



**LIFT
TYPE**

DEARBORN REVERSIBLE

BUSH & BOG HARROW



MODELS 11-34 AND 11-36



ASSEMBLY and OPERATING

Instructions

DEARBORN MOTORS CORPORATION — DETROIT 3, MICHIGAN

DESCRIPTION

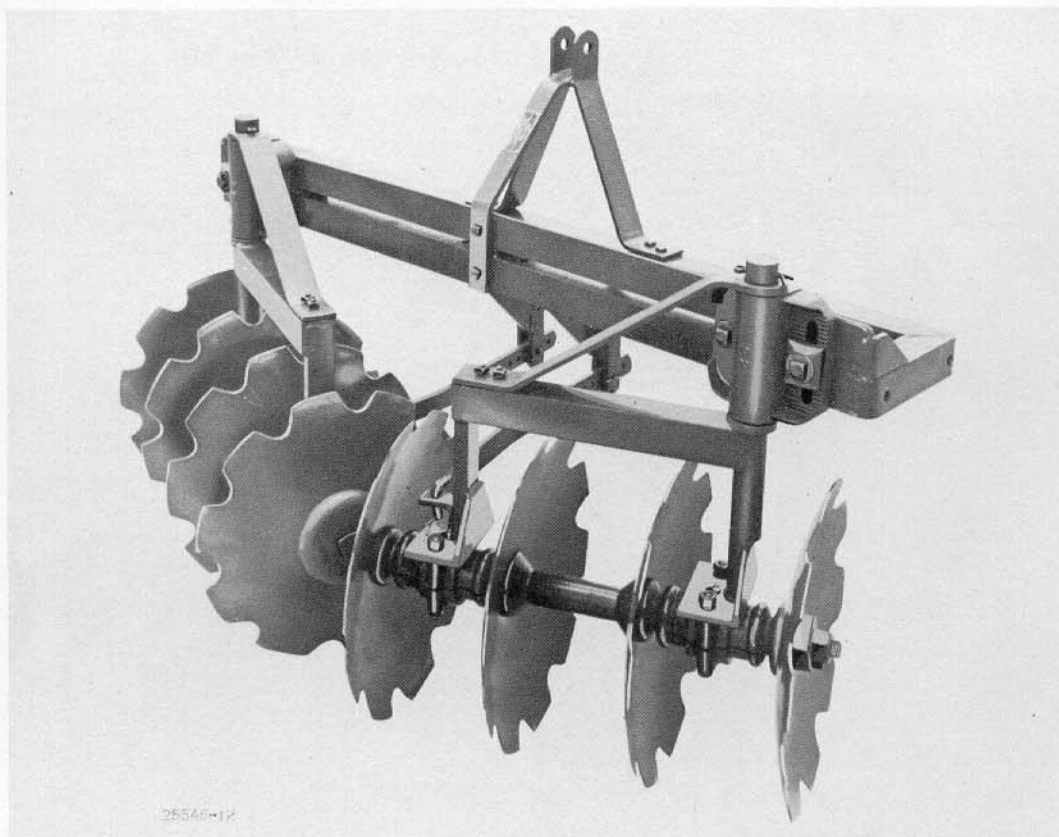


Figure 1

Dearborn Lift Type Bush and Bog Harrow (Model 11-34)

The Dearborn Reversible Bush and Bog Harrow pictured above is a field tested, heavy duty implement designed especially for use with the Ford Tractor. It is built in accordance with the high quality manufacturing standard required of all implements in the Dearborn Farm Equipment line.

The frame is of extra heavy steel angle and channel electrically welded and engineered to accommodate either 20 or 22 inch scalloped (notched) disc blades with $9\frac{1}{8}$ inch spacing. The bearing spools and boxes are made of fine grain white iron, individually ground and matched, and mounted on forged steel gang bolts. Bearings are equipped with grease gun lubrication fittings.

The heavy duty disc blades are made of heat-treated, high carbon steel to give maximum

wear and shock resistance. They are scalloped (notched) to assure efficient cutting of trash and stubble. The discs have a working depth of about seven inches.

The disc gangs are easily adjusted to "throw out" (conventional position) or to "throw in" (reversed position). With the gangs in the reversed position, the implement will build beds in row widths from 40 to 72 inches. The working width, with the gangs in the conventional position, is 62 inches at maximum angle.

This implement is available in two models. The models differ only in the diameter of the disc blades. Model 11-34 has twenty inch blades; Model 11-36 has twenty-two inch blades. Both models are assembled and adjusted in the same manner.

ASSEMBLY

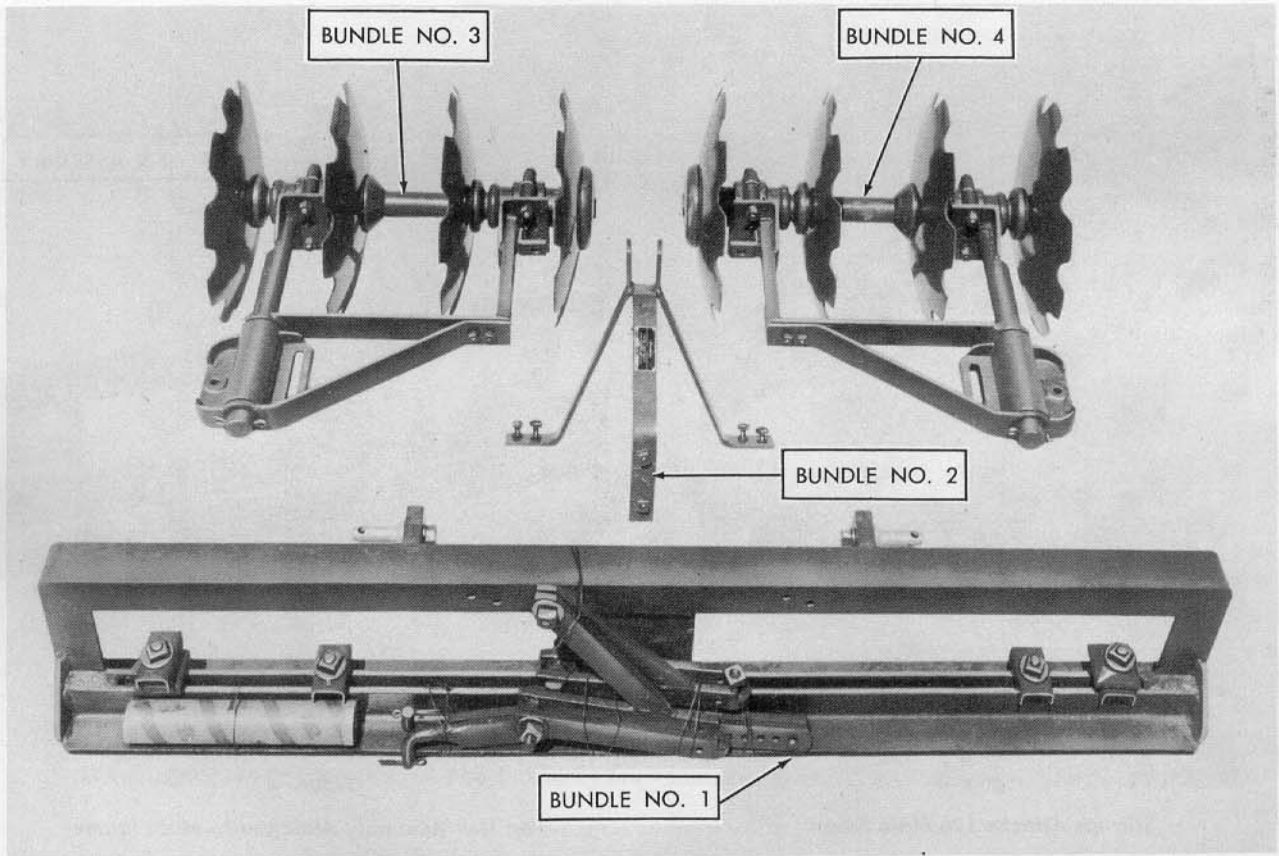


Figure 2

Implement Bundled for Shipment

NOTE: *The assembly of the Dearborn Reversible Bush and Bog Harrow is the responsibility of the Dearborn Farm Equipment dealer. The implement should be delivered completely assembled. The following instructions are provided in case of need.*

BUNDLE INFORMATION

The Dearborn Reversible Bush and Bog Harrow is shipped in four bundles as shown in Figure 2. Check shipment against the following list and Figure 2, to make sure all parts are received.

Bundle No. 1

Main frame assembly; two adjusting link arms; two stirrups; four saddle trunnion bolts; two long saddle bolt guides; two

short saddle bolt guides; two saddle locks and the instruction manual tube.

Bundle No. 2

Top link bracket assembly.

Bundle No. 3

Right disc gang assembly.

Bundle No. 4

Left disc gang assembly.

ASSEMBLY

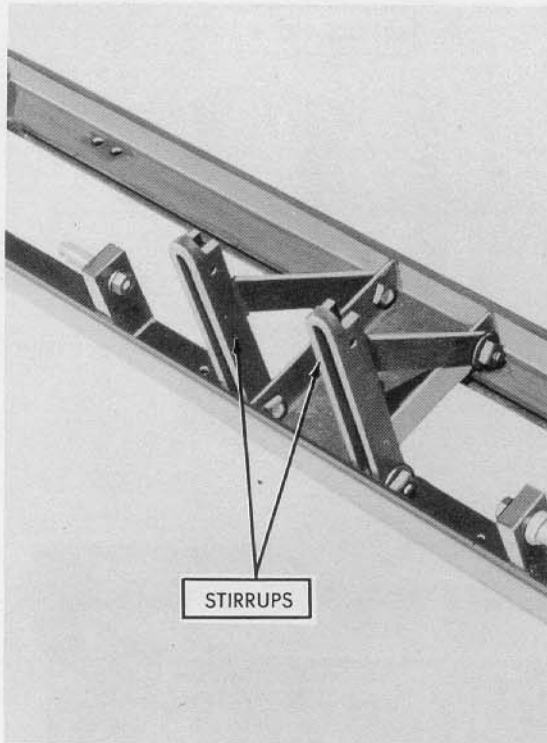


Figure 3

Stirrups Attached to Main Frame

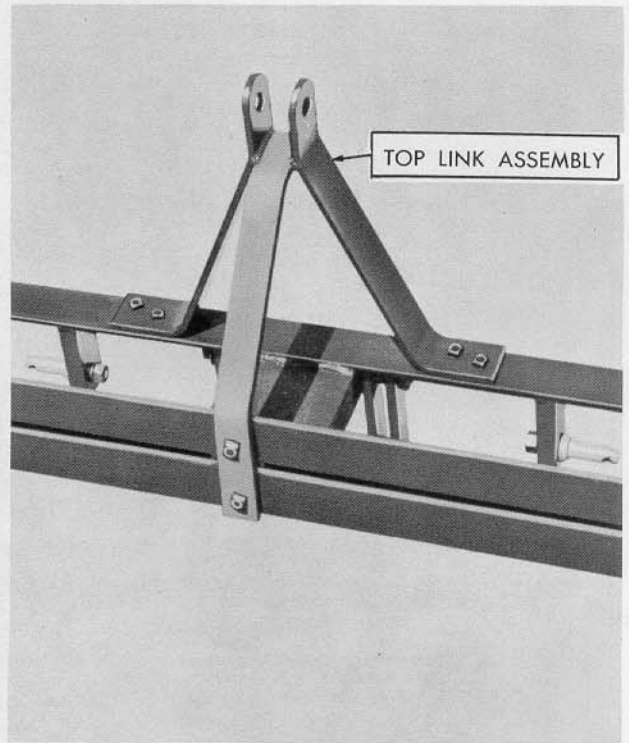


Figure 4

Top Link Assembly Attached to Main Frame

ASSEMBLY PROCEDURE

1. Cut and remove wires from Bundle No. 1, Figure 2, and remove the four saddle trunnion bolts from the main frame. These bolts, together with the bolt guides, are secured in the slot between the two heavy angle members of the main frame. See Figure 2.
2. Invert the main frame and attach the stirrups with the braces to the inside. Secure the stirrups with the four bolts provided, as shown in Figure 3.

3. Place the main frame upright and attach the top link assembly, as shown in Figure 4 with the six bolts provided.

NOTE: To simplify attaching the disc gangs to the main frame, it is recommended that the tractor be used to support the frame.

4. Attach the main frame assembly to the tractor as shown in Figure 5. Attach the tractor lower left and right hand links to link pins of the implement and secure with lynch pins. Attach tractor top link to top of link assembly and to tractor main control spring yoke. Secure with lynch pins.

ASSEMBLY

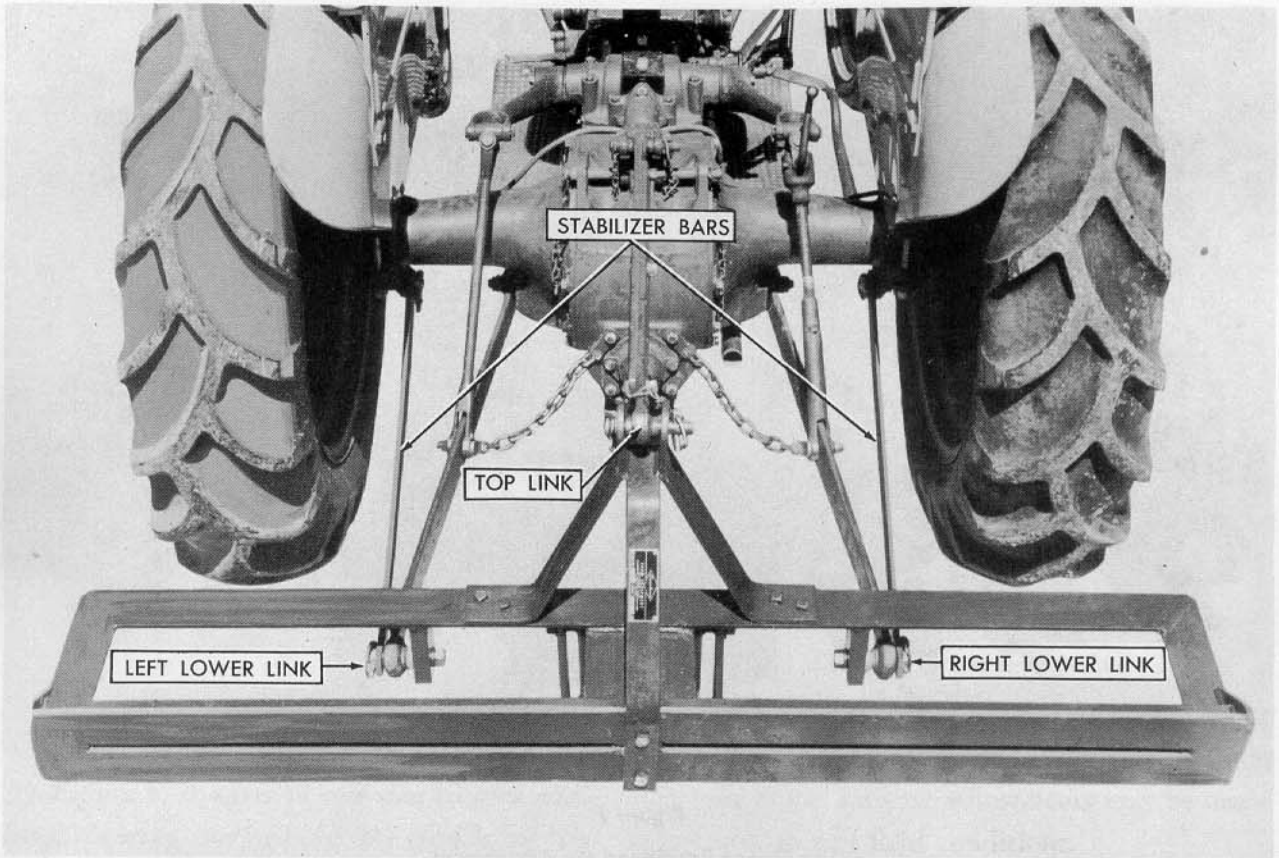


Figure 5

Main Frame Attached to Tractor

(Stabilizer Bars May Be Used in Certain Operations as Explained Below)

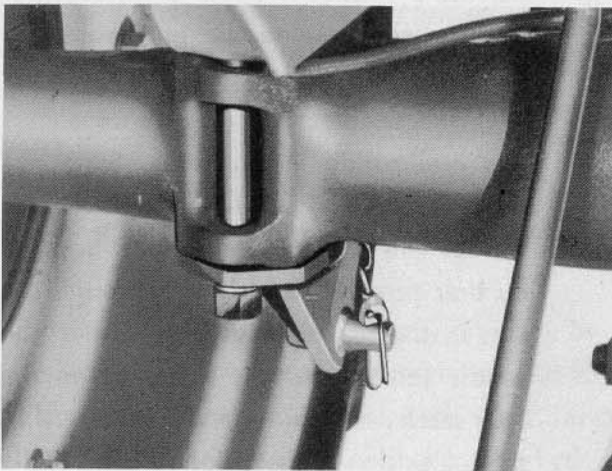


Figure 6

Stabilizer Bracket Attached to Tractor Rear Axle

NOTE: Stabilizer Bars may be used in precision operations such as ditching and building ridges or beds. If the implement is to be used for such work, stabilizer bars may be attached at this time. Stabilizer bars are extra equipment and are available at extra cost from your Dearborn Farm Equipment dealer and are attached as follows:

- a. Remove nuts from fender bolts.
- b. Attach stabilizer brackets as shown in Figure 6. Secure with lockwashers and nuts.

ASSEMBLY

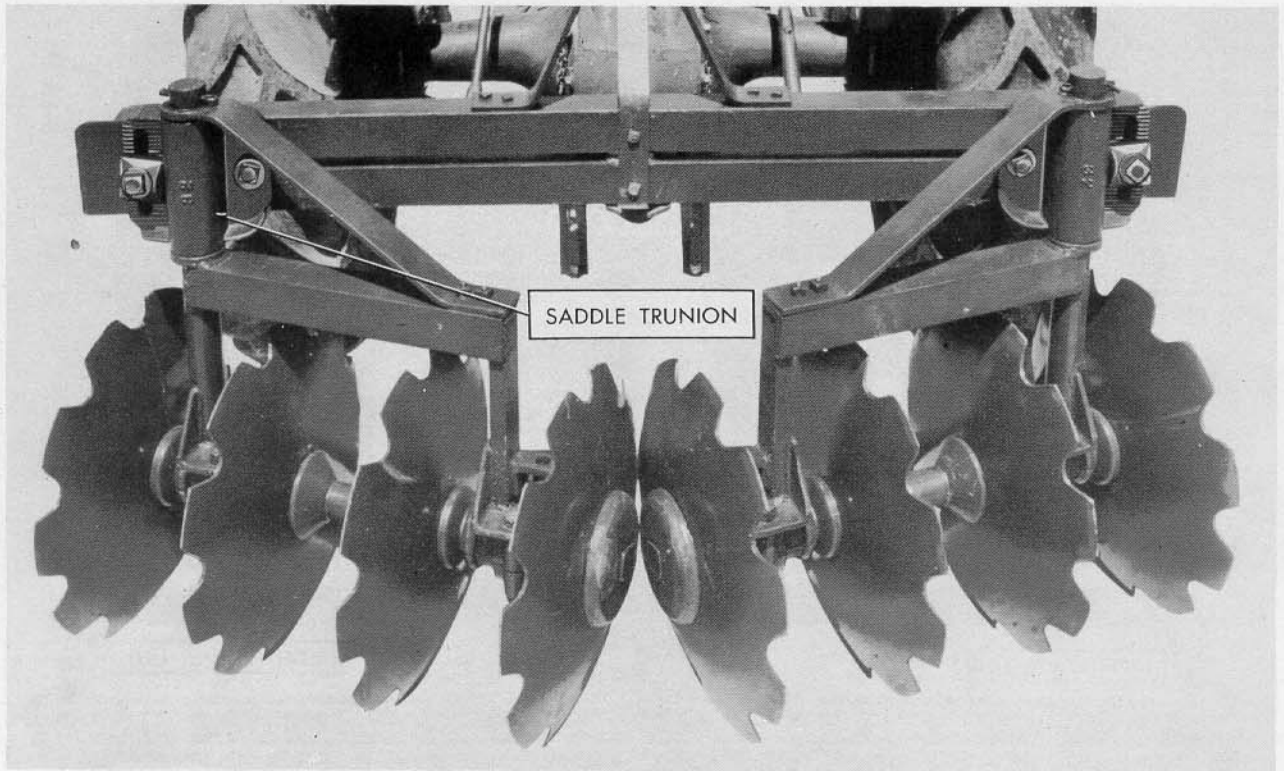


Figure 7

Disc Gangs Positioned for Attachment

5. Attach gang assemblies to the main frame.
 - a. Start the tractor and raise the main frame with the Ford Hydraulic Touch Control until there is adequate clearance to attach the gang assemblies to the main frame.
 - b. Roll the right and left gang assemblies into their respective position as shown in Figure 7. The gang assemblies are marked right (R) and left (L) on top of the swivel shaft.
 - c. Attach a saddle trunnion (1), Figure 8, to each end of the main frame by placing

a pivot bolt (2) through the hole in the trunnion and the slot in the main frame. Be sure a washer is under the bolt head. Position the long saddle bolt guide on the pivot bolt (2) so that the guide fits over the saddle rail. (Figure 16 shows this bolt guide in position). Start nut on bolt and tighten finger tight. Place washer and the serrated saddle lock (3) on bolt provided and insert through the slot in the trunnion and the slot in the saddle rail so that the serrations in the lock mesh with those in the saddle trunnion. Position a short bolt guide on the bolt and over the rail. Tighten nut finger tight.

ASSEMBLY

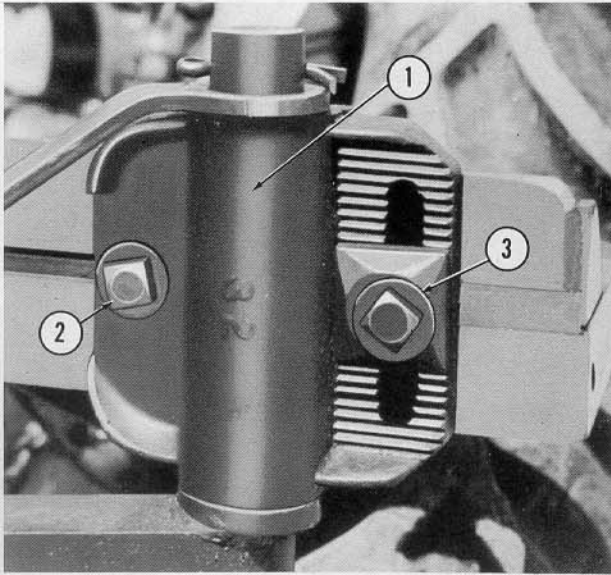


Figure 8
Saddle Trunnion Attached

NOTE 1: *The hole in the serrated saddle lock (3), Figure 8, is offset to one side to give additional bearing surface on the inside of the saddle trunnion casting. Place the serrated saddle lock on the saddle trunnion so that the teeth will engage and the offset hole is to the outside of the casting. See Figure 8. If the saddle lock is in the wrong position it will overhang the saddle trunnion casting.*

NOTE 2: *The short saddle bolt guide used with the saddle lock also has an offset hole. Position it so that the hole is to the outside.*

6. Attach the adjusting link arms, Figure 9 by placing the hook in the brackets welded to the gang frame, as shown. Secure the forward end in the stirrups with a pin and cotter pin as shown in Figure 9. When fastening the adjusting link arms to the stirrups,

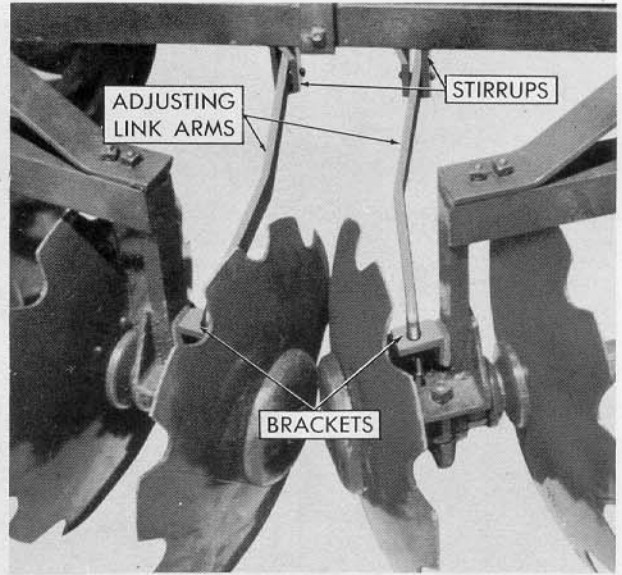


Figure 9
Adjusting Link Arms Attached

place the pin through the third hole from the front. Further adjustments may be made later to suit field conditions.

7. Move the discs gangs together so that the large washers (bumpers) touch each other.
8. Secure the disc gangs in a level position (all discs touching the ground) by lowering the main frame as far as possible with the Ford Hydraulic Touch Control lever. This action should place the serrated washer on each trunnion in approximately the same position. Tighten the nuts on the bolts holding the trunnion to the main frame, securely.
9. Lubricate the bearings of the disc gangs with a good grade of grease gun lubricant. See Page 13 for information on lubrication.

ATTACHING AND DETACHING

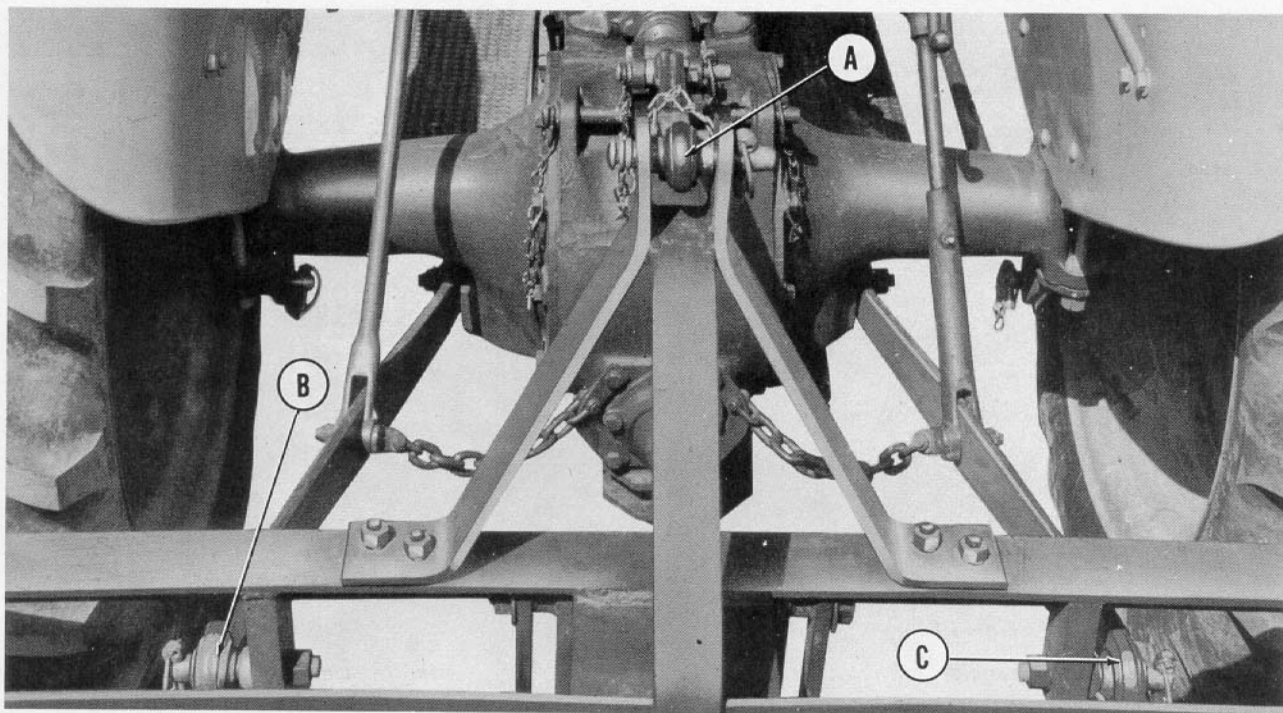


Figure 10

Disc Harrow Attached to Ford Tractor

ATTACHING HARROW TO TRACTOR

1. Back the tractor into position.
2. Attach the tractor lower left link (B), Figure 10 and lower right link (C) to the harrow. Secure with linch pins.
3. Attach the tractor top link (A) to the disc top link assembly and to the tractor main control spring yoke. Secure with linch pins.

DETACHING HARROW FROM TRACTOR

1. Lower the implement to the ground.
2. Disconnect the top link.
3. Disconnect the right and left lower links.

CAUTION: Be sure the harrow is completely disconnected before attempting to move the tractor.

OPERATION



Figure 11

Breaking Sod with the Bush and Bog Harrow

The Dearborn Lift Type Reversible Bush and Bog Disc Harrow is a versatile and easily operated implement. When once set to perform a specific operation, it requires little or no further adjustment.

With the gangs in conventional position, this implement does outstanding work in preparing seed beds, mulching in cover crop, trash or stubble, and leveling old rows and beds. With the gangs in reversed position, the implement works efficiently in building new rows and beds. Sufficient vertical adjustment is provided to do an excellent job of ditching and ditch cleaning. It also works well in making and maintaining fire control lanes.

The "lift" feature of the harrow makes it easy

to turn at the end of the field, permits crossing grass waterways without disturbing the sod and protects the cutting edge of the discs when transporting the implement to and from the field.

The heavy duty disc blades are scalloped (notched) to give better penetration in hard or trash covered ground and to assure positive trash cutting action.

When properly adjusted and operated at the correct speed, the Bush and Bog Disc Harrow performs well. The following material concerning specific operations, adjustments, lubrication and maintenance is provided to aid the operator in getting maximum use from this implement. Read the material carefully.

OPERATION



Figure 12

Ditching with the Bush and Bog Harrow

SPECIFIC OPERATIONS

Breaking Ground: The Dearborn Reversible Bush and Bog Harrow does an outstanding job of breaking sod land and stubble or trash covered ground. See Figure 11. The scalloped (notched) disc blades assure positive trash cutting action and aid in getting good penetration.

The implement does its best work when used for breaking ground if it is operated at a relatively high tractor speed.

To prepare the implement for this operation, angle the gangs well back and set the gangs level. See information on Page 11 for making these adjustments.

Ditching: The Reversible Bush and Bog Harrow is well suited for making shallow ditches (see Figure 12) and for cleaning such ditches. To prepare the implement for this operation, angle the gangs well back and set the gangs at maximum vertical angle. See information on Page 11 for making these adjustments. For ditching, the tractor should be driven at a relatively high speed. The ditch can be deepened by going over it several times.

Ridging: The Dearborn Reversible Bush and Bog Harrow performs efficiently in building ridges for irrigation checks and dams and for making beds for listed crops in row widths from 40 to 72 inches.

OPERATION



Figure 13

Ridging with the Bush and Bog Harrow



Figure 14

Ridging—Inside Discs Removed

The disc is set up for ridging by reversing the gangs as explained on Pages 11 and 12 under adjustments. If higher ridges are desired, the inside disc of each gang may be removed as explained in adjustments Page 12. Figure 14 shows the implement being used with the inside discs removed.

When narrow ridges are desired, both the inside and outside disc of each gang may be removed. See information on adjustments Page 13. When the implement is to be used for narrow ridging it is advisable to set the rear tractor wheels in, to 48 inches. Figure 13 shows disc set in ridging position with all discs in place.

OPERATION



Figure 15
Breaking Ridges

Breaking Ridges: The Dearborn Reversible Bush and Bog Harrow works well in leveling listed fields and temporary irrigation ditches such as are used where flood type irrigation is practiced.

For breaking ridges, the disc gangs are set in the conventional operating position as shown in Figure 15. The gangs should be set so they are level, and angled back toward maximum angle. Drive the tractor straddle of the ridge at a fairly high speed.

ADJUSTMENTS

The Dearborn Lift Type Reversible Bush and Bog Harrow is designed so that several "easy-to-make" adjustments will ready the implement for performing a variety of jobs as explained above.

Gang Angle Adjustment: The gangs are angled toward or away from the main frame by adjusting the setting of the link arms in the

stirrups. See Figure 16. Place the stirrup pin through the hole in the link arm that will give the desired gang angle setting. Secure pin with cotter pin. When the link arm is attached to the stirrup with the pin in the forward hole, the gangs are set to the maximum angle. With the pin in the rear hole, the minimum gang angle is obtained.

The stirrup pin should be placed through the same hole in both link arms so that both the gangs will be angled the same.

In making this adjustment it will be necessary to move the saddle trunnion inward or out sufficiently to keep the hub washers (bumpers) together. Be sure to keep the gangs centered on the main frame.

Vertical Angle Adjustment: The ends of the gangs may be set at or above or below horizontal by means of the serrated saddle lock.

To adjust the vertical angle of the gangs, first raise the implement to transport position. Then loosen the nut on the saddle pivot bolt and on

OPERATION

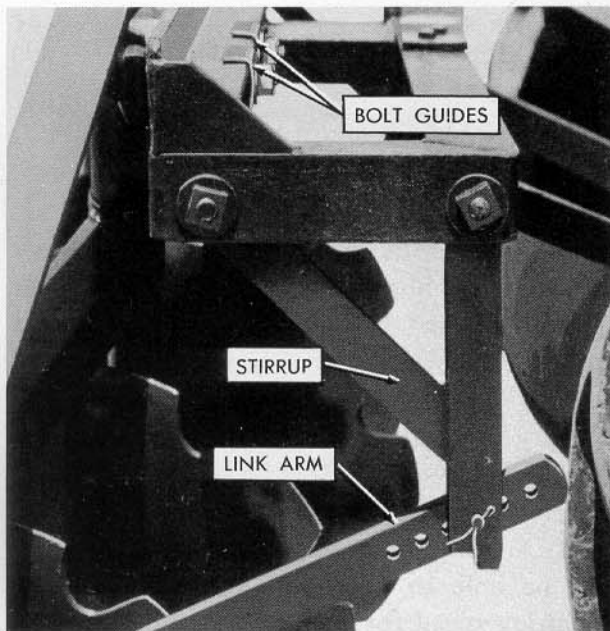


Figure 16

Stirrup Attached to End of Main Frame

the saddle lock bolt (see Figure 17) of each gang, raise or lower the end of the gang to desired vertical angle and then tighten the nuts securely. Set both gangs at the same angle. Be sure the gangs are centered on the main frame.

Reversing Disc Gangs: To reverse the disc gangs proceed as follows:

1. Remove the link arms from the stirrups and unhook them from the gang assemblies.
2. Swing the gang assemblies outward pivoting them around the gang swivel shaft to the position shown in Figure 17.
3. Remove the stirrups from the center of the main frame and bolt the LEFT hand stirrup on the RIGHT end of the main frame and the RIGHT hand stirrup on the LEFT end of the main frame. See Figure 16.
4. Loosen the nut on the pivot bolts and the saddle lock bolts and roll the gang assem-

blies toward the center of the main frame sliding the trunnion along in the saddle rail slot toward the center of the main frame. Center the gangs on the main frame.

5. Raise the implement to transport position and allow the saddle trunnions to pivot until the gangs are angled to the desired vertical angle.
6. Hook the adjusting link arm in the welded bracket on the gang assembly and attach to the stirrup with pin and cotter pin after setting gang to the desired angle. Set both gangs at the same angle.
7. Be sure the gang assemblies are centered on the main frame and that all bolts are tightened securely.

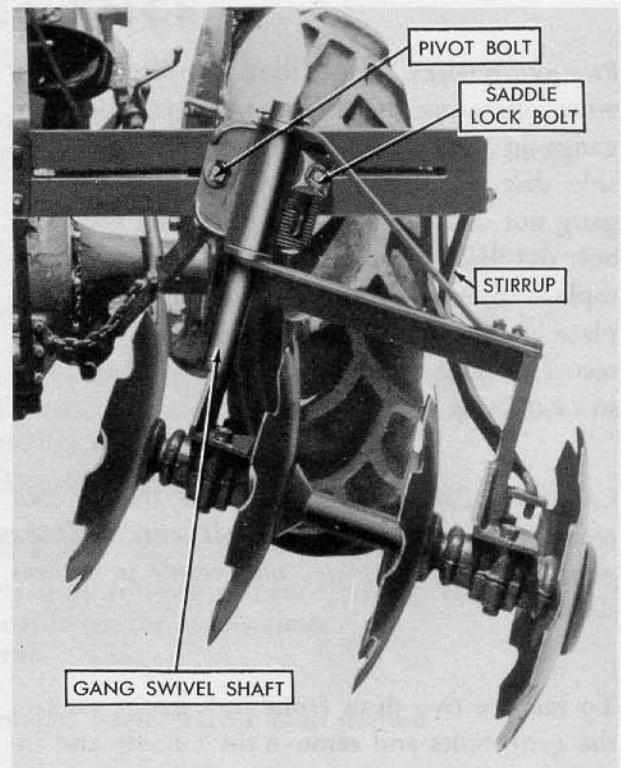


Figure 17

Gang Set in Reverse Position

OPERATION

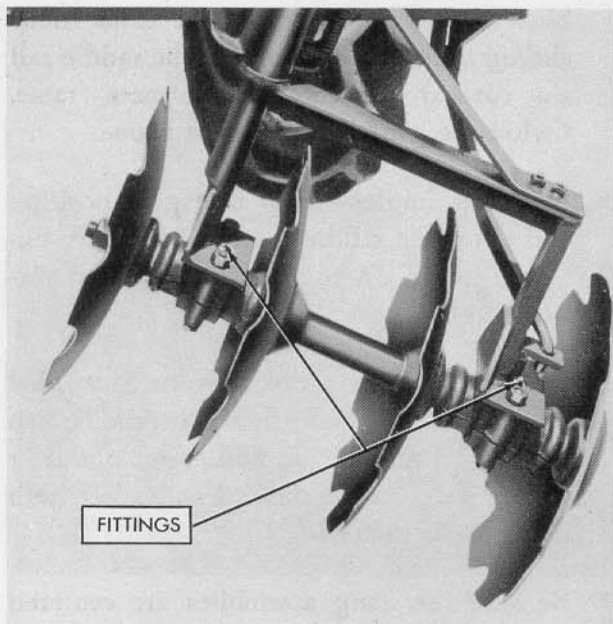


Figure 18

Lubrication Fittings

Removing Discs: Discs should be removed only when operating the disc as a ridger. With the gangs in the reverse position, remove the inside disc of each gang by straightening the gang nut locking plate and removing the gang bolt nut and washer. After removing the discs replace the gang washer, the gang nut locking plate and the gang bolt nuts. Tighten the nuts securely and bend gang nut locking plate down so as to hold the nuts.

CAUTION: *Failure to replace the washer and securely tighten the gang bolt nuts and the gang nut locking plates will result in serious damage.*

To remove two discs from each gang: remove the gang bolts and remove the outside and inside discs from each gang. Replace gang bolts, washers and gang bolt nut locking plates and nuts. Securely tighten the nuts.

CAUTION: *Always remove the same number of discs from each gang.*

TRACTOR SPEED

It is recommended that the tractor be operated at a relatively high speed when using the Bush and Bog Harrow. The exact speed will depend upon the various operations performed by the implement, the soil conditions and terrain. When performing such operations as ditching, ridging or leveling beds, the higher the speed the greater the "throwing" action of the implement. With a little experience, the operator will be able to determine the most efficient operating speed for a given operation.

LUBRICATION

Each of the four disc gang bearings are equipped with a grease gun fitting. Grease the bearings thoroughly with a good grade of lubricant before taking the new implement into the field and at least twice daily when operating the harrow. Wipe the fittings clean before greasing to prevent forcing dirt and grit into the bearings.

TRANSPORTING THE HARROW

The Dearborn Reversible Bush and Bog Harrow is easily lifted to transport position with the Ford Hydraulic Touch Control lever for turning at the ends of the field or for transporting the harrow to and from the field.

When the implement is in transport position the discs clear the ground approximately ten inches with the gangs in the conventional setting.

OPERATION



Figure 19

Harrow in Transport Position

MAINTENANCE

1. Keep all bolts and nuts tightened securely. Special attention in this respect, should be given the implement when it is new.
2. Keep the disc blades sharp so that the Dearborn Bush and Bog Harrow will continue to give good service. Sharp disc blades help assure good penetration and positive trash cutting action.
3. Keep bearings well lubricated.
4. Use touch-up paint where necessary on painted surfaces to prevent rust and maintain appearance of the implement.
5. Store the harrow in a dry place between operating seasons and coat non-painted surfaces with a good grade of rust preventive.
6. The Dearborn Farm Equipment dealer carries a complete stock of genuine Ford Tractor and Dearborn Equipment Repair Parts. These parts are precision manufactured and inspected, thus assuring high quality and accurate fit.

Insist on genuine Ford Tractor and Dearborn Equipment Repair Parts.

SAFETY

Most farm implement accidents can be prevented by following these simple precautions.

1. Do not permit anyone but the operator to ride tractor at any time.
2. Do not permit anyone to ride on implement.
3. Do not leave tractor while it is in motion.
4. Do not make tractor or implement adjustments when tractor is in motion.
5. Shut off engine before leaving tractor.
6. Keep tractor keys where they are not available to children when tractor is in the farmyard.