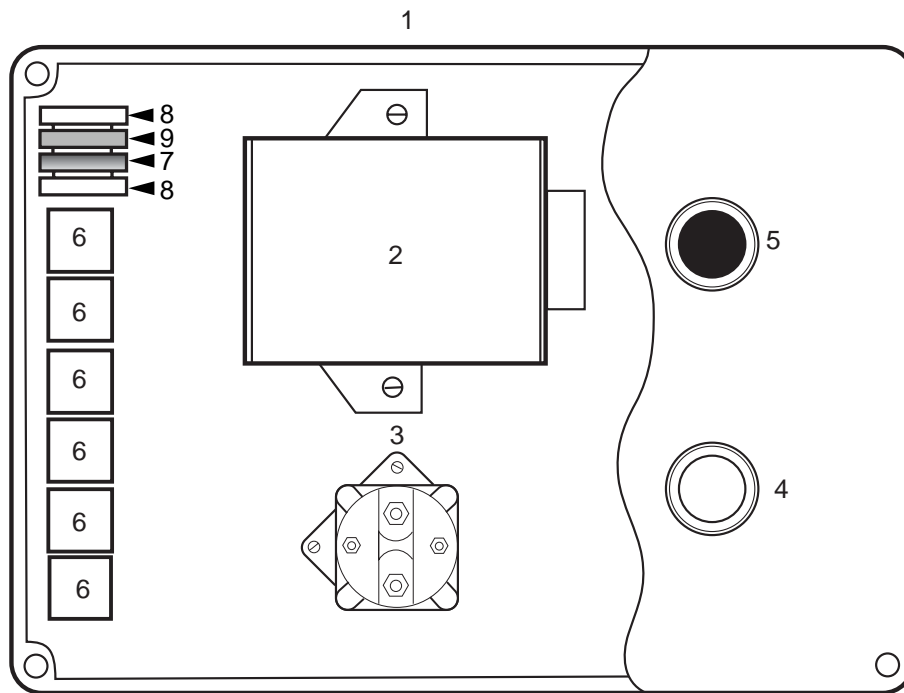
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	FRONT ELECTRICAL DISTRIBUTION PANEL			
	Used on and upto Chassis No 1298			
1	Control module - chassis	1	655706	
	Label- blinkcode	1	422012	
2a	Electronic control unit - gearbox - (Voith)	1	657042-2	
2b	Electronic control unit - gearbox - (ZF) - 4 speed -C220	1	657465-2	
2b	Electronic control unit - gearbox - (ZF) - 4 speed -C245	1	657490-2	
2c	Electronic control unit - gearbox - (ZF) - 5 speed -C245	1	657044-2	
2d	Electronic control unit - 5 speed - (ZF) - 5 speed -C220	1	657043-2	
3	Relay -"mini"	14	657079	
4	Diode pack	4/5	655149	ZF/Voith
5	Bracket - diagnostic switches	1	415104	
6	Switch - blinkcode	1	612314-6	
	Lens - blinkcode	1	612319-85	
7	Bracket - fuse box	1	421385	
8	Bracket - mounting - connectors	1	418983	
9	Connector box	1	656192	
10	Relay -ignition	1	657023	
11	Add-a-fuse - 3A (Violet)	3	651598-2	
12	Add-a-fuse - 5A (Orange)	3	651598-4	
13	Add-a-fuse - 7.5A (Brown)	2	651598-5	
14	Add-a-fuse - 10A (Red)		651598-6	
15	Add-a-fuse - 15A (Blue)	1	651598-7	
16	Relay - bodybuilder speed signal	1	657419	



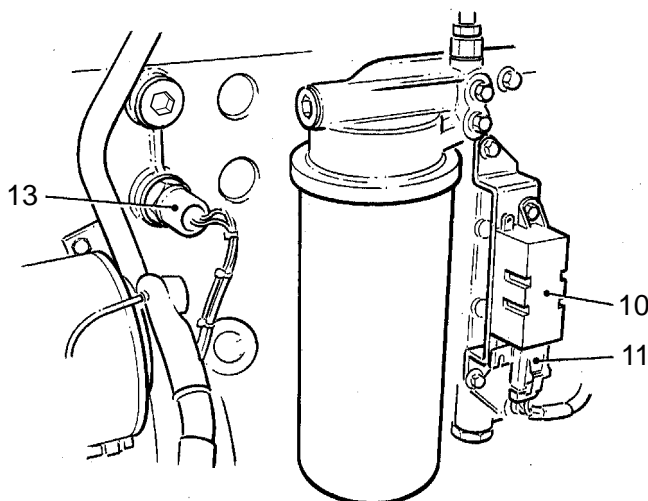
AR6660

Electrical Distribution Centre - (E.D.C.) - ABS & Voith

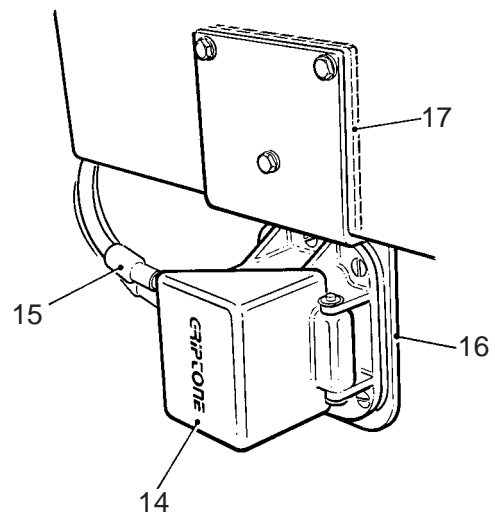
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	FRONT ELECTRICAL DISTRIBUTION PANEL - ABS			
	Used on and after Chassis No 1299			
1	Control module - chassis	1	655706	
	Label- blinkcode	1	422012	
2a	Electronic control unit - Voith	1	657042-2	
2b	Electronic control unit - ZF - 4 speed - C220	1	657490-2	
2c	Electronic control unit - ZF - 4 speed - C245	1	657465-2	
2d	Electronic control unit - ZF - 5 speed - C245	1	657044-2	
3	Relay -"mini"	14	657419	
	Label - "Ignition"	1	260542-16	
	Label - "diode pack"	2	260542-61	
	Label - "speed signal"	2	415701-1	
	Label - "Brake lights on retarder"	2	415701-2	
	Label - "reversing lights"	1	415701-3	
	Label - "retarder reduction"	2	415701-5	
	Label - "reverse inhibit"	2	415701-6	
	Label - "Voith control"	1	415701-17	
	Label - "reverse hold in"	2	415701-20	
	Label - "Horn"	1	415701-23	
	Label - "kneel inhibit/handbrake off"	1	415701-25	
	Label - "pad wear"	1	415701-31	
	Label - "raise sensor operated"	1	415701-42	
	Label - "raise handbrake off"	1	415701-44	
	Label - "raise"	1	415701-45	
	Label - "retarder warning"	1	415701-52	
	Label - "Gearbox fault"	1	415701-55	
	Label - "Suspension speed signal"	1	415701-77	
	Label - "Retarder on/off changeover"	1	415701-78	
4	Diode pack	4/5	655149	ZF/Voith
5	Bracket - diagnostic switches	1	431426	
6	Switch - Actia & ABS - blinkcode	2	612314-6	
	Lens - blinkcode	2	612319-85	
7	Bracket - fuse box	1	421385	
8	Bracket - mounting - connectors	1	418983	
9	Connector box	1	656192	
10	Relay -ignition	1	657023	
11	Add-a-fuse - 3A - (Violet)	2	651598-2	
12	Add-a-fuse - 5A.- (Tan)	6	651598-4	
13	Add-a-fuse - 7.5A - (Brown)	1	651598-5	
14	Add-a-fuse - 10A - (Red)	1	651598-6	
15	Add-a-fuse - 15A - (Blue)	1	651598-7	
16	Add-a-fuse - 20A - (Yellow)	1	651598-8	
17	Electronic control unit - ABS	1	658880	
18	Switch - retarder	1	612314-2	
	Lens - retarder	1	612319-82	
19	Switch mounting - 3 way	1	612316	
20	Blanking plate - switch mounting	1	612317	



Rear electrical distribution centre



Engine



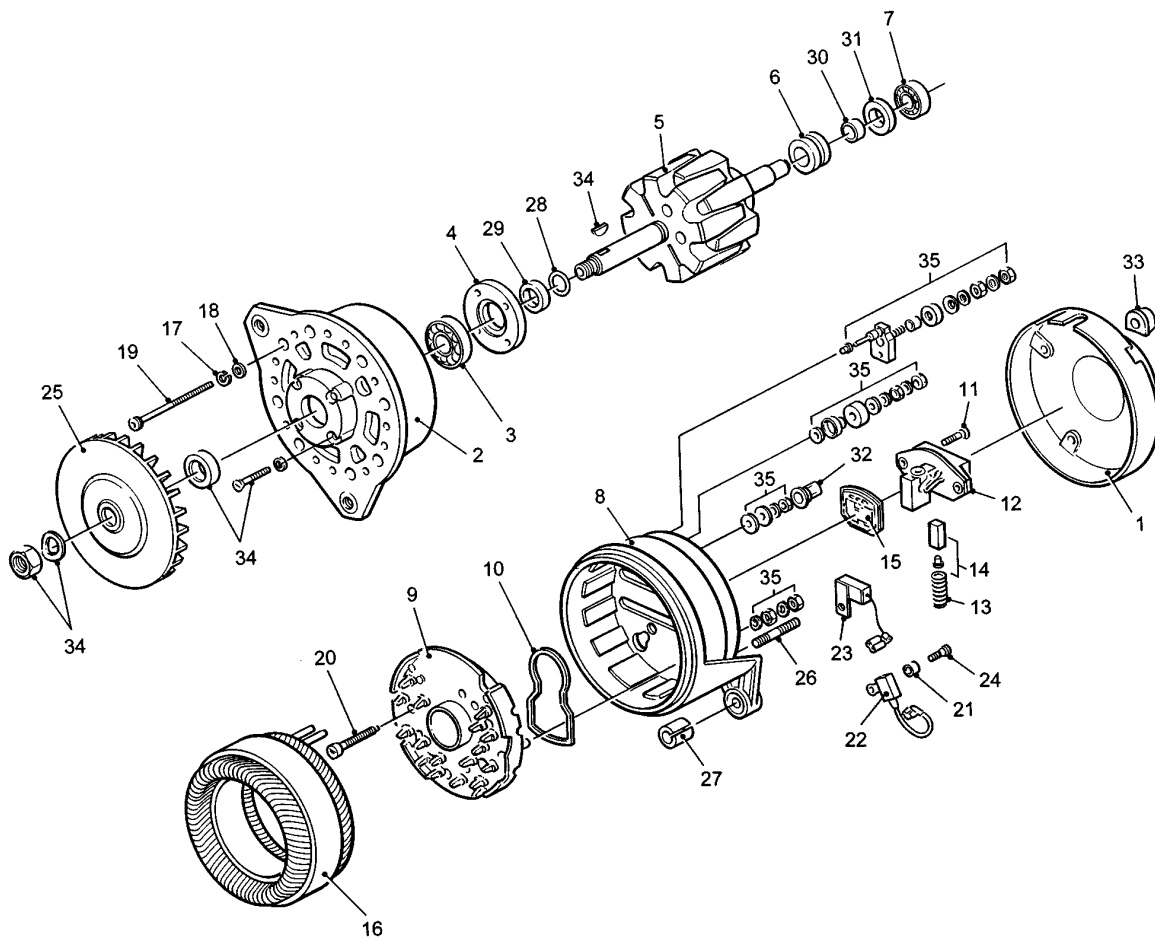
Boost Socket

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	REAR ELECTRICAL DISTRIBUTION CENTRE			
☞ 1	Rear junction box	1	427785	(611844)
2	Rear module - coolant level	1	655944	
3	Relay - starter motor	1	655933	
	Diode - 3A	1	610300	
4	Switch - start - green	1	656600	
	Switching element	1	656211	
5	Switch - stop - red	1	656672	
	Switching element	1	656954	
6	Relay	6	657079	
	Label - "engine stop	1	260542-1	
	Label - "engine stop alt control"	1	260542-53	
	Label - "pod flap warning light"	1	415701-13	
	Label - "Pod flap start inhibit	1	415701-18	
	Label - "Cooling fan"	1	415701-22	
	Label - "Gear select start inhibit"	1	415701-32	
7	Fuse -3A - (Violet)	1	651598-2	
8	Fuse -5A - (Tan)	2	651598-4	
9	Fuse - 15A - (Blue)	1	651598-7	
	ENGINE			
10	Fast fuse carrier	1	656081	
	Fuse 150A	1	656092	
11	Add-a-fuse - 30A (Green)	1	651598-10	Rear box supply
	FAN SWITCH REPLACEMENT			SL1805
☞ 12	Switch - fan - coolant temperature - (Rear of Block)	1	660191	89°C
	Boot	1	611818	
	Harness - extension - fan switch	1	436741	
	NOTE : Plug into switch and original harness Remove BG cable from cooling fan relay pos 4 cut off terminal crimp on new terminal and connect to position 5.			
	FAN SWITCH RELOCATION			SL1423
☞	Harness	1	430447	
☞	Connector	1	655241	
☞	Pin	2	655240	
13	Switch - coolant over tempertaure (warning lamp) - (Fitted in lower tapping near oil filter)	1	657587	SL1183
	Boot	1	611818	106°C
	BATTERY BOOST OPTION			AL1402-1
14	Boost socket	1	653847	
15	Cables - boost socket	1	4233911	
16	Plate - boost socket mounting	1	423386	
17	Backing plate	1	423388	
18	Oil pressure switch	1	655307	

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	HARNESSES & CABLES			
	On & upto Chassis No1298			
	Harness - engine	1	424223	
	Harness - front - E.D.C. - Voith	1	427920	
	Harness - front - E.D.C. - ZF	1	427921	
	Harness - extra reverse	1	424250	Voith only
	Silicon grease	A/R	657081	
	Harness - chassis	1	424710	
	Harness - rear junction box	1	424229	
	Harness - front - ZF	1	424240	
	Harness - front - Voith	1	424227	
☞	Harness - Fan switch - relocation	1	430447	SL1423
	Cable Actia ECU	1	421226	
	Cable - master switch to starter	1	424268	
	Cable - alternator - pos - fast fuse	1	424271	
	Cable - alternator - neg	1	424273	
	Cable - fast fuse to starter	1	424272	
	Cable - battery to chassis - neg	1	421270	
	Cable - battery link	1	423424	
	Cable - starter motor to chassis	1	424269	
	Cable - Bus bar fast fuse EDC	1	421273	
	Cable - Bus bar fast fuse master switch	1	421274	
	Cable - battery to master switch	1	421271	
	Cable - proximity switch	1	424998	
	Terminal - battery - positive	2	656364	
	Terminal - battery - negative	2	656365	
	Bracket - cable support	1	426785	E1510A
	Bracket - cable support	1	462785	E1510B
	Bracket - harness support - RH wheel arch	1	412299	
	Rubber boot	9	610369	
	Rubber boot	3	611783	

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	HARNESSES & CABLES - ABS			
	On & after Chassis No1299			
	Harness - engine - C220	1	427777	E1513A
	Harness - engine - C245	1	424223	E1513D
	Harness - front - E.D.C. - Voith	1	430039	E1513A,D,F
	Harness - front - E.D.C. - ZF	1	430263	E1513B,C,E,G
	Harness - front - ZF	1	430499	
	Harness - front - Voith	1	430040	
	Harness - extra reverse	1	424250	Voith only
	Silicon grease	A/R	657081	
	Harness - chassis	1	429990	
	Harness - rear EDC - (11.4m chassis)	1	427771	E1513A,B
	Harness - rear EDC - (10.45m chassis)	1	424229	E1513D,E,F,G
	Harness - ABS - front	1	430042	
	Harness - ABS - rear - (9.9m chassis)	1	430041	E1513ABCDE
	Harness - ABS - rear - (10.45m/11.4m chassis)	1	431077	E1513F,G
	Harness - fan switch	1	430447	
	Cable Actia ECU - power cable	1	421226	
	Cable - master switch to starter	1	429992	
	Cable - master switch to starter - (9.9m chassis)	1	431071	E1513F,G
	Cable - alternator-pos-fast fuse-(10.45m/11.4m chassis)	1	427769	E1513A,B
	Cable - alternator-pos-fast fuse-(9.9m chassis)	1	424271	E1513D,E,F,G
	Cable - alternator - neg - starter	1	427770	
	Cable - alternator to frame	1	424273	
	Cable - fast fuse to starter	1	424272	
	Cable - battery to frame	1	421270	
	Cable - battery link	1	423424	
	Cable - starter motor to chassis	1	424269	
	Cable - Bus bar fast fuse EDC	1	421273	
	Cable - Bus bar fast fuse master switch	1	421274	
	Cable - battery to master switch	1	421271	
	Cable - proximity switch	1	424998	
	Terminal - battery - positive	2	656364	
	Terminal - battery - negative	2	656365	
	Rubber boot	9	610369	
	Rubber boot	3	611783	

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	SWITCHES			
	Master switch	1	652960	
	Rubber boot	9	610369	
	Rubber boot	3	611783	
	Steering column switch	1	423233	
	Switch oil pressure	1	655307	
	Elbow	1	652468	
	Switch - proximity	1	657505	Set gap 6.0-6.4 mm
	MISCELLANEOUS			
	Diode - fan solenoid cap	1	656872	
	Resistor - wiper motor	1	423837	
	BATTERY BOOST OPTION - REMOTE			AL1513-1
	Boost socket	1	653847	
	Cables - Boost socket	1	426863	
	ZF GEARBOX GEAR INTERLOCK			SL1248
	Cable - gear interlock	1	428024	
	Cable - loop	1	428025	
	Cable - reverse relay	1	428026	
	Diode assembly	1	428023	
	INDICATOR BUZZER			SL1238
	Buzzer	1	609998	
	Harness - buzzer	1	420674	
	FUSIBLE BATTERY LINK			OL1514-1
	Link - fusible battery	1	423424	
	TRAFFICATOR BUZZER			AL307-1
	Beeper	1	694085	
	Harness - beeper	1	420674	
	RETARDER OFF WARNING			AL321-1
	Harness - warning buzzer	1	426618	
	Buzzer	1	609998	
	Relay	1	657419	
	Label - "retarder on/off change"	1	415701-78	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Alternator - Bosch T1 - 120A	1	656804	
☞	Drive belt	1	3915768-101	
1	Cover - air intake	1	424707	
2	Shield - drive end	1	656804-2	
3	Bearing	1	656804-3	
4	Cover plate	1	656804-4	
5	Rotor	1	656804-5	
6	Collector ring	1	656804-6	
7	Bearing	1	656804-7	
8	End shield - collector ring	1	656804-8	
9	Rectifer	1	656804-9	
10	Seal	1	656804-10	
11	Washer and screw assembly	3	656804-11	
12	Transistor regulator	1	656804-12	
13	Compression spring	2	656804-13	
14	Carbon brush set	1	656804-14	
15	Gasket	1	656804-15	
16	Stator	1	656804-16	
17	Spring washer	4	656804-17	
18	Plain washer	4	656804-18	
19	Screw - oval head	4	656804-19	
20	Washer and screw assembly	3	656804-20	
21	Spacer bush	1	656804-21	
22	Capacitor - suppression	1	656804-22	
23	Capacitor - suppression	1	656804-23	
24	Screw - M6 x 22	1	656804-24	
25	Fan	1	656804-25	
26	Stud	4	656804-26	
27	Expansion bush	1	656804-27	
28	Retainer	1	656804-28	
29	Support ring	1	656804-29	
30	Spacer ring	1	656804-30	
31	Radial seal	1	656804-31	
32	Protection cap	1	656804-32	
33	Grommet	2	656804-33	
34	Armature parts set	1	656804-34	
35	Terminal parts set (B +, B -, D +, W)	1	656804-35	

DENNIS

SECTION 6.1

Engine controls .....	.Page	6.1.2 - 3
Air throttle .....	.Page	6.1.2 - 3

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Valve - accelerator (See cab floor section)	1	657300	
☞	Pedal rubber & treadle assembly	1	657300-3	
	Service kit - valve only	A/R	654683-1	
2	Union - reducing, 6mm x 1/4 in. BSPP	2	654953	
3	Elbow, 6P x 1/8 in. BSPT	1	654961	
4	Adaptor, 1/4 in. D x 1/4 in. 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	Load sensor	1	657042-1	
9	Rod-load sensor connecting	1	419611	
☞	Bolt - lever	1	MCS 106 35P	
☞	Bolt - position sensor	1	MCS 106 25P	
10	Ball joint	2	655388	
11	Nut	2	MCN 206P	
12	Lever - throttle control	1	419613	
13	Spring - throttle return	1	655330	
	Retainer	1	655331	
14	Anchor - spring			
14a	Washer	2	WMA 6SP	
14b	Spacer	1	400622-3	
14c	Anchor pin	1	419180	
14d	Washer- spring	1	WMC6SP	
14e	Bolt	1	MCB 106 60P	
☞ 15	Bracket - engine controls	1	419576	
☞ 16	Rod - threaded - throttle control	1	415720	
17	Ball joint	2	654766	
	Nut	2	UFN 204AP	
18	Rod - stop control	1	416087	
19	Ball joint	2	655388	
	Screw	1	MCS 106 35P	
	Washer-plain	3	WLB 4SP	
	Washer - spring	2	WMC 6SP	
	Nut	3	MCN 206P	
20	Solenoid - engine stop	1	650026	
21	Spring anchor	1	79074	
22	Spring - stop control	1	654763	
23	Anchor- spring	1	419181	
24	Spring post	1	424549	
	Spider fixing	1	657445	
25	Knob - "push to stop"	1	658376	
	Nut	1	BAN 102 AP	
☞ 26	Rod	1	427474	SL1203
☞ 27	Guide - rod stop	1	427473	SL1203
	Screw	1	657798	
	Nut	1	MCN 206P	

DENNIS

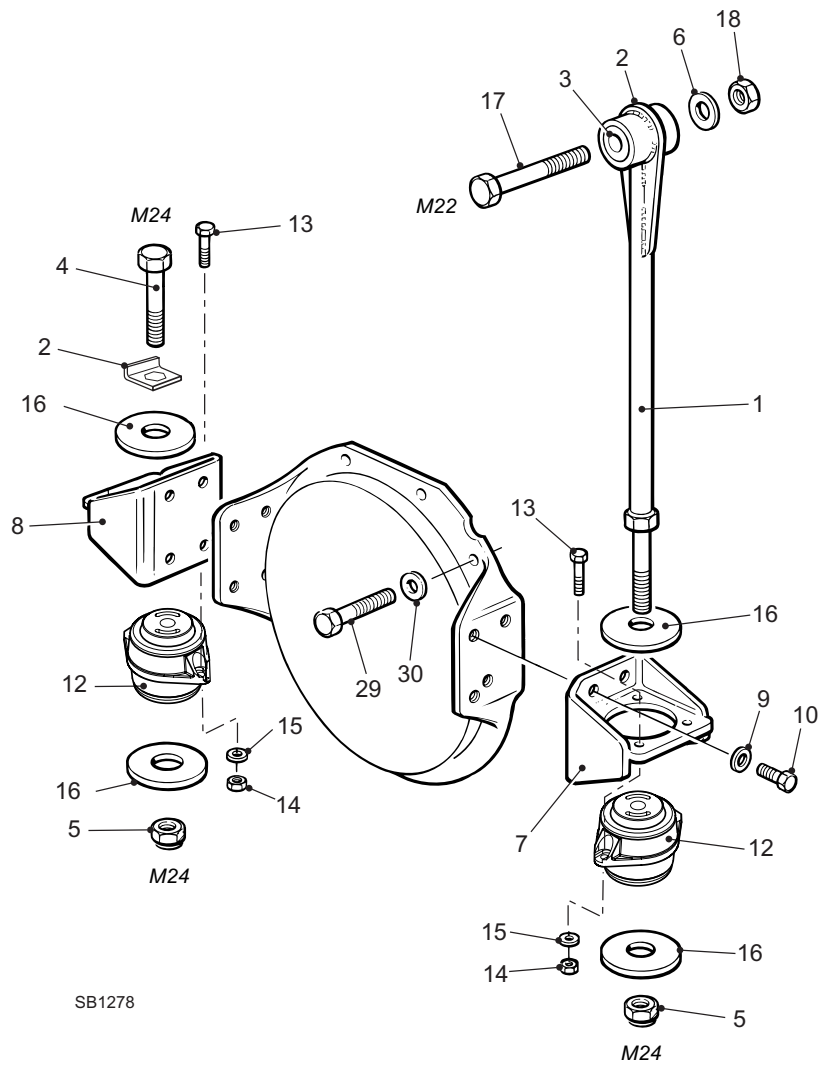
SECTION 6.2

Engine and Mounting - Voith/ZF	Page	6.2.2 - 5
Alternator mounting	Page	6.2.6 - 7

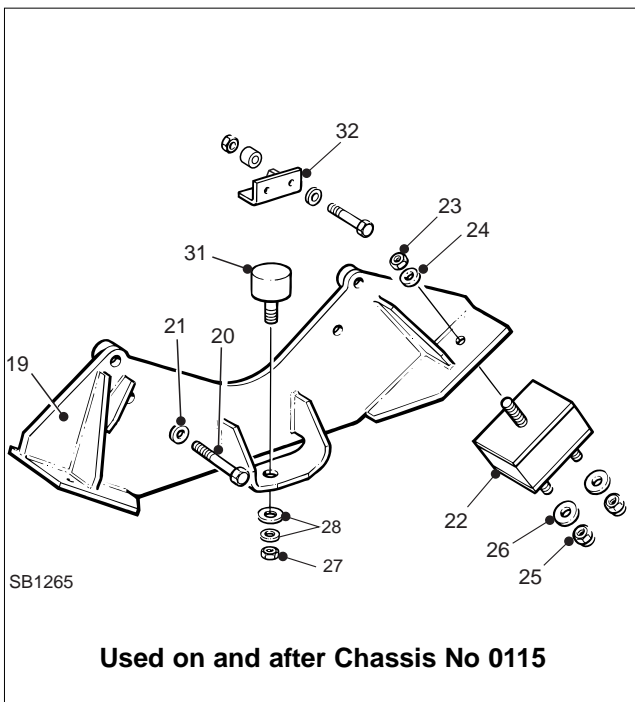
ENGINE AND MOUNTING PARTS MANUAL

AMENDED:151100

UNIT NO:EM1510A,B,C & D

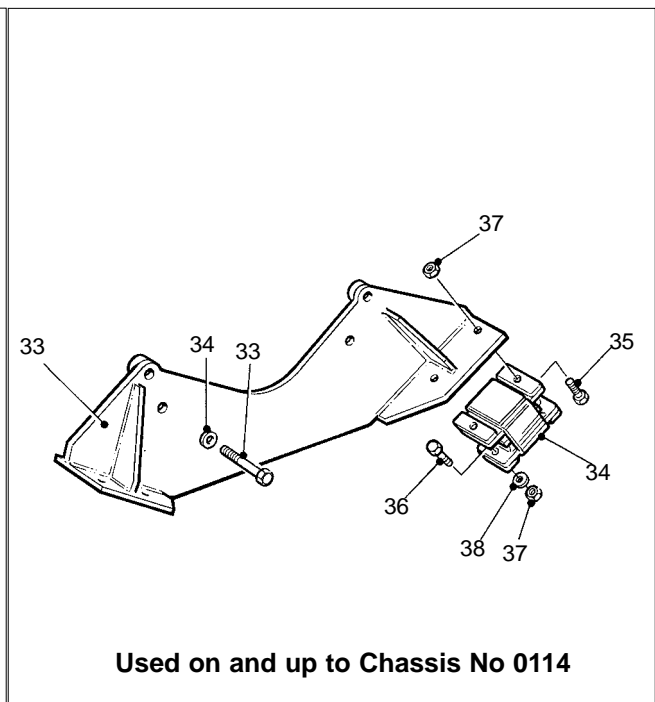


SB1278



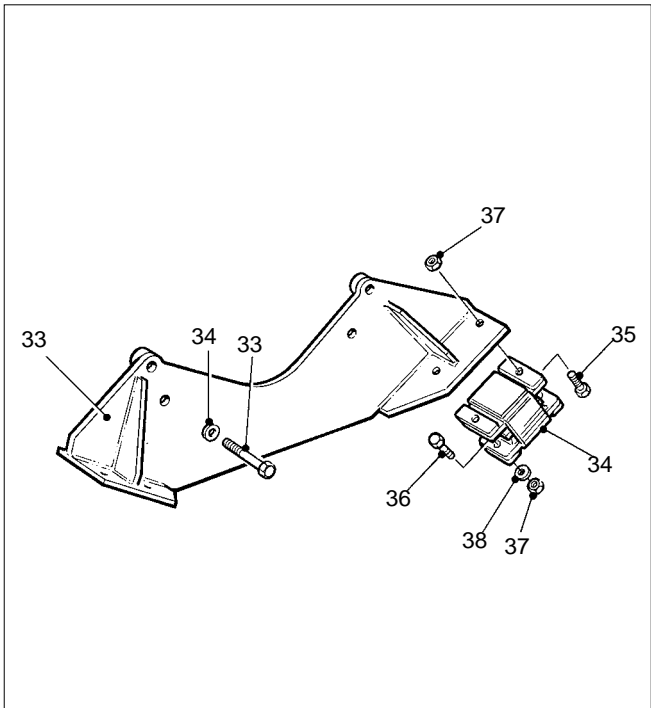
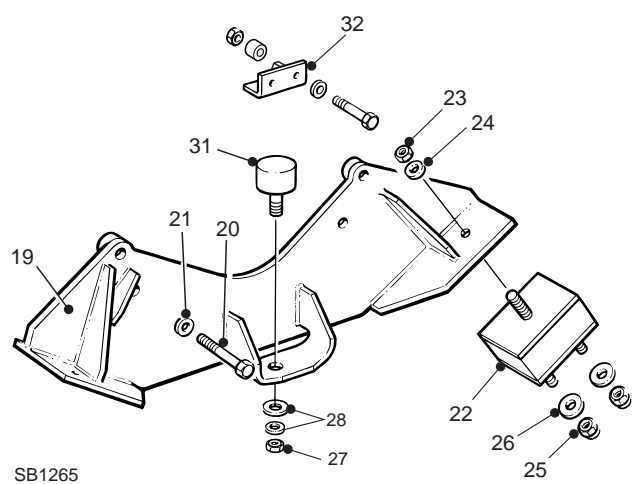
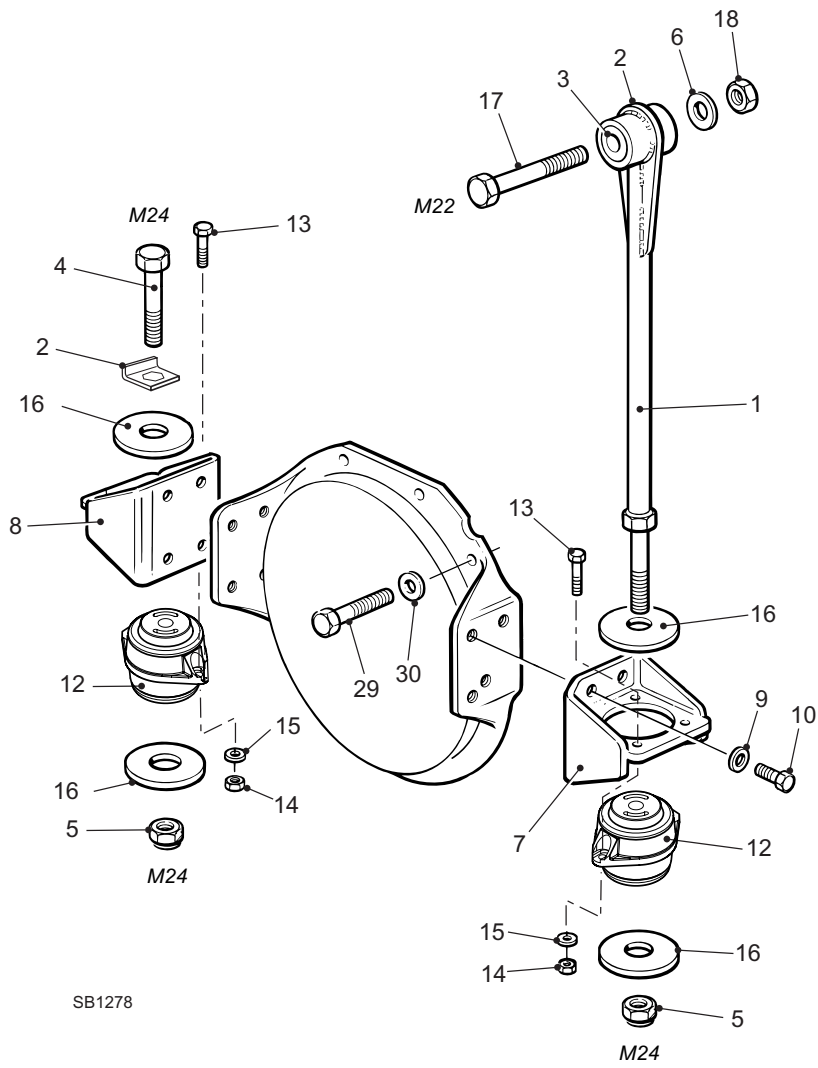
SB1265

Used on and after Chassis No 0115

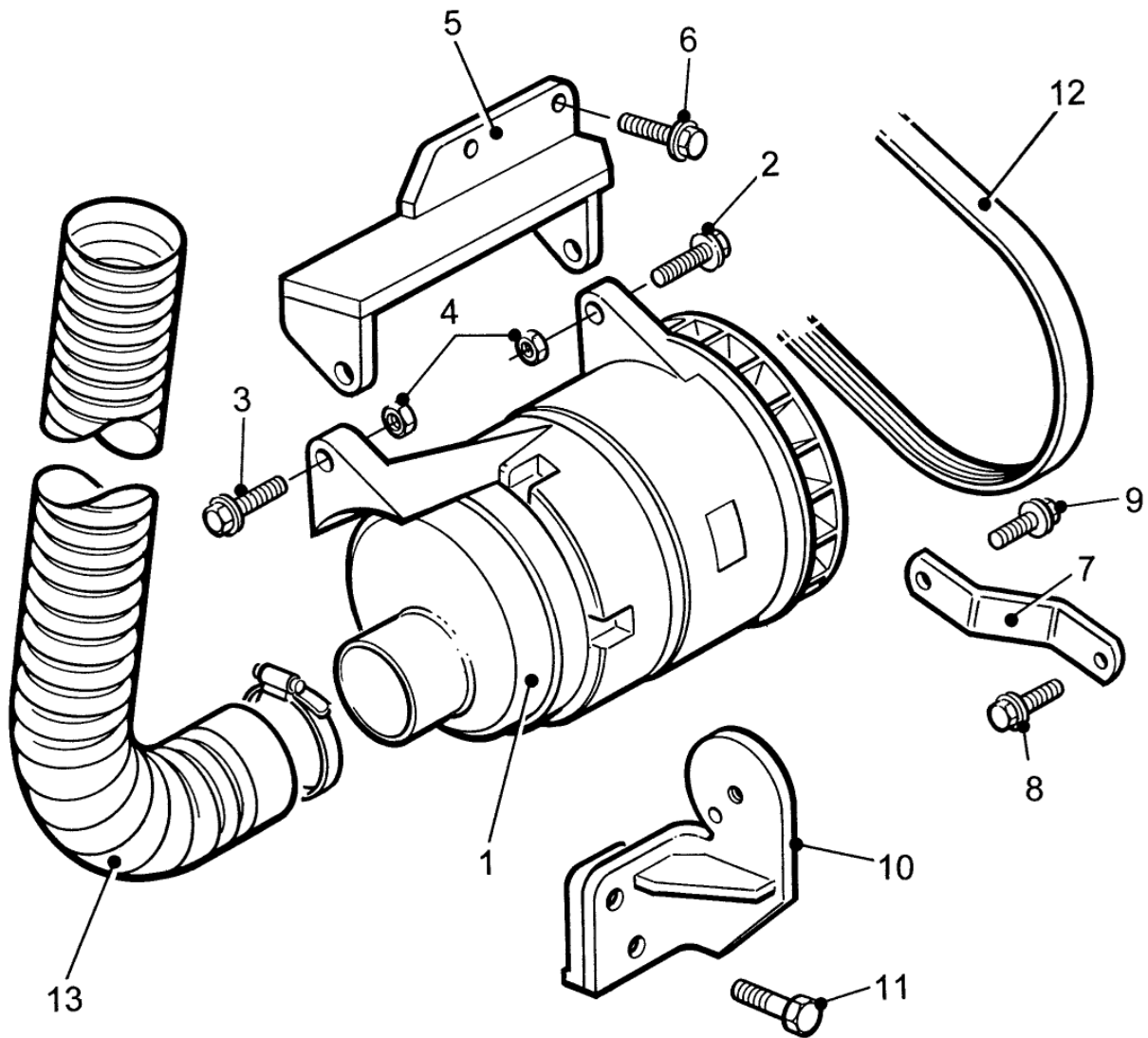


Used on and up to Chassis No 0114

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Pulley - Air con drive	1	657738	AL1512-1
	Used on and up to Chassis No 1238			
	Engine - Cummins C220 - 20 - VOITH - 120A	1	657024	EM1510A
	Engine - Cummins C220 - 20 - ZF - 120A	1	657025	EM1510B
	Engine - Cummins C245 - 20 - ZF - 120A	1	657026	EM1510C
	Engine - Cummins C245 - 20 - VOITH - 120A	1	657337	EM1510D
	Compressor	1	657463	
	Starter motor	1	658032	
	Used on and after chassis No 0115			
	VOITH TRANSMISSION			
1	Rear engine stay assembly - M24	1	425867	200 Nm
2	Stay	1	425704	
3	Bush - engine stay - M22	1	657138	
4	Bolt - engine mounting - rear - M24	1	MFB 124 190P	105Nm
5	Nut - self locking - M24 (Use once only-do not retorque)	2	MFN 724P	400-410Nm
6	Washer- plain - M22	1	WMA22SP	
7a	Engine mounting bracket - RH - VOITH	1	425699	EM1510A & D
8a	Engine mounting bracket - LH - VOITH	1	425700	
9a	Washer - spring	8	WMC 16SP	
10a	Screw	8	MCS 116 30P	248 Nm
	ZF TRANSMISSION ONLY			
7b	Engine mounting bracket - RH - ZF	1	425701	EM1510B & C
8b	Engine mounting bracket - LH - ZF	1	425702	
9b	Washer- plain	8	WMA 16SP	
10b	Bolt	8	MFB 116 65P	225Nm
11	Spacer - engine mounting bracket - ZF	2	421624	ZF only
	All other parts as list			
12	Engine mounting - gearbox	2	657639	
13	Bolt	8	MCB 112 40P	
14	Nut - self locking	8	MCN 512P	
15	Washer- plain	8	WMA 12SP	
16	Washer - rebound	4	412711	
17	Bolt- upper - engine stay - M22	1	MCB 122 180P	
18	Nut-self locking - M22 (Use once only-do not retorque)	1	MFN 722P	
	Spring washer	1	WMA 22SP	
	Bracket - heater	2	424540	
	Bracket	1	265738	
	Pipe - engine breather	1	424891	
19	Bracket - engine mounting	1	428370	
20	Bolt	4	10MCB 112 75	112Nm
	Loctite green	A/R	606631	
21	Washer spring	4	WMC 12SP	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
22	Engine mounting - 3 stud	2	660368	
23	Nut	2	MCN 510P	75Nm
24	Washer - plain	2	WMA 12SP	
25	Nut	4	MCN 510P	50Nm
26	Washer - backing	4	211401	
27	Nut - full	1	MCN 110SP	
28	Washer - plain	1	WMVC 10SP	
29	Bolt -gearbox to bell housing	11	MCB 110 40P	46-49Nm
30	Washer - hardened	11	659314-5	
31	Rebound stop - "snubber"	1	657934	
	Washer- plain	1	WMA 10SP	
	Washer - spring	1	WMC 10SP	
	Nut full	1	MCN 110P	50Nm
32	Bracket - rebound stop	1	426597	
	Spacer - bracket to nut	1	400622-85	
	Setscrew	2	10MCB 110 50D	
	Washer -plain	2	WMA 10SP	
	Nut - self locking	2	MCN 710P	
	Used on and up to chassis No 0114			
33	Bracket - engine mounting	1	422530	
☞	Modification to later type mountings	1	SL1146	
34	Engine mounting - 4 hole	2	657152	
35	Setscrew-engine	4	MCS 110 30P	
36	Setscrew-frame	4	MCS 110 35P	
37	Nut	8	MCN 510P	
38	Washer - plain	4	409042	
	Setscrew - bellhousing plugs	3	MCS 116 20P	
	Washer - spring	3	WMC 16SP	
	Plug - drain hole side	1	659170	
	Plug - bottom hole	1	431894	
	CAB AIR CONDITIONING KIT		AL1512-1	
	Fan and pulley assembly	1	657772	
	Drive pulley	1	657738	
	Mounting bracket - air con	1	428212	
	Compressor mounting	1	426111	
	Bolt	2	MCB 108 35P	
	Bolt	2	MCB 108 25P	
	Washer- plain	2	WMA 8SP	
	Washer- spring	6	WMC 8SP	
	Bolt	4	MCB 110 35P	
	Washer -plain	4	WMA 10SP	
	Nut	4	MCN 710P	
	Bolt	2	MCB 108 20P	

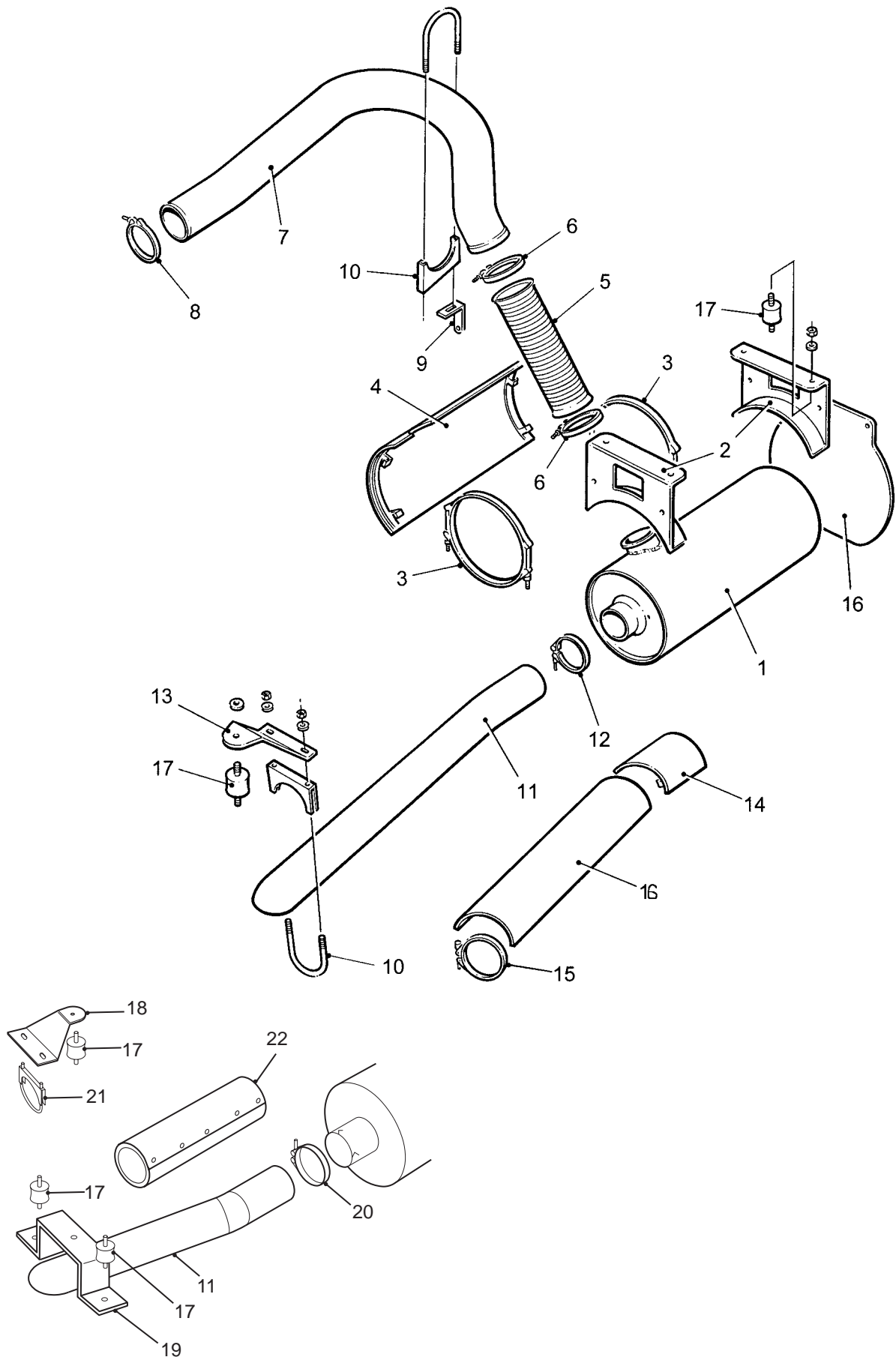


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Alternator	1	656804	EM1510
	Alternator duct end cap	1	424707	
2	Bolt-alternator pivot	1	MCB 112 40P	
3	Bolt-alternator pivot	1	MCB 112 50P	
4	Nut	2	MCN 512P	
5	Bracket - top alternator	1	423435	
6	Bolt - alternator top bracket	4	3902114	
7	Brace - alternator	1	423437	
8	Bolt - brace - alternator	1	3900631	
9	Bolt - brace - engine	4	3900447	
10	Bracket - belt tensioner	1	424739	
11	Bolt - tensioner bracket	2	3093940*101	105Nm
12	Belt - alternator	1	3915768*101	
13	Ducting	1	657420	
	Clip	1	656818-12	

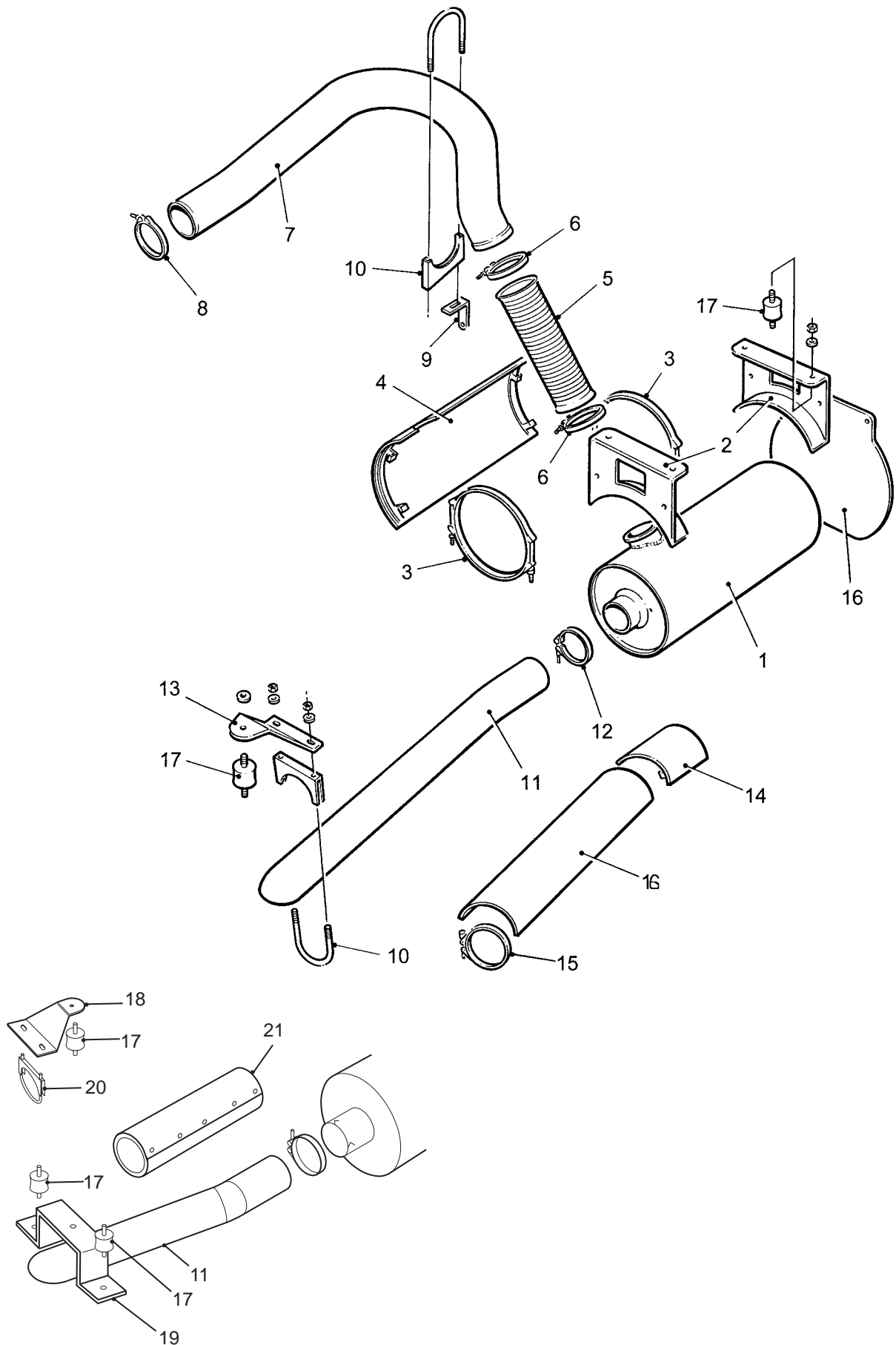
DENNIS

SECTION 6.3

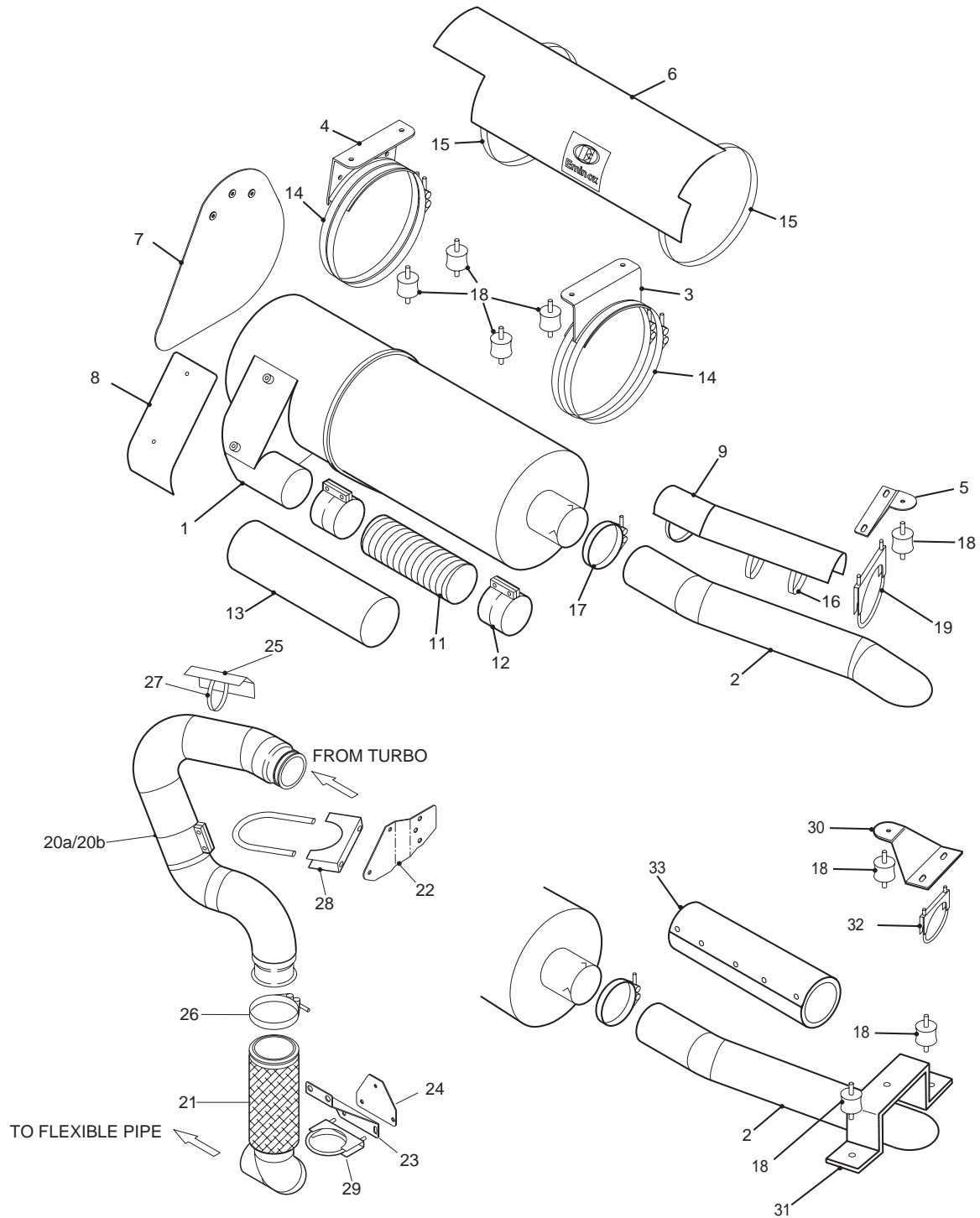
Exhaust system - Mild steel	Page	6.3.2 - 3
Exhaust system - Stainless Steel	Page	6.3.4 - 5
Exhaust system - CAT	Page	6.3.6 - 7
Exhaust system - CRT	Page	6.3.8 - 9



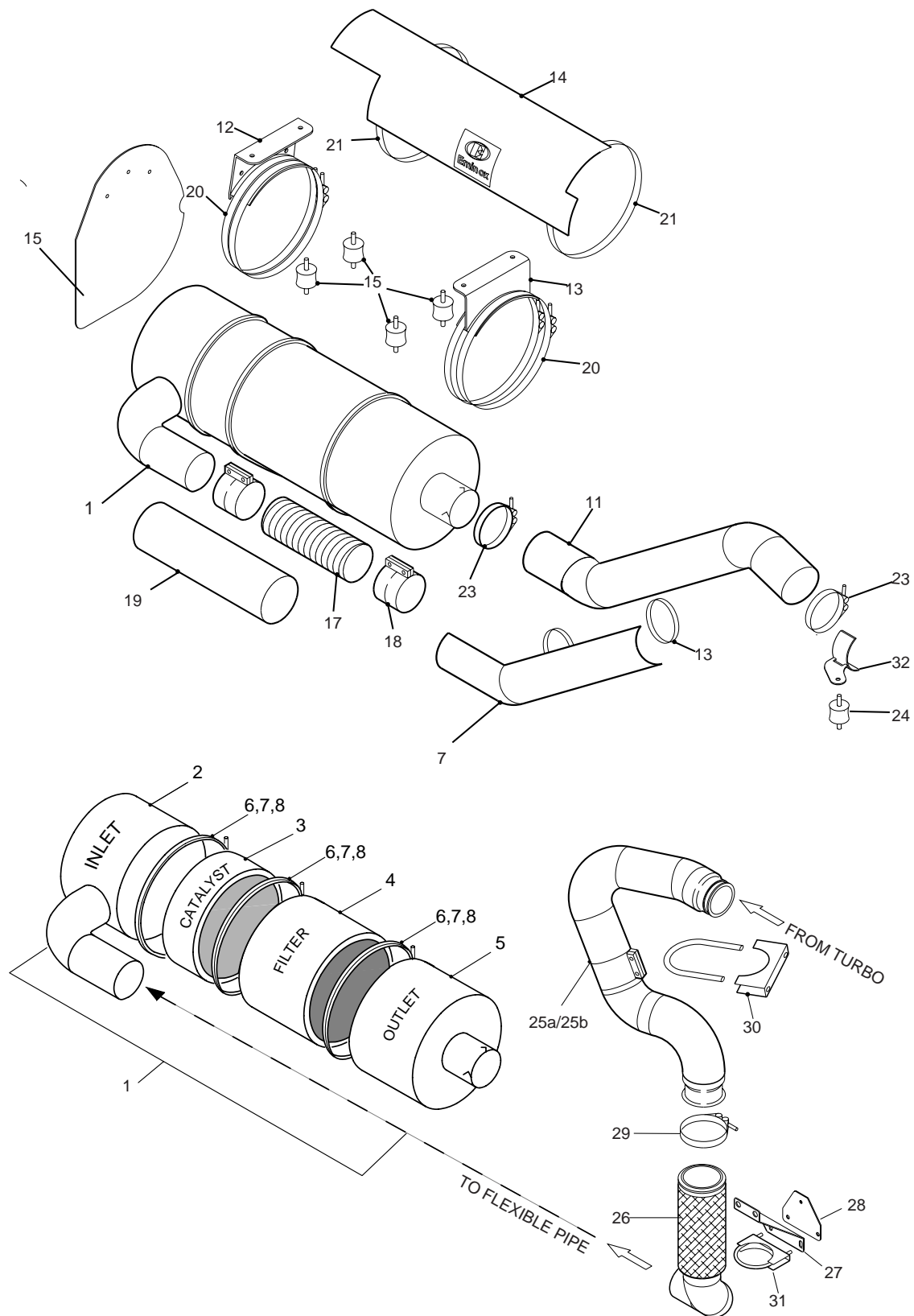
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	MILD STEEL SYSTEM			
1	Silencer	1	423640	
2	Exhaust hanger	2	424342	
3	Clip - exhaust silencer	2	656916	
4	Heat shield assembly - silencer	1	424360	
5	Flexible pipe	1	423676	
6	Clamp - flexible pipe	2	427161	
7a	Exhaust pipe - 220 engine - turbo to silencer	1	425977	ES1510A
7b	Exhaust pipe - 245 engine - turbo to silencer	1	425978	ES1510B
☞ 8	Clamp vee - turbo to pipe	1	3905216-101	
9	Bracket - pipe clamp support	1	427863	
10	U clamp	1	657374	
	Nut	2	MCN 510P	
	Washer	2	WMA 10SP	
11a	Tail pipe - raised - cut-out	1	430196	AR6692
12	Clamp - silencer to tailpipe	1	427161	
13	Bracket - tailpipe support	1	430194	
14	Heat shield - tailpipe	1	424367	
15	Clip - heat shield	4	656818-15	
16	Heat shield - silencer end	1	424495	
☞ 17	Rubber mount	5/6	659138	
☞ 18	Bracket - tailpipe support - long	1	430350	
☞ 19	Bracket - channel - lower	1	429061	
☞	Bolt	1	MCB 110 30P	
☞	Nut	1	MCN 510P	
☞ 20	Clamp - tailpipe	1	657374	
☞ 21	Heat shield jacket - tailpipe	1	430889	
	TAIL PIPE EXTENSION			SL1241
11b	Tailpipe - steel	1	427867	
	Extension - tailpipe	1	427549	
	Clamp	1	611005-6	
	TAIL PIPE EXTENSION - flexible			SL1333
11c	Tailpipe - M.S	1	429140	
	Flexible tailpipe extension	1	429139	
	Tee bolt clamp	1	611005-6	
	Bracket tail pipe support - chassis to mount	1	429288	
	Bracket - tailpipe mounting - mount to pipe	1	429289	
	Setscrew	1	MCS 110 20P	
	Washer - spring	1	WMC 10SP	
	Washer - plain	2	WMA 12SP	
	Nut - half	1	MCN 210P	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	STAINLESS STEEL SYSTEM			
1	Silencer	1	425467	
2	Exhaust hanger	2	424342	
3	Clip - exhaust silencer	2	656916	
4	Heat shield assembly - silencer	1	424360	
5	Flexible pipe	1	425477	
6	Clamp - flexible pipe	2	427161	
7	Exhaust pipe - 220 engine-turbo to silencer	1	425469	ES1511A
	Exhaust pipe - 245 engine - turbo to silencer	1	425468	ES1511B
☞ 8	Clamp - turbo to pipe	1	3905216-101	
9	Bracket - pipe clamp support	1	427863	
10	U clamp	1	657374	
	Nut	2	MCN 510P	
	Washer	2	WMA 10SP	
11a	Tail pipe - raised - cut-out	1	430219	AR6695
12	Clamp - silencer to tailpipe	1	427161	
13	Bracket - tailpipe support	1	430194	
14	Heat shield - tailpipe	1	424367	
15	Clip - heat shield	2	656818-15	
16	Heat shield - silencer end	1	424495	
☞ 17	Rubber mount	5/6	659138	
18	Bracket - tailpipe support - long	1	430350	
19	Bracket - channel - lower	1	429061	
	Bolt	1	MCB 110 30P	
	Nut	1	MCN 510P	
20	Clamp - tailpipe	1	657374	
21	Heat shield jacket - tailpipe	1	430889	
11b	TAILPIPE EXTENSION			SL 1242
	Tailpipe - Stainless.steel	1	427881	
	Extension - Tailpipe	1	427549	
	Clamp	1	611005-6	
	TAIL PIPE EXTENSION - flexible			SL1427
11c	Tailpipe - S.S	1	430594	
	Flexible tailpipe extension	1	429139	
	Tee bolt clamp	1	611005-6	
	Bracket tail pipe support - chassis to mount	1	429288	
	Bracket - tailpipe mounting - mount to pipe	1	429289	
	Setscrew	1	MCS 110 20P	
	Washer - spring	1	WMC 10SP	
	Washer - plain	2	WMA 12SP	
	Nut - half	1	MCN 210P	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1a	Silencer assembly - CAT	1	657869-1	
☞	Inlet section - CAT	1	657869-3	
☞	Outlet section - CAT	1	657869-2	
	Joint - body ring	1	657870-20	
	Clamp - silencer	1	657870-15	
	Gasket - silencer	1	657870-16	
	Plug - diagnostic connection	1	657870-17	
	Washer - diagnostic plug	1	657870-18	
2	Tailpipe	1	657870-2	
3	Mounting cradle - LH	1	657870-3	
4	Mounting cradle - RH	1	657870-4	
5	Support bracket - tailpipe	1	657870-5	
6	Silencer heatshield	1	657870-6	
7	Grease shield	1	657870-7	
8	Inlet grease shield	1	657870-8	
9	Heat shield	1	657870-9	
10	Tailpipe - heatshield - one piece	1	657870-10	
11	Flexible pipe	1	657870-11	
12	Clamp	2	408508-14	
13	Insulation jacket - flexible pipe	1	657870-12	
14	Band clamp	4	657870-13	
15	Clamp - 'Hi torque' - 320mm	2	657870-14	
16	Clamp - 'Hi torque' - 140mm	3	657871-7	
17	Bandclamp - silencer	1	657019-7	
☞ 18	Rubber mount	5/6	659138	
19	U Bolt clamp	1	657871-8	
	Fastener kit	1	657870-16	
20a	Front pipe - C220 engine - CAT	1	657871-1	
	Bracket - downpipe	1	424535	
20b	Front pipe - C245 engine - CAT	1	657872-1	
	Bracket - downpipe	1	424535	
21	Interpipe	1	657871-2	
22	Support bracket - front pipe	1	657871-3	
23	Support bracket - inter pipe	1	657871-4	
☞	Bolt- bracket to block	2	MCS 116 25P	
24	Relocation bracket	1	657871-5	
25	Heatshield	1	657871-6	
26	'V' Clamp	1	654852-5	
27	Clamp-'Hi torque' - 140 mm	1	657871-7	
28	U bolt clamp - front pipe	1	657871-8	
29	U bolt clamp - inter pipe	1	409988-13	
	Fastener kit	1	657871-9	
30	Bracket - tailpipe support - long	1	430350	
31	Bracket - channel - lower	1	429061	
	Bolt	1	MCB 110 30P	
	Nut	1	MCN 510P	
32	Clamp - tailpipe	1	657374	
33	Heat shield jacket - tailpipe	1	430889	
☞	Insulation jacket - long	1	657872-2	
☞	Insulation jacket - short	1	657872-3	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Silencer - assembly - CRT	1	657870-1	
2	Inlet section - CRT	1	659746-2	
3	Catalyst module - CRT	1	657870-23	
4	Filter module - CRT	1	659746-4	
5	Outlet section - CRT	1	657870-26	
6	Joint - body ring	3	657870-20	
7	Clamp - silencer	3	657870-15	
8	Vee Gasket - silencer	3	657870-16	
9	Plug - diagnostic connection	1	657870-17	
10	Washer - diagnostic plug	1	657870-18	
11	Tailpipe - "mouse hole"	1	659746-9	
12	Mounting cradle - LH - "raised silencer"	1	659961-5	
13	Mounting cradle - RH - "raised silencer"	1	659961-4	
14	Silencer heatshield	1	659746-10	
15	Grease shield	1	659746-11	
16	Tailpipe - heatshield - one piece	1	659365-6	
17	Flexible pipe	1	659746-12	
18	Clamp	2	408508-14	
19	Insulation jacket - flexible pipe	1	657870-12	
20	Band clamp	4	657870-13	
21	Clamp - 'Hi torque' - 320mm	2	657870-14	
22	Clamp - 'Hi torque' - 140mm	3	659365-7	
23	Bandclamp - silencer	1	657019-7	
24	Rubber mount	5	409998-15	
☞25a	Front pipe - C220 engine - CRT	1	657870-25	BDS037G/M
	Bracket - downpipe	1	427863	
☞25b	Front pipe - C245 engine - CRT	1	657870-24	BDS037H/N
	Bracket - downpipe	1	427863	
☞26	Interpipe - raised - (C220/C245)	1	659961-3	
☞27	Support bracket - inter pipe	1	657871-4	
☞28	Relocation bracket	1	657871-5	
☞29	'V' Clamp	1	654852-5	
☞30	U bolt clamp - front pipe	1	657871-8	
☞31	U bolt clamp - inter pipe	1	409988-13	
☞32	Tailpipe cradle	1	659365-5	
	Label - CRT fuel (fuel flap & cab)	2	267567	

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SECTION 7.1

Bolts and screws	Page	7.1.3 - 4
Nuts	Page	7.1.4
Washers	Page	7.1.5
Split pins	Page	7.1.6
Self tapping screws	Page	7.1.6 - 7
'P' Clips	Page	7.1.8
Hose clips	Page	7.1.8
Sleeving	Page	7.1.9
Plastic ties	Page	7.1.9

AMENDED:

1 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



2 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

3 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)

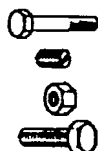
Note: "R" grade nut is used with "V" grade bolt
 "T" grade nut is used with "X" grade bolt

4 Thread

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

5 Type

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



6 Tool

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

AMENDED:

7 **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

8 **Diameter (two digits)**

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

9 **Length (two or three digits)**

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

10 **Finish**

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

NUTS

11 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



12 **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

- **NOTE** :When self locking nylon type nuts are removed, they should be disgarded and new items used. **THEY SHOULD NEVER BE RE-USED.**

AMENDED:**13 Size (two digits)**

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

WASHERS**14** 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

15 Measuring System

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

16 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

17 Size

One or two figures give the internal diameter in :-

Screw gauge size
 BA number
 Sixteenths of an inch
 Millimetres

18 Material

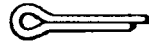
A = Aluminium
B = Brass
C = Copper
S = Steel

AMENDED:

19 Finish

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

20 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

21 Diameter

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

22 Length

One or two figures indicate length in sixteenths of an inch

23 Material

- BR** = Brass
- ST** = Mild steel

24 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

25 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

AMENDED:

26 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

27 Size

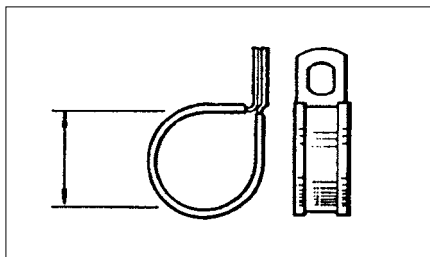
One or two figures give the diameter in screw gauge number.

28. Length

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

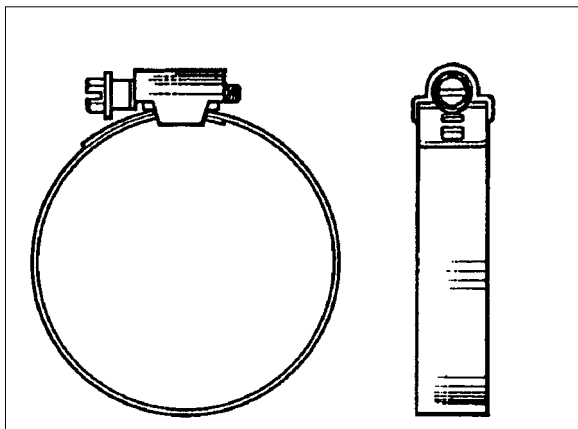
AMENDED:

P' CLIPS



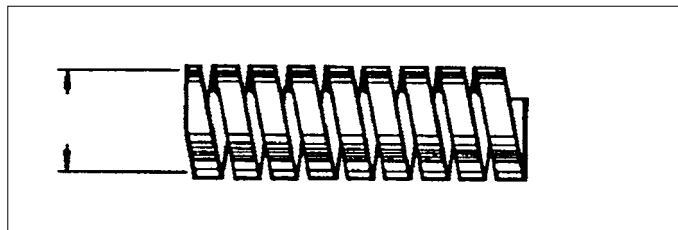
Inside diameter (mm)	Part No.
4	611673-1
5	611673-2
6	611673-3
7	611673-4
8	611673-5
9	611673-6
10	611673-7
11	611673-8
12	611673-9
13	610029-1
14	610029-2
17	610029-3
19	610029-4
21	610029-5
23	610029-6
24	610029-7
27	610029-8
31	610029-9
38	610029-10
39	610029-11
45	610029-12
51	610029-13
57	610029-14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

HOSE CLIPS

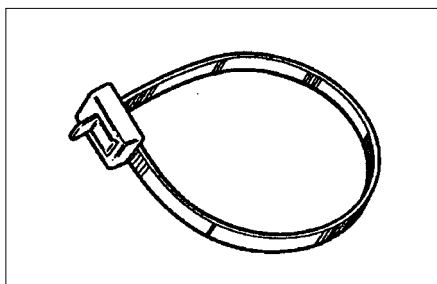


Diameter Min (mm)	Diameter Max (mm)	Part No.
8	16	656818-1
12	20	656818-2
12	22	656818-3
16	25	656818-4
20	32	656818-5
23	35	656818-6
25	40	656818-7
30	45	656818-8
32	50	656818-9
40	60	656818-10
50	70	656818-11
60	80	656818-12
70	90	656818-13
80	100	656818-14
90	110	656818-15
100	120	656818-16
120	140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

AMENDED:

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

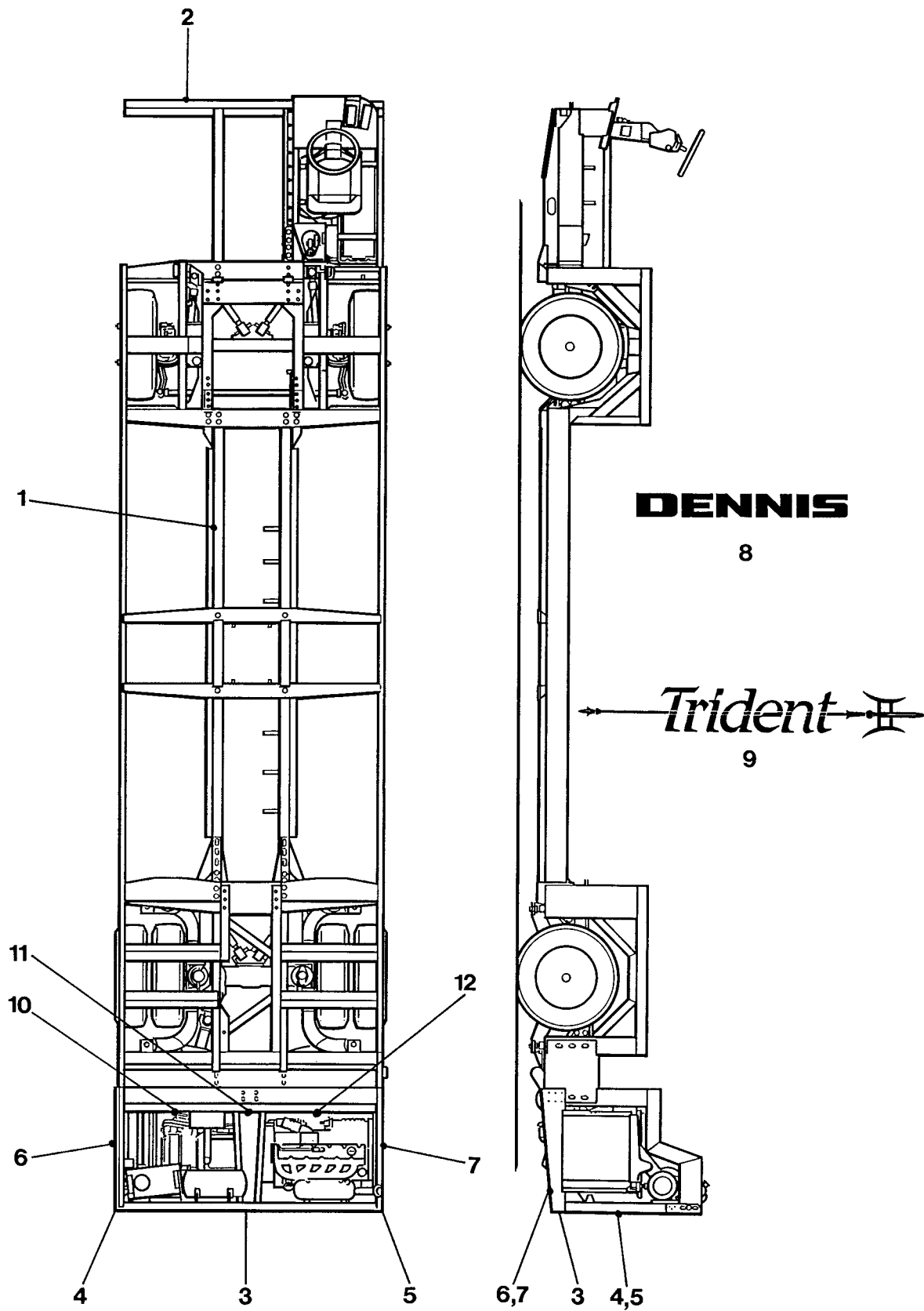
CABLE TIES

Length (mm)	
Length (mm)	Part No.
115mm	607008
130 - 133mm wide	653608
190 - extra wide	610808
266mm	607007

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SECTION 7.2




Frame assemblyPage 7.1.2 - 3

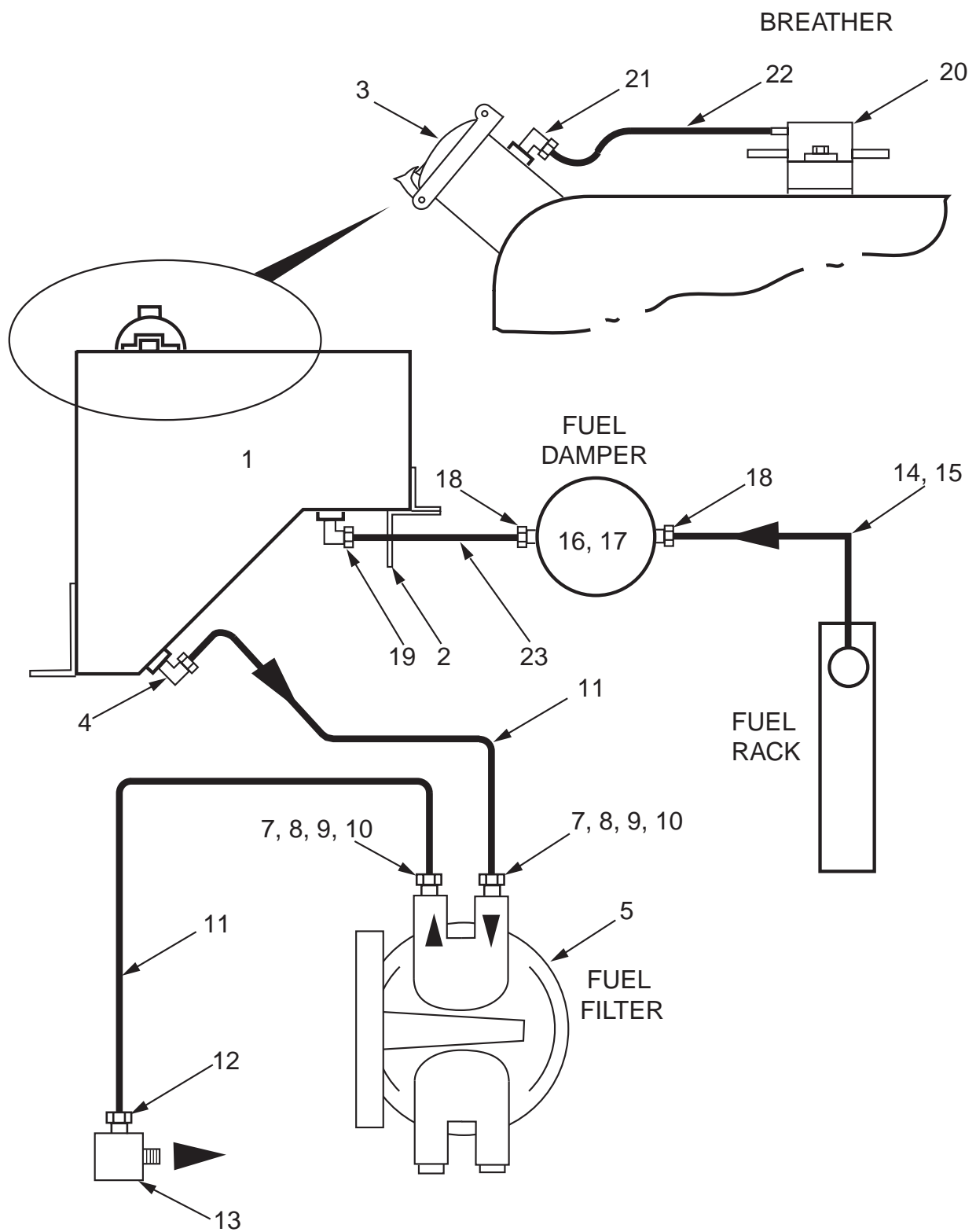


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞ 1a	Frame assembly - 9.9m chassis-.wide gangway	1	424717	FS1510B
1b	Frame assembly - 9.9m chassis	1	428240	FS1510C
1c	Frame assembly - 10.45m chassis	1	424598	FS1512A
1d	Frame assembly - 10.45m chassis	1	427586	FS1512B
1e	Frame assembly - 10.45m chassis	1	428471	FS1512C
☞ 1f	Frame assembly - 10.45m chassis-.wide gangway	1	428471	FS1512D
☞ 1g	Frame assembly - 10.45m chassis - fwd centre door	1	426602	FS1513A
2	Front crossbeam LH	1	421634	
	Setscrew	4	MCS 112 35P	
	Nut	7	MCN 512P	
3	Rear lower channel	1	422571	
	Screw	6	MCS 110 25P	
	Nut	6	MCN 710P	
4	Rear upright angle - LH	1	423579	
5	Rear upright angle - RH	1	424607	
	Screw	6	MCS 110 45P	
	Nut	6	MCN 710P	
6	Skirt angle- LH	1	422573	
	Screw	3	MCS 110 45P	
	Nut	3	MCN 710	
	Tapping plate	1	426497	
	Spring washer	3	WMC 105P	
7	Skirt angle - RH	1	426344	
	Screw	6	MCS 110 45P	
	Nut	6	MCN 710P	
	Tapping plate	1	426497	
	Spring washer	3	WMC 105P	
8	Nameplate - "Dennis"	2	425465	
9	Nameplate - "Trident"	2	421951	
10	Noise pad- LH	1	424294	NS 1510A
11	Noise pad - centre	1	424293	
12	Noise pad - RH	1	424300	
	Clip - noisepad	16	657085	

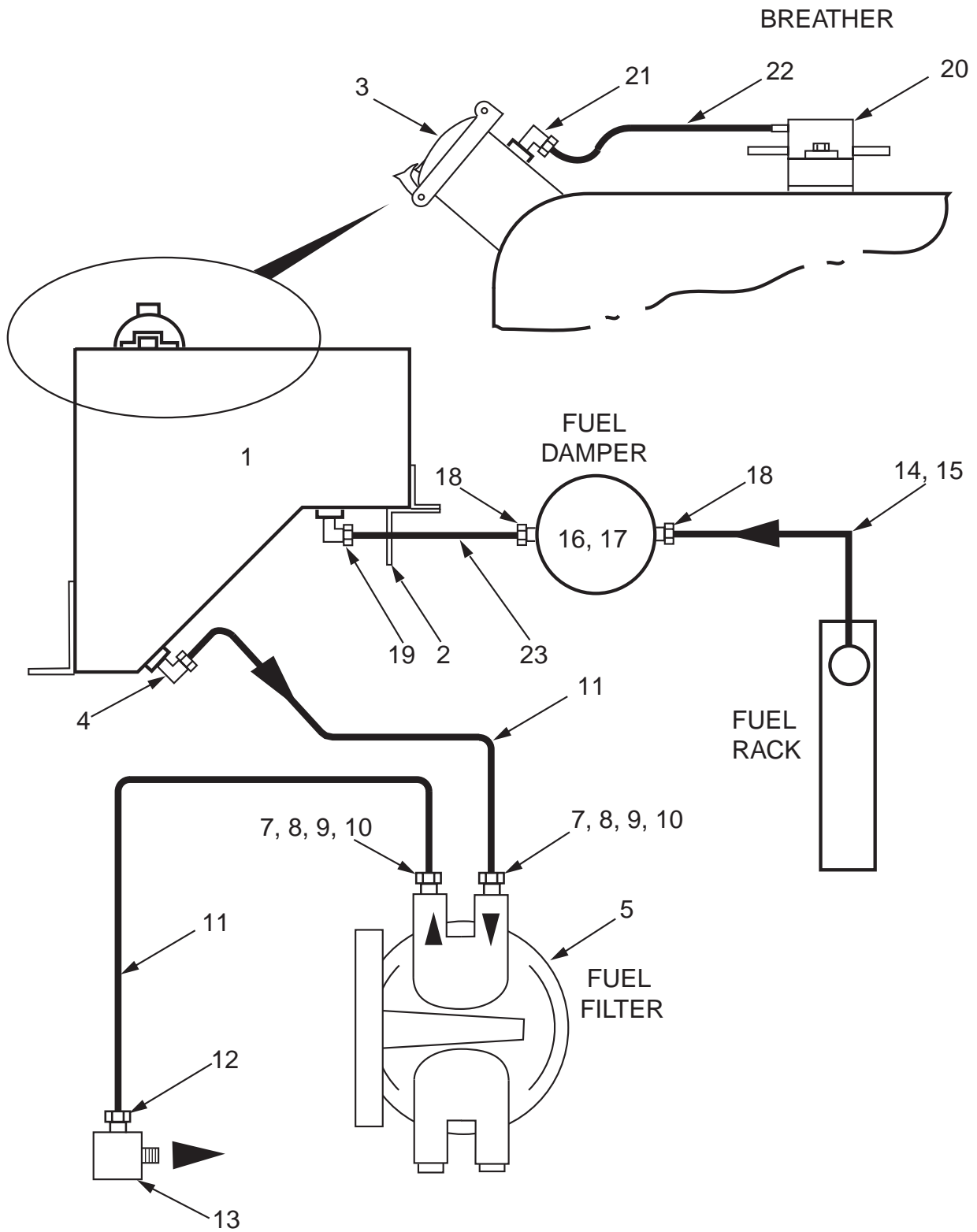
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SECTION 7.3

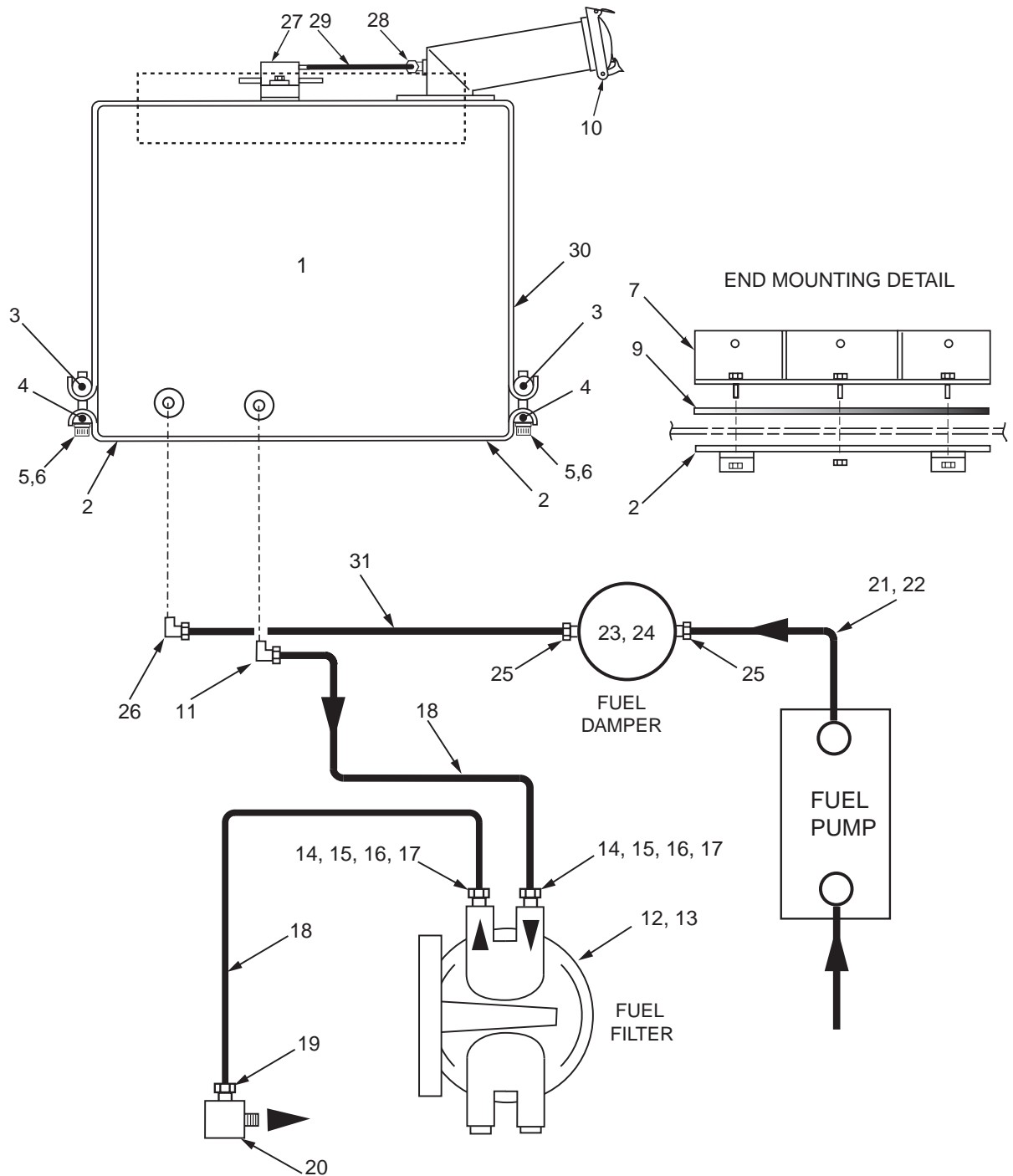
Fuel system	Page	7.3.2 - 5
Fuel system - stainless steel tank	Page	7.3.2 - 5
Fuel system - rearmount	Page	7.3.6 - 9
Fuel system - rearmount - posilock	Page	7.3.10 - 11
Fuel tank fixing straps - early vehicles 	Page	7.3.12 - 13
Fuel tap - supply line - SL1231 	Page	7.3.12 - 13
Identic fuel kit 	Page	7.3.14



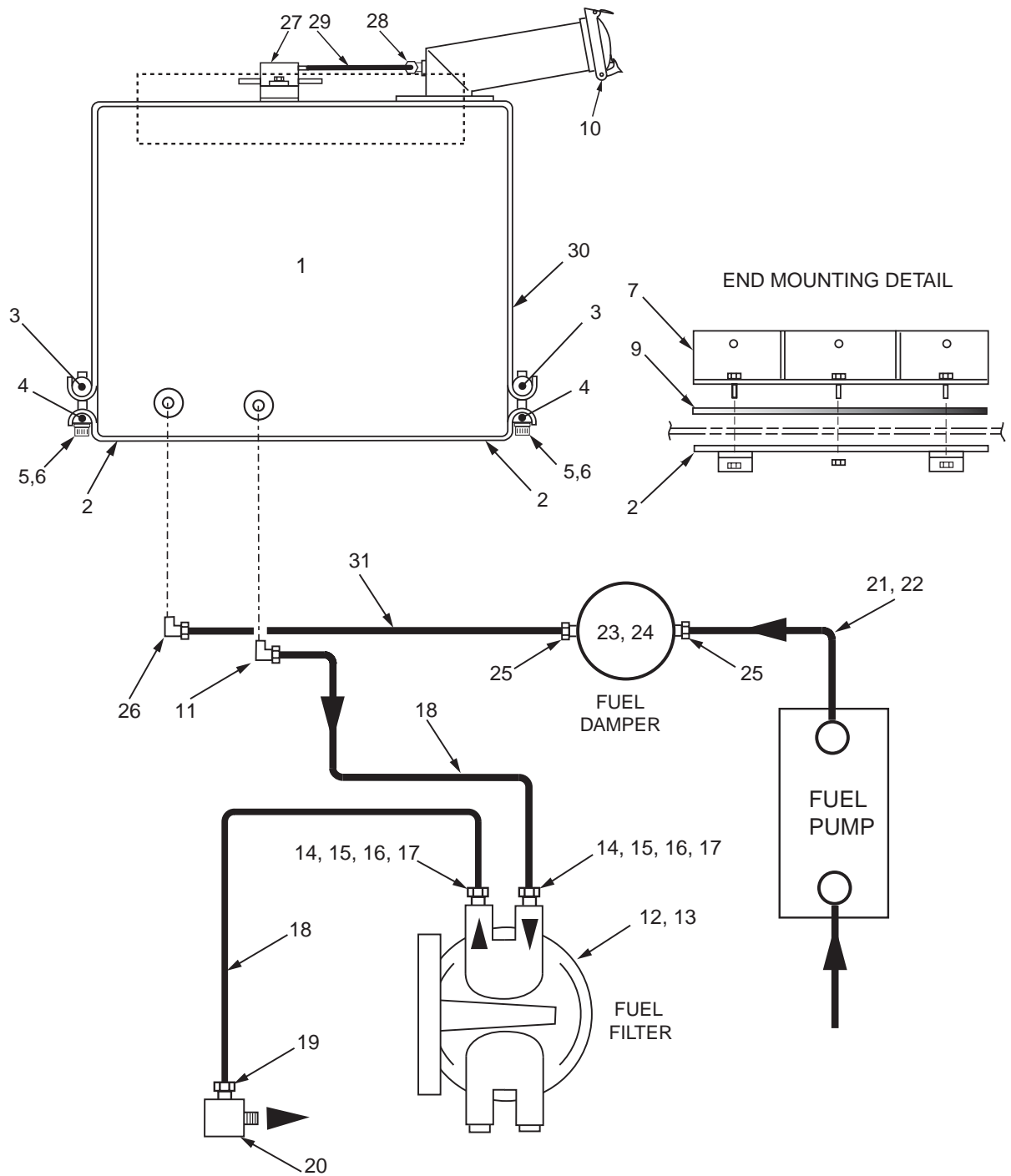
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1a	Fuel tank assembly - welded neck	1	424712	FS1510B
1b	Fuel tank assembly - bolt on neck	1	431720	FS1510K
	Filler neck - bolt on	1	426851	
1c	Fuel tank assembly - stainless steel - welded neck	1	425174	FS1510D
1d	Fuel tank assembly - bolt on neck - stainless steel	1	427842	FS1510M
	Filler neck - bolt on stainless	1	426856	
1e	Fuel tank assembly - bolt on posilock	1	427841	FS1510J
1f	Fuel tank assembly - bolt on posilock - stainless	1	427841	FS1510L
1g	Fuel tank assembly - Identic	1	429597	FS1510P
	Filler neck - bolt on	1	428173	
	Posilock filler	1	657858	
	Gasket - filler neck	1	657829	
	Bolt	6	MCS 106 20P	
	Bolt	3	MCB 108 25P	tank to plinth
	Washer- plain	3	WMA 8SP	
	Washer-spring	3	WMC 8SP	
	Mounting strip - front	1	427827	tank to brkt
	Mounting strip - rear	1	427829	tank to plinth
2	Mounting plinth - fuel tank	1	431429	
	Bolt	3	MCB 108 30P	plinth to frame
	Washer- plain	3	WMA 8SP	
	Nut - self locking	3	MCN 508P	
	Bolt	3	MCB 108 30P	
	Washer- plain	3	WMA 8SP	
	Washer - spring	3	WMC 8SP	
	Spacer	6	400622-76	
3	Filler cap - c/w washers	1	658137	
4	Elbow - <i>supply</i> - Ø12	1	656181	
	Sleeve - Ø12	1	655832-3	
5	Fuel filter	1	655747	
	Fuel filter kit	1	654684-1	
	Bowl - sedimister	1	654684-2	
6	Bracket - fuel filter	1	424157	
7	Reducer	2	656798	
8	Connector	2	656799	
9	Seal	2	603678	
10	Dowty seal	2	603677	
11	Tube - Ø 12-black	11m	654993	
12	Connector - straight	1	655553	
	Sleeve	1	655832-3	
13	Elbow - lift pump	1	658459	
14	Fuel pipe assembly	1	424334	
	Check valve banjo bolt	1	3963593-101	
	Sealing washer	A/R	3912887-101	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
15	Bracket - fuel pipe	1	424358	
16	Damper - fuel line	1	656435	
17	Bracket - fuel damper	1	427353	
18	Connector	2	655840	
	Dowty seal	1	603677	
19	Elbow - <i>return</i> - Ø 10	1	655842	
	Sleeve - Ø 10	1	655832-1	
20	Breather	1	417362	
21	Elbow	1	655164	
22	Tube - Ø 8 - black - breather	1	651548	
	Shield - fuel filter	1	432240	
	Bolt	2	MCB 110 35P	
	Nut	2	MCN 510P	
	Washer	2	WMA 10SP	
23	Tube - Ø 10-black - damper to tank	15m	654992	
	Sleeve	1	655832-1	

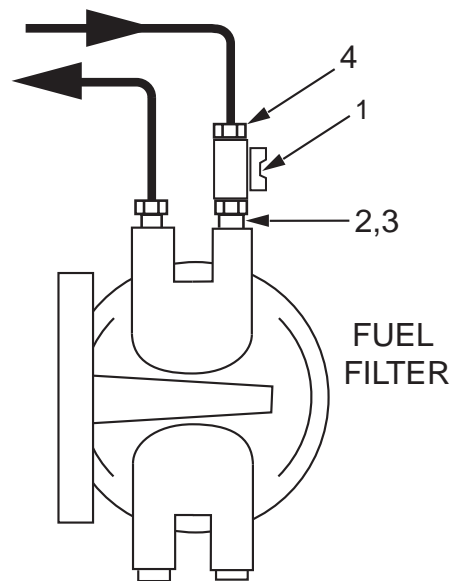
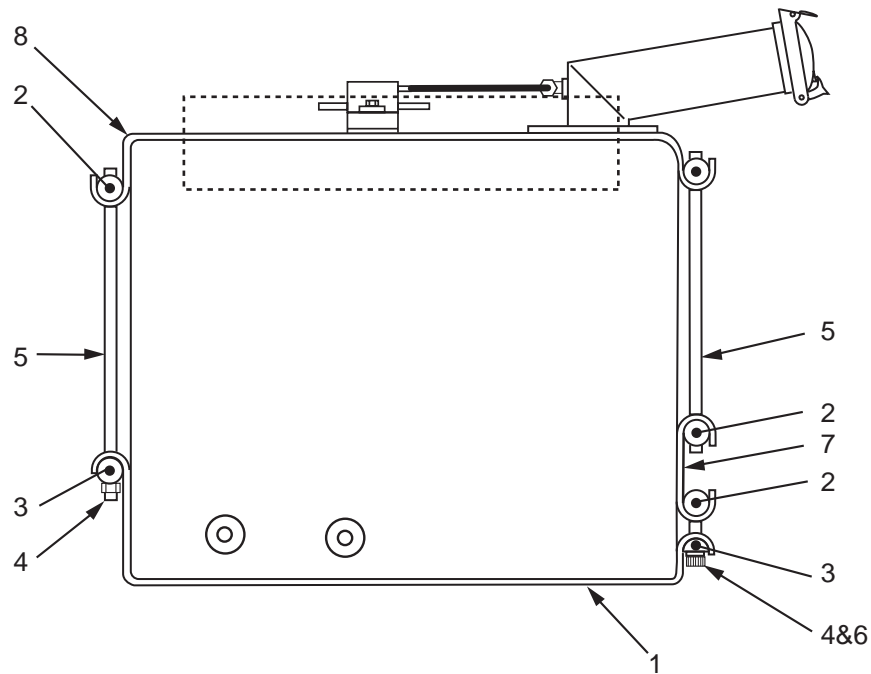


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1a	Fuel tank assembly - rear tank - rearmost filler	1	426184	FS1510C & F
	Filler neck	1	426851	
1b	Fuel tank assembly - rear tank - forward filler	1	426481	FS1510G
	Filler neck	1	426851	
1c	Fuel tank assembly - rear tank - forward filler	1	426795	FS1510H
	Filler neck	1	426856	
1d	Fuel tank assembly - identic	1	428177	FS1510N
	Filler neck	1	428173	
	Gasket - filler neck	1	657829	
	Plug - tank drain	1	603678	
	Seal - tank drain	1	5349-3	
☞	ADDITIONAL STRAPS			SL1321
☞	Strap	2	428586	SK10505
☞	FRONT FUEL TANK SUPPORT KIT			SL1918
☞	Gusset - front fuel tank mounting	1	438043	
☞	Plinth - fuel tank	1	431429	
2	Strap assembly - lower	1	428589	
3	Bar - threaded	2	420563	
4	Bar - spacer - half	2	420562	
5	Capscrew	2	MCS 3610 55P	
6	Spring washer	2	WMC 10SP	
7	Bracket - fuel tank mounting	1	426134	
8	Not required on this application	-	-	
9	Rubber mounting strip	1	426127	
	Bolt	3	MCB 110 30P	
	Nut	3	MCN 510P	
10	Filler cap - c/w washers	1	658137	
11	Elbow - <i>supply</i> - Ø12	1	656181	
	Sleeve - Ø12	1	655832-3	
12	Fuel filter	1	655747	
	Fuel filter kit	1	654684-1	
13	Bracket - fuel filter	1	424157	
14	Reducer	2	656798	
15	Connector	2	656799	
16	Seal	2	603678	
17	Dowty seal	2	603677	
18	Tube - Ø 12 - black	11m	654993	
19a	Elbow	1	655554	
19b	Connector - straight	1	655553	
20	Elbow - lift pump	1	658459	
21	Fuel pipe assembly	1	424334	



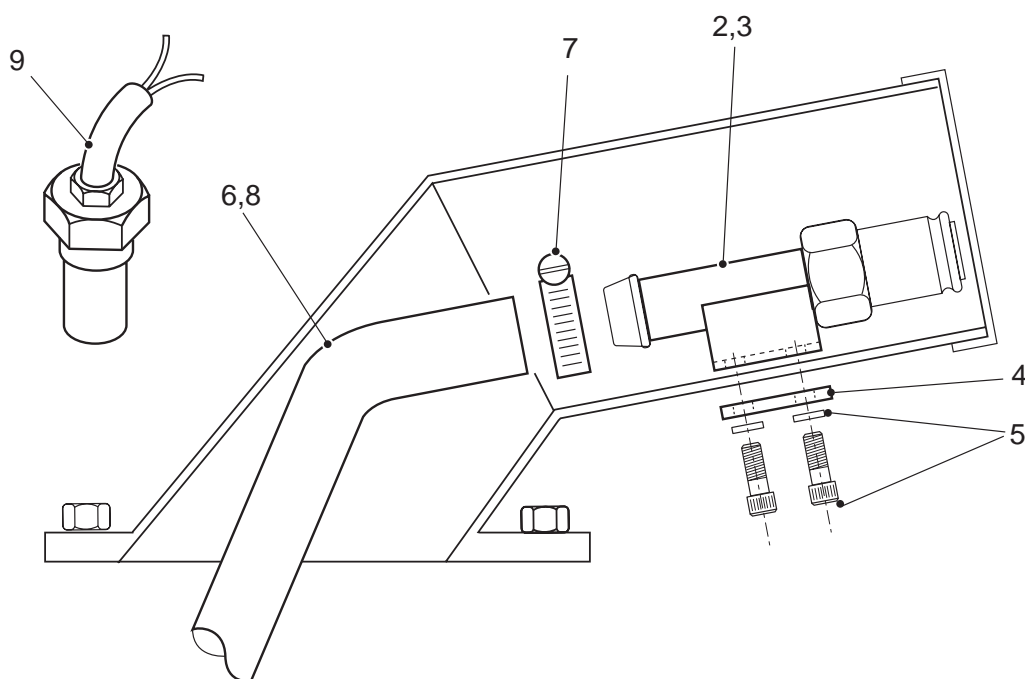
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
.				
22	Bracket - fuel pipe	1	424358	
23	Damper - fuel line	1	656435	
24	Bracket - fuel damper	1	427353	
25	Connector	2	655840	
	Dowty seal	1	603677	
26	Elbow - <i>return</i> - Ø 10	1	655842	
	Sleeve - Ø 10	1	655832-1	
27	Breather	1	417362	
	Tube - breather	1	654242	
	Setscrew	2	MCS 105 16P	
	Nut	2	MCN 705P	
28	Elbow	1	655164	
29	Tube - Ø 8- black - breather	1	651548	
30	Mount assembly - upper	1	428266	
☞	Shield - fuel filter	1	435240	
	Bolt	2	MCB 110 35P	
	Nut	2	MCN 510P	
	Washer	2	WMA 10SP	
31	Tube - Ø 10-black - damper to tank	15m	654992	
	Sleeve	1	655832-1	

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Fuel tank assembly - posilock	1	426238	
	Fuel tank	1	426228	
	Blanking plate	1	426083	
	Gasket	1	657829	
	Screw	6	UFS 104 4SP	
	Plug - tank drain	1	603678	
	Seal - tank drain	1	5349-3	
2	Strap assembly - lower	1	428589	
3	Bar - threaded	2	420563	
4	Bar - spacer - half	2	420562	
5	Capscrew	2	MCS 3610 55P	
6	Spring washer	2	WMC 10SP	
7	Bracket - fuel tank mounting	1	426134	
8	Not required on this application	-	-	
9	Rubber mounting strip	1	426127	
	Bolt	3	MCB 110 30P	
	Nut	3	MCN 510P	
10	Filler - posilock	1	657858	
	Filler cap	1	657858-1	
	Gasket	1	657829	
	Screw	6	MCS 106 20 P	
	Washer - filler neck	1	428021	
	Adaptor plate - brass	1	657002	
11	Elbow - <i>supply</i> - Ø12	1	656181	
	Sleeve - Ø12	1	655832-3	
12	Fuel filter	1	655747	
	Fuel filter kit	1	654684-1	
13	Bracket - fuel filter	1	424157	
14	Reducer	2	656798	
15	Connector	2	656799	
16	Seal	2	603678	
17	Dowty seal	2	603677	
18	Tube -Ø 12 - black	11m	654993	
19	Connector	1	655553	
20	Elbow	1	658459	
21	Fuel pipe	1	424334	
22	Bracket - fuel pipe	1	424358	
23	Damper - fuel line	1	656435	
24	Bracket - fuel damper	1	427353	
25	Connector	2	655840	
	Dowty seal	1	603677	
	Sleeve	1	655832-1	
26	Elbow - <i>return</i> - Ø 10	1	655842	
	Sleeve - Ø 10	1	655832-1	
27	Mount assembly - upper	1	428266	
	Shield - fuel filter	1	435240	
	Bolt	2	MCB 110 35P	
	Nut	2	MCN 510P	
	Washer	2	WMA 10SP	
28	Tube - Ø 10-black - damper to tank	15m	654992	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	FUEL TANK FIXING STRAPS - EARLY VEHICLES			SL1244
☞ 1	Strap assembly - lower	1	426365	
2	Bar - threaded	2	420563	
☞ 3	Bar - spacer half-	2	428185	
	Loctite - Red AW (use bar to stud)	A/R	605830	
4	Capscrew	2	MCS 3610 55P	
☞ 5	Rod threaded	2	426356	
☞ 6	Washer - spring	1	WMC 10SP	
7	Strap - short	2	426554	
8	Mount assembly - upper	1	426428	
	FUEL TAP - SUPPLY LINE			SL1231
1	Valve - supply line to sedimentor	1	658188	
	Bracket	1	403863	
	Hose clip	1	611673-7	
2	Connector - supply line to sedimentor	1	658186	
3	Connector - supply line to sedimentor	1	658187	
4	Connector - valve to fuel supply	1	657360-1	

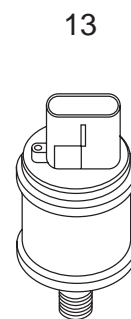
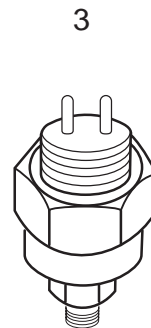
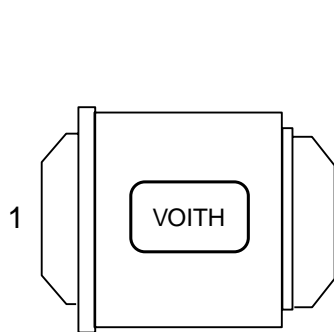
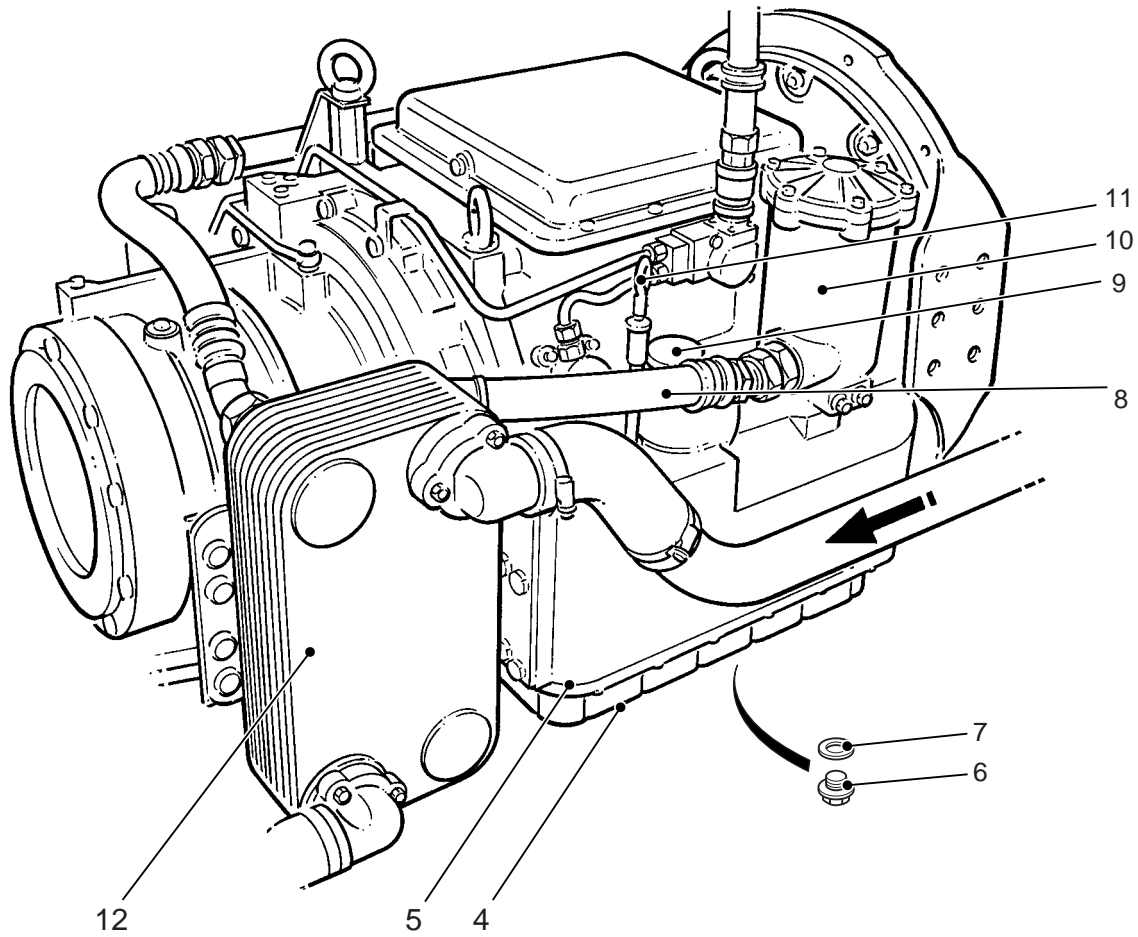
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	IDENTIC FUEL KIT Comprising :	1	658763	
1	Refuelling coupling kit - (items 2 - 7)	1	658763-3	
2	Spill free coupling	1	656706-5	
3	Coupling support bracket	1	658763-3	
4	Curved support washer	1	656706-6	
5	Capscrew - coupling	2	656706-7	See note
	Washer - coupling	2	656706-8	
6	Tank hose weight	1	658763-4	
7	Clip - tank hose	1	656706-10	
8	Filler hose	1	658763-1	
9	Level sensor	1	658763-2	
NOTE	Use Loctite sealant 572 use liberal amount on item 5			



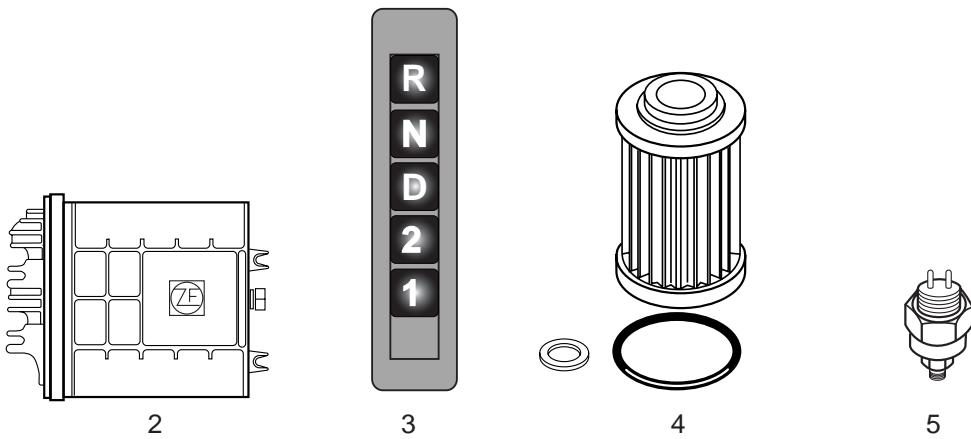
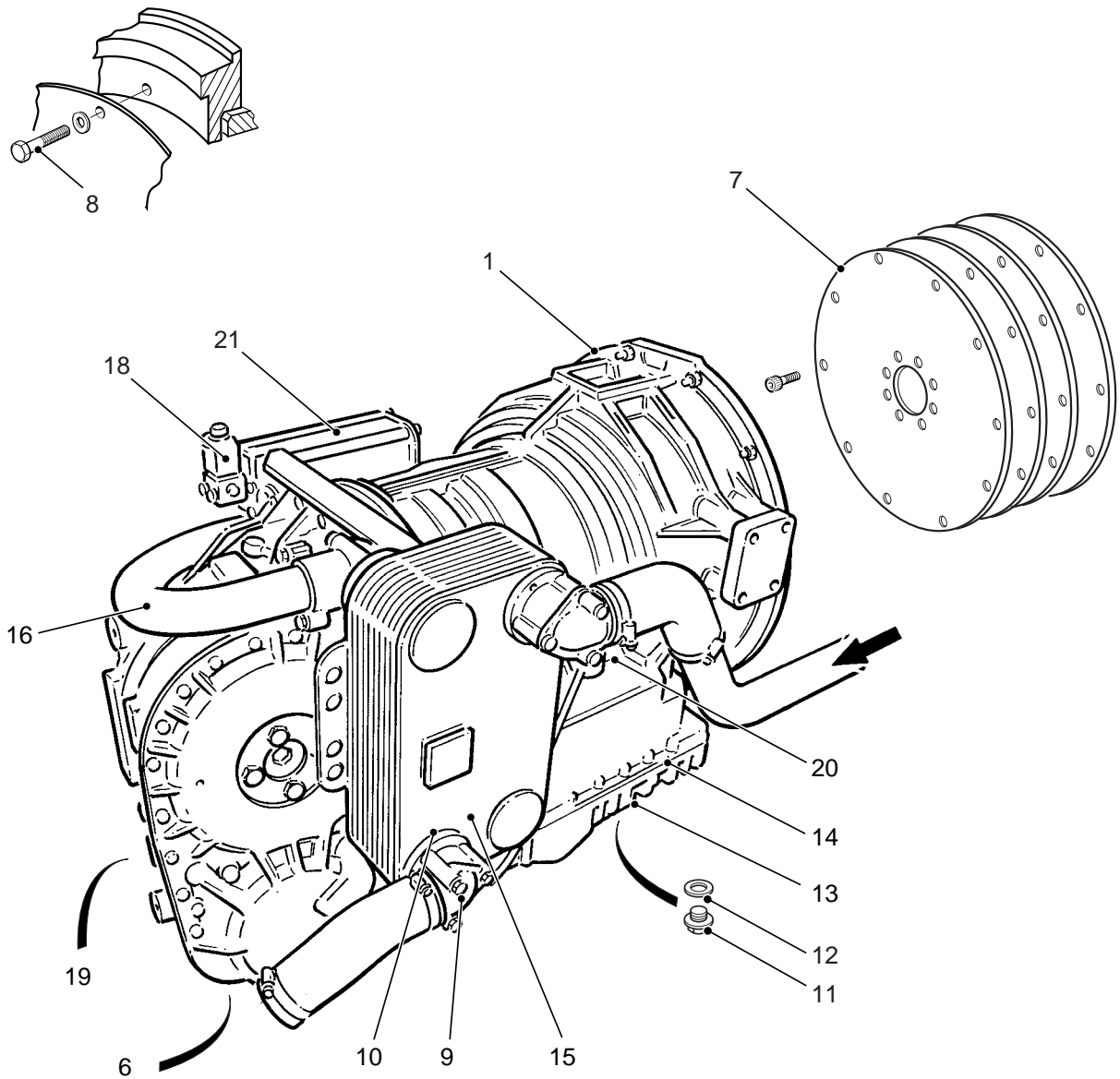
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SECTION 7.4

Gearbox assembly - Voith	Page	7.4.2 - 3
Gearbox assembly - ZF	Page	7.4.4 - 9

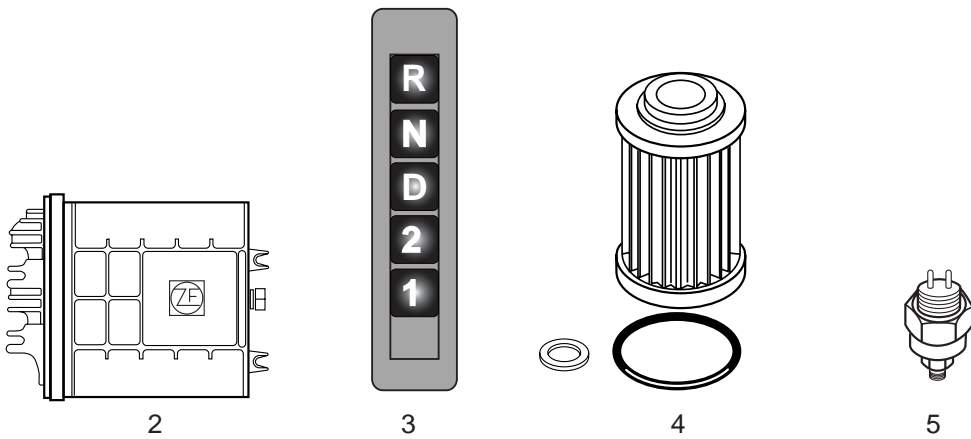
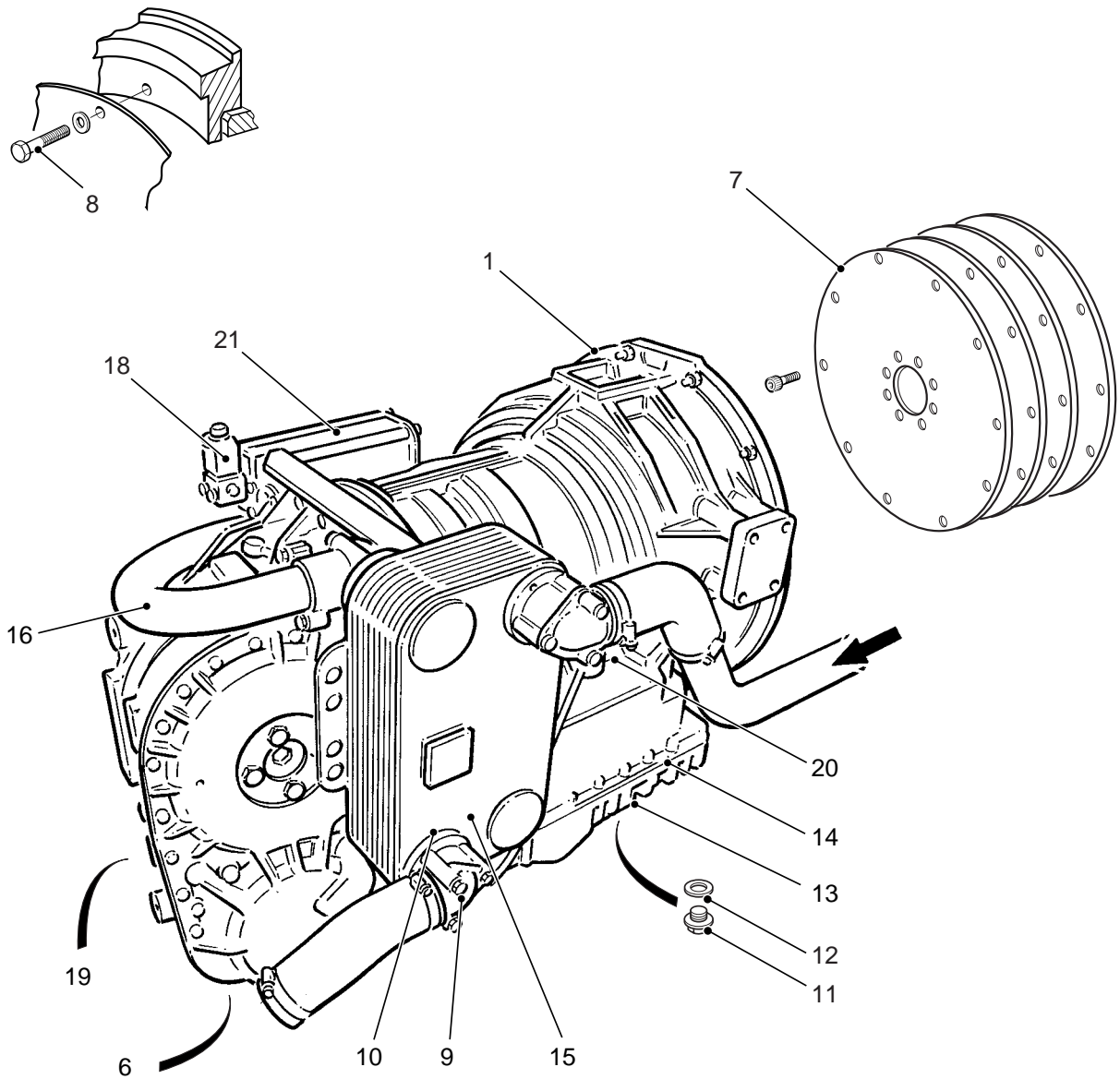


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Gearbox - Voith D851-3	1	657042	C220/GB1510A
☞ 1a	Electronic control unit	1	657042-2	
	Gearbox - Voith D851-3	1	658159	C245/GB1510B
☞ 1b	Electronic control unit	1	658159-1	
	Gearbox - Voith D851-3 - gearguard	1	658316	C220/GB1510C
☞ 1c	Electronic control unit	1	658316-1	
	Gearbox - Voith D851-3 - gearguard	1	658317	C245/GB1510D
☞ 1d	Electronic control unit	1	658317-3	
☞	Harness - gear selector	1	657218-6	
☞	Harness - brake valve	1	658623-6	
	Harness - ECU to EDC	1	657042-21	
☞	Harness - Gearbox to ECU	1	658316-1	
☞	Intermediate ring	1	658231-4	
☞	Hydrodamp	1	660034-4	
☞	Kickdown switch	1	656011-6	
☞	Seal - output shaft	1	650002-23	
	Load transmitter	1	657042-1	
	Tee piece - footvalve	1	654924	
	Elbow -	1	658017	
	Adapter	1	654927-7	
	Washer	1	655003	
1	Electronic control unit	1	657042-2	
2	Gear selector - 3 button	1	657042-3	
3	Pressure switch	1	652061-1	
☞ 4	Sump	1	657042-14	
☞ 5	Sump gasket	1	650002-4	
☞ 6	Sump plug	1	650002-47	
☞ 7	Seal - sump plug	1	650247-2	
☞ 8	Hose - cooler - upper	1	657042-15	
☞ 9	Oil filler cap	1	652002-51	
10	Filter kit - comprising: element, o ring & gasket	1	656011-1	Voith
☞ 11	Dipstick	1	657042-12	
☞ 12	Oil cooler	1	657042-16	
13	Pressure switch - gearguard - interlock footbrake	1	658313	
	Label - gearguard	1	427926	
	Voith Gear Interlock - gearguard (Footbrake)			SL1245
	Harness - switch	1	427958	SK10436



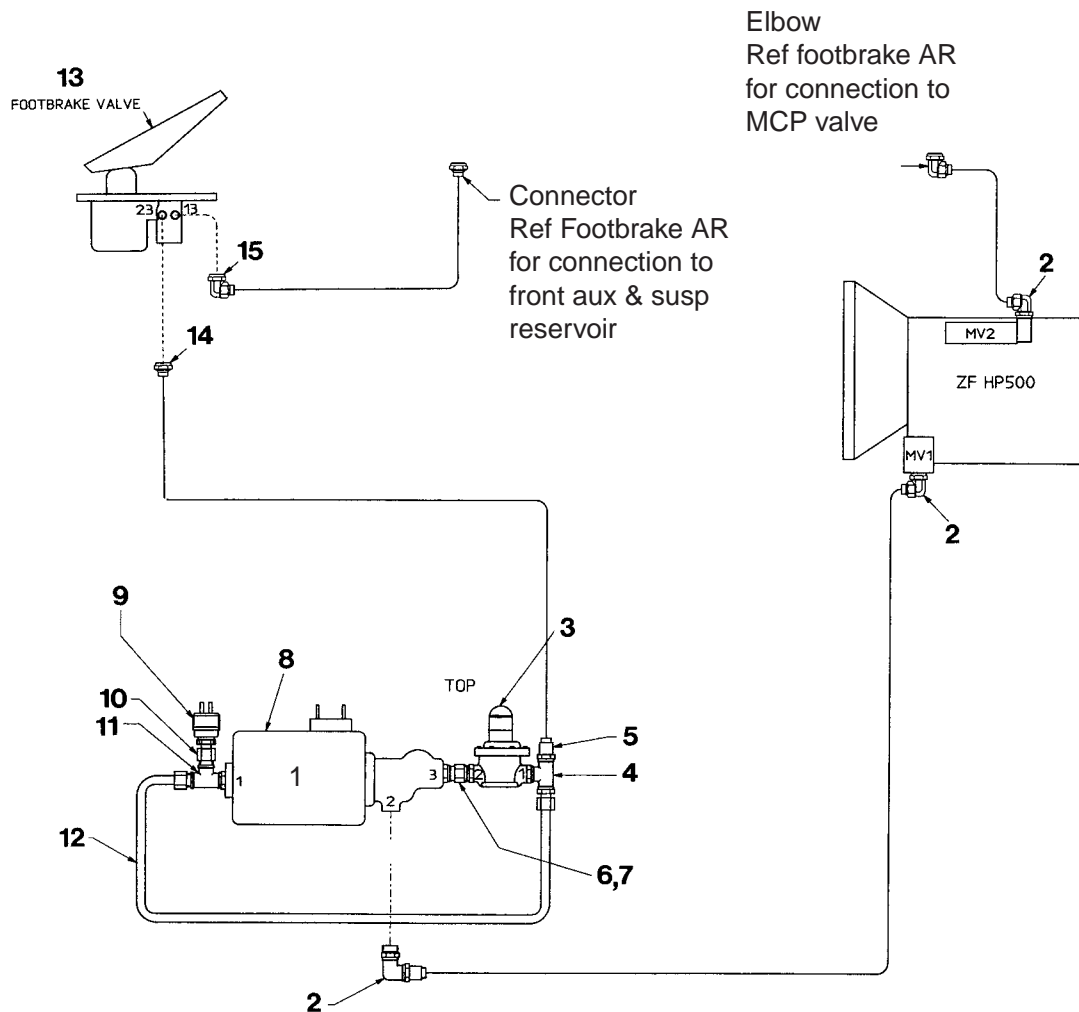
GB1515A

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1a	Gearbox - 4HP500 c/w angle drive/oil cooler/interlock	1	657465-1	C220/GB1511F
2a	Electronic control unit - 4 speed - C220	1	657465-2	
1b	Gearbox - 4HP500 c/w angle drive/oil cooler/interlock	1	657490-1	C245/GB1511G
2b	Electronic control unit - 4 speed - C245	1	657490-2	
1c	Gearbox - 5HP500 c/w angle drive/oil cooler/interlock	1	657044-1	C245/GB1511E
2c	Electronic control unit - 5 speed - C245	1	657044-2	
1d	Gearbox - 5HP500 c/w angle drive/oil cooler/interlock	1	657043-1	C220/GB1511H
☞ 2d	Electronic control unit - 5 speed - C220	1	657043-2	
	Clip - ECU plug - cover	1	659135-1	
3	Range selector - 5 button	1	654673-2	
☞	Bulb - range illumination	1	652638-9	
	Selector Button "R" - Reverse	1	651323-126	
	Selector Button "N" - Neutral	1	653709-12	
	Selector Button "D" - Drive	1	653709-10	
	Selector Button "2"	1	653709-13	
	Selector Button "1"	1	653709-14	
4	Filter kit - comprising - element, 'O' ring & gasket	1	652638-1	
☞	"O" ring - oil filter tube	1	657465-11	
5	Pressure switch 0.9bar - "Bus stop"	1	656626-6	
☞ 6	Speed sensor - turbine	1	653709-17	
	Seal - speed sensor (early)	1	657044-3	
7	Flexplate	4	657034-4	
8	Bolt - flexplate	10	657034-5	
	Washer - flexplate bolt	10	656046-122	
	Capscrew -	2	657465-7	
	Bolt - engine	8	654503	137Nm
☞ 9	Cooler elbow	2	657465-16	
☞ 10	Gasket - cooler elbow - coolant	2	657465-10	
	Gasket - cooler elbow - oil	2	657465-9	
☞ 11	Sump plug	1	653991-2	
☞ 12	Seal - sump plug	1	653991-3	
☞ 13	Sump	1	657465-12	
☞ 14	Gasket - sump	1	655018-2	
☞ 15	Oil cooler	1	657465-8	
16	Oil cooler pipe - top	1	658030	
	"O" ring	2	654040-3	
17	Oil cooler pipe - lower	1	657465-14	
☞ 18	Solenoid valve - <i>later</i>	1	655751-2	
☞	"O" ring - solenoid valve	1	655751-3	
☞	Solenoid valve - <i>early</i>	1	659135-3	



GB1515A

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞ 19	Output flange	1	659177-1	
	Seal - output shaft	1	653709-9	
	Locking plate - output seal	1	653709-15	
☞ 20	Dipstick	1	658235-2	
☞ 21	Accumulator	1	658233-4	
	Kickdown switch	1	655492	
	Plug - kickdown switch	1	655488	
	Washer - kickdown switch	1	651480-10	
	Load sensor	1	657465-3	
	Wiring harness - load sensor / ECU	1	657465-6	
	Sensor - Temperature	1	651480-9	
	Label - gearguard	1	427926	

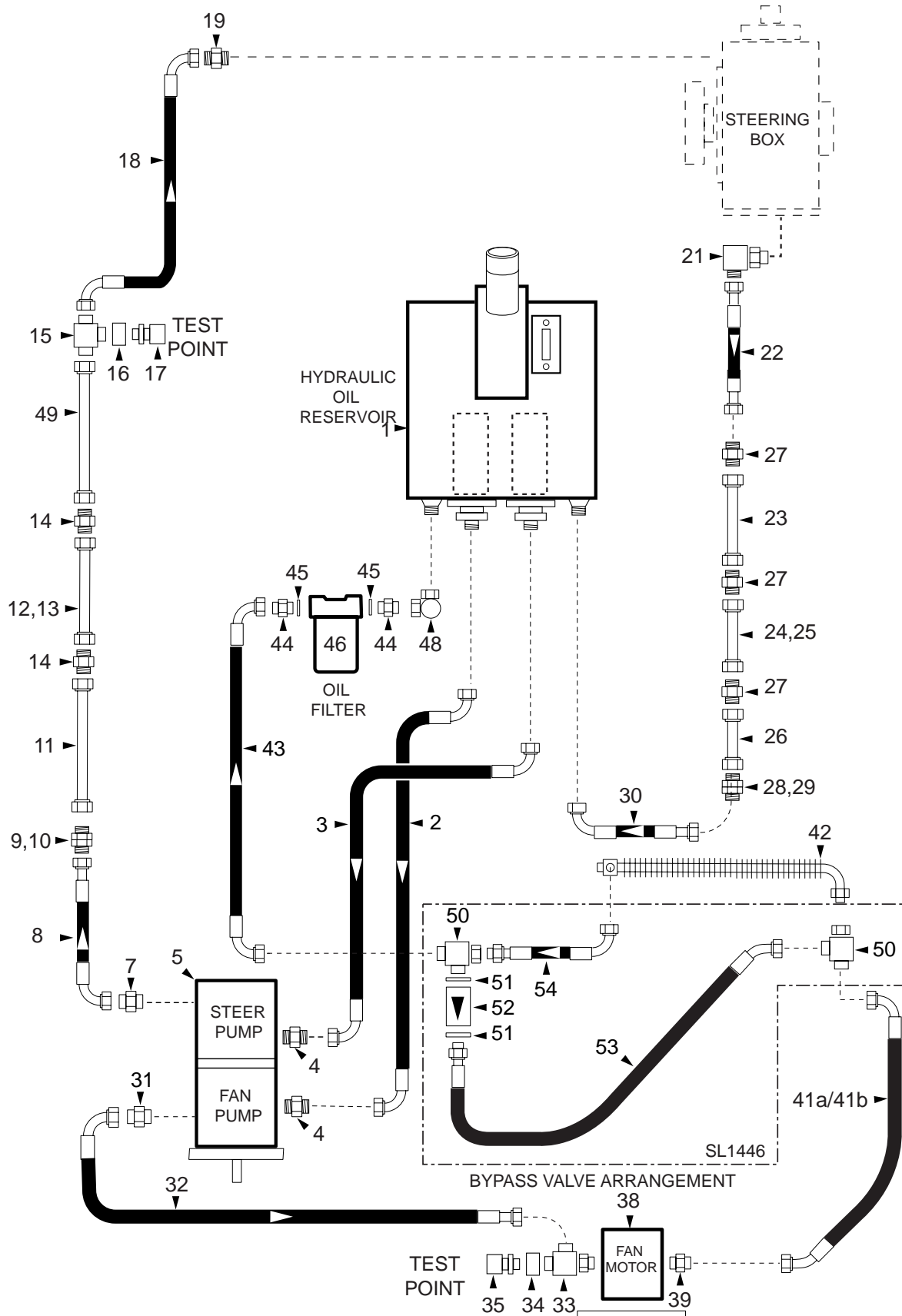


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞ 1	Accumulator	1	658233-4	
2	Elbow	3	654919-1	
3	Pressure reducing valve	1	653709-1	
4	Tee piece	1	655007	
	Adaptor	1	654938	
5	Connector	1	654921-1	
6	Adaptor	1	654936	
7	Adaptor	1	654909-5	
☞ 8	Solenoid valve	1	653709-2	
9	Pressure switch	1	651480-7	
10	Adaptor	1	418461	
11	Tee piece	1	654937	
12	Pipe assembly	1	423822	
13	Footbrake valve - ZF (See braking system)	1	657186	
14	Connector	1	654919-1	
15	Elbow	1	654921-1	
	Pipe-Nylon - 10mm O/D	15m	654992	

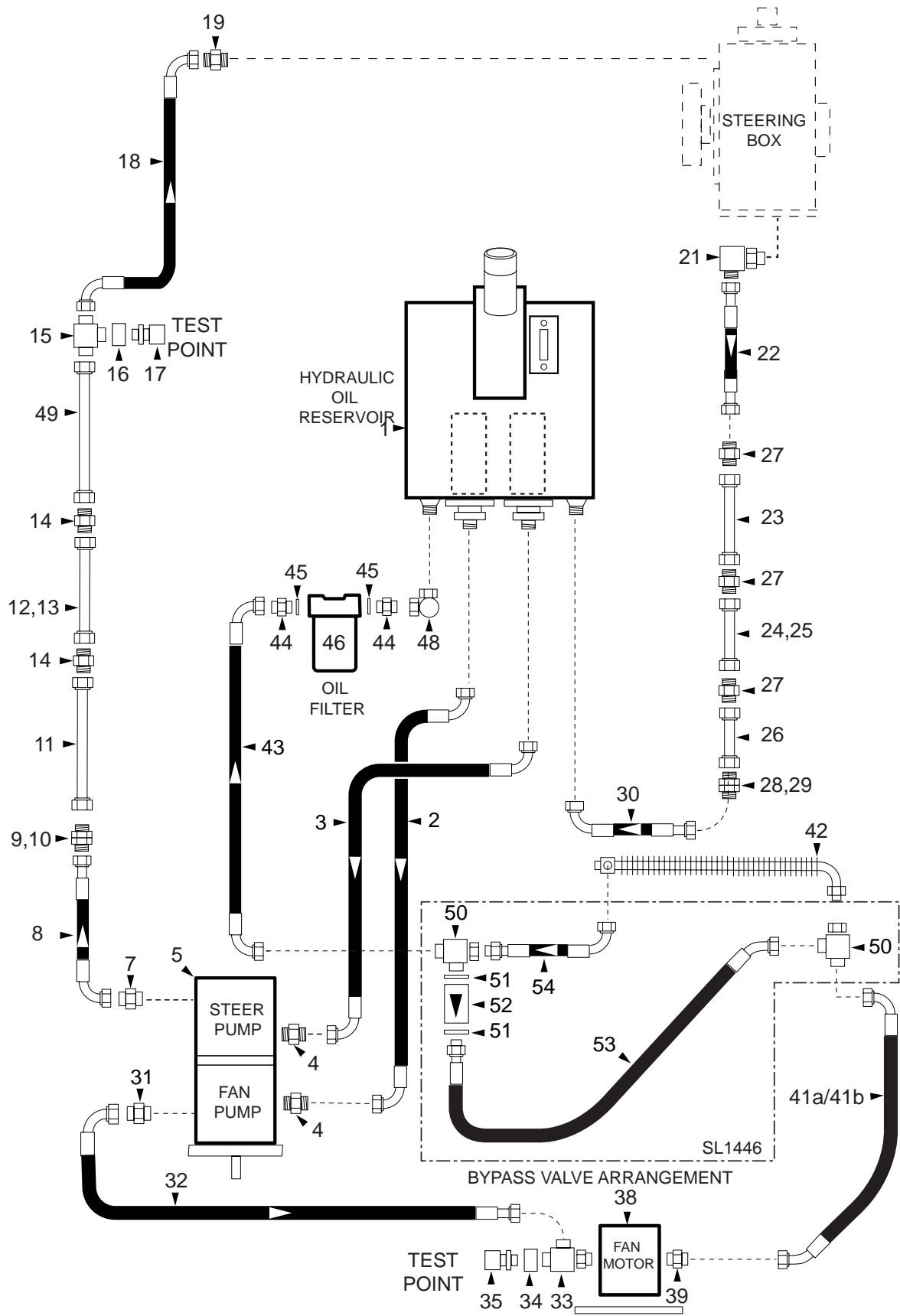
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SECTION 8.1

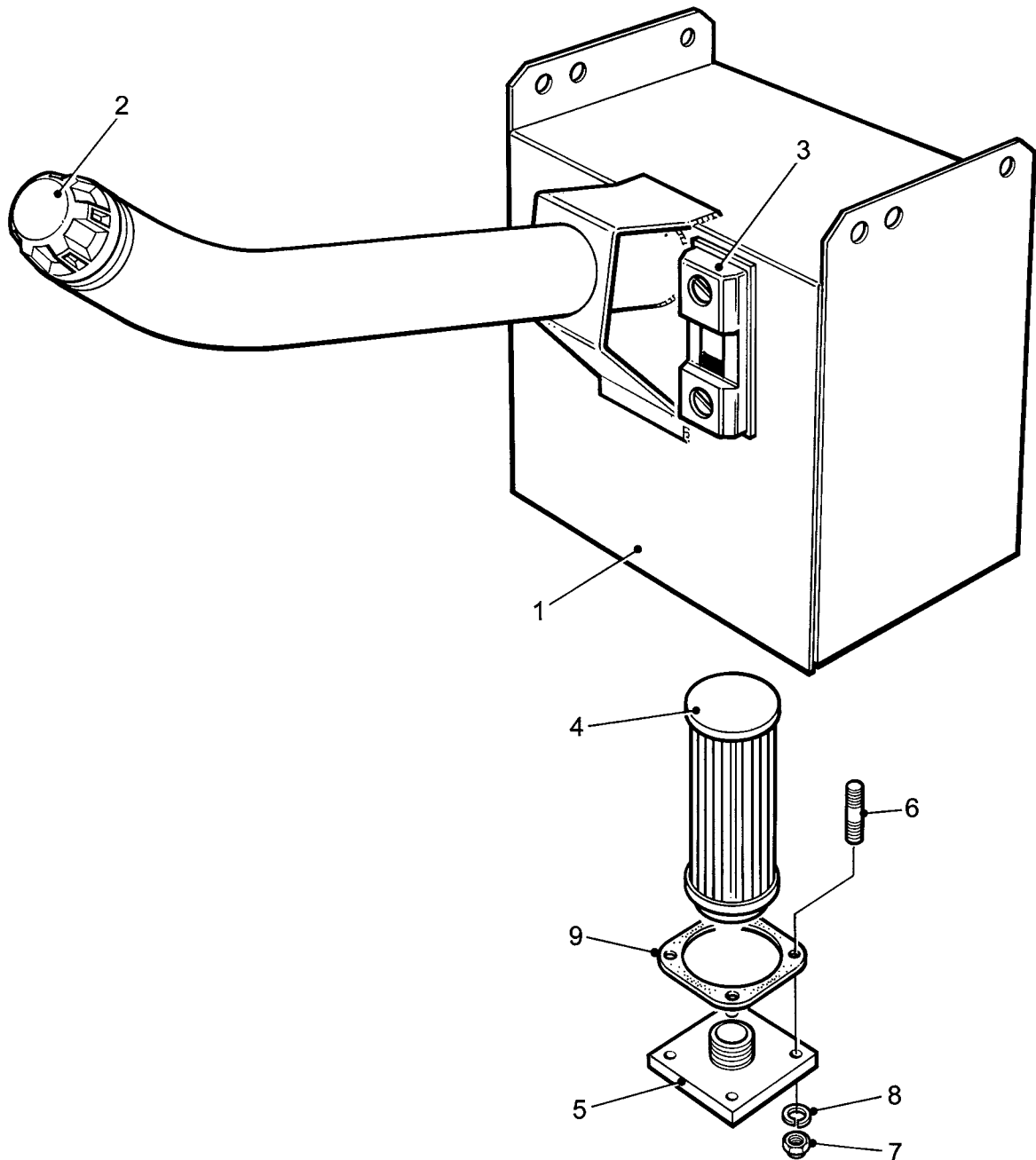
Hydraulic system	Page	8.1.2 - 5
Hydraulic reservoir	Page	8.1.6 - 7
Fan motor & carrier assembly	Page	8.1.8 - 9



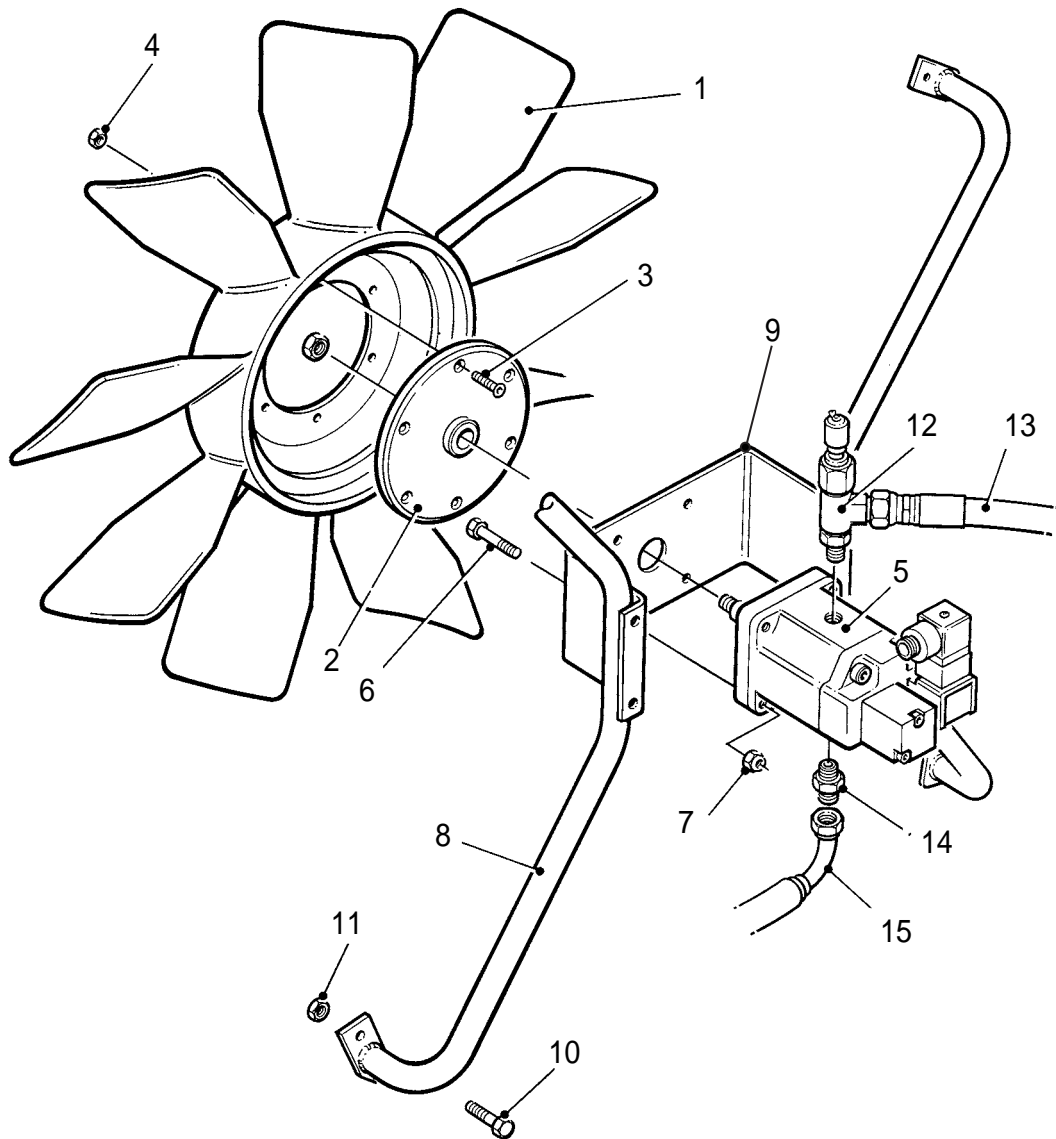
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Hydraulic oil reservoir (see separate list)	1	423446	
2	Hose assembly - reservoir to fan pump	1	422377	
3	Hose assembly - reservoir to steering pump	1	422376	
4	Connector	2	656251-3	
5	Tandem pump	1	657461	
	Kit - tandem pump	1	657461-1	
	Gasket - pump to compressor	1	658063	
6	Screw - tandem pump mounting	2	655145	
7	Adaptor - steering pump outlet	1	653810	
8	Hose assembly - pump to bulkhead	1	422379	
9	Bulkhead connector	1	654957-1	
10	Locknut	1	654958-1	
11	Pipe assembly - rear	1	422383	
12	Pipe assembly - mid (9.9m chassis)	1	422385	H1510A
13a	Pipe assembly - mid (10.40m chassis)	1	424583	H1510C
13b	Pipe assembly - mid (10.55m chassis)	1	426612	H1510D
13c	Pipe assembly - mid (11.40 m chassis)	1	429934	H1510E
14	Adaptor	2	654955-1	
15	Tee piece	1	654956	
16	Adaptor	1	654945	
17	Test point	1	656394	
18	Hose assembly - tee to steering gear	1	422380	
19	Adaptor	1	654959	
20	Steering gear (See steering section)	1	-	
21	Elbow - steering gear outlet	1	654933-5	
22	Hose assembly - elbow to pipe	1	422381	
23	Pipe assembly - front	1	422387	
24	Pipe assembly - mid (9.9m chassis)	1	422388	H1510A
25a	Pipe assembly - mid (10.40m chassis)	1	424584	H1510C
25b	Pipe assembly - mid (10.55m chassis)	1	426613	H1510D
25c	Pipe assembly - mid (11.40m chassis)	1	429935	H1510E
26	Pipe assembly - rear	1	422390	
27	Adaptor	3	654955-2	
28	Bulkhead connector	1	654957-2	
29	Locknut	1	654958-2	
30	Hose assembly - reservoir return		422382	
31	Adaptor - fan pump outlet	1	657097	
32	Hose assembly - pump to tee	1	425490	
33	Tee	1	656611-1	
34	Union	1	654945	
35	Test point	1	656394	
36	-			
37	-			



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
38	Fan motor	1	655597	
	Seal kit	1	655536-1	
	Solenoid valve	1	655109-2	
39	Adaptor - pump outlet	1	657098	
40	-			
41a	Hose assembly - pipe to oil cooler (Used on and up to Chassis No 0905)	1	425491	
41b	Hose assembly - pipe to oil cooler (Used on and after Chassis No 0906)	1	430915	
42a	Oil cooler (Used on and up to Chassis No 0905)	1	-	See Note 1
42b	Oil cooler (Used on and after Chassis No 0906)	1	426463	
43	Hose assembly - oil cooler to filter	1	425492	
44	Adaptor	2	606122	
45	Seal	2	603680	
46	Filter assembly	1	656730	
47	Element - filter	1	656730-1	
48	Elbow	1	651322	
49	Pipe assembly - front feed	1	422386	
	For vehicles fitted with oil cooler 428035-1 (Used on and up to Chassis No 0905)			SL1446
50	Tee piece	2	659041	
51	Seal	2	603680	
52	Check valve	1	659042	
53	Hose assembly - valve to tee	1	430914	
54	Hose assembly - tee to cooler	1	430913	
	Note1 Vehicles that are fitted with the earlier oil cooler up to Chassis No 905 will have a bypass valve fitted (SL1446) If a spare cooler is required for a Vehicle up to Chassis 0905, Part No 426463 will be supplied.			



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Hydraulic oil reservoir assembly	1	423446	
1	Hydraulic oil tank	1	424103	
2	Filler/breather unit c/w screw	1	660344	
3	Sight gauge	1	650164	10Nm
☞	Seals - sight glass	1	650164-1	
4	Filter - suction	2	650031	
5	Adaptor - suction filter	2	420554	
6	Stud	8	401586-1	
7	Nut	8	MCN 208P	
8	Washer - spring	8	WMC 8SP	
9	Gasket - suction filter adaptor	2	400197	
☞	Label - "Hydraulic oil only" - filler neck - screw on	1	427975	
☞	Label - "Hydraulic oil only" - stick on	1	242814	
	OIL GRADE - DEXRON III			

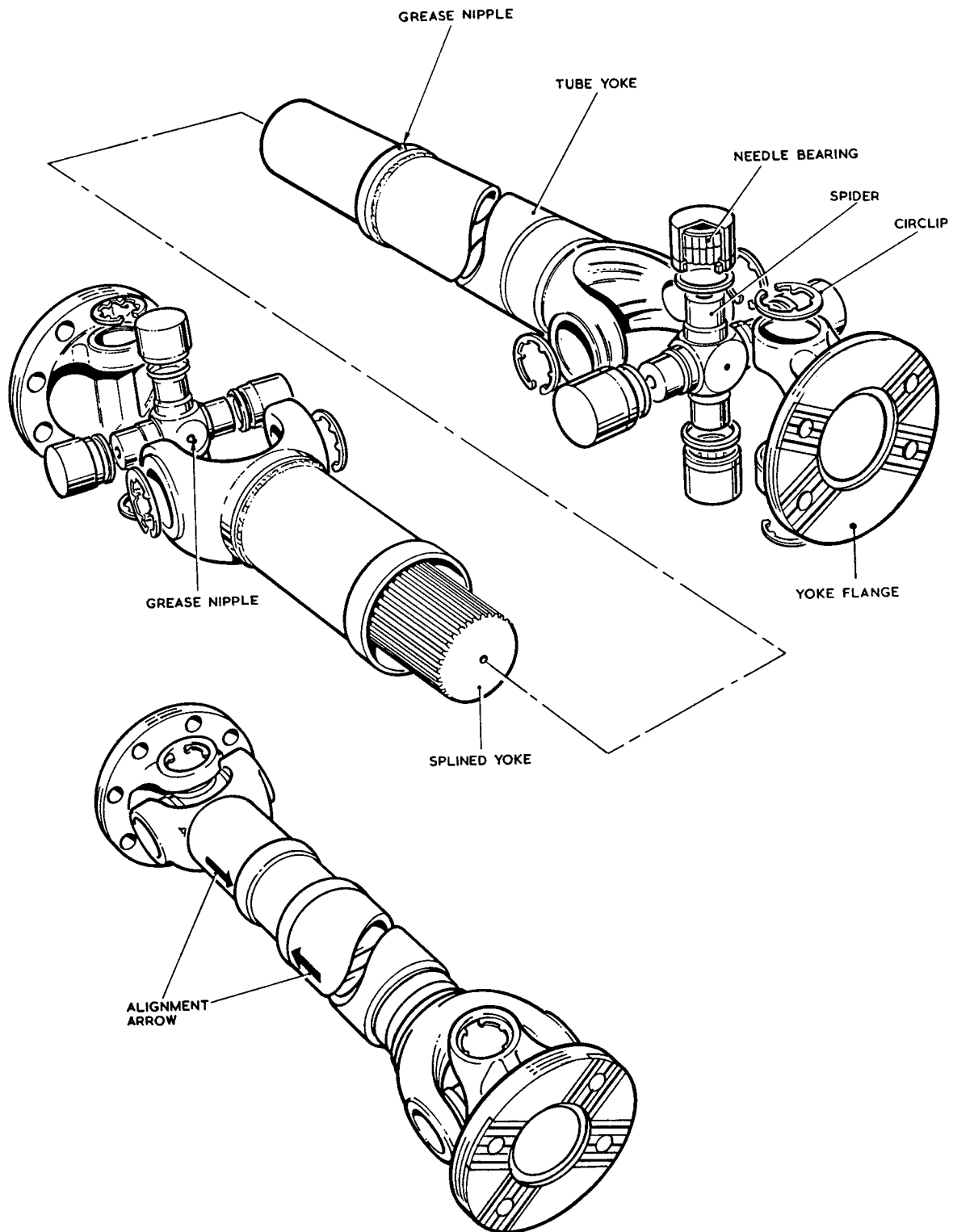


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Fan blade	1	656756	
2	Flange - fan blade to motor	1	406935	
3	Screw - csk - socket head	6	MCS 3408 25P	
4	Nut - self locking	6	MCN 708P	
5	Fan motor	1	655597	
☞	Seal kit	1	655536-1	
	Solenoid valve	1	655109-2	
☞	Nut - fan motor	1	650155-15	
☞	Washer - fan motor nut	1	650155-13	
6	Bolt	4	MCB 108 35P	
7	Nut - self locking	4	MCN 708P	
☞	Fan carrier mounting arm	2	425472-4	
☞	Fan carrier - top hat	1	425472-12	
10	Bolt - arm to carrier / arm to cowl	8	MCB 108 25P	
11	Nut - self locking	8	MCN 708P	
12	Tee piece-inlet	1	656611-1	
	Reducer	1	654945	
	Test point	1	656394	
13	Hose assembly - tee to motor	1	425490	
14	Connector - outlet	1	657098	
15	Hose assembly - motor to hose	1	425491	

DENNIS

SECTION 8.2

Drive ShaftPage 8.1.2 - 3



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Drive shaft - Voith	1	657056-1	P1510A-Voith
	Bolt	8	10 MFB 112 50	130-144Nm
	Nut	8	10 MFN 712P	
	Bearing kit	2	654309-1	
2	Drive shaft - ZF	1	657056-2	P1510B-ZF
	Bolt - axle	4	10 MFB 112 50	130-144Nm
	Nut - axle	4	10 MFN 712	
	Bolt - gearbox	4	Gearbox supply	
	Nut - gearbox	4	653696-1	M12 x 1.5
	Bearing kit	2	654309-1	
	GREASE NIPPLE KIT		SL1455	
	Greaser - M8 - UJ	2	653143	
	Greaser - M10 - splined sleeve - Button head	1	659051	
	Greaser - 90 degrees	1	612222-5	

DENNIS

SECTION 9.1

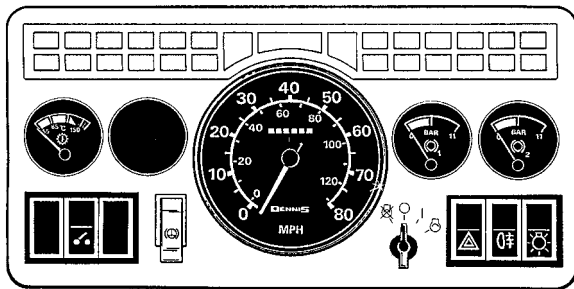
Speedometer	Page	9.1.2 - 3
Instrument Panel Spares	Page	9.1.4 - 5

SPEEDOMETER/TACHOGRAPH

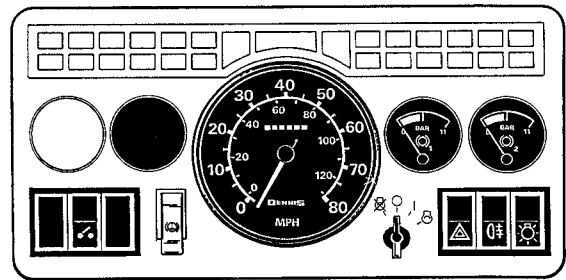
PARTS MANUAL

AMENDED:030801

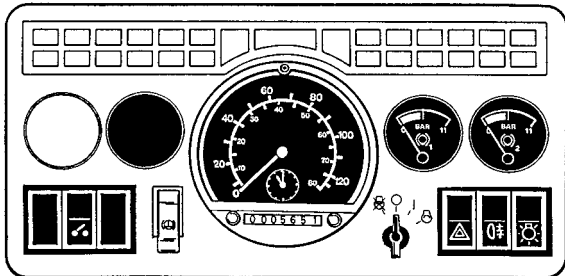
UNIT NO: S1510A & B / TG1510A & B



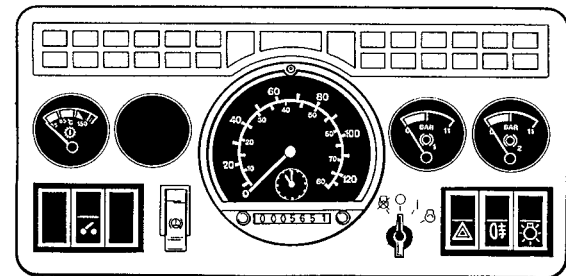
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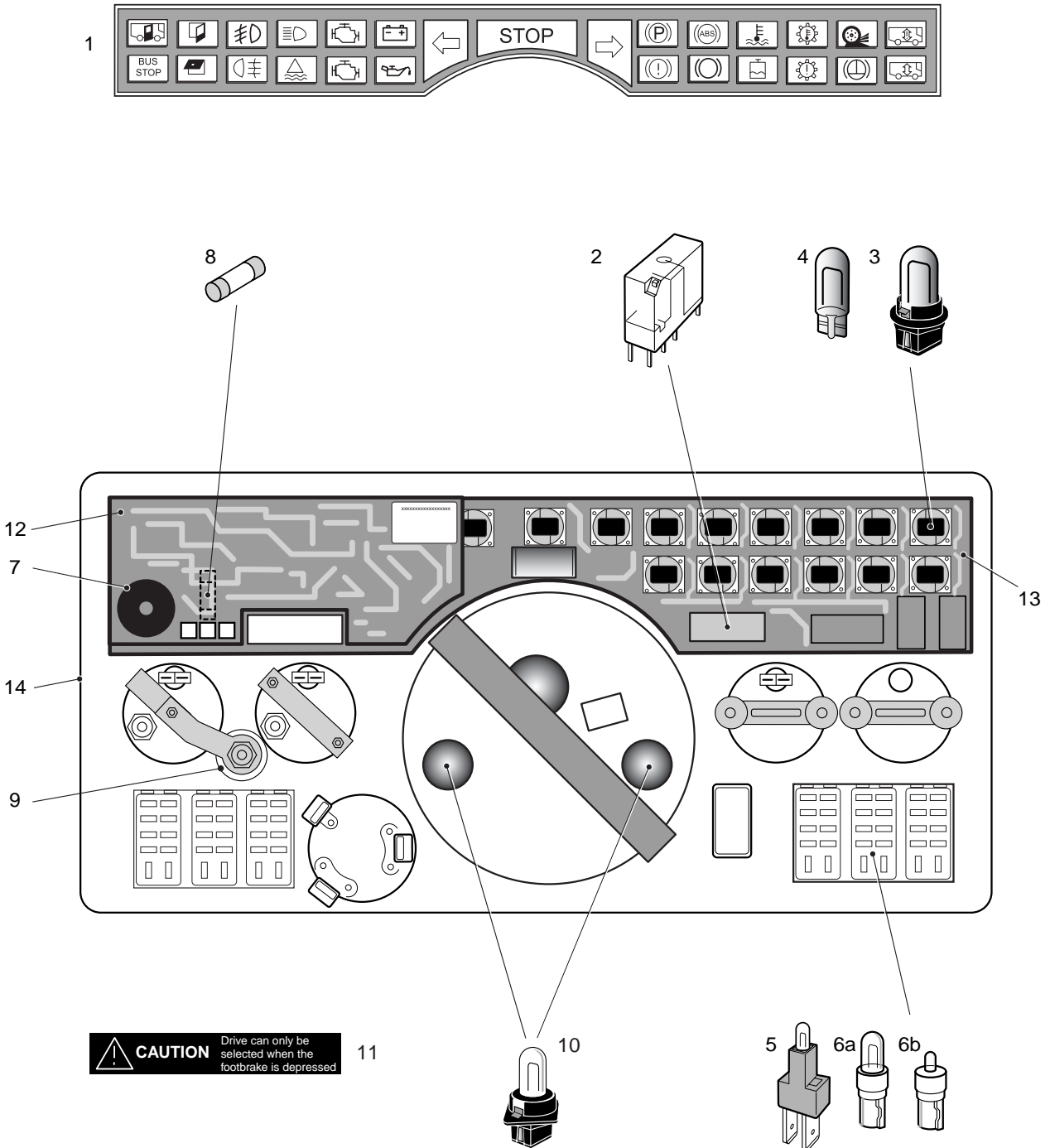
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8

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Instrument panel assy - speedo mph + temp gauge	1	657380-9	S1510A - ZF
☞	Speedometer - digital odometer - mph	1	658178	
	Sender	1	652033	
	Cable - armoured	1	656229	
	Drive gear adaptor - gearbox	1	653553	
	Earth link assembly	1	422363	
2	Instrument panel assy - speedo mph	1	657380-10	S1510B - Voith
☞	Speedometer - digital odometer - mph	1	658178	
	Sender	1	652033	
	Cable - armoured	1	656229	
	Drive gear adaptor - gearbox	1	653553	
	Earth link assembly	1	422363	
3	Instrument panel assy - Tachograph	1	657380-16	TG1510A - Voith
	Tachograph - Veeder Root	1	656253	
	Sender	1	652033	
	Cable armoured	1	656229	
	Earth link assembly	1	422363	
4	Instrument panel assy - Tachograph	1	657380-17	TG1510B - ZF
	Tachograph - Veeder Root	1	656253	
	Sender	1	652033	
	Cable armoured	1	656229	
	Earth - link assembly	1	422363	
☞	Connector - speedometer cable	1	654378	
☞	Pin - connector	A/R	655229-2	
	FOR INSTRUMENT PANEL SPARES SEE NEXT PAGE			



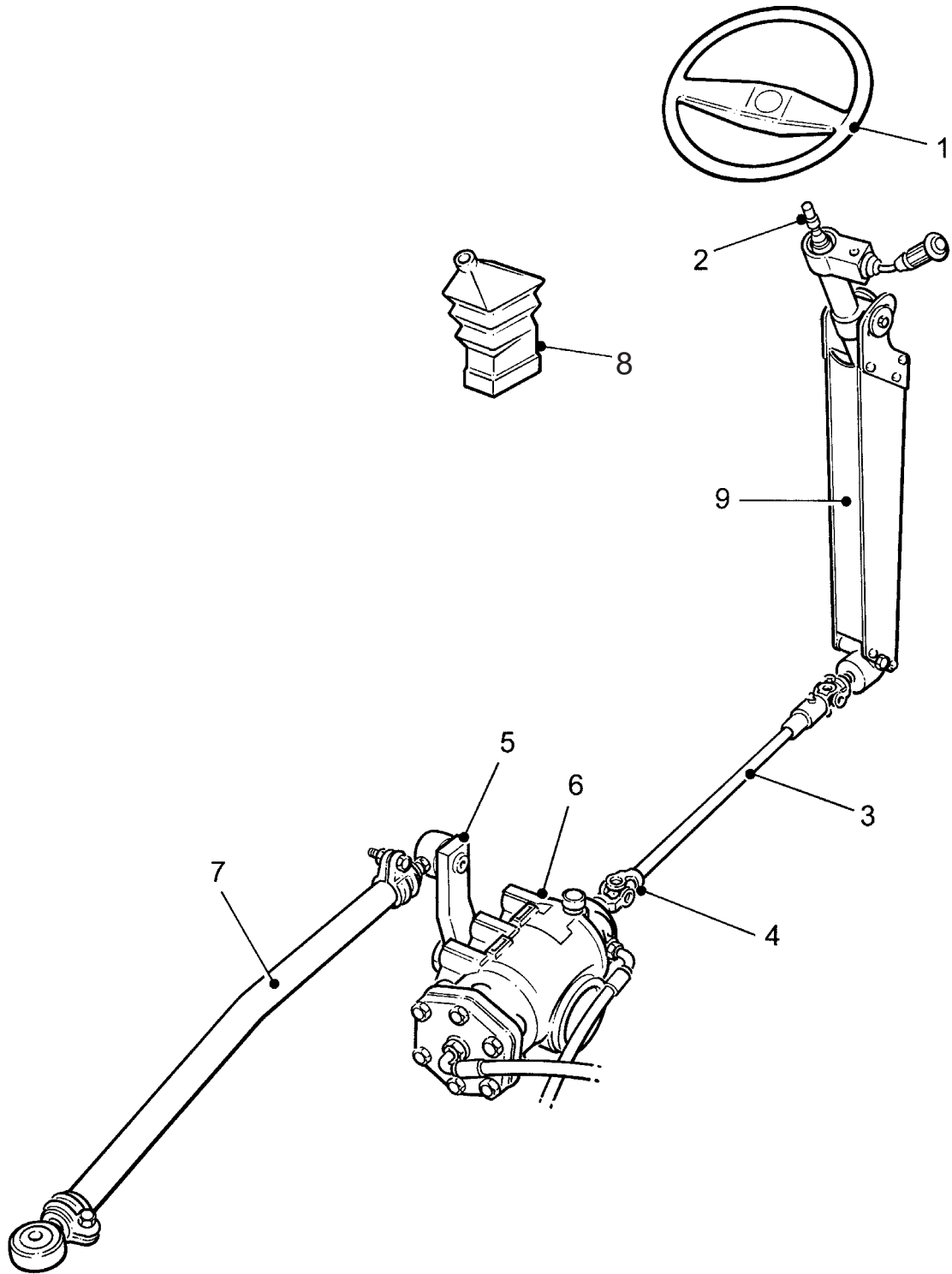
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	INSTRUMENT PANEL SPARES			
1a	Mask - warning light module	1	656451	
2	Relay - bulb test - sealed	1	660400	
	Base - relay - warning light module	1	656128-2	
3	Holder - warning lamp - c/w holder	A/R	656442	
4	Bulb - warning lamp/air gauges - 3w	2	656444	
5	Holder - switch - c/w holder	A/R	660406	
6a	Bulb - switch	A/R	660404	
6b	LED - switch (Alternative)	A/R	660405	
7	Buzzer	1	656449	
8	Fuse - warning light circuit board	1	656450	
9	Pressure switch assembly - c/w bracket	1	656447	
	Pressure switch - handbrake	1	656128-3	
10	Bulb holder - speedometer	2	658178-2	
	Bulb - speedometer	2	656443	
11	Label - interlock - (footbrake only)	1	427926	
12a	Daughter P.C.B.	1	659291	S1510A
12b	Daughter P.C.B.	1	659292	S1510B
13	Main P.C.B - warning lights	1	659285	TG/S1510A&B
14	Instrument Panel	1	ZZ11308	
NI	Resistor - oil pressure warning light	1	659687	SL1586
NI	Harness - panel	1	656446	
NI	Harness - interconnection	1	656448	
	NI = Not Illustrated			

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SECTION 9.2

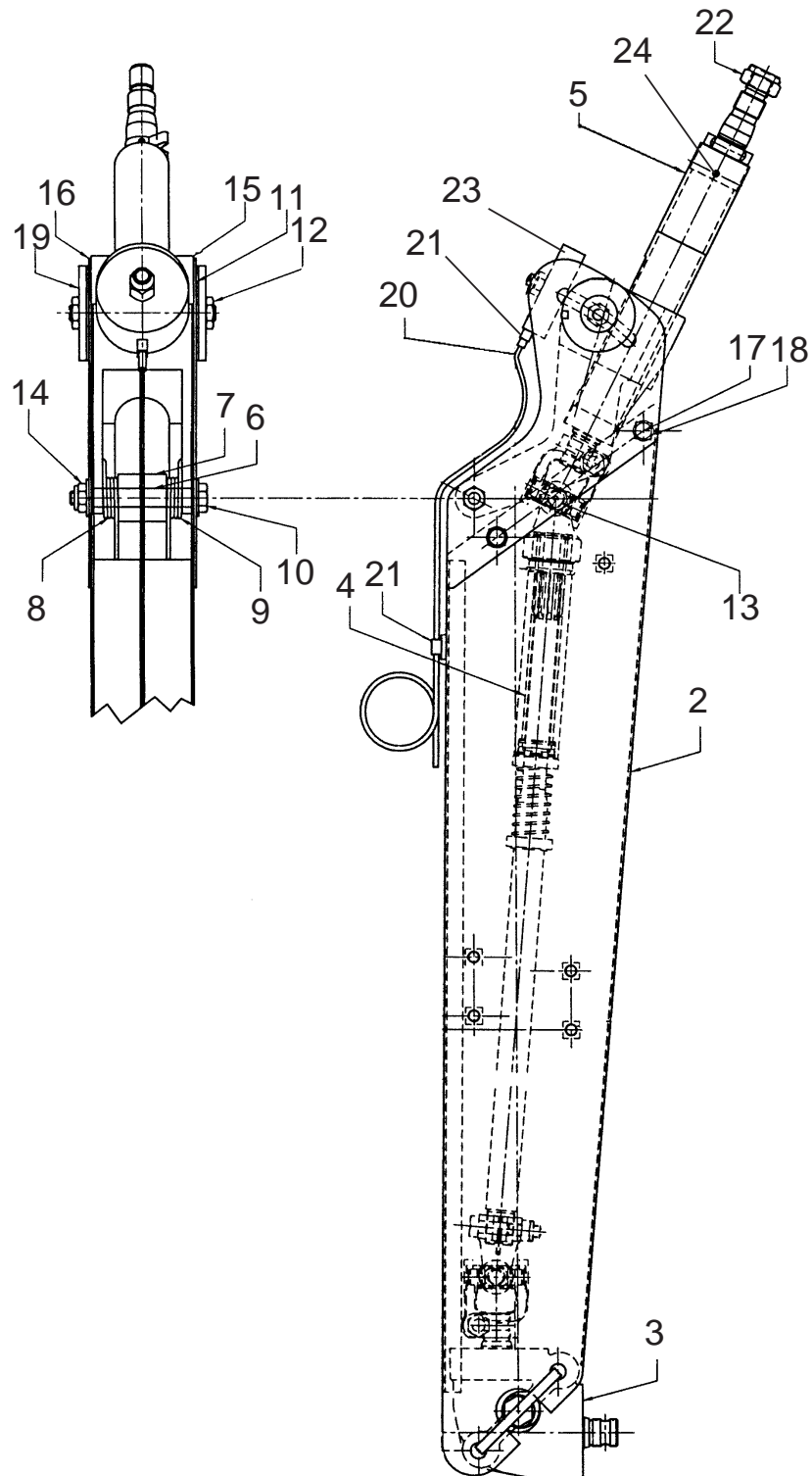
Steering gear	Page	9.1.2 - 3
Steering column	Page	9.1.5 - 7
Steering column adjustment air diagram	Page	9.1.8 - 9

FOR STEERING DAMPER SEE FRONT AXLE SECTION

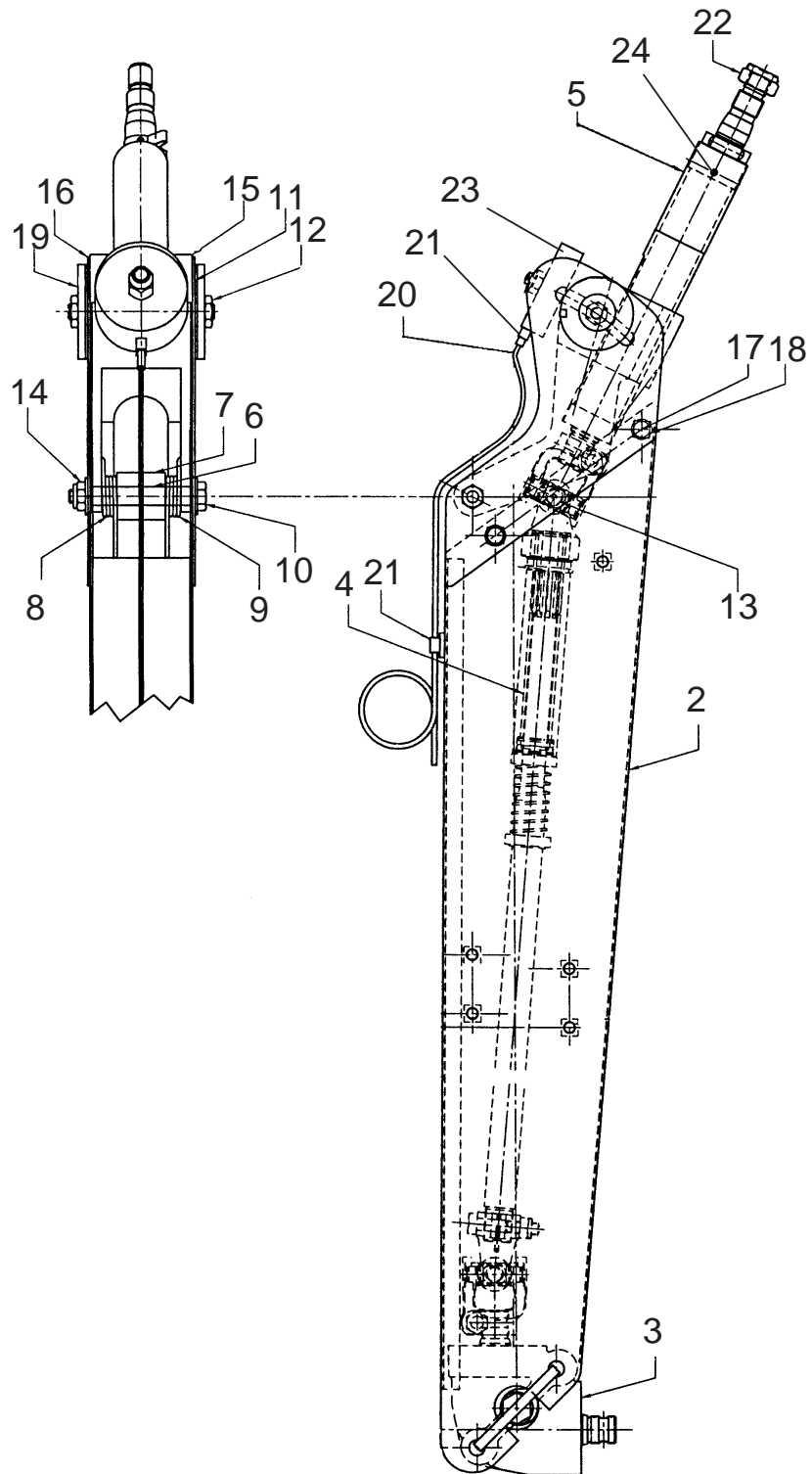


AMENDED:250407

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
☞ 1a	Steering wheel - Used on & up to Chassis No 1733	1	652870	
	Steering wheel hub moulding	1	411851	
☞ 1b	Steering wheel - Used on & after Chassis No 1734	1	4274830	
☞	Badge - steering wheel	1	411851	
2	Column nut - self locking	1	657115-14	
3	Steering shaft	1	412555-5	
4	Universal joint	1	611511	
	Bolt - special	3	400546	57Nm
	Nut - slotted	3	MCN 410P	further tighten
	Split pin	3	SP5 14ST	to align split pin
5	Drop arm	1	422673	
☞	Nut - drop arm	1	654660-1	
6	Steering box	1	657402	
☞	Seal - input	1	653501-3	
☞	Hydraulic limiters	A/R	656602	
	Bolt - special	4	408440-5	543-577 Nm
	Bolt - forged	1	421387	543-577 Nm
	Washer - spring	4	WMC 20SP	
7	Drag link	1	419801	210-230 Nm
	Ball joint	2	656692-1	
	Tube and clamp assembly	1	656692-2	
	Bolt	2	656692-4	70 - 80 Nm
	Nut	2	656692-3	
8	Shroud - steering column - (outside harness)	1	427096	
	Column bracket	1	427092	SL1178
	Clip - column bracket	1	427093	
	Screw	2	MCS 105 15P	
	Nut	2	MCN 705P	
	Bracket - harness guide	1	427095	
	Screw	1	MCS 108 15P	
	Washer	1	WMA 8SP	
	Steering column clamp assembly			
☞	<i>Use with switch 423233 & 657637</i>	1	427585	
☞	Steering column clamp assembly			
☞	<i>Use with switch 657886 & 656700 & 658812</i>	1	427853	
	Setscrew	2	MCS 105 16P	
9	Steering column - adjustable (see separate list)	1	-	
	Collar - steering column	1	429297	
	Bolt	2	MCB 112 120P	
	Nut	2	MCN 712P	
	Washer - plain	4	658136	
	Washer - spring	4	WMC 8SP	
	"Penny" washer	8	652361	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Used on & up to Chassis No 1298			
1	Steering column - adjustable	1	657115	
2	Column body assembly	1	657115-1	
☞	Kit - comprising items *	1	657115-22	
3	Bevel box assembly	1	657115-2	
4	Slider assembly	1	657115-3	
5	Column and clamp assembly	1	657115-4	
☞	Bushes - top and bottom	1	650495-4	
☞ *6	Spring support spacer	1	657115-5	
7	Spring support bush	1	657115-6	
☞ *8	R.H Spring	1	658092-6	
☞ *9	L.H Spring	1	658092-7	
☞*10	Bolt 1	2	657115-9	
☞*11	Bonded rubber washer	2	657115-10	
12	Nut	2	657115-11	
13	Patched bolt	1	657115-12	
14	Nut	1	657115-13	
15	RH End bracket	1	657115-15	
16	L.H End bracket	1	657115-16	
17	Washer	4	657115-17	
18	Screw	4	657115-18	
19	Aluminium washer	2	657115-19	
20	Tube - nylon	1m	657115-20	
☞ 21	Fitting - air pipe -chrome	1	657115-21	
22	Column nut - self locking	1	657115-14	
23	Air pack - sub assembly	1	657115-24	
24	Cancel cam clip	1	659143-4	

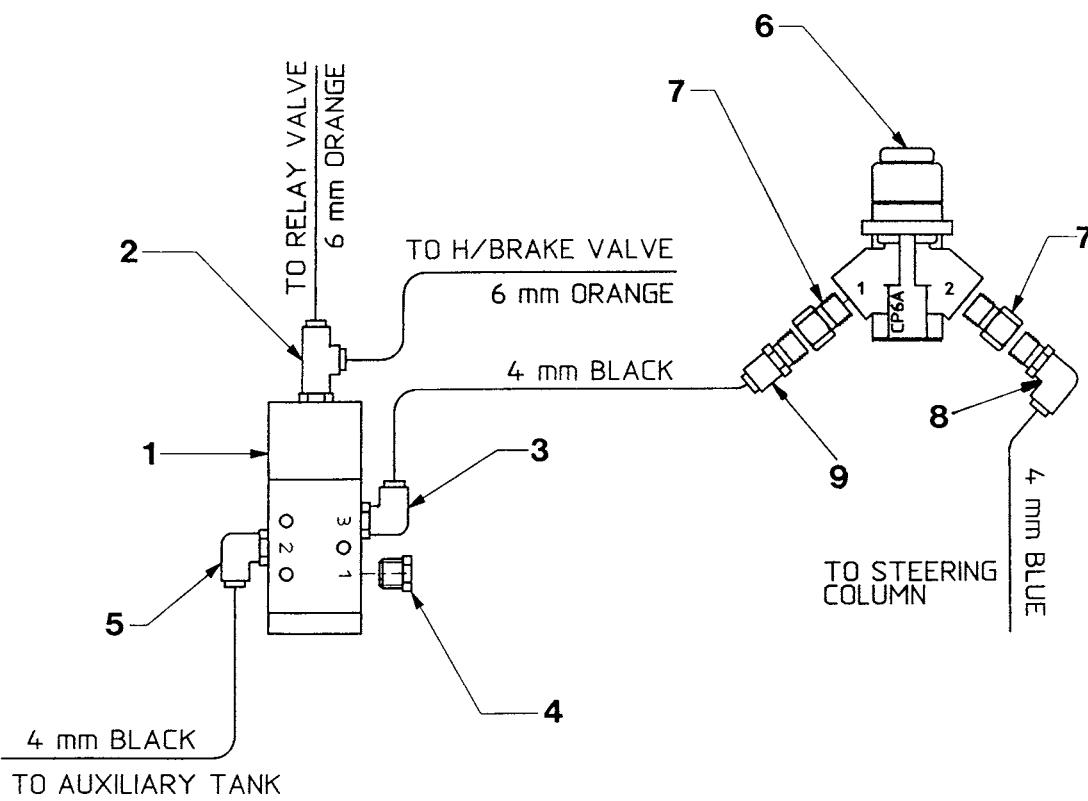


ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	Used on & after Chassis No 1299			
1	Steering column (air adjustable)	1	658092	
2	Column body assembly	1	658092-1	
3	Bevel box assembly	1	657115-2	
4	Slider assembly	1	658092-3	
5	Column and clamp	1	658092-4	
☞	Bushes - top and bottom	1	650495-4	
6	Not used on this application	-	-	
7	Spring support bush	1	657115-6	
8	R.H spring	1	658092-6	
9	L.H spring	1	658092-7	
10	Bolt	1	658092-8	
11	Bonded rubber washer	1	658092-9	
12	Nut - patched bolt	1	657115-11	
13	Bolt - patched	1	657115-12	
14	Nut	1	657115-13	
15	R.H end bracket	1	657115-15	
16	L.H end bracket	1	657115-15	
17	Washer	1	657115-17	
18	Screw	1	657115-18	
19	Aluminium washer	1	658092-9	
20	Tube - nylon	1	657115-20	
☞ 21	Fitting - air pipe -chrome	1	658092-2	
22	Column nut - self locking	1	657115-14	
☞ 23	Air pack - sub assembly	1	657115-24	
☞ 24	Cancel cam clip	1	659143-4	

STEERING COLUMN ADJUSTMENT PARTS MANUAL

AMENDED:

UNIT NO:SG1510A&B



PARTS MANUAL STEERING COLUMN ADJUSTMENT

AMENDED:250407

UNIT NO:SG1510A&B

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Pilot valve	1	654201	
2	Tee piece	1	657423-1	
3	Elbow	1	654947-4	
4	Plug	1	657425	
5	Elbow		654947-4	
6	Valve - foot button	1	657404	
7	Adaptor	2	654926	
8	Elbow	1	654947-4	
9	Connector	1	657424-1	

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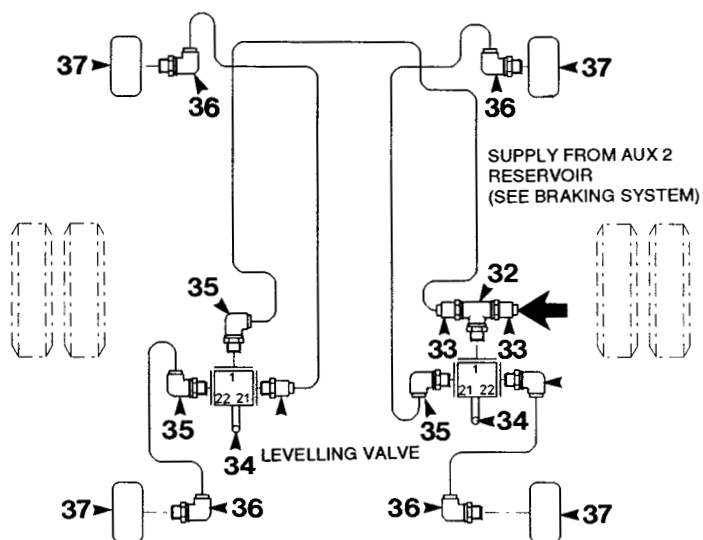
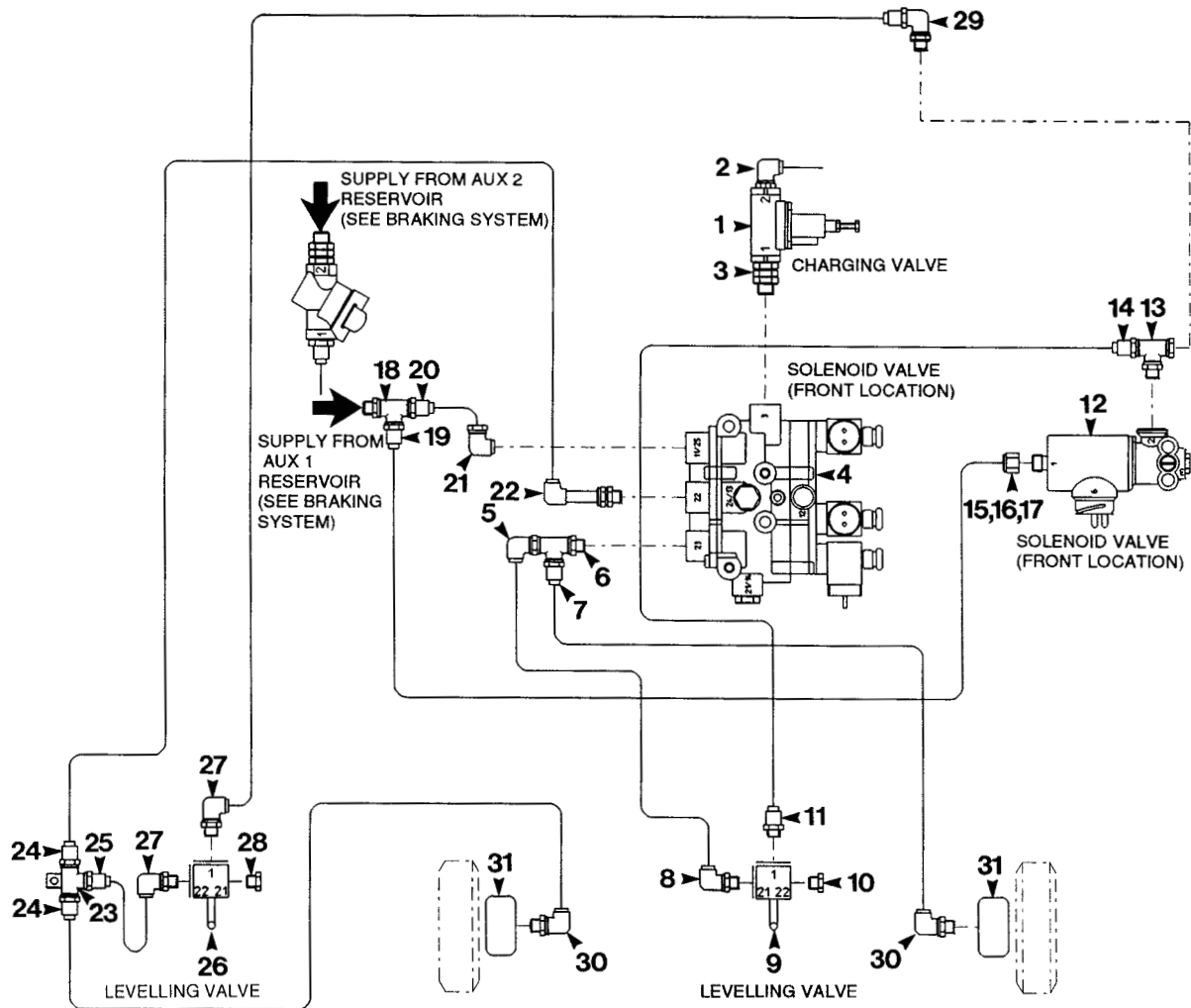
SECTION 10.1

Air suspension system - front kneelPage	10.1.2 - 3
Air suspension system - full kneelPage	10.1.4 - 5
Front air suspension . . . . .	.Page	10.1.6 - 7
Rear air suspension . . . . .	.Page	10.1.8 - 9
Air spring assemblies . . . . .	.Page	10.1.10 - 11
☞ Levelling valve linkage . . . . .	.Page	10.1.12

AIR SUSPENSION - FRONT KNEEL PARTS MANUAL

AMENDED:

UNIT NO:SS1510A&C



PARTS MANUAL AIR SUSPENSION - FRONT KNEEL

AMENDED:250407

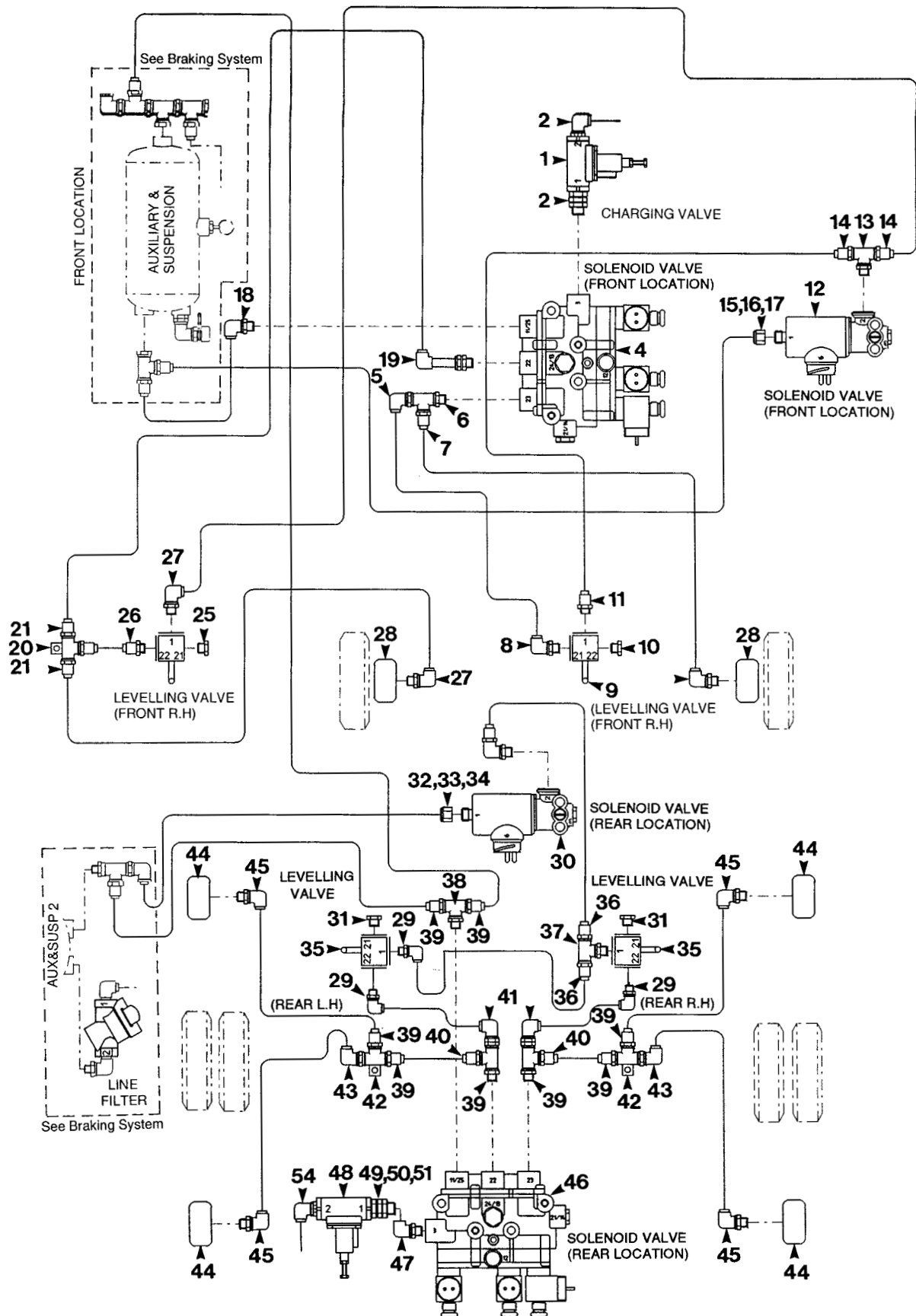
UNIT NO:SS1510A&C

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Charging valve	1	655711	
2	Elbow	1	654919-4	
3	Connector	1	657217	
4	Solenoid valve	1	656606	
5	Tee piece	1	654923-2	
6	Elbow	1	654919-8	
7	Connector	1	654921 -4	
8	Elbow	1	654919-5	
9	Levelling valve	1	655687	
10	Plug	1	612565	
11	Connector	1	654921-8	
12	Solenoid	1	656607	
13	Tee piece	1	655007	
14	Connector	1	654921-8	
15	Nut	1	654339	
16	Olive	1	654340	
17	Sleeve	1	655832-2	
18	Tee piece	1	654923-2	
19	Connector	1	654921-9	
20	Connector	1	654921-4	
21	Elbow	1	654919-4	
22	Elbow - extended	1	654920-2	
23	Tee piece - bracketed	1	654922	
24	Connector	2	654921-4	
25	Connector	1	654921-9	
26	Levelling valve	1	655687	
27	Elbow	2	654919-5	
28	Plug	1	612565	
28	Washer - aluminium	1	401646	
29	Elbow	1	654919-8	
30	Elbow	2	654919-3	
31	Front air spring (see separate list)	2	656298	
32	Tee piece	1	655007	
33	Connector	2	654921 -8	
34	Levelling valve	2	655687	
35	Elbow	4	654919-5	
36	Elbow	1	654919-8	
37	Air spring - rear	2	657130	

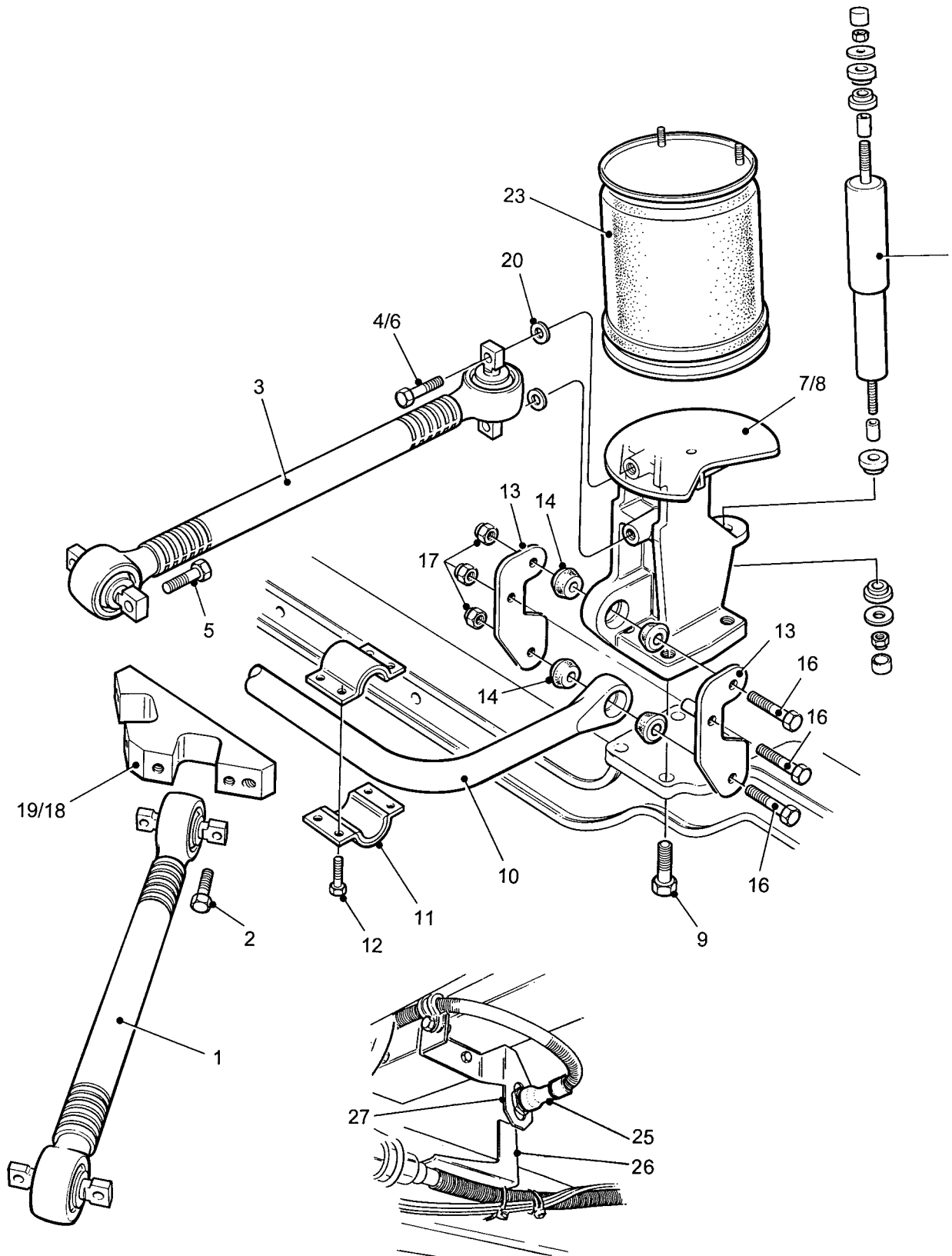
AIR SUSPENSION - FULL KNEEL PARTS MANUAL

AMENDED:080100

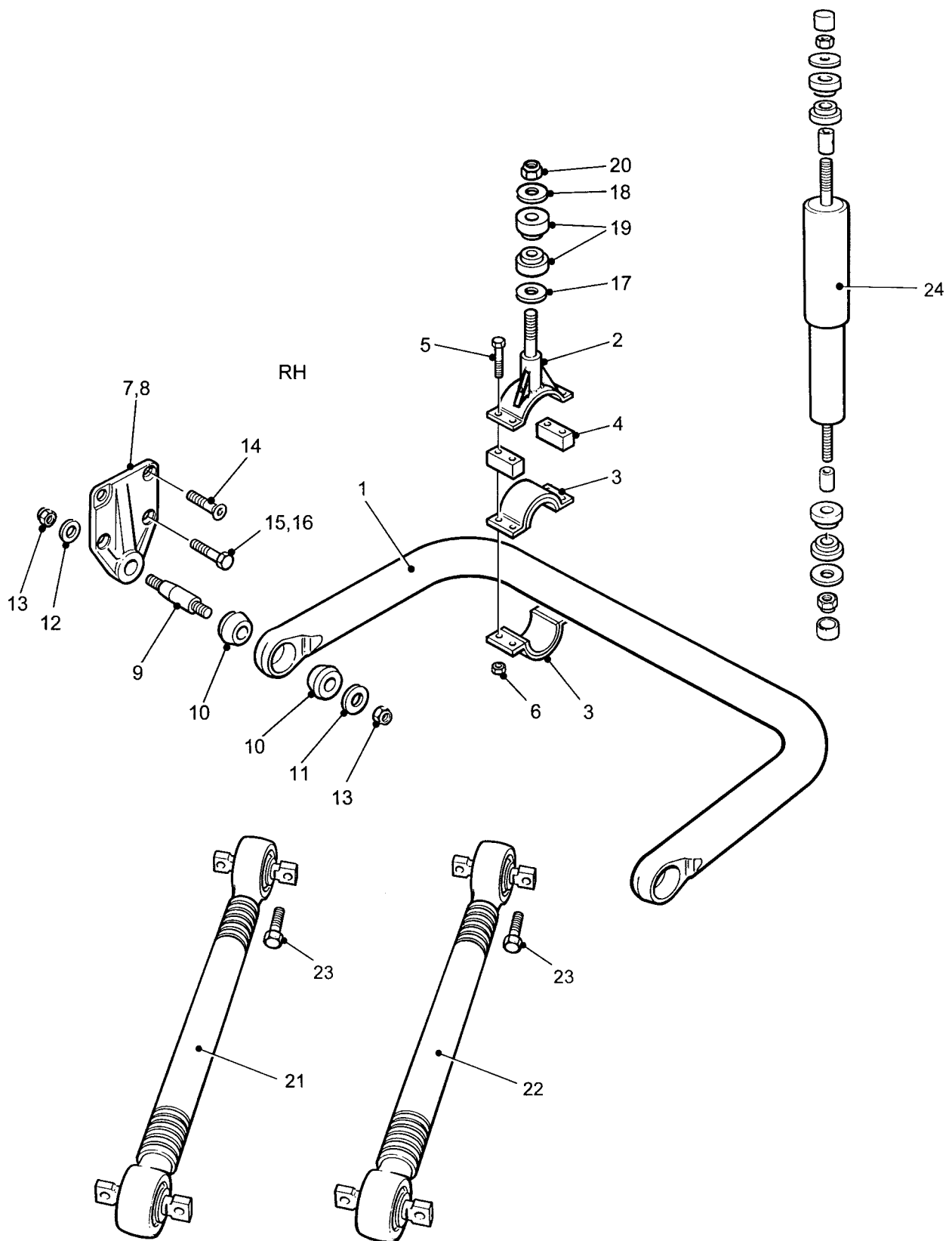
UNIT NO:SS1511A&B



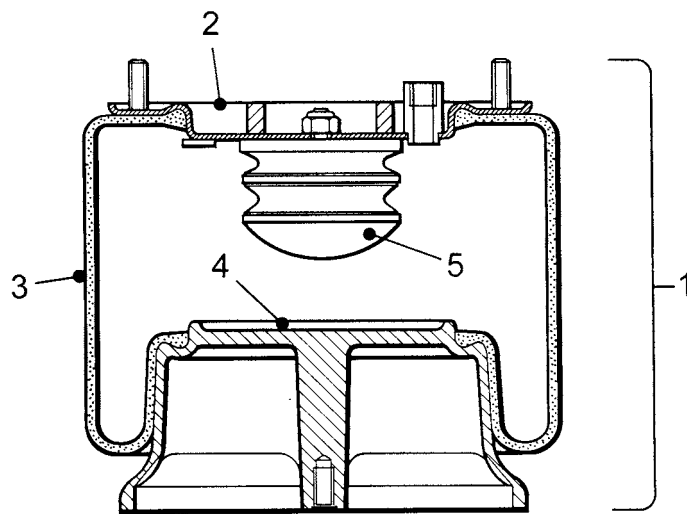
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Charging valve	1	655711	
2	Elbow	1	654919-4	
3	Connector	1	657217	
4	Solenoid valve	1	656606	
5	Tee piece	1	654923-2	
6	Elbow	1	654919-8	
7	Connector	1	654921-4	
8	Elbow	1	654919-5	
9	Levelling valve	1	655687	
10	Plug	1	612565	
11	Connector	2	654921-8	
12	Solenoid	1	656607	
13	Tee piece	1	655007	
14	Connector	2	654921-8	
15	Nut	1	654339	
16	Olive	1	654340	
17	Sleeve	1	655832-2	
18	Elbow	1	654919-4	
19	Elbow - extended	1	654920-2	
20	Tee piece - bracketed	1	654922	
21	Connector	2	654921-4	
22	Connector	1	654921-9	
23	Levelling valve	1	655687	
24	Elbow	2	654919-5	
25	Plug	1	612565	
26	Elbow	1	654919-8	
27	Elbow	2	654919-3	
28	Front air spring assembly (see separate list)	2	656298	
29	Elbow	4	654919-5	
30	Solenoid valve - rear	1	656607	
31	Plug	1	612565	
32	Nut	1	654339	
33	Olive	1	654340	
34	Sleeve	1	655832-2	
35	Levelling valve	2	655687	
36	Connector	2	654921 -8	
37	Tee piece	1	655007	
38	Tee piece	1	654923-2	
39	Connector	2	654921-4	
40	Tee piece	2	655017	
41	Elbow	2	654920-3	
42	Tee piece - bracketed	2	654922	
43	Elbow	2	654919-3	
44	Rear air spring assembly (see separate list)	4	657130	
45	Elbow	4	654919-3	
46	Solenoid valve - rear	1	656606	
47	Elbow	1	654925	
48	Charging valve	1	655711	
49	Washer	1	401646	
50	Reducer	1	655325	
51	Adaptor	1	654931	
52	Line filter	1	655710	
53	Filter - element	1	655710-1	
54	Elbow	1	654919-4	



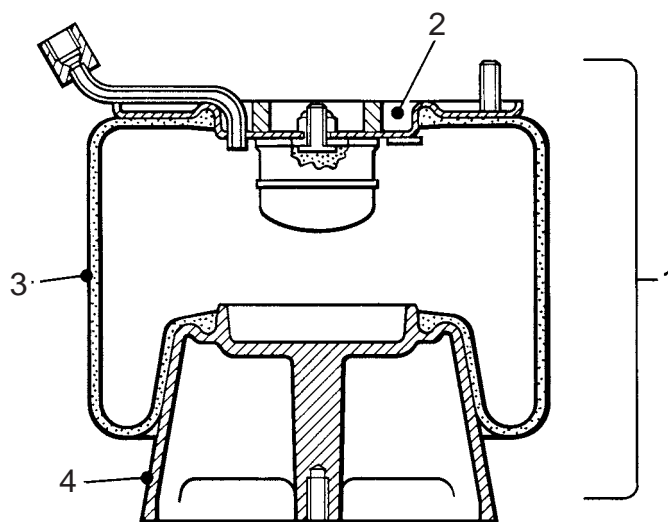
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
	FOR VEHICLES FITTED WITH DRUM BRAKES			SF1510B&C
1	Torque arm - lower	2	419799	
	Repair kit - lower torque arm	4	657691	
2	Bolt	8	10 MCB 118 50	419-451Nm
3	Torque arm - upper - drum brakes	2	419798	
	Repair kit - upper torque arm	4	651697-1	
4	Bolt	4	10 MCB 116 160	297-329Nm
5	Bolt	2	10 MCB 116 55	
	Screw - Cap head	2	10 MCB 116 55	
6	Nut special	4	10 MCN 516P	
7	Tower - LH - drum brakes	1	423419	
8	Tower - RH - drum brakes	1	423420	
9	Screw - special	4	10 MCS 120 45	579-639Nm
	Screw - front and rear inner	2	10 MCS 120 90	579-639 Nm
10	Anti roll bar	1	421588	
11	Bush - Anti roll bar - Ø50mm / rad 25mm	4	434216	Fit as pairs
12	Bolt-bush to frame	8	MCB 112 35P	
13a	Link plate - A.R.B. mounting - bush	2	425531	
13b	Link plate - A.R.B. mounting	2	425529	
14	Mounting rubber	8	436115	
15	-			
16	Bolt	6	10 MCB 116 90	375 Nm
17	Nut	6	10 MCB 516	
18	Block - arm mounting	1	421637	
19	Bolt	4	10 MCB 120 140	579-639Nm
20	Shim - link- top	8	WMA 16SP	
21	-	-	-	
22	Damper - c/w mounting kit	2	657610	DF 1510A
23	Air spring assembly (see separate list)	2	656298	
	Bolt	2	MCB11255P	
	Spring washer	2	WMC12SP	
	Nut	4	MCN 710P	
24	Bracket - jack location	2	432131	
25	Proximity switch	1	657505	Set gap 6.0 - 6.4mm
	Cable proximity switch	1	424998	SL1028
	Washer	4	WMG18SP	
26	Plate - sensor flag	1	421488	
27	Bracket - proximity switch	1	421487	
	Spacer	2	400622-98	
	FOR VEHICLES FITTED WITH DISC BRAKES			SF1511A
	(All other components the same as above)			
3b	Torque arm - upper - disc brakes	2	428111	
7b	Tower- LH - disc brakes	1	427970	
8b	Tower - RH - disc brakes	1	427971	
10b	Anti roll bar - disc brakes	1	428107	



ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Anti roll bar	1	422590	
2	Link - Anti roll bar	2	423725	
3	Bearing - Anti roll bar - $\varnothing 60\text{mm}$ / rad 30mm	4	434214	
4	Spacer - bearing to link	4	423738	
5	Bolt	8	MCB 112 55P	
6	Nut	8	MCN 512P	
7	Mounting bracket - Anti roll bar - RH	1	422608	
8	Mounting bracket - Anti roll bar - LH	1	422607	
9	Pin	2	425375	230-260Nm
10	Mounting rubber - roll bar eye	4	658973	SL1414
11	Washer - inner	2	423615	
12	Washer- outer	2	WMA 16SP	
13	Nut-self locking	4	MCN 516P	
14	Screw- countersunk	2	MCS 3316 30P	295Nm
15	Bolt	2	MC511625P	210Nm
16	Bolt	4	MCS 116 30P	210Nm
	Loctite HO-242 (apply to 14, 15 & 16)	A/R	606152	
17	Washer - bottom	2	426001	
18	Washer - top	2	426000	
19	Mounting rubber - link	4	434947	
20	Nut - self locking	2	MCN 520P	
21	Control arm - lower	2	656995-80	(576mm)
22	Control arm - upper	2	656995-81	(664mm)
23	Bolt - frame	4	10 MCB 118 50	419-451Nm
	Bolt - axle	4	10 MCB 118 50	390 Nm - dry
24	Damper- c/w mounting kit	4	657611	DR1510A



Front Axle



Rear Axle

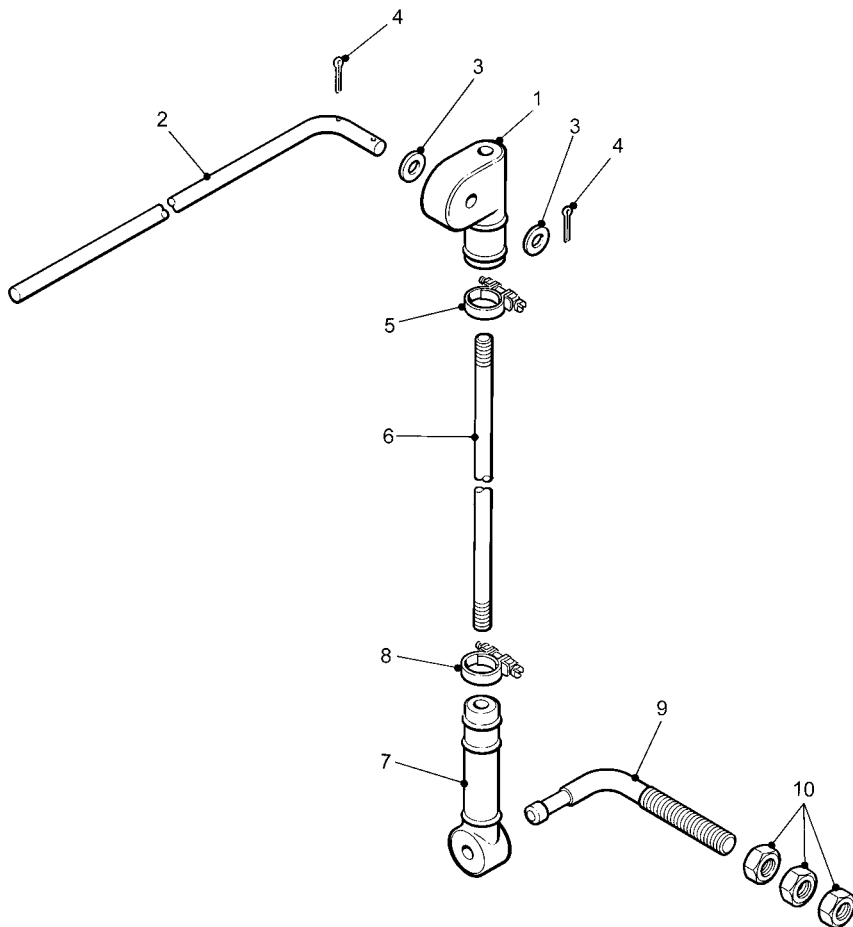
ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
FRONT AXLE AIR SPRING				
1	Air spring assembly - front -	2	656298	
2	Top plate assembly	2	656298-1	17-20Nm
3	Diaphragm	2	656298-2	
4	Piston	2	656298-3	75Nm
5	Bump stop	2	656298-4	
REAR AXLE AIR SPRING				
1	Air spring assembly - rear - LH/RH	2	657130	
2	Top plate assembly	2	657130-1	17-20Nm
3	Diaphragm	2	656299-2	
4	Piston	2	651461-13	75Nm

LEVELLING VALVE LINKAGE PARTS MANUAL

AMENDED:080101

UNIT NO:

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1	Pressure plate - offset	1	655687-1	
2	Control rod	1	655687-2	
3	Washer	2	655687-3	
4	Split pin	1	655687-4	
5	Clip	1	655691-2	
6	Linkage rod - front	1	419951-4	
	Linkage rod - rear	1	419951-3	
7	Pressure plate - inline	1	655691-1	
8	Clip	1	655691-2	
9	Angle	1	655691-3	
10	Nut	4	655691-4	
	Linkage assembly - comprising items 1,2,3,4 & 5	1	655687-5	
	Linkage assembly - comprising items 7,8,9 & 10	1	655691-5	



DENNIS

SECTION 10.2

Wheels and TyresPage 10.2.2 - 3

ITEM NO	DESCRIPTION	NO USED	PART NO	REMARKS
1a	Wheel and tyre assembly	6	657297-3	W1510A
	Wheel rim	6	657296-1	
	Tyre - Michelin	6		
1b	Wheel and tyre assembly	6	657297-15	W1510B
	Wheel rim - blue	6	658314	
	Tyre - Michelin	6		
	Spare wheel and tyre assembly	1	657297-3	AL 1514-1

