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MOTOR CYCLE LIGHTWEIGHT 250 cc

CAN-AM 250

MAINTENANCE SCHEDULE

BY COMMAND OF THE DEFENCE COUNCIL

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Ministry of Defence

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PREFACE

1 Except for manuscript entries, amendments are identified by marginal side lining. Manuscript amendments are identified by Amdt No in outside margin, in line with amendment.

2 Comments on this publication are to be forwarded in accordance with AESP O100-P-011-013 to Vehicles and Weapons Branch REME, Chobham Lane, Chertsey, Surrey KT16 OEE.

WARNINGS ...

- (1) FRONT BRAKE. WHEN THE FRONT BRAKE CAM NOTCH COMES IN LINE WITH THE LOWER WEAR LIMIT IDENTIFICATION EMBOSSEMENT, THE BRAKE LININGS ARE TO BE REPLACED OR SERIOUS BRAKE MALFUNCTION MAY OCCUR.

- (2) REAR BRAKE. WHEN THE REAR BRAKE ROD ADJUSTING NUT HAS REACHED ITS MAXIMUM ADJUSTMENT, THE BRAKE LININGS ARE TO BE REPLACED OR SERIOUS BRAKE MALFUNCTION MAY OCCUR.
- (3) ENSURE AT ALL TIMES THAT BATTERY VENT TUBE IS KEPT CLEAR AND FREE FROM KINKS AND SHARP BENDS. A RESTRICTED VENT TUBE WILL ALLOW A BUILD-UP OF GASES THAT COULD CAUSE AN EXPLOSION.
- (4) WHEN THE OIL FILTER HAS BEEN REMOVED FOR CLEANING OR RENEWAL IT IS NECESSARY TO BLEED THE OIL SYSTEM. FAILURE TO DO THIS WILL CAUSE ENGINE SEIZURE.

CAUTIONS ...

- (1) Air filter. Do not dry filter foam with a high pressure air flow as it will lose its efficiency.
- (2) Since the engine cooling is only effective whilst the motor cycle is in motion, DO NOT allow the engine to idle unnecessarily. Prolonged idling and low speed operation may cause engine damage.
- (3) Before starting the motor cycle ensure that the steering is unlocked.
- (4) Before riding the motor cycle ensure that the side stand is correctly stowed along the swinging arm.

ASSOCIATED PUBLICATIONS

AGAI
JSP 351
JSP 341
EMER Whld A & B Vehicles
Misc Instr No 9

Vol 4 para 142.031 - 142.036
MT Driver's Handbook
Road Transport Regulations

TABLE 1 - EQUIPMENT APPLICABILITY

Note ...

The information in this schedule applies to the following equipment.

Ser	Equipment Code No	Designation
(1)	(2)	(3)
1	1010 0746	Motor cycle, lightweight, 250 cc, CAN-AM
2	1010 5746	Motor cycle, lightweight, (kph speedometer) 250 cc, CAN-AM
3	1015 0746	Motor cycle, SAS, 250 cc, CAN-AM

TABLE 2 - PETROLEUM OILS AND LUBRICANTS

Notes ...

- (1) Only the POL products listed below are to be used on this equipment.
- (2) Oil changes at the -15°C point shall only be made on the advice of the local REME advisor. Changes of grade will normally be recommended when ambient temperature is expected to fall below -15°C for more than five hours per day. Special instruction will apply if the engine has been 'winterised'.
- (3) All fluid capacities are to be checked with the motor cycle on level ground and unladen whenever possible. The capacities listed are to be used as a guide only and a physical check is to be made to ensure that all fluids are at the correct levels.

Ser	Assembly/System	POL Product		Capacity	
		Above -15°C	Below -15°C	Litres	Pints
(1)	(2)	(3)	(4)	(5)	(6)
1	Oil tank	OMD 45	OMD 45	2.2	3.8
2	Transmission	OMD 75	OMD 75	1.1	1.9
3	Front forks (each leg)	OMD 75	OMD 75	0.2	0.35
4	Drive chain	Renold chain lubricant	Renold chain lubricant	-	-
5	Air filter element	OMD 75	OMD 75	57 ml	2 fl oz
6	Front and rear wheel	XG 279	XG 279	-	-
7	Steering head bearings	XG 279	XG 279	-	-
8	Brake pedal pivots	XG 279	XG 279	-	-
9	Battery terminals	PX 7	PX 7	-	-
10	General greasing	XG 279	XG 279	-	-
11	Oil can lubrication	OMD 75	OMD 75	-	-
12	Fuel tank	CIVGAS	CIVGAS	15.9	27.9
13	Fuel tank (models 8801 and 8802)	CIVGAS	CIVGAS	15.5	27.2
14	Electronic control unit and connections	XG 250	XG 250	-	-
15					
16					

TABLE 3 - EQUIPMENT DATA

Ser	Item	Detail
	<u>ADJUSTMENTS</u>	
1	Sparking plug gap	0.5 mm (0.020 in.)
2	Chain free-play	25 mm (1 in.) with wheel off ground
3	Front brake free play	25 mm (1 in.) at handle grip
4	Rear brake free play	25 mm (1 in.) at pedal
5		
6		
	<u>TORQUE WRENCH SETTINGS</u>	
7	Cylinder head nuts	19 Nm (14 lbf ft)
8	Wheel axle nuts and pinch bolts	Front axle nut 34-80 Nm (25-60 lbf ft) Front fork axle pinch bolts 20-27 Nm (15-20 lbf ft) Rear axle nut 88-100 Nm 65-75 lbf ft)
9		
10		
	<u>TYRES</u>	
11	Tyre pressures	1.8 bar (26 lbf/in ²) front and rear
12		
13		

TABLE 4 - ACTION ON RECEIPT OF EQUIPMENT

Ser	Operation
(1)	(2)
	<u>Check</u>
1	Equipment for damage.
2	Tools and equipment against CES.
	<u>Remove</u>
3	Preservation, sealing and packaging where applicable.
	<u>Refit</u>
4	Any components removed to aid transit.
	<u>Clean</u>
5	Equipment, tools and attachments.
	<u>Read</u>
6	Operator/User Handbook and learn position and function of all controls
	<u>Service</u>
7	Carry out servicing (ONLY if due).
	<u>Report</u>
8	Equipment defects and damage to REME.
9	
10	

TABLE 5 - OUT OF USE SERVICING

Notes ...

- (1) This servicing is to be carried out when the equipment is taken out of use for periods exceeding one month.
- (2) An 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 servicing is to be carried out when the equipment is brought back into use.

Ser	Operation
(1)	(2)
1	Carry out Table 6 servicing and patch-paint.
2	Carry out next servicing due.
3	Rectify all faults affecting roadworthiness.
4	Fill fuel tank.
5	Disconnect battery earth lead.
6	
7	
	<u>WEEKLY</u>
8	Check and adjust tyre pressures.
9	Report any fuel, oil or coolant leaks.
10	
11	
	<u>TWO-MONTHLY</u>
12	Carry out Table 6 servicing.
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.
17	
18	

TABLE 6 - DRIVER CHECKS

Notes ...

- (1) This Table is to be read in conjunction with JSP 351 'MT Driver's Handbook'.
- (2) This servicing is to be carried out on those days when the equipment is to be used.
- (3) All faults are to be reported as soon as possible.

Ser	Operation	Diagram Reference	Lubricant
(1)	(2)	(3)	(4)
	<p><u>DAILY</u></p> <p><u>Before starting the engine</u></p> <p><u>CAUTION ...</u></p> <p><u>Before starting the motor cycle ensure that the steering is unlocked.</u></p>		
1	Check that there is sufficient fuel in the tank.		
2	Check engine oil level replenish if necessary.		
3	Check tyres for serviceability and correct pressure.		
4			
5			
	<p><u>After starting the engine</u></p> <p><u>CAUTION ...</u></p> <p><u>Since the engine cooling is only effective whilst the motor cycle is in motion DO NOT allow the engine to idle unnecessarily. Prolonged idling and low speed operation may cause engine damage.</u></p>		
6	Check that all gauges, warning lights are functioning correctly.		
7	Check for correct functioning of horn, lights and indicators.		
8	Check for fuel/oil leaks.		

(continued)

TABLE 6 - DRIVER CHECKS (continued)

(1)	(2)	(3)	(4)
9	Check rearview mirrors for security and serviceability. <u>CAUTION ...</u> <u>Before riding the motor cycle ensure that the side stand is correctly stowed along the swinging arm.</u>		
10			
11	<u>During halts (after approximately 4 hours running)</u>		
12	Check for fuel, oil leaks.		
13	Check wheel hubs, brakes and tyres for excessive overheating.		
15	<u>When parking (at end of day's use)</u>		
16	Replenish fuel and oil as necessary.		
17	Check and if necessary adjust chain tension.		
18			
19	<u>WEEKLY</u> <u>WARNING ...</u> <u>ENSURE AT ALL TIMES THAT BATTERY VENT TUBE IS KEPT CLEAR AND FREE FROM KINKS AND SHARP BENDS. A RESTRICTED VENT TUBE WILL ALLOW A BUILD-UP OF GASES THAT COULD CAUSE AN EX. LOSION.</u>		
20	Check battery electrolye level (Fig 1 diagram ref 1).		
21	Clean battery terminals and smear them with protective (PX7)		

(continued)

TABLE 6 - DRIVER CHECKS (continued)

(1)	(2)	(3)	(4)
	<p><u>CAUTION ...</u></p> <p><u>Air filter. Do not dry filter foam with a high pressure air flow as it will lose its efficiency.</u></p>		
22	Service air filter (OMD 75) (Fig 1 diagram ref 2).		
23	Lubricate drive chain (Renold chain lubricant) (Fig 1 diagram ref 8).		
	<p><u>WARNING ...</u></p> <p><u>FRONT BRAKE. WHEN THE FRONT BRAKE CAM NOTCH COMES IN LINE WITH THE LOWER WEAR LIMIT IDENTIFICATION EMBOSSEMENT, THE BRAKE LININGS ARE TO BE REPLACED OR SERIOUS BRAKE MALFUNCTION MAY OCCUR.</u></p>		
24	Check front brakes.		
	<p><u>WARNING ...</u></p> <p><u>REAR BRAKE. WHEN THE REAR BRAKE ROD ADJUSTING NUT HAS REACHED ITS MAXIMUM ADJUSTMENT, THE BRAKE LININGS MUST BE REPLACED OR SERIOUS BRAKE MALFUNCTION MAY OCCUR.</u></p>		
25	Check rear brakes.		
26	Check spokes and sprocket bolts for tightness (Fig 1 diagram ref 4, 9).		
27	Check steering for security and smoothness of operation.		
28			
29			

TABLE 7 - INITIAL SERVICING

Note ...

This servicing is only to be carried out when the equipment (or a new/overhauled assembly) has completed the first 480 km (300 miles).

Ser	Operation	Diagram Reference	Lubricant
(1)	(2)	(3)	(4)
	<u>Change the oil in the following:</u>		
1	Transmission	7	OMD 75
	Note ... The drain plug is of the hexagon socket type which requires the use of an Allen key to be removed/replaced. This is NOT TO BE confused with the 'kick start stop bolt' which is a conventional bolt.		
2	Front forks	3	OMD 75
3			
4			
	<u>Oil the following using an oil can:</u>		
5	Drive chain	8	Renold chain lubricant
6	Clutch and handbrake pivot points (sparingly)		OMD 75
7			
8			
	<u>Tightness checks using a torque wrench</u>		
9	Cylinder head nuts (QT)		
10	Wheel axle nuts and pinch bolts (QT)	4, 9	
11			
12			

(continued)

TABLE 7 - INITIAL SERVICING (continued)

(1)	(2)	(3)	(4)
	<p><u>Check and if necessary adjust the following:</u></p> <p><u>CAUTION ...</u></p> <p><u>Ignition timing. To prevent damage to ignition system, do not crank the engine with spark plug lead detached unless stop switch is at 'OFF' position.</u></p>		
13	<p>Ignition timing (VM)</p> <p>Note ...</p> <p>To prevent ingress of dirt and moisture, fully pack the electronic control, the connector block, the rubber boot, the high tension connection and protector boot with XG 250.</p>		XG 250
14	Carburettor (VM)		
15	Accelerator and oil injection pump synchronisation (VM).		
16	Clutch (QT).		
17	Steering head bearing (QT)	5	
18	Front and rear brakes (VM)		
19			
20			
	<u>Other operations</u>		
21	Clean carburettor and fuel sediment bowl (VM)		OMD 75
22	Lightly grease rear brake pedal pivot		XG 279
23	Lightly grease centre and side stand pivots	6	XG 279
24	Lubricate steering head bearing (QT)	5	XG 279
25			
26			

TABLE 8 - 1600 km (1000 miles)/3 MONTHLY SERVICING

Note ...

This servicing is to be carried out every 1600 km (1000 miles) or 3 months whichever occurs first.

Ser	Operation	Diagram Reference	Lubricant
(1)	(2)	(3)	(4)
	<u>Change oil in the following:</u>		
1	Transmission Note ... The drain plug is of the hexagon socket type which requires the use of an Allen key to be removed/replaced. This is NOT TO BE confused with the 'kick start, stop bolt' which is a conventional bolt.	7	OMD 75
2			
3	Check and if necessary adjust the following: <u>CAUTION ...</u> <u>Ignition timing. To prevent damage to ignition system, do not crank the engine with spark plug lead detached unless stop switch is at 'OFF' position.</u>		
4	Ignition timing (VM) Note ... To prevent ingress of dirt and moisture, fully pack the electronic control, the connector block, the rubber boot, the high tension connection and Protector boot with XG 250.		XG 250
5	Carburettor (VM)		
6	Accelerator and oil injector pump synchronization (VM)		
7	Clutch (QT)		
8	Steering head bearing (QT)	5	
9			
10			(continued)

TABLE 8 - 1600 km (1000 miles)/3 MONTHLY SERVICING(continued)

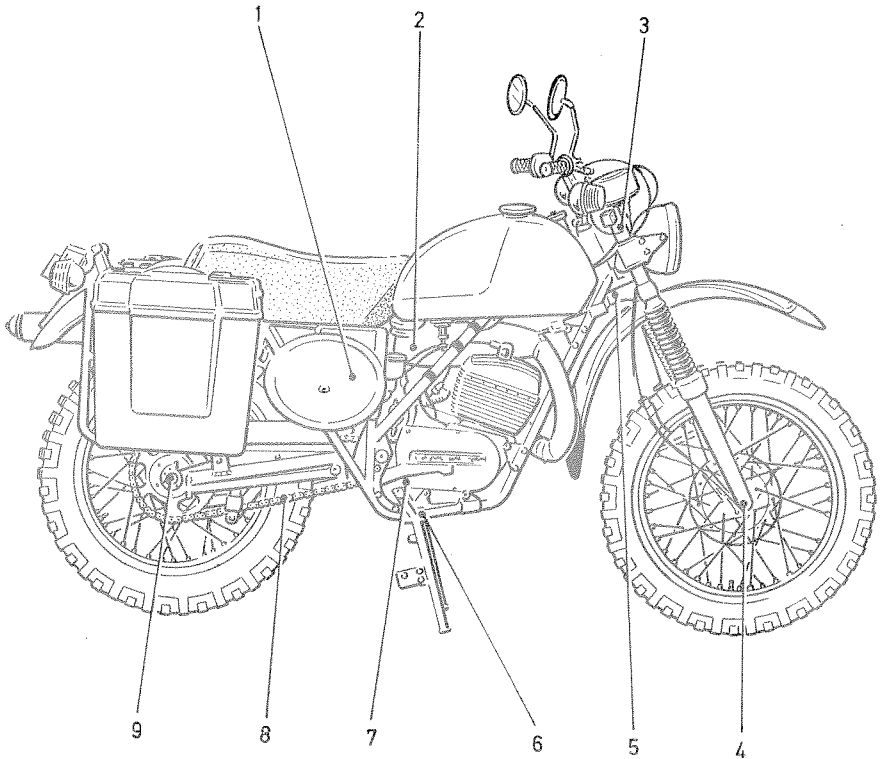
(1)	(2)	(3)	(4)
	<u>Tightness checks using a torque wrench</u>		
11	Wheels, axle nuts and pinch bolts (QT).	4, 9	
12			
13			
	<u>Tightness checks</u>		
14	Check and if necessary tighten all mounting nuts and bolts on the motor cycle.		
15			
16			
	<u>Other operations</u>		
17	Lubricate steering head bearing (QT)	3	XG 279
	<u>WARNING ...</u>		
	<u>WHEN THE OIL FILTER HAS BEEN REMOVED FOR CLEANING OR RENEWAL IT IS NECESSARY TO BLEED THE OIL SYSTEM. FAILURE TO DO THIS WILL CAUSE ENGINE SEIZURE.</u>		
18	Clean oil filter		
	Note ...		
	After cleaning and replacing the oil filter REME advice is to be sought prior to starting the engine.		
19			
20			

TABLE 9 - 5000 km (3000 miles)/12 MONTHLY SERVICING

Note ...

This servicing is to be carried out in addition to Table 8 every 5000 km (3000 miles) or 12 months whichever occurs first.

Ser	Operation	Diagram Reference	Lubricant
(1)	(2)	(3)	(4)
1	<u>Change oil in the following:</u>		
	Front forks	5	OMD 75
2			
3	<u>Tightness checks using a torque wrench</u>		
4	Cylinder head nuts (VM)		
5			
6	<u>Other operations</u>		
	<u>WARNING ...</u>		
	<u>WHEN THE OIL FILTER HAS BEEN REMOVED FOR CLEANING OR RENEWAL IT IS NECESSARY TO BLEED THE OIL SYSTEM. FAILURE TO DO THIS WILL CAUSE ENGINE SEIZURE.</u>		
7	Renew oil filter.		
	Note ...		
	After renewing the oil filter REME advice is to be sought prior to starting the engine.		
8			
9	Clean carburettor and fuel sediment bowl (VM).		
10			
11			



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- | | |
|------------------------------------|------------------------------------|
| 1. Battery | 6. Centre and side stand pivots |
| 2. Air filter | 7. Transmission |
| 3. Front forks | 8. Drive chain |
| 4. Wheel axle nuts and pinch bolts | 9. Wheel axle nuts and pinch bolts |
| 5. Steering head bearing | |

Fig 1 - Lubrication diagram