

**DIRECTORATE GENERAL BORDER ROADS**

**GENERAL MAINTENANCE INSTRUCTION**

**NO.19**

**GENERAL MAINTENANCE INSTRUCTIONS FOR  
PETROL AND DIESEL VEHICLES**

**DETAILS OF GREASE NIPPLES  
BED FORD**

1.	Water pump	-1	} 26 Nipples
2.	Clutch pedal bushing	-1	
3.	Brake pedal bushing	-1	
4.	Drag link	-2	
5.	Tie Rod	-2	
6.	Road spring shackle pins	-12	
7.	Propeller shaft	-4	
8.	King pins	-2	
9.	Accelerator pedal bushing	-1	

**Nissan Carrier 1 Ton 4x4**

1.	Rear Road spring	-4	} 22 Grease Nipples
2.	Front Rod spring	-4	
3.	Propeller shaft	-6	
4.	Drag link	-2	
5.	Tie Rod	-2	
6.	Water pump bearing	-1	
7.	Brake pedal shaft	-1	
8.	Distributor shaft	-1	
9.	Clutch pedal	-1	

**Nissan**

1.	Water pump	-1	} 23 Grease Nipple
2.	Clutch pedal	-1	
3.	Brake pedal	-1	
4.	Propeller shaft	-6	
5.	Knuckle flange bearing	-2	
6.	Tie Rod Ends	-2	
7.	Drag link	-2	
8.	Road spring shackle pins	-8	

## DETAILS OF GREASE NIPPLES

### JEEPS WILLYS

1.	Tie Rod Ends	-4	}	26
2.	Bell Crank	-1		
3.	Drg Link	-2		
4.	Knackle flange Dearing	-2		
5.	Road spring shackle pins	-4		
6.	Propeller shaft	-9		
7.	Transfer case lever	-1		
8.	Rear Axle Bearing	-2		
9.	Brake pedal	-1		

### INTERNATIONAL HARVESTER 1 TON

1.	Propeller shaft	-11
2.	Drag Link	-2
3.	Rear Road spring	-6
4.	Knackle joint	-2
5.	Tie Rod ends	-2
6.	Transfer case shift control	-1
7.	Clutch Release fork shaft	-1
8.	Front Axle shift control	-1
9.	Front Road spring shackle pins	-6
10.	Power take off shift control	-1
11.	Transmission shifting Bracket	-1
12.	Clutch Release lever socket	-1

### Lorry 3 Ton 4x2/4x4 TME

1.	Water pump -Greaser	
2.	Accelerator pedal bushing (IP I)	
3.	Clutch pedal bushing	-1
4.	Speedo adapter	-1
5.	Propeller shaft U Joints (3/LA6)	
6.	Propeller shaft centre bearing	-1
7.	Propeller shaft sliding yoke (1 LA-3)	
8.	King pins	-4
9.	Tie Rod ends	-2
10.	Drag link ends	-2
11.	Steering knuckle joints	(LA -4)
12.	Front and Rear spring pins	-12
13.	Helper spring brackets	-4
14.	Brake pedal bushing	-1
15.	Clutch pedal bushing	-1

- |     |                                   |    |
|-----|-----------------------------------|----|
| 16. | Hand brake lever mounting bracket | -1 |
| 17. | Intermediate lever shaft          | -1 |
| 18. | Hand brake shaft                  | -1 |
| 19. | Trailer coupling                  | -1 |

Lorry 3 Ton 4x4 Dodge and Power wagon

- |    |  |    |                     |
|----|--|----|---------------------|
| 1. | Front Road spring shackle pins           | -6 | } 30 Grease Nipples |
| 2. | Rear Road spring shackle pins            | -6 |                     |
| 3. | Steering Drag Link                       | -2 |                     |
| 4. | Tie Rad ends                             | -2 |                     |
| 5. | Knuckle joints                           | -2 |                     |
| 6. | Clutch pedal bushing                     | -1 |                     |
| 7. | Knuckle pedal bushing                    | -1 |                     |
| 8. | Water pump bushing                       | -1 |                     |
| 9. | Propeller shaft joints and coupling yoke | -9 |                     |

LUBRICATION AND SERVICING SCHEDULE – 'B' VEHICLES

Nomenclature	Daily	Weekly	Monthly	Six Monthly	Yearly	Running in period first 800 Km	First 1600 Km	Every 1600 Km	Every 4800 Km	Every 8000 Km
Engine	1. Visually inspect for loose connections, nuts, bolts, leaking seals & gaskets. 2. Check oil level & top up.	-	Clean crank case breather	1.Change oil every six months or 1600 Km whichever is earlier. 2. Clean drain plug with k.oil or petrol	Remove sump and clean	Change oil clean drain plug with k.oil /petrol.	1. Change oil 2.Clean drain plug	Change oil	-	-
Oil pump	Check oil pressure while running	-	-	-	Clean suction screen while cleaning sump	-	-	-	-	-
Oil filter element	-	-	-	-	-	Remove and clean	Remove and clean	Remove and clean	-	Change element
Air Cleaner	Check oil level and top up	Examine oil and change if necessary	Clean element in petrol/diesel	-	-	-	-	-	-	-
FIP & Injectors	-	Check oil level in FIP & top	-	-	Change oil in FIP at	-	-	-	-	Remove test injector

		up			every 10000 km or one year whichever ever is earliest.					nozzle and service
CB Points, Spark plugs, dynamo & wiring	Check up for any loose connection & perished wires	-	-	-	-	-	-	Check CB points gap & adjusted if necessary Remove & Clean spark plugs	-	-
Battery	Ensure tightness in cradle	1.Check electrolyte & top up if necessary 2. Clean vent hole plugs	Apply mineral jelly to the terminal posts	-	-	-	-	-	-	-
Fuel system	Check any leakage in system	-	Drain sludge from the fuel tank	Clean pre filter	Remove tank & clean	-	-	-	Clean pre filter	-
Twin filter fuel	-	-	-	-	-	-	-	-	-	Clean primary stage filter felt

										element. Replace final stage paper element.
Cooling system	1.Check coolant & top up in necessary 2. Check fan belt for damage/looseness	Ensure radiator core is free from obstruction	-	-	Flash out radiator	-	-	-	-	-
Compressed air container & tyre in fluting bottle	Drain water from bottle	-	Drain water from Radiator	-	-	-	-	-		-
Gear box, transfer case axle & steering gear box	-	Check oil level & top up	Clean air breather element with petrol/diesel	-	-	Change oil	Check oil level & top up	-	-	Change at 8000 months which ever is early.
Engine control swivels	-	Check free play	Lubricate with oil	-	-	-		-	-	-
Propeller shaft U bolts & shackle pins	Check for tightness of all nuts & bolts	Lubricate with grease	-	-	-	-	-	-	-	-
Wheel hubs front & rear	-	-	-	-	-	Repack with grease every	-	-	-	

						8000 Km one year which ever ks earlier				
Master cyl/bush fluid container	-	Check level top up	-	-	-	-	-	-	-	-
Speedo cable	-	--	-	-	-	-	-	-	Remove cable & lubricate with graphite grease	-
Wheels & rims	Tighten wheel nuts	-	-	Clean & repaint	-	-		-	-	-
Tyres	Check tyre pressure	-	-	-	-	--	-	-	Rotate	

- \* The task frequencies in plains and hilly/dusty conditions will be as under.
- (a) Plains- Every 1600 Km (b) Hilly/Dusty conditions –every 1300 Km(c)  
Under very dusty condition SO 1/SO 2 EME under intimation of this HQ.
- \* Task to be carried out by Fd Wksp.  
Applicable for diesel vehicles only.  
Task to be carried out with the help of EME person.





## DETAILS OF GREASE NIPPLES

### JEEPS WILLYS

1.	Tie Rod Ends	-4	}	26
2.	Bell Crank	-1		
3.	Drg Link	-2		
4.	Knackle flange Dearing	-2		
5.	Road spring shackle pins	-4		
6.	Propeller shaft	-9		
7.	Transfer case lever	-1		
8.	Rear Axle Bearing	-2		
9.	Brake pedal	-1		

### INTERNATIONAL HARVESTER 1 TON

1.	Propeller shaft	-11
2.	Drag Link	-2
3.	Rear Road spring	-6
4.	Knackle joint	-2
5.	Tie Rod ends	-2
6.	Transfer case shift control	-1
7.	Clutch Release fork shaft	-1
8.	Front Axle shift control	-1
9.	Front Road spring shackle pins	-6
10.	Power take off shift control	-1
11.	Transmission shifting Bracket	-1
12.	Clutch Release lever socket	-1

### Lorry 3 Ton 4x2/4x4 TME

1.	Water pump -Greaser	
2.	Accelerator pedal bushing (IP I)	
3.	Clutch pedal bushing	-1
4.	Speedo adapter	-1
5.	Propeller shaft U Joints (3/LA6)	
6.	Propeller shaft centre bearing	-1
7.	Propeller shaft sliding yoke (1 LA-3)	
8.	King pins	-4
9.	Tie Rod ends	-2
10.	Drag link ends	-2
11.	Steering knuckle joints	(LA -4)
12.	Front and Rear spring pins	-12
13.	Helper spring brackets	-4
14.	Brake pedal bushing	-1
15.	Clutch pedal bushing	-1
16.	Hand brake lever mounting bracket	-1
17.	Intermediate lever shaft	-1
18.	Hand brake shaft	-1
19.	Trailer coupling	-1

### Lorry 3 Ton 4x4 Dodge and Power wagon

1.	Front Road spring shackle pins	-6	}	30 Grease Nipples
2.	Rear Road spring shackle pins	-6		
3.	Steering Drag Link	-2		
4.	Tie Rad ends	-2		
5.	Knuckle joints	-2		
6.	Clutch pedal bushing	-1		
7.	Knuckle pedal bushing	-1		
8.	Water pump bushing	-1		
9.	Propeller shaft joints and coupling yoke	-9		