

D7G Bulldozer With Winch
D7G Bulldozer With Ripper
Winterized D7G Bulldozer With Winch
Winterized D7G Bulldozer With Ripper

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

Reference TM5-2410-237-10, TM5-2410-237-20

Intervals (on condition or hard time) and the related man-hour times are based on normal operation. The man-hour time specified is the time you need to do all the services prescribed for a particular interval. On-condition (OC) oil sample intervals shall be applied unless changed by the Army Oil Analysis Program (AOAP) laboratory. Change the hard time interval if your lubricants are contaminated or if you are operating the equipment under adverse operating conditions, including longer-than-usual operating hours. The hard time interval may be extended during periods of low activity. If extended, adequate preservation precautions must be taken. Hard time intervals will be applied in the event AOAP laboratory support is not available.

Clean fittings before lubricating. Clean parts with dry cleaning solvent (SD), type II or equivalent. Dry before

lubricating. Dotted arrow points indicate lubrication on both sides of the equipment.

Level of maintenance. The lowest level of maintenance authorized to lubricate a point is indicated by one of the following symbols as appropriate: Operator/Crew (C); and Organizational Maintenance (O).

Reporting errors and recommending improvements. You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank forms) direct to: Commander, US Army Tank-Automotive Command, ATTN: AMSTA- MB, Warren, MI 48397-5000. A reply will be furnished to you.

TOTAL MAN-HR

TOTAL MAN-HR

INTERVAL	MAN-HR	INTERVAL	MAN-HR
AR	0.1	250	1.0
10	0.1	500	2.0
50	1.0	1000	2.0
100	1.0	2000	2.0

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

Bulldozer Tilt Brace Ball and Socket (O)
(2 places)
(See view A)

GAA

250

Bulldozer Tilt Brace (O)
(1 place)
(See view B)

GAA

250

Bulldozer Cylinder Support and Upper Trunnion Bearings (O)
(6 places)
(See view C)

GAA

50

Engine Crankcase (C,O)
(See view D and Note 1)

OE/HDO

250

Torque Divider Suction Screen (O)
(See view E and Note 2)

Q

Transmission, Bevel Gear and Steering Clutch Compartments (O)
(See view F and Note 3)

OE/HDO

250

1000

Track Roller Frame Inner Bearings (O)
(2 places)
(See view G)

GAA

50

Winch (O)
(See view H and Note 4)

OE/HDO

1000

500

2000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

1000

50

GAA

Fan and Adjusting Pulley Bearings (O)
(2 places)
(See view Q)

GAA

Transmission System Filter Element (O)
(See view P and Note 9)

GAA

Transmission System Magnetic Strainer (O)
(See view O and Note 8)

GAA

Universal Joints (O)
(2 places)
(See view N)

OE/HDO

Hydraulic System (O)
(See view M and Note 7)

GAA

Track Roller Frame Outer Bearings (O)
(2 places)
(See view L)

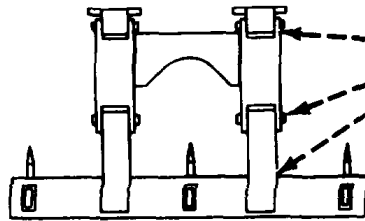
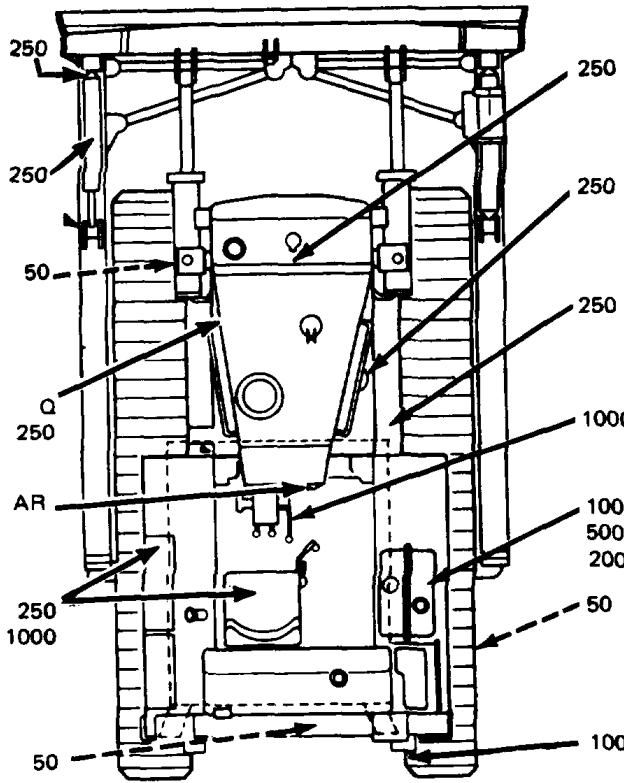
OE/HDO

Final Drives (O)
(See view K and Note 6)

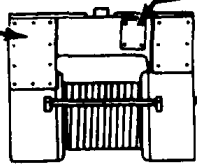
GAA

Ripper Linkage Cylinder Bearings (O)
(20 places)
(See view J)

Winch Change Filter and Wash Magnetic Strainer (O)
(See view I and Note 5)



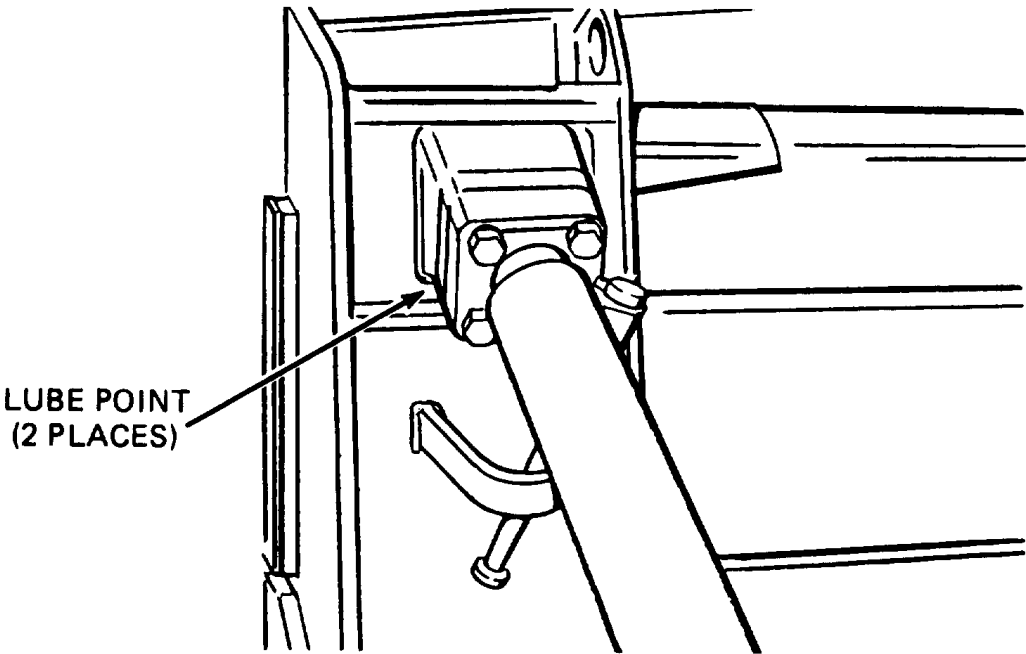
RIPPER (OPTIONAL)



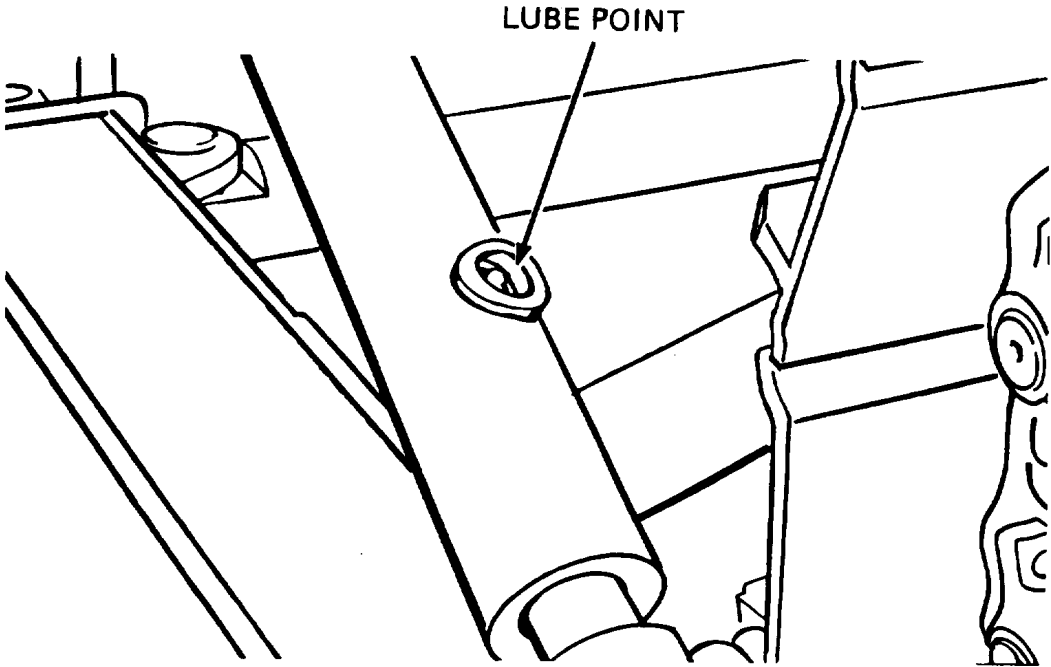
WINCH (OPTIONAL)

TOP VIEW

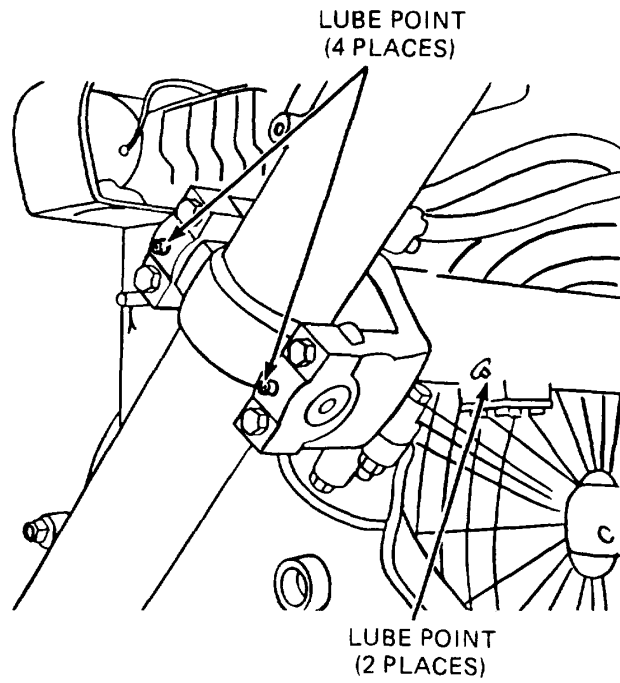
VIEW A BULLDOZER TILT BRACE BALL AND SOCKET



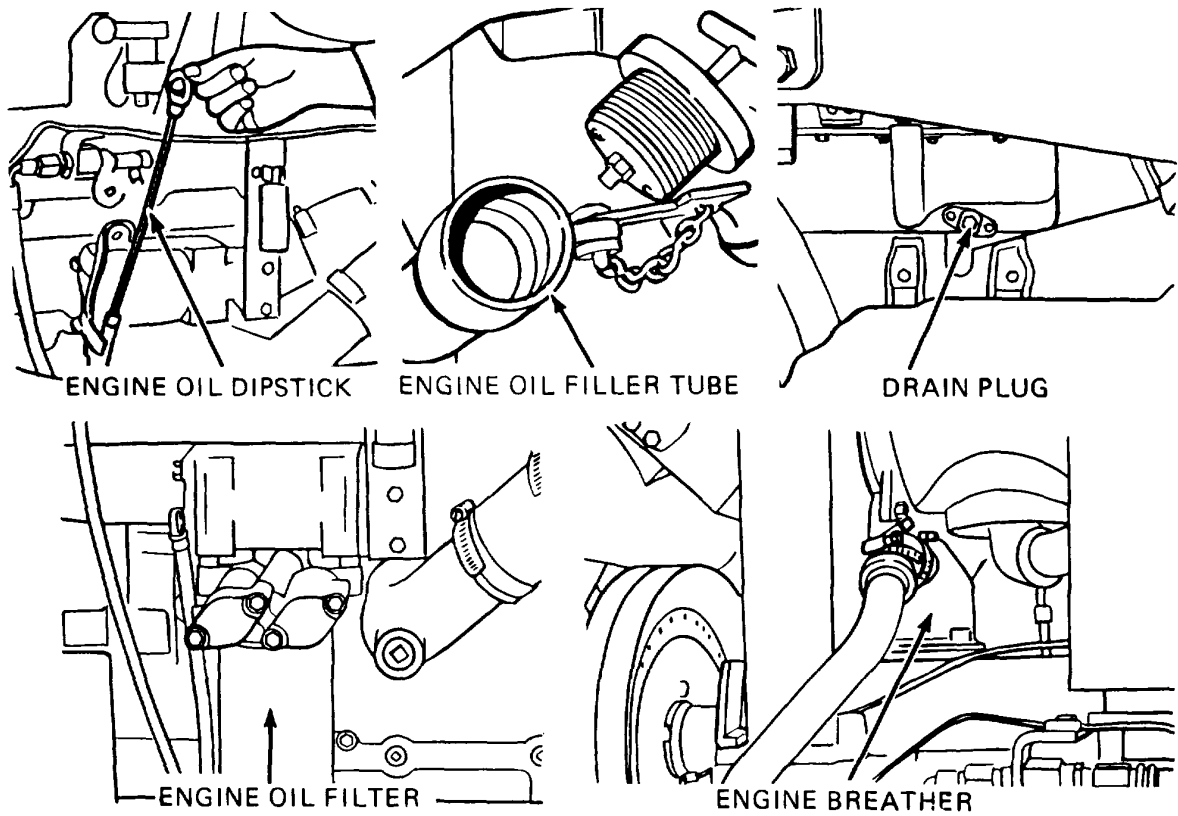
VIEW B BULLDOZER TILT BRACE



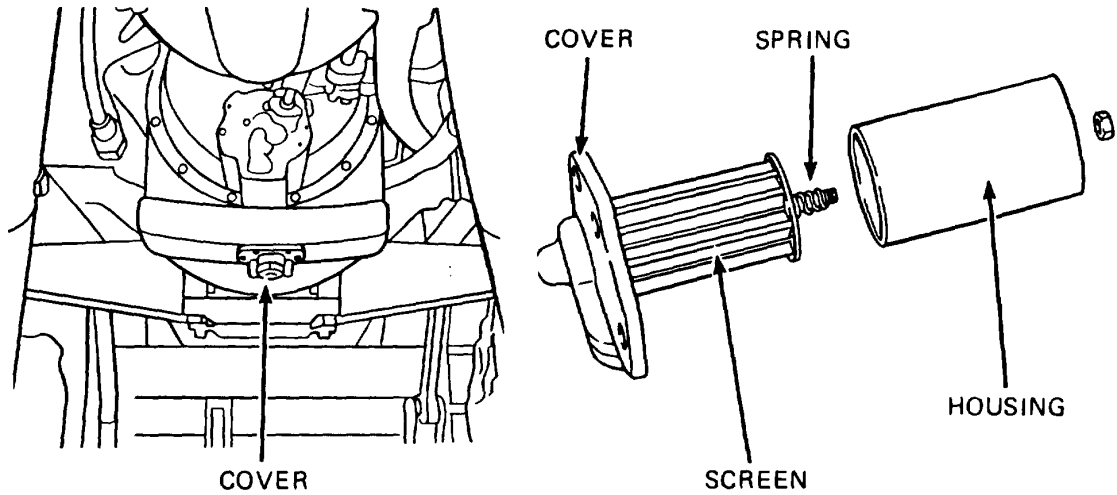
VIEW C BULLDOZER CYLINDER SUPPORT AND UPPER TRUNNION BEARINGS



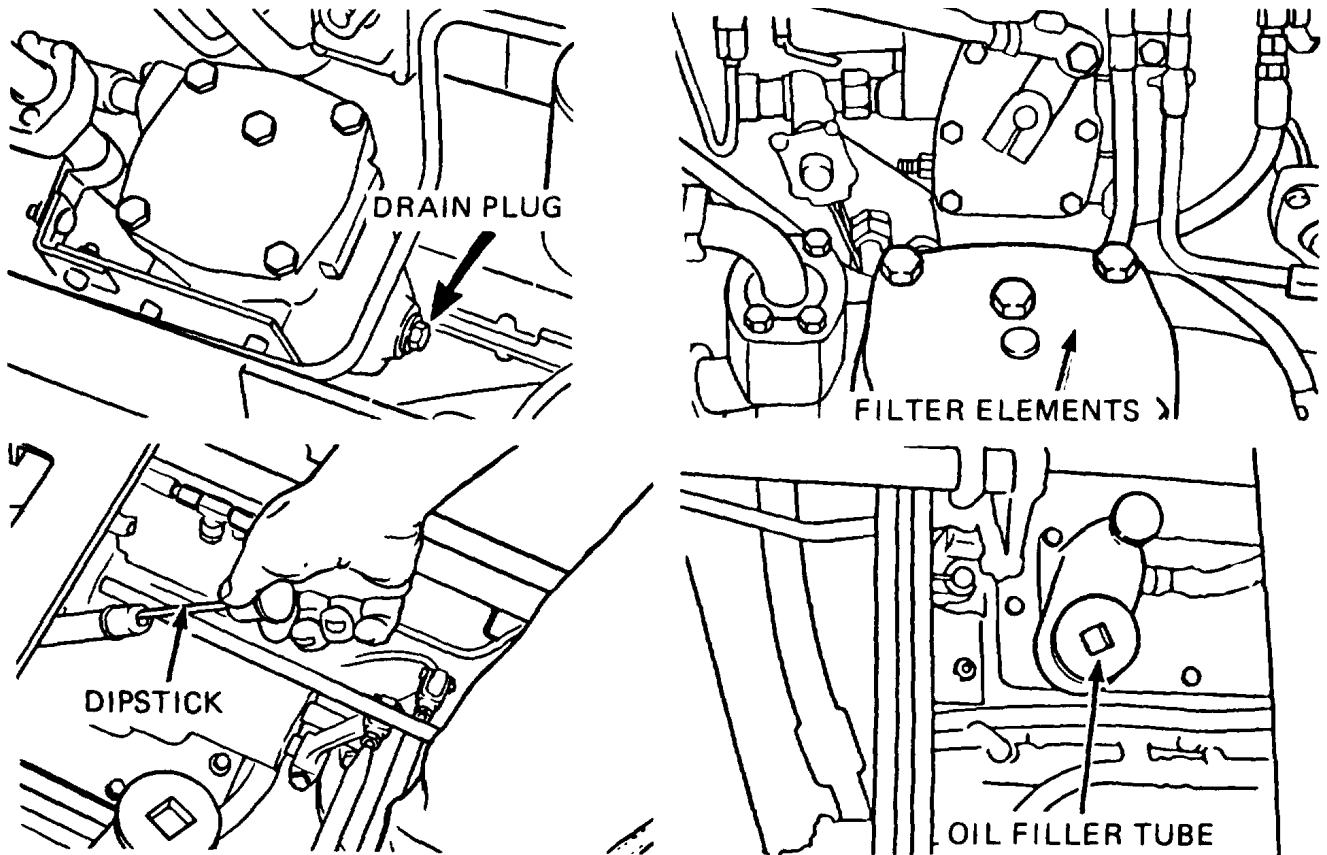
VIEW D ENGINE CRANKCASE



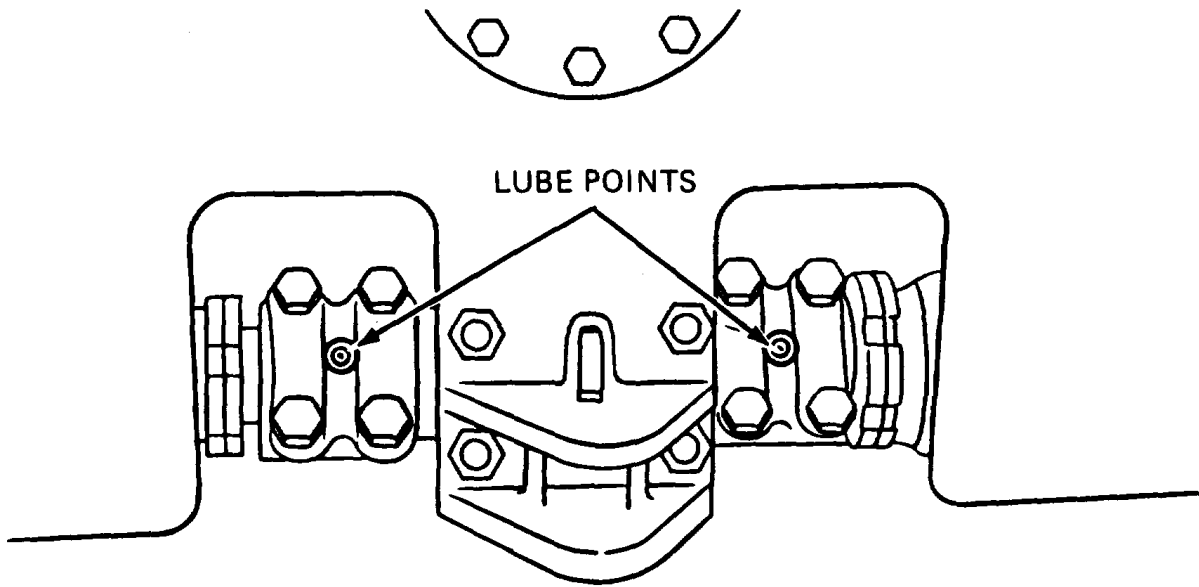
VIEW E TORQUE DIVIDER SUCTION SCREEN



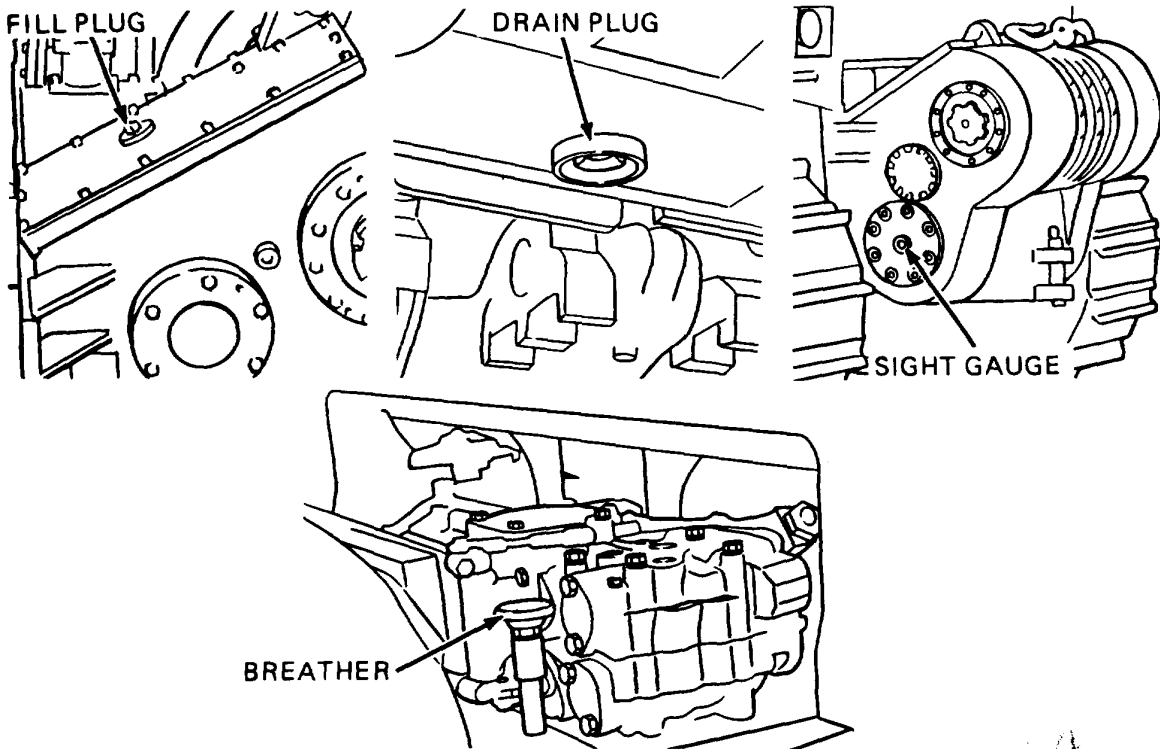
VIEW F TRANSMISSION, BEVEL GEAR AND STEERING CLUTCH COMPARTMENTS



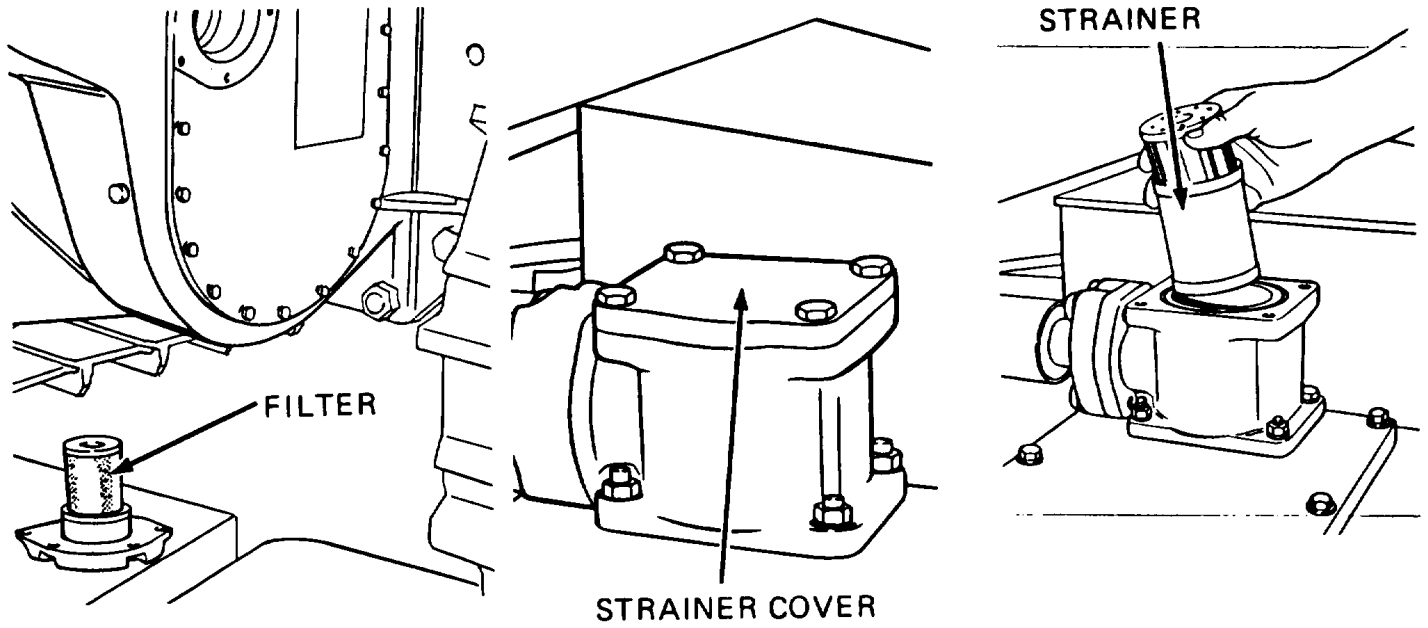
VIEW G TRACK ROLLER FRAME INNER BEARINGS



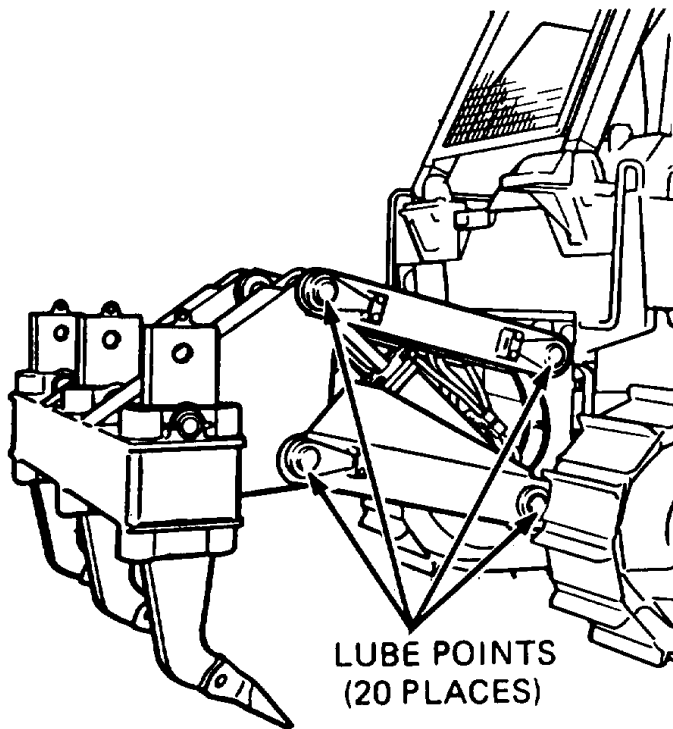
VIEW H WINCH



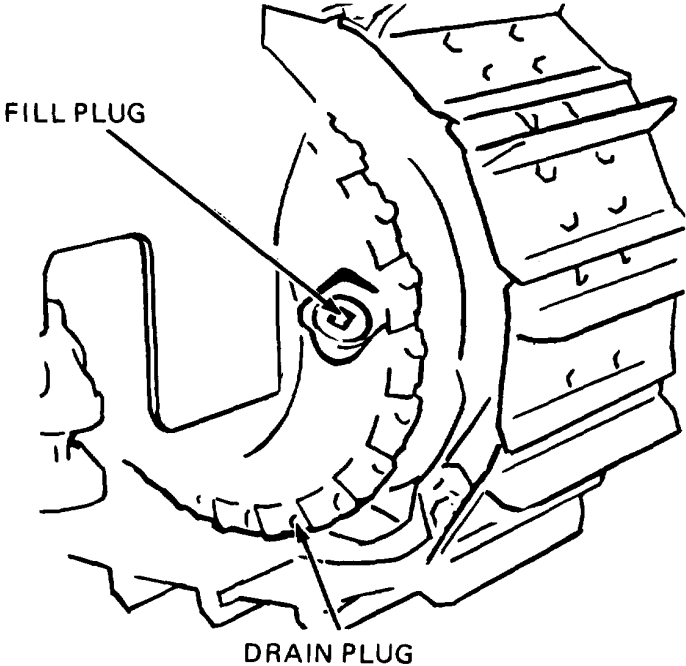
VIEW I WINCH FILTER AND MAGNETIC STRAINER



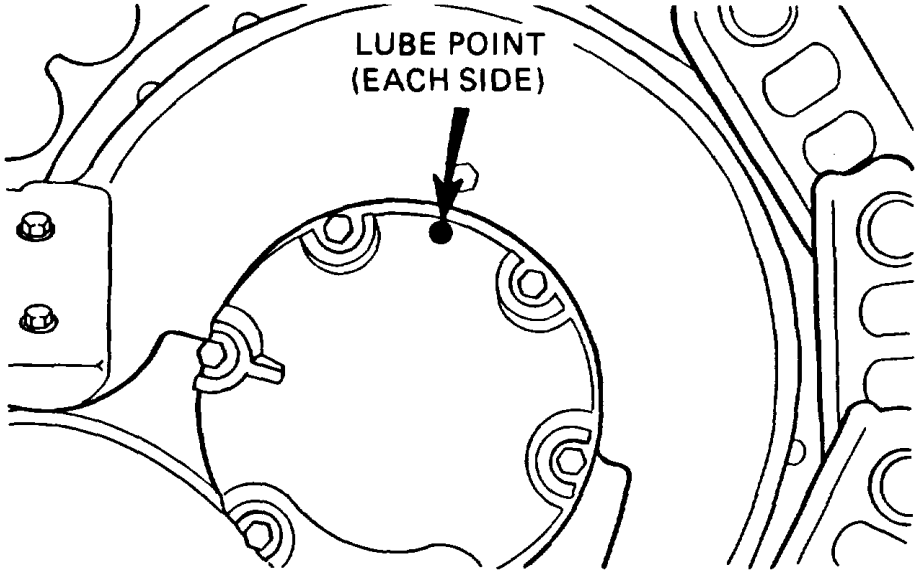
VIEW J RIPPER LINKAGE CYLINDER BEARINGS



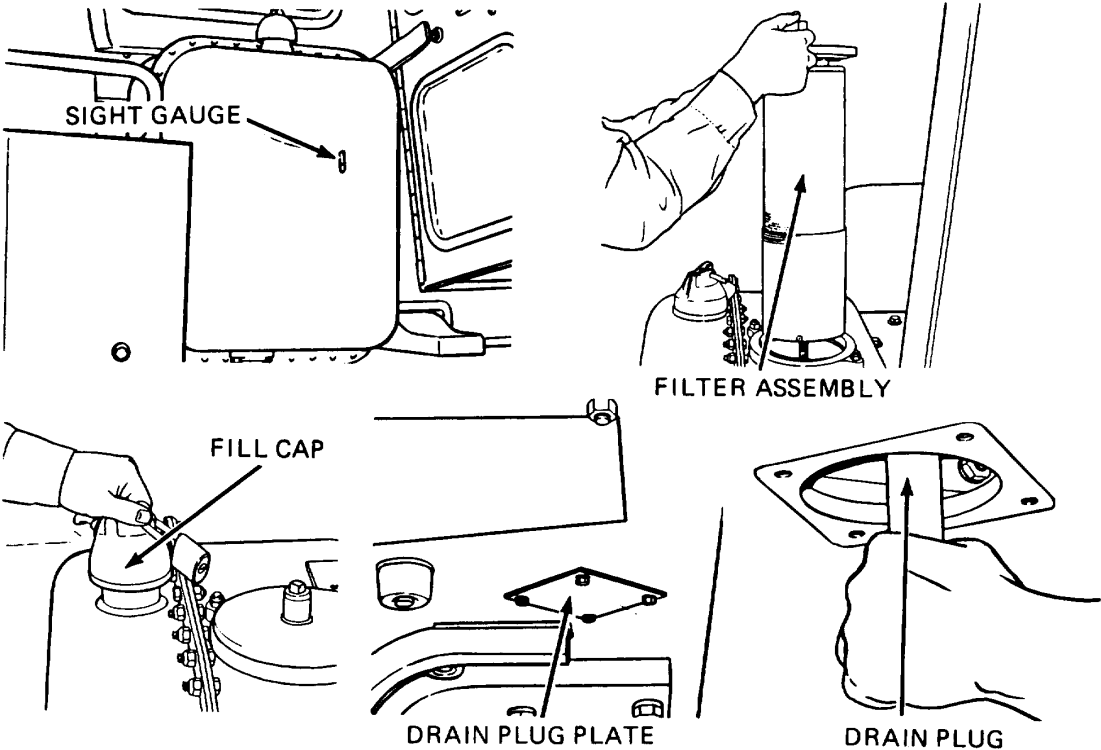
VIEW K FINAL DRIVES



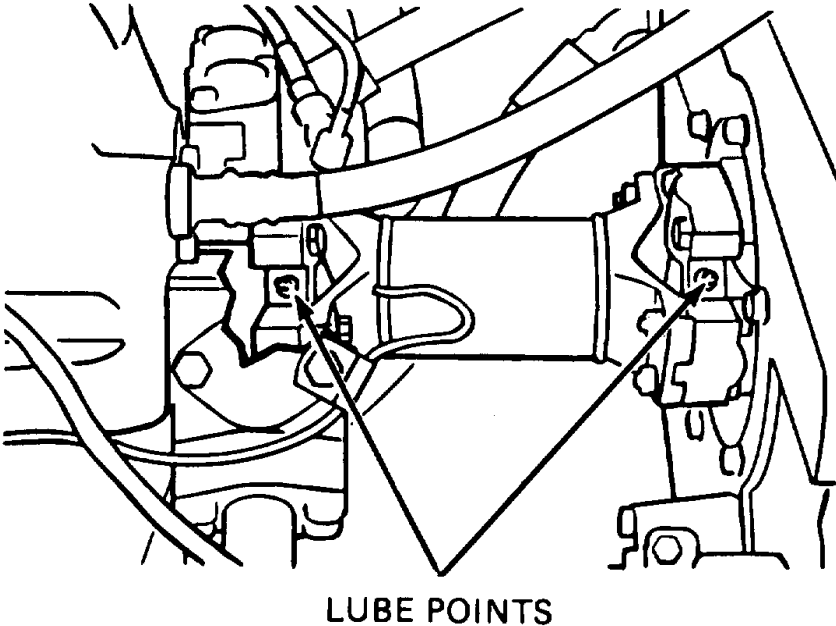
VIEW L TRACK ROLLER FRAME OUTER BEARINGS



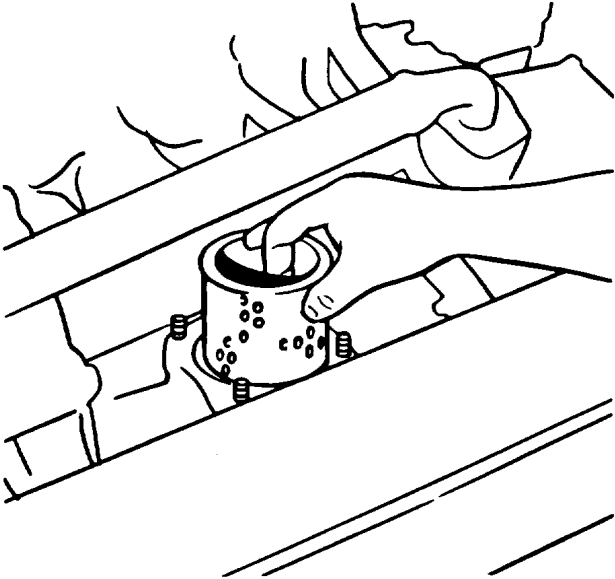
VIEW M HYDRAULIC SYSTEM



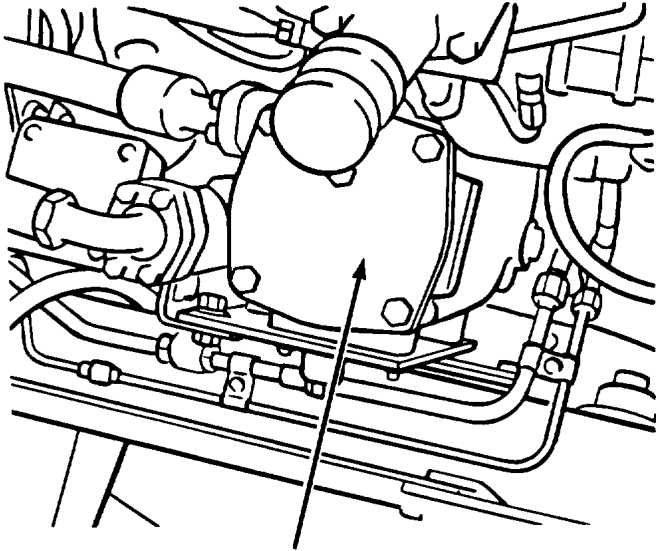
VIEW N UNIVERSAL JOINTS



**VIEW O TRANSMISSION SYSTEM
MAGNETIC STRAINER**

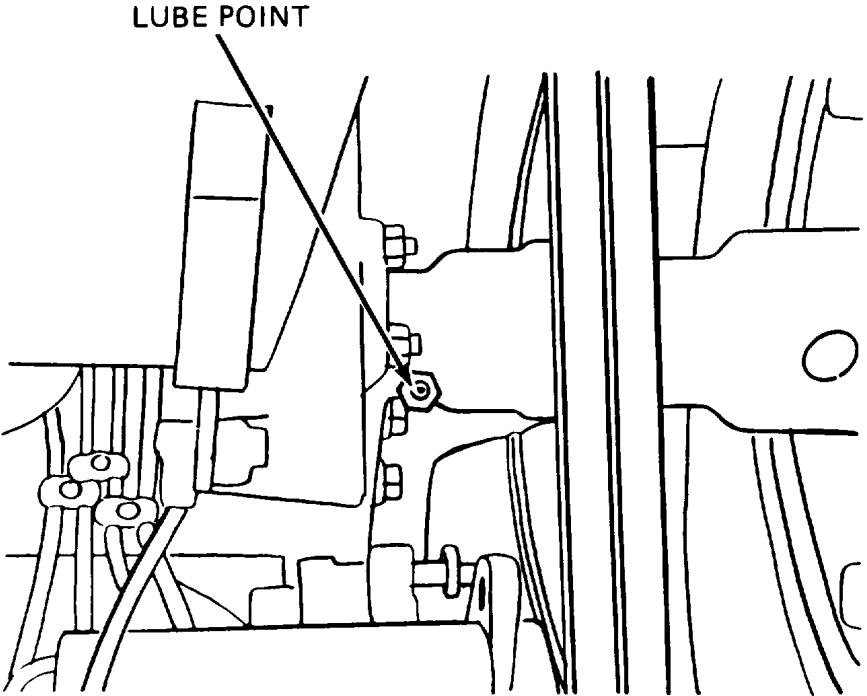


**VIEW P TRANSMISSION SYSTEM
FILTER ELEMENT**



FILTER ELEMENT

VIEW Q FAN PULLEY BEARINGS



KEY						
LUBRICANT	CAPACITIES	EXPECTED TEMPERATURE			INTERVALS	
		Above +15F (Above -9C)	+40F to -15F (+4C to -26C)	+40F to -85F (+4C to -54C)		
OE/HDO (MIL-L-2104) Lubricating Oil, ICE, Tactical OEA (MIL-L-46167) Lubricating Oil, ICE, Arctic Engine	7.25 gal. 27 l.	OE/HDO-15/40 OR OE/HDO-30 (0-238) SEE NOTE 1	OE/HDO-15/40 OR OE/HDO-10 (0-237) SEE NOTE 1&2	OEA (0-183)	For Arctic Operation Refer to FM 9-207	10 - 10 hours 50 - 50 hours 100 - 100 hours 250 - 250 hours 500 - 500 hours 1000 - 1000 hours 2000 - 2000 hours AR - as required Q - Quarterly
Transmission, Bevel Gear and Steering Clutch Compartment	18.5 gal. 70 l.					
Towing Winch	16 gal. 61 l.					
Track Rollers & Idlers	As Req					
Hydraulic System	21 gal. 79 l.	OE/HDO-15/40 OR OE/HDO-10 (0-237) SEE NOTE 1&2	OE/HDO-15/40 OR OE/HDO-10 (0-237) SEE NOTE 1&2	OEA (0-183)		
GO (MIL-L-2105) Lubricating Oil, Gear, Multipurpose Final Drives	9 gal. 34 l. (each)	GO-80/90 (0-226) SEE NOTE 3	GO-80/90 (0-226) SEE NOTE 3	GO-75 (0-186)		
Sealed & Lubricated Track	As Req	GAA (G-403) ALL TEMPERATURES				
GAA (MIL-L-10924) Grease, Automotive and Artillery Track Roller Frame Outer & Inner Bearings	As Req					
Bulldozer cylinder support & Upper Trunnion Bearings	As Req					
Ripper Linkage & Cylinder Bearings	As Req					
Fan and Adjusting Pulley Bearings	As Req					
Bulldozer Tilt Brace, Tilt Brace Ball & Socket	As Req					

KEY NOTES:

- Grade 15W-40 (OE/HDO-15/40) is the preferred lubricant but should only be used when temperatures are above +50F (-150C).
- If OEA lubricant is required to meet the low expected-temperature range, OEA lubricant is to be used in lieu of OE/HDO-10 lubricant for all expected-temperature ranges where OE/HDO-10 is specified in the KEY
- Grade 85W-140 (GO-85/140) may be used when expected temperatures are above +100F (-120C) The NATO Code for GO85/140 is 0-228

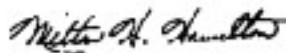
NOTES

1. **ENGINE CRANKCASE.** Check oil level daily Level must be in SAFE STARTING RANGE on ENGINE STOPPED side of dipstick. When engine is warm and running, level must be between ADD and FULL marks on ENGINE RUNNING side of dipstick. Change oil every 250 hours. Run engine long enough to warm oil Park on level ground Stop engine. Open drain valve and drain oil. Remove oil filter Clean filter base Make sure all of old gasket is removed Apply thin film of clean oil to gasket of new filter Install filter and tighten until gasket contacts base. Tighten filter an additional 3/4 turn Do not overtighten Close drain valve Remove breather Wash breather in clean solvent. Install new seal if necessary. Install breather. Tighten bolt Fill crankcase Start engine and run at low idle to fill filter housing. Check oil level.
2. **TORQUE DIVIDER SUCTION SCREEN.** Wash suction screen whenever oil compartment is drained for repairs on brakes, transmission or torque divider. Remove and separate cover, housing, spring and screen Wash screen in clean solvent Install new cover gasket if necessary Install screen, spring and housing to cover. Be sure pin in housing is aligned with hole in cover Install suction screen assembly
3. **TRANSMISSION, BEVEL GEAR AND STEERING CLUTCH COMPARTMENTS** 011 should be warm before draining Remove bevel gear, steering clutch and converter drain plugs Change filter elements Note 9) Wash magnetic strainer (Note 8). Install all drain plugs Replace breather Fill compartment Start engine Check oil level 011 should be up to FULL mark on dipstick
4. **WINCH.** Remove fill and drain plugs Drain oil Change filter and wash magnetic strainer (Note 5). Clean and install drain plug. Fill compartment until oil is visible in sight gauge Clean and install fill plug Check oil level with engine running at low idle. Oil must be visible in sight gauge
5. **WINCH FILTER AND MAGNETIC STRAINER.** Remove cover and filter element Install new element Install new seal if necessary Install cover Remove cover and strainer Wash strainer in clean solvent. Install strainer Install new seal if necessary Install cover
6. **FINAL DRIVES** Remove fill and drain plugs on each side. Drain oil install drain plugs and fill compartment Install fill plugs.
7. **HYDRAULIC SYSTEM** Check oil level every 100 hours Check oil level with equipment lowered, engine running at low idle, transmission in neutral and brake lock engaged 011 should be visible in sight gauge. Change filter element every 500 hours. Remove filter assembly from tank. Remove screen and element from cover Wash screen in clean solvent. Install new seal in cover If necessary install screen and new element to cover. Install filter assembly. Operate engine at low idle Check oil level in sight gauge. Add oil as necessary. Drain hydraulic tank every 2000 hours. Remove plate under fender and drain plug Insert a one inch (25.4 mm) pipe nipple, approximately six inches (152 mm) long in drain to relieve check valve Drain oil. Install drain plug and plate Change filter element. Remove filler strainer and wash in clean solvent Install strainer Add oil to tank until it is visible in sight gauge. Check oil level. Install filler cap 8.8.
8. **TRANSMISSION SYSTEM MAGNETIC STRAINER** Remove cover, spring, screen and magnets from magnetic strainer. Clean magnets with a stiff brush, Do not drop magnets Clean cover. Install new seal if necessary Install magnets, screen, spring and cover
9. **TRANSMISSION SYSTEM FILTER ELEMENTS** Remove filter plug Drain oil. Remove cover and elements Clean cover. Install new seal if necessary Secure new element to cover Install element, cover and drain plug Run engine at low idle to fill filter Add oil to bring level to FULL mark on dipstick

Copy of this Lubrication Order will remain with the equipment at all times, instructions contained herein are mandatory.

By Order of the Secretary of the Army:

Official:



MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army
03240

Distribution:

To be distributed in accordance with DA Form 12-25-E, Block 5974, requirements for LO 5-2410-237-12.

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

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