

RESTRICTED

DIRECTORATE GENERAL BORDER ROADS

GENERAL MAINTENANCE INSTRUCTIONS

No.146

**MAINTENANCE, PREVENTIVE MAINTENANCE AND LUBRICATION OF DODGE
PREMIER 1 TON MODEL P C – 40/34**

The information given in this document is not to be
communicated to the press or to any person not
authorised to receive it.

RESTRICTED

RESTRICTED
DIRECTORATE GENERAL BORDER ROADS
GENERAL MAINTENANCE. INSTRUCTIONS NO.No.146

ON
MAINTENANCE, PREVENTIVE MAINTENANCE AND LUBRICATION OF DODGE
PREMIER 1 TON MODEL P C – 40/34

Introduction:

1. Regular servicing and preventive maintenance are essential to prolong the life of the equipment, ensure timely repairs to arrest defect from development into major ones, to work equipment efficiently at all times, minimize breakdown and downtime losses.

Aim

2. (a) To enumerate the details of periodic and preventive maintenance and lubrication of Dodge premier 1 Ton Model PNC-40/34.
- (b) Issue Check Card for use by Mobile Maintenance Team.

Action by

3. (a) User units: To carry out periodic inspection, regular servicing and preventive maintenance tasks as laid down.
- (b) Field Workshop (GREF)
- (i) To check the record of 'Maintenance and Lubrication' in the log book of the equipment during its inspection and repairs if carried as per maintenances and lubrication schedules given in this instruction.
- (ii) Advise user units in respect of any discrepancy/short comings noticed.
- (c) Mobile Maintenance Team: To ensure that proper maintenance is carried and report accordingly to OC Fd Wksp for necessary action.

Details

4. Details of maintenance and Lubrication along with the periodicity have been tabulated in Appx 'A' to this instruction.

RESTRICTED

Appx 'A' to GMI No. 146 dated 28 May 1976

S/No.	Items/Assys	Maintenance Instruction	Lubrication	No. of points.
1	2	3	4	5
1.		<u>Daily Task</u>		
		(a) Check oil gas for leaks		
		(b) Check for exhaust smoke colour, noise or vibration.		
		(c) Check all gauges and meters are serviceable		
		(d) Check all bolts and nuts if rectify/replace		
2.	Engine Sump	Check oil level and top up if necessary	Engine oil	1
3.	Radiator	Top up water upto level		1
4.	Fan belts	Check fan belt tension 12.7 mm		1
5.	Battery	Top up electrolyte 10 mm from top		1
6.	Electrical System	Check horn, light, oil pressure warning light, alternator warning gauge etc for services ability		4
7.	Steering	Check steering wheel free play		1
8.	Tyres	Check tyres pressure		4
9.	Brake	Check padal free play 5.7 kg/sq cm 5.00 mm		1
	Clutch	Check clutch free play 25.4 mm		1
10.	Engine and chassis	Listen for unusual knocks in engine while running and in chassis		1

Notes:-

Engines and Air Cleaners : Oil Grades

- | | | |
|----------------------|-----|------------------------------------|
| (a) Above 0 degree C | Use | SAE 30 or SAE 20W-40 |
| (b) As low as 12 “ | “ | SAE 20 or SAE 10W-30 |
| (c) As low as 24 “ | “ | SAE 10W or SAE 10W-30 or SAE 5W-20 |
| (d) Below 24 “ | “ | SAE 5W or SAE W-20 |
- SAE 10W engine oil plus 10% refined Kerosene may be used if SAE 5W-20 is not available

For Air Cleaner, use SAE-50 (or SAE 40 in case SAE 50 is not available).

800 Kms Task

RESTRICTED

RESTRICTED

1.	Carry out daily maint task			
2.	Engine	(a) Change engine oil of new/overhauled engine after first 800 Kms running in period. Flush out engine thoroughly.	Engine Oil	1
3.	Air Cleaner	Inspect condition of oil in air cleaner if found dirty change oil and clean filter element.	Engine oil	1
4.	Clutch	Check free movement of the clutch. It should be 1 (25.4).		
5.	Transmission	Check oil level and top up if necessary	GL4	4
6.	Differential	-do-	GL4	1
7.	Steering Gear Box	-do-	SAE 140 EP Gem Oil	1

Notes:-

Transmission/steering and Rear axle	
Transmission (4&5 speed)	Gear oil SAE-140EP
Rear Axle (below 32.2 degree C)	Gear Oil SAE-90 EP
Steering Gear Box (Above 32.2 degree C)	Gear Oil SAE-140 EP

1500 Kms Task

1.	<u>Carryout daily and 800 Kms Task</u>			
2.	Engine	Change engine oil clean air cleaner element and change oil	Engine oil	2
3.	Cooling system	Check adjustment of the fan belt		1
4.	Battery	Top up batteries with distilled water 10mm above the plates		1
5.	Electrical system	(a) Clean and adjust the spark plug gap (9.71 mm to .81 mm)		6
		(b) Check and adjust CB Point gap (.43 to .58mm)		1
6.	Starter motor	Lubricate starter motor bearing	Engine Oil	1
7.	Clutch	Lubricate the clutch pedal shaft and grease yoke shaft.	Grease No. 1	1
8.	Transmission	Check oil level and top up if necessary	Grease Oil	1
9.	Steering Gear Box	Check oil level and top up	GL -4	1

RESTRICTED

RESTRICTED

10.	Differential	Check oil level and top up if necessary	GL 4	1
11.	Steering linkages	Lubricate all points and on steering linkages	Grease No. 1	10
12.	Propeller shaft universal Joint	Lubricate the universal joints	-do-	3
13.	Brakes	(a) Check the brake fluid level and replenish if necessary (b) Lubricate foot brake pedal shaft and brake linkages	Brake Fluid Grease No. 1	1 4
14.	Road spring shackle pine front and rear	Lubricate all the points	-do-	10

Notes:-

Engine and Air Cleaners – Oil Grades

(a) Above 32 degree C (90 degree F)	Use SAE 30/HD 30
(b) 30 degree to – 12 degree C	Use SAE 20/HD 20
(c) Below minus 12 degree C	Use SAE 10/HD 10

Capacity

(a) Engine Oil	5 ltrs (4.6 ltrs)
(b) Transmission	3.4 Litres
(c) Rear Axle	2.8 Ltrs (5 ltr for PC-40, PC-45)

Gear Box, Rear Axle and Steering Gear Box : Oil Grade

(a) Above 15 degree F	Use SAE 90/Hypoid 90
(b) 15 degree to minus 15 degree F	Use SAE 90/Hypoid 90

Front and Rear Axel bearings

(a) Above 15 degree F	Use wheel bearing Grease NO. 2
(b) 15 degree to minus 15 degree F	-do-

Grease Grades

(a) Above 15 degree F	Use Grease NO. 2
(b) 15 degree to minus 15 degree F	Use Grease No. 'O'

3000 Kms Task

1. Carry out 800 Kms & 1500 Kms maintenance task
2. Oil and filter clean filter and replace element
3. Tyre, Carry out tyre rotation.

Every 4500 Kms Task

1. Carry out 800 Kms, 1500 Kms and 3000 Kms maintenance task.
2. Fuel system Clean the fuel strainer

RESTRICTED

Every 7500 Kms Task

- | | | | | |
|----|---|--|-----------|---|
| 1. | Carry out 800 Kms, 1500 Kms, 3000 Kms and 4500 Kms maintenance task | | | |
| 2. | Gear Box | Drain and refill the Gear box assembly | 90 Hypoid | 1 |
| 3. | Front and Rear Axle | Change the oil in rear differential | -do- | 1 |