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**TRUCK, 1 TONNE, 4 x 4 ROVER (V8)  
(ALL VARIANTS)**

**MAINTENANCE SCHEDULE**

BY COMMAND OF THE DEFENCE COUNCIL

Ministry of Defence

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**AMENDMENT RECORD**

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54		
55		
56		
57		
58		
59		
60		
61		
62		

## CONTENTS

<b>Preliminary material</b>	<b>Page No</b>
Title Page	(i)
Conditions of release	(ii)
Amendments record	(iii)
Contents (this page)	(iv)
Preface	(iv)
Associated publications	(iv)
Warnings and Cautions	(v)
 <b>Para</b>	
MAINTENANCE SCHEDULE	1
1 Authority	
2 Responsibilities	
5 Inspections and examinations	
7 Records	
8 Serial numbers	
9 Abbreviations	
 <b>Table</b>	
1 Equipment applicability	2
2 Fuels, lubricants and associated products	3
3 Equipment data	4
4 Drivers/operator maintenance	5-6
5 Periodic maintenance	7-11
6 Out of use maintenance	12
 <b>Fig</b>	
1 Lubrication diagram	12

## PREFACE

1 Comments on this publication are to be forwarded in accordance with AESP 0100-P-011-013 to Vehicles and Weapons Branch REME, Chobham Lane, Chertsey, Surrey KT16 0EE.

## **WARNINGS**

- (1) THE HANDLING OF FUELS, LUBRICANTS AND ASSOCIATED PRODUCTS IS HAZARDOUS REFER TO LOCAL UNIT SAFETY PROCEDURES, INSTRUCTIONS ON THE CONTAINERS AND OTHER RELEVANT REGULATIONS FOR FULL SAFETY PROCEDURES.**

**MINIMUM PRECAUTIONS AFTER USE IS TO WASH AFFECTED SKIN AREAS WITH SOAP AND WATER.**

**THE USE OF BARRIER CREAM IS RECOMMENDED.**

- (2) FLUID AL 39 IS BOTH TOXIC AND HAZARDOUS**
- (3) FLUID AL 11 IS HIGHLY INFLAMMABLE**

**THE PREPARATION OF THE FLUID IS TO BE CARRIED OUT IN THE OPEN AWAY FROM NAKED FLAMES**

- (4) THIS VEHICLE HAS PERMANENT 4 WHEEL DRIVE. UNDER NO CIRCUMSTANCES SHOULD ANY TEST BE CARRIED OUT THAT INVOLVES JACKING UP ONE PAIR OF WHEELS AND RUNNING THE VEHICLE IN GEAR.**
- (5) ON NO ACCOUNT SHOULD MORE THAN THREE ATTEMPTS BE MADE TO START THE HEATER, IF IT FAILS TO START BY THE THIRD ATTEMPT, REPORT TO REME. DO NOT OPERATE THE HEATER IN AN ENCLOSED AREA.**
- (6) HIGH PRESSURE OXYGEN SUPPLY, DO NOT ALLOW GREASE, OIL OR NAKED FLAMES NEAR OXYGEN EQUIPMENT.**

## **CAUTIONS**

- (1) CONTINUOUS BUBBLES OR FOAM INDICATE A LOW LEVEL OF REFRIGERANT AND/OR POSSIBLE SYSTEM LEAK. TO PREVENT DAMAGE TO COMPRESSOR, SWITCH OFF SYSTEM.**
- (2) DO NOT REMOVE THE ENGINE OIL FILTER WHILST THE SUMP IS DRAINED (THE OIL PUMP IS NOT SELF-PRIMING)**

**ASSOCIATED PUBLICATIONS**

JSP 341  
JSP 351  
Army Code 22260  
Army Code 24044  
Q 050-059  
Q 052/1 Ambulance

Road Transport Regulations  
“MT Drivers’ Handbook”  
User Handbook  
User Handbook (Ambulance)  
Emer Whld Veh.  
Emer Whld Veh.

## **MAINTENANCE SCHEDULE**

### **Authority**

1. This Maintenance Schedule is the authority for carrying out all servicing tasks on the subject equipment.

### **Responsibilities**

2. The unit commander is responsible for ensuring that the operations detailed in this schedule are properly carried out. He may order any operation to be carried out more frequently than is specified if the conditions under which his equipments are operating render it necessary. He should consult his REME advisor before ordering such changes.
3. The unit commander may adjust the specified servicing intervals by plus or minus 10 per cent to suit local circumstances.
4. The operator/driver is responsible for ensuring the equipment is fit for task. If the mechanical fitness is in doubt, the equipment is not to be used until advice has been sought.

### **Inspections and examinations**

5. The unit commander is advised to arrange inspections to be carried out on receipt of the equipment and thereafter in accordance with JSP 341 Chap 16 para 16.454.
6. Examinations are carried out by REME in accordance with AGAI Vol 4 para 142.031-142.036.

### **Records**

7. Servicings and inspections are to be recorded in the equipment documents.

### **Serial numbers**

8. Serial numbers left blank may be taken up by amendment action at a later date.

### **Abbreviations**

9. VM – Vehicle Mechanic

**TABLE 1 – EQUIPMENT APPLICABILITY**

Ser	Equipment Code No	Designation
(1)	(2)	(3)
1	1825-0750	Truck General Service w/winch 1 tonne 4 x 4.
2	1825-5750	Truck General Service w/winch 1 tonne 4 x 4, LHD.
3	1831-0750	Truck General Service 24V, signals w/winch 1 tonne 4 x 4.
4	1832-0750	Truck General Service w/winch, FFR 1 tonne 4 x 4.
5	1832-5750	Truck General Service w/winch, FFR 1 tonne 4 x 4, LHD.
6	1833-0750	Truck General Service 24V, Launcher towing Rapier.
7	1833-5750	Truck General Service 24V, Launcher towing Rapier w/winch 1 tonne 4 x 4, LHD.
8	1834-0750	Truck General Service 24V, signals 1 tonne 4 x 4.
9	1834-5750	Truck General Service 24V, signals 1 tonne 4 x 4, LHD.
10	1840-0750	Truck General Service, 1 tonne 4 x 4.
11	1840-5750	Truck General Service, 1 tonne 4 x 4, LHD.
12	1850-0750	Truck General Service, FFR 1 tonne 4 x 4.
13	1850-5750	Truck General Service, FFR 1 tonne 4 x 4, LHD.
14	1054-0750	Ambulance 4 Str, 4 x 4.
15	1054-5750	Ambulance 4 Str, 4 x 4, LHD.



**TABLE 2.0 – FUELS, LUBRICANTS AND ASSOCIATED PRODUCTS**

Notes...

- (1) Oil changes at the –15 degree C point shall only be made on the advice of the local REME adviser. Changes of grade will normally be recommended when the ambient temperature is expected to fall below –15 degrees C for more than five hours per day. Special instructions will apply if the engine has been ‘winterised’.
- (2) All fluid capacities are to be checked with the vehicle on level ground and unladen whenever possible. The capacities listed are to be used as a guide only. A physical check is to be made to ensure that all fluids are at the correct level.

Ser	Assembly/System	Product		Capacity	
		Above –15 C	Below – 15 C	Litres	Pints
(1)	(2)	(3)	(4)	(5)	(6)
1	Engine (including filter)	OMD 80	OMD 30	7.0	12.5
2	Gearbox	OMD 80	OMD 30	2.7	4.7
3	Transfer Box	OMD 80	OMD 30	3.0	5.5
4	Front and Rear Differentials	OEP 220	OEP 38	2.5	4.5
5	Swivel pin housings	OEP 220	OEP 38	0.8	1.3
6	Steering Box	OEP 220	OEP 38	0.5	0.9
7	Steering Relay	OEP 220	OEP 38	-	-
8	Winch drive, gearbox	OMD 80	OMD 30	0.2	0.4
9	Propellor shafts	XG 271	XG 271		
10	General greasing	XG 279	XG 279		
11	General Lubrication	OMD 80	OMD 30		
12	Protective grease	PX 7	PX 7		
13	Clutch/brake fluid	OX 8	OX 8		
14	Windscreen washer	AL 11/Water	AL 11/Water		
15	Coolant (including heater)	AL 39/Water	AL 39/Water	14.2	25
16	Fuel tank	Civgas	Civgas	109	24 gals

**TABLE 3 – EQUIPMENT DATA**

Ser	Item	Detail	
(1)	(2)	(3)	
1	TYRES:	9.00 x 16 Tubed	
	Size:		
	Pressure:	Road	Cross-Country
	Front:	2 bar (28 lb/sq.in.)	1.5 bar (21 lb/sq.in.)
	Rear:	2.4 bar (35 lb/sq.in.)	1.5 bar (21 lb/sp.in.)
2	ADJUSTMENTS:		
	Fan belt deflection	14 mm (0.5”) midway between alternator and crankshaft pulleys.	
	Compressor belt deflection	14 mm (0.5”) midway between compressor and crankshaft pulleys	
3	TORQUE SETTINGS:		
	Cylinder head bolts	97 Nm (71.5 lbf ft)	
	Rocker shaft bolts	40 Nm (29.5 lbf ft)	
	Inlet manifold bolts	40 Nm (29.5 lbf ft)	
	Exhaust manifold bolts	20 Nm (15 lbf ft)	
	Wheel nuts	115 Nm (85 lbf ft)	

**TABLE 4 – DRIVER/OPERATOR MAINTENANCE**

Note....

The operations listed in this table are in addition to those detailed in JSP 351 “MT Drivers’ Handbook”.

Ser	Task	Daily		Weekly	Monthly
		Before Use	After Use		
(1)	(2)	(3)	(4)	(5)	(6)
	<b>Check:</b>				
1.	Correct functioning of all warning lights and gauges.	x	x		
2.	For any fuel, oil or coolant leaks.	x	x		
3.	Wheel hubs and brake drums for overheating.		x		
4.	Refrigerant level indication in sight glass.	x	x		
5.	<b>Note:</b> After running for 1 hour (Vehicles with air cooling system in operation only) During halts, after approx four hours running. See Cautions No. 1.				
6.					
	<b>Check/Top Up:</b>				
7.	Clutch/brake fluid reservoir			x	
8.					
	<b>Other Operations:</b>				
9.	Drain air reservoir (if applicable)		x		
10.	Ambulances fitted with resuscitator (after use)		x		
	a. Close down resuscitator				
	b. Carry out pressure and flow test.				
	<b>Note:</b> Procedures are detailed in Users Handbook Army Code 24044.				
11.	Eberspacher B4L Heater (during warm weather when not in use). Switch on and operate briefly. Operate as detailed in User Handbook Army Code No. 24044. See Warning No. 5.				x

**TABLE 5 – PERIODIC MAINTENANCE**

Ser	Task	Dia Ref	800 mile/initial	3000 mile/3 monthly	6000 mile/12 monthly	24,000 mile/24 monthly
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<b>Change oil in:</b>					
1	Engine: See Caution No. 2	x	x		x	x
	<b>Note:</b>					
	The fuel pump electrical circuit is routed through the oil pressure switch. If the engine fails to start/run, prime oil pump in accordance with EMER Whld Veh 052.					
2	Gearbox		x			x
3	Transfer Box		x			x
4	Front and rear axle differentials		x			x
5	Swivel pin housings					x
6	Winch drive gearbox (if fitted)					x
7						
8						
9						
10						
	<b>Check/Top Up:</b>					
11	Swivel pin housings		x		x	
12	Steering box		x		x	x
13	Winch drive gearbox (if applicable)	6a,6c	x	x	x	
14	Carburettor hydraulic dampers		x	x	x	x
15	Steering relay	11			x	x
16	Gearbox				x	
17	Transfer box				x	
18	Front and rear axle differentials				x	
19						
20						
	<b>Grease gun lubricate:</b>	2,3,4,				
21	Propeller shaft universal joints	12,13, 14	x	x	x	x

(continued)

**TABLE 5 – (Contd)**

Ser	Task	Dia Ref	800 mile/initial	3000 mile/3 monthly	6000 mile/12 monthly	24,000 mile/24 monthly
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<b>Grease gun lubricate: contd:</b>					
22	Winch drive shaft universal joint (if applicable)		x	x	x	x
23	Front and rear tow hooks	10,15	x		x	x
24	Stretcher elevation gear (Qty 6 nipples)		x		x	x
	<b>Note:</b> One pump with a hand-powered grease gun to each nipple is sufficient. See Warning No. 6					
25	Propeller shaft splines Procedure: (1) Remove blanking plug fitted to splined end of propeller shaft. (2) Fit grease nipple in place of blanking plug. (3) Lubricate – five pumps of a hand powered grease gun is sufficient. (4) Refit blanking plug. <b>Note:</b> If XG 271 is not immediately available, XG 279 may be temporarily substituted.			x	x	
26						
27	<b>Oil-can lubricate</b>					
28	Accelerator, brake and clutch control linkages and clevis pins.		x	x	x	x
29	All other clevis pins, catches seat mechanisms and similar fittings which require oiling but have no lubricators.		x	x	x	x
30	Winch drive chain (if applicable)	6b	x	x	x	x
31	Winch drive shaft splines (if applicable)	5	x	x	x	x
32	Winch guide rollers and sheaves (if appl.)	1,7,8,9	x	x	x	x

**TABLE 5 – (Contd)**

Ser	Task	Dia Ref	800 mile/initial	3000 mile/3 monthly	6000 mile/12 monthly	24,000 mile/24 monthly
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<b>Oil-can lubricate: (contd):</b>					
33	Winch cable (if applicable) Procedure: (1) Fully extend and lubricate with an oil-soaked rag. (2) Rewind cable under light tension		x	x	x	x
34	Roof flaps and escape hatch mechanism (if applicable)		x	x	x	x
35	Stretcher elevation drive chains. See Warning No. 6		x	x	x	x
36	Stretcher clamp pivot bolts. See Warning No. 6		x	x	x	x
37	Distributor mechanism				x	x
38						
39						
	<b>Renew:</b>					
40	Engine oil filter. See Cautions No. 2				x	x
41	Fuel filter element.		x		x	x
42	Air cleaner element					x
43	Engine breather filter					x
	<b>Note:</b> Fit new filter with the end marked IN facing upwards. Alternatively if the filter is marked with arrows they must point downwards.					
44	Engine flame traps. (Situated between each top rocker cover and air cleaner elbows)					
	<b>Torque tighten:</b>					
45	Cylinder head bolts		x			
46	Rocker shaft bolts		x			
47	Inlet manifold bolts		x			
48	Exhaust manifold bolts		x			
49	Road wheel nuts		x	x	x	x

(continued)

**TABLE 5 – (Contd)**

Ser	Task	Dia Ref	800 mile/initial	3000 mile/3 monthly	6000 mile/12 monthly	24,000 mile/24 monthly
(1)	(2)	(3)	(4)	(5)	(6)	(7)
50	<b>Torque tighten: (contd):</b>					
51						
	<b>Other operations:</b>					
52	Clean fuel sedimentor bowl and gauze filter.		x		x	x
53	Resuscitation equipment only: Carry out pressure and flow tests as detailed in User Handbook AC 24044. See Cautions No.1.		x	x	x	x
54	Air Cooling System only: Operate the system and check refrigerant level in sight glass. See Cautions No.1.		x	x	x	x
55	Clean battery terminals and smear with grease.			x	x	x
56	Remove and clean gauze and filters in ventilation system.			x	x	x
57	Procedure: Wash with warm soapy water, rinse, dry and refit.					
58	Remove foreign matter from tubes, fins and intake grille of air cooling evaporator.			x	x	x
59	Clean foam filter element.			x	x	x
60	Clear exhaust pipe and combustion pipe of Eberspacher B4L heater. <b>Note:</b> An excessive carbon deposit in the exhaust denotes faulty heater system.			x	x	x
61	Clean air cleaner element. Procedure: See Serial 56. <b>Note:</b> The element can be cleaned in this manner up to ten times.				x	x
62	Clean glow/spark plug Eberspacher B4L heater. <b>Note:</b> Use non-ferrous metallic brush.				x	x

(continued)

**TABLE 5 – (Contd)**

Ser	Task	Dia Ref	800 mile/initial	3000 mile/3 monthly	6000 mile/12 monthly	24,000 mile/24 monthly
(1)	(2)	(3)	(4)	(5)	(6)	(7)
63	<p><b>Other operations: (contd):</b></p> <p>Clean heater in-line filter.</p> <p><b>Note:</b></p> <p>(1) This is a replaceable type filter and does not have a renewable element.</p> <p>(2) Refit in accordance with fuel flow direction arrow.</p>				x	x
64	<p>Remove, dismantle and check heat exchanger for corrosion or perforation. Eberspacher B4L heater.</p> <p><b>Note:</b> This operation is to be carried out whether or not internal cleaning is required.</p>					x



**TABLE 6 – OUT OF USE MAINTENANCE**

Notes...

- (1) This maintenance is to be carried out when the equipment is taken out of use for periods exceeding one month.
- (2) An item of equipment taken out of use for periods exceeding four months is to be put into preservation in accordance with EMER Wheeled Vehicles A 019 Miscellaneous Instruction No.9.
- (3) The equipment is to be cleaned, dried and stored under cover where possible.
- (4) Any overdue maintenance is to be carried out when the equipment is brought back into use.

Ser	Operation
(1)	(2)
1	Carry out Table 4 Maintenance and patch-paint
2	Carry out next maintenance due
3	Rectify all faults affecting roadworthiness
4	Fill fuel tank
5	Disconnect battery earth lead
6	
7	
	<b>WEEKLY</b>
8	Check and adjust tyre pressures
9	Report any fuel, oil or coolant leaks
10	
11	
	<b>TWO MONTHLY</b>
12	Carry out Table 4 maintenance
13	Operate equipment, ensuring operating temperature is reached and all oils are circulated
14	Move equipment for a minimum of 8 km (5 miles) if circumstances permit
15	Rectify all faults affecting roadworthiness
16	Disconnect battery earth lead

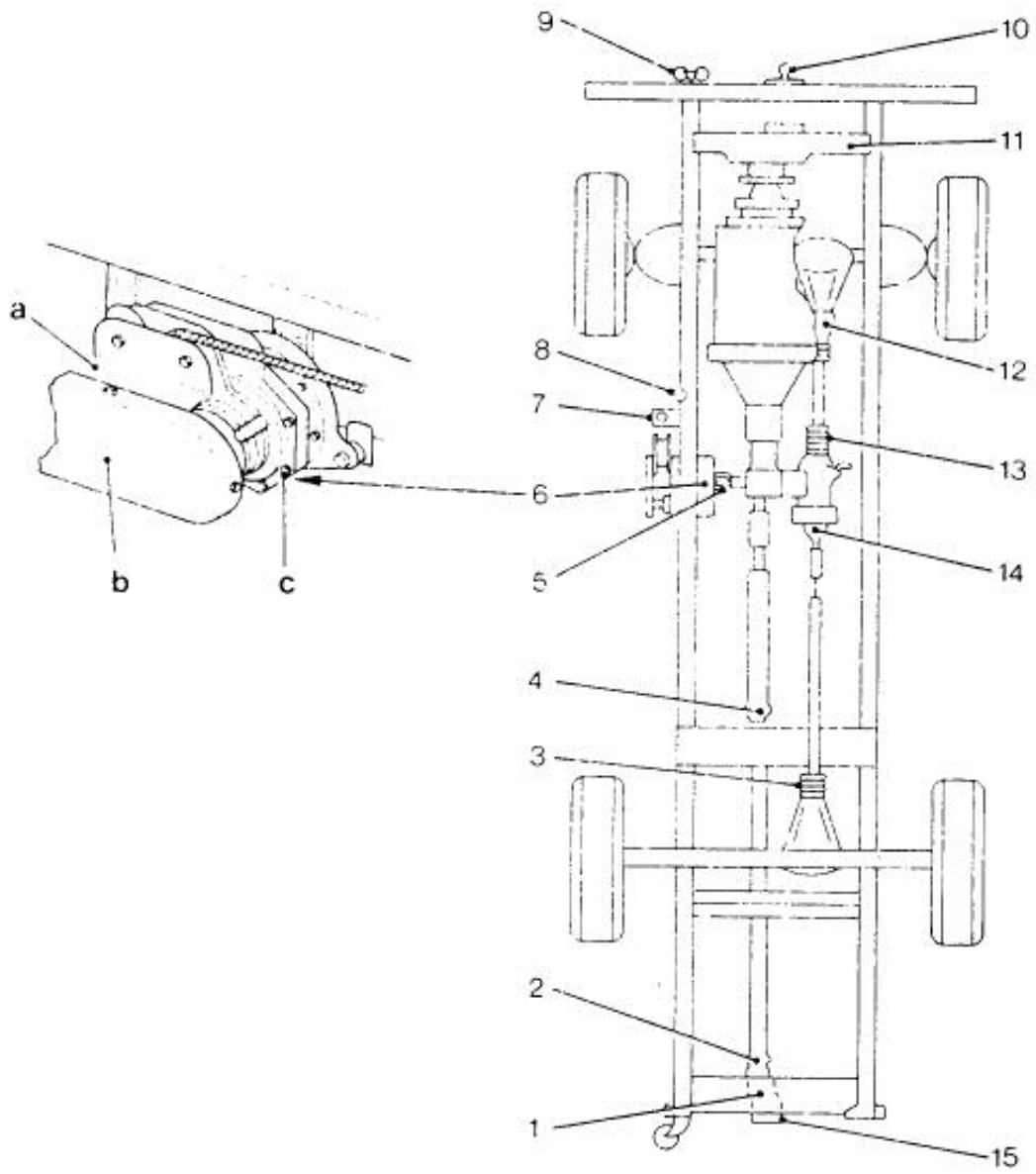


FIG 1

Fig 1 – Lubricating diagram