

**INSTALLATION INSTRUCTIONS
RACK & PINION STEERING
(RIDING TRACTORS)**



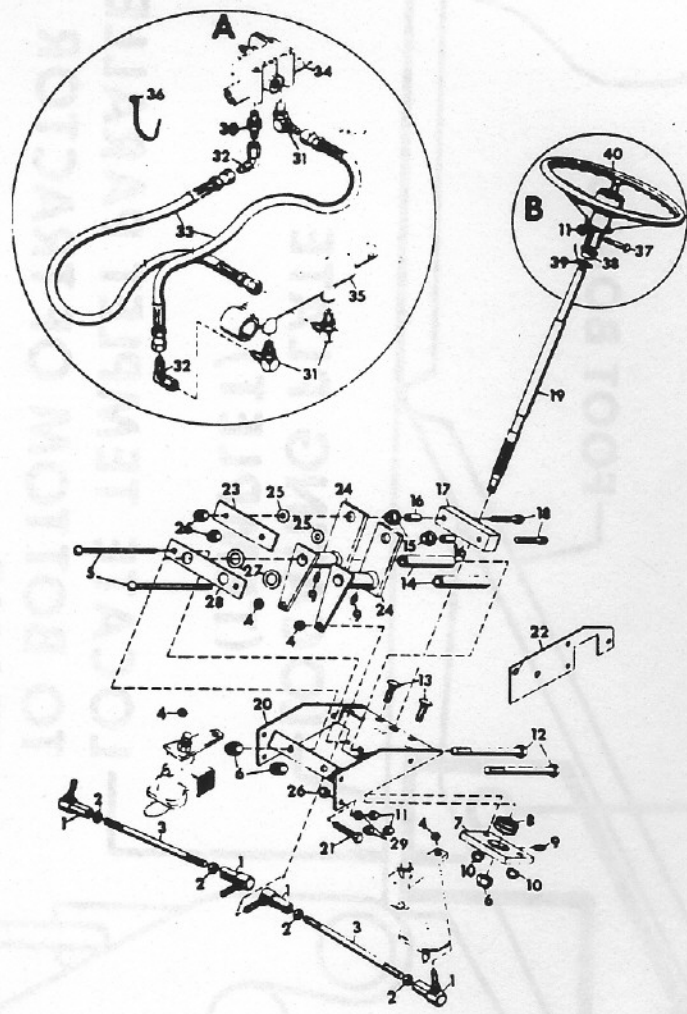
TO CONTINUE ITS PROGRAM OF QUALITY AND DESIGN IMPROVEMENTS, THE MANUFACTURER RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS AND PRICES WITHOUT NOTICE AND WITHOUT INCURRING OBLIGATION. THE MANUFACTURER ALSO RESERVES THE RIGHT TO SHIP WITHOUT NOTICE AND WITHOUT INCURRING OBLIGATION.

NOTE: Repeat steps 8 thru 10 on opposite side.



1. Remove the hood and fuel tank from the tractor.
2. Remove the steering column from the steering column.
3. Remove the four (4) bolts holding steering box to the steering frame.
4. Remove the steering cover plate.
5. Remove the nut and 1/2" washer from the top of column and remove the steering column.
6. Remove the steering column from the tractor.
7. Remove the steering box assembly from the tractor.
8. Get the template supplied with the tractor. Place it on the tractor. Make sure the template is parallel to the front of the tractor. Mark the location of the holes from front to back. Then drill the holes. Make sure the template is parallel to the front of the tractor. See illustration.
9. Install the assembly in the tractor frame on the rear end of the mounting bracket to the rear. Align the holes and secure with bolts supplied with hardware.
10. Remove the two (2) bolts in the tractor frame. The rear lugs will have to be machined as shown in illustration. Items 30, 31 and 32 are supplied with kit.
11. Install the assembly in the tractor frame on the rear end of the mounting bracket to the rear. Align the holes and secure with bolts supplied with hardware.
12. Remove the two (2) bolts in the tractor frame. The rear lugs will have to be machined as shown in illustration. Items 30, 31 and 32 are supplied with kit.
13. Put the steering column into the tractor frame. Check the hole in the tractor frame. The hole is supplied with hardware. Check the hole in the tractor frame. The hole is supplied with hardware.
14. Retain the installation panel to the frame using the bolts and nuts that were removed.
15. Retain the hole in the tractor frame. Check the hole in the tractor frame. The hole is supplied with hardware. Check the hole in the tractor frame. The hole is supplied with hardware.
16. Install the fuel tank, hood and steering wheel. NOTE: The steering wheel must be installed on the new steering column. The steering wheel must be installed on the new steering column. The steering wheel must be installed on the new steering column. The steering wheel must be installed on the new steering column.
17. Adjust the steering assembly and adjust the pull of the steering box and lock with the jam nut. See STEERING ADJUSTMENT PROCEDURE.

1. Remove the hood and fuel tank from the tractor.
 2. Remove the steering wheel from the steering column.
 3. Remove the four (4) bolts holding steering box plate to the tractor frame.
 4. Remove the steering cover plate.
 5. Remove the nut and "E" ring from the steering column and remove the steering column.
 6. Remove the tie rods from the tie rod arms.
 7. Remove the steering box assembly from the tractor.
 8. Bolt the templet, supplied with hardware pack, to the tractor frame using two (2) 1/2" x 1" bolts and one (1) nut. Make sure the templet is parallel along the bottom of the frame from front to back. That is level with the frame of the tractor. See Illustration figure 1.
 9. Make the three (3) holes with a set punch for drilling, and remove the templet from the tractor.
 10. Drill the three (3) holes using the 13/32" drill bit. It is good practice to drill a smaller pilot hole before attempting to drill the full size hole.
- NOTE: Repeat steps 8 thru 10 on opposite side.
11. If tractor is equipped with hydraulic, the hose fittings will have to be modified as shown in figure "A" of Illustration. Items 30, 31 and 32 are supplied with kit.
 12. Install the assembly in the tractor frame with the beveled end of the mounting bracket to the rear. Align the holes and secure with bolts supplied with hardware pack.
 13. Remove the two (2) bolts securing the instrument panel to the tractor frame.
 14. Put the steering column through the bearing support block and secure to bearing block with lock nut supplied with hardware pack.
 15. Refasten the instrument panel to the frame using the bolts and nuts that were removed.
 16. Fasten the tie rods to the tie rod arms. Check the toe-in and make adjustments as required. Toe-in is from 0-3/4".
 17. Install the fuel tank, hood and steering wheel. NOTE: The keyed type steering wheel will not fit the new steering column. The steering wheel must have the same fastening device as shown in figure "B" of Illustration.
 18. Adjust the steering assembly and tighten the nuts on the adjusting bolts and lock with the jam nuts. See STEERING ADJUSTMENT PROCEDURE.



STEERING CONVERSION KIT

ITEM NO.	PART NO.	DESCRIPTION
1.	21084P1	Ball Joint, Steering
2.	120369	Nut, Hex; 3/8-24
3.	21085P1	Rod, Steering Tie
4.	192481	Nut, Lock; 3/8-24 Washer Insert
5.	126952	Bolt; 5/16-18 x 5 1/2 RD. HD. SQ. Neck
6.	435507	Nut, Lock; 1/2-13 Washer Insert
7.	21148P1	Block, Bearing Support
8.	21147P1	Bearing, Spherical
9.	9411027	Fitting, Lube; 1/4-28
10.	9419456	Nut, Lock; 7/16-14 Washer Insert
11.	9419455	Nut, Lock; 5/16-18 Washer Insert
12.	443734	Bolt, Hex; 1/2-13 x 6
13.	21146P1	Bolt, Bearing
14.	21078P1	Sleeve, Pivot
15.	21077P1	Bearing, Flange; P/M Bronze
16.	21076P1	Bushing
17.	21075P1	Gear, Rack
18.	454473	Screw, Cap; 3/8-16 x 2 Hex Socket HD.
19.	21081P1	Column, Steering
20.	21350A1	Weldment, Steering Box
21.	180122	Bolt, Hex; 3/8-16 x 1
22.	21351P1	Plate, Locating; (Templet)
23.	21246P1	Strap, Rack and Pinion
24.	21071A1	Weldment, Steering Arm
25.	446470	Washer, Flat; 3/8 x 1 1/8 x .065
26.	458004	Nut, Lock; 3/8-16 Washer Insert
27.	14998P1	Bearing, Thrust Race; .752 x 1.240 x .095
28.	21079P1	Plate, Adjustment
29.	120376	Nut, Hex; 5/16-18
Items shown in circle "A" must be on tractors to be covered with hydraulics, except for item numbers 30 and 32, which are included in this kit.		
30.	21286P1	Adapter, Hydraulic
31.	18826P1	Adapter, Hydraulic
32.	21287P1	Adapter, Hydraulic
33.	18845P1	Hose, Hydraulic
34.	18825P1	Valve, Hydraulic
35.	19471P1	Cylinder, Hydraulic
36.	10629P1	Tie, Cable
Items shown in circle "B" must be on all tractors to be converted.		
37.	180082	Bolt, Hex; 5/16-18 x 1 3/8
38.	10174P2	Bushing
39.	20273P1	Ring, Retaining; Internal Tooth
40.	19448P1	Wheel, Steering

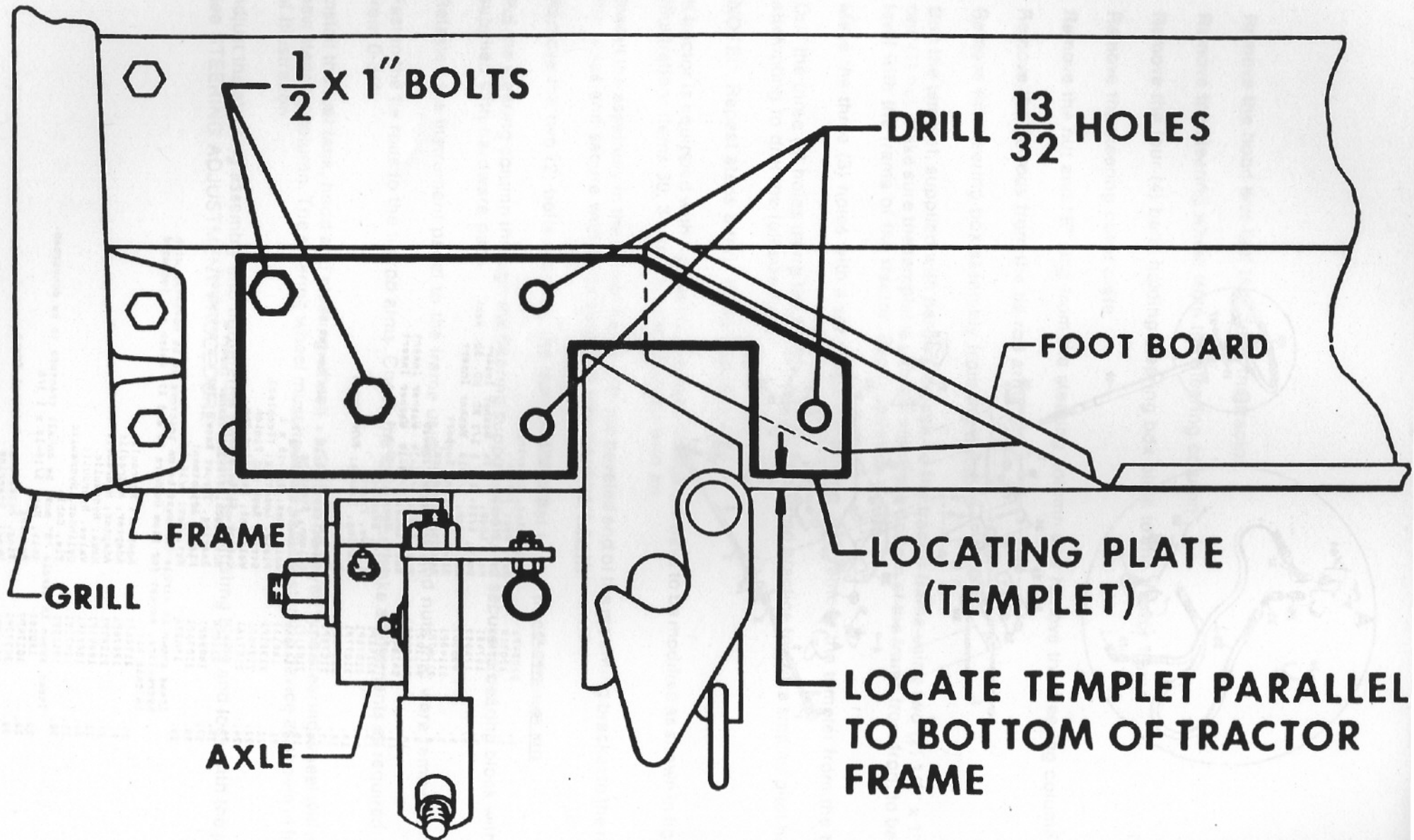


FIG 1