

ANNEX B - SERVICE REQUIREMENT DOCUMENT (SRD) – FOR THE PROVISION OF NFS ENGINEERING SUPPORT

Introduction

1. The Authority has a requirement to support the MAN Support Vehicle (SV) and non-MAN Military Road Fleet Vehicles for-servicing, maintenance, repair and testing (less Bulk Fuel elements) as listed below.
2. The Contractor shall recognise that British forces operating in Europe are embarked on establishing their Firm Base activity in Germany. The focus of this envisages a fleet operating permanently out of Athlone Barracks, Sennelager which can be enhanced depending on the requirement via the Stored Equipment Fleet Germany (SEF(G)), located in Ayrshire Barracks, Mönchengladbach, or from the UK mainland. This includes the permanent requirement to maintain the Controlled Humidity Environment (CHE) Stored Operational Fleet (SOF) held within SEF(G).

Requirement

3. To deliver a bespoke engineering support solution to include general engineering, MAN and non-MAN B vehicle variants held by British forces on mainland Europe. To include full Original Equipment Manufacturer (OEM) support, as required, in accordance with the relevant Equipment Support Policy Directive (ESPD)¹.

Technical Requirements

4. The Contractor shall have the requirements specified below:
 - a. Hold Special Tools and Equipment (ST&E) certified to complete the routine maintenance and servicing of vehicles listed within Paragraph 6.a.(1).
 - b. Have the capability to maintain and service in-house, or sub-contract dependent upon ST&E requirements, the equipment listed within Paragraph 6.b.(1).
 - c. Accreditation as an approved Provider by MAN for heavy goods vehicle maintenance and repair.

Legislative Requirements

5. The Contractor (including sub-contractor(s)) shall meet the following requirements:
 - a. **Safety, Health, Environmental (SHE).** Ensure full compliance in the performance of the Contract with the requirements of all current and relevant legislation, local standards, and regulations for the conduct of this activity in Germany. This applies to all testing and certification delivered by sub-contracted suppliers and includes the handling and safe use of hazardous products and the approved disposal of any environmental waste product generated from such activity.
 - b. **Staff.** The Service shall be managed and delivered by suitably competent², qualified, experienced, and empowered staff; similarly qualified deputies should be nominated for periods of absence. All staff that deal directly with the Authority must be able to fluently communicate (speak, read and write) in the English language.
 - c. **Quality Assurance.** The Contractor shall have in place Quality Management and Assurance processes that ensure that the Service is delivered in accordance with the Contract. The Provider shall have ISO 9001:2015 Accreditation or be able to achieve it within 6 months from the date of Contract award for the complete scope of activities pertaining to the Contract.

Authority's Requirements

¹ Annex A to ESPD at Annex A to SOR details the levels of repair for sub-assemblies and components.

² All Testing and certification staff are to have in date certification from the Accredited Body.

6. The Contractor shall meet the following requirements:

a. **Primary Requirement 1.** Provide Level 1 to 4 equipment repairs, modification and servicing to the MAN Support Vehicle Cargo fleet. Levels 1 to 4 are defined as:

(1) Carry out OEM vehicle repairs, modifications, and scheduled maintenance on MAN vehicle equipment types listed below, in accordance with Chapter 1, Annex A of the Army Equipment Support Publication (AESP) 2320-W-100-111 (Can be provided at Advert/PQQ stage, available upon request).

MAN Designation	Military Designations	Base Platform Designation
HX 18.330 4x4 BB (X60)	Cargo (Light) Medium Mobility	SV LIGHT 6T 4X4 EURO4 MAN
	MAN 6T CARGO	
	MAN 6T FLAT PLATFORM	
	MAN 6T WITH WINCH	
	MAN 6T CALM	
	MAN 6T TAIL LIFT	
HX 25.440 6x6 BB (X58)	Cargo (Medium) Medium Mobility	SV MEDIUM MM 9T 6X6 EURO4 MAN
	MAN 9T CARGO	
	MAN 9T FLAT PLATFORM	
	MAN 9T WITH WINCH	
	MAN 9T CALM	
	MAN 9T UST	
HX 32.440 8x8 BB (X77)	Cargo (Heavy) Medium Mobility	SV HEAVY 15T 8X8 EURO4 MAN
	MAN 15T CARGO	
	MAN 15T FLAT PLATFORM	
	MAN 15T CALM	
	MAN EPLS	
SX 25.440 6x6 (X44)	Cargo (Medium) Improved Medium Mobility	SV MEDIUM IMM 9T 6X6 EURO4 MAN
	MAN 9T CARGO (IMM)	
	MAN 9T FLAT PLATFORM (IMM)	
	MAN 9T WITH WINCH (IMM)	
	MAN 9T CALM (IMM)	
	MAN 9T UST (IMM)	
SX 40.440 8x8 (X45)	Recovery Vehicle (Heavy) Improved Medium Mobility	SV RECOVERY IMM 8X8 EURO4 MAN FULL BOWMAN FIT
SVR Trailer	MAN SVR Trailer (Andover DBT 30)	RECOVERY TRAILER

(2) Provide the capability to deliver/collect vehicles within 50 kms of the locations listed in Paragraph 6.f.

(3) Liaise with and sub-contract any MAN 'out of scope' repairs to vehicle sub-systems (i.e., Atlas, Rotzler, Cargotec and ZF, EKA Ltd) to OEM approved agencies as required.

(4) Provide OEM Spare parts as required at a contractually agreed percentage discount.

b. **Primary Requirement 2:** Equipment repairs, modification, and servicing to the non-MAN vehicle fleet.

(1) Minor maintenance support to non-MAN military road vehicles. This is an ad hoc requirement where non-MAN vehicle maintenance cannot be conducted by the Authority. For this reason, the contractor can liaise with and sub-contract any non-MAN works to OEM approved agencies if the scope of repair is outside of capabilities (i.e. lack

of special tools and equipment). Equipment includes but is not limited to:

Eqpt Type	Remarks
Landrover (All Variants)	
Panther	
BR90	Unipower 8x8 (Base Veh only)
Oshkosh	Base Vehicle (not Fuel Top Hamper system)
Trailers (Various)	3/4T Penman to 62T
Misc Mech	Manufacture of items on a case-by-case basis as required by the Authority

(2) To complete air conditioning maintenance and repair to MAN and non-MAN military vehicles (this may include armoured vehicles) on a case-by-case basis. The delivery of this requirement may, depending upon asset type and location, require on-site support. The Authority accepts that this may involve sub-contracting by the Provider.

c. **Government Furnished Equipment (GFE).** Spare parts and consumable items³ will, in most cases, be supplied by the Authority to the Provider. If the Authority is unable to source the required item through its own system, then the Provider may be authorised to procure. Failed assemblies may be required to be returned to the Authority. If issued, the Provider shall have systems in place to store and manage the GFE issued by the Authority for the delivery of this contract, in accordance with DEFCON 611 and 694.

d. **Security and Storage.** The Contractor shall provide secure storage space, and manoeuvring area, to accommodate up to 10 Authority vehicles listed at Paragraph 6.a.(1) at any one time at each delivery site being used, whether prime or sub-contracted. The Contractor should note that the Authority will ensure all sensitive (security classified equipment⁴) has been removed prior to delivery

e. **Turn Around Times.** The Contractor shall be able to complete repair, modification, and maintenance of up to 2 vehicles per week and, with 5 days' notice, up to 12 vehicles within 30 days.

Note: These figures are not a commitment on the part of the Authority to submit the volume of work to the Contractor.

f. **Geographical Requirements.** The Contractor is required to deliver the maintenance/repair of military vehicles within 50 kms by road from the following locations:

- (1) Normandy Kaserne
Bielefelder Straße 113
33104 Paderborn (Sennelager) DE
- (2) SEF(G)
Ayrshire (Süd) Kaserne
Gladbacher Straße 560
41179 Mönchengladbach DE
- (3) Grafenwöhr
Joint Military Training Centre
Tower Kaserne
Lexington Avenue 619
92655 Grafenwöhr DE
- (4) Hohenfels
Joint Multinational Readiness Centre
General Patton Road

³ This includes oil, filters etc.

⁴ This includes all BOWMAN, ECM, vehicle mounted weaponry or other fitted equipment that is subject to security measures.

92366 Hohenfels DE

(5) Bergen Hohne Training Area
Brucknerstr.3
29303 Bergen DE

(6) Altmark Training Area
Salchauer Chaussee 1
39638 Gardelegen / OT Letzlingen DE

The Contractor can assume the Authority shall deliver the vehicles, detailed within Paragraph 6.a.(1), to the Contractor/Sub-Contractor's premises. Should the Authority request it, the Contractor may be required to collect and return vehicles as part of the maintenance/repair process within the 50 Km radius. Contractor must be able to arrange collection or return of a minimum 3 wheeled vehicles within a maximum period of 5 working days after movement request.

SRD ADDITIONAL INFORMATION

1. LEVELS OF REPAIR

Levels	Description
1	Servicing and day-to-day preparation. It may include such operations as functional testing, replenishment, servicing, re-arming, role changing, minor modification, fault diagnosis and corrective maintenance by replacement, adjustment or minor repair.
2	Maintenance by replacement, adjustment or minor repair including fault diagnosis and minor authorised modifications, within times detailed within Local Technical Instructions or by operational constraints, using generally provisioned resources.
3	Maintenance in greater depth than level 2. It includes such operations as repair, partial reconditioning and modification requiring special skills or special equipment; but which is short of complete strip, reconditioning and re-assembly.
4	Maintenance that is full reconditioning, major conversions, or major repairs.

2. DESIGNATORS

Symbol	Description	
A	Adjust/Align	The adjustment of components within the scope of tools and test equipment available.
R	Repair	The removal, repair and refitting of a component/assembly. Repairs are to be affected by the use of items specified within the relevant schedule or by the use of expense account spares.
O	Overhaul	The dismantling/stripping, reconditioning, and rebuilding of an assembly to the appropriate inspection standard.
E	Exchange/Renew	The removal of a defective component/assembly and the fitting of a serviceable replacement.

3. DEPTH OF REPAIR

The tables below detail the type of vehicle item/system and the depth of repair required for each Level to enable the performance of the Contract.

TABLE 1 ENGINE ASSEMBLIES

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Engine assembly			E	R	
2	Engine mountings			E/R		
3	Accessory drive belt		A/E			
4	Belt tensioner		A/E			
5	Gaskets/seals timing cover		E			
6	Drain & filler plugs	E				
7	Sump		E/R			
8	Sump gasket		E			
9	Rocker cover gasket		E			
10	Gaskets & seals general		E			Peripheral component interface only

TABLE 2 LUBRICATION SYSTEM

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Filter housing, external		E			
2	Filter element	E				
3	Pressure switches		E			
4	Oil pipes external		E/R			
5	Gaskets & seals general		E			Peripheral component interface only

TABLE 3 INLET & EXHAUST SYSTEMS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Exhaust system		E/R			
2	Manifold		E/R			
3	Exhaust pipe		E/R			
4	Catalytic converter		E/R			
5	Fixtures		E/R			Mountings, brackets, hangers etc.
6	Turbocharger		E		R	
7	EGR unit		A/E			EGR – Exhaust Gas Recirculation
8	Oil pipes		E/R			
9	Gaskets, exhaust		E			
10	Sealing rings, exhaust		E			
11	Seals, exhaust		E			
12	Hoses		E			
13	Air cleaner assembly		E/R			

14	Air cleaner element	E				
15	Gaskets & seals general		E			Peripheral component interface only

TABLE 4 FUEL SYSTEM

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Feed pump, electrical		E			
2	Hand primer		E			
3	Supply/return pipes		E/R			
4	Fuel tanks		E/R			
5	Injection pump				R	
6	Injectors				R	
7	Injector pipes		E			
8	Filter assembly		E/R			
9	Filter element		E			
10	Filter agglomerator (sediment bowl)		E/R			Water separator, draining tasks carried out at Level 1
11	Seals/washers, agglomerator		E			
12	Accelerator pedal		A/E/R			
13	Gaskets & seals general		E			Peripheral component interface only

TABLE 5 COOLING SYSTEM

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Pulley		E			
2	Radiator		E/R			
3	Fan motor		E		R	
4	Header tank		E/R			
5	PVRV		E			PVRV – Pressure Vacuum Release Valve
6	Fan		E		R	
7	Hydraulic oil cooler		E/R			
8	Intercooler		E/R			
9	Thermostat		E			
10	Hoses		E			
11	Clamps		E			
12	Drain taps		E			
13	Temperature sender unit		E			
14	Gaskets & seals general		E			Peripheral component interface only

TABLE 6 FLYWHEELS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Flywheel			E		
2	Spigot bearing			E		

TABLE 7 CLUTCH (PNEUMATIC)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Clutch assembly			E		
2	Friction plate			E		
3	Pressure plate			E		
4	Thrust bearing			E		
5	Operating fork			E		
6	Push rod		E/R			
7	Slave cylinder		E/R			
8	Air control valves		A/E			
9	Pneumatic pipes & fittings		E/R			
10	Gaskets & seals general		E			Peripheral component interface only

TABLE 8 TORQUE CONVERTER

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Torque converter			E	R	
2	Pipes & fittings		E/R			
3	Gaskets & seals general		E			Peripheral component interface only

TABLE 9 GEARBOXES (AUTOMATIC, SEMI-AUTOMATIC)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Gearbox assembly			E	R	
2	Mountings resilient		E			
3	Gear lever		E			
4	Speedometer/tachograph drive		E			
5	Pipes & fittings		E/R			
6	Drain & filler plugs	E				
7	Breathers	E				
8	Gaskets & seals general		E			Peripheral component interface only

TABLE 10 TRANSFER CASE

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Transfer case			E	R	
2	Breathers	E				
3	Drain & filler plugs	E				
4	Pipes & fittings		E/R			
5	Gaskets & seals general		E			Peripheral component interface only
6	Resilient mountings		E			

TABLE 11 POWER TAKE-OFF SYSTEMS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	PTO engine		E		R	
2	PTO drive shaft		E		R	
3	Universal joints		E			
4	PTO gearbox		E			External units only, replace complete
5	Selectors		E			
6	Gaskets & seals		E			Peripheral component interface only
7	Switches, cables & fittings		A/E			

TABLE 12 PROPELLER SHAFTS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Propeller shafts			E/R		
2	Universal joints			E/R		
3	Support mountings			E		
4	Lubrication nipples			E		

TABLE 13 COMPRESSORS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Compressor		E			
2	Pressure regulator valves		E			
3	Air reservoirs		E			
4	Pipes & fittings		E/R			
5	Gaskets & seals general		E			Peripheral component interface only

TABLE 14 AXLES

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Axle assembly			E	R	
2	Half shafts		E			
3	Hubs		E			
4	Breather		E			
5	Bearings, hub				E	
6	Gaskets & seals general		E			Peripheral component interface only
7	Pipes & fittings		E/R			
8	Drain & filler plugs	E				
9	Wheel studs		E			
10	Wheel nuts	E				
11	Wheel rims	E				
12	Tyres	E			R	
13	Differential lock		A/E/R			

TABLE 15 STEERING SYSTEMS (MANUAL, HYDRAULIC)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Track rods		E			
2	Track rod ends		A/E			
3	Drag links		E			
4	Drop arms		E			
5	Steering arms		E			
6	Lubrication nipples		E			
7	Steering boxes		E		R	
8	Steering column		E		R	(e) Limited to bush & bearing replacement
9	Universal joint		E			
10	Steering wheel		E			
11	Steering booster		E		R	
12	Steering pumps		E		R	
13	Emergency steering pump		E		R	
14	Control valves		A/E			
15	Pipes & fittings		E			
16	Hydraulic reservoirs		E/R			
17	Drain & filler plugs	E				
18	Hoses		E			
19	Bushes/bearings		E			
20	Gaskets & seals general		E			Peripheral component interface only

TABLE 16 SUSPENSION SYSTEMS (SPRINGS, INDEPENDENT, HYDRO-PNEUMATIC)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Coil springs		E			
2	Leaf springs		E/R			Repair limited to re-bushing only
3	Gas suspension unit		E			
4	Shock absorbers		E			
5	Bushes/bearings		E			
6	'U' bolts		E			
7	Shackles & pins		E			
8	Wishbones			E		
9	Rocker beams			E		
10	Longitudinal/torque reaction rods		E			
11	Rubber bushes & stops		E			
12	Pipes & fittings		E/R			
13	Tie bars		E			
14	Valve assemblies		E			

15	Gaskets & seals general		E			Peripheral component interface only
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TABLE 17 BRAKING SYSTEMS (PNEUMATIC)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Brake shoes complete & linings		E			
2	Brake drums		E		R	
3	Return & retaining springs		E			
4	Adjusters		A/E			
5	Slack adjusters		A/E/R			
6	Brake pedal		A/E			
7	Valve assemblies		E/R			
8	Spring, brake actuator		E		R	
9	Air pipes & fittings		E/R			
10	Air reservoir		E			
11	Exhaust brake		E			
12	Anti-freezer		E			
13	Foot control valve		E			
14	Tyre inflator		E			
15	Air dryer		E			
16	Filters		E			
17	Actuating cylinders		E			
18	Brake system seals		E			
19	Load sensing valve		E			
20	Automatic adjuster unit		E/R			
21	Low pressure warning device		E			
22	Air couplings		E/R			
23	Seals general		E			

TABLE 18 ELECTRICAL SYSTEMS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Batteries		E			
2	Alternator		E		R	
3	Starter motor		E		R	
4	Starter solenoid		E			
5	Relays		E			
6	Terminal boxes		E/R			
7	Fuse box		E/R			
8	Fuses	E				
9	Headlamps		A/E			
10	Misc lights		A/E			
11	Side/indicator lamps & fittings		E			
12	Reverse/convoy lights		E			
13	Bulbs	E				
14	Instrument gauges		E			
15	Speedometer, electronic		E			
16	Sender units		E			
17	Wiper motor		E		R	
18	Washer motor		E			
19	Warning buzzer horn		E			
20	Hazard warning		E			
21	Flasher unit		E			
22	Switches		E			
23	Micro switches		E			
24	Wiring loom/cables		E/R			
25	Master isolation switch		E			
26	Socket couplings		E/R			
27	Inter-vehicle sockets		E/R			
28	Trailer socket		E/R			
29	Ignition switch steering lock assy		E			
30	Lenses		E			
31	Gaskets & seals general		E			Peripheral component interface only

TABLE 19 ELECTRONIC CONTROL SYSTEMS

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Vehicle management computer		E			(FFR) A403
2	Engine management control unit		E			(EDC 7) A435
3	Gearbox control unit		E			(AS-Tronic) A330

4	Central board computer		E			(CBC) A302
5	ECAS A143		E			(RV Only)

TABLE 20 HEATING & VENTILATION SYSTEMS (VEHICLE/CAB HEATERS & AIR CONDITIONING)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Heater matrix		E		R	
2	Hoses		E			
3	Ducting		E			
4	Control cables		E			
5	Hose clamps & clips		E			
6	Heater unit		E			Complete unit
7	Exhaust pipe		E/R			Rigid & flexible
8	Silencer		E			
9	Hose rubber		E			
10	Evaporator		E			
11	Condensor		E			
12	Drier		E			
13	A/C Compressor		E			
14	Compressor pump		E			
15	Compressor motor		E			
16	Refrigerant hoses		E			
17	Expansion valve		E			
18	Thermal sensor		E			
19	Drive belt		A/E			
20	Fan assembly, condenser		E			
21	Pressure switch		E			
22	Gaskets & seals general		E			Peripheral component interface only

TABLE 21 CHASSIS & CAB

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Chassis members				E/R	
2	Body panels/floor plates		E/R			
3	Cab			E/R		
4	Doors		E/R			
5	Glazing		E			
6	Seats		E/R			
7	Handles, clips, locks, hinges		E/R			
8	Mouldings, sealing strips		E			
9	Seat belts		E			
10	Stowage lockers		E/R			
11	Radiator grille		E/R			
12	Mirrors	E				
13	Wiper arms/blades	E				
14	Bumpers		E/R			
15	Spare wheel fitting		E/R			
16	Recovery eyes		E/R			
17	Towing hook		E/R			
18	Track frame assemblies		R			Demountable container bodies
19	Rollers, carrier, upper & lower		E			Demountable container bodies
20	Seals, gaskets		E			
21	Bushes		E			
22	Pivot pins		E			
23	Cab tilt mechanism		E			
24	Cupola/hip ring		E/R			
25	Warning signs etc	E				
26	Reflectors	E				
27	Lubrication nipples		E			
28	Pipe line – rigid & flexible		E/R			
29	Gaskets & seals general		E			Peripheral component interface only

TABLE 22 BODY TYPES (FLATBEDS, CARGO, UTILITY)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Platforms				R	
2	Canopy	E			R	
3	Tailgate	E	R			
4	Drop sides	E	R			
5	Pillars	E	R			
6	Troop seats	E	R			
7	Lashing brackets & cleats	E	R			
8	Rubber stops	E				
9	Securing pins & chains	E	R			

TABLE 23 HYDRAULIC SYSTEMS (GENERAL PURPOSE)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Pumps, winch/crane			E		
2	Motors, hoist, slew & winch			E		
3	Rams, cylinders		E		R	
4	Seals 'O' rings & glands		E			
5	Rubber boots & gaiters		E			
6	Pressure switches		E			
7	Filters & strainers	E				Depends upon complexity of task
8	Pipe line – rigid & flexible		E/R			
9	Unions, adaptors & connectors		E/R			
10	Gaskets & seals general		E			Peripheral component interface only

TABLE 24 ATTACHMENTS (WINCHES, TAIL-LIFTS)

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Winch assembly self-recovery		E		R	MM Variants only
2	Ropes, cables		E			
3	Guide pulleys & rollers (fairleads)		E			
4	Gaskets & seals general		E			
5	Selector handle		E			
6	Tail-lift assembly			E	R	Repair limited to the replacement of complete parts & not the stripping of minor assemblies
7	Platforms				R	
8	Pins, pivot		E			
9	Lubrication nipples		E			

TABLE 25 RECOVERY VEHICLES

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Stabilizer & outrigger assembly			E/R		
2	Stiff legs & base plates assy			E/R		
3	Stabilizer & outrigger rams		E		R	
4	Recovery equipment rams		E		R	
5	Pump main			E	R	
6	Main valve control block			E	R	
7	Valves, general		E		R	
8	Pressure switches		E			Component location dictates level of repair
9	Proximity switches		E			
10	Main winch assembly			E	R	
11	Self-recovery winch assembly		E		R	
12	Auxiliary winch assembly		E		R	
13	Rope drums			E		
14	Rope drum		E			
15	Recovery winch ropes	E				
16	Guide pulleys & rollers		E			
17	Pivot pins		E			
18	Recovery equipment bearings/bushes		E			
19	Snatch block & hook assembly		E/R			
20	Cable, looms		E			Component location dictates level of repair
21	Rods & linkage		A/E/R			
22	Locking pins various		E			
23	Seals 'O' rings & glands		E			Component location dictates level of repair
24	Filters & strainers	E				
25	Pipelines – rigid & flexible		E/R			
26	Unions, adaptors & connectors		E/R			
27	Crane jib & boom assemblies			E	R	
28	Jib rams		E		R	
29	Jib extension ram			E	R	
30	Hoist winch rope	E				
31	Motors, slew & winch (crane)			E		
32	Crane rotary base junction				E/R	
33	Safe load, radius & extension indicators		E	A/E	R	
34	Handles		E			
35	Lubricating nipples		E			Dependant on location on vehicle
36	Gaskets & seals general		E			Peripheral component interface only

TABLE 26 VEHICLE MOUNTED CRANE

Serial	Item	Level 1	Level 2	Level 3	Level 4	Remarks
1	Stabilizers & outriggers			E/R		
2	Jobs, booms & lift arms			E/R		
3	Safe load, radius & extension indicators			A/E/R		
4	Lock pin		E			
5	Rams, cylinders, linear actuators & jacks		E		R	
6	Seals 'O' rings & glands		E			Component location dictates level of repair
7	Pipeline – rigid & flexible		E/R			
8	Unions, adaptors & connectors		E/R			
9	Lubricating nipples		E			Depending on location
10	Pivot pins		E			