

# SHOP MANUAL

# FORD

MODELS 2810-2910-3910

Tractor Series Identification Plate is located under right hood panel or lower down on right side of instrument console. Tractor Serial Number and Engine Serial Number are located on this plate. On tractors equipped with Front-Wheel Drive, Axle identification plate is located on front axle housing.

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# DUAL DIMENSIONS

This service manual provides specifications in both the U.S. Customary and Metric (SI) systems of measurement. The first specification is given in the measuring system perceived by us to be the preferred system when servicing a particular component, while the second specification (given in parenthesis) is the converted measurement. For instance, a specification of "0.011 inch (0.279 mm)" would indicate that we feel the preferred measurement, in this instance, is the U.S. system of measurement and the metric equivalent of 0.011 inch is 0.279 mm.

## CONDENSED SERVICE DATA

GENERAL	Diesel Models		
	2810	2910	3910
Engine Make .....	Own	Own	Own
No. of Cylinders .....	3	3	3
Bore .....	4.2 in. (106.7 mm)	4.2 in. (106.7 mm)	4.4 in. (111.8 mm)
Stroke .....	3.8 in. (96.5 mm)	4.2 in. (106.7 mm)	4.2 in. (106.7 mm)
Displacement .....	158 cu. in. (2589 cc)	175 cu. in. (2868 cc)	192 cu. in. (3146 cc)
Compression Ratio .....	17.3:1	17.3:1	16.3:1
Firing Order .....	1-2-3	1-2-3	1-2-3
Valve Tappet Gap (Warm):			
Intake .....		0.014-0.016 in. (0.36-0.41 mm)	
Exhaust .....		0.017-0.019 in. (0.43-0.48 mm)	
Valve Face Angle, Degrees:			
Intake .....	44.5	44.5	44.5
Exhaust .....	44.5	44.5	44.5
Valve Seat Angle, Degrees:			
Intake .....	45	45	45
Exhaust .....	45	45	45
Injection Timing .....		See Paragraph 94	
Engine Low Idle, rpm .....	600-700	600-800	600-850
Engine High Idle, rpm .....		2175	
Engine Rated Speed, rpm .....		2000	
Grounded Battery Terminal .....		Negative	
<b>SIZES-CAPACITIES-CLEARANCES</b>			
Crankshaft Journal Diameter .....		See Paragraph 66	
Crankpin Diameter .....		See Paragraph 65	
Camshaft Journal Diameter .....		2.3895-2.3905 inches (60.693-60.718 mm)	
Piston Pin Diameter .....		1.4997-1.5000 inches (38.092-38.100 mm)	
Valve Stem Diameter, Intake .....		0.3711-0.3718 inch (9.426-9.444 mm)	
Valve Stem Diameter Exhaust .....		0.3701-0.3708 inch (9.400-9.418 mm)	
Main Bearing Diametral Clearance .....		0.0022-0.0045 inch (0.056-0.114 mm)	
Rod Bearing Diametral Clearance:			
Aluminum .....		0.0021-0.0042 inch (0.053-0.107 mm)	
Copper-Lead .....		0.0017-0.0038 inch (0.0431-0.0965 mm)	

# CONDENSED SERVICE DATA (CONT.)

2810

Diesel Models

2910

3910

## SIZES-CAPACITIES-CLEARANCES (CONT.)

Camshaft Bearing Diametral Clearance .....	0.001-0.003 inch (0.0254-0.0762 mm)
Crankshaft End Play .....	0.004-0.008 inch (0.1016-0.2032 mm)
Camshaft End Play .....	0.001-0.011 inch (0.0254-0.028 mm)
Piston Skirt-to-Cylinder Clearance .....	See Paragraph 63
Cooling System (Less Heater) .....	11 U.S. quarts (10.4 L)
Crankcase With Filter .....	7 U.S. quarts (6.62 L)
Transmission .....	See Paragraphs 108, 118, 126
Final Drive & Hydraulic .....	48.3 U.S. quarts (45.7 L)
Steering Gear, Manual .....	1.5 U.S. pints (0.7 L)
Power Steering .....	4.6 U.S. pints (2.18 L)
Front Drive Axle Hubs (Each Side) .....	1.9 U.S. pints (0.9 L)
Front Drive Axle Housing .....	11.6 U.S. pints (5.5 L)

## FRONT SYSTEM AND STEERING

### FRONT AXLE ASSEMBLY AND STEERING LINKAGE

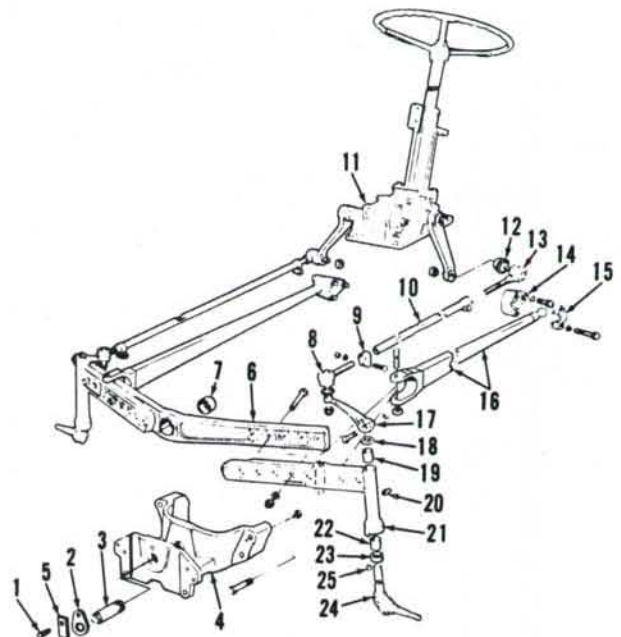
#### Two Wheel Drive Models

**1. SPINDLE BUSHINGS.** To renew spindle bushings (19 and 22—Fig. 1), proceed as follows: Support front of tractor and disconnect steering arms (17) from wheel spindles (24). Slide spindle out of axle extension (21). Drive old bushings from front axle extension and install new ones using a piloted drift or bushing driver. New bushings will not require final sizing if not distorted during installation. Renew thrust bearing (23) if worn or rough.

**2. AXLE CENTER MEMBER, PIVOT PIN AND BUSHINGS.** To remove axle center member (6—Fig. 1), support front of tractor, unbolt axle extensions from axle center member and swing axle extensions and wheel assemblies away from tractor. Remove

Fig. 1—Exploded view of front axle and related parts used on some models with manual steering.

1. Cap screw
2. Retainer
3. Pivot pin
4. Front support
5. Retainer
6. Axle center member
7. Bushing
8. Front drag link end
9. Clamp
10. Drag link
11. Steering gear Assy.
12. Dust cover
13. Rear drag link end
14. Radius rod ball spacer
15. Radius rod cap
16. Radius rod
17. Steering arm
18. Dust seal
19. Spindle bushing, upper
20. Grease fitting
21. Axle extension, L.H.
22. Spindle bushing, lower
23. Thrust bearing
24. Spindle
25. Steering arm key



cap screw (1) and retainer (2), then unscrew front axle pivot pin (3). Withdraw axle center member from either side of tractor. Press to bushing (7).

To reassemble, press a new bushing into axle center member. Insert axle center member into front support and install pivot pin. Install retainer (2) and tighten cap screw (1) to 75 ft.-lbs. (102

N·m). If removed, tighten radius rod to axle extension bolts to 180 ft.-lbs. (244 N·m).

**3. FRONT SUPPORT.** To remove front support, proceed as follows: Remove engine hood, grille, lower hood to front support bolts and unbolt radiator from front support. Place floor jack under front end of transmission and take weight of tractor from front axle. Remove front axle pivot pin as in paragraph 2. Remove bolts retaining front support casting to engine and lower front support to floor. When reinstalling, tighten front support bolts to 280 ft.-lbs. (380 N·m).

**4. DRAG LINKS AND TOE-IN.** Drag link ends are nonadjustable automotive type and renewal procedure is evident. Refer to Fig. 1 for manual steering tractors and to Fig. 2 for power steering.

Front wheel toe-in should be ¼ to ½ inch (6.35 to 12.7 mm); vary the length of each drag link an equal amount to obtain proper toe-in.

**MANUAL STEERING GEAR**

**Early Double Drop Arm Type**

**5. ADJUSTMENT.** To adjust steering gear, first be sure gear housing is properly filled, then disconnect both drag links from steering arms and proceed as follows:

**6. WORMSHAFT END PLAY.** To check wormshaft end play, first loosen locknuts (1—Fig. 3) on sector shaft adjusting screws (8) and back screws out two full turns. Wormshaft should turn freely without perceptible end play. Shims (24) are available in thicknesses of 0.0024 inch (0.060 mm) (brass), 0.005 inch (0.127 mm) (steel) and 0.010 inch (0.254 mm) (steel); also, a 0.005 inch (0.127 mm) thick paper gasket is available. Install at least one paper gasket and brass or steel shims as required. Tighten steering shaft cover retaining cap screws to a torque of 25 ft.-lbs. (34 N·m). Renew wormshaft bearings as outlined in paragraph 9 if end play is perceptible with paper gasket, but without any metal shims installed.

After checking or adjusting wormshaft end play, readjust sector shaft end play as follows:

**7. SECTOR SHAFT END PLAY.** Before adjusting sector shaft end play, be sure wormshaft is properly adjusted as outlined in paragraphs 5 and 6, then proceed as follows:

Turn steering wheel to mid or straight-ahead position. With locknuts on both

sector shaft adjusting screws loosened and adjusting screw on forward sector shaft (left side) backed out several turns, turn sector shaft adjusting screw (right side) in until there is no perceptible end play in rear sector shaft (13—Fig. 3). Tighten locknut while holding adjusting screw. Turn adjusting screw on left side of unit (front sector shaft) in until there is no perceptible end play of front sector shaft (9). Hold the adjusting screw and tighten locknut.

Adjustment of steering gear is correct if a pull of 1 to 2-3/4 lbs. (4.5 to 12.2 N)

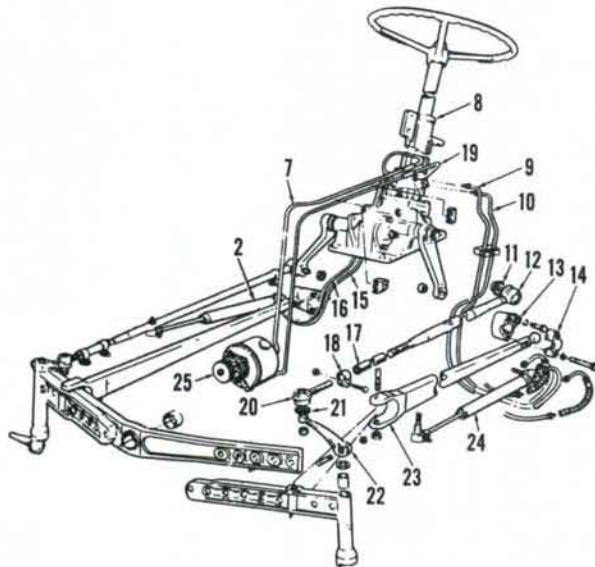
is required at outer edge of steering wheel to turn steering gear over center position. When adjustment of sector shafts is correct, reconnect drag links to steering arms.

**8. R&R STEERING GEAR ASSEMBLY.**

To remove steering gear assembly proceed as follows: Disconnect battery and remove engine hood panel. Disconnect wiring harness plug located forward of fuel tank and safety start switch. Detach proofmeter cable at front connection. Remove steering

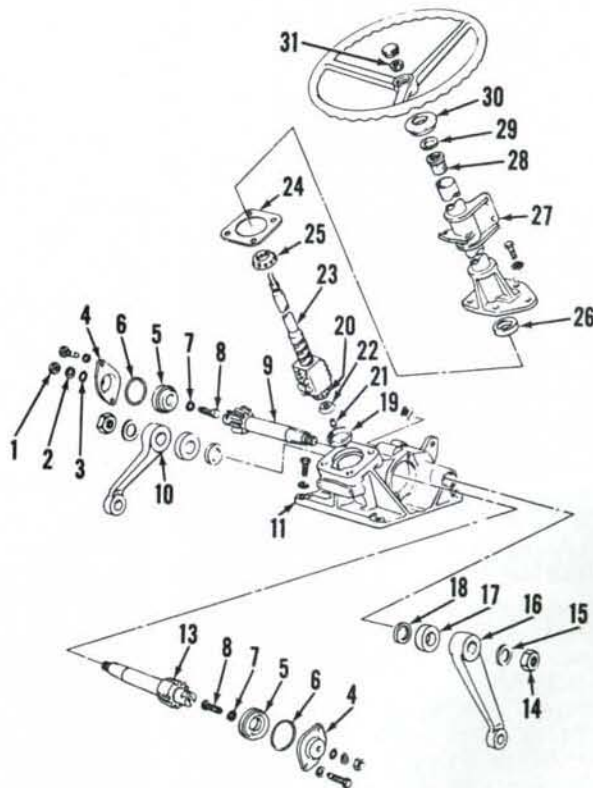
**Fig. 2—Partially exploded view of front axle and related parts used on some models with power steering.**

- 2. Steering cylinder, R.H.
- 7. Return tube
- 8. Steering gear & valve assy.
- 9. Front inner tube, L.H.
- 10. Rear outer tube, L.H.
- 11. Dust cover
- 12. Drag link assy.
- 13. Radius rod ball spacer
- 14. Radius rod ball cap
- 15. Rear outer tube, R.H.
- 16. Front inner tube, R.H.
- 17. Drag link tube
- 18. Clamp
- 19. Pressure tube
- 20. Drag link front end
- 21. Dust seal
- 22. Steering arm
- 23. Radius rod
- 24. Steering cylinder, L.H.
- 25. Steering pump



**Fig. 3—Exploded view of early double drop arm manual steering gear used on some models.**

- 1. Locknut
- 2. Washer
- 3. Packing
- 4. Side covers
- 5. Bushing
- 6. "O" ring
- 7. Shim
- 8. Adjusting screw
- 9. Sector gear (single)
- 10. Steering arm, L.H.
- 11. Housing
- 13. Sector gear (double)
- 14. Nut
- 15. Washer
- 16. Steering arm, R.H.
- 17. Felt dust seal
- 18. Oil seal
- 19. Bearing cup
- 20. Bearing cone & rollers
- 21. Bearing retainer eyelet
- 22. Bearing retainer
- 23. Wormshaft assy.
- 24. Shims
- 25. Bearing cone & rollers
- 26. Bearing cup
- 27. Steering column
- 28. Bushing
- 29. Dust seal
- 30. Grommet
- 31. Steering wheel nut



wheel and if so equipped, remove cab as outlined in paragraph 221. Remove transmission shift lever shroud, then unbolt and remove shift linkage. Remove rear hood panel and disconnect throttle linkage. Disconnect fuel gage sender wire and all other wires which will interfere with fuel tank removal. Shut off fuel supply and disconnect fuel supply line and fuel return line. Unbolt and remove fuel tank. Thoroughly clean steering gear and surrounding area. Disconnect drag links from steering drop arms, then unbolt and remove steering gear assembly from transmission housing. Drain lubricant from steering gear housing if unit is to be disassembled.

To reinstall steering gear, reverse removal procedure. Refill steering gear housing with Ford M2C-94-B oil or equivalent.

**9. OVERHAUL.** Major overhaul of steering gear unit necessitates removal of the unit from the tractor as outlined in paragraph 8. After removing unit, refer to Fig. 3 and proceed as follows:

Remove steering arm retaining nuts (14) and pull steering arms (10 and 16) from sector shafts (9 and 13). Sector shafts and side covers (4) can be removed as a unit after removing cover retaining screws. To separate shaft and cover, remove locknut (1) and thread adjusting screw (8) into cover until threads clear. Unbolt steering shaft cover (27) from gear housing (11) and remove cover, shaft and ball nut assembly. Do not disassemble ball nut and steering shaft assembly (23) as component replacement parts are not available. If steering shaft and/or ball nut are damaged, renew the complete assembly. The need and procedure for further disassembly and/or overhaul is evident from inspection of the unit.

Gear housing sector shaft bushings are not serviced separately from housing; install a new housing if bushings are excessively worn. Bushings (5) are renewable.

Shims (7) on adjusting screws (8) are available in thicknesses of 0.063, 0.064, 0.066 and 0.069 inch (1.600, 1.625, 1.676 and 1.752 mm). When reassembling, select a shim that will provide 0.000-0.002 inch (0.00-0.05 mm) clearance between adjusting screw head and slot in sector shaft.

To reassemble, insert steering shaft and ball nut unit into gear housing with gear teeth on ball nut forward, then install steering shaft housing (27) with proper number of shims as outlined in paragraph 6. Insert sector shafts, with their adjusting screws and correct thickness shims, into gear housing so

sector gear teeth and ball nut teeth are timed as shown in Fig. 4. Place new "O" rings (6—Fig. 3) on side covers (4) and pull side covers into place with sector shaft adjustment screws. Install and tighten side cover retaining cap screws to a torque of 25 ft.-lbs. (34 N·m) and adjust sector shaft end play as outlined in paragraph 7. Install new packing rings (3—Fig. 3) on adjusting screws, install flat washers (2) and tighten adjusting screw locknuts (1) while holding adjusting screws in proper position.

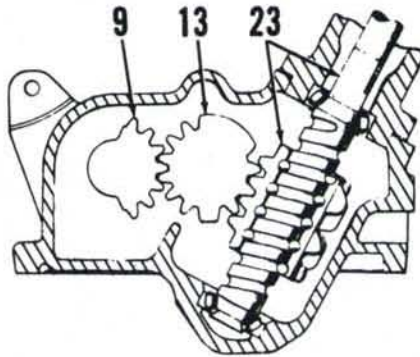


Fig. 4—Cross-sectional view of early manual steering gear assembly showing correct installation of sector gears and wormshaft assembly. Refer to Fig. 3 for exploded view and parts identification.

Refill gear housing with Ford M2C-94-B or equivalent gear lubricant to level of plug opening with approximately 1.5 pints (0.7 liter). When reinstalling steering arms, tighten retaining nuts (14) to a torque of 115-125 ft.-lbs. (156-170 N·m).

**Single Drop Arm Type**

**10. ADJUSTMENT.** If there is no perceptible end play of either the steering (worm) shaft (6—Fig. 5) or the rocker shaft (22) and a pull at outer edge of steering wheel of 1 to 2-3/4 lbs. (4.5 to 12.2 N) is required to turn gear unit past midposition (with drag link disconnected from steering arm), adjustment can be considered correct. Although usually performed only during reassembly of gear unit, adjustments for wormshaft and rocker shaft end play can be made to correct excessive end play or turning effort. With unit removed from tractor as outlined in paragraph 8, proceed as follows:

**11. WORMSHAFT END PLAY.** Remove side cover (25—Fig. 5) and inspect condition of unit. If no obvious damage or excessive wear is noted, add

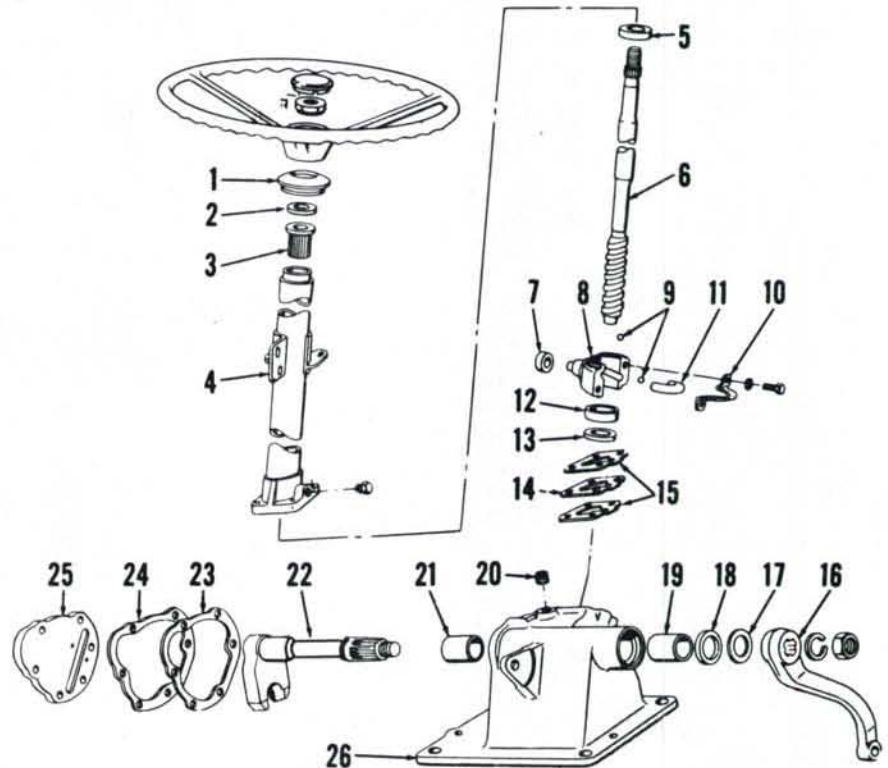


Fig. 5—Exploded view of single drop arm manual steering gear unit. Thirty-four 3/8 inch (.52 mm) diameter steel balls are used in the assembly; twenty are used for steering shaft bearings and 14 are used in ball nut (8) and tube (11) recirculating groove.

- |                       |                        |                  |                  |
|-----------------------|------------------------|------------------|------------------|
| 1. Grommet            | 8. Ball nut            | 14. Shims        | 20. Plug         |
| 2. Dust seal          | 9. Steel balls         | 15. Gasket       | 21. Bushing      |
| 3. Bushing            | 10. Retainer           | 16. Steering arm | 22. Rocker shaft |
| 4. Steering column    | 11. Tube               | 17. Dust seal    | 23. Shims        |
| 5. Upper bearing race | 12. Lower bearing race | 18. Oil seal     | 24. Gasket       |
| 6. Wormshaft          | 13. Spacer             | 19. Bushing      | 25. Side cover   |
| 7. Roller             |                        |                  | 26. Gear housing |

or remove shims (14) and gaskets (15) so wormshaft turns freely, but has no perceptible end play. Approximate shim and gasket thickness can be determined by installing steering column without shims or gaskets and measuring resulting gap between steering column and gear housing. Tighten column retaining nuts finger tight and measure gap at several points with feeler gage as shown in Fig. 9. Paper gaskets are 0.005 inch (0.127 mm) thick and steel shims are available in thicknesses of 0.003 and 0.010 inch (0.076 and 0.254 mm). Use one gasket on each side of shim pack and, on final assembly, apply a light coat of sealer to gaskets. Tighten steering column retaining nuts to a torque of 25-35 ft.-lbs. (34-47 N·m).

**12. ROCKER SHAFT END PLAY.** First, adjust wormshaft end play as outlined in paragraph 11, then proceed as follows:

Be sure rocker shaft and ball nut are in midposition and roller is in place as shown in Fig. 6, then install side cover (Fig. 25—Fig. 5) without shims (23) or gaskets (24). Tighten retaining nuts and cap screws equally finger tight, then measure gap between side cover and steering housing at several points with feeler gage. Average gap measurement is approximate thickness of shims and gaskets required. Shims are 0.005 inch (0.127 mm) thick. Use one gasket on each side of shim pack and, on final assembly, apply a light coat of sealer to gaskets.

**13. OVERHAUL STEERING GEAR UNIT.** With steering gear assembly removed from tractor as outlined in paragraph 8, refer to exploded view of unit in Fig. 5 and proceed as follows:

Remove nut retaining steering drop arm (16) to rocker shaft (22) and using suitable pullers remove arm from shaft. Unbolt and remove side cover (25), shims (23) and gaskets (24). Remove roller (7) from ball nut (8) and slide rocker shaft from housing. Unbolt and remove steering column (4), shims (14) and gaskets (15) from gear housing (26). Remove bushing (3) from upper end of steering column. Pull wormshaft (6) upward, then remove upper bearing race (5) and the 10 loose bearing balls (9). Remove wormshaft and ball nut assembly from gear housing as shown in Fig. 7, then remove the 10 loose bearing balls from gear housing. Unscrew ball nut assembly from wormshaft and remove the 14 recirculating balls from the nut. Tube (11—Fig. 5) can be removed from nut (8) if necessary. Remove lower bearing race (12), spacer (13), bushings (19 and 21) and oil seal (18) from gear housing (26).

To reassemble, proceed as follows: Install new bushings (19 and 21) using piloted drift or bushing driver, then install new seal (18) with lip to inside of gear housing. Install spacer (13) and lower bearing race (12) in gear housing, then stick the 10 bearing balls in race with grease. Assemble tube (11) to ball nut (8) if removed, then stick the 14 recirculating balls in tube and groove of nut with grease. Thread ball nut assembly onto wormshaft, then install upper shaft and nut assembly in gear housing as in Fig. 7. Carefully insert wormshaft into lower bearing to avoid dislodging any of the bearing balls, then while holding shaft in bearing, place upper bearing race over shaft and invert assembly allowing gear housing to rest against end of shaft. Stick the 10 bearing balls in upper race with grease, then push bearing assembly up into housing as shown in Fig. 8. While holding against upper bearing, turn assembly upright. Install new bushing (3—Fig. 5) in steering column, then refer to paragraph 11 for wormshaft adjustment and column installation. Insert rocker shaft. Install steering arm (16) and tighten retaining

nut to a torque of 120 ft.-lbs. (163 N·m). Place roller on end of ball nut (Fig. 6) and install side cover with proper shims and gaskets from rocker shaft adjustment as outlined in paragraph 12.

**Late Double Drop Arm Type**

**14. ADJUSTMENT.** To adjust steering gear, first be sure gear housing is properly filled, then disconnect both drag links from steering drop arms and proceed as follows:

**15. WORMSHAFT END PLAY.** To check wormshaft end play, first loosen locknuts (18 and 29—Fig. 10) on sector shaft adjusting screws (21 and 24) and back screws out two full turns. Wormshaft should turn freely without perceptible end play. Shims (9) are available in thicknesses of 0.002, 0.005 and 0.010 inch (0.05, 0.13 and 0.25 mm). Install one paper gasket (8) on each side of selected shim pack. Tighten steering column cap screws to a torque of 38 ft.-lbs. (51 N·m). Renew wormshaft bearings (10 and 12) as outlined in paragraph

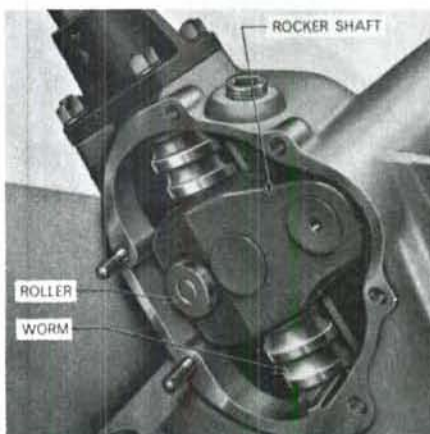


Fig. 6—View of steering gear assembly with side cover removed. Roller moves in slot in side cover.

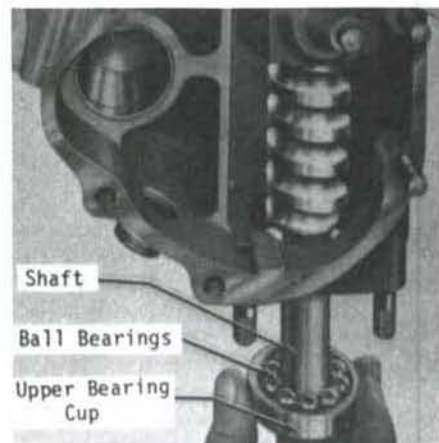


Fig. 8—Installing upper bearing race and ball bearings.

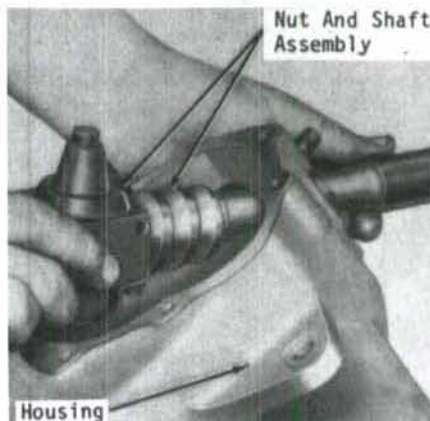


Fig. 7—Removing ball nut and steering shaft assembly from gear housing.

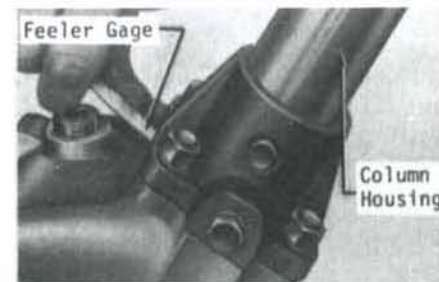


Fig. 9—Measuring clearance between gear housing and steering column housing to determine shim and gasket thickness needed. Shim and gasket thickness required between gear housing and side cover is determined in similar manner.

17 if end play is perceptible with paper gasket, but without any shims installed.

After checking or adjusting wormshaft end play, readjust sector shaft end play as follows:

**16. SECTOR SHAFT END PLAY.** Before adjusting sector shaft end play, be sure wormshaft is properly adjusted as outlined in paragraphs (14 and 15), then proceed as follows:

Turn steering wheel to mid or straight-ahead position. With locknuts on both sector shaft adjuster screws loosened and adjuster screw on forward sector shaft (22—Fig. 10) backed out several turns, turn sector shaft adjuster screw (24) inward until there is no end play of rear sector shaft (25). Tighten locknut (29) while holding adjuster screw (24). Attach a spring scale to steering wheel rim and check amount of pull needed to rotate steering wheel. Amount of pull needed should be 5.5-7.4 lbs. (24.5-33.0 N). Readjust screw (24) as required. Turn adjuster screw (21) on front sector shaft inward until there is no end play of front sector shaft (22). Hold adjuster screw (21) and tighten locknut (18). Again use a spring scale to check amount of pull needed to rotate steering wheel. At this time a pull of 8-9 lbs. (35.6-40.0 N) should be required to rotate steering wheel. Readjust screw (21) if necessary.

When adjustment of sector shafts is correct, reconnect drag links to steering drop arms.

**17. OVERHAUL STEERING GEAR UNIT.** With steering gear assembly removed from tractor as outlined in paragraph 8, refer to exploded view of unit in Fig. 10 and proceed as follows:

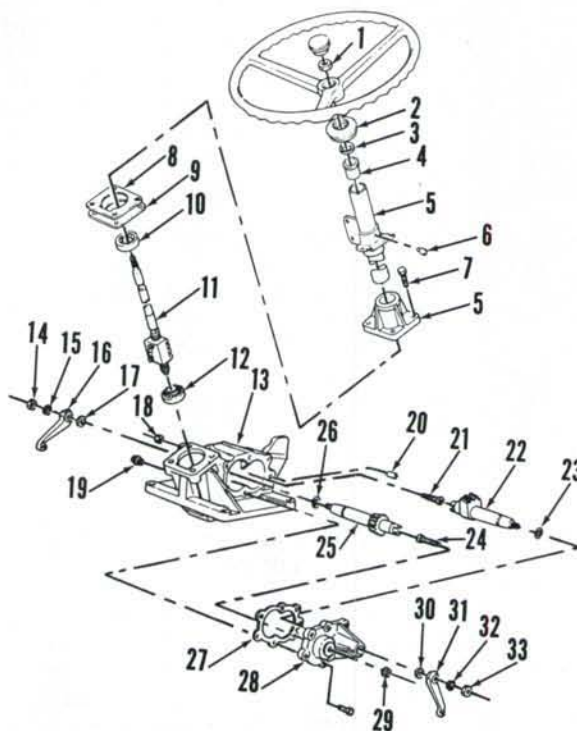
Remove nuts (14 and 33), washers (15 and 32) and steering drop arms (16 and 31). Use a puller, if necessary, to remove steering arms. Do not drive them off with a hammer as internal damage to sector shafts could occur. Unbolt side cover (28), remove locknut (29) and turn adjuster screw (24) inward to force cover from housing. Remove cover and withdraw sector shaft (25). Remove locknut (18) and turn adjuster screw (21) clockwise and remove sector shaft (22). Unbolt and remove steering column (5), gaskets (8) and shims (9), then withdraw nut and wormshaft assembly. Remove bearings (10 and 12).

Clean and inspect all parts and renew any showing excessive wear or other damage. Nut and wormshaft (11) is serviced only as an assembly. When reassembling, renew all seals and gaskets.

Install lower bearing (12) in housing (13) and install nut and shaft (11). Use grease to retain ball bearings and install bearing (10). Install steering column (5)

**Fig. 10—Exploded view of late double drop arm manual steering gear unit used on some models.**

1. Nut
2. Grommet
3. Seal
4. Bushing
5. Steering column
6. Dowel pin
7. Cap screw (4)
8. Gasket
9. Shim
10. Bearing assy.
11. Nut & shaft assy.
12. Bearing assy.
13. Housing
14. Nut
15. Washer
16. Steering drop arm
17. Oil seal
18. Nut
19. Oil level plug
20. Dowel pin
21. Adjuster screw
22. Sector shaft (front R.H.)
23. Seal
24. Adjuster screw
25. Sector shaft (rear L.H.)
26. Seal
27. Gasket
28. Side cover
29. Nut
30. Oil seal
31. Steering drop arm
32. Washer
33. Nut



without gaskets and shims (8 and 9). Install and tighten four cap screws (7) finger tight. Using a feeler gage, measure gap between steering column and gear housing. The average measured gap minus 0.002 inch (0.05 mm) will be the correct thickness shim pack to be installed. Shims are available in thicknesses of 0.002, 0.005 and 0.010 inch (0.05, 0.13 and 0.25 mm). Remove steering column and reinstall with one paper gasket (8) on each side of shim pack. Tighten cap screws (7) to a torque of 38 ft.-lbs. (51 N·m).

**NOTE: A final check for correct shim pack can be made by installing steering wheel and attaching a spring scale to rim of wheel. Check amount of pull needed to rotate steering wheel. Amount of pull needed should be 1.4-2.2 lbs. (6.2-9.8 N). Add or remove shims (9) as necessary to correct.**

Complete reassembly be reversing disassembly procedures and aligning sector shaft and nut timing marks shown in Fig. 11. Adjust sector shaft end play as outlined in paragraph 16. Fill gear housing with 1.5 pints (0.7 L) of Ford M2C-94-B or equivalent gear lubricant. Install steering drop arms and tighten retaining nuts (14 and 33—Fig. 10) to a torque of 127 ft.-lbs. (173 N·m).

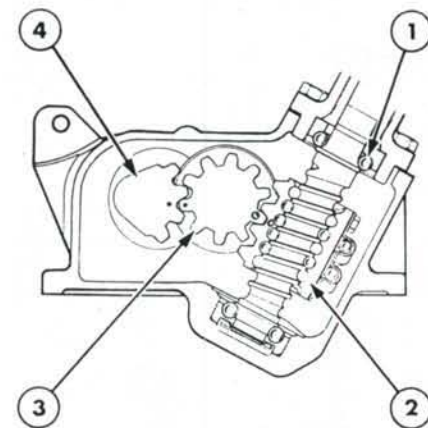
**POWER STEERING SYSTEM**

**CAUTION: Absolute cleanliness of all parts is of the utmost importance in the operation and servicing of the hydraulic**

**power steering system. Of equal importance is the avoidance of nicks or burrs on any of the working parts.**

**18. FLUID AND BLEEDING.** Recommended power steering fluid is Ford M2C-41-B oil or equivalent. Maintain fluid level at bottom of reservoir filler hole with tractor on level ground. Fluid and filter should be changed after each 1200 hours of operation.

The power steering system is self-bleeding. When unit has been disassembled, refill with new oil to full mark on dipstick, then start engine and cycle system several times by turning steering wheel from lock to lock. Recheck



**Fig. 11—View of timing marks aligned on sector shafts and nut.**

1. Ball bearing
2. Nut
3. Rear sector shaft
4. Front sector shaft