Bulk Seed Handling

GRAVITY BOX CONVEYOR

6" x 16'

Beginning With Serial #A51600100

Part No. 2000013

Foreword

This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, "Right-Hand" (RH) and "Left-Hand" (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.

PRE-OPERATION CHECKLIST

☐ Hardware tightened	☐ Lubrication procedures reviewed
☐ Machine lubricated	☐ Warranty information reviewed
☐ Safety and operating procedures reviewed	☐ Hydraulic hoses properly routed/fittings tight
☐ Field adjustment information reviewed	☐ All guards and safety decals are legible and in place.
☐ Secondary support cables in place	

Product Information

When ordering parts or when requesting further information or assistance, always give the following information:

- Machine name
- Serial number

All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

Please fill out and retain this portion for your records. The serial number plate is located on the discharge end of the conveyor (Fig. 1).

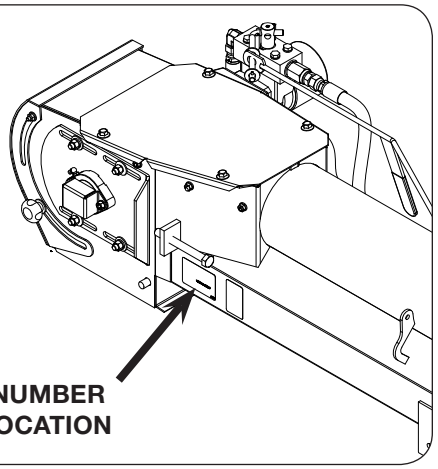
Purchase Date _____ Model _____Serial No._____

Installed On Planter Make _____ Model Number _____

Dealer _____ City _____

Dealer Contact _____ Phone _____

FIG. 1



SERIAL NUMBER DECAL LOCATION

IMPORTANT

The information, specifications, and illustrations in the manual are on the basis of information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.

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SECTION I
Safety

General Hazard Information

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

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 field, or in the industrial plant, can be safer than the person 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 the full measure of their responsibility.

It is true that the designer, the manufacturer, and 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, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.

REMEMBER:

THINK SAFETY

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT!

SIGNAL WORDS

DANGER

INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.

WARNING

INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.

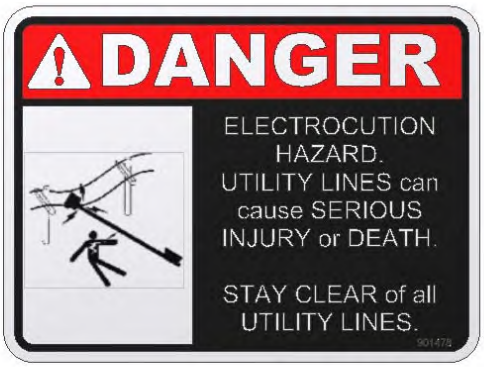
CAUTION

INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

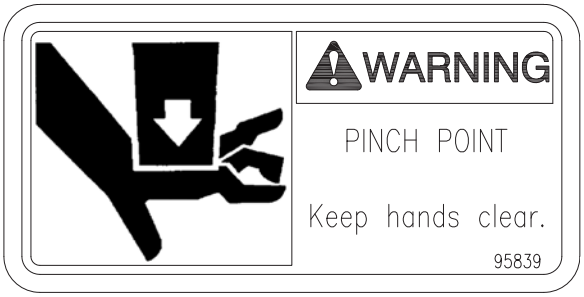
IMPORTANT

Is used for instruction on operating, adjusting, or servicing a machine.

Safety Decals

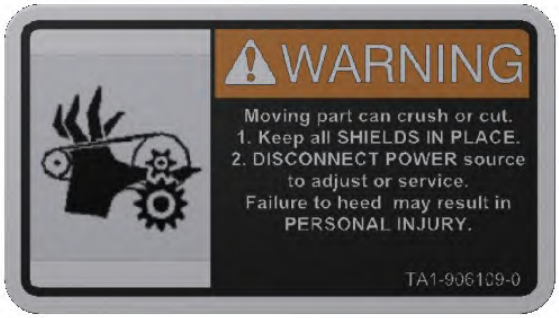


PART NO. 901478

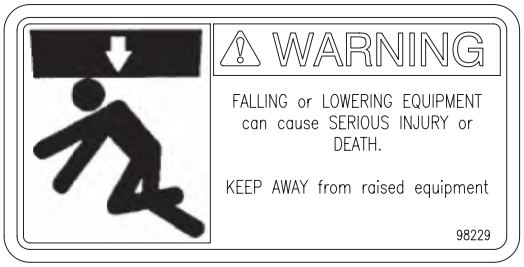


PART NO. 95839

PART NO. 97961



PART NO. TA1-906109-0



PART NO. 98229

PART NO. 95445

PART NO. 901912

PART NO. 96911

WARNING

- **REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.**

Following Safety Instructions

- Read and understand this operator's manual before operating.

- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut towing vehicle engine and hydraulic power unit engine off & remove key before servicing the implement.

- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.

Before Operating or Servicing

- Do not stand between towing vehicle and implement during hitching.
- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.

- Verify that all safety shields are in place and properly secured.
- Ensure that all applicable safety decals are installed and legible.
- Always make certain everyone and everything is clear of the machine before beginning operation.

During Operation

- Never lubricate equipment when in operation.
- Seed being transported may contain seed treatment. Read and follow all requirements for personal protective equipment and first aid as outlined on seed tags.
- Keep away from overhead power lines. Electrical shock can cause serious injury or death.
- Use extreme care when operating close to ditches, fences, or on hillsides.
- Do not leave towing vehicle unattended with engine running.

Before Transporting

- Install transport locks before transporting. Make sure that all reflectors are clean and in place on machine.

During Transport

- Comply with state and local laws governing highway safety when moving machinery.
- Use transport lights as required by local laws to adequately warn operators of other vehicles.
- Use good judgment when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Maximum speed of implement should never exceed 20 mph. Do not exceed 10 mph during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.

Pressurized Oil

- Relieve pressure before disconnecting hydraulic lines from tractor, loosening any hydraulic fittings or servicing hydraulic system. See hydraulic power unit manual for procedure to relieve pressure.
- Use a piece of cardboard or wood to detect leaks of hydraulic fluid under pressure. Correct hydraulic leaks immediately.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Seek medical treatment immediately if injured by high-pressure fluids.
- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.

Pressurized Oil (continued)

- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
- End fittings damaged, displaced, or leaking.
- Outer covering chafed or cut and wire reinforcing exposed.
- Outer covering ballooning locally.
- Evidence of kinking or crushing of the flexible part of a hose.
- Armoring embedded in the outer cover.

Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.

- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.

Wearing Protective Equipment

- Wear clothing and personal protective equipment appropriate for the job.

- Wear steel-toed shoes when operating.

- Wear hearing protection when exposed to loud noises.

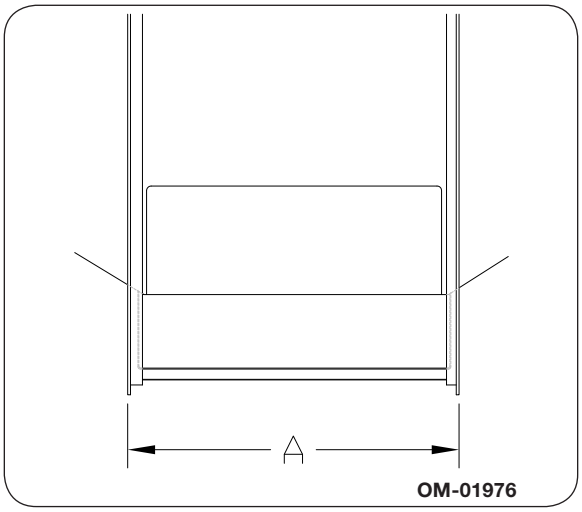
- Do not wear additional hearing impairing devices such as radio headphones, etc.

- This product may contain a chemical known to the state of California to cause cancer, or birth defects, or other reproductive harm.

SECTION II
Set Up

Door Angle Dimension For Hopper

1. To determine which side of the door angles to mount the brackets, measure to the outside of the gravity box door angles (DIM "A").



"A" DIM. Door Angle	Mounting Bracket Location	Refer to SET UP Section
29"	Bracket to Outside of Door Angle	Small Door Instructions
29 1/4"	Bracket to Inside of Door Angle	Small Door Instructions
30"	Bracket to Outside of Door Angle	Small Door Instructions
34"	Bracket to Outside of Door Angle	Small Door Instructions
39"	Bracket to Inside of Door Angle	Small Door Instructions
40"	Bracket to Outside of Door Angle	Small Door Instructions
50"	Bracket to Inside of Door Angle	Large Door Instructions
62"	Bracket to Inside of Door Angle	Large Door Instructions

Small Door - Hopper Assembly

Before attaching mounting brackets determine your door angle dimension as shown (FIG. 2-1). This will help determine what side of the door angles to mount the mounting brackets; see chart on page 2-2 and FIG. 2-1.

IMPORTANT

- *Specific applications may require the hopper to be offset 2"-3" from gravity box door centerline.*

1. Use two plates (21330), six 3/8-16 x 1" capscrews (9390-055), and 3/8-16 locknuts (9928) and place in the lower three holes on each door angle.

2. Attach hopper pivot mount (22090) to inside of hopper. Install carriage bolts (9388-053) on the under side of the hopper (22588). Install the backing plate (22089), lock washers (9404-021), and hex nuts (9394-006). Slide the pivot mounts inward or outward to assemble the clevis pin and tighten hardware.

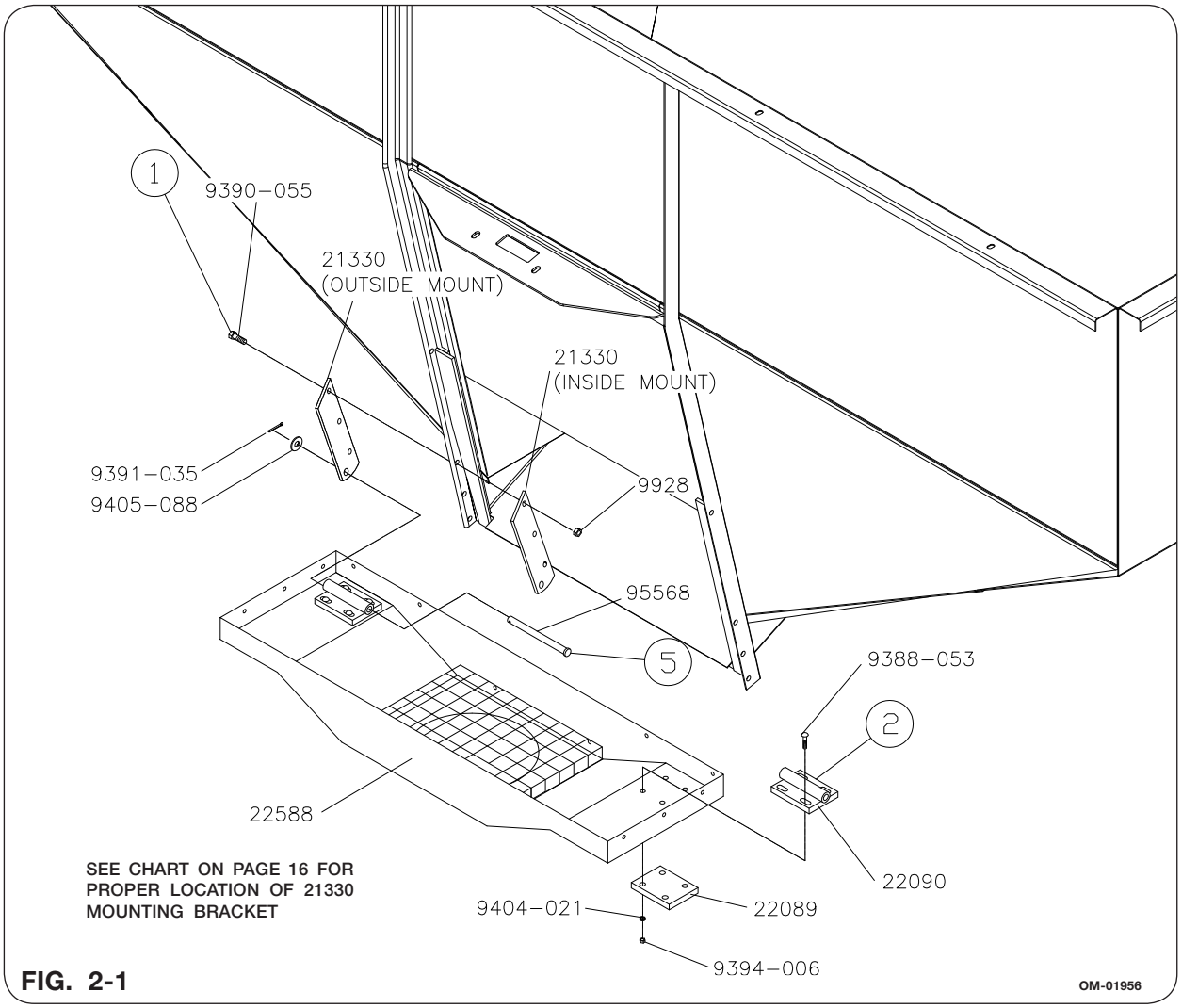


FIG. 2-1

Small Door - Hopper Assembly (continued)

3. Align hopper seal (22509) to the inside of the hopper (22588) and fasten the corners using back strap (22508), two 1/4"-20 x 3/4" capscrews (9390-003), and 1/4"-20 locknuts (9936) (FIG. 2-2). Attach the two springs (22507) to the outside of the hopper using four U-clips (22506) and 1/4"-20 x 1" capscrews (9390-005) and 1/4"-20 locknuts (9936).

4. Fasten hopper seal (22509) to the sides of conveyor hopper using two straps (21642), six 1/4"-20 x 3/4" capscrews (9390-003), and 1/4"-20 locknuts (9936) (FIG. 2-2).

IMPORTANT

- *Threads must face out.*

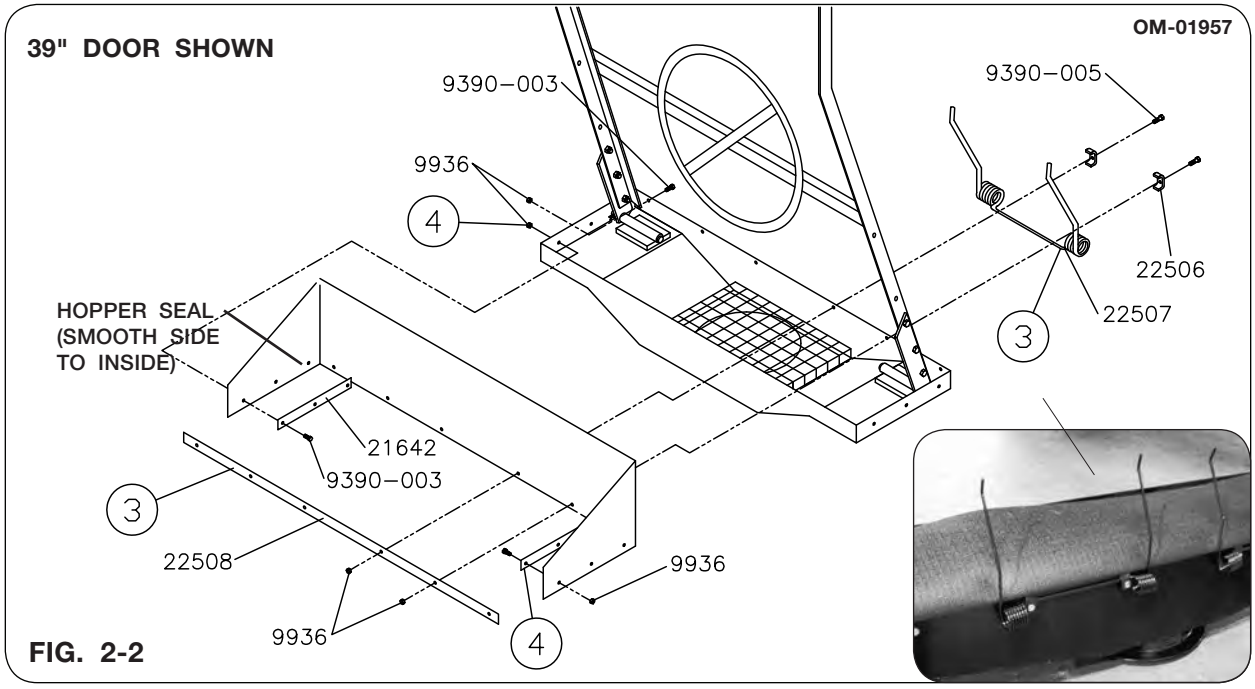


FIG. 2-2

5. Attach conveyor hopper to mounting bracket (FIG. 2-2). Use two 1/2 dia. x 6" clevis pins (95568), flat washers (9405-088) and cotter pins (9391-035) to attach the hopper pivot tubes to the mounting brackets (FIG. 2-2).

6. Install the hose holder (20103) to the door angle opposite of the transport/latch assembly using one 3/8-16UNC x 1 1/4 capscrew (9390-056), two 3/8" flat washers (9405-074) and one 3/8-16UNC locknut (9928) (FIG. 2-3).

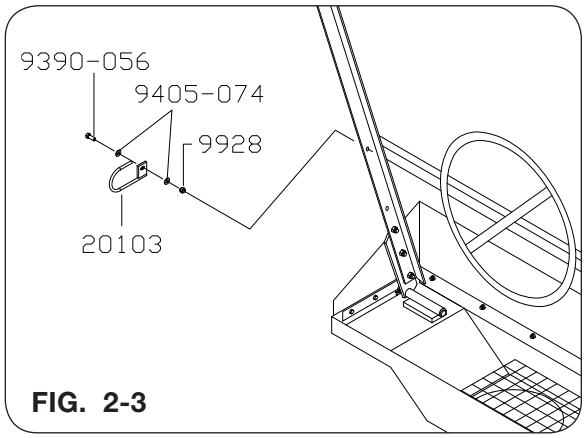


FIG. 2-3

Large Door - Hopper Assembly

1. Attach the mounting brackets to the inside of the "L" bracket on the door angle (FIG. 2-5). Use four 7/16-14 x 1 1/4" capscrews (9390-079) and 7/16-14 locknuts (94980).

IMPORTANT

- *On some grain box models, the shim plate (22244) may have to be used between the mounting bracket and the "L" bracket to achieve proper spacing to mount the hopper.*

2. Align hopper seal (22509) to the inside of the hopper and fasten the last three holes using back strap (22508), six 1/4-20 x 3/4" capscrews (9390-003), and 1/4-20 locknuts (9936). Attach springs (22507) to the outside of the hopper using U-clips (22506), 1/4-20 x 1" capscrews (9390-005), and locknuts (9936) (FIG. 2-4).

3. Fasten the hopper seal to the inside of the conveyor hopper using two straps (21658), four 1/4-20 x 3/4" capscrews (9390-003), and 1/4" locknuts (9936) (FIG. 2-4).

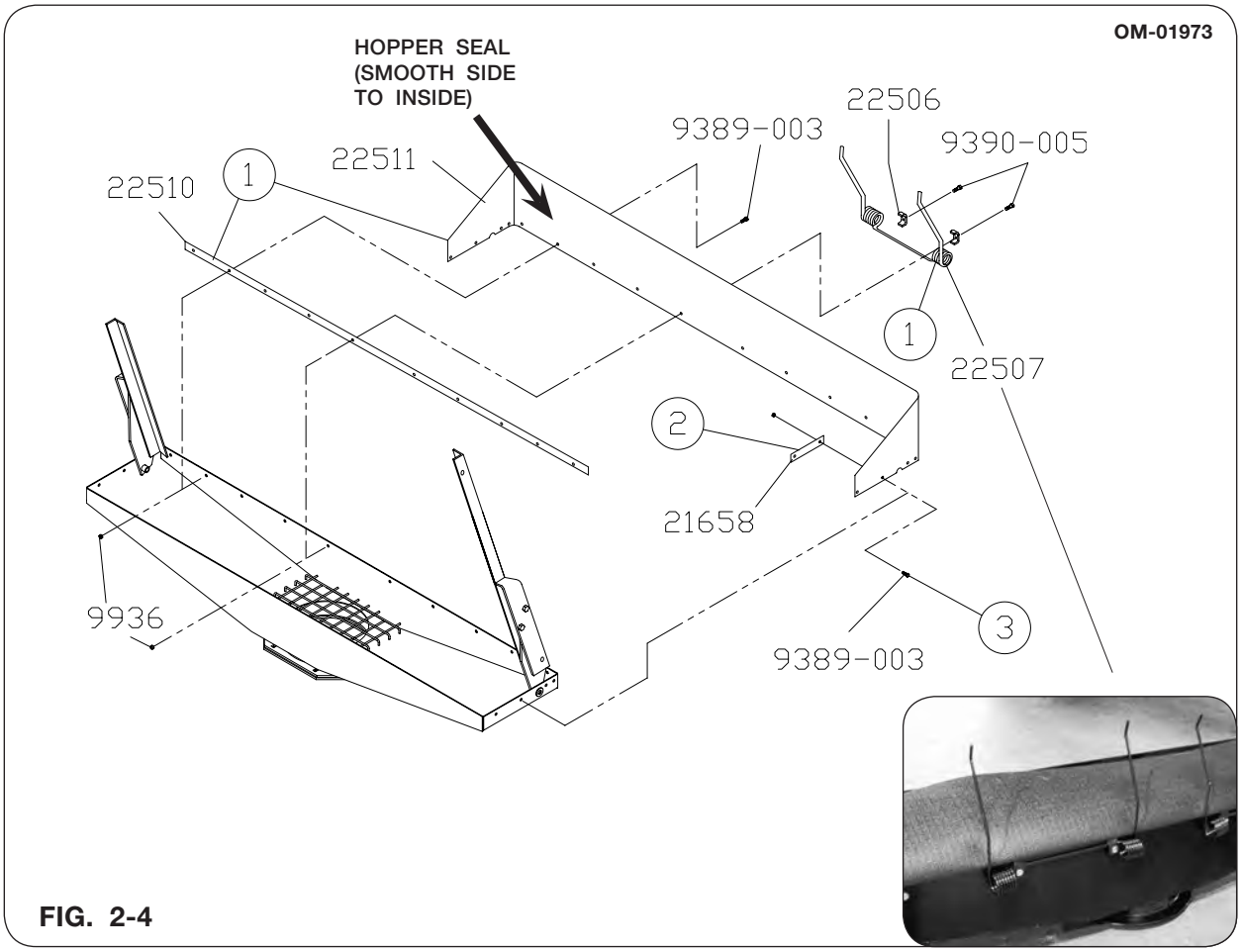


FIG. 2-4

Large Door - Hopper Assembly (continued)

4. Finish fastening hopper seal to the sides of hopper using four 1/4"-20 x 3/4" capscrews, 1/4" flat washer, and 1/4" locknuts (Fig. 2-5).

5. Attach conveyor hopper to the mounting brackets. Use two 1/2" x 3 1/2" clevis pins (95890), flat washers (9405-088), and cotter pins (9391-035) to attach the hopper pivot tubes to the mounting brackets (Fig. 2-5).

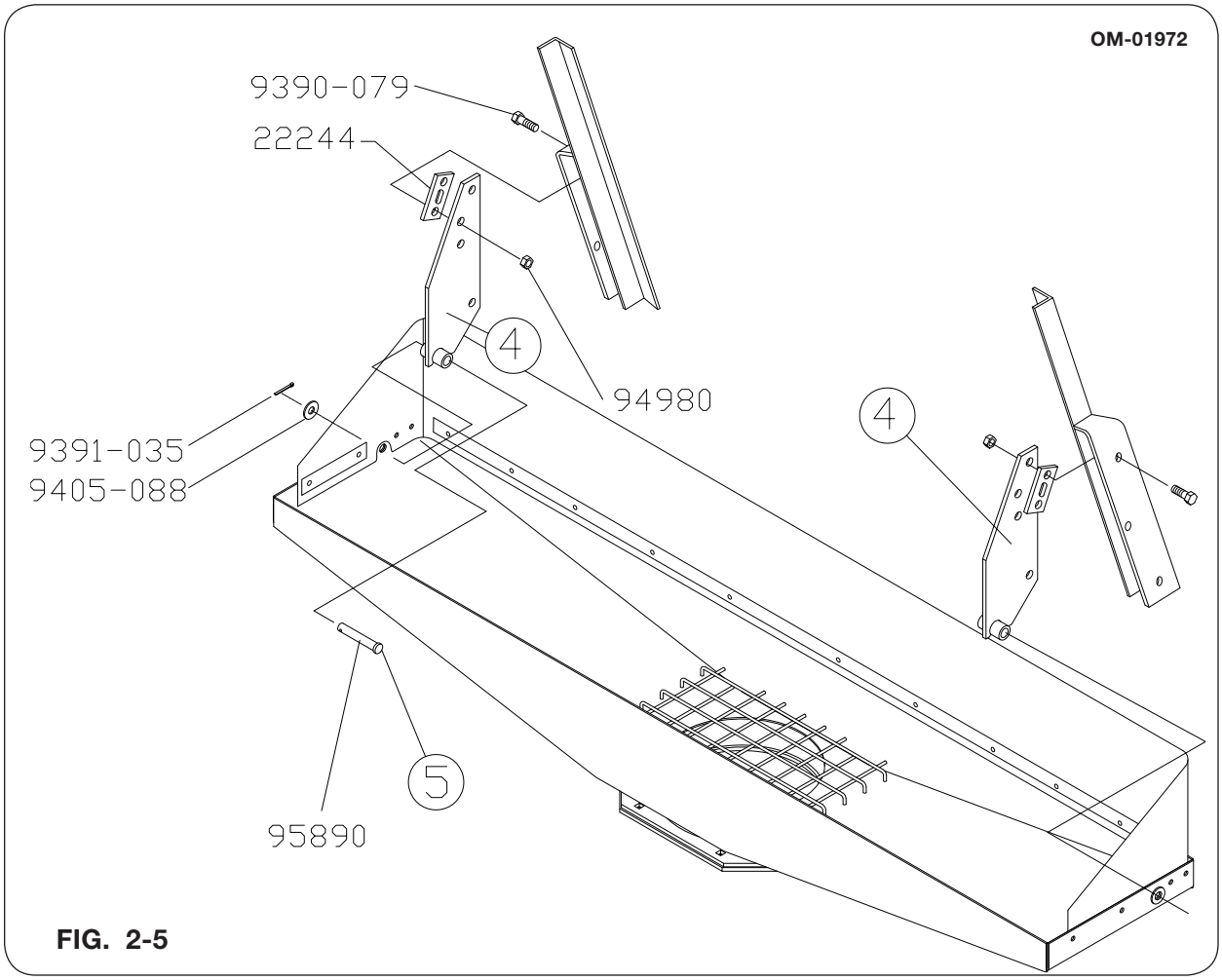


FIG. 2-5

6. Install the hose holder (20103) to the door angle opposite of the transport/latch assembly using one 3/8-16UNC x 1 1/4 capscrew (9390-056), two 3/8" flat washers (9405-074) and one 3/8-16UNC locknut (9928) (Fig. 2-6).

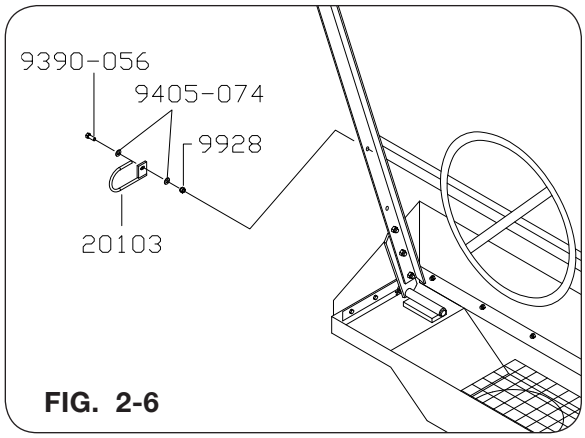


FIG. 2-6

Conveyor Components Assembly - All Sizes

WARNING

- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

IMPORTANT

- *Be sure straps are located inside on/off control rod.*

Lift conveyor using a minimum 500 lb. lift. Place conveyor near the hopper

1. Attach the winch (TA0-904904-0) to the winch bracket (25405B). Secure with one 3/8"-16UNC x 1" capscrew (9390-055), two 3/8" flat washers (9405-076) and 3/8"-16UNC locknut (9928) as shown in Fig. 2-7 and Fig. 2-8. Secure the opposite end with 3/8"-16UNC x 3/4" capscrew (9390-053) and 3/8"-16UNC locknut (9928) as shown in Fig. 2-7 and Fig. 2-8.

2. Fasten the winch and winch bracket assembly to the conveyor with four 3/8-16UNC x 3/4 capscrews (9390-053) and 3/8-16UNC locknuts (9928) as shown in Fig. 2-7 and Fig. 2-8.

FIG. 2-7

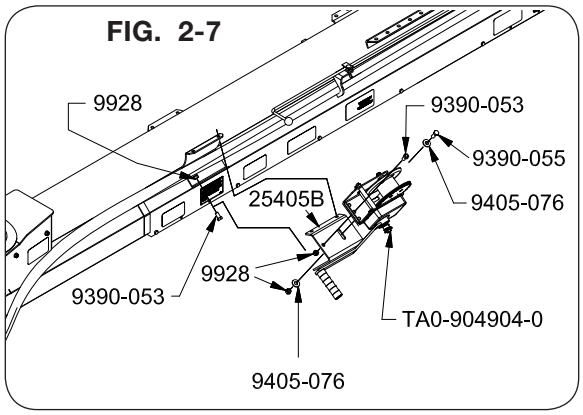
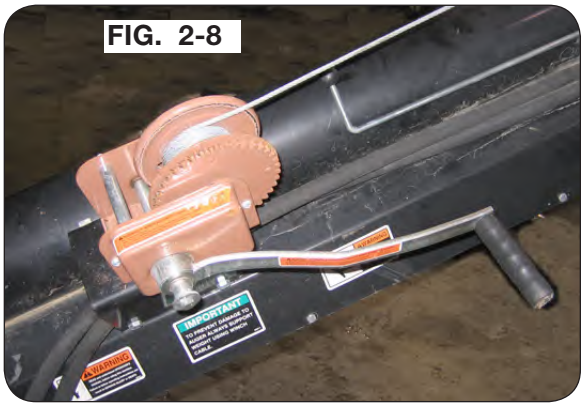


FIG. 2-8



Conveyor Components Assembly - All Sizes (continued)

3. Remove the bolt and nut from the pulley (TA0-923512-1) and insert the link/plate (26556). Secure into position with the previously removed hardware. Attach the opposite end of the link/plate (26556) to the cable bracket weldment (25579B) with 3/8"-16UNC x 1 1/2" capscrew (91299-057) and 3/8"-16UNC locknut (9928) as shown in Fig. 2-9 and Fig. 2-10.

4. Attach the cable bracket weldment (25579B) and plate (25762B) to the conveyor with four 3/8"-16UNC x 1" capscrews (9390-055) and 3/8"-16UNC locknuts (9928) as shown in Fig. 2-9 and Fig. 2-10 when mounting the conveyor to the box on the right-hand side. Place plate (25762B) on the opposite side of the conveyor when mounting the conveyor to the box on the left-hand side.

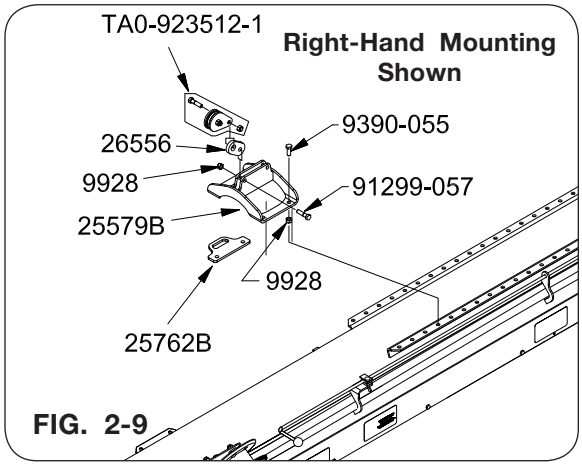


FIG. 2-9

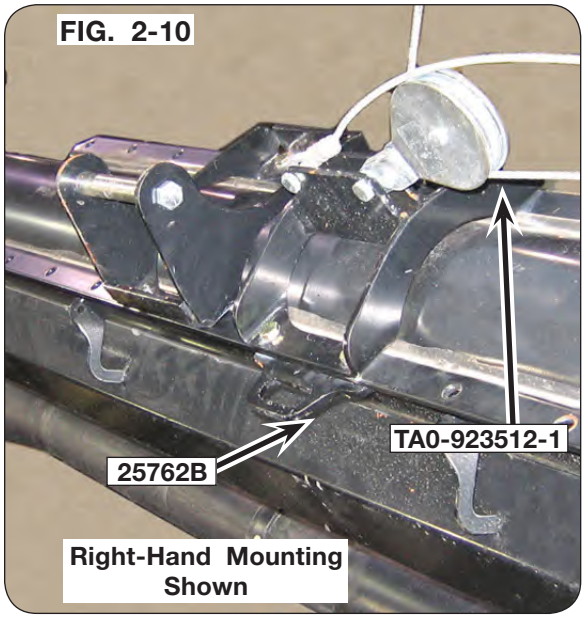


FIG. 2-10

NOTE: The cable bracket weldment (25579B) can be mounted to the conveyor using the different mounting holes to accommodate the different style of gravity boxes. Adjust accordingly for your specific gravity box.

Conveyor Components Assembly - All Sizes (continued)

5. Secure the bushing (25421) to the latch bracket (25420B) with 1/2-13UNC x 6 1/2 capscrew (9390-116) and 1/2-13UNC locknut (9800) as shown in Fig. 2-11 and Fig. 2-12.

6. Attach the bushing side of the latch bracket (25420B) to the conveyor with two 3/8-16UNC x 1 1/4 capscrews (9390-056) and 3/8-16UNC locknuts (9928) as shown in Fig. 2-11 and Fig. 2-12.

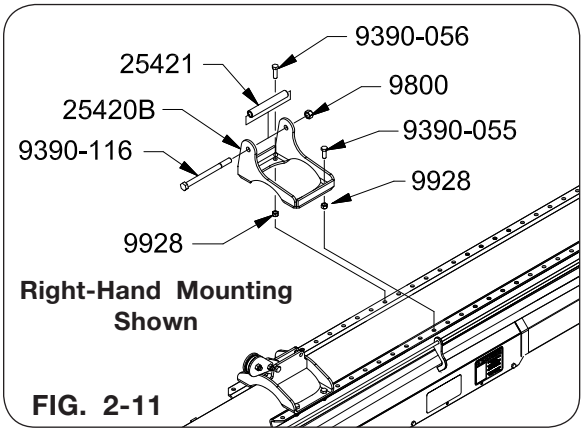


FIG. 2-11

FIG. 2-12

NOTE: Always locate latch bracket bushing side towards the gravity box side of conveyor.

7. Attach the opposite side of the latch bracket (25420B) with two 3/8-16UNC x 1 capscrews (9390-055) and 3/8-16UNC locknuts (9928) as shown in Fig. 2-11 and Fig. 2-12.

NOTE: The latch bracket (25420B) can be mounted to the conveyor using the different mounting holes to accommodate the different style of gravity boxes. Adjust accordingly for your specific gravity box.

Small Door - Cable Assembly

1. Remove the bolt, bushing, and nut from pulley (TA0-923512-1) (Fig. 2-13 & Fig. 2-14).

2. Thread cable 84" long (26683) through the pulley (TA0-923512-1) and attach the thimble end of the winch cable (22050) using the hardware previously removed (Fig. 2-13 & Fig. 2-14).

3. Drill two 7/16" dia. holes 48" apart centered around the door angles and attach the swivel pulley (92459) and cable 84" long (26683) to the top of the gravity box using the following parts (Fig. 2-13 & Fig. 2-14):
   A. 3/8"-16 x 1 1/4" capscrew (9390-056)
   B. Bushing (22046)
   C. 3/8" flat washer (9405-076)
   D. 3/8"-16 locknut (9928)

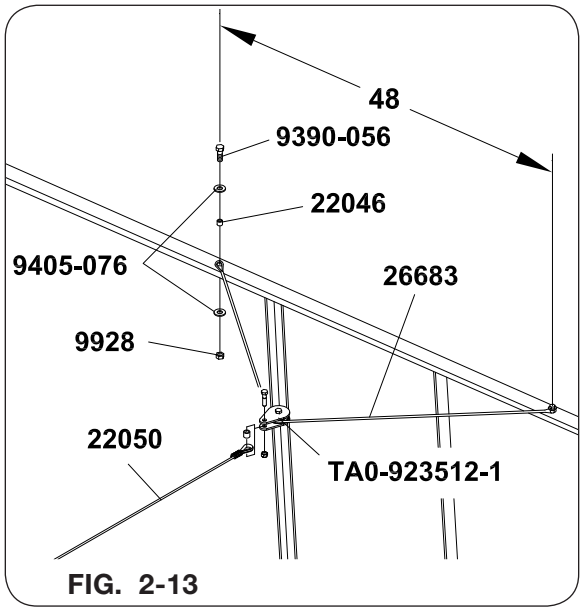


FIG. 2-13

FIG. 2-14

Small Door - Cable Assembly (continue)

4. Attach the secondary 101" long support cable (22048) to the cable bracket weldment (25579B) with 3/8"-16UNC x 1 1/2" capscrew (91299-057) and 3/8"-16UNC locknut (9928) as shown in Fig. 2-15.

5. Thread the winch cable (22050) through the pulley (TA0-923512-1) and fasten to the winch (Fig. 2-15). (For attaching cable to winch, refer to "Winch Assembly" in SET UP section.)

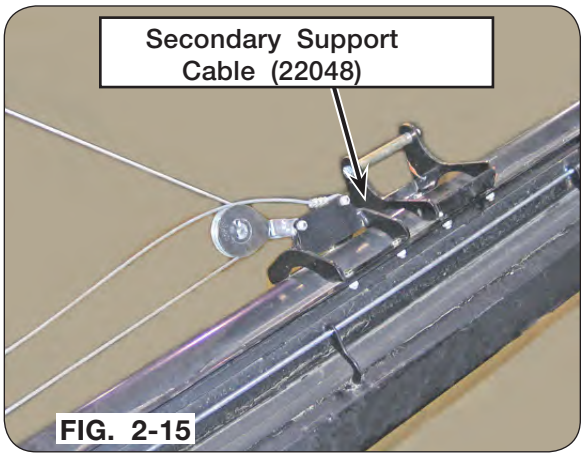


FIG. 2-15

6. Drill a 7/16" diameter hole as shown in Fig. 2-16. Attach the other end of the secondary support cable to the upper-middle rail of the gravity box by placing a 3/8" flat washer on top of the rail, insert a 3/8"-16UNC x 1 3/4" lg. capscrew (9390-058) and tighten with a 3/8" flat washer (9405-076) and 3/8"-16UNC locknut (9928) (Fig. 2-16).

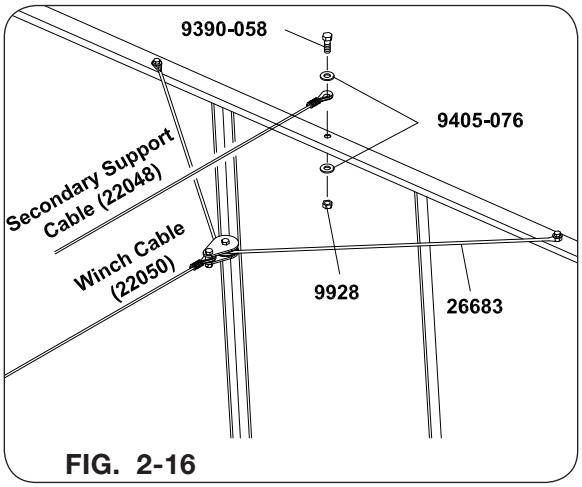


FIG. 2-16

Large Door - Cable Assembly

1. Remove the bolt, bushing, and nut from pulley (TA0-923512-1) (Fig. 2-17 & Fig. 2-18).

2. Thread 96" long cable (26685) through the pulley (TA0-923512-1) and attach the thimble end of the winch cable (22050) using the hardware previously removed (Fig. 2-17 & Fig. 2-18).

3. Drill two 7/16" diameter holes 60" on center through the lower or formed lip where side extensions attach. Attach the swivel pulley (92459) and 96" long cable (26685) to the top of the gravity box using the following parts (Fig. 2-17 & Fig. 2-18):
   A. 3/8-16 x 1 1/4" capscrew (9390-056)
   B. Bushing (22046)
   C. 3/8" flat washer (9405-076)
   D. 3/8-16 locknut (9928)

4. Attach the chain to the center strap on side of gravity box (Fig. 2-17 & Fig. 2-18):
   A. 3/8-16 x 4 1/2" capscrew (9390-068)
   B. 3/8-16 locknuts (9928)
   C. Two 3/8" flat washers (9405-076)

5. Connect the secondary 101" long support cable (22048) to the chain with quick link (91514) (Fig. 2-17 & Fig. 2-18).

6. Attach the secondary 101" long support cable (22048) to the cable bracket weldment (25579B) with 3/8-16UNC x 1 1/2 capscrew (91299-057) and 3/8-16UNC locknut (9928) as shown in Fig. 2-19.

7. Thread the winch cable (22050) through the pulley and fasten to the winch (Fig. 2-19). (For attaching cable to winch, refer to "Winch Assembly" in SET UP section.)

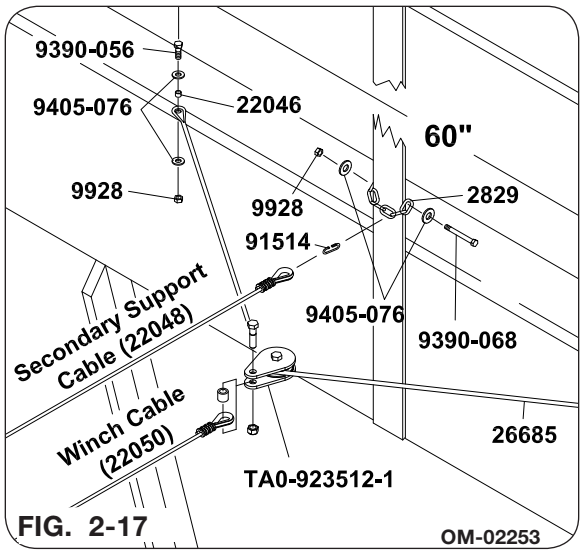


FIG. 2-17

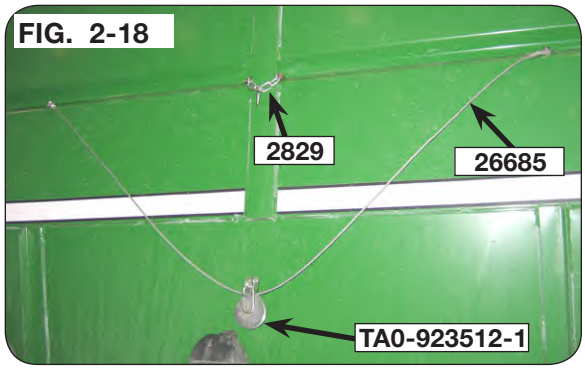


FIG. 2-18

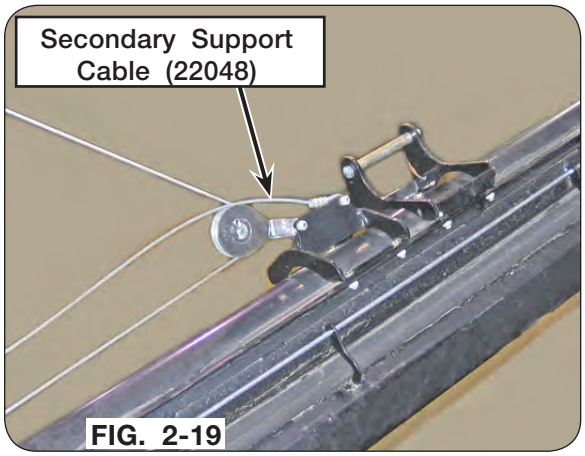


FIG. 2-19

Spout Assembly - All Sizes

1. Slip the clamp (98060) onto the telescopic spout (22578) as shown in Fig. 2-20. Place the telescopic spout and clamp on the conveyor spout weldment (26220B) and tighten clamp.

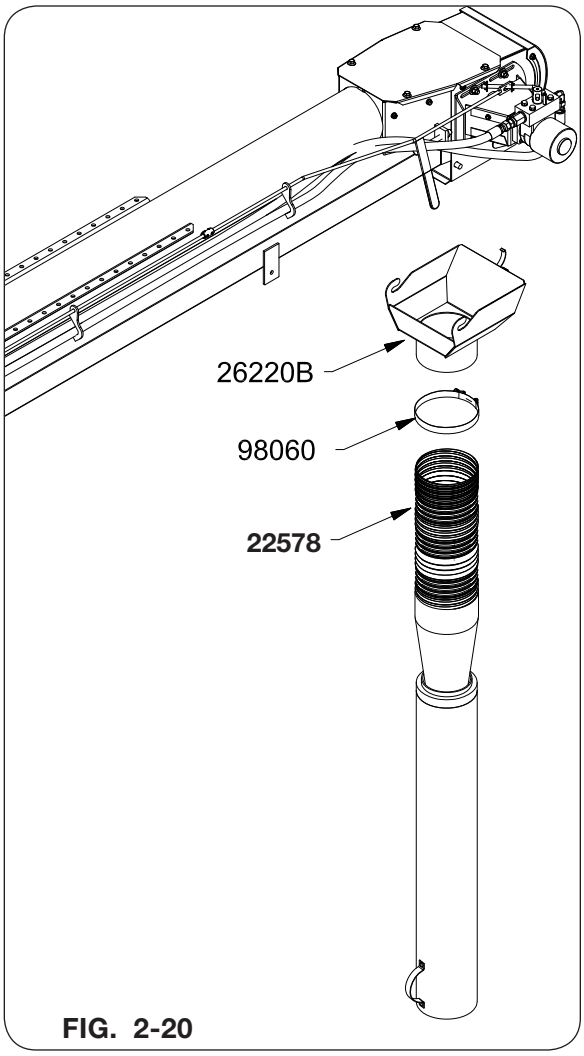


FIG. 2-20

Attach Conveyor To Hopper - All Sizes

⚠ WARNING

- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

- **BE SURE GRAVITY BOX IS SECURELY BOLTED TO GEAR WHEN INSTALLING CONVEYOR. FAILURE TO DO SO MAY CAUSE GRAVITY BOX TO TIP OVER RESULTING IN DAMAGE TO UNIT AND/OR SEVERE PERSONAL INJURY OR DEATH.**

IMPORTANT

- *Be sure straps are located inside on/off control rod.*

1. Lift conveyor using a minimum 500 lb. lift. Connect the swivel base to the conveyor hopper outlet using two swivel clamps (2966) which includes 3/8"-16 x 2 1/2" carriage bolts (9388-057), and 3/8"-16 hex nuts (9394-006) (Fig. 2-21 & Fig. 2-22). Then grease.

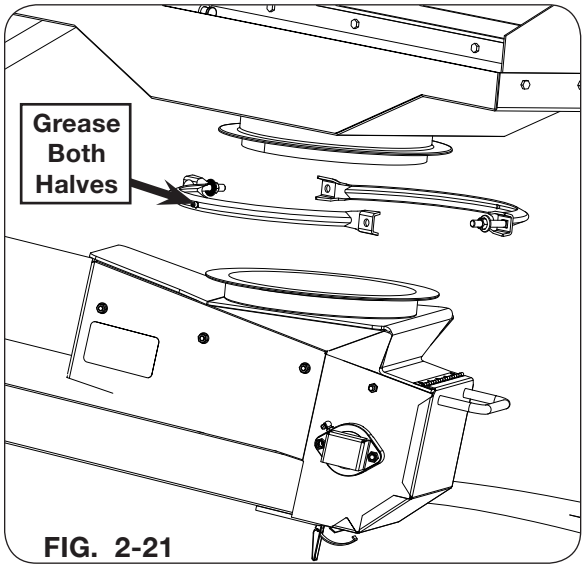


FIG. 2-21

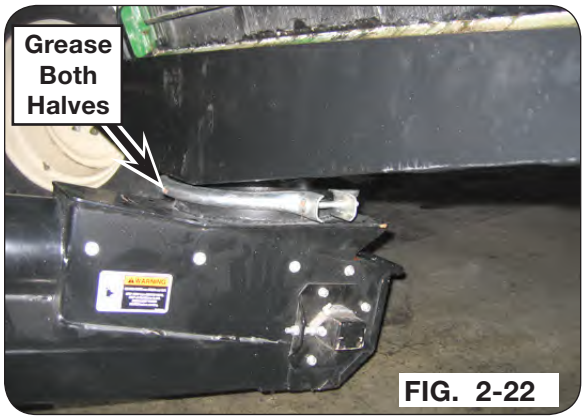


FIG. 2-22

Transport Latch Assembly - All Sizes

⚠ WARNING

- **WHEN WORKING AROUND THE MACHINE, BE SURE IT IS SECURELY BLOCKED; FAILURE TO DO SO COULD RESULT IN MOVEMENT OF MACHINE, CAUSING SERIOUS INJURY OR DEATH.**

- **MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS. KEEP ALL GUARDS IN PLACE.**

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**

- **NEVER ENTER BOX WITH CONVEYOR OR TOWING VEHICLE RUNNING. SERIOUS OR FATAL INJURY CAN OCCUR DUE TO ENTANGLEMENT WITH ROTATING COMPONENTS. ALWAYS STOP ENGINE, REMOVE KEY BEFORE ENTERING BOX.**

- **TO PREVENT PERSONAL INJURY OR DEATH ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE BOX TO ASSIST THE PERSON WORKING INSIDE THE BOX, AND THAT ALL SAFE WORK PLACE PRACTICES ARE FOLLOWED. THERE IS LIMITED MOBILITY AND EXIT PATH(S) WHEN WORKING INSIDE THE BOX.**

NOTE: An optional extension panel is available for larger capacity wagons to allow the latch assembly to be installed and operated at a more acceptable height.

Transport Latch Assembly - All Sizes (continue)

1. Determine which end of the gravity box will be used as the transport location for the conveyor. Use the latch assembly backing plate (25585B) as a template by place the backing plate parallel to the seam in the box and aligned with the side of the box as shown in Fig. 2-23 & Fig. 2-24. Mark hole locations and drill 5/8" dia. holes.
2. Two people are required to attach the latch assembly backing plate (25585B) to the inside of the box and latch assembly (25582B) to the outside of the box with four 1/2-13UNC x 1 3/4" capscrews (9390-102) and 1/2-13UNC locknuts (9800) (Fig. 2-23 & Fig. 2-24).
3. Remove the nut and flat washer from the latch assembly (Fig. 2-23 & Fig. 2-24).
4. Attach the pulley (92459) to the latch assembly (25582B) with the previously removed hardware (Fig. 2-23 & 2-24).

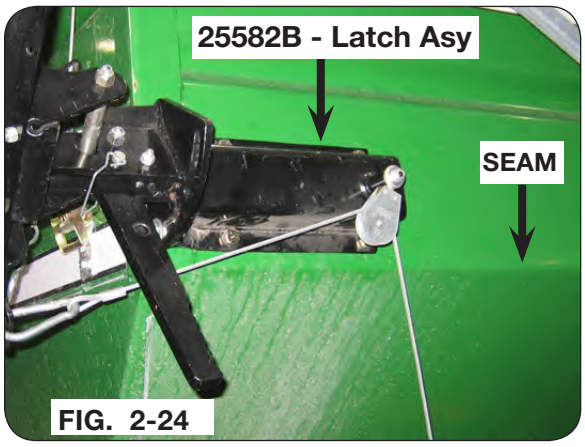


FIG. 2-24

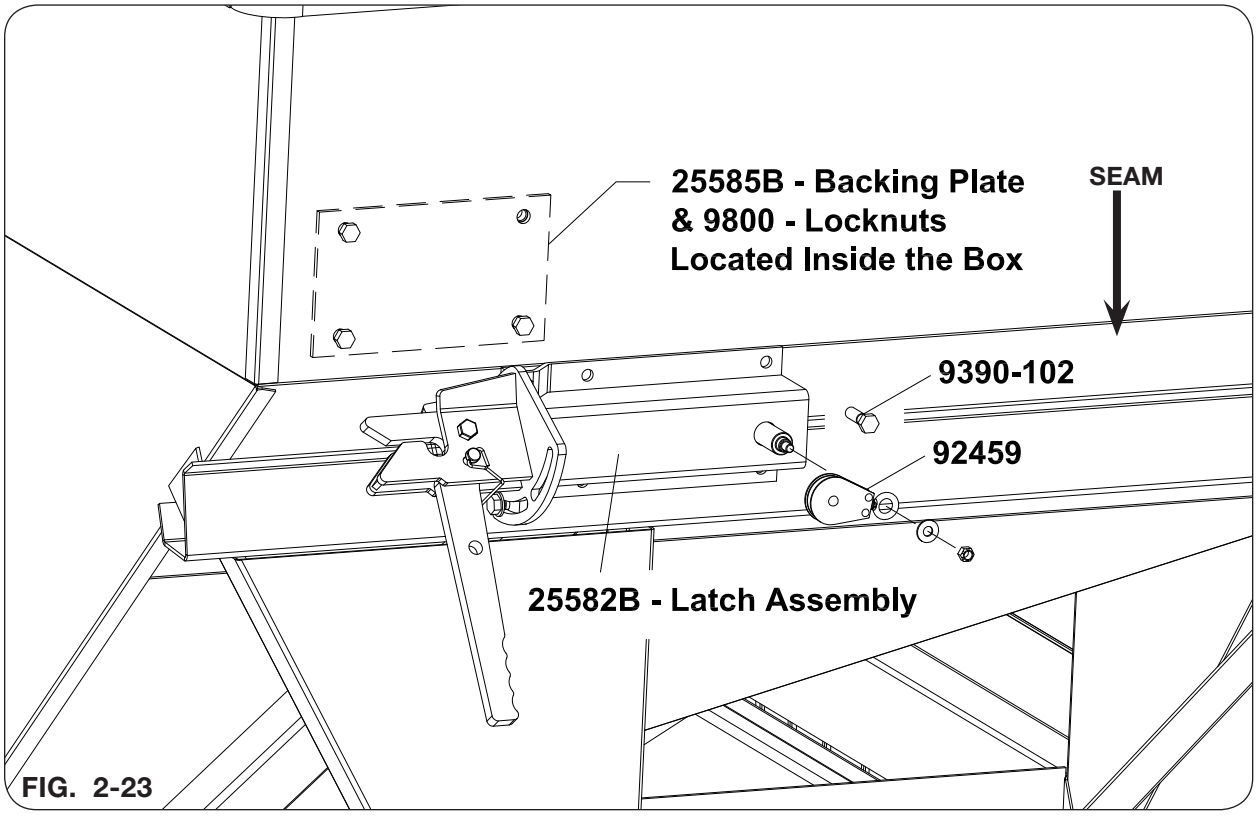


FIG. 2-23

Transport Latch Assembly - All Sizes (continue)

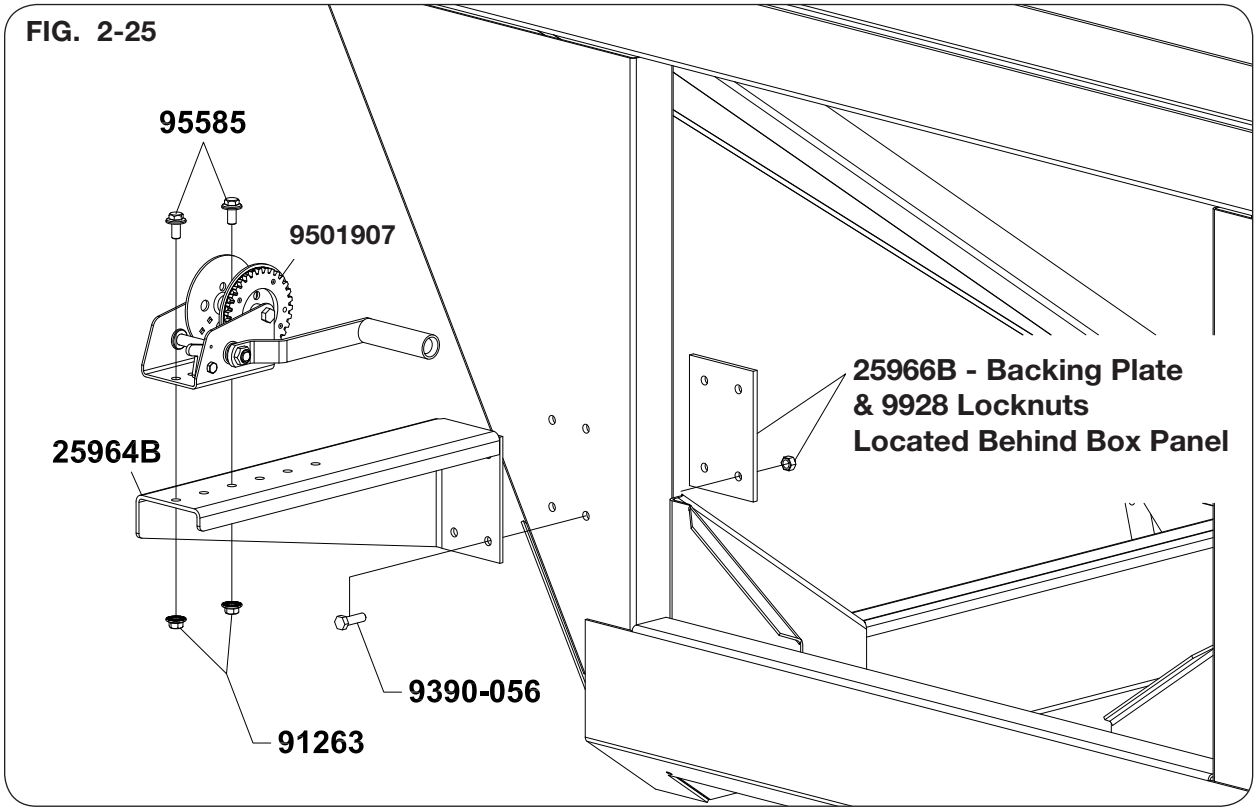
5. Attach the snap hook (901620) to the end of the winch cable 86" long (20158). Thread the cable through the pulley and note the angle of the cable to approximately where you want to mount the winch on the panel of your box (see Fig. 2-25 for reference).

6. Using the winch mounting bracket (25964B) as a template, place the bracket on the box panel and align it perpendicular to the angle of your winch cable. Mark the hole locations and drill 13/32" dia. holes (Fig. 2-25).

7. Fasten the winch mounting bracket (25964B) and backing plate (25966B) to the box panel with four 3/8-16UNC x 1 1/4 capscrews and 3/8-16UNC locknuts as shown in Fig. 2-25.

8. Using two 3/8-16UNC x 3/4 capscrews/large flange and 3/8-16UNC nuts/large flange, secure the winch (9501907) to the winch mounting bracket (25964B) as shown in Fig. 2-25.

FIG. 2-25



9. Attach cable to winch, refer to "Winch Assembly" in SET UP section.

Hose Mounting Bracket - All Sizes

1. Position hose mounting bracket on the skid cross member at the tractor end of the box. Drill 13/32" dia. hole and fasten the bracket with a 3/8-16UNC x 1" capscrew (9390-055), and 3/8-16UNC locknut (9928) (Fig. 2-26).

2. Assemble two unions (93839) to the mounting bracket (Fig. 2-26).

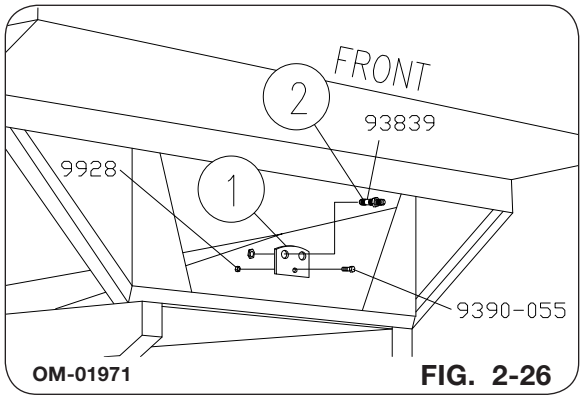


FIG. 2-26

Winch Assembly

WARNING

- **BEFORE OPERATING WINCH, BE SURE THAT WINCH IS SECURELY INSTALLED TO THE CONVEYOR AND THAT THE CABLES ARE TIED TO THE WINCH AND GRAVITY BOX. BE SURE TO READ THE FOLLOWING INSTRUCTIONS AND OPERATING PROCEDURES PROVIDED WITH THE WINCH. FAILURE TO DO SO COULD RESULT IN DAMAGE TO THE CONVEYOR OR SERIOUS BODILY HARM.**

IMPORTANT

- *Refer to proper assembly instructions for your gravity box before installing winch.*
- *See instruction sheet accompanied with the winch for winch and cable assembly.*

1. Check that all cables and winch are securely installed and not damaged in any way.

2. Tie cable to winch by the following instructions (Fig. 2-27).

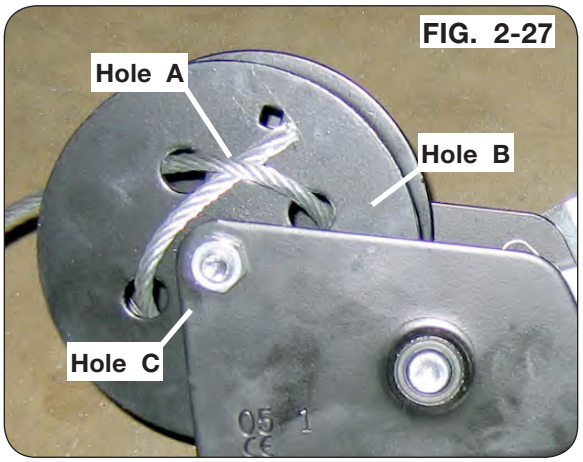


FIG. 2-27

NOTE: Start cable between spool plate.

1. Thread cable from inside winch, out through hole "A".

2. Continue through hole "B" and hole "C" as shown in Fig. 2-27.

3. Finally, thread back under cable between hole "A" and "B". Tighten.

4. When operating the winch, take note of the following guidelines:
   -- never walk under conveyor while it is suspended
   -- never leave conveyor unattended while it is suspended
   -- test winch each time by lifting conveyor a few inches out of transport bracket before completely raising
   -- never winch conveyor up or down while it is loaded
   -- be sure that cable is not kinked or unaligned on winch drum
   -- always take safety precautions

Optional Electric Control Kit #26352

WARNING

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**
- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM.**
- **RELIEVE HYDRAULIC PRESSURE BEFORE SERVICING HYDRAULIC SYSTEM. SEE HYDRAULIC POWER UNIT MANUALS FOR PROPER PROCEDURE.**

1. Lower the conveyor to access the hydraulic motor end of the conveyor.
2. Relieve all hydraulic pressure from system by making sure that the hydraulic supplies are turned off and the key is removed. Next, manually slide the valve control rod on the conveyor from ON to OFF position several times.
3. Remove control rod linkage from conveyor. See FIG. 2-28.

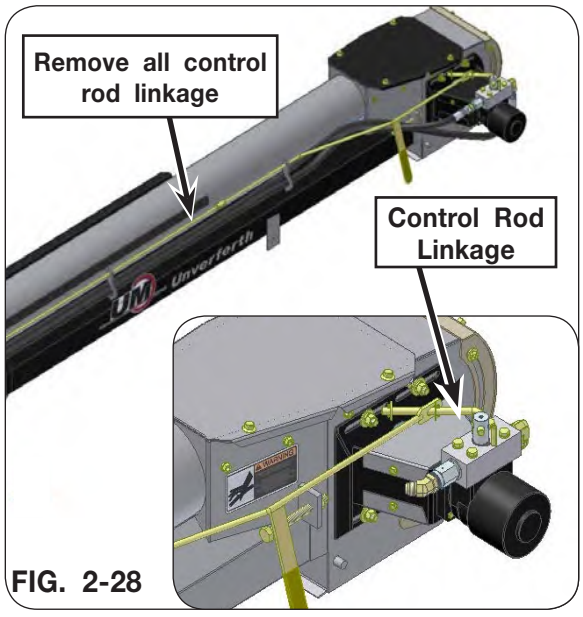


FIG. 2-28

Optional Electric Control Kit #26352 (continue)

4. Remove hoses and fittings from manual control valve on upper end of conveyor. See FIG. 2-29.

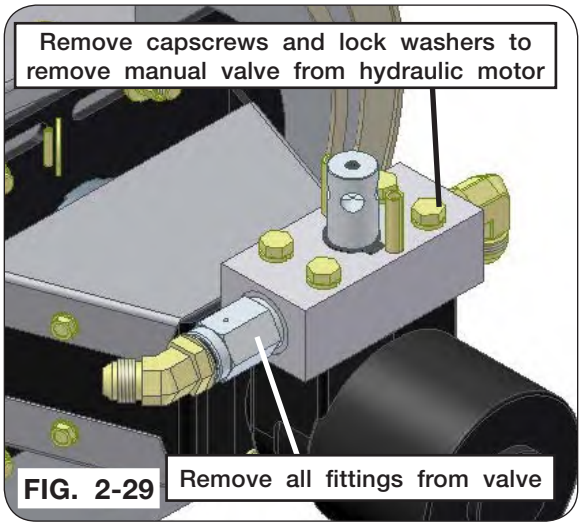
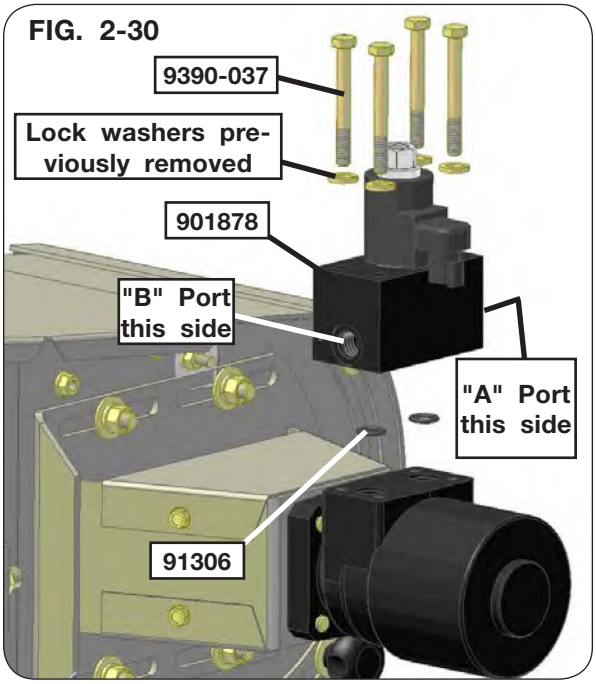


FIG. 2-29

5. Remove capscrews and lock washers securing manual valve to hydraulic motor, see FIG. 2-29. Once manual valve is removed, remove original O-Rings from hydraulic motor ports and replace with O-Rings (91306) provided. Position new electronic valve (901878) on top of ports making sure that the “A” port of the valve is to the top end as shown in FIG. 2-30.

6. Secure electronic valve (901878) to hydraulic motor by using the original lock washers previously removed and capscrews (9390-037) provided in kit. See FIG. 2-30.

FIG. 2-30



Optional Electric Control Kit #26352 (continue)

7. Attach fittings to valve as shown in Fig. 2-31.
8. Re-attach hoses to fittings as shown in Fig. 2-31.

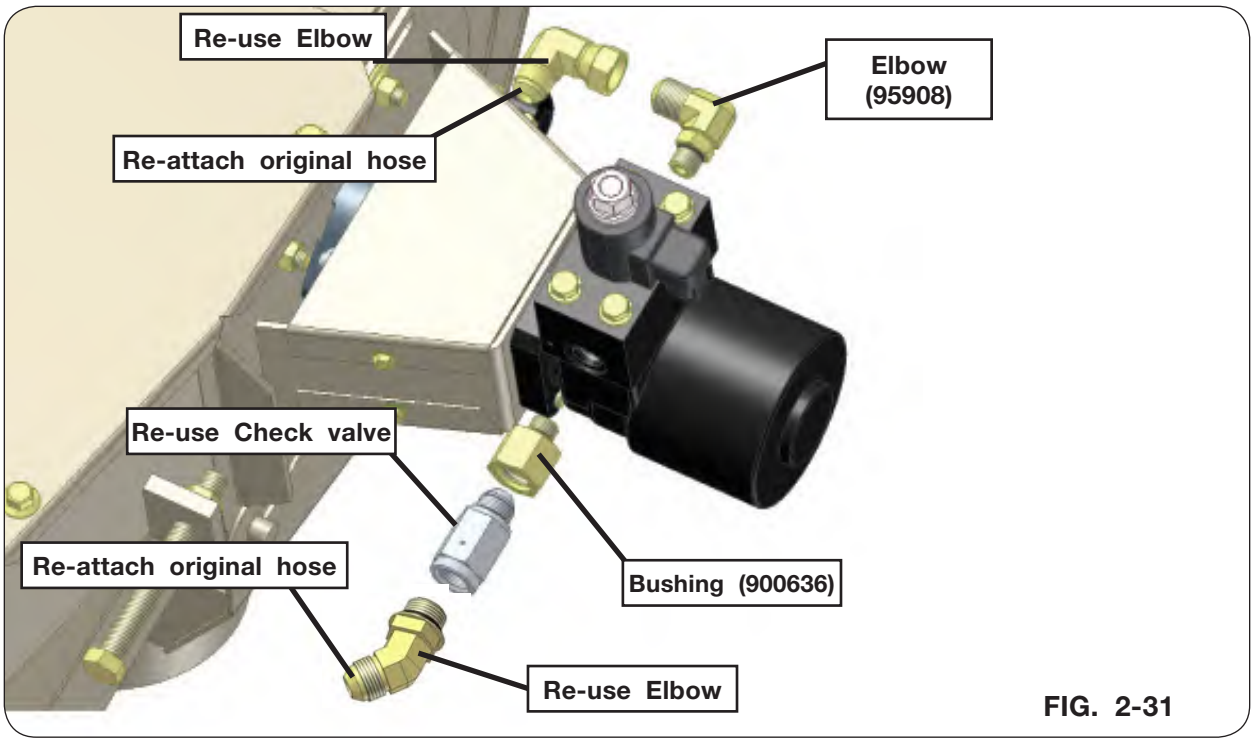


FIG. 2-31

9. Starting at the top end of the conveyor, route wire harness along conveyor feeding along with the hydraulic hoses through each strap as shown in Fig. 2-32. Position the wire "Y" within 10" of the valve as shown in Fig. 2-32.
10. Place three cable ties as shown in Fig. 2-33, securing the harness to hydraulic hoses. Pull on tail end of cable tie so that harness is secure and then clip off tail.

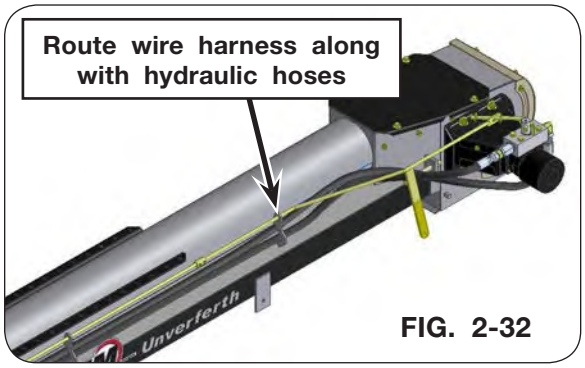


FIG. 2-32

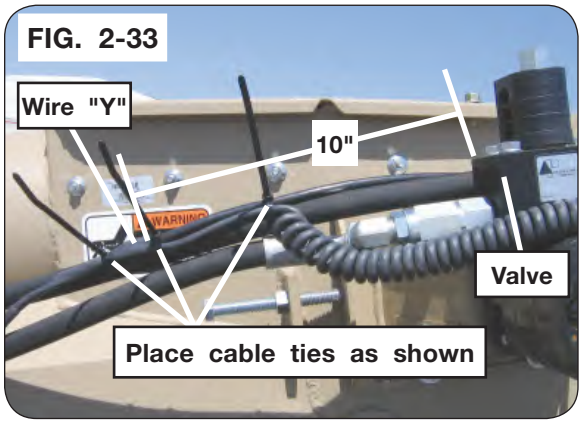


FIG. 2-33

Optional Electric Control Kit #26352 (continue)

11. Connect the pigtail to the electronic valve. You should feel a slight snap securing the connector to the valve. See FIG. 2-34.

12. Connect the harness to the exiting wiring harness.

13. Next, connect the control switch to the end of the retractable cord.


FIG. 2-34

⚠ WARNING

- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM.**

Check for and correct any leaks. Make sure hoses are not kinked, stretched, or twisted. Secure hoses to prevent cuts or chafing during operation.

NOTE: When starting hydraulic power supply, if the conveyor switch is in the "ON" position it will cause the engine to start hard and/or the conveyor will start to move.

14. At this point the conveyor is ready for operation. Start the Power Source according to operation procedures in the Operator's Manual. Operate the conveyor for approximately one minute to purge all air from system. Verify that the conveyor belt is running in the proper direction. Use the control switch to turn the conveyor ON by depressing the switch on the handle till it clicks. To turn the conveyor OFF, depress the button again.

15. Next, determine the place to store the control switch (26330) during transport. Secure plate (26505) using existing hardware or the two self-drilling screws (9473) provided in this kit, see FIG. 2-35. Be sure to position the fingers of the bracket close enough to prevent the switch from vibrating out of the bracket during transport.

NOTE: When placing control switch transport bracket, avoid interference with box when conveyor is in the transport position.

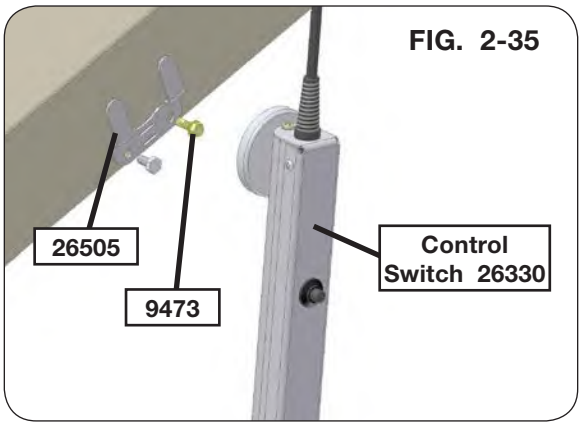


FIG. 2-35

Overall Images

FIG. 2-36

FIG. 2-37

SECTION III
Operation

WARNING

- READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.

Read this operation section thoroughly. Acquaint yourself with the adjustments required to obtain efficient and trouble-free operations.

Preparing Hydraulic Supply

1. Before operating the unit, be sure that you refer to tractor's or the hydraulic supply's operating manual on proper operating procedures of the hydraulics.
2. Be sure to check the hydraulic reservoir for proper levels of fluid.
3. Be sure that the hydraulic system supplies at least 6 GPM at 1000 PSI.

Connecting Gravity Box To Transport Vehicle

1. Be sure to hitch tractor or truck to gravity box securely. Use safety chains and SMV signs during on-road use.
2. Connect hydraulic supply lines to conveyor hydraulic lines and tightened securely. Be sure that the conveyor control is in the off position.

WARNING

- RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.

Preparing Conveyor

Hydraulic Control

Conveyor belt speed is controlled by moving the lever on the flow control valve or moving the control rod running lengthwise along the side of the conveyor.

NOTE: With electrical control option installed, you can control the on/off function only, not the speed.

The flow control valve limits the amount of hydraulic fluid flowing to the hydraulic motor.

⚠ WARNING

- HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.

- HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM.

- RELIEVE HYDRAULIC PRESSURE BEFORE SERVICING HYDRAULIC SYSTEM. SEE HYDRAULIC POWER UNIT'S MANUAL FOR PROPER PROCEDURE.

Check routing of all hydraulic hoses. Hoses should not be kinked, twisted, or rubbing against sharp edges. Hose should be secured with tie straps. Check hose fittings for hydraulic leaks. Tighten and/or repair or replace as required.

Operating Procedures

⚠ WARNING

- SEED BEING TRANSPORTED MAY CONTAIN SEED TREATMENT. READ AND FOLLOW ALL REQUIREMENTS FOR PERSONAL PROTECTIVE EQUIPMENT AND FIRST AID AS OUTLINED ON SEED TAGS.

- KEEP ALL UNAUTHORIZED PEOPLE CLEAR OF WORK AREA.

⚠ CAUTION

- BE SURE TO MAINTAIN A FIRM GRIP OF THE WINCH HANDLE AT ALL TIMES WHEN LOWERING CONVEYOR. BE SURE TO ENGAGE RATCHET PAW (ON WINCH) INTO POSITION WHEN WINCHING IS COMPLETE, OR CONVEYOR WILL DROP SUDDENLY WHEN HANDLE IS RELEASED.

IMPORTANT

- *Always check that the secondary support cable and winch cables are connected securely and are not damaged.*

NOTE: Refer to SET UP section for proper winch and cable installation.

Operating Procedures (continued)

1. To release conveyor from the transport latch assembly, remove the transport pin from the transport position and place it in the storage position as shown in Fig. 1-2 & 1-3. Release the latch handle and slowly unwind the winch cable to allow the conveyor to swing-out (Fig. 1-2 & Fig. 1-3). When all the tension is off the cable, disconnect the snap hook from the conveyor.

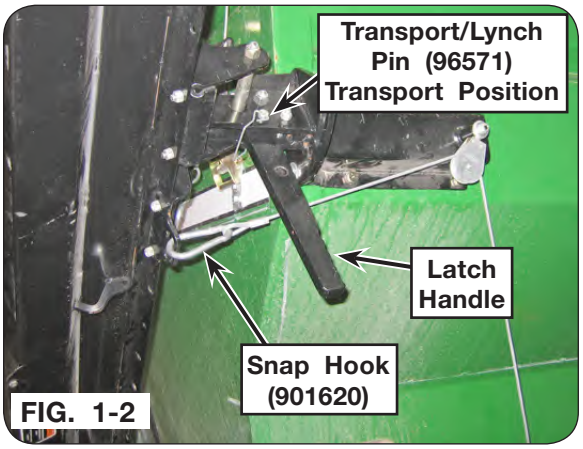


FIG. 1-2

FIG. 1-3

NOTE: See winch manufacturer's instructions on winch safety and operation.

The winch mounted on top of the main section, is used to raise and lower the conveyor for operation or transport (Fig. 1-4).

There is a friction brake in the winch to hold the conveyor in position when the winch handle is released (Fig. 1-4).

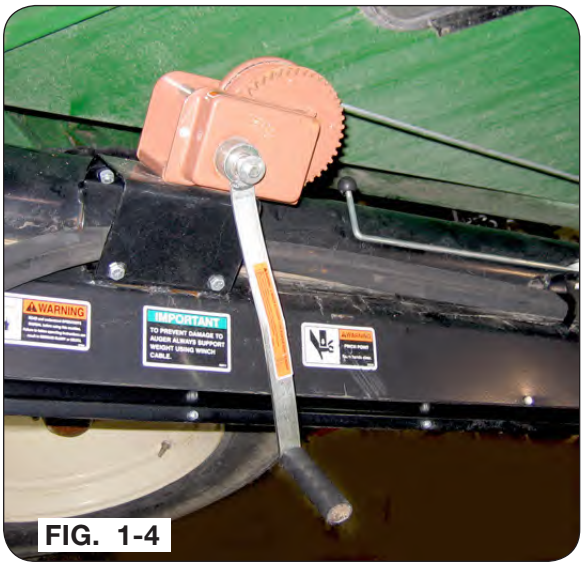


FIG. 1-4

Operating Procedures (continued)

2. Position conveyor over area to be filled and engage the hydraulic power supply system to allow the hydraulic oil to flow to the conveyor. Make sure the conveyor belt is moving in a forward direction. A check valve prevents the belt from going backwards, either reverse the hoses going into the hydraulic power unit or move the hydraulic power unit control hydraulic lever in the opposite direction to reverse the flow. Refer to SET UP section for hydraulic instructions.

⚠ WARNING

- ENTANGLEMENT WITH MOVING PARTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOESTRINGS, DRAWSTRINGS, PANTS CUFF, LONG HAIR, ETC., THAT MAY BECOME ENTANGLED IN MOVING PARTS.

3. Once the conveyor belt has begun to move, open the gravity box hopper door. Be sure to regulate flow from gravity box into conveyor hopper for optimum performance.

NOTE: To achieve optimum performance, test by placing conveyor at different angles. The best position of the conveyor will depend on the type of material being handled.

NOTE: Use pressurized water to wash-out conveyor and hopper after using fertilizer. See MAINTENANCE section.

Before Transporting

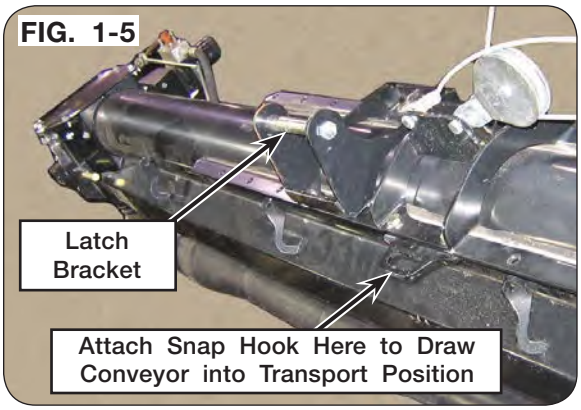
Be sure to empty conveyor completely by closing gravity box door and allowing conveyor to run empty. Turn the conveyor off and latch the conveyor into transport position as follows.

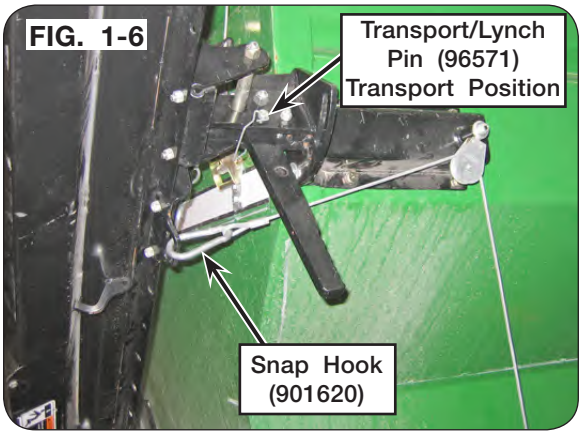
1. To latch the conveyor, raise the conveyor up enough so the latch bracket (Fig. 1-5) will hit the middle of the latch assembly. Attach the snap hook end of the cable to the conveyor (Fig. 1-6) and draw the conveyor inward until the latch bracket is locked in the latch assembly.

2. Insert the transport pin as shown in Fig. 1-6 to lock the conveyor in place.

IMPORTANT

- *Conveyor must be empty before transporting, failure to do so voids warranty.*





During Transport

IMPORTANT

- *Before transporting, be sure that conveyor is securely mounted in transport position.*

Use caution when traveling, do not attempt to transport unit under low hanging tree branches, overhead telephone wires or electrical wires. Be aware of transport height of unit or damage could occur.

Comply with all state and local laws governing highway safety and regulations when moving equipment on public roads.

⚠ WARNING

- ALWAYS TRAVEL AT A SPEED WHICH PERMITS COMPLETE CONTROL OF TOWING VEHICLE AND IMPLEMENT.

⚠ CAUTION

- USE APPROVED ACCESSORY LIGHTS AND REFLECTORS WHEN TRANSPORTING AT NIGHT, DURING PERIODS OF POOR VISIBILITY, AND AS REQUIRED BY LOCAL LAW.

Notes

SECTION IV
Maintenance

Lubrication

Lubricate with an SAE multi-purpose grease. All fittings must be free from dirt and paint to insure entry of lubricant inside bearing.

Conveyor Bearings

Lubricate this bearing every 100 hours of operation and at the end of each season before storage. Use only one stroke of grease per bearing.

⚠ CAUTION

- DO NOT USE A HIGH-PRESSURE GREASE GUN TO LUBRICATE THIS BEARING, AS DAMAGE TO BEARING SEAL COULD OCCUR.

NOTE: Excessive lubrication of these bearings will result in premature failure.

Miscellaneous Lube Points

Oil or grease periodically (or as needed) the following:

-- Hinge for clean-out door.
-- Swivel base on conveyor.
-- Latch pin housing.
-- Pivot bracket and arm.
-- On/Off control rod.

Storage/Maintenance

Your conveyor is an important investment. Spend a little time to protect it from destructive rust and corrosion. You will be repaid in longer service life and better performance.

DO THE FOLLOWING AFTER USE:

1. Clean out conveyor/hopper. Use pressurized water to wash out conveyor and hopper after use.
2. Wipe off the following:
   -- Hydraulic valve, motor, hoses, and fittings.
   -- Swivel base, cradle.
   -- Reflectors and warning/caution decals.
3. Check the following:
   -- Mounting bolts for tightness.
   -- Cable ties for tightness.
   -- Valve, motor, hoses, and fittings for leaks, etc.
   -- Hydraulic hoses for wear-abuse.

DO THE FOLLOWING BEFORE PLACING THE CONVEYOR IN STORAGE:

-- Repaint any chipped or scraped areas.
-- Inspect for damaged or worn parts. Replace before next season.
-- Store unit inside, away from livestock.

Conveyor Belt

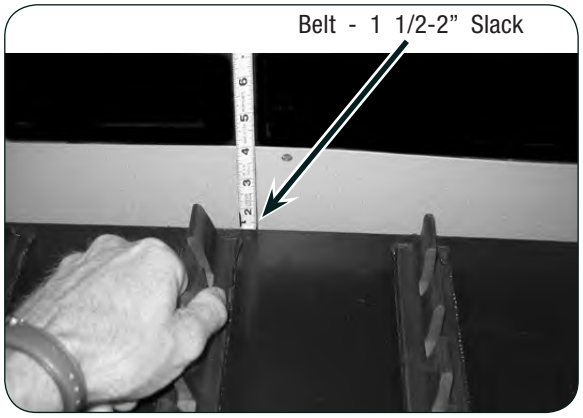
Proper belt tension and correct 'tracking' of the belt are critical to maintaining the belt for years of worry-free use. Belt tension and tracking should be checked at the beginning of each season. Belt alignment should be checked after the very first initial use then after the first 2 hours of initial use or after every adjustment of belt tension/alignment. Once belt tracking is set, it will be necessary to check alignment after every 8 hours of use.

⚠ WARNING

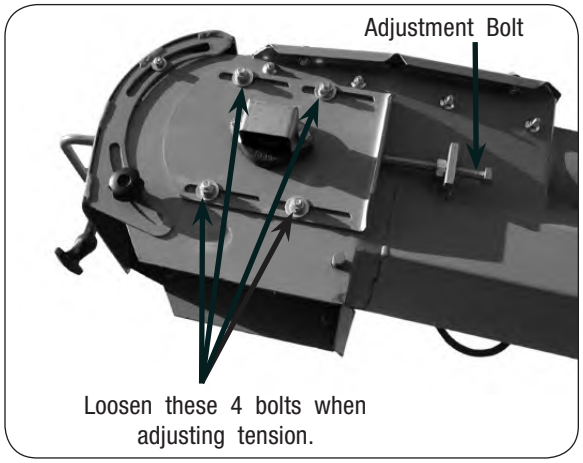
- ENTANGLEMENT WITH MOVING PARTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOESTRINGS, DRAWSTRINGS, PANTS CUFF, LONG HAIR, ETC., THAT MAY BECOME ENTANGLED IN MOVING PARTS.

Belt Tension

Belt tension is inspected by removing lower intake panel/guard from conveyor, and gently pull on the conveyor belt. The belt should have approximately 1 1/2-2" of slack at the center.



Belt tension is adjusted at the discharge end of the conveyor. Loosen, DO NOT REMOVE, the four 3/8 bolts on each side of the conveyor. Use the two adjusting bolts to adjust the belt to the proper tension.



It is important to move both sides the same distance. Too much tension on the belt will stretch the splice link and greatly reduce belt life. Too little tension on the belt could result in belt slipping on drive pulley. Replace the bottom cover panel and continue to check belt tracking before re-tightening the four bolts on each side of the conveyor.

IMPORTANT

- *Belt tracking must be done every time tension is adjusted.*

Conveyor Belt (continued)

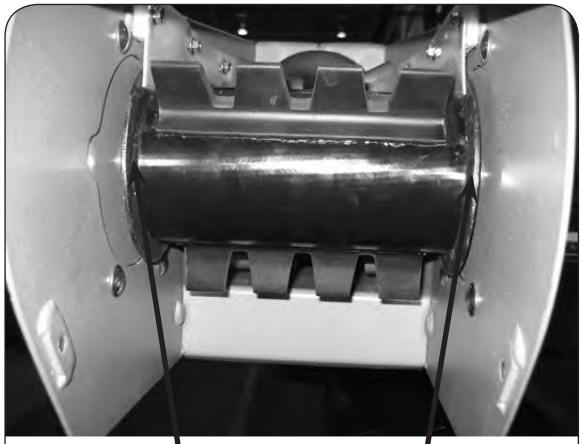
Belt Tracking

Conveyor belt must always run at the center of the pulley on both the intake and discharge end. Improper tracking of the belt will result in excessive wear to the edge of the belt, and will greatly reduce belt life. Check belt tracking every 8 hours of use, and every time belt tension is adjusted.

⚠ WARNING

- ENTANGLEMENT WITH MOVING PARTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOESTRINGS, DRAWSTRINGS, PANTS CUFF, LONG HAIR, ETC., THAT MAY BECOME ENTANGLED IN MOVING PARTS.

Inspect tracking of belt at discharge end by removing lower spout, pivoting deflector up, and looking up at the belt and pulley. Belt should be in center of pulley.



Adjust by loosening, **DO NOT REMOVE**, the four bolts on the side of the conveyor. Operate conveyor at slow speed, and tighten or loosen the adjustment bolt until belt is running in the center of the pulley.

Tighten all bolts on side of conveyor, and lock adjustment bolts into place.

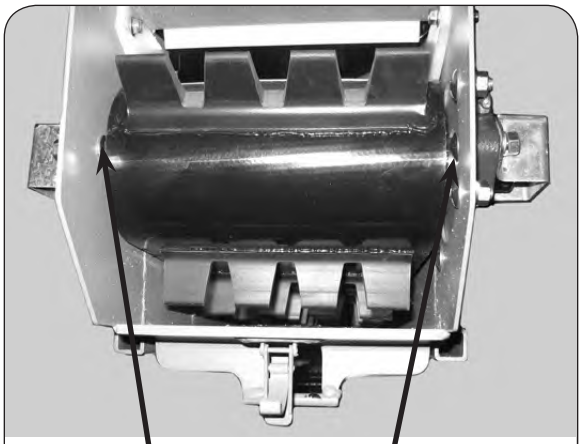
Conveyor Belt (continued)

Belt Tracking (continued)

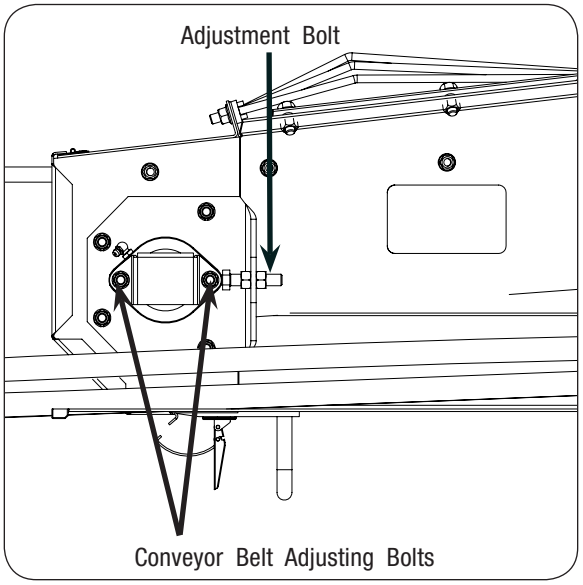
⚠ WARNING

- ENTANGLEMENT WITH MOVING PARTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOESTRINGS, DRAWSTRINGS, PANTS CUFF, LONG HAIR, ETC., THAT MAY BECOME ENTANGLED IN MOVING PARTS.

Inspect tracking of belt at intake end by opening bottom inspection door on conveyor. Belt should be in the center of the pulley.



Adjust by loosening (Do Not Remove) the four bolts (two on each side) on the adjusting plate.



Operate conveyor at slow speed, and tighten or loosen adjustment bolt until belt is running in the center of the pulley.

Tighten the two bolts on the adjustment plate, and lock the adjustment bolt into place.

Belt Change Procedures

1. Remove the access panel from the underside near the center of the conveyor housing.
2. Run the conveyor belt until the splice is positioned in the access opening.
3. Reduce tension from the belt by turning the tensioning bolts on the end of the conveyor.
4. Attach the belt stretcher to the belt to remove tension on the belt splice. Remove connecting wire from the splice.
5. Attach the new belt to the original belt splice using a length of small diameter wire.
6. Pull the original belt out of the conveyor. When finished, the new belt should be routed through the conveyor, remove the temporary splice wire and discard.
7. Reinstall the belt stretcher to the new belt to draw the splice together. Insert the vinyl coated cable through the splice, attach the small bent washers on each end of the cable by crimping tight with a pliers. Remove the belt stretcher from the new belt.
8. Increase tension on the new belt by adjusting the tensioning bolts on the end of the conveyor housing, making sure the belt tracking is centered.
9. Install access panel door removed in step 1.

Troubleshooting

Occasionally when an conveyor has been connected into an auxiliary hydraulic system, it may not operate or convey the material being handled. When hydraulic pressure and flow gauges are not available, it may be difficult to determine if there is a fault in the source, hydraulic system, or the conveyor. A convenient method of determining this is to connect the conveyor hydraulic hoses to another tractor system and check the operation. If, for example, the conveyor operates from the other tractor system but not from the original tractor there is a fault in the original tractor connection, or the original tractor system is not adequate. If the conveyor fails to operate; however, there is probably a fault with the conveyor control valve, motor, or the conveyor itself. In this case, refer to the troubleshooting guide.

PROBABLE CAUSE	CORRECTION
Conveyor Will Not Turn Over or Develop Proper Speed/Torque	
Pump does not deliver sufficient pressure or volume	Check output and delivery-repair if necessary
Conveyor mechanism binding	Check for cause and correct
Wrong hose hook-up to tractor control levers	Refer to Tractor Operator's Manual for valve and control lever arrangement
Insufficient tractor hydraulic pressure	See the following: A. Check hydraulic reservoir oil level B. See SET UP section "Hydraulic Hook-Up Recommendations"
Hydraulic components leaking oil	Find cause and correct
Hydraulic hoses kinked or twisted	Find cause and correct
Malfunction of hydraulic components	Isolate problem area-repair as necessary
Conveyor Runs Too Slow	
Pump is worn	Repair or replace pump
Internal leak in controls or motor	Replace seals; repair or replace valves or motors
Air in system	Bleed system and tighten connections
If conveyor starts slowly and speed increases after oil heats up; oil is too heavy weight. If conveyor slows down after oil heats up; oil is too light weight	Use proper weight hydraulic oil

Troubleshooting (continued)

PROBABLE CAUSE	CORRECTION
Conveyor is Turning in Wrong Direction	
Incorrect piping between source and control valve	Reverse piping connections
Improperly installed check valve plate	Reposition (As shown in SET UP section)
Oil Heat Excessively	
Too light weight in hot climate	Drain and refill with proper weight oil.
Oil too heavy weight	Use recommended weight oil.
Dirty oil	Drain, flush, and refill with clean oil and filter
Oil level too low	Fill to proper level
Relief valve pressure too high or low; does not operate	Adjust and repair or replace relief valve
Oil slipping through worn pump	Repair or replace pump
Hoses or valves too small	Use larger hoses or valves
Restricted lines or piping	Reroute lines to eliminate restrictions
Reservoir too small to provide adequate cooling	Replace with larger reservoir or install oil cooler
Pump/Motors/Seals Blow - Shaft/Housing Breaks - Hose Burst	
When a standard control valve is returned to neutral to stop or start a motor, sudden excess pressure is created which will break seals, tear off motor shafts, burst housing or hoses, (Especially at speed under load.) This sudden shock cannot be relieved through the primary relief valve in the system.	Avoid sudden rapid starting and stopping
Belt Edges Showing Excessive Wear	
Belt tracking incorrect	Adjust tracking as detailed in MAINTENANCE section
Poly seals on intake and/or discharge end worn	Replace poly seals

Complete Torque Chart – Capscrews - Grade 5

IMPORTANT

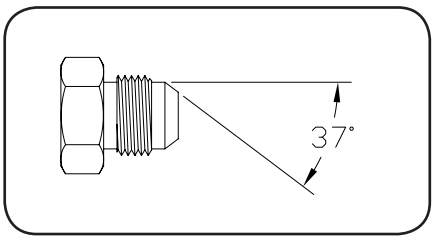
- *Grade 5 capscrews can be identified by three radial dashes on head.*
- *For wheel torque requirements, refer to Wheels and Tires.*
- *Tighten U-bolts to have the same number of threads exposed on each end.*

SIZE	FOOT POUNDS	NEWTON METERS	SIZE	FOOT POUNDS	NEWTON METERS
1/4-20 1/4-28	8-10 9-11	11-13 12-15	3/4-10 3/4-16	200-220 210-230	270-300 285-310
5/16-18 5/16-24	15-17 17-19	20-23 23-26	7/8-9 7/8-14	330-350 360-380	425-475 460-515
3/8-16 3/8-24	25-28 28-31	34-38 38-42	1-8 1-14	500-525 540-560	675-710 730-760
7/16-14 7/16-20	40-45 45-50	54-61 61-68	1 1/8-7 1 1/8-12	600-635 665-700	815-860 920-950
1/2-13 1/2-20	62-68 68-75	84-92 92-102	1 1/4-7 1 1/4-12	850-895 940-990	1150-1215 1275-1340
9/16-12 9/16-18	90-98 100-110	22-133 134-148	1 3/8-6 1 3/8-12	1125-1175 1280-1335	1525-1590 1735-1810
5/8-11 5/8-18	120-135 124-137	162-183 168-186	1 1/2-6 1 1/2-12	1500-1560 1685-1755	2035-2115 2285-2380

Hydraulic Fittings – Torque and Installation

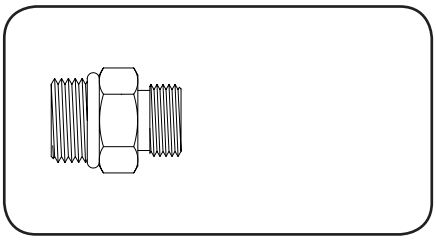
SAE FLARE CONNECTION (J. I. C.)

1. Tighten nut with finger until it bottoms the seat.
2. Using a wrench, rotate nut to tighten. Turn nut 1/3 turn to apply proper torque.



SAE STRAIGHT THREAD O-RING SEAL

1. Insure jam nut and washer are backed up to the back side of smooth portion of elbow adapter.
2. Lubricate o-ring -- VERY IMPORTANT!
3. Thread into port until washer bottoms onto spot face.
4. Position elbows by backing up adapter.
5. Tighten jam nut.



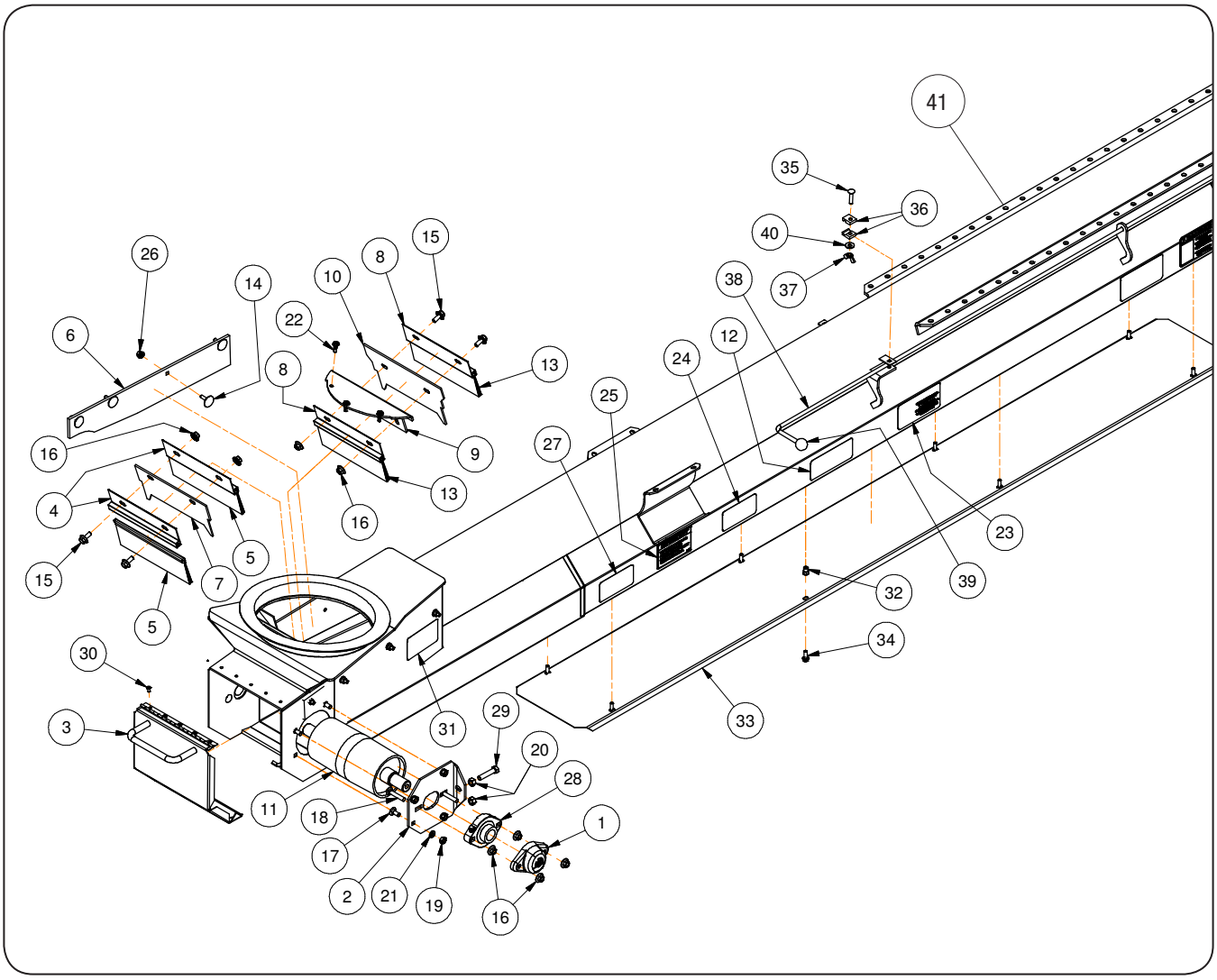
Notes

SECTION V
Parts

Please visit www.unverferth.com/parts/ for the most current parts listing.

Idler End Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



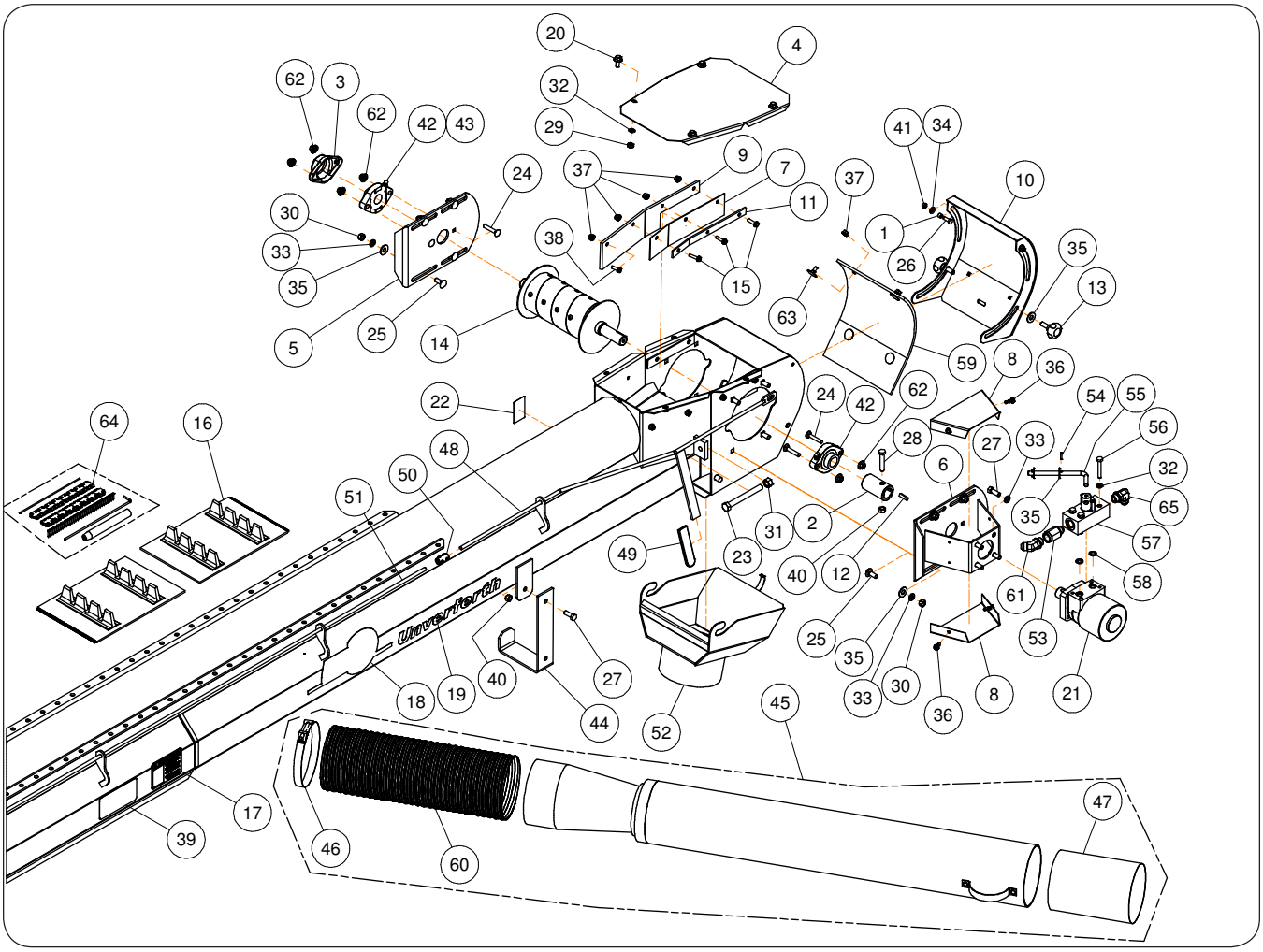
Idler End Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	NOTES
1	9500310	Cover	
2	23912B	Adjustment Plate	
3	23923B	Cleanout Door	
4	25386	Brush Holder	
5	25388	Nylon Brush	
6	25389	Poly Strip	
7	2000250	Seal	
8	26617	Brush Holder (Punched)	
9	26651B	Cover Plate	
10	2000252	Seal	
11	900608	Idler Pulley	
12	901912	Decal, IMPORTANT (2000 PSI)	
13	902004	Nylon Brush	
14	902346	Elevator Bolt, 1/4-20 x 1	
15	91256	Screw/Large Flange 5/16-18 x 3/4	Grade 5
16	91257	Flange Nut 5/16-18UNC	
17	9388-024	Carriage Bolt 5/16-18UNC x 3/4	Grade 5
18	9500341	Carriage Bolt, 5/16-18UNC x 1 3/4	Grade 5
19	9394-004	Hex Nut 5/16-18UNC	
20	9394-006	Hex Nut 3/8-16UNC	
21	9404-019	Lock Washer 5/16	
22	9473	Screw/Self Drilling 1/4-14 x 3/4	
23	95445	Decal, WARNING (High-Pressure)	
24	95839	Decal, WARNING (Pinch Point)	
25	96911	Decal, IMPORTANT (Support Conveyor)	
26	97189	Hex Nut/Large Flange 1/4-20UNC	
27	97961	Decal, WARNING (Read & Understand)	
28	TA0-903088-0	Bearing w/Flange 1" ID	
29	TA0-907104-0	Capscrew 3/8-16UNC x 1 3/4 (Full Threaded)	
30	TA0-908335-0	Rivet 3/16	
31	TA1-906109-0	Decal, WARNING (Moving Parts)	
32	902340	Rivet Nut 1/4-20UNC	
33	2000012B	Bottom Shield =BLACK=	
34	97420	Flange Screw 1/4-20UNC x 3/4	Grade 5
35	9388-004	Carriage Bolt 1/4-20UNC x 1 1/4	Grade 5
36	24266	Friction Block	
37	901056	Wing Nut 1/4-20UNC	
38	23698	Lower Control Rod Weldment	
39	TA0-914793-0	Knob 1" Dia.	
40	9405-064	Flat Washer 1/4"	
41	2005361B	Conveyor with Decals	

Discharge & Drive Pulley Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	NOTES
1	22018	Bushing	
2	23690	Coupler	
3	9500310	Cover	
4	23918B	Cover	
5	23994B	Adjustment Plate	
6	24091B	Bracket	
7	24260	Seal	
8	24399B	Shield	
9	24755	Seal	
10	26214B	Deflector Assembly	
11	26432B	Strip	
12	9001501	Keystock	
13	901046	Knob	
14	901077	Drive Pulley	
15	901101	Flange Screw 1/4-20UNC x 1	
16	901245	Conveyor Belt	
17	901478	Decal, DANGER	
18	901607	Decal, UM Oval	

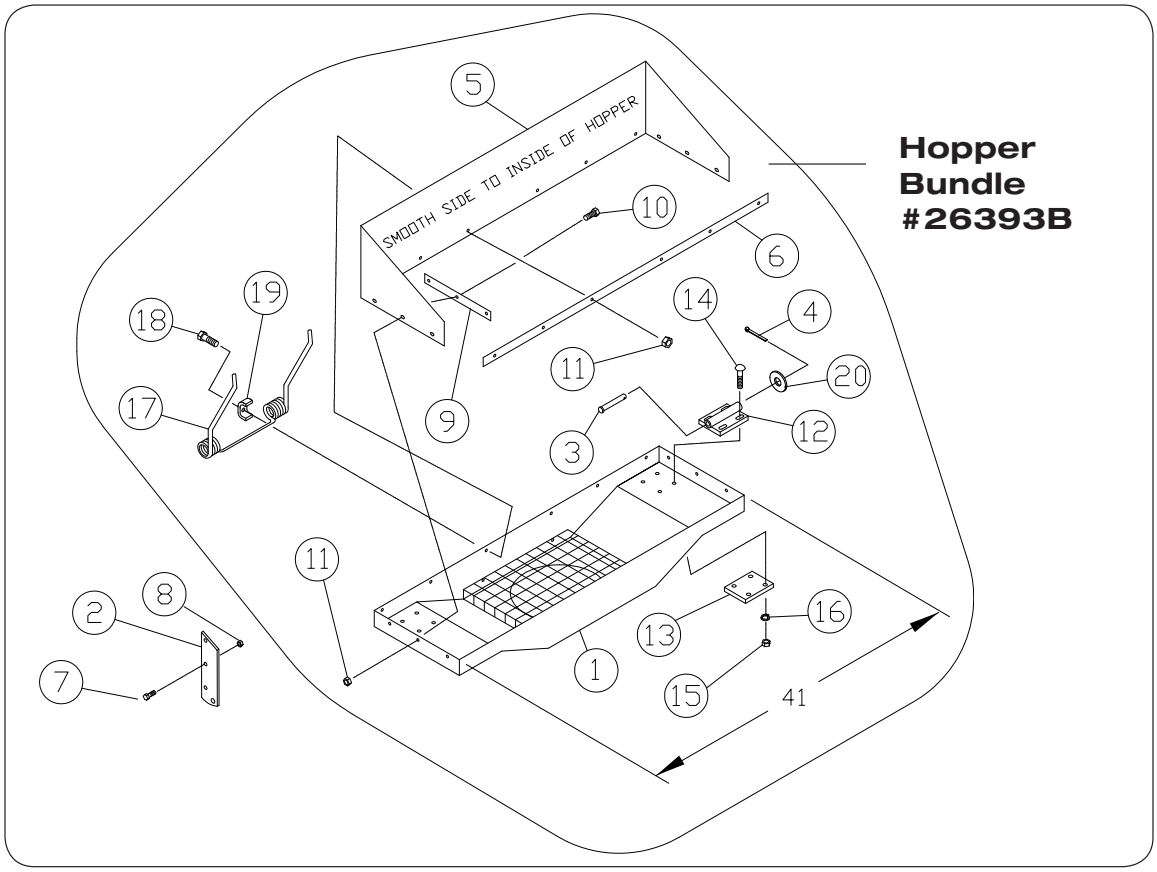
Discharge & Drive Pulley Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	NOTES
19	901725	Decal, Unverferth Logo	
20	91256	Screw/Large Flange 5/16-18UNC x 3/4	
21	91604B	Hydraulic Motor	
22	91605	Decal, FEMA	
23	93400	Capscrew 1/2-13UNC x 4 1/2	
24	9500341	Carriage Bolt 5/16-18UNC x 1 3/4	Grade 5
25	9388-051	Carriage Bolt 3/8-16UNC x 1	Grade 5
26	9390-003	Capscrew 1/4-20UNC x 3/4	Grade 5
27	9390-055	Capscrew 3/8-16UNC x 1	Grade 5
28	9390-059	Capscrew 3/8-16UNC x 2	Grade 5
29	9394-004	Hex Nut 5/16-18UNC	
30	9394-006	Hex Nut 3/8-16UNC	
31	9394-010	Hex Nut 1/2-13UNC	
32	9404-019	Lock Washer 5/16	
33	9404-021	Lock Washer 3/8	
34	9405-062	Flat Washer 1/4	
35	9405-076	Flat Washer 3/8	
36	9473	Screw /Self Drilling 1/4-14x3/4	
37	97189	Hex Nut/Large Flange 1/4-20UNC	
38	97420	Flange Screw 1/4-20UNCx3/4	
39	98229	Decal, WARNING	
40	9928	Locknut 3/8-16UNC	
41	9936	Locknut 1/4-20UNC	
42	TA0-903088-0	Bearing w/Flange 1"ID	
43	93415	Grease Zerk	
44	24414B	Spout Bracket	
45	22578	Telescopic Spout Assembly	Includes Items 46, 47 & 60
46	98060	Spout Clamp	
47	22577	Spout Extension Sock	
48	25205	Upper Control Rod Weldment	
49	900209	Cap/Vinyl Handle	
50	23701	Coupler w/Set Screws	
51	23698	Lower Control Rod Weldment	
52	26220B	Spout Weldment w/Metal Latch	
53	94909	Check Valve	
54	9392-056	Roll Pin 1/8" Dia. x 3/4	
55	23693	Handle 3/8" Dia.	
56	9390-034	Capscrew 5/16-18UNC x 2	Grade 5
57	95488	Valve/Hydraulic Control w/O-Rings	Includes Item 58
58	91306	O-Ring	
59	901723	Deflector Neoprene Sheet	
60	21759	Flexible Hose 6" OD x 18	
61	93586	45° Elbow, 3/4-16 JIC Male x O-R Adj Male	
62	91257	Flange Nut 5/16-18UNC	Grade 5
63	902006	Elevator Bolt 1/4-20UNC x 3/4	
64	9501506	Belt Splice Kit 8"	
65	9863	Elbow 90 Degrees, 3/4-16 JIC Male x O-R Male	

Hopper Components

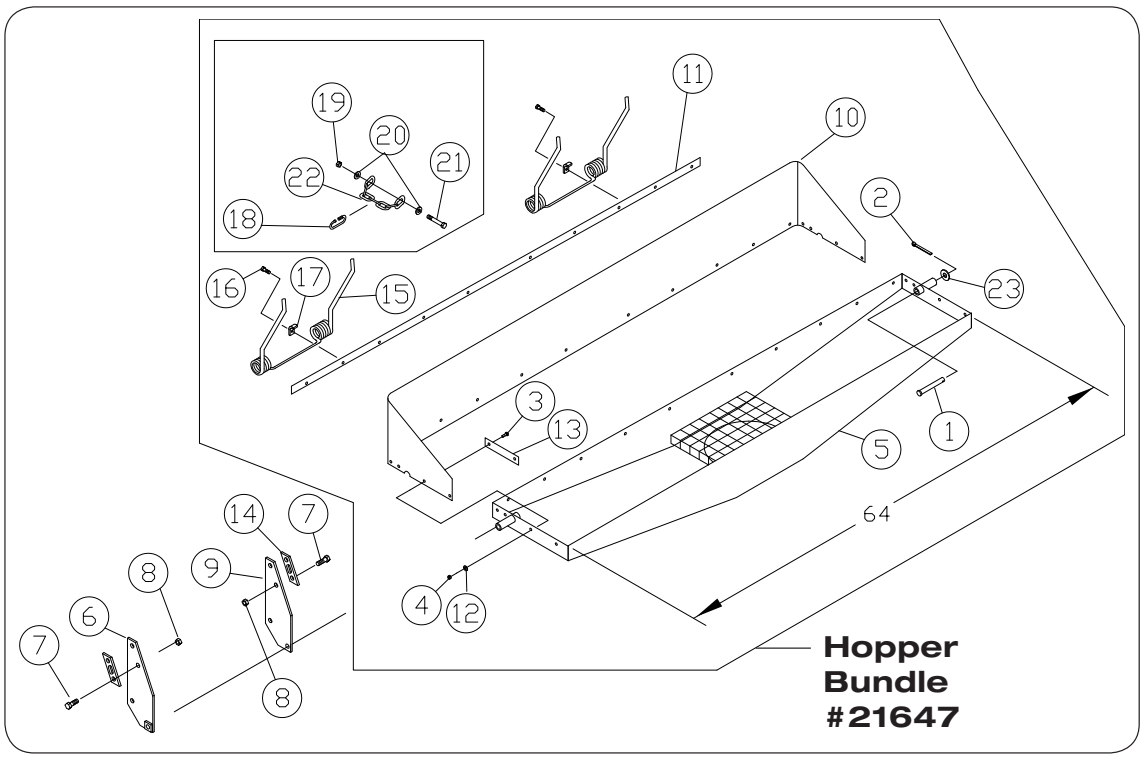
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION
1	22588	Hopper
2	21330	Mount Plate
3	95568	Clevis Pin 1/2" Dia. x 6"
4	9391-035	Cotter Pin
5	22509	Rubber Seal
6	22508	Back Strap
7	9390-055	Capscrew 3/8-16 x 1"
8	9928	Locknut 3/8-16
9	21642	Side Strap
10	9390-003	Capscrew 1/4-20 x 3/4"
11	9936	Locknut 1/4-20
12	22090	Hopper Pivot
13	22089	Backing Plate
14	9388-053	Carriage Bolt 3/8-16 x 1 1/2"
15	9394-006	Hex Nut 3/8-16
16	9404-021	Lock Washer 3/8"
17	22507	Spring
18	9390-006	Capscrew 1/4-20 x 1 1/4"
19	22506	U-Clip
20	9405-088	Flat Washer, 1/2

Hopper Components

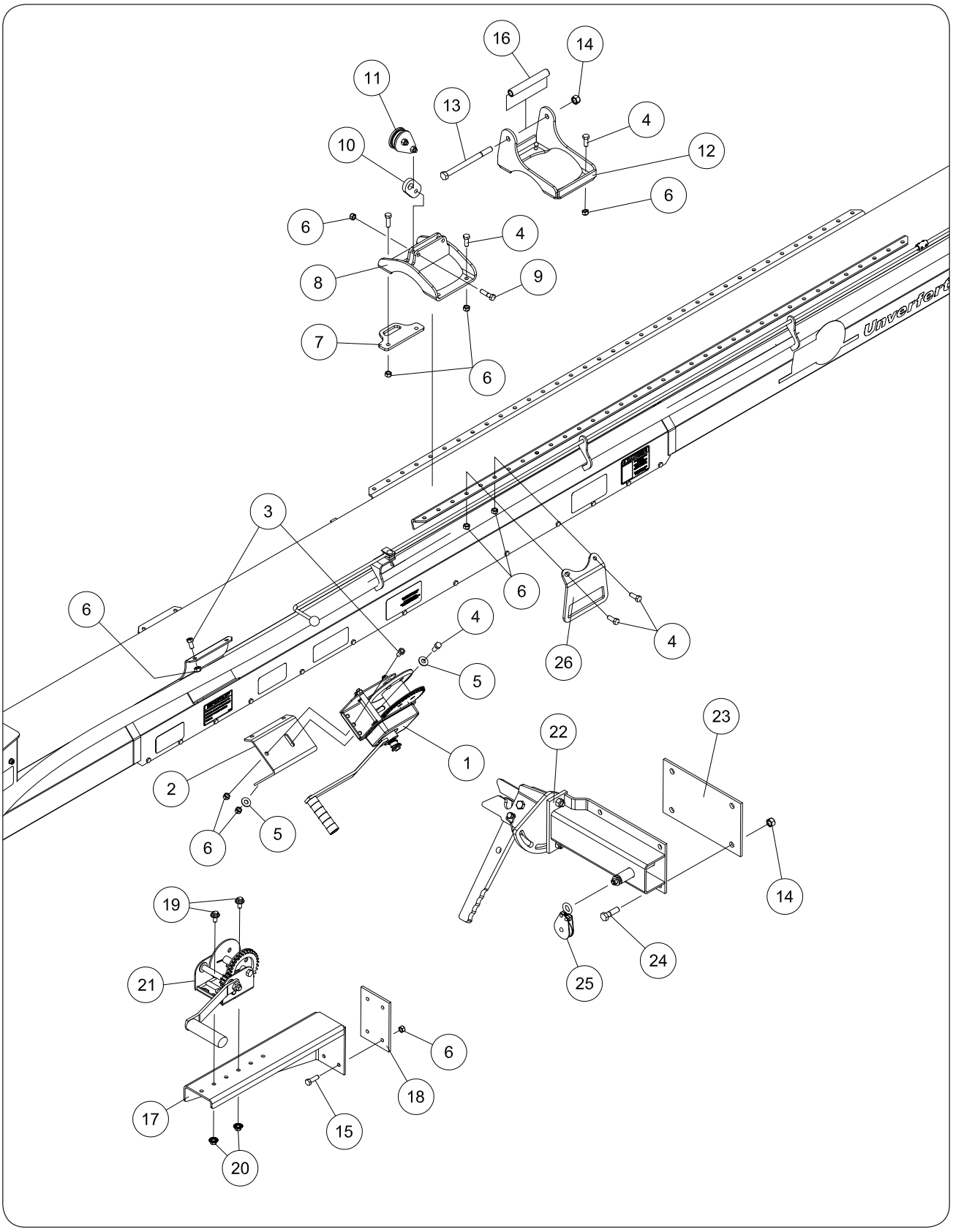
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION
1	95890	Clevis Pin 1/2" Dia. x 3 1/2"
2	9391-035	Cotter Pin
3	9390-003	Capscrew 1/4-20 x 3/4"
4	9936	Locknut 1/4-20
5	21429	Hopper (64")
6	21671	Mounting Bracket RH
7	9390-079	Capscrew 7/16-14 x 1 1/4"
8	94980	Locknut 7/16-14
9	21674	Mounting Bracket LH
10	22511	Rubber Seal
11	22510	Back Strap
12	9405-064	Flat Washer 1"
13	21658	Side Strap
14	22244	Shim Plate
15	22507	Spring
16	9390-005	Capscrew 1/4-20 x 1"
17	22506	U-Clip
18	91514	Quick Link
19	9928	Locknut 3/8-16
20	9405-076	Flat Washer 3/8"
21	9390-068	Capscrew 3/8-16 x 4 1/2"
22	2829	Chain
23	9405-088	Flat Washer, 1/2"

Operating and Transport Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



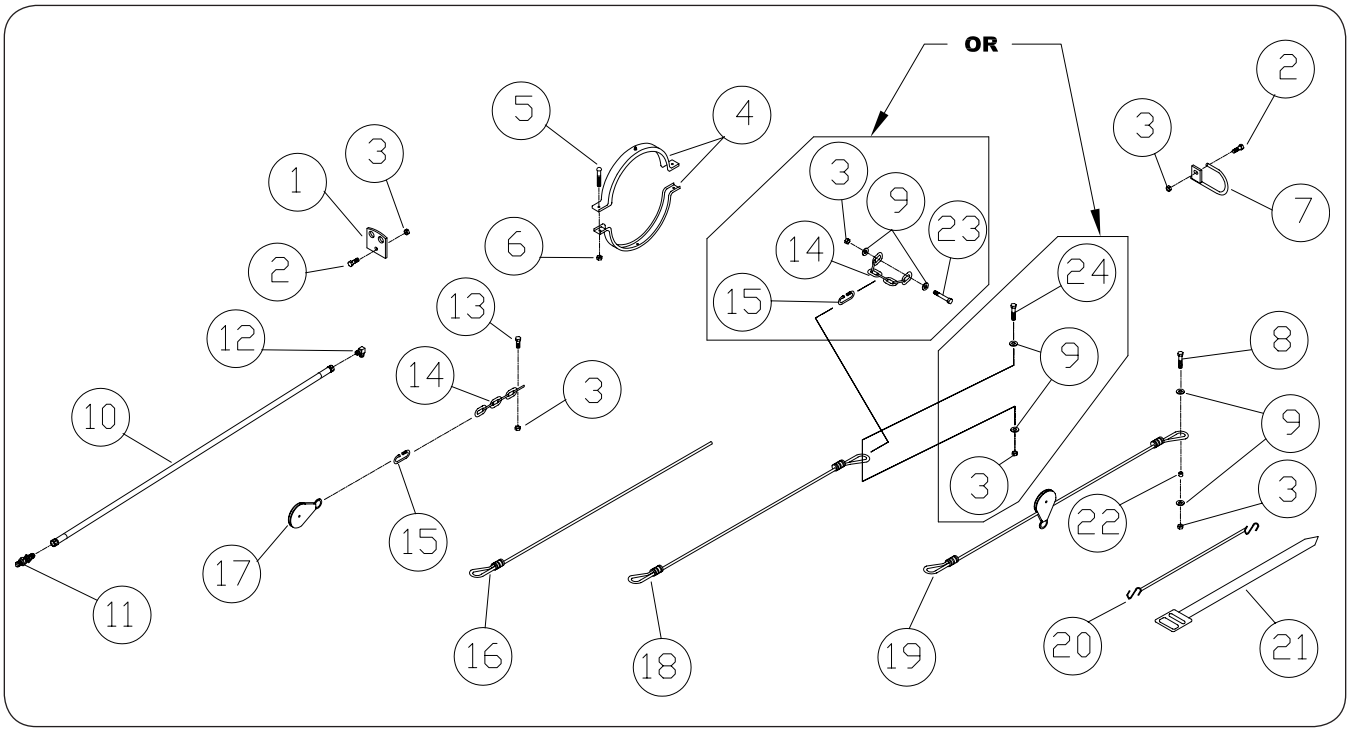
Operating and Transport Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	NOTES
1	TA0-904904-0	Winch	
2	25405B	Winch Bracket	
3	9390-053	Capscrew 3/8-16UNC x 3/4	Grade 5
4	9390-055	Capscrew 3/8-16UNC x 1	Grade 5
5	9405-076	Flat Washer 3/8"	
6	9928	Locknut 3/8-16UNC	
7	25762B	Plate	
8	25579B	Cable Bracket Weldment	
9	91299-057	Capscrew 3/8-16UNC x 1 1/2	Grade 8
10	26556	Link	
11	TA0-923512-1	Pulley 2" OD	
12	25420B	Latch Bracket	
13	9390-116	Capscrew 1/2-13UNC x 6 1/2	Grade 5
14	9800	Locknut 1/2-13UNC	
15	9390-056	Capscrew 3/8-16UNC x 1 1/4	Grade 5
16	25421	Bushing 3/4" OD x 5 3/16	
17	25964B	Rear Winch Bracket	
18	25966B	Backing Plate	
19	95585	Capscrew/Large Flange 3/8-16UNC x 3/4	Grade 5
20	91263	Nut/Large Flange 3/8-16UNC	
21	9501907	Winch 900 Lb. Max.	
22	25582B	Latch Assembly	
23	25585B	Box Backing Plate	
24	9390-102	Capscrew 1/2-13UNC x 1 3/4	Grade 5
25	92459	Swivel Eye Block	
26	27191B	Plate Handle with Bend	

Hose Holder, Cables, & Hardware

Please visit www.unverferth.com/parts/ for the most current parts listing.



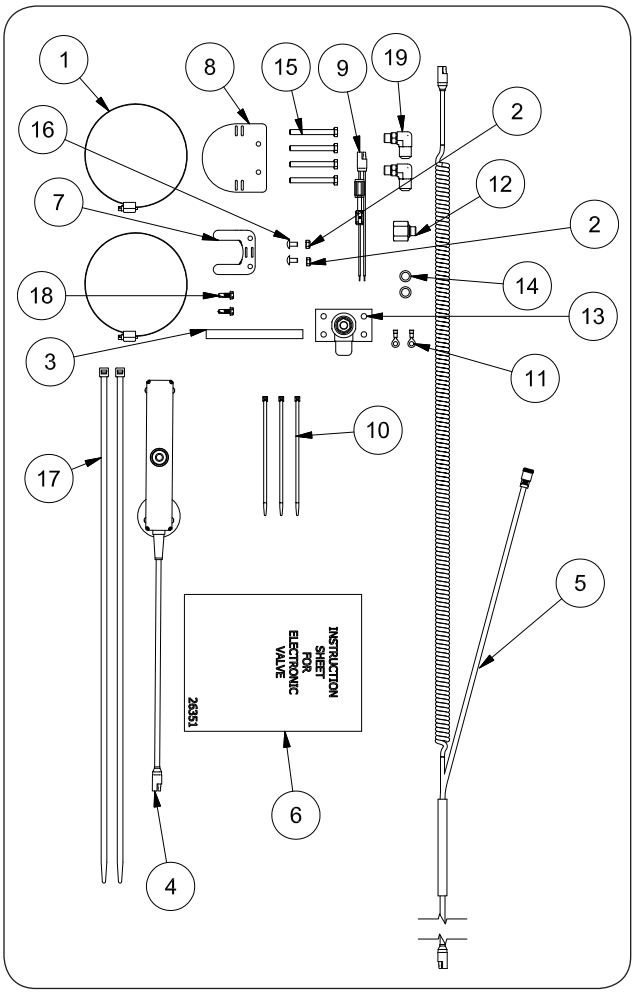
ITEM	PART NO.	DESCRIPTION
1	21350	Hose Bracket
2	9390-055	Capscrew 3/8-16 x 1"
3	9928	Locknut 3/8-16
4	22751	Swivel Clamps w/Hardware
5	9388-061	Carriage Bolt 3/8-16 x 3 1/2"
6	9394-006	Hex Nut 3/8-16
7	20103	Hose Holder
8	9390-056	Capscrew 3/8-16 x 1 1/4"
9	9405-076	Flat Washer 3/8"
10	93838	Hydraulic Hose 276"
11	93839	Bulkhead Union
12	9863	Elbow
13	9390-059	Capscrew 3/8-16 x 2"
14	2829	Chain

ITEM	PART NO.	DESCRIPTION
15	91514	Quick Link
16	22050	Winch Cable 183"
17	92459	Swivel Pulley
18	27192	Secondary Support Cable 101"
19	26683	Cable 84" for Small Door
	26685	Cable 96" for Large Door
	TA0-923512-1	Swivel Pulley
20	9235	Tarp Strap
21	9000106	Cable Tie 6"
	94038	Cable Tie 32"
22	22046	Bushing
23	9390-068	Capscrew 3/8-16 x 4 1/2"
24	9390-058	Capscrew 3/8-16 x 1 3/4"

Optional Electric Control Kit #26352

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION
1	96931	Hose Clamp 6 1/2"
2	9936	Locknut 1/4-20UNC
3	21907	Tube/Heat Shrink
4	26330	Switch Assembly
5	26341	Wire Harness Assembly
6	26351	Instruction Sheet
7	26505	Plate-Switch Retainer
8	26506	Plate
9	26507	Wire Harness
10	9000106	Cable Tie 6"
11	9002638	Eyelet 1/4" Electrical
12	900636	Reducer 9/16-18 O-Ring
13	901878	Valve/Electric 2-Way
14	91306	O-Ring
15	9390-037	Capscrew 5/16-18UNC x 2 3/4
16	9402-084	Truss Head 1/4-28UNF x 1/2
17	94038	Cable Tie 32"
18	9473	Self Drilling Screw 1/4-14 x 3/4
19	95908	90° Elbow 3/4-16JIC



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