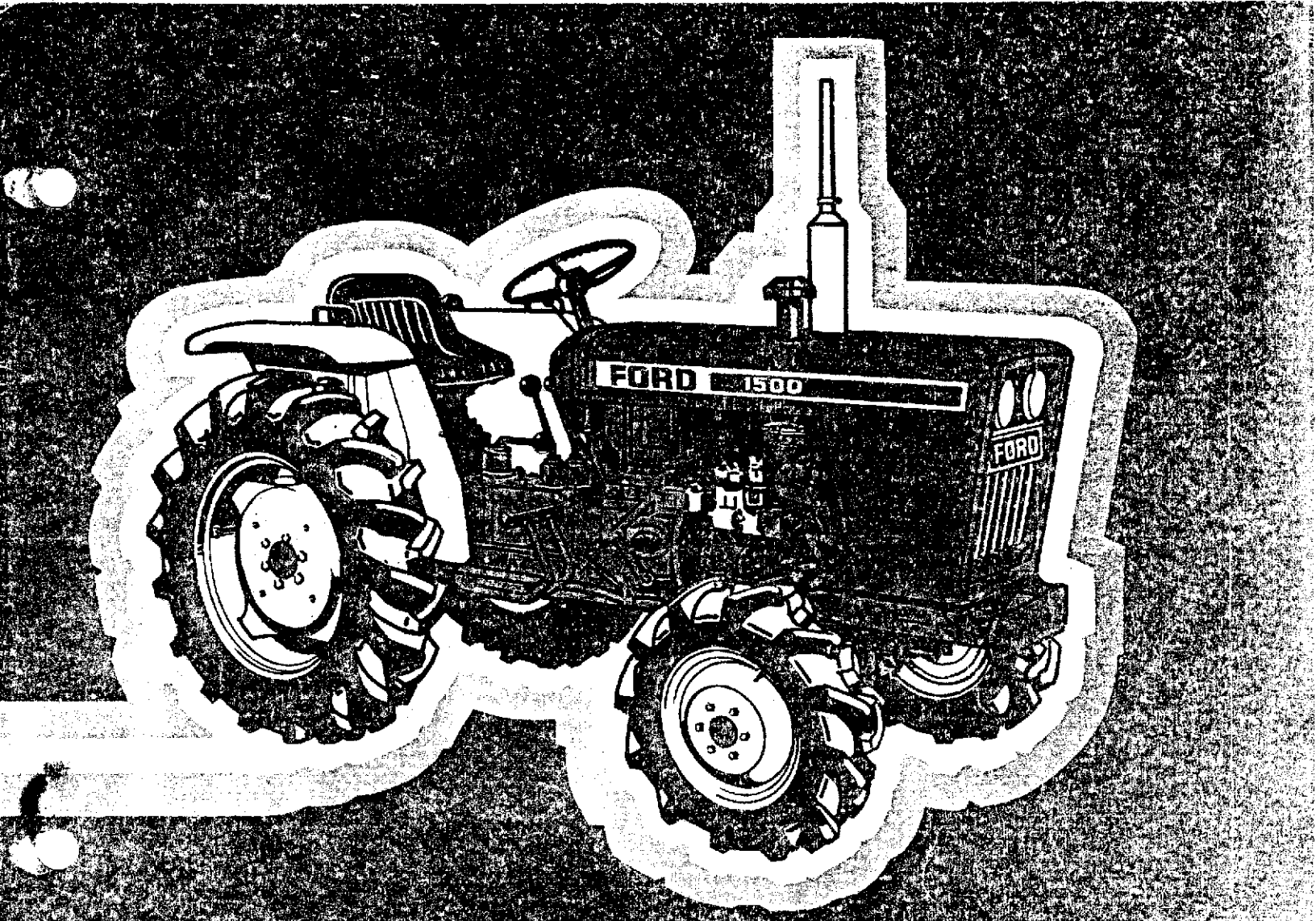


FORD

OPERATOR'S MANUAL

1500


1500
FORD

CONTENTS

INTERNATIONAL SYMBOLS

As a guide to the operation of your tractor, various international symbols have been utilized on the instruments and controls. The symbols are shown below with an indication of their meaning.


Engine speed


Hours recorded


Engine water temperature


Lights


Horn


Engine oil pressure


Safety Flasher


Alternator charge


Power take-off (on)


Power take-off (off)


'Tortoise,' slow or minimum setting


'Hare,' fast or maximum setting


Caution

SAFETY PRECAUTIONS

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. Read and take the following precautions before operating this tractor to help prevent accidents. Equipment should be operated only by those who are responsible and instructed to do so.

THE TRACTOR

1. Read the Operator's Manual carefully before using the tractor. Lack of operating knowledge can lead to accidents.
2. Use an approved Rollbar and Seat Belt for safe operation. Overturning a tractor without a rollbar can result in death or injury. If your tractor is not equipped with a rollbar and seat belt, see your Ford Tractor Equipment Dealer.
3. Always use the seat belt when the rollbar is installed. Do not use the seat belt if the rollbar is removed from the tractor.
4. Use the handholds and step plates when getting on and off the tactor to prevent falls. Keep steps and platform cleared of mud and debris.
5. Do not permit anyone but the operator to ride on the tractor. There is no safe place for extra riders.

SERVICING THE TRACTOR

6. Cooling system operates under pressure which is controlled by the radiator cap. It is dangerous to remove the cap while system is hot. Always turn cap slowly to the first stop and allow the pressure to escape before removing the cap entirely.
7. Do not smoke while refueling the tractor. Keep any type of open flame away. Wait for engine to cool before refueling.
8. Keep the tractor in good operating condition for your safety. An improperly maintained tractor can be hazardous.
9. Keep open flame away from battery or cold weather starting aids to prevent fires or explosions. Use jumper cables according to instructions to prevent sparks which could cause explosion.
10. Stop the engine before performing any service on the tractor.
11. Do not modify or alter or permit anyone else to modify or alter this tractor or any of its components or any tractor function without first consulting a Ford Tractor-Equipment Dealer.

OPERATING THE TRACTOR

12. Apply the parking brake, place the PTO lever in the "OFF" position, the lift control lever in the down position, and the transmission in neutral before starting the tractor.
13. Do not start the engine or operate controls while standing beside the tractor. Always sit in the tractor seat when starting the engine or operating controls.
14. Do not bypass the safety start switch. Consult your Ford Tractor-Equipment Dealer if your safety start controls malfunction. Use jumper cables only in recommended manner, improper use can result in tractor runaway.
15. Do not get off the tractor while it is in motion.
16. Shut off the engine and apply the parking brake before getting off the tractor.
17. Do not park the tractor on a steep incline.
18. Do not operate the tractor engine in an enclosed building without adequate ventilation. Exhaust fumes can cause death.
19. If engine ceases operating, stop the tractor immediately.
20. Pull only from the drawbar or the lower link drawbar in the down position. Use only a drawbar pin that locks in place. Pulling from the tractor rear axle or any point above the axle may cause the tractor to upset.
21. If the front end of the tractor tends to rise when heavy implements are attached to the three-point hitch, install front end or front wheel weights. Do not operate the tractor with a light front end.
22. Do not leave equipment in the raise position.
23. Use the Flasher Lights and SMV signs when traveling on public roads both day and night.
24. Dim tractor lights when meeting a vehicle at night. Be sure the lights are adjusted to prevent blinding an oncoming vehicle operator.

DRIVING THE TRACTOR

25. Watch where you are going especially at row ends, on roads, around trees and any low hanging obstacle.
26. To avoid upsets drive the tractor with care and at speeds compatible with safety, especially when operating over rough ground, crossing ditches, slopes, and when turning.
27. Lock tractor brake pedals when transporting on roads to provide two wheel braking.
28. Keep the tractor in the same gear when going downhill as used when going uphill. Do not coast or free wheel down hills.
29. Any towed vehicle whose total weight exceeds that of the towing tractor must be equipped with brakes for safe operation.
30. When the tractor is stuck or tires frozen to the ground, back out to prevent upset.

OPERATING THE PTO

31. When operating PTO driven equipment, shut off the engine and wait until the PTO stops before getting off the tractor and disconnecting the equipment.
32. Do not wear loose clothing when operating the power take-off, or when near rotating equipment.
33. When operating stationary PTO driven equipment, always apply the tractor parking brake and block the rear wheels front and back.
34. To avoid injury, do not clear, adjust, unclog or service PTO driven equipment when the tractor engine is running.
35. Make sure the PTO master shield is installed at all times and always replace the PTO shaft cap when the PTO is not in use.

Whenever you see this symbol  it means:

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

SEAT, LIGHT, AND ENGINE CONTROLS

TRACTOR SEAT

Your Ford 1500 Tractor is equipped with a molded cushion seat as shown in Figure 1. The seat is adjustable to obtain the most comfortable position. It can be moved closer to or farther from the steering wheel by loosening the attaching bolts, and repositioning the seat as desired, Figure 2. Two additional inches of adjustment can be obtained by removing the bolts and relocating in alternate holes in seat attachment plate.

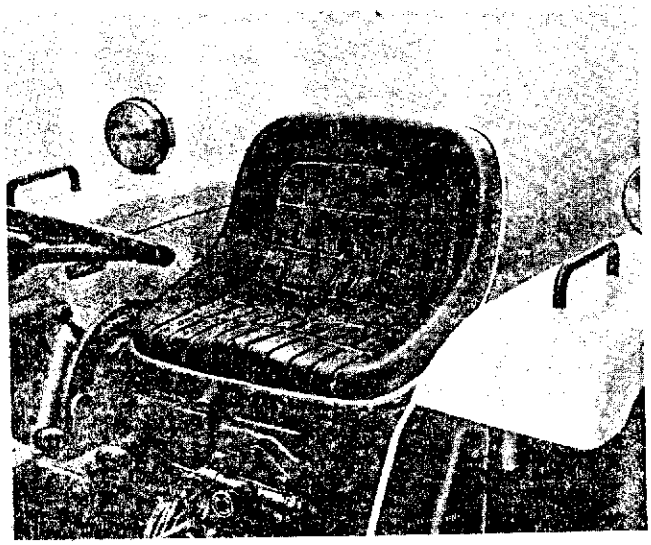


Figure 1 — Tractor Seat

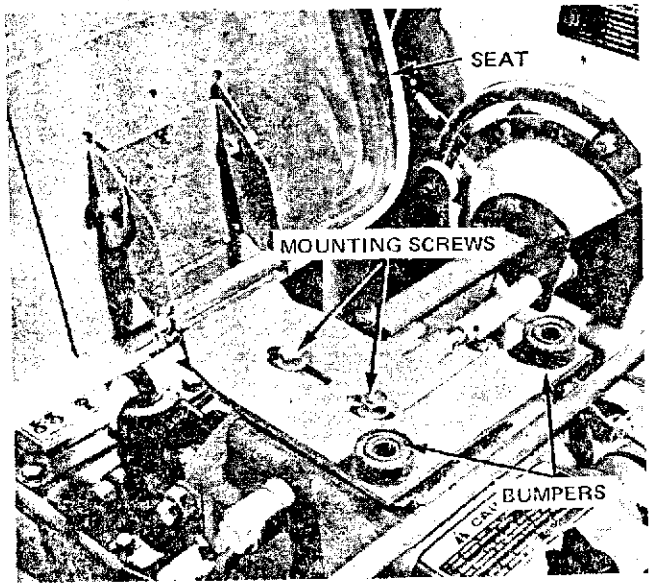


Figure 2 — Tractor Seat Adjustment

SAFETY ROLL BAR AND SEAT BELT (OPTIONAL)

If your tractor is equipped with a safety roll bar and seat belt, remember that the safety offered is minimized if your seat belt is not buckled. Always use your seat belt — they save lives. DO NOT use the seat belt if the roll bar is removed from the tractor.

CAUTION: Never attach chains, ropes, or cables to the roll bar for pulling purposes; this is very dangerous, as the tractor will tip backward. Always pull from the tractor drawbar.

Be careful when driving through door openings or under low overhead objects. Make sure there is sufficient clearance for the roll bar to clear the structure or object.

ADJUSTING THE SEAT BELT

To lengthen the belt, tip the buckle end down and pull on the buckle until the ends can be joined.

To shorten the belt, buckle it, then pull on the loose end until the belt is snug.

If the seat belt is to be cleaned, use soap and water. Do not use carbon tetrachloride, naptha, etc., as these will weaken the webbing. For the same reason, do not bleach or redye the webbing.

LIGHTING

FLASHER WARNING LAMP

Your Ford tractor is equipped with flasher warning lamps, Figure 3. The switch for the warning lamps is located on the right side of the instrument panel.

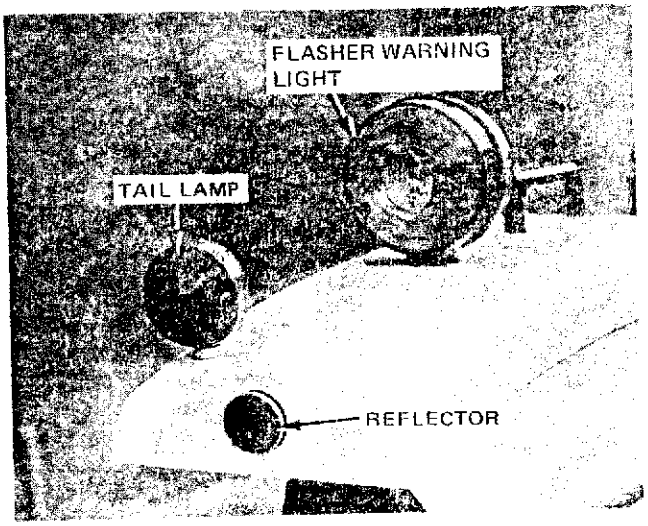


Figure 3 — Flasher Warning Lamp

The light switch must be in full out position before the flasher will operate.

For your protection, use the flasher warning lamp when traveling on public roads, day or night.

LIGHT SWITCH

The light switch, shown in Figure 4, is a push-pull type switch. Its positions are:

Full in .....Off
Full out ....Headlights (Low Beam), Instruments, and Tail Lamp
Intermediate .....Headlight (High Beam), Instruments and Tail Lamps

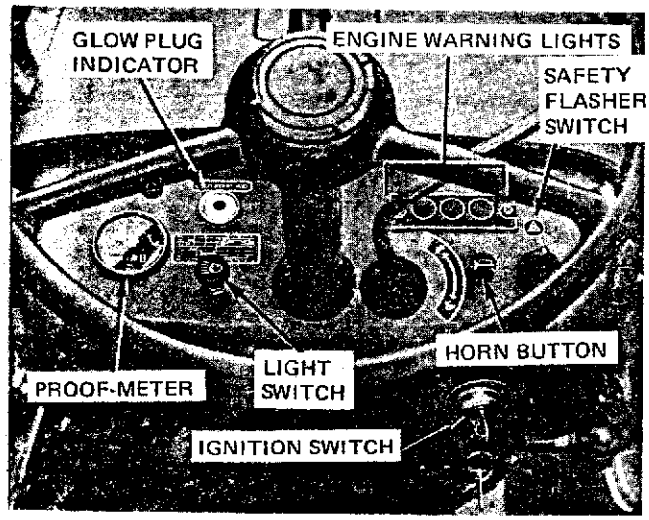


Figure 4 — Instrument Panel

INSTRUMENT PANEL

STARTER SWITCH

The starter switch is shown in Figure 4. Turning the key to the left will activate the cold start aid. Turning the key to the right to the "on" position will activate the warning lights and instruments. Turning the key further right to the "start" position will start the engine. Upon release, the key will spring return to the "on" position.

The starting circuit can only be activated when the clutch is fully depressed. Always check to make certain the transmission gear shift lever is in neutral before attempting to start the engine. Refer to page 12 for complete starting instructions.

IMPORTANT: The starter switch must remain in the ON position while operating the engine. The warning lights and battery charging system will not function with the switch in the OFF position.

FUEL GAUGE

The fuel gauge is shown in Figure 5. The amount of fuel in the gauge indicates the amount of fuel in the tank.

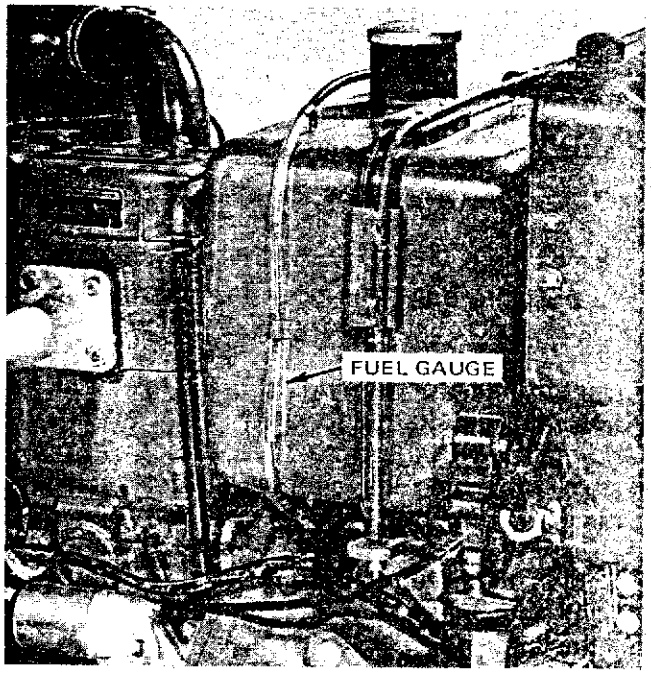


Figure 5 — Fuel Gauge

FUEL SHUTOFF VALVE

The fuel shutoff valve is shown in Figure 6. To open the fuel shutoff valve, move the handle so that it points straight up and down. To close the fuel shutoff valve, move the handle to the horizontal position. Always shut off the valve when servicing any portion of the fuel system.

WARNING LIGHTS

The engine temperature, oil pressure and charge indicator warning lights are located as shown in Figure 4. When the starter switch is turned "on" the oil pressure and charge lights come on. After the engine has been started, the lights should go out within a few seconds. If they do not go out:

- Engine oil pressure warning light: Stop the engine immediately and investigate the cause. It is important to remember that this light indicates

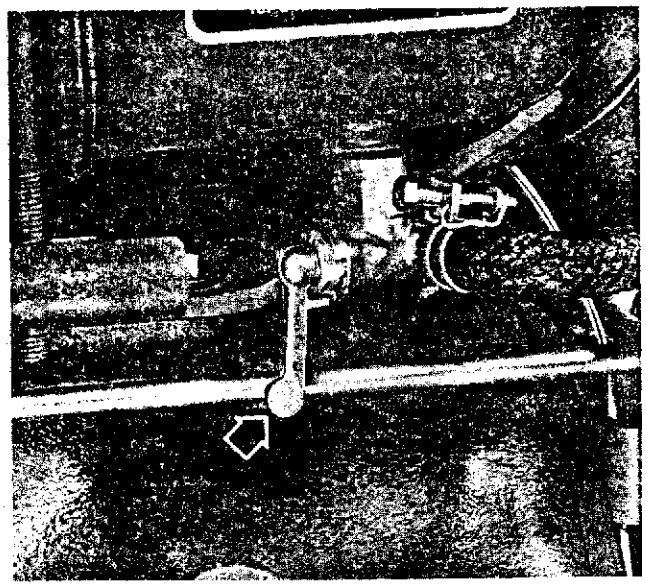


Figure 6 — Fuel Shutoff Valve

oil pressure only. The operator must regularly check the crankcase for proper oil level.

- Charge indicator warning light: This is an indication that the charging system is not operating normally. Investigate the cause as soon as possible, otherwise the battery will become fully discharged.

- Coolant temperature warning light: The warning light is not on under normal operating condition. If the light comes on, stop the engine and investigate. Regularly check the radiator for proper coolant level.

CAUTION: When engine is at operating temperature, always relieve pressure in the cooling system before removing the radiator cap.

PROOF-METER

The Proof-Meter is located on the left side of the instrument panel, Figure 4. The Proof-Meter indicates:

- The hours and portions of hours your tractor has operated, based on an average engine speed of 2000 rpm. Engine speeds below 2000 rpm accumulate engine hours at a slower rate than clock hours. Engine speeds above 2000 rpm accumulate engine hours faster than clock hours. Use the proof-meter as a guide to determine hourly service and maintenance intervals.

- Engine revolutions per minute are indicated on a common scale as shown in Figure 4. Use the engine revolutions per minute scale when operating PTO-driven equipment. PTO-driven equipment must be operated at an engine speed not to exceed 2422 rpm, as shown by the PTO symbol on the rpm scale. Additional information on PTO operation can be found on page 00. Ground speeds are indicated on a decal attached to the instrument panel. It shows ground speeds for 3rd, 6th, 9th, 12th, and R² gears with engine speeds from 1500-2500 rpm. Additional ground speed information can be found on page 41.

THROTTLE CONTROLS

HAND THROTTLE AND ENGINE STOP CONTROL

The hand throttle is shown in Figure 7. Pull the throttle downward to increase engine rpm. Push the throttle forward to decrease engine rpm. Push the throttle full forward to stop the engine.

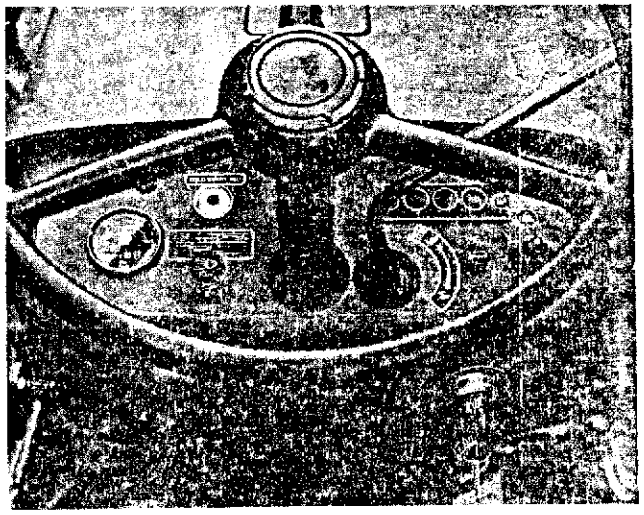


Figure 7 — Hand Throttle

FOOT THROTTLE

The foot throttle, shown in Figure 8, can be used separately, or in conjunction with the hand throttle. With the hand throttle control lever set at a selected engine rpm, the foot throttle can be used to increase engine rpm to its maximum speed. Upon release of the foot throttle, the engine speed will return to idle or to the rpm at which the hand throttle has been set idle if the hand throttle is not at a pre-set position.

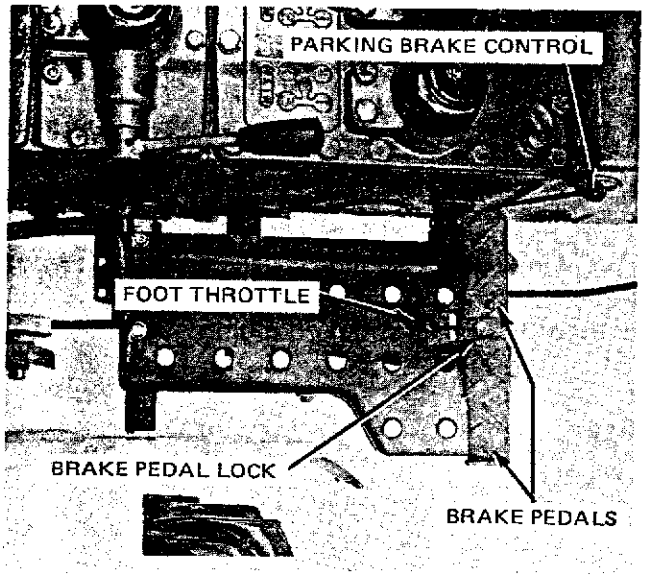


Figure 8 — Foot Throttle and Brake Controls

BRAKE CONTROLS

BRAKE PEDALS

The brake pedals are shown in Figure 8. The right brake pedal is used to brake the right rear wheel. The left pedal is used to brake the left rear wheel. Depress both pedals simultaneously to stop the tractor.

To assist in making sharp turns at slow speeds, depress the right or left brake pedals as required.

CAUTION: When operating the tractor at high speeds, never attempt to make sharp turns by using the brakes.

BRAKE PEDAL LOCK

The brake pedal lock, shown in Figure 8, is used to secure the brake pedals together. Lock the pedals together whenever the tractor is operated at high speeds and at any time the tractor is used on the highway.

PARKING BRAKE CONTROL

The parking brake control, shown in Figure 8, is used for locking the brake pedals in the applied position. The parking brake should be applied whenever the tractor is parked.

To apply the brake:

- Lock the brake pedals together with the brake pedal lock.
- Depress both brake pedals.
- Pull up on the parking brake control. The pawl on the control will engage the teeth on the left-hand brake pedal and will retain the pedals in the applied position.

To release the parking brake:

- Depress the brake pedals to release the pawl.
- Unlock the brake pedals if operating conditions require independent rear wheel braking action.

DIFFERENTIAL CONTROL

DIFFERENTIAL LOCK PEDAL

The differential lock pedal is shown in Figure 9. Depressing the pedal locks the rear axle shafts together, providing additional traction in wet or loose soil. Refer to page 15 for differential lock operating information.

CAUTION: Tractor is very difficult to steer with differential locked.

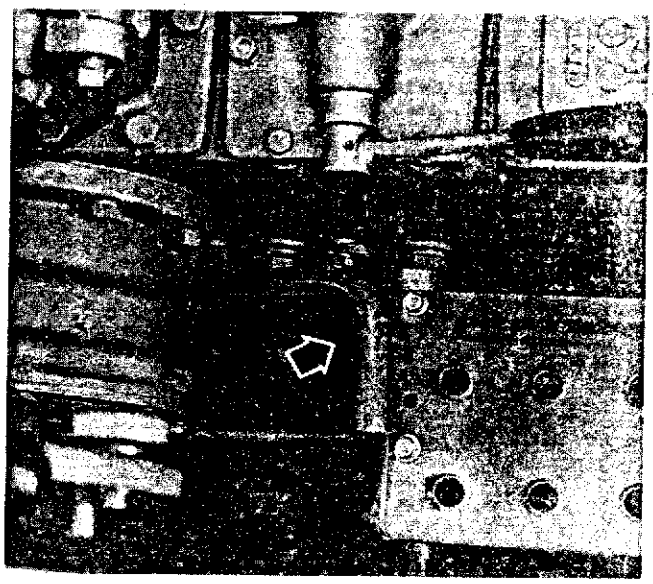


Figure 9 — Differential Lock

TRANSMISSION AND PTO CONTROLS

TRANSMISSION GEARSHIFT LEVERS

The transmission main shift lever and range selector lever are shown in Figure 10. A diagram showing the shift pattern is cast into the transmission cover.

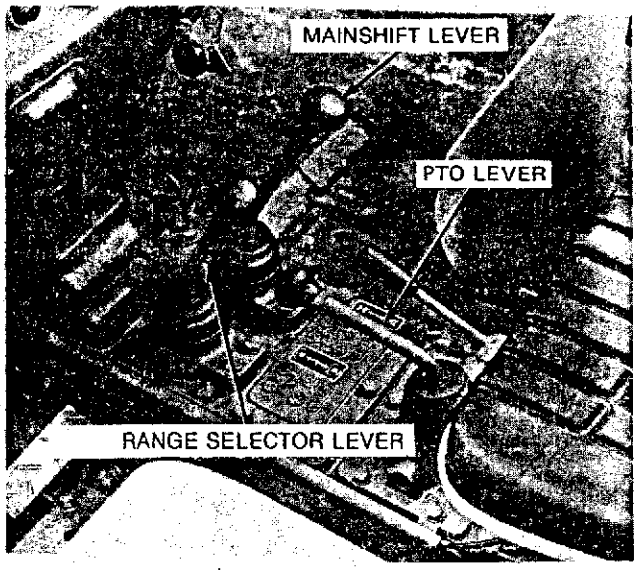


Figure 10 — Transmission and PTO Controls

Three forward and one reverse speed are provided for each of the four ranges. This provides a total of 12 forward and 4 reverse speeds.

CREEPER RANGE (ACCESSORY)

A creeper range accessory with a 6.63:1 ratio is available which provides an additional 12 forward and 4 reverse speeds. The control is located on the left-hand front of the rear-axle center housing.

FOUR-WHEEL DRIVE (OPTIONAL)

The shift lever for the four-wheel drive is located on the top, right hand rear of the rear-axle center housing, (Figure 11).

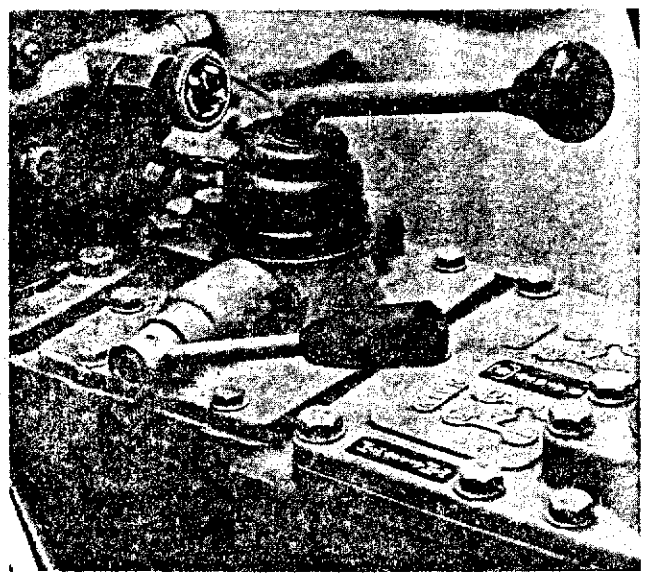


Figure 11 — Four-Wheel Drive Lever (Optional)

Full forward on the lever disengages the four-wheel drive (OFF). Full rearward engages the four-wheel drive (ON).

CLUTCH PEDAL

The foot-operated clutch pedal, Figure 12, must be completely depressed to start the tractor or to stop forward travel and PTO shaft rotation. Always fully depress the pedal when changing gear ratios.

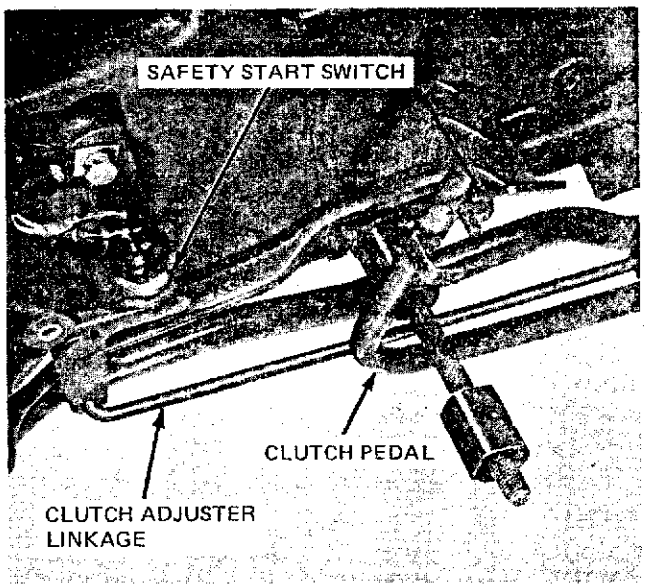


Figure 12 — Clutch Control

TRANSMISSION PTO CONTROL LEVER

The transmission PTO control lever is shown in Figure 10. The lever engages and disengages the PTO. If the tractor engine is running, always depress the clutch pedal fully before moving the lever. Move the lever rearward to engage the PTO and forward to disengage the PTO.

HYDRAULIC LIFT SYSTEM CONTROLS

HYDRAULIC LIFT CONTROL LEVER

The hydraulic lift control lever is shown in Figure 13. The lever is located at the right hand side of the seat. To raise the hydraulic lift arms, pull the lever back (upward). To lower the lift arms, push the lever forward (downward). The adjustable stop is provided for locating the lever at any position in the quadrant.

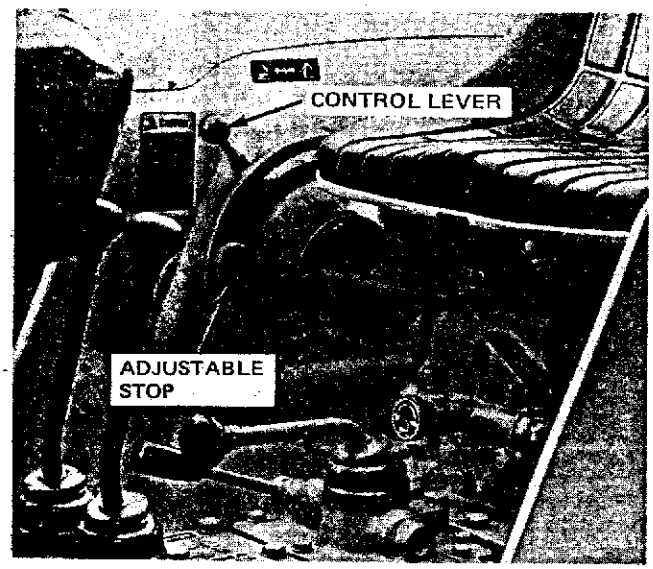


Figure 13 — Hydraulic Lift System Control

FLOW CONTROL VALVE

The flow control valve is shown in Figure 14. Turning the valve "in" (clockwise) will decrease the lowering speed of the lower links, and turning the valve "out" (counterclockwise) will increase the lowering speed of the lower links. Refer to "FLOW CONTROL," page 15, for additional information on operatng the flow control valve.

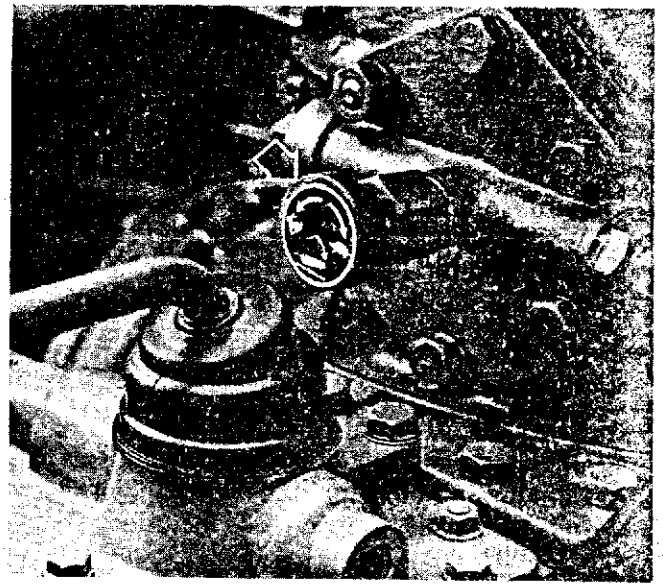


Figure 14 — Hydraulic Flow Control Valve

BREAK-IN PROCEDURES

Your Ford Tractor will provide long and dependable service if given proper care during the 50-hour break-in period. During the first 50 hours of operation:

1. Avoid "lugging" the engine. Operating in too high a gear under heavy load may cause engine "lugging." "Lugging" is indicated when the engine will not respond to a throttle increase.
2. Use the lower gear ratios when pulling heavy loads and avoid continuous operation at constant engine speeds. You will save fuel and minimize engine wear by selecting the correct gear ratio for a particular operation. Operating the tractor in low gear with a light load and high engine speed will waste fuel.
3. Avoid prolonged operation at either high or low engine speeds without a load on the engine.
4. Check the instruments frequently and keep the radiator and oil reservoirs filled to their recommended levels. Daily checks include:
   - Engine oil level
   - Radiator coolant
   - Air cleaner

STARTING THE ENGINE

A safety starter switch on the tractor allows the starting motor to be used only when the clutch pedal is fully depressed. For safe operation the transmission gear shift lever must always be in neutral and the PTO lever in the off position prior to starting the engine.

CAUTION: Never attempt to start the engine while standing beside the tractor — always sit in the seat when starting the engine.

IMPORTANT: Do not engage the starting motor continuously for more than 30 seconds; doing so may cause starting motor failure.

WARM WEATHER STARTING

To start a cold engine in warm weather or to start an engine that is warm:

1. Depress the clutch pedal fully and move the shift lever to the neutral position.
2. Move the hand throttle down to a near full open position.
3. Turn the starter switch to the "start" position, Figure 15. When the engine starts, release the key. Check to be sure the warning lights go out. If the engine fails to start after cranking for approximately 10 seconds, refer to the following "COLD WEATHER STARTING" information.

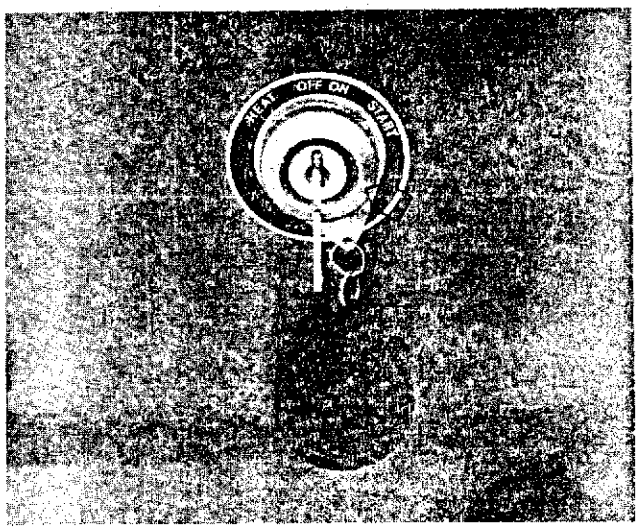


Figure 15 — Starter Switch

COLD WEATHER STARTING

If the engine fails to start using the preceding warm weather starting procedure or when starting the engine in cold weather:

1. Depress the clutch pedal fully and move the shift lever to the neutral position.
2. Move the hand throttle down to the wide-open position.
3. Turn the starter switch to "heat" to pre-heat the precombustion chamber and wait until the cold-start aid indicator on the instrument panel shows red (approximately 30 seconds).
4. Turn the starter switch to the "start" position. When the engine starts, release the key. Check to be sure the warning lights go out.

STOPPING THE ENGINE

Push the hand throttle fully forward past idle position to stop the engine, then turn the starter switch, Figure 15, to the "Off" position.

IMPORTANT: Failure to turn the starter switch to the "Off" position after the engine stops will allow the warning lights to remain on, causing the battery to discharge.

OPERATING THE TRANSMISSION, FOUR-WHEEL DRIVE AND PTO

The transmission operates through the use of a clutch pedal, a main shift lever, and a range selector lever. Figure 16 illustrates the pedal and levers involved. Ground speeds for the various gear ratios can be found on page 41. Figure 17 shows the combinations of main shift lever and range selector lever positions to obtain the 12 forward and four reverse speeds.

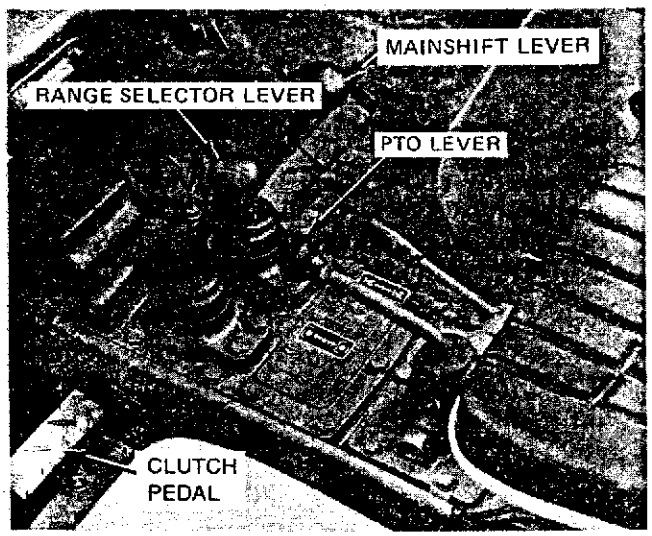


Figure 16 — Transmission Controls and Shift Pattern

SPEED	RANGE	MAIN
1	1	1
2		2
3		3
4	2	1
5		2
6		3
7	3	1
8		2
9		3
10	4	1
11		2
12		3
R^1	1	R
R^2	2	R
R^3	3	R
R^4	4	R

Figure 17 — Speed Range Combinations

When in motion, always depress the clutch pedal fully and bring the tractor to a complete stop before moving either gearshift lever. Do not attempt to change gears while the tractor is in motion.

NOTE: Avoid using the clutch pedal as a "footrest" (riding the clutch). Prolonged operation in this manner can cause damage to the clutch components.

To change from one gear ratio to another, or to change ranges:

1. Depress the clutch pedal completely.
2. Bring the tractor to a complete stop.
3. Shift to the desired gear and/or range.

The four-wheel drive is engaged and disengaged through the use of the lever on the top, right hand front of the rear-axle center housing, Figure 11.

To engage the four-wheel drive, depress the clutch pedal fully and move the four-wheel drive lever full rearward. To disengage, move the lever full forward.

CAUTION: Do not operate the tractor in front-wheel drive while driving on roads or at high speeds.

POWER TAKE-OFF

The power take-off (PTO) in your tractor transfers engine power directly to mounted or pull-type PTO equipment. The standard PTO speed is 540 ± 10 rpm. Most PTO equipment is designed to operate efficiently at this speed. This speed is obtained when engine rpm is set at 2422 rpm, as indicated by the PTO symbol on the Proof-Meter rpm scale.

CAUTION: Do not exceed 2422 rpm engine speed when operating PTO-driven equipment.

The transmission PTO is controlled through a lever shown in Figure 16. The transmission PTO can be engaged, operated, and disengaged as described under "POWER TAKE-OFF OPERATION."

PTO SHIELD AND CAP

The PTO shield, shown in Figure 18, is standard equipment. The shield is to be used with both mounted and pull-type equipment. The PTO cap should always be installed when the PTO is not in use.

⚠ WARNING

- KEEP HANDS, FEET AND CLOTHING AWAY FROM PTO AND OTHER MOVING PARTS.
- DISENGAGE PTO AND SHUT OFF ENGINE BEFORE SERVICING TRACTOR OR IMPLEMENTS AND ATTACHING OR DETACHING IMPLEMENTS. KEEP SAFETY SHIELD IN PLACE.
- PULL ONLY FROM DRAWBAR. PULLING FROM ANY OTHER POINT MAY CAUSE TIPPING.

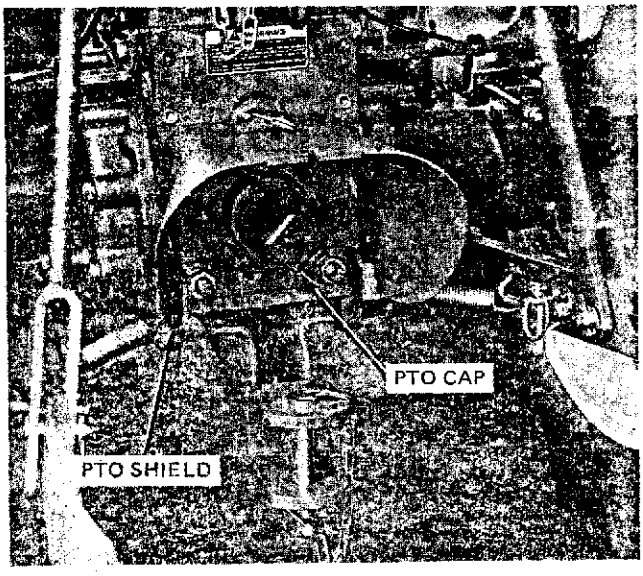


Figure 18 — PTO Shield and Cap

POWER TAKE-OFF OPERATION

1. Stop the engine, set the parking brake, remove the PTO shaft cap, and attach the mounted or drawn equipment. Make sure the equipment-driven shaft is properly aligned and locked to the tractor PTO drive shaft and that the PTO shield is installed on the tractor.

CAUTION: To reduce the possibility of personal injury and damage to the equipment, comply with the following before attaching or detaching PTO equipment, and before working on or clearing PTO equipment.

- Depress the clutch pedal completely and move the transmission gearshift lever to the neutral (N) position.
- Disengage the PTO with the PTO control lever, Figure 16.
- Shut off the tractor engine.
- Wait until the PTO shaft stops turning.

2. With the PTO disengaged, start the engine. In the case of mounted equipment, raise and lower the equipment to make sure proper clearances exist.
3. With the transmission in neutral, depress the clutch pedal completely, then engage the PTO by moving the PTO control lever, Figure 16, up or rearward.

   NOTE: Failure to move the PTO lever through its full range may result in damage to the PTO.
4. Check the PTO-driven equipment for proper operation by gradually releasing the clutch pedal and increasing engine rpm.
5. After determining that the equipment is operating properly, depress the clutch pedal and shift to the desired operating gear. Release the pedal gradually to start the PTO and tractor in motion.
6. Control the PTO speed with the throttle, never exceeding 2422 rpm. If the tractor movement is too fast for the PTO load, stop the tractor and shift to a lower gear.
7. Disengage the PTO with the PTO control lever when making sharp turns with pull-type equipment and with mounted equipment in the fully raised position.
8. Disconnect the PTO-driven shaft at the tractor PTO shaft before traveling on highways or for any great distance.
9. Reinstall the PTO shaft cap when the PTO-driven equipment is disconnected from the tractor or when the PTO is not being used.

TOWING THE TRACTOR

To tow your tractor, place the transmission gearshift levers in neutral. Do not exceed 12 mph (20 kph). Do not tow your tractor to start it.

If the tractor is to be moved any great distance, use a solid tow bar and pull the tractor at a speed not to exceed 12 mph (20 kph).

CAUTION: For safety reasons, towing the tractor on the highway is not recommended. Also, for safety reasons, never attempt to start the engine by towing.

OPERATING THE DIFFERENTIAL LOCK

The differential lock is engaged by depressing the pedal located on the right side of the rear-axle center housing, Figure 19. Depressing the pedal locks both final drive pinion gear shafts together, preventing one wheel from rotating independently of the other. The lock should be used to obtain additional traction from the opposite wheel whenever one wheel begins to slip in wet or loose soil.

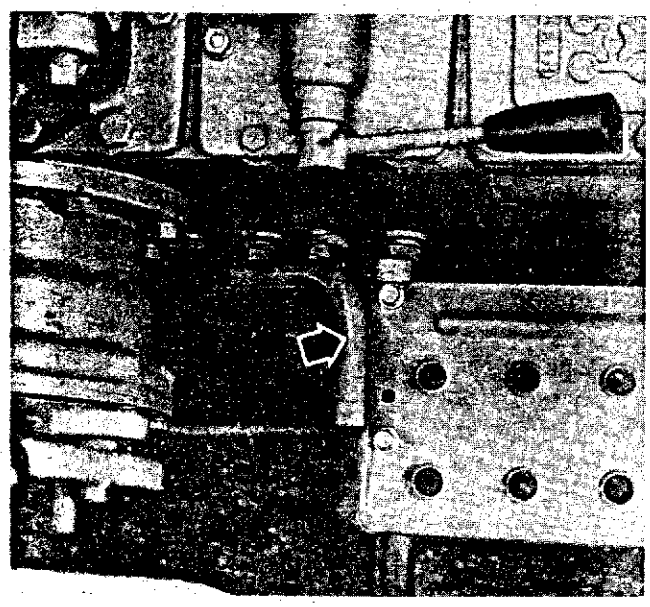


Figure 19 — Differential Lock Pedal

Do not engage the differential lock when driving the tractor on the highway or when ground speed is above 5 mph (8 kph).

CAUTION: Do not engage the differential lock when turning the tractor. If the lock is engaged when turning, a loss of steering control will result.

To operate the differential lock, depress and hold down the pedal until the lock is positively engaged. It is best to engage the differential lock while the wheels are turning slowly to minimize shock loads to the drive line. If a wheel spins at high speed, as on ice, reduce engine speed to idle before engaging the lock, or damage may occur. The differential lock is released by releasing the pedal.

NOTE: In some instances the lock may remain engaged after the pedal is released. This may occur if one rear wheel tends to turn at a faster speed than the other. Should this happen, the lock may be disengaged by either of two ways:

- Decrease the drawbar pull by raising or disengaging the implement so that neither wheel tends to slip.

—OR—

- Rapidly apply and release a light braking load to the rear wheel that is turning most rapidly.

OPERATING THE HYDRAULIC LIFT SYSTEM

The hydraulic lift system provides accurate, smooth, and instant hydraulic power for raising a variety of compatable equipment whenever the engine is running. The position control feature of the system maintains the selected height or depth of three point linkage equipment in relation to the tractor. When the hydraulic lift control lever is moved to a higher or lower setting in the quadrant, the system repositions the equipment to a higher or lower position and maintains the selected position.

FLOW CONTROL VALVE

The flow control valve, Figure 20, provides an adjustment to regulate the flow of oil from the lift cylinder, thus slowing or increasing the rate of drop of the lower links. To adjust the rate of flow, either turn the flow control valve "in" (clockwise) to decrease the rate of drop or "out" (counterclockwise) to increase the rate of drop. The flow control valve must be opened before hydraulic lift control will function.

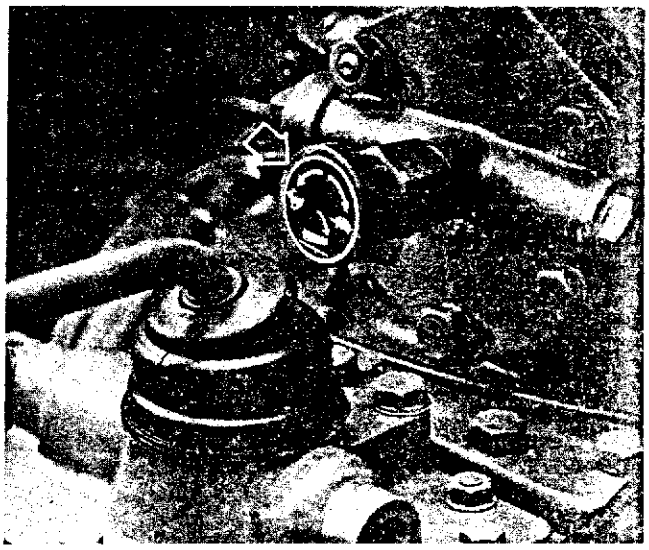


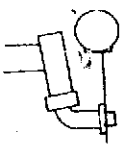
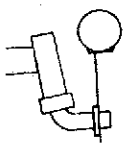
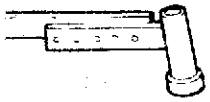
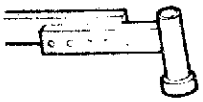
Figure 20 — Flow Control Valve

WHEEL TREAD SETTINGS

FRONT WHEEL TREAD SETTINGS

The front wheel tread setting is adjustable from 41.3 to 43.3 in. (105-110 cm) on the standard non-adjustable front axle by reversing the front wheels. On optional front-wheel drive the tread setting is 39.8 in. (101 cm).

IMPORTANT: Do not reverse the front wheels on a front wheel drive unit.

WHEEL HUB SETTING POSITION ▶ / SIDE AXLE POSITION ▼		
	37 INCHES (94. cm) (STD.)	39 INCHES (99. cm)
	41.3 INCHES (105. cm)	43.3 INCHES (110. cm)
	45.6 INCHES (116. cm)	47.6 INCHES (121. cm)

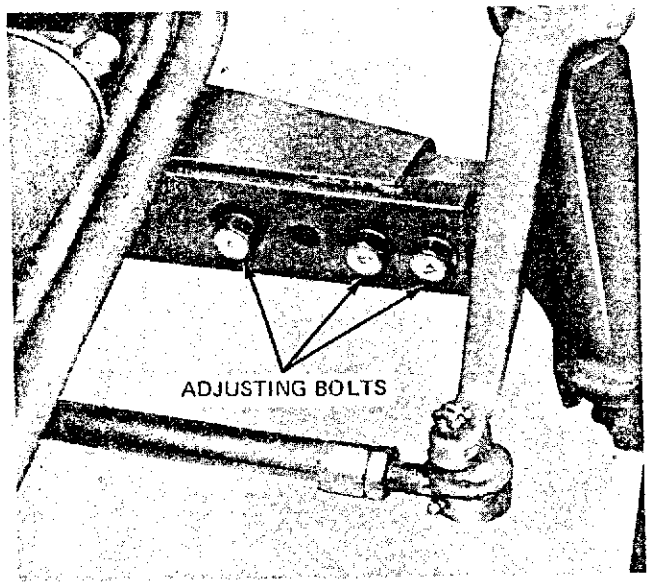


Figure 21 — Front Wheel Tread Settings

With the optional adjustable front axle, the tread setting is adjustable from 37 to 47.6 in. (94-121 cm) by a combination of repositioning the front axle and reversing the front wheels. See Figure 21. To reposition the front axle:

IMPORTANT: It is **not** recommended that the front wheels be set at maximum tread width in rough terrain because of high steering wheel effort and kickback.

1. Lock parking brake and raise the front of the tractor with a jack placed under the center of the front axle. Support with safety stands.
2. Remove the bolt from the tie rod clamp.
3. Remove the positioning bolts, Figure 21, and move the axle sections in or out until the desired setting is obtained, then reinstall the positioning bolts.
4. Position the front wheels in the straight ahead position, then reinstall the tie rod clamp bolts.
5. Torque all nuts to 43-54 lbs. ft. (58-73 N.m) and remove the jack.
6. Check the toe-in as outlined on page 34.

REAR WHEEL TREAD SETTINGS

The rear wheels on the Ford 1500 are adjustable from 41.3 to 47.3 in. (103.9-115 cm) on the standard non-adjustable rear wheels by reversing the rear wheels. Adjustable rear wheels are available as an option. The optional wheels can be adjusted from 41.2 to 52 in. (104.6-132 cm). Tread width settings are made on the adjustable rear wheels by changing the position of the rim with respect to the wheel disc, by changing the position of the wheel disc with respect to the axle, and by interchanging the rear rims. These various positions are shown in Figure 22.

NOTE: After changing the rear wheel tread setting, the wheel rim-to-disc nuts should be torqued to 180-217 lbs. ft. (244-294 N.m) and the disc-to-axle nuts should be torqued to 137-159 lbs. ft. (186-215 N.m).

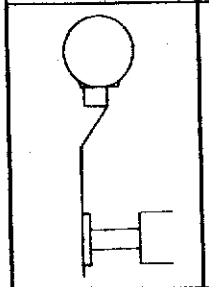
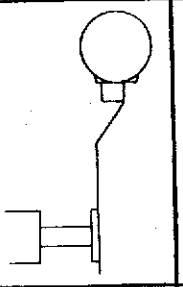
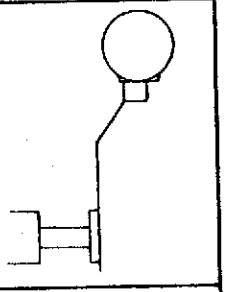
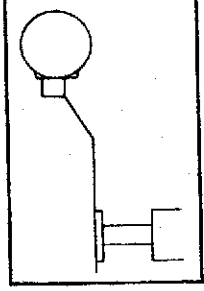
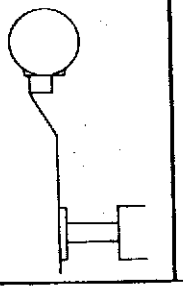
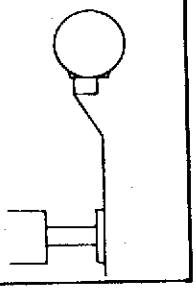
STANDARD	INTERCHARGE LSR WHEEL	RESET THE RIM AND INTERCHARGE LSR WHEEL
41.2 inch (1046mm)	45.7 inch (1162mm)	52 inch (1322mm)
		
RESET THE RIM AND THE DISC	RESET THE RIM AND THE DISC	RESET THE RIM AND THE DISC, THEN INTERCHARGE LSR WHEEL
50.3 inch (1278mm)	47.5 inch (1206mm)	42.9 inch (1090mm)
		

Figure 22 — Rear Wheel Tread Settings

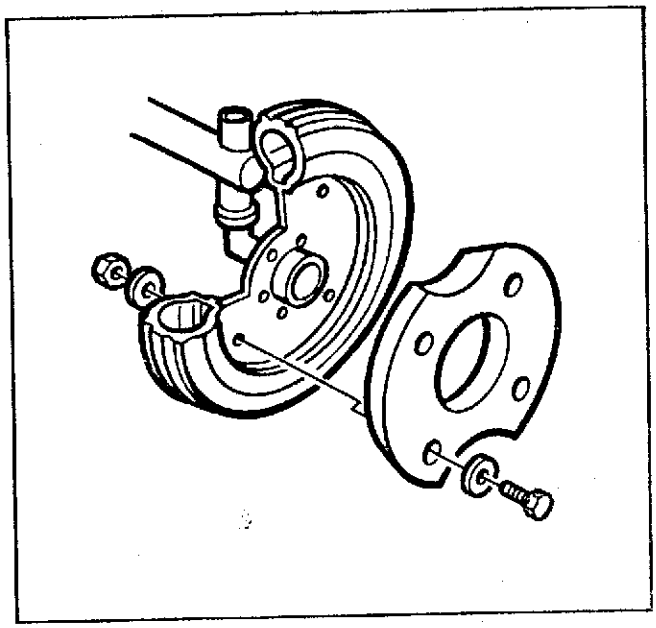


Figure 23 — Front Wheel Weights

TRACTOR WEIGHTING

To obtain sufficient traction for maximum performance in heavy draft operations and to counterbalance rear mounted equipment, weight should be added to the tractor in the form of liquid ballast, cast iron weights, as shown in Figures 23 through 25, or a combination of both. Only enough weight should be added to provide good traction and stability.

Adding more weight than is needed results in unnecessary soil compaction and increased rolling resistance and thus higher fuel consumption.

NOTE: When adding weight, adhere to the tire load capacities. Refer to "Tire Pressure" and the "Tire Inflation Versus Permissible Load" table on page 18.

WEIGHTING LIMITATIONS

The weighting limitations that follow are limitations only; they do not imply that the tractor should be weighted to obtain the weights shown. Use only enough weight to obtain good performance, and do not exceed the tire load capacities.

TOTAL VEHICLE WEIGHT

Do not add weight exceeding the following:

Front End — 99 lbs.
Front Wheels — 66 lbs. (No weights on front end of four-wheel drive).
Rear Wheels — 264 lbs. plus chloride.

LIQUID BALLAST

It is a common practice to add weight to the tractor by filling the rear tires with liquid. A calcium chloride ($CaC1^2$) and water solution is recommended due to its low freezing point and greater density (weight per gallon) than water. Never exceed the total recommended weight for the tractor. Because special equipment is required to fill the tires, we recommend that you consult your Ford Tractor-Equipment Dealer. Tires should never be filled beyond 75% (tire filled to the valve stem when valve stem is at its highest point at the top of the wheel.

CAST IRON WEIGHTS (OPTIONAL)

Cast iron weights are a factory installed option or are available as accessories from your Ford Tractor-Equipment Dealer. Weights can be mounted on the front wheels, on the front end of the tractor, and on the rear wheels as shown in Figures 23 through 25.

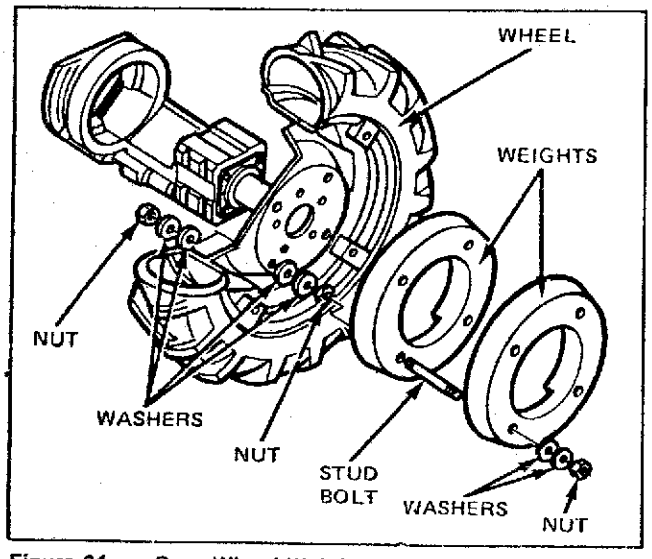


Figure 24 — Rear Wheel Weights

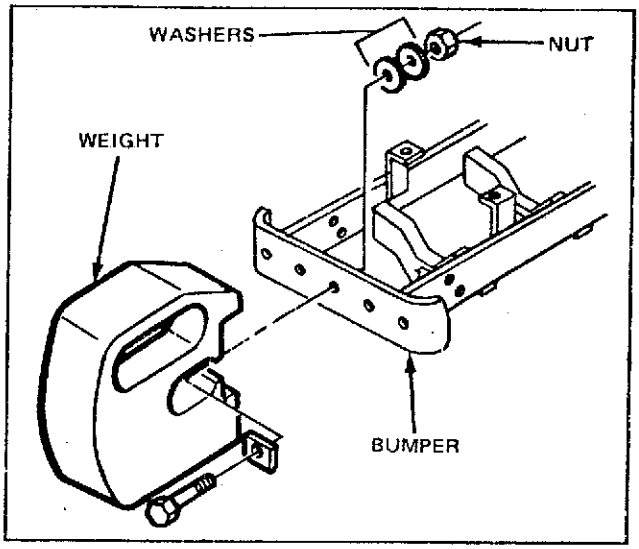


Figure 25 — Front End Weights

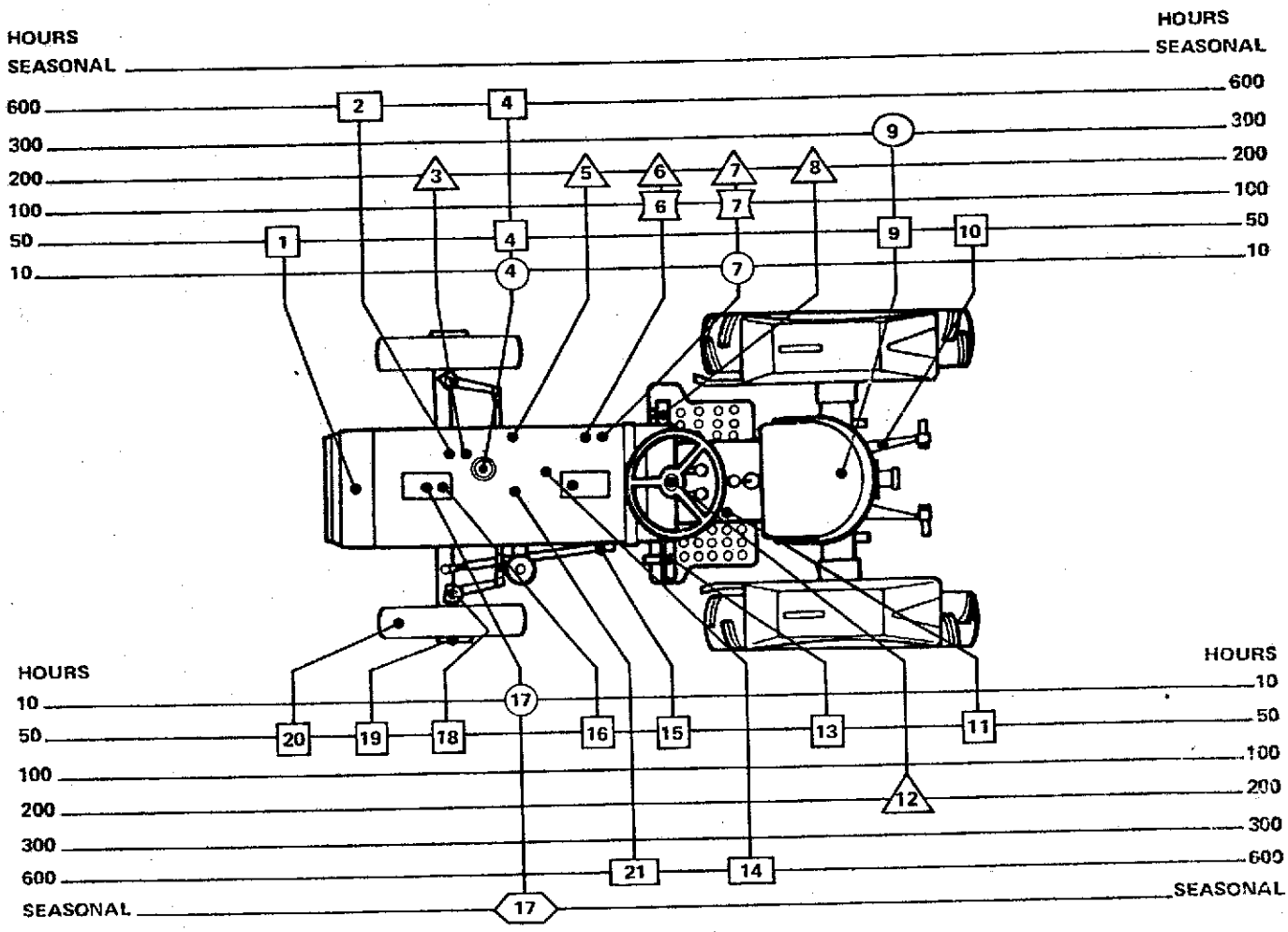
TIRE PRESSURE

Tire pressure must be considered when adding weight to the tractor. The following "TIRE INFLATION vs. PERMISSIBLE LOAD" table lists the tire sizes available and shows the maximum load the tires can carry for a given air pressure. Note that the load capacities decrease as inflation pressures decrease, and also that a specific tire pressure is recommended for certain size tires.

TIRE INFLATION vs. PERMISSIBLE LOAD

	INFLATION PRESSURES — psi (bar)							
FRONT TIRE SIZE	**8 (.55)**	**10 (.69)**	**12 (.83)**	**20 (1.4)**	**24 (1.7)**	**28 (1.9)**	**32 (2.2)**	**36 (2.5)**
	MAXIMUM PERMISSIBLE LOAD — lbs. (kg)							
4.00-12	—	—	—	330 (150)	360 (163)	400 (181)	440 (200)	460 (209)
6.00-14	—	—	—	—	570 (259)	650 (295)	730 (331)	—
20 x 8.00-10	450 (204)	510 (231)	570 (259)	—	—	—	—	—
	INFLATION PRESSURES — psi (bar)							
REAR TIRE SIZE	**12 (.83)**	**14 (.96)**	**16 (1.1)**	**18 (1.2)**	**20 (1.4)**	**—**	**—**	**—**
	MAXIMUM PERMISSIBLE LOAD — lbs. (kg)							
8.3-24	980 (445)	1050 (476)	1110 (503)	1210 (549)	1300 (590)	—	—	—
9.5-24	1230 (558)	1310 (594)	1390 (631)	—	—	—	—	—
13.6-16	1610 (730)	1760 (798)	1900 (892)	2040 (925)	2160 (980)	—	—	—

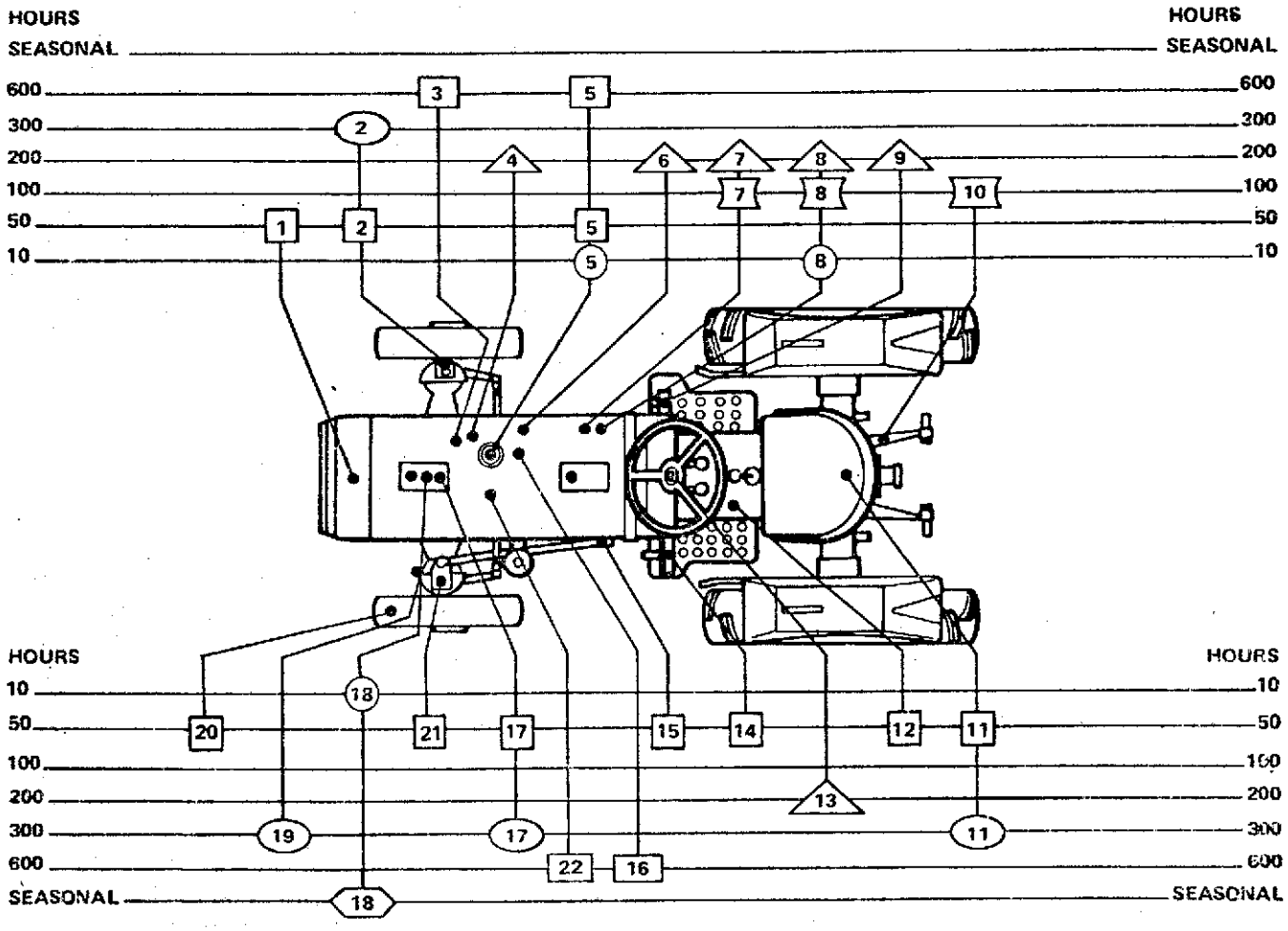
LUBRICATION AND MAINTENANCE CHART — FORD 1500 TWO-WHEEL DRIVE



NO.	LUBRICATION AND MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
7	Engine Oil Level	X					Every (10) Hours or Daily
17	Radiator Coolant	X					
4	Air Cleaner						
4	Air Cleaner		X	X	X		Every 50 Hours
9	Transmission and Axle Oil Level	X					
20	Tires	X					
13	Clutch Pedal					X	
6	Fuel Filter	DRAIN					
1	Battery	X					
	Lubrication Fittings						
19	Front Wheel Spindles			X			
15	Steering Linkage			X			
16	Pivot Shaft			X			
18	King Pins			X			
11	Pedal Shaft			X			
10	3-Point Linkage			X			

NO.	LUBRICATION AND MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
7	Engine Oil				X		Every 100 Hours
6	Fuel Filter		X				
5	Injection Pump Oil				X		Every 200 Hours
6	Fuel Filter				X		
7	Engine Oil Filter				X		
3	Fan Belt					X	
8	Brakes					X	
12	Steering Free-Play					X	
9	Transmission and Rear Axle Oil				X		Every 300 Hours
14	Fuel Injectors	X				X	Every 600 Hours
2	Hydraulic Filter				X		
4	Air Cleaner (Disassemble and Clean)		X				
19	Front Wheel Bearings			X			
21	Valve Clearance	X					
17	Radiator Coolant				X		Seasonal

LUBRICATION AND MAINTENANCE CHART — FORD 1500 FOUR-WHEEL DRIVE



NO.	LUBRICATION AND MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
8	Engine Oil Level	X					Every (10) Hours or Daily
18	Radiator Coolant	X					
5	Air Cleaner	X					
5	Air Cleaner		X	X	X		Every 50 Hours
11	Transmission and Axle Oil Level	X					
20	Tires	X					
7	Fuel Filter	D	R	A	I	N	
17	Front Diff. Oil Level	X					
2	Front Axle Oil Level	X					
14	Clutch Pedal					X	
1	Battery	X					
	Lubrication Fittings						
15	Steering Linkage			X			
12	Pedal Shaft			X			
10	3-Point Linkage			X			
21	King Pin (2)			X			
8	Engine Oil				X		Every 100 Hours
7	Fuel Filter		X				

NO.	LUBRICATION AND MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
6	Injection Pump Oil				X		Every 200 Hours
7	Fuel Filter				X		
8	Engine Oil Filter				X		
4	Fan Belt					X	
9	Brakes					X	
13	Steering Free-Play					X	
2	Front Axle Oil				X		Every (300) Hours
17	Front Diff. Oil				X		
11	Transmission and Rear Axle Oil				X		
19	Front Axle Dust Seals				X		
16	Fuel Injectors	X				X	Every 600 Hours
3	Hydraulic Filter				X		
5	Air Cleaner (Disassemble and Clean)		X				
22	Valve Clearance	X					
18	Radiator Coolant				X		Seasonal

FUEL AND LUBRICANTS

DIESEL FUEL

Type of fuel to use:

When operating in temperatures above 20°F. (−6.7°C), use diesel fuel oil No. 2 (No. 2D) with a minimum cetane rating of 45. When operating in temperatures below 20°F. (−6.7°C), use diesel fuel oil No. 1 (No. 1D) with a minimum cetane rating of 50.

Fuel represents a major portion of your tractor operating costs; therefore, it is important to use it efficiently. Do not let low price tempt you to use inferior diesel fuel. The initial savings is a false economy when you consider the damage poor fuel can do to your tractor fuel system.

NOTE: Use only fuel designated for diesel engines. Some heating fuels contain harmful chemicals that, if used, can seriously affect tractor efficiency and performance. Refer to the "Engine Oil Recommendations" on page 22 for additional diesel fuel information.

FUEL STORAGE

Extremely small clearances exist between the fuel delivering elements of the fuel injection pump and the fuel delivering elements of the injectors. Therefore, it is of vital importance that precautions be taken to make sure the fuel is kept free of dirt and water. See Figure 26.

Diesel fuel should be stored in black iron tanks or containers. Do not store diesel fuel in a galvanized tank, as the zinc coating will react with the fuel and form undesirable compounds that may interfere with the proper operation of the fuel injection pump and injectors.

The most satisfactory arrangement is a bulk storage installation with either a tank and pump, Figure 27, or a gravity feed installation located high enough for the tractor tank to be filled direct. The tank should slope downward at the rear to allow sediment to settle away from the take-off point. Whenever the tank is refilled, allow the fuel to settle for 12 hours before using. A drain valve should be positioned at the lowest point in the tank so the moisture and sediment can be drained periodi-

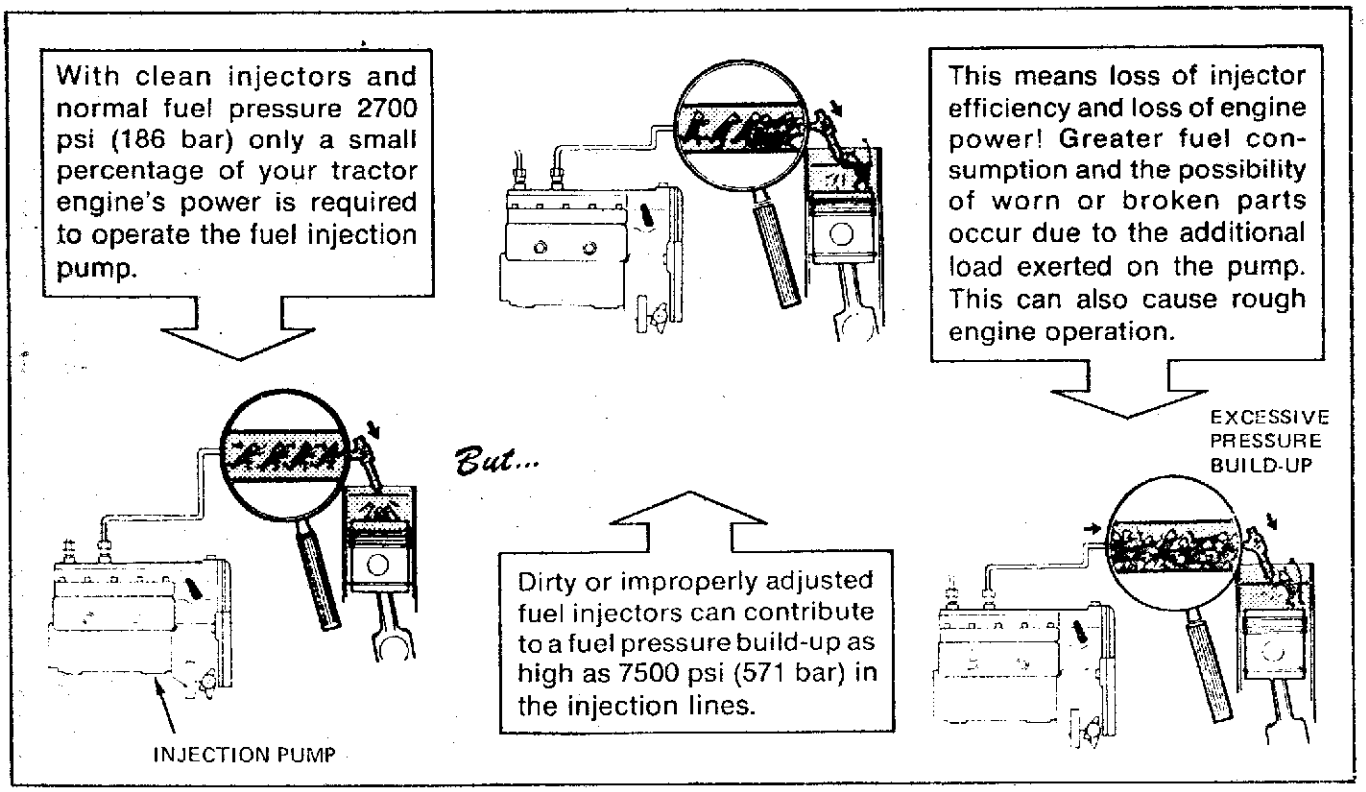
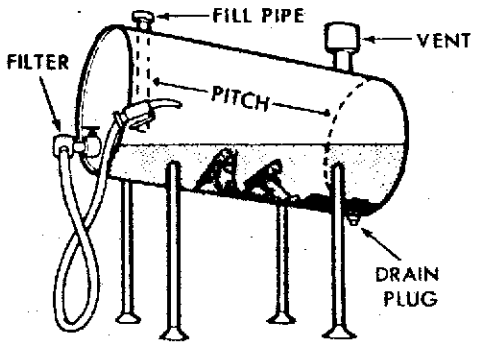
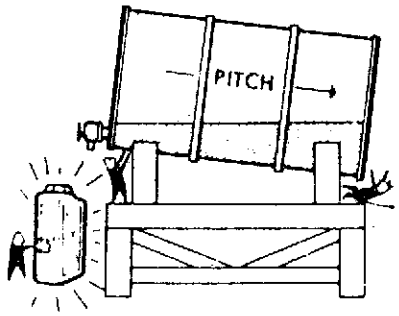


Figure 26 — Dirt vs. Injectors



Install your storage container above the ground and tilt the tank so the discharge outlet is on the highest end of the tank. Provide a drain plug at the lowest point of the tank so that moisture and sediment can be drained off periodically. Install a suitable filter on the discharge outlet of the storage container.



50 gallon drums make suitable containers for diesel fuel, provided they are tilted on their stands. The drums should be cleaned and flushed before each refilling.

Figure 27 — Diesel Fuel Storage

cally. A fuel outlet filter should be used, as shown in Figure 27. Use the largest tank feasible and keep it as full as possible to minimize condensation.

If bulk storage is not possible and the fuel is stored in barrels, keep them in a clean, dry place. The barrel in use should be fitted with a fuel outlet filter and a drain tap, and should be supported so it slopes downward 1/2 inch per foot length away from the tap.

After use, install the cap at the top of the barrel and clean up fuel which may have been spilled. Diesel fuel will not evaporate and thus will collect dust and dirt.

REFUELING THE TRACTOR

If there is no filter on the outlet of the storage tank, filter the fuel through a 100-mesh screen or finer when filling the tractor fuel tank. Keep the tractor tank as full as possible to minimize condensation.

NOTE: It is a good practice to fill the tractor fuel tank with fuel at the end of each day, as this will reduce overnight condensation. Also, any fuel which may have been spilled should be cleaned up.

LUBRICANTS

Type of lubricant to use:

Engine Oil .....
Service Grade CD
SAE 10W-30, 10W-40 for year around use.
SAE10W in severe cold below 32°F (0°C)
SAE 20W for winter use 32 to 50°F (0°C-10°C)
SAE 30W for summer use above 50°F (10°C)

NOTE: When using diesel fuel with a sulfur content below 1.0%, diesel engine oil with an API classification of CC may be used instead of a CD oil, but the oil change interval must be reduced to 50 hours and the filter must be changed every 100 hours. When the sulfur content of a fuel is greater than 1.0%, but less than 1.3%, a CD oil must be used (except for temperatures of 10°F. and below) and the oil change interval must be reduced to 50 hours and the filter must be changed every 100 hours. The use of a fuel with a sulfur content above 1.3% is not recommended.

Transmission, Rear Axle,
and Hydraulic System
Oil ..... Ford M2C-134-A

Front Wheel Bearings and
All Lubrication
Fittings ..... Ford M1C-137-A

LUBRICATION STORAGE

Your Ford Tractor is equipped with lubricant filters to protect vital points from damage caused by dirt which may enter under normal operating conditions. Precautions must, however, be taken by you to prevent lubricant contamination by dirt or water during storage. Service intervals in this section are based on the assumption that only new oil, of the type specified, is used.

Barrels of lubricant should be kept under cover, preferably in a clean, dry place, and should be clearly marked to indicate the lubricant which they contain.

When a barrel is kept in an exposed location, it should be tilted to allow any moisture to run away from the filler cap. Always use a clean container when transferring oil from a barrel to the tractor and make sure that any cap or bung, which has been removed, is installed as soon as possible.

FUEL AND LUBRICANT SERVICE PROCEDURES

ENGINE

Checking Oil Level: Check the engine oil level daily or every 10 hours.

1. With the tractor standing level, and after the engine has been stopped for a period of time, check the oil level with the dipstick, Figure 28.

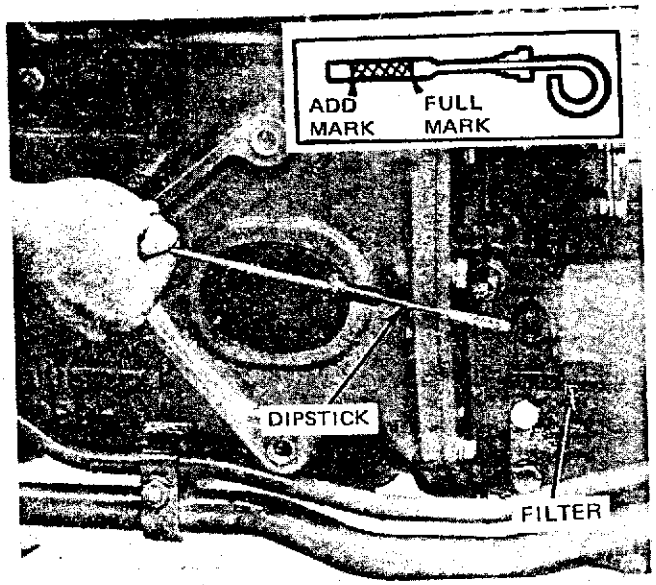


Figure 28 — Engine Oil Level Dipstick and Filter

2. If the oil level is low, remove the filler cap, Figure 29, and add oil to the engine through the filler hole to bring the oil level between the marks on the dipstick. Be careful not to overfill.
3. Install the oil filler cap.

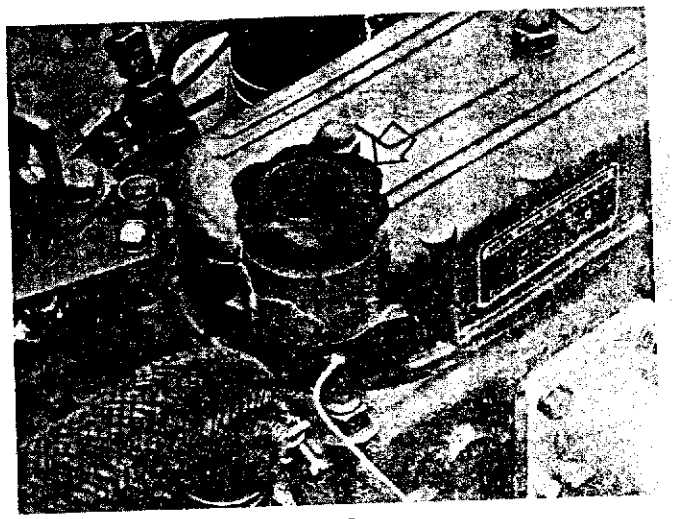


Figure 29 — Engine Oil Filler Cap

Changing Oil and Filter: Change the engine oil every 100 hours and the engine oil filter every 200 hours.

NOTE: More frequent engine oil and filter changes are recommended if the tractor is operated for extended periods of time at maximum rated power and speed. Under such conditions, or other types of continued severe operating conditions, the engine oil should be changed at 70 hour intervals and the filter at 140 hour intervals.

1. With the engine off, but at normal operating temperature, drain and discard the engine oil by removing the drain plug, Figure 30. Reinstall the plug after the oil has drained and discard the oil.
2. Unscrew the oil filter, Figure 28, catching the used oil in a suitable container placed below the filter. Discard the filter.
3. Coat the gasket on the new filter with a film of oil. Screw the filter into place until the gasket contacts its mating surface, then turn the filter approximately 3/4 of a turn by hand. Do not overtighten.
4. Add new oil of the type specified, page 22. Start the engine and check the filter for leaks after adding the oil. Be sure the oil level is at the proper level.

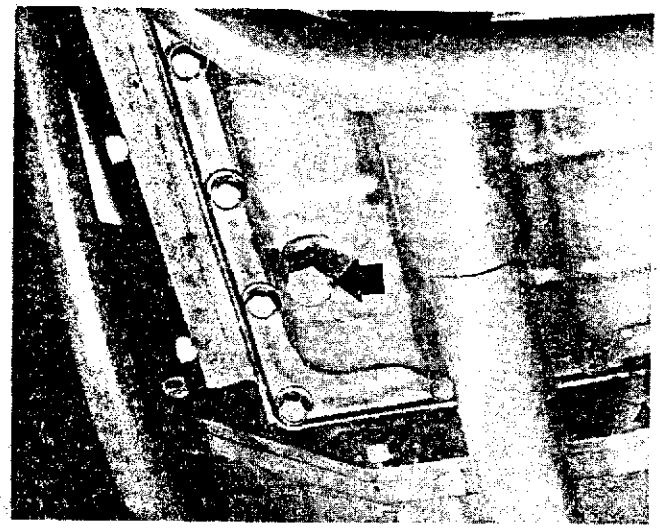


Figure 30 — Engine Oil Drain Plug

THE FUEL INJECTION PUMP

Change the injection pump oil every 200 hours.

1. Remove the drain plug located at the bottom of the injection pump to drain the old oil. See Figure 31.
2. Install the drain plug.
3. Remove the filler plug and fill with clean engine oil as specified on page 22, until oil flows from the breather pipe.

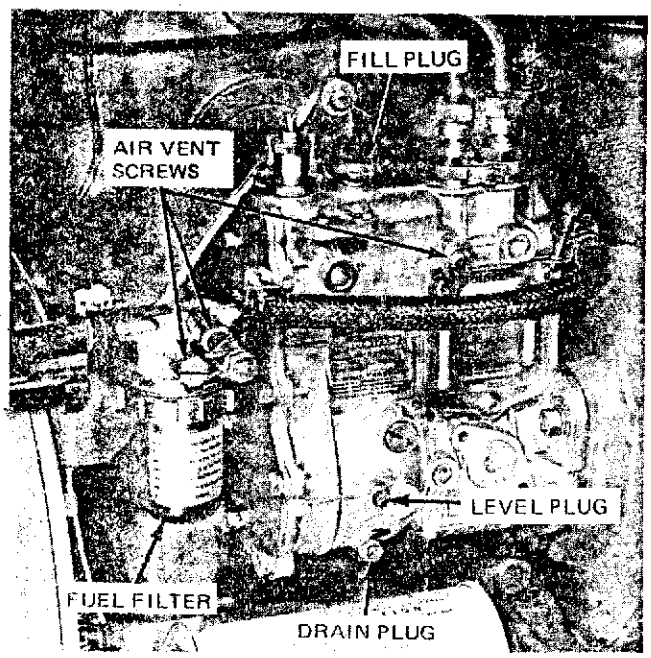


Figure 31 — Fuel Injection Pump

FUEL FILTER

Draining the Filter: Drain the diesel fuel filter when condensation is evident.

Cleaning the Fuel Filter: Clean the fuel filter every 100 hours by rinsing in a container of clean diesel fuel.

1. Be sure there is adequate fuel in the fuel tank; close the fuel shut-off valve, Figure 6, then remove the fuel sediment bowl. Figure 31.
2. Open the fuel shut-off valve until all water has been removed and only fuel flows from the filter.
3. Install the fuel sediment bowl and bleed the system as outlined under "Bleeding the Fuel System."

Changing the Fuel Filter: Change the diesel fuel filter every 200 hours.

1. Close the shut-off valve. Figure 6.
2. Remove the sediment bowl. Figure 31.
3. Discard the old element and install a new element.
4. Install and securely tighten the sediment bowl.
5. Open the fuel shut-off valve so fuel will flow to the filter.
6. Bleed the fuel filter and injection pump as covered under "Bleeding the Fuel System."

BLEEDING THE FUEL SYSTEM

Bleed the fuel system after it has been drained:

- If a new filter element has been installed,
- If the tractor has run out of fuel,
- If the lines leading to or from the filter have been disconnected,
- If the injection pump has been removed and reinstalled.

1. Be sure there is adequate fuel in the fuel tank.
2. Open the fuel shut-off valve.
3. Open air vent screws (Figure 31) and let air bubbles escape from screws while cranking the engine. Then tighten vent screw.
4. Push the hand throttle to the high speed position. Turn the engine over for a few seconds to bleed the high pressure fuel tube.

NOTE: If the tractor does not start after completing the above bleeding procedure, the fuel lines to each injector may have to be loosened while cranking the engine to complete bleeding of the system. Tighten lines at injectors after completing bleeding.

AIR CLEANER

Checking Oil and Dirt Level: Check the oil and dirt level in the oil bath air cleaner daily or every 10 hours. Under conditions of extreme dust or chaff, check these levels twice daily.

1. Release the oil pan retaining clip and remove the oil pan, Figure 32.
2. Check the dirt level in the oil.
3. If the dirt level is more than 1/4 in. (6.35 mm) high, service the air cleaner as outlined in the following procedure. If the dirt level is less than 1/4 in. (6.35 mm), reassemble the cleaner and install the chaff screen.

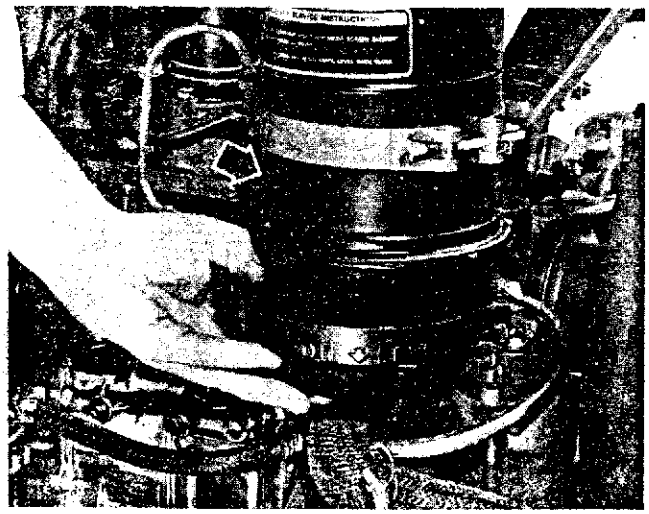


Figure 32 — Air Cleaner

Changing Oil: Change the oil in oil bath air cleaner at least every 50 hours or whenever an inspection shows the dirt level to be more than 1/4 in. (6.35 mm) high.

1. Release the oil pan retaining clip and remove the oil pan, Figure 32.
2. Discard the oil and clean the oil pan inner cup and outer bowl with solvent.

   NOTE: If the 600 hour service is being performed, also clean air cleaner body as outlined below.
3. Refill the oil pan with clean engine oil until level with the mark on the pan. Do not overfill.
4. Install the oil filled pan and secure it in place with the retaining clip.

Cleaning the Air Cleaner Body: The oil bath cleaner, Figure 32, should be removed from the tractor, disassembled, and cleaned every 600 hours.

1. Loosen the clamp securing the engine air inlet hose to the air cleaner.
2. Remove the attaching bolts that hold the air cleaner in place, then remove the air cleaner.
3. Remove the air cleaner pan and discard the oil.
4. Wash all parts in solvent, including the air cleaner body.
5. After cleaning, install the air cleaner body and connect the air inlet hose.
6. Fill the air cleaner pan with clean engine oil. Do not overfill.
7. Install the oil filled pan and secure it in place with the retaining clip.

TRANSMISSION, REAR AXLE AND HYDRAULIC SYSTEM

Checking Oil Level: Check the oil level every 50 hours.

1. With the tractor standing level and the engine off, check the oil level with the dipstick, Figure 33.

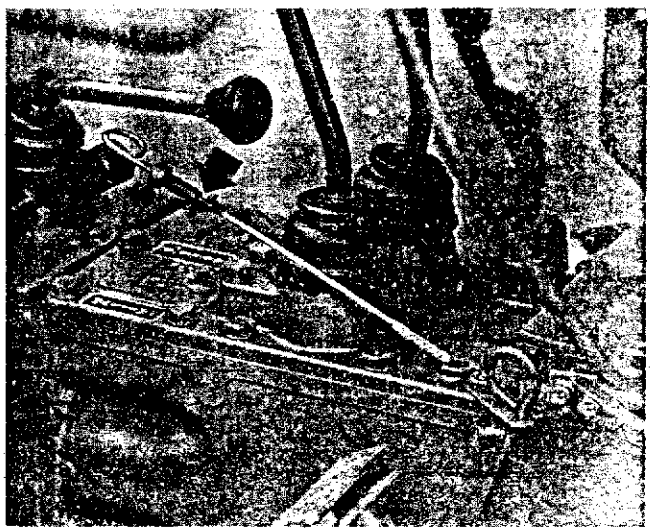


Figure 33 — Transmission, Rear Axle and Hydraulic System Oil Level Dipstick

2. The oil is at the correct level when the oil level is between the mark and the lower end of the dipstick. If low, remove the filler plug, Figure 34, and add new oil of the type specified, page 22. Do not fill beyond the mark on the stick, as the transmission will be overfilled.
3. Install the filler plug and dipstick.

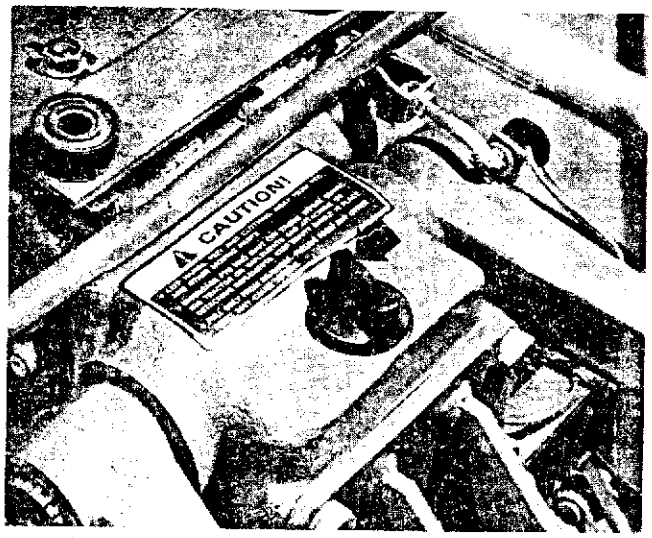


Figure 34 — Transmission, Rear Axle and Hydraulic System Oil Level Filler Plug

Changing Oil: Change the oil every 300 hours.

1. With the oil at normal operating temperature, drain and discard the oil by removing the transmission and rear axle drain plugs, Figure 35. Reinstall the plugs after the oil has been drained. Discard the oil.

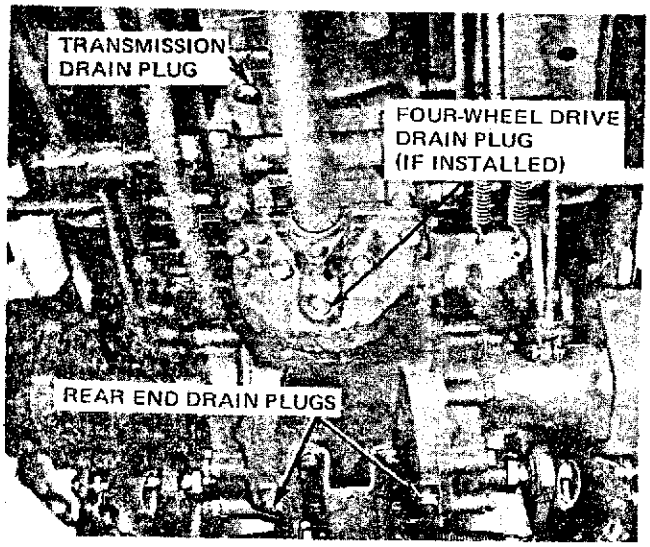


Figure 35 — Transmission and Rear Axle Oil Drain Plugs

2. Remove the filler plug, Figure 34, and fill with new oil of the type specified, page 22.
3. The transmission is filled to the correct level when the oil level is between the mark and the lower end of the dipstick. Do not fill beyond the mark on the stick, as the transmission will be overfilled.
4. Install the dipstick and filler plug.

IMPORTANT: Because there is a common sump for the transmission, rear axle and hydraulic system, special attention is necessar in maintaiing clean oil.

HYDRAULIC SYSTEM FILTER

Replace Filter: Check condition of filter after first 50 hours. Replace filter if necessary. After the first 50 hours, replace filter every 600 hours.

1. Remove two wingnuts holding filter housing in place Figure 36.

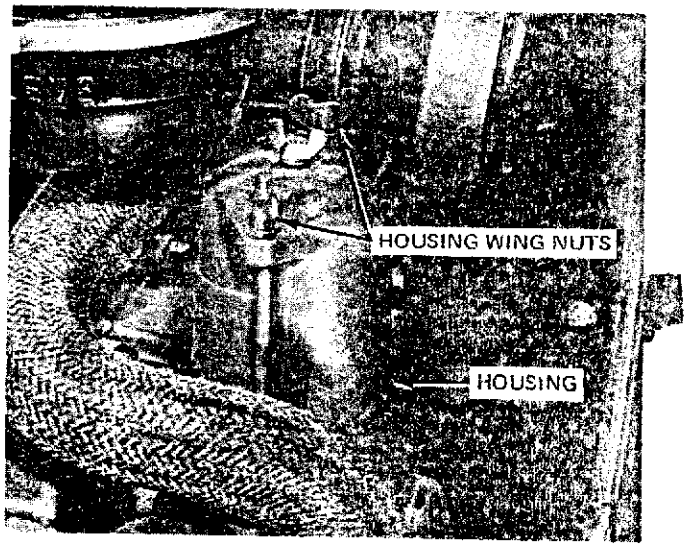


Figure 36 — Hydraulic System Filter

2. Remove filter housing from engine.
3. Remove wing nut securing filter element inside housing and remove element.
4. Position new filter element in clean housing and secure with wing nut.

   IMPORTANT: Check filter cover gasket and washer seal for damage. Replace if necessary.
5. Position housing and gasket to engine and secure housing in place with two wing nuts. Recheck oil level.

6. Start tractor and operate hydraulic system. Check filter housing for leaks.

LUBRICATION FITTINGS

The following lubrication points (refer to the Lubrication Chart, page 19 or 20) require the application of a good quality grease every 50 hours. In extremely dirty conditions, lubrication should be made more often. Refer to page 22 for the type of grease that should be used.

- Steering linkage
- Front wheel spindles
- 3-point linkage
- Front-wheel drive king pins (if so equipped).

1. Wipe away all old grease and dirt from the lubrication fittings to prevent dirt or foreign material from entering the fittings when new grease is applied.
2. Use a high pressure grease gun to force in the new grease until clean grease oozes from the assembly being lubricated.
3. Wipe away any excess grease.

GENERAL MAINTENANCE

COOLING SYSTEM

The cooling system in your Ford Tractor has been filled with one year life antifreeze.

To obtain maximum efficiency and service life from the engine, it must operate at the correct temperature. This is dependent on the cooling system. The system should be kept filled with 50/50 solution of permanent antifreeze and clear water.

Checking Coolant Level: Check the coolant level daily or every 10 hours. This check should be made when the engine is cold.

1. Remove the radiator cap and visually check the level of the coolant.

CAUTION: The cooling system operates under pressure which is controlled by the radiator cap. It is dangerous to remove the cap while the system is hot. Always cover the cap with a thick cloth and turn the cap slowly counterclockwise to the first stop. Allow all pressure to escape before removing the cap completely.

2. If the coolant level is more than 1-1/2 to 2 inches (3.8 to 5 cm) below the bottom of the filler neck, add clean water or antifreeze solution as necessary.If the cooling system already contains antifreeze, add only antifreeze solution of the correct water/antifreeze mixture. Plain water will dilute the solution and weaken its protection.

   IMPORTANT: Alcohol-type antifreeze is not recommended. Do not mix alcohol-type solution with permanent antifreeze.

3. Keep the radiator fins clear of chaff or dirt to allow free passage of air.

Draining and Flushing the Cooling System: Drain and flush the radiator and engine block every 12 months. Refill with a 50/50 mixture of long life (Ford) antifreeze, or equivalent, and clear water.

To Drain the System:

1. Remove the radiator cap and open the drain valve at both the radiator and the engine block. The radiator drain valve is located on the bottom left side of the radiator, Figure 37. The engine block drain valve is located on the left side of the engine. See Figure 38.
2. After the coolant has drained, place a water hose in the radiator filler neck and run water through the system with the engine running. Make sure water is flowing from the block drain valve before starting the engine. When the water

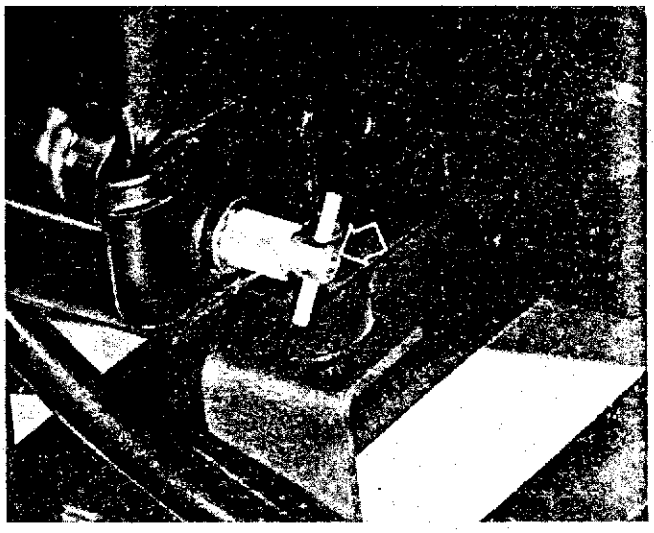


Figure 37 — Radiator Drain Valve

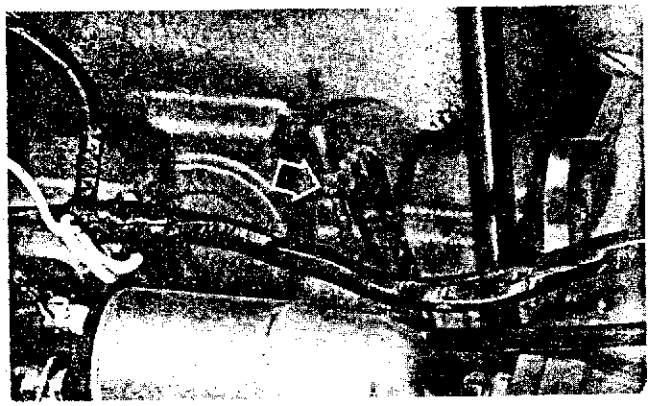


Figure 38 — Engine Block Drain Valve

flowing from the drain valve is free of discoloration and sediment, stop the engine and remove the hose. Allow all water to drain from the system through drain valves.

3. Close the two drain valves and slowly refill the system with a 50/50 solution of permanent antifreeze and clear water. Fill until the coolant level is approximately 1-1/2 to 2 inches (3.8 to 5 cm) below the bottom of the filler neck. Do not fill beyond this level.

   IMPORTANT: Bleed coolant system to make sure that no air pockets remain.

4. Clean the radiator cap and cap seal. Install the cap.

5. Clean the radiator front screen Figure 39.

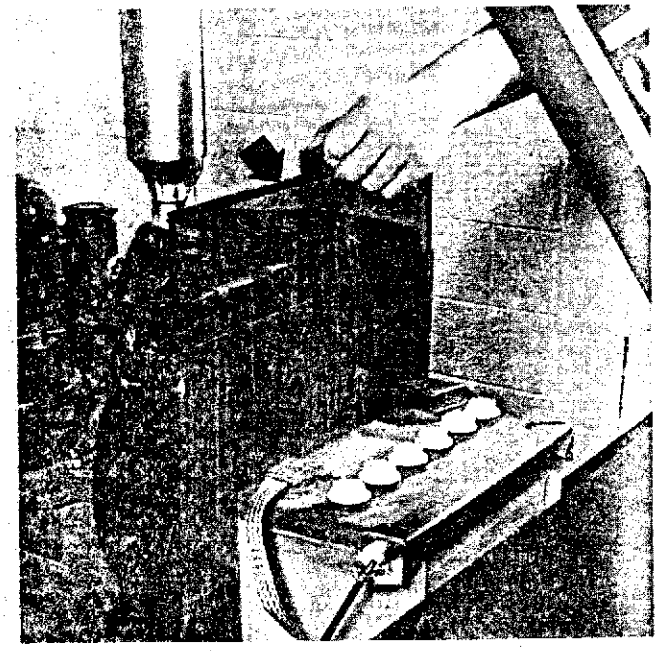


Figure 39 — Radiator Screen

6. Run the engine until normal operating temperature is reached, then stop the engine and recheck the coolant level. Add coolant as required.

IMPORTANT: Never run the engine when the cooling system is empty, and do not add cold water or cold antifreeze solution if the engine is hot.

Thermostat: The thermostat is located in the coolant outlet connection in the front of the cylinder head Figure 40.

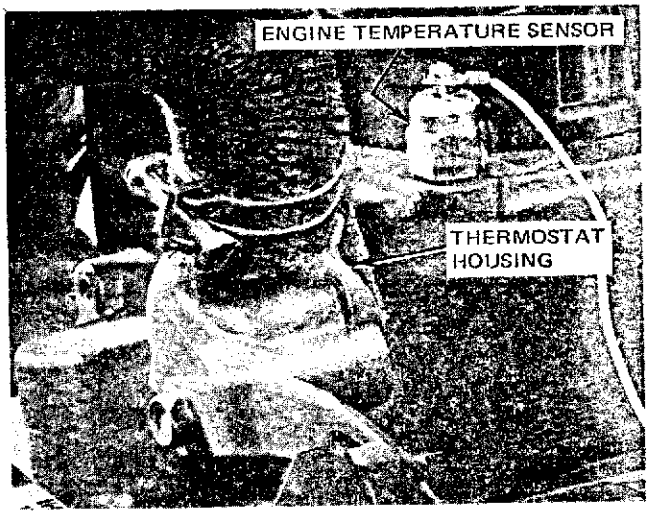


Figure 40 — Thermostat Housing

When the engine is cold, the thermostat, which is a heat sensitive valve, shuts off the flow of coolant to the radiator, thus allowing rapid engine warm up. A recirculating bypass allows the coolant to circulate within the engine whenever the thermostat shuts off flow to the radiator.

IMPORTANT: Do not remove the thermostat in an attempt to improve the cooling. This will cause the engine to run below normal working temperatures, resulting in excessive engine wear.

If it ever becomes necessary to install a new thermostat, it should be positioned in the recess of the water outlet connection so that the heat element (spring end) will be in the cylinder head of the engine.

Fan Belt: A belt-driven fan at the front of the engine draws air through the fins of the radiator to cool the coolant in the radiator. A slipping fan belt will lower the efficiency of the fan, resulting in the engine

running too hot. If the belt is too tight, it will shorten the alternator bearing life. A correctly tightened belt will deflect 7/16 to 9/16 inch (10 to 15 mm) when 20 to 25 pounds (9 to 11 kg) thumb pressure is applied midway between the belt pulleys. Check the condition and tension of the fan belt every 200 hours. If the belt shows signs of cracking or fraying, install a new belt.

To Adjust Belt Tension:

1. Loosen the alternator mounting bolts, Figure 41.

CAUTION: Never attempt to loosen or tighten the bolts when the engine is running.

2. Pry the alternator away from the engine and tighten the mounting bolts.
3. Recheck belt deflection.

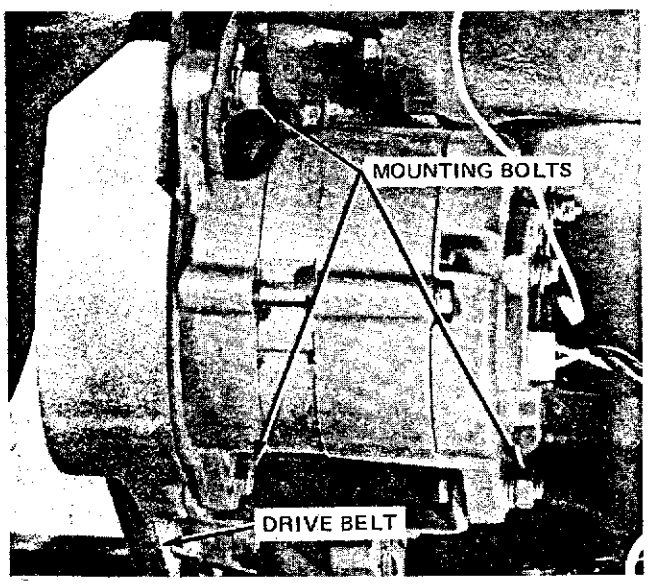


Figure 41 — Alternator Mounting Bolts

FUEL INJECTOR REMOVAL AND INSTALLATION

The injectors should be cleaned, tested, and adjusted every 600 hours. Do not disassemble or adjust the injectors yourself. Remove them from the tractor engine and have them serviced by your Ford Tractor-Equipment Dealer. Figure 42.

To remove the injectors:

1. Clean all loose dirt from around the injectors and lines. Disconnect the leak-off lines from the injectors.
2. Disconnect the injection pump lines at the pump and injectors. Cover the ends of the lines and the injector inlet and leak-off ports to prevent the entry of dirt.
3. Remove the injectors and discard the dust sealing washers.
4. Remove and discard the copper injector sealing washers from the injector locating bores. If a spare set of injectors is not immediately available, cover the bores to prevent the entry of dirt.

After the injectors have been serviced, install them as follows:

1. Place new dust sealing washers around the injector body.
2. Install a new copper sealing washer in each injector locating bore. Install the injectors and tighten the retaining nut to 43-51 lbs. ft. (58-69 N.m).

   IMPORTANT: Do not overtighten the retaining nuts. Overtightening may distort the injector.
3. Install the injector lines. Finger tighten the fittings at the injectors until after bleeding the fuel system. Tighten the fittings at the injection pump to 18-22 lbs. ft. (24-30 N.m).
4. Install the leak-off line, using new copper sealing washers above and below each connection, Figure 42. Tighten the leak-off line bolts to 22-30 lbs. ft. (30-41 N.m).
5. Bleed the fuel system as covered under "Bleeding the Fuel System," page 24.

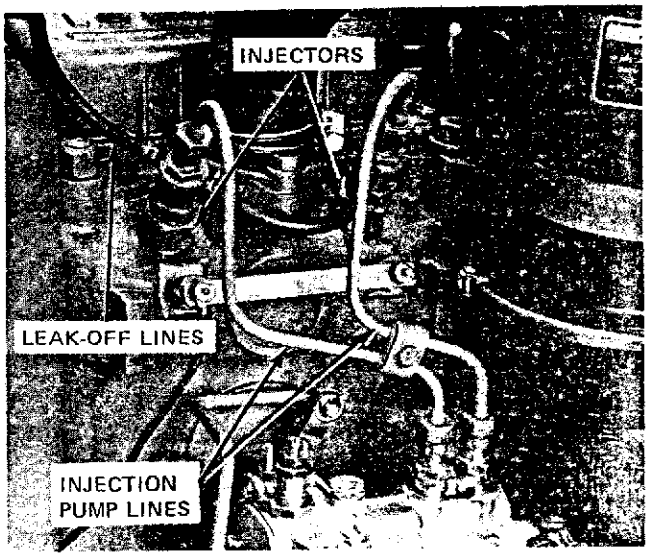


Figure 42 — Fuel Injector Leak-Off Lines

ENGINE SPEED ADJUSTMENT

The adjustment for maximum no-load speed setting should be adjusted according to the following procedure:

1. Loosen the lock nuts, Figure 43.
2. Using the turnbuckle, lengthen the throttle rod until the foot throttle touches the foot step plate.
3. Hold the foot throttle down on the foot step plate, pull the governor lever backwards, using the turnbuckle.
4. Set the maximum no-load speed to 2700-2750 rpm.
5. Retighten the lock nuts.

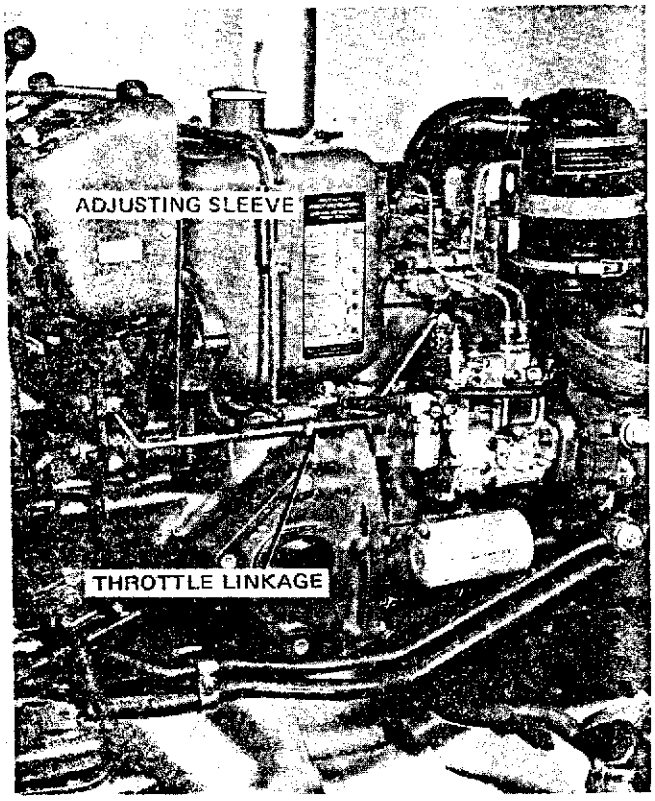


Figure 43 — Throttle Adjustment

VALVE CLEARANCE (LASH)

Correct valve clearance is one of the most important factors of good engine performance. Excessive clearance will cause the engine to operate excessively noisy, and insufficient clearance will cause poor performance. Because of this, it is extremely important that care be used when adjusting valve clearance.

Checking and Adjusting Valve Clearance: Check and adjust the valves every 600 hours. The clearance check and adjustment should be made with the engine cold.

1. Remove the valve rocker arm cover.
2. With the engine idling, check the clearance of each valve with a step-type feeler gauge, Figure 44.

   The setting should be:

Intake	.012 (.3 mm)
Exhaust	.012 (.3 mm)

3. If the clearance is incorrect on any valve, turn the adjusting screw at the push rod end of the valve rocker arm either into or out of the arm while checking for correct clearance with the step-type feeler gauge.
4. Install the rocker arm cover. Use a new gasket if the old one is damaged. Tighten the cover bolts evenly.

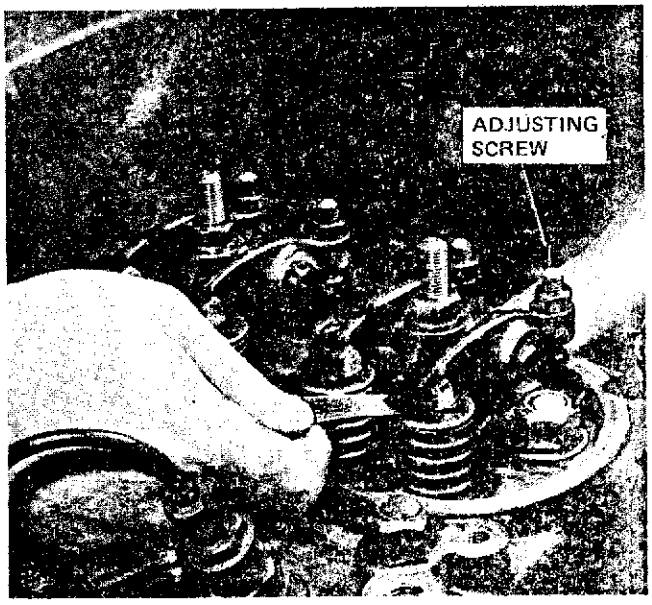


Figure 44 — Checking Valve Clearance

BATTERY

Keep the battery connections tight and free of corrosion. An ammonia or baking soda-water solution is good for washing the outside surface and terminals of the battery. Make sure the solution does not enter the battery. After cleaning, wash the battery with clean water. Apply a small amount of petroleum jelly to the terminals to protect them from corrosion.

In freezing temperatures, the battery must be maintained in a good state of charge. When a battery is discharged or run down, the electrolyte is weak and may freeze, causing damage to the case. If it becomes necessary to add water (distilled), it should be done just before using the tractor so the charging will mix the water with the electrolyte and prevent the water from freezing.

Determine the battery charge by checking the specific gravity of the electrolyte.

Checking Electrolyte Level: Check the electrolyte level in the battery every 50 hours.

CAUTION: When the alternator is charging, an explosive gas is produced inside the battery, therefore, always check the electrolyte level with the engine stopped. Do not use an exposed flame and do not smoke when checking the battery electrolyte level.

1. Clean the top of the battery, then remove the vent plugs.
2. If the electrolyte level is low, add distilled water. The level is correct when the liquid is 1/4 inch (6.35 mm) above the plates.

   NOTE: Keep distilled water in a clean, well-covered, non-metallic container.
3. Install the vent plug after making sure the vent holes are not blocked. At below freezing temperatures, be sure to run the engine for a period of time, after adding water, so the battery will charge and prevent the water from freezing.

ALTERNATOR

The alternator, Figure 45, is belt-driven from the engine crankshaft pulley. It is important that belt slippage does not occur, otherwise, the charging rate will be affected. Details of belt adjustment are given on page 29.

Other than belt adjustment, the only maintenance required on the alternator is to periodically inspect the terminals and keep them clean and tight. The alternator cooling fan should also be cleaned periodically.

When working on or checking the alternator, comply with the following precautions to prevent alternator damage.

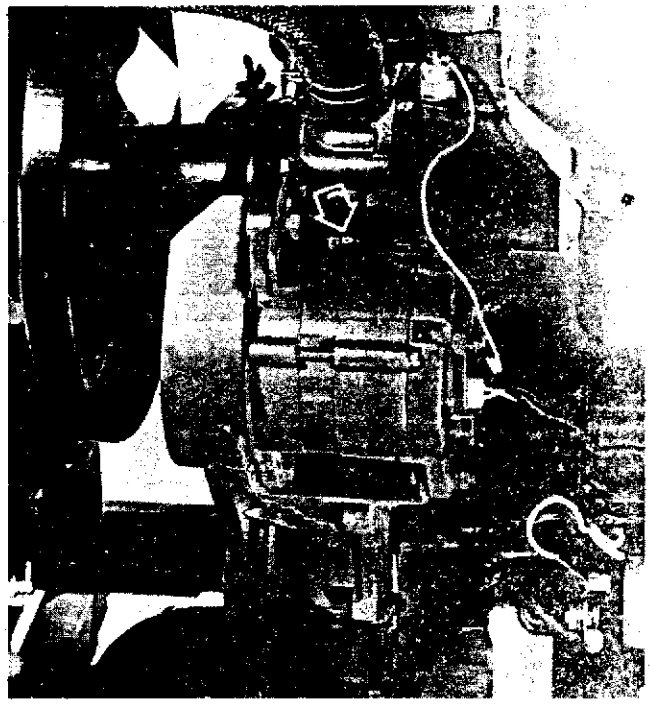


Figure 45 — Alternator

- DO NOT, under any circumstances, short the FIELD terminal of the alternator to ground.
- DO NOT disconnect the voltage regulator while the alternator is operating.
- DO NOT disconnect the alternator output lead or battery cables while the alternator is operating.
- DO NOT remove the alternator from the tractor without first disconnecting the negative (−) battery cable. If the battery is to be removed, disconnect the negative cable first.
- If a battery is being installed, MAKE CERTAIN that the positive (+) cable is connected first and that the negative terminal is connected to ground. Reverse polarity will destroy the rectifier diodes in the alternator.

VOLTAGE REGULATOR

The voltage regulator automatically controls the alternator charging rate. No attempt should be made to adjust the setting of the regulator.

If the charge indicator warning light indicates that the alternator is not charging the battery, check the fan belt and the wiring connections. If these are satisfactory and the warning light continues to indicate no charge, consult your Ford Tractor-Equipment Dealer.

FUSE BOX

The fuse box is shown in Figure 46. Remove the fuse box cover by removing two screws and metal cover. The plastic fuse cover is easily removed by pulling it off. A spare 5 AMP and 15 AMP fuse are stored in the cover. Always replace blown fuses with the specified fuse.

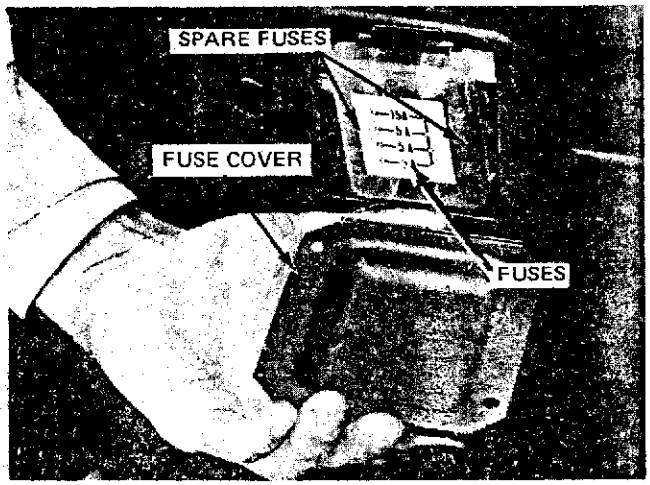


Figure 46 — Fuse Box

HEADLAMPS

Should a headlamp failure occur, the bulb must be replaced. To change the bulb:

1. Raise the hood.
2. Remove three nuts securing the headlamp housing to the bracket mounted on the grille screen, Figure 47.

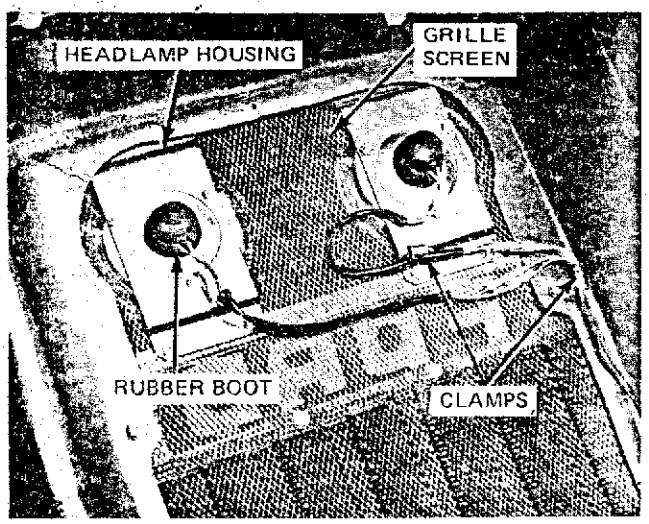


Figure 47 — Headlamp Assembly

3. Remove the headlamp wiring assemblies from routing clamps, if necessary.
4. Disconnect wiring assembly and pull headlamp assembly from front of grille.
5. Slide rubber boot back off the lamp socket, Figure 48.
6. Remove four spring clips holding the reflector in the ring, Figure 48.

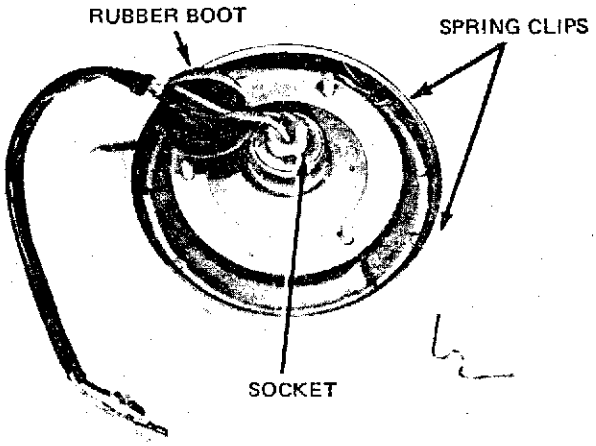


Figure 48 — Headlamp Socket Rubber Boot

7. Remove ring from assembly taking care not to drop the glass lens, Figure 49.
8. Remove lens and seal from front of reflector.

CAUTION: Do not touch the front of the reflector with fingers. Damage to reflective surface can be caused by touching with the fingers.

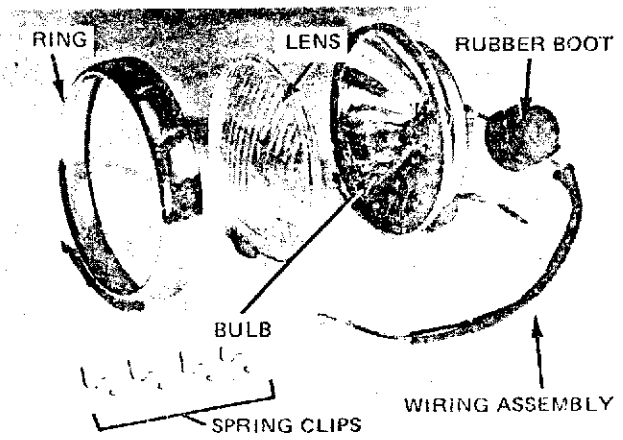


Figure 49 — Headlamp Assembly — Disassembled

9. Push in on spring retainer with one hand while twisting bulb with other hand to release bulb from retainer tabs, Figure 50.
10. Position new bulb to socket making sure that contacts will properly mate. The retaining tabs will only line up one way. Rotate bulb until tabs are properly aligned. Twist bulb into place while compressing spring retainer.
11. Reassemble headlamp assembly.

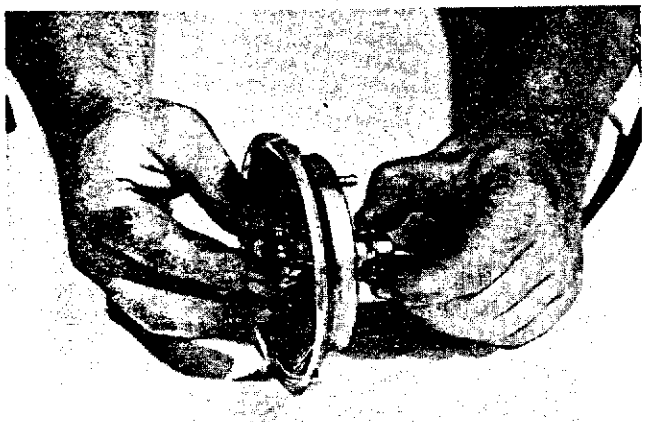


Figure 50 — Bulb Removal

TAIL LAMP AND FLASHER WARNING LAMP

To replace a tail lamp bulb or flasher warning lamp bulb:

1. Remove the lens, then remove the bulb.
2. Install a new bulb and reinstall the lens and/or rim assembly.

INSTRUMENT LIGHTS

To change an instrument bulb:

1. Remove the two screws securing the instrument panel lens cover to the instrument panel and pull the light holder up out of the instrument panel, Figure 51.
2. Replace bulb.
3. Position light holder to instrument panel and position lens cover over bulbs.
4. Secure cover with two screws.

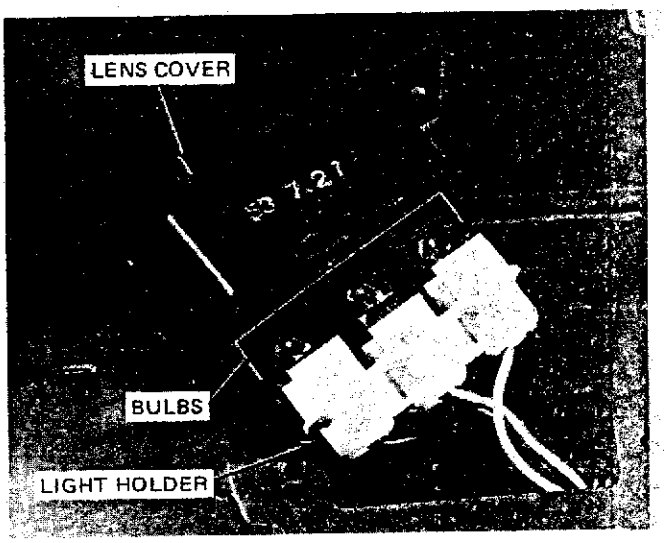


Figure 51 — Instrument Panel Lights

TIRES

Check tire pressure every 50 hours, or weekly. Refer to the "Tire Inflation Vs. Permissible Load" on page 18 for the air pressure that should be used.

NOTE: If the rear wheels are weighted with liquid ballast, a special tire gauge should be used because the calcium chloride and water will cause corrosion in the standard-type gauge.

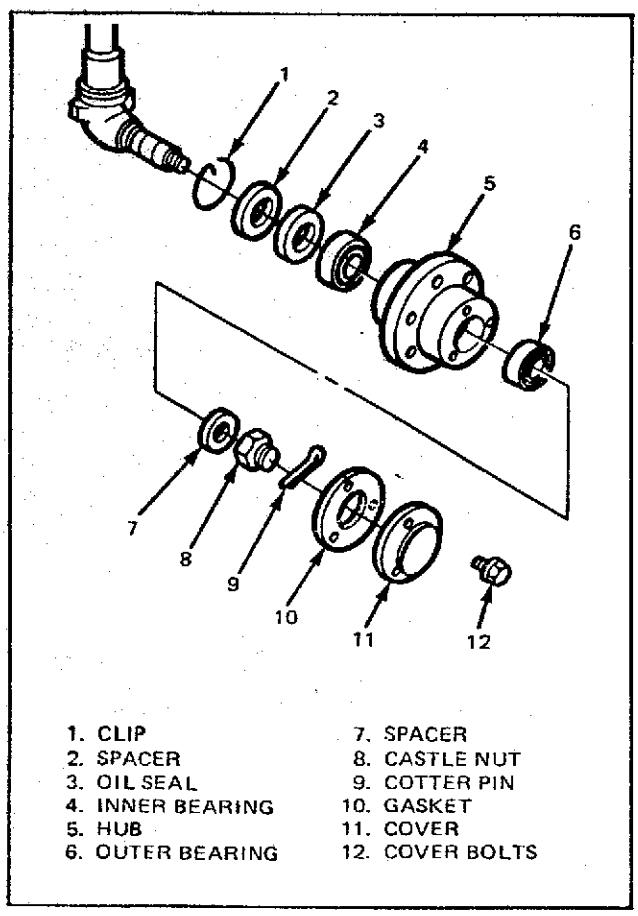
When checking tire pressure, inspect the tire for damaged side walls and tread cuts. Neglected damage will lead to early tire failure.

FRONT WHEEL BEARINGS (TWO-WHEEL DRIVE)

The front wheels are carried on the wheel spindles by inner and outer tapered roller bearings. A grease seal is provided at the inner end of the spindle, and a hubcap at the outer end, to retain the lubricant and to keep out dirt and other foreign material.

Front wheel bearings should be repacked every 600 hours as follows:

1. Apply the parking brake to hold the tractor securely.
2. Jack up one of the front wheels, remove the wheel and remove the hubcap, the cotter pin, and the nut, Figure 52. Remove the thrust washer, outer bearing, and then the hub.
3. Remove the grease retainer from the rear of the hub and the inner bearing from the wheel.



1. CLIP
2. SPACER
3. OIL SEAL
4. INNER BEARING
5. HUB
6. OUTER BEARING
7. SPACER
8. CASTLE NUT
9. COTTER PIN
10. GASKET
11. COVER
12. COVER BOLTS

Figure 52 — Servicing Front Wheel Bearings — Two-Wheel Drive

4. Thoroughly clean all parts in a suitable solvent and allow to dry naturally. Do not use compressed air. Inspect the bearing cone and roller assemblies for excessive discoloration or wear of the rollers; similarly, check the bearing cups.
5. Repack the cone and roller assembly with clean, short-fiber grease. Pack approximately 1/4-inch (6.35 mm) of grease in the space between the bearing cups in the hub, but do not pack the hub completely. Apply a film of grease on the surface of the spindle.
6. Reinstall the inner bearing and install the grease retainer in the rear of the hub.
7. Place the wheel assembly on the spindle and install the outer bearing, thrust washer, and castellated nut. Tighten the nut, at the same time turning the wheel, until a slight drag is felt. Back off the nut until the nearest slot in the nut lines up with the hole in the spindle. Install a new cotter pin, then the hubcap.

FRONT WHEEL TOE-IN

Front wheel toe-in adjustments on your tractor were made at the factory. Normally, the wheels maintain their toe-in; however, an occasional check should be made.

Checking Toe-In

1. With the front wheels in the straight-ahead position, mark the front of the wheels (not the tires) at wheel hub height, Figure 53. Determine the straight-ahead position by turning the steering wheel from lock to lock and then halfway back.
2. Measure and record the distance between the front of the wheels at the marks, then push the tractor forward or backward until marks are at wheel hub height on the rear of the wheel.
3. Measure and record the distance between the rear of the wheels at the marks.
4. The difference between the dimensions recorded in Steps 2 and 3 should give zero to 13/64-in. (0-5 mm) toe-in. The distance between the wheels should be zero to 13/64-in. (0-5 mm) greater when the marks are at the rear than at the front.
5. If the toe-in is not correct, adjust as outlined in the following procedure.

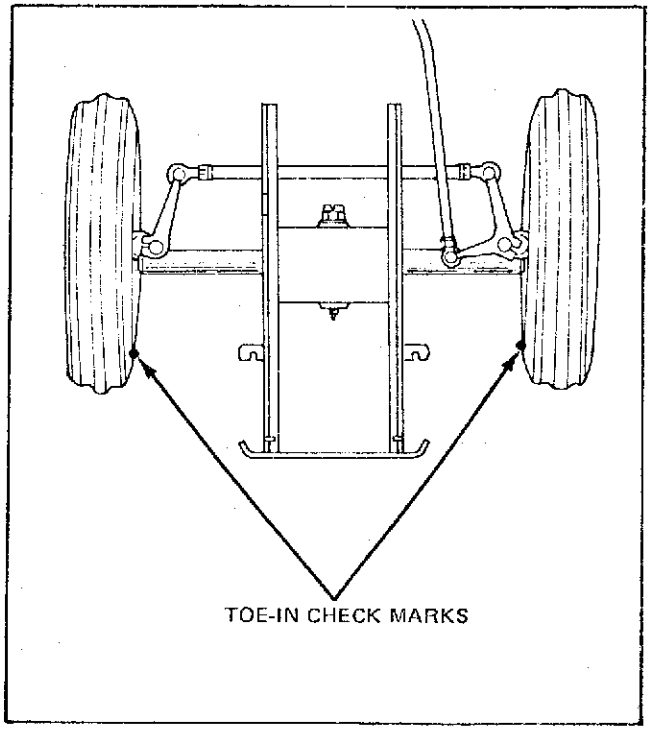


Figure 53 — Checking Toe-In

Adjusting Toe-In

1. Loosen the tie rod lock nut.
2. Adjust the tie rod tube assembly as required to give zero to 13/64-in. (0-5 mm) toe-in.
3. After the correct toe-in is obtained, tighten the lock nut. Also tighten the tie rod end assembly attaching bolt.

BRAKE ADJUSTMENT

Whenever the brake pedal travel becomes excessive, or if the travel of one pedal is unequal to that of the other, adjustment of each pedal should be made in the following manner:

1. Jack the tractor up until both rear wheels are free to turn. Support with safety stands.
2. Loosen the lock-nut, Figure 54, and rotate the brake rod as necessary until there is 3/4 — 1-3/16 in. (19-30 mm) of pedal free play. Lengthening the rod increases free play while shortening the rod decreases free play.
3. Load test the tractor to make sure the braking action of both rear wheels is equal. Re-adjust as necessary.

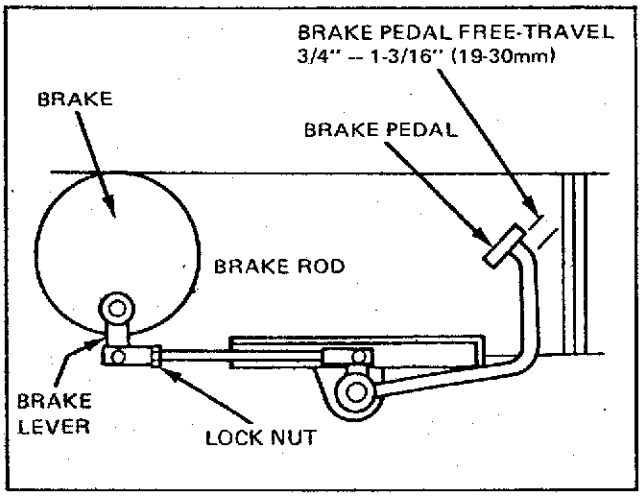


Figure 54 — Brake Pedal Adjustment

CLUTCH PEDAL ADJUSTMENT

To obtain maximum clutch life, it is essential that the clutch pedal free travel be checked every 50 hours so as to maintain free travel at 3/4 — 1-3/16 in. (19-30 mm) (Figure 55).

1. Remove the cotter pin and clevis pin.
2. Turn the clevis to increase or decrease pedal travel as required.

Figure 55 — Clutch Pedal Free Travel Adjustment

FOUR-WHEEL DRIVE

Upper King Pins

Grease the upper king pins, Figure 56, after every 50 hours of operation under normal conditions. In

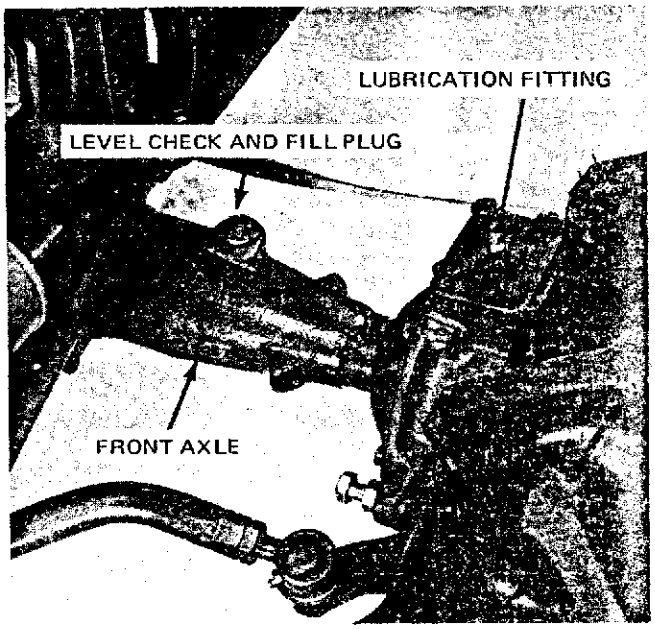


Figure 56 — King Pin Lubrication Points and Front Axle Differential Fill and Level Check Port

extremely dirty conditions, lubrication should be made more often. Use a good quality, multi-purpose, lithium base grease (See Specifications).

CENTER HOUSING

Grease the center housing pivot point, Figure 57, after every 50 hours of operation under normal conditions. In extremely dirty conditions, lubrication should be made more often. Use a good quality, multi-purpose, lithium base grease.

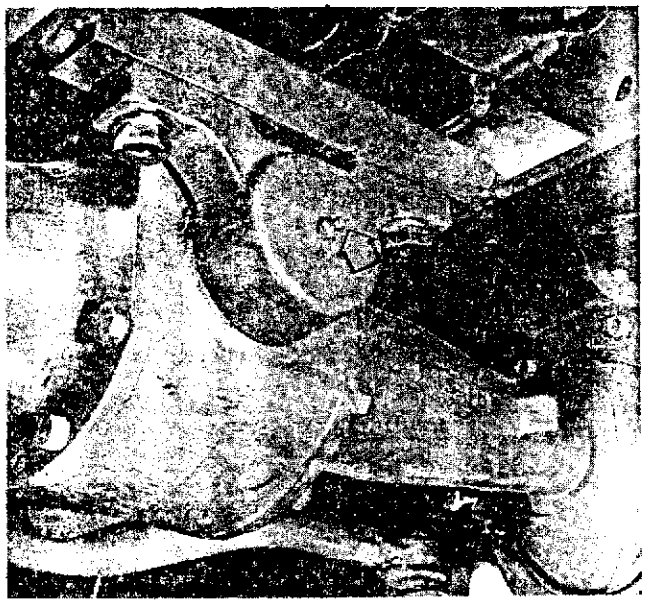


Figure 57 — Center Housing Lubrication Point

FRONT AXLE DIFFERENTIAL CASE

Checking Oil Level: Check the oil level in the front axle differential case every 50 hours. A dipstick/fill plug, Figure 56, is located on the top right side of the axle housing. The oil level is correct when the oil level is between the mark and the dipstick tip.

Changing Oil: Drain the front axle differential case every 300 hours by removing the drain plug, Figure 58. Replenish with a high-quality, extreme pressure gear lubricant with an anti-foam additive. Refer to the following chart for recommended viscosity grades.

Temperature	Viscosity Grade
Under 86°F. (30°C.)	SAE 80
Over 86°F. (30°C.)	SAE 90 or 140

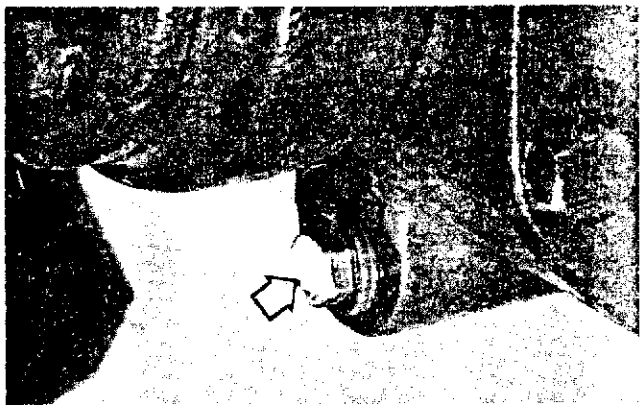


Figure 58 — Front Axle Differential Drain Plugs

FINAL REDUCTION GEAR CASES

Checking Oil Level: Check the oil level in each final reduction gear case after every 50 hours of operation by removing the fill and level plug, Figure 59, on each gear case. The oil should be level with the bottom of the plug opening.

Changing Oil: Drain each final reduction gear case after every 300 hours of operation by removing the drain plug, Figure 59, on each gear case. Repienish with a high-quality, extreme pressure gear lubricant with an anti-foam additive. Refer to the following chart for recommended viscosity grades.

Temperature	Viscosity Grade
Under 86°F. (30°C.)	SAE 80
Over 86°F. (30°C.)	SAE 90 or 140

NOTE: The front-wheel drive king-pin seals should be checked every 300 hours. See your Ford Tractor-Equipment Dealer.

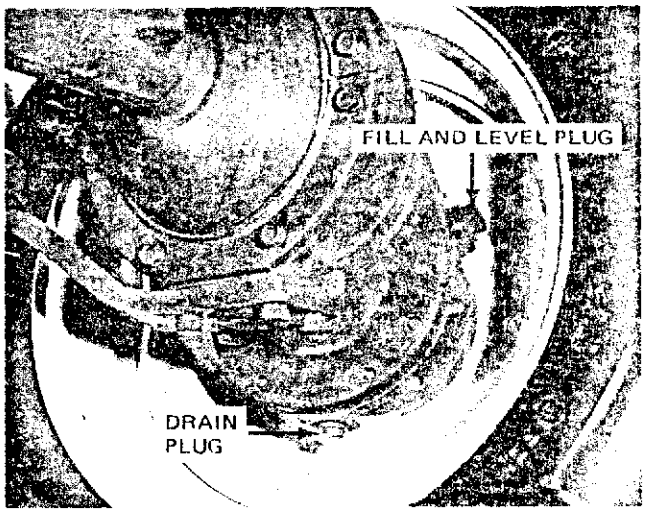


Figure 59 — Final Reduction Gear Case Fill and Drain Plugs

TRACTOR STORAGE

Tractors that are to be stored for an extended period should be protected during storage. The following is a suggested list of operations to be carried out.

1. Thoroughly clean the tractor. Use touch-up paint where necessary to prevent rust.
2. Check the tractor for worn or damaged parts. Install new parts as required.
3. Raise the lift arms hydraulically to their fully raised position so the lift piston is in a fully extended position. This fills the cylinder with oil and will protect the cylinder wall surfaces from corrosion.
4. Lubricate the tractor. Drain and refill the transmission, hydraulic system and the rear axle with new oil. Drain the engine oil and refill with new lubricating oil. Also clean the air cleaner.
5. If the tractor is stored or removed from operation for an extended period, special precautions should be taken to protect the fuel injection pump and the injector nozzles against corrosion and gumming during the storage period.
   - Before storing, the fuel system should be flushed with a special oil, a quantity of which will remain in the system when the engine is shut down for storage.
   - Special diesel fuel system flushing oils are available from most oil companies. If special flushing oil is not readily obtainable, mix one U.S. pint (0.8327 Imp. pt.) (.473 liters) of SAE 10 non-detergent engine oil with 10 U.S. quarts (8.33 Imp. qts.) (9.46 liters) of No. 2 diesel fuel.
   - Drain the fuel tank and pour two U.S. gallons (1.67 Imp. gals.) (7.57 liters) of the special flushing oil (or lubricating mixture) in the fuel tank.
   - Run the engine for 10 minutes to assure complete distribution of the special oil through the injection pump and fuel injectors. There is no need to remove the injector nozzles.
   - Fill the fuel tank with No. 1 diesel fuel.

   IMPORTANT: Do not use No. 2 diesel fuel for winter storage because of wax separation and settling at low temperatures.
6. Drain the radiator and engine block. Flush the system, close the drain valves, and fill with a 50/50 solution of permanent antifreeze and clear water.
7. Remove the battery and clean it thoroughly. Be sure that it is fully charged, and that the electrolyte is at the proper level. Place it in storage in a cool, dry place above freezing temperature. The battery should be charged periodically during storage.
8. Place blocking under the tractor axles to remove the weight from the tires.
9. Cover the exhaust pipe opening.
10. Place the pedal spacer (Figure 60) between the clutch pedal and foot plate to separate clutch disc from flywheel.

Tractors that have been placed in storage should be completely serviced in the following manner before using:

1. Inflate the tires to the recommended pressures, and remove the blocking.
2. Check the oil level in the crankcase, hydraulic lift system, transmission and rear axle, and oil bath air cleaner.
3. Install a fully-charged battery and remove the exhaust cover, if other than a rain cap.
4. Check the cooling system. The system should be filled with a 50/50 solution of permanent antifreeze and cold water.
5. Remove the pedal spacer from clutch pedal.
6. Start the engine and allow it to idle a few minutes. Be sure the engine is receiving lubrication and that each control is functioning correctly.
7. Drive the tractor without a load and check to be sure it is operating satisfactorily.

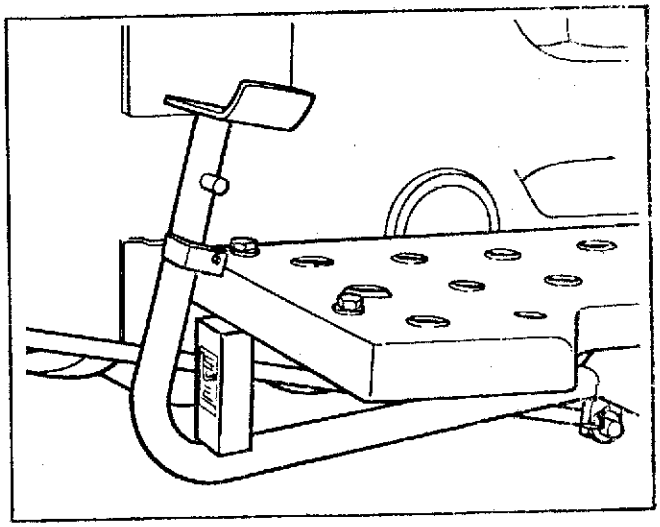


Figure 60 — Installing Pedal Spacer

SPECIFICATIONS

The specifications on the following pages are provided for your information. For additional information, see your Ford Tractor-Equipment Dealer.

Properly Maintained Equipment is Safe Equipment

"Ford Motor Company, whose policy is one of continuous improvement, reserves the right to make changes in design and specifications at any time without notice and without obligation to modify units previously built."

ENGINE

Type	Diesel
Number of Cylinders	2
Bore	3.35 in. (8.0 cm)
Stroke	3.94 in. (10.0 cm)
Displacement	69.2 cu. in. (1134 cc)
Compression	21:1
Firing Order	1-2
Low Idle Speed	750-850
Maximum Speed:	
High Idle	2700-2750
Rated	2500
Valve Clearance (Cold Engine):	
Intake	0.012 in. (.30 mm)
Exhaust	0.012 in. (.30 mm)

CAPACITIES

Fuel Tank	5.8 U.S. Gals. 4.8 Imp. Gals. 22 Liters
Cooling System	5.6 U.S. Qts. 4.7 Imp. Qts. 5.3 Liters
Engine Crankcase:	
Less Filter	3.9 U.S. Qts. 3.2 Imp. Qts. 3.7 Liters
With Filter Change	4.2 U.S. Qts. 3.5 Imp. Qts. 4.0 Liters
Rear Axle and Transmission (Includes Hydraulics)	21 U.S. Qts. 17.5 Imp. Qts. 20 Liters
Front Axle Differential Case	2.5 U.S. Qts. 2.1 Imp. Qts. 2.4 Liters
Front Axle Final Reduction Gear Case	0.23 U.S. Qts. 0.19 Imp. Qts. 0.22 Liters
Air Cleaner (Oil Bath)	0.47 U.S. Qts. 0.39 Imp. Qts. 0.44 Liters

COOLING SYSTEM

Type	Pressurized Liquid with Recirculating Bypass
Water Pump:	
Type	Centrifugal
Drive	V-Belt
Water Pump Belt Deflection	7/16 to 9/16 (10-15 mm) when 20-25 lbs. (9-11 kg) Thumb Force is Applied Midway Between Pulleys.
Fan Diameter	11.41 in. (29.0 cm)
Thermostat:	
Starts to Open	159.8°F (71°C)
Fully Open	185°F (85°C)
Radiator Cap	13 psi (.89 bar)

ELECTRICAL SYSTEM

Alternator	12-volt, Heavy Duty, 20 amps
Regulator (Alternator)	Mechanical
Battery	12-volt, 70 amp. Hour Rating with Negative Ground
Starting Motor	Solenoid, Pre-engaged

FUEL SYSTEM

Type of Fuel to Use	Temperature	Type
Diesel	Above 20°F (−6.7°C)	No. 2D Cetane Rating 45
	Below 20°F (−6.7°C)	No. 1D Cetane Rating 50

Injection Pump:	
Type	In-Line
Timing	24° BTDC

SPECIFICATIONS

CLUTCH

Type ..... 8.5 in. (21.59 cm) Dry Disc., Organic Face
Pedal Free-Travel ..... 3/4-1-3/16 in. (19-30 mm)

BRAKES

Type ..... Drum (Expanding Shoe)
Drum ..... 5.9 in. Diameter (15.0 cm)

STEERING

Type ..... Manual
Turns Lock-to-Lock 2.3
Front Wheel Toe-In ..... 0-13/64 in. (0-5 mm)
Turning Radius
(Without Brakes) ..... 8.2 ft. (250 cm) Two Wheel Drive
9.7 ft. (300 cm) Four Wheel Drive

POWER TAKE-OFF

Type ..... Transmission
Shaft ..... 1-3/8 in. (3.49 cm) 6 Spline SAE STD
Engine Speed for 540 rpm
PTO Operation 2422
Horsepower PTO
Observed 17.0

HYDRUALIC LIFT SYSTEM

Type ..... Live Position Control Category 1 3-point Linkage
Pump Type ..... Gear
Pump Capacity ..... 4.0 U.S. gpm @ 2133 psi at 2700 rpm (3.6 Imp. Gals. @ 147 bar @ 2700 rpm)
System Relief Valve
Setting ..... 2133 psi (147 bar)

CAST IRON WEIGHTS

(3) Front End Weights ..... 33 lbs. (15 kg) each
(4) Front Wheel Weights
(Two Wheel Drive Only) ..... 33 lbs. (15 kg) each
(4) Rear Wheel Weights ..... 66 lbs. (30 kg) each

DRAW BARS

Fixed ..... Standard
Adjustable ..... Optional

TIRES

Front:
Standard ..... (Two Wheel Drive) 4.00-12, F2, 4 Ply (Four Wheel Drive) 6-14 R1, 4 Ply
Optional ..... (Two Wheel Drive Only) 20 x 8.00-10 2 Ply

Rear:
Standard ..... (Two & Four Wheel Drive) 9.5-24, R1, 4 Ply
Optional ..... (Two Wheel Drive Only) 13.6-16, 6 Ply

Wheel Bolt Torques:
Front Wheel
Disc-to-Hub ..... (Two Wheel Drive) 43-54 lb. ft. (58-73 Nm) (Four Wheel Drive) 68.6-86.7 lb. ft. (93-117 Nm)
Rear Wheel
Disc-to-Rim ..... 180-217 lbs. ft. (244-294 Nm)
Rear Wheel
Disc-to-Axle ..... 137-159 lbs. ft. (186-215 Nm)

LUBRICANTS

Engine ..... See page 22
Transmission, Rear Axle
(Includes Hydraulic) ..... Ford M2C-134-A

Front Wheel Bearings and
Lubrication Fittings ..... Ford M1C-137-A

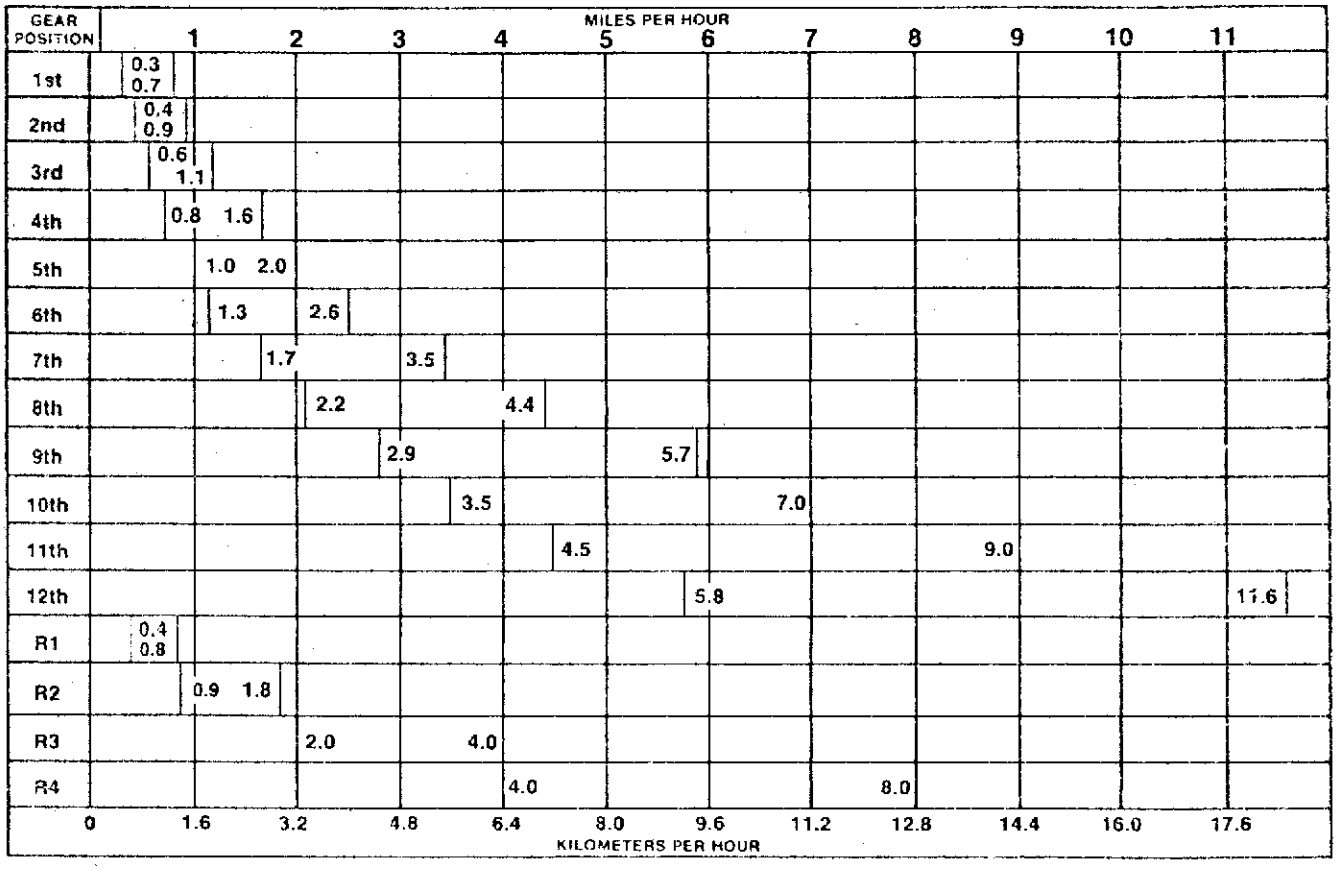
SPECIFICATIONS

GENERAL DIMENSIONS

	Two Wheel Drive	Four Wheel Drive
Length	110.2 in. (280 cm)	110.2 in. (280 cm)
Height:		
Top of Steering Wheel	54.9 in. (139.5 cm)	54.9 in. (139.5 cm)
Top of ROPS	94.5 in. (240 cm)	94.5 in. (240 cm)
Top of Vertical Exhaust	75.2 in. (191 cm)	75.2 in. (191 cm)
Width	50.8 in. (129 cm)	50.8 in. (129 cm)
Minimum Ground Clearance	13.8 in. (35 cm)	12.6 in. (32 cm)

	Two Wheel Drive	Four Wheel Drive
Adjustable Width:		
Front	41.3-44.9 in. (105-114 cm)	39.8 in. (101 cm)
Rear	41.3-45.3 in. (105-115 cm)	41.3-45.3 in. (105-115 cm)
Weight (Less Options)	2044 lbs. (920 kg)	2205 lbs. (1000 kg)
Wheelbase	60.2 in. (153 cm)	59.3 in. (105.6 cm)

FORD GROUND SPEEDS
From 1350 to 2700 RPM Engine Speeds
with 8.3 x 24 Rear Tires

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