INTERNATIONAL

INTERNATIONAL® 710 MOLDBOARD PLOW

(Semi-Mounted Type
4, 5/6 and 6 Furrow)

SETTING UP INSTRUCTIONS

OPERATOR'S MANUAL

To The Owner

Your new International Harvester plow is designed to meet today's exacting operating requirements. The ease of operation, and ability to adjust to field conditions lighten your work and shorten your hours on the job.

You are urged to consult your International Harvester dealer concerning unusual conditions or special applications. Let the experience of your dealer and the organization associated with him serve you.

Be sure to read the instructions for Adjusting and Operating in this manual. Check each item referred to and acquaint yourself with the adjustments required to obtain efficient operation and maximum trouble-free service. Remember, a plow which is properly lubricated and adjusted saves time, labor, and fuel.

After the operating season, thoroughly clean your plow and inspect it. Preventive maintenance pays dividends. Your dealer has original-equipment parts which assure proper fit and best performance. He is able to recondition your equipment to a like new condition.

Your plow will be used intermittently during the year. Rust and corrosion must be prevented the year around. A small amount of time and effort spent protecting it from destructive moisture will repay you many times in long years of service, easy operation, and high resale value. Of equal importance at the end of the operating period are the care of unprotected surfaces and provision for suitable waterproof shelter.

Additional copies of this manual may be ordered from your International Harvester dealer at a nominal price.

CONTENTS

WORK SAFELY—FOLLOW THESE RULES

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT.

This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

BEFORE OPERATING

Do not wear loose-fitting clothing which may catch in moving parts.

Use extreme care when making adjustments.

When working under or around the plow, always support the plow frame.

After servicing, be sure all tools, parts, or servicing equipment are removed from the machine.

Make sure that there is no one near the machine before operating.

DURING OPERATION

No one other than the operator should ride on the tractor.

Hydraulic fluid escaping under pressure can have enough force to penetrate the skin. Hydraulic fluid may also infect a minor cut or opening in the skin. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the system. Relieve all pressure before disconnecting the lines or performing other work on the hydraulic system. To find a leak under pressure use a small piece of cardboard or wood: Never use hands.

Do not attempt to remove any obstructions while the plow is in motion.

Keep hands, feet, clothing and objects away from moving parts.

Do not ride on the plow during operation.

Use extreme care when operating close to ditches, fences, or on hillsides.

ON-HIGHWAY OPERATION

Always place the machine in the transport position.

Comply with your state and local laws governing highway safety, and with regulations when moving machinery on a highway.

Drive at a reasonable speed to maintain complete control of the machine at all times.

INTRODUCTION

Illust. 2
710 Maldboard Plow (six-furrow) shown.

CAUTION: WHEN TRANSPORTING OR IN THE FIELD, SLOW DOWN BEFORE TURNING. Do not use individual tractor wheel braking to make short turns. This plow has limit stops which do not permit pivot turns.

ADJUSTING AND OPERATING

TRACTOR PREPARATION

TRACTOR STABILITY

Refer to the Operator's manual furnished with the tractor and add weight as shown therein and in the amounts specified below:

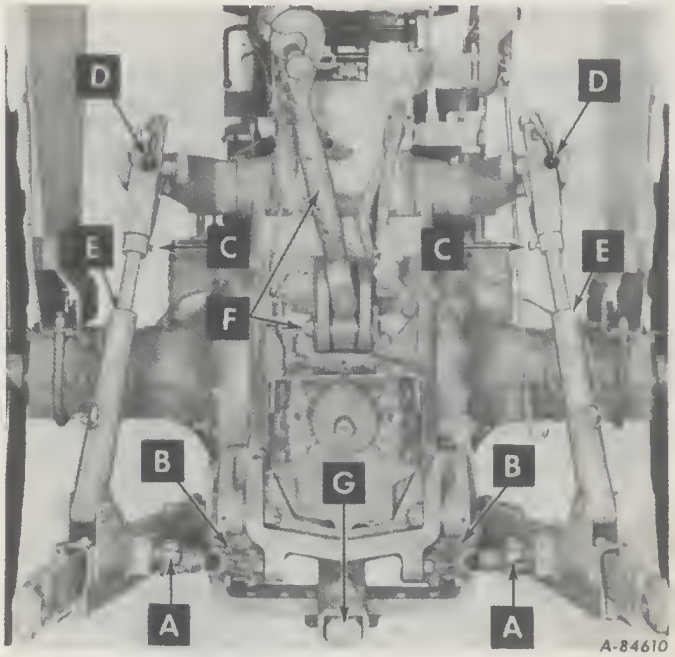
Farmall and International Tractors: Add 1000 to 1200 pounds of front end weight, depending on the capacity of the tractor front end weight mounting bracket being used.

Tractors Of Other Manufacture: Add sufficient front end weight to assure stability.

TRACTOR WHEEL WEIGHT

It is recommended that the tractor rear wheels carry added weight for increased traction. Adding weight saves wear on the tires and also serves to stabilize the tractor for plowing on rough or hillside fields. For this purpose, liquid such as calcium chloride solution can be placed in the rear tires, or one or two weight (available from your International Harvester dealer) may be bolted on each rear wheel. In loose soil it may be necessary to use both the liquid and the weights to prevent excessive tire slippage.

THREE-POINT HITCH ADJUSTMENT



Illust. 3

Turn the eyebolts "A" with the offset toward the tractor.

Locate the lock-out pins "B" in the holes in the lateral limiter links as shown.

Note: For easy attaching and detaching temporarily remove the pins "B".

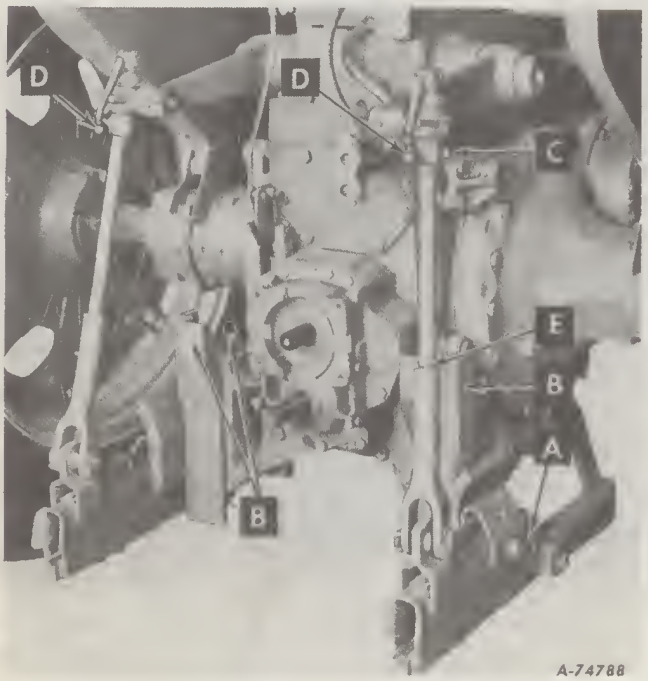
Locate the lift link lock-out collars "C" in the upper position as shown. Turn the set screw into the upper spot hole in the link.

Use either or both leveling cranks "D" to level the hitch with the ground. The hitch bail is level with the tractor axle when the grooved lines show just above the screw housings at "E".

Be sure to move the swinging drawbar forward to the storage position as shown at "G".

TRACTOR PREPARATION - Continued

TWO-POINT HITCH ADJUSTMENT



Illust. 4

Locate the lock-out pins "A" in the holes as shown to keep the sockets rigid with the hitch bail.

Set the lateral limiter blocks "B" as shown to control the side-to-side motion of the hitch bail.

Locate the lift link lock-out collars "C" in the upper position as shown. Turn the set screw into the upper spot hole in the link.

Use either or both leveling cranks "D" to level the plow with the ground. The hitch bail is level with the tractor axle when the grooved lines "E" shown just above the screw housings. Level the hitch bail with the tractor axle for opening up.

QUICK-ATTACHABLE COUPLER

(See tractor manual)

Operate with upper link as short as possible.

TIRE INFLATION

The use of the proper air pressure is the most important factor in satisfactory performance and maintenance of tractor implement tires. Underinflation will damage the cord body of the tire and cause a series of diagonal breaks in the fabric in the sidewall area. If the tire buckles or wrinkles, the air pressure should be increased to the point where the sidewalls remain smooth while operating.

Check the air pressure every two or three weeks and do not allow the pressure to drop below the recommended pressures:

Tractor tires . . . . . See your Tractor Operator's Manual

TRACTOR PREPARATION - Continued

TRACTOR REAR WHEEL SETTINGS

Single Wheels In-The-Furrow Operation

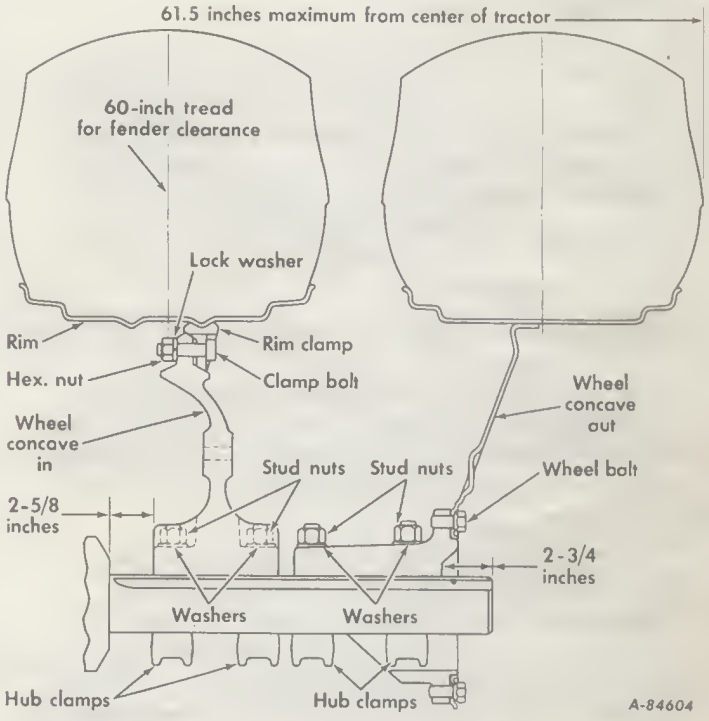
Measure from the center of the power take-off shaft to the inside edge of the right rear tire and set it at 30-inches or 32-inches as desired. The left wheel should be set the same. However, when it is desired to give the tractor greater stability, such as hillside plowing, the left wheel may be set slightly wider.

Single Wheels On-The-Land Operation

Measure from the center of the power take-off shaft to the inside edge of the right rear tire and set it at 30-inches or 32-inches as desired. The left wheel should be set the same. However, when it is desired to give the tractor greater stability, such as hillside plowing, the left wheel may be set slightly wider.

Dual Wheels On-The-Land Operation

The recommended overall tractor rear tire width to be used with plows equipped to operate "on-the-land" is 123 inches, and better performance can generally be obtained with narrower settings. Illust. 5 shows the recommended wheel settings. These settings can be obtained when the outside (dual) wheel has an offset of not more than 5-1/2 inches. When plowing with dual wheels and the tractor is equipped with a cab, it may be necessary to move the right, inside tire closer to the cab than the recommended 4-1/2 inches as outlined in the Tractor Operator's Manual. The left wheels may be set out to allow clearance between the inside tire and the door of the cab.



Illust. 5
Mounting diagram for removable disc-type dual wheels.

The maximum overall tractor rear tire width to be used with plows equipped to operate "on-the-land" is 133-inches, and better performance can generally be obtained with narrower settings. See tractor operator's manual.

When operating in extremely difficult soil conditions, it is advantageous to have as narrow a rear wheel setting as is safely possible.

ADJUSTING AND OPERATING

PLOW PREPARATION

GENERAL

Tighten bolts and screws: When starting to plow with a new plow or one which has been stored, check to see that all bolts and set screws are tight and that all cotters are spread to keep them from falling out. It is especially important that the bolts holding the plow bottoms be drawn up very tight.

REMOVING PROTECTIVE COATING FROM BOTTOMS

Plow bottoms are highly polished and coated to prevent rusting before leaving the factory. Good work cannot be accomplished until this coating is removed.

The black, protective coating on the bottoms will quickly wear away in most soils; however, for soils which scour with difficulty, it is advisable to remove the coating before attempting to plow. For this purpose, use gasoline, kerosene or diesel fuel.

Caution! Do not permit smoking, sparks or an open flame where combustible fuels are being used to remove the protective coating. Keep the work area well ventilated.

If the plow is not used immediately scrape off the dirt, clean and protect the polished surface of the bottoms with a liberal coating of heavy grease.

TIRE INFLATION

Gauge Wheel tire	30 pounds
Rear furrow wheel tire	40 pounds

PARKING STAND

Before lowering the plow for detaching, swing the stand down and secure it with handle. See Illusts. 24A and 29.

For operation, swing the stand up along the pull beam and secure with handle.

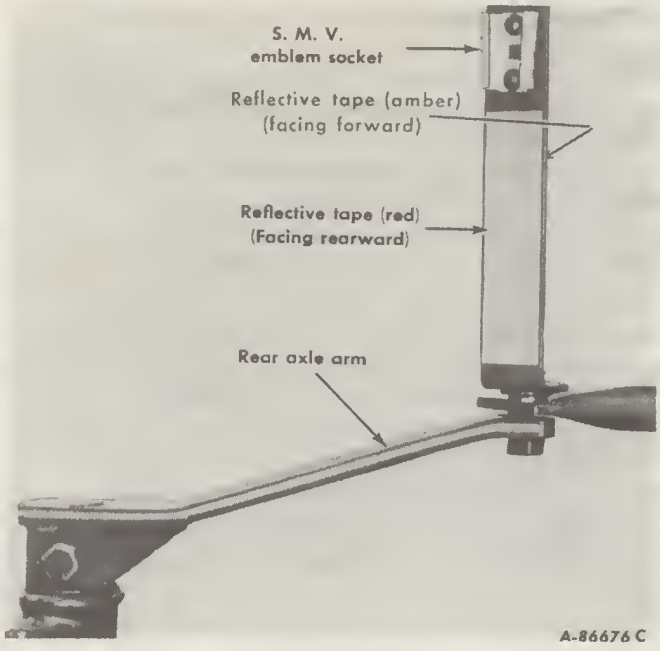
TRANSPORTING ON THE HIGHWAY

The bracket and socket for a slow moving vehicle (S.M.V.) emblem must be attached as near to the rear and center of the vehicle as practicable. The slow moving vehicle emblem must be in a plane perpendicular to the direction of travel (plus or minus 10 degrees) and be placed centrally at the rear of the vehicle, unobscured and two to six feet above the ground measured from the lower edge of the emblem. See Illust. 6.

The S.M.V. emblem should be used at all times while on a public road.

Comply with all state and local laws governing highway safety and with any regulations which cover moving machinery on the highway.

Drive at a reasonable speed to maintain complete control of the machine at all times.



Illust. 6
Slow moving vehicle (SMV) emblem, socket and bracket.

TRACTOR OPERATION

TRACTOR HITCH CONTROL LEVERS

Two-Point and Three-Point Hitches Farmall and International Tractors

The Two-Point and Three-Point Hitches are controlled by the levers located at the right of the operator's seat. See Illust. 7.

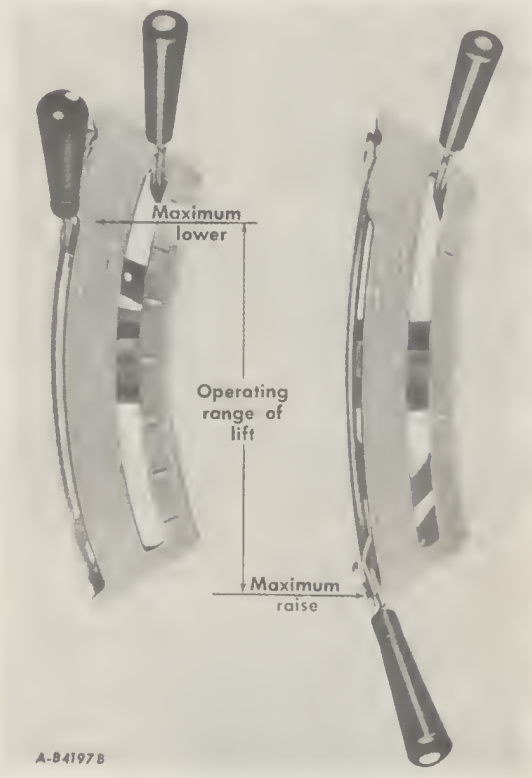
1. Inside Control Lever (Position Control)

This lever is used to raise and lower the hitch and to level the plow. (When beginning to operate in the field, place the outside draft control lever in the extreme forward position). See Illust. 7.

In-The-Furrow Operation

The location of the inside lever in the quadrant indicates the relative plowing depth obtained. When the lever is placed just before the offset near the front end of the quadrant, maximum depth is obtained. As the lever is moved toward the "RAISE" position, shallower depths will be obtained. Use this lever to establish the desired working depth in the field. See Illust. 7.

The adjusting stop may be set to help locate the lever setting. It can then also be by-passed when needed (as for quick entry into the ground).



Illust. 7

2. Draft Control

(Not recommended for on the land operation)

Draft control is that function of the tractor hitch which responds to variations in draft and does it quick enough to maintain a nearly constant load on the tractor. When the load on the hitch increases, the hitch responds by shallowing the front end of the plow, which transfers increased weight to the tractor, thus increasing traction. A choice of two methods of employing "Draft Control" is available as follows.

TRACTOR OPERATION - Continued

HITCH CONTROL LEVERS

2A. Draft Control-Modified
(Recommended for In-The-Furrow Operation)

When the plow is properly leveled with the hitch and with the gauge wheel (as explained under "Inside Control Lever" section) it may be desirable to operate using "Draft Control-Modified".

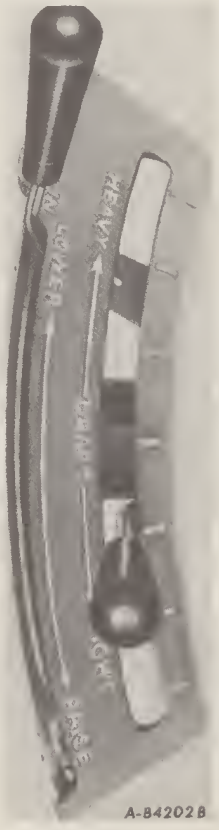
This is particularly useful in fields with extreme soil variations, providing all the draft control advantages, plus sets a depth limit (so that the plow will not go too deep where lighter soils are encountered).

In these cases a bottom (or depth) limit is established by setting the inside lever while plowing in the lighter soil in the field. (as instructed under Inside Control Lever).

Next set the outside draft control lever to establish the desired load for operating in the heavier soil in the field. The operator can determine in a short time the best settings. See Illust. 8.

Illust. 8
Draft Control-Modified.

Illust. 8A
Draft Control.



Illust. 8B
Draft Control.

TRACTOR OPERATION - Continued

HITCH CONTROL LEVERS - Continued

Draft Control
(Optional for In-The-Furrow Operation)

When strictly draft control is desired, the inside control lever should be placed near the front of the quadrant. See Illust. 8A. The plowing depth of the front of the plow is then established by moving the outside draft control lever from "LIGHT" to "HEAVY" until the desired depth is attained.

The speed of hitch response to changing draft loads can be varied by moving the inside control lever past the offset, into the portion of the quadrant marked "RUN". When the lever is in the extreme forward position load sensing is slow. When the lever is located just beyond the offset in the quadrant, load sensing is fast. See Illust. 8B. Any lever setting between the two extremes may be used depending on field conditions.

When lowering the plow to start plowing, the inside lever should not be moved directly to the extreme forward position as this will cause slow entry of the front of the plow and also cause the rear cylinder to lower the rear of the plow too slow.

CAUTION! Move the outside draft control lever forward as far as possible when the plow is disconnected.

Note: Refer to your tractor operator's manual for more detailed data.

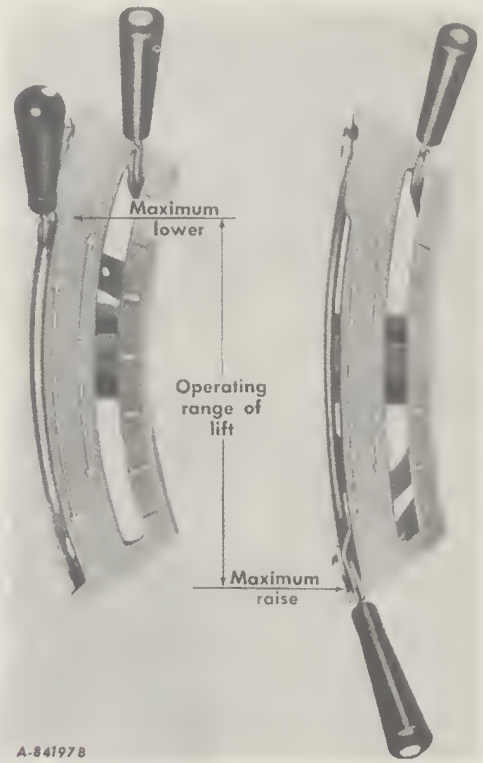
On-The-Land-Operation

Use the inside control lever to help level the plow while operating in the field. As a starting point run the lower link hitch pins about 17" above the ground. (Draft control is not recommended. Place outside lever in an extreme forward position).

The adjusting stop may be set to help locate the lever setting. It can then also be by-passed when needed (as for quick entry into the ground).

Caution! Move the Draft Control lever forward as far as possible when the plow is disconnected.

Note: Refer to your tractor operator's manual for more detailed data.



Illust. 9

PLOW OPERATION

ATTACHING TO TRACTOR

Slip the lower link ball joints over the plow hitch pins and lock in place with Klik Pin provided.

Note: Use shields (located in tractor tool box) ahead of Klik Pins to prevent the Klik Pins from being dislodged from plow hitch pins.

The upper link of the tractor is not used. Secure in the storage position and be sure it will not interfere with the operation of the lower links.

When transporting, or in the field, slow down before turning. Do not use individual tractor wheel braking to make short turns. This plow has limit stops which do not permit pivot turns.

SCOURING

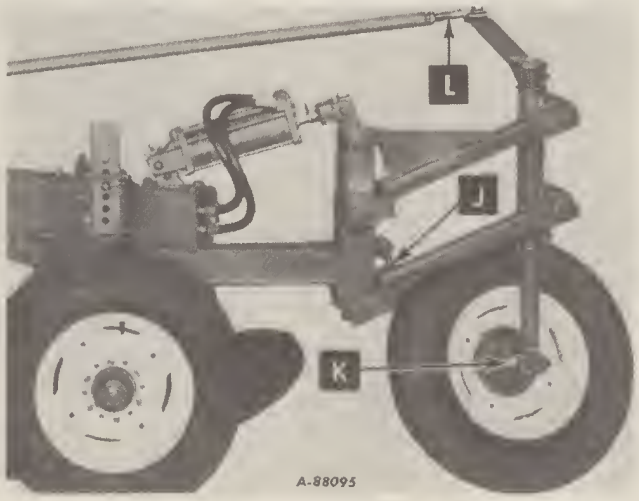
If the plow bottoms do not scour immediately, it is because the soil is rather sticky and you will have to wait until the bottoms have taken a land polish. This may require a few rounds or, in very sticky soil, a few days. To obtain this land polish, it is recommended that you run the plow rather shallow and fast. It is also advisable to set the colters far to the outside of the landside and not too deep. Sometimes it is necessary to remove the colters entirely so as to obtain the maximum pressure on the plow bottom which aids in scouring.

REAR FURROW WHEEL

The purpose of the rear furrow wheel is to take part of the thrust of the landside against the furrow wall and to carry the rear end of the plow when transporting. The adjustments provided are especially important when plowing hard or difficult soils. Make certain the tire is inflated to the recommended 40 pounds of air pressure before making adjustments.

The bolt "K" in Illust. 10 serves to locate the axle in one of five possible positions in the axle sleeve. Use the center position for average conditions. Note: With the use of larger tires this adjustment is limited by tire clearance and care should be taken not to allow the tire to rub on the linkage. Adjusting the wheel closer to the furrow wall can aid in taking side thrust and help reduce landside wear.

Be sure to completely collapse the hydraulic cylinder each time the plow is lowered to operate.



Illust. 10

PLOW OPERATION - Continued

REAR FURROW WHEEL - Continued

Lead adjustment: Turn the threaded eyebolt "L", (Illust. 10) in or out of the rear steering pipe until the proper measurement is obtained for the plow. Measure from the end of the pipe to the center of the pivot bolt 6 inches for 16 inch plows or 8 inches for 18 inch plows. Secure the setting with the jam nut. Note that these are starting lengths which are subject to later adjustment such as may be indicated by field performance. The wheel should lead or angle slightly towards the plowed ground.

VERTICAL ADJUSTMENT

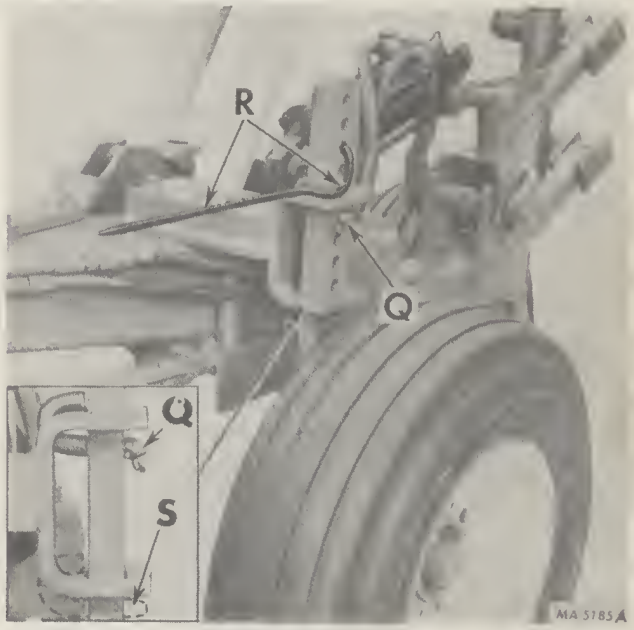
Plow without Gauge Wheel: Turn the cap screw "J"(Illust. 10) out to place more of the weight of the rear end of the plow on the rear wheel. The adjustment is correct when the heel of the landside runs about 5/8-inch above the bottom of the furrow. While operating, check to see that the rear wheel link is bearing against the cap screw head. This indicates that the weight of the plow is on the rear wheel. After making the adjustment, lock the cap screw "J" with the jam nut to secure the setting.

Plow With Gauge Wheel:Turn the cap screw "J"(Illust. 10) all the way in to the head and lock it with the jam nut. This will allow maximum upward float of the rear furrow wheel to allow quicker penetration of the rear bottom.

It may be desirable to adjust the cap screw out as instructed in "Plow Without Gauge Wheel" section.

A.) Where additional soil floatation is needed.

B.) To help take side thrust if rear of the plow is overcutting.



Illust. 11

PLOW OPERATION - Continued

GAUGE WHEEL

To set the gauge wheel for plowing depth move the gauge wheel standard up or down as required and secure it with the retaining J pin and Q.A. cotter pin as shown at "Q", in Illust. 11.

A full adjustment (approximately 1-1/4-inches) can be made by moving the standard either up or down one hole within the bracket. See Illust. 11, inset at "Q".

A half adjustment (approximately 5/8-inches) can be made by moving the J pin and placing it below the bracket as shown in Illust. 11, inset at S.

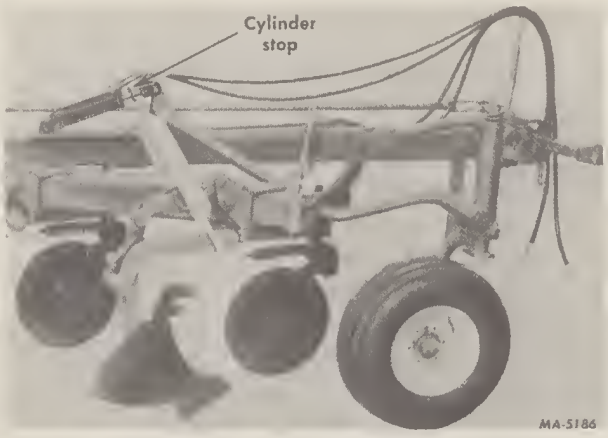
Note: Always install the standard retaining pin at "Q" downward as shown in inset Illust. 11.

A gauge wheel adjusting tool (optional) is available for easy gauge wheel adjustment. Use the tool to move the gauge wheel up or down as shown at "R", Illust. 11.

When making a change in plowing depth it is necessary to consider the depth control setting along with the gauge wheel.

FRONT FURROW WHEEL
(For On The Land Operation)

The front furrow wheel should be adjusted to run in the furrow approximately level with the front bottom. See Illust. 12. The depth of the front of the plow is controlled by this wheel through the front hydraulic cylinder. After the proper setting is determined in the field this setting can be maintained by using the hydraulic cylinder stop. See Illust. 12. A thumb screw, Illust. 29 is supplied with the plow to ease adjusting the cylinder stop.



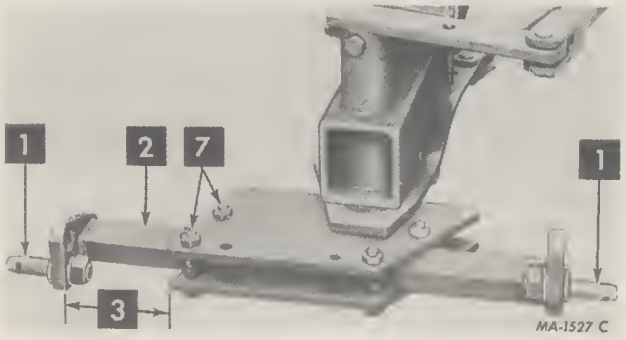
Illust. 12

PLOW OPERATION - Continued

IN-THE-FURROW OPERATION

Horizontal Hitch Adjustment

Three-Point Hitch



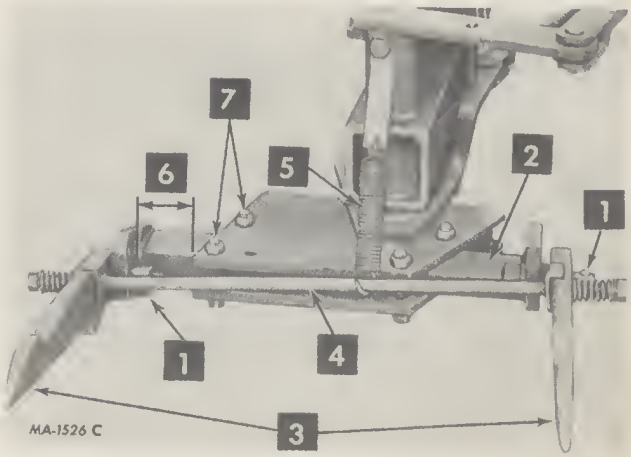
1 - Hitch pins, Lower Position (tighten to 360 foot-pounds)
2 - Reversible cross bar
3 - Width of cut setting. See table of cross bar settings
7 - Crossbar bolts (Re-tighten to 250 foot-pounds)

Illust. 13
Parts Set for Average Plowing.

Crossbar Settings (See 3 in Illust. 13)

Plow size	Category II (two) Hitch		Category III (three) Hitch	
	Bottom Width			
	16-inch	18-inch	16-inch	18-inch
4 furrow	4-1/2"	6-1/2"	7-1/2"	9-1/2"
5 furrow	7-1/2"	9-1/2"	10-1/2"	12-1/2"
6 furrow	10-1/2"	12-1/2"	13-1/2"	15-1/2"

Two-Point Hitch



1 - Hitch pins, Lower position (tighten to 360 foot-pounds)
2 - Reversible cross bar
3 - Attaching prongs. Secured to hitch pins with headed pins and cotters
4 - Spring loaded spreader rod
5 - Hold-up spring
6 - Width of cut setting. See toble of cross bar settings
7 - Crossbar bolts (Re-Tighten to 250 foot-pounds)

Illust. 13A
Parts Set for Average Plowing.

Crossbar Settings (See 6 in Illust. 13A)

Plow size	Bottom Width	
	16-inch	18-inch
4 furrow	1-1/2"	3-1/2"
5 furrow	4-1/2"	6-1/2"
6 furrow	6-1/2"	

Note: The dimensions given above are for average conditions but note that change may be required because of variable factors such as soil conditions, plowing depth or tractor wheel tread. In any case, see that the front bottom cuts the proper width.

ADJUSTING AND OPERATING

PLOW OPERATION - Continued

IN-THE-FURROW OPERATION - Continued

Horizontal Hitch Adjustment - Continued

Width of Cut

Set the crossbar to appropriate dimension. See crossbar setting charts on page 13.

Note: The dimensions given in charts on page 10 are for average conditions but note that change may be required because of variable factors such as soil conditions, plowing depth or tractor wheel tread. In any case, see that the front bottom cuts the proper width.

Overcutting by Front Bottom: Move the crossbar toward the left (away from the furrow) the same amount as the front bottom is overcutting.

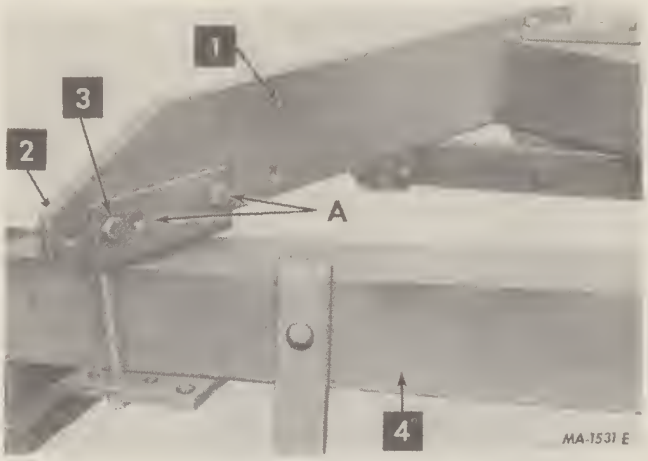
Undercutting by Front Bottom: Move the crossbar toward the right (toward the furrow) the same amount as the front bottom is undercutting.

Front of Tractor Pull Toward Furrow

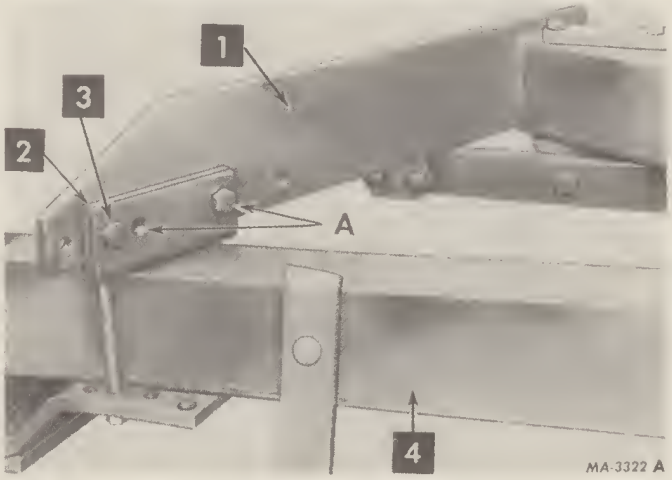
Remove the two (2) bolts from the mounting clip. Move the pull beam to the left approximately 1.4 inches. Bolt the mounting clip to the spreader plate using holes "A". See Illust. 14A for the 5-furrow plows and Illust. 14B for the 6-furrow plows. Move the crossbar approximately 2 inches to the right.

Be sure the tie rod is kept taut and is re-tightened after making adjustment.

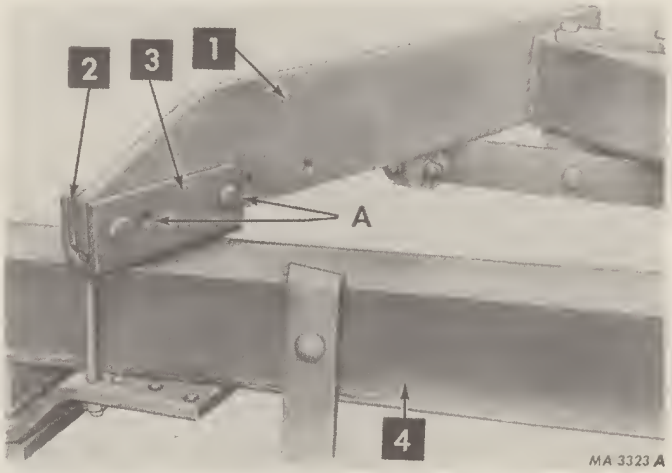
Front Spreader Plate Location



Illust. 14 - Four Furrow Plow.



Illust. 14A - Five Furrow Plow.



1 - Spreader plate
2 - Spacer
3 - Mounting clip
4 - Pull beam

Illust. 14B - Six Furrow Plow.

PLOW OPERATION - Continued

IN-THE-FURROW OPERATION - Continued

Horizontol Hitch Adjustment - Continued

Plow Overcuts (tails to the left)

First check the following:

1. Plow is level and front bottom is not running too deep.

2. Front bottom is not overcutting.

3. Plow is equipped with proper landsides and are not worn too badly (wide landside on rear).

4. Rear furrow wheel has the proper lead adjustment (slight lead toward plowed ground).

5. Rear furrow wheel is adjusted to run closer to the furrow wall to help take some side thrust. (Utilize screw "J" (Illust. 10) to get down pressure on wheel).

6. Hitch is set properly as instructed.

If all the above is checked and overcutting is still a problem, do as follows:

Move the pull beam to the right (one position). Note: This will require an adjustment of crossbar or a change in tractor wheel tread.

Vertical Hitch Adjustment

Crossbar hitch pins should be installed in the lower holes for normal operation.

Front of Plow Runs Shallow

Locate the hitch pins in the crossbar in the upper holes. This will have the tendency to raise the rear of the plow and lower the front of the plow into the ground.

This change also tends to put more weight on the rear of the tractor.

Rear of Plow Runs Shallow

When the rear of the plow runs shallow it may be necessary to lower the hitch pins in order to get depth at the rear of the plow. To accomplish this the plow is equipped with a reversible crossbar. The crossbar is reversed by removing it from the pivot post plates and reinstalling it (top side down). For an extreme lower setting, reinstall pins in the lower holes.

Note: When making a change in plowing depth it is necessary to consider the rear wheel setting along with the hitch depth setting. The rear wheel should carry appreciable weight; however, if it makes a deep track in the ground and the plowing depth is satisfactory, then the hitch setting should be raised slightly. The hitch setting will determine the plowing depth while the rear wheel serves to stabilize the selected depth and keep the plow frame level with the ground.

PLOW OPERATION - Continued

ON-THE-LAND OPERATION

Vertical Hitch Adjustment

Crossbar hitch pins should be installed in the lower holes for normal operation.

Front of Plow Runs Shallow

Locate the hitch pins in the crossbar in the upper holes. (This will have the tendency to raise the rear of the plow and lower the front of the plow into the ground).

This change also tends to put more weight on the rear of the tractor.

Horizontal Hitch Adjustment

Front of Tractor Pulls Toward Furrow

Make one of two corrections:

1. Move crossbar to the right (one setting). Note: If the crossbar is set in the (A) setting it can be moved to the right by inverting it. Remove crossbar and install it top side down. (Do not forget to reverse the hitch pins to the proper vertical setting).

2. Move the pull beam to the left (one position) and move the crossbar to the right (one setting) by following instructions above. (This correction will be preferred if you choose to maintain the rear tractor tire to frurrow wall distance).

Plow Overcuts (tails to the left)

First check the following:

1. Plow is level and front bottom is not running too deep.

2. Front bottom is not overcutting (a matter of tractor driving).

3. Plow is equipped with proper landsides and are not worn too badly (wide landside on rear).

4. Rear furrow wheel has the proper lead adjustment (slight lead toward plowed ground.

5. Rear furrow wheel is adjusted to run closer to the furrow wall to help take some side thrust. (Utilize screw "J" (Illust. 10) to get down pressure on wheel).

6. Hitch is set properly as instructed.

If all the above is checked and overcutting is still a problem, do as follows:

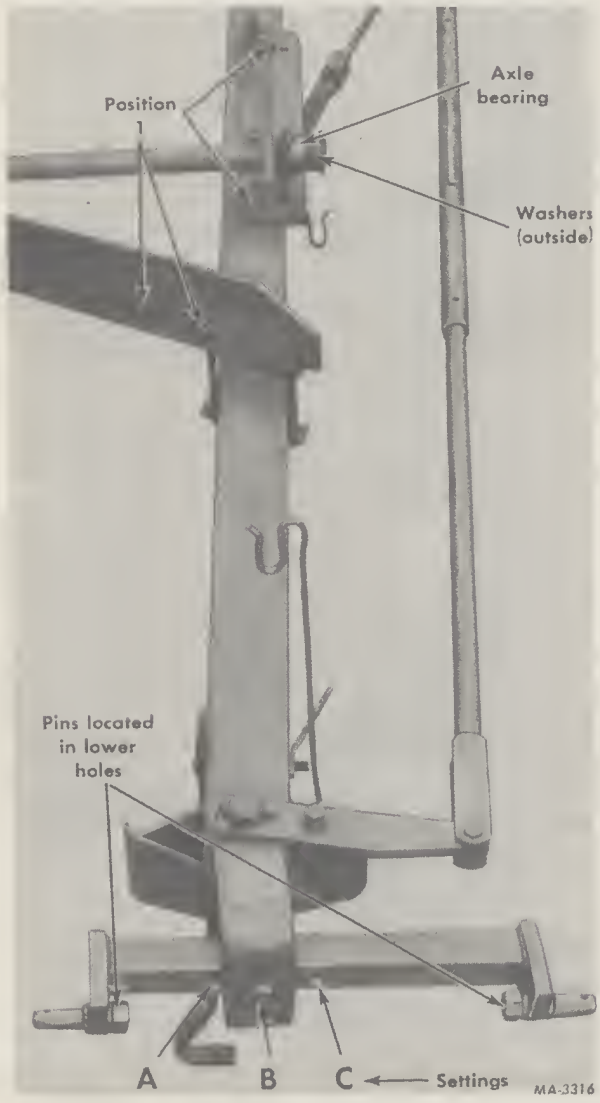
Move the pull beam to the right (one position). Note: This will result in having to run the tractor a little closer to the furrow wall.

PLOW OPERATION - Continued

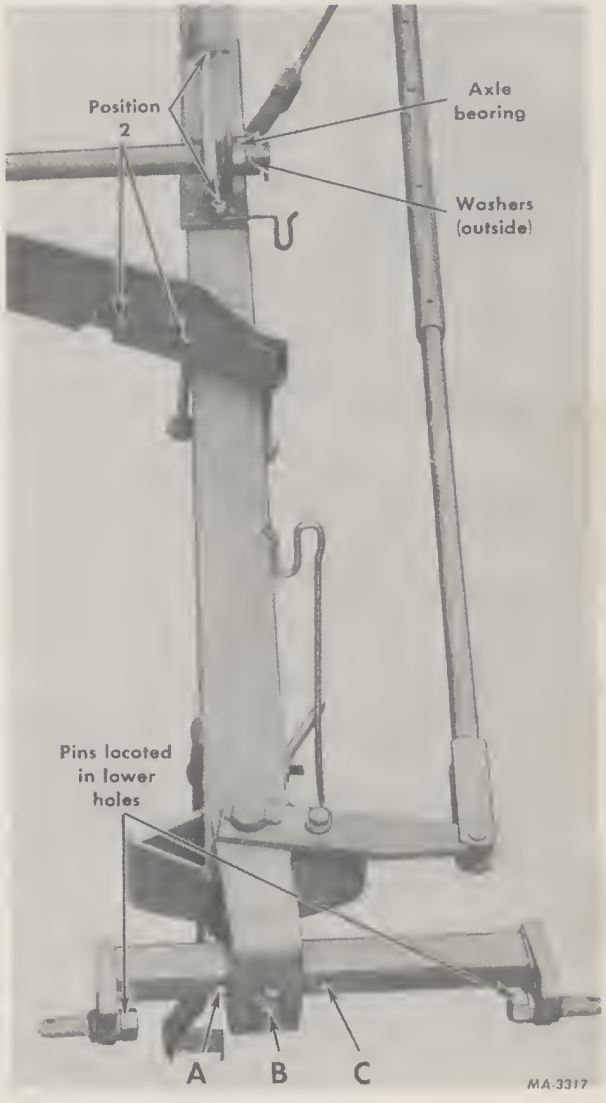
ON-THE-LAND OPERATION - Continued

Horizontal Hitch Adjustment - Continued

Hitch Positions



Illust. 17
Position (1) with setting at "B" shown.

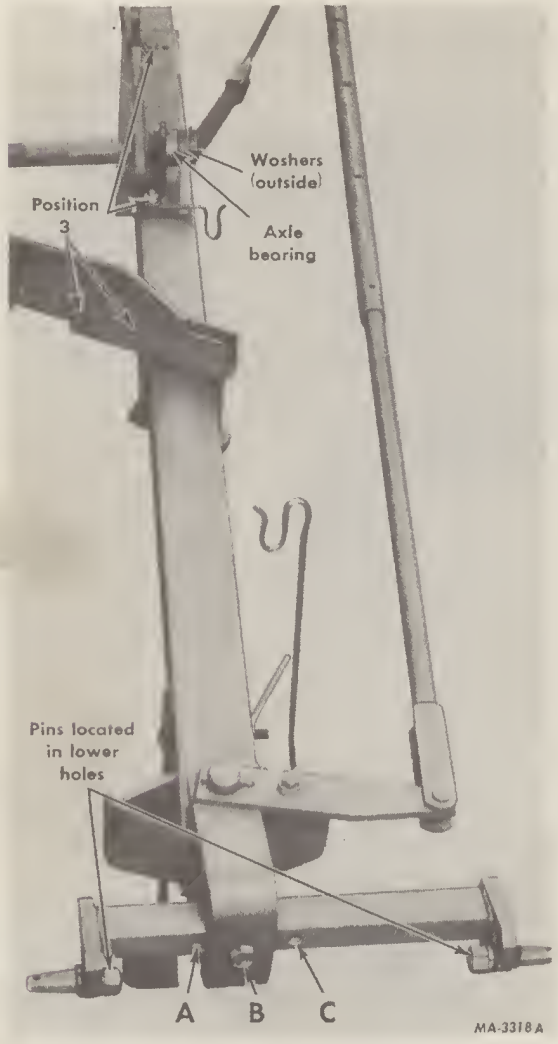


Illust. 17A
Position (2) with setting at "B" shown.

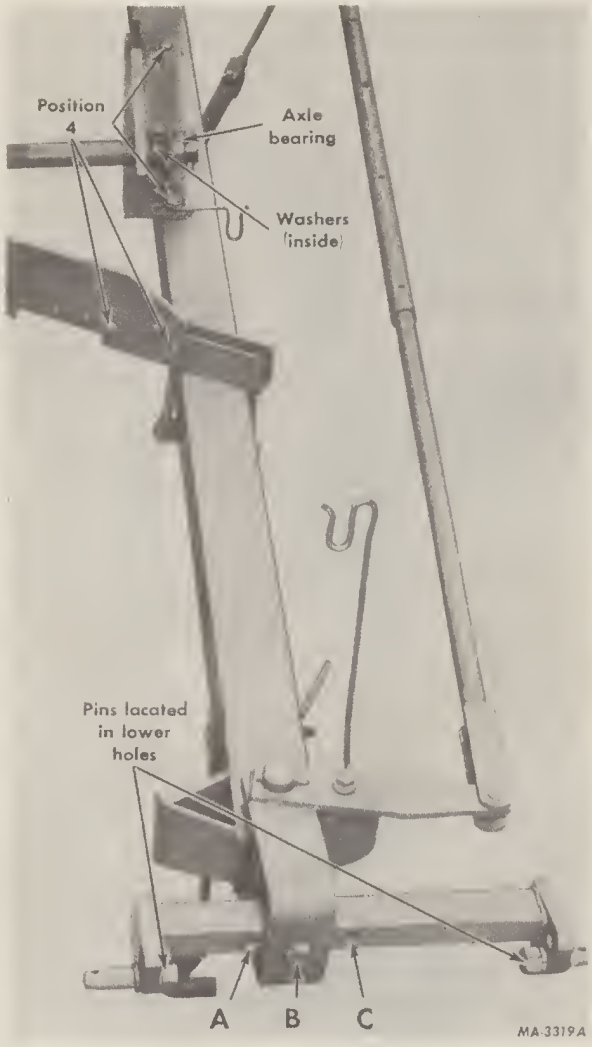
Determine the overall rear tire width of the tractor. Refer to the chart, page 18, and set and secure the position and setting before operating the plow. Locate the washers on the inside or outside of the axle bearing as required.

Note: The tie rod must be kept taut at all times to be effective.

PLOW OPERATION - Continued
ON-THE-LAND OPERATION - Continued
Horizontal Hitch Adjustment - Continued
Hitch Positions



Illust. 18 - Position (3) with setting at "B" shown.

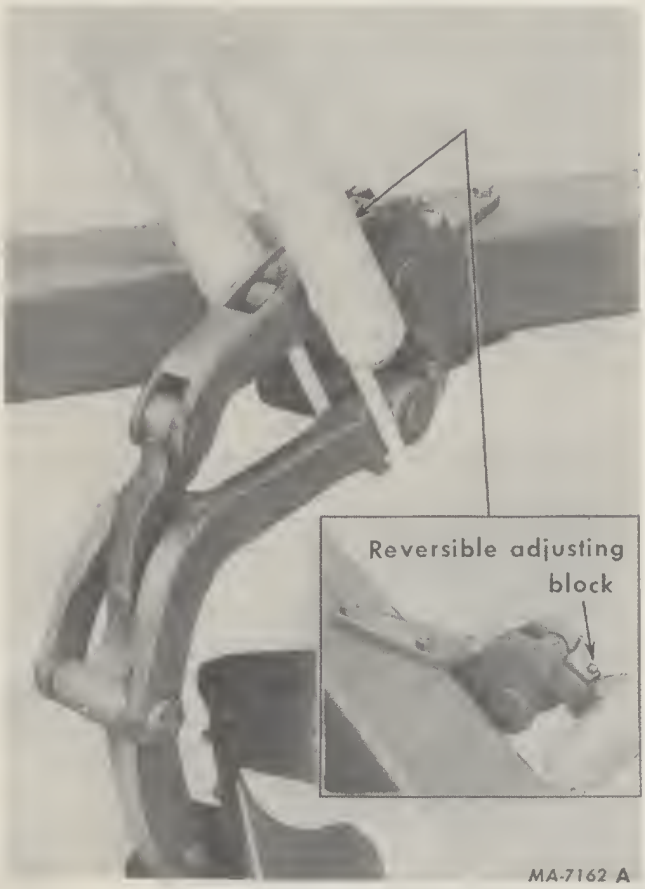


Illust. 18A - Position (4) with setting at "B" shown.

(See Illusts. 17, 17A, 18 and 18A)

Plow Size	Tractors equipped with 123-inch or less overall dual rear tire width		Tractors equipped with 133-inch or less overall dual tire width		Tractors equipped with single rear tires	
	Position	Cross Bar Setting	Position	Cross Bar Setting	Position	Cross Bar Setting
5-furrow 16-inch	3	B	3	A	1	B
5-furrow 18-inch	3	B	3	A	1	B
6-furrow 16-inch	3	B	4	A	2	C
6 furrow 18-inch	3	B	4	B	2	C

PLOW OPERATION - Continued
AUTOMATIC RECOVERY BEAM



Illust. 19

The Automatic Recovery Beam is designed to relieve itself by moving directly back and up when the bottom encounters an obstruction in the ground. The bottom then re-enters the ground at the proper plowing angle without a reduction in forward speed. A vertical relief feature is incorporated which allows the share point to glide up and over sloping obstructions.

The ability of the plow bottoms to maintain the proper plowing depth is dependent upon the suction of the bottom. In fields where penetration is a problem the suction of the bottom must be increased by replacing worn shares or by using shares with better penetrating qualities such as deep suck or upset shares. Under some soil conditions it is advantageous to use the adjustable pitch feature on the plow bottom. (See Illust. 21C).

The reversible adjusting block (See Illust. 19) is assembled at the factory with the thin side engaged. For areas having extreme surface rock, reverse the block so the thick side is engaged reducing tripping load and providing maximum protection for the plow. NEVER OPERATE THE PLOW UNDER ANY CONDITION WITH THE ADJUSTING BLOCK REMOVED.

Note: Use caution when plowing in fields with large rocks which protrude 6 inches or more above the surface.

Caution! Automatic Recovery Beams operate very rapidly and are potentially dangerous to be near at all times while plowing.

Caution! The spring tubes arc and whip at a fast rate forward, making it dangerous to ride anywhere on the plow frame.

Caution! Should dirt or trash cause a unit to "hang up", stay clear of the area near the unit. To remove the obstruction, use a long pole or hook.

SPRING TRIP BEAM

The beam trips are set at the factory to break at a load of 3,100 pounds. Slacking off the lock nuts "AB" will decrease the tripping load. By tightening the lock nuts two revolutions the tripping action is increased to maximum. See Illust. 20.

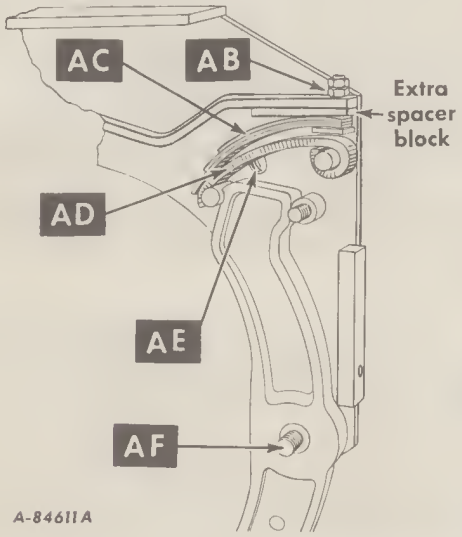
Increasing the tripping load will reduce the frequency of tripping in hard ground, alfalfa, etc., but will at the same time increase the possibility of bottom damage.

An extra spacer block (part number) 524 594 R1) may be obtained from your International Harvester Company dealer and assembled in place as shown in Illust. 20. Use this extra spacer block only where plowing is extremely hard and difficult and excessive tripping occurs. To obtain the maximum protection for the plow frame and bottoms in fields where stumps and stones are found, use only the spacer block provided with the beam units.

Note: Hard surface shares are not recommended for rocky conditions.

PLOW OPERATION - Continued

SPRING TRIP BEAM - Continued



AB - Adjusting nut
AC - Helper spring
AD - Main spring
AE - Access hole
AF - Pivot bolt

Illust. 20

Beam Trip Pivot Bolt

Note: The 1-inch slotted nut which secures the pivot bolt "AF" (Illust. 20) must be kept tight at all times. If this is not done, the bottom will be loose and tend to overcut and wear unevenly. Tighten the slotted nut enough to eliminate all shake but at the same time see that the bottom can be rotated by hand on the beam pivot bolt. This precaution serves to prevent unnecessary tripping in hard ground due to a "walking action" of the trip mechanism. After plowing the first one or two acres, it will be necessary to tighten the pivot bolt nut due to the "wear in" of the mating parts.

Opening The Beam Trip

It is not necessary to disturb the adjustment of the helper springs when the trip unit is opened for examination or cleaning.

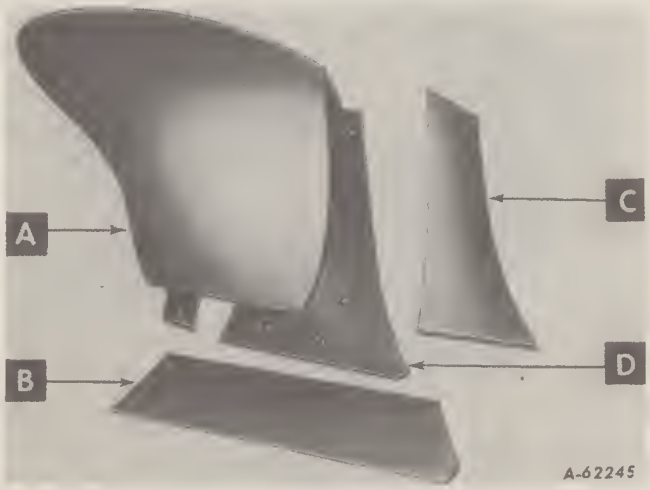
The recommended method is to insert a bar through the access hole in the plate at "AE" (Illust. 20), and pry up on the spring. This will free the beam in a manner which will not disturb the setting of the helper springs.

Operating Precautions

It is recommended that each trip be opened as described above before placing the plow in operation. Remove any accumulation of dried paint but do not lubricate the spring, notch, or roller. Do this again at the beginning of each plowing season and remove any dirt or rust which may interfere with operation. Open and close the unit several times to check the trip action.

Note: Hard surface shares are not recommended for rocky conditions.

PLOW BOTTOM



A - Soft-center steel moldboard
B - Solid steel, throw-away share
C - Replaceable shin
D - Rugged welded-steel frog

Illust. 20A
Super Chief ® Bottom

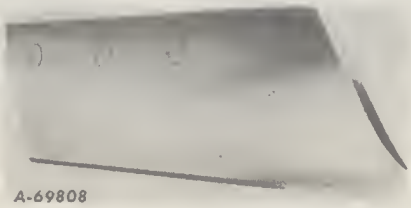
The replaceable shin, landside, and share provide a quick and economical means for renewing the points subject to maximum wear. The shares are the throw-away type designed for replacement instead of sharpening or renewal. Shares are available in regular, upset, and deep-suck styles.

PLOW OPERATION - Continued

PLOW BOTTOM - Continued

Illust. 21 - Regular share shown.

The regular share, (Illust. 21) gives the lowest cost plowing in most soil conditions. The regular share is recommended for normal plowing conditions.



Illust. 21A - Heavy-duty upset share - 3/8-inch.

The heavy-duty upset share (Illust. 21A) has thickness throughout the whole front portion for added strength when used in rocky conditions and for more wear in extremely abrasive soil.

Illust. 21B - Deep suck share - 3/8-inch.

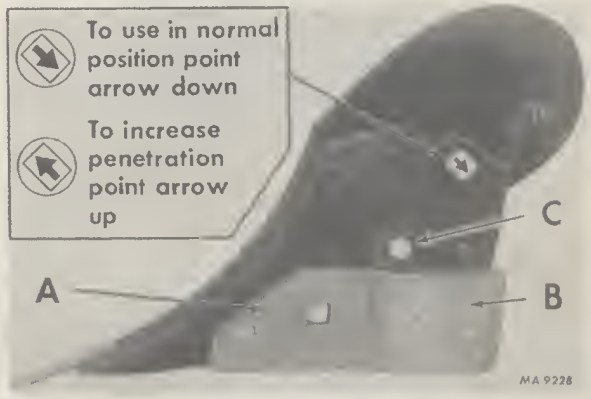
The deep suck share (Illust. 21B) has a point designed for more aggressive action, giving quicker entry and more stable plowing depths in hard ground. Deep suck and upset shares are available with factory applied hard surfacing.

All shares are interchangeable. The bottoms may be changed from regular cut to undercut or overcut, depending on the size of shares used.

Shares, shins, and landsides are held to the frog by plow bolts. When replacing these parts, be sure the bolts are tightened securely. After plowing a round, raise the bottoms and draw up any bolts that have become loosened.

Note: The share bolts have left hand threads.

Never permit the share, shin, or landside to wear until the frog is exposed. When plowing in abrasive soil, check the condition of these parts frequently. Plowing with worn, bent, or broken shares is poor economy, and it can result in hard running plow and increased fuel costs.



A - Landside B-Wear pad (reversible)
C - Eccentric block

Illust. 21C

The landside wear pad can be reversed by removing its two attaching bolts and reinstalling the pad top side down.

The eccentric block is recommended for rocky ground. Be sure the block bears tightly on the landside.

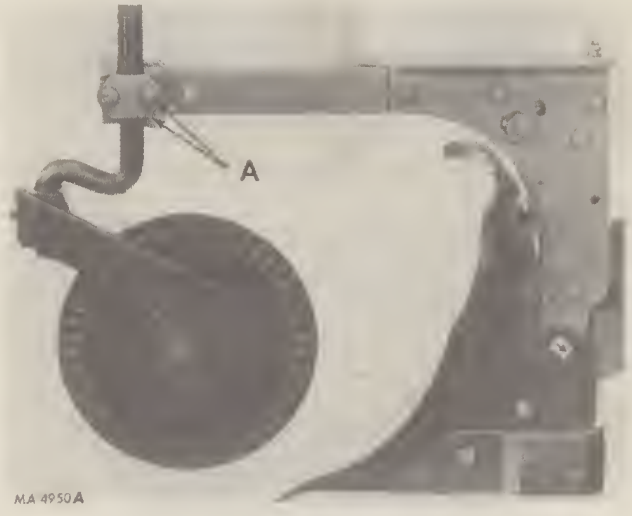
The Adjustable Pitch Feature is provided on all Super Chief plow bottoms to aid penetration with worn shares, and thus prolong share life. This feature also provides more suck for additional penetration when required.

Caution must be taken to see that this feature is utilized correctly. When new shares are being used the bottom should be set in the normal position. See Illust. 21C.

PLOW OPERATION - Continued

ROLLING COLTER

Illust. 22



Illust. 22A

Do not run the colters too deep in hard ground as this will ride the plow out of the ground. Slightly loosen the colter shank clamp and turn the shank with a wrench to swing the colter so the blade will run approximately 3/4" from the left side of the landside for average soil conditions. See that the colter blade is parallel with the landside when the measurement is made. In soft, crumbly ground a wider setting is necessary in order to obtain a clean furrow wall; in sod or firmer soil the colters can sometimes be set narrower.

A set collar at "1", Illusts. 23 and 23A, is provided in the colter yoke to prevent the colter from swinging completely around.

This set collar should be set on the colter shank so it will allow the colter to swing approximately the same distance on each side of the point of the share. The colter can then pivot when the plow is turned to the right or left.

All colters should be set the same to prevent a ridged field.

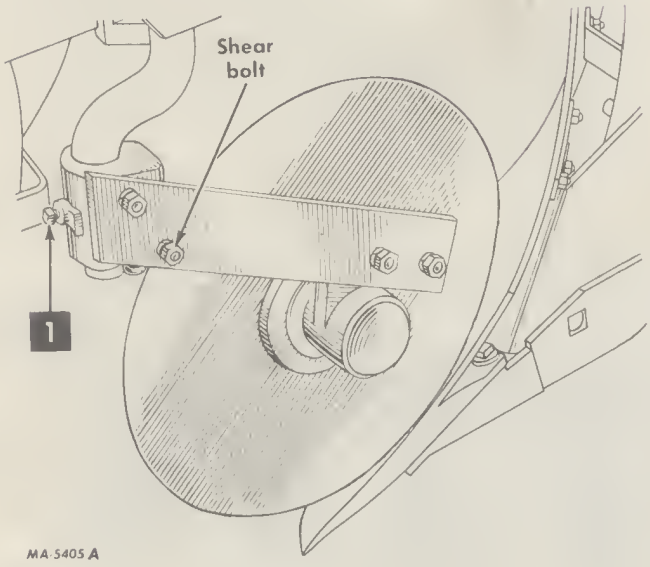
Adjustment is provided to locate the rolling colters in fore and aft relation to the share point. The clamps at "A" (Illust. 22A) holding the colter shanks to the frame rails may be used in two positions.

Twenty inch colters must be assembled in the front setting as shown in Illust. 22A.

PLOW OPERATION - Continued

ROLLING COLTER - Continued

Side Arm Colter



Illust. 23

Side Arm Colters are recommended for regular trip beam plows. Shear bolts are used to protect the colter units against damage when plowing in rocky ground. See Illust. 23. For replacement use 7/16 x 1-3/4-inch hex. head cap screws (type 5).

Cushion Spring Colter

Illust. 23A

Cushion Spring Colters are especially recommended for use with Automatic Trip Beams and stony soil. Adjustment with relation to the bottoms is the same as for the other colter types, however, they should be set lower to provide for spring deflection. If greater amount of down pressure is desired, tighten lock nut "A" in Illust. 23A.

SETTING UP

IN-THE-FURROW OPERATION

Remove all wires and arrange the parts conveniently.

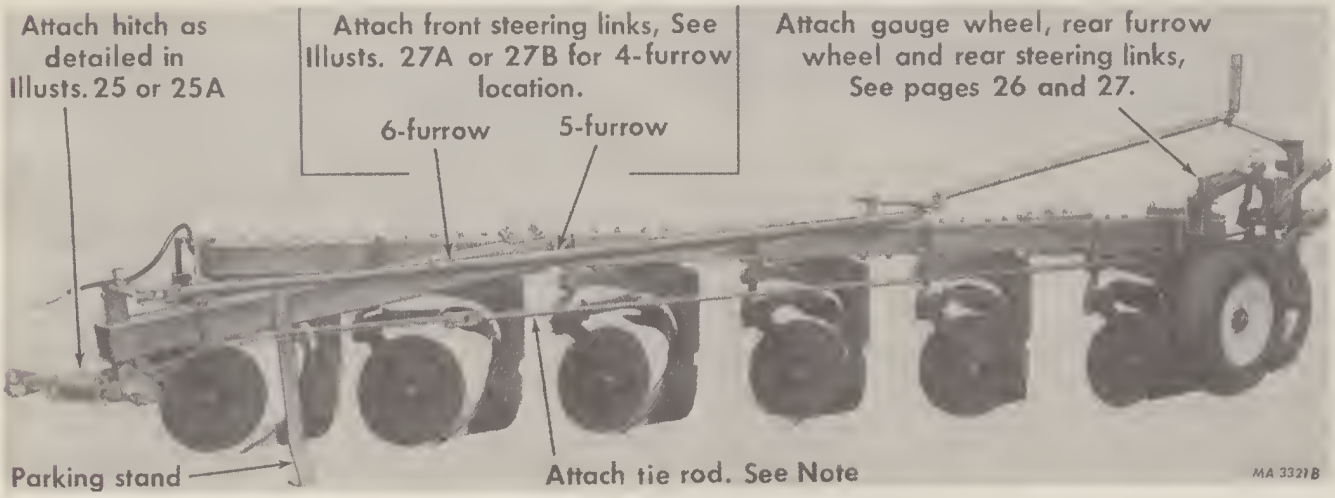
Lubricate all bearings and moving parts as you proceed, and see that they work freely.

Bolts must be used in the holes in which they are found, or in the parts to which they are attached, unless otherwise shown.

Whenever the terms "left" and "right" are used, it should be understood to mean from a position behind and facing the machine.

When beginning to assemble it is recommended that the plow frame be laid over supports about 30 inches high until the hitch and wheels are installed. When the plow can be hitched to the tractor and the hydraulics connnected; raise the plow and put on the bottoms and colters.

Illust. 24 — Spring trip beams.



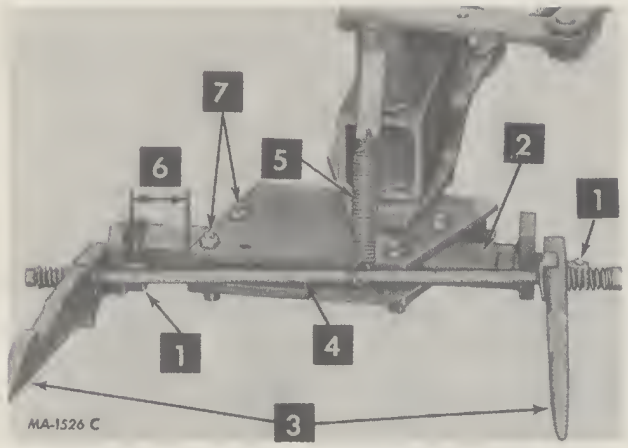
Illust. 24A — Spring trip beams.

Note: Tighten only until the main frame and extension are aligned. In the case of plows without frame extension, tighten until the rod is tight. Secure with jam nut. DO NOT OVERTIGHTEN!

When a frame extension is used, be sure the pull beam is assembled in the correct location. See spreader plate location, page 14.

IN-THE-FURROW OPERATION

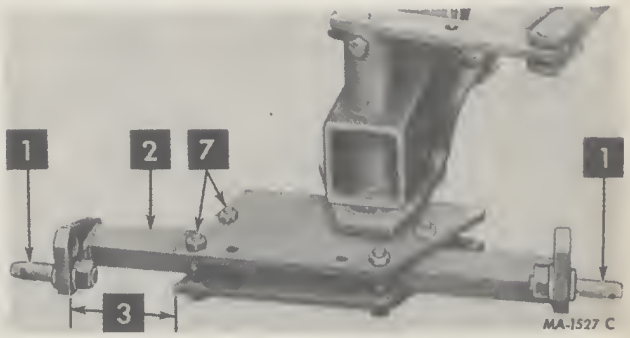
TWO-POINT HITCH



1 - Hitch pins. Lower position. Tighten to 360 foot-pounds torque
2 - Reversible cross bar
3 - Attaching prongs. Secured to hitch pins with headed pins and cotters
4 - Spring loaded spreader rod
5 - Hold-up spring
6 - Width of cut setting. See table of cross bar settings on page 13
7 - Crossbar bolts (retighten to 250 foot-pounds)

Illust. 25
Parts set for average plowing.

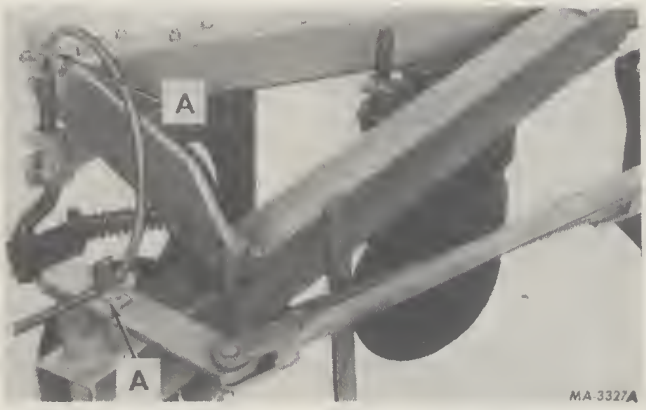
THREE-POINT HITCH



1 - Hitch pins. Lower position. Tighten to 360 foot-pounds torque
2 - Reversible cross bar
3 - Width of cut setting. See table of cross bar settings on page 13
4 - Crossbar bolts (retighten to 250 foot-pounds)

Illust. 25A
Parts set for average plowing.

FRONT HOSE SUPPORT BRACKETS

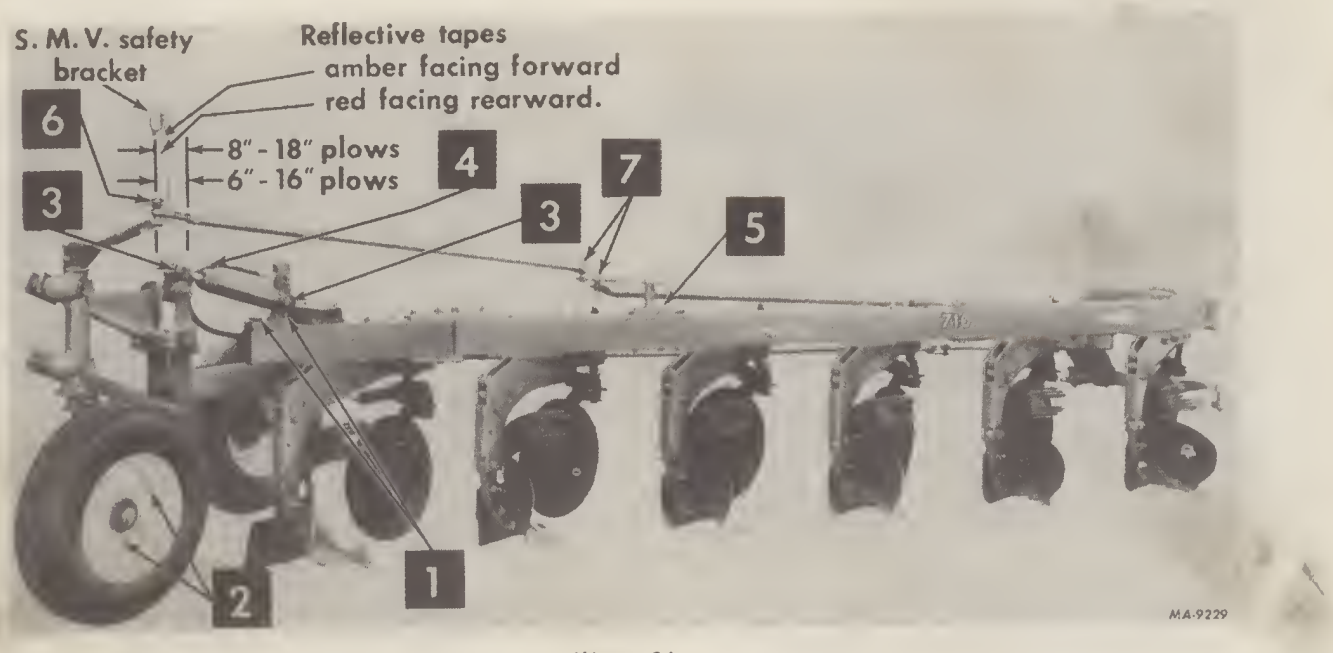


Illust. 25B
Install front hose supports as shown at "A".

SETTING UP

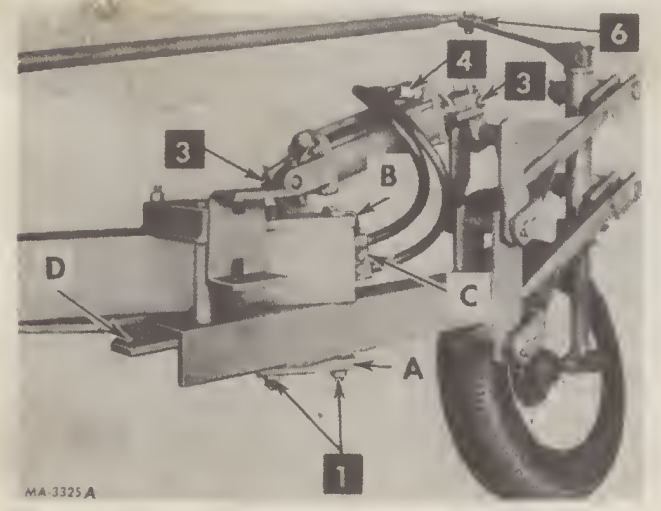
IN-THE-FURROW OPERATION - Continued

REAR FURROW WHEEL



Illust. 26

1. Bolt the rear axle assembly and the cylinder anchor to the end of the main frame diagonal member. Be sure the reinforcing plates are below the wheel mounting bracket as shown at "A", Illust. 26A. Use a torque wrench and tighten these bolts to a setting of 190 foot-pounds. Include the hose clamp on the bolt as shown at "B". Attach the tie rod anchor "D" as shown in Illust. 26A.



Illust. 26A

Note: The two rear bolts must be installed through the frame with nuts on the bottom of the reinforcing plate.

2. Bolt the wheel with tire to the hub on the furrow axle.

3. Attach the hydraulic cylinder.

4. Connect the hose to the cylinder and secure them in the clamp at "C", Illust. 26A.

5. Bolt the steering link pivot bracket to the main frame. Locate the bracket between the second and third beams from the rear of the plow. See Illusts. 26, 27, 27A, and 27B as applicable.

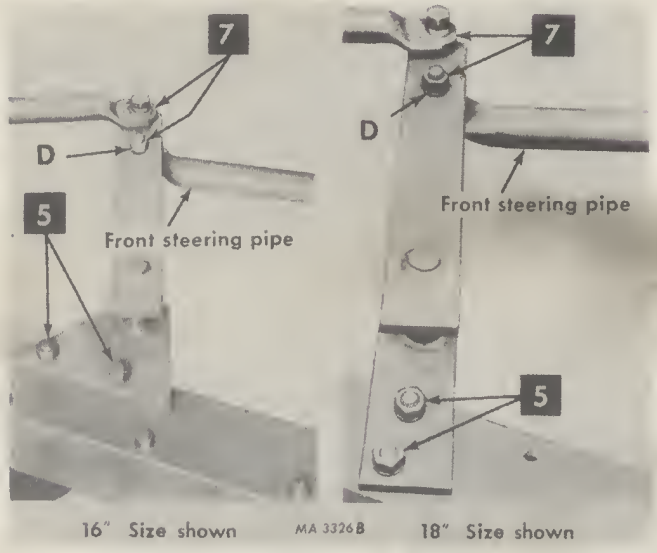
6. Connect the rear steering link to the axle arm.

7. Connect the front and rear steering links to the holes in the pivot arm, using two bolts as shown in Illusts. 27, 27A or 27B.

Be sure to read "REAR FURROW WHEEL" in the Adjusting and Operating instructions.

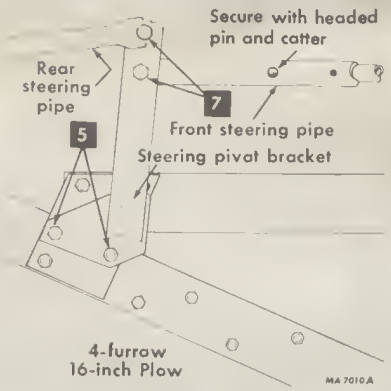
IN-THE-FURROW OPERATION - Continued

REAR FURROW WHEEL

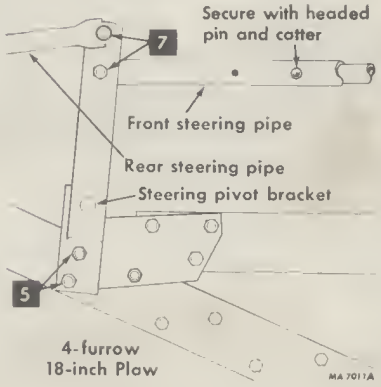


5 and 6 Furrow plows

Illust. 27



Illust. 27A



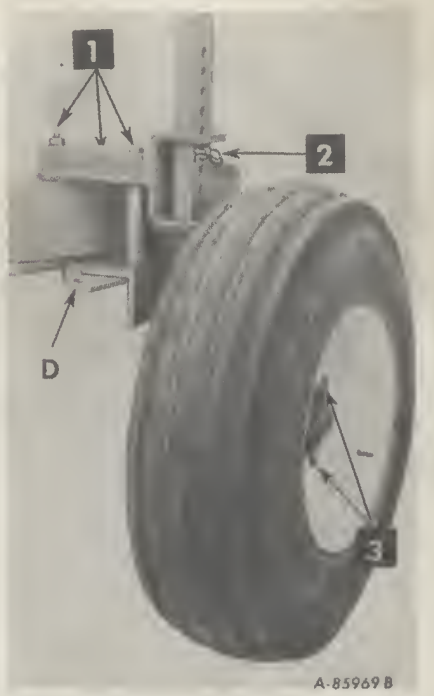
Illust. 27B

GAUGE WHEEL

1. Bolt the gauge wheel bracket to the main frame. Note that the tie rod anchor at "D", Illust. 27C will be secured by the bolt through the main frame.

2. Slide the standard up through the slot in the bracket and secure it with the retaining pin.

3. Bolt the gauge wheel to the hubs. Be sure to read "Gauge Wheel" in the Adjusting and Operating instructions.



Illust. 27C

SETTING UP

ON-THE-LAND OPERATION

Remove all wires and arrange the parts conveniently.

Lubricate all bearings and moving parts as you proceed, and see that they work freely.

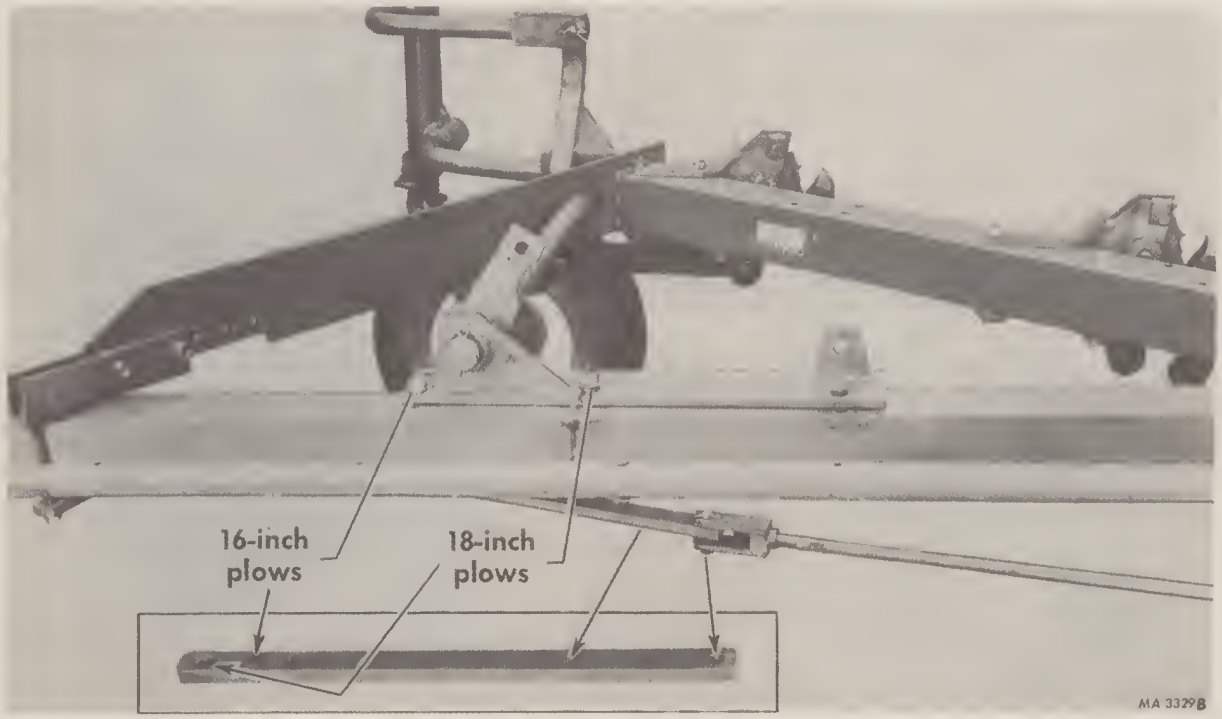
Bolts must be used in the holes in which they are found, or in the parts to which they are attached, unless otherwise shown.

Whenever the terms "left" and "right" are used, it should be understood to mean from a position behind and facing the machine.

When beginning to assemble it is recommended that the plow frame be laid over supports about 30 inches high until the hitch and wheels are installed. When the plow can be hitched to the tractor and the hydraulic connected; raise the plow and put on the bottoms and colters.

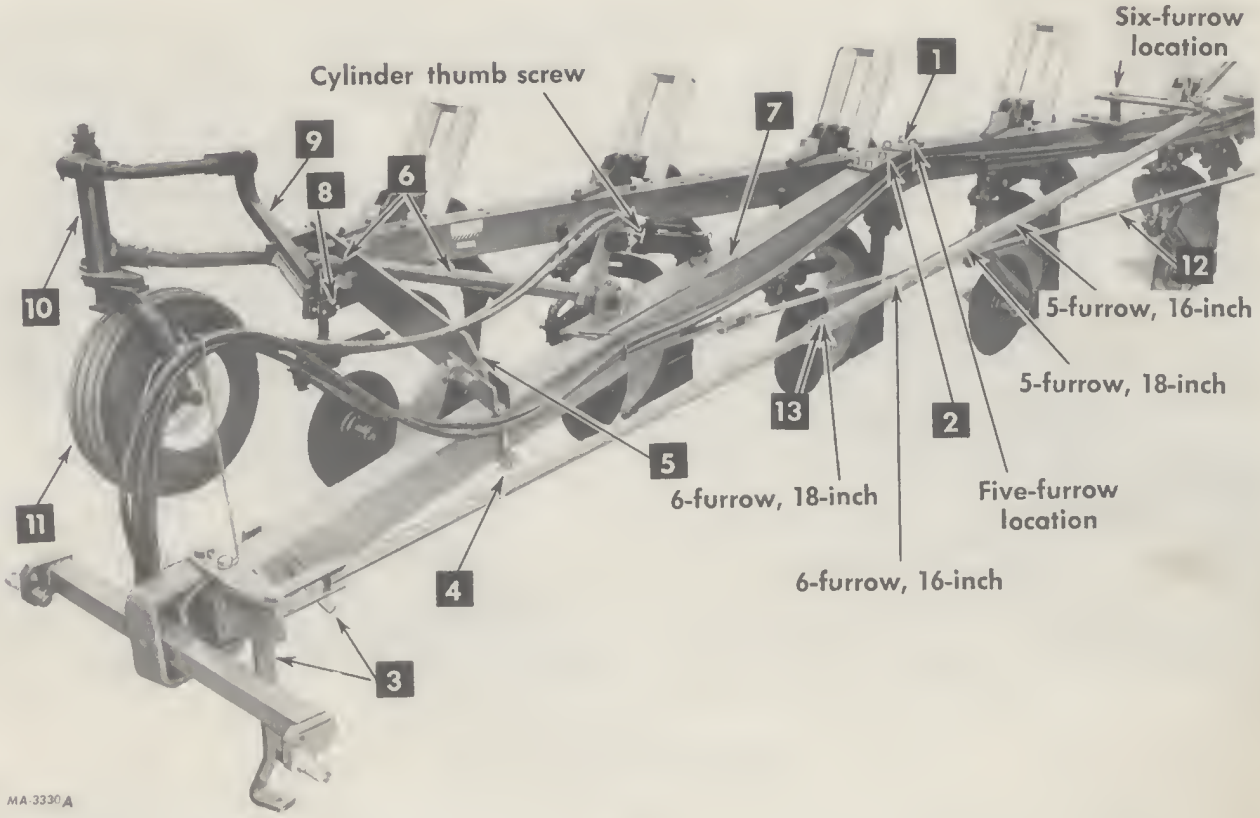
Illust. 28

Tie Rod (Front End)



Illust. 28A - Locate and secure tie rod for 16-inch and 18-inch plows as shown.

ON-THE-LAND OPERATION - Continued



Illust. 29

Note: Assembly is apt to be easier if all bolts are assembled loosely in place, after which all bolts are tightened.

1. Bolt the pull beam connecting plates to the main frame diagonal member. Install hose clamp as shown.

2. Bolt the pull beam and connecting plates together.

3. Bolt the parking stand to pull frame. Use 3/4 x 7-inch carriage bolt and secure with handle.

4. Locate and bolt the spreader mounting and clip.

5. Bolt the spreader to the front of the main frame and the mounting clip. Install mounting spacer at the rear side of the spreader.

Note: See Illusts. 17, 17A, 18 and 18A for proper location.

6. Feed the axle through the slot in the spreader until it is in its approximate position.

7. Bolt the axle bearing to the pull beam.

Note: See Illusts. 17, 17A, 18 and 18A for proper location of bolts, and washers used on each side of the axle bearing. See Illust. 28A for proper tie rod anchor and the hose clamp location.

Note: Install the rear bolt down through the axle bearing plate to prevent cylinder interference. See Illust. 28A.

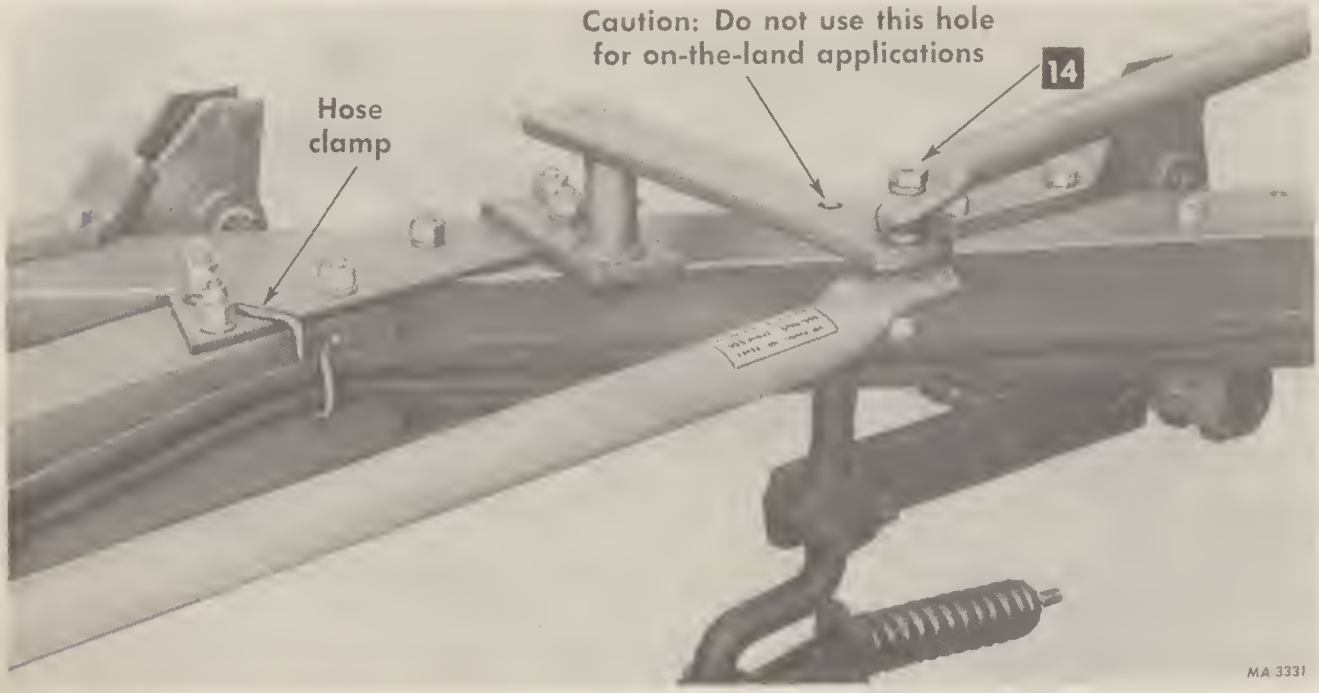
8. Automatic Trip: Bolt the first colter rail to the left side of the recovery beam pivot bracket. Be sure to install the 1/4-inch beam spacer between the recovery beam pivot bracket and colter rail to insure proper alignment of the wheel support bracket.

Spring Trip: One 1/4-inch spacer should be installed on each side of the first colter rail to insure proper alignment of the wheel support bracket.

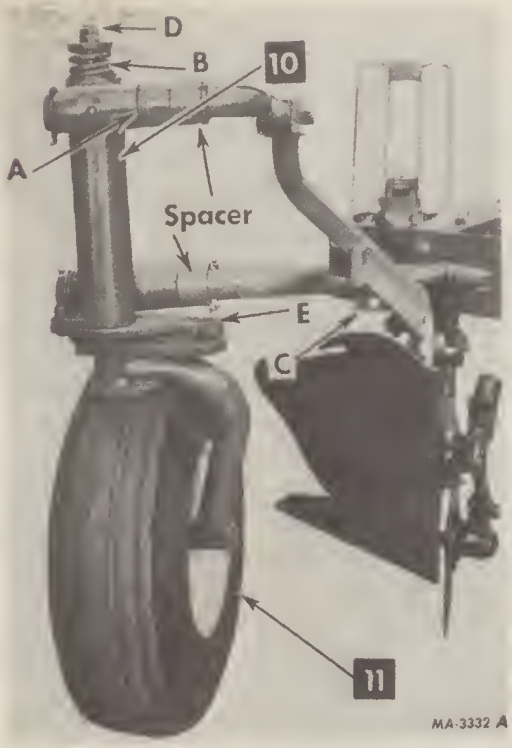
9. Bolt the wheel support bracket to the spreader and the colter stub rail. Install bearing "C". (Illust. 30A).

Note: If rolling colters are used, install colter shank and cap.

10. Install the front furrow wheel axle housing and the upper arm to the cross axle



Illust. 30
Five-furrow, 18-inch plow shown.



Illust. 30A
18-inch shown.

wheel support bracket. See Illust. 30A for axle spacer location. (18-inch shown). Move spacer to outside of housing for 16-inch plows.

Note: Use washer "A" as required to align upper arm. See Illust. 30A.

11. Bolt the furrow wheel (with tire) to the hub. Important! Swing the wheel about 45 degrees to one side to compress the pivot shaft spring "B" (Illust. 30A). Turn the adjusting nut to compress this spring almost "coil to coil". Secure this setting with the jam nut "D".

Important! Remove pin from hole "E" and discard.

12. Bolt the center steering arm and mounting between the second and third beams from the rear of the plow.

13. Connect the inside front steering pipe to the outside front steering pipe and secure as shown in Illust. 29.

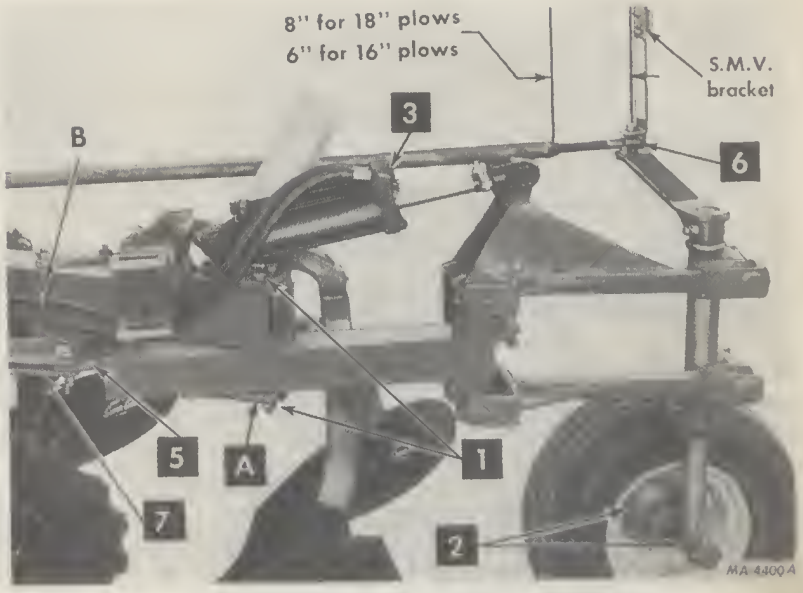
14. Connect the front steering link and rear steering link to the end hole using one bolt as shown in Illust. 30.

ON-THE-LAND OPERATION - Continued

REAR FURROW WHEEL

1. Bolt the rear axle assembly and the cylinder anchor to the end of the main frame. Be sure the reinforcing plate is below the wheel mounting bracket as shown at "A", Illust. 31. Use a torque wrench and tighten these bolts to a setting of 190 foot-pounds.

Note: The two rear bolts must be installed down through the frame with nuts on the bottom of the reinforcing plate.



Illust. 31

2. Bolt the wheel with tire to the hub on the furrow axle.

3. Attach the hydraulic cylinder.

4. Connect the hoses to the cylinder and secure them in the clamp at "B", Illust. 31.

5. Install tie rod anchor as shown in Illust. 31.

6. Connect the rear steering link to the axle arm.

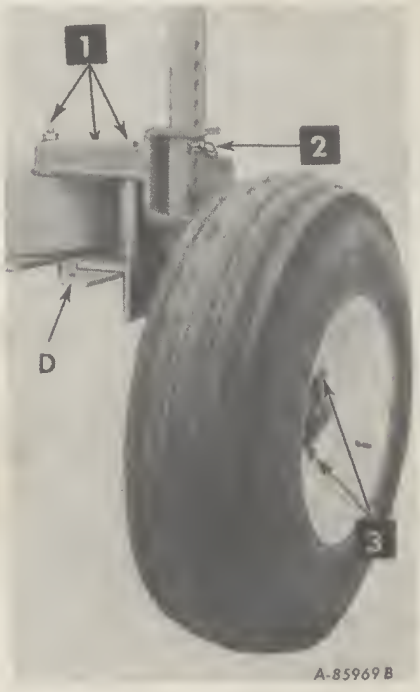
7. Connect the tie rod as shown in Illusts. 28A and 31 for 5 furrow plows. For 6 furrow plows install the two tie rod extension straps between the rear of the tie rod and the tie rod anchor, number 5, shown in Illust. 31. Tighten only until the main frame and extension are aligned. In the case of plows without a frame extension, tighten until the rod is tight. Secure with jam nut. DO NOT OVERTIGHTEN!

GAUGE WHEEL

1. Bolt the gauge wheel bracket to the main frame. Note that the tie rod anchor at "D", Illust. 31A will be secured by the bolt through the main frame.

2. Slide the standard up through the slot in the bracket and secure it with the retaining pin.

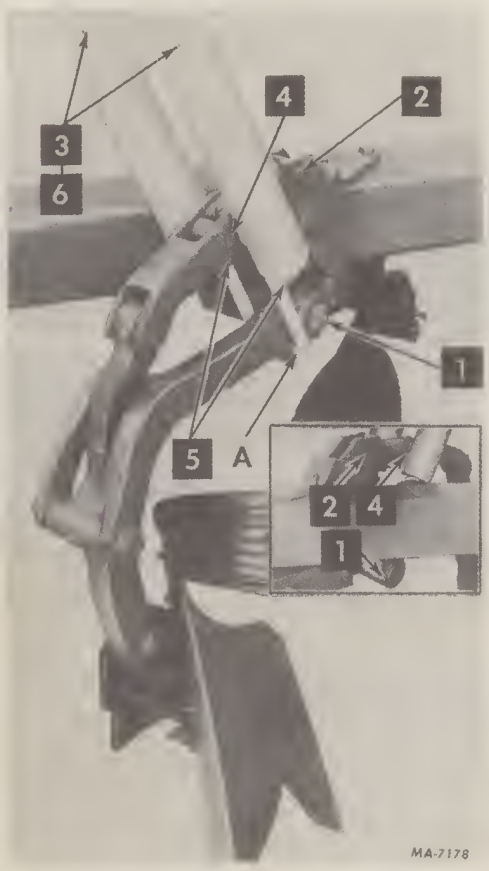
3. Bolt the gauge wheel to the hubs. Be sure to read "GAUGE WHEEL" in the Adjusting and Operating Instructions.



Illust. 31A

SETTING UP

AUTOMATIC RECOVERY BEAMS



Illust. 32

1. Push the lower link into the pivot bracket on the plow frame. Secure the link with a snap ring as shown in the insert.

2. Connect the upper link to the pivot bracket with the pin and snap ring.

3. Remove the springs from the tube assembly by loosening the spring bolts.

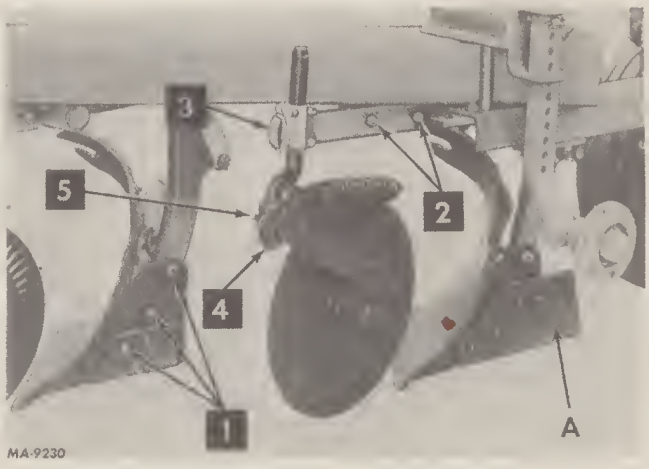
4. Connect the tube assembly to the upper link as shown. It will be necessary to spread the tubes apart until the studs can be assembled into the upper link.

5. Insert the springs into the tubes. Be sure the hooks at the bottoms of the springs are open toward the rear as shown and that the spring link sets in the notch in the front of the lower link at "A".

6. Insert and tighten the spring bolts. Use a torque wrench and tighten these bolts to a setting of 90 foot-pounds. Now, check the spring hook at the bottom end of the spring to be sure the hook is seated in the bearing groove.

Be sure to lubricate all parts prior to field operation. See "LUBRICATION".

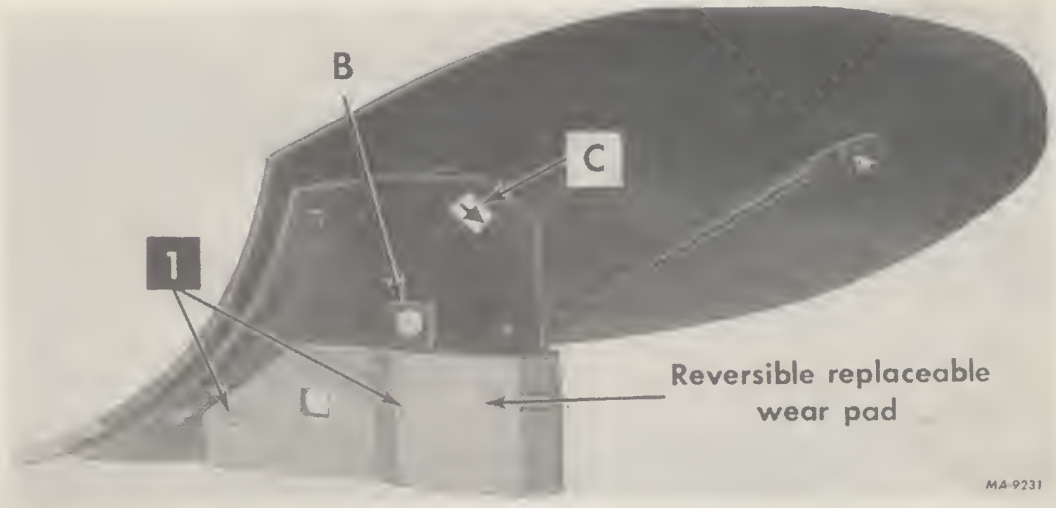
BOTTOMS AND COLTERS



Illust. 32A

1. Bolt the landsides to the bottoms using the hardware found in the landsides. Torque to 70 foot-pounds. Install the special rear style landside, which is furnished, on the rear bottom. See "A".

BOTTOMS AND COLTERS - Continued



Illust. 33

On plows equipped with eccentric block, be sure the block bears tightly against the top of the landside. See "B".

Bolt the bottoms to the beams. Torque to 200 foot-pounds.

The upper beam bolt should be installed with the arrow pointing down. Refer to "C".

2. Automatic Trip: Bolt the colter rail to the left side of the recover beam pivot bracket.

Spring Trip: Bolt the colter rail between the trip beam side plates with the spacer on the right side. The spacer should be installed on both sides of the front bottom for "On-The-Land" plows.

3. Install the colter clamp and cap. Multiple holes in the colter rails provide fore and aft positions. Use the front position for 20-inch colters as shown. For 17-inch colters use the next setting rearward. (The auxiliary colter clamp shown is optional equipment).

Assemble the colter shank with the offset extending forward.

4. Slide the colter yoke up over the shank with the set collar in place and replace the cotter in the end of the shank.

5. Tighten the set screw in the set collar so the colter will run straight and at the same time be free to swing from side to side as limited by the set collar.

Be sure to read "Spring Trip Beam Operating Precautions" and "Rolling Colter" in the instructions for Adjusting and Operating.

SETTING UP

HYDRAULIC CONNECTIONS

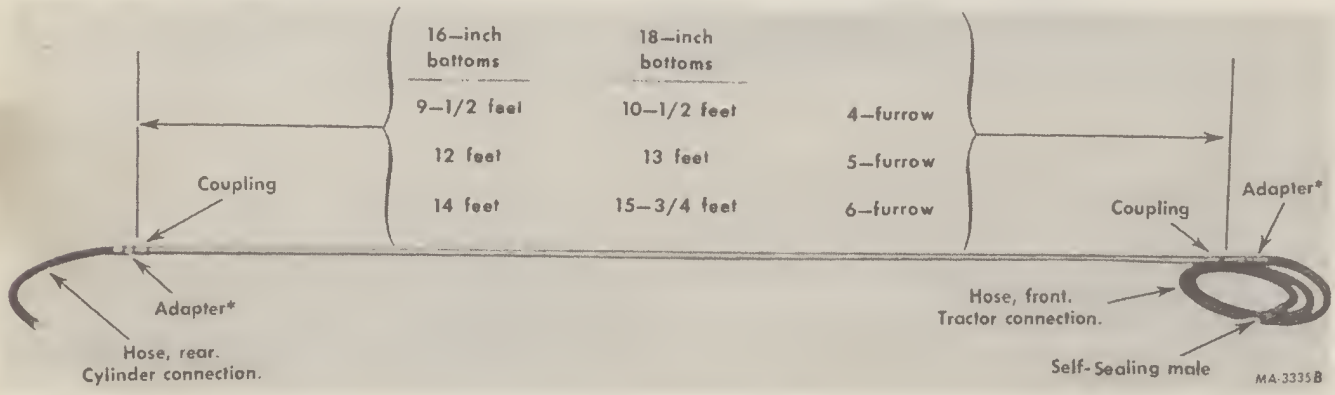
When desired, hydraulic connections from the tractor to the rear furrow wheel cylinder can be made utilizing tubing (or equivalent). Illusts. 34 and 35 show the length of tubing required for the various size plows. Be sure the tubing is clean! The part numbers and lengths of hoses required at the front and rear of the plow are listed.

Note: When a single acting cylinder is used, be sure to remove the double acting check block from the tractor.

IN-THE-FURROW OPERATION

Install the tubing inside of the hollow, diagonal main frame.

Do not run the pipes above the main frame. This is especially important on plows with automatic trip beams to provide clearance.



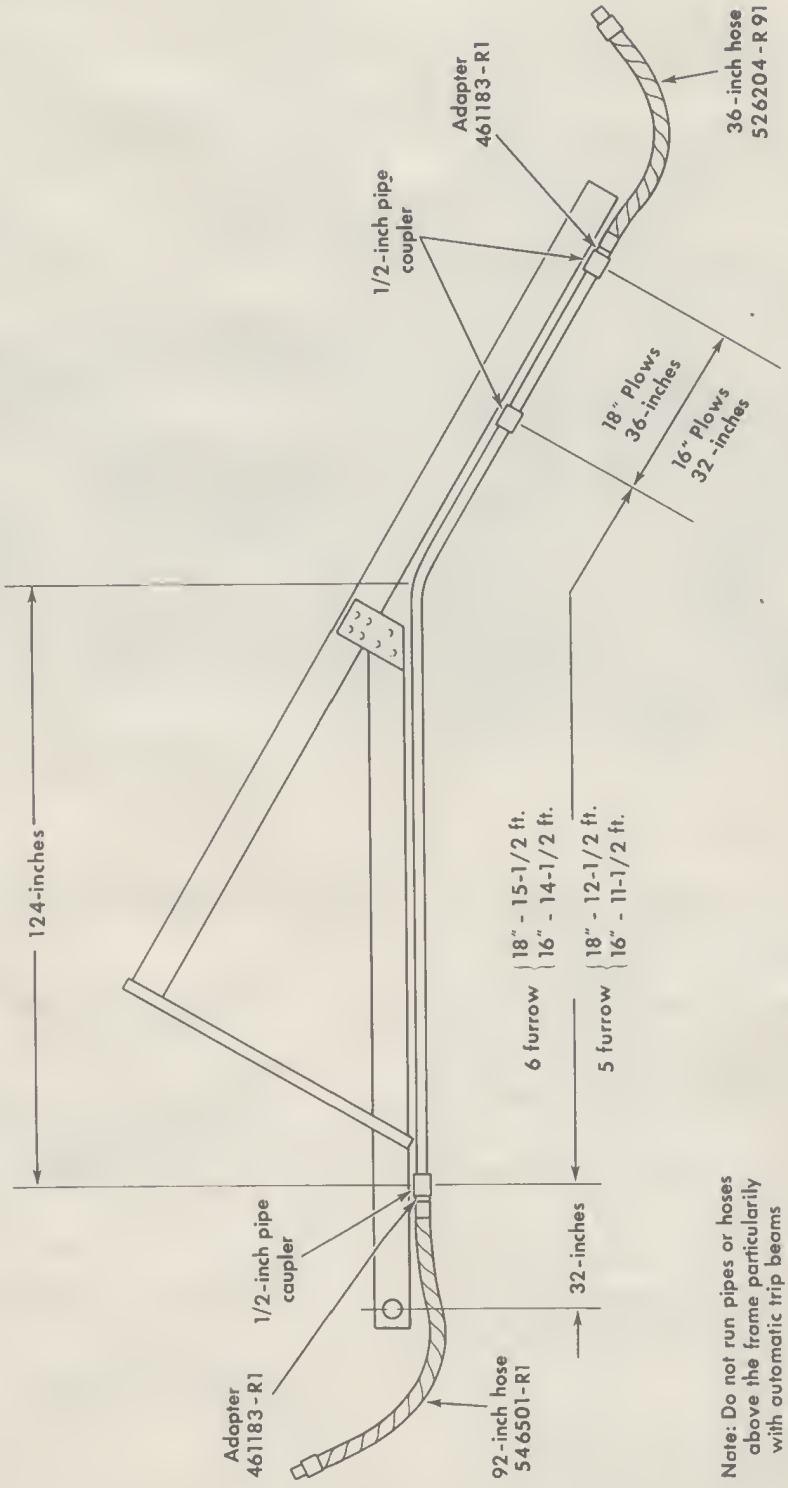
Illust. 34
In furrow shown.
* - An adapter (part number 461 183 R91) is required when a hose with "straight threads" is connected to 1/2-inch standard pipe threads.

Hitch Type	Front Hose				Rear Hose			
	1/2-inch standard pipe connections		"Straight thread" connections		1/2-inch standard pipe connections		"Straight thread" connections	
	Part Number	Length	Part Number	Length	Part Number	Length	Part Number	Length
In-the-Furrow	357 962 R91	96"	407 095 R91	96"	955 494 R91	30"	526 054 R91	30"

Note: When the Frame Extension Attachment is used it will be necessary to extend the tubing by means of a 34-inch length of tubing and a coupling.

HYDRAULIC CONNECTIONS - Continued

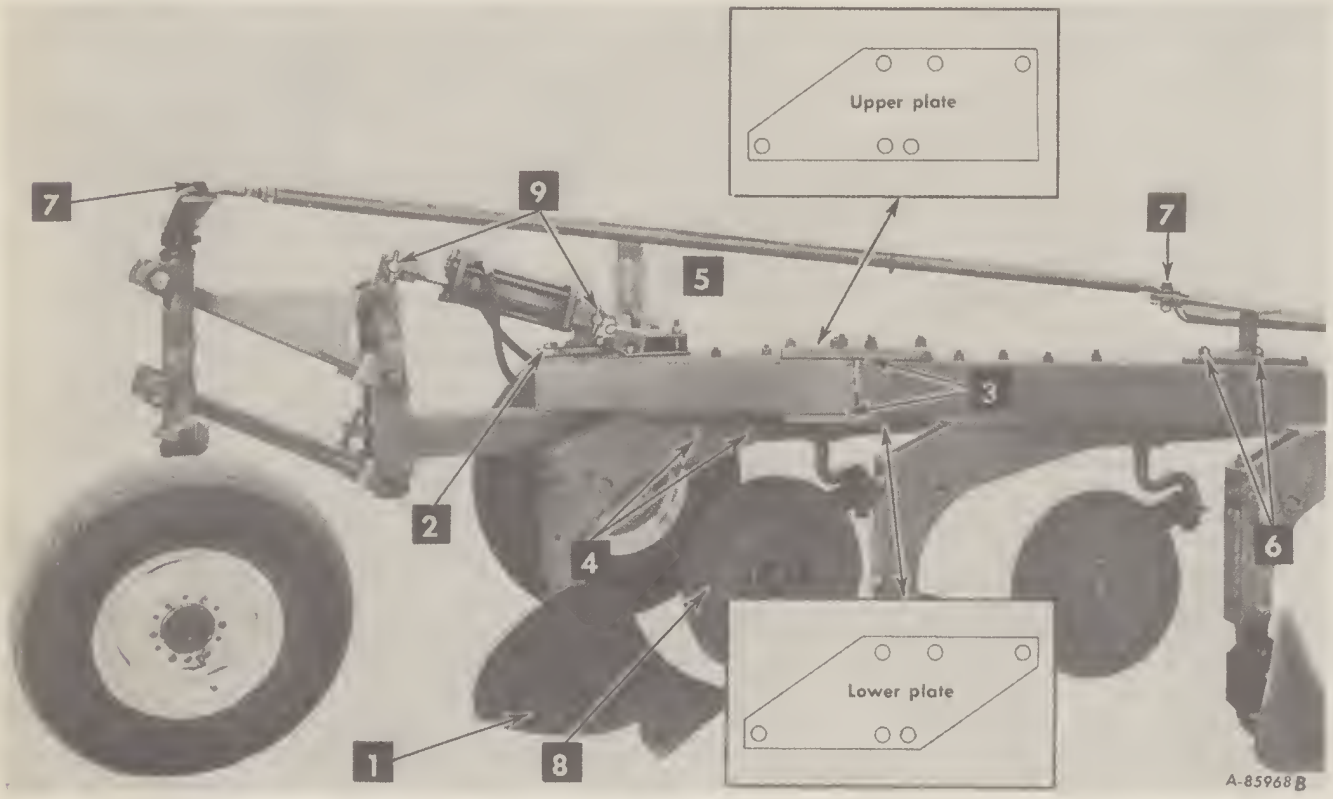
ON-THE-LAND OPERATION



Illust. 35
Top view.

OPTIONAL EQUIPMENT

FRAME EXTENSION ATTACHMENT



Illust. 36

Note: When using the frame extension attachment to convert a 5-furrow to 6-furrow plow, be sure the pull beam and crossbar are assembled in the correct position. See pages 13 and 14 or 17 and 18 as applicable. Be sure to read "Bottoms and Colters", "Rear Furrow Wheel" and "Gauge Wheel" for detailed setting up instructions.

1. Bolt the bottom to the extension trip beam.

2. Remove the furrow wheel assembly with cylinder support from the end of the main diagonal member. Bolt these parts to the end of the extension.

3. Bolt the splice plates with extension to the end of the main diagonal member. Note that these plates are "upper" and "lower" and they must be assembled exactly as shown in Illust. 36.

4. Bolt the colter rail to the trip.

5. Install the gauge wheel.

6. Bolt the steering pipe pivot arm to the main diagonal member locating it between the fourth and fifth beams.

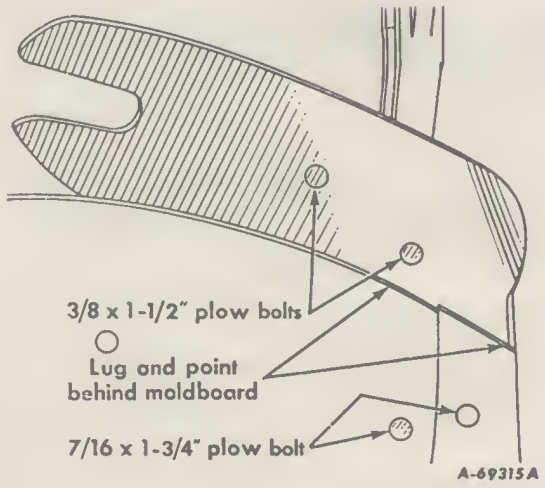
7. Connect the rear steering pipe.

8. Install and adjust the colter shank and colter.

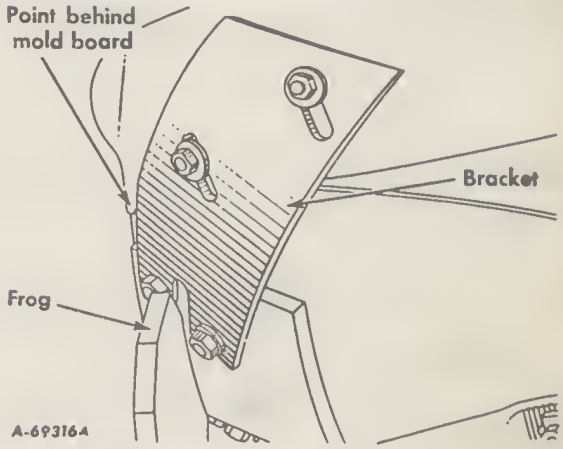
9. Attach the hydraulic cylinder.

TRASH PLATES

Super Chief and T F Bottom



Illust. 37



Illust. 37A

GAUGE WHEEL ADJUSTMENT BAR

Illust. 37B

LUBRICATION

Always lubricate the plow thoroughly before taking it to the field. Use a pressure lubricating gun.

Use IH 251H EP grease or equivalent #2 multi-purpose lithium grease for lubrication fittings on which the pressure lubricating gun is used.

Be sure all fittings are free from dirt and paint so the lubricant is certain to enter the bearing.

Always force the lubricant through the full length of each bearing until it emerges at the end, carrying with it the worn lubricant and any dirt that may have entered the bearing.

Miscellaneous working parts not provided with lubrication fittings should be oiled daily with a good grade of lubricating oil.

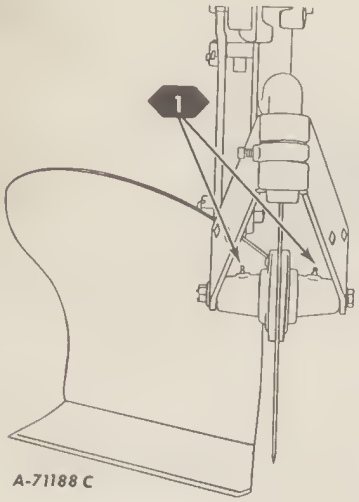
Lubricant is cheap. Use plenty of it. Worn parts can be expensive to replace.

Twice Daily or After Every 5 Hours of Operation

Daily or After Every 10 Hours of Operation

Periodic or Once per Season

YOKE COLTER



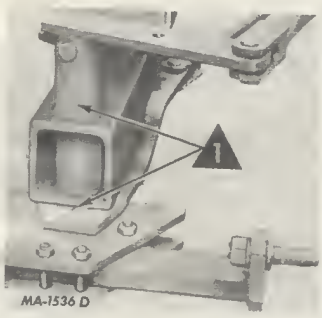
Illust. 38

SIDE ARM COLTER (Cushion Spring)

Illust. 38A

IN-THE-FURROW OPERATION

Paragraph numbers refer to corresponding numbers in the illustrations. The symbols around the reference numbers indicate the intervals of lubrication.



Illust. 39
In-the-furrow operation shown.

⬬ Twice Daily or After Every 5 Hours of Operation

1. Rolling colter bearings (yoke type) (two fittings per colter).

Use a pressure lubricating gun and apply IH 251H EP grease (or equivalent #2 multi-purpose lithium grease) sufficient to flush out the old grease and dirt.

▲ Daily or After Every 10 Hours of Operation

1. Hitch pivot (2 fittings).
2. Rear furrow wheel (6 fittings).
3. Steering pipe pivot arm (1 fitting).
4. Automatic Trip Beam (6 fittings per beam).

4A. Cushion Spring Sidearm (1 fitting per colter).

Use a pressure lubricating gun and apply IH 251H EP grease (or equivalent #2 multi-purpose lithium grease) sufficient to flush out the old grease and dirt.

5. Automatic Trip Beam (5 places per beam).
6. Steering link pivot points (4 places).

Use oil can.

⬢ Periodic or Once Per Season

13. Rear furrow wheel bearing.
15. Gauge wheel bearing.
16. Rolling colter hub bearing.

Remove, clean and repack this bearing by hand using IH 251H EP grease or equivalent #2 multi-purpose lithium grease.

ON-THE-LAND OPERATION

Paragraph numbers refer to corresponding numbers in the illustrations. The symbols around the reference numbers indicate the intervals of lubrication.

⬬ Twice Daily or After Every 5 Hours of Operation

1. Rolling colter bearings (yoke type) (two fittings per colter).	Use a pressure lubricating gun and apply IH 251H EP grease (or equivalent #2 multi-purpose lithium grease) sufficient to flush out the old grease and dirt.

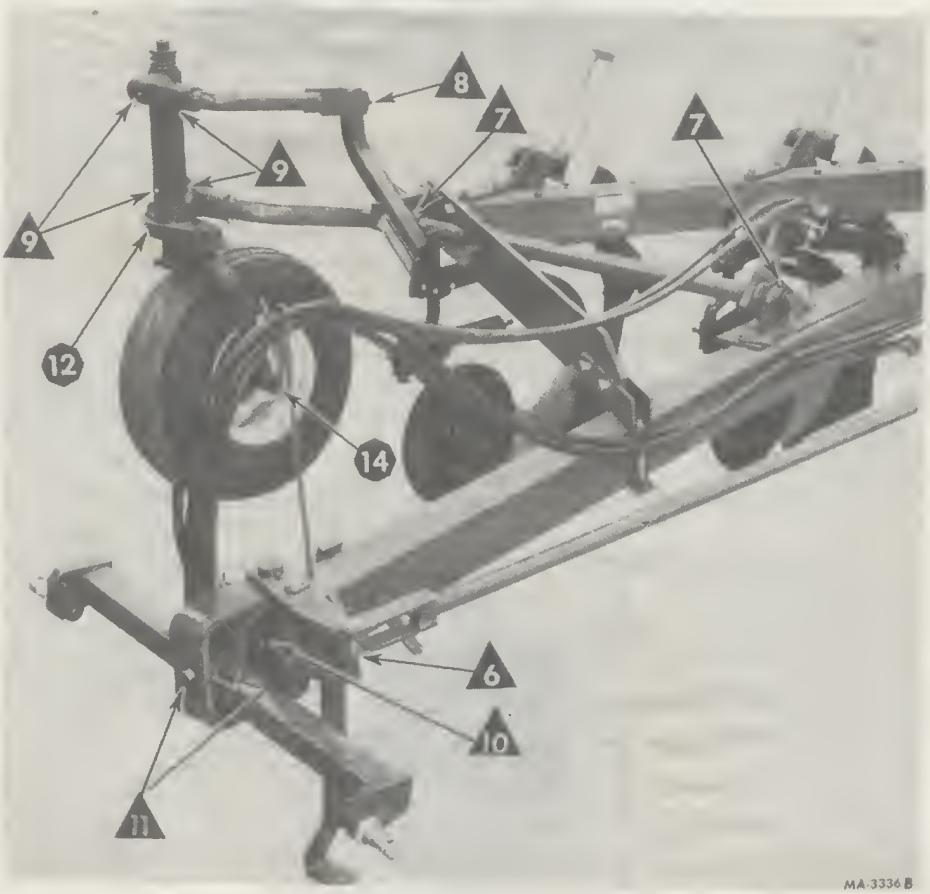
▲ Daily or After Every 10 Hours of Operation

2. Rear furrow wheel (6 fittings). 3. Steering pipe pivot arm (1 fitting). 4. Automatic Trip Beam (6 fittings per beam). 4A. Cushion Spring Side Arm (1 fitting per colter).	Use a pressure lubricating gun and apply IH 251H EP grease (or equivalent #2 multi-purpose lithium grease) sufficient to flush out the old grease and dirt.
5. Automatic Trip Beam (5 places per beam). 6. Steering pipe pivot points (4 places).	Use oil can.
7. Front furrow axle (2 fittings). 8. Front furrow axle bracket (1 fitting). 9. Front furrow wheel housing (4 fittings). 10. Hitch pivot (1 fitting).	Use a pressure lubricating gun and apply IH 251H EP grease (or equivalent #2 multi-purpose lithium grease) sufficient to flush out the old grease and dirt.
11. Hitch pivot area and bolt.	Grease or oil by hand.

⬢ Periodic or Once per Season - 200 Hours of Operation

12. Front furrow axle cam.	Grease or oil by hand.
13. Rear furrow wheel bearing. 14. Front furrow wheel bearing. 15. Gauge wheel. 16. Rolling colter hub bearing.	Remove, clean and repack these bearings by hand using IH 251H EP grease or equivalent #2 multi-purpose lithium grease.

Illust. 41



Illust. 41A

Illust. 42

INTERNATIONAL HARVESTER

SPECIFICATIONS

Tractor applications	Farmall and International or any tractor having adequate horsepower and hydraulic equipment.
Tractor hitch required	Three-Point Category II (two) Category III (three) Hitch or Two-Point Hitch (in the furrow only)
Plow hitch types	4, 5, 6 In-the-Furrow or 5 and 6-Furrow On-the-Land
Plow type	Semi-mounted; steerable.
Plow sizes	Four-furrow, five-furrow can expand to six-furrow. Six-furrow is non-expandable
Bottom sizes	16-inch and 18-inch.
Beam types	Spring trip or automatic recovery.
Plowing depth	Up to 12 inches.
Trash clearance	Fore and aft - 28-inches for 16-inch plows; 31-1/2-inches for 18-inch plows. Vertical - 30 inches.
Rear furrow wheel	High lift, steerable type. Tires recommended - 6.70-15 6 ply
Gauge wheel	Pin adjusted type. Tires recommended - 6.70 - 15 6 ply 9.50 - 14 6 ply Optional

Specifications subject to change without notice.

MEMORANDUM

Accidents can be prevented with your help

No accident-prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of equipment.

To read accident reports from all over the country is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the harvest field or in the industrial plant, can be safer than the man who is at the controls. If accidents are to be prevented—and they can be prevented—it will be done by the operators who accept a full measure of their responsibility.

It is true that the designer, the manufacturer, the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that *"the best kind of a safety device is a careful operator."* We ask you to be that kind of an operator.

INTERNATIONAL HARVESTER COMPANY
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