

**HAYBUSTER**

**STACKER**

**MODEL 618**

**OPERATORS MANUAL**

**HAYBUSTER**

BOX 1940

JAMESTOWN, NORTH DAKOTA 58401

PHONE: 701-252-4601



## WARRANTY

### HAYBUSTER 618 STACKER

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 any time without notice.

This warranty is void if Haybuster Mfg. Inc. does not receive a valid warranty registration card at its office in Jamestown, No. Dak. 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.

# ***SPECIFICATIONS FOR***

## ***THE MODEL 618 STACKER***

Round bed size . . . . .	18' diameter 254 sq. ft.
Bed height . . . . .	36 inches
Overall height, conveyor extended . . . . .	22 feet
Overall height, conveyor down . . . . .	17 feet
Height from platform to bottom of roller conveyor extended . . . . .	16½ feet
Height in transport position . . . . .	9 feet
Width for transport, wings folded . . . . .	10 feet
Overall length . . . . .	30 feet
Weight, approximately . . . . .	10,500 lbs.
Hay capacity, in tons . . . . .	up to 8 tons
Suspension . . . . .	6-1100x16 flotation tires
Hydraulic bed tilt . . . . .	yes
Push off . . . . .	mechanical, chain driven, hydraulic powered
Pick up . . . . .	6 feet wide, with retractable fingered auger
Conveyors . . . . .	2-36" wide belts in front, 1-36" wide belt on packer conveyor
Packer roller . . . . .	30 inches, 1300 lbs. continuous pressure
Tractor requirements . . . . .	50 hp., depending on soil conditions
Hydraulic requirements . . . . .	single, remote control tractor system

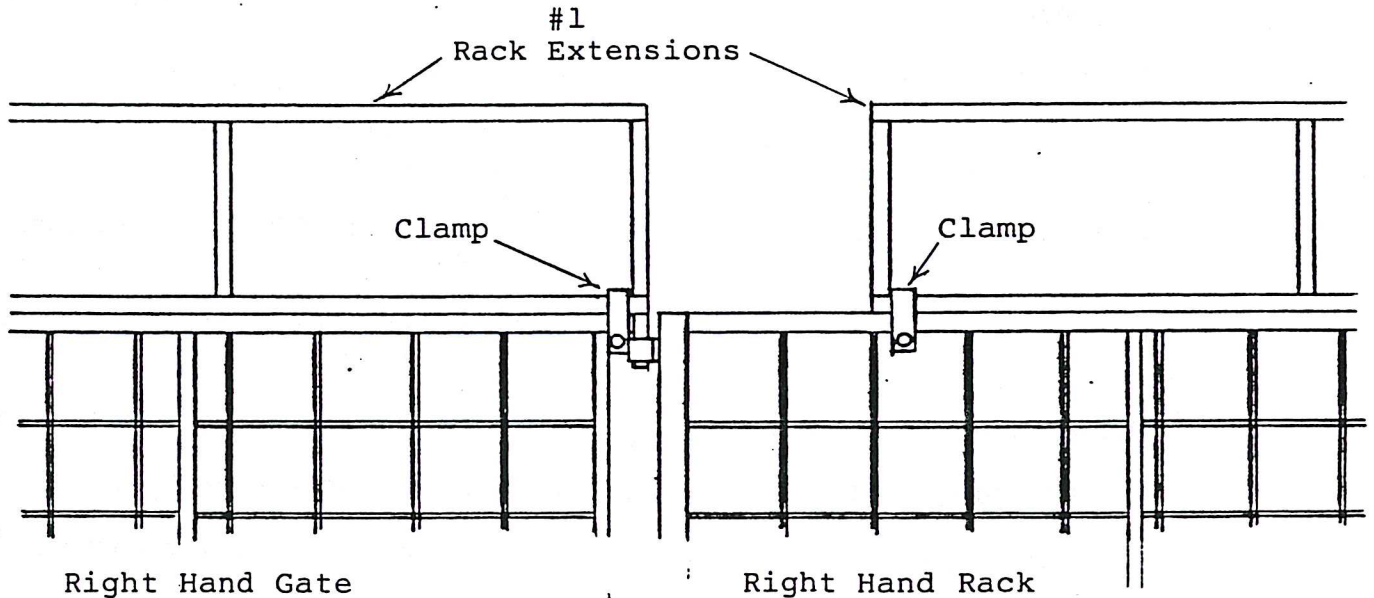


## 618 STACKER RACK EXTENSION

Item	Qty	Description
1	4	Rack extensions
2	12	Clamps
3	12	Bolt 3/8" x 2 1/2"
4	12	Lock washer 3/8"
5	12	Nuts 3/8"

Installation Step 1: Place extension on top of gate, align one end of extension with gate hinge pin. (See illustration) Use (3) three clamps and bolt extension securely in place. Repeat procedure for the other gate.

Step 2: Temporarily bolt remaining extensions in place. Divide the (3) three spaces between the (2) two extensions equally and bolt securely in place.

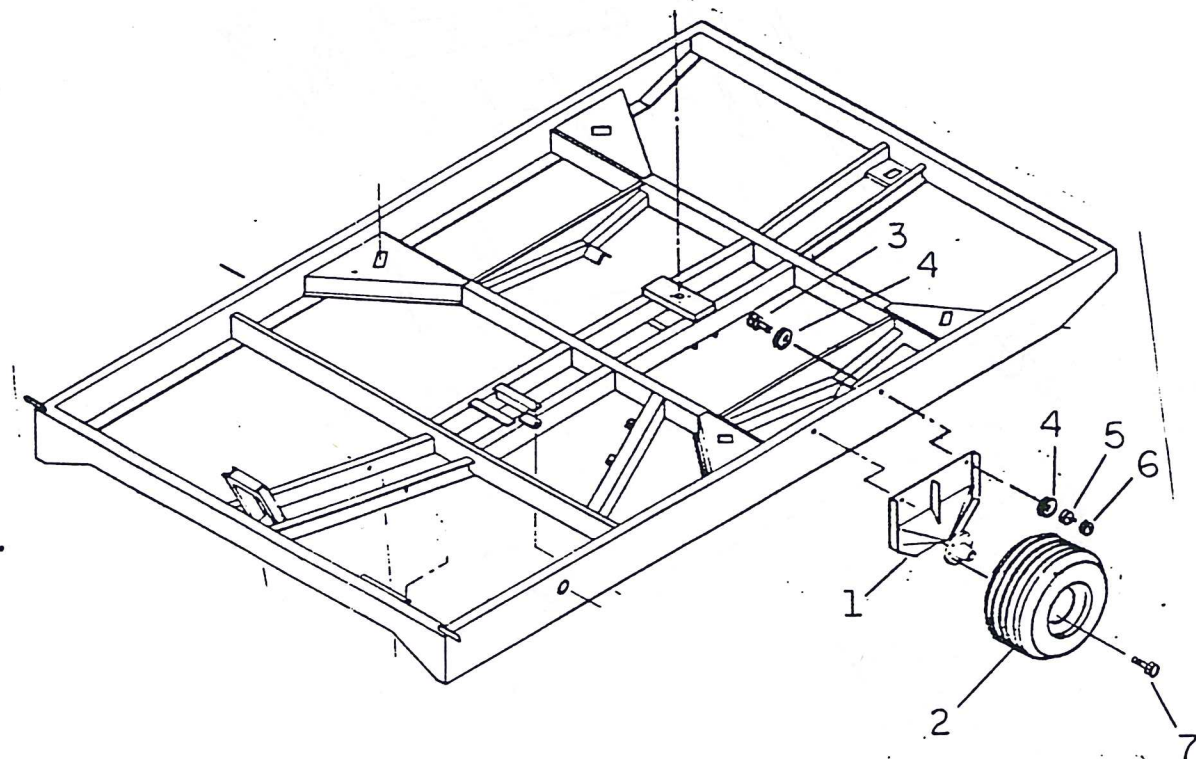




# 618 STACKER SHIPPING LIST

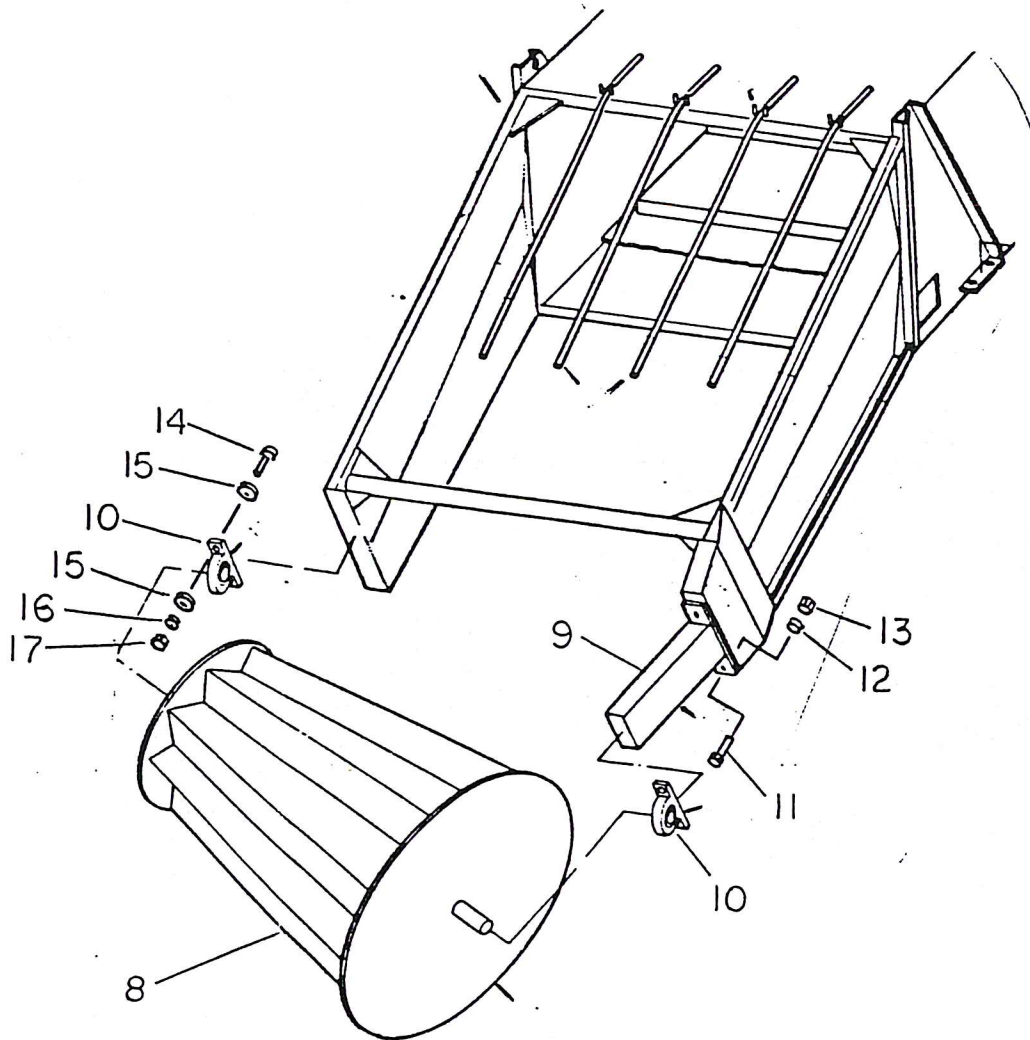
Item	Qty	Description
1	2	Outside wheel bracket w/hub
2	2	Wheel and tire assembly
3	4	5/8" x 2" bolt
4	8	5/8" flat washer
5	4	5/8" lock washer
6	4	5/8" nuts
7	16	Wheel bolts

For set up instructions see Operators Manual.



# 618 STACKER SHIPPING LIST

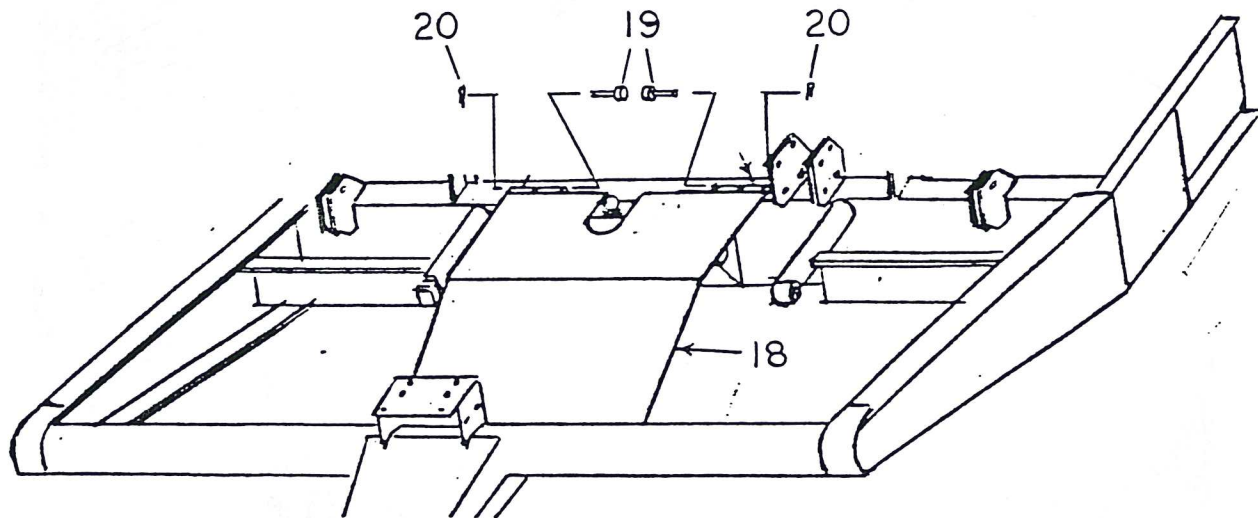
Item	Qty	Description
8	1	Packer drum
9	1	Packer drum extension arm
10	2	1" P.B. bearing w/locks
11	3	1/2" x 1 1/4" bolts
12	3	1/2" lock washer
13	3	1/2" nuts
14	4	3/8" x 1 1/2" bolts
15	8	3/8" flat washers
16	4	3/8" lock washers
17	4	3/8" nuts





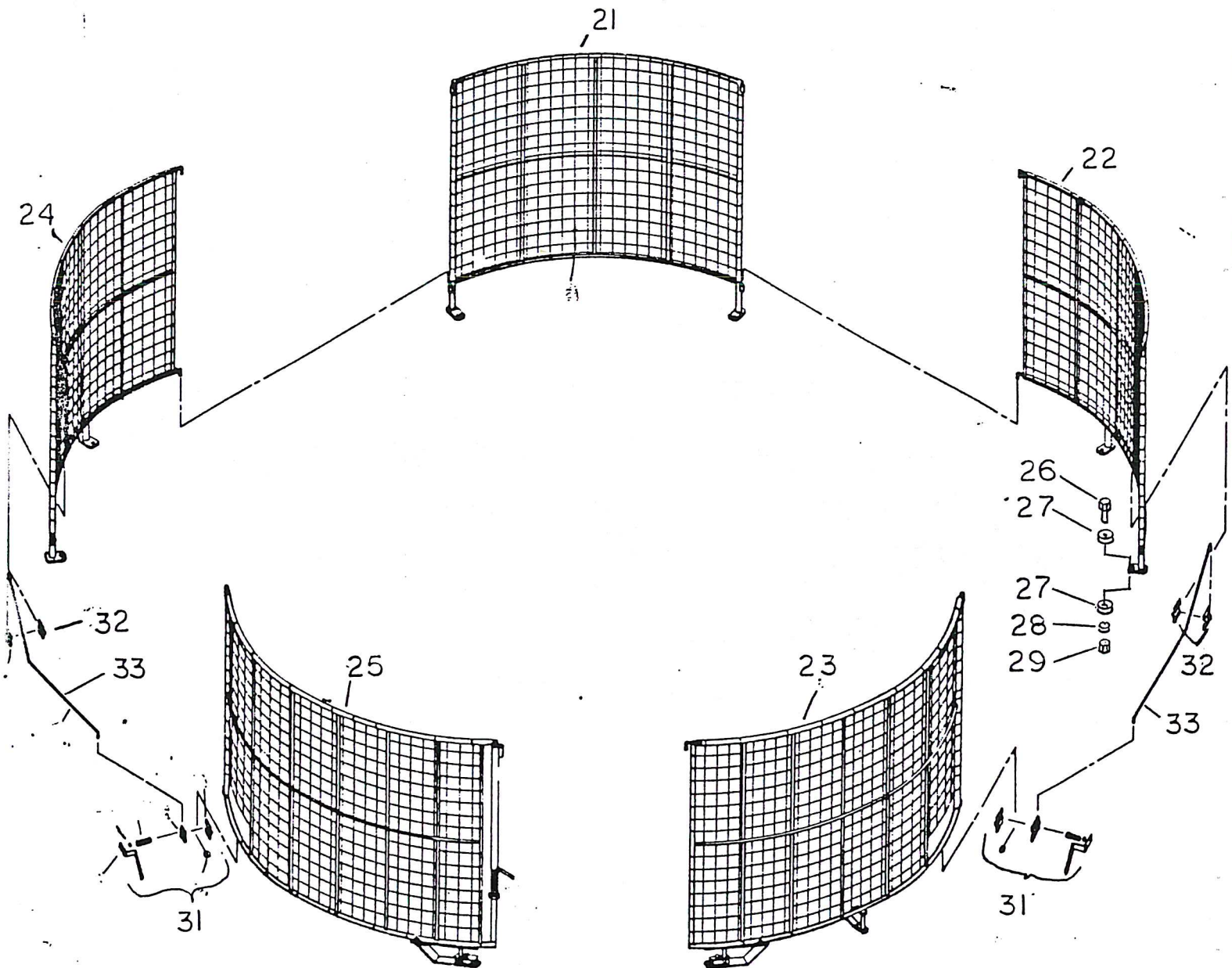
618 STACKER SHIPPING LIST

Item	Qty	Description
18	1	Conveyor feeder
19	2	Pins 1/2" x 7"
20	2	Cotter pins 3/16" x 1 1/2"



618 STACKER SHIPPING LIST

Item	Qty	Description
21	1	Front rack
22	1	Right hand rack
23	1	Right hand gate
24	1	Left hand rack
25	1	Left hand gate
26	9	1/2 x 1 1/4 bolts - 1/2
27	18	1/2 flat washer
28	9	1/2 lock washer
29	9	1/2 nuts
30	4	1/4 x 1 1/2 cotter pin
31	2	Gate latch complete R.H. L.H.
32	2	Gate clamp complete
33	2	Hold open rod
34	4	Cotter pin 3/16" x 1 1/2"





618 STACKER SHIPPING LIST

Item	Qty	Description
35	1	P.T.O. complete
36	1	1/4 x 2 1/2 bolt
37	1	1/4 lock nut
38	1	Belt 36" x 17' 10" packer conveyor
39	1	Belt 36" x 25' 3" main conveyor
40	1	Belt 36" x 25' 9" floating conveyor
41	3	Cable lacing
41A	1	1/4" x 2" square key

Hydraulic kit for tractors with triple outlets

42	4	Hyd. hose 1/2" x 108"
43	2	Hyd. hose 3/8" x 108"
44	1	Manifold with 3/8" elbows
45	1	Valve with fittings (2) 1/2" outlets (2) 1/4" outlets
46	1	Valve with fittings (4) 1/4" outlets
47	2	3/8" x 5 1/2" bolt - 4"
48	2	3/8" lock washers
49	2	3/8" nuts

Hydraulic kit for tractors with dual or single outlets

50	1	Valve bank assembly
51	2	Hyd. hose 1/2 x 132" (valve bank to manifold)
52	2	Hyd. hose 3/8 x 132" (valve bank to manifold)
53	6	Hyd. hose 1/4 x 132" (valve bank to manifold)
54	1	Manifold with (10 elbows)
55	2	3/8 x 1 1/4 bolt
56	2	3/8 lock washer
57	2	3/8 nut
58	2	Hyd. hose 1/2 x 72" (valve bank to tractor)

## SAFETY INSTRUCTIONS

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The safety of the operator is of great importance to Haybuster Manufacturing Company. We have provided decals, shields and other safety features for your protection. In addition, we ask you to be a careful operator who will properly use and service your Haybuster equipment.

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**WARNING:** BEFORE ATTEMPTING TO OPERATE YOUR TRACTOR WITH THE 618 STACKER, CAREFULLY READ AND FOLLOW INSTRUCTIONS GIVEN BELOW AND CONTAINED ELSEWHERE IN THIS MANUAL.

1. Read and follow all instructions contained in:
  - a. This 618 Stacker Operator's Manual
  - b. Tractor Operator's Manual
  - c. Decals placed on the stacker and tractor

**NOTE:** Additional copies of the above mentioned materials can be obtained from your dealer.

2. Be sure all safety shields and covers are securely in place when machine is running.
3. Allow only responsible, properly instructed individuals to operate machine. Carefully supervise inexperienced operators.
4. Make no modifications to this equipment unless specifically requested or recommended by Haybuster Manufacturing Company.
5. Tighten or replace any loose or cracked bolts, chains, hoses or connections.
6. Check overhead for electrical power lines or other obstructions and be certain there is adequate clearance.
7. Never leave the tractor controls unattended while the stacker is operating.
8. Exercise extreme caution when operating the stacker on steep slopes or grades.
9. Be sure all spectators are clear of the area where the stacker is in operation.
10. Be sure that the tractor operator is the only person riding the tractor. Allow no one to ride the stacker at any time.
11. REMEMBER, loose clothing, necklaces and similar items are more easily caught in moving parts. Avoid the use of these items if possible and keep long hair confined.



## SAFETY INSTRUCTIONS (continued)

12. Watch out for and avoid any object that might interfere with the proper operation on the machine.
13. Keep hands, feet and clothing away from power driven parts.

## DURING SERVICE AND MAINTENANCE

1. Before working on or near stacker for any reason, including servicing, inspecting or unclogging machine:
  - a. Disengage power to stacker
  - b. Lower machine to ground level or lock in raised position
  - c. Place transmission in park or set park brake
  - d. Shut off engine and remove key
  - e. Wait for all movement to stop
2. When replacing any part on your stacker, be sure to use only Haybuster authorized parts.
3. Relieve all pressure in the hydraulic system before disconnecting the lines or performing other work on the system. Make sure all connections are tight and the hoses and lines are in good condition before applying pressure to the system.
4. Hydraulic fluid escaping under pressure can be invisible and have enough force to penetrate the skin. When searching for a suspected leak, use a piece of wood or cardboard rather than your hands. If injured, seek medical attention immediately to prevent serious infection or reaction.

## WHEN TRANSPORTING ON PUBLIC ROADS

1. Use good judgement and drive carefully, especially over rough and uneven roads.
2. Be sure tractor brakes are properly adjusted and foot pedals locked together.
3. Check your state laws regarding the use of lights, slow moving vehicle sign, safety chain and other possible requirements.
4. Be aware of machine width at all times, do not exceed 20 MPH.

**WARNING:** FAILURE TO COMPLY WITH ANY OF THE ABOVE SAFETY INSTRUCTIONS OR THOSE THAT FOLLOW WITHIN THIS MANUAL MAY RESULT IN SEVERE INJURY OR DEATH.

THIS STACKER IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS INTENDED AS EXPLAINED IN THE OPERATOR'S MANUAL, ADVERTISING MATERIALS AND OTHER PERTINENT WRITTEN MATERIAL PREPARED BY HAYBUSTER MANUFACTURING.

## SAFETY INSTRUCTIONS (CONTINUED)

### SAFETY DECALS

Safety decals located on your machine contain important and useful information that will help you operate your equipment safely.

To assure that all decals remain in place and remain in good condition, follow the instructions given below:

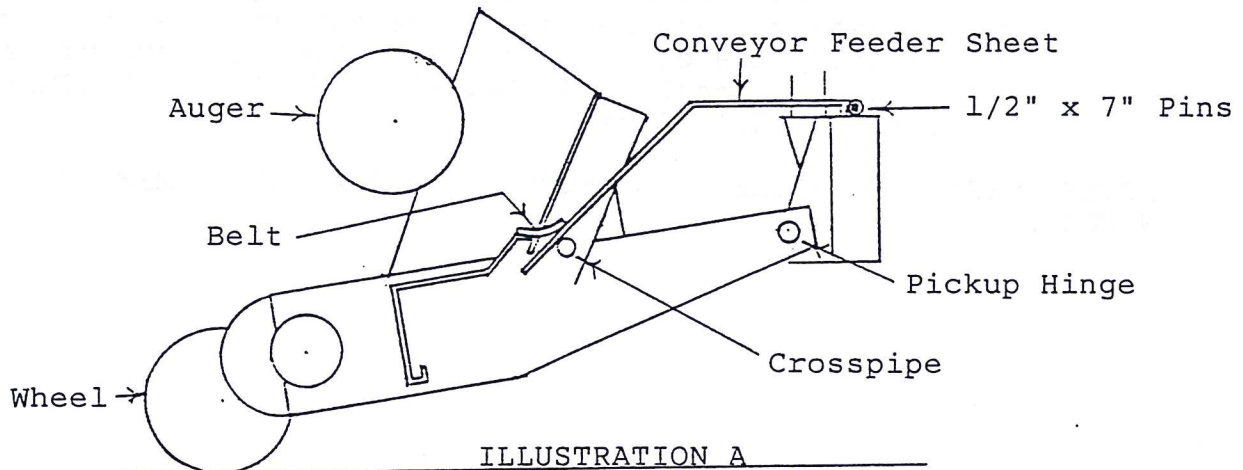
1. Keep decals clean. Use soap and water - not mineral spirits, adhesive cleaners, and other similar cleaners that will damage the decal.
2. Replace any damaged or missing decals. When attaching decals, surface temperature of the metal must be at least 40 degrees Fahrenheit. The metal must also be clean and dry.
3. When replacing a machine component to which a decal is attached, be sure to also replace the decal.
4. Replacement decals can be purchased from your Haybuster dealer.



## MACHINE SET UP

### Raising the conveyor:

1. Remove all bolts, chains and wires used to tie down various parts of the machine.
2. Remove racks, roller, wheels from the machine.
3. INSTALL THE REAR CONVEYOR BELT AT THIS TIME.  
(This is the 17' 10" belt) The splicing should meet at the back, or idler roller. Install the cable and cut off the excess. Install the lock sleeve and clamp with a vise grip or pliers. ADJUST THE TIGHTENER SPRINGS TO 3" COMPRESSION ON EACH SIDE.
4. Install flat end of conveyor feeder sheet between belt and crosspipe of pickup. Let sheet rest in pickup until conveyor is in the upright position. (See Illustration A)



5. Conveyor assembly has to be raised high enough (with a jack or hoist) to allow hooking up the two hydraulic lift cylinders to the packer conveyor. CAUTION: DO NOT remove shipping stand from under conveyor until lift cylinders have been hooked up.
6. Install a cable or chain in the hook eyes provided on the center cross bar. Block or anchor the machine when pulling up the conveyor. PULL UP THE CONVEYOR WITH YOUR TRACTOR. Install the two 5/8" bolts in each support pipe and tighten securely.
7. Place notched end of conveyor feeder sheet under conveyor and fasten with 1/2" x 7" pins and cotter keys.  
(See Illustration A)
8. Remove the bolt holding front of mainframe to gooseneck located ahead of tilt cylinder.

Installing the outside wheels:

1. The outer wheels hook under the side frame rails and are held in place with two bolts.

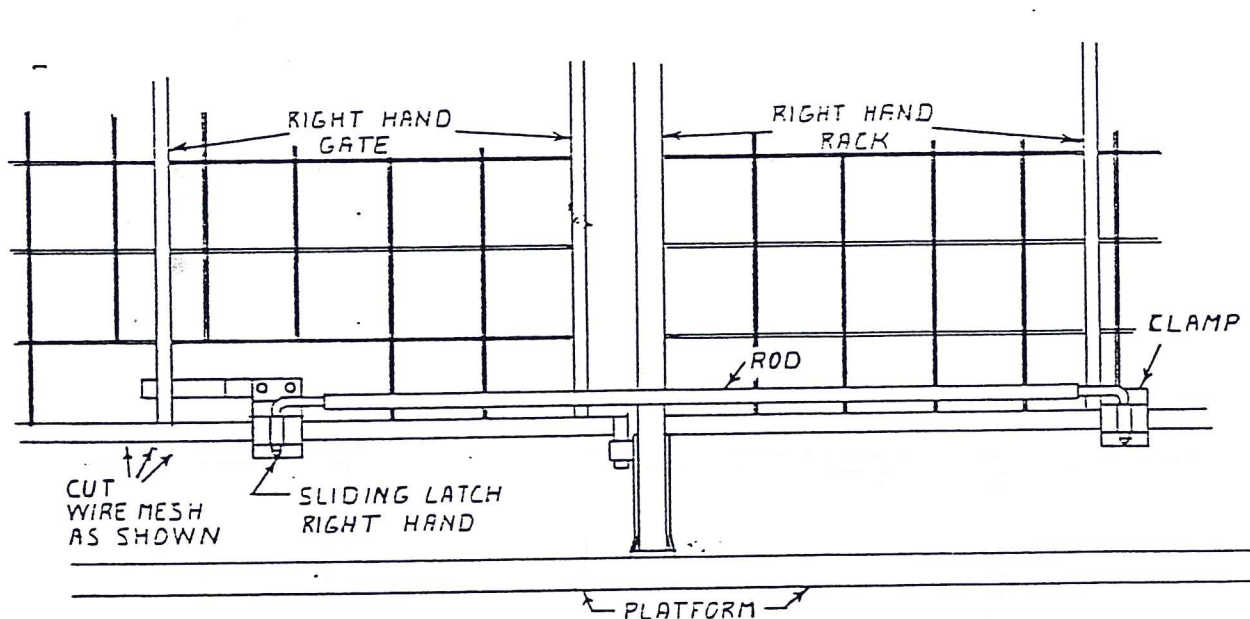
Install the upright conveyor belts:

1. Install the front belt from the top down. (This is the 25' 9" belt) Have the splicing meet at approximately four feet above the bottom idler roller for simplest installation of the cable. Use the same procedure on the cable as for the rear conveyor belt. ADJUST THE TIGHTENER SPRINGS TO 3 1/2" COMPRESSION WITH THE HANDLE LOCKED OVER CENTER TO TIGHTEN THE BELT.
2. Install the rear upright conveyor belt from the back side of the conveyor, up over the top roller and down between the front and back conveyors so that the splicers meet approximately four feet above the bottom idler roller on the back side of the conveyor. Use the same procedure when installing the cable. ADJUST SPRINGS TO 3 1/2" COMPRESSION. (This is the 25' 3" belt)

AFTER OPERATION IN THE FIELD SOME ADDITIONAL ADJUSTMENT MAY BE NEEDED.

Install the racks:

1. Bolt down the front section.
2. Hook the second and third sections into the front section and bolt down.
3. Hook the rear gates into the second and third sections and lock with cotter pins.
4. Install the gate hold open latches by following the procedure outlined below.
  1. Install the sliding latch first. NOTE: The sliding latches are assembled right and left hand. BE SURE YOU HAVE THE CORRECT LATCH.
  2. Open the gate far enough so that the stack would clear if you were unloading a stack. Bolt on the stationary latch as per the drawing.
  3. Repeat the procedure for the other gate.



Install the packer roller:

1. Bolt the extension arm to the packer conveyor.
2. Install the roller. The packer roller is turned by the hay on the revolving platform.

Hydraulic downpressure is maintained by a relief valve on the conveyor lift cylinders.

Adjusting swing cylinder

1. Remove wire from ram end of swing cylinder. Swing packer conveyor to right side of platform. With swing cylinder fully extended, adjust yoke on ram to maintain 4 to 6 inches between packer conveyor and rack. Rotate platform (1) one complete turn to check clearance.

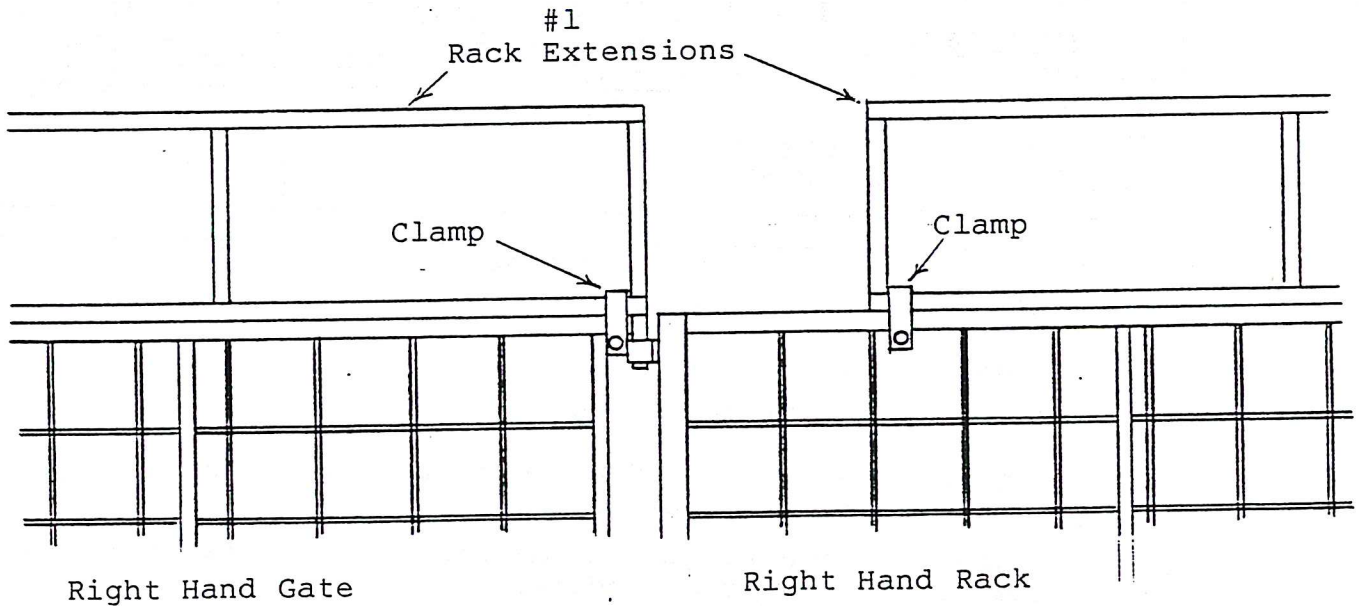


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Installation Step 1: Place extension on top of gate, align one end of extension with gate hinge pin. (See illustration) Use (3) three clamps and bolt extension securely in place. Repeat procedure for the other gate.

Step 2: Temporarily bolt remaining extensions in place. Divide the (3) three spaces between the (2) two extensions equally and bolt securely in place.



## PREPARATION

Before taking the machine to the field for the first time follow the following procedure.

### Tractor Hook Up

The stacker must be properly coupled to the tractor. Use a good grade drawbar pin at least 1" diameter or larger.

CAUTION: Constant velocity PTO from tractor to stacker requires adequate lubrication. Before machine is put in use, slide drive line apart. Apply a coat of grease to male part of slide. The universal joints on each end of drive line have (3) three zerks each that require librication periodically.

With the 1/4" x 2" square key (furnished) install machine end of PTO using a 1/4" x 2 1/2" grade 5

hex head bolt and 1/4" self locking nut (furnished) through yoke and stacker shaft. Tighten yoke clamp bolt securely. When installing splined end of PTO onto tractor, make sure the spring loaded pin slides into the recess on the tractor PTO shaft.

After the PTO is installed, turn the tractor carefully as short as possible and make certain the PTO does not bottom.

The stacker normally comes set up for 540 RPM PTO speed. If 1000 RPM PTO speed is desired, the splined yoke on the tractor end of drive line must be changed to a 21 tooth spline. Also the (3) three grove drive pulley must be changed from 8 inch to 5 inch and shorter drive belts.

### Stacker Run In:

1. Make sure the hitch stand is in the raised position.

2. Make sure the two straps (One on each side of the pick up) have been removed. These straps are used to hold the pick up, up for long distance traveling.
3. Remove the bolt from the front left corner of the platform. This bolt holds the platform in place while transporting.
4. Run the stacker with the tractor throttled down for a short period. Shut off the tractor and make a careful check for loose bolts, loose set screws, binding parts, loose belts or chains, misaligned sprockets and pulleys, and other irregularities. RECHECK AFTER THE FIRST DAYS OPERATION.
5. Start the tractor again and operate the stacker at full throttle speed for 15 minutes. Test the operation of the hydraulic controls, observe the operation of moving parts, note any signs of faulty operation.
6. Stop the stacker, shut off the tractor and check all belts, and chains and correct any misalignment or incorrect tension. Check and if necessary lubricate moving parts.

Installing the valve bank on the tractor

The hydraulic valve bank must be attached to the tractor fender, or to a support rack built for it. In the picture at the right, a support rack has been built.

#### CAUTION

Two types of hydraulic systems, open center and closed center are used on farm tractors. Because the oil pressure to operate the stacker is taken from the tractor's system, the stacker valve must be the same as the tractors. If it is not, heating of the tractor oil supply will occur. REFER TO YOUR TRACTOR MANUAL OR CONTACT YOUR TRACTOR DEALER TO DETERMINE IF YOUR TRACTOR HAS AN OPEN OR CLOSED SYSTEM.

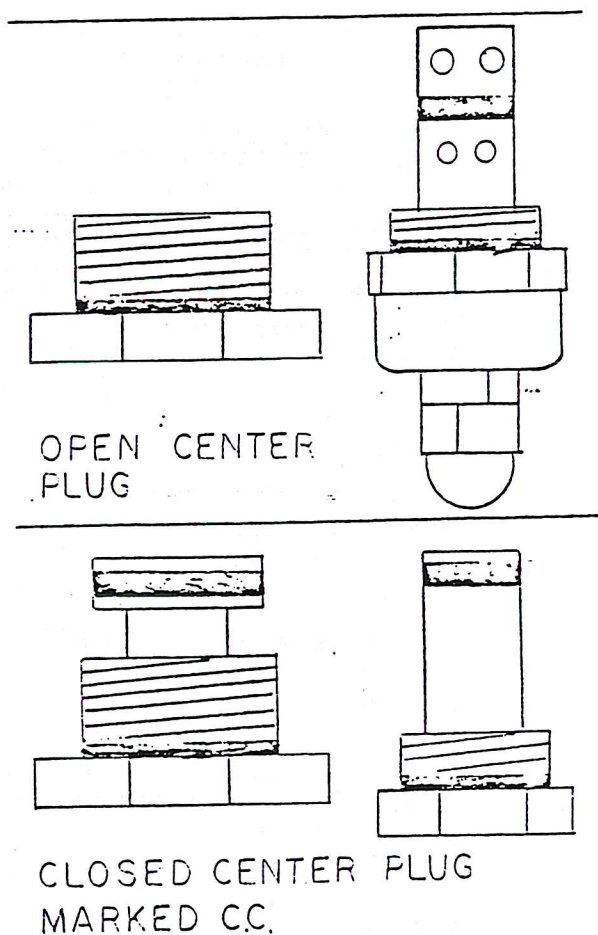
The valve bank is easily changed from closed to open center or vice versa by changing two plugs. Closed center plugs are marked CC (detail B). The large plug (either open or closed) goes in the 2 spool bank. The small plug (either open or closed) goes in the 3 spool bank. Both plugs must be changed. IF YOUR STACKER IS EQUIPPED WITH THE WRONG SYSTEM, EXCHANGE THE PLUGS AT YOUR DEALER. FOR THE PROPER ONES, CLOSED CENTER PLUGS ARE MARKED CC. OPEN CENTER PLUGS ARE NOT MARKED.

Attach the male end quick couplers (not furnished) to the 1/2" valve bank hoses. Plug into the tractor system. The hydraulic system is shipped dry and will take about 5 gallons of oil from the tractor system to fill. Operate all systems in order to fill and check for leaks. THE TRACTOR CONTROL LEVER MUST BE FASTENED

INTO THE ON POSITION. If the system fails to operate reverse the hoses at the quick couplers or move the tractor control lever in the opposite direction.

#### CAUTION

A strong well secured hitch pin is important to prevent breakaway of the stacker from the tractor. We recommend vise grips to hold the valve bank to the support rack.





## HAYBUSTER STACKER LUBRICATION

Gear boxes: All gear boxes are factory lubricated with #90 grease and STP. The gear box which drives the tumbling shaft has a zerk on the top bearing cover. GREASE PERIODICALLY.

Oil all chains sparingly with light oil.

Universal joints: Service all universal joints and square sliding shafts weekly.

The following zerk locations should be greased daily.

Main conveyor ball joint pivot. Conveyor torque arm pivots.  
Power take off slide. Overrunning clutch.  
Pickup wheels.  
Bearings which are equipped with zerks should be greased several times a season.

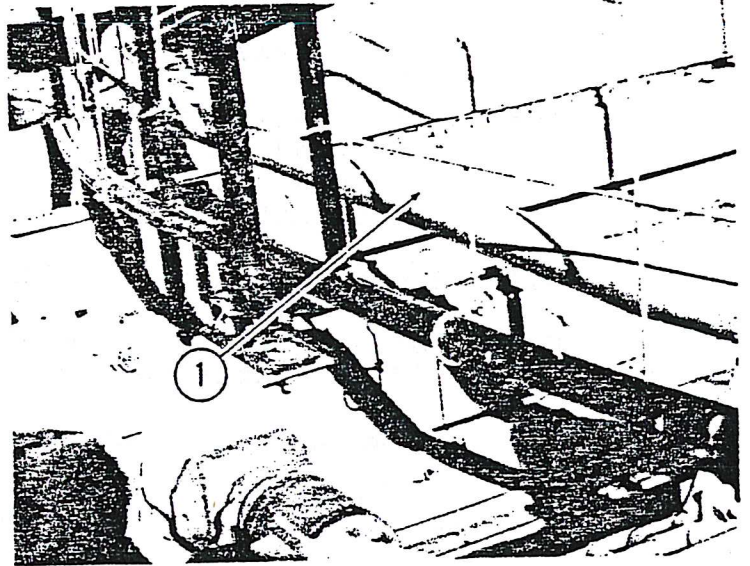
### CAUTION

Constant velocity P.T.O from tractor to stacker requires adequate lubrication. Before machine is put in use, slide drive line apart. Apply a coat of grease to male part of slide. The universal joints on each end of drive line have (3) three zerks each that require lubrication periodically.

# OPERATION

## Taking your STACKER to the field [PLATE-191]

1. Be sure the hitch stand is in the raised position.
2. Raise the pick up hydraulically for adequate clearance.
3. Limit your towing speed to ground conditions and be sure the top conveyor is in the lowered position.
4. CAUTION: Overhead high voltage lines are dangerous. Remember your stacker height and be careful of telephone and electrical lines.



## Loading your STACKER

**GROUND SPEED:** The size of your windrow and the roughness of the ground will be factors in determining your ground speed.

**PUSH OFF BAR:** Make sure the push off bar is in the forward position before loading. (No. 1 in the picture).

**CAUTION:** Be careful when moving the bar to the forward position, that you do not overrun the bar. The same applies when unloading.

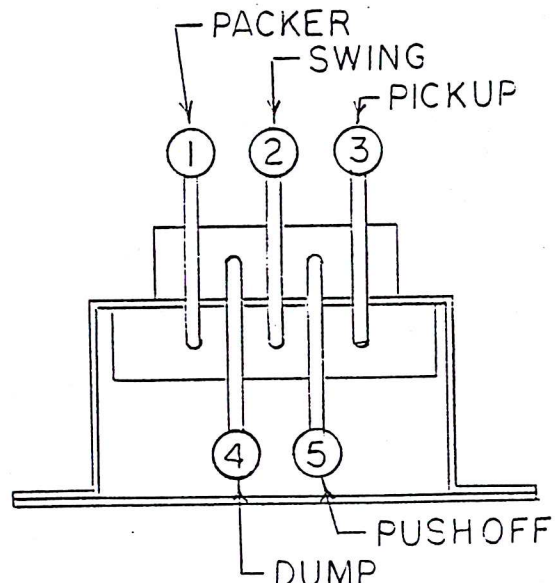
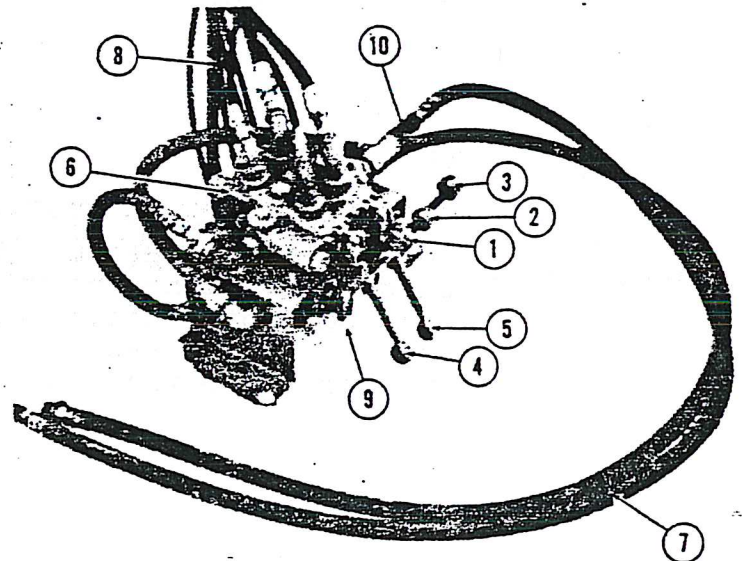
**VALVE BANK:** Only the top three levers on the valve bank are used while loading the stacker. (No. 1, 2, 3 in the picture).

Lever 4 & 5 are used for unloading.  
[PLATE-103]

**Pick Up:** The wheels and balance springs on the pick up, allow it to float over most obstructions.

If hay builds up between pick up bands, lower the auger so that it just clears the pick up bands and rear hay guides. Loosen the tension on the auger float springs.

On some pick up models it may be necessary to remove the springs. In order to insure an even, continuous flow of material to the conveyor, the pick up auger, retracting fingers must be correctly timed. THE FINGERS SHOULD BE FULLY RETRACTED INSIDE THE AUGER TUBE WHEN THEY POINT REARWARD.





# OPERATION

Late retraction can cause the hay to be carried up and over the top of the auger.

The timing adjustment hub is on the shaft at the right side of the auger tube. ▶



[PLATE-153]

Topping out your stack: Build the load straight up above the rack as far as possible before topping out the stack. ALWAYS KEEP THE CENTER WELL FILLED & PACKED. When topping out the packer roller should be worked up and down to allow hay to be pushed out of the tube. Slowing the ground speed will also make it easier to top out.

Moving your stacker while loaded: After the load is complete, disengage the PTO and wait until the platform stops rotating and lower the roller on top of the hay, if the load is to be moved to an unloading area.

## Unloading your stacker:

1. Raise the packer roller clear of the load.
2. Rotate the platform with the PTO drive until the push off is toward the front.
3. Unlock the rear gates and swing outward into the latched position.
4. Operate the dump cylinder valve handle to tilt the bed. Tilt only until the rear of the main frame touches the ground.
5. Operate the hydraulic motor valve handle to push the stack off.
6. After the stack is partially on the ground drive the stacker slowly forward as the push off bar travels rearward. CAUTION: DO NOT RUN THE PUSH OFF BAR ALL



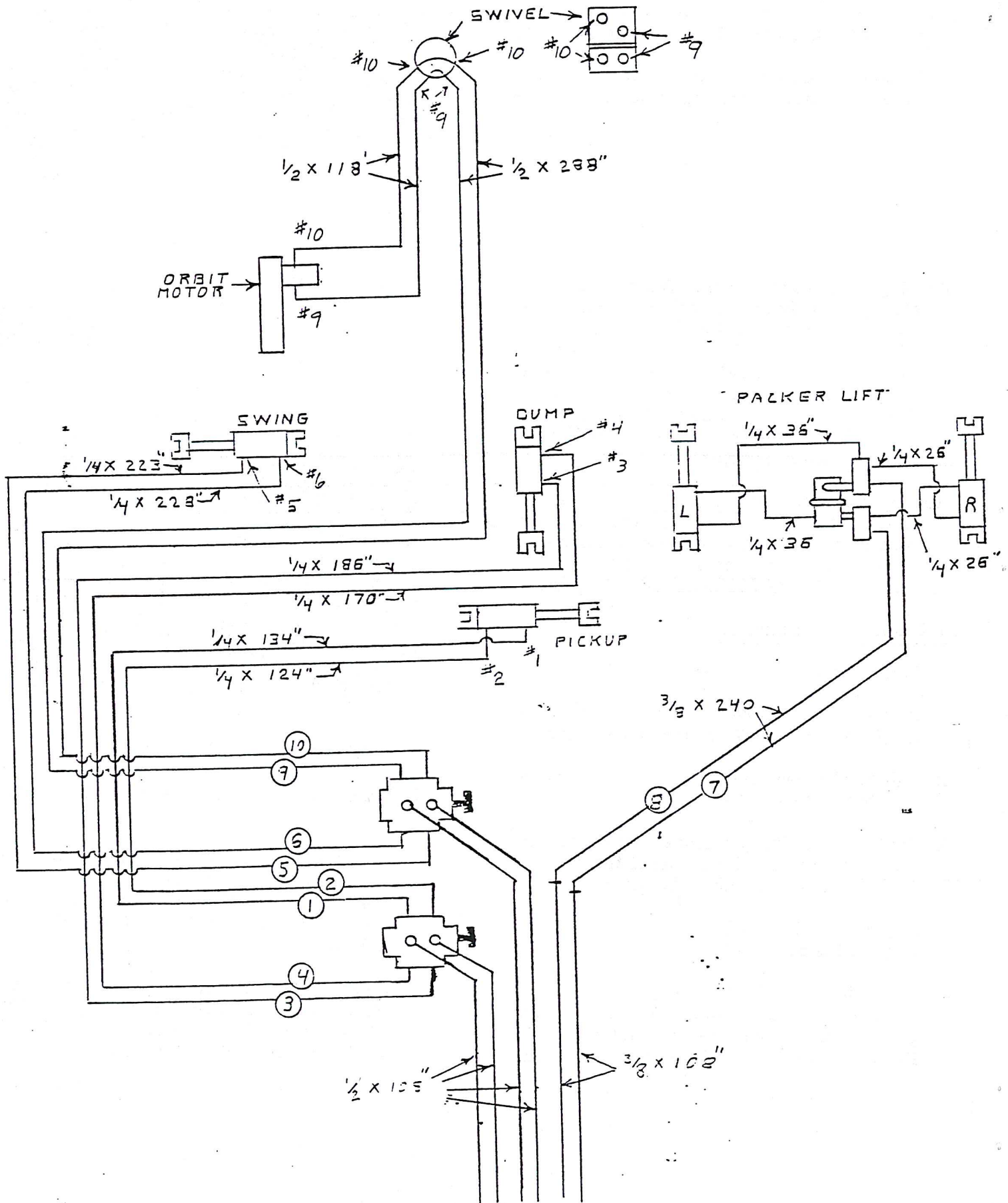
THE WAY TO THE REAR.

7. When the stack is clear, lower the tilt bed.
8. Reverse the push off valve lever to move the push off bar to the forward position. CAUTION: DO NOT RUN THE PUSH OFF BAR PAST ITS NORMAL FORWARD POSITION.
9. Close and latch the gates. IT MAY BE EASIER TO PERFORM THIS OPERATION WITH THE BED TILTED, BECAUSE OF THE WEIGHT OF THE GATES.

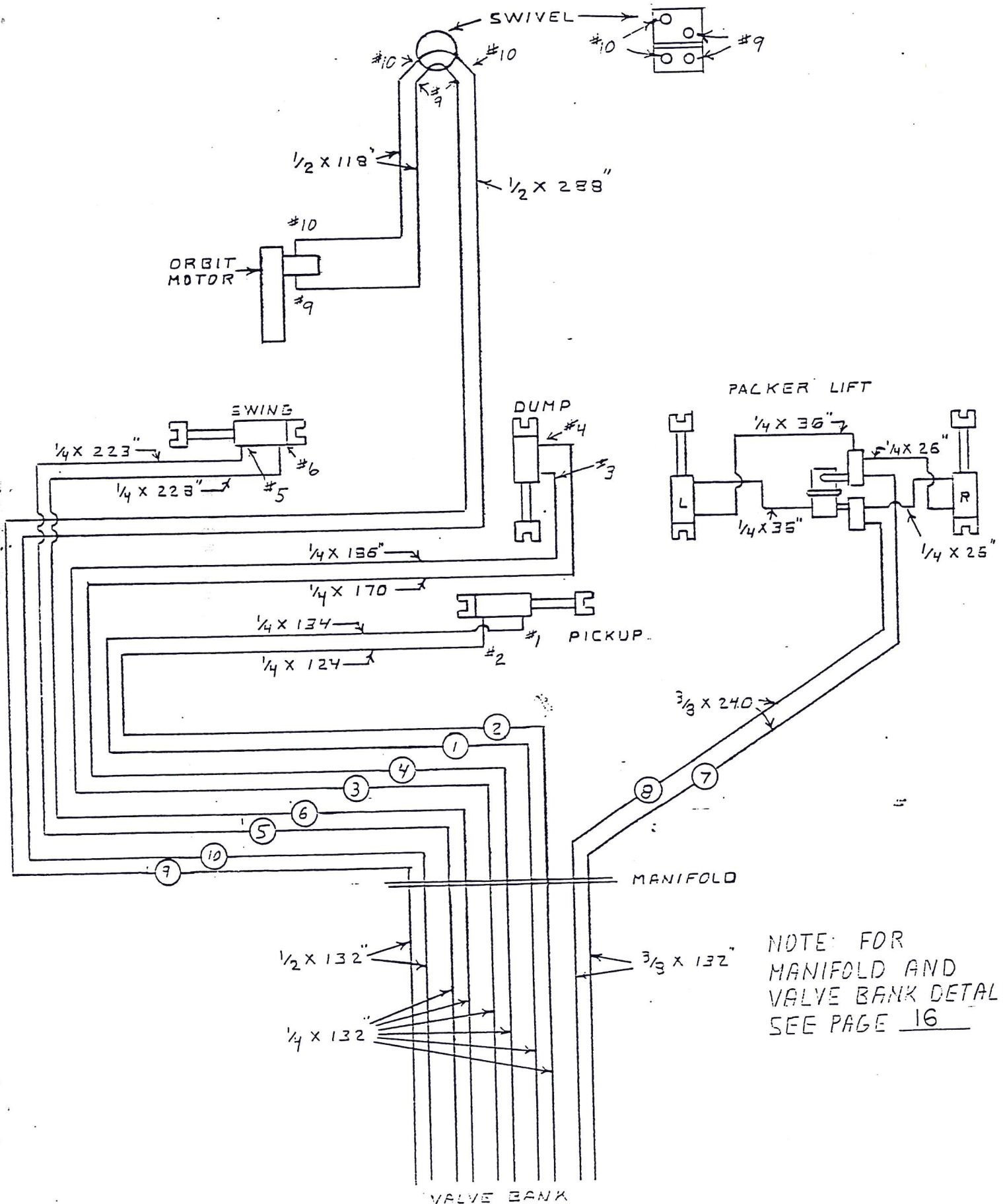
[PLATE-148]



# HYDRAULICS FOR TRACTORS WITH TRIPLE OUTLETS



# HYDRAULICS FOR TRACTORS WITH DUAL OR SINGLE OUTLETS



NOTE: FOR  
MANIFOLD AND  
VALVE BANK DETAILS  
SEE PAGE 16







