



# Seed Handling

#### PORTABLE SEED CONVEYOR 2-WHEELED UNDERCARRIAGE 8" x 30' & 35' Hydraulic and Electric Motors

Serial Number A60020000 & Up

Part No. 27075

#### PORTABLE SEED CONVEYOR — Introduction

#### **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.



#### **PORTABLE SEED CONVEYOR** — Introduction

#### **Product Information**

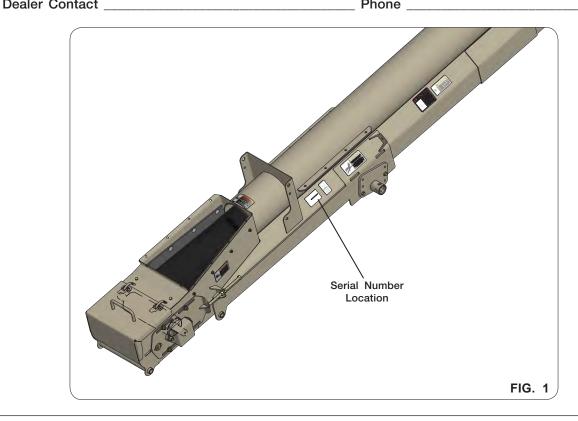
When ordering parts or when requesting further information or assistance, always give the following information:

- Machine name
- Model number
- 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 conveyor as shown below.

| Purchase Date   | Model | Serial No |
|-----------------|-------|-----------|
| Dealer          | C     | Dity      |
| Dealer Oralland |       | Dhana     |



#### 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.

# PORTABLE SEED CONVEYOR — Introduction

| ole Of Contents   |   |
|---|---|
| Foreword  Product Information                                 |   |
|   |   |
| SECTION I   |   |
| Safety  |   |
| General Hazard Information                                    |   |
| Safety Decals   |   |
| Following Safety Instructions                                 |   |
| During Operation  |   |
| Before Transporting   |   |
| During Transport  |   |
| Pressurized Oil   | 1-6                                     |
| Preparing for Emergencies                                     |   |
| Wearing Protective Equipment                                  | 1-7                                     |
| Pre-Delivery Checklist  | 2-2 2-3 2-4 2-7 2-9 2-14 2-17 2-21 2-25 |
| Hydraulic System  |   |
| Purging Hydraulic System  Optional Light & Marking Kit #25775 |   |
| Optional Spout Kits   |   |
| SECTION III Operation   |   |
| General Information  Connecting Conveyor to Transport Vehicle | 3-2<br>2-2                              |
| Pre-Operation Checklist                                       |   |
| Transporting  |   |
| Winch   |   |
| Recommendations   |   |
| Hydraulic Control   |   |
| Cleanout Doors  | 3-8                                     |

#### **Table Of Contents**

# **SECTION IV**

# **Maintenance**

| Lubrication                                | 4-2  |
|--|------|
| Conveyor Bearings                          | 4-2  |
| Miscellaneous Lube Points                  | 4-2  |
| Storage/Maintenance                        |      |
| Winch Maintenance                          | 4-3  |
| Conveyor Belt                              | 4-5  |
| Belt Tension                               | 4-5  |
| Belt Tracking                              | 4-6  |
| Belt Change Procedure                      | 4-7  |
| Optional Belt Stretcher                    | 4-8  |
| Wheels and Tires                           | 4-10 |
| Wheel Nut Torque Requirements              | 4-10 |
| Tire Pressure                              | 4-10 |
| Tire Warranty                              | 4-11 |
| Complete Torque Chart                      | 4-12 |
| Hydraulic Fittings                         | 4-12 |
| Troubleshooting                            | 4-13 |
| Optional Lighting Wiring Harness Schematic | 4-15 |

# SECTION V

# **Parts**

| Hopper Components                   | 5-2  |
|-------------------------------------|------|
| Idler End Conveyor Components       |      |
| Discharge End Conveyor Components   |      |
| Hydraulic Components                |      |
| Electrical Components               | 5-10 |
| Undercarriage Components            | 5-12 |
| Winch & Cable Components            | 5-16 |
| Optional Light & Marking Kit #25775 | 5-18 |
| Optional Spout Kits                 | 5-19 |
|                                     |      |

# PORTABLE SEED CONVEYOR — Introduction Notes

# SECTION I

| General Hazard Information    | 1-2 |
|-------------------------------|-----|
| Safety Decals                 | 1-3 |
| Following Safety Instructions | 1-4 |
| Before Operating or Servicing | 1-4 |
| During Operation              |     |
| Before Transporting           | 1-5 |
| During Transport              | 1-5 |
| Pressurized Oil               |     |
| Preparing for Emergencies     | 1-7 |
| Wearing Protective Equipment  |     |
|                               |     |

#### **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



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

# A WARNING

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



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



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

#### **Safety Decals**

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.

PART NO. 94094 PART NO. 95839 WARNING **WARNING** PINCH POINT. USE JACK TO SUPPORT IMPLEMENT **KEEP HANDS** CLEAR. PART NO. 98229 **AWARNING** FALLING OR LOWERING IPMENT CAN CAUSE SERIOUS INJURY OR DEATH KEEP AWAY FROM RAISED EQUIPMENT. PART NO. TA1-906109-0 PART NO. TA1-906109-0 AWARNING SMV EMBLEM TA510514 1. KEEP ALL SHIELDS IN PLACE.
 2. DISCONNECT POWER SOURCE TO
 ADJUST OR SERVICE.
 FAILURE TO HEED MAY RESULT IN SIS DECAL PART NO. SERIOUS INJURY OR DEATH. 79342B TA1-906109-**A** DANGER ELECTROCUTION HAZARD. UTILITY LINES CAN **PART NO. 97961** STAY CLEAR OF ALL UTILITY LINES **PART NO. 901478** AWARNING HIGH PRESSURE FLUID CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM LEAKS. LIEVE PRESSURE BEFORE SERVIC SEEK IMMEDIATE MEDICAL SIS DECAL PART NO. TREATMENT IF INJURED BY HIGH PRESSURE FLUIDS. PART #9003126 2010485B **RED REFLECTOR PART NO. 97575 PART NO. 95445 ACAUTION** PART #9003127 PART #9003125 AMBER REFLECTOR FLUORESCENT REFLECTOR

#### **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 and 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 Servicing**

Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.



- Ensure that all applicable safety decals are installed and legible.
- When working around the implement, be careful not to be cut by sharp edges.
- · Secure drawbar pin with safety lock and lock the tractor drawbar in a fixed position.
- Explosive separation of a tire and rim can cause serious injury or death. Only properly trained personnel should attempt to service a tire and wheel assembly.

#### **Before Operating**

- Do not stand between towing vehicle and implement during hitching.
- Always make certain everyone and everything is clear of the machine before beginning operation.
- Verify that all safety shields are in place and properly secured.



- Ensure that all applicable safety decals are installed and legible.
- · When working around the implement, be careful not to be cut by sharp edges.
- · Secure drawbar pin with safety lock and lock the tractor drawbar in a fixed position.

#### **During Operation**

- · Regulate speed to field conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- · 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.
- Seed being transported may contain seed treatment. Read and follow all requirements for personal protective equipment and first aid as outlined on seed tags.

#### **Before Transporting**

- Secure transport chain to towing vehicle before transporting. DO NOT transport without chain.
- Check for proper function of all available transport lights. Make sure that all reflectors
  are clean and in place on machine. Make sure the SMV emblem is visible to approaching traffic.
- This implement may not be equipped with brakes. Ensure that the towing vehicle has adequate weight and braking capacity to tow this unit.

#### **During Transport**

- · Comply with all laws governing highway safety when moving machinery.
- Use transport lights as required by all 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 transport speed of this implement should never exceed 20 mph as indicated on the machine. Maximum transport speed of any combination of implements must not exceed the lowest specified speed of the implements in combination. 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.
- It is probable that this implement is taller, wider and longer than the towing vehicle. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

#### Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids.



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

#### **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.



# SECTION II

# Set Up

| Pre-Delivery Checklist                            | 2-2  |
|---|------|
| Pre-Delivery Checklist                            | 2-2  |
| Shipping Bundles                                  | 2-3  |
| Undercarriage Lift Assembly                       |      |
| Conveyor Assembly                                 |      |
| Electric Drive Assembly                           |      |
| Hydraulic Drive Assembly                          | 2-14 |
| Hopper Assembly                                   | 2-17 |
| Attaching Conveyor to Undercarriage Lift Assembly |      |
| Jack  | 2-25 |
| Hydraulic System                                  | 2-26 |
| Purging Hydraulic System                          | 2-26 |
| Optional Light & Marking Kit #25775               | 2-27 |
| Optional Spout Kits                               |      |

#### **Pre-Delivery Checklist**

After the conveyor has been completely assembled, use the following checklist and inspect the machine. Check off each item as it is found satisfactory or after proper adjustment is made.

| $\square$ Torque wheel nuts as specified in Maintenand | e section. |
|--|------------|
|--|------------|

- ☐ Torque all axle mounting hardware as specified in Maintenance section.
- ☐ Tires are inflated to specified air pressure.
- ☐ All grease fittings have been lubricated.
- ☐ Check to be sure all safety decals are correctly located and legible. Replace if damaged.
- ☐ Check to be sure all reflective decals are correctly located.
- ☐ Check belt alignment and tension.
- ☐ Check to be transport lights are working properly.
- ☐ Transport chains are properly installed and hardware is torqued to specification.
- ☐ Paint all parts scratched in shipment.

#### **General Set Up**

This section contains all of the instructions required for the complete assembly of the entire CONVEYOR.

For your safety, and the safety of others, use proper tools and equipment and always use safe working procedures. Refer to these instructions before starting any work on your machine.

#### **IMPORTANT**

The procedures for assembling this unit were intended for two or more people.

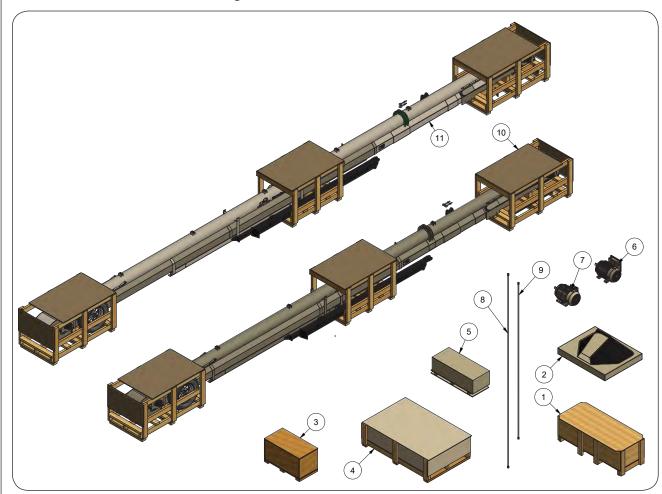
For ease of assembly, install all hardware loosely until assembly is complete and then tighten according to "Torque Chart".

# A WARNING

- READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.
- TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE THE MACHINE IS SECURELY BLOCKED.
- MOVING PARTS CAN CRUSH AND CUT, KEEP AWAY FROM MOVING PARTS.
- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- 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 1,500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THIS IMPLEMENT.

# **Shipping Bundles**

You should receive the following bundles:



|      |           |                               | QTY                |                                |                                |                    |                                |                                |
|------|-----------|-------------------------------|--------------------|--------------------------------|--------------------------------|--------------------|--------------------------------|--------------------------------|
| ITEM | PART NO.  | DESCRIPTION                   | CV83001<br>30' HYD | CV83002<br>30' ELEC<br>1-PHASE | CV83003<br>30' ELEC<br>3-PHASE | CV83501<br>35' HYD | CV83502<br>35' ELEC<br>1-PHASE | CV83503<br>35' ELEC<br>3-PHASE |
| 1    | 2001435TS | Hitch/Spout/Grate Bundle      | 1                  | 1                              | 1                              | 1                  | 1                              | 1                              |
| 2    | 25771TS   | Hopper 8" Bundle              | 1                  | 1                              | 1                              | 1                  | 1                              | 1                              |
| 3    | 28154TS   | Common Parts Bundle           | 1                  | 1                              | 1                              | 1                  | 1                              | 1                              |
| 4    | 2001378TS | Parts Box 30'-35' (Electric)  | -                  | 1                              | 1                              | -                  | 1                              | 1                              |
| 5    | 2001377TS | Parts Box 30'-35' (Hydraulic) | 1                  | -                              | -                              | 1                  | -                              | -                              |
| 6    | 902630    | Motor/Electric - 1-Phase      | -                  | 1                              | -                              | -                  | 1                              | -                              |
| 7    | 9500674   | Motor/Electric - 3-Phase      | -                  | -                              | 1                              | -                  | -                              | 1                              |
| 8    | 902731    | Hydraulic Line 154" Long      | -                  | -                              | -                              | 4                  | -                              | -                              |
| 9    | 902730    | Hydraulic Line 124" Long      | 4                  |                                |                                | -                  |                                |                                |
| 10   | 2001375TS | Conveyor 30' Bundle           | 1                  | 1                              | 1                              | -                  | -                              | -                              |
| 11   | 2001376TS | Conveyor 35' Bundle           | -                  | -                              | -                              | 1                  | 1                              | 1                              |

#### **Undercarriage Lift Assembly**

- 1. Locate conveyor shipping bundle (2001375TS or 2001376TS) and common parts bundle (28154TS).
- 2. Lay out the axle weldment (27014B) to the right-hand A-Frame tube (26747B), and left-hand A-Frame tube (26732B). Axle weldment (27014B) should be oriented so that the word "TOP" stamped into the middle of the axle tube is facing up and the axle is positioned in the correct direction.

NOTE: Axle direction will vary depending on the conveyor drive. Fig. 2-1 is shown being set up for the electric drive configuation. Spin the axle weldment (27014B) for the hydraulic drive as shown in Fig. 2-2. Make sure "TOP" is always facing up on the axle tube.

- Connect the axle weldment (27014B) and A-frame tubes (26747B and 26732B) together using eight 1/2"-13UNC x 1 1/4" flange screws (91266) and eight 1/2"-13UNC flange nuts (91267) located in hardware kit (28155B) as shown in Fig. 2-1 & 2-3.
- Using a safe lifting device rated for a minimum of 300 lbs., place the connected A-Frame assembly on support stands.







#### **Undercarriage Lift Assembly** (continued)

- Locate in the common parts bundle (28154TS) the hub and spindle 5-bolt assemblies (TA2-913793-1) and bolt bag (28155B) which includes two 1/2"-13UNC x 2 3/4" capscrews (9390-104) and two 1/2"-13UNC locknuts (9800).
- Insert the hub and spindle 5-bolt assemblies (TA2-913793-1) into the axle weldment (27014B) and secure into position with 1/2"-13UNC x 2 3/4" capscrews (9390-104) and 1/2-13UNC locknuts (9800) as shown in Fig. 2-4
- Remove the 1/2"-20UNF stud bolts (91829) from the hub and spindle assemblies (TA2-913793-1). Place the tire (TA0-913792-0) onto the hub so that the valve stem is directed away from the machine and reinsert the stud bolts (91829).
- 8. Torque the stud bolts (91829). See torque part in the Maintenance section for the proper torque value.



- IMPROPERLY TORQUED WHEEL BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE MAINTENANCE SEC-TION FOR THE PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL BOLTS.
- Using a safe lifting device, place the axle weldment (27014B) back on the ground so the weight is supported by the tires. Block the tires to prevent the undercarriage from moving (Fig. 2-5).
- Secure the upper A-Frame tube weldments (26744B) to the lower A-Frame members using 3/4"-10UNC x 4 1/2" capscrews (9390-154), bushings (26995), and 3/4"-10UNC locknuts (9802) located in hardware kit (28155B) Fig. 2-6.





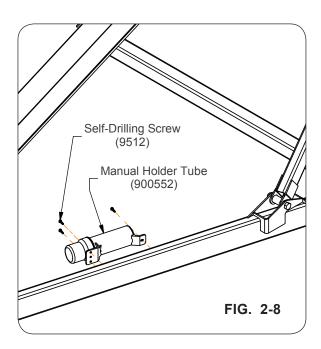


#### **Undercarriage Lift Assembly (continued)**

- 11. Locate in the common parts bundle (28154TS), the winch (9501942) and the bolt bag (28155B) which includes five 3/8"-16UNC x 1" flange screws (91262) and 3/8"-16UNC flange nuts (91263).
- 12. Mount the winch (9501942) to the winch mount plate on the right-hand A-Frame tube (26747B) using five 3/8"-16UNC x 1" flange screws (91262) and 3/8"-16UNC flange nuts (91263) (Fig. 2-7).



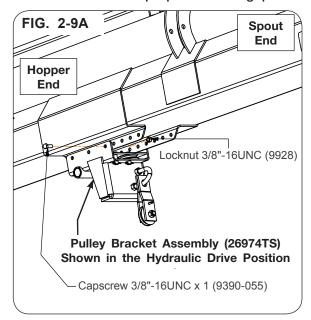
13. Locate the manual holder tube (900552) in the common parts bundle (28154TS) and mount to the inside of the left-hand A-Frame tube (26732B) using three 1/4"-14 x 1" self-drilling screws (9512) found in hardware kit (28155B) (Fig. 2-8).

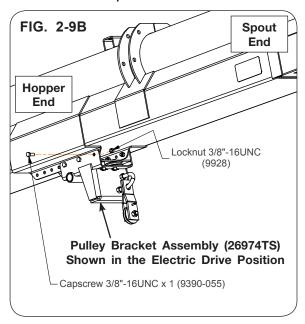


#### **Conveyor Assembly**

# **A WARNING**

- FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING OR LOWERING.
- 1. Using a safe lifting device rated at a minimum of 1,500 lbs., remove the conveyor from the shipping crate and place on two support stands.
- 2. Locate the pulley bracket assembly (26974TS) from the common parts bundle (28154TS) and secure to the mounting rail on the conveyor using six 3/8"-16UNC x 1" capscrews (9390-055) and 3/8"-16UNC locknuts (9928) found in hardware kit (28155B). Fig. 2-9A & 2-9B show the proper mounting position for each drive set up.





3. Locate the swivel pulley assembly (28165B) in hardware kit (28155B) and mount to the pulley bracket assembly (26974TS) using U-bolt (94016), 1/2"-13UNC hex nuts (9394-010) and 1/2"-13UNC locknuts (9800) located in hardware kit (28155B) (Fig. 2-10 & Fig. 2-11).





#### **Conveyor Assembly**

- 4. Locate the car assembly (26901TS) in common parts bundle (28154TS) and place in the channel on the underside of the conveyor so that the pulley is facing down towards the hopper end of the conveyor.
- 5. Locate in the common parts bundle (28154TS), the lower stop bracket (26986TS), upper stop bracket (27992TS), and hardware kit (28155B), which contains four 1/2"-13UNC x 1 1/4" capscrews (9390-100), 5/8"-11UNC x 1 1/4" capscrews (9390-121), 1/2"-13UNC locknuts (9800), and 5/8"-11UNC locknuts (9801).
- 6. Mount the lower stop bracket (26986TS) with four 1/2"-13UNC x 1 1/4" capscrews (9390-100) and four 1/2"-13UNC locknuts (9800) as shown in Fig. 2-12. Mount the upper stop bracket (27992TS) with four 5/8"-11UNC x 1 1/4" capscrews (9390-121) and four 5/8"-11UNC locknuts (9801) as shown in Fig. 2-13. The proper location of the brackets can be found in the table below.

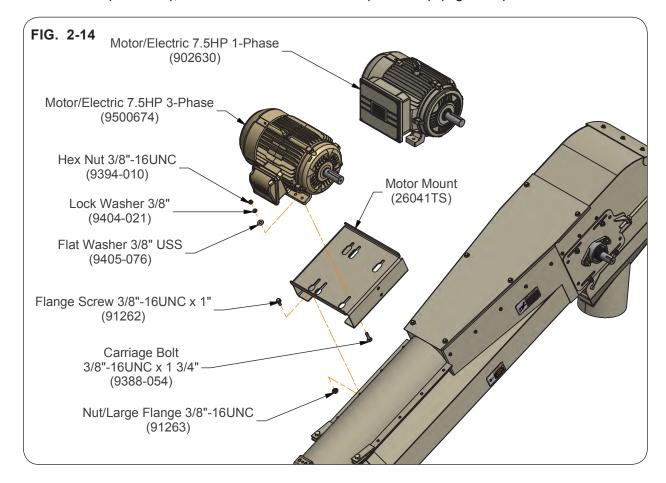




|               | Lower Stop     |                | Upper Stop     |                |
|---------------|----------------|----------------|----------------|----------------|
| Drive Type    | Lower Hole Set | Upper Hole Set | Lower Hole Set | Upper Hole Set |
| 30' Electric  |                | Х              | Х              |                |
| 30' Hydraulic |                | Х              | Х              |                |
| 35' Electric  |                | Х              |                | Х              |
| 35' Hydraulic | Х              |                |                | Х              |

#### **Electric Drive Assembly**

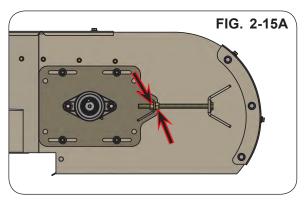
- 1. Locate the electric drive parts box (2001378TS).
- 2. Loosely attach the electric motor to the motor mount (26041TS) using 3/8"-16UNC x 1 3/4" carriage bolts (9388-054), 3/8" flat washers (9405-076), 3/8" lock washers (9404-021), and 3/8"-16UNC hex nuts (9394-006) (Fig. 2-14).



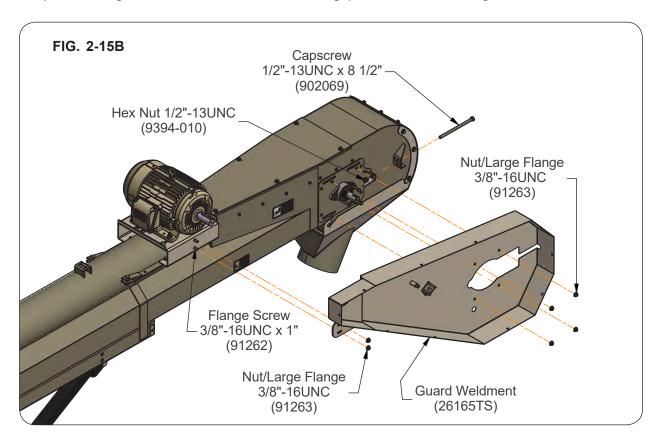
3. Using a safe lifting device rated at a minimum of 200 lbs., attach the assembled electric motor and mounting bracket to the conveyor with six 3/8"-16UNC x 1" large flange screws (91262) and 3/8"-16UNC large flange hex nuts (91263) as shown in Fig. 2-14.

#### **Electric Drive Assembly (continued)**

NOTE: Before loosening any hardware, ensure hex nut (9394-010) are tight to lock roller adjustment. (2-15A)



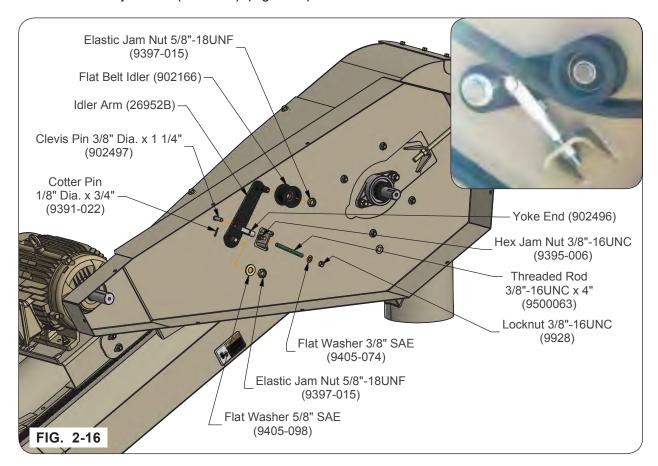
- 4. Remove and save the four 3/8"-16UNC large flange hex nuts (91263) from bearing mount plate (28632TS) (Fig. 2-15B).
- 5. Secure the guard weldment (26165TS) to the conveyor bearing mount plate (28632TS), using the previously removed 3/8"-16UNC large flange hex nuts (91263). Make sure the alignment pins are aligned with the holes in the bearing plate as shown in Fig. 2-15.



6. Attach the guard weldment (26165TS) to the motor mount (26041TS) with two 3/8"-16UNC x 1" flange screws (91262) and 3/8"-16UNC flange nuts (91293) (Fig. 2-15).

#### **Electric Drive Assembly (continued)**

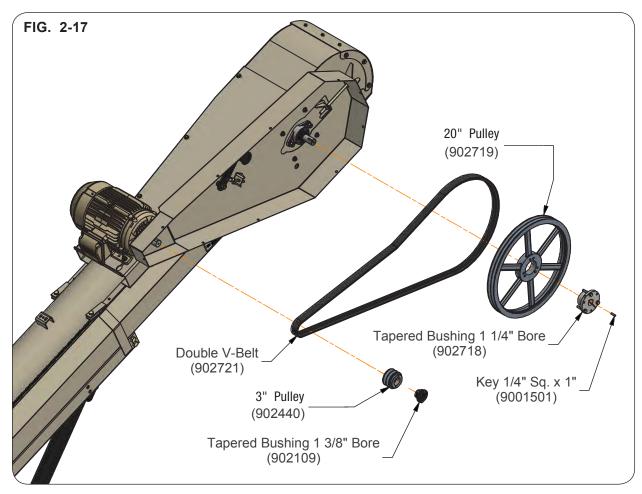
7. Assemble the belt tensioner by mounting the idler (902166) to the idler arm (26952B) with 5/8"-18UNF jam nut (9397-015) (Fig. 2-16).



- 8. Secure the yoke (902496) to the idler arm (26952B) with the 3/8" clevis pin (902497), 1/8" x 3/4" cotter pin (9391-022) and 3/8"-16UNC jam nut (9395-006). Insert the clevis pin so that the cotter pin faces out away from the conveyor (Fig. 2-16).
- 9. Mount the idler arm (26952B) on the guard weldment (26165TS) using 5/8" flat washer (9405-098) and 5/8"-18UNF jam nut (9397-015) (Fig. 2-16).
- 10. Connect the yoke (902496) to the guard weldment (26165TS) by sliding the threaded rod (9500063) through the slotted tensioner bracket and securing with the 3/8" flat washer (9405-074) and 3/8" locknut (9928) (Fig. 2-16).

#### **Electric Drive Assembly (continued)**

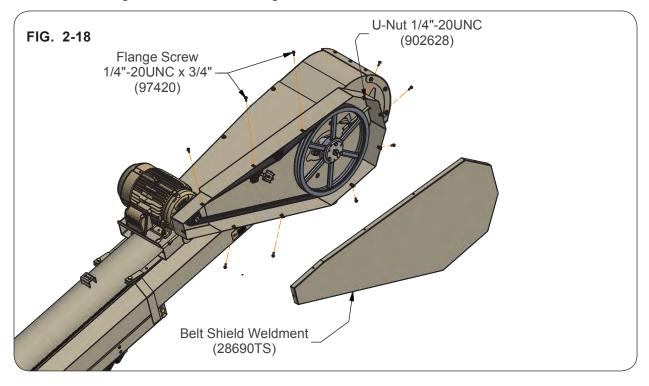
11. Place the pulley (902440) on the electric motor shaft and secure into position using tapered bushing (902109) and the key provided with the bushing (Fig. 2-17). Verify the pulley alignment by making sure the pulley is in straight line with the idler pulley.



- 12. Secure the 20" pulley (902719) to the drive roller using tapered bushing (9500556) and 1/4" sq. x 1" key (9001501) (Fig. 2-17). Verify the pulley alignment by making sure the pulley is in straight line with the idler pulley.
- 13. Place the V-belt (902721) around the smaller pulley (902440) and the 20" pulley (902719), making sure the belt tensioner idler is on top of the belt (Fig. 2-17).
- 14. DO NOT move the conveyor drive roller assembly (not shown). The conveyor drive roller is preset at the factory. If the conveyor drive roller is relocated, it may cause premature wearing of the conveyor belt. If pulley adjustment is required, adjust the smaller pulley (902440) and the 20" pulley (902719) accordingly.
- 15. Place tension on the V-belt (902924) by adjusting the belt tensioner. Check belt tension after 8 hours of operation.
- 16. Tighten all loosely assembled hardware according to Torque Chart.

#### **Electric Drive Assembly (continued)**

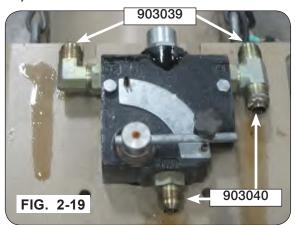
17. Attach the cover (28690TS) to the guard weldment (26165TS) by sliding ten 1/4"-20 Unuts (902628) over the holes in the guard weldment using 1/4"-20 x 3/4" flange screws to secure together as shown in Fig. 2-18.



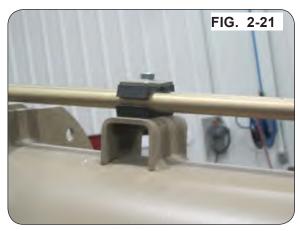
18. Wiring is not provided to connect the conveyor to your power source. Follow all local regulations when connecting the conveyor to your power source.

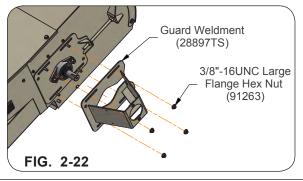
#### **Hydraulic Drive Assembly**

- 1. Locate the hydraulic drive parts box (2001377TS).
- 2. Locate flow control valve (902800), straight adapter (9002443), 90° elbow (95540), and tee (95541). Place the straight adapter (9002443) in the IN port, the 90° elbow in the CF port, and the tee in the EF port of the control valve as shown in FIG 2-19.
- 3. Secure the flow control valve (902800) to the valve mount (2000840TS) using the two 1/4"-20UNC x 2 1/2" capscrews (9390-011) and 1/4"-20UNC locknuts (9936).
- Secure the flow control valve and mount assembly to the conveyor with four 3/8"-16UNC x 1" flange screws (91262) and four 3/8"-16UNC flange nuts (91263).
- 5. Connect the hydraulic hoses (903039 and 903040) to the control valve as shown in Fig. 2-19. Connect the hose from the 90° elbow at the CF port to the RH steel hydraulic. Connect the hose from the upper portion of the tee fitting the the steel hydraulic line on the LH side of the conveyor.
- Mount the strap weldment (26178TS) to the second hole set on the upper conveyor mounting rail using two 3/8"-16UNC x 1" flange screws (91262) and two 3/8"-16UNC flange nuts (91263) as seen in Fig. 2-20.
- 7. Secure one union fitting (99640) on the end of each hydraulic line (902730 or 902731).
- 8. Mount four steel hydraulic lines (902730 or 902731) to the mounting brackets along the top of the conveyor using two union fittings (99640), five or six twin clamp bodies (902717), clamp cover plates (900780), 5/16"-18INC x 2" capscrews (9390-034), and 5/16"-18UNC locknts (9807) (Fig. 2-21).
- 9. Remove and save the four 3/8"-16UNC large flange hex nuts (91263) from the bearing mount plate (28632TS).
- 10. Secure the guard weldment (28897TS) to the conveyor bearing mount plate (28632TS), using the previously removed 3/8"-16UNC large flange hex nuts (91263). Make sure the alignment pins are aligned with the holes in the bearing plate as shown in Fig. 2-22.





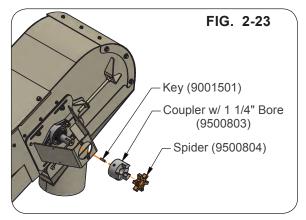




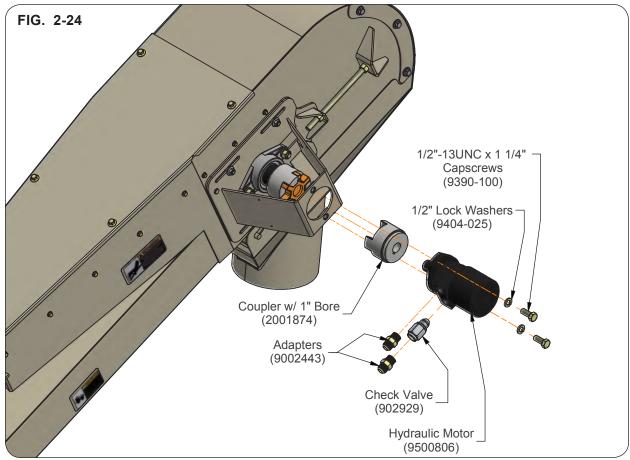
#### **Hydraulic Drive Assembly (continued)**

11. Place the 1 1/4" coupler (9500803) on the conveyor drive shaft using 1/4" sq. x 1" key (9001501) (Fig. 2-23). Place the spider (9500804) on the end of the coupler (9500803).

NOTE: Add loctite to setscrews on both couplers. (Fig 2-24.)



12. Inspect the hydraulic motor (9500806) ports and make sure they are clear of dirt and debris. Place the check valve (902729) into the motor port A. Place one O-ring adapter fitting (9002443) into the check valve (902729) and the other fitting into the motor port B and shown in Fig. 2-24.



13. Slide the 1" coupler (2001874) onto the hydraulic motor shaft and secure using the woodruff key provided. Index the motor accordingly to align the couplers and spider (9500804). Secure the couplers with the setscrews provided with the couplers. (Fig. 2-24) Secure the hydraulic motor (9500806) to the motor mount (28897TS) using two 1/2"-13UNC x 1 1/4" capscrews (9390-100) and 1/2" lock washers (9404-025).

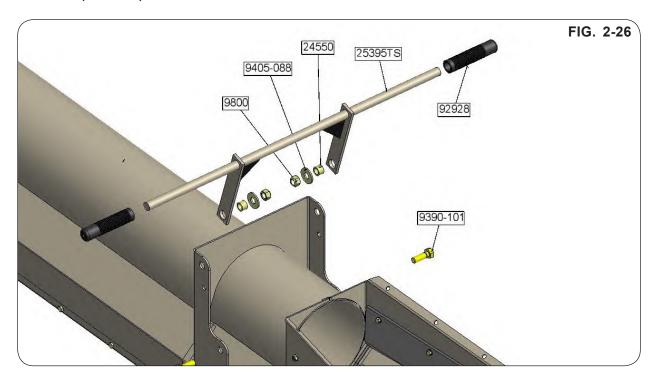
#### **Hydraulic Drive Assembly (continued)**

- 14. Secure the motor mount covers (28011TS) to the motor mount (28897TS) using four 1/4"-14 x 3/4" hex head cap screws (94720) as shown in Fig. 2-25.
- 15. Connect the hydraulic hoses (903034) between fittings in the hydraulic motor (9500806) and union (99640) in the steel hydraulic lines (902730 or 903731). The hydraulic hose running for the RH steel hydraulic line should be connected to the B port of the hydraulic motor. The hose on the LH steel hydraulic line should be connected to the A port of the hydraulic motor.
- 16. Connect the 3/4"-16 male tip coupling (91383) to 3/4"-16 O-Ring Boss end of the hose at the bottom end of the conveyor. Place the coupler dust cap (91511) around the coupling (91383).



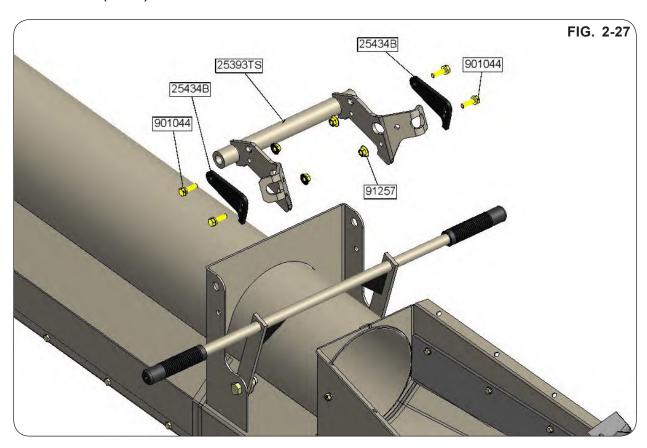
#### **Hopper Assembly**

1. Attach the handle weldment (25395TS) to the conveyor with two bushings (24550), 1/2" flat washers (9405-088), 1/2"-13UNC x 1 1/2" capscrews (9390-101), and 1/2"-13UNC locknuts (9800) as shown in Fig. 2-26. Attach the grips (92928) to the ends of the handle weldment (25395TS).

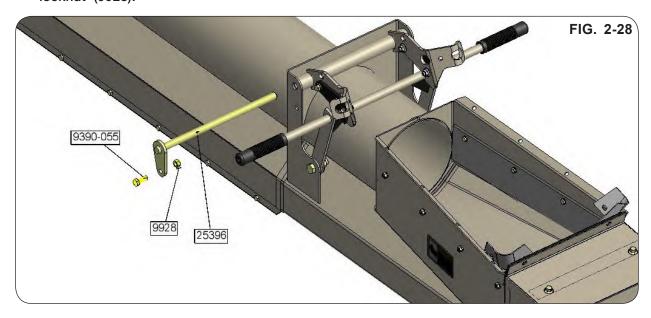


# **Hopper Assembly** (continued)

2. Secure the pivot weldment (25393TS) as shown in Fig. 2-27 with two shim plates (25434B), four 5/16"-18UNC x 1" serrated flange screws (901044) and four 5/16"-18UNC large flange hex nuts (91257).

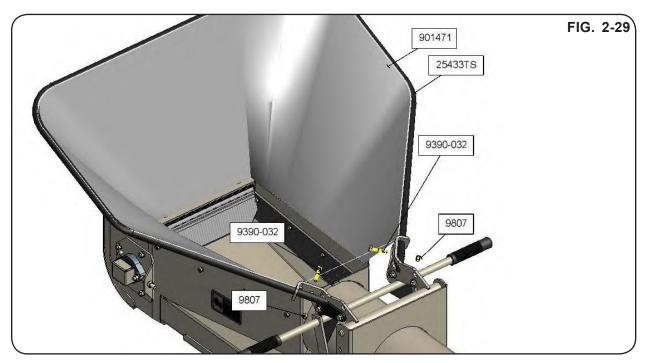


3. Rotate the pivot weldment (25393TS) into position as shown in Fig. 2-28. Insert the pin weldment (25396) and secure with 3/8"-16UNC x 1" capscrew (9390-055) and 3/8"-16UNC locknut (9928).

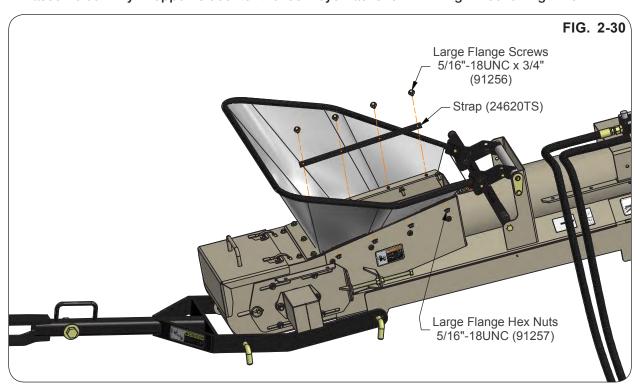


#### **Hopper Assembly** (continued)

- 4. Attach the vinyl hopper (901471) to the formed tube (25433TS) as shown in Fig. 2-29.
- 5. Secure the assembled vinyl hopper (901471) to the pivot weldment (25393TS) with two 5/16"-18UNC x 1 1/2" capscrews (9390-032) and 5/16"-18UNC locknuts (9807) (Fig. 2-29).

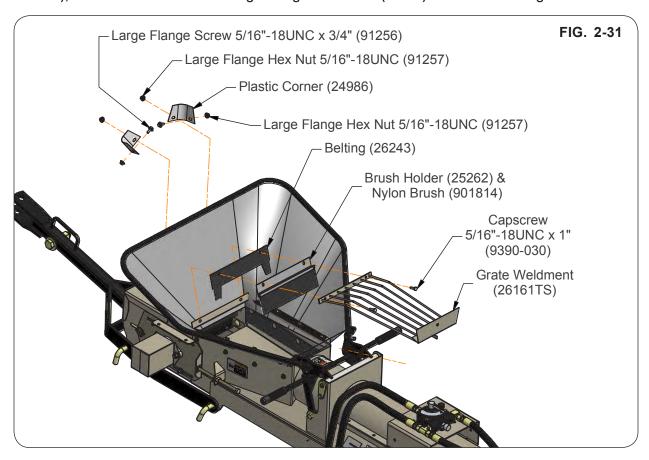


6. Using the two straps (24620TS), two plastic corners (24986), eight 5/16"-18UNC x 3/4" large flange screws (91256), and 5/16"-18UNC large flange hex nuts (91257), secure the assembled vinyl hopper sides to the conveyor as shown in Fig. 2-30 & Fig. 2-31.



#### **Hopper Assembly** (continued)

7. Insert the grate (26161TS), brush holder (25262), nylon brush (901814), belting (26243), plastic corners (24986) and secure with the two 5/16"-18UNC x 1" capscrews (9390-030), and two 5/16"-18UNC large flange hex nuts (91257) as shown in Fig. 2-31.



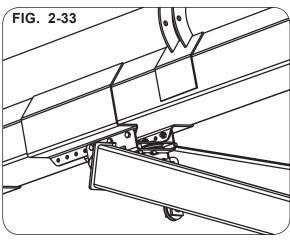
#### Attaching Conveyor to Undercarriage Lift Assembly

# **A 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 1,500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.
- 1. Using a safe lifting device rated at a minimum of 1,500 lbs. raise the conveyor over the undercarriage lift assembly as shown in Fig. 2-32.



2. Attach the right-hand and left-hand A-Frame tubes (26747B and 26732B) to the hopper end of the conveyor as shown in Fig. 2-33. Secure to the pulley bracket assembly (26974TS) using bushing (26899), 3/4"-10UNC x 9" capscrew (9390-449) and 3/4"-10UNC locknut (9802).

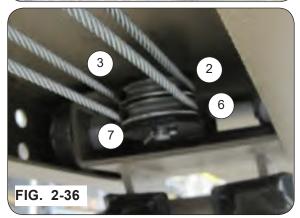


#### Attaching Conveyor to Undercarriage Lift Assembly (continued)

- 3. Attach the car assembly (26901TS) to the upper A-Frame tube weldments (26744B) using bushing (26899), 3/4"-10UNC x 9" capscrew (9390-449) and 3/4"-10UNC locknut (9802). Once attached, lower the conveyor down so that the car assembly (26901TS) is resting on the upper stop (27992TS) and the lower end of the conveyor is resting on the ground (Fig. 2-34).
- 4. Route the winch cable (29140) through the pulleys and winch as shown in Fig. 2-35 & 2-36. Start by placing the cable loop in the pin on the pulley mount bracket (26974TS) at balloon 1. Follow the numbers for the correct routing to the winch.









Mount the stiffener brace weldment (27012B) between the upper A-Frame tube weldments (26744B) using four 3/8"-16UNC U-bolt (902236), eight 3/8" flat washer (9405-076) and eight 3/8"-16UNC locknut (9928) (Fig. 2-37).

# A WARNING

 FALLING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. BEFORE OPERATING WINCH, BE SURE THAT WINCH IS SECURE-LY INSTALLED TO THE LIFT FRAME CENTER, AND THE CABLE IS TIED TO THE WINCH AND LEFT HAND LEG WELDMENT. BE SURE TO FOLLOW THESE INSTRUCTIONS, AND THE OPERATING PROCEDURES PROVIDED WITH THE WINCH.

### Attaching Conveyor to Undercarriage Lift Assembly (continued)

 With the conveyor in the lowest position, mount the truss support weldment (28037TS) using four 3/8"-16UNC x 1" capscrews (9390-055) and 3/8"-16UNC locknuts (9928) (Fig. 2-38).



7. Locate the truss cable assemblies (2000702 or 28699) from the main conveyor bundle (2001375TS or 2001376TS). Secure each truss cable assembly to the conveyor by loosely securing the eyebolt to the mount on the lower end of the conveyor with two galvanized 1/2"-13UNC nuts (9501333). Run the cable across the top of the truss cable support (28037TS). Mount the other end of the truss cable assemblies to the top of the conveyor by placing the loop end in the opening on the upper drive mounts and securing with 1/2"-13UNC x 1 1/2" capscrew (9390-101) and 1/2"-13UNC locknut (9800) Fig. 2-39 & 2-40).



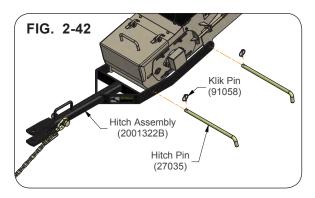


### Attaching Conveyor to Undercarriage Lift Assembly (continued)

8. Locate the two cable clamps (TA0-902635-0). Lift the truss cable assemblies into position and secure to the truss support weldment (28037TS) as shown in Fig. 2-41. With cable resting in clamp, tighten cable at eyebolt until snug. Then tighten cable clamps.

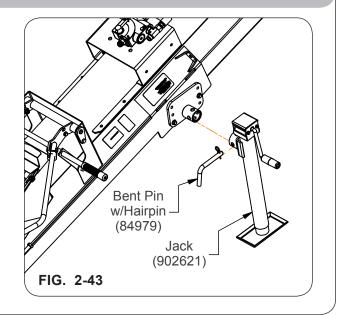


9. Attach the hitch assembly (2001322B) to the bottom hopper end with two hitch pins (27035) and klik pins (91058) as shown in Fig. 2-42.



### Jack

- 1. Locate in parts box (28154TS) the jack (902621) and bent pin with hairpin (84979) needed to secure the jack into position.
- 2. Attach jack to the left-hand side of the machine as shown in Fig. 2-43.
- 3. Extend the jack until it supports the weight of the conveyor.



### **Hydraulic System**

### **Purging Hydraulic System**



 ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE CONVEYOR IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRI-CAL LINES AND DEVICES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.



# **A WARNING**

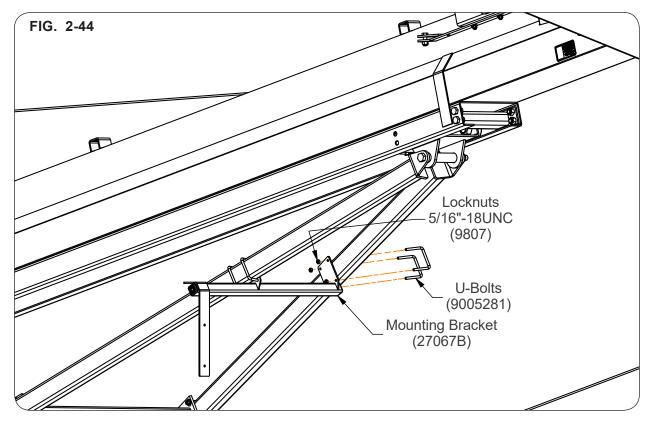
 HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.



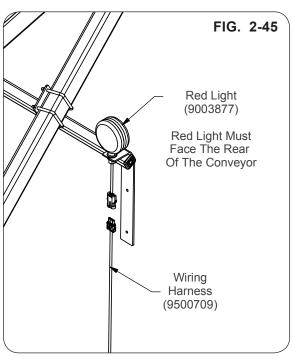
- RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.
- 1. Be certain clearance to rafters, walls, machinery, etc. exists before moving the conveyor. Attach hydraulic hoses to hydraulic power unit and activate the conveyor belt to make sure everything moves freely. Do not pinch or kink hoses.
- 2. Check for and correct any leaks. Make sure the hoses are not kinked, stretched, or twisted. Secure the hoses to prevent cuts or chafing during operation.

### Optional Light & Marking Kit #26226B

1. Attach the light bracket (27067B) to the upper A-Frame tubes (26744B) with the four 5/16"-18UNC U-Bolts (9005281) and 5/16"-18UNC locknuts (9807) as shown in Fig. 2-44.

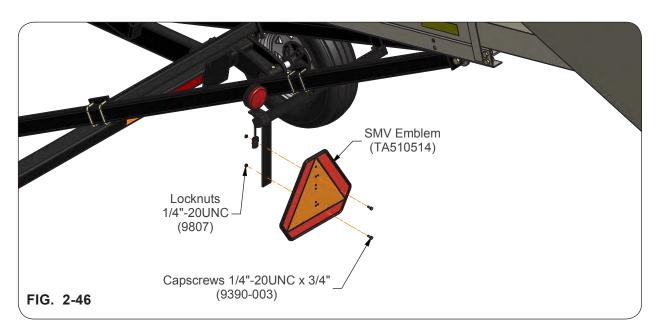


- 2. Secure the light (9003877) on the light bracket (27067B) with the red lens facing the rear of the unit (Fig. 2-45).
- 3. Connect the wiring harness (9500709) to the light (9003877) (Fig. 2-45). Route the wiring harness along the frame to the hopper end of the conveyor.

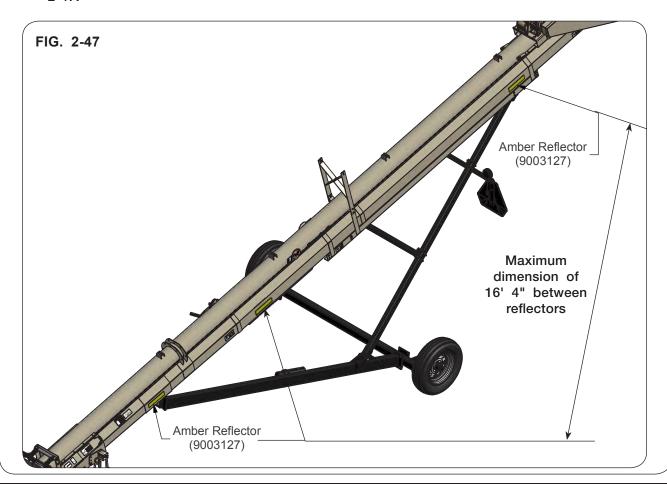


### Optional Light & Marking Kit #26226B (continued)

4. Attach the SMV (TA510514) to the light bracket (27067B) with two 1/4"-20UNC x 3/4" capscrews (9390-003) and 1/4"-20UNC locknuts (9936) as shown in Fig. 2-46.

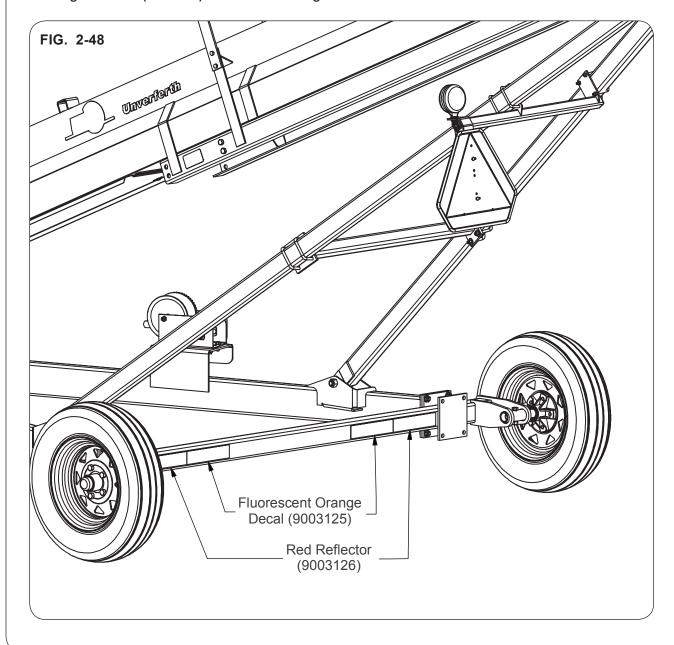


5. Place three amber reflectors (9003127) on each side of the conveyor as shown in Fig. 2-47.



### Optional Light & Marking Kit #26226B (continued)

6. On the rear of the axle (27014B) attach the red reflectors (9003126) and fluorescent orange decals (9003125) as shown in Fig. 2-48.



### **Optional Spout Kits**

- 8" x 6'-10' Telescopic Downspout Kit #29782
- 8" x 4' Flexible Spout Kit #2001517
- 8" x 4'-6' Telescopic Downspout Kit #2001518
- 1. Attach the appropriate flexible spout to the spout weldment using clamp (901485) as shown in Fig. 2-49.



# SECTION III Operation

| General Information                      | 3-2 |
|--|-----|
| Connecting Conveyor to Transport Vehicle | 3-2 |
| Pre-Operation Checklist                  | 3-3 |
| Transporting                             | 3-4 |
| Winch                                    | 3-5 |
| Recommendations                          | 3-6 |
| Hydraulic Control                        | 3-7 |
| Cleanout Doors                           | 3-8 |

### **General Information**

# **A WARNING**

 KNOW 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.

### **Connecting Conveyor to Transport Vehicle**

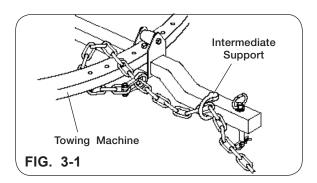
- Position the towing vehicle in front of the conveyor. Lift the tongue and attach to the vehicle hitch/drawbar using a 3/4" minimum diameter hitch pin and lock in place.
- 2. Install transport chain (Fig. 3-1).



 REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED OR DAMAGED. DO NOT WELD THE TRANS-PORT CHAIN.

<u>NOTE</u>: Conveyor must be empty before transporting, failure to do so voids warranty.

 CHECK THE FOLLOWING: Tires/Wheels: Check tire pressures and maintain at the recommended values listed in the Maintenance section of this manual.



# A CAUTION

 IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGU-LARLY. SEE THE TORQUE PAGE IN THE MAINTENANCE SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED NUTS/BOLTS.

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Tire manufacturers' phone numbers and websites are listed in the Maintenance section of this manual for your convenience.

| Pre-Operation Checklist   |
|---|
| ☐ Read and understand all safety precautions before operating cart. |
| ☐ Check axle spacing.   |
| ☐ Check all safety decals and SMV sign are clearly visible.         |
| ☐ Check that winch is in good working order.                        |
| ☐ Torque wheel nuts.  |
| ☐ Check tire pressures.   |
| ☐ Check all lubrication points.                                     |
| ☐ Check belt tension and alignment.                                 |
| ☐ Test run the conveyor.  |
| ☐ Verify electrical connections.                                    |
| ☐ Check all hydraulic parts for leakage.                            |
|   |

### **Transporting**

### **Before Transporting**

Lower conveyor to the ground being sure that the conveyor is completely resting on the stops on the conveyor frame and tension is removed from the winch cable. The jack must be fastened in the horizontal position before transporting.

NOTE: Conveyor must be empty before transporting, failure to do so voids warranty.

### **During Transporting**

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.



 ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE CONVEYOR IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES. ELECTROCU-TION CAN OCCUR WITHOUT DIRECT CONTACT.

# **A WARNING**

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

# A CAUTION

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

### Winch

### **Position Winch**

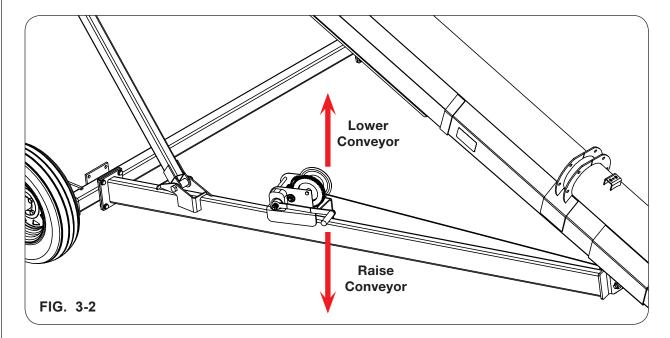


• FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING OR LOWERING.

There is a friction brake in the winch to hold the conveyor in position when the winch handle is released.

The winch, mounted on the conveyor trailer's lift frame, is used to raise and lower the conveyor for operation or transport.

See manufacturer's instructions on winch safety and operation.



### **Automatic Brake Winch**



• FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING OR LOWERING.

### Winch (continued)

# A CAUTION

 NEVER APPLY LOAD ON WINCH WITH THE CABLE FULLY EXTENDED. KEEP AT LEAST THREE FULL TURNS OF CABLE ON THE REEL.

Wind cable on winch reel by turning winch handle in clockwise direction. This should produce a loud, sharp, clicking noise. The load will remain in position when the handle is released. Wind cable off the winch reel by turning winch handle counterclockwise (no noise will be produced). The load will remain in position when the handle is released, turn the handle clockwise until at least two clicks are heard. This will add extra tightness to the brake mechanism. Always satisfy yourself that the winch is holding the load before releasing the winch handle.

### **IMPORTANT**

• Sufficient load must be applied to the cable to overcome internal resistance and operate the brake properly; otherwise, turning the crank handle counterclockwise will only remove the handle from the shaft - the reel will not turn. The minimum operating load requirement is 75 lbs.

### Recommendations

- For smooth startups, start conveyor with as little grain in hopper as possible.
- Allow conveyor to reach operating speed before releasing grain into conveyor hopper.
- Properly break in conveyors at the beginning of each season by running conveyor at partial capacity for several hundred bushels of grain. Check belt tension and gradually increase to full operating capacity.
- In cold weather, run empty conveyor for 5 minutes to warm up belt. Otherwise, do not operate the conveyor empty for long periods of time.

### **Hydraulic Control**

# **A WARNING**

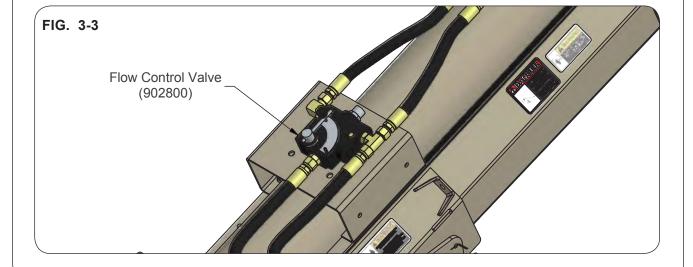
- HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.
- RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.

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

Conveyor belt speed is controlled by moving the lever on the flow control valve between 0 and 10.

NOTE: Slower speeds minimize seed damage and maximize belt life.

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

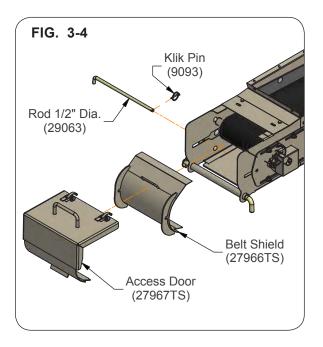


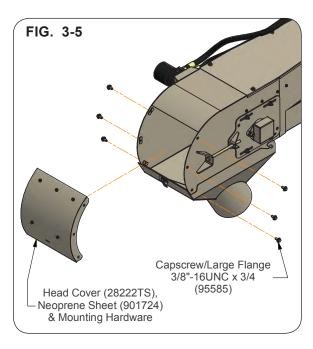
### **Cleanout Doors**

# **A WARNING**

MOVING OR ROTATING COMPONENTS CAN CAUSE SERIOUS INJURY OR DEATH.
 ALWAYS DISCONNECT POWER SOURCE BEFORE SERVICING. ENSURE SERVICE COVERS, CHAIN/BELT COVERS AND CLEAN-OUT DOOR(S) ARE IN PLACE AND SECURELY FASTENED BEFORE OPERATING MACHINE.

The hopper end of the conveyor can be cleaned by releasing the latches to remove the outer access door (27967TS) and then removing the pin (29063) to remove inner belt guard (27966TS) (Fig. 3-4). The conveyor discharge head can be cleaned by removing the six 3/8"-16UNC x 3/4" capscrews (95585) to remove the head cover (28222TS) (Fig. 3-5).





# SECTION IV Maintenance

| Lubrication                                | 4-2  |
|--|------|
| Conveyor Bearings                          | 4-2  |
| Miscellaneous Lube Points                  | 4-2  |
| Storage/Maintenance                        | 4-2  |
| Winch Maintenance                          |      |
| Conveyor Belt                              | 4-5  |
| Belt Tension                               | 4-5  |
| Belt Tracking                              |      |
| Belt Change Procedure                      |      |
| Optional Belt Stretcher                    | 4-8  |
| Wheels and Tires                           | 4-10 |
| Wheel Nut Torque Requirements              | 4-10 |
| Tire Pressure                              | 4-10 |
| Tire Warranty                              | 4-11 |
| Complete Torque Chart                      | 4-12 |
| Hydraulic Fittings                         | 4-12 |
| Troubleshooting                            | 4-13 |
| Optional Lighting Wiring Harness Schematic | 4-15 |

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

These bearings are shipped from our manufacturer full of grease. It is possible they will not take grease on a new machine.



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

NOTE: Excessive lubrication of this bearing will result in premature failure.

### 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.

### **Winch Maintenance**

# **A WARNING**

• FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING OR LOWERING.

# A CAUTION

 NEVER APPLY LOAD ON WINCH WITH THE CABLE FULLY EXTENDED. KEEP AT LEAST THREE FULL TURNS OF CABLE ON THE REEL.

Keep winch in good working order. Damaged or severely worn parts create unnecessary dangers and could result in personal injury or property damage. The winch requires periodic maintenance. The following check should be made at least once annually and more frequently when the winch is exposed to an environment which is particularly dirty or wet.

- Remove all of the load from the winch so that there is slack in the cable. Remove the
  winch handle and gear cover for inspection of the winch gear train and brake mechanism.
  This requires removal of the bolt along with flat washer, spacer, and spring and requires
  that the handle be unthreaded (counterclockwise direction) from the drive shaft. The gear
  cover can then be removed.
- 2. Examine the winch gear train and brake mechanism for any rust, corrosion or build up of debris which might be present. Grasp the ratchet pawl and lift it out of contact with the ratchet wheel. Remove the ratchet wheel and two brake plates from the drive shaft.

### **IMPORTANT**

- Relax the spring tension on the ratchet pawl paying particular attention to the attachment of the pawl to the spring and the amount of tension in the spring.
- 3. Check the entire gear train for any abnormal wear and be sure that the entire gear train turns freely. Grease all of the gear teeth with a good wheel bearing grease. Remove and grease reel bolt, reinstall reel bolt and tighten, making sure that reel shaft will not rotate in winch base. On the opposite side of the winch base, check to be sure that the retaining ring is securely in place on the winch drive shaft.

### Winch Maintenance (continued)

4. Check the ratchet wheel, brake lining plates, winch handle hub, and the washer on the brake winch hub assembly for any build up or glaze (shiny spots) which may be present. This can be removed by rubbing these parts lightly with sand paper.

# **A WARNING**

- BRAKE SYSTEM FAILURE CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT GREASE OR OIL ANY OF THE BRAKE MECHANISM COMPONENTS.
- 5. Reassemble the two brake pads and the ratchet wheel onto the drive shaft while holding tension in the ratchet pawl. All of these parts should spin freely on the drive shaft. Be sure that the pawl properly engages with the teeth on the ratchet wheel. When cranking the handle in the clockwise direction, the ratchet wheel should turn with the shaft causing the pawl to snap in and out of the ratchet wheel teeth. In the counterclockwise direction the ratchet wheel should remain stationary while the handle turns.
- 6. Completely reassemble the winch gear cover, handle and all remaining parts. Check the mounting of the winch to be sure that it is secure and check the cable for any abnormal stiffness, kinking, or broken strands. Replace the winch cable at the first sign of damage.

<u>NOTE</u>: Winch cable will last longer and remain more flexible with occasional application of light oil. The winch finish can be protected and will provide longer service if it is washed with water and then wiped with light oil or wax.

If you have any questions whatsoever concerning the above procedure, please contact the manufacturer.

### **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.

# **A WARNING**

 MOVING OR ROTATING COMPONENTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING.

### **Belt Tension**

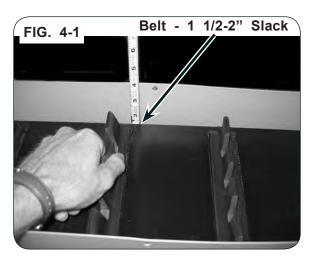
Belt tension is inspected by removing lower cover panel from conveyor, and gently pulling on the conveyor belt. The belt should have approximately 1 1/2-2" of slack at the center.

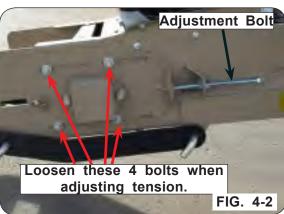
Belt tension is adjusted at the intake end of the conveyor. Loosen, **DO NOT REMOVE**, the four 3/8 bolts on each side of the conveyor. Use the two adjusting bolts to adjust the belt to the proper tension.

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)

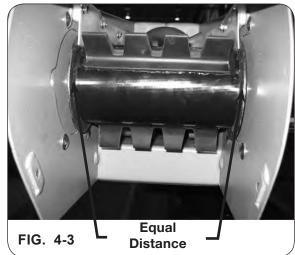
### **Belt Tracking**

# **A WARNING**

 MOVING OR ROTATING COMPONENTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING.

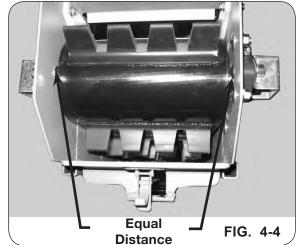
Conveyor belt must always run at the center of the pulley on both the intake and discharge end. Improper tracking of the belt will result in excessive wear to the edge of the belt, and will greatly reduce belt life. Check belt tracking every 8 hours of use, and every time belt tension is adjusted.

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)

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

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

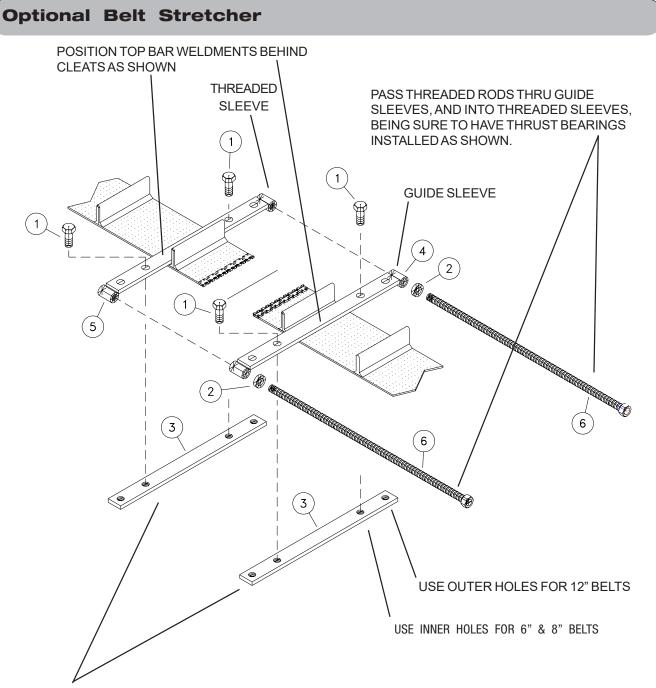


Operate conveyor at slow speed, and tighten or loosen adjustment bolt until belt is running in the center of the pulley.

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

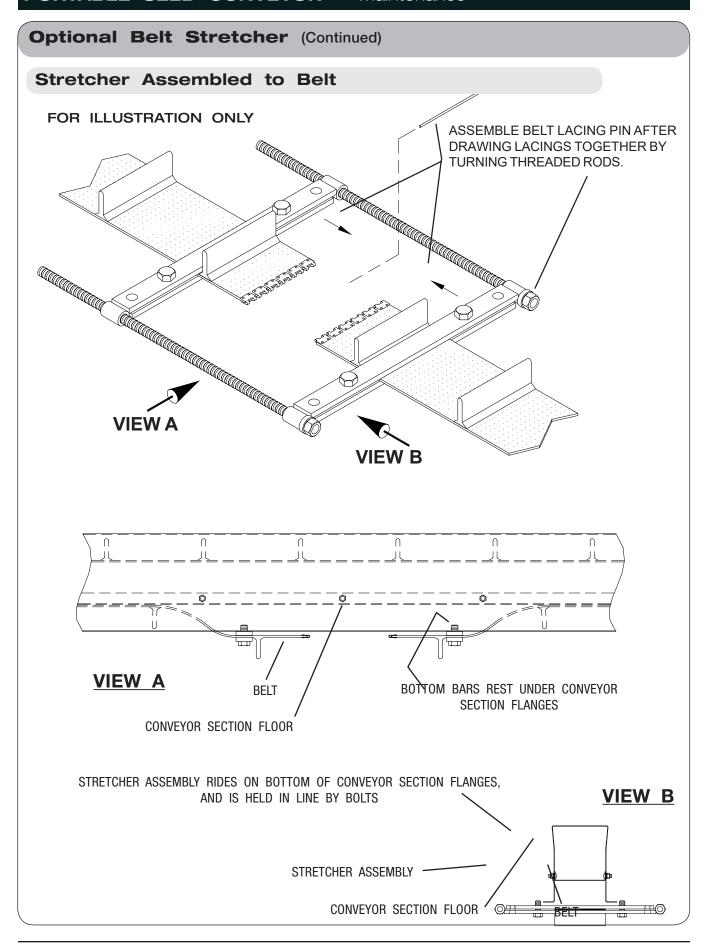
### **Belt Change Procedures**

- 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.
- 10. Tension belt and adjust tracking using instructions in this manual.



INSTALL BOTTOM BARS ACROSS UNDERSIDE OF BELT, AND SECURE WITH FOUR 5/8NC X 1-1/2" BOLTS THROUGH TOP BARS AS SHOWN.

| REF | PART NO.       | QTY | DESCRIPTION                             |  |
|-----|----------------|-----|---|--|
|     | TA4-114400-0   | 1   | BELT INSTALLATION TOOL                  |  |
| 1   | 9390-122       | 4   | CAPSCREW, 5/8-11UNC x 1 1/2 LG. GRADE 5 |  |
| 2   | TA0-903118-0   | 2   | BEARING, BALL THRUST, 5/8" I.D.         |  |
| 3   | TA1-114401-0   | 2   | BOTTOM BAR                              |  |
| 4   | TA2-114404-0   | 1   | PLAIN TOP BAR WELDMENT                  |  |
| 5   | TA2-114406-0   | 1   | THREADED TOP BAR WELDMENT               |  |
| 6   | TA1-114408-0   | 2   | THREAD ROD WELDMENT                     |  |
|     | TA4-114400-0LU | 1   | BELT INSTALLATION TOOL KIT              |  |



### **Wheels and Tires**

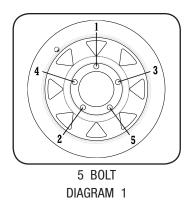
### Wheel Nut Torque Requirements



 IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK TORQUE BEFORE USE, AFTER ONE HOUR OF UNLOADED USE OR AFTER FIRST LOAD, AND EACH LOAD UNTIL WHEEL NUTS/BOLTS MAINTAIN TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THERE-AFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.

Failure to check torque before first load may damage wheel nut/bolt seats. Once seats are damaged, it will become impossible to keep nuts/bolts tight. Tighten nuts/bolts to applicable torque value shown in table. Start all nuts/bolts by hand to prevent cross threading. Torque nuts/bolts in the recommended sequence as shown in Diagram 1.

| WHEEL HARDWARE |             |  |  |
|----------------|-------------|--|--|
| SIZE           | FOOT-POUNDS |  |  |
| 1/2-20 (UNF)   | 75 ftlbs.   |  |  |



### Tire Pressure

• The following is to be used as a general guide for tire inflation and figures can vary depending on specific brand of tire used. It is important that tires are inspected on a regular basis. Start with minimum pressure indicated. The tire should stand up with no side-wall buckling or distress as tire rolls. Record the pressure needed to support the full load and maintain this pressure to achieve proper tire life. Do not exceed maximum recommended tire pressure.

Recommended....50 PSI maximum

### Wheels and Tires (continued)

### **Tire Warranty**

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Following are phone numbers and Websites for your convenience:

<u>Carlisle</u> www.carlisletire.com

Phone 800-260-7959 Fax 800-352-0075

### Complete Torque Chart - Capscrews - Grade 5

### **IMPORTANT**

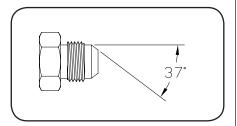
- Grade 5 capscrews can be identified by three radial dashes on head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts to have the same number of threads exposed on each end.

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

### Hydraulic Fittings - Torque and Installation

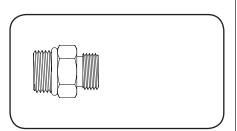
### SAE FLARE CONNECTION (J.I.C.)

- 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.



### **Troubleshooting**

### PROBABLE CAUSE

### CORRECTION

### Pump/Motor Seals Blow - Shaft/Housing Breaks - Hose Burst

When a standard control valve is returned to neutral, to stop, or start a motor, sudden pressure is created which may 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 and rapid starting and stopping (or convert to a free wheeling control valve (on the tractor) or a cushion valve may be installed)

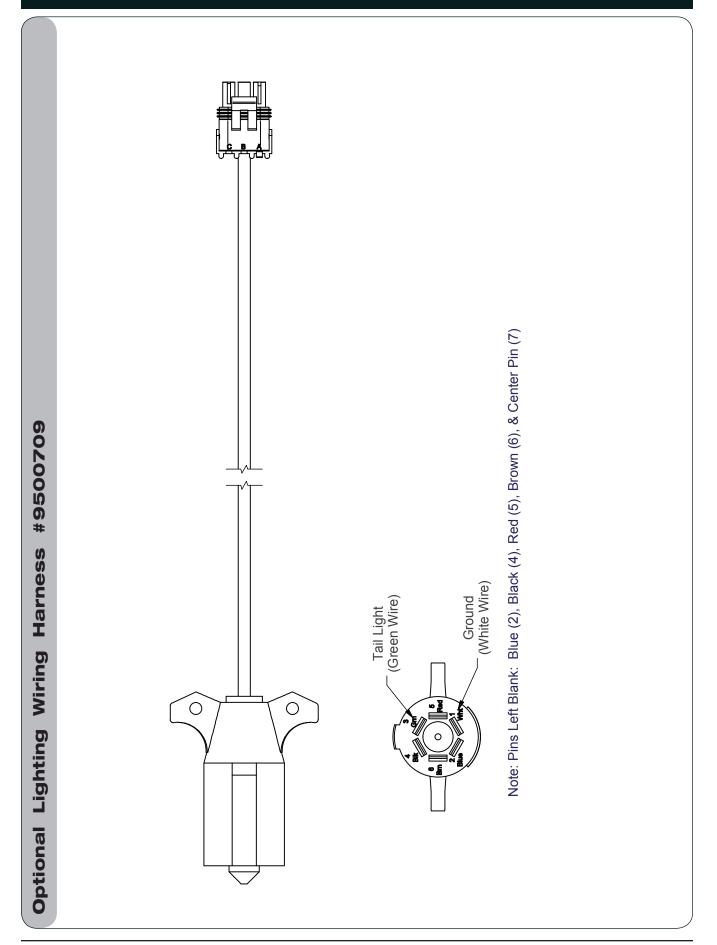
### Conveyor Will Not Turn Over or Develop Proper Speed/Torque

| Pump does not deliver sufficient pressure or volume | Check output and delivery, change if necessary  |
|---|---|
| Conveyor jammed                                     | Shut-off and lock-out power, open clean-out door and remove excess material (make sure swivel spout is clear) |
| Oil level too low                                   | Fill to proper level  |

### **Conveyor Runs Too Slow**

| Engine running too slow                               | Increase engine speed   |  |  |
|---|---|--|--|
| Pump not producing minimum required flow and pressure | Check pump fluid capacity and correct   |  |  |
| Pump is worn  | Repair or replace pump  |  |  |
| Internal leak in controls or motor                    | Replace seals; repair or replace valves or motor  |  |  |
| Air in system   | Bleed system and tighten connections  |  |  |
| Improper hydraulic oil viscosity                      | 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 |  |  |

| Troubleshooting (continued)                     |  |  |  |
|---|--|--|--|
| PROBABLE CAUSE                                  | CORRECTION   |  |  |
| Oil Heats Excessively                           |  |  |  |
| Oil viscosity incorrect                         | Drain and refill with proper weight oil                              |  |  |
| Dirty oil                                       | Drain, flush, and refill with a clean oil and filter                 |  |  |
| Oil level too low                               | Fill to proper level   |  |  |
| Oil slipping through worn pump                  | Repair or replace pump   |  |  |
| Restricted line or piping                       | Reroute lines to eliminate restrictions                              |  |  |
| Reservoir too small to provide adequate cooling | Replace with larger reservoir or install oil cooler                  |  |  |
| Belt Edges Showing Excessive                    | Wear   |  |  |
| Belt tracking incorrect                         | Adjust tracking as detailed in service section page 4-5 through 4-7. |  |  |
| Poly seals on intake and/or discharge end worn. | Replace poly seals   |  |  |
| Conveyor Moving in Wrong Dire                   | ection   |  |  |
| Control valve on tractor not set properly       | Reset  |  |  |



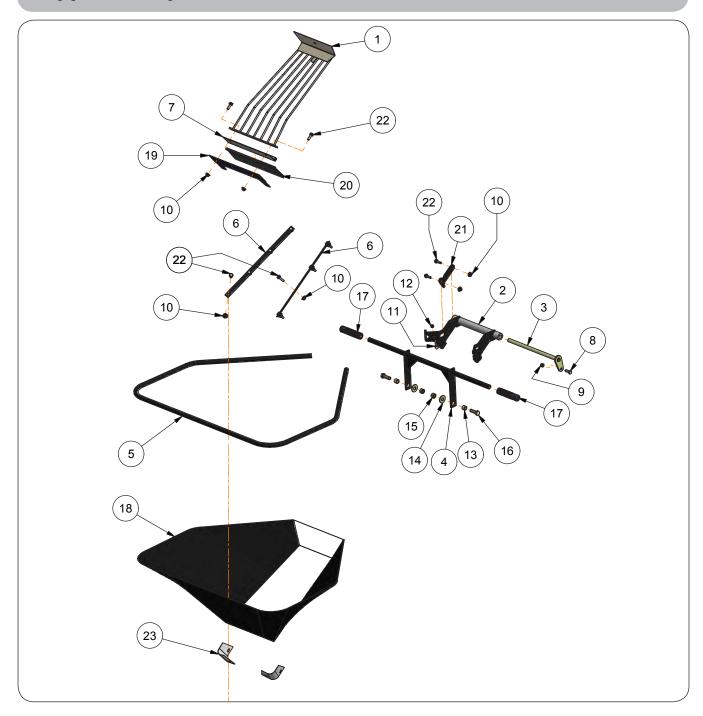
### **SECTION V**

# **Parts**

| Hopper Components                   | 5-2 |
|-------------------------------------|-----|
| Idler End Conveyor Components       | 5-4 |
| Discharge End Conveyor Components   |     |
| Hydraulic Components                |     |
| Electrical Components               |     |
| Undercarriage Components            |     |
| Winch & Cable Components            |     |
| Optional Light & Marking Kit #25775 |     |
| Optional Spout Kits                 |     |
|                                     |     |

### **PORTABLE SEED CONVEYOR** — Parts

### **Hopper Components**



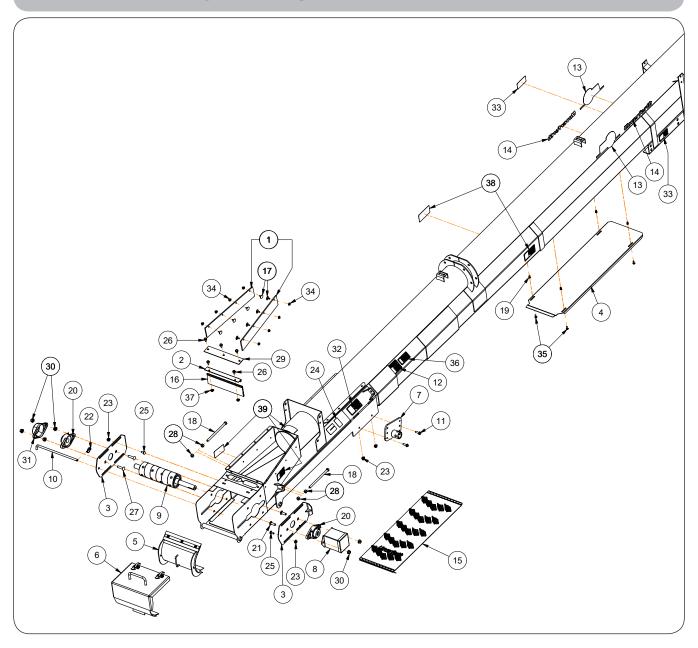
### **PORTABLE SEED CONVEYOR** — Parts

### **Hopper Components**

| ITEM | PART NO. | DESCRIPTION                     | QTY | NOTES   |
|------|----------|---------------------------------|-----|---------|
| 1    | 26161TS  | Grate Weldment                  | 1   |         |
| 2    | 25393TS  | Pivot Weldment                  | 1   |         |
| 3    | 25396    | Pin Weldment 5/8" Dia.          | 1   |         |
| 4    | 25395TS  | Handle Weldment                 | 1   |         |
| 5    | 25433TS  | Bent Tube                       | 1   |         |
| 6    | 24620TS  | Strap                           | 2   |         |
| 7    | 25262    | Brush Holder                    | 1   |         |
| 8    | 9390-055 | Capscrew 3/8-16UNC x 1          | 1   | Grade 5 |
| 9    | 9928     | Locknut 3/8-16UNC               | 1   |         |
| 10   | 91257    | Large Flange Hex Nut 5/16-18UNC | 14  | Grade 5 |
| 11   | 9390-032 | Capscrew 5/16-18UNC x 1 1/2     | 2   | Grade 5 |
| 12   | 9807     | Locknut 5/16-18UNC              | 2   |         |
| 13   | 24550    | Bushing                         | 2   |         |
| 14   | 9405-088 | Flat Washer 1/2 USS             | 2   |         |
| 15   | 9800     | Locknut 1/2-13UNC               | 2   |         |
| 16   | 9390-101 | Capscrew 1/2-13UNC x 1 1/2      | 2   | Grade 5 |
| 17   | 92928    | Handle Grip                     | 2   |         |
| 18   | 901471   | Hopper Vinyl                    | 1   |         |
| 19   | 26243    | Belting                         | 1   |         |
| 20   | 901814   | Nylon Brush                     | 1   |         |
| 21   | 25434TS  | Shim Plate                      | 2   |         |
| 22   | 901044   | Flange Screw 5/16-18UNC x 1     | 14  | Grade 5 |
| 23   | 24986    | Poly Strip                      | 2   |         |

### PORTABLE SEED CONVEYOR — Parts

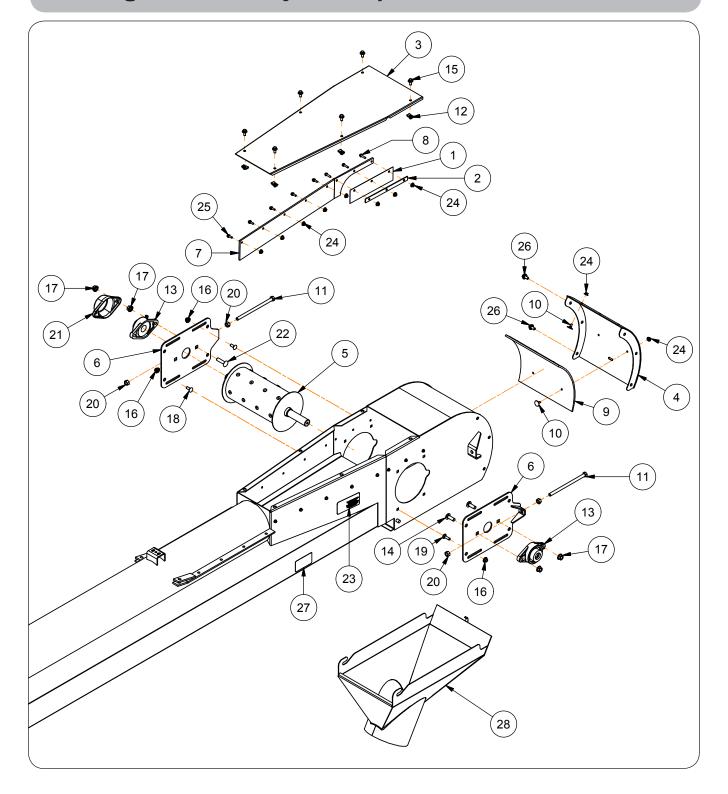
### **Idler End Conveyor Components**



# **Idler End Conveyor Components**

| ITEM | PART NO.     | DESCRIPTION                                     | QTY | NOTES   |
|------|--------------|---|-----|---------|
| 1    | 25258        | Poly Strip 3 1/2 x 20 3/16                      | 2   |         |
| 2    | 26308        | Brush Holder                                    | 1   |         |
| 3    | 26783TS      | Adjustment Plate Weldment =Tan Speckle=         | 2   | SHOWN   |
| 4    | 27955TS      | Bottom Shield =Tan Speckle=                     | 1   | CHOWN   |
| 5    | 27966TS      | Belt Shield Weldment =Tan Speckle=              | 1   |         |
| 6    | 27967TS      | Access Door Weldment =Tan Speckle=              | 1   |         |
| 7    | 28124TS      | Jack Mount Weldment =Tan Speckle=               | 1   |         |
|      | 2003909TS    | Shaft Cover Weldment =Tan Speckle=              | 1   | SHOWN   |
| 8    | 28314TS      | Cover =Tan Speckle=                             | 2   |         |
|      | 2003707      | Drive Roller 4" Dia. Assembly 20.75" Long       |     | SHOWN   |
| 9    | 28408        | Drive Roller 4" Dia. Assembly 17.125" Long      | 1   |         |
| 10   | 29063        | Bar 1/2" Dia.                                   | 1   |         |
| 11   | 9003259      | Flange Screw 3/8-16UNC x 1 1/4 (Full Threaded)  | 2   | Grade 5 |
| 12   | 901478       | Decal, DANGER "Electrocution Hazard"            | 1   |         |
| 13   | 901607       | Decal, UM Oval                                  | 2   |         |
| 14   | 901705       | Decal Unverferth Logo                           | 2   |         |
| 15   | 9501251      | Conveyor Belt for 30' Conveyor                  | 4   |         |
| 15   | 9501252      | Conveyor Belt for 35' Conveyor                  | 1   |         |
| 16   | 901814       | Nylon Brush                                     | 1   |         |
| 17   | 902006       | Elevator Bolt 1/4-20UNC x 3/4                   | 8   |         |
| 18   | 902069       | Capscrew 1/2-13UNC x 8 1/2                      | 2   | Grade 5 |
| 19   | 902340       | Rivet Nut 1/4-20UNC                             | 4   |         |
| 20   | 902697       | Flange Bearing 2-Bolt                           | 2   |         |
| 21   | 902732       | Carriage Bolt 1/2-13UNC x 1 1/2                 | 4   | Grade 5 |
| 22   | 9093         | Klik Pin 3/16" Dia. x 1 9/16                    | 1   |         |
| 23   | 91263        | Nut/Large Flange 3/8-16UNC                      | 10  |         |
| 24   | 91605        | Decal, FEMA                                     | 1   |         |
| 25   | 9388-051     | Carriage Bolt 3/8-16UNC x 1                     | 8   | Grade 5 |
| 26   | 91256        | Flange Screw 5/16-18UNC x 3/4                   | 5   | Grade 5 |
| 27   | 9501335      | Round Head Short Square Neck Bolt 1/2-13UNC x 2 | 2   | Grade 5 |
| 28   | 9394-010     | Hex Nut 1/2-13UNC                               | 4   | Grade 5 |
| 29   | 2003886TS    | Cover =Tan Speckle=                             | 1   |         |
| 30   | 91267        | Flange Nut 1/2-13UNC                            | 6   |         |
| 31   | 9501223      | Bearing Cover (Polyethylene)                    | 1   |         |
| 32   | 95445        | Decal, WARNING "High Pressure Fluid"            | 1   |         |
| 33   | 95839        | Decal, WARNING "Pinch Point"                    | 2   |         |
| 34   | 97189        | Hex Nut/Large Flange 1/4-20UNC                  | 8   |         |
| 35   | 97420        | Flange Screw 1/4-20UNC x 3/4                    | 4   |         |
| 36   | 97961        | Decal, WARNING "Read & Understand Manual"       | 1   |         |
| 37   | 91257        | Flange Nut 5/16-18UNC                           | 2   |         |
| 38   | 98229        | Decal, WARNING "Falling or Lowering Equipment"  | 2   |         |
| 39   | TA1-906109-0 | Decal, WARNING "Moving Parts"                   | 3   |         |

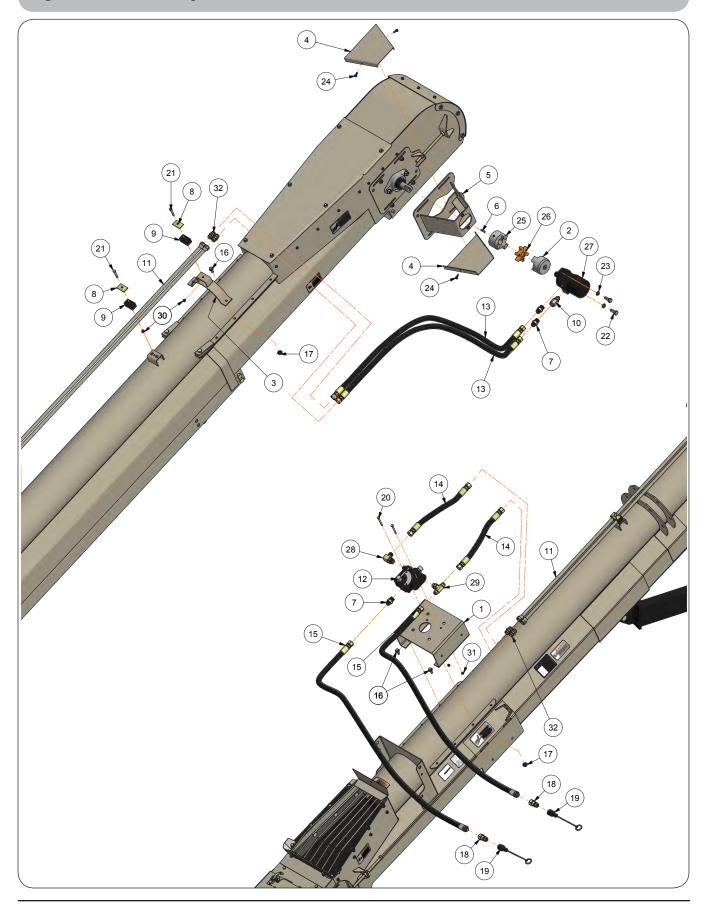
# **Discharge End Conveyor Components**



# **Discharge End Conveyor Components**

| ITEM | PART NO.     | DESCRIPTION                                     | QTY | NOTES   |
|------|--------------|---|-----|---------|
| 1    | 25256        | Seal 2 3/4 x 10 1/2                             | 2   |         |
| 2    | 26432B       | Strip 3/4 x 10 1/4                              | 2   |         |
| 3    | 28160TS      | Top Cover                                       | 1   |         |
| 4    | 28222TS      | Head Cover Weldment =Tan Speckle=               | 1   |         |
| 5    | 28371        | Drive Roller                                    | 1   |         |
| 6    | 28632TS      | Bearing Mount Weldment                          | 2   |         |
| 7    | 29051        | Poly Strip                                      | 2   |         |
| 8    | 901101       | Flange Screw 1/4-20UNC x 1                      | 6   |         |
| 9    | 901724       | Neoprene Sheet                                  | 1   |         |
| 10   | 902006       | Elevator Bolt 1/4-20UNC x 3/4                   | 5   |         |
| 11   | 902069       | Capscrew 1/2-13UNC x 8 1/2                      | 2   | Grade 5 |
| 12   | 902626       | U-Nut 5/16"x.025                                | 6   |         |
| 13   | 902697       | Flange Bearing 2-Bolt                           | 2   |         |
| 14   | 902732       | Carriage Bolt 1/2-13UNC x 1 1/2                 | 2   | Grade 5 |
| 15   | 91256        | Flange Screw 5/16-18UNC x 3/4                   | 6   | Grade 5 |
| 16   | 91263        | Nut/Large Flange 3/8-16UNC                      | 8   |         |
| 17   | 91267        | Flange Nut 1/2-13UNC                            | 6   |         |
| 18   | 9388-051     | Carriage Bolt 3/8-16UNC x 1                     | 4   | Grade 5 |
| 19   | 9388-052     | Carriage Bolt 3/8-16UNC x 1 1/4                 | 4   | Grade 5 |
| 20   | 9394-010     | Hex Nut 1/2-13UNC                               | 4   | Grade 5 |
| 21   | 9501223      | Bearing Cover (Polyethyelen)                    | 1   |         |
| 22   | 9501335      | Round Head Short Square Neck Bolt 1/2-13UNC x 2 | 2   | Grade 5 |
| 23   | 95445        | Decal, WARNING "High-Pressure Fluid"            | 1   |         |
| 24   | 97189        | Hex Nut/large Flange 1/4-20UNC                  | 21  |         |
| 25   | 97420        | Flange Screw 1/4-20UNC x 3/4                    | 10  |         |
| 26   | 95585        | Capscrew/Large Flange 3/8-16UNC x 3/4           | 6   | Grade 5 |
| 27   | TA1-906109-0 | Decal, WARNING "Moving Parts"                   | 2   |         |
| 28   | 28646TS      | Spout Weldment                                  | 1   |         |

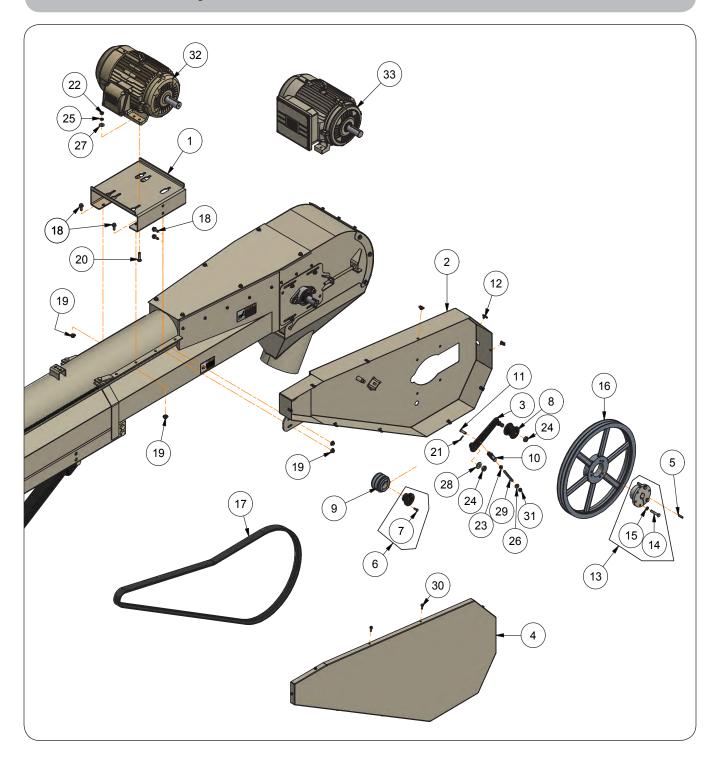
# **Hydraulic Components**



# **Hydraulic Components**

| ITEM | PART NO.  | DESCRIPTION  | QTY | NOTES            |
|------|-----------|--|-----|------------------|
| 1    | 2000840TS | Hydraulic Valve and Lower Gearbox Mount                    | 1   |                  |
| 2    | 2001874   | L110 Jaw Coupler 1" Bore (MODIFIED)                        | 1   |                  |
| 3    | 26178TS   | Strap Weldment   | 1   |                  |
| 4    | 28011TS   | Shield   | 2   |                  |
| 5    | 28897TS   | Hydraulic Motor Mount Bracket                              | 1   |                  |
| 6    | 9001501   | Key 1/4 x 1/4 x 1"   | 1   |                  |
| 7    | 9002443   | Adapter 7/8-14 JIC Male x 7/8-14 O-Ring Male               | 3   |                  |
| 8    | 900780    | Cover Plate  | 6   |                  |
| 9    | 902717    | Clamp Body-Twin  | 6   |                  |
| 10   | 902729    | Check Valve 7/8-14UNF-2B Female/Male Ends                  | 1   |                  |
| -1-1 | 902730    | Hydraulic Line 5/8" Dia x 124 (3000 PSI)                   | 4   | For 30' Conveyor |
| 11   | 902731    | Hydraulic Line 5/8" Dia. x 154 (3000 PSI)                  | 4   | For 35' Conveyor |
| 12   | 902800    | Flow Control Valve   | 1   |                  |
| 13   | 903034    | Hose 5/8 x 48 (3000 PSI)                                   | 2   |                  |
| 14   | 903039    | Hose 5/8 x 16 (3000 PSI)                                   | 2   |                  |
| 15   | 903040    | Hose 5/8 x 60 (3000 PSI)                                   | 2   |                  |
| 16   | 91262     | Flange Screw 3/8-16UNC x 1                                 | 6   | Grade 5          |
| 17   | 91263     | Nut/Large Flange 3/8-16UNC                                 | 6   |                  |
| 18   | 91383     | Male Tip Coupling 3/4-16 O-Ring Female (3000 PSI)          | 2   |                  |
| 19   | 91511     | Dust Cap/ISO Coupler                                       | 2   |                  |
| 20   | 9390-011  | Capscrew 1/4-20UNC x 2 1/2                                 | 2   | Grade 5          |
| 21   | 9390-034  | Capscrew 5/16-18UNC x 2                                    | 6   | Grade 5          |
| 22   | 9390-100  | Capscrew 1/2-13UNC x 1 1/4                                 | 2   | Grade 5          |
| 23   | 9404-025  | Lock Washer 1/2"   | 2   |                  |
| 24   | 9473      | Screw/Self Drilling 1/4-14 x 3/4                           | 4   |                  |
| 25   | 9500803   | L110 Jaw Coupler 1 1/4" Bore                               | 1   |                  |
| 26   | 9500804   | L110 Coupler Insert/Spider                                 | 1   |                  |
| 27   | 9500806   | Motor/Hydraulic  | 1   |                  |
| 28   | 95540     | 90° Elbow 7/8-14 JIC Male x 7/8-14 O-Ring Male             | 1   |                  |
| 29   | 95541     | Tee 7/8-14 JIC Male x 7/8-14 JIC Male x 7/8-14 O-Ring Male | 1   |                  |
| 30   | 9807      | Locknut 5/16-18UNC   | 6   |                  |
| 31   | 9936      | Locknut 1/4-20UNC  | 2   |                  |
| 32   | 99640     | Adapter 7/8-14 JIC Male x 7/8-14 JIC MALE                  | 6   |                  |

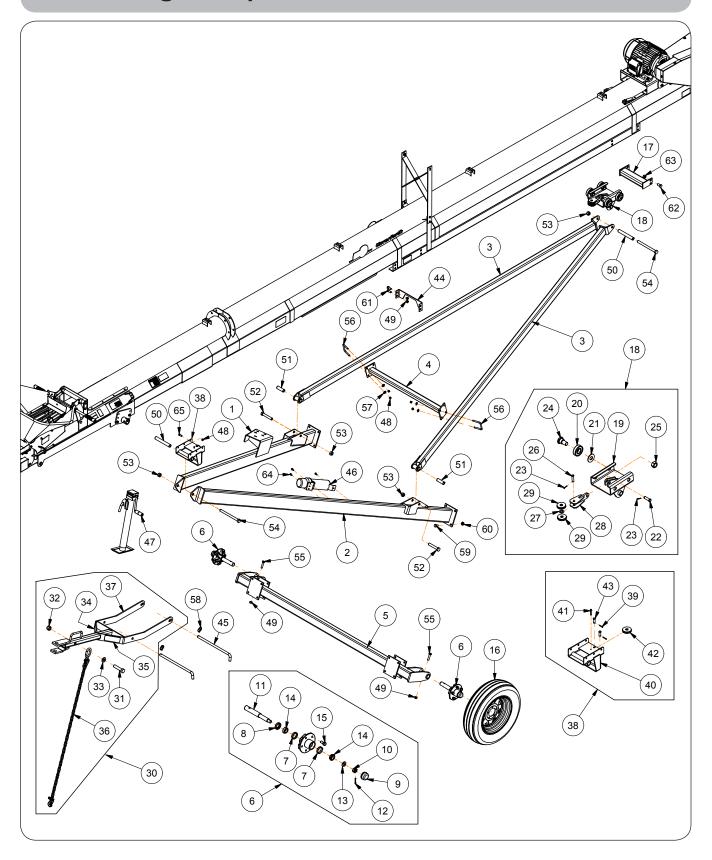
#### **Electrical Components**



#### **Electrical Components**

| ITE | М  | PART NO. | DESCRIPTION                  | QTY | NOTES                  |
|-----|----|----------|------------------------------|-----|------------------------|
| 1   |    | 26041TS  | Motor Mount                  | 1   |                        |
| 2   |    | 26165TS  | Guard Weldment               | 1   |                        |
| 3   |    | 26952B   | Idler Arm                    | 1   |                        |
| 4   |    | 28690TS  | Belt Shield Weldment         | 1   |                        |
| 5   |    | 9001501  | Key 1/4 x 1/4 x 1"           | 1   |                        |
| 6   |    | 902109   | Tapered Bushing 1 3/8" Bore  | 1   | Includes Item #7       |
|     | 7  | 9390-003 | Capscrew 1/4-20UNC x 3/4     | 2   | Grade 5                |
| 8   |    | 902166   | Flat Belt Idler              | 1   |                        |
| 9   |    | 902440   | Groove Sheave 3.35"          | 1   |                        |
| 10  | )  | 902496   | Yoke End                     | 1   |                        |
| 1   | 1  | 902497   | Clevis Pin 3/8" Dia x 1 1/4  | 1   |                        |
| 12  | 2  | 902628   | U-Nut 1/4" x .025            | 10  |                        |
| 13  | 3  | 902718   | Tapered Bushing 1 1/4" Bore  | 1   | Includes Items 14 & 15 |
|     | 14 | 9390-059 | Capscrew 3/8-16UNC x 2       | 3   | Grade 5                |
|     | 15 | 9404-021 | Lock Washer 3/8"             | 3   |                        |
| 16  | 6  | 902719   | Groove Sheave 20.35" Dia.    | 1   |                        |
| 17  | 7  | 902721   | Double V-Belt                | 1   |                        |
| 18  | 3  | 91262    | Flange Screw 3/8-16UNC x 1   | 8   | Grade 5                |
| 19  | 9  | 91263    | Nut/Large Flange 3/8-16UNC   | 8   |                        |
| 20  | )  | 9388-054 | Carriage Bolt 3/8-16 x 1 3/4 | 4   | Grade 5                |
| 2   | 1  | 9391-022 | Cotter Pin 1/8" Dia x 3/4    | 1   |                        |
| 22  | 2  | 9394-006 | Hex Nut 3/8-16UNC            | 4   | Grade 5                |
| 23  | 3  | 9395-006 | Hex Jam Nut 3/8-16UNC        | 1   | Grade 5                |
| 24  | 4  | 9397-015 | Elastic Jam Nut 5/8-18UNF    | 2   |                        |
| 2   | 5  | 9404-021 | Lock Washer 3/8"             | 4   |                        |
| 26  | 3  | 9405-074 | Flat Washer 3/8" SAE         | 1   |                        |
| 27  | 7  | 9405-076 | Flat Washer 3/8" USS         | 4   |                        |
| 28  | 3  | 9405-098 | Flat Washer 5/8" SAE         | 1   |                        |
| 29  | 9  | 9500063  | Thread Rod 3/8-16UNC x 4     | 1   |                        |
| 30  | )  | 97420    | Flange Screw 1/4-20UNC x 3/4 | 10  |                        |
| 3   | 1  | 9928     | Locknut 3/8-16UNC            | 1   |                        |
| 32  | 2  | 9500674  | Motor/Electric 7.5HP 3-Phase |     |                        |
| 33  | 3  | 902630   | Motor/Electric 7.5HP 1-Phase | 1   |                        |

#### **Undercarriage Components**



#### **Undercarriage Components**

| ITEM | PART NO.     | DESCRIPTION                                       | QTY | NOTES                |
|------|--------------|---|-----|----------------------|
| 1    | 26732B       | A-Frame Left-Hand Tube Weldment                   | 1   |                      |
| 2    | 26747B       | A-Frame Right-Hand Tube Weldment                  | 1   |                      |
| 3    | 26744B       | Frame Tube Weldment                               | 2   |                      |
| 4    | 27012B       | Stiffener Brace Weldment                          | 1   |                      |
| 5    | 27014B       | Axle Weldment                                     | 1   |                      |
| 6    | TA2-913793-1 | Hub & Spindle 5-Bolt Assembly                     | 2   | Includes Items 7-15  |
| 7    | 92522        | Bearing Cup (L44610)                              | 2   |                      |
| 8    | 92525        | Seal (#7536)                                      | 1   |                      |
| 9    | 92521        | Hub Cap   | 1   |                      |
| 10   | 9393-016     | Slotted Nut 3/4-16UNF                             | 1   | Grade 2              |
| 11   | TA0-913793-9 | Spindle 1 1/4" Dia x 10                           | 1   |                      |
| 12   | 9391-035     | Cotter Pin 5/32" Dia. x 1 1/2                     | 1   |                      |
| 13   | 91050        | Flat Washer 1.469 OD x .812 ID                    | 1   |                      |
| 14   | 92523        | Bearing Cone (L44643)                             | 2   |                      |
| 15   | 91829        | Wheel Bolt 1/2-20UNF x 1 5/8                      | 5   | Grade 5              |
| 16   | TA0-913792-0 | Wheel & Tire Assembly (Rim ST175/80D13 Tire 4Ply) | 2   |                      |
| 17   | 27992TS      | Stop Weldment                                     | 1   |                      |
| 18   | 26901TS      | Car Assembly                                      | 1   | Includes Items 19-29 |
| 19   | 26900TS      | Car Weldment                                      | 1   |                      |
| 20   | 900860       | Ball Bearing 1.378 ID                             | 4   |                      |
| 21   | 9405-118     | Flat Washer 1" USS                                | 4   |                      |
| 22   | 902216       | Clevis Pin 5/8" Dia. x 2                          | 1   |                      |
| 23   | 9391-023     | Cotter Pin 1/8" Dia. x 1                          | 2   |                      |
| 24   | 27247        | Pin 2" Dia. x 2 7/8                               | 4   |                      |
| 25   | 9663         | Locknut 1-8UNC                                    | 4   |                      |
| 26   | 902280       | Clevis Pin 1/2" Dia. x 2 5/32                     | 1   |                      |
| 27   | 9405-098     | Flat Washer 5/8" SAE                              | 1   |                      |
| 28   | 28050B       | Pulley Weldment                                   | 1   |                      |
| 29   | 29097        | Pulley 2 1/2" Dia. x 1/2                          | 2   |                      |
| 30   | 2001322B     | Conveyor Hitch Assembly                           | 1   | Includes Items 31-37 |
| 31   | 9390-172     | Capscrew 7/8-9UNC x 4                             | 1   | Grade 5              |
| 32   | 96976-034    | Lock Nut/Thin, 7/8-9UNC                           | 1   |                      |
| 33   | 9405-112     | Flat Washer 7/8" USS                              | 1   |                      |
| 34   | 94094        | Decal, WARNING "Tongue May Raise or Lower"        | 1   |                      |
| 35   | 97575        | Decal, CAUTION "Do Not Tow"                       | 1   |                      |
| 36   | 94098        | Transport Chain                                   | 1   |                      |
| 37   | 2001321B     | Conveyor Hitch Weldment                           |     |                      |

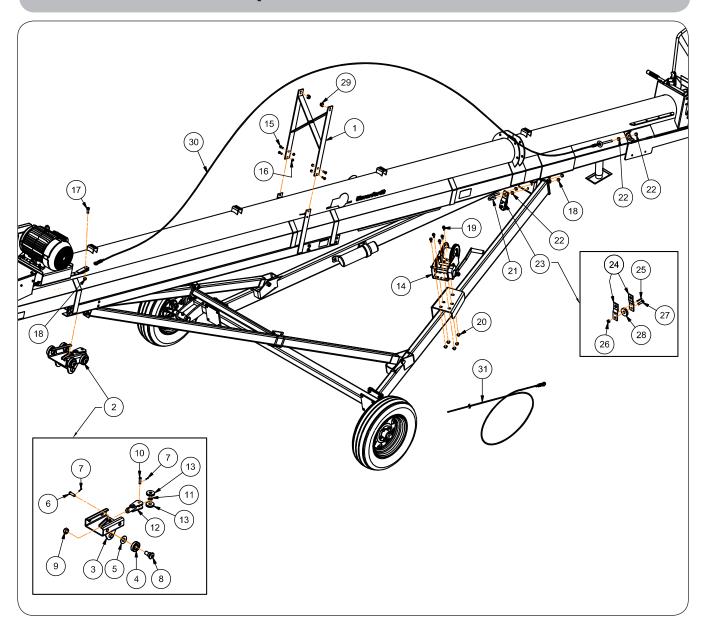
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# **Undercarriage Components** (continued)

| ITEM | PART NO. | DESCRIPTION                          | QTY | NOTES                |
|------|----------|--------------------------------------|-----|----------------------|
| 38   | 26974TS  | Pulley Bracket Assembly              | 1   | Includes Items 39-43 |
| 39   | 9391-023 | Cotter Pin 1/8" Dia. x 1             | 2   |                      |
| 40   | 27378TS  | Pulley Bracket Weldment              | 1   |                      |
| 41   | 9391-044 | Cotter Pin 3/16" Dia. x 1 1/2        | 1   |                      |
| 42   | 29097    | Pulley 2 1/2" Dia. x 1/2             | 1   |                      |
| 43   | 104559   | Clevis Pin 1/2" Dia. x 1.36          | 2   |                      |
| 44   | 26986TS  | Bracket                              | 1   |                      |
| 45   | 27035    | Hitch Pin 3/4" Dia. x 18 1/16        | 2   |                      |
| 46   | 900552   | Manual Holder                        | 1   |                      |
| 47   | 902621   | Ram Jack Sidewind 5000#              | 1   |                      |
| 48   | 9928     | Locknut 3/8-16UNC                    | 14  |                      |
| 49   | 9800     | Locknut 1/2-13UNC                    | 2   |                      |
| 50   | 26899    | Bushing/Tube 1 OD x .782 ID x 7 1/16 | 2   |                      |
| 51   | 26995    | Bushing/Tube 1 OD x .782 ID x 3 1/16 | 2   |                      |
| 52   | 9390-154 | Capscrew 3/4-10UNC x 4 1/2           | 2   | Grade 5              |
| 53   | 9802     | Locknut 3/4-10UNC                    | 4   |                      |
| 54   | 9390-449 | Capscrew 3/4-10UNC x 9               | 2   | Grade 5              |
| 55   | 9390-104 | Capscrew 1/2-13UNC x 2 1/4           | 2   | Grade 5              |
| 56   | 902236   | U-Bolt 3/8-16UNC x 1 1/4             | 4   |                      |
| 57   | 9405-076 | Flat Washer 3/8 USS                  | 12  |                      |
| 58   | 91058    | Klik Pin 1/4" Dia. x 1 3/4           | 2   |                      |
| 59   | 91266    | Flange Screw 1/2-13UNC x 1 1/4       | 8   |                      |
| 60   | 91267    | Flange Nut 1/2-13UNC                 | 8   |                      |
| 61   | 9390-100 | Capscrew 1/2-13UNC x 1 1/4           | 4   | Grade 5              |
| 62   | 9390-121 | Capscrew 5/8-11UNC x 1 1/4           | 4   | Grade 5              |
| 63   | 9801     | Locknut 5/8-11UNC                    | 4   | Grade 5              |
| 64   | 9512     | Screw/Self Drill 1/4-14 x 1          | 3   |                      |
| 65   | 9390-055 | Capscrew 3/8-16UNC x 1               | 6   | Grade 5              |

#### Notes

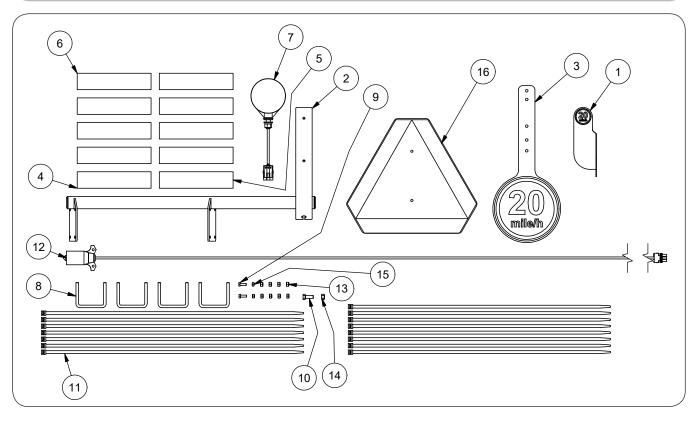
# Winch & Cable Components



# Winch & Cable Components

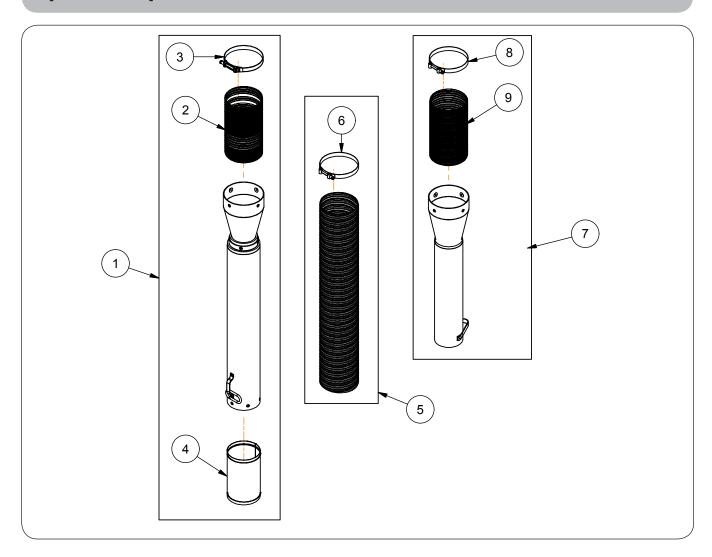
| ITEM | PART NO.     | DESCRIPTION                    | QTY | NOTES   |
|------|--------------|--------------------------------|-----|---------|
| 1    | 28037TS      | Truss Support Weldment         | 1   |         |
| 2    | 26901TS      | Car Assembly                   | 1   | I       |
| 3    | 26900TS      | Car Weldment                   | 1   |         |
| 4    | 900860       | Ball Bearing 1.378 ID          | 4   |         |
| 5    | 9405-118     | Flat Washer 1" USS             | 4   |         |
| 6    | 902216       | Clevis Pin 5/8" Dia. x 2       | 1   |         |
| 7    | 9391-023     | Cotter Pin 1/8" Dia. x 1       | 2   |         |
| 8    | 27247        | Pin 2" Dia. x 2 7/8            | 4   |         |
| 9    | 9663         | Locknut 1-8UNC                 | 4   |         |
| 10   | 902280       | Clevis Pin 1/2" Dia. x 2 5/32  | 1   |         |
| 11   | 9405-098     | Flat Washer 5/8" SAE           | 1   |         |
| 12   | 28050B       | Pulley Weldment                | 1   |         |
| 13   | 29097        | Pulley 2 1/2" Dia. x 1/2       | 2   |         |
| 14   | 9501942      | Winch 2500# W/Handle           | 1   |         |
| 15   | 9390-055     | Capscrew 3/8-16UNC x 1         | 4   | Grade 5 |
| 16   | 9928         | Locknut 3/8-16UNC              | 4   |         |
| 17   | 9390-101     | Capscrew 1/2-13UNC x 1 1/2     | 2   | Grade 5 |
| 18   | 9800         | Locknut 1/2-13UNC              | 2   |         |
| 19   | 91262        | Flange Screw 3/8-16UNC x 1     | 5   | Grade 5 |
| 20   | 91263        | Nut/Large Flange 3/8-16UNC     | 5   |         |
| 21   | 94016        | U-Bolt 1/2-13UNC x 3.25        | 1   |         |
| 22   | 9501333      | Hex Nut 1/2-13UNC (Galvanized) | 2   |         |
| 23   | 28165B       | Swivel Pulley Assembly         | 1   |         |
| 24   | 28046B       | Pulley Mount                   | 2   |         |
| 25   | 9391-045     | Cotter Pin 3/16" Dia. x 1 3/4  | 1   |         |
| 26   | 9800         | Locknut 1/2-13UNC              | 1   |         |
| 27   | 9390-102     | Capscrew 1/2-13UNC x 1 3/4     | 1   | Grade 5 |
| 28   | 29097        | Pulley 2 1/2" Dia. x 1/2       | 1   |         |
| 29   | TA0-902635-0 | Cable Clamp 3/16"              | 2   |         |
| 00   | 2000702      | Truss Cable 30' Assembly       |     |         |
| 30   | 28699        | Truss Cable 35' Assembly       | 2   |         |
| 31   | 29140        | Winch Cable 1/4D x 900" (75FT) | 1   |         |

# Optional Light & Marking Kit #26226B



| ITEM | PART NO. | DESCRIPTION                   | ITEM | NOTES   |
|------|----------|-------------------------------|------|---------|
|      | 26226B   | Optional Light & Marking Kit  | -    |         |
| 1    | 2010485B | Rear SIS Bracket with Decal   | 1    |         |
| 2    | 27067B   | Light Bracket Weldment        | 1    |         |
| 3    | 79342B   | Front SIS Bracket with Decal  | 1    |         |
| 4    | 9003125  | Decal, Fluorescent Orange     | 2    |         |
| 5    | 9003126  | Reflector =RED=               | 2    |         |
| 6    | 9003127  | Reflector =AMBER=             | 6    |         |
| 7    | 9003877  | Round Light =RED=             | 1    |         |
| 8    | 9005281  | U-Bolt 5/16"-18UNC            | 4    |         |
| 9    | 9390-003 | Capscrew 1/4"-20UNC x 3/4" G5 | 2    | Grade 5 |
| 10   | 9390-055 | Capscrew, 3/8"-16UNC x 1" G5  | 1    |         |
| 11   | 94038    | Cable Tie 32" Long            | 15   |         |
| 12   | 9500709  | Wire Harness                  | 1    |         |
| 13   | 9807     | Locknut, 5/16"-18UNC          | 8    |         |
| 14   | 9928     | Locknut, 3/8"-16UNC           | 1    |         |
| 15   | 9936     | Locknut, 1/4"-20UNC           | 2    |         |
| 16   | TA510514 | SMV Emblem                    | 1    |         |

# **Optional Spout Kits**



| IT | EM | PART NO. | DESCRIPTION                          | QTY | NOTES |
|----|----|----------|--------------------------------------|-----|-------|
|    | 1  | 29782    | Telescopic Downspout Kit 8" x 6'-10' | -   |       |
|    | 2  | 25752    | Flexible Spout 8"                    | 1   |       |
|    | 3  | 901485   | Hose Clamp                           | 1   |       |
|    | 4  | 9500173  | Vinyl Sock                           | 1   |       |
|    | 5  | 2001517  | Flexible Spout Kit                   | -   |       |
|    | 6  | 901485   | Hose Clamp                           | 1   |       |
|    | 7  | 2001518  | Telescopic Downspout Kit 8" x 4'-6'  | -   |       |
|    | 8  | 901485   | Hose Clamp                           | 1   |       |
|    | 9  | 25752    | Flexible Spout 8"                    | 1   |       |





Manufacturing Company, Inc.