



FERGUSON
LIFT-TYPE
TANDEM
DISC HARROW
A-BO-22
and
A-BO-32



OPERATING
and **ASSEMBLY**
INSTRUCTIONS



HARRY FERGUSON, INC.

DETROIT, MICH.

www.netractorclub.com

INDEX

	Page
Introduction	1
Lubrication	2
Adjustments	
Angle of Cut	2
Scrapers	3
Weight Box	3
Models Available	3
Model Differences	4
Maintenance	4
Assembly Instructions	4
Accessories	9

HARRY FERGUSON, INC. • DETROIT, MICHIGAN

All specifications are subject to change without notice.

Owner's Name _____

Your Ferguson Dealer _____

Dealer Address _____ Phone _____

Disc Harrow Serial No. _____

Located on Name Plate as shown on Opposite Page

FERGUSON

LIFT-TYPE TANDEM DISC HARROW

A-BO-22

The new A-BO-22 Ferguson Tandem Disc Harrow is a lift-type, tractor-mounted implement designed to meet the many demands from the field for a harrow embodying automatic draft control. It attaches to the three-point linkage of the Ferguson System in one minute or less. The harrow can be raised for transport to and from the field, for turning at the ends and in small plots, and to provide draft relief when traversing soft spots and grass waterways. When the harrow is lowered for operation, the Ferguson System provides automatic draft control.

This implement is primarily designed for seedbed preparation and for such general farm tillage as summer fallowing, pasture renovation, mulching of stubble, soybean fodder and corn-stalks, and for many other ground preparation practices.

Included in this manual is information on lubrication, operation, adjustments, service and maintenance, assembly instructions and numerous illustrations of the Ferguson Disc Harrow.

Read, study and follow these instructions to get longer life, maximum performance and the utmost satisfaction from your new implement.

Only GENUINE FERGUSON REPAIR PARTS should be used on your FERGUSON DISC HARROW. Those parts are designed and built to fit correctly and give maximum service. These may be purchased from your AUTHORIZED FERGUSON DEALER.

All FERGUSON equipment is identified by a FERGUSON name plate. If this name plate is not attached, it is not FERGUSON equipment. Check for the name plate before purchasing the equipment. This name plate, shown below, also supplies the serial number, which should be noted when ordering parts.



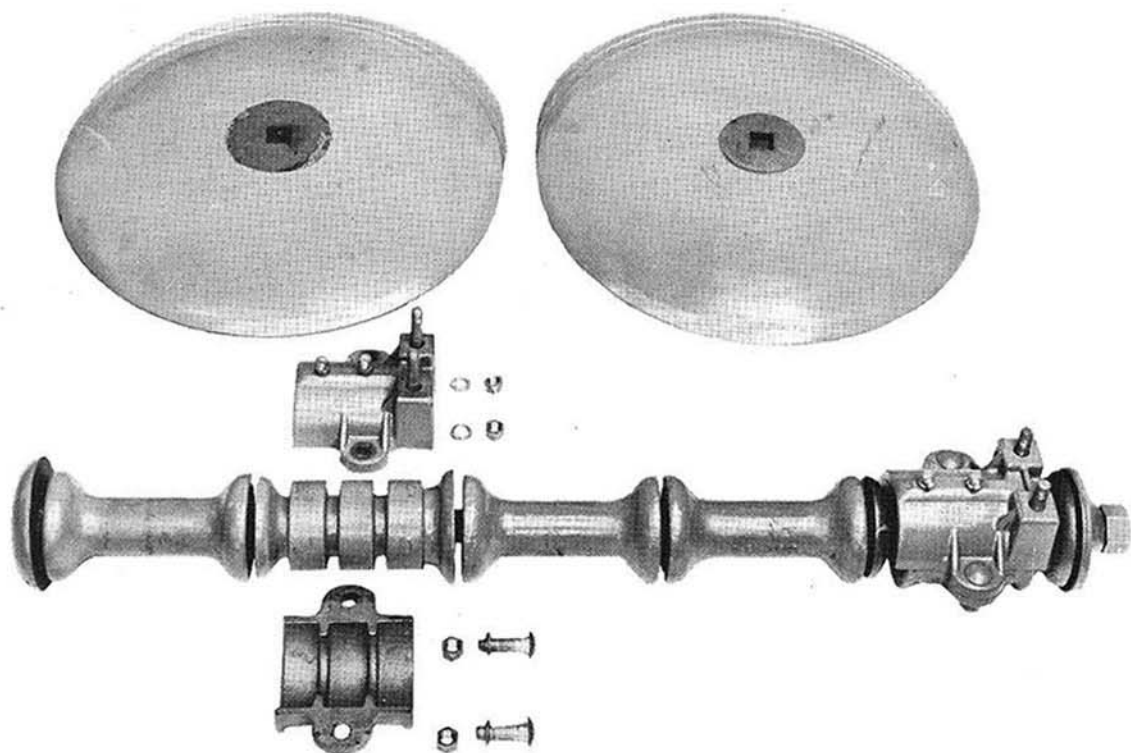


Fig. 2

SCRAPERS

The scraper assemblies can be moved to the right or to the left as a complete assembly. Loosen the bolts that connect the scrapers to the scraper supports and slide the assembly toward the discs until one of the scrapers is just flush with the disc. Then adjust each scraper to its respective disc by sliding the scraper on the scraper bar. A periodic check should be made to maintain proper adjustment.

CAUTION: Never operate the harrow without the scraper bars bolted tightly in place. The scraper blades may be removed, but operating without the bars will cause excessive wear and damage to the bearings.

WEIGHT BOX

The weight box is located ahead of the lower link pins. In this location, weight added gives greater penetration of the discs and has less tendency to lighten the front end of the tractor when the harrow is in transport position. It also assists draft control by counterbalancing the disc around the lower link pins to add pressure against the top link while operating.

MODELS AVAILABLE

The Disc Harrow is available in eleven models, all having the same frame assemblies. The models differ in width of cut and in size and style of

discs. Cutaway discs are provided on the front gangs of some models for use in cultivating pastures and meadows and for preparing soils

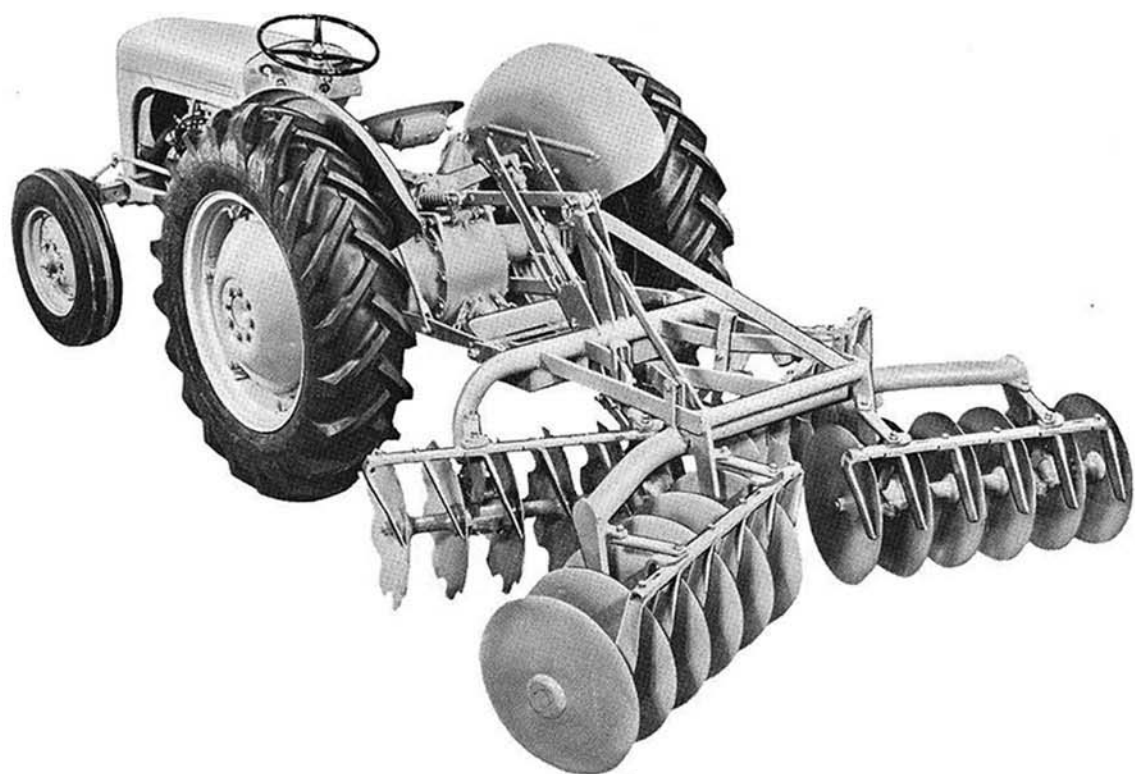


Fig. 1

LUBRICATION

Extreme care must be taken in the proper lubrication of the Disc Harrow, as all bearings are subjected to great pressures while operating. Proper lubrication will mean considerable savings in labor and expense required to replace worn bearing journals.

The bearing spools and boxes shown in Fig. 2

are made of a very hard, long-wearing metal designed especially for this purpose. Two grease fittings are installed in the upper half of the bearing so that they point toward the rear. These fittings should be lubricated every four hours of operation by pumping grease into them with a pressure gun until fresh grease appears around the ends of the bearing boxes.

ADJUSTMENTS

ANGLE OF CUT

Front and rear gangs are separately adjustable by the two levers on the front of the Disc Harrow. Both levers are within easy reach of the tractor operator. Six notches are available to set the

control levers, each notch representing approximately 4° of angling. When the levers are vertical, the gangs are straight; when the levers are in the forward notch, the gangs angle approximately 20° .

FERGUSON A-BO-22 DISC HARROW

which are extremely difficult to penetrate. The sharp corners of the disc notches cut the trash

and penetrate easier than the round discs.

Model No.	Size	Front Gang	Rear Gang
1A-BO-22	7' cut	12-16" Round Discs	12-16" Round Discs
3A-BO-22	7' cut	12-16" Cutaway Discs	12-16" Round Discs
4A-BO-22	7' cut	12-18" Round Discs	12-18" Round Discs
6A-BO-22	7' cut	12-18" Cutaway Discs	12-18" Round Discs
11A-BO-22	8' cut	14-16" Round Discs	14-16" Round Discs
13A-BO-22	8' cut	14-16" Cutaway Discs	14-16" Round Discs
14A-BO-22	8' cut	14-18" Round Discs	14-18" Round Discs
16A-BO-22	8' cut	14-18" Cutaway Discs	14-18" Round Discs
3A-BO-32	(same as 3A-BO-22 less scrapers)		
6A-BO-32	(same as 6A-BO-22 less scrapers)		
13A-BO-32	(same as 13A-BO-22 less scrapers)		

MODEL DIFFERENCES

All A-BO-32 models are without scrapers. The differences between the 7' and 8' widths are listed below:

1. The gang bolts for the 7' harrows are 35-3/4" long. The 8' harrows use gang bolts which are 42-1/4" long. On each model, the bolts for all four gangs are identical.

2. The 8' models have an additional spacer

spool, disc and scraper per gang, over the 7' models.

3. The 8' model scraper assemblies are 6-1/2" longer than the 7' model assemblies.

NOTE: Interference between disc blades and tractor tires will occur on the 8' models when: the tractor is equipped with 11" tires, the harrow is set at maximum angle, the wheels are set at 64" or wider and 16" blades are used or when the wheels are set at 60" or wider and 18" blades are used.

MAINTENANCE

1. Maintain the discs in a sharpened condition at all times. The performance of the disc harrow is chiefly controlled by the angle of cut and the condition of the cutting edge of the discs.

2. Inspect all bearings before each season's operation. Replace all worn bearings.

3. Follow lubrication instructions closely. Disc harrow bearings are subjected to great strain and must be kept well lubricated to maintain long life.

4. At the end of each season, the discs should be thoroughly cleaned and coated with a light grease. Store on a hard surface floor or place boards under each gang of discs.

ASSEMBLY INSTRUCTIONS

With the exception of the gang assemblies, the Disc Harrow is shipped disassembled. For the easiest and most rapid method of assembly,

follow the steps outlined below. The numbers on the photographs correspond with numbers in the assembly instructions.

FERGUSON A-BO-22 DISC HARROW

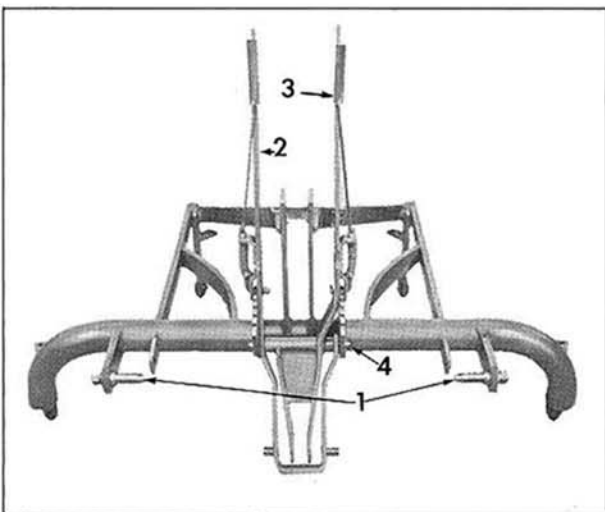


Fig. 3

1. Insert link pins, flat washers and lock-washers in main frame.

2. Hold the lever assembly for front gangs in place on main frame assembly.

3. Hold the lever assembly for the rear gangs in place on main frame assembly.

4. Fasten both levers in place with a $\frac{3}{4}$ " x $8\text{-}\frac{5}{8}$ " lever pin and cotter pins.

5. Set lower tractor links in level position by means of leveling crank. Attach lower links to link pins. Connect top link to implement.

6. Place L.H. and R.H. draft link assembly on main frame. Bolt in place, using $\frac{7}{16}$ " x $2\text{-}\frac{1}{2}$ " bolt, placing the $1\text{-}\frac{3}{8}$ " diameter bumper spacer in the draft link assembly.

7. Pin forward part of draft link assemblies on front gang lever assembly. Lock into position with flat washers and cotter pins.

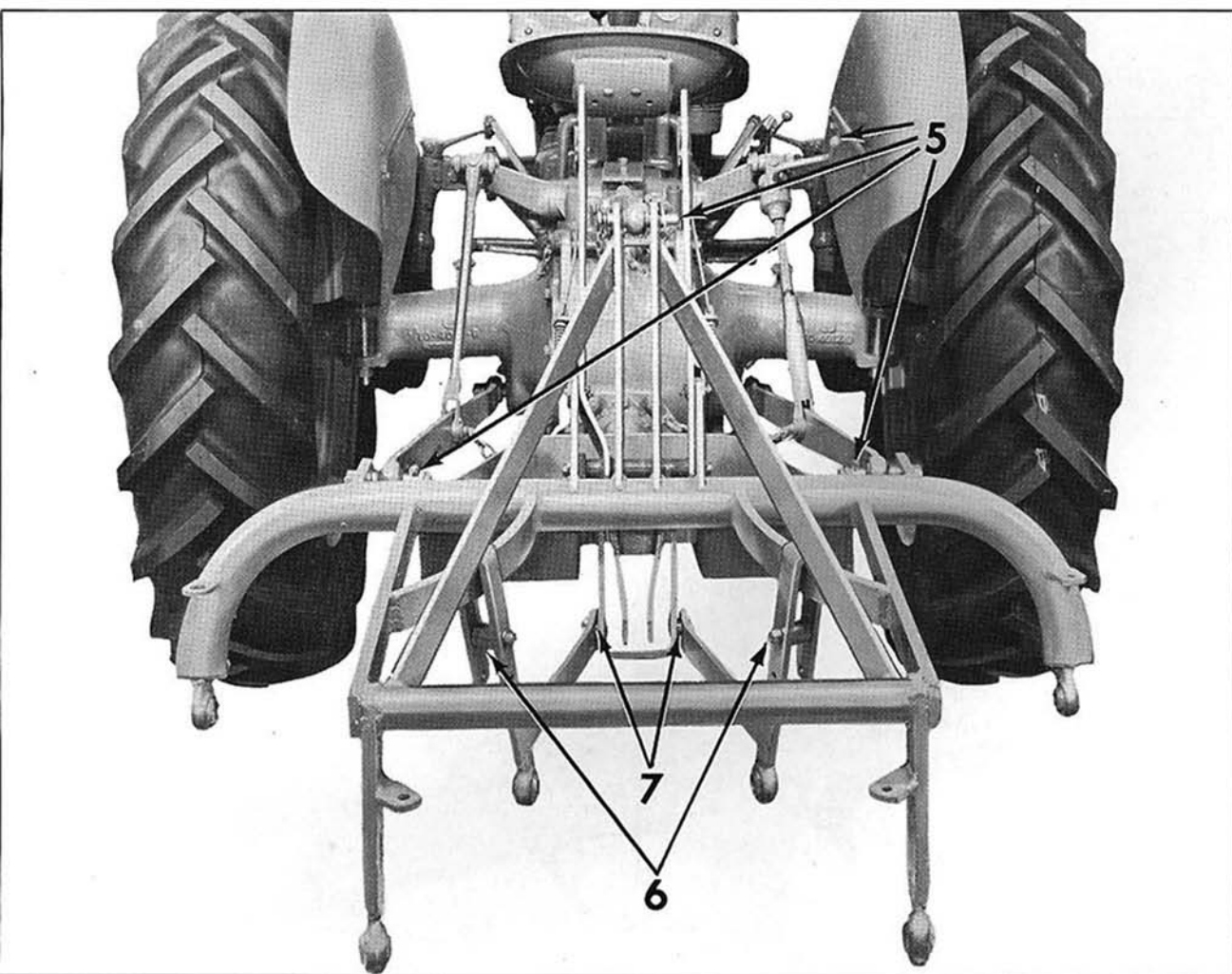


Fig. 4

FERGUSON A-BO-22 DISC HARROW

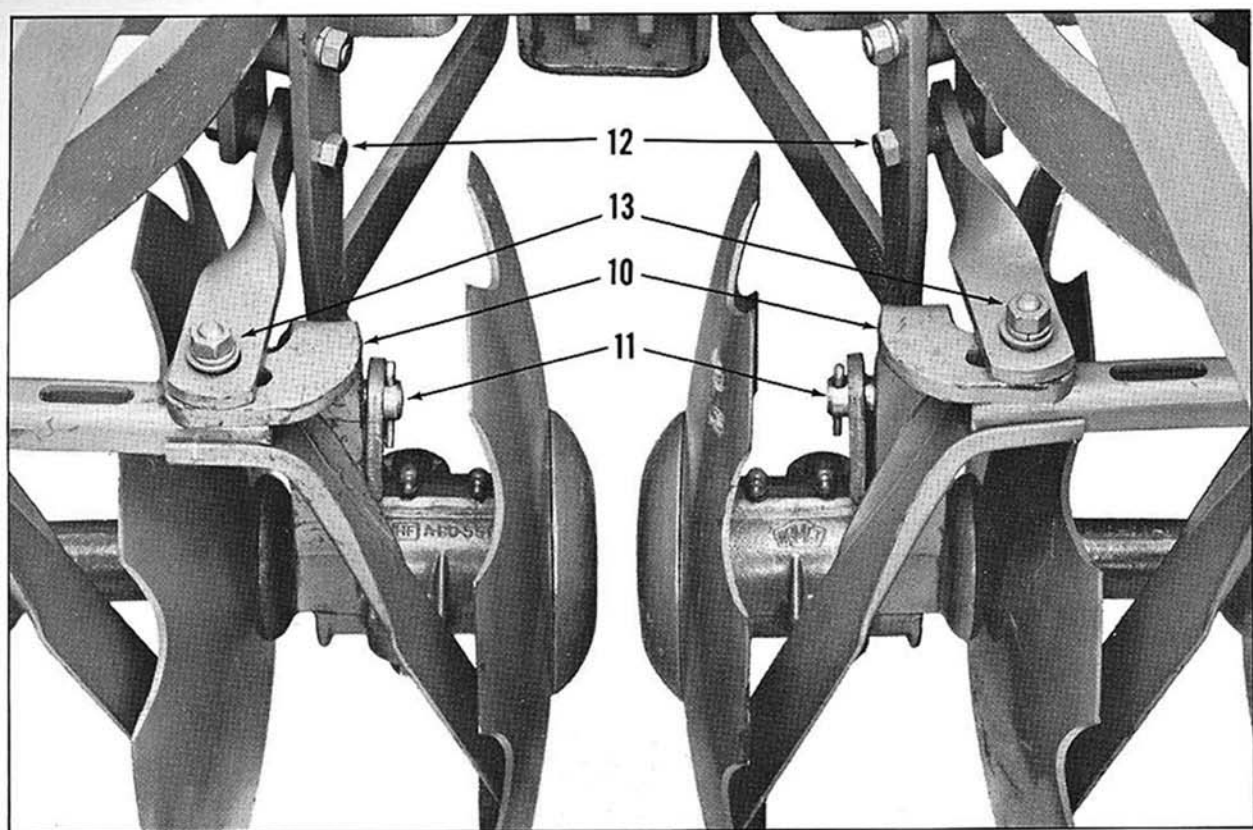


Fig. 5

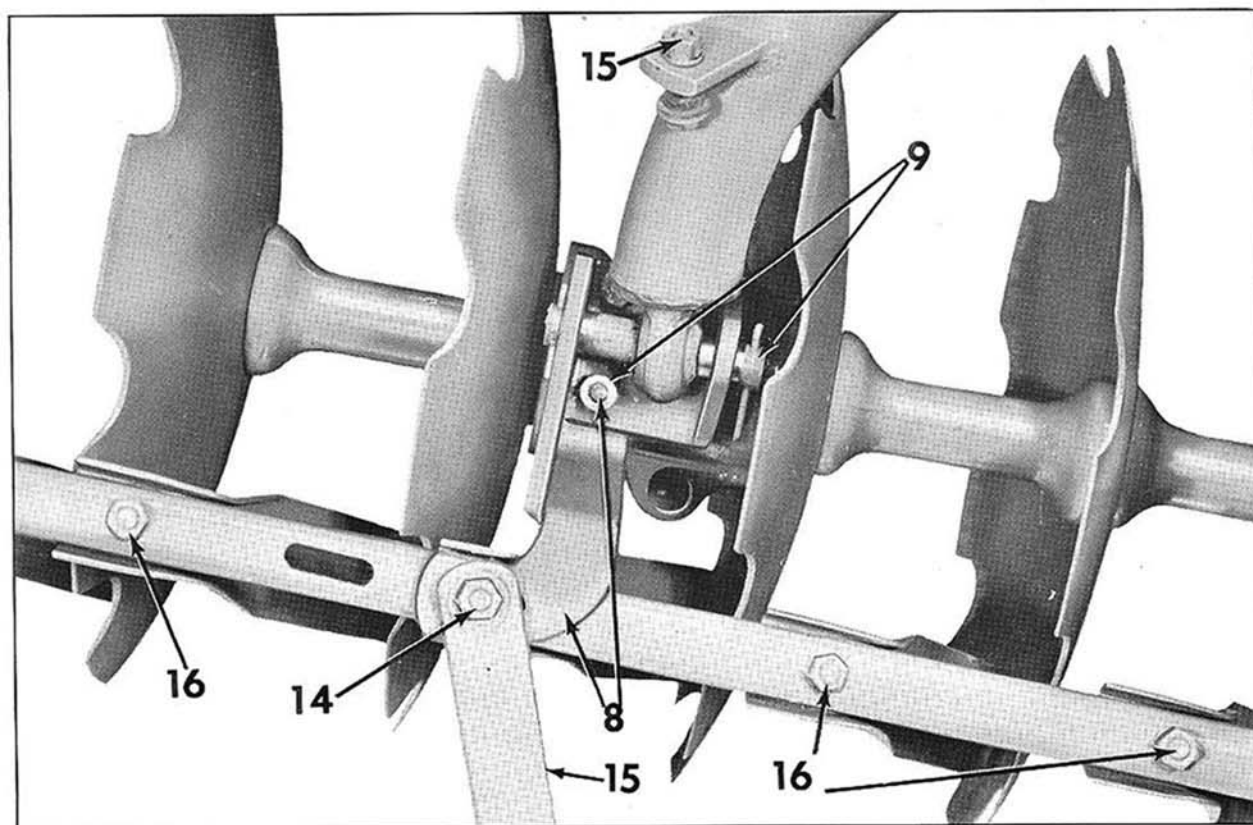


Fig. 6

FERGUSON A-BO-22 DISC HARROW

8. All four gangs are marked to indicate their relative position on the completed assembly. The markings distinguish front and rear assemblies, and whether the gang belongs on the R.H. or L.H. side of the assembly. Position scraper support on bolts protruding from the outer bearing box. Assemble with angle in the direction as shown in Fig. 6.

9. Before positioning main frame on the outer bearing box, insert and spread cotter pin in pivot pin; place pin through outer bearing bracket (the outer bearing bracket is 2-15/16" wide to distinguish it from the inner bracket) and the ball joint. Place assembly on bearing box and bolt into place. Insert 7/8" x 4-5/8" pin through scraper support and lock into place with cotter pin. (See Fig. 6.)

10. Place inner scraper supports on bolts protruding from the bearing box. (See Fig. 5.)

11. Position inner bearings brackets (the inner bearing bracket is 1-7/16" wide) on bearing bolts, install lockwashers and tighten nuts. Drop draft link assembly in place. Insert 7/8" x 3-1/8" pin (in which one cotter pin is installed) and lock in place with other cotter pin.

12. Bolt inside stay straps to draft link assembly, using 7/16" x 2-1/2" bolt and 3/4 x 1-1/4" spacer.

13. Install inside stay straps, scraper and scraper bar, bolting in place on scraper support with 7/16" x 2-3/4" carriage bolts, 9/16" spacers, washers, and lockwashers. Use the scraper whose blades will fit the contour of the disc. For the front gangs, the end hole of the scraper bar is bolted to the inner scraper support. Install the bar so that the two holes which are four inches apart are toward the outside of the harrow.

NOTE: If assembling an A-BO-32 model, use a

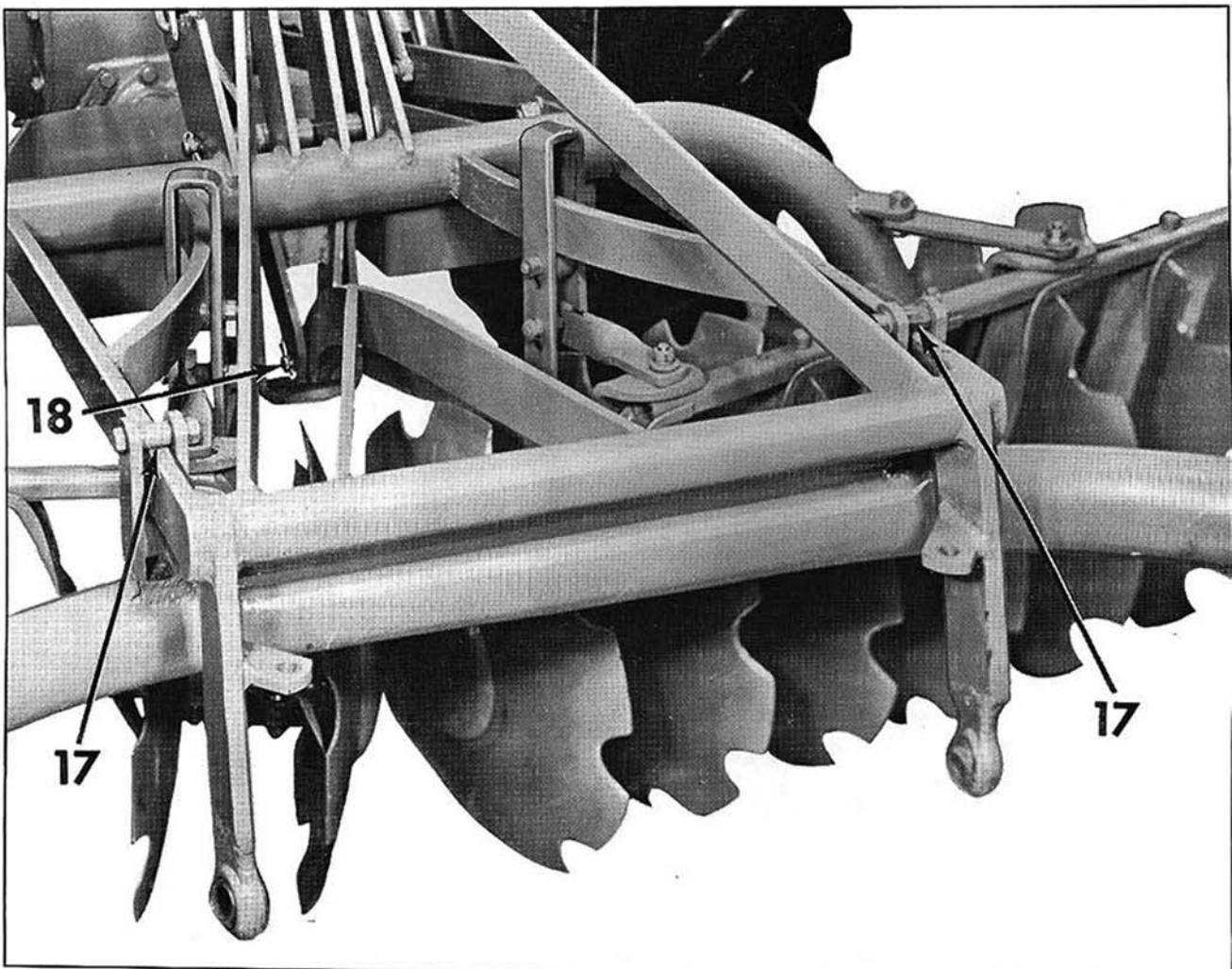


Fig. 7

FERGUSON A-BO-22 DISC HARROW

7/16" x 1-7/8" hex. head bolt.

14. Install front gang outside stay strap, scraper and scraper bar on scraper support with 7/16" x 2-3/4" carriage bolts, 9/16" spacers, washers, and lockwashers. The front gang outside stay strap is 8" long.

NOTE: If assembling an A-BO-32 model, use a 7/16" x 1-7/8" hex. head bolt.

15. Bolt outside stay strap to main frame. The 7/16" x 1-5/8" hex. head bolt should be installed from below so that it passes through the following parts in order: 7/16" flat washer, 9/16" spacer which fits in the hole in the stay strap, bracket on frame, and lockwasher and nut.

16. Install scrapers to scraper bar with 7/16" x 1-1/2" bolts. (Excepting A-BO-32 models).

The outside scraper on each front gang should be installed as shown in Fig. 1. The scrapers must be selected which will fit the contour of the discs.

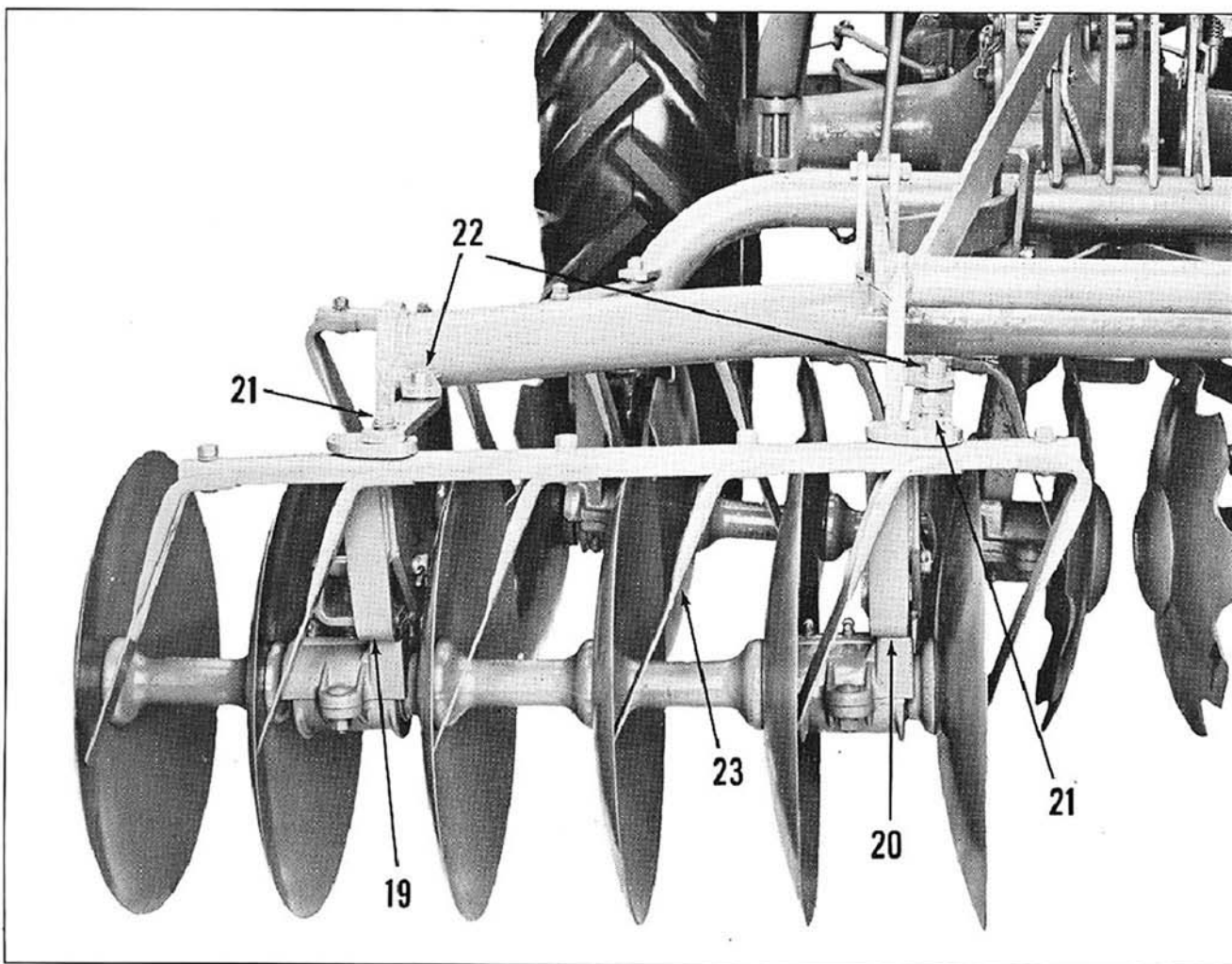
17. Install rear frame to main frame, using 7/16" x 2-1/4" bolt and 3/4" x 1" spacer.

18. Connect rear frame to rear lever assembly, using 3/4" x 2-1/2" clevis pin and cotter pin.

19. Mount rear frame to outside of rear gangs in same manner as steps 8 and 9.

20. Mount main frame to inside of rear gangs in same manner as steps 10 and 11.

21. Bolt the 7-1/4" rear stay straps, scraper



bars and scrapers to the four rear gang scraper supports as in steps 13 and 14. On the rear gang scraper bars, the second hole from the end is bolted to the inside scraper support. Install the bar so that the two holes which are four inches apart are toward the center of the harrow.

22. Bolt rear stay straps to rear and main frame. The $7/16"$ x $1-5/8"$ hex. head bolt should be installed from below so that it passes through the following parts in order: $7/16"$ flat washer, $9/16"$ spacer which fits in hole in stay strap, bracket on frame, and lockwasher and nut.

23. Assemble scrapers to scraper bar with $7/16"$ x $1-1/2"$ carriage bolts. Bolt weight box assembly to brackets, using $7/16"$ x $1-3/8"$ hex. head bolts, nuts, and lockwashers.

24. Completely lubricate as outlined in the

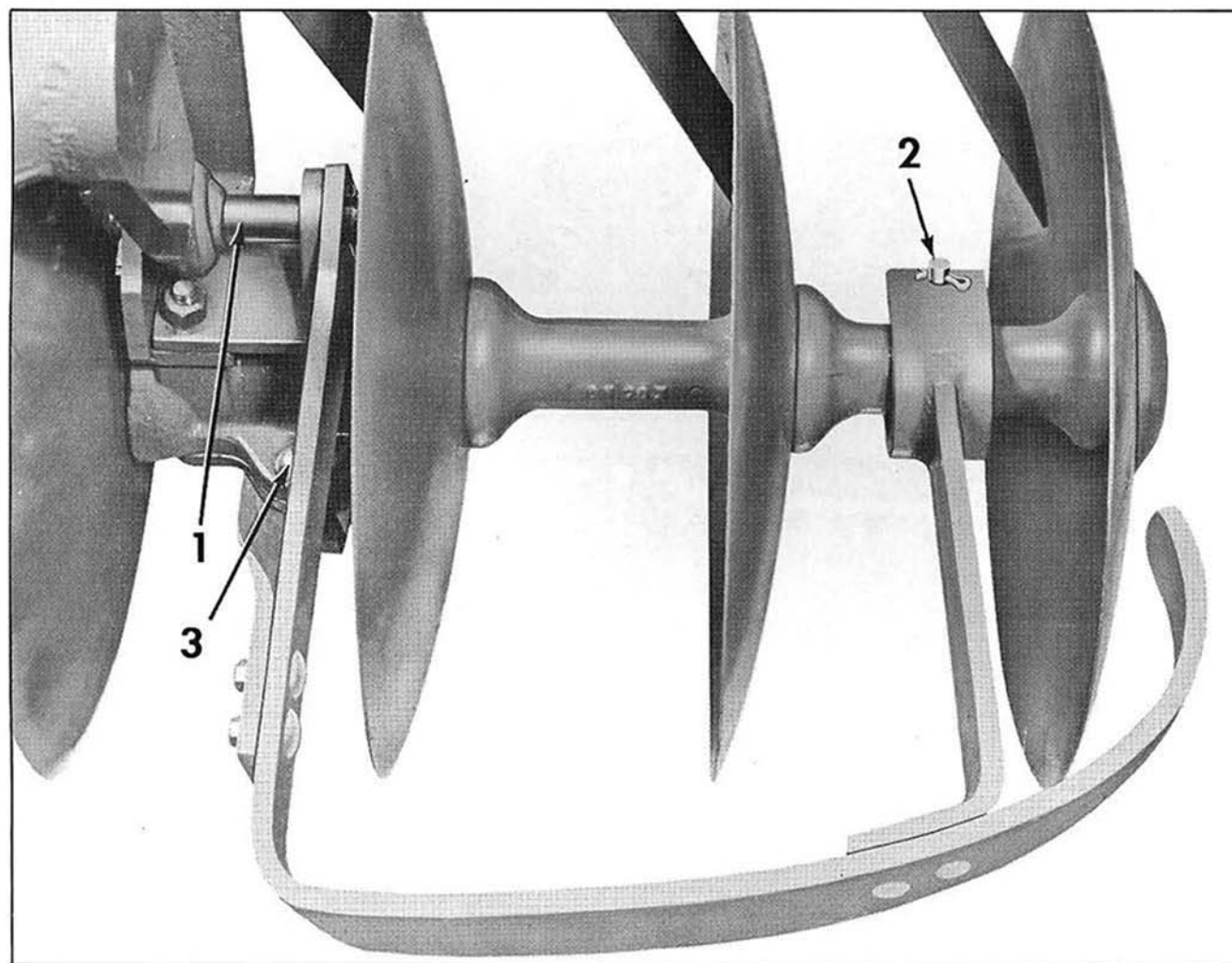
lubrication instructions. Check each gang and make certain there is no play between the spool and discs. Slack can be removed by tightening the gang bolt with the gangs set straight. All gangs must turn when the Disc Harrow is pulled forward on a wooden floor or hard earth surface.

Recheck all bolts for tightness and all pins to determine if the cotter pins have been installed and properly spread.

ACCESSORIES

REAR GANG BUMPERS

A set of bumpers is available to mount on the outer ends of the rear gangs. The bumpers act as a shield to prevent snagging the outer disc



FERGUSON A-BO-22 DISC HARROW

blades while turning with the harrow in the transport position. They also afford protection from catching the discs in fences, on fence posts, trees, etc., while in operation.

Two models of the bumper are available: the A-BO-96 for the 7' Disc Harrow and the A-BO-97 for the 8' Disc Harrow.

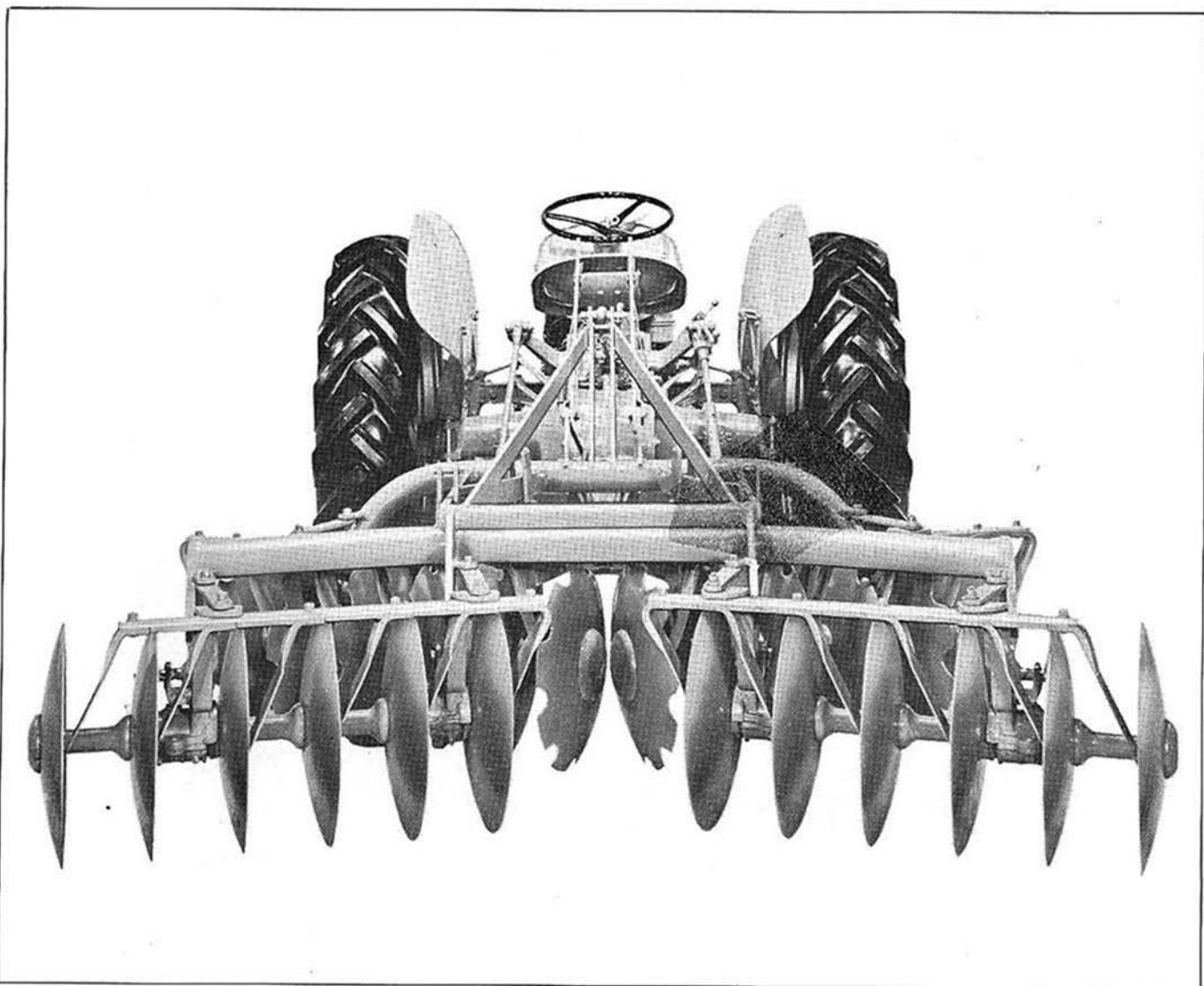
To assemble, follow the instructions listed below:

1. Loosen bolts in bumper assembly. Remove bolts which hold the bearing brackets and lift

frame and assembly. Remove pin from bracket assembly. Place new $7/8" \times 5"$ pivot pin in position and install bumper. Locate assembly on gang and rebolt brackets in place.

2. Lock outside leg of bumper to spool with $3/8" \times 3-3/8"$ retainer pin and cotter pin.

3. Remove bolt from front of bearing box. Replace with $7/16" \times 1-7/8"$ bolt and lockwasher and fasten the bumper bracket in place under the bearing box bottom. Tighten the bolts in the bumper assembly.



FOR GREATER SATISFACTION

1. Read and study these instructions carefully.
2. Operate at normal working speeds. Excessive speeds will increase maintenance costs and shorten the life of power-operated equipment.
3. Clean thoroughly and check the implement completely at the end of each season. Prepare a list of all maintenance items, order genuine Ferguson repair parts immediately, and apply a rust preventive to all working parts before storing the implement during the out-of-use period.
4. Maintain proper lubrication at all times.
5. Replace broken or worn parts with **GENUINE FERGUSON REPAIR PARTS** purchased from your Ferguson Dealer. Do this immediately while these items are fresh in your mind and not wait until the beginning of a new season. A delay in replacing broken or worn parts may result in excessive wear, work stoppages and delays in seed bed preparation.
6. Consult your nearest authorized Ferguson Dealer with your special problems.

HARRY FERGUSON, INC.

IMPLEMENT

WARRANTY

For a period of ninety (90) days from the date of delivery of a new Ferguson Implement to the original purchaser thereof from a Ferguson Dealer, Harry Ferguson, Inc. warrants all such parts thereof (except tires) which, under normal use and service, shall appear to Harry Ferguson, Inc. to have been defective in workmanship or material.

This warranty is limited to shipment to the purchaser, without charge except for transportation costs, of the part or parts intended to replace those acknowledged by Harry Ferguson, Inc. to be defective.

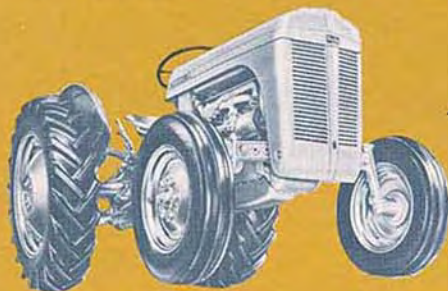
If the purchaser uses or allows to be used on a Ferguson Implement parts not made or supplied by Harry Ferguson, Inc., or if any Ferguson Implement has been altered outside of its own factories or sources of supply, or if attachments have been used which were unsuited and harmful to the Ferguson Implement, then this warranty shall immediately become void. Harry Ferguson, Inc. does not undertake responsibility to any purchaser of a Ferguson Implement for any undertaking, representation, or warranty beyond those herein expressed.

Harry Ferguson, Inc. reserves the right to make changes in design or changes or improvements upon Ferguson Implements without any obligation upon it to install the same upon Implement theretofore manufactured.

See Your Ferguson Dealer for Information

— ON —

THE FERGUSON TRACTOR AND FERGUSON SYSTEM IMPLEMENTS



THE FERGUSON LINE

Of Implements Includes

Mouldboard Plows	Manure Loaders
Disc Plows	Corn Pickers
Two-way Plows	Corn Planters
Spike Tooth Harrows	Lister Planters
Spring Tooth Harrows	Grain Drills
Lift Type Disc Harrows	Side Delivery Rakes
Tandem Disc Harrows	Rotary Hoes
Bush and Bog Harrows	Cordwood Saws
Off-set Disc Harrows	Rear Cranes
Spring Tine Cultivators	Middlebusters
Rigid Tine Cultivators	Tillers
Lister Cultivators	Stalk Cutters
Agricultural Mowers	Four Row Weeders
Heavy Duty Mowers	Four-wheel Wagons
Multi-purpose Blades	Soil Scoops
Manure Spreaders	Sub Soilers

