FOREWORD

THIS MANUAL PROVIDES INFORMATION ON PREPARING THE FORD SERIES 101 PLOW AND THE TRACTOR FOR PLOWING. ALSO CONTAINED IN THIS MANUAL IS INFORMATION ON OPERATION, TROUBLE SHOOTING, LUBRICATION, SAFETY PRECAUTIONS, SHIPPING INFORMATION, AND ASSEMBLY INSTRUCTIONS.

READ THIS MANUAL CAREFULLY BEFORE USING YOUR PLOW. KEEP IT HANDY FOR FUTURE REFERENCE. IF, AT ANY TIME, YOU HAVE ANY QUESTIONS ABOUT YOUR PLOW, REMEMBER YOUR FORD TRACTOR-EQUIPMENT DEALER IS BEST QUALIFIED TO HELP YOU. HE HAS FACTORY-TRAINED SERVICE TECHNICIANS, GENUINE FORD PARTS, AND THE CORRECT TOOLS AND EQUIPMENT TO DO THE JOB RIGHT IN THE SHORTEST POSSIBLE TIME.

SERVICE DEPARTMENT
TRACTOR AND IMPLEMENT OPERATIONS (U.S.)
FORD TRACTOR DIVISION
FORD MOTOR COMPANY
The Ford 101 Plow, Figure 1, features a rigid truss frame, high beam clearance, shear bolt or spring trip bottoms, flexibility, and simplicity of adjustment.

The plow is available with one, two, or three bottoms, but can be converted to four bottoms with a conversion kit. The plow can be adapted to Category I or II hitches by changing the plow cross shaft.

A variety of economy bottoms with replaceable shins and shares are available.

### WHEEL SPACING GUIDE

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<td>16&quot;</td>
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* The inside front wheel measurements should approximate the inside rear wheel dimensions.
PRE-FIELD ADJUSTMENTS

CHECK CONTROL
SPRING TENSION

Figure 2
Draft Spring Adjustment

DRAWBAR

To avoid interference with the coulter, the drawbar must be set to the side or removed.

TRACTOR WEIGHT RECOMMENDATIONS

Use calcium chloride solution in both front and rear tires. For maximum traction and efficiency, use rear wheel weights and a front weight box. Refer to the Tractor Owner's Manual for complete weighting information.

TRACTOR HYDRAULIC SYSTEM
DRAFT SPRING

Initially, tighten the draft spring yoke on Ford 2000 and prior model tractors as shown in Figure 2, until the draft spring becomes difficult to turn. Loosening the spring increases draft sensitivity. The correct setting must be determined for each plowing job. It is usually best to operate the hydraulic system in the constant draft position.

Figure 4
Cross Shaft Adjustments

ATTACHING PLOW TO TRACTOR

Adjust the plow width of cut adjusting lever so the cross shaft offset on the left side is in the up position, as shown in Figure 3.

Adjust the J-bolt so the right link pin is directly below the cross shaft, as shown in Figure 4.

Lower the tractor hydraulic lift control lever to allow the cross shaft to be inserted through the ball of first the left lower link and then the right. Pin the cross shaft in place.

With the tractor hydraulic lift control lever in the down position, secure the upper link to the plow.
PRE-FIELD ADJUSTMENTS

**ROLLING LANDSIDE**

The rolling landside, used on mounted plows only, should be set from 3/8" to 1/2" below the sliding landside, as shown in Figure 5. To reposition the landside, loosen the two landside arm retaining bolts, and adjust the set screw located under the arm.

**SETTING LIFT LINKAGE**

Position the Ford 4000 rocker pivot pin in the upper hole; place the upper link in the bottom rocker hole on the Ford 2000 and 3000 Tractors, and in the middle or lower rocker hole on the Ford 5000 Tractor.

Adjust the upper link length to: 23 inches on the Ford Series 2000 and 4000 Row Crop Tractors; 25 inches on the Ford Series 2000 and 4000 All Purpose Tractors; and 27 inches on the Ford 2000, 3000, 4000, 5000, and Commander 6000 Tractors. This is a starting point for further adjustment in the field.

Adjust the left lift rod length, on tractors equipped with adjustable left lift rod, to the normal operating length described in the Tractor Operator's Manual. This length will be:

- **Ford 3000** - 23 inches
- **Ford 4000** - 29-13/16 inches
- **Ford 5000** - 28-1/2 inches
- **Ford 6000** - 24-1/8 inches

**CROSS SHAFT SETTING**

Category I hitches are equipped with laterally adjustable cross shafts. Check to be sure the dog point set screws are located in the second holes from the right end of the cross shaft, Figure 4. If adjustments are necessary, refer to Width of Cut, page 7.

Category II hitches are not adjustable laterally.

**WIDTH OF CUT**

The width of cut can be changed by adjusting the J-bolt, Figure 4, or by using the optional Adjusting Lever (described in the Accessory Section).

Initially, set the right link pin, Figure 4, directly below the center of the cross shaft. Additional information is available under Width of Cut, Operation Section.
OPERATION

Because all field adjustments are interdependent, follow the sequence listed below. If any one correction is made, be sure to recheck all other previous adjustments.

DEPTH CONTROL

On Ford Tractors, plowing depth is determined by the position of the hydraulic lift control lever on the quadrant. It is usually best to operate the hydraulic system in the constant draft position, although the position control setting may be better under certain conditions (see Hydraulic Adjustments, below).

Always check depth at the rear bottom, Figure 8. When the desired depth is reached, set the stop on the quadrant, Figure 8, so the hydraulic lift control lever can always be returned to the same position.

COULTERS

Normally, the coulter should be set 2-1/2" above and 3/4" to the left of the nearest shin surface. See Figure 7 (fork arm coulter shown). Set all coulters evenly.

Figure 7
Rolling Coulter Adjustment

Figure 8
Checking Depth

Figure 9
Fore-and-Aft Leveling

When operating the plow with tractors without draft control, depth is gauged by a gauge wheel, Figure 6. Lower the plow to the desired depth, then raise the hydraulic control lever to be sure the tractor is carrying most of the weight. Return the hydraulic control lever to the "hold" or neutral position. The tractor should carry the bulk of the weight of the plow for maximum traction.
the landside must also be lowered so it rides at the bottom of the furrow. Avoid plowing with the upper link too short. This causes excessive draft and premature wear on the plow points. Lubricate rolling landsides every four hours with a multi-purpose grease.

LEVELING THE PLOW — SIDE-TO-SIDE

Whenever the front-to-rear pitch is changed, the side tilt must be readjusted with the leveling crank so all the bottoms operate at the same depth.

Determine the side tilt as follows:

1. Check to see if all coulters are cutting equally, Figure 10.
2. Stand at a distance behind the plow and sight along the frame to see if it is parallel with the ground.
3. Observe the furrow slices to see if each moldboard is throwing a uniform amount of soil.

NOTE: The furrow slice of the front moldboard is affected by the width of cut, described below.

WIDTH OF CUT

Check the width of cut in one of the following two ways:

1. Check the dimension from the coulter blade to the furrow wall, as shown in Figure 11. This dimension should be the same as the size of the plow bottom. For example, when using a 14” bottom, the coulter-to-furrow measurement should be 14”.

2. Drive a stake an arbitrary distance from the furrow wall at any given point in the field. Measure the distance from the furrow wall to the stake. Plow past the point of measurement and remeasure the distance from the furrow wall to the stake. The difference is the width of cut. For example, with three 14” bottoms (42” total) measure 10 feet from the furrow wall. After plowing past the point of measurement, the new measured distance should equal 78” (120” minus 42”).

Figure 10
Side-to-Side Leveling

PITCH CONTROL

With the rear bottom at the desired plowing depth, adjust the upper link so the rolling landside leaves a light but definite mark in the furrow bottom and the plow frame is level fore and aft, Figure 9. (Sliding landsides should run approximately 1/2” above the bottom of the furrow.)

The amount of pitch or suction required, varies in different types of soil. In hard soil, the upper link can be shortened to increase penetration; however,
STEERING

If there is excessive side pull after completing all of the above adjustments, refer to Figure 13 and slide the cross shaft to a new set of holes. Always slide the shaft in the direction of pull.

Category II hitches are not adjustable.

HYDRAULIC SYSTEM

Set the tractor hydraulic system as instructed below:


2000 Dexta and 5000 Series: Start with the flow control knob turned in all the way. In heavy soils where draft corrections are severe, screw the knob out until the corrections are less abrupt and the plow operates smoothly.

Ford 2000, 3000, 4000, and 5000 Tractors: Position the hydraulic selector lever in the draft control position, as described in your Tractor Operator’s Manual. Select a middle flow control setting, as required, to obtain the desired hydraulic response.

6000 Series: Begin plowing with the Multi-trol lever in the constant draft position (the most forward hole). If draft corrections are too frequent, move the handle back one hole at a time until the plow operates smoothly.

COULTERS

Set the coulters only deep enough to cut trash, and far enough to the left of the plow shin to leave a clean, straight furrow wall.

For maximum trash clearance, set the coulter brackets in the forward position. Install the coulters in the rear position if penetration is a problem.

Keep the coulter bearings well lubricated and adjusted. Use a multi-purpose grease every four hours. Tighten the bearings frequently to eliminate excessive side play.
JOINTERS

Depending upon trash conditions, set the jointers 1" to 3" deep.

The point of the jointer should always touch the coulter blade lightly to prevent the accumulation of trash. As wear occurs, keep the point in contact by rotating the jointer.

COVERBOARDS

Initially, set the coverboards flush with the moldboards, Figure 14. Additional soil can be thrown by setting the coulters farther from the moldboard shins. To throw less soil, tilt the coverboard wings up.

Where scouring or fluffy trash is a problem, tilt the coverboard wings as high as possible. In some instances, it may be necessary to remove the coverboards entirely.

NOTE: Be sure to use the support wedge, Figure 14.

PLOWING SPEED

Vary tractor speed with ground conditions and the type of bottoms being used. 3-1/2 to 5 mph is normal.

LIFTING SEMI-MOUNTED PLOWS

When the hydraulic lift control is actuated, the front of the plow is raised until the lift springs, Figure 35, over-ride the hydraulic system and cause the rear of the plow to rise. When the springs are in adjustment, the front of the plow will be fully raised slightly before the rear, and the hydraulic system will automatically return to neutral.

If the rear of the plow does not rise, hook the springs in the next shorter chain links until the proper delayed lift is obtained.

OPERATION SUMMARY

MEASURING DEPTH

Measure depth at the rear bottom. Set the stop on

Figure 14
Bottom in Tripped Position

the quadrant so the plow always will be returned to the same depth.

LEVELING FORE-AND-AFT

Set the tractor upper link so the rolling landside leaves a slight mark at the base of the furrow wall. Sliding landsides should run about 1/2" above the furrow bottom.

LEVELING SIDE-TO-SIDE

Use the leveling crank to level the frame from side-to-side.

WIDTH OF CUT

Rotate the cross shaft adjusting arm forward to increase, and rearward to decrease the cut.

STEERING

Alleviate side pull by sliding the cross shaft in the direction of pull (Category I shaft).

HYDRAULIC SYSTEM

Set the system so the plow reacts smoothly to draft corrections.
**SETTING COULTERS**

Set the coulters only deep enough to cut trash and leave a clean, straight furrow wall.

**ADJUSTING JOINTERS**

Keep the points in slight contact with the coulters, and only deep enough to cover trash.

**SETTING COVERBOARDS**

Keep the coverboard flush with the moldboard. Tilt the wing up to throw less soil, or if the wings impede the flow of trash.

**SAFETY SHEAR BOLT AND SPRING TRIP**

One of two safety devices is available to prevent damage to the plow when obstacles are hit.

**SHEAR BOLT**

Shear bolt beams have a special heat treated bolt (Part No. 372451-58) which allows the bottom to trip, as shown in Figure 14.

**SPRING TRIP**

Spring trip beams have a spring trip mechanism. Figure 15 illustrates a complete tripping cycle. The right-hand gusset has been removed to show the working parts of the spring trip. When an obstruction is hit by the plow bottom, the trip beam tends to pivot, exerting a pressure at (1), Figure 15. Pressure at the trip arm causes the trip arm roller (2), to move downward on the inner surface of the locking cam. This action forces pressure against the compression spring. When pressure on the plow bottom becomes greater than the counteracting pressure of the compression spring on point (1), the bottom trips and pivots free of the obstruction.

To reset a tripped bottom in the field, simply leave the plow in the ground and back the tractor until the bottom resets.

**Adjustments:** The spring trip mechanism is pre-set at the factory; however an adjustment is possible to change the setting.

To change the beam trip resistance, raise the locking cam lug with a 1-1/16” open end wrench, Figure 16, and rotate the spring guide. Turning the spring guide clockwise tightens the spring and increases the beam trip resistance. A counterclockwise rotation lets the beam trip more easily. Make adjustments in series of two or three turns.
Figure 16
Adjustment of the Tripping Load

Lubrication: Lubricate the grease fittings at (1) and (2), Figure 16, daily. The fitting at (1) can be reached from the rear of the beam. The fitting at (2) can be reached by removing the tap in plug (3).

IMPORTANT: After the first few hours of operation, retighten the beam pivot bolts securely. These bolts should be checked regularly for lateral play. Over tightening will cause difficult resetting.

ACCESSORIES

The following accessories are available as extra equipment:

WIDTH OF CUT ADJUSTING LEVER

The adjusting lever, Figure 17, may be installed to replace the cross shaft J-bolt. The adjusting lever is especially useful for hillslope plowing, where frequent width-of-cut corrections are necessary. Moving the adjusting lever forward increases, and rearward decreases, the width of cut.

Attach the lever as follows:

1. Remove the J-bolt, Figure 25, from the cross shaft adjusting arm.
2. Detach the J-bolt anchor bracket and bushing (3), Figure 20.
3. Attach the quadrant to the right A - frame member as shown in Figure 17. Use the two bolts, lock washers, and nuts provided in the plow frame.
4. Attach the adjusting lever to the bottom adjusting bracket hole with a 7/16" x 1-1/4" hex bolt, lock washer, and nut, and to the rear adjusting hole with a 5/8" x 1-1/2" hex bolt, lock washer, and nut. Position the bolts so the nuts are to the outside.
5. Slide the adjusting arm and lever assembly to the rear of the quadrant. Pull the lever forward until the lever lock can engage a quadrant notch.
6. Reposition the adjusting arm on the cross shaft and tighten the dog point set screws.
The range of adjustment may be changed by attaching the upper portion of the adjusting lever in either of the three adjusting holes in the adjusting arm. It is recommended that the front adjusting hole be used as a starting position. This provides improved accessibility of the lever from the tractor seat.

ROLLING COULTERS

Rolling coulters, Figure 18, are available in 16 or 18 inch diameters with smooth or notched blades. Notched blades do a better job of cutting in heavy trash.

NOTE: DO NOT use 20 inch coulters on the Series 101 Plow.

Attach the coulters as follows:

Attach the stem (1), Figure 18, to the plow beam with the U-bolt and seat (2), as shown. Adjust the coulters as directed under Pre-Field Adjustments. Tighten the U-bolt nuts securely.

Also available for installation on the Series 101 Plow are the new one arm coulters. Install the one arm coulter clamps, as shown in Figure 19. Use Clamp Bracket, Part No. 201823, on the first beam and Clamp Bracket, Part No. 201810, on the second, third and fourth beams. Be sure Clamp Bracket, Part No. 201823, is installed with the word “TOP” in the up position, as shown. Use U-Bolt Clamp, Part No. 201805, on the first beam and U-Bolt Clamp, Part No. 201807, on the other beams, Figure 20.

When installing U-Bolt Clamp, Part No. 201805, place the 4-3/4” U-Bolt arm on top of the beam.

Install the coulter blades, as shown in Figure 21 and 22.
Jointers

Short growth and trash are turned under more readily when jointers are installed with the coulters, Figures 1 and 18. Jointers are available with long and short blades.

Attach the jointers as below:

Bolt the jointer arm (4), Figure 18, to the left side of the coulter fork with two carriage bolts, lock washers, and nuts (3). Adjust the jointer so the point lightly touches the coulter about 2" above the lower edge of the blade.

Coverboards

Coverboards are effective where heavy trash is a problem. Refer to Figure 23, and make the installation as below:

1. Attach the coverboard bracket to the moldboard shin with two 7/16" x 1-3/4" bolts (2).

2. Connect the coverboard to the coverboard bracket using two 3/8" x 1-1/4" bolts, flat washers, and nuts (1). Be sure to attach the coverboard wedge with the rear bolt (1). Set the wedge to contact the inside edge of the right-hand gusset plate.
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<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>REMEDY</th>
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</thead>
<tbody>
<tr>
<td>PENETRATION</td>
<td>1. Worn or bent shares. 2. Insufficient suck. 3. Coulters too deep. 4. Soil too hard and dry.</td>
<td>1. Replace with new shares. 2. Shorten upper link. 3. Run coulters only deep enough to cut trash. 4. Wait for improved soil conditions.</td>
</tr>
<tr>
<td>PLOW CROWDS TO EITHER SIDE</td>
<td>1. Plow not level. 2. Width of cut too wide. 3. Width of cut too narrow.</td>
<td>1. Level plow. 2. Decrease width of cut; decrease tractor rear wheel spacing. 3. Increase width of cut; increase tractor wheel spacing.</td>
</tr>
<tr>
<td>UNEVEN DEPTH OF PLOWING</td>
<td>1. Tractor hydraulic system. 2. Insufficient suck. 3. Too much suck 4. Worn or bent shares.</td>
<td>1. Check draft control spring adjustment. 2. Shorten upper link. 3. Lengthen upper link. 4. Replace.</td>
</tr>
<tr>
<td>UNEVEN FURROWS AND RIDGING</td>
<td>1. Plow not level. 2. Front bottom cutting too wide or too narrow. 3. Coulters not cutting uniform width. 4. Incorrect bottom for type of soil conditions. 5. Bottoms not same type. 6. Bottoms not uniform. 7. Mixed shares. 8. Sprung beams or frames.</td>
<td>1. Level plow. 2. Adjust width of cut. 3. Set all coulters for equal cut. 4. Select proper bottom. 5. Check style of frogs and moldboards. 6. Loosen mounting bolts and push point down. 7. All shares same length and type. 8. Check for damaged part.</td>
</tr>
<tr>
<td>TRASH NOT COVERING</td>
<td>1. Plowing too deep for size of bottom. 2. Coulters set too shallow. 3. Plow not level. 4. Need coverboard attachment. 5. Excessive trash 6. Wrong style bottom. 7. Ground speed too slow or erratic.</td>
<td>1. Depth – 1/2 to 2/3 of bottom width. 2. Reset coulters. 3. Level Plow. 4. See Dealer. 5. Install trash wires. 6. See Dealer. 7. Increase or maintain uniform ground speed.</td>
</tr>
<tr>
<td>Problem</td>
<td>Possible Cause</td>
<td>Remedy</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------</td>
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</tr>
</tbody>
</table>
| Excessive Draft | 1. Upper link too short.  
2. Plow not pulling straight.  
3. Furrow wheel out of adjustment. | 1. Lengthen upper link.  
2. Readjust plow; see Operations Section.  
3. Readjust. |
| Bottoms Trip Too Easily | 1. Incorrect shear bolt.  
2. Incorrect model plow.  
3. Plowing speed too fast for field conditions.  
4. Spring trip not properly adjusted.  
5. Spring trip mechanism damaged or broken.  
2. Use spring trip in extremely stoney soil.  
3. Slow down.  
4. Readjust trip.  
5. Repair damage.  
6. Tighten to remove lateral play. |
| Bottoms Trip Too Hard | 1. Spring trip improperly adjusted.  
2. Spring trip mechanism not properly lubricated. | 1. Readjust trip.  
2. Lubricate and check all parts for free movement. |

**Safety Precautions**

1. Keep the tractor keys where they are not accessible to children.

2. Always lower the implement and turn off the engine when leaving the tractor.

3. Keep persons away from the plow when the tractor is parked with the engine running.

4. Do not let anyone ride on the tractor with the operator.

5. Do not plow or transport the implement at excessive speeds.

The Tractor and Implement Division of the Ford Motor Company, being a member of the National Safety Council, is privileged to use the Green Cross to denote safety instructions in operators manuals.
Ford 101 Plow Frames are shipped as shown in Figure 24. Bundles for a complete plow are listed below:

<table>
<thead>
<tr>
<th>Frames</th>
<th>Qty.</th>
<th>Choice of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Bundle</td>
<td>1</td>
<td>Rolling Landside (10-449)</td>
</tr>
<tr>
<td>A - Frame Bundle</td>
<td>1</td>
<td>Sliding Landside (10-525)</td>
</tr>
<tr>
<td>Front Bottom</td>
<td>1</td>
<td>Cross Shaft (Category I) (10-347)</td>
</tr>
<tr>
<td>Rear Bottom</td>
<td>As</td>
<td>Cross Shaft (Category II) (10-524)</td>
</tr>
</tbody>
</table>

The following attachments are available as extra equipment:

ASSEMBLY

Assembling the Mounted 101 Plow is the dealer's responsibility. The implement should be completely assembled when delivered.
NOTE: The wooden spacers, Figure 24, indicate where to attach the A-frames, Steps 1 and 3 below. The spacers must be removed to attach the A-frames. Figures 30, 31, and 32 give additional information about the A-frame attaching points.

1. Raise the left side of the plow with a jack stand, and attach the left A-frame, Figure 25.

2. Reposition the J-bolt bracket (1), Figure 24, as shown in Figure 25.

3. Refer to Figure 25 and install the cross shaft assembly as follows:
   a. Slide the adjusting arm and right A-frame onto the cross shaft (5).
   
   NOTE: Figure 26 shows the Category I cross shaft. Category II cross shafts are not adjustable and need a spacer between the adjusting arm and A-frame, Figure 26. Two and three bottom 16" plows with Category I hitches also need a spacer (Part No. 109674, supplied with the frame).

b. Install the right A-frame, with the long bolt at (2). Do not tighten the nuts.

c. Place the locking collar on the shaft, and slide the shaft through the left A-frame.

d. Install the dog point set screws in the second set of holes from the right end of the cross shaft. Tighten the jam nuts.

e. Install the top A-frame bolt and spacer (1).

f. Tighten the bolts at (2) and (4).

g. Slide the cross shaft to the left until there is no play between the adjusting arm and A-frame. Tighten the locking collar set screws and jam nuts.

h. Adjust the J-bolt so the link pins are in line directly under the cross shaft.

4. Attach the bottoms as follows:
   a. Attach the plow to the tractor three-point linkage and raise it with the tractor hydraulic system. Remove the plow bottom attaching bolts from their shipping position in the beams.

b. Back the plow frame over the bottom assemblies and lower the frame until the holes in the plow beams align with the holes in the bottoms.

c. Attach the beams and bottoms with three bolts, lock washers, and nuts (2), Figure 27.
IMPORTANT: Before tightening the bolts, push down on the point of the share to remove any slack in the attaching holes. Be sure to install the beam stop, Figure 28.

ROLLING LANDSIDE INSTALLATION

1. Bolt the rolling landside arm to the sliding landside with two plow bolts, lock washers, and nuts (3), Figure 27. Do not tighten the nuts.

2. Raise the plow. Turn the set screw in the bottom of the rolling landside arm until the rolling landside is 3/8” to 1/2” below the sliding landside. Tighten the jam nut.

3. Tighten the plow bolts (3), Figure 27.
4. Set the scraper so it lightly touches the rolling landside.

**SLIDING LANDSIDE INSTALLATION**

Install the sliding landside assembly on the rear bottom with the two 5/8" flat washers and existing bolts, as shown in Figure 28.

**ATTACHING FOURTH BEAM CONVERSION KITS**

Fourth Beam Conversion Kits are available to convert three bottom plows to four bottoms. Accessories are available at extra cost.

Assemble and attach Fourth Beam Conversion Kits as follows:

Figures 30, 31, and 32 show top views of assembled 12", 14", and 16" four bottom plows. The bolts at (1), (2), (3), (4), (5), and (6), Figure 29, are removed in the conversion process. Re-use the bolts at (3), (5), and (6).

On plows already assembled, transfer the third bottom and rolling landside to the fourth beam. If installed, transfer the gauge wheel, Figures 30 through 32.

Attach the braces, spacers, and beam to the three bottom plow following the order indicated by the reference numbers in Figures 30, 31, and 32. Use the bolts, lock washers, and nuts listed next to the reference numbers. Be sure to position the large and small spacers as shown in the applicable top view.

**ATTACHING SEMI-MOUNTED CONVERSION KITS**

The Semi-Mounted Moldboard Plow Conversion Kit is designed to convert fully mounted three or four bottom plows to semi-mounted plows, Figure 33. Use the following procedure as a guide.

1. Detach the bolts at (1), (2), and (3), Figure 34, and remove the right-hand A-frame and the cross shaft.

![Figure 30 - 12" Plow](image-url)
Figure 33
Conversion Kit Installed

Figure 34
A - Frame and Cross Shaft

Figure 35
Strut and Chain Assembly Attached
8. Attach the support, Figure 30, by replacing the original bolt and using the 5/8\" - 18 x 4-1/2\" hex head bolt, lock washer, and nut.

9. Thread a 1/4\" x 1-3/8\" adapter (3), Figure 36, into the cylinder and attach the 90° elbow reducer (2). Thread the 104\" hose into the elbow.

10. Install the cylinder assembly, Figure 36, between the support and tail wheel assembly with drilled pins (1) and (4), and the hair pins included with the cylinder.

11. Clamp the hose to the long support rod as shown in Figure 33.

12. Attach the male coupling to the tractor end of the 104\" hose (3), Figure 35.

13. Attach the female coupling to the 16-3/4\" hose. Remove the plug from the tractor hydraulic manifold plate and thread the hose into the plate.

14. When the plow is ready for operation, connect the hoses at the couplings.

15. Bleed the remote cylinder as follows:

   a. Raise the plow to the lift position by means of the tractor lift control lever.

   b. Loosen the remote control hose slightly at the cylinder until air and/or oil can escape.

   c. Lower the plow to the ground with the lift control lever.

   d. Manually raise the transport wheel to be sure the remote cylinder is fully retracted and that no air remains in the cylinder.

   e. Tighten the remote control hose at the cylinder. Check and eliminate any oil leaks in the system.

**NOTE:** Check the tractor hydraulic oil level with the cylinder retracted. Add oil if required.

16. If air is still present in the system, proceed as follows:

   a. Disconnect the hose and remove the cylinder from the plow.
b. Expel all air from the remote control hoses by operating the tractor hydraulic lift control lever until a steady flow of oil comes from the end of the hose. The excess oil from the hose should be deposited in a clean container and later added to the hydraulic reservoir.

NOTE: Keep the end of the hose high or in a pan of oil so that no oil is lost.

c. Hand fill the cylinder with the cylinder in the extended position.

d. Reattach the hose to the cylinder making sure that no oil is lost during this operation.

e. Reassemble the cylinder on the plow.

GAUGE WHEEL INSTALLATION

A gauge wheel must be installed when using the plow with tractors not equipped with draft control.

THREE BOTTOM PLOWS

Attach the spacer and gauge wheel bracket to the front of the third beam with two 3/4” x 4-3/4” bolts, lock washers, and nuts, Figure 6.

ONE AND TWO BOTTOM PLOWS

Install the gauge wheel bracket and spacer on the rear of the plow with two 5/8” x 5” bolts, lock washers, and nuts. See Insert, Figure 6.

ECONOMY BOTTOMS

The objective of plowing is the preparation of a good seedbed and rootbed. Seedbed refers to the top inch or two of soil where the planted seeds germinate. Rootbed refers to the lower layer of plowed soil where the plant roots feed. In addition to making it possible to work up a good seedbed, good plowing produces a rootbed that is firm and well granulated.

To prepare a good seedbed and rootbed, there are several key factors to consider:

Figure 37
Line of Economy Bottoms

1. Avoid plowing in extremely wet, or dry, hard soil.

2. Use the type of bottom which performs best in the type of soil to be plowed.

3. Under normal speed and plowing conditions, plow at a depth within 50 to 60 per cent of the width of cut.

4. Avoid severe side draft and excessive wear on shares and moldboards by keeping the plow bottoms properly positioned in relation to furrow slices.

5. Regularly lubricate all grease fittings and maintain a polish on the moldboards. Periodically check the plow and make necessary adjustments.

6. Observe the action of the bottoms and regulate the speed of plowing accordingly.

7. Obtain good trash coverage by combining the proper speed, bottoms, and attachments, with a well adjusted plow. Some trash conditions may require special attention before plowing.

The following information is presented to assist in the selection of the proper plow bottom. Additional information can be supplied by your local Ford Tractor-Equipment Dealer. Three styles of economy bottoms with replaceable shares and shins are shown in Figure 37, and described below.
FORD PLOW BOTTOMS

STUBBLE

This bottom is designed for use in tough, hard-to-scour soils where good covering, pulverizing, and scouring are required.

SOD AND CLAY

The sod and clay bottom is designed for plowing heavy clay or stiff sod. The slow turning moldboard surface reduces pulverization and eliminates broken furrow slices. It is not recommended in areas where large rocks or other obstructions are prevalent.

GENERAL PURPOSE

The general purpose bottom has a slow turning action designed to function under a variety of conditions in stalks, stubble, and sod.

QUALITY CARE

Your Ford Tractor—Equipment Dealer's "Quality Care" Service Center is equipped, staffed, and stocked to better serve you. "Quality Care" service is a good investment for longer tractor life and more efficient operation from your equipment.
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