

LUBRICATION ORDER

1 FEBRUARY 1996

LO 5-3895-373-12

PAVING MACHINE, BITUMINOUS MATERIAL;
CRAWLER MOUNTED, DIESEL ENGINE DRIVEN
INGERSOLL-RAND COMPANY,
MODEL 780T
NSN 3895-01-379-1102

References: TM 5-3895-373-10, TM 5-3895-373-20
DA-PAM 738-750, Supply Catalog C9100-1 L

REPORTING OF ERRORS

You can improve this publication by calling attention to errors, recommending improvements, and stating your reasons for these recommendations. Your letter or a DA Form 2028, Recommended Changes to Publications and Forms, should be mailed directly to Commander, U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-IM-MMAA, Warren, MI 48397-5000. A reply will be furnished directly to you.

DISTRIBUTION STATEMENT: Approved for public release; distribution unlimited.

Intervals are based on normal operation.

- Lubricate more often during constant operation.
- Relubricate all items found contaminated after a high-pressure wash.
- On-Condition intervals for oil changes shall be determined by the Army Oil Analysis Program (AOAP) laboratory and will be applied unless otherwise notified. See cards 3 and 4 for oil sampling procedures.
- For equipment under manufacturers warranty, hardtime intervals shall be followed. Intervals shall be shortened if lubricants are known to be contaminated or if operation is under adverse conditions (such as longer than usual operating hours, extended idling periods, or extreme dust).

LEVEL OF MAINTENANCE

- C--Operator
- O--Unit Maintenance

OBSERVE THE FOLLOWING**WARNING**

Hydraulic oil, engine oil, lubricating oil, and grease can be moderately flammable and can be an irritant to the skin, eyes, and respiratory system. Avoid prolonged exposure. Eye protection and rubber gloves must be worn when working with hydraulic oil.

- NEVER use the wrong type of oil or grease.
- NEVER use too much grease
- NEVER overfill hydraulic oil or engine oil.

WARNING

Cleaning solvent, P-D-680, Type III, is TOXIC and flammable. Wear protective goggles and gloves. Use only in a well ventilated area. Avoid contact with skin, eyes, and clothes, and do not breathe vapors. Keep away from heat or flame. Never smoke when using solvent; the flashpoint for Type III cleaning solvent is 200°F (93,30C). Failure to do so may result in injury or death to personnel.

- ALWAYS clean lubrication fittings, control screws, guide indicator rod, chains, and drain and fill plugs with cleaning solvent, Type III, and dry before lubricating.

WARNING

Hydraulic fitting sealant, pipe sealant, and thread locking compound can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.

- ALWAYS use sealants and locking compounds as directed to prevent leaks.
- ALWAYS use Lubrication Order.

LUBRICANTS SPECIFICATIONS	LOCATION	CAPACITY	EXPECTED TEMPERATURES	
			Above +5°F (Above -15°C)	+15° to -65°F (-9° to -54°C)
OE/HDO-15/40 Lubricating Oil, Engine, Tactical Service MIL-L-2104	Engine Crankcase	7.7 qt (9,3 L)	OE/HDO-15/40	OEA
OEA Lubricating Oil, Engine, Arctic MIL-L-46167	Hydraulic System	32 gal (121 L)	OE/HDO-10	OEA
OE/HDO-10 Oil, Hydraulic MIL-L-2104				
GO Lubricating Oil, Gear, Multipurpose MIL-L-2105	Pump Drive Gearbox	4.5 pt (2,13 L)	GO-80/90	GO-75
	Speed Reduction Gearbox	4.6 pt (2,18 L)	GO-80/90	GO-75
GAA Grease, Automotive and Artillery MIL-G-10924	Lubrication Fittings, Bearings, Control Screws, Steering Guide Indicator Rod, Springs, Pawls, Pins, and Chains per notes.	As Required	All Temperatures	

NOTE

The normal outside operating temperature for this machine is above 50°F (10°C). Lubricants are listed for temperatures below this only as a guide in case conditions require operating the paving machine at lower temperatures.

OIL ANALYSIS PROGRAM SAMPLING PROCEDURES

ENGINE OIL

Active Army units shall sample engine oil at 50 hrs of operation or 90 days, whichever occurs first.

Reserves and National Guard units shall sample engine oil at 50 hrs of operation or 180 days, whichever occurs first.

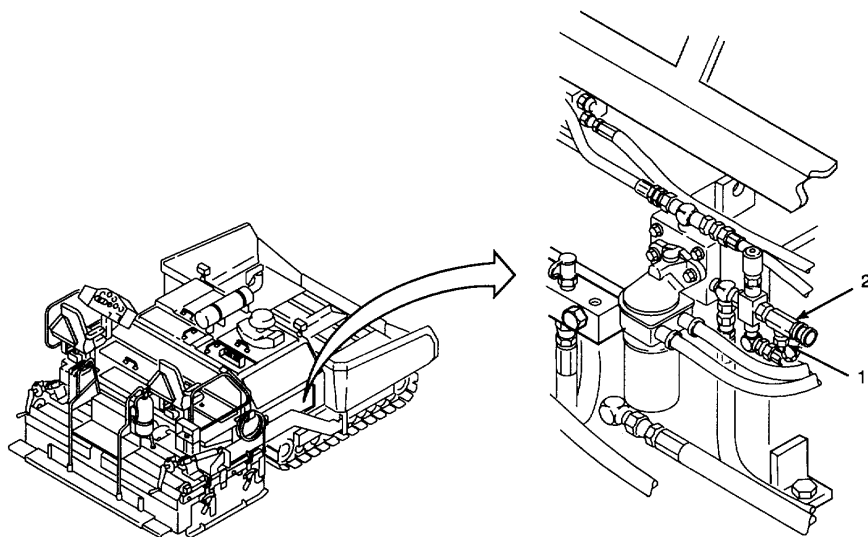
HYDRAULIC OIL

For Active Army, Reserves, and National Guard, hydraulic oil shall be sampled once a year.

When the Army Oil Analysis Program (AOAP) or a lubrication note specifies that an engine oil or hydraulic oil sample must be taken, use one of the following procedures:

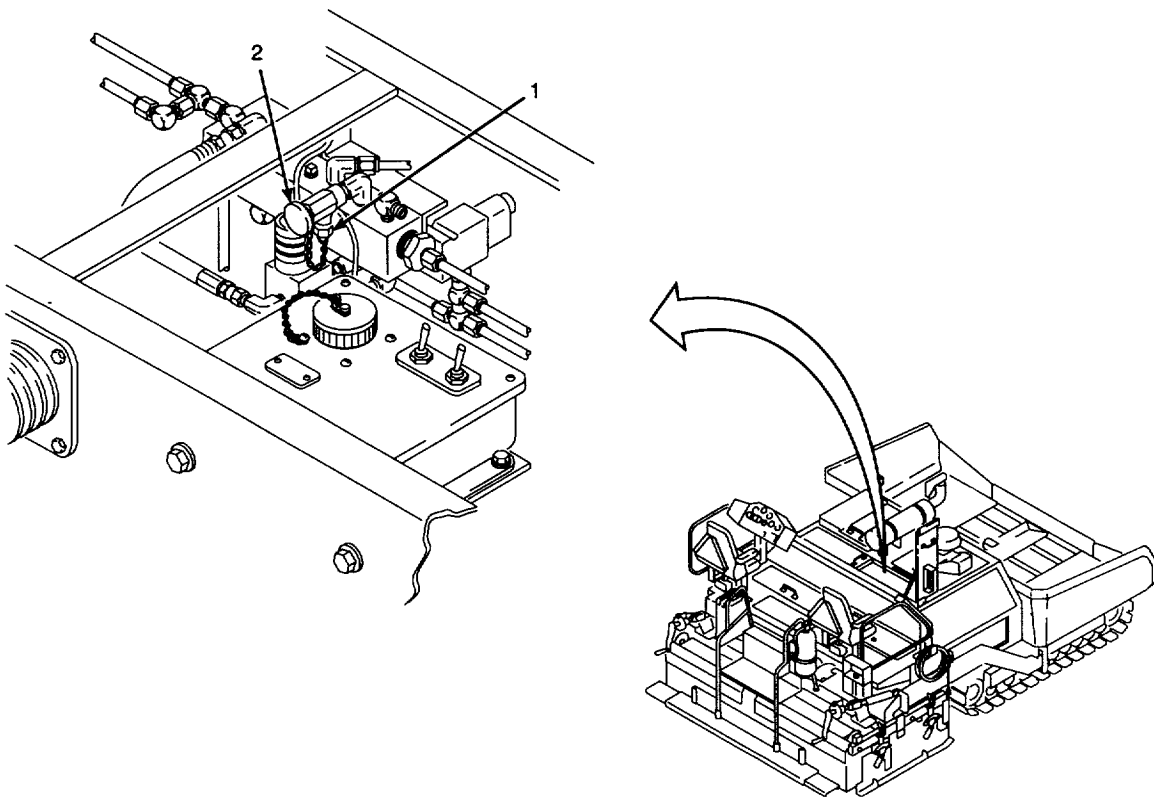
ENGINE OIL SAMPLE

- A Remove the right access cover per TM 5-3895-373-10.
- B Ensure that the engine oil is up to operating temperature and engine is running per TM 5-3895-373-10.
- C Remove bleeder valve cap (1).
- D Open bleeder valve (2) and drain a minimum of 2 oz (59 ml) into a container. Release the valve and discard waste oil in accordance with local procedures.
- E Place sample bottle per DA-PAM 738-750 under bleeder valve (2), open the valve and fill the sample bottle to approximately 1/2 in. (1,3 cm) below the neck of the bottle. Release valve.
- F Install bleeder valve cap (1).
- G Install the right access cover per TM 5-3895-373-10.
- H Send the sample to the AOAP laboratory.

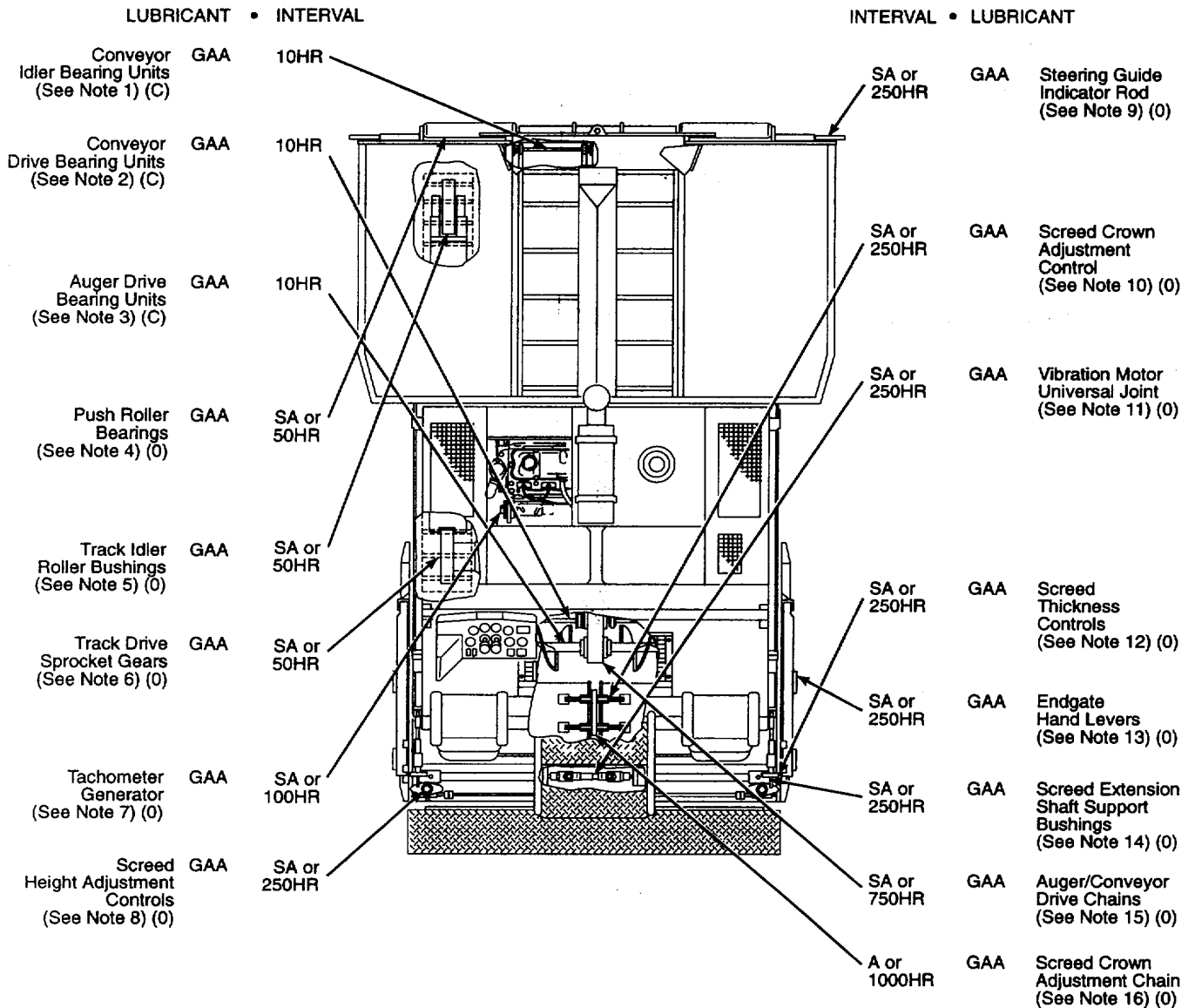


OIL ANALYSIS PROGRAM SAMPLING PROCEDURES (CONTINUED)**HYDRAULIC OIL SAMPLE**

- A** Open the center top right access door per TM 5-3895-373-10.
- B** Ensure that the hydraulic system is up to operating temperature and engine is running per TM 5-3895-373-10.
- C** Remove bleeder valve cap (1).
- D** Open bleeder valve (2) and drain a minimum of 2 oz (59 ml) into a container. Release the valve and discard waste oil in accordance with local procedures.
- E** Place sample bottle per DA-PAM 738-750 under bleeder valve (2), open the valve, and fill the sample bottle to approximately 1/2 in. (1,3 cm) below the neck of the bottle. Release valve.
- F** Install bleeder valve cap (1).
- G** Close the center top right access door per TM 5-3895-373-10.
- H** Send the sample to the AOAP laboratory.



GAA LUBRICATION CHART



LUBRICATING OIL CHART

LUBRICANT • INTERVAL

INTERVAL • LUBRICANT

Engine
Crankcase Oil
Change
(See Note 17) (0)

OE/HDO-
15/40 OC or
SA or
100HR

A or
1000HR GO-
80/90

Speed Reduction
Gearboxes
Oil Change
(See Note 20) (0)

Speed Reduction
Gearboxes
Check/Add
(See Note 18) (0)

GO-80/90 SA or
250HR

A or
1000HR GO-
80/90

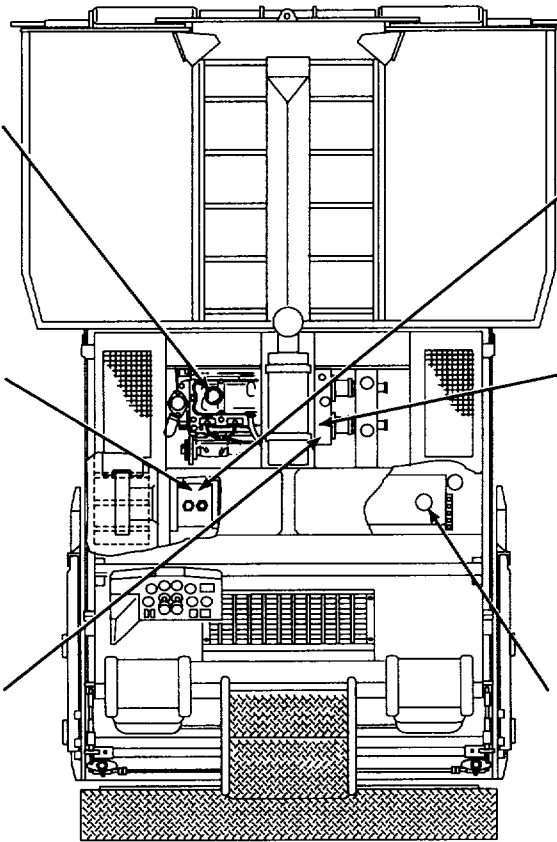
Pump Drive
Gearbox
Oil Change
(See Note 21) (0)

Pump Drive
Gearbox
Oil Level
Check/Add
(See Note 19) (0)

GO-80/90 A or
250HR

OC or
A or
2250HR OE/HDO-
10

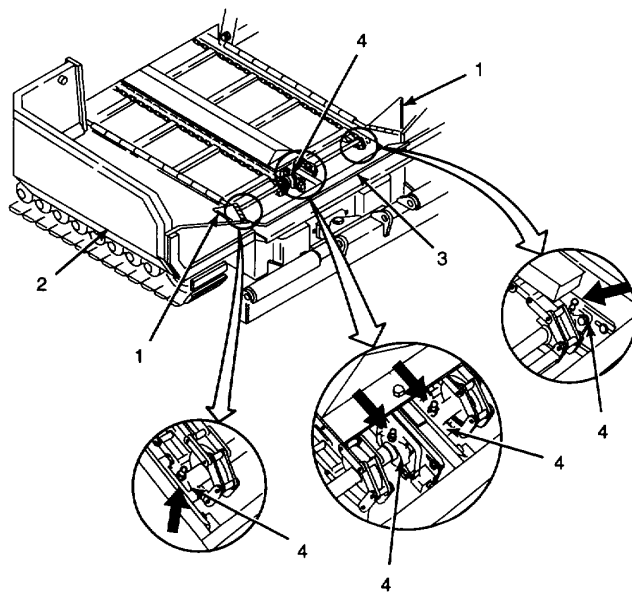
Hydraulic Oil
Change
(See Note 22) (0)



Note 1
10 HOURS

CONVEYOR IDLER BEARING UNITS

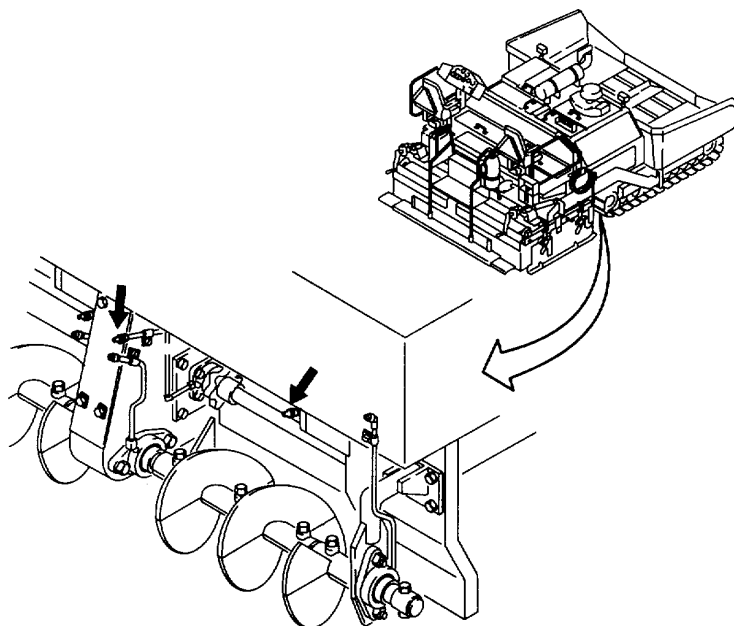
- A** Fully open hopper wings per TM 5-3895-373-10.
- B** Tilt hinged wing plates (1) open on hopper wings (2).
- C** Tilt conveyor access door (3) forward to access conveyor idler bearing units (4).
- D** Lubricate four conveyor idler bearing units (4) with GAA.
- E** Lower conveyor access door (3) over conveyor idler bearing units (4).
- F** Tilt hinged wing plates (1) closed on hopper wing (2).
- G** Fully close hopper wings per TM 5-3895-373-10.



Note 2
10 HOURS

CONVEYOR DRIVE BEARING UNITS

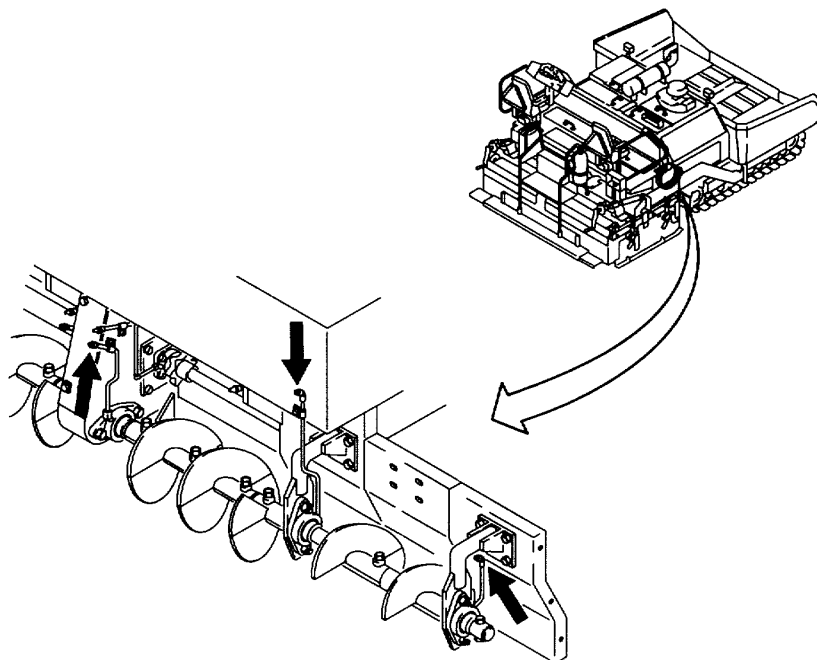
Lubricate four fittings with GAA.
(two left conveyor, two right conveyor)



Note 3
10 HOURS

AUGER DRIVE BEARING UNITS

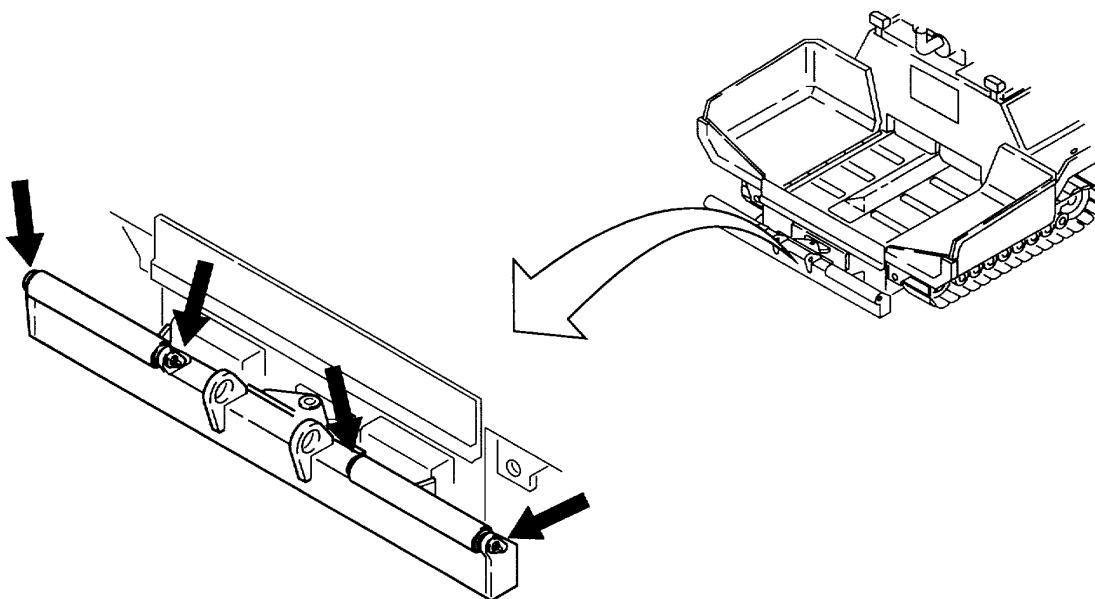
Lubricate four fittings with GAA.
(two left side, two right side) (include
extensions if installed, one fitting each side)



Note 4
SEMI ANNUAL or 50 HOURS

PUSH ROLLER BEARINGS

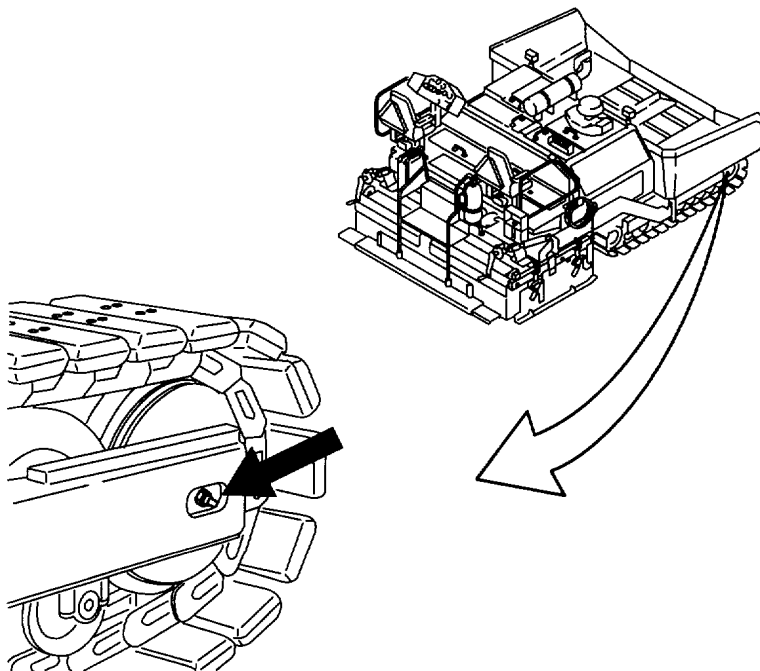
Lubricate four fittings with GAA.
(two left roller, two right roller)



Note 5
SEMI ANNUAL or 50 HOURS

TRACK IDLER ROLLER BUSHINGS

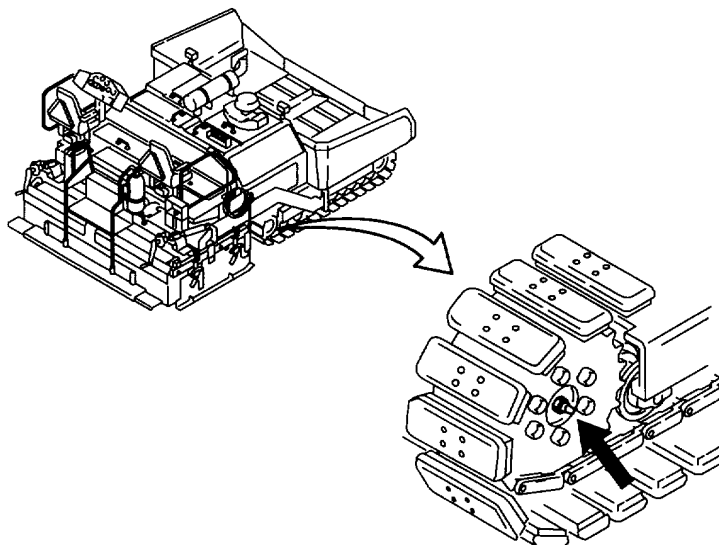
Lubricate two fittings with GAA.
(one left side, one right side)



Note 6
SEMI ANNUAL or 50 HOURS

TRACK DRIVE SPROCKET GEARS

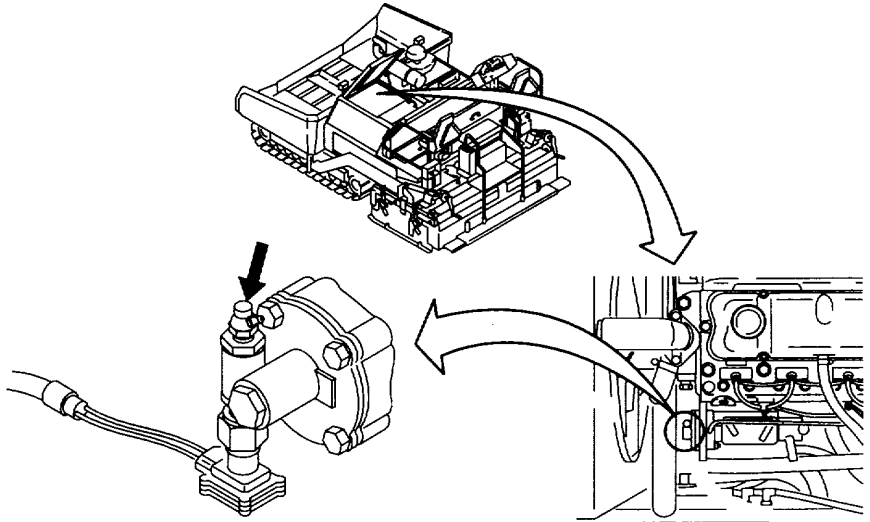
Lubricate two fittings with GAA.
(one left side, one right side)



Note 7
SEMI ANNUAL or 100 HOURS

TACHOMETER GENERATOR

- A** Open front top left access door per TM 5-3895-373-10.
- B** Lubricate tachometer generator fitting with two shots of GAA.
- C** Close front top left access door per TM 5-3895-373-10.



Note 8
SEMI ANNUAL or 250 HOURS

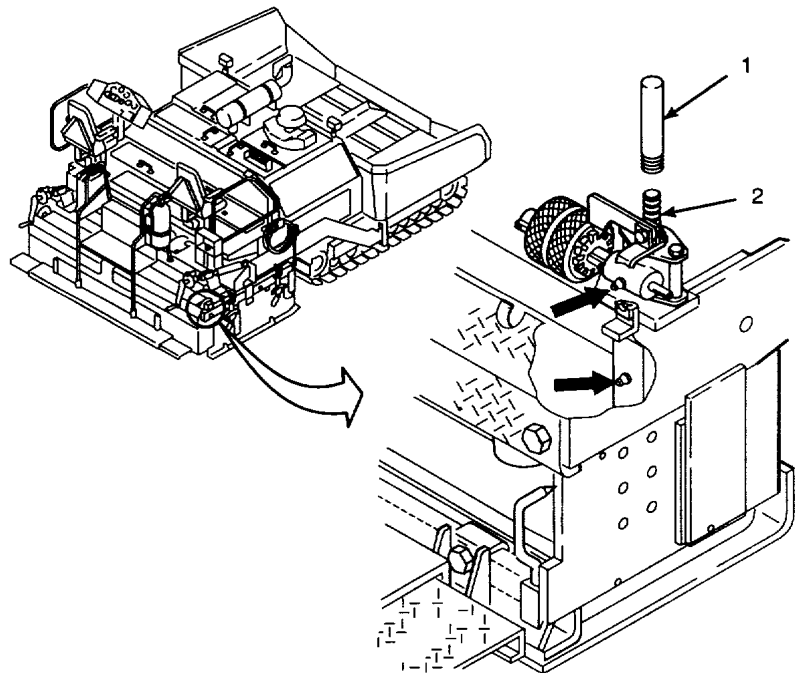
SCREED HEIGHT ADJUSTMENT CONTROLS
 (four locations)

- A** Unscrew four caps (1).

WARNING

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- B** Clean old grease from control screws (2) with cleaning solvent and a cleaning cloth.
- C** Lubricate control screws (2) with GAA using a brush. Install caps (1).
- D** Lubricate eight fittings with GAAM. (two fittings per location)



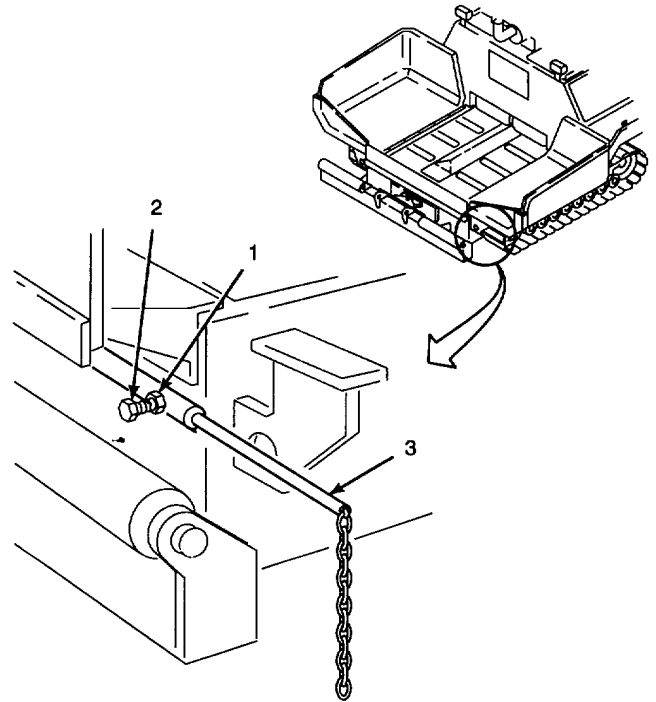
Note 9
SEMI ANNUAL or 250 HOURS

STEERING GUIDE INDICATOR ROD

- A Loosen hex nut (1) and hex head cap screw (2).
- B Mark the position of steering guide indicator rod (3) and fully extend the indicator rod.

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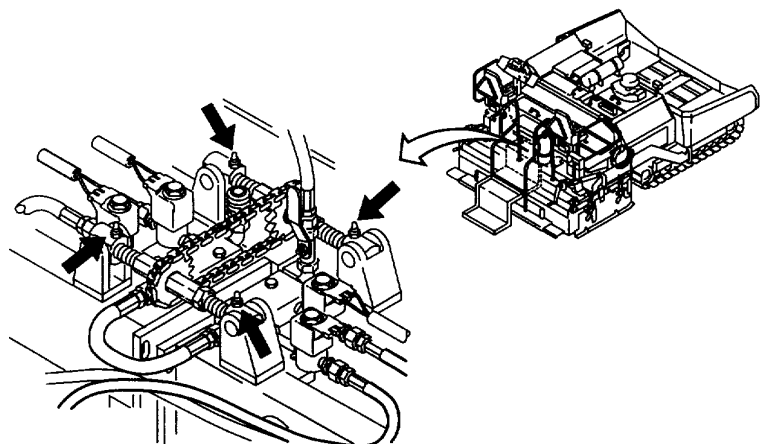


- C Clean all old grease from the steering guide indicator rod (3) with cleaning solvent and a cleaning cloth.
- D Apply GAA to the steering guide indicator rod (3) using a brush.
- E Retract steering guide indicator rod (3) to the marking and tighten hex head cap screw (2) and hex nut (1).

Note 10
SEMI ANNUAL or 250 HOURS

SCREED CROWN ADJUSTMENT CONTROL

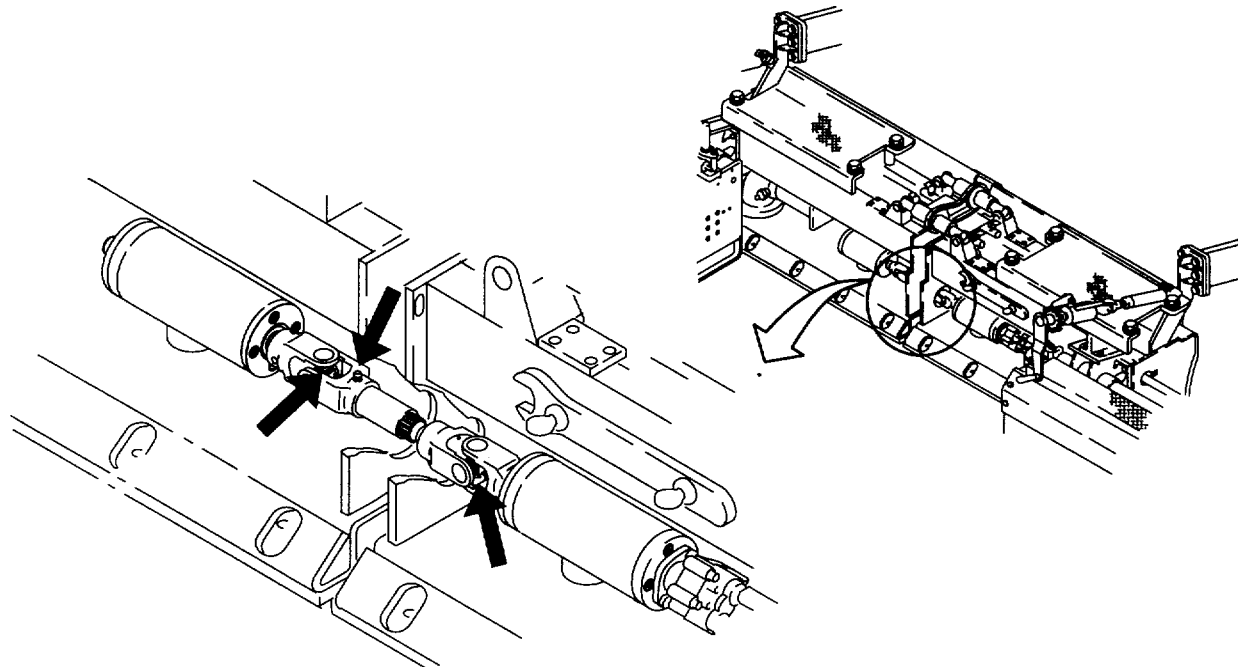
- A Fully extend extension screed and position steps to rear per TM 5-3895-373-10.
- B Lubricate four fittings with GAA.



Note 11
SEMI ANNUAL or 250 HOURS

VIBRATION MOTOR UNIVERSAL JOINT

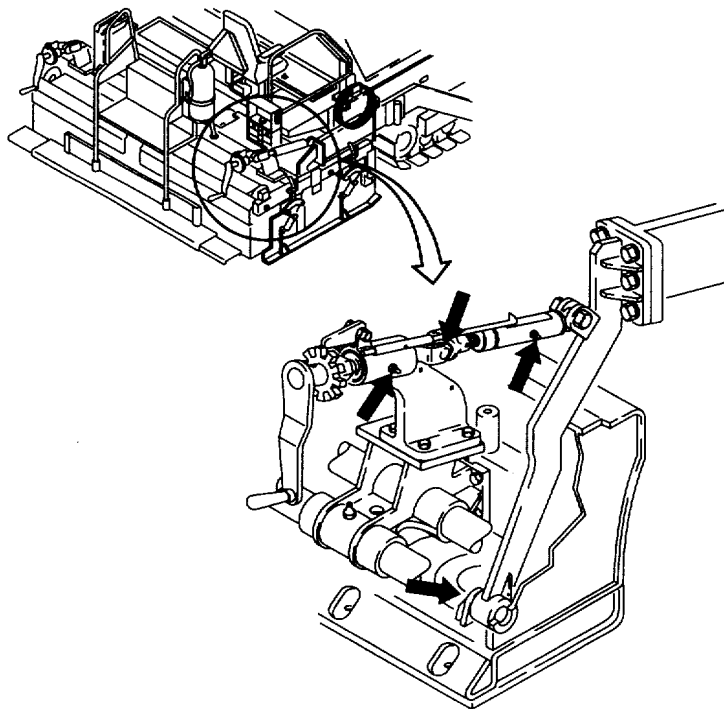
Lubricate three fittings with GAA.



Note 12
SEMI ANNUAL or 250 HOURS

SCREED THICKNESS CONTROLS

- A** Lubricate eight fittings with GAA. (four left side, four right side)
- B** Fully retract extension screed and position steps to front per TM 5-3895-373-10.

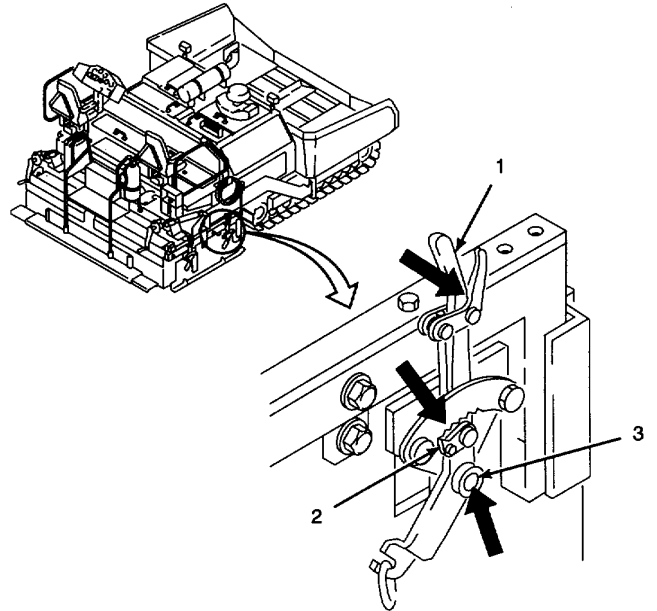


Note 13
SEMI ANNUAL or 250 HOURS

ENDGATE HAND LEVERS

(two left side, two right side)

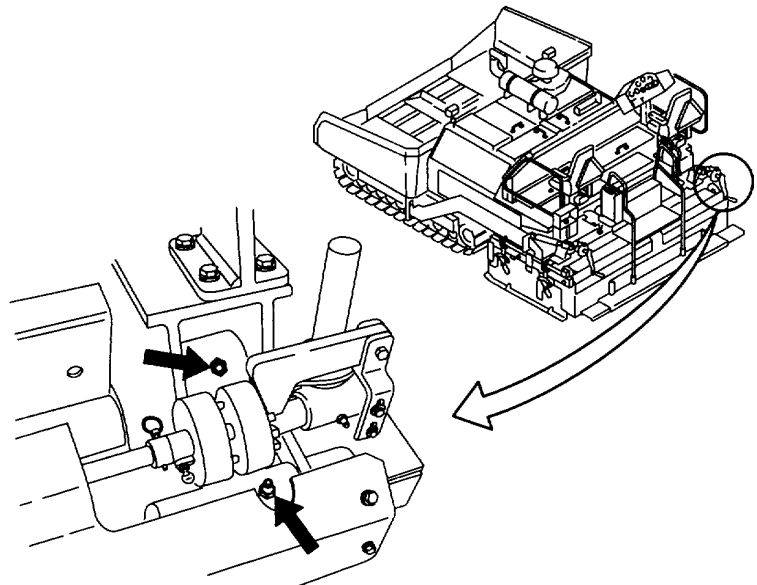
- A** Lubricate four springs (1) and four pawls (2) with GAA using a small brush.
- B** Lubricate four pivot pins (3) with GAA using a small brush. Apply grease on pivot pin near handle lever.



Note 14
SEMI ANNUAL or 250 HOURS

**SCREED EXTENSION SHAFT
 SUPPORT BUSHINGS**

Lubricate four fittings with GAA.
 (two left side, two right side)



Note 15
SEMI ANNUAL or 750 HOURS

AUGER/CONVEYOR DRIVE CHAINS

- A** Remove hex head cap screws (1), flat washers (2), square flat washers (3), and cover plate (4).
- B** Lubricate chain assemblies (5) with GAA using a brush.
- C** Run the auger/conveyor system per TM 5-3895-373-10 to move the unlubricated chains to the open cover plate area. Lubricate chain. Repeat this process until both chains have been completely lubricated.

WARNING

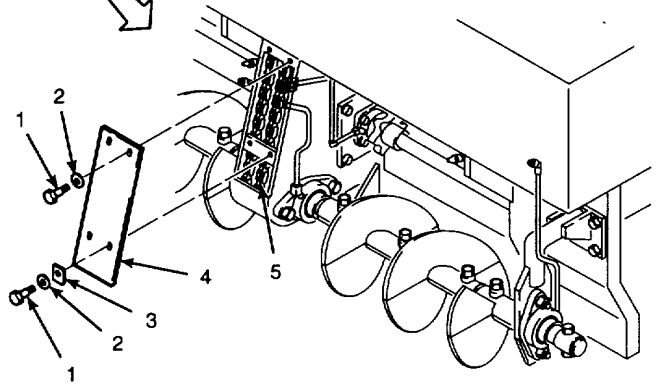
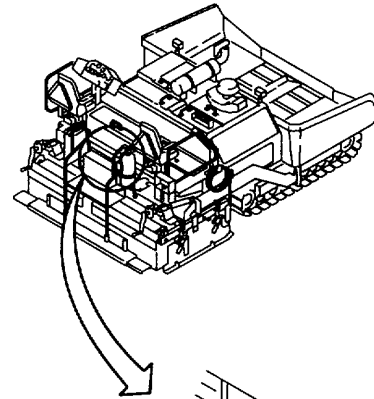
Thread locking compound solvent can cause eye damage. Wear safety goggles/glasses when using. Avoid contact with eyes. If compound contacts eyes, flush eyes with water and get immediate medical attention.

- D** Clean threads of hex head cap screws (1) with thread locking compound solvent. Wipe dry with a clean cleaning cloth.
- E** Assemble flat washers (2) onto hex head cap screws (1). Install square flat washers (3) onto two of the cap screws.

WARNING

Thread locking compound can cause eye damage. Wear safety goggles/glasses when using. Avoid contact with eyes. If compound contacts eyes, flush eyes with water and get immediate medical attention.

- F** Apply thread locking compound to threads of hex head cap screws (1).



- G** Install cover plate (4) and secure with hex head cap screws (1).
- H** Tighten hex head cap screws (1) to 37 lb-ft (50 N•m).

Note 16
ANNUAL or 1000 HOURS

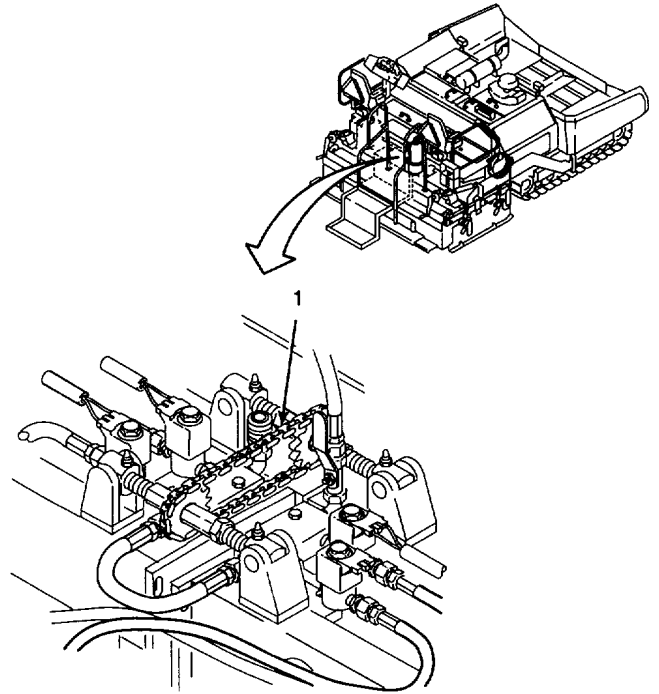
SCREED CROWN ADJUSTMENT CHAIN

- A** Chain is accessible with the steps positioned to the rear per TM 5-3895-373-10.

WARNING

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- B** Clean old grease from crown control adjustment chain (1) with cleaning solvent and a clean cloth.
- C** Lubricate crown control adjustment chain with GAA using a brush.



Note 17
ON-CONDITION or SEMI ANNUAL or 100 HOURS

ENGINE CRANKCASE OIL CHANGE

- A** Start and run engine for five minutes per TM 5-3895-373-10 before draining oil.
- B** Open the front top left access door and remove right access cover per TM 5-3895-373-10.
- C** Remove drain hose (1) from hose bracket (2).

WARNING

Engine oil is hot. Oils can burn when in contact with very hot surfaces or if ignited when released as a spray. Keep ignition sources away. Provide adequate ventilation. Wear protective clothing/equipment.

- D** Remove drain plug (3) and drain oil into suitable container. Dispose of oil in accordance with local procedures.

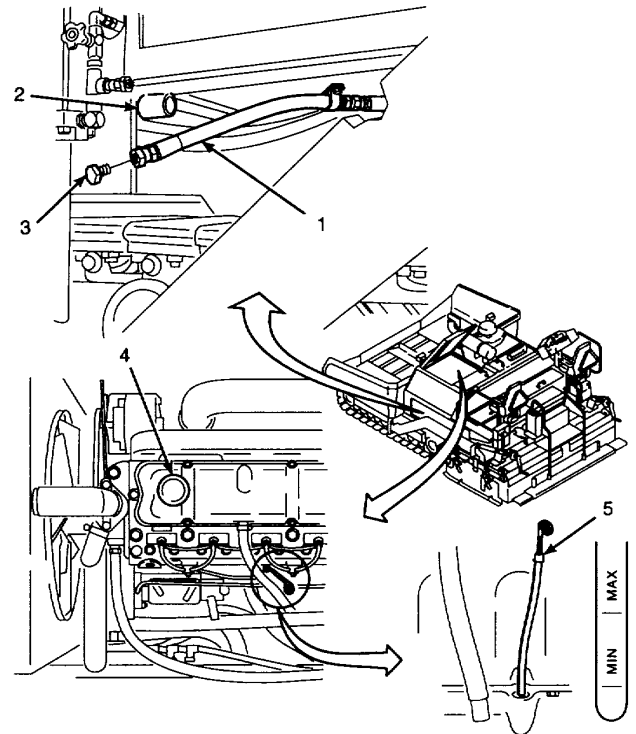
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- E** Clean drain plug (3) with a cleaning cloth and cleaning solvent.

WARNING

Hydraulic fitting sealant can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.



- F** Apply hydraulic fitting sealant to threads of drain plug (3).
- G** Reinstall drain plug (3) and place drain hose (1) into hose bracket (2).
- H** Replace engine oil filter per TM 5-3895-373-20.
- I** Remove oil filler opening cap (4) and refill engine crankcase. Reinstall oil filler opening cap.
- J** Start engine and run at idle speed for three to five minutes per TM 5-3895-373-10. Check for leaks.
- K** Stop the engine per TM 5-3895-373-10. Check for leaks. Wait three to five minutes. Remove dipstick (5) and check engine oil level. Engine oil level should be between MIN and MAX marks on dipstick. Add oil if necessary, but do not overfill.
- L** Close front top left access door and install right access cover per TM 5-3895-373-10.

Note 18
ANNUAL or 1000 HOURS

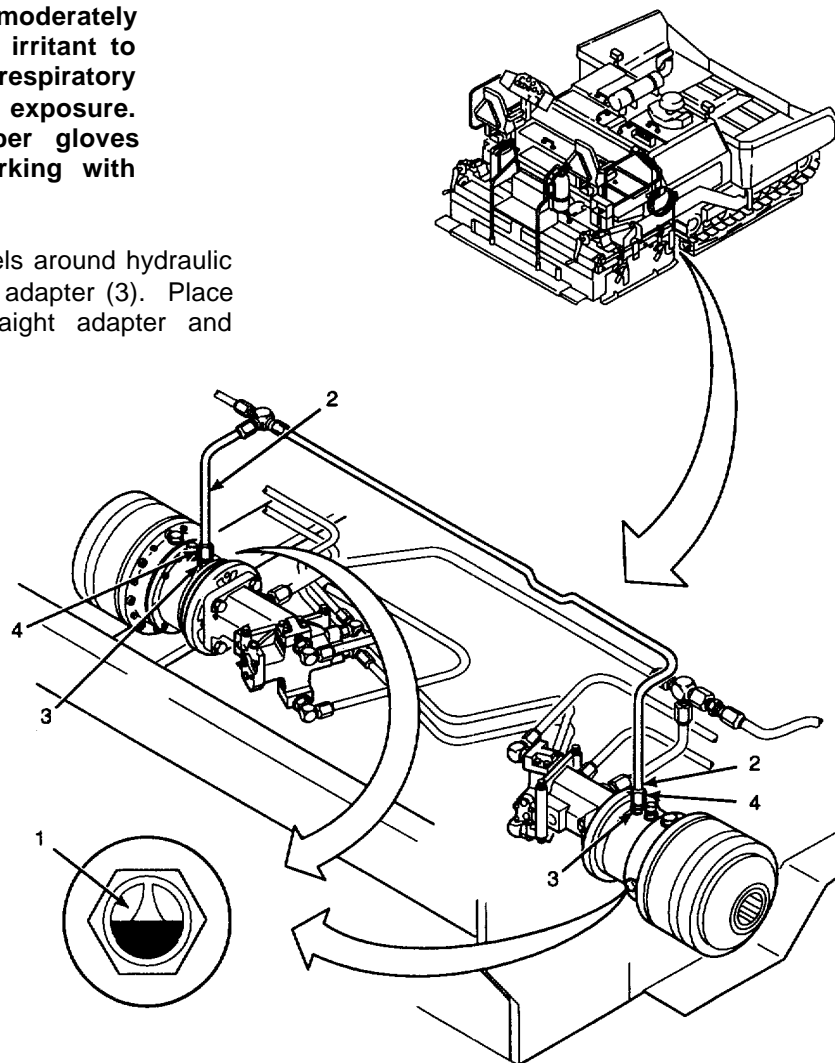
**SPEED REDUCTION GEARBOXES OIL LEVEL
 CHECK/ADD**

- A** Jack/crib paving machine for other than track maintenance per TM 5-3895-373-20.
- B** Visually inspect oil sight indicator (1). Oil level is acceptable if oil can be seen in the indicator. If oil is not visible in indicator, service oil level following the procedures below.

WARNING

Hydraulic oil can be moderately flammable and can be an irritant to the skin, eyes, and respiratory system. Avoid prolonged exposure. Eye protection and rubber gloves must be worn when working with hydraulic oil.

- C** Place machinery wiping towels around hydraulic tube (2) and mating straight adapter (3). Place backup wrench across straight adapter and loosen tube fitting (4).



Note 18 (Continued)
ANNUAL or 1000 HOURS

- D** Disconnect tube fitting (4) from straight adapter (3). Plug hydraulic tube fitting with protective cap. If saturated, dispose of machinery wiping towel in accordance with local procedures.
- E** Remove straight adapter (3) and preformed packing (5). Discard preformed packing.
- F** Remove breather (6) and flat washer (7). Discard flat washer.
- G** Add oil to the speed reduction gearbox (8) until oil level is seen halfway in the oil sight indicator (1).

WARNING

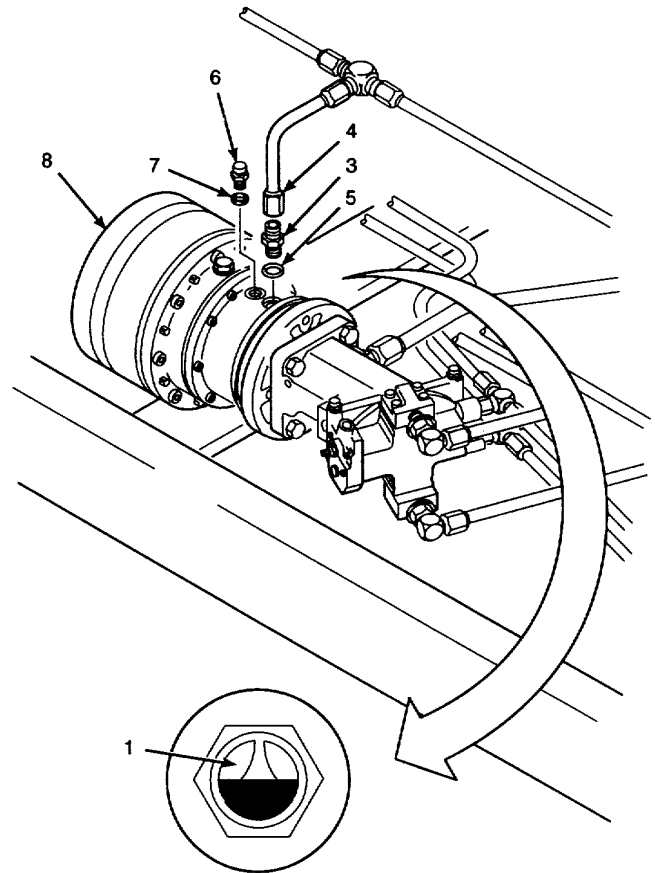
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- H** Clean straight adapter (3) and breather (6) with a cleaning cloth and cleaning solvent.

CAUTION

Be careful not to overtighten breather (6). Overtightening will cause stripping of brass screw threads or shearing of adapter.

- I** Install and tighten breather (6) and flat washer (7).



CAUTION

Be careful not to damage preformed packing when sliding over threads. Sharp edges of threads can cut or damage preformed packing. Damaged preformed packing will cause leakage and affect performance.

- J** Install and tighten straight adapter (3) and preformed packing (5).

Note 18 (Continued)
ANNUAL or 1000 HOURS

WARNING

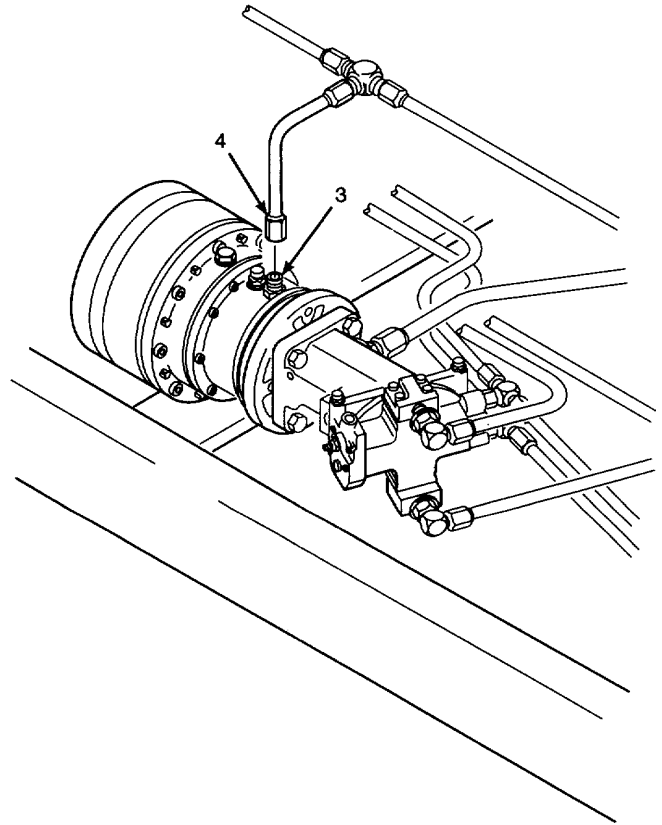
Hydraulic fitting sealant can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.

- K** Apply hydraulic fitting sealant to exposed threads of straight adapter (3).

CAUTION

Be careful not to overtighten tube fitting (4) on straight adapter (3). Overtightening will cause stripping of brass screw threads or shearing of adapter.

- L** Install and tighten tube fitting (4) on straight adapter (3). Use backup wrench across adapter flats and do not overtighten tube fitting.
- M** Remove cribbing per TM 5-3895-373-10.



Note 19
SEMI ANNUAL or 250 HOURS

**PUMP DRIVE GEARBOX OIL LEVEL
CHECK/ADD**

- A** Open front top right access door per TM 5-3895-373-10 and remove engine access cover per TM 5-3895-373-20.
- B** Remove filler plug (1) and lower inspection plug (2).
- C** Slowly add oil at the filler hole until the oil begins to leak from the inspection hole.

WARNING

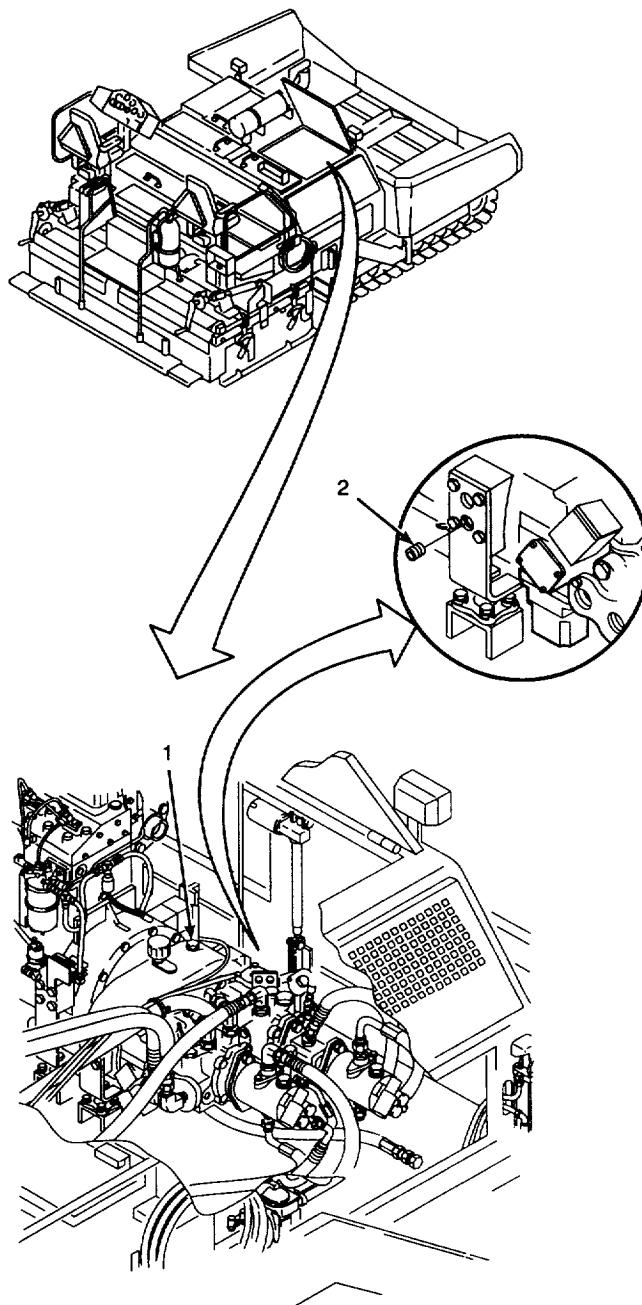
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- D** Clean filler plug (1) and lower inspection plug (2) with a cleaning cloth and cleaning solvent.

WARNING

Pipe sealant can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.

- E** Apply pipe sealant to the threads of inspection plug (2) and filler plug (1).
- F** Install inspection plug (2) and filler plug (1).
- G** Close front top right access door per TM 5-3895-373-10 and install engine access cover per TM 5-3895-373-20.



Note 20
ANNUAL or 1000 HOURS

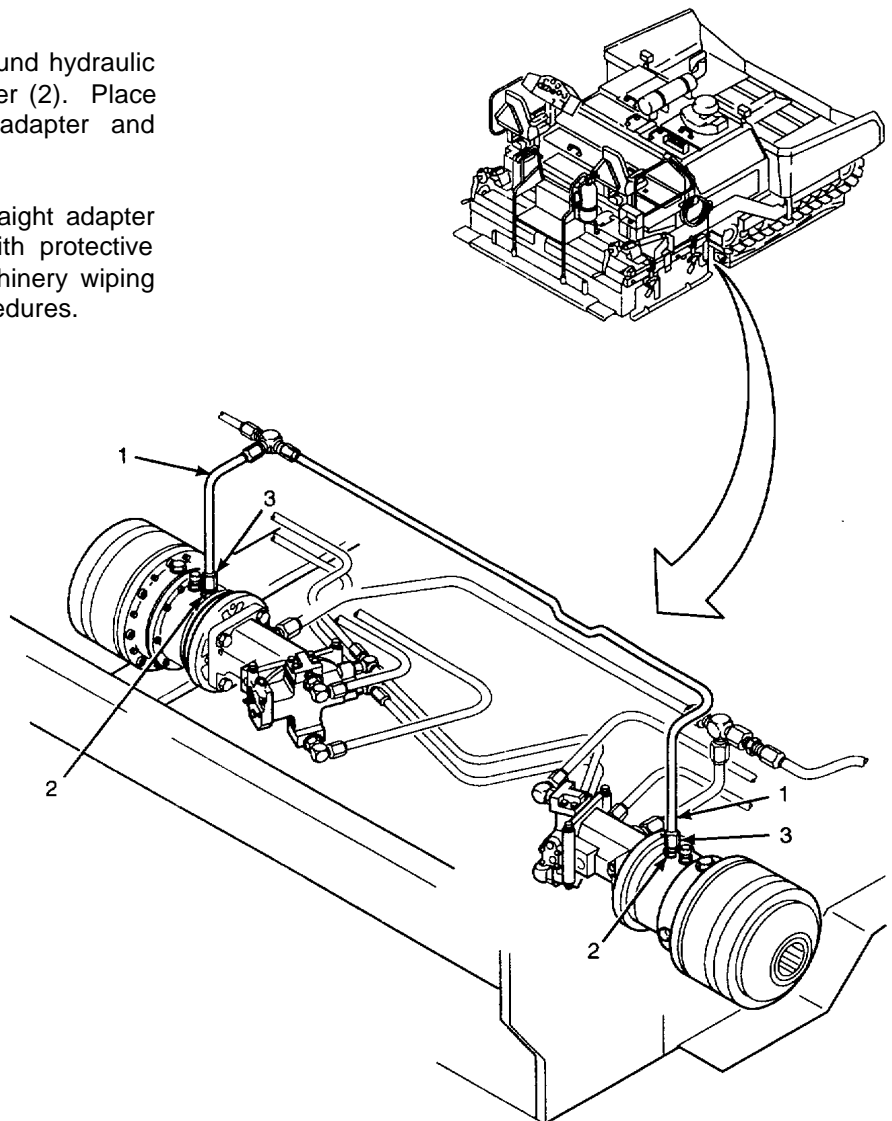
SPEED REDUCTION GEARBOXES OIL CHANGE

- A** Jack/crib paving machine for other than track maintenance per TM 5-3895-373-20.

WARNING

Hydraulic oil can be moderately flammable and can be an irritant to the skin, eyes, and respiratory system. Avoid prolonged exposure. Eye protection and rubber gloves must be worn when working with hydraulic oil.

- B** Place machinery wiping towels around hydraulic tube (1) and mating straight adapter (2). Place backup wrench across straight adapter and loosen tube fitting (3).
- C** Disconnect tube fitting (3) from straight adapter (2). Plug hydraulic tube fitting with protective cap. If saturated, dispose of machinery wiping towel in accordance with local procedures.



Note 20 (Continued)
ANNUAL or 1000 HOURS

- D** Remove straight adapter (2) and preformed packing (4). Discard preformed packing.
- E** Remove breather (5) and flat washer (6). Discard flat washer.
- F** Remove drain plug (7) and flat washer (8). Discard flat washer. Drain gear oil into drain pan. Discard oil in accordance with local procedures.

WARNING

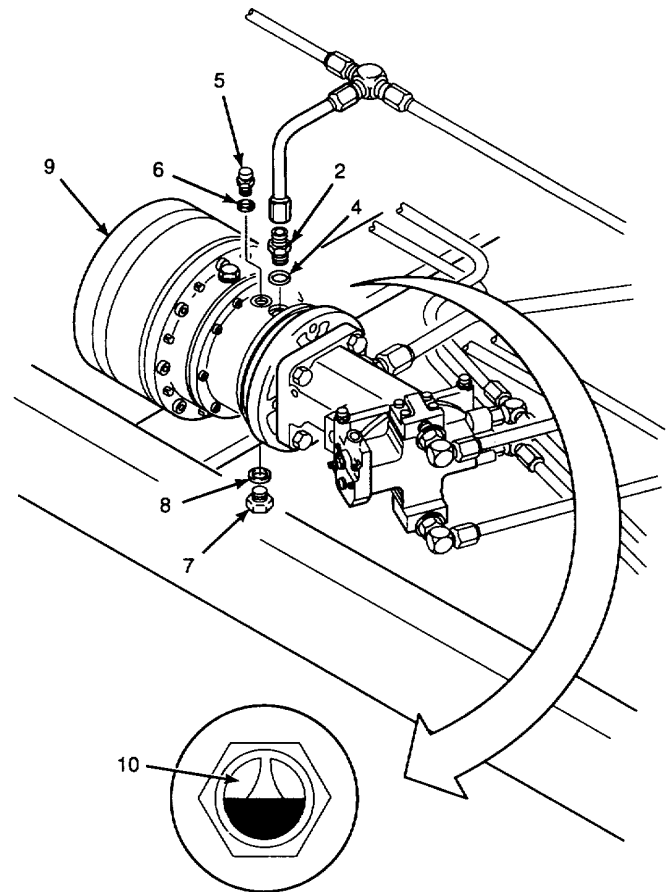
Cleaning solvent, P-D-680, Type III, is **TOXIC** and flammable. Wear protective goggles and gloves. Use only in a well ventilated area. Avoid contact with skin, eyes, and clothes, and do not breathe vapors. Keep away from heat or flame. Never smoke when using solvent; the flashpoint for Type III cleaning solvent is 200°F (93,3°C). Failure to do so may result in injury or death to personnel.

- G** Clean straight adapter (2), breather (5), and drain plug (7) with a cleaning cloth and cleaning solvent.

CAUTION

Be careful not to overtighten drain plug (7). Overtightening will cause stripping of brass screw threads or shearing of adapter.

- H** Install and tighten drain plug (7) and flat washer (8).
- I** Add oil to the speed reduction gearbox (9) until oil level is seen halfway in the oil sight indicator (10).



CAUTION

Be careful not to overtighten breather (5). Overtightening will cause stripping of brass screw threads or shearing of adapter.

- J** Install and tighten breather (5) and flat washer (6).

Note 20 (Continued)
ANNUAL or 1000 HOURS

CAUTION

Be careful not to damage preformed packing when sliding over threads. Sharp edges of threads can cut or damage preformed packing. Damaged preformed packing will cause leakage and affect performance.

- K** Install and tighten straight adapter (2) and preformed packing (4).

WARNING

Hydraulic fitting sealant can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.

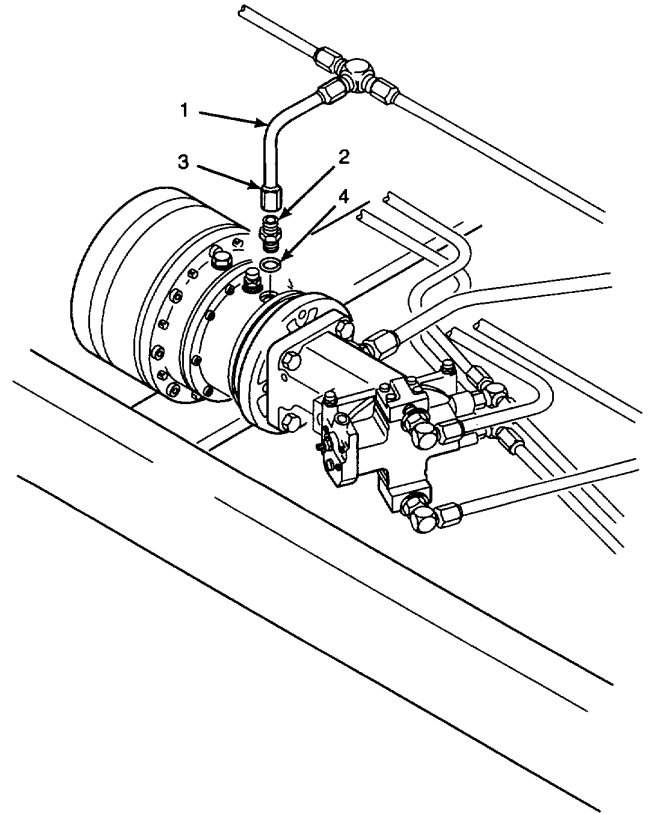
- L** Apply hydraulic fitting sealant to exposed threads of straight adapter (2).

CAUTION

Be careful not to overtighten tube fitting (3) on straight adapter (2). Overtightening will cause stripping of brass screw threads or shearing of adapter.

- M** Install and tighten tube fitting (3) of hydraulic tube (1) on straight adapter (2). Use backup wrench across adapter flats and do not overtighten tube fitting.

- N** Remove cribbing per TM 5-3895-373-20.



Note 21
ANNUAL or 1000 HOURS

PUMP DRIVE GEARBOX OIL CHANGE

- A** Open the front top right access door and remove right access cover per TM 5-3895-373-10. Remove engine access cover per TM 5-3895-373-20.
- B** Remove drain plug (1) from drain hose (2) and drain oil into suitable container. Discard oil in accordance with local procedures.

WARNING

Cleaning solvent, P-D-680, Type III, is **TOXIC** and flammable. Wear protective goggles and gloves. Use only in a well ventilated area. Avoid contact with skin, eyes, and clothes, and do not breathe vapors. Keep away from heat or flame. Never smoke when using solvent; the flashpoint for Type III cleaning solvent is 200°F (93,3°C). Failure to do so may result in injury or death to personnel.

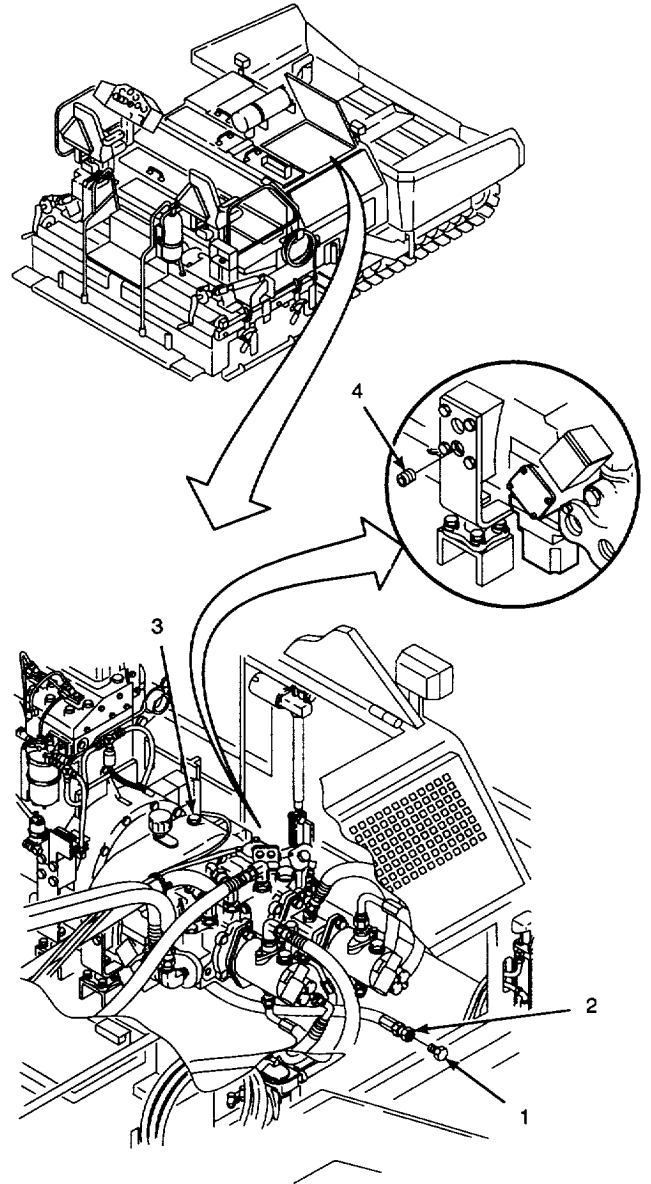
- C** Clean drain plug (1) using a cleaning cloth and cleaning solvent.

WARNING

Hydraulic fitting sealant and pipe sealant can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.

- D** Apply hydraulic fitting sealant to the threads of drain plug (1) and install into drain hose (2).
- E** Remove filler plug (3) and inspection plug (4).
- F** Slowly pour oil into the filler hole until oil begins to leak out of the inspection hole.
- G** Clean filler plug (3) and inspection plug (4) using a cleaning cloth and cleaning solvent.

- H** Apply pipe sealant to the threads of inspection plug (4) and filler plug (3).
- I** Install inspection plug (4) and filler plug (3).
- J** Close front top right access door and install right access cover per TM 5-3895-373-10. Install engine access cover per TM 5-3895-373-20.



Note 22
ON-CONDITION or ANNUAL or 2250 HOURS

HYDRAULIC OIL CHANGE

- A** Open center top right access door, right access door and remove right access cover per TM 5-3895-373-10.

WARNING

Hydraulic oil can be moderately flammable and can be an irritant to the skin, eyes, and respiratory system. Avoid prolonged exposure. Eye protection and rubber gloves must be worn when working with hydraulic oil.

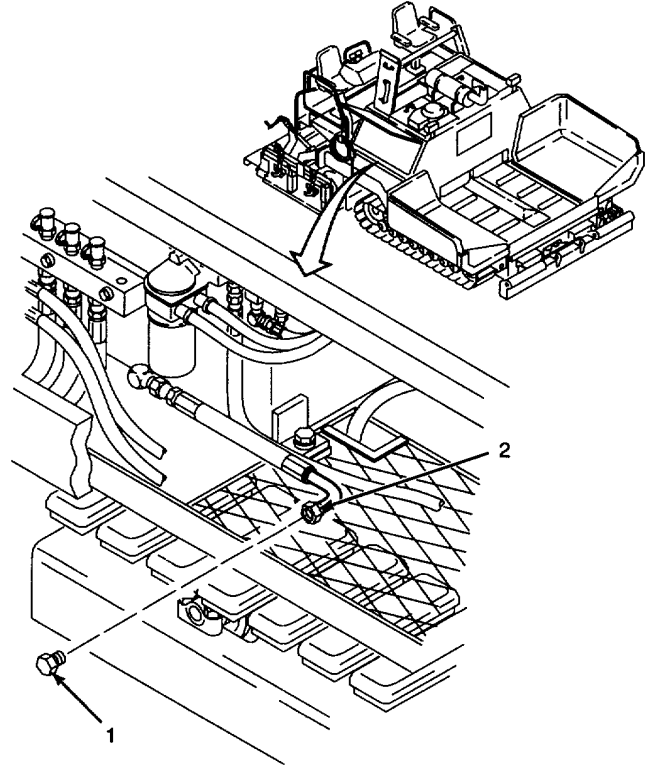
- B** Remove drain plug (1) from drain hose (2). Drain hydraulic oil into suitable container. Dispose of hydraulic oil in accordance with local procedures.

WARNING

Cleaning solvent, P-D-680, Type III, is **TOXIC** and flammable. Wear protective goggles and gloves. Use only in a well ventilated area. Avoid contact with skin, eyes, and clothes, and do not breathe vapors. Keep away from heat or flame. Never smoke when using solvent; the flashpoint for Type III cleaning solvent is 200°F (93,3°C). Failure to do so may result in injury or death to personnel.

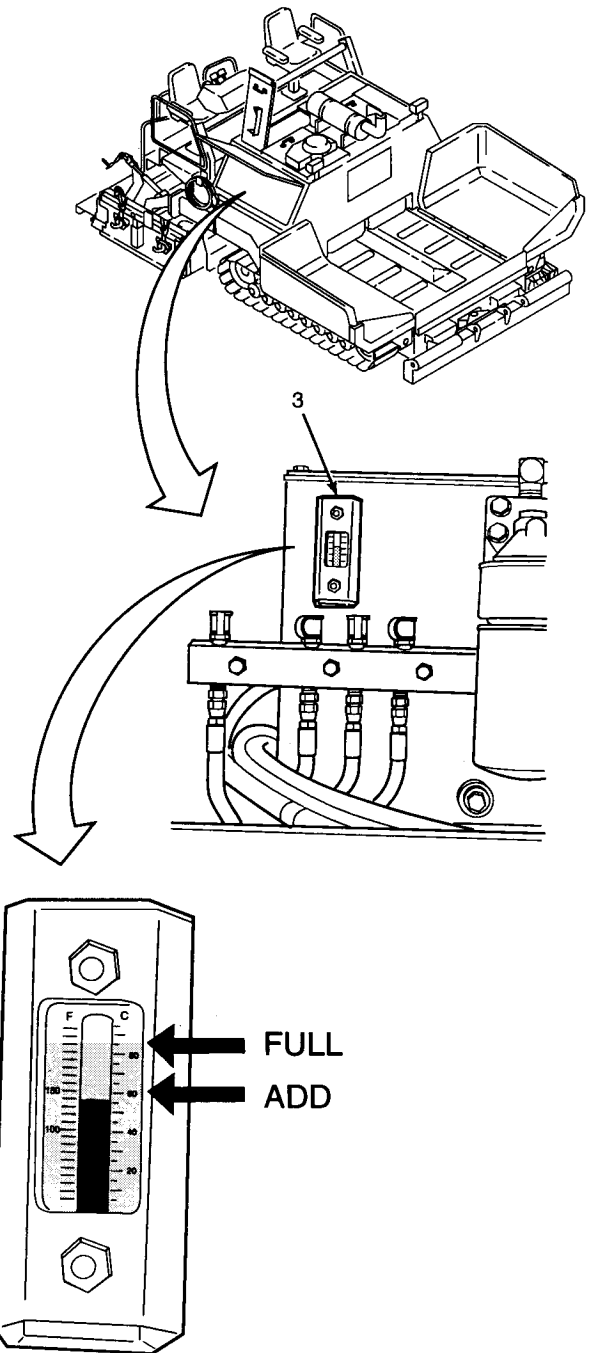
Hydraulic fitting sealant can cause eye damage or skin irritation. Wash after skin contact. Wear safety goggles/glasses when using. Avoid contact with eyes or skin. If sealant contacts eyes, flush eyes with water and get immediate medical attention.

- C** Clean drain plug (1) with cleaning cloth and cleaning solvent. Apply hydraulic fitting sealant to the threads of drain plug and install into drain hose (2).



Note 22 (Continued)
ON-CONDITION or ANNUAL or 2250 HOURS

- D** Fill hydraulic reservoir until the oil in sight liquid indicator (3) indicates full.
- E** Start engine and run at idle for five minutes per TM 5-3895-373-10.
- F** Extend and retract all cylinders and run all hydraulic motors per TM 5-3895-373-10 to bleed air from the hydraulic system.
- G** Shut down engine per TM 5-3895-373-10.
- H** Check oil level in sight liquid indicator (3). Add oil as necessary to raise oil level to full, but do not overfill.
- I** Close center top right access door and right access door and install right access cover per TM 5-3895-373-10.

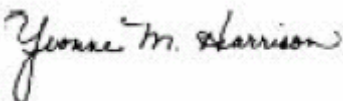


A copy of this Lubrication Order will remain with this vehicle at all times. Instructions contained herein are mandatory.

By Order of the Secretary of the Army:

DENNIS J. REIMER
General, United States Army
Chief of Staff

Official:



YVONNE M. HARRISON
Administrative Assistant to the
Secretary of the Army
01334

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To be distributed in accordance with DA Form 12-25-E, block 6332, requirements for LO 5-3895-373-12.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.

PARA-GRAPH

FIGURE NO.

TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 lb.
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
its	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



PIN: 074478-000