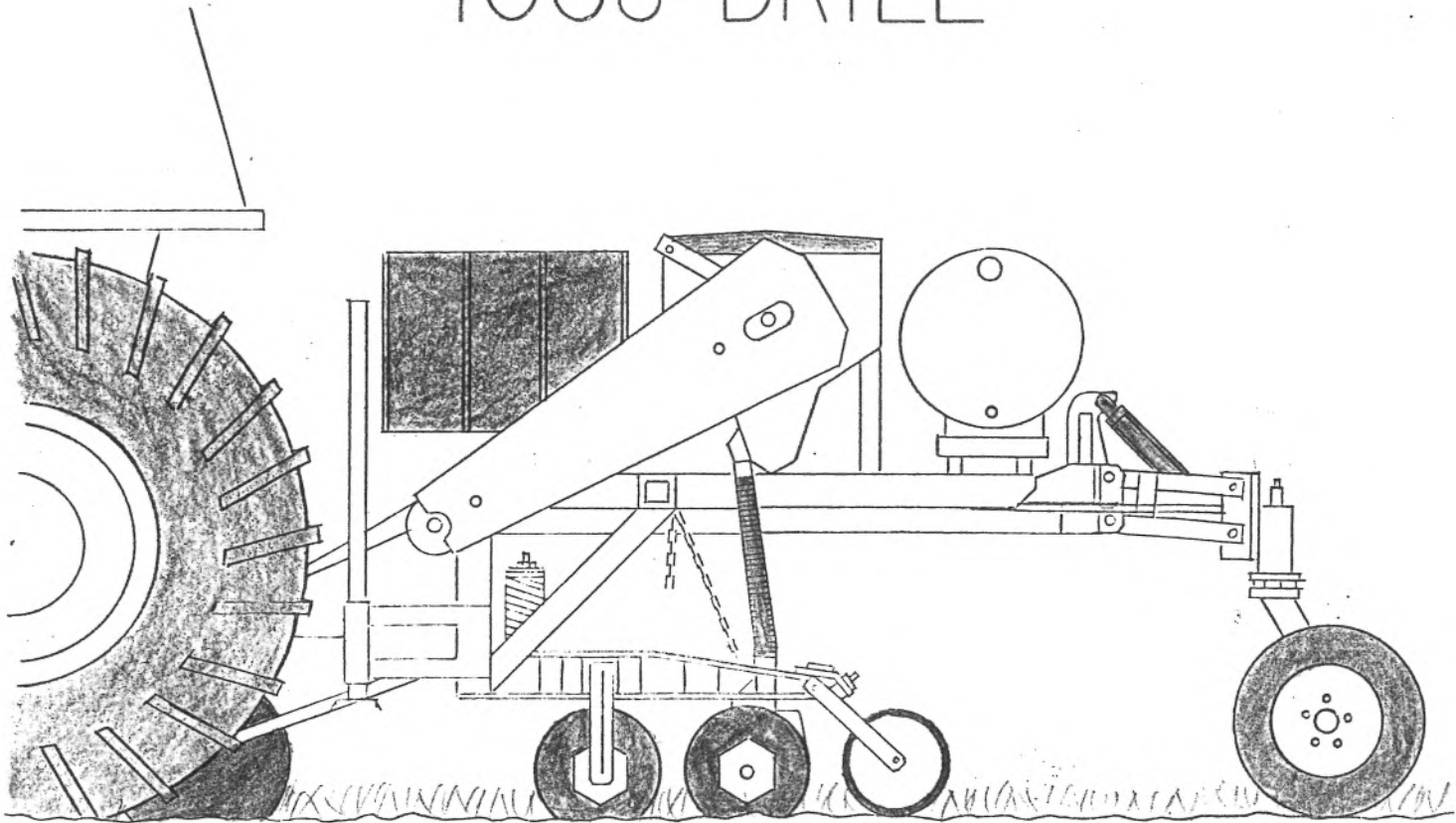


HAYBUSTER 1068 DRILL



DEALER SET UP
OPERATION MANUAL

1068 DRILL

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WARRANTY - HAYBUSTER 1068 DRILL

Haybuster Mfg. Inc. warrants to the original purchaser for one year from purchase date that this product will be free from defects in material and workmanship when used as intended and under normal maintenance and operating conditions. This warranty is limited to the replacement of any defective part or parts returned to our factory in Jamestown, No. Dak. within thirty (30) days of failure.

This warranty shall become void if in Haybuster Mfg. Inc.'s judgement the machine has been subject to misuse, negligence, alterations, damaged by accident or lack of required normal maintenance, or if the product has been used for a purpose for which it was not designed.

All claims for warranty must be made through the dealer which originally sold the product and all warranty adjustments must be made through same.

This warranty does not apply to tires or bearings or any other trade accessories not manufactured by Haybuster Mfg. Inc. Buyer must rely solely on the existing warranty, if any, of these respective manufacturers.

Haybuster Mfg. Inc. shall not be held liable for damages of any kind, direct, contingent, or consequential to property under this warranty. Haybuster Mfg. Inc. cannot be held liable for any damages resulting from causes beyond its control. Haybuster Mfg. Inc. shall not be held liable under this warranty for loss of crops, or rental costs or any expense or loss for labor or supplies.

Haybuster Mfg. Inc. reserves the right to make changes in materials and/or designs of this product at anytime without notice.

This warranty is void if Haybuster Mfg. Inc. does not receive a valid warranty registration card at its office in Jamestown, N.D. within 10 days from date of original purchase.

All other warranties made with respect to this product, either expressed or implied, are hereby disclaimed by Haybuster Mfg. Inc.

1. Use CAUTION when connecting the drill to tractor lower 3 point links. Room is limited between the tractor tires and the drill.
2. With full ballast and full grain tank total weight is over 6200 pounds. Because the tractor must lift over half of this weight, the front of tractor may require extra weight to hold the front wheels firmly on the ground.
3. Do not road (transport) the drill at speeds over 10 M.P.H.
4. Never allow anyone but the operator on the tractor. Never allow anyone on the drill while it is in motion.
5. If any service is to be done under the drill, first lower and pin the front support legs and install the spacer rings on the rear cylinder ram.
6. High pressure hydraulic fluid escaping from a small hole can penetrate the skin and cause serious injury. Use a piece of paper instead of hands to locate leaks.
7. Throttle down when making 90 or 180 degree turns and make sure spectators and vehicles are well in the clear.
8. Keep the belt and chain shield installed.
9. If 3 point links have some extra side clearance, the drill may swing sideways while backing up. Allow for this near trees, buildings, or doorways.
10. If rear step and platform are wet, they may be slippery. Use Caution.
11. When cover is opened to fill or clean out grain tank, push hold open rods forward so the wind cannot blow the cover closed.

1068 DRILL DEALER SET UP
-USE THIS SEQUENCE TO ASSEMBLE DRILL

1. Lift front of drill high enough to install Front legs in pipe brackets. Pad goes down and pin in center hole. Bottom of frame will be about 19" above the ground.
2. Raise rear of drill, Install Swivel Wheel Assembly, Cylinder Pin and step, Refer to PAGE E. Install 4 cylinder spacer rings (parts bag) on cylinder ram.
3. Install Grain hoses on cups. Place the Large Corbin clamp on the square tube with lap forward, Install large end of hose at least 1". Lower the clamp over hose. Refer to PAGE A.
4. Runs are all the same length. Start at one end - work across. One run on each stagger block, one between. L Bolts are installed with both flat washers over the slot. Lock Nuts must be tight. Refer to PAGE A.

Lift chains - Hook in 4th link behind stagger block, 8th link on runs between stagger blocks. Chains should be tight with runs fully down at hinge, Twist chain if necessary to get this length. Refer to PAGE A.
5. Remove drive colter from transport position. Refer to PAGE C. Install as shown using 2 L Bolts and 2 bolts installed in 3 point brackets. Remove transport wire.
6. Install square drive line with solid shaft at the bottom. Joints Must be in time. Square keys are in parts bag, set screws go into countersunk holes in round shafts.
7. Push - Pull Rod. Refer to PAGE B.
Install as shown. Use a lock nut at the Pivot Points
DO NOT TIGHTEN FULLY.
8. Acre Counter, Instructions are in box
Install as shown.
9. Install press wheels and hangers as shown on PAGE D.

SEE PAGE ABCDE

1068 Drill ATTACHING DRILL TO TRACTOR

1. Attach the lower 3 point links to the pins. Category 3 tractors will require a sleeve on the pin.
2. Front drive colter must clear the drawbar, P.T.O. shield, and P.T.O. shaft when the drill is raised fully up. On most tractors the drill will move sideways some while turning. Check these clearances carefully and remove parts where required.
3. Install couplers (not furnished) on the hoses and plug into a tractor circuit.
4. Level lower 3 point links with screw adjustment on tractor.
5. 3 point system is operated in FLOAT position. A down stop must be available on the 3 point to control depth of penetration. FLOAT position allows the drill to move upward as required over rough ground. Refer To Page T.
6. Lift the drill up, raise the front legs and pin in raised position.
7. Rear cylinder helps to set the penetration depth. Spacer rings on the cylinder ram act as a down stop.
8. Check front drive colter clearance and hydraulic hose length in all possible raised positions.
9. PUSH - PULL ROD
The stainless control plate is spring loaded either open (up) or closed (down) by the push - pull rod as the rear hydraulic cylinder is operated.
At low feed rates, (control plate opens very little) the long spring compresses the most. This spring should never bottom out (compress fully) or the torque tube may be damaged. The hairpin should be in the outer hole near end of rod.
10. It may be necessary to move the hairpin ahead to second hole when seeding light, fluffy grass seed which requires a large feed slot opening.

1068 DRILL		LUBRICATION	
<u>Description</u>	<u>Type</u>	<u>Frequency</u>	<u>Number Zerk</u> s
Swivel Wheel King Pin	Grease	10 Hrs.	2
Drive Colter Hinge Pin & Rods	Grease	10 Hrs.	3
Torque Tube Bushings	Grease	10 Hrs.	3
Universal Joints	Grease	20 Hrs.	3
Square Drive Line	Grease	10 Hrs.	1
Roller Chain	Oil	10 Hrs.	

All Colter, Disk, and Press Wheel bearings are non-relubeable

1068 DRILL FEED SYSTEM

Seed flow rate is regulated by a stainless steel control plate. V notches in the plate align with slots in the tank. The control plate is down against stops when the runs are raised out of the ground. As the Frame is lowered the push-pull rod opens the control plate a pre-determined amount. The rotating nylon feed wheels move the seed thru the slot opening and it flows down the hoses.

Control plate opening is adjusted with 3 sets of control rod locks. PAGE G. Red paint on the top lock helps to count the turns. The bottom lock is used to prevent the top lock from turning.

TURNS are always counted from fully closed against the stop blocks. TURNS open should be the same at all 3 sets of control rod locks. TURNS open should be adjusted with the runs raised up and the control plate fully closed.

The word TURNS in the feed rate charts means the number of turns the red control rod lock is lowered starting from the fully closed position. The setting is quite sensitive and may require $\frac{1}{2}$ or $\frac{1}{4}$ turn.

The word SPACE on the feed charts means the distance from the tip of a feed wheel tooth to the wall of the tank. PAGE E. Small seeds require a close setting to insure even flow, large seeds require more room to prevent cracking. Three (red) feed wheels gages are supplied. These gages are 10 gauge, $\frac{1}{4}$ " and $\frac{3}{8}$ " thick.

To use the gage required, remove the perforated screens and the feed wheel covers. Loosen the 4 hinge plate lock handles so the feed shaft will swing front or rear. Lay the correct gage on the feed wheel with the gage slot up. Swing the shaft forward, lock the handle TIGHT, and remove the gage. Tip of feed wheel tooth should be against the gage. Rotate shaft if necessary. If lock handle points up when tight, screen will not fit in place. To correct, loosen handle enough to rotate carriage bolt head to a different position. PAGE F.

The 3 feed wheel covers are used for all seeds except light, fluffy grasses which will not run under the covers. If the covers are not used, bolt them into the storage brackets welded to the tank rear support legs.

The perforated screens will remove long stems or fertilizer chunks which could restrict the feed slot opening.

The feed rate charts are determined using a single slot, stationary calibrator. Due to the large variance in seed size and weight, the charts should be used only as a starting point.

An extra feed slot with a catch cup is used to determine the exact feed rate. PAGE H. This system may also be used to calibrate a seed which is not on the chart, or a mix of 2 or more seeds.

All feed charts are calibrated for a ground speed of 5 M.P.H.. At 5 M.P.H. the feed wheel shaft rotates at 42 R.P.M. Because the system is nearly linear, the Pounds Per Acre will remain nearly the same at higher or lower ground speeds. For accurate seeding, travel at the speed you intend to use when checking the feed rate with the extra slot.

1068 DRILL

SETTING AND CHECKING THE FEED RATE USING WHEAT AS AN EXAMPLE

You want to seed wheat at a rate of 90 pounds per acre.

1. Refer to Wheat chart. TURNS = $13\frac{1}{2}$ SPACE = $\frac{1}{4}$ "
2. Use the $\frac{1}{4}$ " thick gage to adjust the wheel space to $\frac{1}{4}$ ".
page F. Replace the feed wheel covers.
3. Raise the drill clear of the ground so the control plate is fully closed.
4. Turn the top control rod lock (red end) up until the control plate fork block hits the stop screw. Do Not Force. Check visually. Tighten all 3 rods the same.
5. Note where red end of lock is positioned. Turn top lock down $13\frac{1}{2}$ turns.
6. Hold top lock and jam lower lock up against so it will not change position.
7. Put grain in the tank.
#2 must be done without grain in the tank.
#4 thru #6 may be done with or without grain in the tank.
8. Seed far enough so you can visually check grain flow thro the cups which are visible from the tractor.
NOTE When tractor is stopped, drill should be lifted.
Some seed will continue to run out the slot if drill is left down. This will depend on the type seed and the amount of slot opening.

CHECKING THE FEED RATE

1. Loosen the 2 flange nuts holding the calibrator slot cover. PAGE H. Slide the cover down to remove.
(this slot will now feed into the plastic cup at same rate as other slots)
2. With runs lifted out, operate tractor at speed you intend to travel.
3. Use a watch with sweep second or with ability to time 3 minutes accurately.
4. Drop runs into ground. Operate 3 minutes. Raise Runs up to close control plate.
5. Loosen set screw on plastic cup holder. Slide rearward and remove cup.
6. Weigh cup and grain sample on a postal scale. Zero the scale first.

EXAMPLE

Sample and cup weigh	31 ounces
cup weighs	<u>$2\frac{1}{2}$ ounces</u>
Wheat sample weighs	$28\frac{1}{2}$ ounces

Use this formula to figure Pounds Per Acre

Ounces X 3 = Lbs. Acre

$28\frac{1}{2} \times 3 = 85\frac{1}{2}$ Lbs. Acre

The increase from $13\frac{1}{2}$ TURNS To 14 TURNS is 12 Pounds.
Adjust the TURNS to $13\frac{3}{4}$ to get the correct feed rate.

Note - In small fields where it is difficult to run 3 minutes without lifting the runs, catch a 1 minute sample.

The formula is then - Ounces X 9 = Lbs. Acre.

7. To calibrate a seed which is not on the chart or a mix of different seeds, compare to a similar charted seed to obtain a trial TURNS setting.

Recalibrate and adjust as necessary.

8. After calibrating, slide the slot cover behind the control plate and lock in place with the flange nuts.

An extra slot cover is included in the parts bag.

BREAK IN

1. Adjust the control plate to 15 TURNS. Set the wheel SPACE at $\frac{1}{4}$ ". Install the 1" and $1\frac{1}{4}$ " spacer rings on the cylinder.
2. Operate the drill, preferably in a field which has not been tilled, without seed in the tank.
3. Set the down stop on the 3-point control lever so the runs operate level, front to rear. Refer To Page S.
4. Check that the front drive colter, run colters, opener disks and press wheels are all turning freely.
5. Check that the feed shaft is rotating and that the control plate opens and closes as the runs are lowered or raised.
6. When raising or lowering the runs, operate the 3-point control lever first and then the rear cylinder lever. Plug the hoses into the tractor so the drill raises as the lever is pulled to the rear.
7. Never back the drill with the runs in the ground and in sticky conditions lower the runs while moving to prevent plugging the disks.
8. In firm soil or sod, DO NOT TURN WITH RUNS IN THE GROUND. High side loads will be applied to the runs and may cause damage.

SEEDING Using 90 lbs. Acre Wheat as example.

1. Refer to Setting the feed rate PAGE 8.
Adjust the rate according to the FEED RATE CHART.
2. Seeding in a stubble field or a field with heavy residue will require water ballast. Tanks may be full or partly full. See #7 HELPFUL HINTS.

FIELD OPERATION

3. Seed a test strip and check seed depth.
Adjust 3-point down stop and or rear cylinder spacers until runs are level when viewed from the side.
4. Move press wheel shim washers as required until press wheels are firming soil around seed properly.
5. Adjust ground speed to suit field conditions.
Rocky fields or steep side hills will require a slower ground speed.
6. Refer to PAGE 8. Calibrate the feed rate and adjust to the desired rate.

1068 DRILL HELPFUL HINTS

1. To seed on 16" - 24" or skip row pattern, slide the feed wheel to either side of the slot and tape over the slot with duct tape.
2. Granulated fertilizer may be fed through the system straight, or it may be mixed with the seed.
3. In tilled or semi-tilled conditions, the run colters may be removed.
4. In heavy residue like double crop beans behind wheat, seeding slightly diagonal to the grain rows will keep the field smoother and also make it easier to see.
5. Hang the auger crank and barrel wrench on the rod hook welded to end of grain tank.
6. The spring and plate on top of the swivel wheel king pin should prevent the wheels from swinging side ways or forward if they operate above the ground.
7. To fill the front ballast tanks nearly full, raise the 3 point fully up and lower the rear of drill. Reverse the procedure to drain. Park drill on incline to fill or drain rear tanks.
8. 5 gallon pail may be hung on auger pipe extension to catch augered seed.
9. To clean out grain tank, remove perforated screens and feed wheel covers. Use a small pail to remove the seed down to the feed wheels. Auger may be turned or pulled out slowly to remove remaining seed.
10. A small amount of seed left in bottom of tank will not mix with the next type of seed, but may contaminate the following clean out.
11. In most seeding conditions, the double V Press wheels will firm in the seed leaving a ridge over the top but in sod the single wheel running in the slot is recommended.

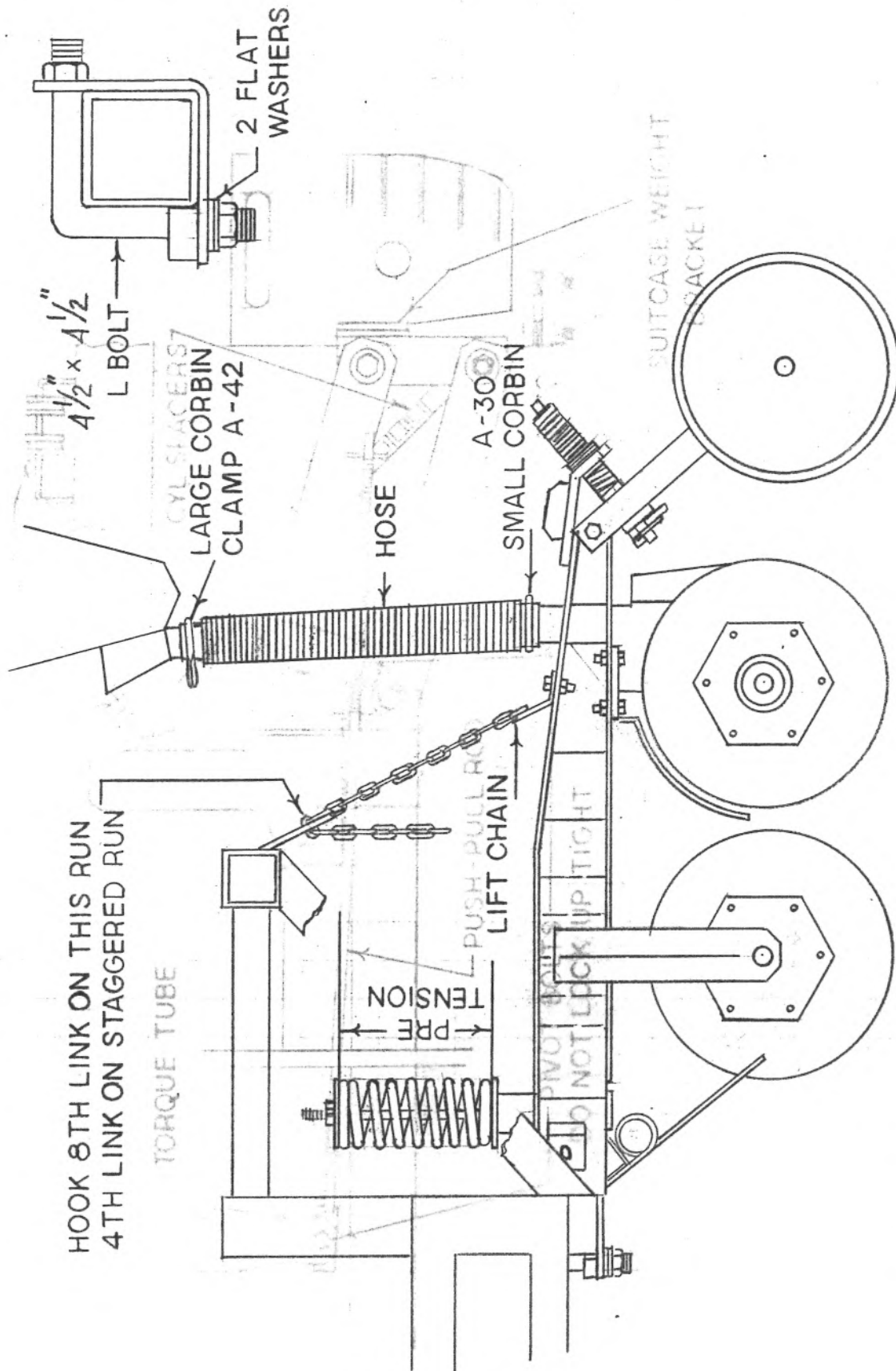
HINTS

12. Soil, seed, or fertilizer buildup between the stainless control plate and tank may inhibit control plate operation. To clean, remove the control plate springs and move the control plate forward slightly.
13. If you have seed in the tank and want to run the drill in the ground without seeding, (I.E. To adjust the depth) remove the hairpin and long spring from the Push - Pull rod.
14. If front drive colter doesn't drop into depressions when shallow seeding, remove 1 or 2 flat washers at top end of colter spring rods. If this is done, check that the colter clears P.T.O. in raised position.
15. Run spring Pre-Tension(Actual Spring Length) PAGE A . is factory set at $8\frac{1}{2}$ inches. In very hard soil it may be necessary to tighten the Pre-Tension to $8\frac{3}{8}$ inches.
16. If additional ballast is required along with the water, up to 400 lbs. of suitcase weights may be attached to the plate over the swivel wheel. Throttle down on tight turns when using this extra ballast.
17. Block the rear wheels when hooking or unhooking the 3 point lower links. Sliding the drill may bend the front support legs.
18. Center of feed wheel should align with center of feed slot. After using the clean out auger check this alignment and correct if necessary.
19. When seeding in uneven ground, lower the rear of drill to lift runs off of spring plate $\frac{1}{4}$ to $\frac{3}{8}$ inch. Runs should still operate level. The main frame will be lower in the rear when viewed from the side. More weight may be required on the rear of the drill to hold the frame in this position. This will allow the runs to seed down into depressions. Refer To Page S .

HINTS

20. The run springs may be loosened to $8 \frac{5}{8}$ or $8 \frac{3}{4}$ inches to improve operation in soft, uneven ground.
(i. e. conventional tillage)

DEALER SET UP

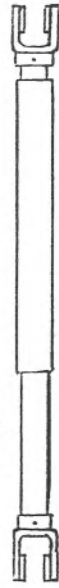


THIS RUN SHOWN BOLTED TO MAIN FRAME.
RUN ON STAGGER BLOCK IS 6" FARTHER BACK

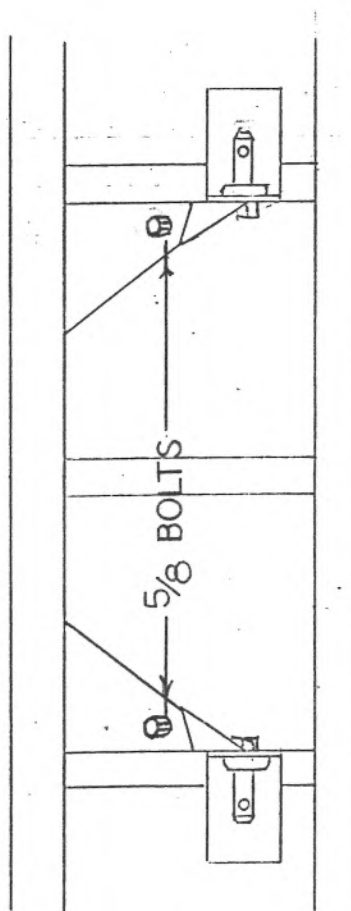
1068 DRILL

INSTALL DRIVE LINE
WITH JOINTS IN TIME
AS SHOWN

SQ. DRIVE LINE

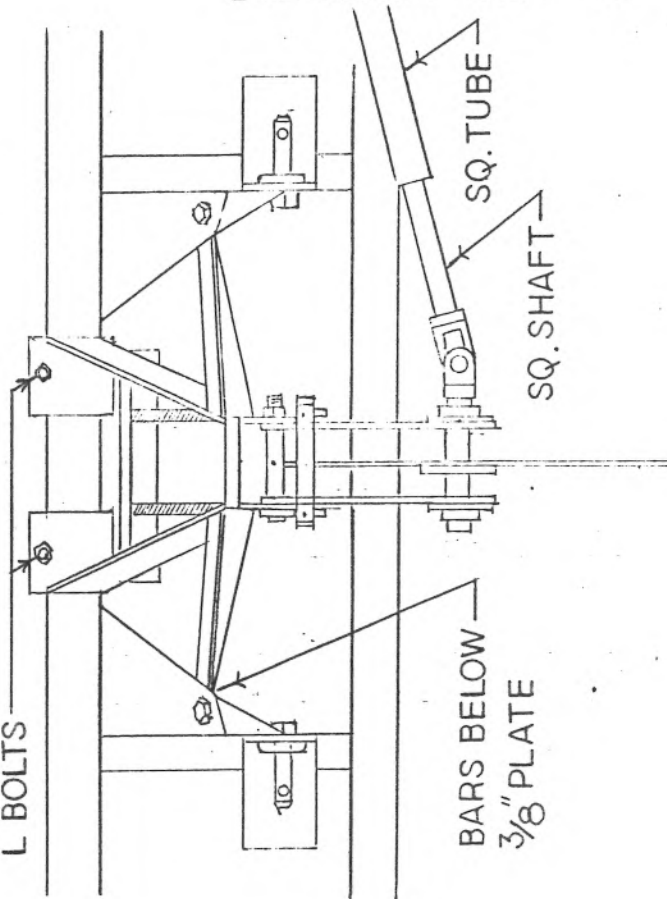


L BOLTS



5/8 BOLTS

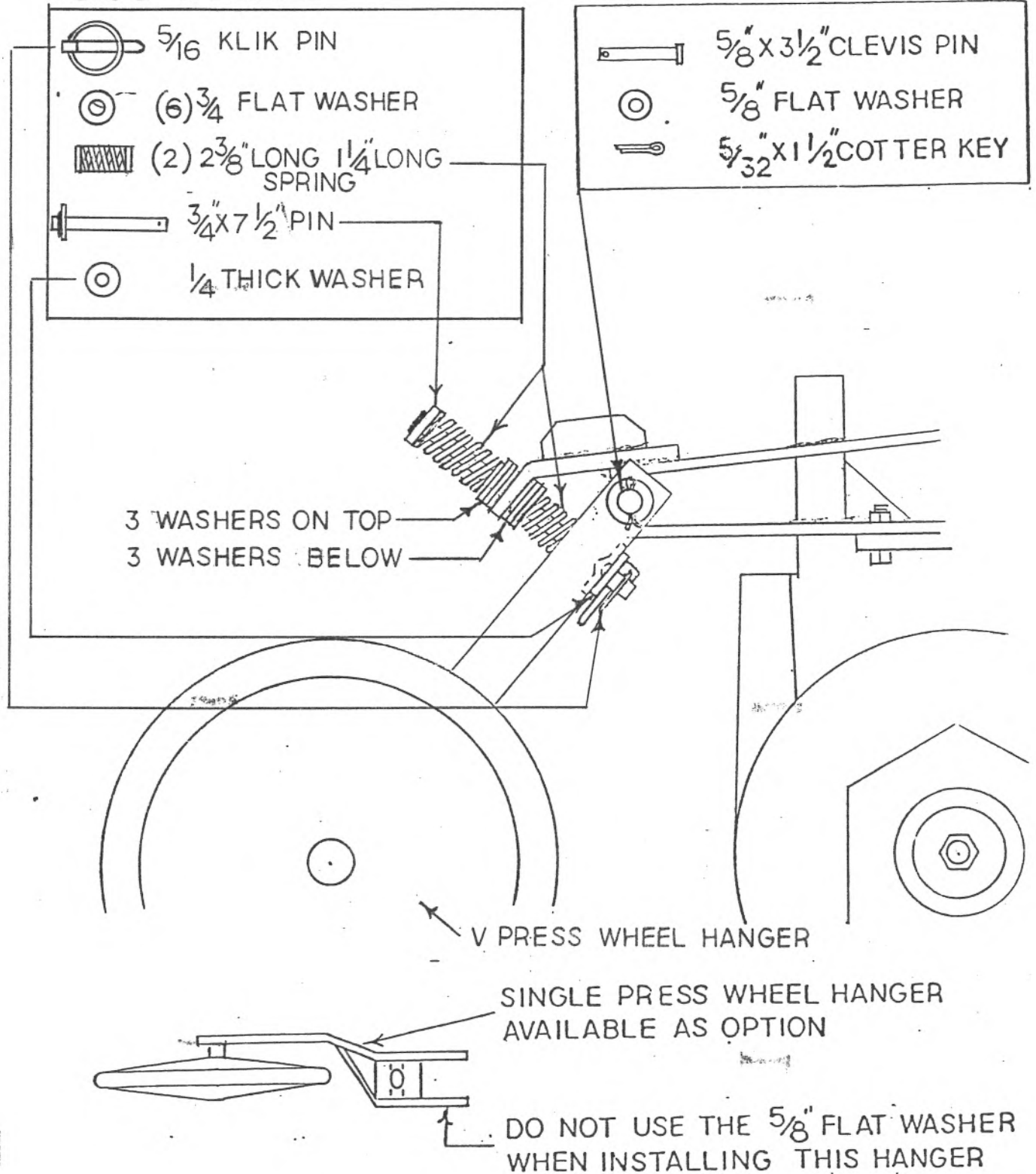
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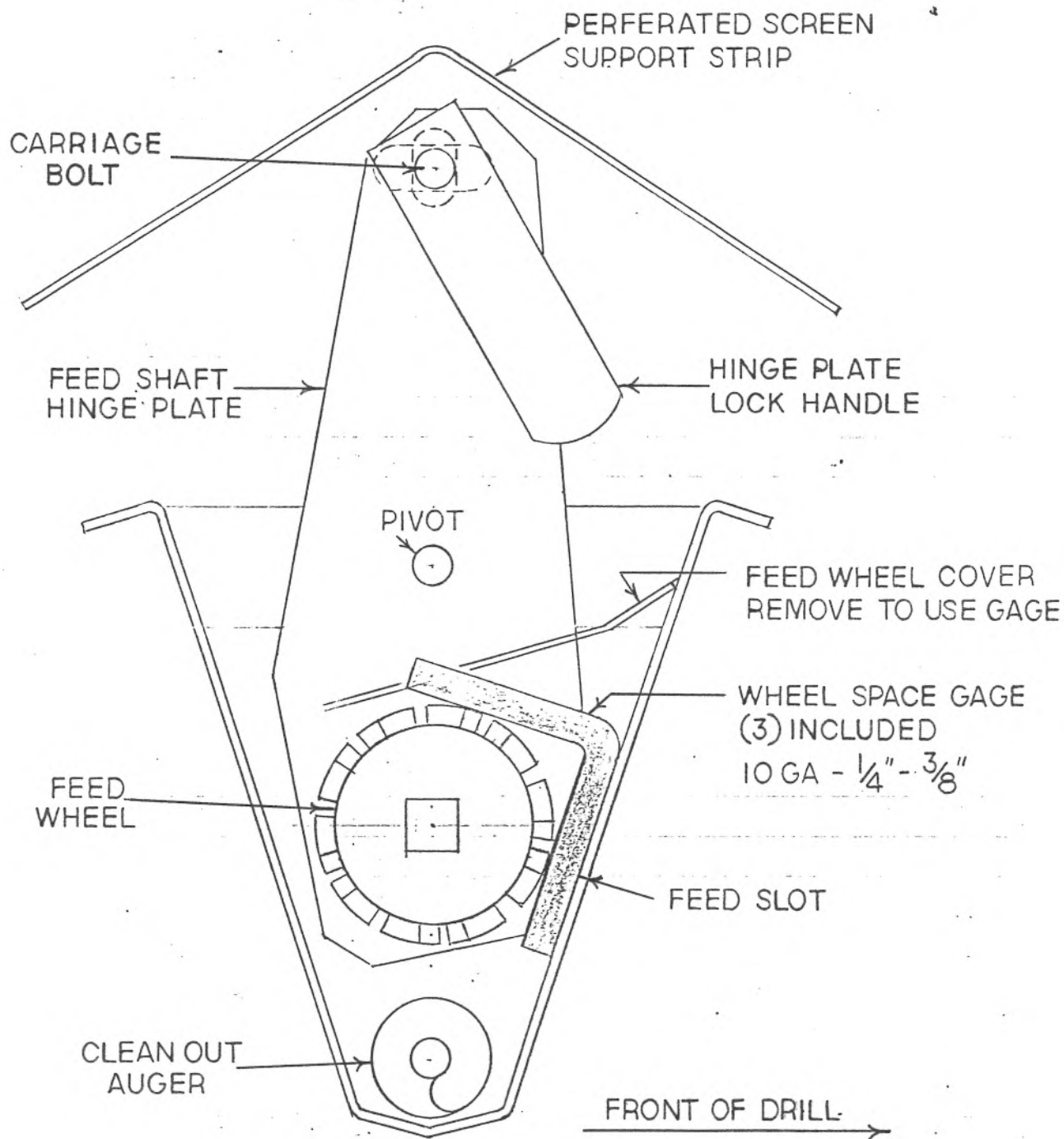


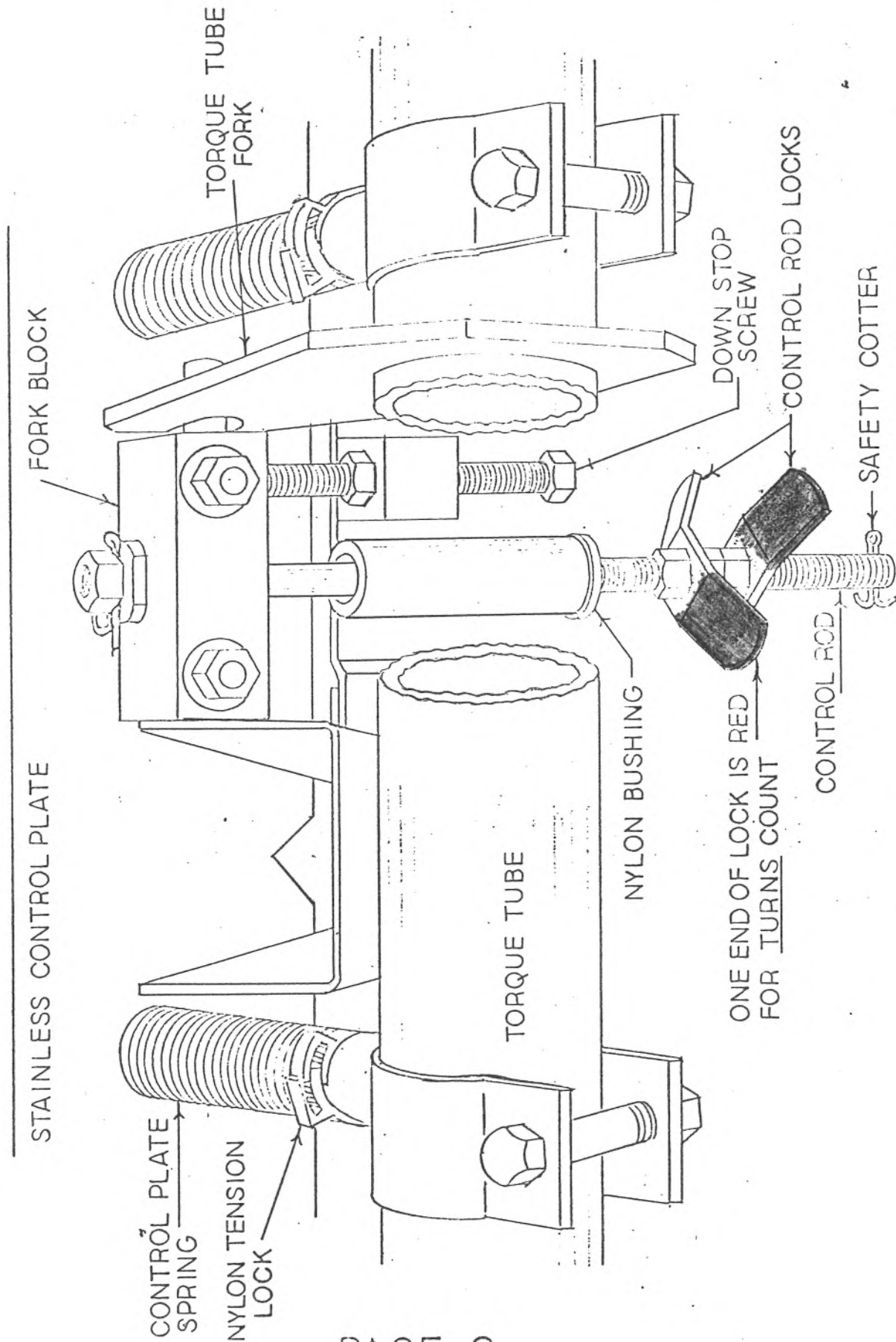
BEFORE INSTALLING
DRIVE COLTER

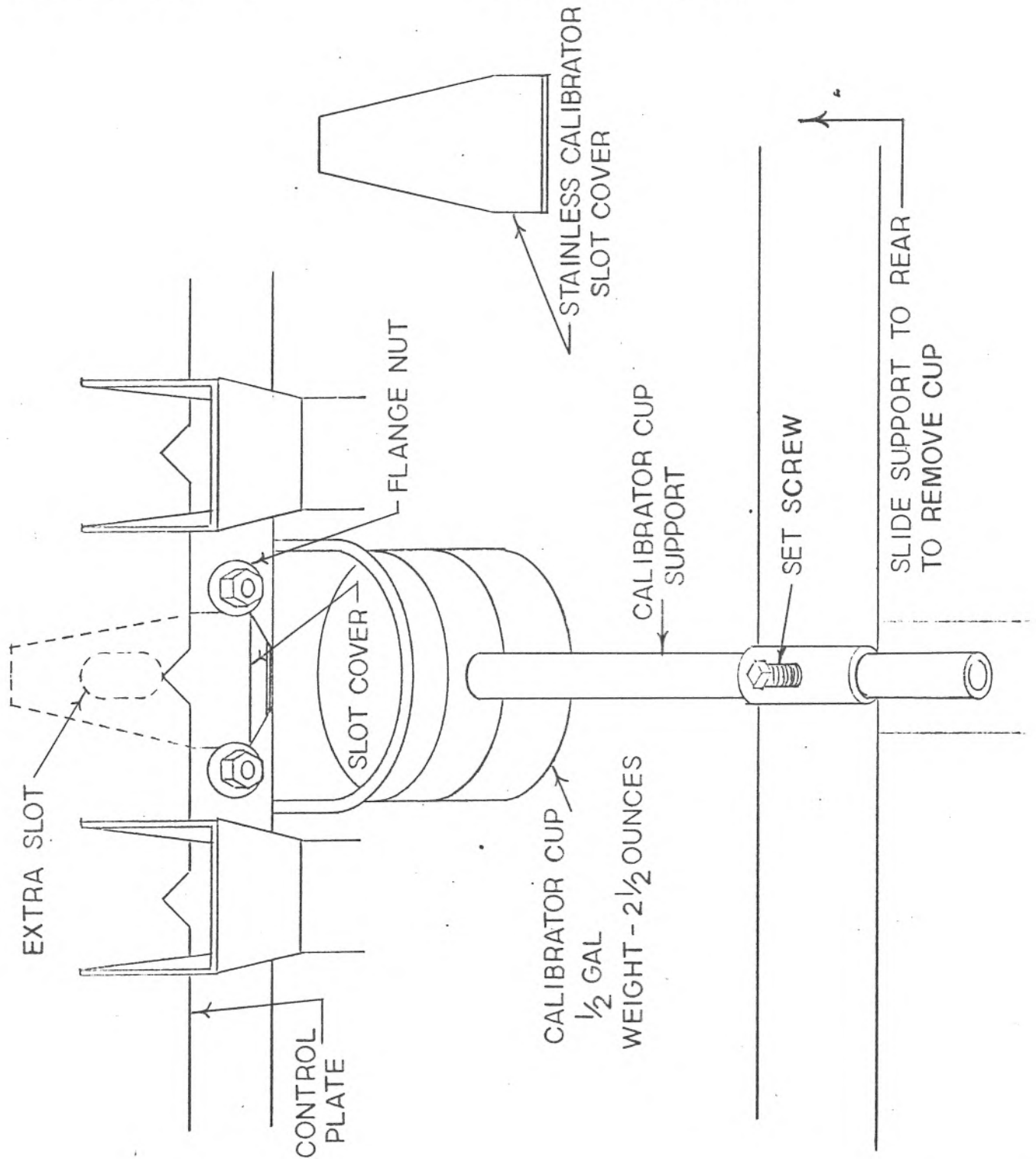
1068 DRILL

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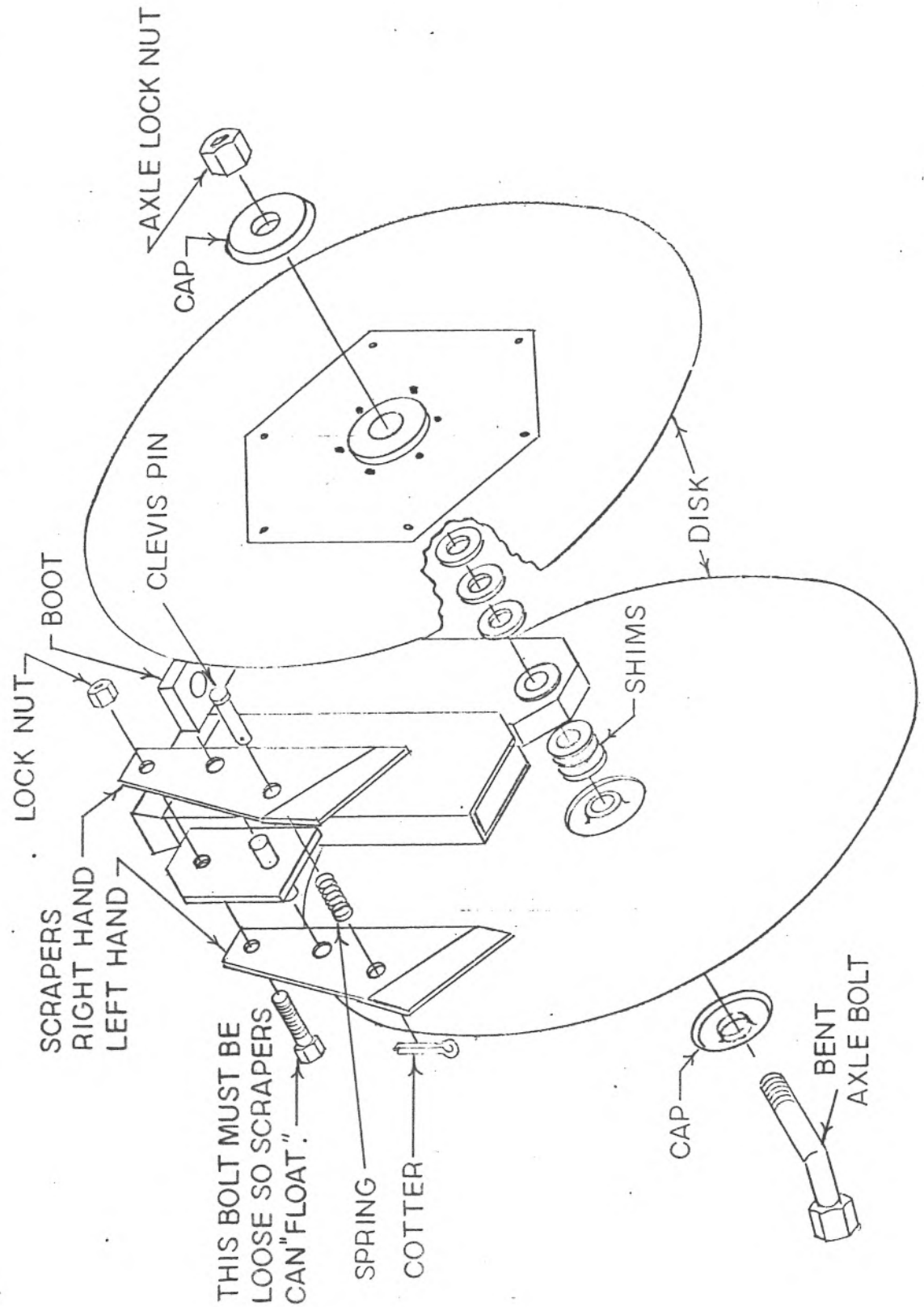


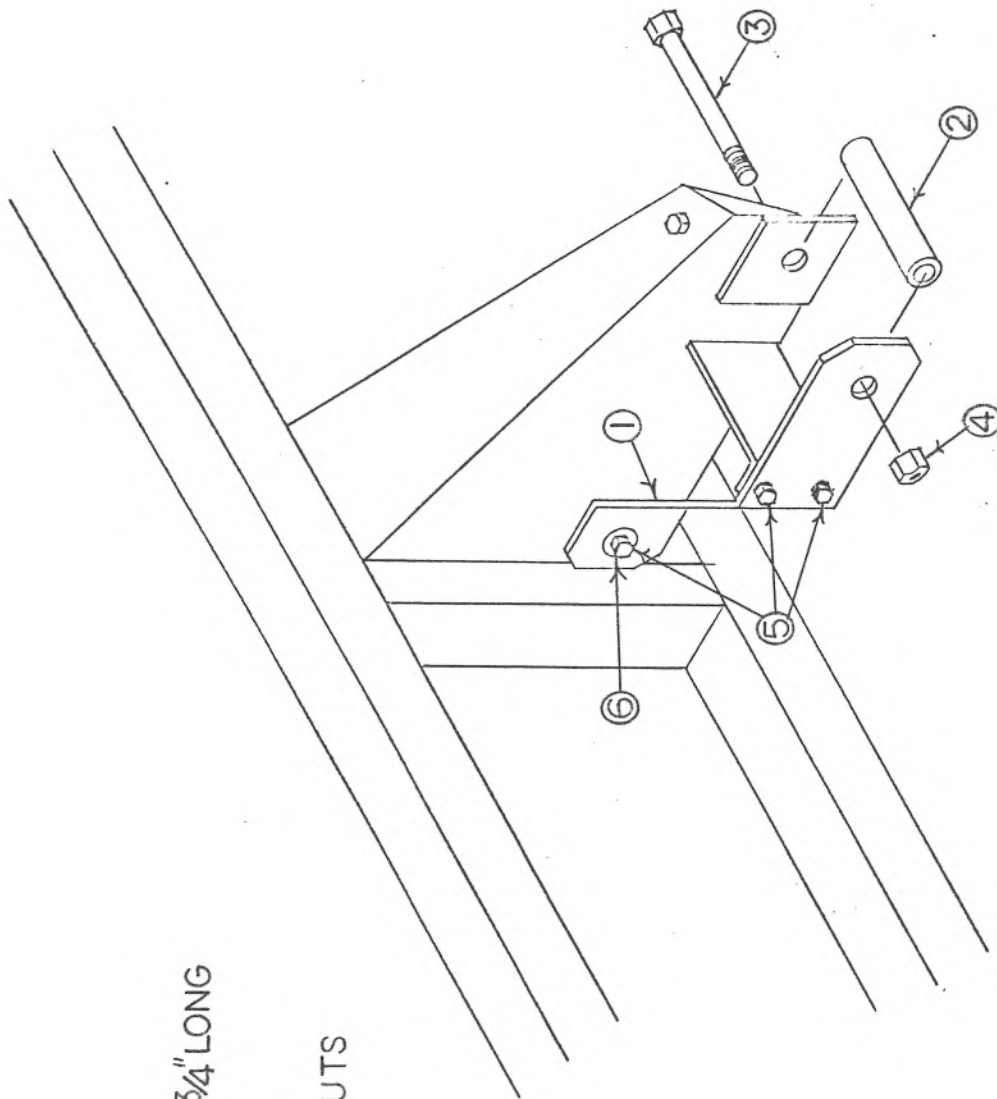






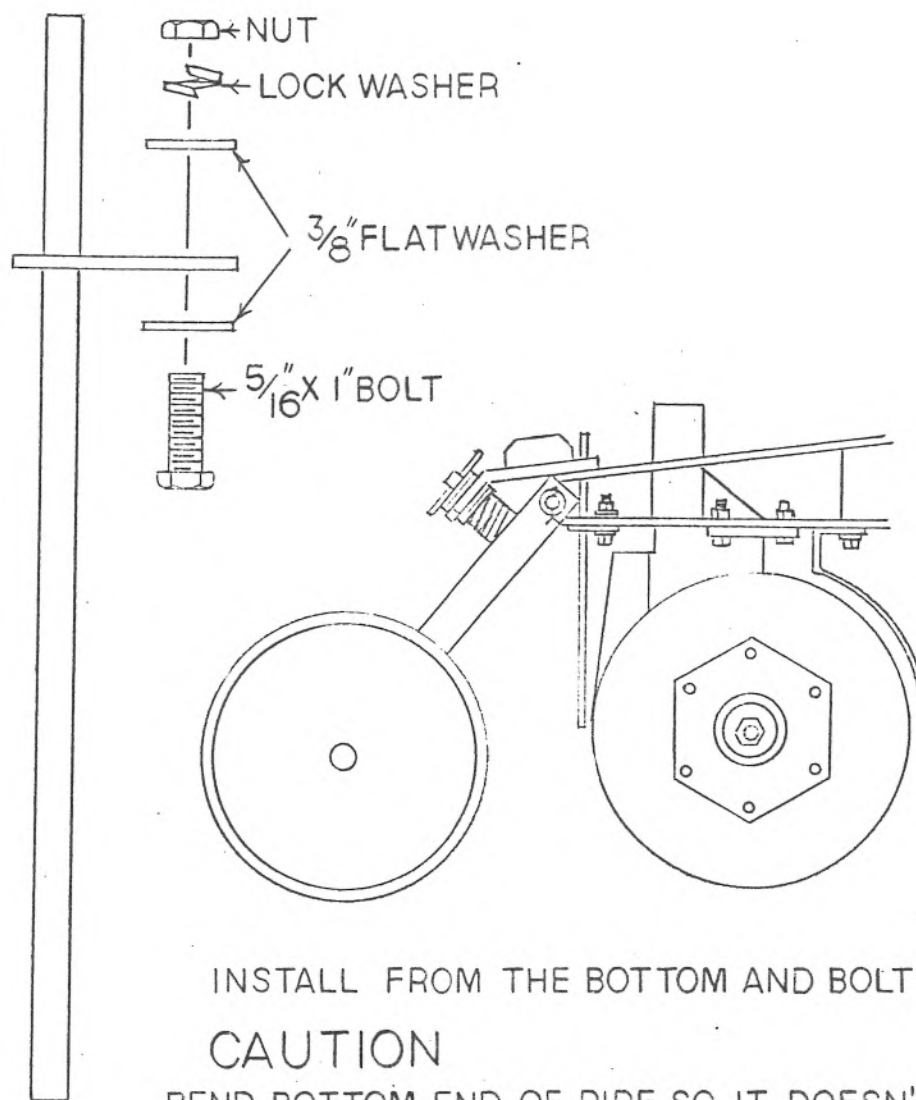
ASSEMBLE DISK PARTS AS SHOWN. USE 2 WRENCHES. TIGHTEN AXLE NUT SLIGHTLY, TURN AXLE BOLT UNTIL THE CORRECT ANGLE CAN BE FELT. HOLD AXLE BOLT. TIGHTEN AXLE NUT.





PARTS REQUIRED
QUAN DESCRIPTION

- | | |
|-----|-------------------------------------|
| 2 - | ① BARS |
| 2 - | ② SLEEVES - 1 7/16" OD 5 3/4" LONG |
| 2 - | ③ BOLT 1 1/8" X 8 1/2" |
| 2 - | ④ NUT - 1 1/8" N.F. |
| 6 - | ⑤ BOLTS WITH LOCK NUTS
5/8" X 2" |
| 4 - | ⑥ 5/8" FLATWASH. |



INSTALL FROM THE BOTTOM AND BOLT IN PLACE

CAUTION

BEND BOTTOM END OF PIPE SO IT DOESN'T
LEAK. CORROSIVE LIQUID ON INSIDE OF DISK.
SEALS WILL BE DAMAGED CAUSING BEARING
FAILURE.

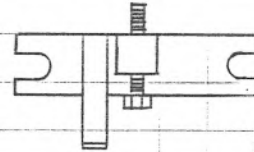
1068 DRILL

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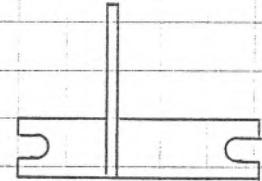
CONTROL PLATE



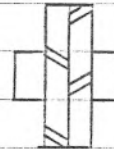
CONTROL PLATE STOP



CONTROL PLATE GUIDE



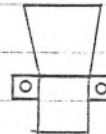
FEED WHEEL



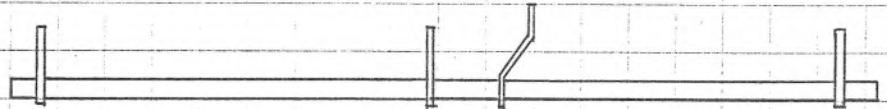
FEED WHEEL SLOT



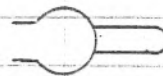
FEED CUP



TORQUE TUBE



TORQUE TUBE SPRING CLAMP



NYLON SNAP LOCK



TORQUE TUBE SPRING



1068 DRILL

PARTS DESCRIPTION

FEED SHAFT HINGE PLATE

HINGE PLATE LOCK HANDLE

FEED WHEEL COVER

FEED WHEEL GAGES

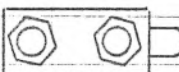
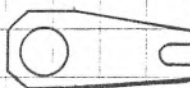
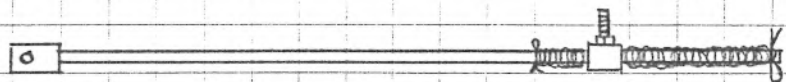
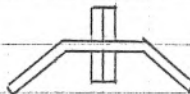
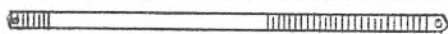
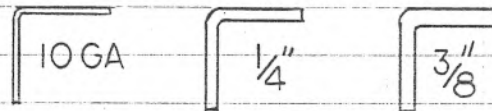
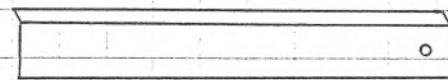
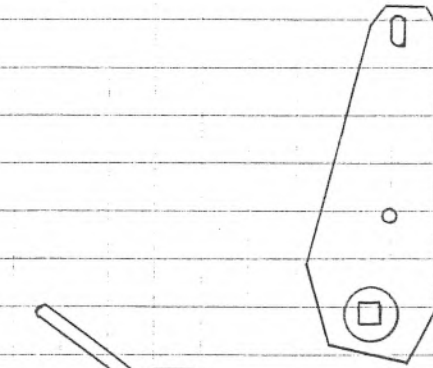
CONTROL ROD (STAINLESS)

CONTROL ROD LOCK

PUSH-PULL ROD

TORQUE TUBE FORK

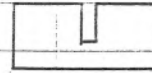
CONTROL PLATE FORK ELOCK



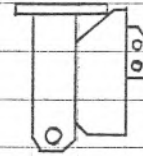
IO68 DRILL

PARTS DESCRIPTION

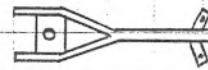
CONTROL PLATE GUIDE BLOCK



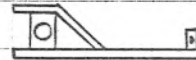
BOOT



PRESS WHEEL HANGER - DOUBLE



PRESS WHEEL HANGER - SINGLE



CALIBRATOR CUP SUPPORT



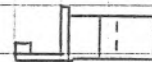
CALIBRATOR CUP



CALIBRATOR COVER



STAGGER BLOCK



1068 DRILL CONTROL PLATE STOPS

FACTORY ADJUSTMENT

The control plate stops are factory adjusted. This is the sequence.

1. The control plate is inserted and 6 springs are installed, 2 in the center and 2 at each end.
2. Three 1/8" welding rods are inserted with the unfluxed end between the top of the V notch and the bottom of the tank slot. The fluxed end of the 1/8" rod lays on the torque tube. The rod should not touch the top of the grain cup. See PAGE Q.
3. The slotted mounting plates, PAGE R, at both ends of the tube are adjusted so the fork touches the top of the block pin. The center fork is then adjusted the same and all bolts fully tightened.
4. The 3 down stop screws are turned upward until they touch the square block. The screws are then lowered 4 full turns and locked. This allows the control plate to move down slightly below the closed position.

The control plate may be removed for cleaning without disturbing the down stop adjustment.

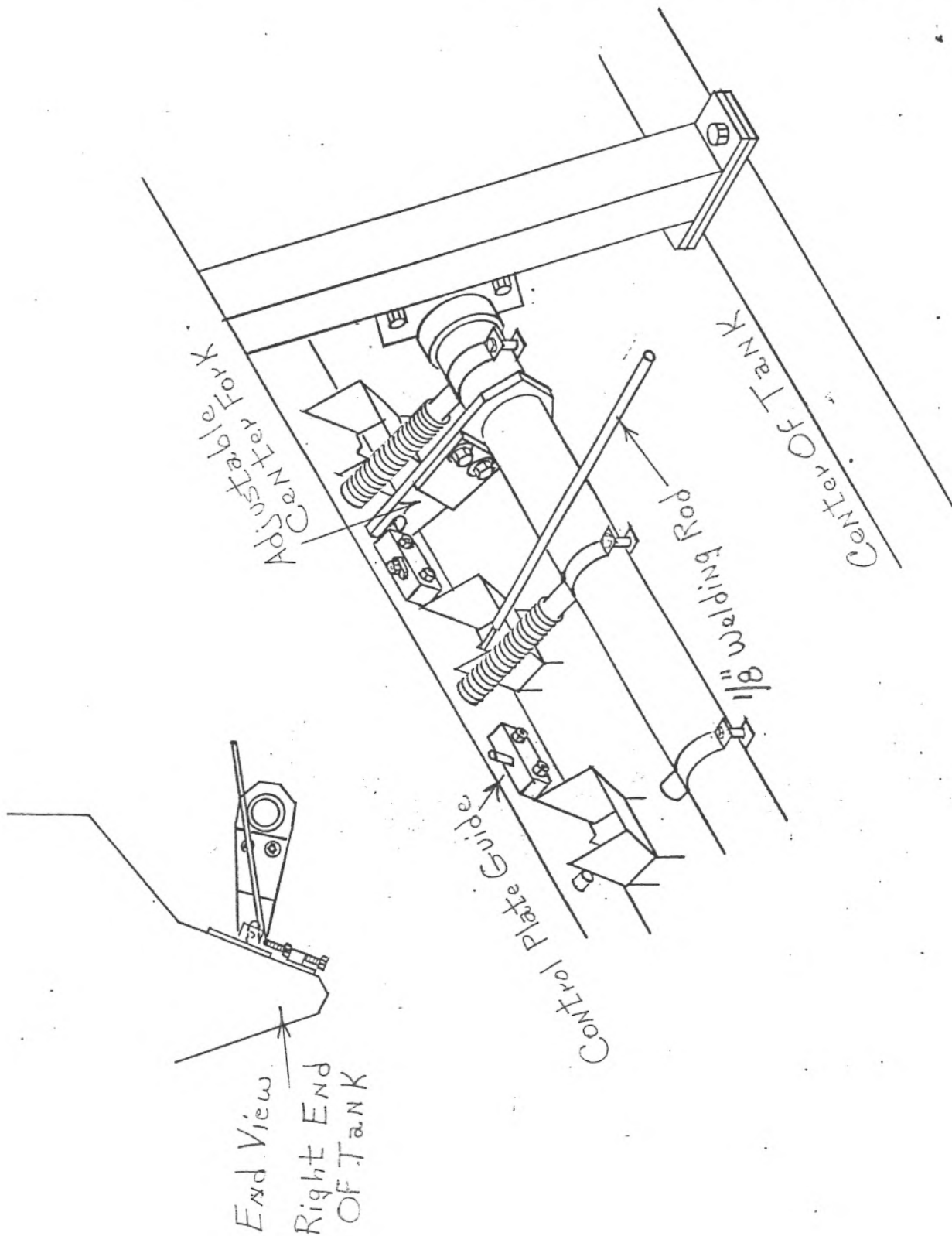
1. Remove the 3 stainless control rods by removing the top lock nut, cotter and flat weld nut. Slide the rods downward.
2. Remove the 17 springs by pulling forward.
3. Loosen the lock ring on the torque tube which is located by the right side tank support tube.
4. Slide the torque tube toward the left end of the tank.
5. Loosen the control plate guide rod nuts. PAGE Q.
6. Lift the control plate up and slide out.

CAUTION

Handle control plate carefully so it is not bent.

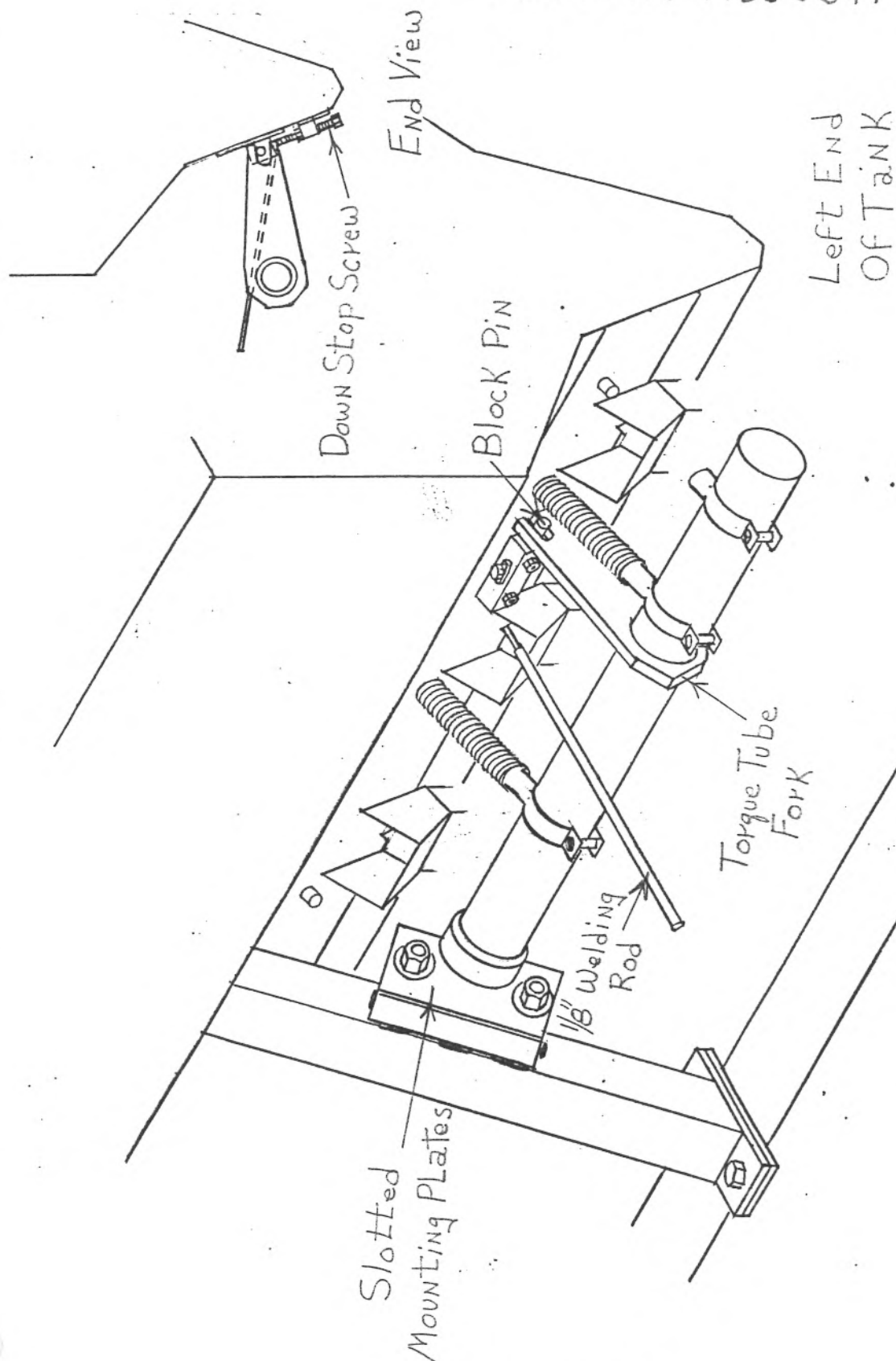
1068 DRILL

CONTROL PLATE STOPS
FACTORY ADJUSTMENT

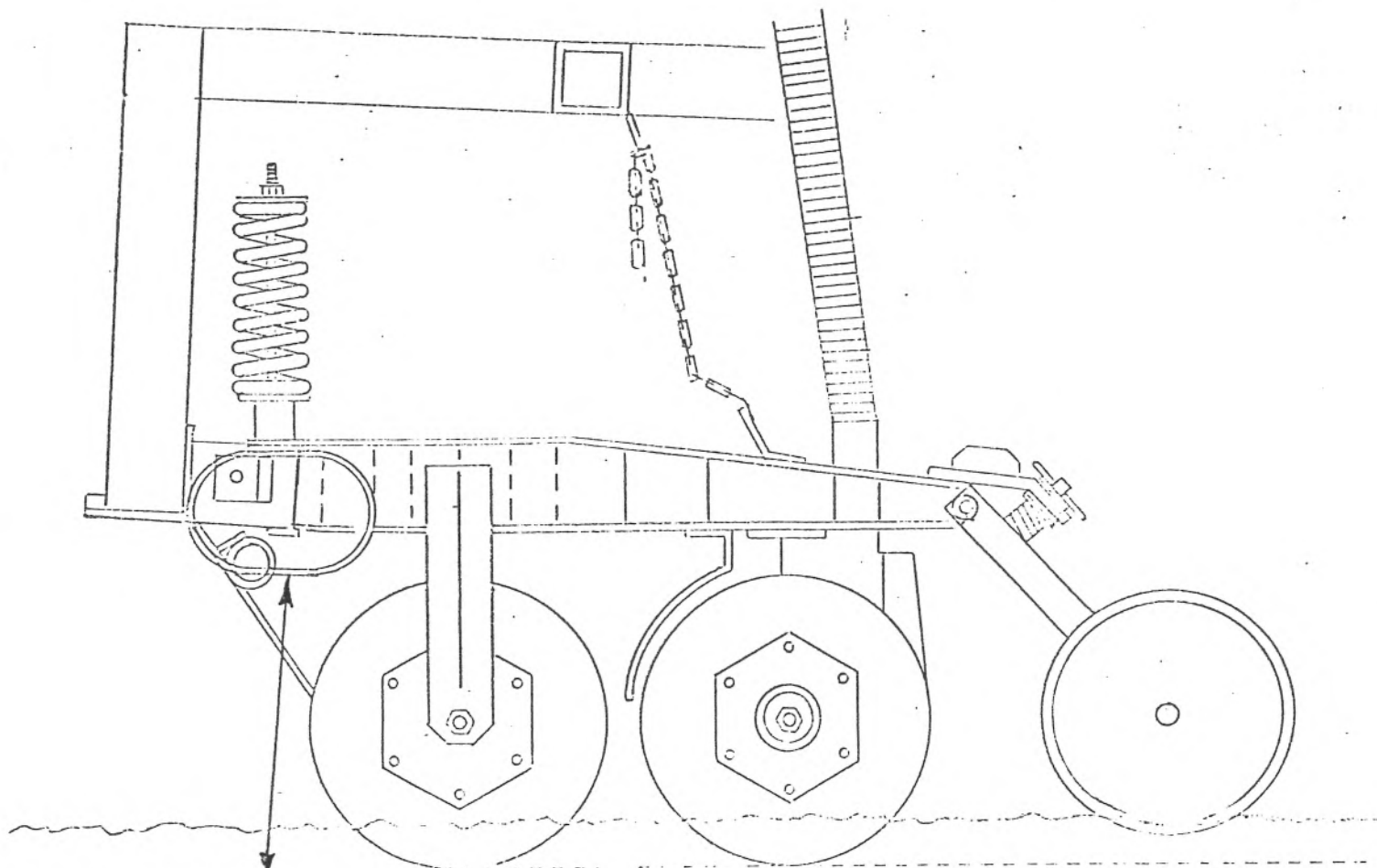


1068 DRILL

CONTROL PLATE STOPS
FACTORY ADJUSTMENT

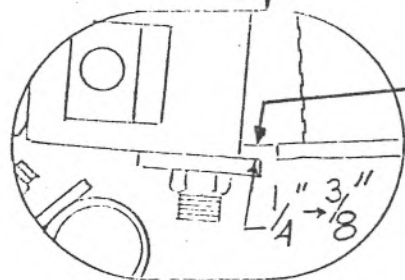


PAGE-R

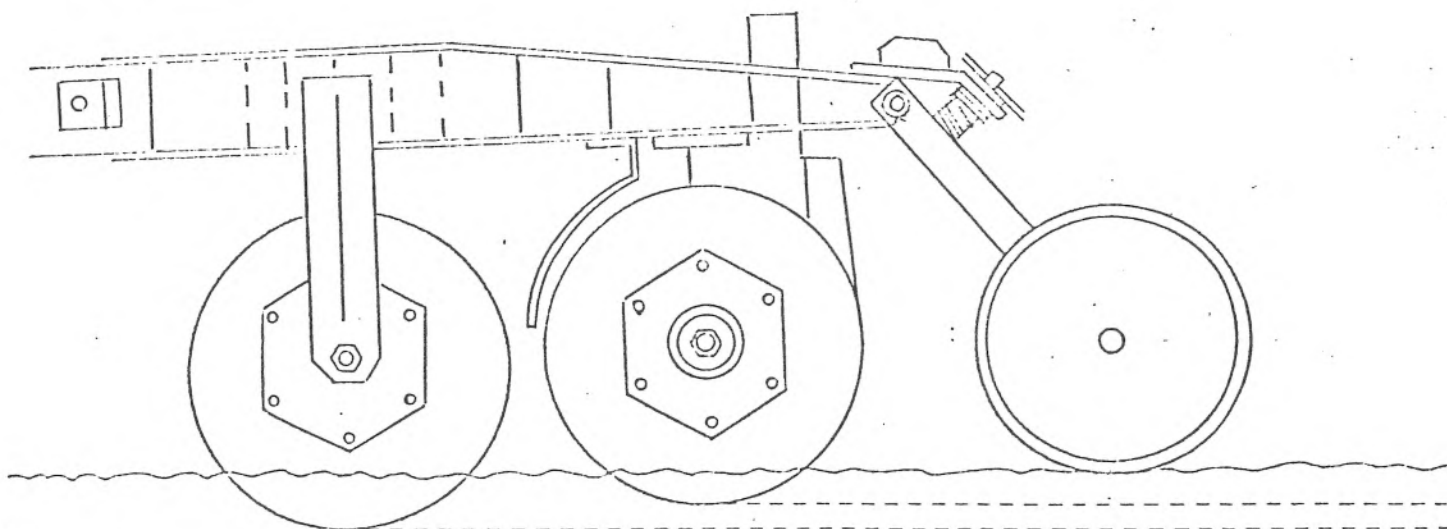


CORRECT OPERATION

COULTER AND OPENER
ARE LEVEL

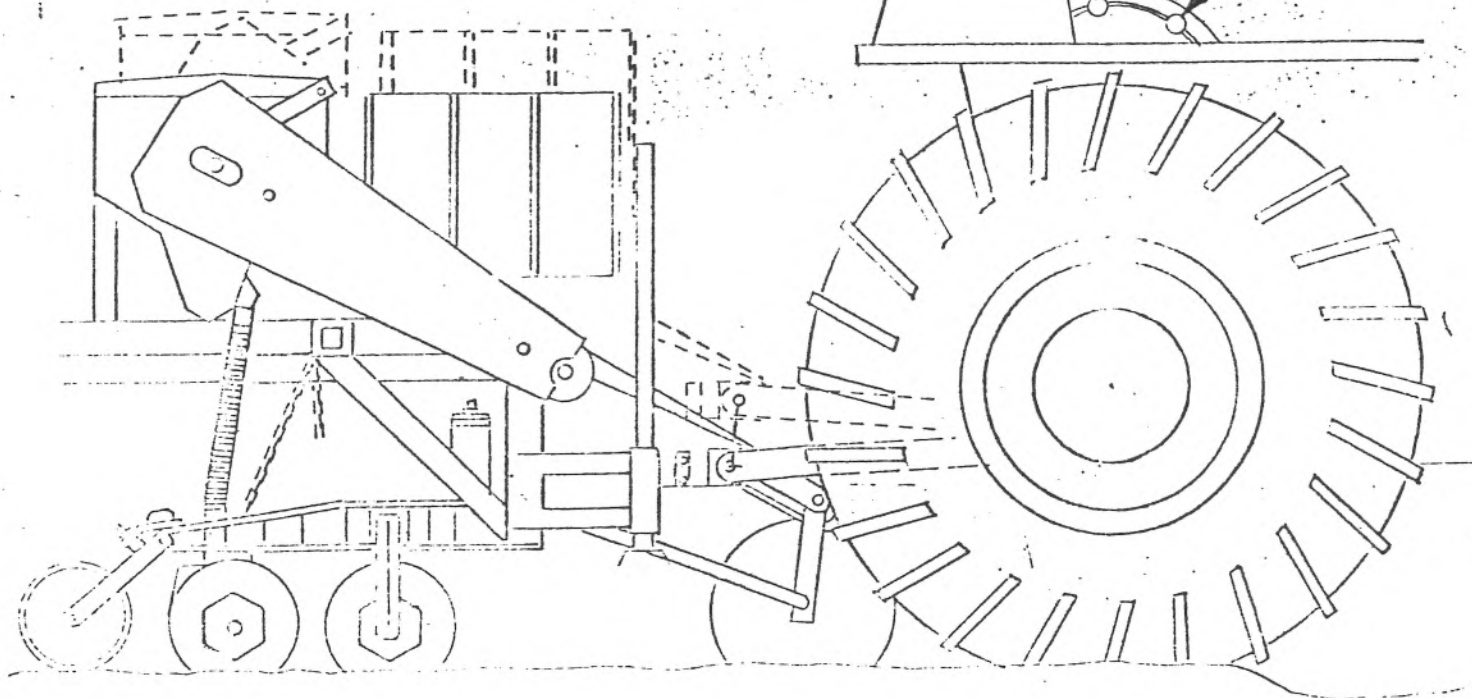


Tilt main frame as
required to obtain some
clearance here so run
can follow uneven ground.



INCORRECT OPERATION

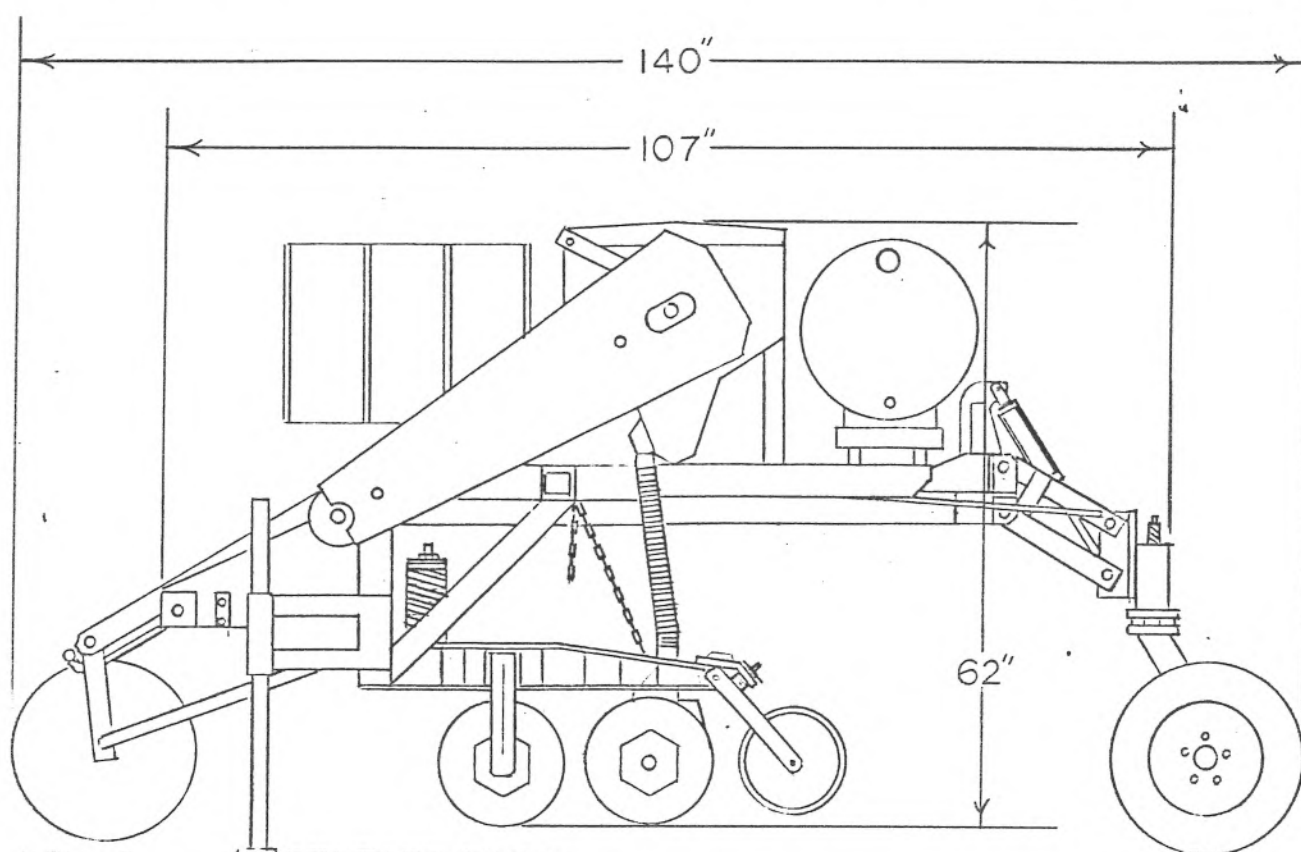
COULTER IS TOO DEEP



A bottom stop (A), located near the 3-point control lever (B), should be adjusted when the runs are operating level as shown on PAGE S. This bottom stop will determine the maximum operating depth of the drill. The maximum depth is represented by the solid lines in the drawing. The draft control for the 3-point hitch should be adjusted to allow the drill to move upward, over rough ground. This upward motion is represented by the broken lines in the drawing. An up stop (C) may be required on some tractors to prevent the drive coulter from touching the rear of the tractor when the drill is fully raised.

1068 DRILL

SPECIFICATIONS



SHIPPING WEIGHT - 3830 LBS.
 OVERALL HEIGHT - RAISED - 70"
 OVERALL HEIGHT - LOWERED - 60"
 OVERALL WIDTH - 11' 8" - 140"
 SEEDING WIDTH - 10' 8" - 128"
 LINEAR FEET TO - 4086
 SEED 1 ACRE
 GRAIN TANK CAPACITY(USABLE) 23
 WEIGHT OF WATER BALLAST - 900 LB
 NUMBER OF RUNS - 16
 ROW SPACING - 8"
 DRIVE COLTER DIAMETER - 20"
 RUN COLTER DIAMETER - 14"

OPENER DISK DIAMETER - 14"
 PRESS WHEEL DIAMETER - 12"
 HYDRAULIC CYLINDER SIZE
 2 1/2" X 8" 20 1/4" CLOSED
 TIRE SIZE - E 78 - 14
 3 POINT CATEGORY 2 OR 3
 DRIVE BELT B108

OPTIONS
 SINGLE PRESS WHEEL HANGER
 QUICK HITCH KIT
 LIQUID APPLICATION TUBES