

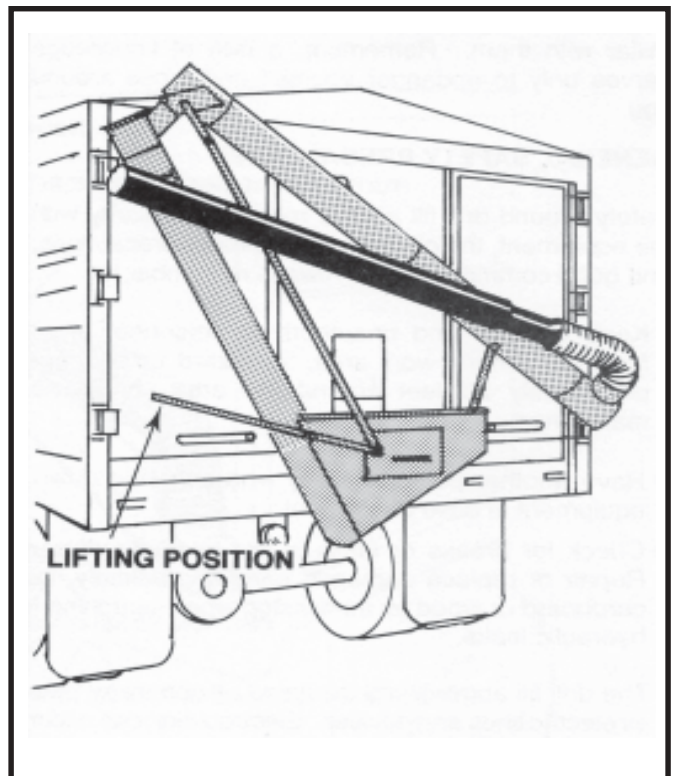
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Congratulations. As the new owner of a WESTFIELD DRILL FILL UNIT, you will be working with equipment designed to complement and improve your farming operation. Before using the DRILL FILL, we recommend that you read this manual and familiarize yourself with the machine and the necessary precautions for an efficient and safe operation. In addition, we suggest that anyone assembling this equipment be familiar with all safety precautions.

The hydraulic motor requires a minimum of 8 GPM and a maximum of 12 GPM at 1400 PSI to function properly. Drill Fill must be grounded to truck frame.

Thank you.



1. Safety First

Safety first. Most people practise it. Sadly, a few choose to ignore it. Safety should be a habit, to be observed each time you work with machinery. Safe working habits prevent needless accidents and needless injuries or death.

Whether you are the owner, a supervisor, or an operator, it is your responsibility to know the operational hazards of rear mount drill fill augers and to ensure that anyone working with or around these augers be familiar with them.

Remember, a lack of knowledge serves only to endanger yourself and those around you.

TAKE THE TIME - BE ALERT - BE SAFE

Watch for this symbol. It identifies potential hazards to health or personal safety. It points out safety precautions. It means: ATTENTION - be alert. Your safety is involved.

Failure to read this auger manual before operating the auger is a misuse of the equipment and a needless risk of life and limb.




GENERAL SAFETY PRECAUTIONS

Safety around drill fill augers requires familiarity with the equipment, the observance of proper precautions, and good common sense. Always remember to:

- Keep children and unauthorized personnel away from the general work area. A hazard zone of approximately 20 feet around the area should be maintained.
- Have another person nearby who can shut down equipment in case of accident.
- Check for breaks or leaks in the hydraulic system. Repair or replace damaged parts immediately. Use cardboard or wood as a backstop when searching for hydraulic leaks.
- The drill fill auger is not insulated. Keep away from all electric lines and devices. Electrocutation can occur without direct contact.
- Do not operate with any safety shield removed.
- Do not operate with clean-out door open or quick-dump door removed. Ensure that retaining pin securing clean-out door latch is in place.
- Before starting truck, be sure that all power (electrical and hydraulic) to the drill fill auger is in the off position.
- Keep body, hair, and clothing away from moving parts.
- Keep away from hopper during operation.
- Do not disconnect hydraulic couplers when hydraulic system is pressurized.
- Lower upper tube section to transport position at completion of operation, or when not in use. Do not transport with upper tube in raised position.
- Ensure that auger tube is empty before lowering into transport position.
- When raising or lowering upper tube section, ensure that all personnel are clear.
- When raising or lowering upper tube section, be aware of weight shift. **KEEP FIRM GRIP ON LIFT HANDLE.**
- Shut off and lock out all power to drill till auger before adjusting, cleaning, or performing maintenance of any kind.

⚠ DANGER



ELECTROCUTION HAZARD
 This equipment is not insulated. Keep equipment away from overhead power lines and devices. Electrocution can occur without direct contact. Fully lower equipment and truck box before moving.
FAILURE TO KEEP AWAY WILL RESULT IN SERIOUS INJURY OR DEATH.

MADE IN CANADA / 03-1 17100

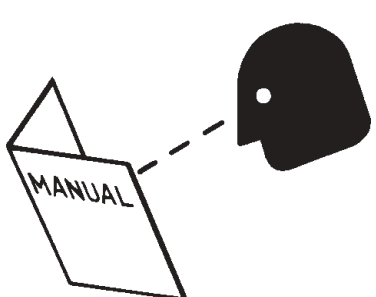
⚠ DANGER



ROTATING FLIGHTING HAZARD
 Keep away from auger intake. Keep intake shield in place and in good working order. Do not modify.
FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH.

MADE IN CANADA / 03-1 17103

⚠ WARNING

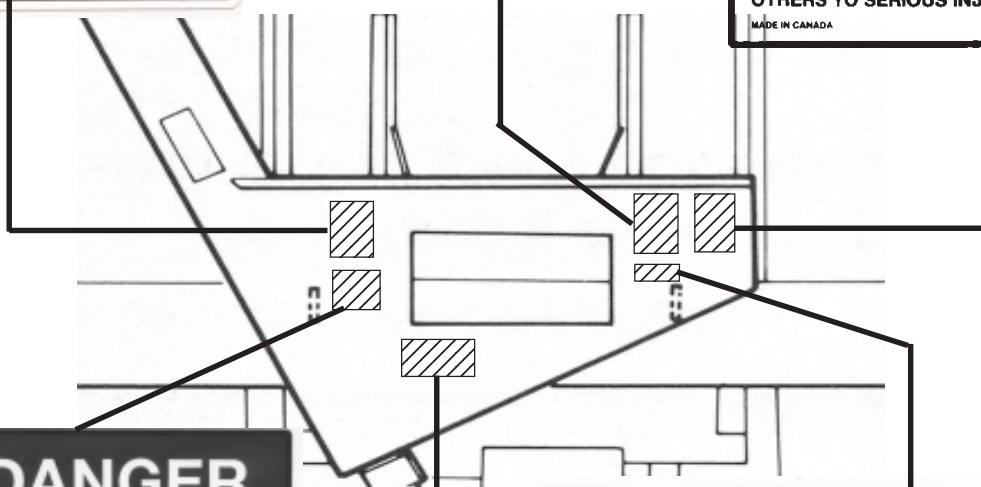


DO NOT OPERATE THIS AUGER unless

1. You are trained to operate it safely.
2. You have read and understand the operator's manual.
3. You know and follow all safe operating procedures and work rules.
4. Children and untrained personnel are removed from work area.

FAILURE TO FOLLOW SAFETY INSTRUCTIONS IN MANUAL WILL SUBJECT OPERATOR AND OTHERS TO SERIOUS INJURY OR DEATH.

MADE IN CANADA 17096



⚠ DANGER

ROTATING FLIGHTING INSIDE
 Do not operate equipment with clean-out cover removed. To clean out, shut off and lockout power, then remove cover. Use stick or other tool to clean out. Replace cover before restarting.
FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH.

MADE IN CANADA / 03-1 17104

⚠ WARNING

Securely block truck box hoist if box is raised to install or service hydraulic or electrical lines to prevent unintentional lowering.
FAILURE TO HEED WILL RESULT IN SERIOUS INJURY

MADE IN CANADA / 03-1 17104

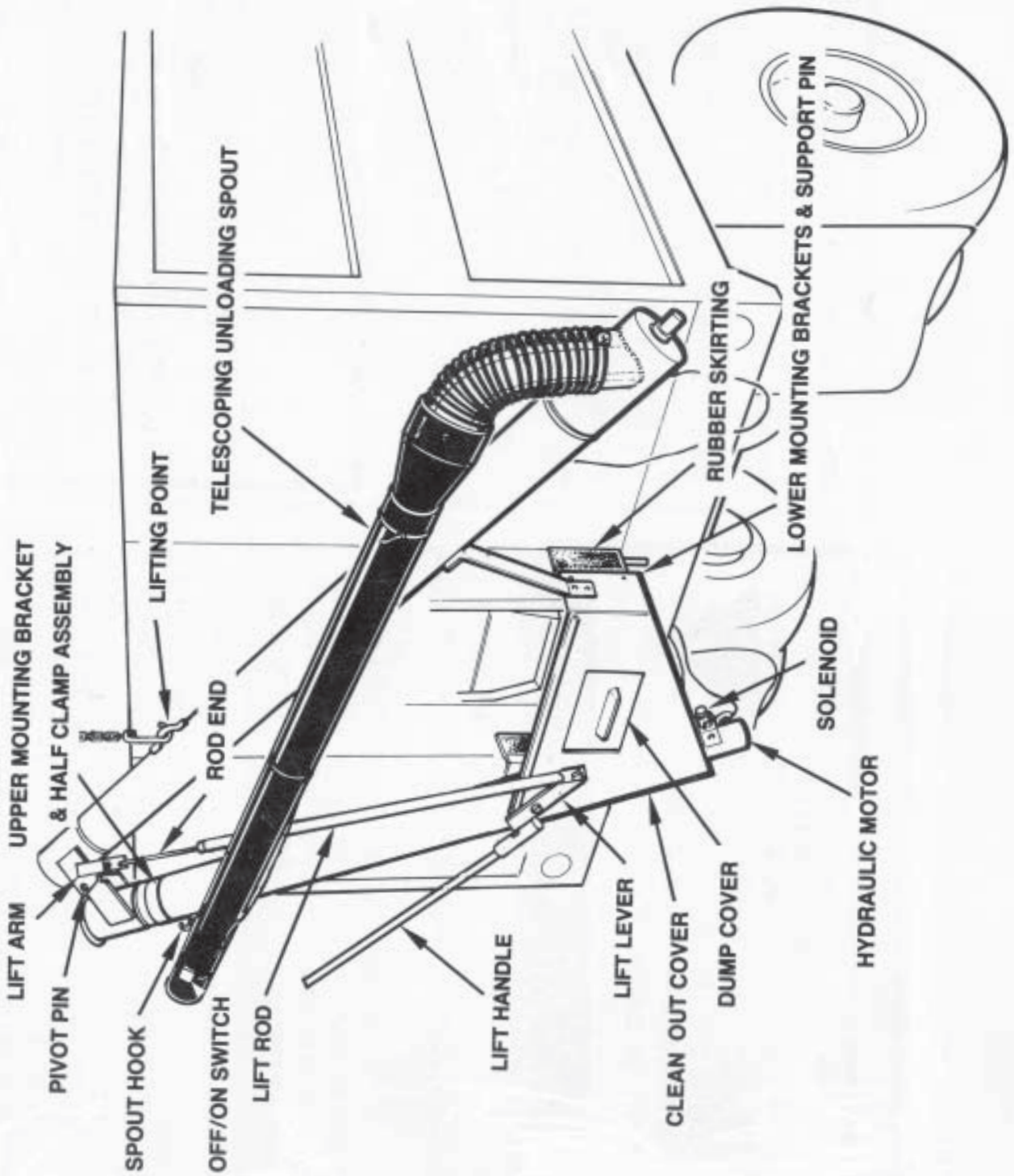
⚠ WARNING



ESCAPING HYDRAULIC OIL
 under pressure will cause serious injury if it penetrates the skin. See a doctor immediately if injured.
 Relieve pressure before disconnecting hydraulic line.
 Use cardboard as a backstop when searching for leaks. Wear proper hand and eye protection.
 Inspect frequently. Keep in good repair.
FAILURE TO HEED WILL CAUSE SERIOUS INJURY.

MADE IN CANADA 17100

COMPONENT IDENTIFICATION




2. Operations

Operation of the Rear Mount Drill Fill Auger requires that a general checklist be followed daily, that safety precautions be observed at all times, and that general maintenance be performed on a regular basis.

CAUTION

KEEP CHILDREN AND ALL UN-AUTHORIZED PERSONNEL CLEAR OF WORK AREA.

DO NOT OPERATE AUGER WITH ANY SAFETY SHIELD REMOVED.



ALWAYS HAVE ANOTHER PERSON NEARBY TO SHUT DOWN AUGER IN CASE OF ACCIDENT.

KEEP BODY, HAIR, AND CLOTHING AWAY FROM ANY MOVING PARTS.

SHUT DOWN AND LOCK OUT ALL POWER BEFORE SERVICING, CLEANING, OR ADJUSTING.

BE ALERT

PRE-OPERATION CHECKLIST

Before operating the Hydraulic Drill Fill Auger for the first time, and each time it is re-installed, the operator should check the following items:

- All fasteners secured as per assembly instructions.
- Hydraulic hoses are in good condition with no leaks.
- Clean-out cover is closed and secured with retaining pin, and dump cover is in place and secure.
- Tube alignment is reasonably straight.
- Hopper and discharge spout are free of obstructions.

- Operator is familiar with all safety precautions.
- Proper maintenance has been performed.

OPERATIONS/SAFETY

When operating the Hydraulic Drill Fill Auger, attention should be paid to the following items:


1. All unauthorized personnel should be clear of work area.
2. Always have another person nearby to shut down the equipment in case of accident.

IMPORTANT

IN ORDER TO MAINTAIN PROPER GRAIN FLOW THROUGH THE DISCHARGE SPOUT, WE RECOMMEND THE SPOUT BE HELD AT NO LESS THAN 45 DEGREES TO THE HORIZON DURING OPERATIONS. A MORE SHALLOW ANGLE COULD PLUG THE DOWNSPOUT RESULTING IN DAMAGE TO THE EQUIPMENT.

3. When raising or lowering the upper tube, be aware of the weight shift. If tube is allowed to drop, it will result in damage to tube and/or personal injury. **KEEP FIRM GRIP ON LIFT HANDLE.**
4. Do not operate with any safety shield removed or Clean-out Door open.

WARNING



LOWER FLIGHTING IS UNGUARDED WHEN CLEAN OUT DOOR IS OPEN. DO NOT OPERATE UNLESS DOOR IS CLOSED AND SECURED WITH RETAINING PIN.

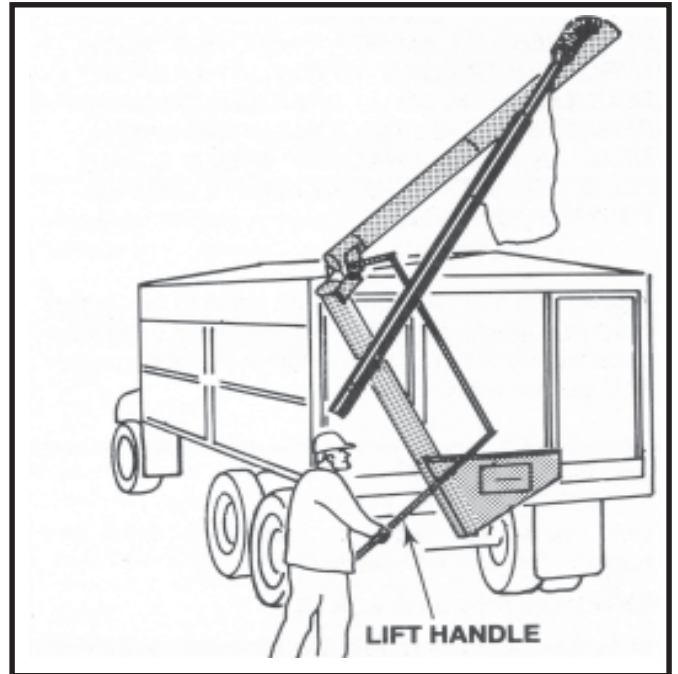
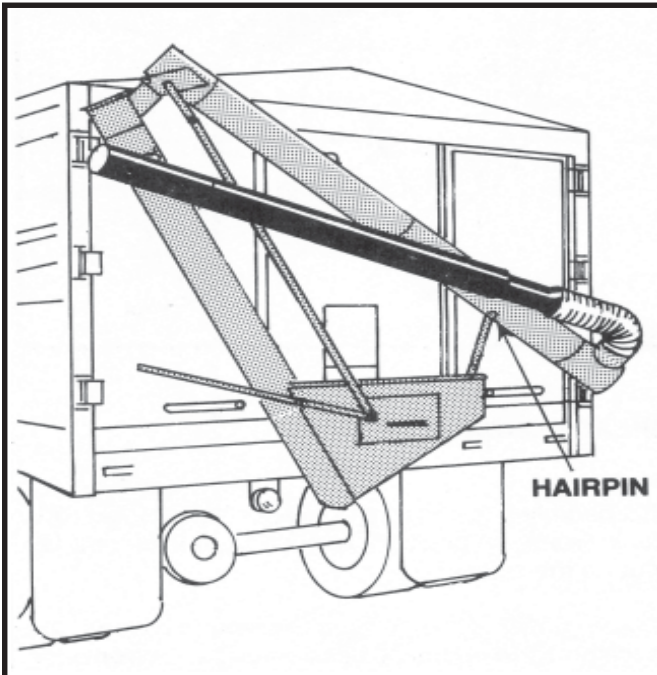
BE ALERT

OPERATING

Drill fill must be locked into transport position before transporting.

To unload material from truck:

1. Drive close to seeding equipment.
2. Remove hairpin, raise and over-center lock drill fill into operating position.
3. Slip handle onto opposite end of welded rod and secure with hairpin to prevent bending when raising truck box.



4. Switch on hydraulic power, raise truck box and open end gate.

NOTE: On drill-fill augers equipped with bristle flighting, reduce flow of material to hopper or plugging will occur.

5. Position telescopic unload spout and flick switch to ON position.

CAUTION



BE ALERT

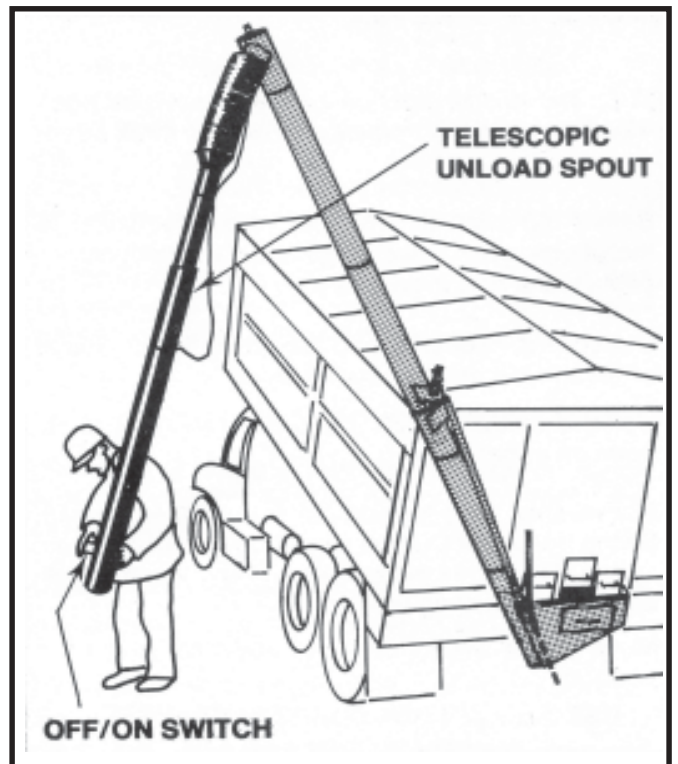
WHEN RAISING OR LOWERING UPPER TUBE SECTION, BE AWARE OF WEIGHT SHIFT. KEEP FIRM GRIP ON LIFT HANDLE.

CAUTION



BE ALERT

SECURELY BLOCK TRUCK BOX HOIST IF BOX IS RAISED TO INSTALL OR SERVICE HYDRAULIC OR ELECTRICAL LINES TO PREVENT UNINTENTIONAL LOWERING. FAILURE TO HEED WILL RESULT IN SERIOUS INJURY.



IMPORTANT

IN ORDER TO MAINTAIN PROPER FLOW THROUGH UNLOAD SPOUT, THE SPOUT SHOULD BE HELD AT NO LESS THAN 45 DEGREES TO THE HORIZON DURING OPERATION. A MORE SHALLOW ANGLE COULD PLUG THE SPOUT, RESULTING IN DAMAGE TO THE EQUIPMENT.

5. Close truck end gate just before seeding equipment is full and empty out drill till or auger seed or fertilizer back into truck box. Open clean-out door to remove final excess material.
6. Upon completion, lower and lock drill fill in transport position.
7. Use pressurized water to wash out auger and hopper after use with fertilizer.

HYDRAULIC REQUIREMENTS

The hydraulic motor requires a minimum of 8 GPM and a maximum of 12 GPM at 1400 PSI to function properly. Oil flow in excess of 12 GPM will cause augers to creep when spout switch is shut off, in which event a flow control valve should be installed.

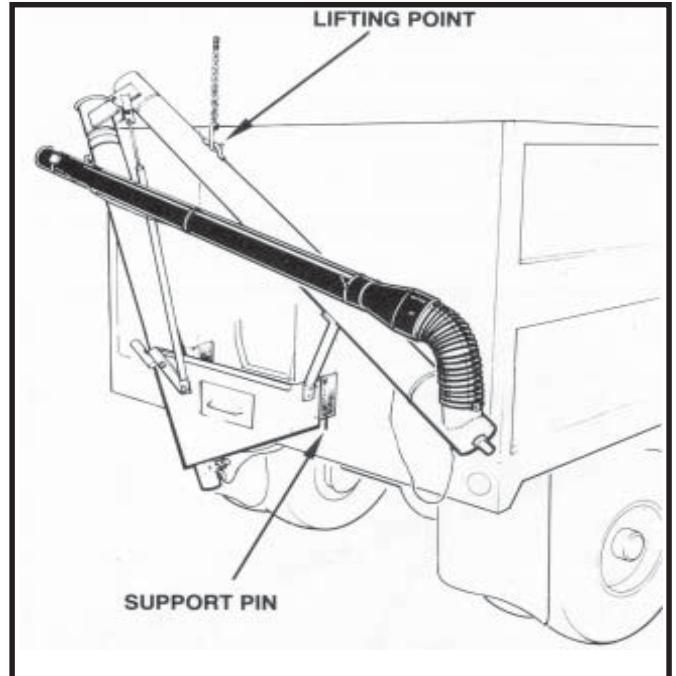
See Assembly Instructions for correct hook-up of hydraulics.

REMOVAL OF DRILL FILL

NOTE: The drill fill must be locked in transport position before removing from or attaching to truck box.

1. Before removing drill fill, use pressurized water to thoroughly wash inside auger tube and hopper. Allow water to drain and dry.
2. Disconnect hydraulic and electrical lines. Place protective covers over connections.
3. Using a suitable hoist, connect chain hook to lift point on upper tube.
4. Remove the long support pin at bottom of hopper. Swing bottom of Drill Fill away from truck box, then raise Drill Fill until welded pin on Half Clamp clears the upper mounting bracket.
5. Move drill fill away from truck and store in the flat position.

USE ABOVE PROCEDURE IN REVERSE TO ATTACH DRILL FILL.



REPLACE BROKEN SPRINGS

1. If it becomes necessary to replace springs, lock drill fill in transport position, remove from truck and lay flat on the ground.
2. Place upper tube section halfway between the transport and operating positions, as shown on page 9 in the assembly section.
3. With tension removed from springs, remove both 5/8" x 7-1/4" pins and separate upper and lower tube sections slightly. Remove broken springs.
4. Stack three good springs with large coil over spacer pipe and insert spring ends through end plate holes in upper pivot bracket. See page 9.
5. Align pivot holes. Insert a 5/8" x 7-1/4" pin through pivot holes and through the spacer pipe. Secure with cotter pins.
6. Insert other 5/8" x 7-1/4" pin through loop hole in lower-tube pivot bracket and through loops on the three springs. Secure with cotter pins.
7. Pull upper tube into transport position and lock into place with hairpin.

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Auger runs too slow.	<ol style="list-style-type: none"> 1. Truck engine running too slow. 2. Truck pump not producing minimum required flow and pressure. 3. Hydraulic auger motor worn. 4. Solenoid mounted wrong. 5. Hydraulic hose is too small. 	<ol style="list-style-type: none"> 1. Increase engine speed. 2. Check truck pump capacity and correct. 3. Repair or replace. 4. Mount solenoid to motor as per instructions on page 10. 5. Use 3/8" hose.
Auger won't run.	<ol style="list-style-type: none"> 1. Auger jammed. 2. No hydraulic pressure to motor. 3. No power to solenoid. 4. Burned out solenoid. 5. Ports between hydraulic motor and solenoid blocked. 6. Solenoid mounted wrong. 7. Poor ground. 	<ol style="list-style-type: none"> 1 A. Shut off and lock out power. Open cleanout door and remove excess seed or fertilizer. Make sure unload-spout is clear. 1 B. Make certain upper and lower flightings mesh properly at the joint (see ADJUST FLIGHTING page 10). 2. Check for correct attachment for hydraulic hoses and routing. 3. Correct or replace: <ul style="list-style-type: none"> • Burned fuse • Poor ground-solenoid to truck frame • Wire connections at solenoid or control switch broken 4. Replace solenoid. 5. Remove solenoid and clear out obstructions. 6. Mount solenoid to motor as per instructions on page 10. 7. Properly ground solenoid to truck frame.
Oil leaking at motor and solenoid connection.	<ol style="list-style-type: none"> 1. Solenoid bolts loose 2. O-rings damaged or not installed properly. 	<ol style="list-style-type: none"> 1. Tighten bolts. 2. Remove solenoid and check that o-rings are properly installed. Replace if damaged.
Auger creeps when Spout Switch is shut off.	<ol style="list-style-type: none"> 1. Oil flow (GPM) is too high 	<ol style="list-style-type: none"> 1. Decrease oil flow (not pressure) to hydraulic motor with use of Flow Control Valve. Flow must not exceed 12 GPM.
Solenoid won't function.	<ol style="list-style-type: none"> 1. Poor ground 2. Solenoid mounted wrong 	<ol style="list-style-type: none"> 1. Attach ground wire from solenoid to truck frame. 2. Mount solenoid to motor as per instructions on page 10.

3. Assembly

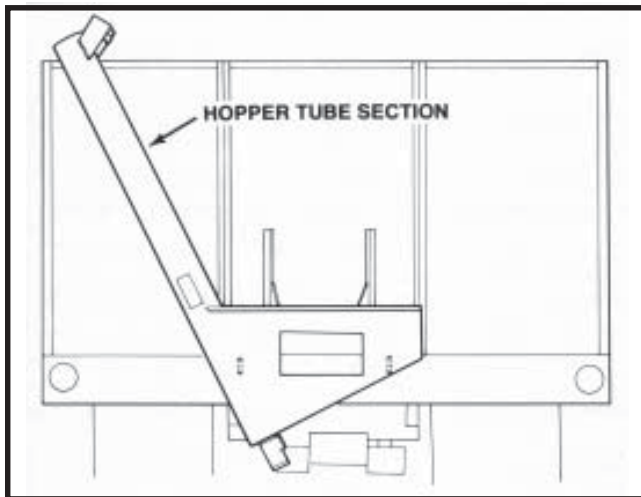
Before beginning installation of your Hydraulic Drill Fill Auger, please read the following instructions carefully and familiarize yourself with the sub-assemblies and hardware, ensuring that all parts are on hand and arranged for easy access.

IMPORTANT

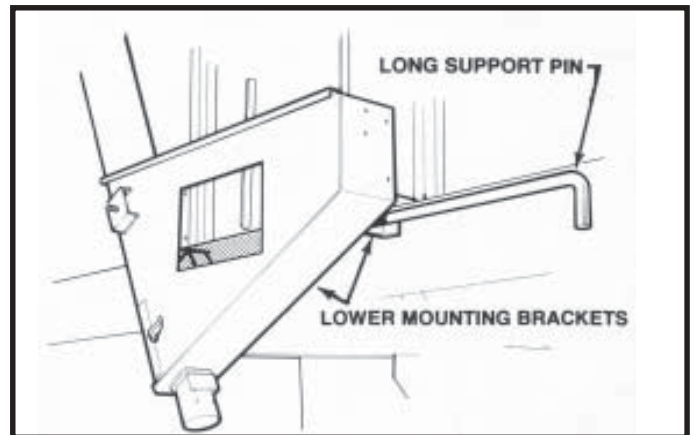
THESE INSTRUCTIONS ARE WRITTEN ON THE ASSUMPTION THAT TWO OR MORE PEOPLE WILL BE AVAILABLE FOR THE INSTALLATION PROCEDURE. BECAUSE OF THE WEIGHT, IT IS UNWISE TO ATTEMPT INSTALLATION ALONE.

INSTALLATION OF MOUNTING BRACKETS

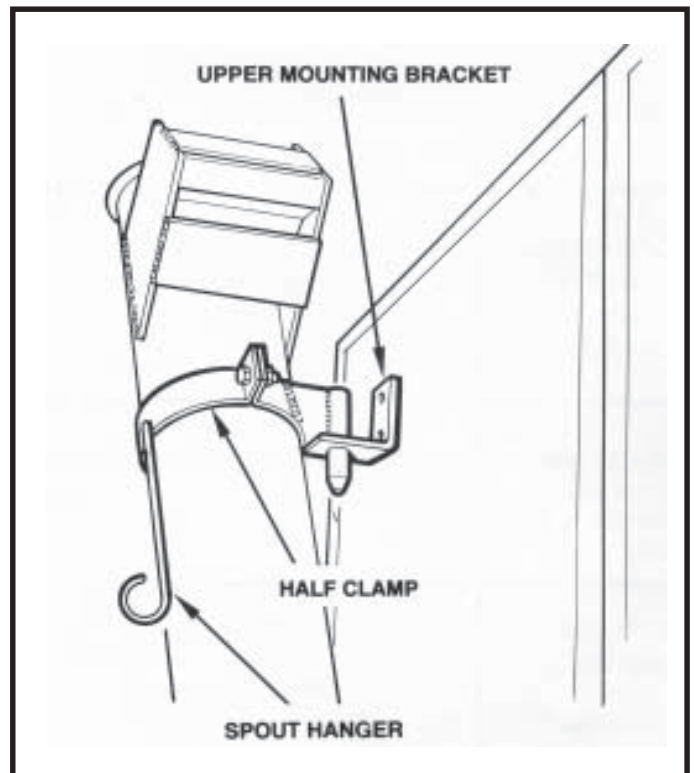
1. Lift the hopper section of drill till and slide lip of hopper under center gate at rear of truck box. Tie or hold drill fill in place while mounting holes are marked.



2. Insert long support pin through lower mounting brackets and welded tabs on back of hopper. Position mounting brackets on outside of tabs if possible, or as far apart as possible.
3. Mark the lower mounting bracket hole locations.



4. Attach the two half clamps (with pin pointing down) to upper end of the hopper tube section with two 7/16" x 1" bolts and locknuts.
5. With the half clamp assembly as high as possible on the tube, rotate clamps until the pin is in a vertical position. Tighten bolts.
6. Slip upper mounting bracket on half clamp pin and mark the two holes.



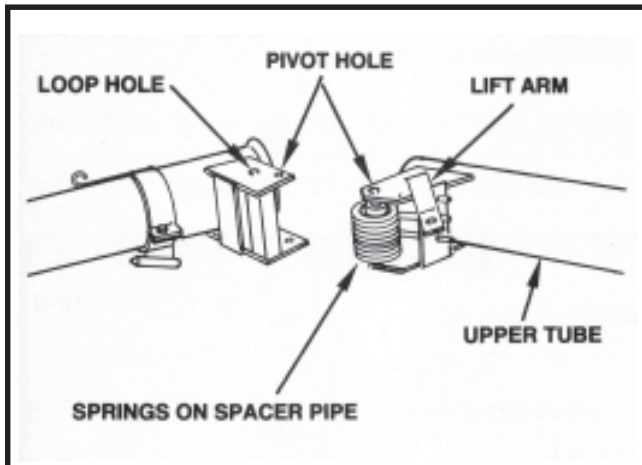
IMPORTANT

THE LOWER TUBE SECTION OF DRILL FILL MUST BE PARALLEL TO THE TRUCK BOX END GATE. SHIM UP THE UPPER MOUNTING BRACKET IF NECESSARY, WHICH MAY REQUIRE A LONGER BOLT (NOT PROVIDED).

7. Remove hopper section from truck box and drill four $\frac{29}{64}$ " holes at the marked locations.
8. Secure the lower and upper mounting brackets to truck box with four $\frac{7}{16}$ " x 1" bolts and locknuts.

DRILL FILL ASSEMBLY

1. On a level surface, lay upper tube next to lower section as shown.
2. Stack the three spring with large coil over spacer



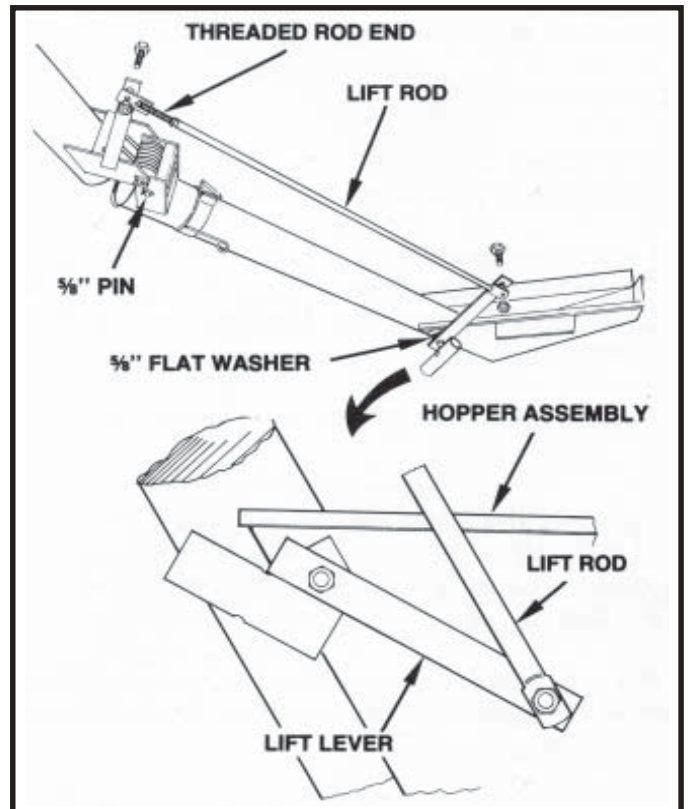
pipe and insert spring ends through end plate holes in upper pivot bracket.

3. Align pivot holes of upper and lower tube sections. Insert a $\frac{5}{8}$ " x $7\frac{1}{4}$ " pin through pivot holes and through the spacer pipe. Secure $\frac{5}{8}$ " pin with cotter pins.
4. Insert the other $\frac{5}{8}$ " pin through loop hole in lower tube pivot bracket and through loops on the three springs. Secure $\frac{5}{8}$ " pin with cotterpins.

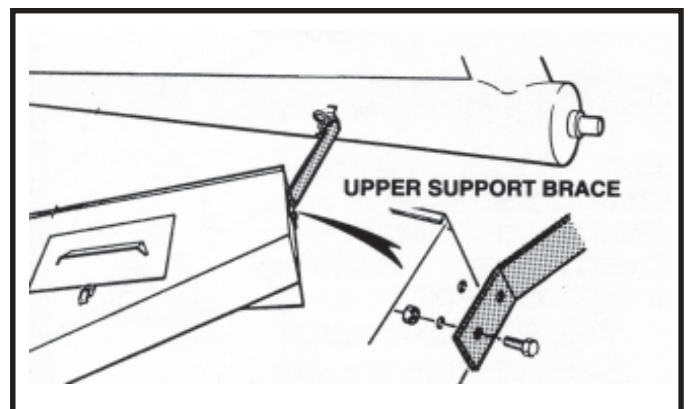
IMPORTANT

THIS $\frac{5}{8}$ " PIN MUST GO THROUGH THE LOOPS ON THE SPRINGS.

5. Slip a $\frac{5}{8}$ " flat washer and the lift lever onto welded bolt on the hopper as shown and secure with a $\frac{5}{8}$ " locknut. TIGHTEN SNUG ONLY as this acts as a pivot point.
6. Attach the lift rod to lift lever as shown with a $\frac{5}{8}$ " x $1\frac{1}{2}$ " bolt and locknut. TIGHTEN SNUG ONLY as this bolt acts as a pivot point.
7. Thread a $\frac{5}{8}$ " jam nut onto the threaded rod end, then screw rod end into top threaded end of the lift rod.



8. Secure the upper-tube support brace to hopper with two $\frac{3}{8}$ " x 1" bolts and whiz-nuts.



ADJUST OVER-CENTER LOCK

1. Pull upper tube into full operating position.
2. Adjust threaded rod end and secure to lift arm on upper tube with a 5/8" x 1-1/2" bolt and locknut. Repeat this procedure until upper tube over-center locks into operating position with some tension on the lift handle.
3. After adjustment is complete, tighten the 5/8" jam nut on rod end. The 5/8" x 1-1/2" bolt and locknut should be **TIGHTENED SNUG ONLY** as this bolt acts as a pivot point.

ADJUST FLIGHTING

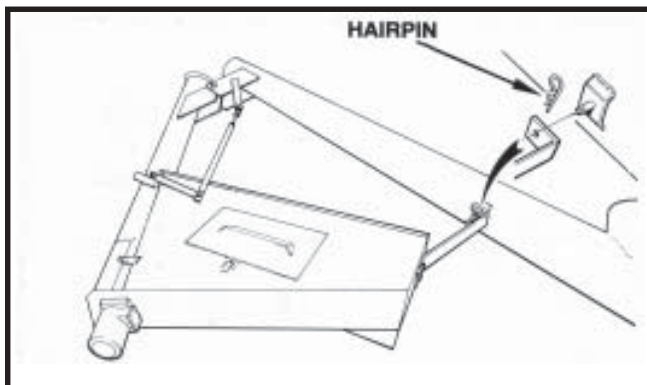
1. With upper tube locked into operating position, remove the lock collar on top bearing.
2. Push upper flight down until it meets the lower flight. Reach into outlet spout on upper tube and rotate upper flight to ensure it is fully engaging with the lower flight.
3. Replace and secure lock collar on top bearing.

IMPORTANT

TO PREVENT DAMAGE TO AUGER, UPPER FLIGHT MUST FULLY ENGAGE WITH LOWER FLIGHT WITH DRILL FILL IN OPERATING POSITION.

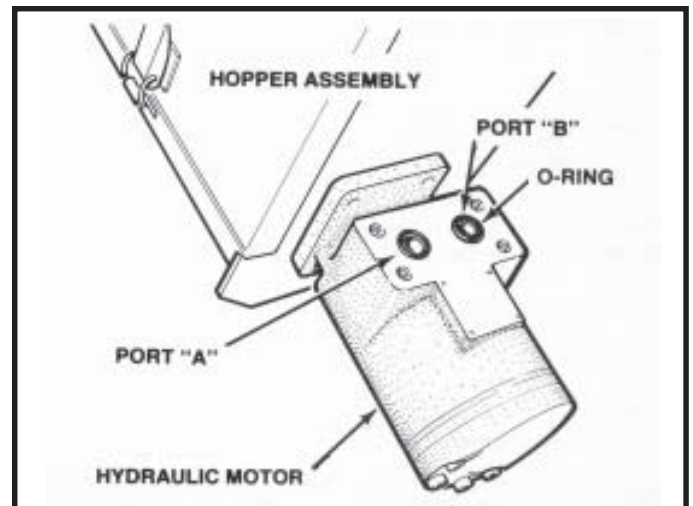
4. Pull upper tube into transport position with pin fitting through upper tube support brace and lock into place with a hairpin.

NOTE: *Because of the spring tension, one person should hold hopper while another person pulls and locks upper tube into transport position.*

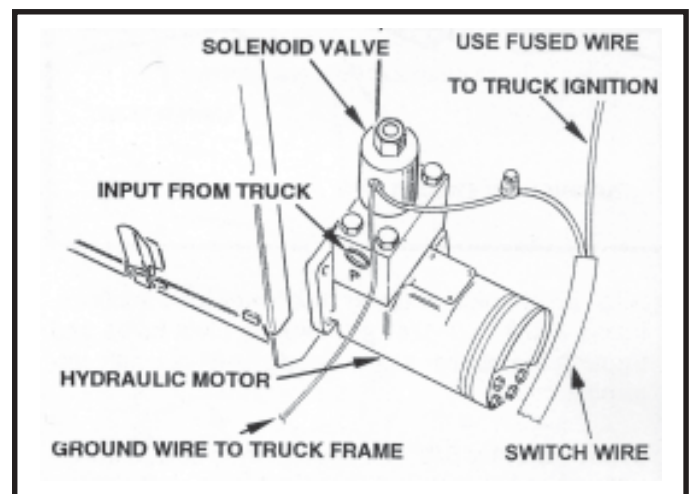


SOLENOID VALVE & UNLOAD SPOUT INSTALLATION

1. Remove protective cover plate from the hydraulic motor and discard.

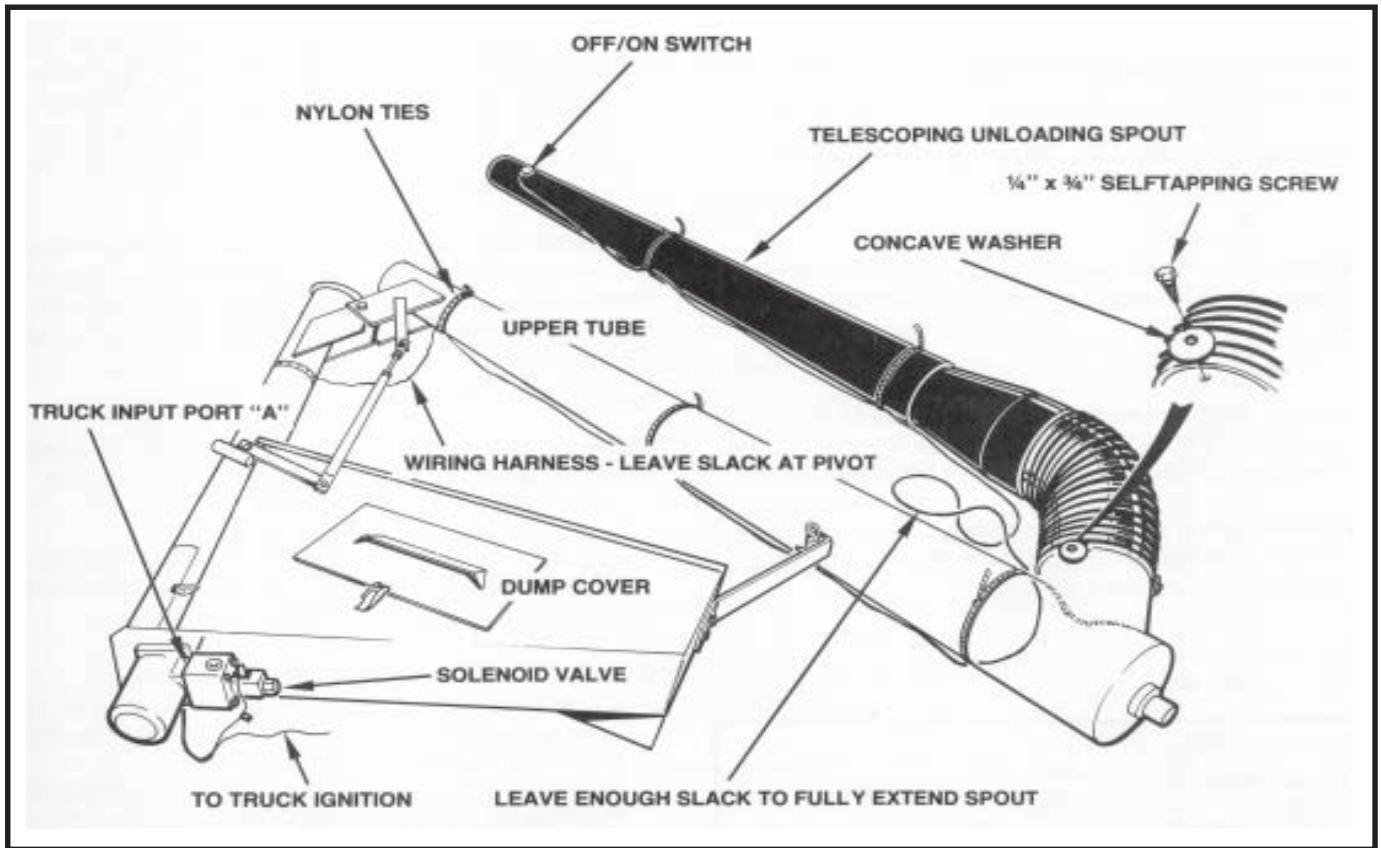


2. Ensure the o-rings are properly seated in oil ports on hydraulic motor. Remove plastic hole covers from ports on solenoid.
3. Position solenoid with side marked P or IN over Port A on hydraulic motor as shown and secure solenoid with four 5/16" x 2-3/4" bolts.



IMPORTANT

TO OBTAIN THE CORRECT ROTATION ON THE AUGER FLIGHT CONNECT THE HYDRAULIC INPUT HOSE FROM TRUCK TO PORT MARKED P OR IN ON SOLENOID AND THE HYDRAULIC RETURN HOSE TO THE PORT ON OPPOSITE SIDE OF SOLENOID.



- Slip flexible portion of the telescopic unload spout over auger outlet.
Secure with three concave washers and V4 x W selftapping screws.

ELECTRICAL HOOK-UP

- Connect either of the two wires on solenoid to one of the wires on the wiring harness, cover connection with electrical tape.
(NOTE: The other wire on solenoid is the ground wire. The solenoid must be properly grounded. See step 6 on page 12.)
- Leaving some slack at the solenoid, route the wiring harness up the back side of hopper and tube sections, outside of the pivot brackets. Secure with 7 nylon ties as shown.

IMPORTANT

LEAVE ADEQUATE SLACK IN THE WIRING HARNESS AT THE PIVOT POINT TO ENSURE THAT WIRING WILL NOT BE DAMAGED WHEN UPPER TUBE IS RAISED AND LOWERED.

- Mount OFF/ON switch to the pre-drilled holes near the telescopic unload spout handle with two 1/4" x 1/2" bolts and whiz-nuts.
- Secure the wiring harness to telescopic unload spout with nylon ties as shown.

NOTE: *There should be some slack in the wiring harness at the flexible portion of unload spout with the spout FULLY EXTENDED.*

- Install dump cover and secure in place.
- Loop the spout handle to welded hook on the CLAMP

WARNING



SECURELY BLOCK TRUCK BOX HOIST IF BOX IS RAISED TO INSTALL OR SERVICE HYDRAULIC OR ELECTRICAL LINES TO PREVENT UNINTENTIONAL LOWERING. FAILURE TO HEED WILL RESULT IN SERIOUS INJURY.

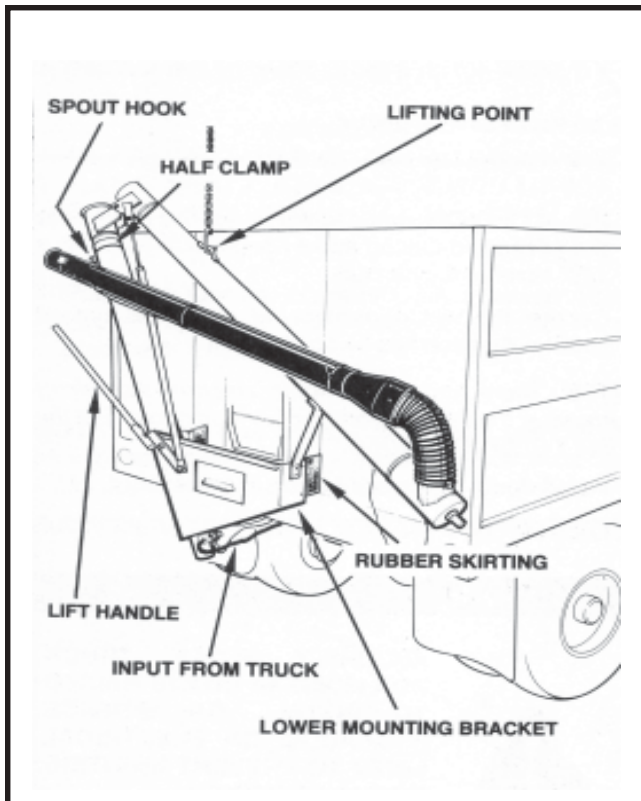
ATTACHING DRILL FILL TO TRUCK BOX

A looped rod welded to the upper tube is the lifting point for the drill fill.

1. Fasten a chain at the lifting point and hoist drill fill into position.

NOTE: *The drill fill weighs about 220 lbs. Although it can be lifted in place by hand, it is not recommended.*

2. Insert pin on tube clamp into upper mounting bracket, then secure hopper section to lower mounting bracket with the long support pin and install hairpin.
3. Install rubber skirting at each hopper end with 5/16" x 3/4" bolts and whiz nuts. The skirting may require trimming to ensure a snug fit.



4. Install a 3/8" hydraulic PRESSURE line from truck hydraulic system to port marked P or IN on the solenoid and a 3/8" RETURN line from opposite solenoid port to the return port on truck hydraulic system. NOTE: 3/8" hydraulic hose, pipe, couplers and 3/8" - 18 NPTF male fittings to be supplied by customer.

SUGGESTION: *Install quick couplers in the pressure and return lines at back of truck box or frame. This will reduce time needed to attach and remove drill fill. Protect hydraulic fittings from dirt and dust when disconnected.*

NOTE: *Use teflon tape or pipe stick (not supplied) on all hydraulic fittings except where o-rings are used.*

5. Run a 4 amp fused power wire (not supplied) from truck ignition to the loose wire on wiring harness. Cover connection with electrical tape.
6. IMPORTANT: Drill fill must be grounded. Connect a ground wire from truck frame to loose wire on solenoid. Make certain wire connecting areas are free of paint, oil and dirt.
DO NOT GROUND TO TRUCK BOX AS GREASE ON HINGE PINS MAY PREVENT GROUNDING.

SUGGESTION: *Install quick-connect electrical connectors on both the power and ground wires. This will reduce time needed to attach and remove the drill fill. Protect wire ends and connectors to prevent electrical shorting.*

This completes assembly and installation of the drill fill. With drill fill mounted on truck, raise it into operating position. **BE AWARE OF WEIGHT SHIFT.** Check that the over-center lock is properly adjusted. Also ensure that upper and lower flights engage fully.

Use only genuine WESTFIELD replacement parts or equivalent. Replacement parts **MUST MEET ASAE STANDARDS** or serious injury may result. Use of unauthorized parts will void warranty. If in doubt, contact WESTFIELD or your WESTFIELD dealer. Do not modify any auger components.



WARRANTY

Westfield Industries Ltd. warrants products of its manufacture against defects in materials or workmanship under normal and reasonable use for a period of one year after date of delivery to the original purchaser.

Our obligation under this warranty is limited to repairing, replacing, or refunding defective part or parts which shall be returned to a distributor or a dealer of our Company, or to our factory, with transportation charges prepaid. This warranty does not obligate Westfield Industries Ltd. to bear the cost of labor in replacing defective parts. Any defects must be reported to the Company before the end of the one year period.

This warranty shall not apply to equipment which has been altered, improperly assembled, improperly maintained, or improperly repaired so as to adversely affect its performance. Westfield Industries Ltd. makes no express warranty of any character with respect to parts not of its manufacture.

The foregoing is in lieu of all other warranties, expressed or implied, including any warranties that extend beyond the description of the product, and the IMPLIED WARRANTY of MERCHANTABILITY is expressly excluded.

WESTFIELD INDUSTRIES LTD.

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INDUSTRIES LTD.

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WESTFIELD

REAR MOUNT DRILL FILL

ASSEMBLY & OPERATIONS MANUAL

RM-01-98

