



Bulk Seed Handling

SEED PRO® BULK BOX CARRIER MODEL 410/410XL

Beginning With Serial Number D61330100

Part No. 2003857

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.



Product Information

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 frame as shown below.

Purchase Date _____ Model _____ Serial No. _____

Dealer _____ City _____

Dealer Contact _____ Phone _____



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.

Table Of Contents

Foreword2
Product Information.....3

SECTION I
Safety

General Hazard Information 1-2
Safety Decals 1-3
Following Safety Instructions 1-4
Before Servicing or Operating 1-4
During Operation 1-5
Before Transporting 1-6
During Transport..... 1-6
Pressurized Oil 1-7
Preparing for Emergencies..... 1-8
Wearing Protective Equipment..... 1-8

SECTION II
Set Up

Pre-Delivery Checklist 2-2
Seed Pro Set Up 2-2
Assemble Hitch or Gooseneck to Undercarriage..... 2-3
UM2520 Scale Package (Optional) (#2008750TS)..... 2-4
Work Light Kit (Optional) (#2004450)..... 2-4
8" Conveyor 2-Stage Telescopic Downspout (#25532)..... 2-5
8" Conveyor 3-Stage Telescopic Downspout (Optional) (#29782)..... 2-5
6" Conveyor 3-Stage Telescopic Downspout (Optional) (#25578)..... 2-6
4' Flex Spout for 6" Conveyor (#TAAU14170)..... 2-7
4' Flex Spout for 8" Conveyor (#901544)..... 2-7
3-Function Wireless Remote Control (Optional)..... 2-8
6-Function Wireless Remote w/Scale Display (Optional)..... 2-8
Optional Hitches..... 2-9
Optional AG Decal Package Placement..... 2-10

Table Of Contents

SECTION III

Operation

Preparing Towing Vehicle	3-2
Preparing Implement	3-3
Hydraulic System	3-3
Lubrication	3-3
Tires/Wheels	3-3
Connecting Seed Pro to Towing Vehicle	3-4
Transport Chains	3-4
Transporting	3-5
Hydraulic Power Unit Operation	3-7
Before Starting Engine	3-8
Starting Engine	3-9
Adjusting Hydraulic Pressure Relief Valve	3-9
Conveyor Belt Electronic Speed Control	3-11
Conveyor Belt Manual Speed Control Valve	3-11
Raising and Lowering Conveyor	3-12
Pivoting Conveyor Side-to-Side	3-13
Manual Control of Conveyor	3-14
Pull Start Engine	3-15
Loading Boxes Onto Seed Pro	3-16
Filling Planter or Drill	3-18
Rotating Conveyor Out For Transferring Grain	3-19
3-Function Wireless Remote Control (Optional)	3-21
6-Function Wireless Remote w/Scale Display (Optional)	3-21
Work Light Kit (Optional)	3-22
Gooseneck Cushion Hitch Height/Air Pressure Adjustment	3-23

Table Of Contents

SECTION IV
Maintenance

Lubrication..... 4-2
 Conveyor Bearings..... 4-2
 Pivot Points..... 4-2
 Wheel Bearings..... 4-2
 Hydraulic Power Unit..... 4-2
 Gooseneck Cushion Hitch..... 4-3
 Gooseneck Cushion Hydraulic System..... 4-3
 Hydraulic System 4-4
 Purge Hydraulic System 4-4
 Relieving Hydraulic Pressure 4-5
 Hub Assembly 4-5
 Conveyor Belt..... 4-6
 Belt Tension..... 4-6
 Belt Tracking..... 4-7
 Brake Cleaning and Inspection..... 4-9
 Brake Lubrication 4-9
 Magnets 4-9
 Shoes and Linings..... 4-10
 How To Measure Amperage 4-11
 Brake Drum Inspection..... 4-12
 Bearing Inspection..... 4-12
 Bearing Lubrication 4-12
 Troubleshooting Brakes 4-13
 Power Pak..... 4-13
 Battery Warranty 4-16
 Wheels and Tires..... 4-17
 Wheel Nut Torque Requirements..... 4-17
 Tire Pressure 4-17
 Tire Warranty 4-18
 Storage..... 4-18
 Troubleshooting..... 4-19
 Conveyor Raise/Lower Cylinder Not Working Properly..... 4-21
 Smooth-Start Module Troubleshooting..... 4-23
 Scale Troubleshooting..... 4-24
 Scale “Short Form” Set-up & Calibration 4-25
 Auto Conveyor Shut-Off Troubleshooting 4-27
 Electrical Schematics 4-28
 Stackable Valve Manual Override Operation & Wire Schematic..... 4-34
 Hydraulic Schematic for Conveyor..... 4-36
 Belt Stretcher (Optional) 4-37
 Complete Torque Chart — Capscrews..... 4-39
 Hydraulic Fittings 4-39

Table Of Contents

SECTION V
Parts

Door Components.....5-2

Stationary Bracket Components.....5-4

Conveyor 2-Function Controller Components.....5-5

Conveyor Arm Assembly - Model 410 with 8” Conveyor (SN D65950100 & Up).....5-6

Conveyor Arm Pivot Components - Model 410 with 8” Conveyor (SN D65950100 & Up).....5-8

Conveyor Latch Components5-10

Conveyor Arm Components - Model 410 w/6” & 8” Conveyor (SN D65950099 & Lower) .5-12

Conveyor Arm Assembly - Model 410XL with 8” Conveyor (SN D65950100 & Up).....5-16

Conveyor Arm Pivot Components - Model 410XL with 8” Conveyor (SN D65950100 & Up) 5-18

Conveyor Arm Components - Model 410XL with 8” Conveyor (SN D65950099 & Lower) ..5-20

Platform Components.....5-24

Decals, Windows, & Valve Mounting Plate Components.....5-28

Hydraulic Components — Model 410/410XL with Electronic Speed5-30

Hydraulic Components — Model 410XL with Manual Speed Control5-32

Control Valve - 2 Function Components.....5-34

Undercarriage Components5-36

Touch-Up Paint.....5-39

Axle & Wheel Components.....5-40

Conveyor Assembly Components — 6” Tube Conveyor5-42

Conveyor Assembly Components — 8” Tube Conveyor5-44

Hopper and Handle Components — 6” Tube Conveyor.....5-46

Hopper and Handle Components — 8” Tube Conveyor.....5-48

Stand, Cleanout Door, Shield, & Idler End Components — 6” Tube Conveyor5-50

Stand, Cleanout Door, Shield, & Idler End Components — 8” Tube Conveyor5-52

Discharge Spout Components — 6” Tube Conveyor.....5-54

Discharge Spout Components — 8” Tube Conveyor.....5-56

Honda Power Pak Components5-58

Relay Mount & Power Pak Mounting Components.....5-60

Enclosure and Keyswitch Components.....5-62

UM2520 Scale Components (Optional)5-64

Platform for Units Less Undercarriage (Optional).....5-66

Light Kit (Optional).....5-67

Electric Breakaway Components.....5-69

Hopper Cover.....5-70

Telescopic Spout Components5-71

Gooseneck Hitch Round Style Adapter Components (Optional).....5-72

Hydraulic Jack for Gooseneck Hitch Kit #2004087B (Optional).....5-74

Hydraulic Jack for Bumper Hitch Kit #2012347TS (Optional).....5-76

Override Box5-78

3-Function Wireless Remote Control (Optional)5-78

6-Function Wireless Remote w/Scale Display (Optional).....5-79

Spare Tires (Optional).....5-80

T&G Applicator (Optional).....5-82

License Plate/Lamp Holder Assembly (Optional)5-83

AG Decal Package (Optional) - SMV, SIS Decals, & Reflectors.....5-84

Notes

SECTION I

Safety

General Hazard Information	1-2
Safety Decals	1-3
Following Safety Instructions	1-4
Before Servicing or Operating	1-4
During Operation	1-5
Before Transporting	1-6
During Transport	1-6
Pressurized Oil	1-7
Preparing for Emergencies	1-8
Wearing Protective Equipment	1-8

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.



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. 95445

Part No. 95839

Part No. 97961

Part No. 98350

Part No. 901580

Part No. 98229

Part No. 9500345

Part No. 9500710

Part No. 235161

Part No. 95445

Part No. 95445

Part No. 97048

Part No. 902026

Part No. TA1-906109-0

Part No. 95839

Part No. 901478




Optional Gooseneck

Part No. 97961


Part No. 9500953

Part No. 9500952

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 the 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. 
- Never enter a seed tender containing grain. Flowing grain traps and suffocates victims in seconds.

Before Servicing or Operating

- 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.
- To prevent personal injury or death while servicing, always ensure that there are people who remain outside the seed tender to assist the person working inside, and that all safe workplace practices are followed. There is restricted mobility and limited exit paths when working inside the implement.
- 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.
- 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.

During Operation

- Regulate speed to working 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 or seed tender unattended with engine running.

- Carbon monoxide can cause nausea, fainting or death. Do not operate engine in closed or confined area.

- Explosive fuel can cause fires and severe burns. Stop engine before filling fuel tank.

- Hot parts can cause severe burns. Do not touch engine while operating or just after stopping.

- Explosive gas from battery can cause fires and severe acid burns. Charge battery only in a well ventilated area. Keep sources of ignition away.

- 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 chains to towing vehicle before transporting. **DO NOT** transport without chains.
- Install transport locks before transporting.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine.

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.
- Regulate speed to road conditions and maintain complete control.
- Do not transport unit with rear compartment full and front compartment empty. The unit may not be properly balanced, offsetting the trail ability of the implement.
- 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. Leaks of high-pressure fluids may not be visible. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids.

- Hydraulic system must be purged of air before operating to prevent serious injury or death.

- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.

- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.

- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.

- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
 - End fittings damaged, displaced, or leaking.
 - Outer covering chafed/cut or wire reinforcing exposed.
 - Outer covering ballooning locally.
 - 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
Seed Pro Set Up.....	2-2
Assemble Hitch or Gooseneck to Undercarriage.....	2-3
UM2520 Scale Package (Optional) (#2008750TS).....	2-4
Work Light Kit (Optional) (#2004450).....	2-4
8” Conveyor 2-Stage Telescopic Downspout (#25532).....	2-5
8” Conveyor 3-Stage Telescopic Downspout (Optional) (#29782).....	2-5
6” Conveyor 3-Stage Telescopic Downspout (Optional) (#25578).....	2-6
4’ Flex Spout for 6” Conveyor (#TAAU14170).....	2-7
4’ Flex Spout for 8” Conveyor (#901544).....	2-7
3-Function Wireless Remote Control (Optional).....	2-8
6-Function Wireless Remote w/Scale Display (Optional).....	2-8
Optional Hitches.....	2-9
Optional AG Decal Package Placement.....	2-10

Pre-Delivery Checklist

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

- Torque wheel nuts as specified in Maintenance section.
- Torque all axle mounting hardware to 120 ft.-lbs.
- 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 sure transport lights are working properly.
- Transport chains are properly installed and hardware is torqued to specification.
- Paint all parts scratched in shipment.
- If applicable, charge the wireless remote control batteries.

Seed Pro Set Up

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.**
- **ENTANGLEMENT WITH MOVING PARTS CAN CAUSE SERIOUS INJURY OR DEATH. USE EXTREME CARE WHEN INSPECTING AND ADJUSTING BELT TRACKING. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOESTRINGS, DRAWSTRINGS, PANTS CUFF, LONG HAIR, ETC., THAT MAY BECOME ENTANGLED IN MOVING PARTS.**
- **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 5,000 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 THE IMPLEMENT.**

IMPORTANT

- *The procedures for assembling this Seed Pro are intended for two or more people.*

This section contains instructions required for assembly of the Seed Tender.

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 the machine.

For ease of assembly, install all hardware loosely until assembly is complete and then tighten according to Torque Chart in the MAINTENANCE Section of this manual.

Assemble Hitch or Gooseneck to Undercarriage

1. If the Seed Pro tender was shipped with a hitch installed, torque 5/8"-11UNC retaining hardware to 120-135 ft.-lbs. If the Seed Tender was shipped without a hitch installed, proceed to step 2.
2. Place jackstand rated for minimum 1000 lbs. capacity under front of undercarriage frame. Raise hitch using a safe lifting device with a minimum 1000 lbs. capacity, and place the hitch in line with the undercarriage.
3. Connect the electrical connections, and push extra wire harness into tubes. Move hitch against undercarriage frame being careful not to pinch the wiring harness.
4. Bolt the hitch to undercarriage using 5/8"-11UNC x 2 1/4" capscrews (9390-125), 5/8" stainless steel flat washers (903108), and 5/8"-11UNC locknuts (9801). Torque 5/8"-11UNC hardware to 120-135 ft.-lbs.
5. Verify the function of the Seed Tender lighting. See MAINTENANCE section for the schematic, if needed.

FIG. 2-1

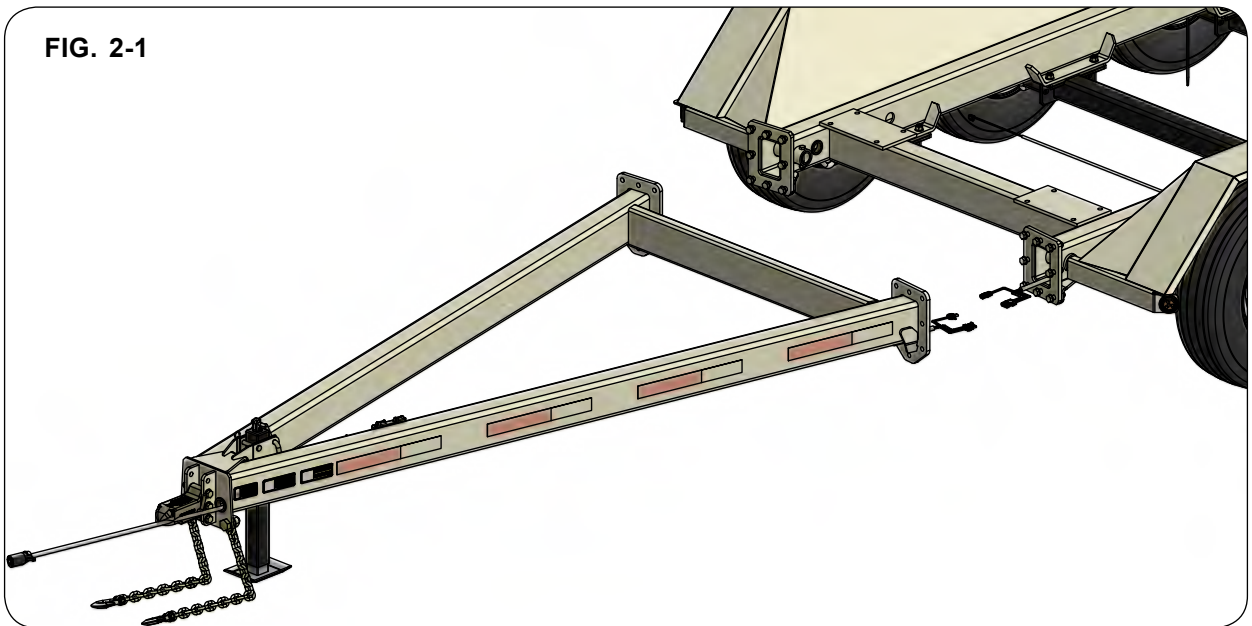
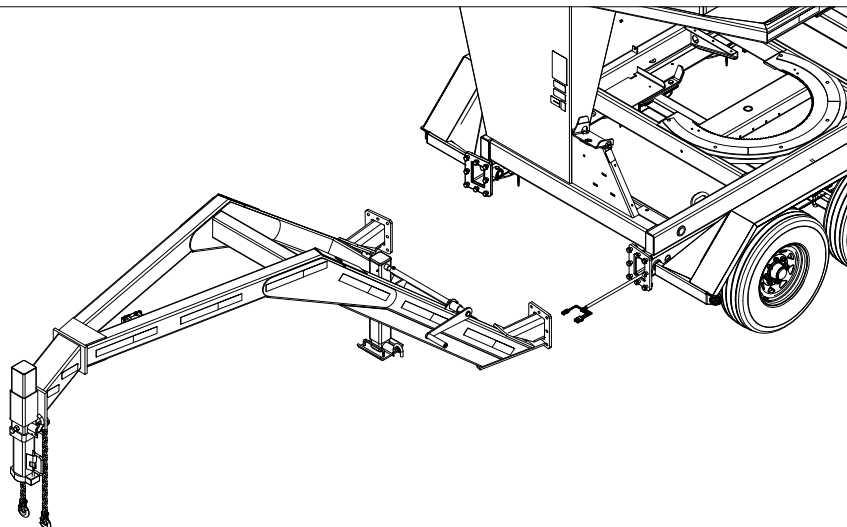


FIG. 2-2



UM2520 Scale Package (Optional) (#2008750TS)

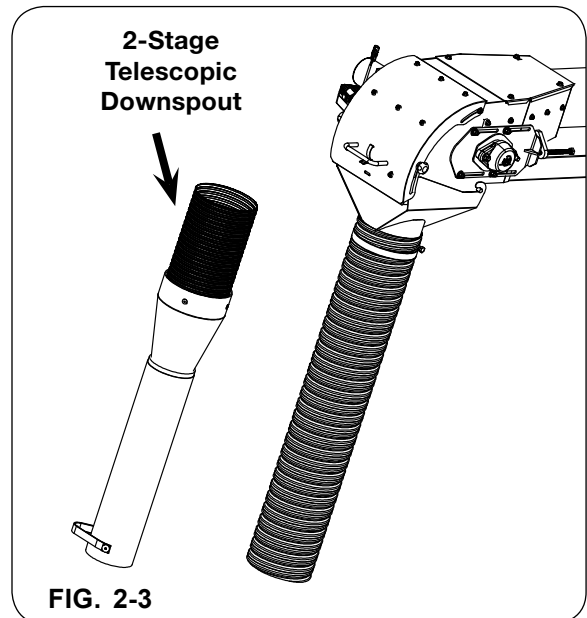
Refer to your UM2520 scale manual for set up information.

Work Light Kit (Optional) (#2004450)

For Optional Work Light Kit (#2004450) information, please refer to your Optional Light Kit operator's manual (#2005070).

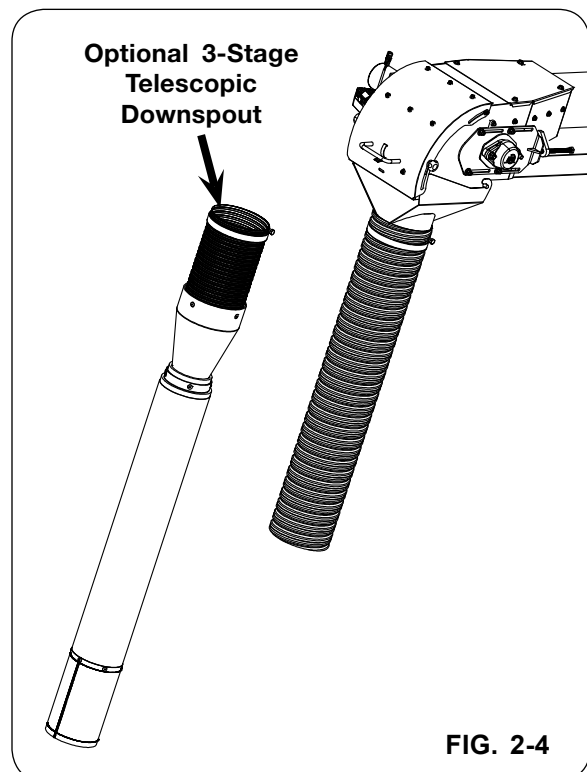
**8" Conveyor
2-Stage Telescopic Downspout (#25532)**

1. Lower the conveyor to approximately 4-5 feet off the ground.
2. Remove the clamp and standard flex spout from the conveyor.
3. Attach the new 8" diameter 2-stage telescopic downspout with the previously removed clamp.



**8" Conveyor
3-Stage Telescopic Downspout (Optional) (#29782)**

1. Lower the conveyor to approximately 4-5 feet off the ground.
2. Remove the clamp and standard flex spout from the conveyor.
3. Attach the new 8" diameter 3-stage telescopic downspout.



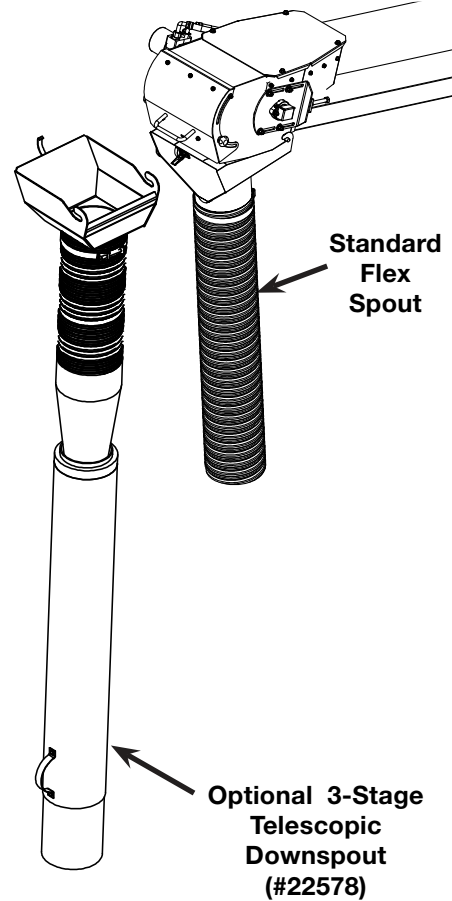
**6" Conveyor
3-Stage Telescopic Downspout (Optional) (#25578)**

1. Park the empty Seed Runner on a firm, level surface. Block the wheels on the machine to keep it from moving. Set the towing vehicle's parking brake. Lower the conveyor to approximately 4-5 feet off the ground, shut off the engine and remove the ignition key.
2. Remove the 4' flex spout from the conveyor.
3. Slip the optional telescopic downspout (22578) with T-bolt clamp ring (98060) over the conveyor tube end and tighten.

NOTE: The standard 4' flex spout is intended for bulk seed loading into large central-fill planter seed hoppers (35 to 100 bushels). It has flex hose attachment at the discharge end of the conveyor and require no manual holding or maneuvering of the spout during operation.

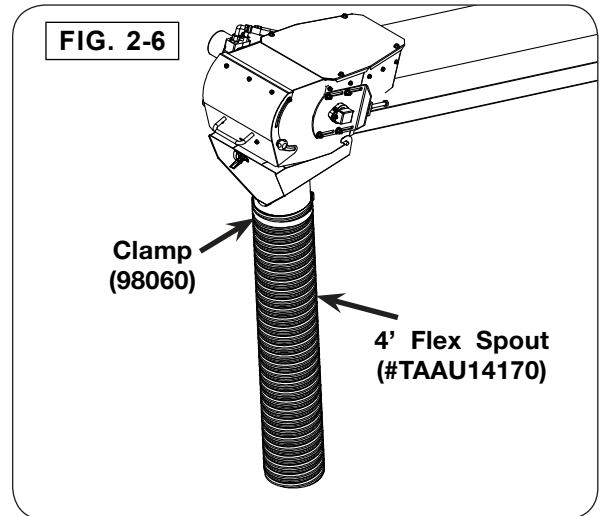
The optional 6' to 10' telescoping spout is intended for manual filling of smaller individual planter seed hoppers, requiring increased operator holding, lifting, maneuvering of the long spout assembly while filling. The spout therefore is downsized with a metal adapter for a smaller 6" flex hose and smaller diameter spout for more manageable handling of the spout. The operator is encouraged to slow the conveyor speed for proper operation.

FIG. 2-5



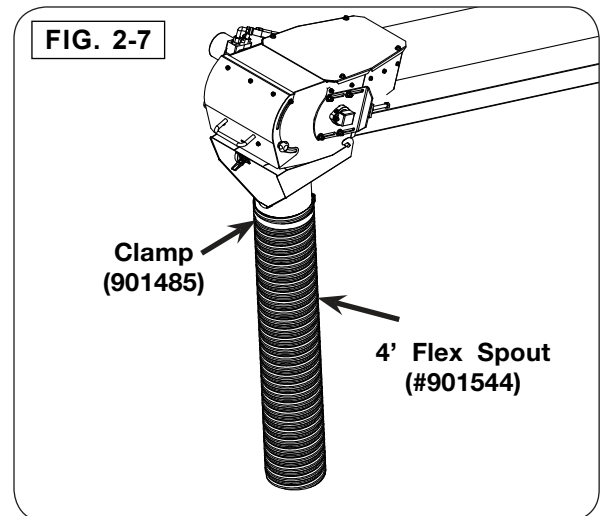
4' Flex Spout for 6" Conveyor (#TAAU14170)

1. Park the empty Seed Runner on a firm, level surface. Block the wheels on the machine to keep it from moving. Set the towing vehicle's parking brake. Lower the conveyor to approximately 4-5 feet off the ground, shut off the engine and remove the ignition key.
2. Remove the T-bolt clamp ring (98060) and spout from the conveyor.
3. Slip the 4' flex spout over the conveyor tube end and tighten with T-bolt clamp ring (98060).



4' Flex Spout for 8" Conveyor (#901544)

1. Park the empty Seed Runner on a firm, level surface. Block the wheels on the machine to keep it from moving. Set the towing vehicle's parking brake. Lower the conveyor to approximately 4-5 feet off the ground, shut off the engine and remove the ignition key.
2. Remove the T-bolt clamp ring (901485) and spout from the conveyor.
3. Slip the 4' flex spout over the conveyor tube end and tighten with T-bolt clamp ring (901485).



3-Function Wireless Remote Control Pkg #2004078TS (Option)

IMPORTANT

- *The procedures for assembling this remote package are intended for two or more people.*

FOR OPTIONAL REMOTE CONTROL INFORMATION, PLEASE REFER TO YOUR OPTIONAL WIRELESS REMOTE CONTROL OPERATOR'S MANUAL (#2010519).



6-Function Wireless Remote Control Pkg #2004080TS (Option)

IMPORTANT

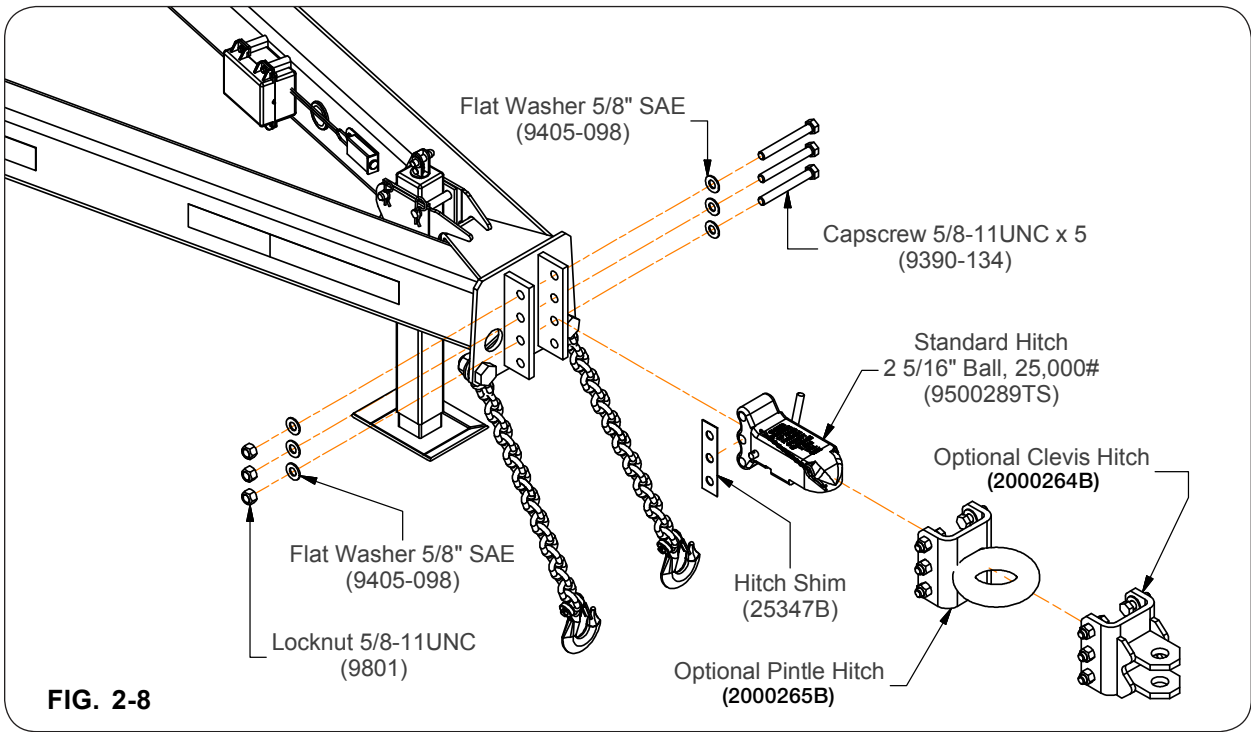
- *The procedures for assembling this remote package are intended for two or more people.*

FOR OPTIONAL REMOTE CONTROL INFORMATION, PLEASE REFER TO YOUR OPTIONAL WIRELESS REMOTE CONTROL OPERATOR'S MANUAL (#2010520).



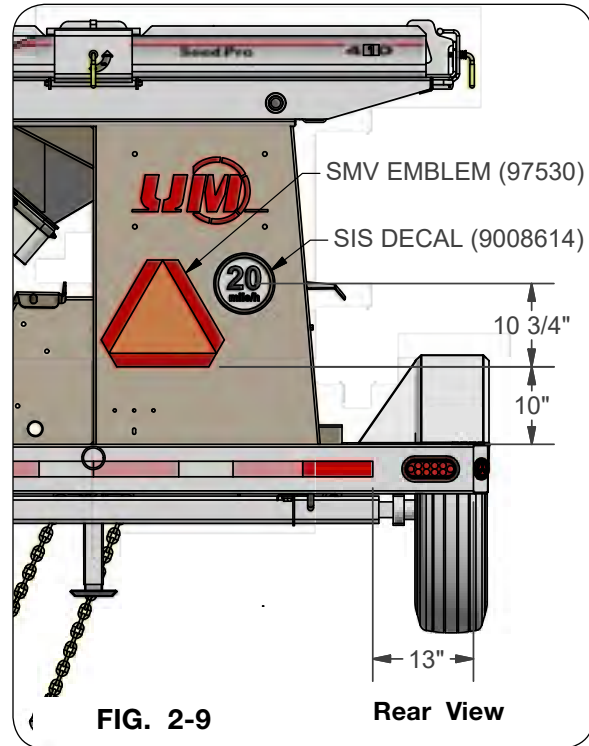
**Optional Hitches,
Pintle Hitch (#2000265B) & Clevis Hitch (#2000264B)**

1. Remove the hardware, shims, and hitch.
2. Attach optional hitch using the hardware and shims removed in step #1.
3. Torque hardware according to “Torque Chart” in MAINTENANCE section.



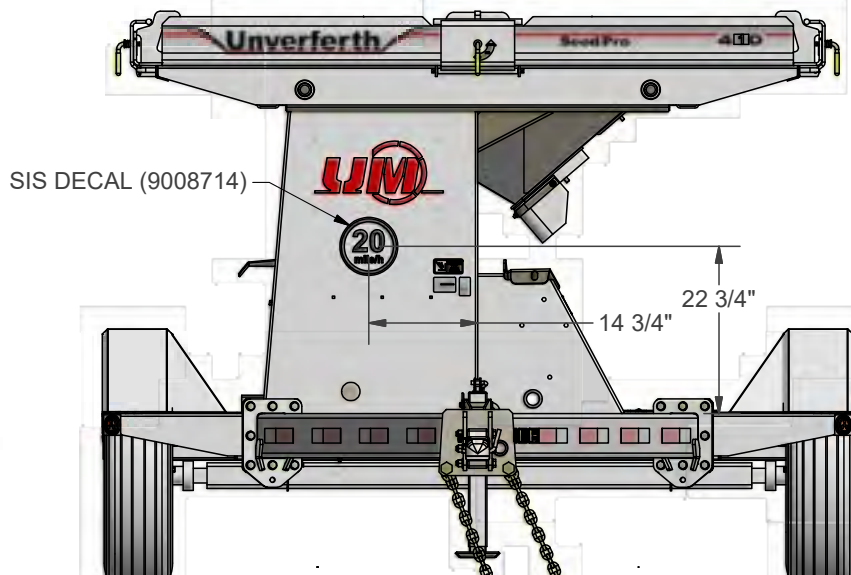
Optional AG Decal Package Placement

1. Center and attach the SMV Emblem (95730) to the rear of the unit 10" from the frame. (FIG. 2-9)
2. Attach the SIS decal (9008714) to the rear of the unit 10 3/4" from the bottom of the SMV Emblem (95730). (FIG. 2-9)
3. Attach the red reflector (9003126) 13" from the right-hand side of the bumper. (FIG. 2-9)



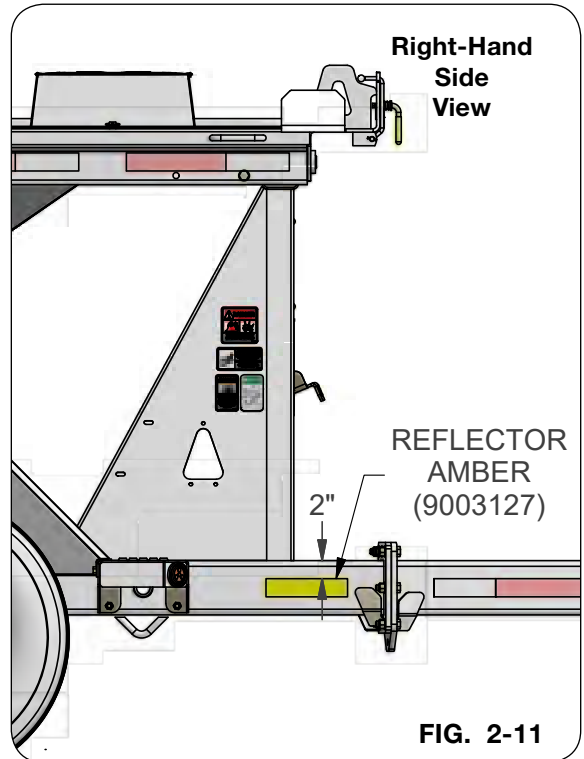
4. Attach the SIS decal (9008714) to the front of the unit 22 3/4" from the frame and 14 3/4" from the side of the panel as shown in FIG. 2-10.

Front View

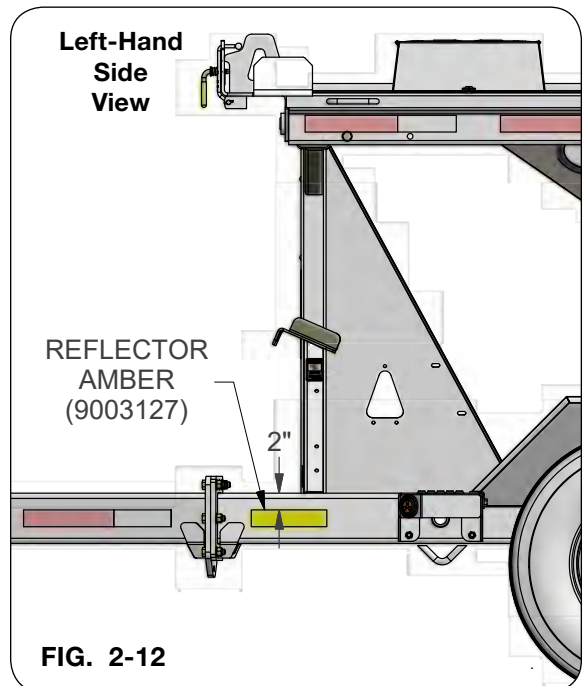


Optional AG Decal Package Placement (continued)

5. Place the amber reflector (9003127) 2" down on the frame on the right-hand side of the unit. (FIG. 2-11)



6. Place the amber reflector (9003127) 2" down on the frame on the left-hand side of the unit. (FIG. 2-12)



Notes

SECTION III

Operation

Preparing Towing Vehicle	3-2
Preparing Implement	3-3
Hydraulic System	3-3
Lubrication	3-3
Tires/Wheels	3-3
Connecting Seed Pro to Towing Vehicle	3-4
Transport Chains	3-4
Transporting	3-5
Hydraulic Power Unit Operation	3-7
Before Starting Engine	3-8
Starting Engine	3-9
Adjusting Hydraulic Pressure Relief Valve	3-9
Conveyor Belt Electronic Speed Control	3-11
Conveyor Belt Manual Speed Control Valve	3-11
Raising and Lowering Conveyor	3-12
Pivoting Conveyor Side-to-Side	3-13
Manual Control of Conveyor	3-14
Pull Start Engine	3-15
Loading Boxes Onto Seed Pro	3-16
Filling Planter or Drill	3-18
Rotating Conveyor Out For Transferring Grain	3-19
3-Function Wireless Remote Control (Optional)	3-21
6-Function Wireless Remote w/Scale Display (Optional)	3-21
Work Light Kit (Optional)	3-22
Gooseneck Cushion Hitch Height/Air Pressure Adjustment	3-23

Preparing Towing Vehicle

Before operating implement, refer to towing vehicle's operator's manual for information concerning safe methods of operation, hitch capacities, hitch adjustments, tire inflation, and undercarriage braking operation.

Vehicle must be equipped with proper electric undercarriage braking components. Check vehicle brakes and transport lights. Make sure they are in proper working order.

Compliance with all lighting and marking laws is the responsibility of the operator at the time of travel.

See federal regulation 49 CFR 562; available at www.govinfo.gov for US federal law requirements.

See your Unverferth dealer for additional brackets, reflectors, or lights to meet your requirements.

IMPORTANT

- *This implement is equipped with LED lights. The towing vehicle may require a flasher upgrade for lights to function properly. For flasher upgrade, please see towing vehicle manufacturer for assistance.*

Do not exceed towing vehicle's GVWR (Gross Vehicle Weight Rating) or GCWR (Gross Combination Weight Rating), or the maximum hitch load.

Estimated weights of the fully loaded Seed Pro are:

Model 410/410XL

- Gross Vehicle Weight Rating is 15,500 lbs.
- Loaded tongue weight is 1500 lbs.

These are estimates. The loaded tongue weight will vary greatly based on the height of the hitch, and the variation in terrain that the Seed Pro is being pulled across.

Towing vehicle hitch – ball or pintle hook, must be heavy enough to carry the load of the Seed Pro tender.

Preparing Implement

Hydraulic System

Check routing of all hydraulic hoses. Hoses should not be kinked, twisted, or rubbing against sharp edges.

Check hoses and fittings for hydraulic leaks. Tighten and/or repair or replace as required. Refer to “Torque Chart” in MAINTENANCE section.

Lubrication

Lubricate the implement as outlined in the MAINTENANCE SECTION of this manual.

Refer to this operator’s manual for proper fluid levels in engine.

Tires/Wheels

CAUTION

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

Check tire pressures and maintain at recommended values listed in the MAINTENANCE section of this manual. Check wheel nuts/bolts torque as specified in the MAINTENANCE section.

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Tire manufacturers’ phone numbers and web sites are listed in the MAINTENANCE Section of this manual for your convenience.

Connecting Seed Pro to Towing Vehicle

⚠ WARNING

- **CRUSHING CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT STAND BETWEEN THE TOWING VEHICLE AND IMPLEMENT WHEN HITCHING. ALWAYS ENGAGE THE PARKING BRAKE AND STOP ENGINE BEFORE INSERTING HITCH PINS OR SECURING LATCHES.**

The Seed Pro tender undercarriage is designed to be connected to a towing vehicle utilizing either the pintle hitch, a 2 5/16" ball hitch or, if equipped with the clevis hitch, a 1" hitch pin. An optional gooseneck hitch is also available with 2 5/16" coupler.

Back the towing vehicle up to the undercarriage and align the vehicle's ball or pintle hook with the coupler or ring on the undercarriage. Lower jack to set undercarriage down on ball or pintle hook. Latch coupler so the connection is secure. Pivot jack to transport position and pin in place. If using the optional gooseneck hitch, back the towing vehicle up to the gooseneck and couple/latch the units together. Raise the jack weldment into transport position.

Connect electrical plug from undercarriage to towing vehicle. Check routing of the electrical cord to be certain it is long enough to pivot when turning, but not too long to touch or rub the ground during transport.

Connect undercarriage brake breakaway cable to towing vehicle. Do not connect this directly to hitch. It needs to be connected in a place that will still be attached, even if the ball or pintle coupler fails.

Transport Chains

⚠ CAUTION

- **ALWAYS USE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENTS. FAILURE TO USE A TRANSPORT CHAIN COULD CAUSE PERSONAL INJURY OR DAMAGE IF IMPLEMENTS BECOME DISENGAGED.**
- **REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED OR DAMAGED. DO NOT WELD THE TRANSPORT CHAIN.**

Transport chains should have a minimum rating equal to the gross weight of implement and all attachments. Allow no more slack in chains than necessary to permit turning.

Cross chains when connecting as shown in photo.



Transporting

DANGER

- ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT. KEEP AWAY FROM ALL UTILITY LINES AND DEVICES.



WARNING

- THE REAR BOXES ON THE SEED TENDER BOX SHOULD ALWAYS BE EMPTIED FIRST. THIS WILL MAINTAIN WEIGHT ON THE HITCH OF THE TOWING VEHICLE. EMPTYING THE FRONT BOXES FIRST WITH THE REAR BOXES FULL COULD RESULT IN NEGATIVE TONGUE WEIGHT ON THE UNDERCARRIAGE AND REDUCED CONTROL OF THE UNDERCARRIAGE WHEN TOWING.
- ALWAYS TRAVEL AT A SPEED WHICH PERMITS COMPLETE CONTROL OF TOWING VEHICLE AND IMPLEMENT.

CAUTION

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

IMPORTANT

- Before Seed Pro is transported, be sure the jack stand is in the 'Transport Position'.
- Conveyor must be latched in the unloading position. The pivoting arm must be latched in the transport position with klik pin installed before moving Seed Pro. Refer to photo on following page.
- This implement is equipped with LED lights. The towing vehicle may require a flasher upgrade for lights to function properly. For flasher upgrade, please see towing vehicle manufacturer for assistance.



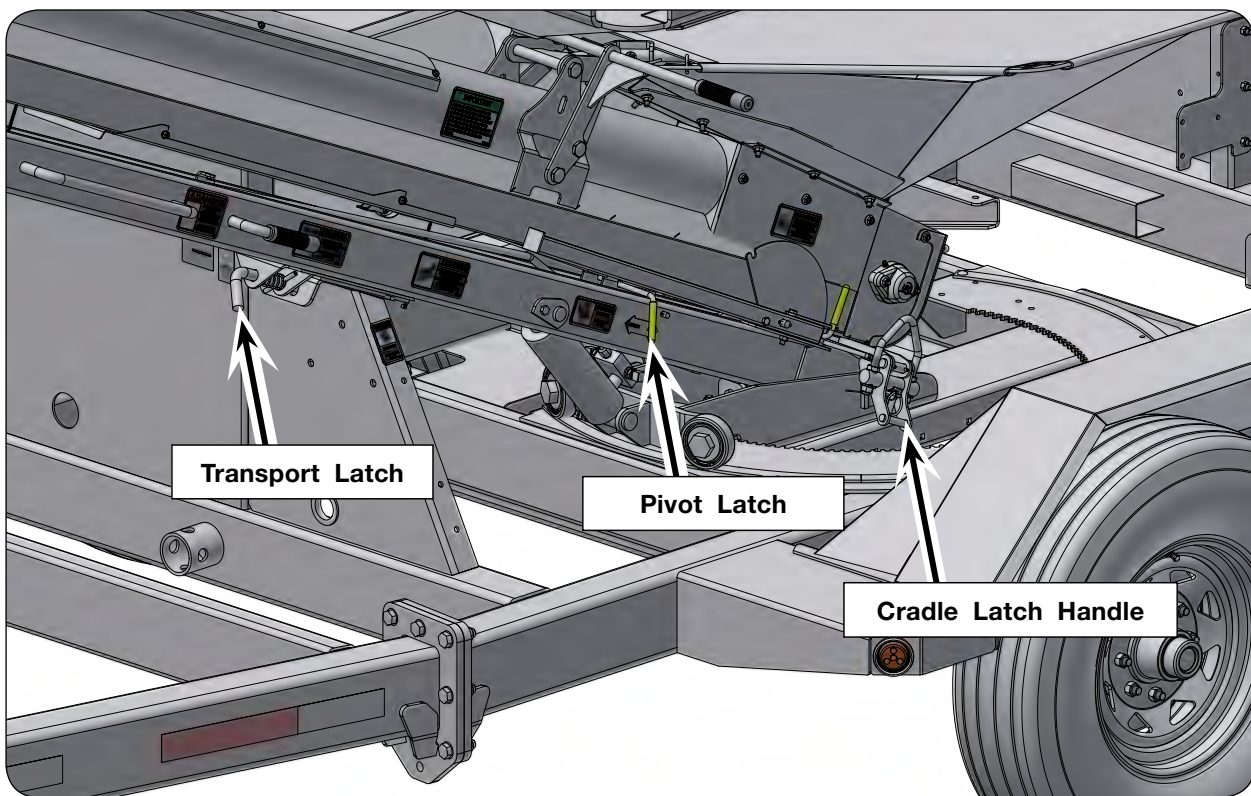
Transporting (continued)

When transporting on public roads, the conveyor needs to be latched in the forward position, extending over the tongue of the undercarriage. Transporting implement with conveyor latched in the rearward position does not comply with lighting and conspicuity marking requirements.

The center of gravity on the seed tender box is higher than a typical undercarriage. Use extreme caution when making turns and entering/exiting fields.

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

Be sure reflectors and lights are in place and clearly visible to approaching traffic.



Hydraulic Power Unit Operation

WARNING

- **EXPLOSIVE FUEL CAN CAUSE FIRES AND SEVERE BURNS. STOP ENGINE BEFORE FILLING FUEL TANK.**

- **CARBON MONOXIDE CAN CAUSE SEVERE NAUSEA, FAINTING OR DEATH. DO NOT OPERATE ENGINE IN A CLOSED OR CONFINED AREA.**

- **HOT PARTS CAN CAUSE SEVERE BURNS. DO NOT TOUCH ENGINE WHILE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**

- **EXPLOSIVE GAS FROM BATTERY CAN CAUSE FIRES AND SEVERE ACID BURNS. CHARGE BATTERY ONLY IN A WELL VENTILATED AREA. KEEP SOURCES OF IGNITION AWAY.**

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

- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**

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

- **OPERATION OF THIS EQUIPMENT MAY CREATE SPARKS THAT CAN START FIRES AROUND DRY VEGETATION. A SPARK ARRESTOR MAY BE REQUIRED. THE OPERATOR SHOULD CONTACT LOCAL FIRE AGENCIES FOR LAWS OR REGULATIONS RELATING TO FIRE PREVENTION REQUIREMENTS. THE SPARK ARRESTOR MUST BE PURCHASED SEPARATELY AND CAN BE FOUND IN THE PARTS SECTION NEAR THE END OF THIS MANUAL.**



Hydraulic Power Unit Operation (continued)

IMPORTANT

- Make certain hoses are all connected, and everyone is clear of conveyor before starting engine.
- Conveyor must be turned off before starting engine. Starting engine with conveyor turned on will result in hard starting, or failure to start.
- Do not use ether or other starting aids to start the engine. Damage to the engine will occur.
- Use only clean fuel. Contaminates in the fuel may cause damage to the engine or loss of performance.

- **HONDA ENGINE:**

When engine is not in use, turn fuel lever to the <OFF> position. Leaving the fuel valve on could cause carburetor flooding, fuel in crankcase, or fuel leakage. See FIG. 3-5.



NOTE: Installation and maintenance instructions for the spark arrestor can be found in the Honda engine manual.

Hydraulic Power Unit Operation (continued)

Before Starting Engine

Inspect that all fittings and hardware are in place and secure. Check for any potential hydraulic leaks. Check fluid levels in engine and sight gauge on reservoir. Be sure all valves are switched to neutral position.

Determine which conveyor control system is being used.



**Wired
Two-Function
Switch**



**6-Function
Remote**

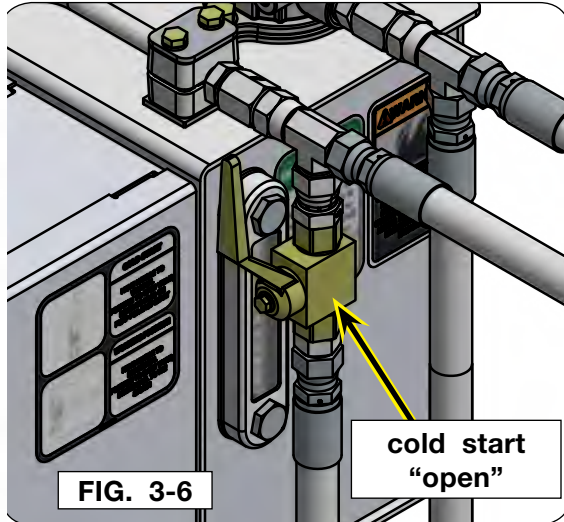
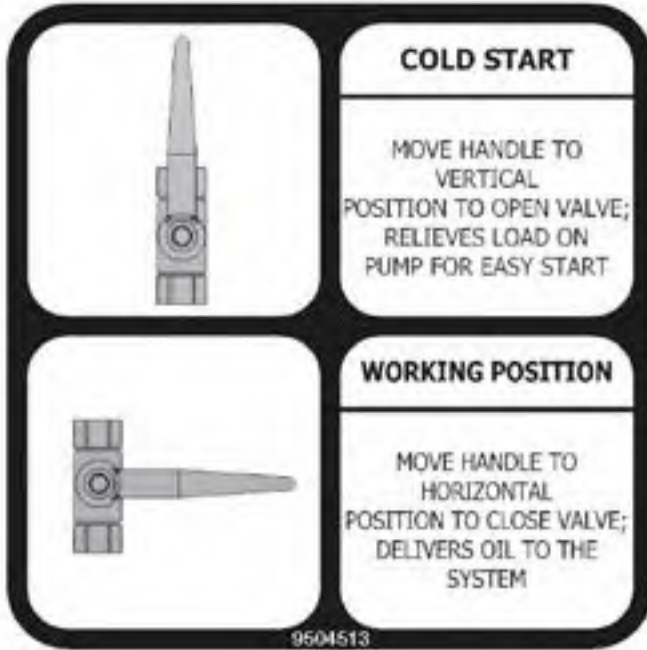


**3-Function
Remote**

Hydraulic Power Unit Operation (continued)

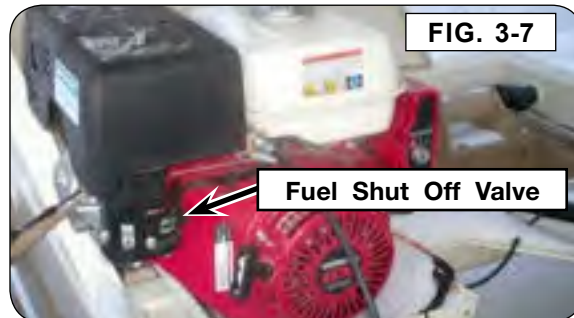
Cold Start Ball Valve

Cold start ball valve is used to aid the starting of the engine and during cold weather performance. Ball valve will also be used when replacing the filter (see MAINTENANCE section).



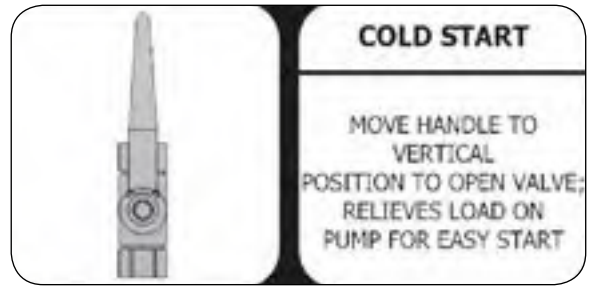
Starting Engine

1. **HONDA ENGINE:**
Turn fuel shut off valve to <ON> position.

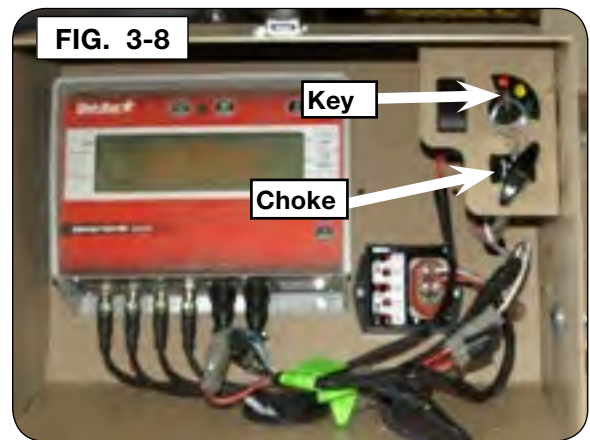


Hydraulic Power Unit Operation (continued)

- 2. Place cold start ball valve to OPEN (handle vertical) COLD START position.



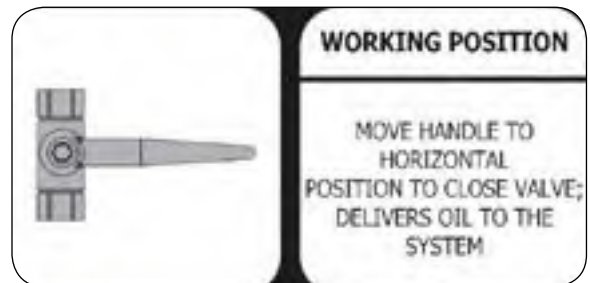
- 3. Apply choke. (FIG. 3-8)
- 4. **Wired Two-Function Switch and Three-Function Remote Systems:**
Turn key to start engine. (FIG. 3-8)



6 Function Remote:
See remote manuals for operating instructions.

- 5. Once running, turn choke off and increase throttle speed.

- 6. Run the engine until the engine and hydraulic system have sufficiently warmed, then change cold start ball valve to CLOSED (handle horizontal) WORKING POSITION.



The key switch replaces the standard engine's switch which is no longer functional.

In extremely cold weather, it is best to allow engine and hydraulics to warm up before operating at full throttle.

NOTE: If hydraulic leaks become apparent, turn engine <OFF> immediately and take appropriate actions.

See Engine operator's manual for more detailed information on engine operation.

Hydraulic Power Unit Operation (continued)

Adjusting Hydraulic Pressure Relief Valve

A. The Seed Pro tender has an adjustable relief valve on the direction control valve which can be adjusted for optimum operation. It is pre-set at the factory to by-pass the system once the hydraulic fluid pressure exceeds 1800 psi. This is the optimum setting for the tender. Adjusting the relief to higher settings may give unsatisfactory results.

⚠ WARNING

- **FAILURE TO REPLACE THE CAP BEFORE STARTING THE ENGINE WILL CAUSE THE OIL TO ESCAPE FROM THE CARTRIDGE.**
- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**



IMPORTANT

- *This Seed Pro tender can be adjusted to provide system pressures from 1,000 PSI up to 2500 PSI. When adjusting the relief to allow the system to exceed 1800 PSI, the engine will tend to bog down due to the load and in high load applications, may cause the engine to stall.*

Hydraulic Power Unit Operation (continued)

IMPORTANT

- It will be necessary to install a pressure gauge into the hydraulic system to accurately adjust the relief valve.

B. Remove the cap from the relief valve on the directional control valve with an allen wrench (FIG. 3-9).

NOTE: Do not start engine with cap removed.

C. To increase the pressure, insert allen wrench into pressure adjusting screw and turn the wrench clockwise.

To decrease the pressure, insert allen wrench into pressure adjusting screw and turn the wrench counter-clockwise. (FIG. 3-10)

D. Replace the cap on the relief valve and tighten (FIG. 3-11).

E. Start engine, fully raise the conveyor then read the system pressure while the conveyor raise control is engaged. Repeat steps B through D until the desired relief pressure is achieved.

FIG. 3-9

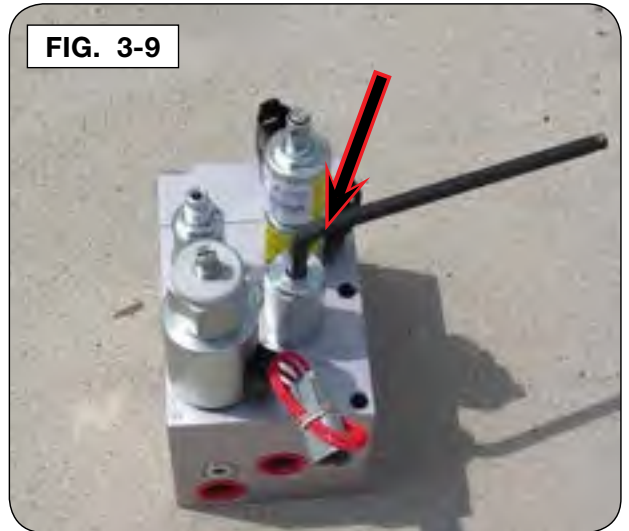


FIG. 3-10

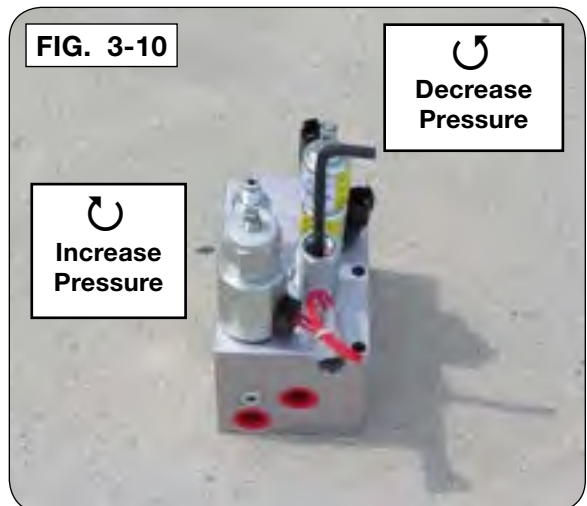
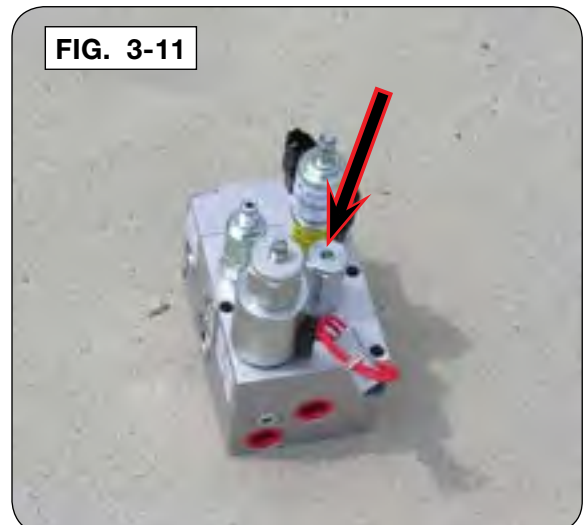


FIG. 3-11



Conveyor Belt Electronic Speed Control if Equipped

The smooth-start module speed control is simply two push buttons one to increase the conveyor speed and one to decrease the conveyor speed. Each time a button is pressed the conveyor speed changes by 10%. The speed can be varied from 20% to 100%. The speed is shown by a series of LEDs, the LEDs indicate 10% steps by flashing and 20% increments by being on continuous.



Conveyor Belt Manual Speed Control Valve

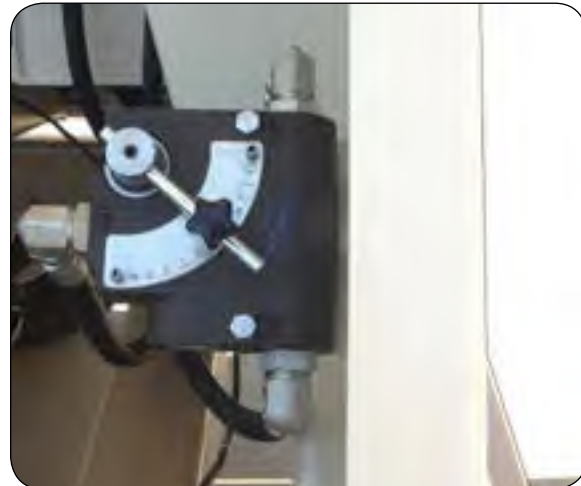
Speed of conveyor belt is controlled independently from engine speed by using the flow control valve mounted on rear standard. Slower conveyor belt speed is needed for certain types of seed. (Ex. - peanuts)

How To Set Speed Control Valve

1. Increase engine speed to full throttle.
2. Adjust flow control valve until belt is running at desired speed, snug threaded knob to lock adjusting lever in position.

How To Adjust Speed Control Valve

Loosen threaded knob and move adjustment lever to lower number for a slower speed or a higher number for a faster speed.



Raising and Lowering Conveyor

Conveyor height is adjusted by an electric switch either on the wired pendant, or the remote control. This switch activates the solenoid on the spool valve to raise or lower the conveyor.

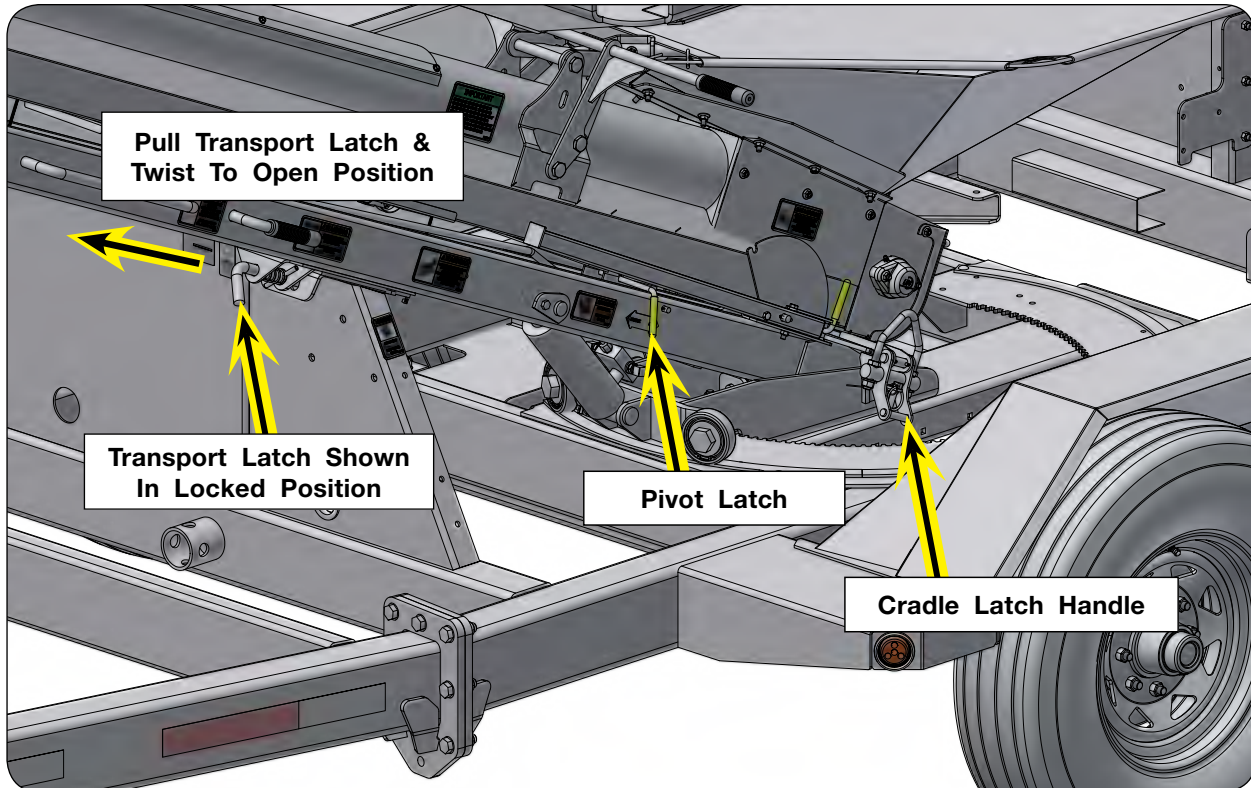
IMPORTANT

- *Always pull transport pin out from transport latch before raising conveyor.*

Activate switch to raise or lower conveyor to desired height. A check valve in the system requires hydraulic pressure for both raising and lowering the conveyor.

Pivoting Conveyor Side-To-Side

Pull transport pin from transport latch. Start engine on hydraulic power unit and increase throttle speed. Operate the switch on the hand-held pendant to raise the conveyor so that it clears the transport cradle. Turn lever to release cradle latch, and swing conveyor out to desired position.



Conveyor pivot can be left to swing freely, or it can be latched in place at various points along the track.

CAUTION

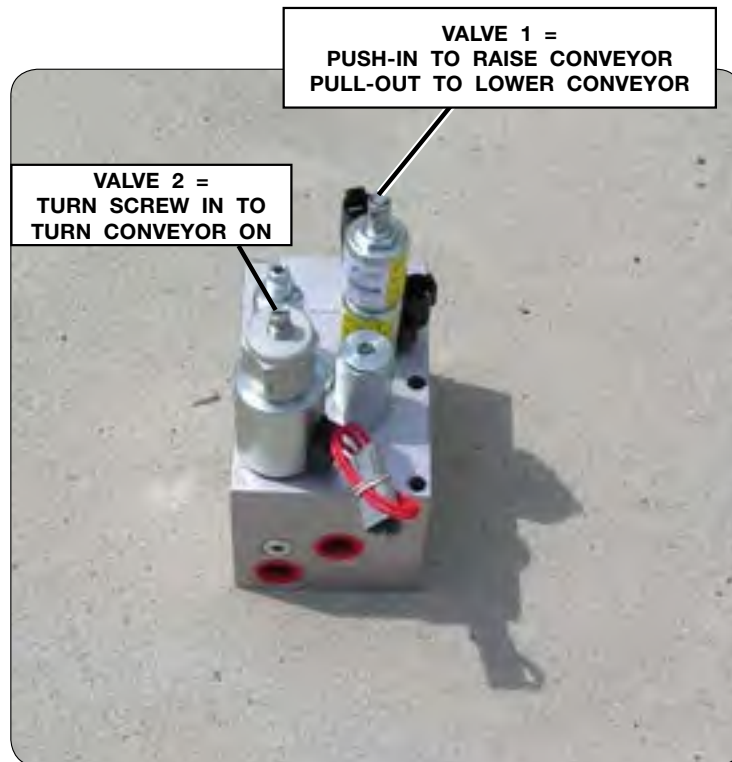
- WHEN THE SEED TENDER IS PARKED ON AN INCLINE, THE CONVEYOR MAY PIVOT AS SOON AS THE LATCH IS RELEASED. INADVERTENT MOVEMENT OF THE CONVEYOR MAY CAUSE PERSONAL INJURY.

Manual Control Of Conveyor

Should the wired switch or remote control not work to operate the conveyor, use the override buttons on the valve for operation. These are the knurled buttons located on top of the solenoids. The operations are performed by either pushing in the button and holding in place or pulling the button up and holding in place.

Valve 1 = By pushing this button in and holding in position, it will raise the conveyor. Pull this button up and hold in position, to lower the conveyor.

Valve 2 = To override, turn screw clockwise to turn conveyor on. To return to normal valve function, turn screw counterclockwise until it stops.



NOTE: To pull-out on Valve 1, push in on the button and pull up on the knurled sleeve.

Pull Start Engine

Should the engine fail to start due to a weak battery, it is possible to pull start the engine. If the battery voltage is extremely low the ignition system will need to be bypassed to be able to pull start the engine. This procedure includes:

1. Locate the “PULL START” toggle switch as shown in FIG. 4-10.
2. Flip the switch to “PULL START” position.
3. Pull the choke and then pull start the engine, open the choke as the engine warms.
4. Once engine is running, flip the toggle switch to the key switch position.



Loading Boxes Onto Seed Pro

1. Remove covers from the box chute.

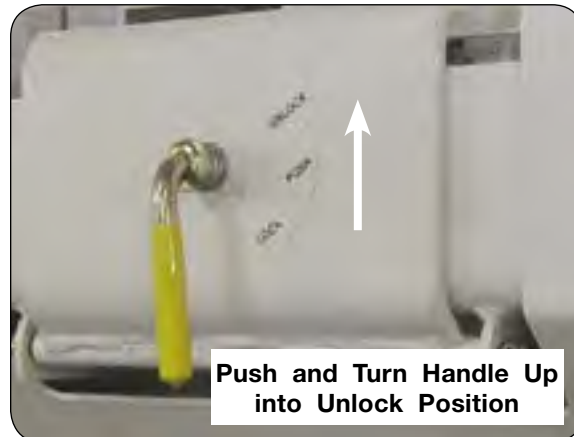


2. Locate covers in storage position, securing with provided bungee cord.



Loading Boxes Onto Seed Pro (continued)

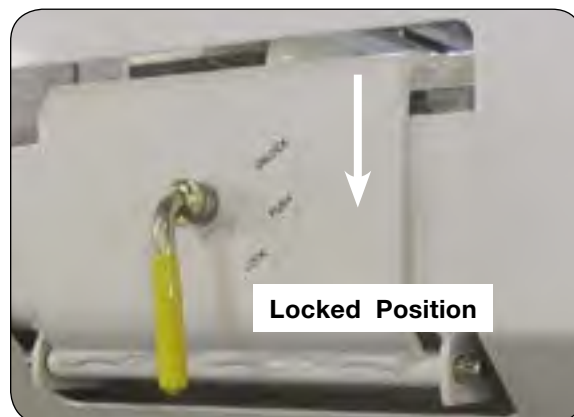
3. Push and turn handle up to unlock all box hold downs.
4. Lift boxes into position on platform.



⚠ WARNING

- **LOAD BOXES TO THE FRONT OF THE SEED TENDER FIRST TO OBTAIN WEIGHT BALANCE. IF HITCHED TO A TOWING VEHICLE, WEIGHT WILL BE MAINTAINED ON THE HITCH. IF NOT HITCHED TO A TOWING VEHICLE, USE OF THE REAR JACK STAND IS REQUIRED TO HELP MAINTAIN BALANCE. STACKING BOXES TO THE REAR FIRST COULD RESULT IN NEGATIVE TONGUE WEIGHT.**

5. With boxes in position, push and turn handle down to lock all box hold downs.



Filling Planter or Drill

Position the seed tender next to planter so conveyor discharge will be over planter box. Start engine on hydraulic power unit and increase throttle speed. Raise conveyor to desired discharge height, and pivot to location over planter. Place telescoping spout over planter box. Open door(s) on seed tender box to begin flow of seed. Turn on conveyor by pressing conveyor on/off switch.

Fill box to desired level, and turn conveyor off. Repeat process until each box/hopper is filled by pressing conveyor on/off button again.

IMPORTANT

- *Do not let telescoping spout rest in bottom of seed box. Seed will rapidly build up and plug conveyor, resulting in potential damage to belt.*

It is recommended that the conveyor be emptied once planter is filled. Do this by closing door(s) on seed tender box shortly before last planter box is full, and let conveyor empty out.

NOTE: When using the 8" conveyor to fill individual planter boxes, the cover plate must be installed over grate. This will slow grain flow to an acceptable level for ease of use. Failure to do so will result in over-filling conveyor and potential damage to seed or conveyor.

Leaving seed in the conveyor for short periods of time will not damage conveyor, nor will it hinder starting/stopping conveyor when it is full, but over time seed could begin to settle resulting in hard starting of the conveyor.

⚠ WARNING

- **THE REAR BOXES OF THE SEED TENDER BOX SHOULD ALWAYS BE EMPTIED FIRST. THIS WILL MAINTAIN WEIGHT ON THE HITCH OF THE TOWING VEHICLE. EMPTYING THE FRONT BOXES FIRST WITH THE REAR BOXES FULL COULD RESULT IN NEGATIVE TONGUE WEIGHT ON THE UNDERCARRIAGE AND REDUCED CONTROL OF THE UNDERCARRIAGE WHEN TOWING.**

Two-Function Wired Switch

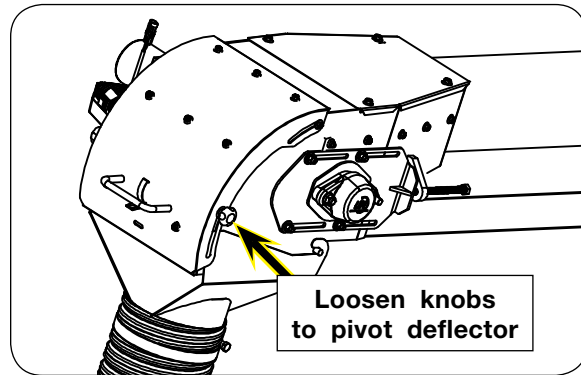


Rotating Conveyor Out For Transferring Grain

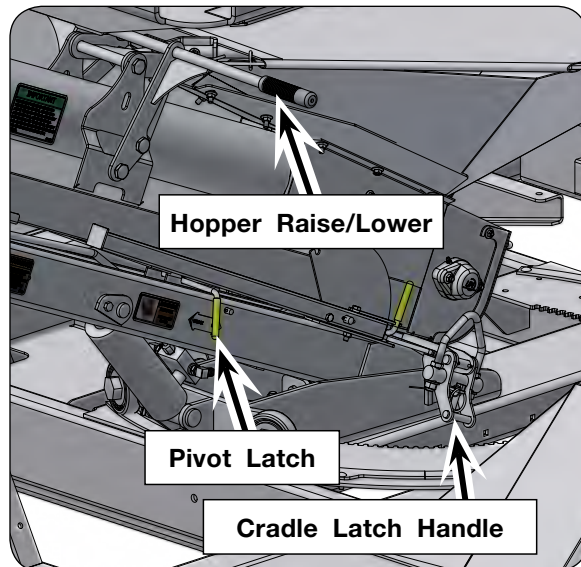
⚠ WARNING

- **THE SEED TENDER MUST BE HOOKED TO THE TOWING VEHICLE WHEN BEING FILLED AND THE BRAKES ON THE TOWING VEHICLE MUST BE SET.**
- **FILL THE FRONT BOXES OF THE SEED PRO FIRST BEFORE THE REAR BOXES TO HELP PREVENT INSTABILITY OF SEED TENDER.**

Pivot conveyor out of transport position and lower completely. Remove upper spout from conveyor by releasing latch and sliding spout off of conveyor. Loosen the two knobs on the side of the deflector, pivot deflector up, and tighten knobs to hold deflector in place.



Raise conveyor about half way up. Unlatch conveyor from lower cradle, lower flexible hopper by sliding lever back, and pull hopper end of conveyor out from under the Seed Pro box.



Position conveyor so that the discharge end is located over the Seed Pro box and the hopper is on the ground or on the stand away from the box.



Rotating Conveyor Out For Transferring Grain (continued)

IMPORTANT

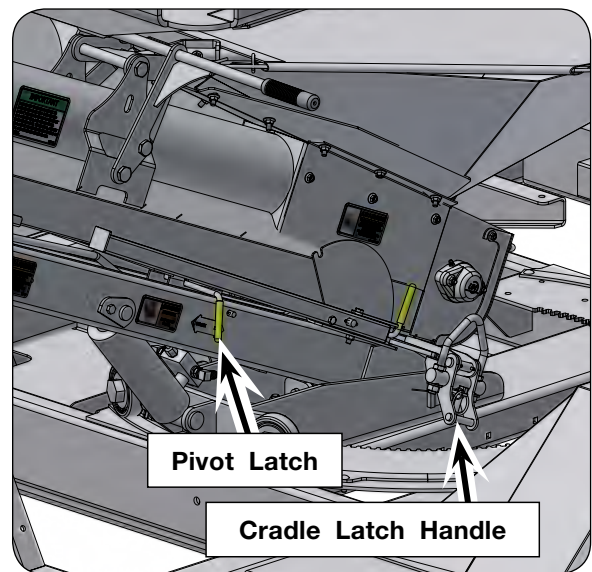
- *Whenever possible, use the stand on the bottom of the conveyor to keep the hopper off the ground. Maximum conveyor performance and easier access to discharge point on bulk seed containers will result.*

Raise flexible hopper by sliding lever to the upright position. Locate wagon or bulk seed container over conveyor hopper and operate conveyor to fill Seed Pro.

When finished loading seed into the Seed Pro, move wagon or bulk seed container away from conveyor. Pivot conveyor hopper back under the Seed Pro box, and latch in place. Conveyor should be placed back in the transport position and secured with the latch pin.

IMPORTANT

- *When pivoting conveyor, be certain to pivot back in the direction it originally came from. Do not pivot conveyor round and around. Doing so will twist hydraulic hoses at pivot point resulting in damage to hoses and potential hydraulic failure.*
- *Conveyor must always be latched in cradle except when self-filling seed tender box.*



3-Function Wireless Remote Control Pkg #2004078TS (Option)

See manual #2010519 for complete operating procedures.



6-Function Wireless Remote Control Pkg #2004080TS (Option)

See manual #2010520 for complete operating procedures.



Override Box Options

For units equipped with an Override Box, refer to remote override box instructions for installation and usage.



**Override Box
2 & 3 Function
(2009341)**



**Override Box
6 Function
(2009333)**

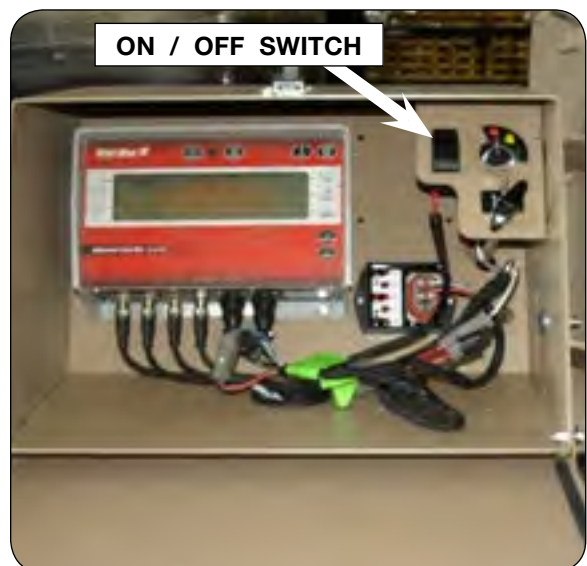
Work Light Kit (Optional)

Turning lights on/off:

1. Turn lights on/off by turning the ignition key to the “RUN or “ START” position and actuating the switch located in the common enclosure. Individual lights can be turned off by using the switch located on the light. Aim lights to best illuminate work area.

IMPORTANT

- *When not using lights for long periods of time, make sure lights are turned off. If left on battery may be drained.*



UM2520 Electronic Scale

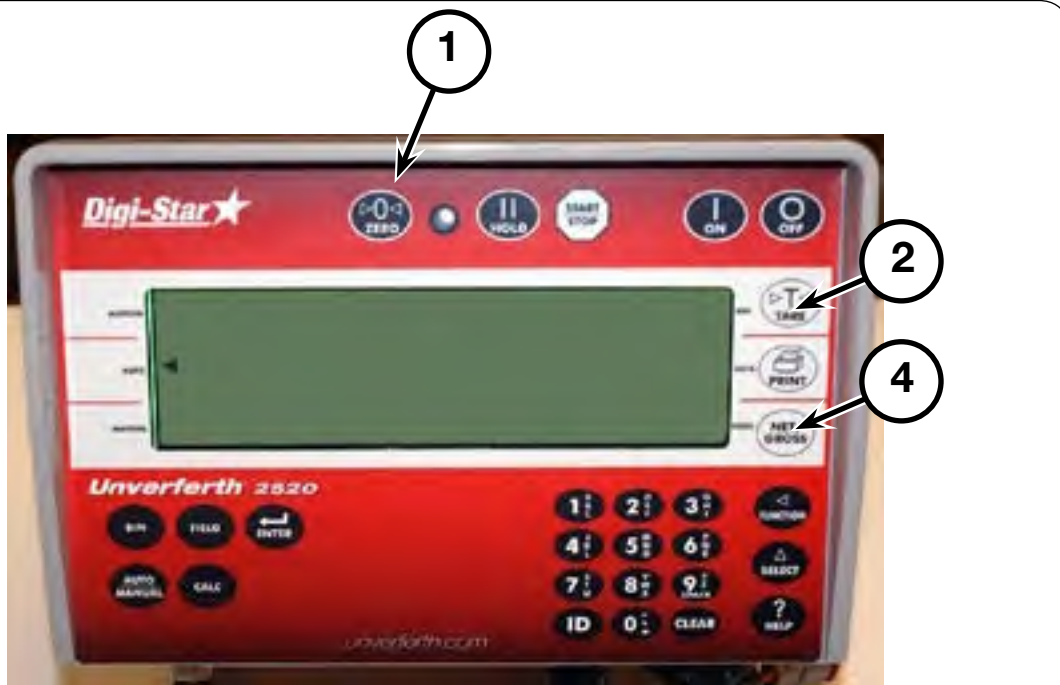
Basic Operation

To ensure that the maximum error is within the scale manufacturer's accuracy of +/- 1%, the Seed Runner tender must be stationary and on level ground when using the scale.

NOTE: Scale turns on as soon as power is applied.

1. Zero balance scale by pushing and holding the “Zero” button. This should be done where Seed Runner tender is going to be unloaded (on level ground if possible).
2. Load Seed Runner tender and let scale total up weight. When Seed Runner tender is full, drive up to planter wagon or truck and stop. After scale settles on a number, push the “Tare” button. Scale indicator will show zero.
3. Start unloading Seed Runner tender. When planter wagon or truck is full or Seed Runner tender is empty, the negative amount shown on scale is actual product in planter wagon or truck.
4. Push the “Net/Gross” button. This will put the scale back into the gross weighing mode again. If the Seed Runner tender has grain in it yet, it will tell you how much weight is left on the Seed Runner tender. You can now load the Seed Runner tender again and repeat the same unloading process.
5. It is recommended to periodically fully empty the Seed Runner tender and rebalance the scale.

NOTE: Refer to your scale indicator manual for additional operating information.



UM2520 Electronic Scale (continued)

Detailed Procedures

To Zero / Balance the Scale

1. Press the [NET/GROSS] key and within three seconds,
2. Press the [ZERO] key.

The [ZERO] key will “balance off” empty undercarriage, bin, or platform weight.

The “ZERO” message is displayed and the scale is placed in the GROSS mode.

Pressing only the [ZERO] key will cause the message “TO ZERO / BALANCE PRESS NET/ GROSS -- THEN ZERO” to be displayed.

If the supply power is below the “low battery threshold” (10.5 Volts), the message “INDICATOR CANNOT BE ZERO/BALANCED -- LOW BATTERY VOLTAGE” is displayed. The message “LO BAT” will be periodically shown on the display (approx. every five seconds) to alert the operator of the low battery condition.

Loss of power does not affect the ZERO/BALANCE or “Setup/Calibration” values.



UM2520 Electronic Scale (continued)

Detailed Procedures (continued)

To Select Gross Mode

GROSS mode displays the weight change since it was last **ZERO/BALANCED**.

1. Press [**NET / GROSS**].

The scale is in **GROSS** mode if there is a flashing arrow pointing toward the word **GROSS**, next to the display.



To Select Net Mode

NET mode displays the weight change after a **TARE** has been performed. **TARE** is a temporary “zero” or reference point.

1. Press [**TARE**] key for 3 seconds to set a temporary “zero” point and enter the **NET** mode.
2. If in Gross mode, press [**NET / GROSS**] key.



The [**NET/GROSS**] key is an alternating action key. If the scale is in the **GROSS** mode, pressing the [**NET/GROSS**] key will place it in the **NET** mode. If the scale is in the **NET** mode, pressing the [**NET/GROSS**] key will place it in the **GROSS** mode.

If the **TARE** function has not been previously performed, the Seed Runner will stay in the **GROSS** mode and the message “**FOR NET MODE PRESS TARE**” will scroll across the display.

The scale is in **NET** mode if there is a flashing arrow pointing toward the word **NET**, next to the display.

To Print (Optional Feature)

Press the **PRINT** key. Scale data will be sent to the printer or data downloader.



UM2520 Electronic Scale (continued)**Detailed Procedures** (continued)**To Change the Setup & Calibration Numbers**

1. Press **[ON]** to turn on the scale.
2. To enter Short Form Calibration & Setup press and hold the **[ZERO]** key, then press the **[ON]** key and hold until the message displayed is “**SETUP**”.
3. Next, the actual **SETUP** number is displayed.
(NOTE: Factory **SETUP** number is 146040.)
4. Press the **[ZERO]** key for additional help information during Setup and Calibration.
5. If the correct **SETUP** number is displayed, press the **[ON]** key to advance to the **CAL** number.
(NOTE: Factory **CAL** number is 32640.)
- A. Press the **[SELECT]** key to cause the “flashing” digit to count upward.
- B. Press the **[FUNCTION]** key to select which digit is flashing.
6. When the correct **SETUP** number is displayed, press the **[ON]** key to advance to the **CAL** number.

SETUP**146040****32640****32641****CAL****32640**

This displays the **CAL** message, followed by the **CAL** number.

The **CAL** number is not a weight. It is a reference value the indicator uses to determine the weight. This number directly affects the accuracy of the scale system.

Change the **CAL** number using the same method described in step 5. When the display shows the correct number, press the **[ON]** key. This causes the number to be stored permanently in the indicator and returns the indicator to the weighing mode.

To Return to Weigh Mode

1. To exit setup without changing any values, press and hold the **[TARE]** key, then press the **[ON]** key.

Downloader Module Option

Getting Started

Load the DTU (Data Transfer Utilities) software on your PC. Instructions are included with the CD-Rom Software.

1. System Requirements for Computer

- Windows 98/2000/NT operating system: Pentium 100 PC or better
- Serial Port: 100 MB of free disk space
- CD-Rom Drive: 32 MB of RAM

2. Connect Cable to Computer

The cable included with your DDL Kit, connects to the serial port on your computer. The serial port is referred to as “COM port.” If your computer has more than one COM port, they will usually be named COM1, COM2, etc. This cable has a 9-pin D-sub connector. The cable must be securely connected to a COM port to function.

3. Connect DDL to Indicator

Connect DDL to Serial/Printer port (J904) on Digi-Star indicator, which is located on bottom panel. Press the “Print Key.” When indicator printing is completed, remove DDL.

3a. DDL Set Up Requirements

Use of the DDL (Data Downloader) with the EZII series indicators requires the latest software version. It is recommended that you call the Digi-Star Service Department for the latest software version and upgrade, if necessary to become current, before attaching and using a DDL.

Menu 2 in the long form set up contains some features that must be set for the DDL to function properly. They are:

```
SCOREM 0
COM IN  DOWNLD
C1 DLY  .10
```



4. Connect DDL to Cable

Simply fasten module on the black circular plastic connector opposite computer connector. The module will lock on the cable connection with a twist of the fastener on module. Be sure that the module is secured on cable.

5. Operate the DDL from Computer

Follow Data Transfer Utilities (DTU) software instructions included with the CD-Rom software.

Refer to the Manufacturer's Operation and Installation Manual for complete instructions, trouble-shooting, and scale set-up/configuration guide or visit www.digi-star.com on the Web.

Auto-Shutdown Feature for UM2520 Scale ONLY (Option)

1. Turn on the UM2520 Electronic Scale. The scale only allows increments of 10 lbs. Enter the desired amount of product to be dispensed, then press [Enter].
2. The scale will flash “PRESET”. Use either the corded control or the radio remote to turn on the conveyor. Once the conveyor has dispensed the programmed amount of product it will automatically turn off.
3. To dispense the preset amount again press the conveyor control button once to automatically reset the indicator to the previously programmed unload weight. Press the button again turning the conveyor on. This cycle can be repeated as many times as necessary.



FIG. 3-36

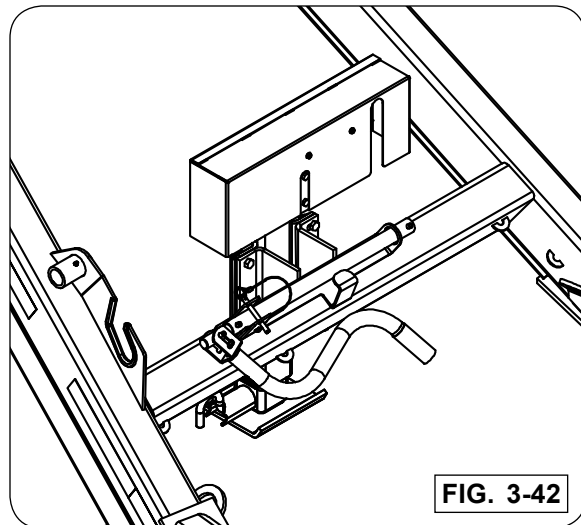
NOTE: If the conveyor is shut off in the middle of a weighing cycle it will stop the preset function and the scales will return to normal manual operation.

Hydraulic Jack (Option)

See hydraulic jack for bumper hitch manual #2005832 for complete operating procedures.



See hydraulic jack for gooseneck hitch manual #2004726 for complete operating procedures.



Gooseneck Cushion Hitch Height/Air Pressure Adjustment

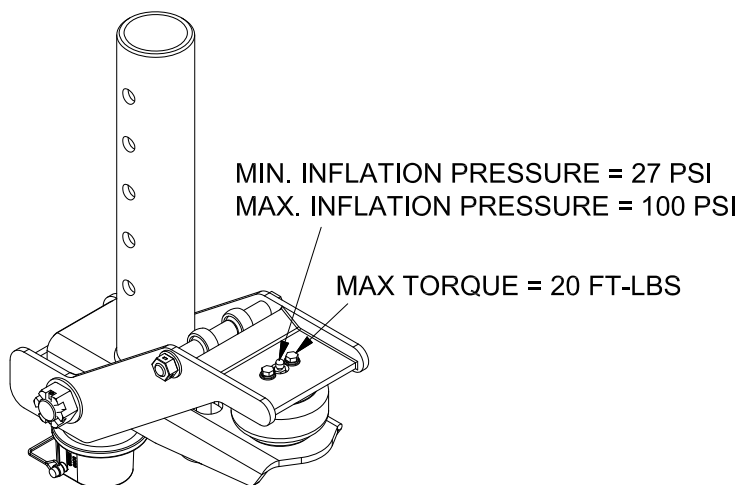
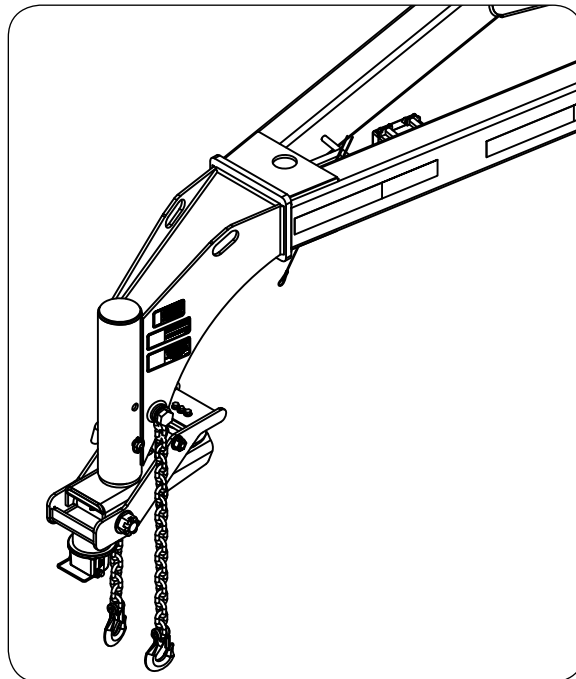
Make sure seed tender is running level when loaded.

Adjust the air pressure as needed to get the desired ride quality for customers setup.

Min. Inflation Pressure = 27 PSI

Max. Inflation Pressure = 100 PSI

NOTE: Do not over tighten the air bag retaining hardware.



Notes

SECTION IV

Maintenance

Lubrication.....	4-2
Conveyor Bearings.....	4-2
Pivot Points.....	4-2
Wheel Bearings.....	4-2
Hydraulic Power Unit.....	4-2
Gooseneck Cushion Hitch.....	4-3
Gooseneck Cushion Hydraulic System.....	4-3
Hydraulic System	4-4
Purge Hydraulic System	4-4
Relieving Hydraulic Pressure	4-5
Hub Assembly	4-5
Conveyor Belt.....	4-6
Belt Tension.....	4-6
Belt Tracking.....	4-7
Brake Cleaning and Inspection.....	4-9
Brake Lubrication	4-9
Magnets	4-9
Shoes and Linings.....	4-10
How To Measure Amperage	4-11
Brake Drum Inspection.....	4-12
Bearing Inspection.....	4-12
Bearing Lubrication	4-12
Troubleshooting Brakes	4-13
Power Pak.....	4-13
Battery Warranty	4-16
Wheels and Tires.....	4-17
Wheel Nut Torque Requirements.....	4-17
Tire Pressure	4-17
Tire Warranty	4-18
Storage.....	4-18
Troubleshooting.....	4-19
Conveyor Raise/Lower Cylinder Not Working Properly.....	4-21
Smooth-Start Module Troubleshooting.....	4-23
Scale Troubleshooting.....	4-24
Scale “Short Form” Set-up & Calibration	4-25
Auto Conveyor Shut-Off Troubleshooting	4-27
Electrical Schematics	4-28
Stackable Valve Manual Override Operation & Wire Schematic.....	4-34
Hydraulic Schematic for Conveyor.....	4-36
Belt Stretcher (Optional)	4-37
Complete Torque Chart — Capscrews.....	4-39
Hydraulic Fittings	4-39

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 these 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.



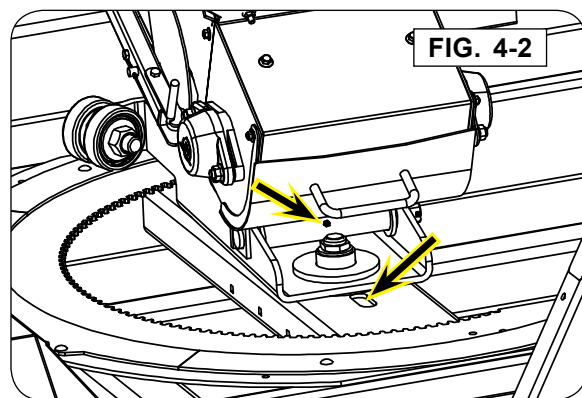
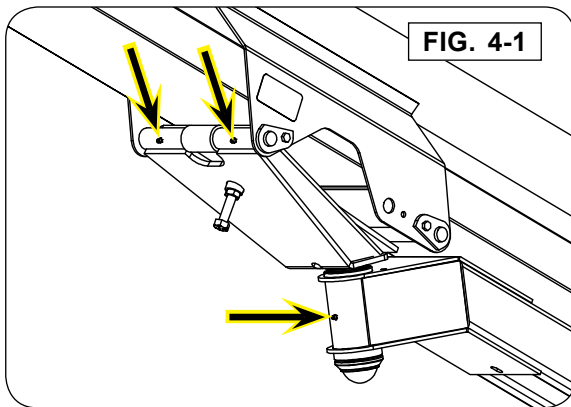
CAUTION

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

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

Pivot Points

Lubricate pivot points on pivoting arm every 50 hours of operation and at the end of each season.



Wheel Bearings

The wheel bearings should be cleaned, repacked and adjusted every 12 months or 12,000 miles, whichever comes first. Use a number 2 wheel bearing grease to repack the bearings and adjust the bearing to a free-rolling fit with no end play.

Hydraulic Power Unit

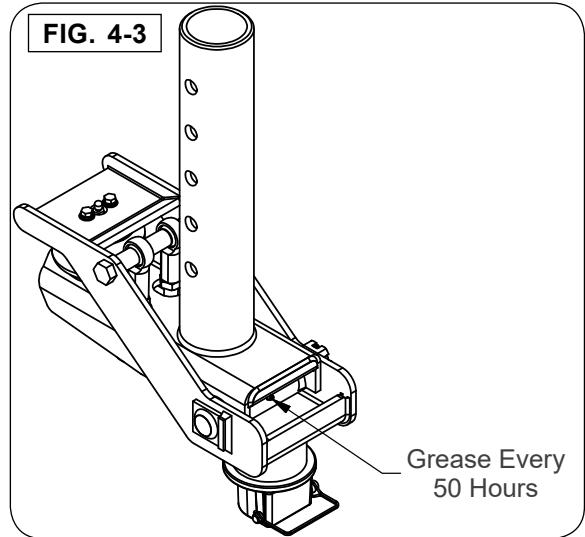
Inspect hydraulic oil level in reservoir daily. Level should be 1 to 1 1/2" from the top. Add appropriate hydraulic oil as needed. Most farm tractor type hydraulic oils are acceptable. **DO NOT** use Automatic Transmission Fluid! **DO NOT** mix different oils when topping off the tank.

Check motor oil level in engine daily. See Engine operator's manual for details on oil levels, oil types, and service intervals.

Lubrication (continued)

Gooseneck Cushion Hitch

Lubricate pivot points on pivoting arm every 50 hours of operation and at the end of each season.



Gooseneck Cushion Hitch Torque and Air Pressure

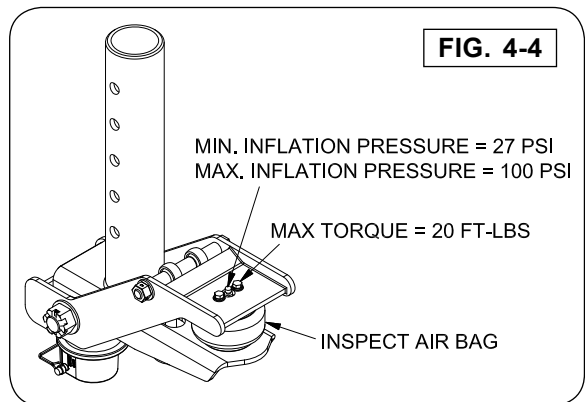
Check air bag pressure.

Min. Inflation Pressure = 27 PSI

Max. Inflation Pressure = 100 PSI

Torque the air bag retaining hardware to 20 Ft.Lbs.

Inspect air bag for rips, tears, and leaks.



Hydraulic System

Refer to parts section for hydraulic component detail listing.

When properly assembled and maintained, the hydraulic system of the seed tender requires little maintenance.

Replacing Hoses/Fittings/Cylinders:

1. Use replacement hoses, fittings, and cylinders from your Unverferth Manufacturing dealer which are rated for 3000 psi.
2. Do not use hoses, fittings and cylinders that have pipe threads.
3. Do not use Teflon tape or thread sealant on JIC or O-ring fittings. Tighten fittings according to “Torque Chart” in this section.
4. When replacing hoses, always allow sufficient slack to permit hoses to move through the full range of motion of the cylinders.
5. Always purge the hydraulic system after servicing.

Purge Hydraulic System

WARNING

- RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR’S MANUAL FOR PROPER PROCEDURES.
- HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.



Purge air from system as follows:

- A. Clear all personnel and objects from the area, including where the machine will have full range of motion during the hydraulic movement. Remove transport locks from the machine.
- B. Pressurize the system and maintain the system at full pressure for at least 5 seconds after the cylinder rods stop moving, or hydraulic motors have completed the required movement. Check that all movements are fully completed.
- C. Check oil reservoir in the hydraulic power source and refill as needed.
- D. Pressurize the system again to reverse the motion of step B. Maintain pressure on the system for at least 5 seconds after the cylinder rods stop moving, or hydraulic motors have completed the required movement. Check that all movements are fully completed.
- E. Check for hydraulic oil leaks using cardboard or wood. Tighten connections according to directions in the Torque Specifications in the MAINTENANCE section.
- F. Repeat steps in B, C, D, and E 10-12 times.

IMPORTANT

- *Machine damage will occur if the cylinder is incorrectly installed.*

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

Hydraulic System (continued)

Relieving Hydraulic Pressure

To relieve hydraulic pressure in the system, be sure hydraulic motor is disengaged and/or hydraulic cylinder is not exerting force on the system. Next, turn off engine and actuate valves in hydraulic system to all positions of actuation and to the neutral position. This should relieve all pressure in the system. If there is a need to remove hydraulic fittings or hoses, slowly loosen the appropriate connections. If there appears to be pressure in the system, retighten fitting and at the top of this section and perform all procedures again until pressure is relieved.

Hub Assembly

The wheel bearings should be cleaned, repacked and adjusted every 12 months or 2,500 miles, whichever comes first. Use a number 2 wheel bearing grease to repack the bearings. Use the following instructions to properly tighten the wheel bearings:

1. Use grease to lubricate the seal lip.
2. Place the hub onto the spindle. Rotate the hub while installing the hub so that the seal lip does not fold under as the lip goes on the seal face of the spindle.
3. Be sure the outer cone slides on the spindle and cup.
4. Assemble the washer and nut onto the spindle and spin hub as tightening nut and when hub stops turning back the nut off to the closet hole and insert cotter pin. Do not bend the cotter pin.
5. Check for looseness in the hub. There should be none to slight wiggle. If excessive wiggle is present, repeat the procedure starting with step 4.
6. After hub is properly installed, secure into position by bending cotter pin.

Conveyor Belt

⚠ WARNING

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

IMPORTANT

- 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 after the first initial use and second use and then after the 2 hours of initial use. Thereafter, belt tension and tracking should be checked at the beginning of each season and every 8 hours of use. Belt tracking will also need to be checked anytime the belt tension is adjusted.

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 1/2" of slack at the center. It is recommended to check the belt tension before operation if the unit has been sitting for an extended period of time.

How To Tension Belt

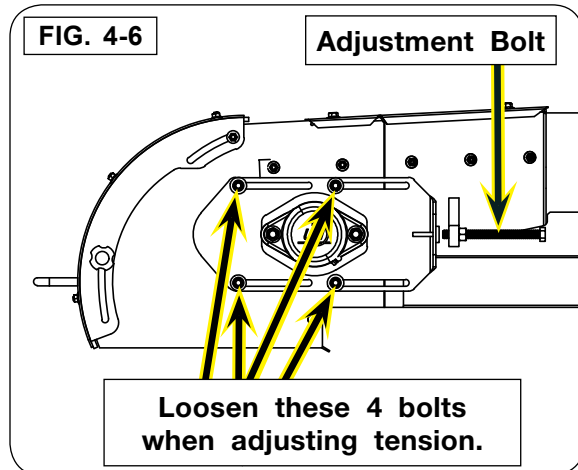
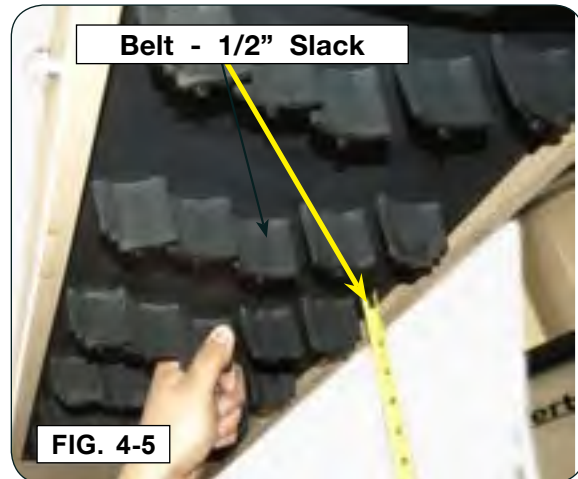
1. On the outside of the belt and conveyor, measure from the bottom of the conveyor shell to the belt without pulling down on belt and note that measurement (FIG. 4-6 shows 1 1/2").
2. Keep the tape measure pressed up against the belt and pull down gently on center lug of conveyor belt in the middle of the access door. The belt should deflect 1/2" (tape measure will read 1").

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

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

IMPORTANT

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

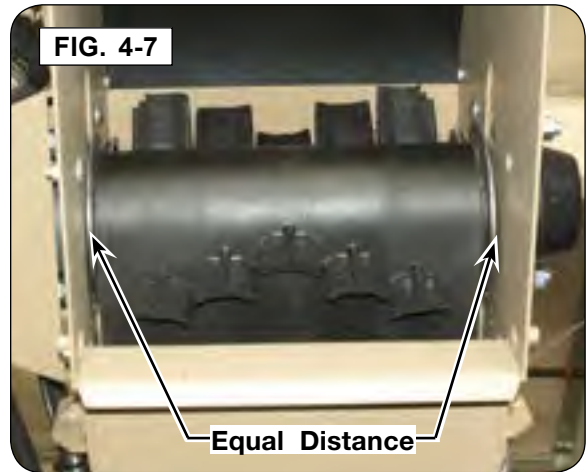


Conveyor Belt (continued)

Belt Tracking

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

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.



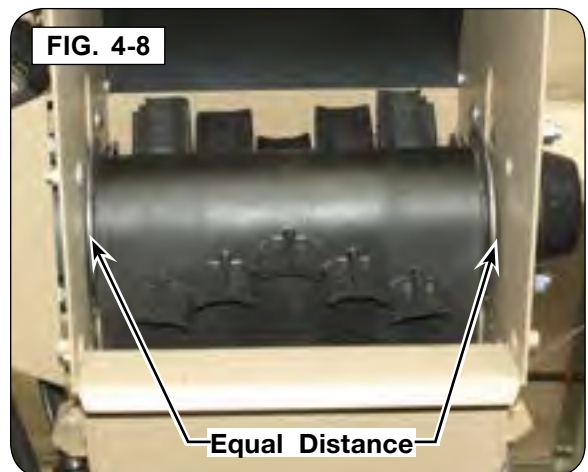
Adjust by loosening, DO NOT REMOVE, the four bolts on the side of the conveyor. Operate conveyor at slow speed, and tighten or loosen the adjustment bolt until belt is running in the center of the pulley.

⚠ WARNING

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

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

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



Conveyor Belt (continued)

Belt Tracking (continued)

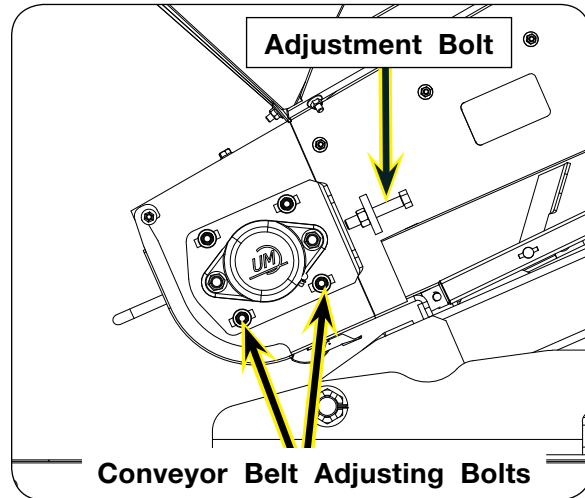
Adjust by loosening (Do Not Remove) the four bolts (two on each side) on the adjusting plate.

Adjust by loosening (DO NOT REMOVE) the four bolts (two on each side) on the adjusting plate.

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

WARNING

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



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

Brake Cleaning and Inspection

Your undercarriage brakes must be inspected and serviced immediately if a loss of performance is experienced. With normal use, servicing at one year intervals is usually adequate. With increased usage, this work should be performed more frequently as required. Magnets and shoes must be changed when they become excessively worn or scored, a condition which can reduce vehicle braking. Clean the backing plate, magnet arm, magnet, and brake shoes. Make certain that all the parts removed are replaced in the same brake and drum assembly. Inspect for any loose or worn parts, stretched or deformed springs and replace as necessary.

WARNING

- **POTENTIAL ASBESTOS DUST HAZARD - SOME BRAKE LININGS MAY CONTAIN ASBESTOS DUST, WHICH HAS BEEN LINKED TO SERIOUS OR FATAL ILLNESSES. CERTAIN PRECAUTIONS NEED TO BE TAKEN WHEN SERVICING BRAKES:**
 1. Avoid creating or breathing dust.
 2. Avoid machining, filing or grinding the brake linings.
 3. Do not use compressed air or dry brushing for cleaning (dust can be removed with a damp brush).

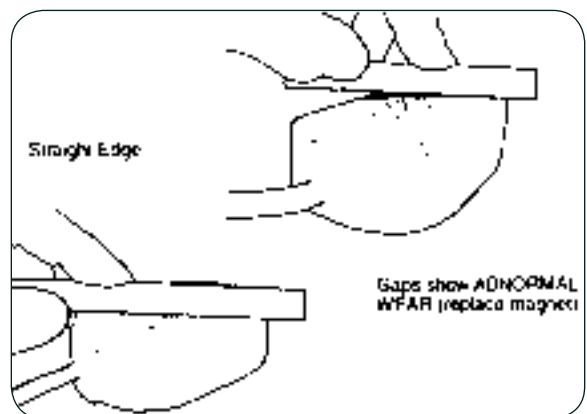
Brake Lubrication

Before reassembling, apply a light film of grease or anti-seize compound on the brake anchor pin, the actuating arm bushing and pin, and the areas on the backing plate that are in contact with the brake shoes and magnet lever arm. Apply a light film of grease on the actuating block mounted on the actuating arm.

NOTE: Do not get grease or oil on the brake linings, drums or magnets.

Magnets

Your electric brakes are equipped with high quality electromagnets that are designed to provide the proper input force and friction characteristics. Your magnets should be inspected and replaced if worn unevenly or abnormally. Use a straightedge to check magnet condition. For best results, the magnet should be flat. Even if wear is normal as indicated by your straightedge, the magnets should be replaced if any part of the magnet coil has become visible through the friction material facing of the magnet. It is also recommended that the drum armature surface be refaced when replacing magnets. Magnets should also be replaced in pairs - both sides of an axle.



Brake Cleaning and Inspection (continued)

Shoes and Linings

A simple visual inspection of your brake linings will tell if they are usable. Replacement is necessary if the lining is worn (to within 1/16" or less), contaminated with grease or oil, or abnormally scored or gouged. Hairline heat cracks are normal in bonded linings and should not be cause for concern. When replacement is necessary, it is important to replace both shoes on each brake and both brakes of the same axle. This will help retain the "balance" of your brakes.

After replacement of brake shoes and linings, the brakes must be re-burnished to seat in the new components. This should be done by applying the brakes 20 to 30 times from an initial speed of 40 m.p.h., slowing the vehicle to 20 m.p.h. Allow ample time for brakes to cool between applications. This procedure allows the brake shoes to seat in to the drum surface.



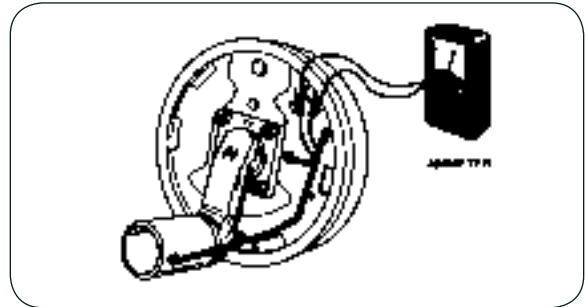
How to Measure Voltage

System voltage is measured at the magnets by connecting the voltmeter to the two magnet lead wires at any brake. This may be accomplished by using a pin probe inserted through the insulation of the wires. The engine of the towing vehicle should be running when checking the voltage so that a low battery will not affect the readings. Voltage in the system should begin at 0 volts and, as the controller bar is slowly actuated, should gradually increase to about 12 volts. If the controller does not produce this voltage control, consult your controller manual. The threshold voltage of a controller is the voltage applied to the brakes when the controller first turns on. Lower threshold voltage will provide for smoother braking. If the threshold voltage is too high, the brakes may feel grabby and harsh.



How to Measure Amperage

System amperage is the current flowing in the system when all the magnets are energized. The amperage will vary in proportion to the voltage. The engine of the tow vehicle should be running with the undercarriage connected when checking the undercarriage braking system. One place to measure system amperage is at the BLUE wire of the controller which is the output to the brakes. The BLUE wire must be disconnected and the ammeter put in series into the line. System amperage draw should be as noted in the following table.



Brake Size	Amps/Magnet	Two Brakes	Four Brakes	Six Brakes	Magnet Ohms
7 x 1¼	2.5	5.0	10.0	15.0	3.9
10 x 1½	3.0	6.0	12.0	18.0	3.2
10 x 2¼	3.0	6.0	12.0	18.0	3.2
12 x 2	3.0	6.0	12.0	18.0	3.2
12¼ x 2½	3.0	6.0	12.0	18.0	3.2

Make sure your ammeter has sufficient capacity and note polarity to prevent damaging your ammeter. If a resistor is used in the brake system, it must be set at zero or bypassed completely to obtain the maximum amperage reading. Individual amperage draw can be measured by inserting the ammeter in the line at the magnet you want to check. Disconnect one of the magnet lead wire connectors and attach the ammeter between the two wires. Make sure that the wires are properly reconnected and sealed after testing is completed. The most common electrical problem is low or no voltage and amperage at the brakes. Common causes of this condition are:

1. Poor electrical connections
2. Open circuits
3. Insufficient wire size
4. Broken wires
5. Blown fuses (fusing of brakes is not recommended)
6. Improperly functioning controllers or resistors

Another common electrical problem is shorted or partially shorted circuits (indicated by abnormally high system amperage). Possible causes are:

1. Shorted magnet coils
2. Defective controllers
3. Bare wires contacting a grounded object

Finding the cause of a short circuit in the system is done by isolating one section at a time. If the high amperage reading drops to zero by unplugging the undercarriage, then the short is in the undercarriage. If the amperage reading remains high with all the brake magnets disconnected, the short is in the undercarriage wiring. All electrical troubleshooting procedures should start at the controller. Most complaints regarding brake harshness or malfunction are traceable to improperly adjusted or nonfunctional controllers. See your controller manufacturer's data for proper adjustment and testing procedures. For best results, all the connection points in the brake wiring should be sealed to prevent corrosion. Loose or corroded connectors will cause an increase in resistance which reduces the voltage available for the brake magnets.

Brake Drum Inspection

There are two areas of the brake drum that are subject to wear and require periodic inspection. These two areas are the drum surface where the brake shoes make contact during stopping and the armature surface where the magnet contacts (only in electric brakes).

The drum surface should be inspected for excessive wear or heavy scoring. If worn more than .020" oversized, or the drum has worn out of round by more than .015", then the drum surface should be re-machined. If scoring or other wear is greater than .090" on the diameter, the drum must be replaced. When turning the drum surface, the maximum re-bore diameter is as follows:

The machined inner surface of the brake drum that contacts the brake magnet is called the armature surface. If the armature surface is scored or worn unevenly, it should be re-faced to a 120 micro inch finish by removing not more than .030" of material. To insure proper contact between the armature face and the magnet face, the magnets should be replaced whenever the armature surface is re-faced and the armature surface should be re-faced whenever the magnets are replaced.

IMPORTANT

- *It is important to protect the wheel bearing bores from metallic chips and contamination which result from drum turning or armature re-facing operations. Make certain that the wheel bearing cavities are clean and free of contamination before reinstalling bearing and seals. The presence of these contaminants will cause premature wheel bearing failure.*

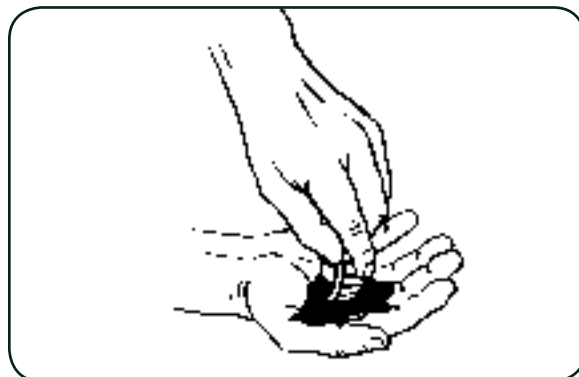
Bearing Inspection

Wash all grease and oil from the bearing cone using a suitable solvent. Dry the bearing with a clean, lint-free cloth and inspect each roller completely.

Bearing Lubrication

Along with bearing adjustment, proper lubrication is essential to the proper function and reliability of your undercarriage axle. Bearings should be lubricated every 12 months or 12,000 miles. The method to repack bearing cones is as follows:

1. Place a quantity of grease into the palm of your hand.
2. Press a section of the widest end of the bearing into the outer edge of the grease pile closest to the thumb forcing grease into the interior of the bearing.
3. Repeat this while rotating the bearing from roller to roller.
4. Continue this process until you have the entire bearing completely filled with grease.
5. Before reinstalling, apply a light coat of grease on the bearing cup.



Troubleshooting Brakes

Most electric brake malfunctions, that cannot be corrected by either brake adjustments or synchronization adjustments, can generally be traced to electrical system failure. Voltmeters and ammeters are essential tools for proper troubleshooting of electric brakes. Mechanical causes are ordinarily obvious, i.e. bent or broken parts, worn out linings or magnets, seized lever arms or shoes, scored drums, loose parts, etc. Please consult the following troubleshooting charts in this section of the manual to determine the causes and solutions for common problems found in undercarriage braking systems.

CAUTION

- **BEST BRAKING PERFORMANCE IS ACHIEVED WITH A CONTROLLER SETTING THAT IS JUST SHORT OF WHEEL LOCK UP OR SLIDE. OVERLY AGGRESSIVE BRAKING WHICH RESULTS IN WHEEL LOCK UP AND SLIDING, CAN CAUSE A DANGEROUS LOSS OF CONTROL AND RESULT IN PERSONAL INJURY OR DEATH.**

Power Pak

For general maintenance and servicing of power pak unit.

NOTE: Engines are warranted for 3 years. For maintenance of engine and warranty information, refer to Operator's Manual provided with engine. Following are Websites to locate engine dealers and service centers:

HONDA

US www.engines.honda.com

Canada www.honda.ca

Please provide Honda with the following engine information:

11.7 HP/23.7 CU IN; GX390 UT2QNR2

The hydraulic filter and fluid should be replaced after every 100 hours of engine run or once the filter gauge indicates a restriction in the red area. Be sure to filter the fluid when filling tank, especially from a bulk container. Any foreign materials in fluid will dramatically reduce the life of the pump. Follow steps below to change hydraulic fluid:

WARNING

- **RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR THE PROPER PROCEDURES.**
- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**
- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**



Power Pak (continued)

Replace the initial filter after 3 hours of use with the additional oil filter provided. It is not necessary to replace the hydraulic fluid at this time. When the filter is replaced after the initial filter replacement, it is important that the hydraulic fluid be replaced too. It takes approximately 4.5 gallons to fill the system.

IMPORTANT

- When checking the filter by using a gauge, check the filter gauge after conveyor is ran for 2 minutes to allow oil to warm up.
- When replacing filter be sure that it is replaced with an Unverferth service part. This filter has an ultra-fine mesh which filters out microscopic particles. Failure to replace with an Unverferth filter could result in system malfunction and/or shortened life of components. The hydraulic filter and fluid should be replaced after every 100 hours of engine run time. Place cold start valve in OPEN position. Be sure to filter the fluid when filling the tank, especially from a bulk container. Any foreign fluid will dramatically reduce the life of the pump.
- Use a premium hydraulic fluid. This fluid not only will provide pressure to operate your equipment, but also lubricates all components. This unit was designed to use **Chevron 1000 THF hydraulic fluid**. Use the same or equivalent-type hydraulic fluid to provide a long service life of your Power Pak.

NOTE: The filter gauge may take several seasons for the gauge to approach the red (replace) portion of the gauge. Once the gauge is close to the red (replace) portion, the gauge will spike.

1. Turn off engine and remove spark plug to prevent engine from starting. Be sure all hydraulic fittings and hoses are relieved of pressure, FIG. 4-19.

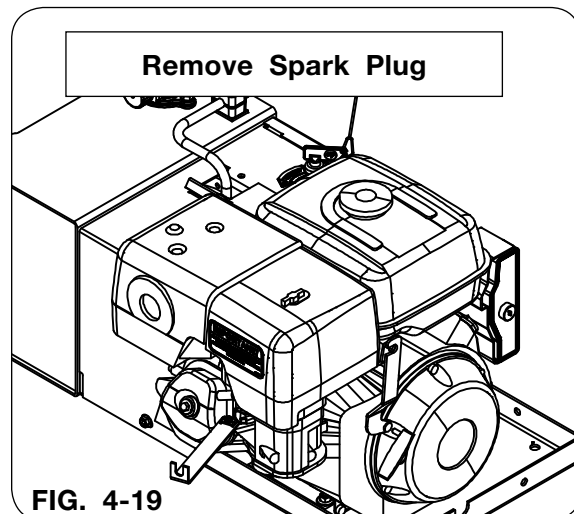
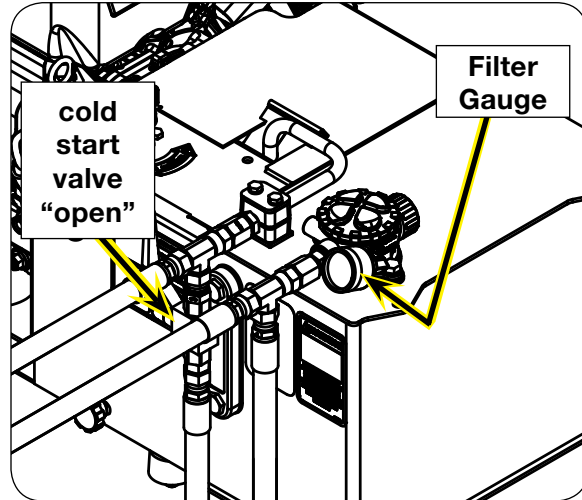
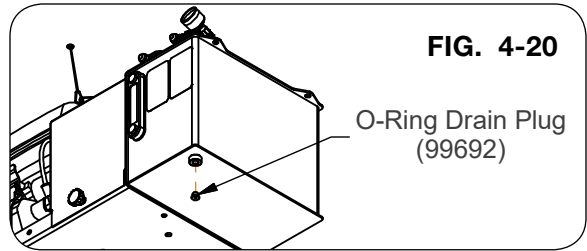


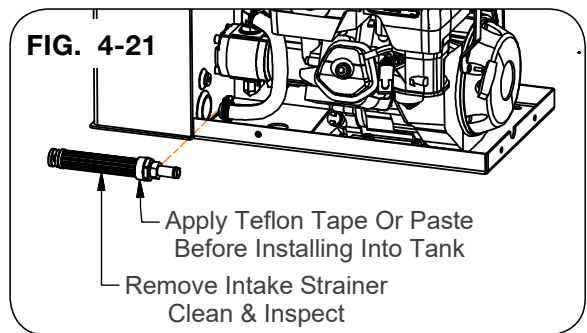
FIG. 4-19

Power Pak (continued)

2. Make sure a proper container is available to drain hydraulic oil. Remove hydraulic fluid o-ring drain plug (99692) and drain hydraulic oil into container, FIG. 4-20.

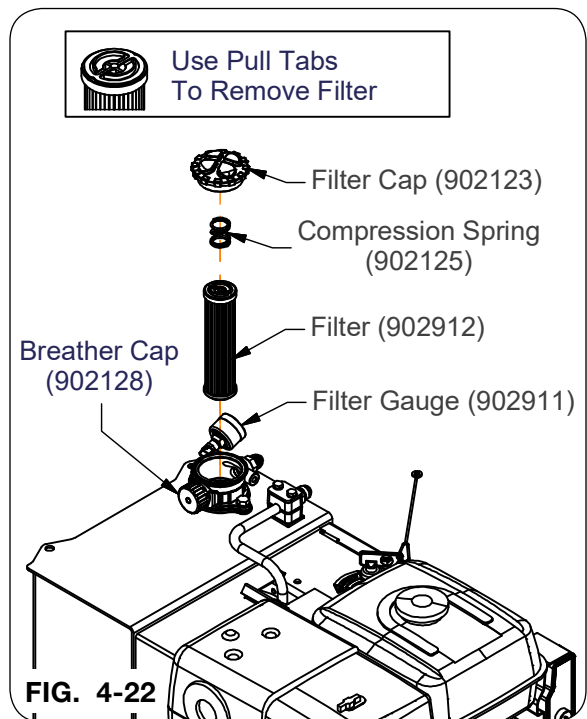


3. Using a 1 7/8" wrench, remove intake strainer from tank. Clean strainer of all debris and check for any damage. Replace if necessary, FIG. 4-21.



4. Before reinstalling intake strainer to tank, apply teflon paste or tape on threads to help seal threads, FIG. 4-21.

5. On return line filter, remove filter cap and pull out filter using pull tabs on filter, FIG. 4-22. Properly dispose of filter and replace with a new filter of exact specifications. DO NOT substitute filter specifications.

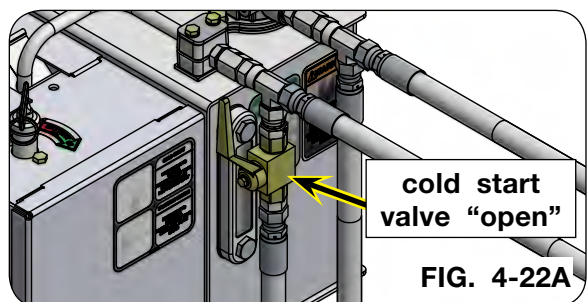


6. Once all components have been reassembled and secured, new hydraulic fluid may be added to the hydraulic fluid tank. Fill fluid to 1 to 1 1/2 inches from the top of the level gauge on the front of the unit, FIG. 4-22. There must be 1 to 1 1/2 inches of space at the top of the level gauge on the front of the unit. **DO NOT** over fill. Once the tank is full, secure cap to top of tank.

NOTE: When topping off hydraulic fluid tank, always use the same fluid as what is already in the tank. **DO NOT** mix different brands or types of hydraulic fluid.

NOTE: Use Chevron 1000 THF hydraulic fluid.

7. Place cold start valve in OPEN (handle vertical) position. (FIG. 4-22A)



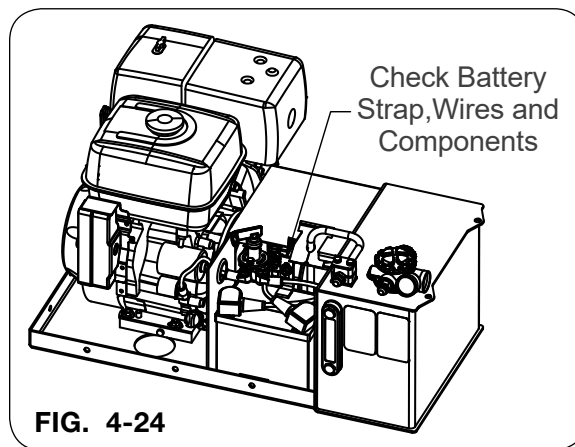
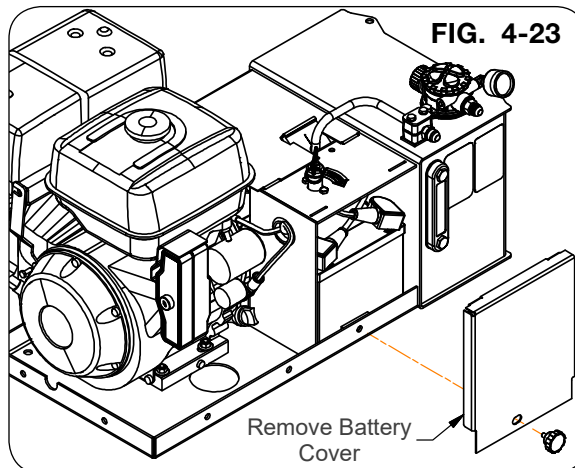
8. With the spark plug removed, the pump must be primed. To prime pump, rotate engine by pulling on the pull cord to make pump cycle. Do this approximately 10 times to fill the intake line.

9. Reinstall spark plug and start engine. Run for 3-5 minutes before changing cold start valve to the CLOSED (handle horizontal) position.

Power Pak (continued)

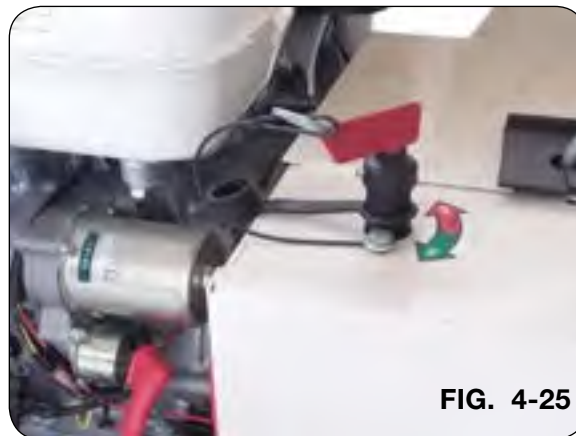
Also to maintain POWER PAK, inspect the battery. Remove battery cover and inspect the battery itself, along with any components, wires and connections for any corrosion, wear or damage (FIG. 4-23). Replace as required.

Be sure battery strap is secure preventing battery from shifting inside compartment.



IMPORTANT

- When storing unit for extended periods of time be sure battery has a full charge and then turn the battery disconnect switch to the off position. (FIG. 4-25)
- The disconnect is to only be moved to the off position once the engine is shut off. If the switch is turned to the off position while the engine is running damage will occur to the engine charging system and other seed tender electrical components.



Battery Warranty

Interstate Battery:
www.interstatebatteries.com
 800-CRANKIT

Wheels and Tires

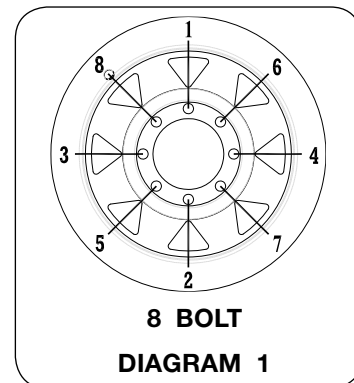
Wheel Nut Torque Requirements

CAUTION

- **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 INITIAL 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 THEREAFTER. 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
9/16-18 (UNF)	110 ft.-lbs.



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 after Seed Pro is loaded.** 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.**

TIRE SIZE	PSI
235/85R16 LRE	80

(All tire pressures in psi)

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 is a phone number and Website for your convenience:

***Carlisle** www.carlisletire.com
Phone 800-260-7959
Fax 800-352-0075

***NOTE:** Gladiator and Ironman tire brands are being sold by Carlisle as well.

Storage

Your seed tender 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.

After use, clean out box, conveyor, and hopper. Remove all seed, and pressure wash to remove road dirt, seed treatment, etc.

Prepare engine on hydraulic power unit for storage. Refer to engine operator's manual for details.

Inspect hydraulic oil level in reservoir. Level should be 1 to 1 1/2" from the top. Add appropriate hydraulic oil as needed. Most farm tractor type hydraulic oils are acceptable. **DO NOT** use Automatic Transmission Fluid! **DO NOT** mix different oils when topping off the tank.

Check bolts for tightness. Inspect for damaged or worn parts. Check valves, motor, hoses, and fittings for leaks. Check hoses for wear. Replace or repair items as needed.

Repaint any chipped or scraped areas, and store inside away from livestock.

Charge battery before storage if applicable. Lack of charge may result in the battery to freeze over the winter.

Replace all worn, torn or faded decals and reflectors.

Troubleshooting

PROBABLE CAUSE	CORRECTION
Undercarriage Swaying, Tire Wear, Lights	
Unit sways during travel	Check tire pressure Check tongue and steering hardware, tighten appropriately
Tires show excessive wear	Check tire pressure
Wheel makes grinding or squeaking noise	Service wheel bearings
Tail lights are not functioning	Check wires and connections Replace lamps
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
No functions will operate	Cold start ball valve is open; close cold start ball valve
Conveyor jammed	Shut off and lock-out power, open clean-out door and remove excess material (make sure spout is clear)
Oil level too low	Fill to proper level
Belt is slipping on the upper pulley	Check belt tension and adjust accordingly
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
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
Belt is slipping on the upper pulley	Check belt tension and adjust accordingly

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 Maintenance Section.
Poly seals on intake and/or discharge end worn.	Replace poly seals
Pivoting Arm Will Not Raise or Lower	
Engine running too slow	Increase engine speed
Conveyor Will Not Pivot	
Pivot lock in place	Unlatch conveyor or check pivot lock operating mechanism.
Dirt or debris on pivot track	Clean dirt from track
Bearing worn out	Replace bearing
Power Pak	
Pump Squeals: A. Oil level too low in reservoir B. Oil is cold C. Intake strainer is plugged D. Return-line filter is plugged E. Hoses are kinked or leaking	A. Check sight gauge on reservoir B. Run engine at low idle until hydraulic fluid warms C. Drain reservoir and clean strainer D. Remove and replace filter E. Inspect, adjust or replace hose if necessary
Unit is lacking power: A. Oil level too low in reservoir B. Oil is cold C. Intake strainer is plugged D. Return-line filter is plugged E. Hoses are kinked or leaking F. Pressure relief valve is set too low or is plugged	A. Check sight gauge on reservoir B. Run engine at low idle until hydraulic fluid warms C. Drain reservoir and clean strainer D. Remove and replace filter E. Inspect, adjust or replace hoses if necessary F. Remove cover and adjust with "L" wrench or remove valve and inspect for contamination

Troubleshooting (continued)**Conveyor Raise/Lower Cylinder Not Working Properly****⚠ WARNING**

- HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. 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.

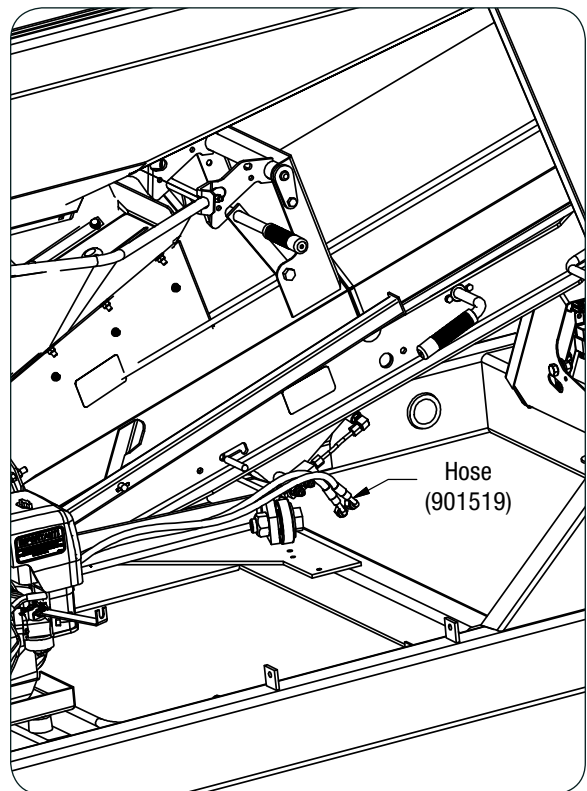
- HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.

- 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 1,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.

The parts list would include:

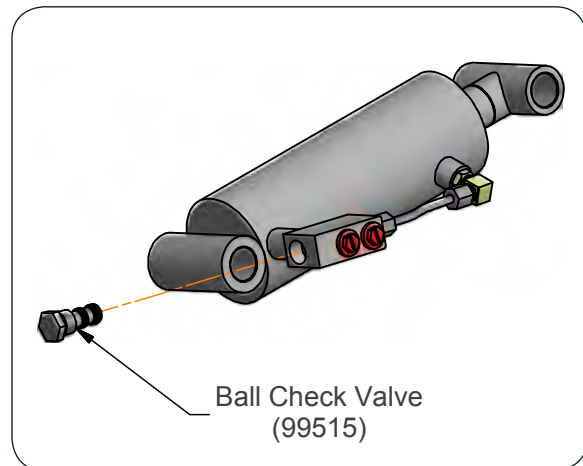
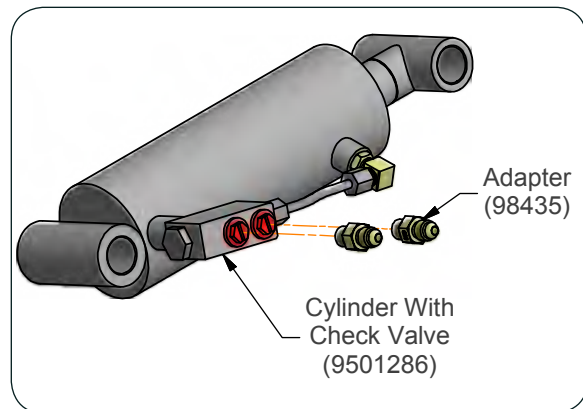
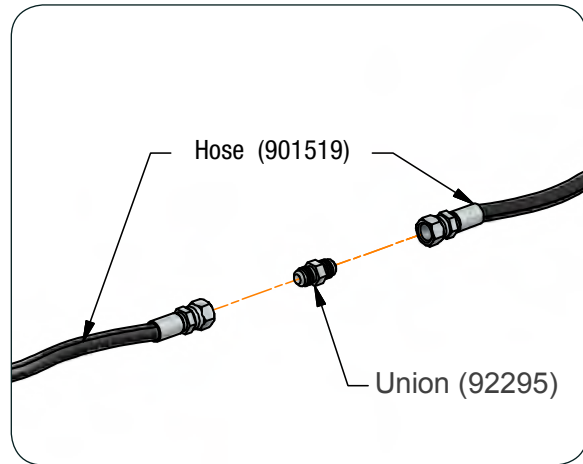
- 99515 Ball Check Valve
- 99516 Check Valve Seal Kit
- 98435 0.030 Orifice fitting (2) required
- 92295 Union Fitting

1. If the conveyor is in the raised position, use an appropriate lifting device rated for at least 1,000 lbs and support the conveyor. If the conveyor is in the transport position proceed as follows. Make sure that all the load is off the lift cylinder (9501286) and that cylinder pin (9500423) will freely rotate.
2. Remove the two hoses (901519) from the cylinder (9501286) and connect the two hoses (901519) together using union fitting (92295). Tighten the connections as directed by the "Hydraulic Fittings - Torque and Installation" in the MAINTENANCE section of the Seed Pro operator's manual.



Troubleshooting (continued)**Conveyor Raise/Lower Cylinder Not Working Properly** (continued)

3. To flush the two hoses (901519), operate the Seed Pro for a minimum of ten minutes while actuating the control to raise and lower the conveyor. Make sure to actuate the control in both directions (raise and lower).
4. Once this is completed, shut the Seed Pro engine off. Note the orientation of the two adapter fittings with restrictor (98435) on the lift cylinder (9501286) and remove the two adapter fittings with restrictor (98435). Flush the fittings and make sure that there is nothing obstructing the 0.030" orifice in each fitting. If the fitting is obstructed, replace adapter fittings with restrictor (98435).
5. Remove the ball check valve (99515) and flush the ball check valve and housing. If the ball check valve does not move freely, replace ball check valve (99515). If the ball check valve moves freely replace the o-rings and teflon washer with the components included in seal kit (99516). Coat the o-rings and teflon washer with oil before reinstalling the valve onto the cylinder. Tighten securely.
6. Reinstall the orifice fittings (98435) in the same orientation as they were removed. Tighten the connections as directed by the "Hydraulic Fittings - Torque and Installation" in the MAINTENANCE section of the Seed Pro operator's manual.
7. Make sure the hydraulic pressure is removed from the hoses (901519) that attach to the cylinder. Remove the union fitting (92295) from the two hoses (901519) and reinstall the hoses in their original location on the lift cylinder (9501286).
8. If the conveyor is supported by a lifting device, slowly lower it into the transport position and remove the lifting device.
9. Verify the raise and lower function using the operator control.



Smooth-Start Module With Speed Control Troubleshooting

This module, located inside the common enclosure at the front of the machine, is used to control the conveyor belt speed by gradually bringing the speed up, reducing the wear on the conveyor components.

If the system is not operating as expected, the LED can be used to determine what is occurring.

LED State / Blink Rate	System Status
Steady Off	The module is not powered or has failed.
Slow On/Off Flash (1 Hz)	The input signal is inactive and the output is off.
Steady On	The input signal is detected as active and the output is on.
Rapid On/Off Flash (5 Hz)	The input signal is active and the output is active. The module is detecting an error condition with the output. Check the output wiring for open or short circuits.



**Scale “Short Form” Set-up & Calibration
For UM2520 Indicators**

IMPORTANT

- *This indicator was calibrated at the factory to weigh accurately with your system. Additional calibration is not necessary under NORMAL conditions.*

The Short Form Setup & Calibration procedure allows you to change the “SETUP” and “CAL” numbers of the indicator. You may want to perform this procedure if;

- 1) The indicator is being connected to different load cells.
or
- 2) You want to adjust the calibration to match another scale system.

PLEASE NOTE: Do not attempt to calibrate the scale if the indicator is not reading stable weights. The calibration procedure will not fix instability, inconsistencies, or flashing “RANGE” messages.

Before continuing, first write down the current “SETUP” and “CAL” numbers of your UM indicator. These numbers are displayed during the “Self Test”. To run the Self Test:

With the indicator already ON, press the [FIELD] key and then [ON/OFF] key to start the Self Test. Press the [ON/OFF] key to “pause” the Self Test while numbers are displayed. Press [ON/OFF] key again to resume.

Verify the SETUP & CAL numbers with the Example table below and record the numbers on your UM indicator.

ORIGINAL	SEED PRO
SETUP#	146040
CAL#	32640

Example Table:

SETUP# _____ CAL# _____

Keep this information for future reference. See next page for more SETUP#'s & CAL#'s.

1. Adjust UM Indicator to Match Another Scale:

Sometimes two different scales are used to weigh the same load. When this is done, the weight measured by each scale may not be the same. This can be caused by one or both of the two scales being slightly out of calibration. This indicator has the ability to match any other scale, even if that scale is uncalibrated.

To match your UM scale (Scale A) to another scale (Scale B) you must determine the Calibration Multiplier. To do this, place a load on Scale A (feed wagon, etc...) and write down the weight displayed. Repeat several times to determine the average weight. Next, place the same load on Scale B and again write down the weight displayed. Again, repeat several times to determine the average weight. Then, use this formula to determine the Calibration Multiplier for the UM's “CAL” number:

**Scale “Short Form” Set-up & Calibration
For UM2520 Indicators (continued)**

It is important to use an average of several weights before calibrating the scale.

Scale Matching Example:

Original

SETUP# 146040

CAL# 32640

	1 Trial	2 Trial	3 Trial
Scale B	30,000	30,580	28,000
Scale A	29,440	29,800	27,500
Scale B ÷ A	1,020	1,026	1,018

$$1.020 + 1.026 + 1.018 = 3.064$$

$$3.064 \div 3 \text{ Trials} = 1.021 \text{ CAL Multiplier}$$

$$\text{Orig. UM CAL\#} \times \text{CAL Multiplier} = \text{NEW UM CAL\#}$$

$$24080 \times 1.021 = 24586$$

You should not modify your “SETUP” number. Only your “CAL” number.

Scale Matching Example:

Original

SETUP# _____

CAL# _____

	1 Trial	2 Trial	3 Trial
Scale B			
Scale A			
Scale B ÷ A			

$$(\text{Trial 1}) + (\text{Trial 2}) + (\text{Trial 3}) = \text{“X”}$$

$$\text{“X”} \div 3 \text{ Trials} = \text{_____ CAL Multiplier}$$

$$\text{Orig. UM CAL\#} \times \text{CAL Multiplier} = \text{NEW UM CAL\#}$$

$$\text{_____} \times \text{_____} = \text{_____}$$

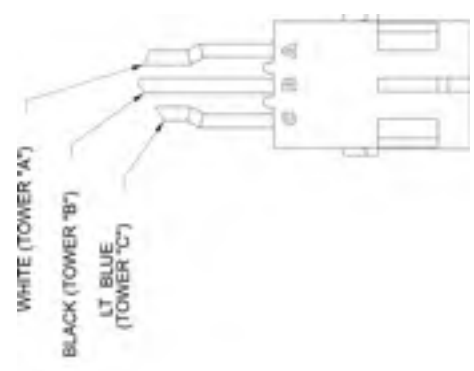
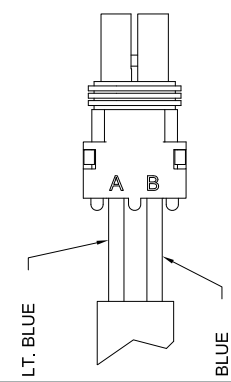
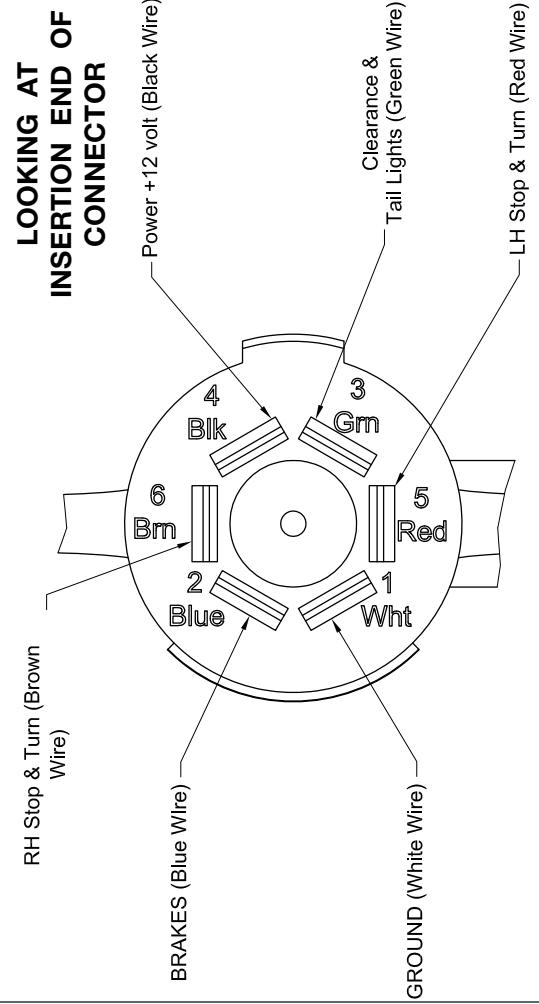
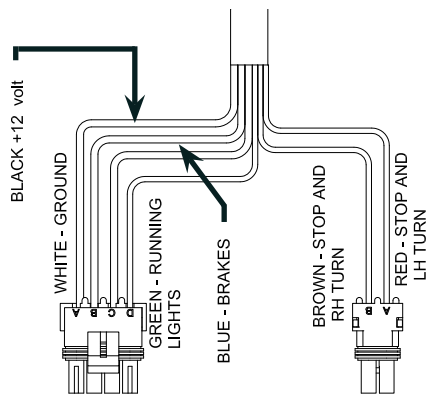
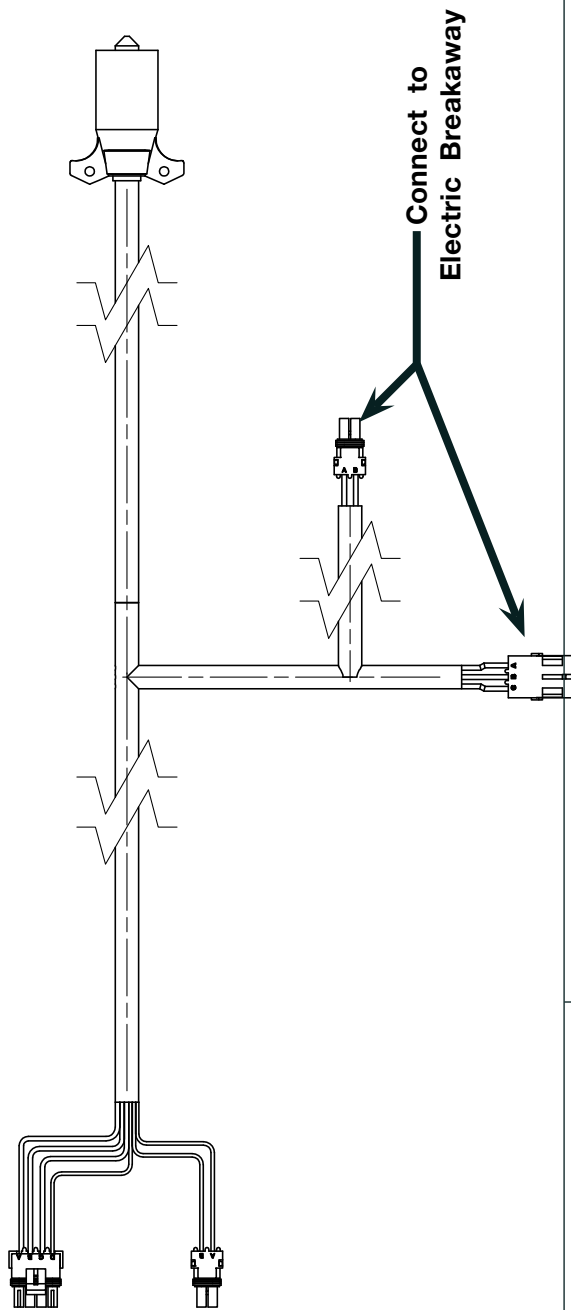
Follow the instructions “To change the Setup / Calibration Numbers” shown in the indicator operator’s manual.

Auto Conveyor Shut-off Troubleshooting

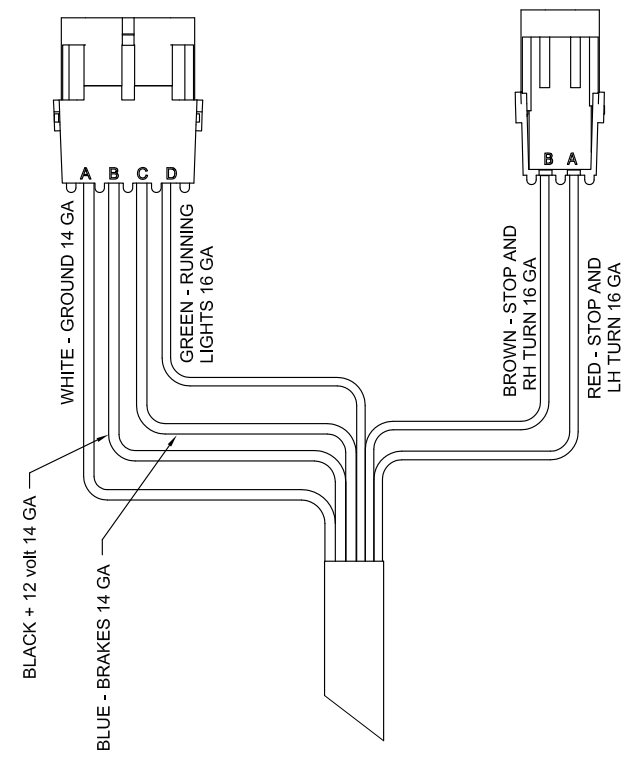
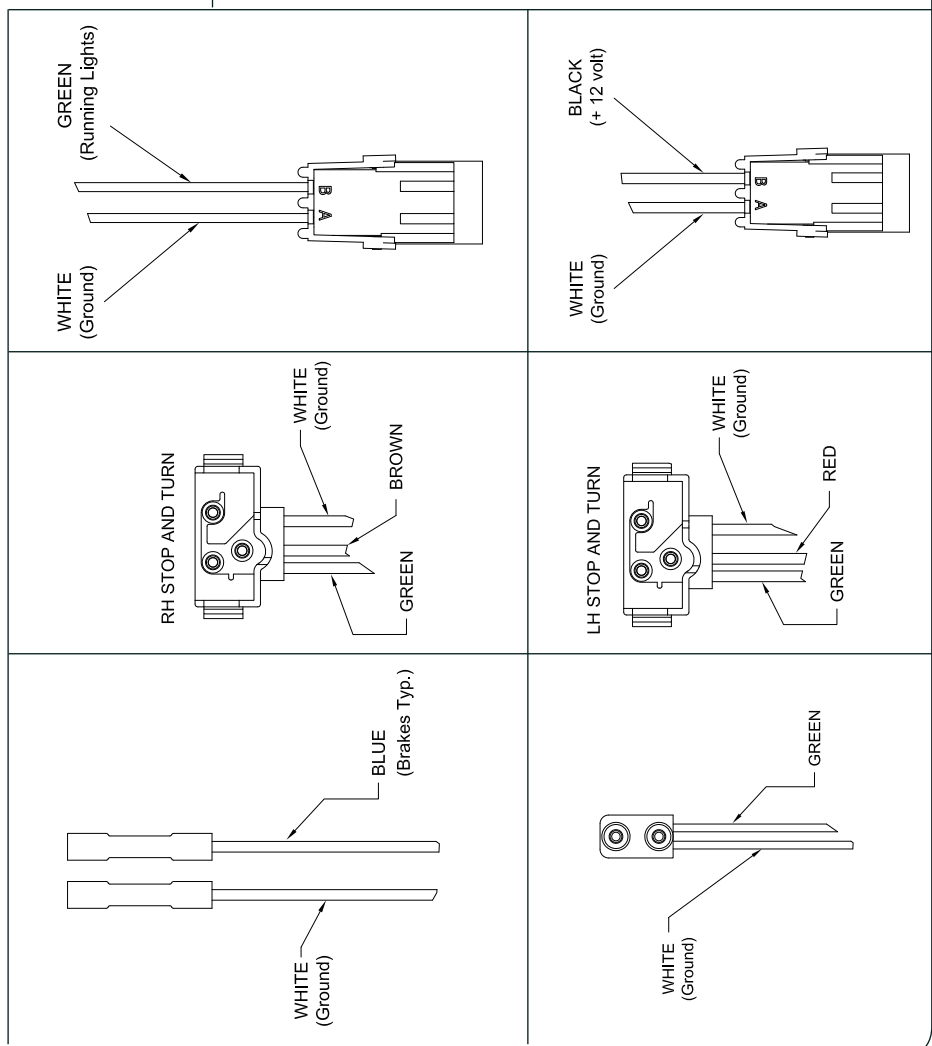
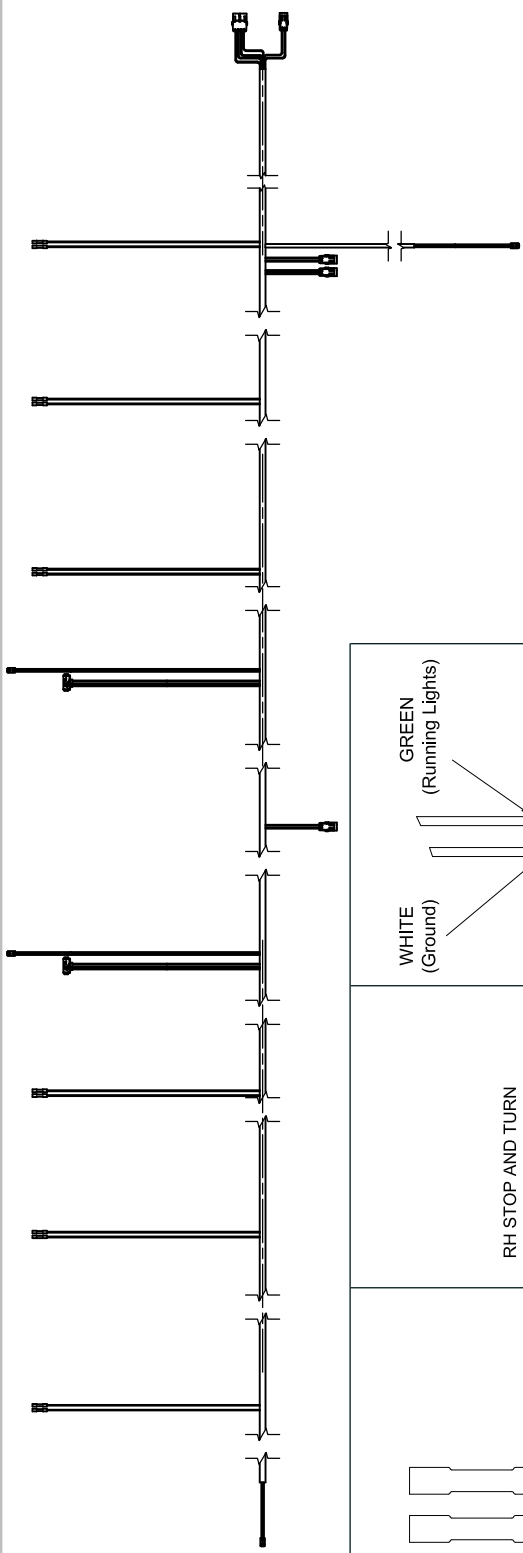
1. Check system voltage:
 - With the engine running the voltage at the battery should be 14.5 Volts.

2. Scale will not turn on:
 - Check fuse, if bad replace with 15 amp fuse.
 - Check polarity of connection; with the Seed Pro tender® key [ON], and using a volt-meter check between terminals one and two of the scale connector. This should be +12 volts. Also on the 4 pin scale connector check between terminal one (white wire) and terminal two (black wire), this should also read +12 volts. If the reading is -12 volts the power wire polarity needs reversed. Both the scale and the Smooth-Start module are polarity protected and will not turn on if the polarity is incorrect.

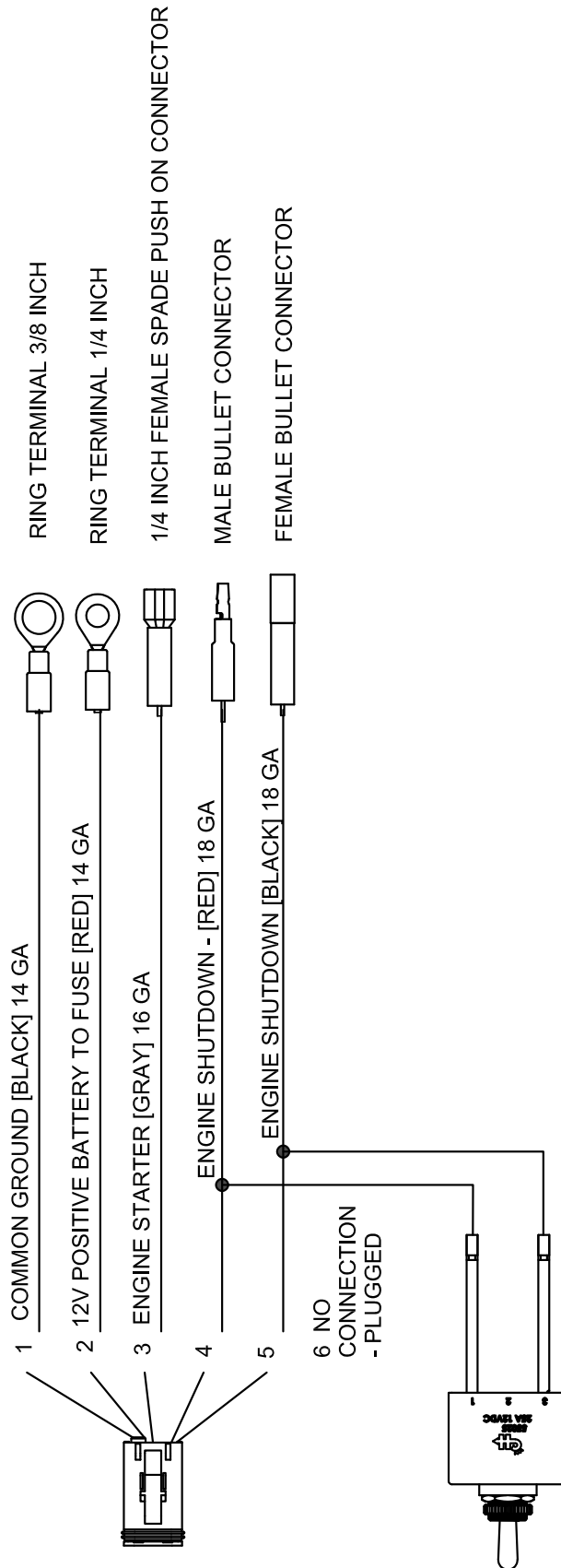
Undercarriage Hitch Harness # 25045 or Gooseneck Harness # 27829 Schematic



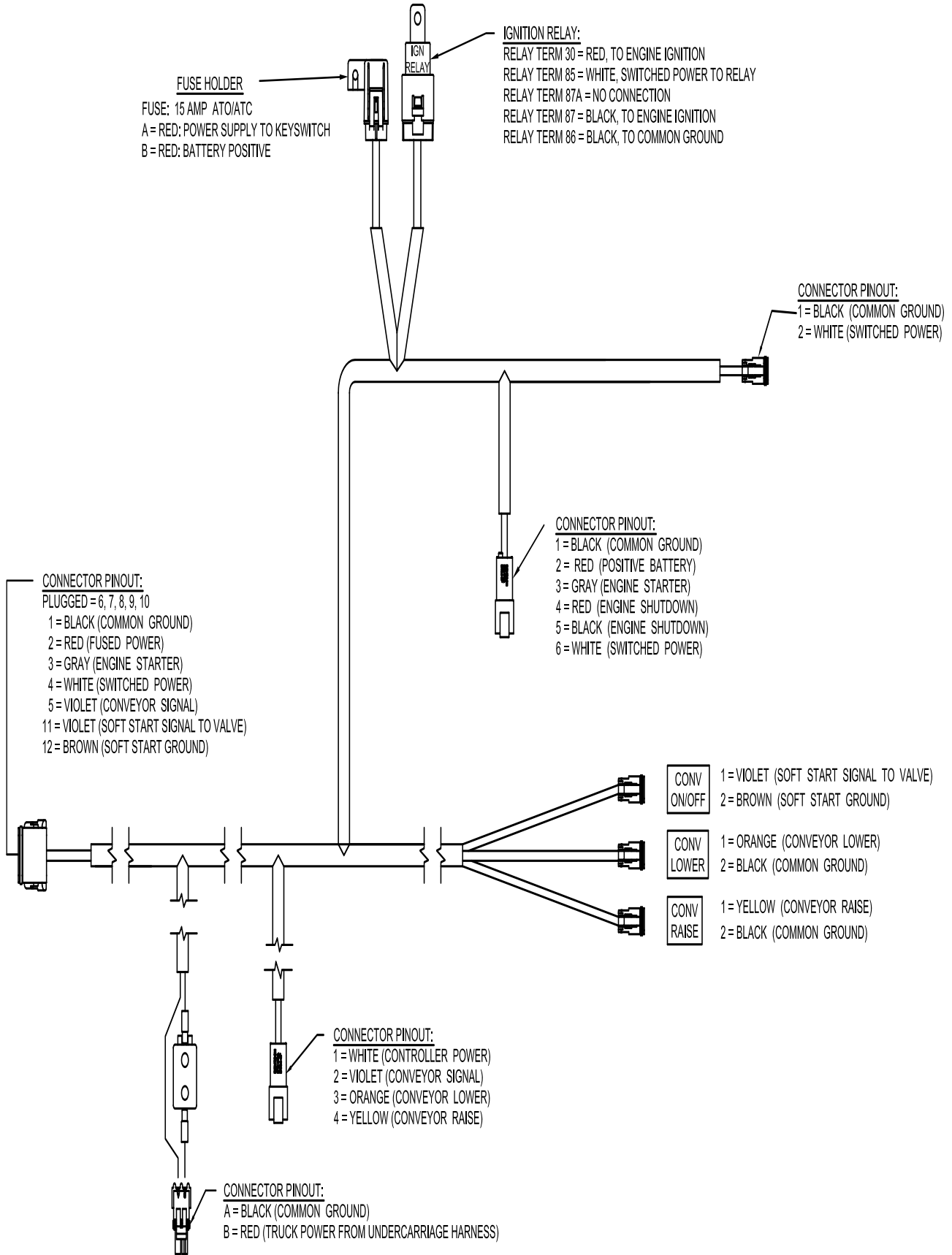
Undercarriage Lighting & Brake Harness #25046 Schematic



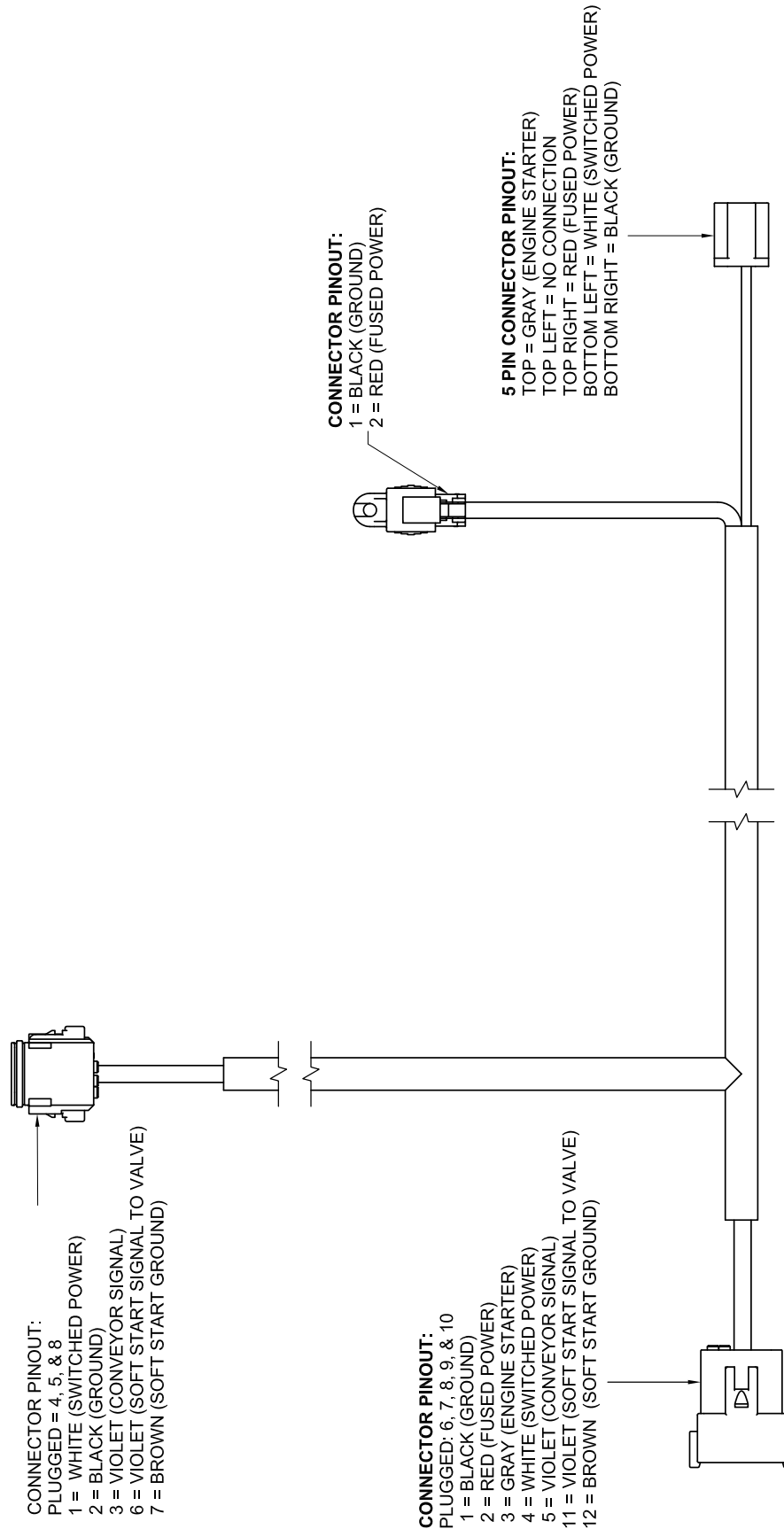
Honda Engine Harness #2009998 Schematic



Standard Corded Control Harness #2002519 Schematic

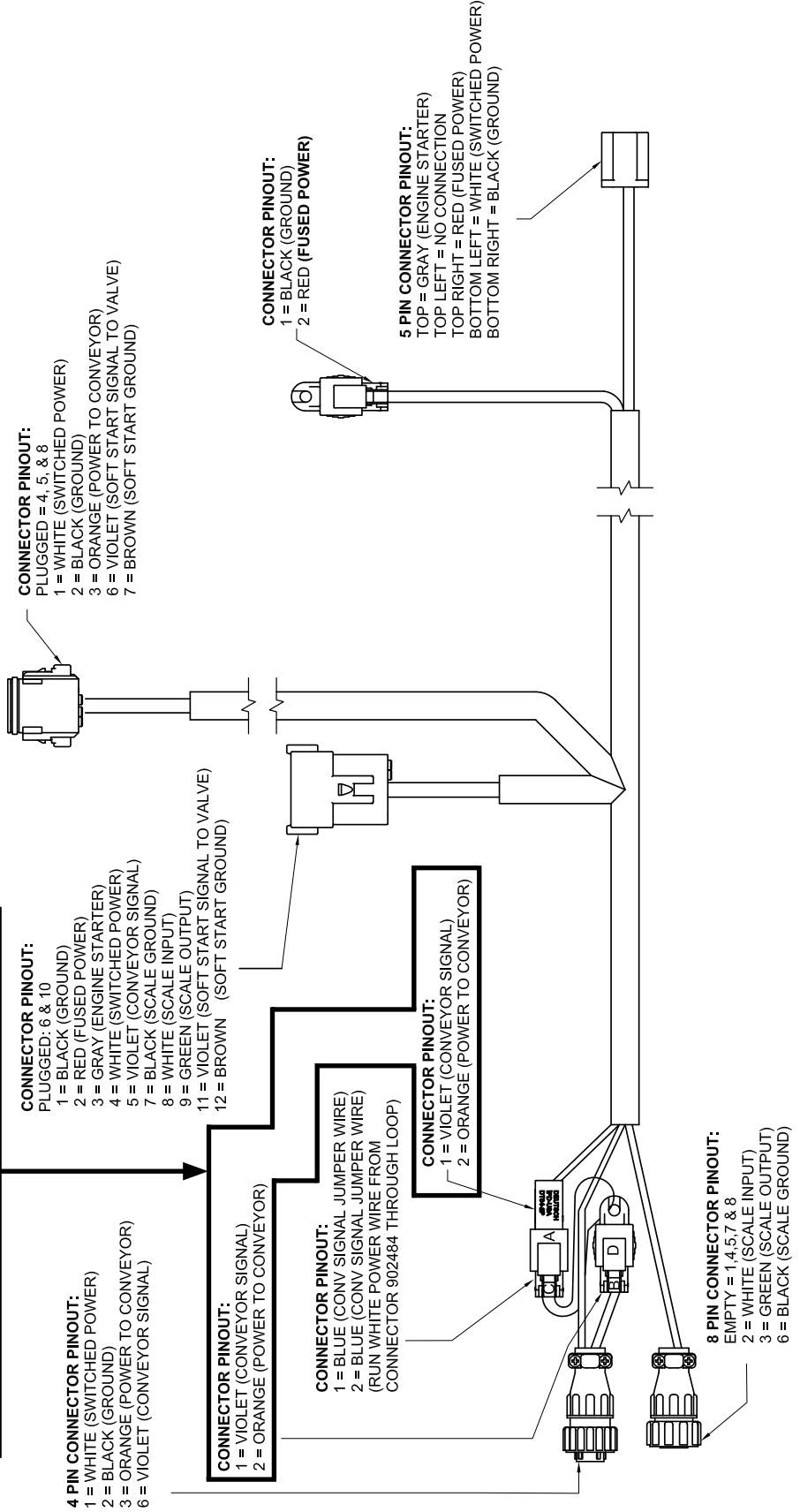


Non-Scale Enclosure Harness #2002130 Schematic



Scale Enclosure Harness #2002132 Schematic (Option)

When equipped with a 2520 scale, connectors circled should be connected together. Remaining connector should be covered using the attached cap.

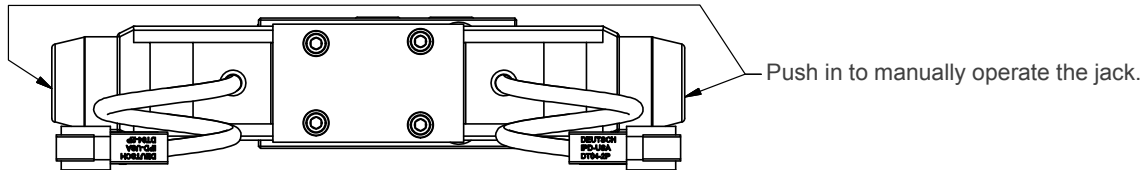


Stackable Valve Manual Override Operation & Wire Schematic S/N D61330200 & Below

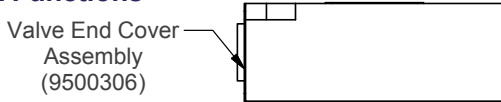
Stackable Valve Manual Override Operation & Wire Schematic

*Push the inner button down, and either push in or pull up on the outer collar to activate the function.

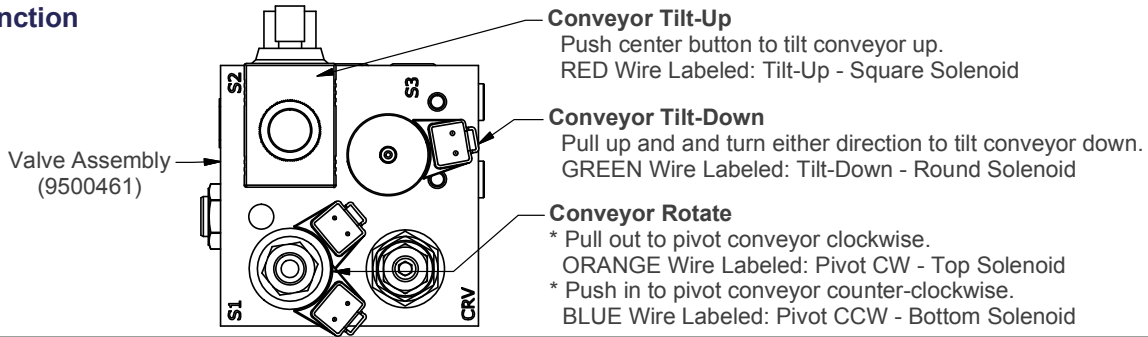
Optional Hydraulic Jack Valve (9500615)



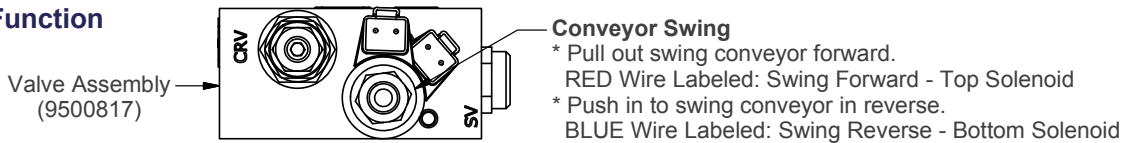
ALL Functions



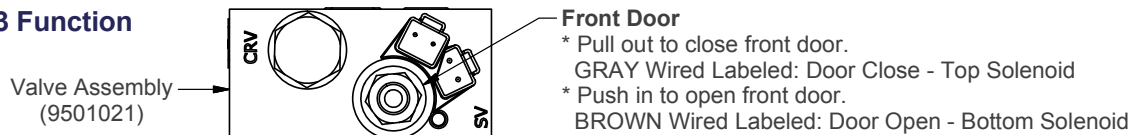
7 Function



6 Function



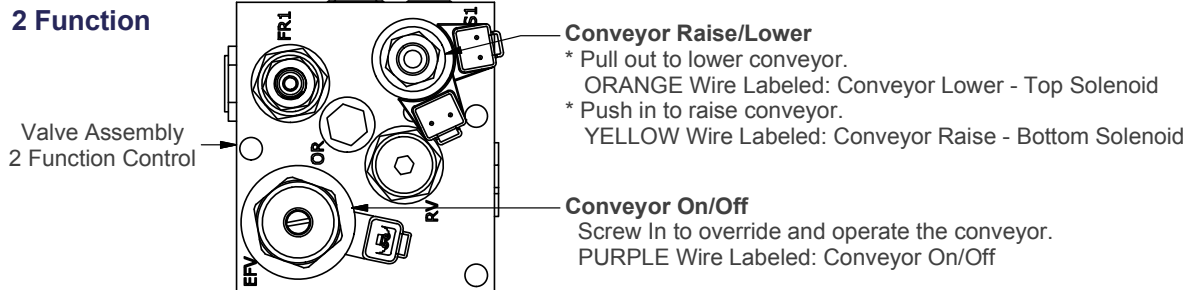
3 Function



Rear Door

* Pull out to close rear door.
GREEN Wired Labeled: Door Close - Top Solenoid
* Push in to open rear door.
WHITE Wired Labeled: Door Open - Bottom Solenoid

2 Function



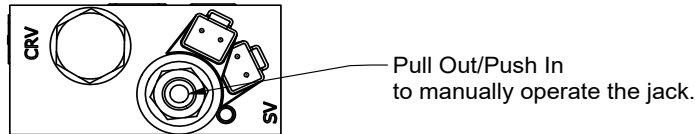
2003034 Rev. 2

Stackable Valve Manual Override Operation & Wire Schematic S/N D61330200 & Above

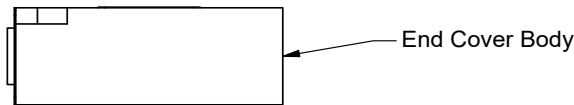
Stackable Valve Manual Override Operation & Wire Schematic

*Push the inner button down, and either push in or pull up on the outer collar to activate the function.

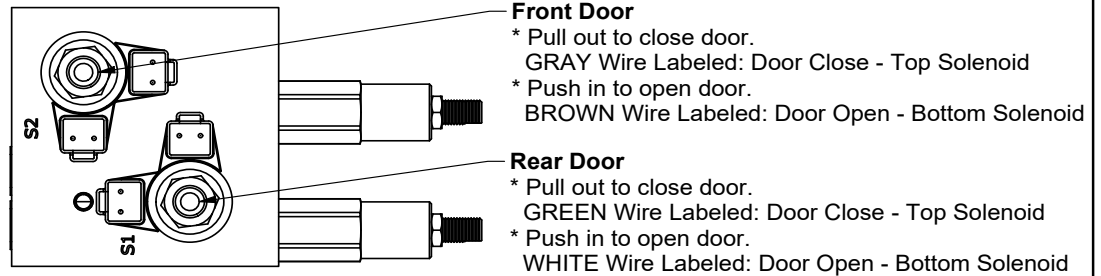
Hydraulic Jack Option



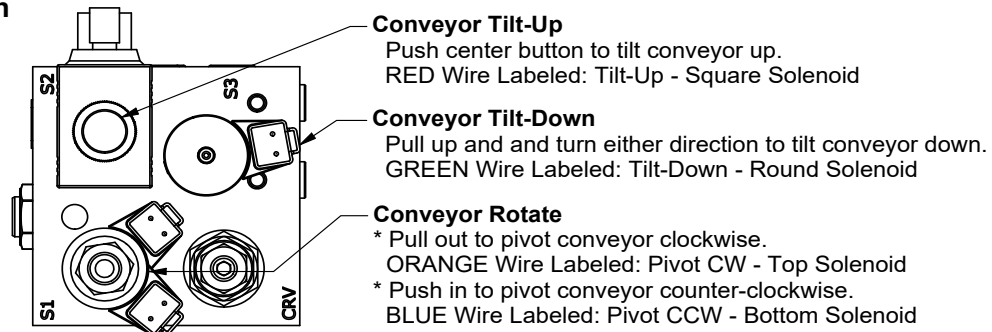
ALL Functions



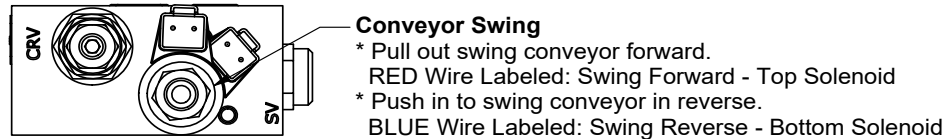
3 Function



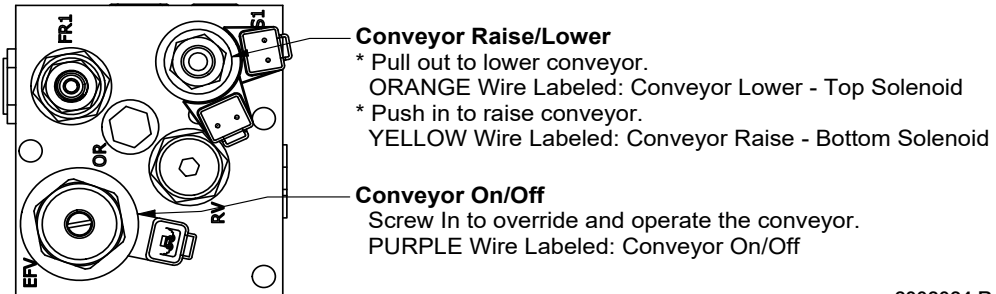
7 Function



6 Function

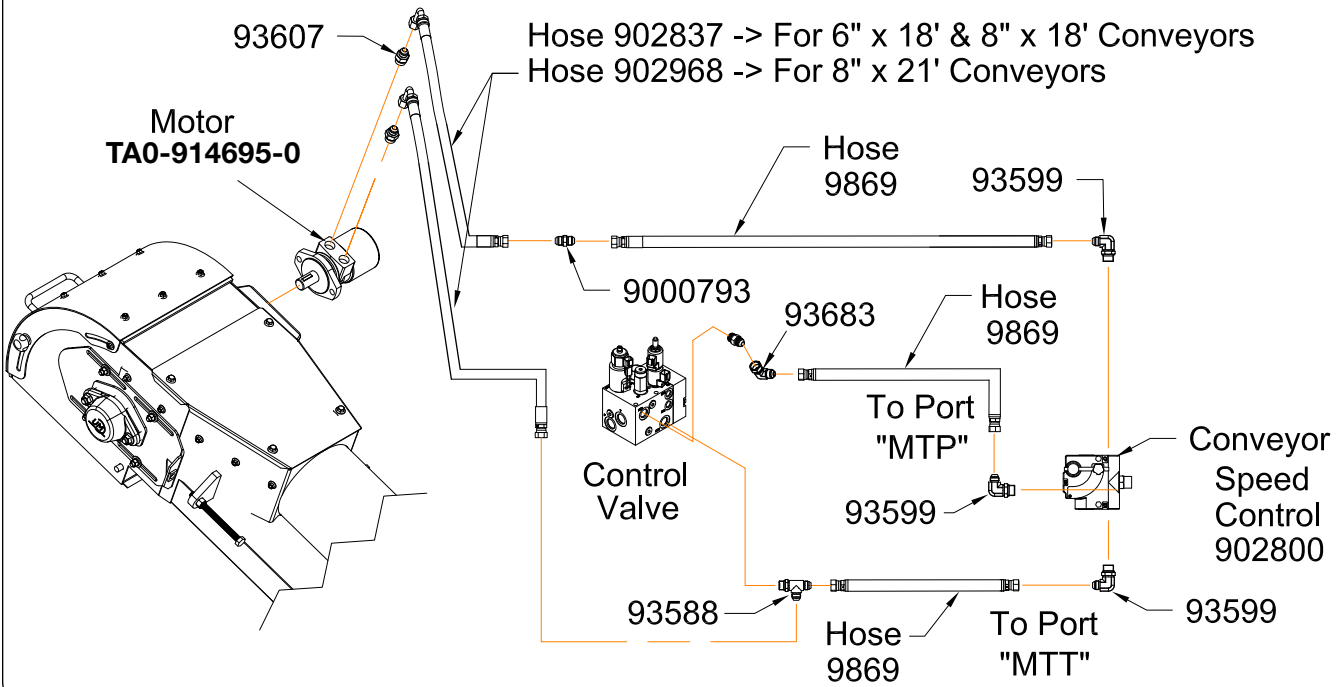


2 Function

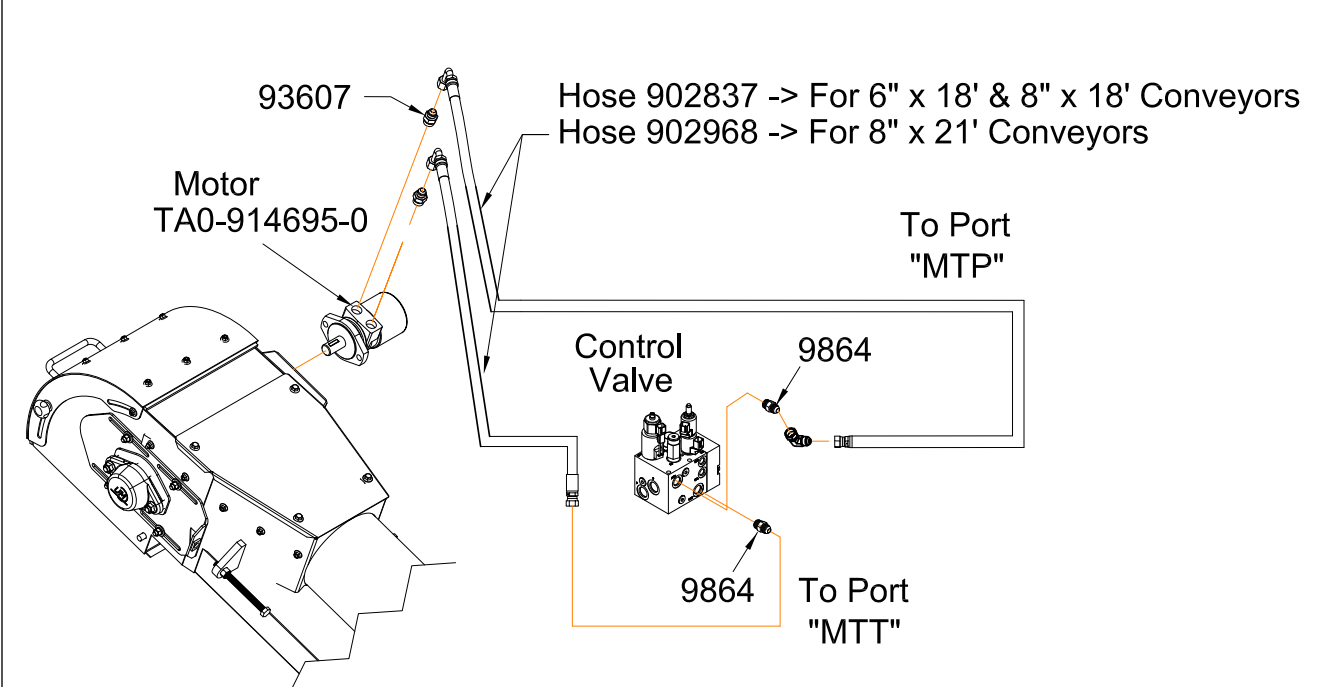


2003034 Rev. 6

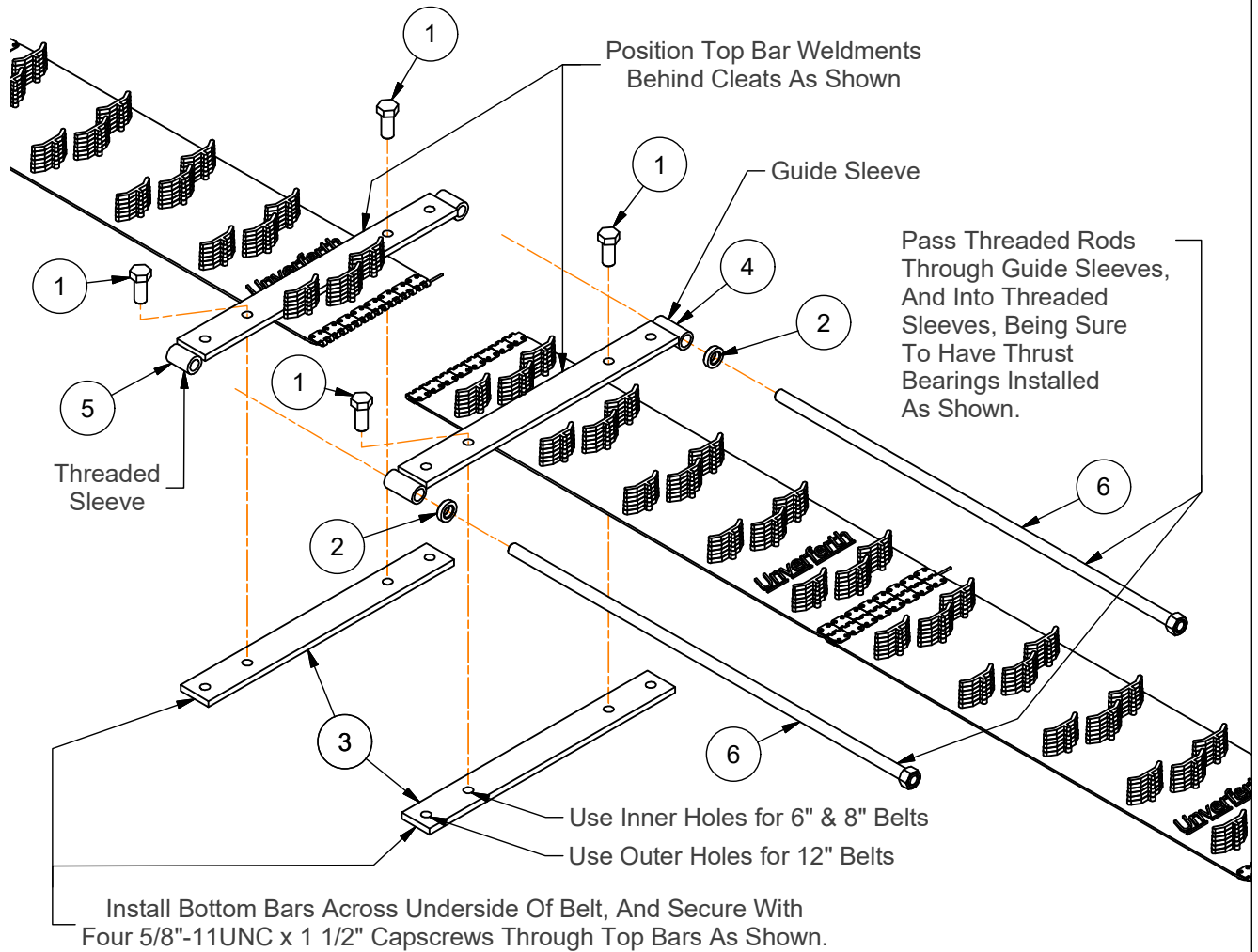
Hydraulic Diagram For Conveyor with Manual Speed Control



Hydraulic Diagram For Conveyor with Electronic Speed Control



Belt Stretcher (Optional)

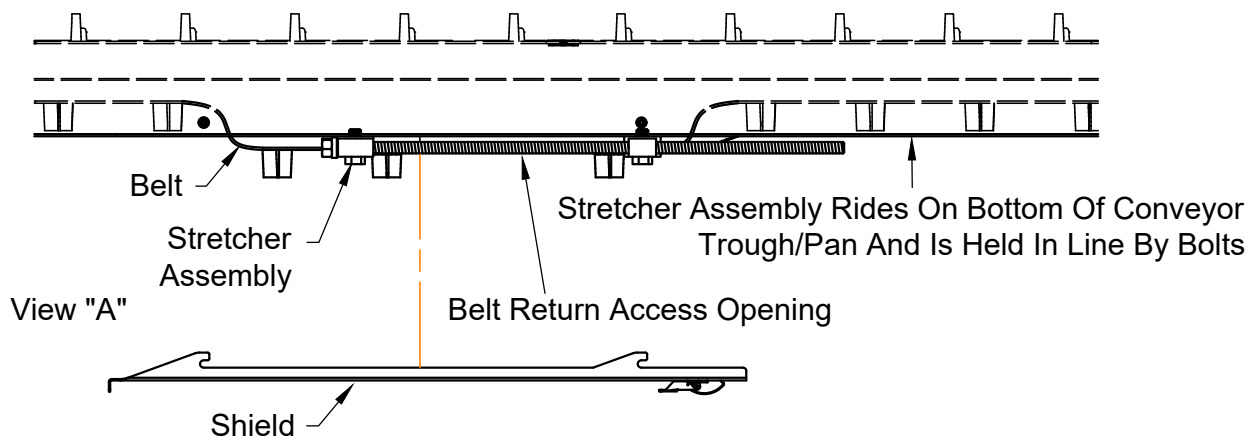
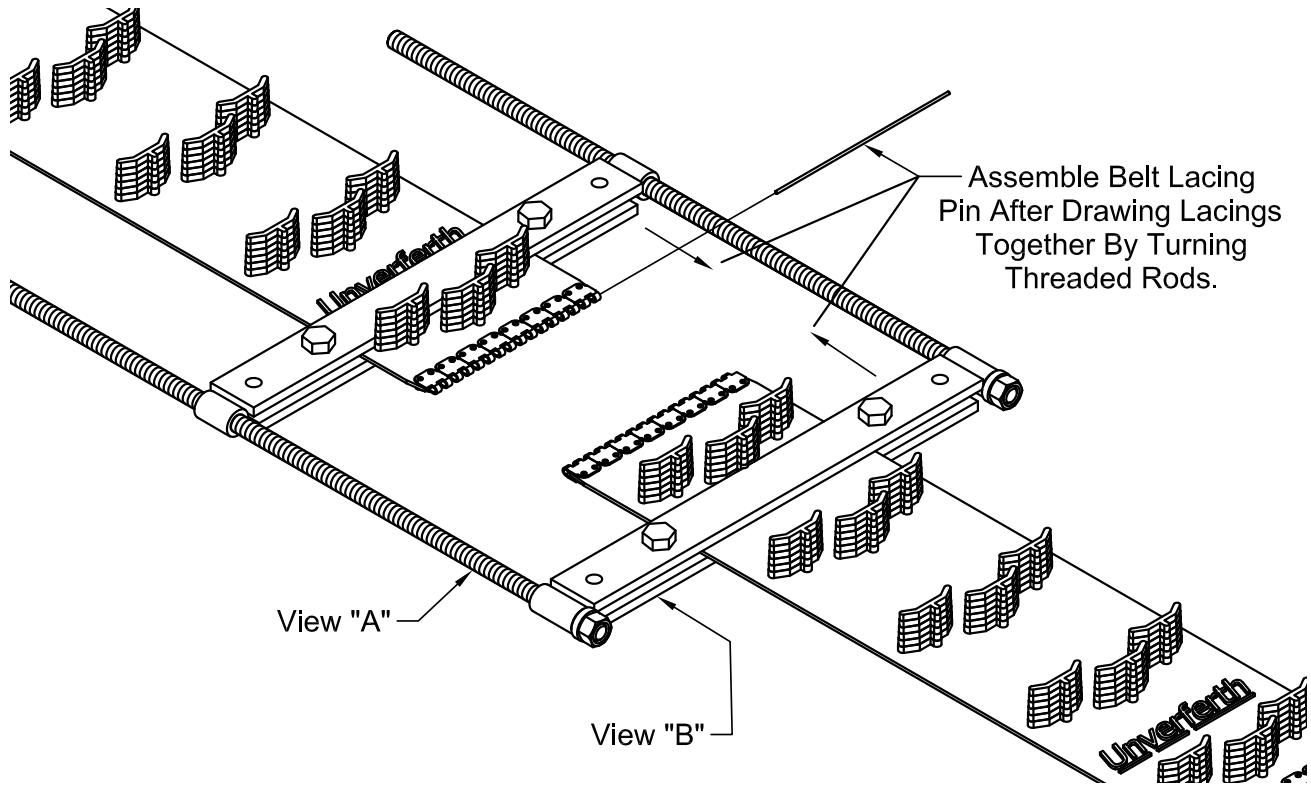


ITEM	PART NO.	QTY	DESCRIPTION
	TA4-114400-0	1	BELT INSTALLATION TOOL
1	9390-122	4	CAPSCREW, 5/8"-11UNC x 1 1/2 LG. GRADE 5
2	TA0-903118-0	2	BEARING, BALL THRUST, 5/8" I.D.
3	TA1-114401-0	2	BOTTOM BAR
4	TA2-114404-0	1	PLAIN TOP BAR WELDMENT
5	TA2-114406-0	1	THREADED TOP BAR WELDMENT
6	TA2-114408-0	2	THREAD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

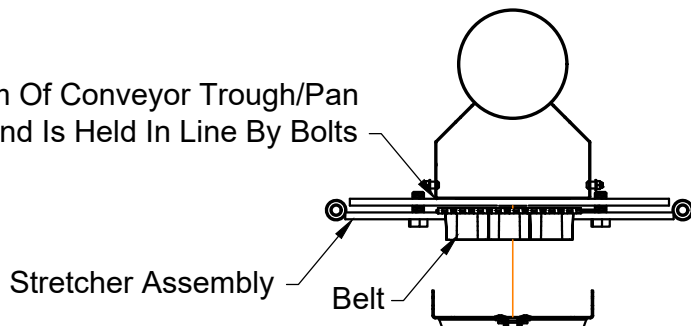
Belt Stretcher (Optional) (Continued)

Stretcher Assembled to Belt

FOR ILLUSTRATION ONLY



View "B"
 Stretcher Assembly Rides On Bottom Of Conveyor Trough/Pan
 And Is Held In Line By Bolts



Complete Torque Chart - Capscrews - Grade 5

IMPORTANT

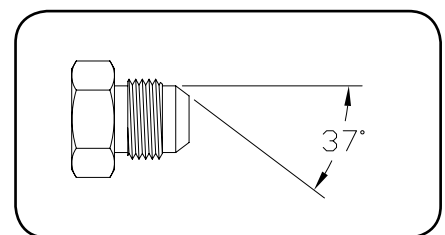
- Grade 5 capscrews can be identified by three radial dashes on head.
- For wheel torque requirements, refer to *Wheels and Tires*.
- Tighten U-bolts to have the same number of threads exposed on each end.

SIZE	FOOT POUNDS	NEWTON METERS	SIZE	FOOT POUNDS	NEWTON METERS
1/4-20	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

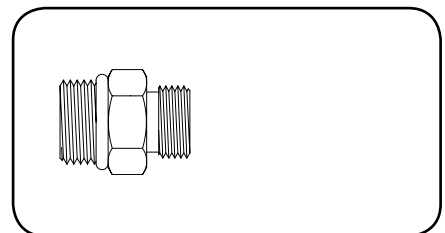
SAE FLARE CONNECTION (J.I.C.)

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.



Notes

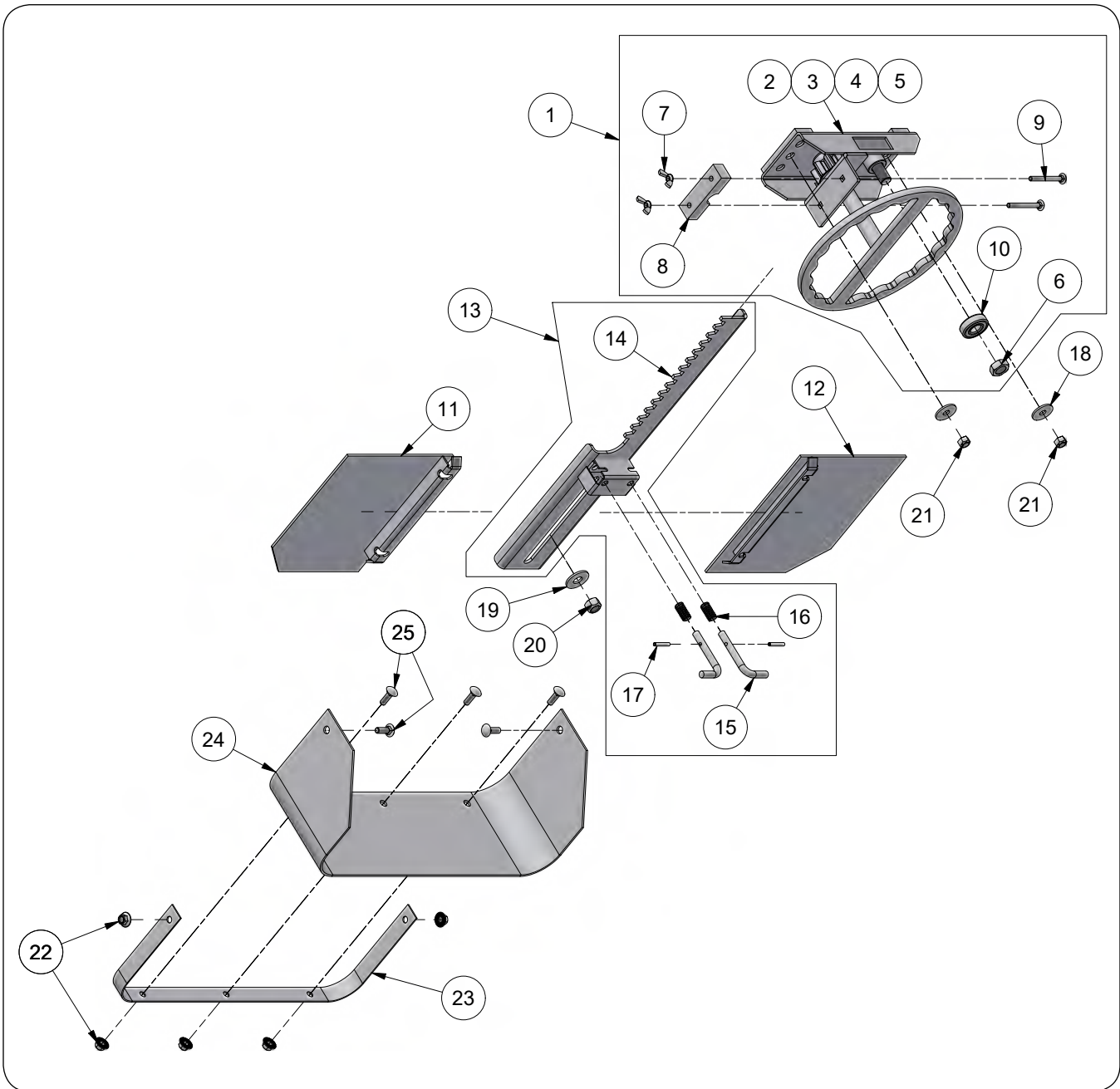
SECTION V

Parts

Door Components	5-2
Stationary Bracket Components.....	5-4
Conveyor 2-Function Controller Components.....	5-5
Conveyor Arm Assembly - Model 410 with 8" Conveyor (SN D65950100 & Up).....	5-6
Conveyor Arm Pivot Components - Model 410 with 8" Conveyor (SN D65950100 & Up).....	5-8
Conveyor Latch Components	5-10
Conveyor Arm Components - Model 410 w/6" & 8" Conveyor (SN D65950099 & Lower) ..	5-12
Conveyor Arm Assembly - Model 410XL with 8" Conveyor (SN D65950100 & Up).....	5-16
Conveyor Arm Pivot Components - Model 410XL with 8" Conveyor (SN D65950100 & Up) ..	5-18
Conveyor Arm Components - Model 410XL with 8" Conveyor (SN D65950099 & Lower) ...	5-20
Platform Components	
Serial Number D64690099 & Lower	5-24
Serial Number D64690100 & Up	5-26
Decals, Windows, & Valve Mounting Plate Components.....	5-28
Hydraulic Components — Model 410/410XL with Electronic Speed	5-30
Hydraulic Components — Model 410XL with Manual Speed Control	5-32
Control Valve - 2 Function Components	5-34
Undercarriage Components	5-36
Touch-Up Paint.....	5-39
Axle & Wheel Components	5-40
Conveyor Assembly Components — 6" Tube Conveyor	5-42
Conveyor Assembly Components — 8" Tube Conveyor	5-44
Hopper and Handle Components — 6" Tube Conveyor.....	5-46
Hopper and Handle Components — 8" Tube Conveyor.....	5-48
Stand, Cleanout Door, Shield, & Idler End Components — 6" Tube Conveyor.....	5-50
Stand, Cleanout Door, Shield, & Idler End Components — 8" Tube Conveyor.....	5-52
Discharge Spout Components — 6" Tube Conveyor.....	5-54
Discharge Spout Components — 8" Tube Conveyor.....	5-56
Honda Power Pak Components	5-58
Relay Mount & Power Pak Mounting Components.....	5-60
Enclosure and Keyswitch Components	5-62
UM2520 Scale Components (Optional)	5-64
Platform for Units Less Undercarriage (Optional).....	5-66
Light Kit (Optional).....	5-67
Electric Breakaway Components.....	5-69
Hopper Cover	5-70
Telescopic Spout Components	5-71
Gooseneck Hitch Round Style Adapter Components (Optional).....	5-72
Hydraulic Jack for Gooseneck Hitch Kit #2004087B (Optional)	5-74
Hydraulic Jack for Bumper Hitch Kit #2012347TS (Optional)	5-76
Override Box	5-78
3-Function Wireless Remote Control (Optional)	5-78
6-Function Wireless Remote w/Scale Display (Optional).....	5-79
Spare Tires (Optional)	5-80
T&G Applicator (Optional).....	5-82
License Plate/Lamp Holder Assembly (Optional).....	5-83
AG Decal Package (Optional) - SMV, SIS Decals, & Reflectors	5-84

Door Components

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



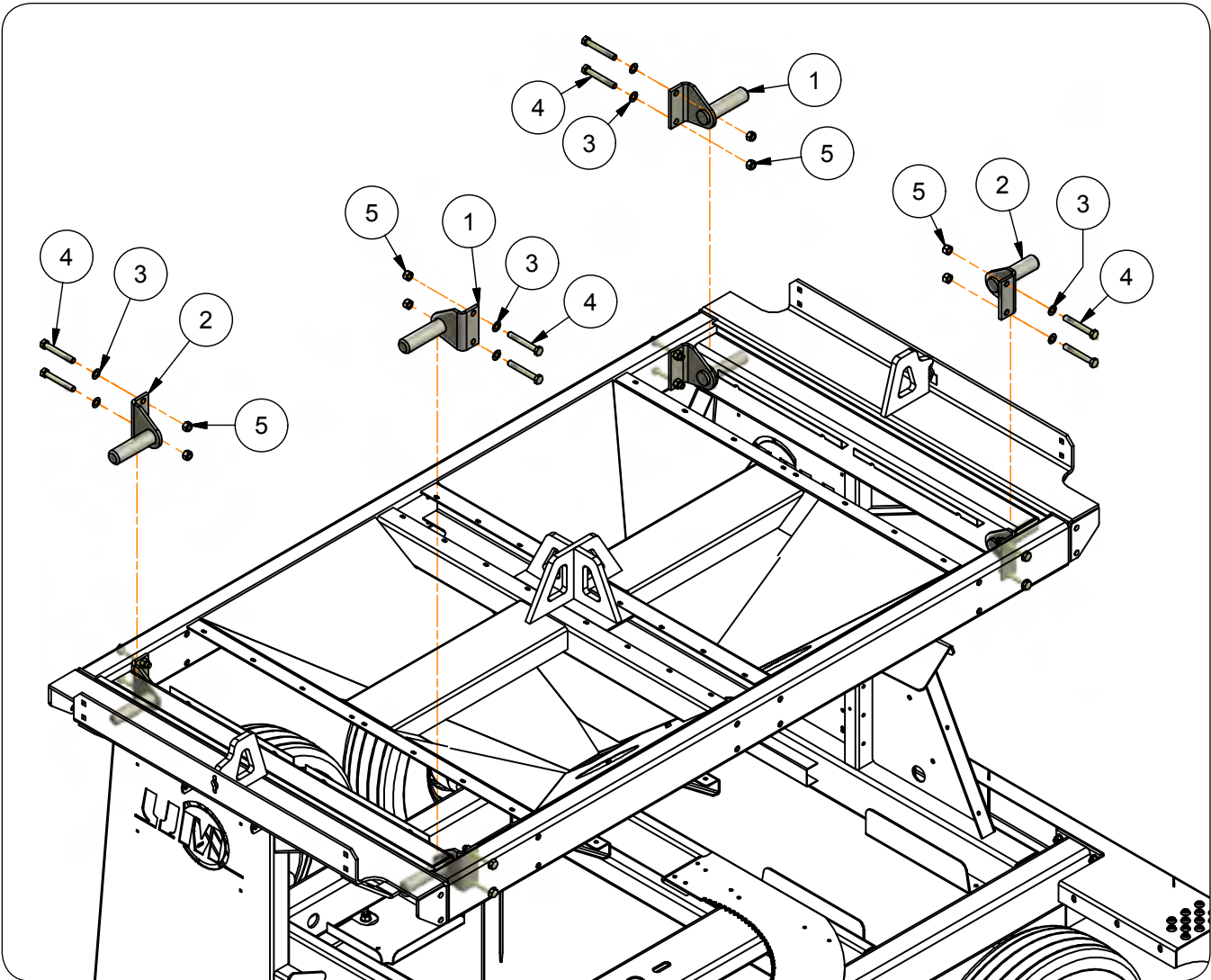
Door Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	27388TS	Door Wheel Assembly	1	Includes Items 2-10
2	27387TS	Door Wheel Weldment	1	Includes Items 3-5
3	22005B	Gear (8 Tooth)	1	
4	9392-136	Roll Pin 1/4" Dia. x 1 1/2	1	
5	9072	Flat Washer, 2" OD	1	
6	9395-014	Hex Jam Nut 5/8"-11UNC	1	Grade 5
7	901056	Wing Nut 1/4"-20UNC	2	
8	901158	Brake Block	1	
9	9388-009	Carriage Bolt, 1/4"-20UNC x 2 1/2	2	Grade 5
10	95789	Bearing/Sealed	1	
	2001363	Bushing (NOT SHOWN)	1	
11	27515TS	Door Weldment LH	1	
12	27516TS	Door Weldment RH	1	
13	27522TS	Door Rack Assembly	1	Includes Items 14-17
14	27518TS	Rack Weldment	1	
15	27521	Bent Pin 3/8" Dia. x 4 5/16	2	
16	902417	Compression Spring	2	
17	91144-121	Spiral Pin 3/16" Dia. x 1 1/8"	2	
18	9405-078	Flat Washer, 3/8"	2	
19	9405-088	Flat Washer, 1/2"	1	
20	9800	Lock Nut, 1/2"-13UNC	1	
21	9928	Lock Nut/Top, 3/8"-16UNC	2	
22	91257	Flange Hex Nut, 5/16"-18UNC	5	
23	27382TS	Strap	1	
24	27377	Chute Belting	1	
25	9388-025	Carriage Bolt, 5/16"-18UNC x 1	5	

Stationary Bracket Components

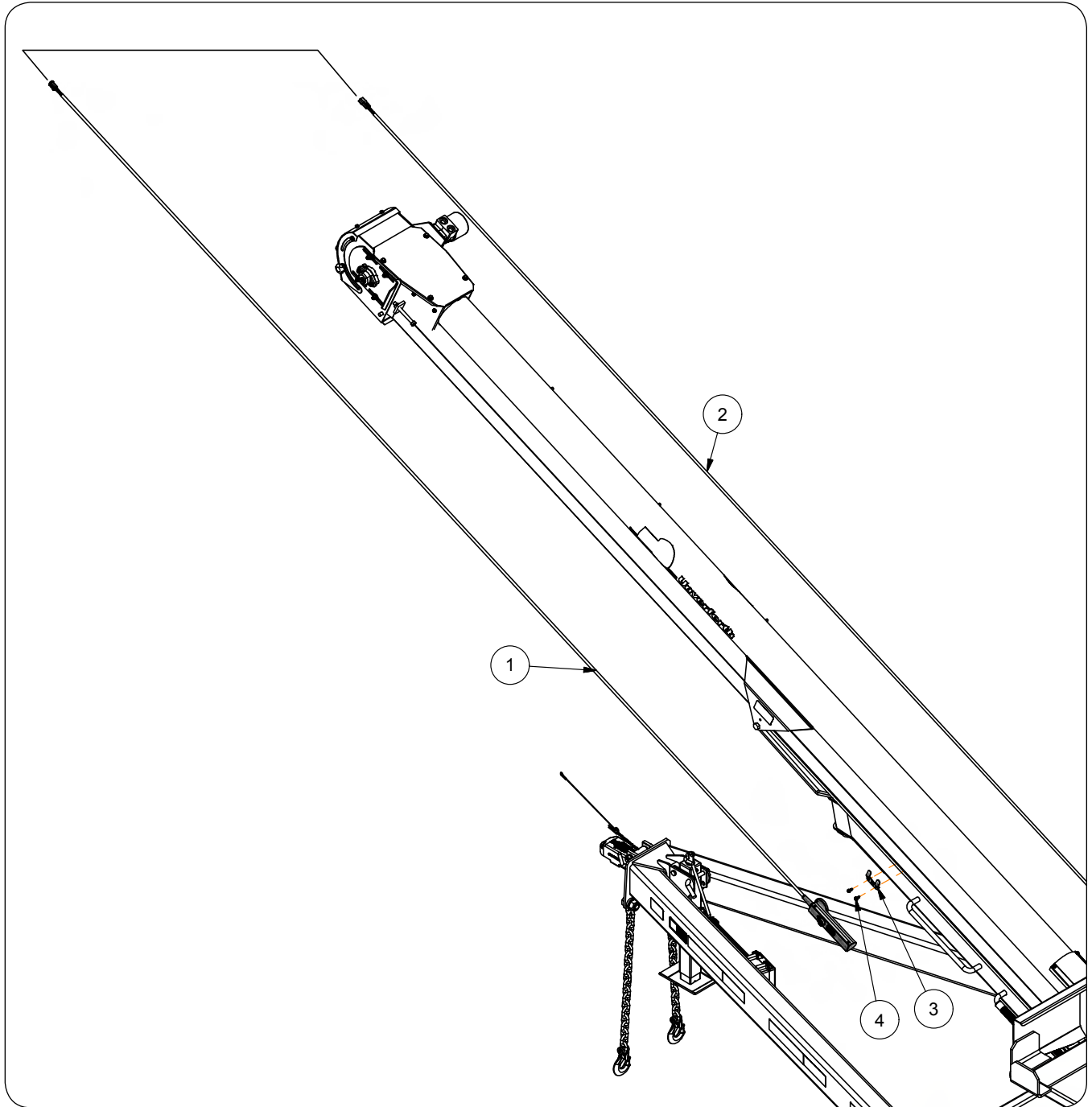
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	27919TS	Stationary Bracket Bundle	-	
1	27783TS	Pin Weldment LH	2	
2	27784TS	Pin Weldment RH	2	
3	903108	Flat Washer, 5/8" (Stainless Steel)	8	
4	9390-133	Capscrew, 5/8"-11UNC x 4 1/2	8	Grade 5
5	9801	Lock Nut, 5/8"-11UNC	8	

Conveyor 2-Function Controller Components

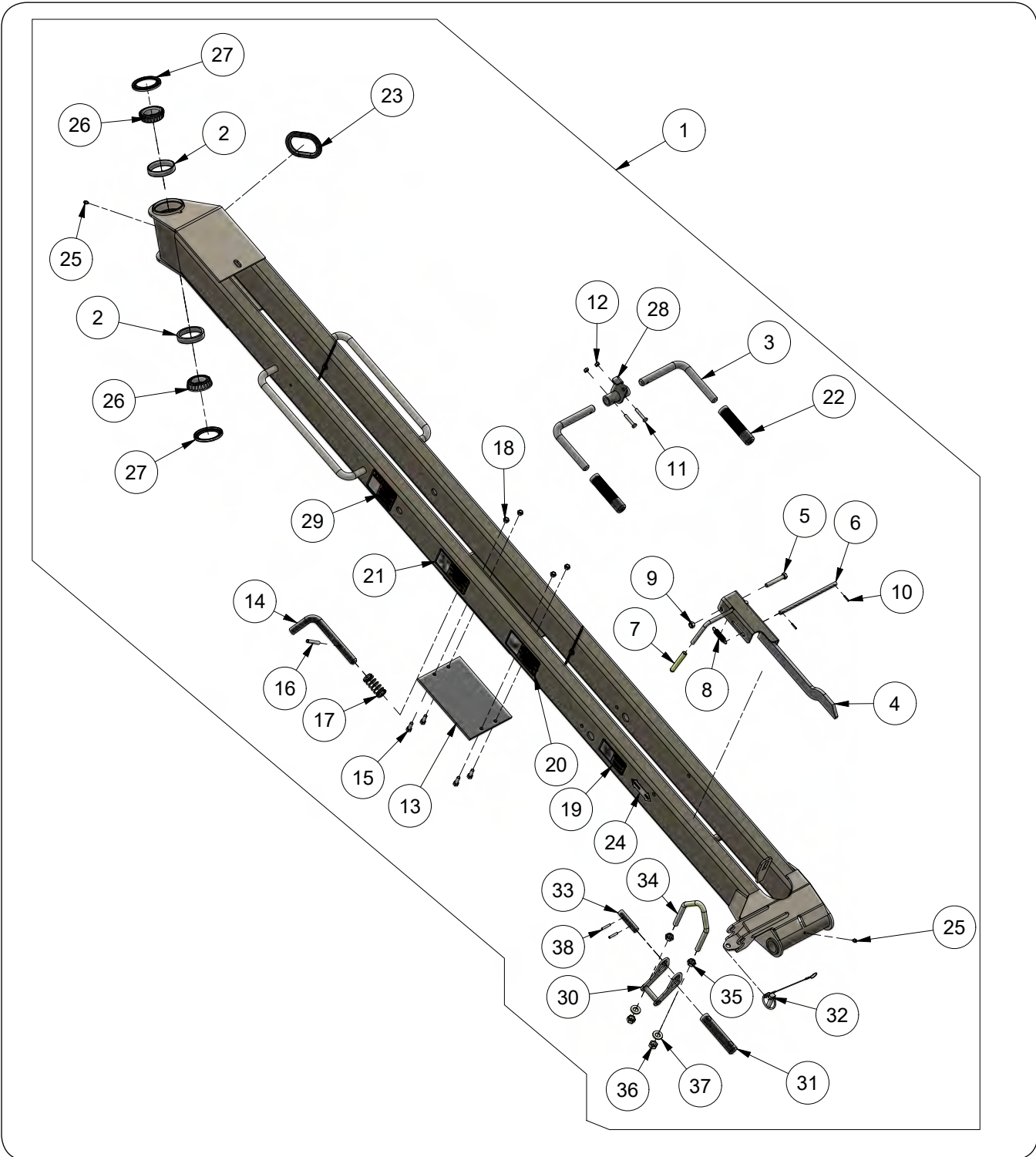
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	27627	Switch Assembly	1	
2	2002519	Wire Harness	1	
3	26505	Switch Retainer	1	
4	9473	Self-Drilling Screw 1/4-14 x 3/4	2	

**Conveyor Arm Assembly — For Model 410
with 8" Conveyor (Serial Number D65950100 & Up)**

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

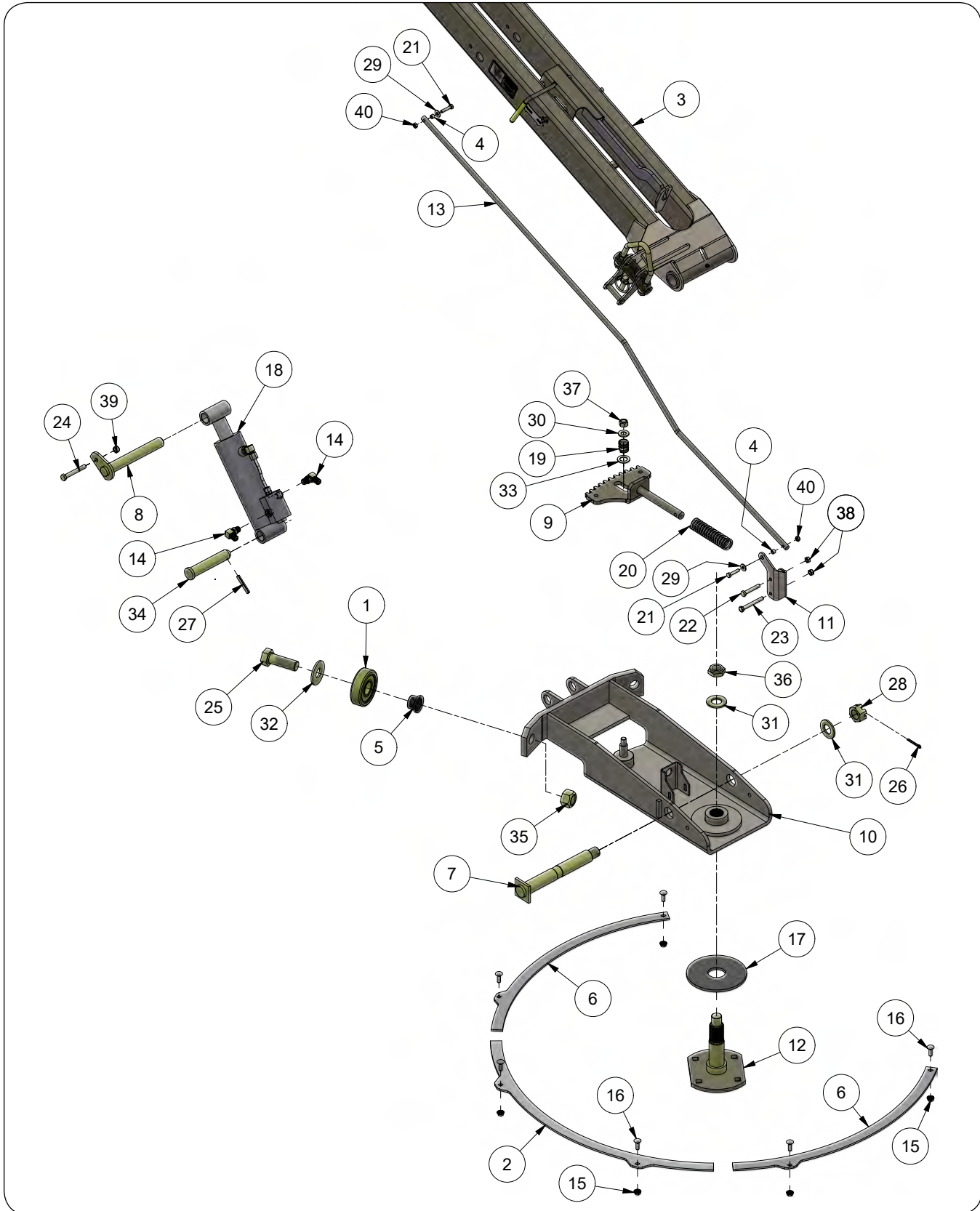
Conveyor Arm Assembly — For Model 410 with 8” Conveyor (Serial Number D65950100 & Up)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2009177TS	Conveyor Arm Assembly	1	Includes Items 2 through 38
2	9349	Bearing Cup LM501310	2	
3	24023TS	Handle	2	
4	27750TS	Latch Weldment	1	
5	9390-061	Capscrew, 3/8”-16UNC x 2 1/2”	1	
6	27755	Pin, 3/8” Dia.	1	
7	9003869	Hand Grip 3/8” ID	1	
8	99860	Spring 2 1/4” Long	1	
9	9928	Locknut, 3/8”-16UNC	1	
10	9392-056	Roll Pin, 1/8” Dia. x 3/4”	2	
11	9390-007	Capscrew, 1/4”-20UNC x 1 1/2”	2	
12	9936	Lock Nut, 1/4”-20UNC	2	
13	27845	Sheet, 6 x 8 7/8	1	
14	27837	Latch Pin, 3/4” Dia.	1	
15	9390-030	Capscrew, 5/16”-18UNC x 1”	4	
16	91144-190	Spiral Pin, 5/16” Dia. x 3”	1	
17	97125B	Spring 2 1/2” Long	1	
18	9807	Locknut, 5/16”-18UNC	4	
19	95839	Decal, WARNING (Pinch Point)	2	
20	95445	Decal, WARNING (High Pressure)	2	
21	98229	Decal, WARNING (Lower Equipment)	2	
22	92928	Hand Grip 3/4” ID	2	
23	82044	U-Channel	1	
24	902685	Decal “Lock/Unlock”	1	
25	91160	Grease Zerk	2	
26	9247	Bearing Cone LM501349	2	
27	9355	Seal 2 1/4”	2	
28	29974TS	Cam Weldment	1	
29	901478	Decal, DANGER (Electrocution)	2	
30	2005585TS	Handle Weldment	1	
31	2005589	Pin, 1” Dia. X 5”	1	
32	901170	Lynch/Klik Pin, 7/16” Dia. x 1 3/4” w/Lock Ring and 8” Lanyard	1	
33	2005613	Pin, 5/8” Dia. X 2 3/4”	1	
34	9501761	U-Bolt, 1/2”-13UNC x 5”	1	
35	9395-010	Hex Jam Nut, 1/2”-13UNC	2	
36	94981	Locknut/Center, 1/2”-13UNC	2	
37	9405-086	Flat Washer, 1/2” SAE	2	
38	91144-121	Spiral Pin, 3/16” Dia. x 1 1/8”	2	

Conveyor Arm Pivot Components — For Model 410
with 8" Conveyor (Serial Number D65950100 & Up)

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

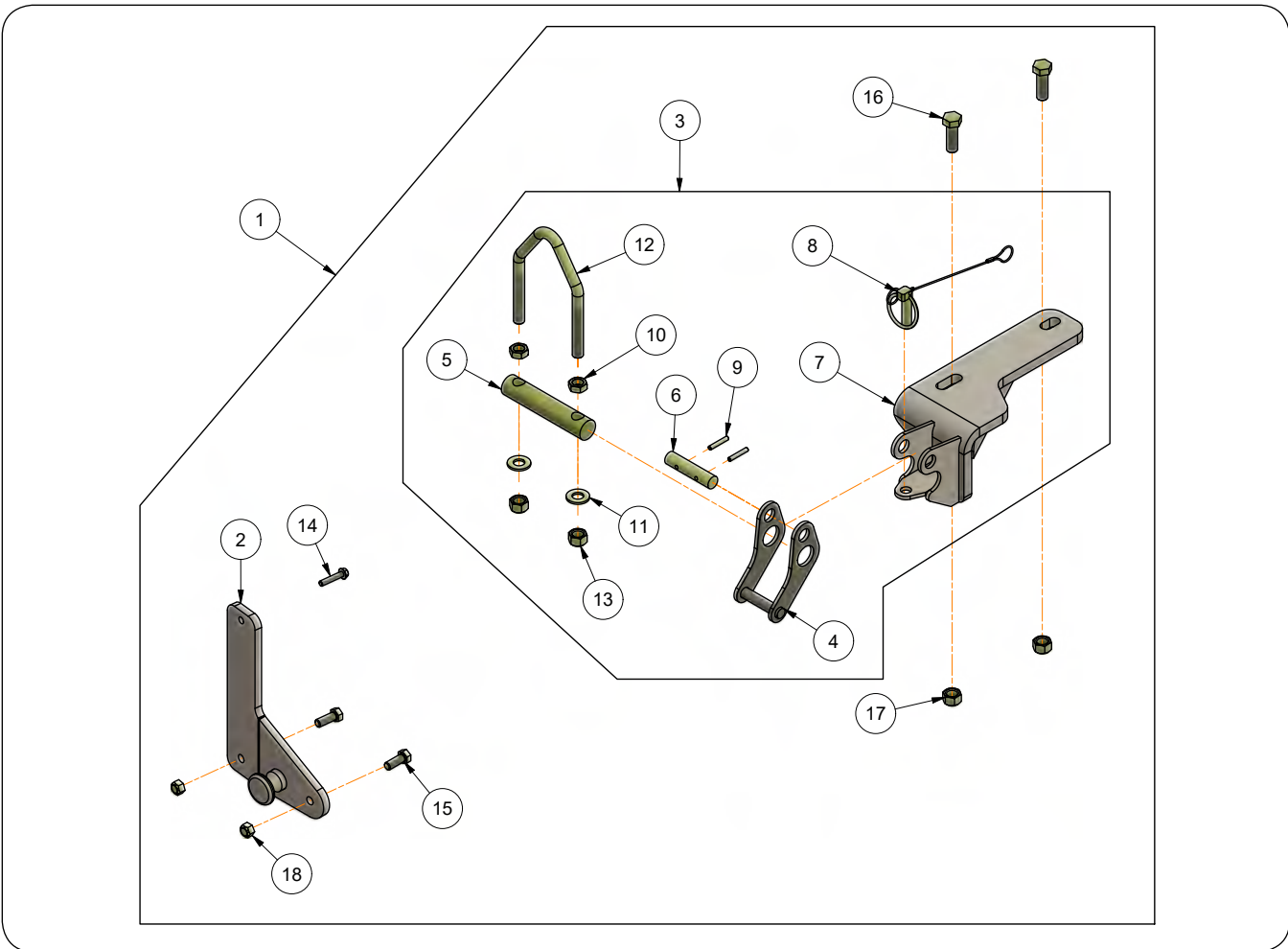


SEED PRO® BULK BOX CARRIER 410/410XL— Parts**Conveyor Arm Pivot Components — For Model 410 with 8” Conveyor (Serial Number D65950100 & Up)**Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2000189	Bearing Assembly	4	
2	2001301	Plate/Segment	1	
3	2009177TS	Conveyor Arm Assembly	1	Includes Items 4 through 40
4	22018	Bushing 3/8” OD	2	
5	23951	Bushing	2	
6	24863	Plate/Segment	2	
7	27512	Pin Weldment, 1 1/4” Dia. x 9 7/8”	1	
8	27922	Pin Weldment, 1” Dia. x 7 1/4”	1	
9	28453TS	Latch Weldment	1	
10	29032TS	Pivot Weldment	1	
11	29179TS	Channel	1	
12	29970TS	Hub Weldment w/ Splined Shaft 2” Dia.	1	
13	29973TS	Push Rod	1	
14	9003744	90° Elbow with 0.030 Restrictor 9/16-18 JIC Male x 9/16-18 O-Ring Adj Male	2	
15	9005639	Flange Nut, 5/16”-18UNC	6	Stainless Steel
16	9007908-025	Carriage Bolt, 5/16”-18UNC x 1	6	Stainless Steel
17	901186	Washer	1	
18	902361	Cylinder, 2 1/2 x 4	1	
19	902602	Compression Spring	1	
20	902616	Spring 5” Long	1	
21	9390-006	Capscrew, 1/4”-20UNC x 1 1/4	2	
22	9390-034	Capscrew, 5/16”-18UNC x 2	1	
23	9390-037	Capscrew, 5/16”-18UNC x 2 3/4	1	
24	9390-062	Capscrew, 3/8”-16UNC x 2 3/4	1	
25	9390-187	Capscrew, 1”-8UNC x 3	2	
26	9391-035	Cotter Pin, 5/32” Dia. x 1 1/2	1	
27	9392-159	Roll Pin, 5/16” Dia. x 2	1	
28	9393-020	Slotted Nut, 1”-14UNS	1	
29	9405-064	Flat Washer, 1/4” USS	2	
30	9405-086	Flat Washer, 1/2” SAE	1	
31	9405-116	Flat Washer, 1” SAE	1	
32	9405-118	Flat Washer, 1” USS	4	
33	9500091	Nylon Washer	1	
34	9500423	Pin, 1” Dia. x 5 1/2”	1	
35	9663	Locknut, 1”-8UNC	2	
36	96976-040	Thin Locknut, 1”-14UNS	1	
37	9800	Locknut, 1/2”-13UNC	1	
38	9807	Locknut, 5/16”-18UNC	2	
39	9928	Locknut, 3/8”-16UNC	1	
40	9936	Locknut, 1/4”-20UNC	2	

Conveyor Latch Components

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



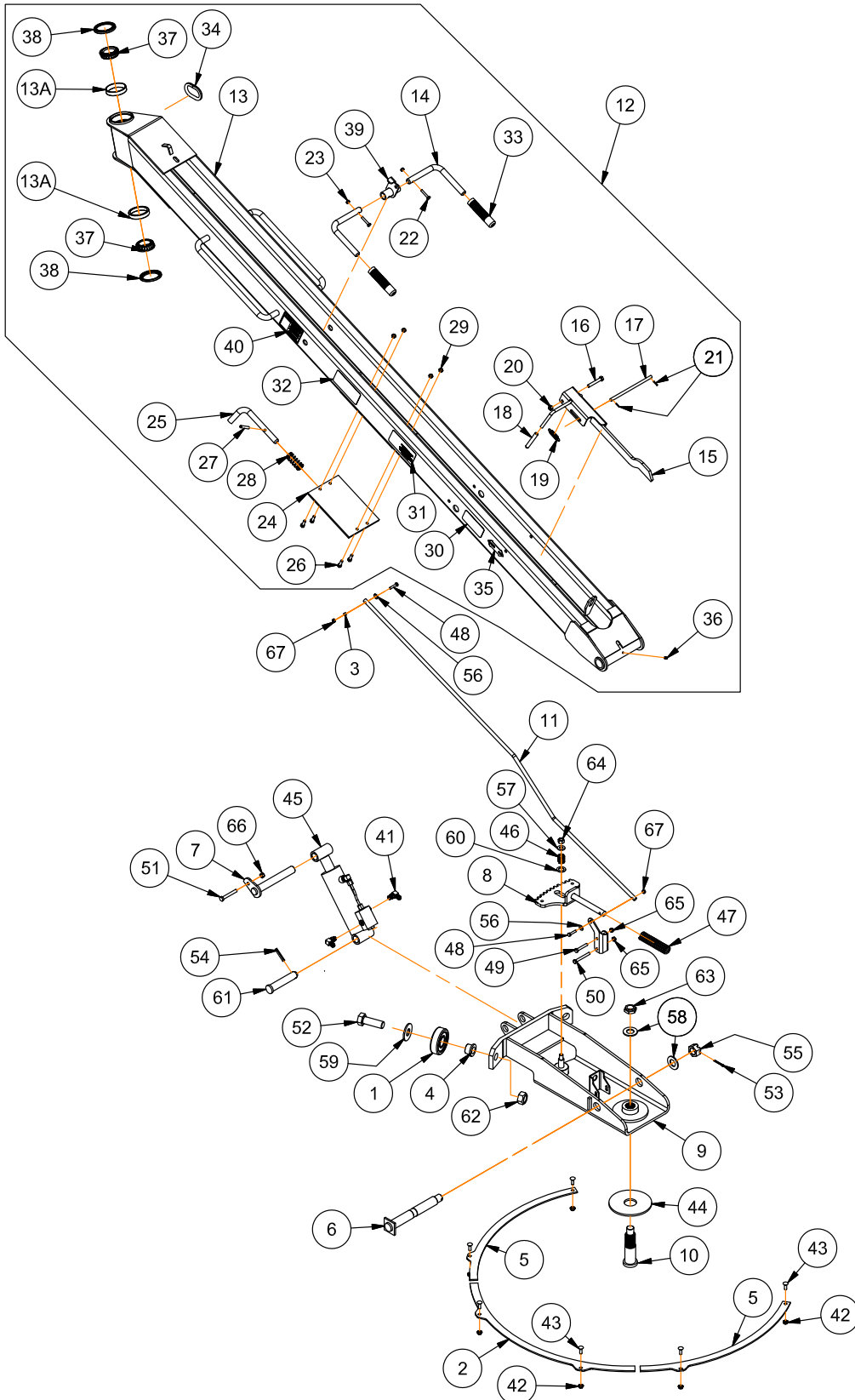
Conveyor Latch Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2007563TS	Conveyor Latch Kit	1	Includes Items 2 through 18
2	2005628TS	Latch Weldment	1	
3	2007495TS	Latch Assembly	1	Includes Items 4 through 13
4	2005585TS	Handle Weldment	1	
5	2005589	Pin, 1" Dia. x 5"	1	
6	2005613	Pin, 5/8" Dia. x 2 3/4"	1	
7	2007496TS	Latch Base Weldment	1	
8	901170	Lynch Pin w/Lanyard	1	
9	91144-121	Spiral Pin, 3/16" Dia. x 1 1/8"	2	
10	9395-010	Hex Jam Nut ,1/2"-13UNC	2	
11	9405-086	Flat Washer, 1/2" SAE	2	
12	9501761	U-Bolt, 1/2"-13UNC	1	
13	9800	Lock Nut/Top, 1/2"-13UNC	2	
14	903161-005	Flange Screw, 1/4"-20UNC x 1 1/4" G5	1	
15	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2	
16	9390-101	Capscrew, 1/2"-13UNC x 1 1/2" G%	2	
17	9800	Lock Nut/Top, 1/2"-13UNC	2	
18	9928	Lock Nut/Top, 3/8"-16UNC	2	

**Conveyor Arm Components — For Model 410
with 6" & 8" Conveyor (Serial Number D65950099 & Lower)**

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Conveyor Arm Components — For Model 410 with 6" & 8" Conveyor (Serial Number D65950099 & Lower)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2000189	Bearing Assembly	4	
2	2001301	Plate/Segment	1	
3	22018	Bushing 3/8" OD	2	
4	23951	Bushing	2	
5	24863	Plate/Segment	2	
6	27512	Pin Weldment 1 1/4" Dia. x 9 7/8"	1	
7	27922	Pin Weldment 1" Dia. x 7 1/4"	1	
8	28453TS	Latch Weldment	1	
9	29032TS	Pivot Weldment	1	
10	29968	Splined Shaft 2" Dia.	1	
11	29973TS	Push Rod	1	
12	29975TS	Conveyor Arm Assembly	1	Includes Items 13 through 40
13	NA	Arm Weldment With Bearing Cup	2	Includes Item 14
13A	9349	Bearing Cup LM501310	2	
14	24023TS	Handle	2	
15	27750TS	Latch Weldment	1	
16	9390-061	Capscrew, 3/8"-16UNC x 2 1/2	1	
17	27755	Pin 3/8" Dia.	1	
18	9003869	Hand Grip 3/8" ID	1	
19	99860	Spring 2 1/4" Long	1	
20	9928	Lock Nut, 3/8"-16UNC	1	
21	9392-056	Roll Pin 1/8" Dia. x 3/4"	2	
22	9390-007	Capscrew, 1/4"-20UNC x 1 1/2	2	
23	9936	Lock Nut, 1/4"-20UNC	2	
24	27845	Sheet 6 x 8 7/8	1	
25	27837	Latch Pin 3/4" Dia.	1	
26	9390-030	Capscrew, 5/16"-18UNC x 1	4	
27	91144-190	Spiral Pin 5/16" Dia. x 3	1	
28	97125B	Spring 2 1/2" Long	1	
29	9807	Lock Nut, 5/16"-18UNC	4	
30	95839	Decal, WARNING (Pinch Point)	2	
31	95445	Decal, WARNING (High Pressure)	2	
32	98229	Decal, WARNING (Lower Equipment)	2	
33	92928	Hand Grip 3/4" ID	2	
34	82044	U-Channel	1	
35	902685	Decal "Lock/Unlock"	1	
36	91160	Grease Zerk	2	
37	9247	Bearing Cone LM501349	2	
38	9355	Seal 2 1/4"	2	
39	29974TS	Cam Weldment	1	
40	901478	Decal, DANGER (Electrocution)	2	

(Continued on next page)

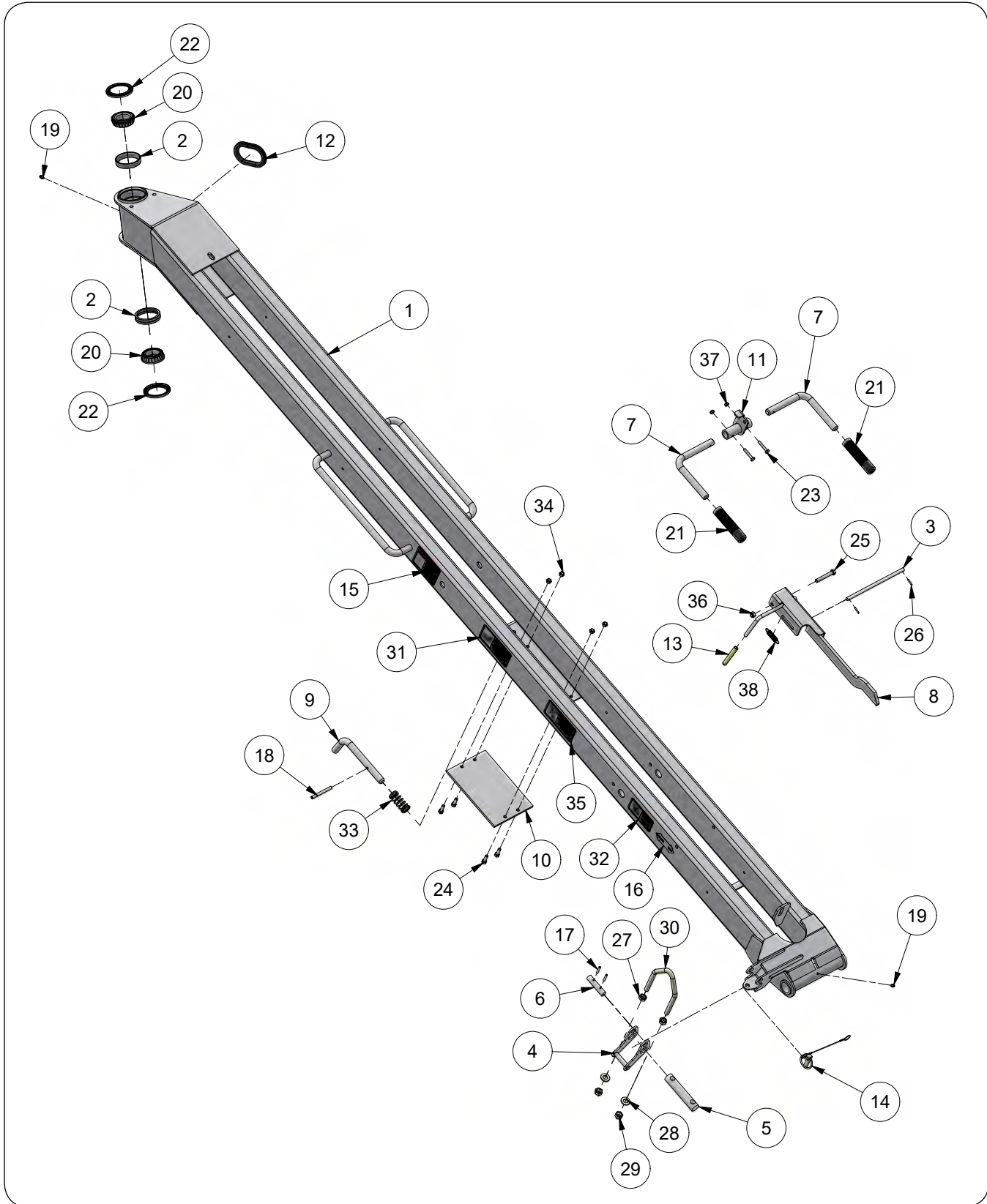
SEED PRO® BULK BOX CARRIER 410/410XL — Parts**Conveyor Arm Components — For Model 410 (continued)
with 6" & 8" Conveyor (Serial Number D65950099 & Lower)**Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
41	9003744	90° Elbow with 0.030 Restrictor 9/16-18 JIC Male x 9/16-18 O-Ring Adj Male	2	
42	9005639	Flange Nut, 5/16"-18UNC	6	Stainless Steel
43	9007908-025	Carriage Bolt, 5/16"-18UNC x 1"	6	Stainless Steel
44	901186	Washer	1	
45	902361	Cylinder, 2 1/2" x 4"	1	
46	902602	Compression Spring	1	
47	902616	Spring 5" Long	1	
48	9390-006	Capscrew, 1/4"-20UNC x 1 1/4"	4	2
49	9390-034	Capscrew, 5/16"-18UNC x 2"	1	
50	9390-037	Capscrew, 5/16"-18UNC x 2 3/4"	1	
51	9390-062	Capscrew, 3/8"-16UNC x 2 3/4"	1	
52	9390-187	Capscrew, 1"-8UNC x 3"	2	
53	9391-035	Cotter Pin, 5/32" Dia. x 1 1/2"	1	
54	9392-159	Roll Pin, 5/16" Dia. x 2"	1	
55	9393-020	Slotted Nut, 1"-14UNS	1	
56	9405-064	Flat Washer, 1/4" USS	2	
57	9405-086	Flat Washer, 1/2" SAE	1	
58	9405-116	Flat Washer, 1" SAE	1	
59	9405-118	Flat Washer, 1" USS	4	
60	9500091	Nylon Washer	1	
61	9500423	Pin 1" Dia. x 5 1/2"	1	
62	9663	Lock Nut, 1"-8UNC	2	
63	96976-040	Thin Lock Nut, 1"-14UNS	1	
64	9800	Lock Nut, 1/2"-13UNC	5	
65	9807	Lock Nut, 5/16"-18UNC	2	
66	9928	Lock Nut, 3/8"-16UNC	3	
67	9936	Lock Nut, 1/4"-20UNC	4	

Notes

**Conveyor Arm Assembly — For Model 410XL
with 8" Conveyor (Serial Number D65950100 & Up)**

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

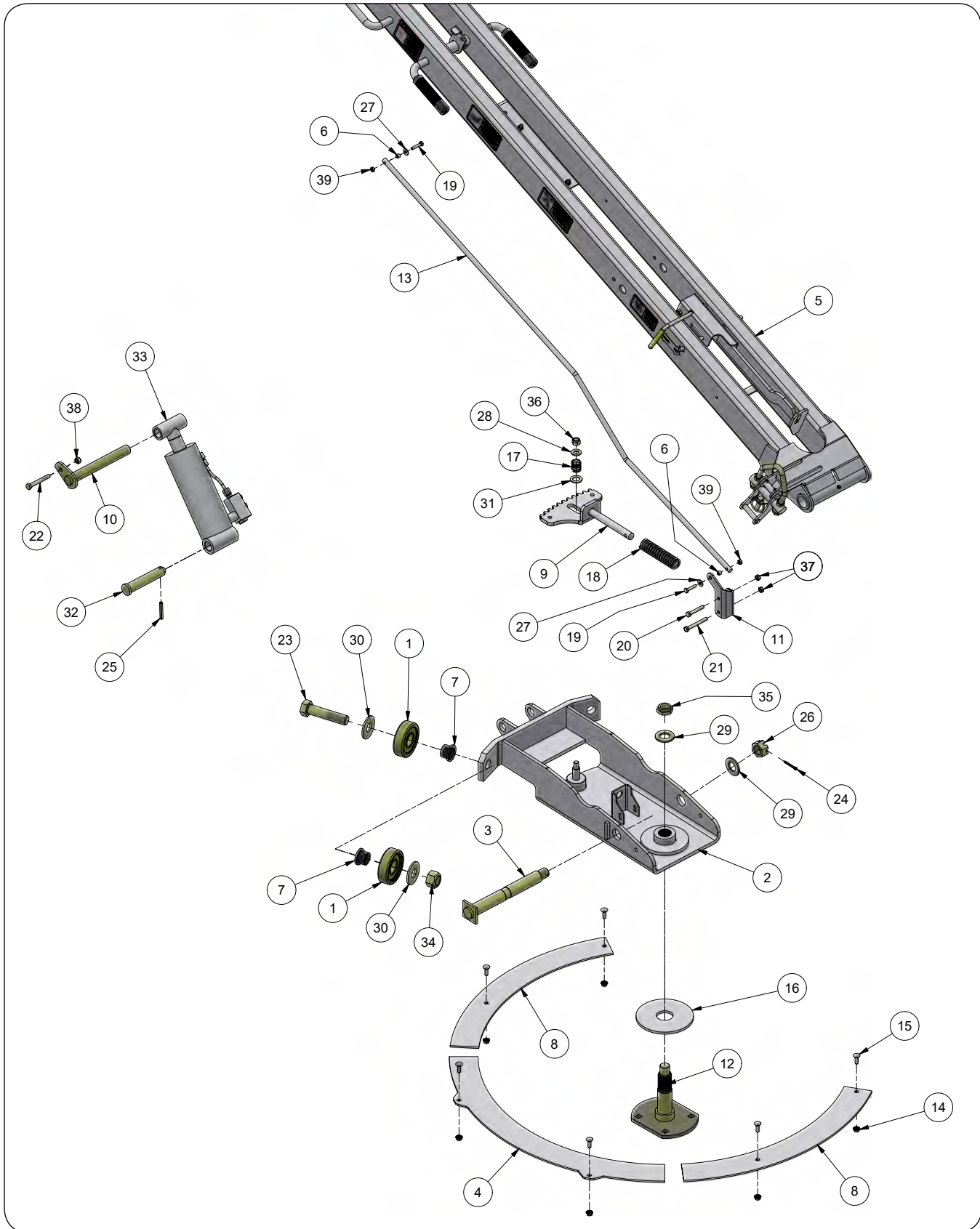
Conveyor Arm Assembly — For Model 410XL with 8” Conveyor (Serial Number D65950100 & Up)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2009179TS	Conveyor Arm Assembly	1	Includes Items 2 through 38
2	9349	Bearing Cup LM501310	2	
3	2003714	Pin 3/8” Dia.	1	
4	2005585TS	Handle Weldment	1	
5	2005589	Pin 1” Dia. x 5”	1	
6	2005613	Pin 5/8” Dia. x 2 3/4”	1	
7	24023TS	Handle	2	
8	27750TS	Latch Weldment	1	
9	27837	Latch Pin 3/4” Dia.	1	
10	27845	Sheet 6” x 8 7/8”	1	
11	28020TS	Cam Weldment	1	
12	82044	U-Channel	1	
13	9003869	Hand Grip 3/8” ID	1	
14	901170	Lynch/Klik Pin 7/16” Dia. x 1 3/4” w/Lock Ring and 8” Lanyard	1	
15	901478	Decal, DANGER (Electrocution)	2	
16	902685	Decal “Lock/Unlock”	1	
17	91144-121	Spiral Pin, 3/16” Dia. x 1 1/8”	2	
18	91144-190	Spiral Pin, 5/16” Dia. x 3”	1	
19	91160	Grease Zerk	2	
20	9247	Bearing Cone LM501349	2	
21	92928	Hand Grip 3/4” ID	2	
22	9355	Seal 2 1/4”	2	
23	9390-007	Capscrew, 1/4”-20UNC x 1 1/2”	2	
24	9390-030	Capscrew, 5/16”-18UNC x 1”	4	
25	9390-061	Capscrew, 3/8”-16UNC x 2 1/2”	1	
26	9392-056	Roll Pin 1/8” Dia. x 3/4”	2	
27	9395-010	Hex Jam Nut, 1/2”-13UNC	2	
28	9405-086	Flat Washer, 1/2” SAE	2	
29	94981	Locknut/Center, 1/2”-13UNC	2	
30	9501761	U-Bolt, 1/2”-13UNC x 5”	1	
31	95445	Decal, WARNING (High Pressure)	2	
32	95839	Decal, WARNING (Pinch Point)	2	
33	97125B	Spring 2 1/2” Long	1	
34	9807	Lock Nut, 5/16”-18UNC	4	
35	98229	Decal, WARNING (Lower Equipment)	2	
36	9928	Lock Nut, 3/8”-16UNC	1	
37	9936	Lock Nut, 1/4”-20UNC	2	
38	99860	Spring 2 1/4” Long	1	

**Conveyor Arm Pivot Components — For Model 410XL
with 8" Conveyor (Serial Number D65950100 & Up)**

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

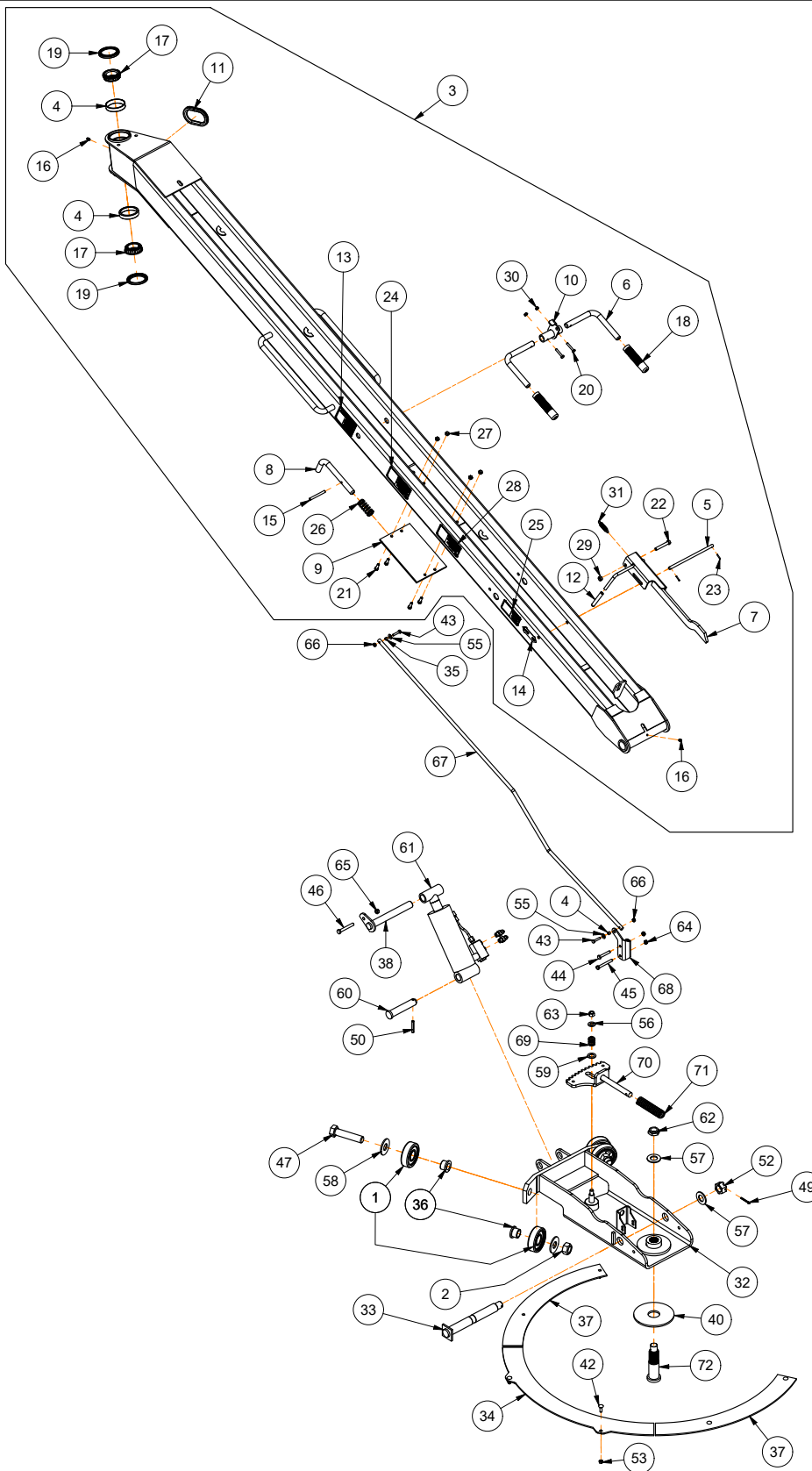


SEED PRO® BULK BOX CARRIER 410/410XL— Parts**Conveyor Arm Pivot Components — For Model 410XL with 8” Conveyor (Serial Number D65950100 & Up)**Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2000189	Bearing Assembly	4	
2	2003664TS	Pivot Weldment	1	
3	2003703	Pin Weldment	1	
4	2003711	Plate/Segment	1	
5	2009179TS	Conveyor Arm Assembly	1	
6	22018	Bushing 3/8” OD	2	
7	23951	Bushing	4	
8	28019	Plate/Segment	2	
9	28453TS	Latch Weldment	1	
10	28526	Pin Weldment	1	
11	29179TS	Bracket	1	
12	29970TS	Splined Shaft	1	For Standard Units
13	29973TS	Push Rod	1	
14	98435	Adapter with 0.030 Restrictor 9/16-18 JIC Male x 9/16-18 O-Ring Adj Male	2	
15	9005639	Flange Nut, 5/16”-18UNC	6	Stainless Steel
16	9007908-025	Carriage Bolt, 5/16”-18UNC x 1”	6	Stainless Steel
17	901186	Washer	1	
18	902602	Compression Spring	1	
19	902616	Spring 5” Long	1	
20	9390-006	Capscrew, 1/4”-20UNC x 1 1/4”	2	
21	9390-034	Capscrew, 5/16”-18UNC x 2”	1	
22	9390-037	Capscrew, 5/16”-18UNC x 2 3/4”	1	
23	9390-062	Capscrew, 3/8”-16UNC x 2 3/4”	1	
24	9390-192	Capscrew, 1”-8UNC x 4 1/2”	2	
25	9391-035	Cotter Pin 5/32” Dia. x 1 1/2”	1	
26	9392-159	Roll Pin 5/16” Dia. x 2”	1	
27	9393-020	Slotted Nut 1”-14UNS	1	
28	9405-064	Flat Washer, 1/4” USS	2	
29	9405-086	Flat Washer, 1/2” SAE	1	
30	9405-116	Flat Washer, 1” SAE	2	
31	9405-118	Flat Washer, 1” USS	4	
32	9500091	Nylon Washer	1	
33	9500423	Pin, 1” Dia. x 5 1/2”	1	
34	9501286	Cylinder, 3” x 4”	1	
35	9663	Lock Nut, 1”-8UNC	2	
36	96976-040	Thin Lock Nut, 1”-14UNS	1	
37	9800	Lock Nut, 1/2”-13UNC	1	
38	9807	Lock Nut, 5/16”-18UNC	2	
39	9928	Lock Nut, 3/8”-16UNC	4	
40	9936	Lock Nut, 1/4”-20UNC	2	

**Conveyor Arm Components — For Model 410XL
with 8" Conveyor (Serial Number D65950099 & Lower)**

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Conveyor Arm Components — For Model 410XL with 8” Conveyor (Serial Number D65950099 & Lower)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2000189	Bearing Assembly	4	
2	9663	Lock Nut, 1”-8UNC	2	
3	2003479TS	Conveyor Arm Assembly	1	Includes Items 4 through 31
4	9349	Bearing Cup LM501310	2	
5	2003714	Pin 3/8” Dia.	1	
6	24023TS	Handle	2	
7	27750TS	Latch Weldment	1	
8	27837	Latch Pin 3/4” Dia.	1	
9	27845	Sheet 6” x 8 7/8”	1	
10	28020TS	Cam Weldment	1	
11	82044	U-Channel	1	
12	9003869	Hand Grip 3/8” ID	1	
13	901478	Decal, DANGER (Electrocution)	2	
14	902685	Decal “Lock/Unlock”	1	
15	91144-190	Spiral Pin 5/16” Dia. x 3”	1	
16	91160	Grease Zerk	2	
17	9247	Bearing Cone LM501349	2	
18	92928	Hand Grip 3/4” ID	2	
19	9355	Seal 2 1/4”	2	
20	9390-007	Capscrew, 1/4”-20UNC x 1 1/2”	2	
21	9390-030	Capscrew, 5/16”-18UNC x 1”	4	
22	9390-061	Capscrew, 3/8”-16UNC x 2 1/2”	1	
23	9392-056	Roll Pin 1/8” Dia. x 3/4”	2	
24	95445	Decal, WARNING (High Pressure)	2	
25	95839	Decal, WARNING (Pinch Point)	2	
26	97125	Spring 2 1/2” Long	1	
27	9807	Lock Nut, 5/16”-18UNC	4	
28	98229	Decal, WARNING (Lower Equipment)	2	
29	9928	Lock Nut, 3/8”-16UNC	1	
30	9936	Lock Nut, 1/4”-20UNC	2	
31	99860	Spring 2 1/4” Long	1	
32	2003664TS	Pivot Weldment	1	
33	2003703	Pin Weldment	1	
34	2003711	Plate/Segment	1	
35	22018	Bushing 3/8” OD	1	
36	23951	Bushing	4	
37	28019	Plate/Segment	2	
38	28526	Pin Weldment	1	

(Continued on next page)

SEED PRO® BULK BOX CARRIER 410/410XL — Parts**Conveyor Arm Components — For Model 410XL (continued)
with 8" Conveyor (Serial Number D65950099 & Lower)**Please visit www.unverferth.com/parts/ for the most current parts listing.

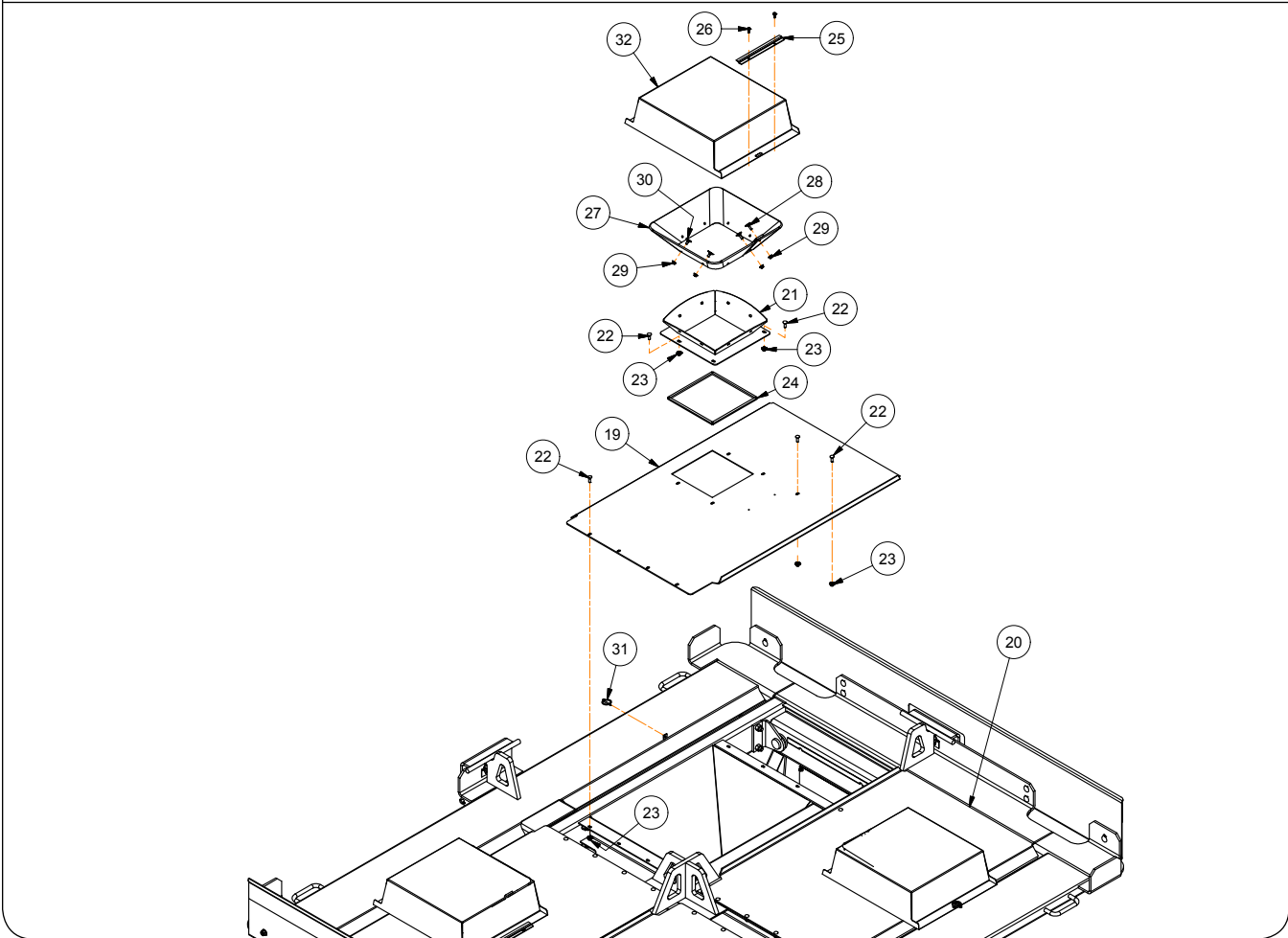
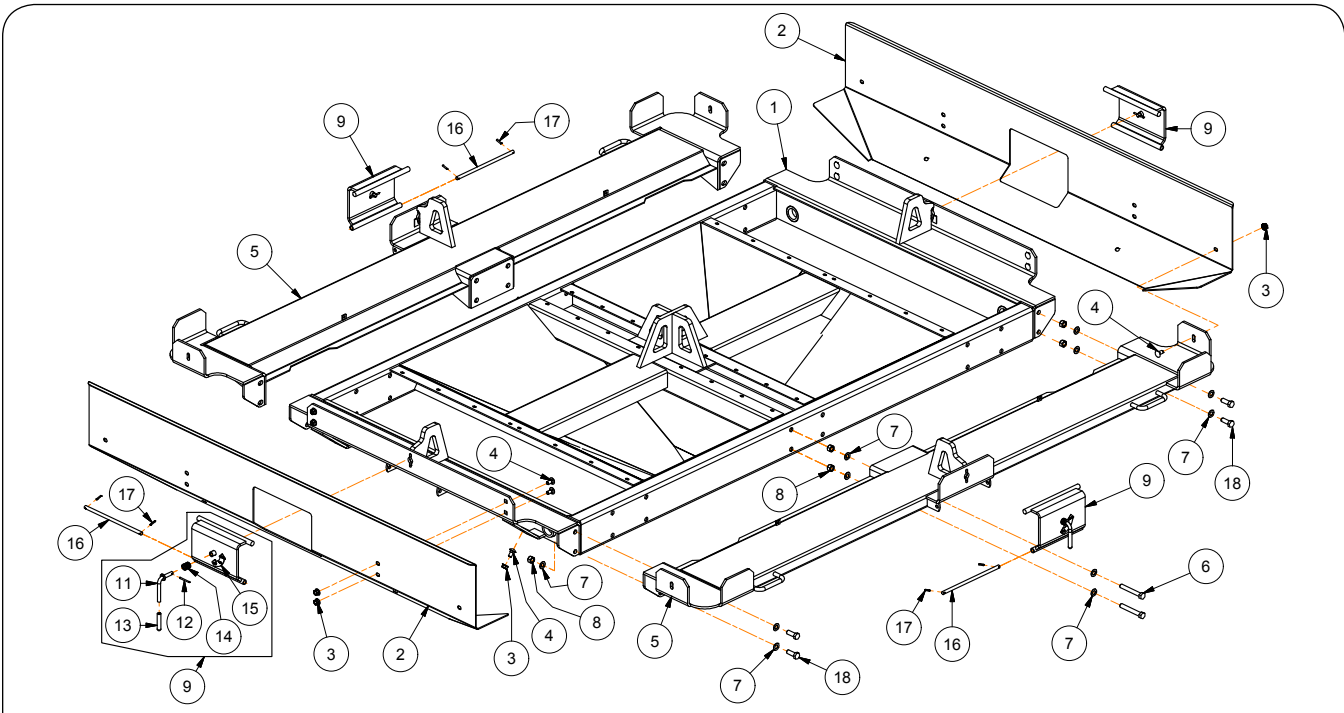
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
39	28581TS	Retainer/Cap	1	
40	901186	Washer	1	
41	9162	Hub Cap	1	
42	9007908-025	Carriage Bolt, 5/16"-18UNC x 1"	6	Stainless Steel
43	9390-006	Capscrew, 1/4"-20UNC x 1 1/4"	4	2
44	9390-034	Capscrew, 5/16"-18UNC x 2"	1	
45	9390-037	Capscrew, 5/16"-18UNC x 2 3/4"	1	
46	9390-062	Capscrew, 3/8"-16UNC x 2 3/4"	1	
47	9390-192	Capscrew, 1"-8UNC x 4 1/2"	2	
48	9391-027	Cotter Pin 1/8" Dia. x 2"	1	
49	9391-035	Cotter Pin 5/32" Dia. x 1 1/2"	1	
50	9392-159	Roll Pin 5/16" Dia. x 2"	1	
51	9393-015	Slotted Nut, 3/4"-10UNC	1	
52	9393-020	Slotted Nut, 1"-14UNS	1	
53	9005639	Flange Nut, 5/16"-18UNC	6	Stainless Steel
55	9405-064	Flat Washer, 1/4" USS	2	
56	9405-086	Flat Washer, 1/2" SAE	1	
57	9405-116	Flat Washer, 1" SAE	1	
58	9405-118	Flat Washer, 1" USS	4	
59	9500091	Nylon Washer	1	
60	9500423	Pin 1" Dia. x 5 1/2"	1	
61	9501286	Cylinder, 3" x 4"	1	
62	96976-040	Thin Lock Nut, 1"-14UNS	1	
63	9800	Lock Nut, 1/2"-13UNC	5	
64	9807	Lock Nut, 5/16"-18UNC	2	
65	9928	Lock Nut, 3/8"-16UNC	3	
66	9936	Lock Nut, 1/4"-20UNC	4	
67	29973TS	Push Rod	1	
68	29179TS	Bracket	1	
69	902602	Compression Spring	1	
70	28453TS	Latch Weldment	1	
71	902616	Spring 5" Long	1	
72	29970TS	Splined Shaft	1	

Notes

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Platform Components (Serial Number D64690099 & Lower)

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Platform Components (Serial Number D64690099 & Lower)

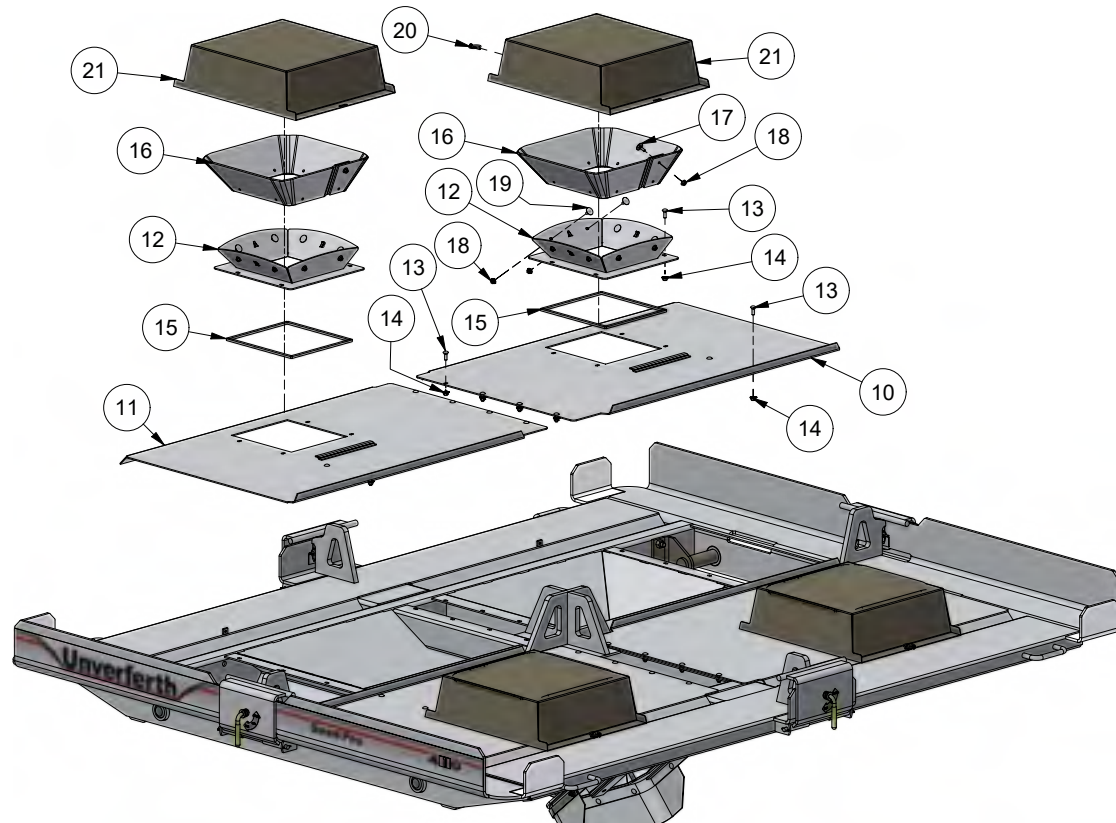
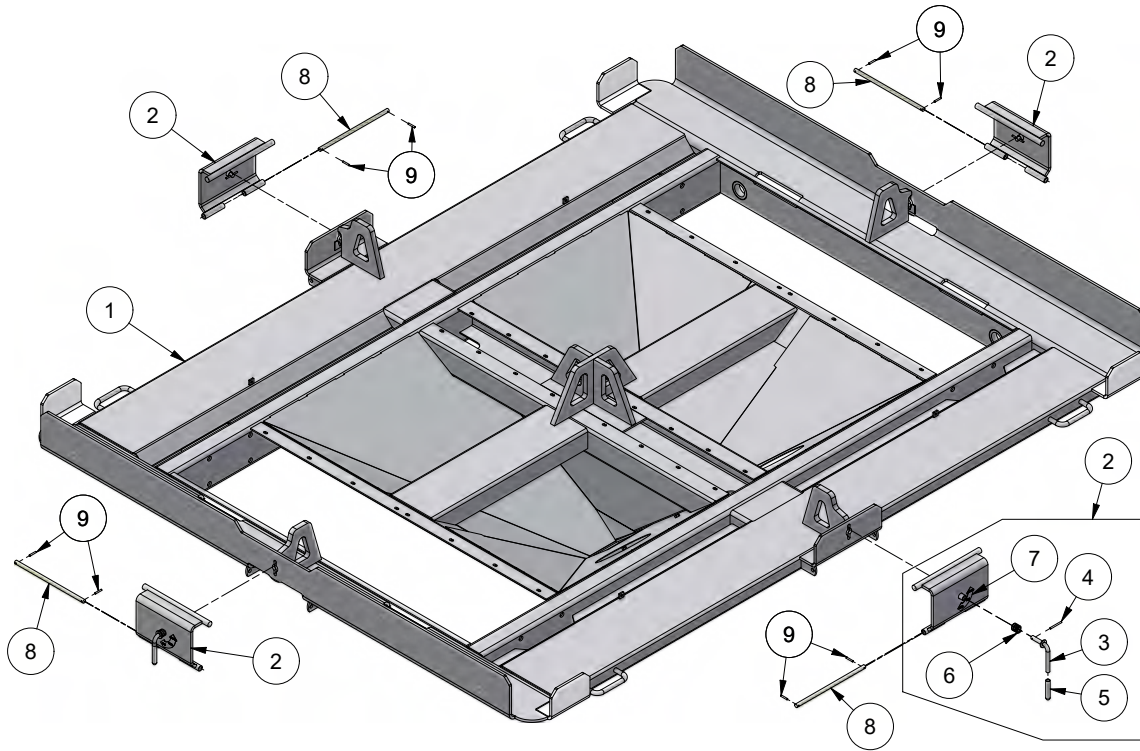
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2002564IV	Platform Assembly	-	Includes Items 1 through 18
1	27775IV	Platform Weldment	1	
2	27804IV	Decal Panel	2	
3	91267	Flange Nut, 1/2"-13UNC	16	
4	9388-102	Carriage Bolt, 1/2"-13UNC x 1"	16	
5	27790IV	Platform Extension	2	
6	9390-133	Capscrew, 5/8"-11UNC x 4 1/2"	8	
7	903108	Flat Washer, 5/8" (Stainless Steel)	32	
8	9801	Lock Nut, 5/8"-11UNC	16	
9	27932IV	Latch Assembly =Ivory White=	4	
10	27823IV	Latch Weldment =Ivory White=	1	
11	27360	Pin Weldment	1	
12	9392-105	Roll Pin 3/16" Dia. x 2"	1	
13	902603	Hand Grip	1	
14	902602	Compression Spring	1	
15	902684	Decal, Lock/Unlock	1	
16	24946	Pin, 1/2" Dia. x 12 1/2"	4	
17	9392-097	Roll Pin, 3/16" Dia. x 1"	8	
18	9390-123	Capscrew, 5/8"-11UNC x 1 3/4"	8	
19	27805IV	Cover Panel Left-Hand	2	
20	27806IV	Cover Panel Right-Hand	2	
21	27825IV	Hopper Weldment	4	
22	9388-025	Carriage Bolt, 5/16"-18UNC x 1"	40	
23	91257	Hex Nut/Large Flange, 5/16"-18UNC	40	
24	900152	Foam Rubber	17	Specify in Feet
25	27828IV	Guide Strap	4	
26	9473	Screw/Self-Drilling, 1/4-14 x 3/4"	8	
27	27826	Rubber Hopper	4	
28	902346	Elevator Bolt, 1/4"-20UNC x 1"	8	
29	97189	Hex Nut/Large Flange, 1/4"-20UNC	38	
30	902006	Elevator Bolt 1/4"-20UNC x 3/4"	28	
31	9093	Klik Pin, 3/16" Dia. x 1 1/4"	4	
32	27827TS	Cover	4	

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Platform Components (Serial Number D64690100 & Up)

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts**Platform Components (Serial Number D64690100 & Up)**

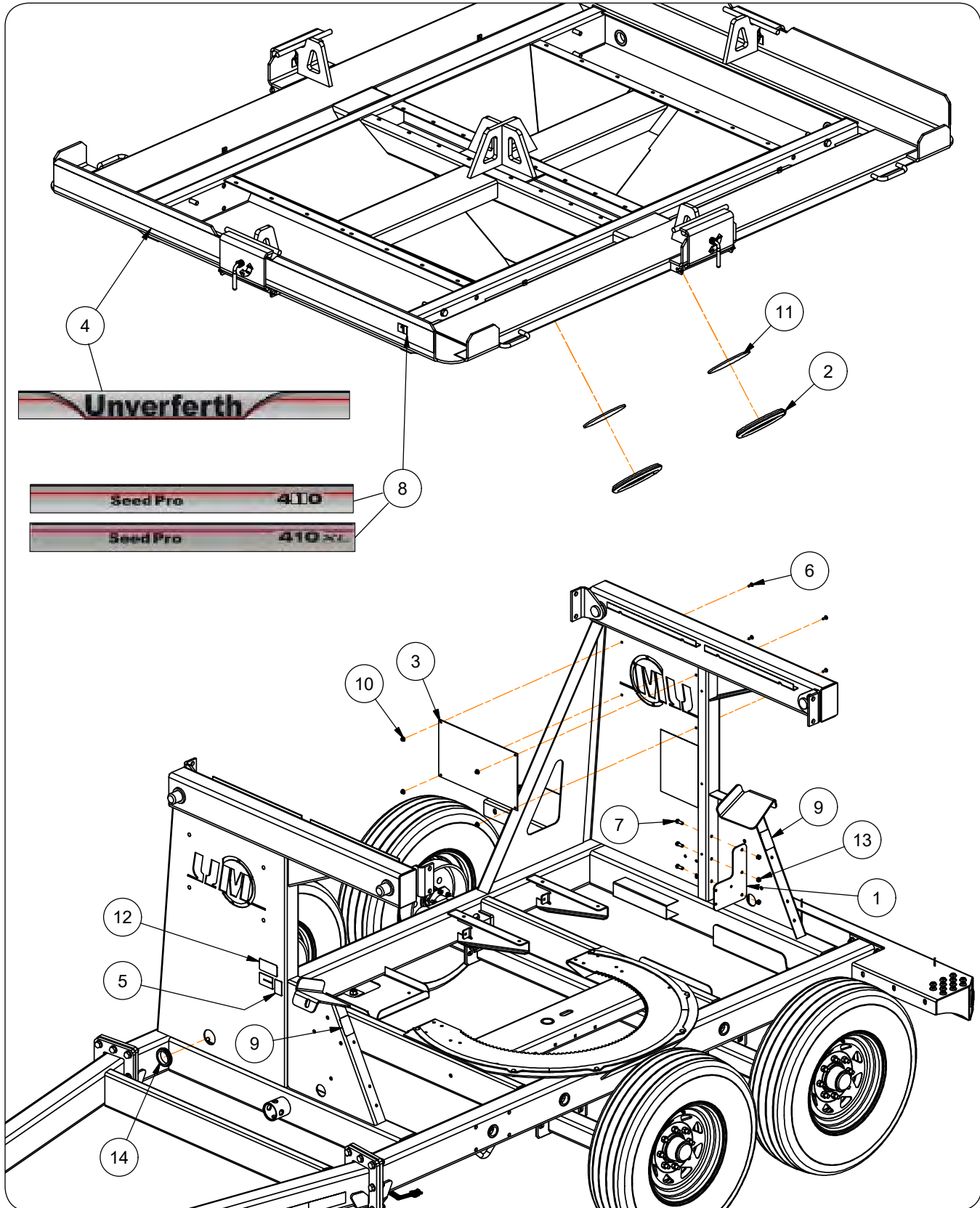
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2008922IV	Platform Assembly	-	Includes Items 1 through 18
1	2008122IV	Platform Weldment	1	
2	27932IV	Latch Assembly =Ivory White=	4	
3	27360	Pin Weldment	1	
4	9392-105	Roll Pin 3/16" Dia. x 2"	1	
5	902603	Hand Grip	1	
6	902602	Compression Spring	1	
7	902684	Decal, Lock/Unlock	1	
8	24946	Pin 1/2" Dia. x 12 1/2"	4	
9	91144-121	Spiral Pin 3/16" Dia. x 1 1/8"	8	
10	2010177IV	Cover Panel Left-Hand Weldment	2	
11	2010178IV	Cover Panel Right-Hand Weldment	2	
12	2007947IV	Hopper Weldment	4	
13	9388-025	Carriage Bolt, 5/16"-18UNC x 1"	40	
14	91257	Hex Nut/Large Flange, 5/16"-18UNC	40	
15	900152	Foam Rubber	17	Specify in Feet
16	2007958	Rubber Hopper	4	
17	902346	Elevator Bolt, 1/4-20 x 1"	8	
18	97189	Hex Nut/Large Flange, 1/4"-20UNC	38	
19	902006	Elevator Bolt, 1/4"-20UNC x 3/4"	28	
20	9093	Klik Pin, 3/16" Dia. x 1 1/4"	4	
21	27827TS	Cover	4	
22	9503951	Fir Tree Cable Tie, 8"	AR	NOT SHOWN

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Decals, Windows, & Valve Mounting Plate Components

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Decals, Windows, & Valve Mounting Plate Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2001178TS	Valve Mounting Plate	1	
2	22872	Weather Stripping	2	
3	27915R	Accent Panel	2	
4	902642	Decal, Unverferth Seed Pro	2	
5	91605	Decal, FEMA	1	
6	9388-002	Carriage Bolt, 1/4"-20UNC x 3/4" G5	8	
7	9390-055	Capscrew, 3/8"-16UNC x 1" G5	3	
8	9501247	Decal, Model Seed Pro 410	2	
	9501287	Decal, Model Seed Pro 410XL		
9	97048	Decal, WARNING "Pinch Point"	2	
10	97189	Hex Nut/Large Flange 1/4"-20UNC	8	
11	97617	Glass Window	2	
12	98350	Decal, WARNING "No Riders"	1	
13	9928	Lock Nut/Top, 3/8"-16UNC	4	
14	901334	Grommet	1	
15	235161	Decal, DANGER "Flammable Fuel"	1	
16	95445	Decal, WARNING "High-Pressure Fluids"	1	

SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Hydraulic Components — Models 410/410XL with Electronic Speed Control

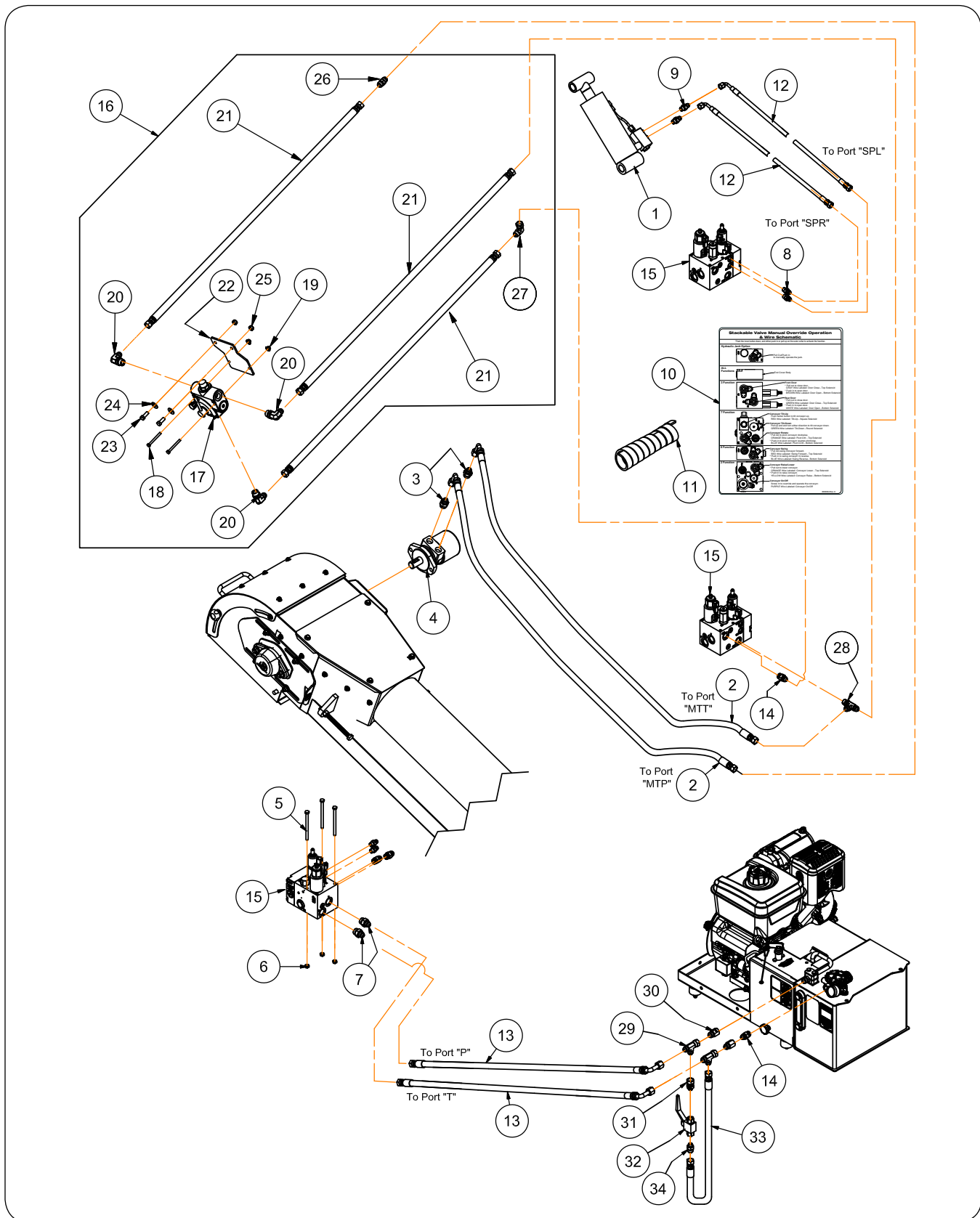
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	902361	Cylinder 2 1/2" x 4" (3000 PSI) Replacement Kit	1	For 6" x 18' & 8" x 18' Conveyors
2	902837	Hose 1/2" x 310" 3/4-16 JIC Female x 90° Medium Drop 3/4-16 JIC Female	2	For 6" x 18' & 8" x 18' Conveyors
	902968	Hose 1/2" x 350" 3/4-16 JIC Female x 90° Medium Drop 3/4-16 JIC Female	2	For 8" x 21' Conveyors
3	93607	Adapter 3/4-16 JIC Male x 7/8-14 O-Ring Male Boss	3	
4	9500806	Hydraulic Motor 1800PSI	1	
5	9390-044	Capscrew, 5/16"-18UNC x 5"	3	
6	9807	Lock Nut, 5/16"-18UNC	3	
7	9001495	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male	2	
8	9003744	90° Elbow 9/16-18 JIC Male x 9/16-18 O-Ring Male w/ .030 Restrictor	2	
9	2003034	Decal, Valve Manual Override Operation	1	
10	9004075	Spiral Hose Wrap	3 Feet	
11	98082	Hose 1/4" x 100" 9/16-18 JIC Female x 9/16-18 JIC Female	2	
12	902836	Hose 1/2" x 24" 3/4-16 JIC Female 90° Elbow x 3/4-16 JIC Female	2	
13	9864	Adapter 3/4-16 JIC Male x 3/4-16 O-Ring Male	3	
14	9500855	Stackable Control Valve - 2 Section	1	
15	901519	Hose 1/4" x 96" 9/16-18 JIC Female x 90° Medium Drop 9/16-18 JIC Female	2	For 8" x 21' Conveyors
16	93599	90° Elbow 3/4-16 JIC Male x 7/8-14 O-Ring Male	1	
17	93683	90° Elbow 3/4-16 JIC Male x 3/4-16 JIC Female	1	
18	9405-070	Flat Washer, 5/16" USS	6	
19	9390-059	Capscrew, 3/8"-16UNC x 2" G5	3	
20	9501286	Cylinder 3" x 4" (3000 PSI)	1	For 8" x 21' Conveyors
21	98435	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male w/ .030 Restrictor	2	For 8" x 21' Conveyors
22	95059	Tee 3/4-16 JIC Male x 3/4-16 JIC Female x 3/4-16 JIC Male	2	
23	901181	Reducer Adapter 3/4-16 JIC Female x 3/4-16 JIC Male	2	
24	97664	Adapter 9/16-18 O-Ring Male x 3/4-16 JIC Female	1	
25	9501014	Cold Start/Ball Valve	1	
26	9502790	Hose 1/2 x 20 3/4-16 JIC Female x 3/4-16 JIC Female	1	
27	95475	Adapter 3/4-16 JIC Male x 9/16-18 O-Ring Male	1	

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Hydraulic Components — Model 410XL with Manual Speed Control

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Hydraulic Components — Model 410XL with Manual Speed Control

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9501286	Cylinder 3" x 4" (3000 PSI) Replacement Kit	1	
	99515	Ball Valve 3/4-16UNF-2A Threaded x 1 7/8 w/3 O-Rings	-	
	99516	Seal Kit For Ball Valve	-	
2	902968	Hose 1/2" x 350" 3/4-16 JIC Female x 90° Medium Drop 3/4-16 JIC Female	2	
3	93607	Adapter 3/4-16 JIC Male x 7/8-14 O-Ring Male Boss	2	
4	TA0-914695-0	Hydraulic Motor 6 CU. IN. 12GPM, 1800PSI	1	
5	9390-043	Capscrew, 5/16"-18UNC x 4 1/2"	3	
6	9807	Lock Nut, 5/16"-18UNC	3	
7	93607	Adapter 3/4-16 JIC Male X 7/8-14 O-Ring Male	2	
8	9001495	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male	2	
9	98435	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male w/ .030 Restrictor	2	
10	2003034	Decal, Valve Manual Override Operation	1	
11	9004075	Spiral Hose Wrap	3	
12	901519	Hose 1/4" x 96" 9/16-18 JIC Female x 90° Medium Drop 9/16-18 JIC Female	2	
13	9501299	Hose 1/2" x 60" 3/4-16 JIC Female 90° Elbow x 3/4-16 JIC Female	2	
14	9864	Adapter 3/4-16 JIC Male x 3/4-16 O-Ring Male	3	
15	9500855	Stackable Control Valve - 2 Section	1	
16	2005688IV	Flow Control Valve Assembly	1	
17	902800	Flow Control Valve	1	
18	9390-011	Capscrew, 1/4"-20UNC x 2 1/2"	2	Grade 5
19	97189	Hex Nut/Large Flange 1/4"-20UNC	2	
20	93599	90° Elbow 3/4-16 JIC Male x 7/8-14 O-Ring Male	3	
21	9869	Hose 1/2 x 90 3/4-16 JIC Male x 3/4-16 JIC Female	3	
22	2005062IV	Valve Mount Plate	1	
23	9390-055	Capscrew, 3/8"-18UNC x 1"	2	Grade 5
24	9405-076	Flat Washer, 3/8" USS	2	
25	9928	Lock Nut, 3/8"-16UNC	2	
26	9000793	Adapter 3/4-16 JIC Male x 3/4-16 JIC Male	1	
27	93683	90° Elbow 3/4-16 JIC Male x 3/4-16 JIC Female	1	
28	93588	Tee 3/4-16 JIC Male x 3/4-16 O-Ring Male x 3/4-16 JIC Male	1	
29	95059	Tee 3/4-16 JIC Male x 3/4-16 JIC Female x 3/4-16 JIC Male	2	
30	901181	Reducer Adapter 3/4-16 JIC Female x 3/4-16 JIC Male	2	
31	97664	Adapter 9/16-18 O-Ring Male x 3/4-16 JIC Female	1	
32	9501014	Cold Start/Ball Valve	1	
33	9502790	Hose 1/2 x 20 3/4-16 JIC Female x 3/4-16 JIC Female	1	
34	95475	Adapter 3/4-16 JIC Male x 9/16-18 O-Ring Male	1	

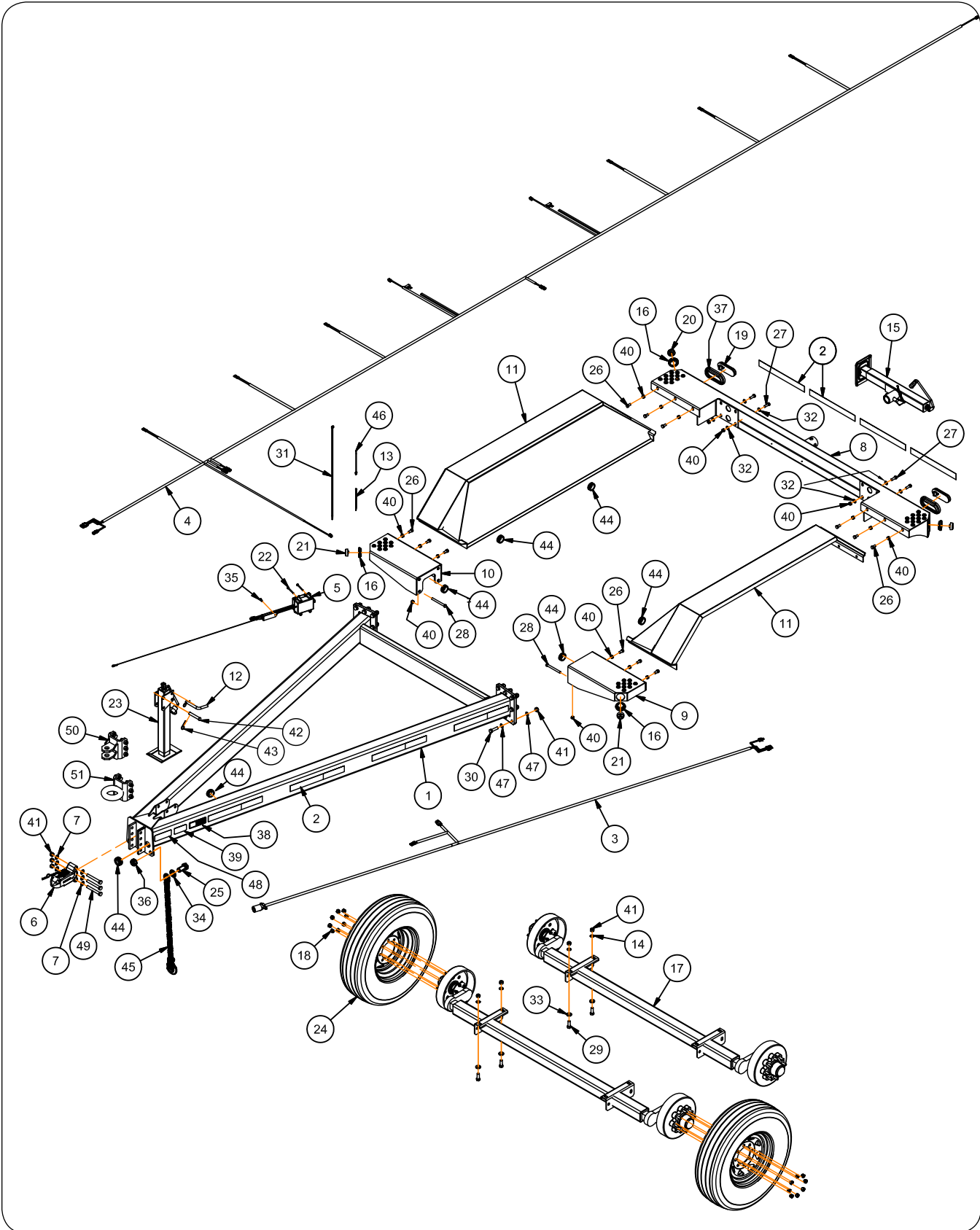
Control Valve - 2 Function Components

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

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
1	9500855	Valve Assembly w/End Cover Assembly	1	Includes items 2 - 18
2	N/A	Valve Body Only	1	
3	902347	Orifice Plug, 0.025, 5/16"-24UNF Thread, 0.125 Allen Hex Socket	1	
4	902825	Port Plug, 7/16"-20UNF Hex Head	1	
5	9003423	Plug 9/16-18 O-Ring Male w/Hollow Hex Socket	4	
6	902821	Check Valve	1	
	902853	Seal Kit	-	
7	9501428	Flow Regulator	1	
	9500116	Seal Kit	-	
8	902918	Relief Cartridge	1	
	903032	Seal Kit	-	
9	902842	Cartridge Valve, 3/4"-16UNF (3 Position, 4 Way)	3	For Round Coils
	902849	Seal Kit for 3 Position, 4 Way Cartridge Valve	-	
	902813	Coil Nut, 1/2"-20UNF	-	
10	9500131	Cartridge - Proportional 1 1/16"-8UNC Thread	1	
	9500132	Seal Kit	-	
11	9500136	Proportional Coil	1	
12	902811	Round Coil - Electromagnetic	6	For Round Coils
13	902812	Coil Spacer	3	For Round Coils
14	9500600	Seal Kit - Valve Assembly O-Rings	-	
15	9500306	Valve End Cover Assembly without Power Beyond	1	Includes Item #16
16	98048	Hex Plug, 3/4-16 O-Ring Male	1	
17	9390-059	Capscrew, 3/8"-16UNC x 2"	3	
18	9405-074	Flat Washer, 3/8" SAE	3	
19	9504053	Cartridge Valve, 3/4"-16UNF (3 Position, 4 Way)	3	For Square Coils
20	9504052	Square Coil - Electromagnetic	6	For Square Coils

Undercarriage Components

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Undercarriage Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2009899TS	Hitch 10' Assembly =Tan Speckle= Includes Hitch, Decals, Wiring Harness, Transport Chains	1	
2	25003	Conspicuity Marking 18"	12	
3	25045	Front Wiring Harness 165"	1	
4	25046	Rear Wiring Harness 352"	1	
5	-	Electric Breakaway (See Electric Breakaway Components in this Section)	1	
6	2000357TS	Hitch 2 5/16" Ball (Includes Zerk, Chain & Hairpin Cotter)	1	
7	9405-098	Flat Washer, 5/8"	6	
8	27850TS	Light Bar Weldment	1	
9	27855TS	Step Weldment LH	1	
10	27856TS	Step Weldment RH	1	
11	27860TS	Fender Weldment	2	
12	84979	Bent Pin 5/8" Dia.	1	
13	9000106	Cable Tie 6" Long	2	
14	903108	Flat Washer, 5/8" (Stainless Steel)	8	
15	9003295	Jack - Top Wind	1	
16	900956	Open-Back Grommet	4	
17	901099B	Torsion Axle Assembly	2	
18	901669	Tapered Nut, 9/16"-18UNF	32	For Aluminum Wheel
	9502998	Wheel Nut, 9/16"-18UNF		
19	902217	Light/Red LED (10 Diode)	2	
20	902218	2" Sealed Light/Red LED (4 Diode)	2	
21	902219	2" Sealed Light/Amber LED (4 Diode)	2	
22	902238	Flange Bolt 1/4"-20UNC x 3	4	
23	902326	Jack Stand Weldment 8000#	1	
24	902702	Wheel/Tire Assembly	4	
	2000939TS	Spare Tire Assembly for Bumper Pull Hitch	-	
	9502990	Aluminum Wheel/Tire Assembly	4	
	2009551TS	Spare Aluminum Wheel/Tire Assembly for Bumper Pull Hitch	-	
25	91299-184	Capscrew, 1"-8UNC x 2 1/4"	2	Grade 8
26	9390-099	Capscrew, 1/2"-13UNC x 1"	12	Grade 5
27	9390-101	Capscrew, 1/2"-13UNC x 1 1/2"	8	Grade 5
28	9390-113	Capscrew, 1/2"-13UNC x 5"	8	Grade 5
29	9390-123	Capscrew, 5/8"-11UNC x 1 3/4"	8	Grade 5
30	9390-125	Capscrew, 5/8"-11UNC x 2 1/4"	16	Grade 5
31	94038	Cable Ties 32" Long	8	

(Continued on next page)

SEED PRO® BULK BOX CARRIER 410/410XL — Parts**Undercarriage Components (continued)**

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

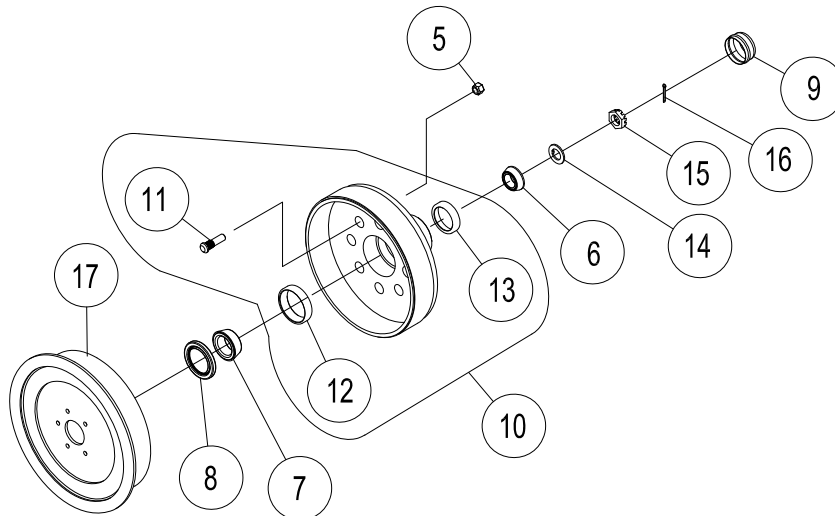
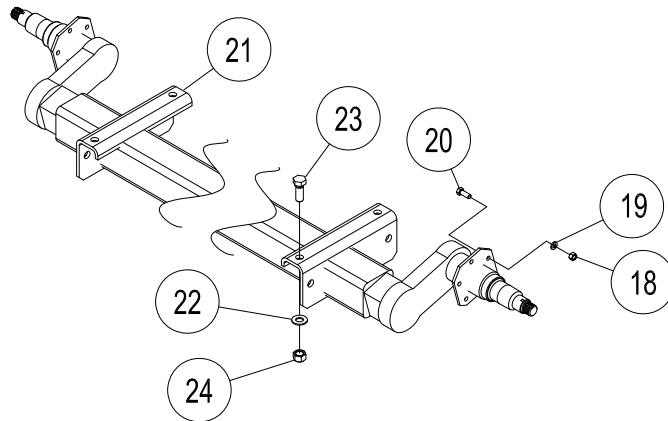
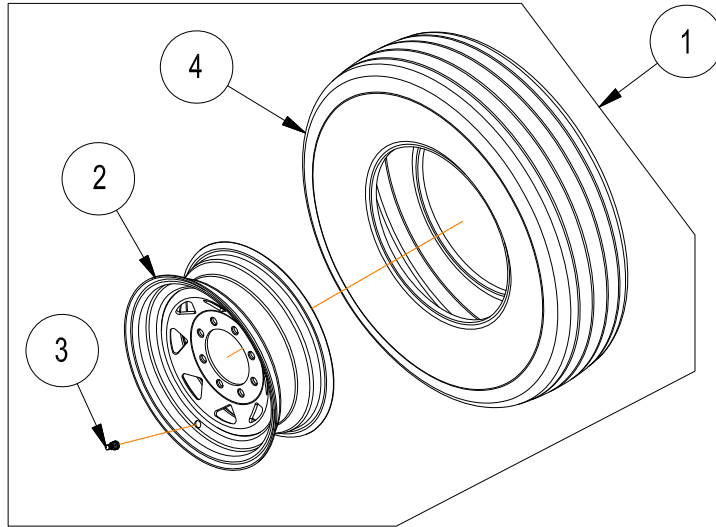
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
32	9405-086	Flat Washer, 1/2" SAE	16	12
33	9746	Flat Washer, 5/8" (1/4" Thick)	8	
34	9405-116	Flat Washer, 1"	2	
35	9512	Screw/Self Drill 1/4-14 x 1"	1	
36	9663	Lock Nut, 1"-8UNC	2	
37	97182	Grommet	2	
38	9500710	Decal CAUTION (Always Use Transport Chains...)	1	
39	97961	Decal WARNING (Read & Understand Manual)	1	
40	9800	Lock Nut, 1/2"-13UNC	32	20
41	9801	Lock Nut, 5/8"-11UNC	24	
42	9805	Clevis Pin 5/8" Dia. x 4"	1	
43	9806	Hairpin Cotter .148" Dia. x 2.687	1	
44	98487	Grommet 1 3/4" Dia.	8	
45	98792	Chain w/Hook & C-Link Asy	2	
46	99599	Cable Tie 8.39" Long	5	
47	903108	Flat Washer, 5/8" (Stainless Steel)	32	
48	9500345	Decal CAUTION (Unhitching Of Trailer Can Cause...)	1	
49	9390-134	Capscrew, 5/8"-11UNC x 5"	3	Grade 5
50	2000264B	Optional Clevis Hitch	-	
51	2000265B	Optional Pintle Hitch Kit	-	

Touch-Up Paint

PAIN	PART NO.
Ivory White - Spray Paint (12oz)	901210
Tan Base Coat - Spray Paint (12oz)	9500474
Radiant Brass/Tan Speckle - Finishing Paint (12oz)	901297

Axle & Wheel Components

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



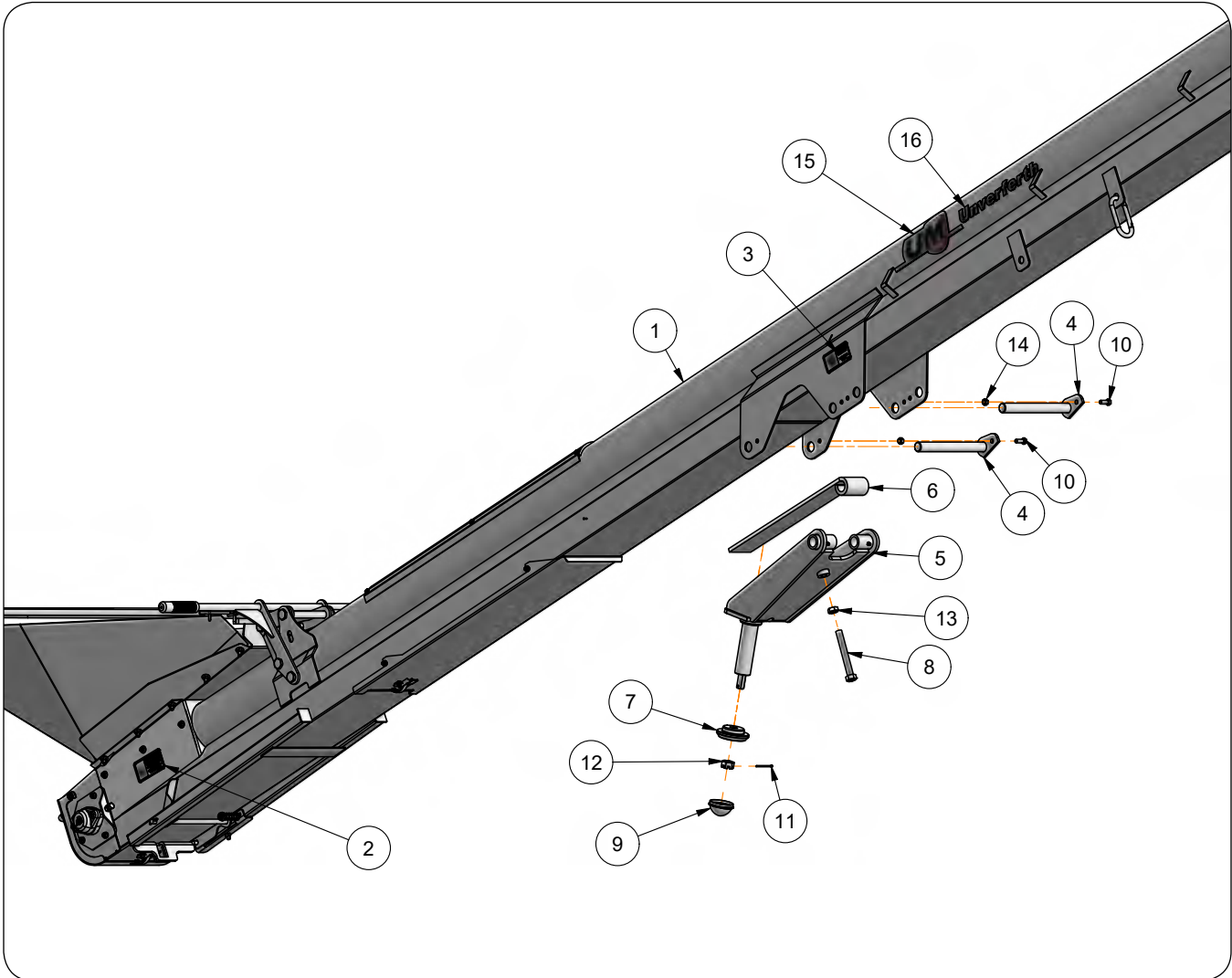
Axle & Wheel Components

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

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	902702	Wheel & Tire Assembly	4	235/85R16
	98859	Undercarriage Wheel (ONLY)	4	
	9002500	Valve Stem	4	
	902701	Tire (ST235/85R16)	4	
5	901669	Tapered Nut 9/16-18UNF	32	
6	91824	Outer Bearing Cone 1.25 I.D.	4	Ref. #14125A
7	91822	Inner Bearing Cone 1.75 I.D.	4	Ref. #25580
8	901509	Seal 3 3/8 O.D. x 2 1/8 I.D. Single Lip	4	
9	91887	Hub Cap	4	
10	901686	Hub 8 Bolt/Drum Subassembly	4	
	9502240	Stud Bolt 9/16"-18UNF x 2.30	32	Grade 8
	91812	Bearing Cup 3.265 O.D.	4	Ref. #25520
	92687	Bearing Cup 2.717 O.D.	4	Ref. #14276
14	901586	Spindle Washer 1.67 O.D. x 1 I.D.	4	
15	97344	Spindle Slotted Jam Nut 1"-14UNS	4	Grade 2
16	9391-035	Cotter Pin 5/32" Dia. x 1 1/2"	4	
17	98937	Right-Hand Brake Cluster	2	
	98936	Left-Hand Brake Cluster	2	
18	9394-006	Hex Nut, 3/8"-16UNC	20	Grade 5
19	9404-021	Lock Washer, 3/8"	20	
20	9390-055	Capscrew, 3/8"-16UNC x 1"	20	Grade 5
21	901099B	Torsion Axle Assembly 7000#	2	
22	903108	Flat Washer, 5/8" USS	8	
23	9390-123	Capscrew, 5/8"-11UNC x 1 3/4"	8	Grade 5
24	9801	Lock Nut, 5/8"-11UNC	8	
25	902702	Wheel & Tire Assembly	4	235/85R16
	98859	Undercarriage Wheel (ONLY)	4	
	9002500	Valve Stem	4	
	902701	Tire (ST235/85R16)	4	

Conveyor Assembly Components — For 6" Tube Conveyor

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



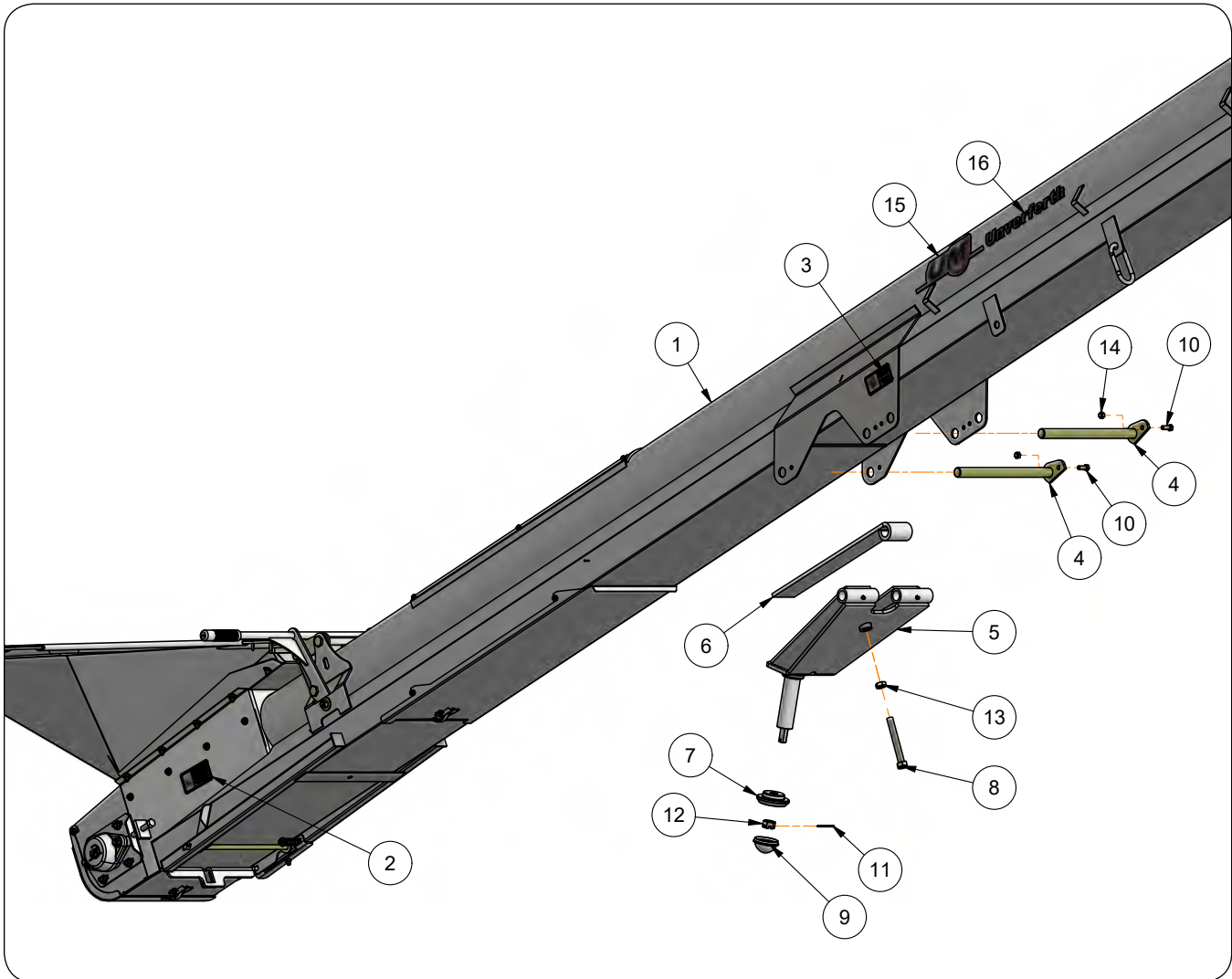
SEED PRO® BULK BOX CARRIER 410/410XL— Parts**Conveyor Assembly Components — For 6” Tube Conveyor**

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

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2005373TS	Conveyor Weldment 6” x 18’ Tube	1	Includes Items 2, 3, 15, & 16
2	TA1-906109-0	Decal, WARNING “Moving Parts”	2	
3	95839	Decal, WARNING “Pinch Point”	2	
4	2001834	Pin Weldment	2	
5	2001804TS	Upper Pivot Weldment w/Grease Zerks	1	
	91160	Grease Zerks	2	
6	28496TS	Spring	1	
7	28581TS	Retainer Cap	1	
8	9002131	Capscrew, 5/8”-11UNC x 5”	1	Full Threaded/Grade 5
9	9162	Hub Cap	1	
10	9390-055	Capscrew, 3/8”-16UNC x 1”	2	Grade 5
11	9391-027	Cotter Pin 1/8” Dia. x 2”	1	
12	9393-015	Slotted Hex Nut, 3/4”-10UNC	1	Grade 2
13	9395-014	Hex Jam Nut 5/8”-11UNC	1	
14	9928	Lock Nut, 3/8”-16UNC	2	
15	901607	Unverferth Oval Decal	2	
16	901705	Unverferth Logo	2	

Conveyor Assembly Components — For 8" Tube Conveyor

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



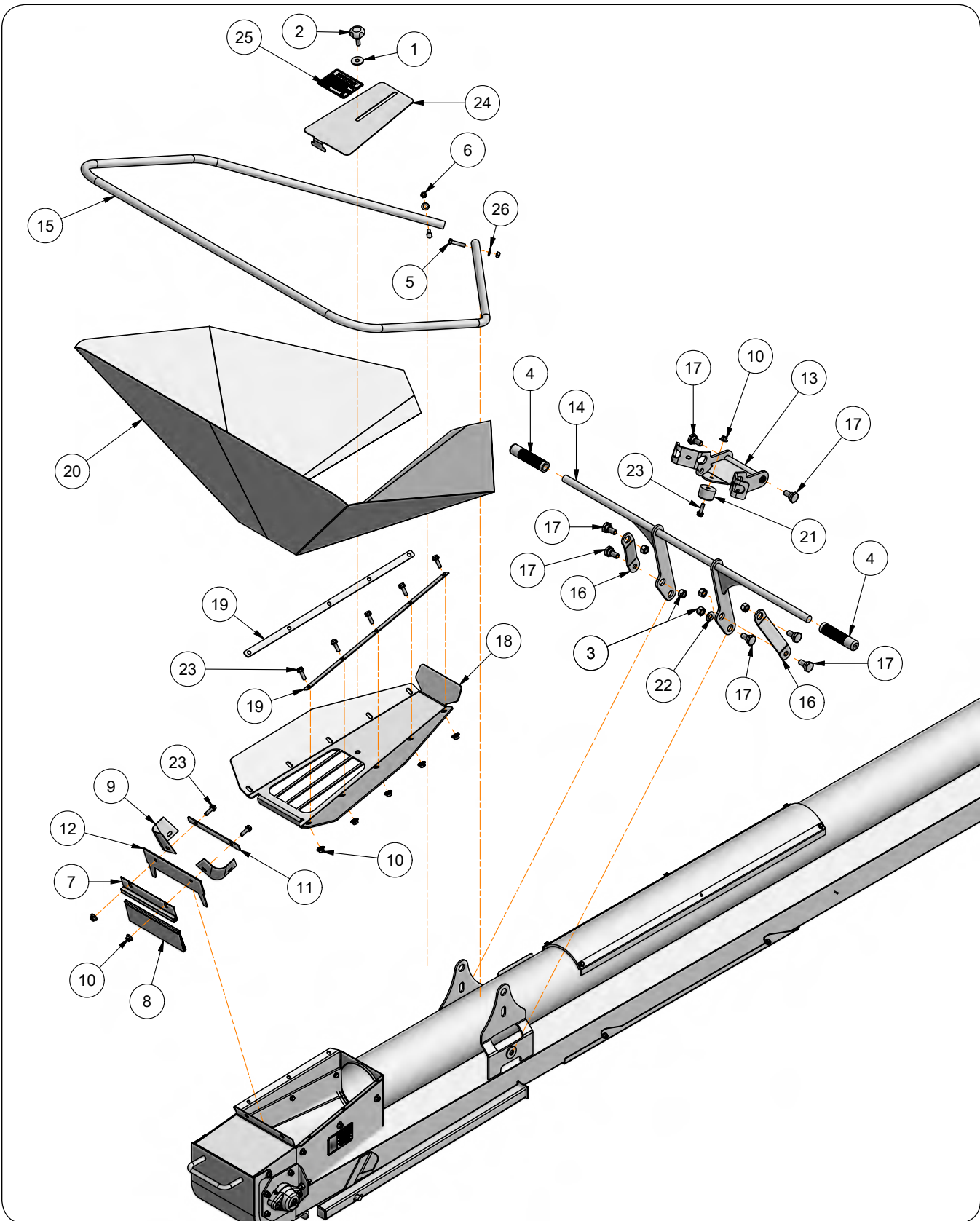
Conveyor Assembly Components — For 8” Tube Conveyor

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

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	2005374TS	Conveyor Weldment 8” Dia. x 18’ Tube	1	Includes Items 2, 3, 15, & 16
	2005375TS	Conveyor Weldment 8” Dia. x 21’ Tube		
2	TA1-906109-0	Decal, WARNING “Moving Parts”	2	
3	95839	Decal, WARNING “Pinch Point”	2	
4	25436	Pin Weldment	2	
5	28491TS	Upper Pivot Weldment w/Grease Zerks	1	
	91160	Grease Zerks	2	
6	28496TS	Spring	1	
7	28581TS	Retainer Cap	1	
8	9002131	Capscrew, 5/8”-11UNC x 5”	1	Full Threaded/Grade 5
9	9162	Hub Cap	1	
10	9390-055	Capscrew, 3/8”-16UNC x 1”	2	Grade 5
11	9391-027	Cotter Pin 1/8” Dia. x 2”	1	
12	9393-015	Slotted Hex Nut, 3/4”-10UNC	1	Grade 2
13	9395-014	Hex Jam Nut 5/8”-11UNC	1	
14	9928	Lock Nut, 3/8”-16UNC	2	
15	901607	Unverferth Oval Decal	2	
16	901705	Unverferth Logo	2	

Hopper and Handle Components — 6" Tube Conveyor

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

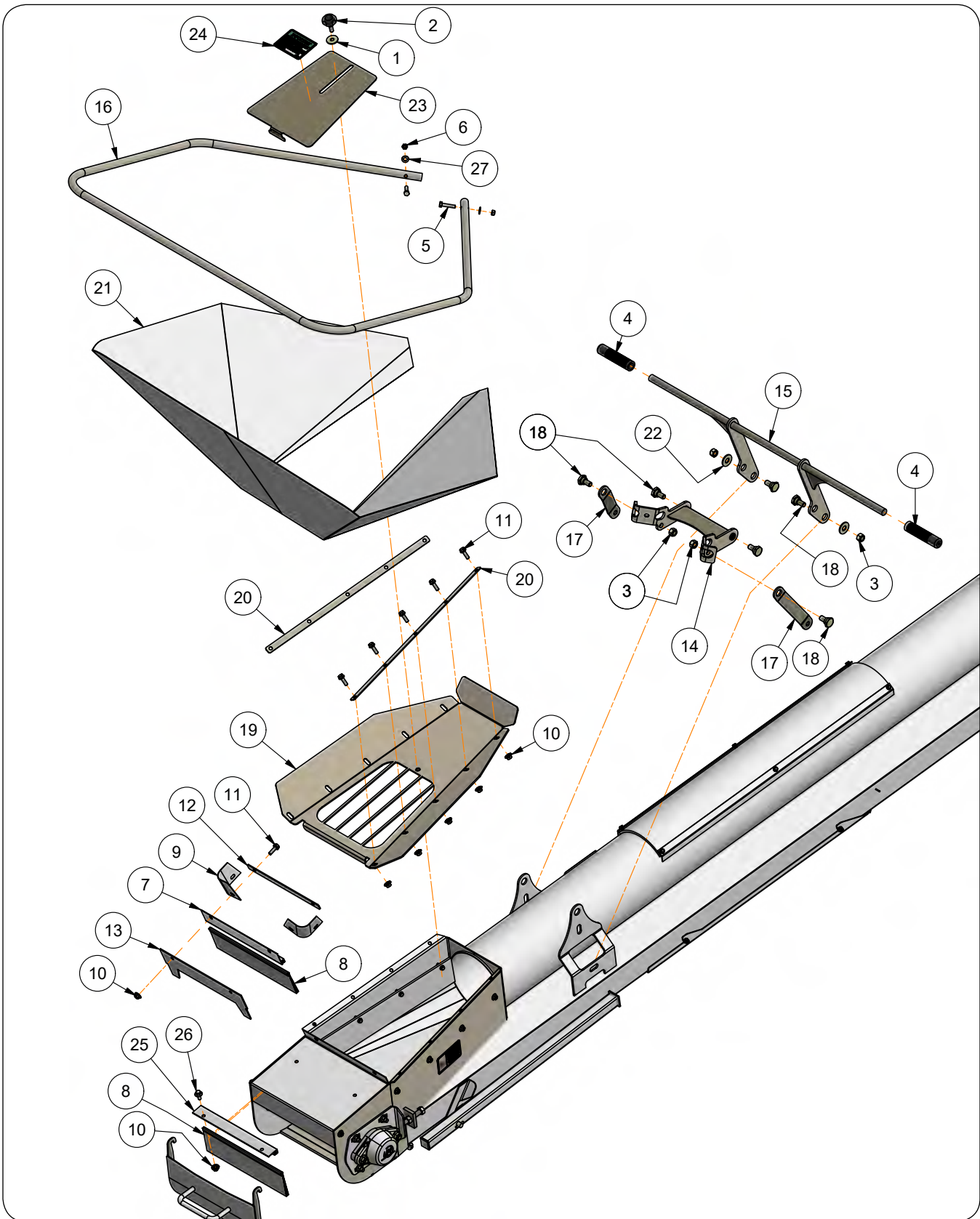


SEED PRO® BULK BOX CARRIER 410/410XL— Parts**Hopper and Handle Components — 6” Tube Conveyor**Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
1	9405-078	Flat Washer, 3/8”	1	
2	901046	Knob	1	
3	9800	Lock Nut, 1/2”-13UNC	6	
4	92928	Grip/Handle Bar	2	
5	9390-032	Capscrew, 5/16”-18UNC x 1 1/2”	2	Grade 5
6	9807	Lock Nut, 5/16”-18UNC	2	
7	24964	Brush Holder w/Slots	1	
8	901111	Nylon Brush	1	
9	24986	Poly Strip	2	
10	91257	Hex Nut/Large Flange 5/16”-18UNC	11	
11	28486TS	Plate/Strap 3/4” x 7 1/2”	1	=Tan Speckle=
12	26865	Belting/Seal	1	
13	2003821TS	Pivot Weldment	1	=Tan Speckle=
14	2003824TS	Handle Weldment	1	=Tan Speckle=
15	2003825TS	Tube	1	=Tan Speckle=
16	2003176TS	Link	2	=Tan Speckle=
17	2003191	Shoulder Bolt 1/2”-13UNC x 1.18	8	
18	2003830TS	Grate Weldment	1	=Tan Speckle=
19	2003197TS	Plate/Strap 3/4” x 23”	2	=Tan Speckle=
20	2003828	Hopper Vinyl	1	
21	901169	Rubber Bumper	1	
22	9405-086	Flat Washer, 1/2” SAE	2	
23	901044	Flange Screw, 5/16”-18UNC x 1”	1	Grade 5
24	28401TS	Cover Plate	1	=Tan Speckle=
25	902635	Decal, IMPORTANT (Operation)	1	
26	9501011	Nylon Washer	2	

Hopper and Handle Components — 8" Tube Conveyor

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



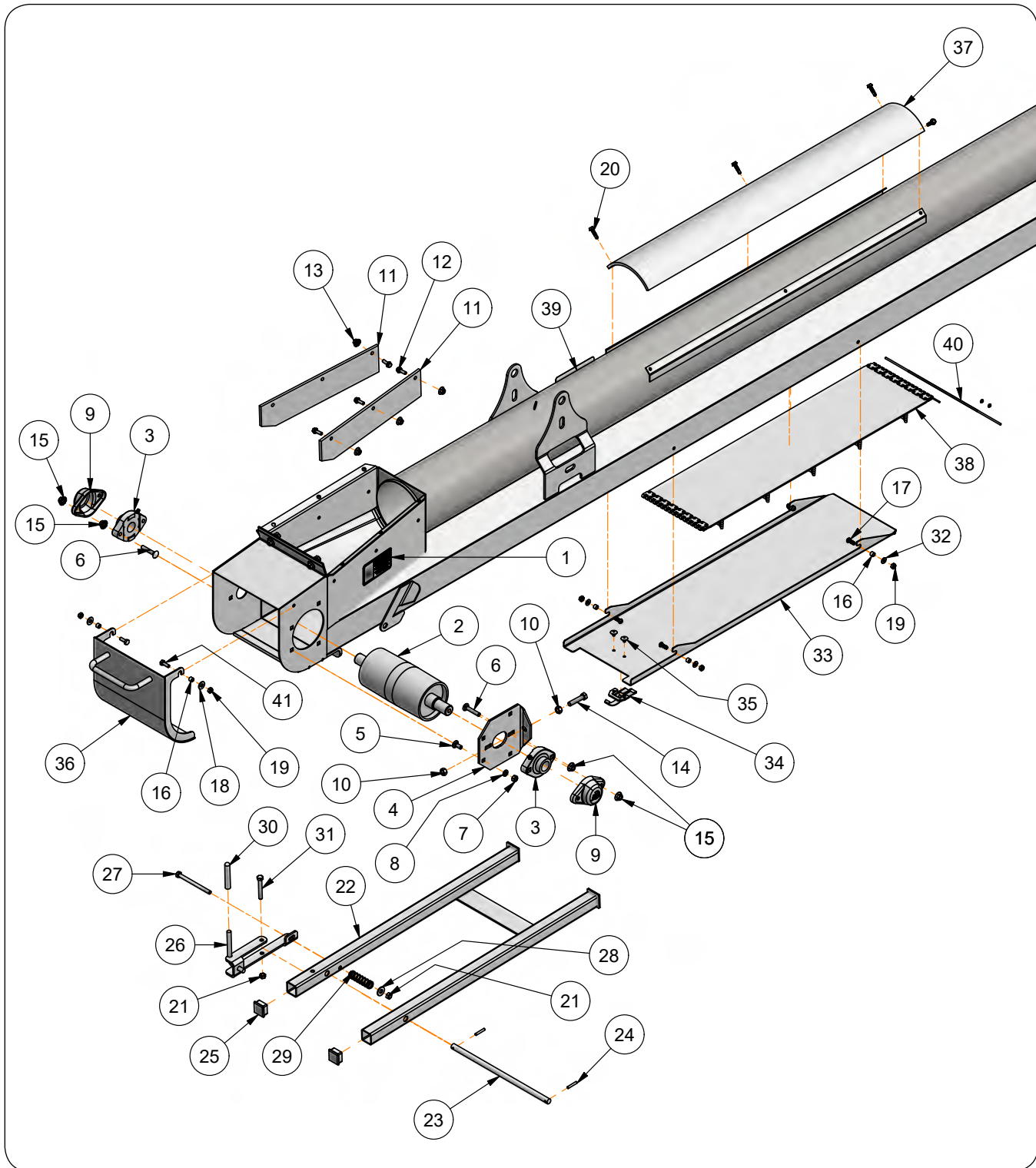
Hopper and Handle Components — 8” Tube Conveyor

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

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
1	9405-076	Flat Washer, 3/8” USS	1	
2	901046	Knob	1	
3	9800	Lock Nut, 1/2”-13UNC	6	
4	92928	Grip/Handle Bar	2	
5	9390-032	Capscrew, 5/16”-18UNC x 1 1/2”	2	Grade 5
6	9807	Lock Nut, 5/16”-18UNC	2	
7	25262	Brush Holder	1	
8	901814	Nylon Brush	2	
9	24986	Poly Strip	2	
10	91257	Hex Nut/Large Flange 5/16”-18UNC	14	
11	901044	Flange Screw, 5/16”-18UNC x 1”	12	Grade 5
12	28487TS	Plate/Strap 3/4” x 11”	1	=Tan Speckle=
13	26243	Belting/Seal	1	
14	2003180TS	Pivot Weldment	1	=Tan Speckle=
15	2003185TS	Handle Weldment	1	=Tan Speckle=
16	2003179TS	Tube	1	=Tan Speckle=
17	2003176TS	Link	2	=Tan Speckle=
18	2003191	Shoulder Bolt 1/2”-13UNC x 1.18	6	
19	2003177TS	Grate Weldment	1	=Tan Speckle=
20	2003197TS	Plate/Strap 3/4” x 23”	2	=Tan Speckle=
21	2003198	Hopper Vinyl	1	
22	9405-088	Flat Washer, 1/2” USS	2	
23	28399TS	Cover Plate	1	=Tan Speckle=
24	902635	Decal, IMPORTANT (Operation)	1	
25	26308	Brush Holder	1	
26	91256	Screw/Large Flange 5/16”-18UNC x 3/4”	2	=Tan Speckle=
27	9501011	Nylon Washer	2	

**Stand, Cleanout Door, Shield, & Idler End Components
For 6" Tube Conveyor**

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Stand, Cleanout Door, Shield, & Idler End Components For 6" Tube Conveyor

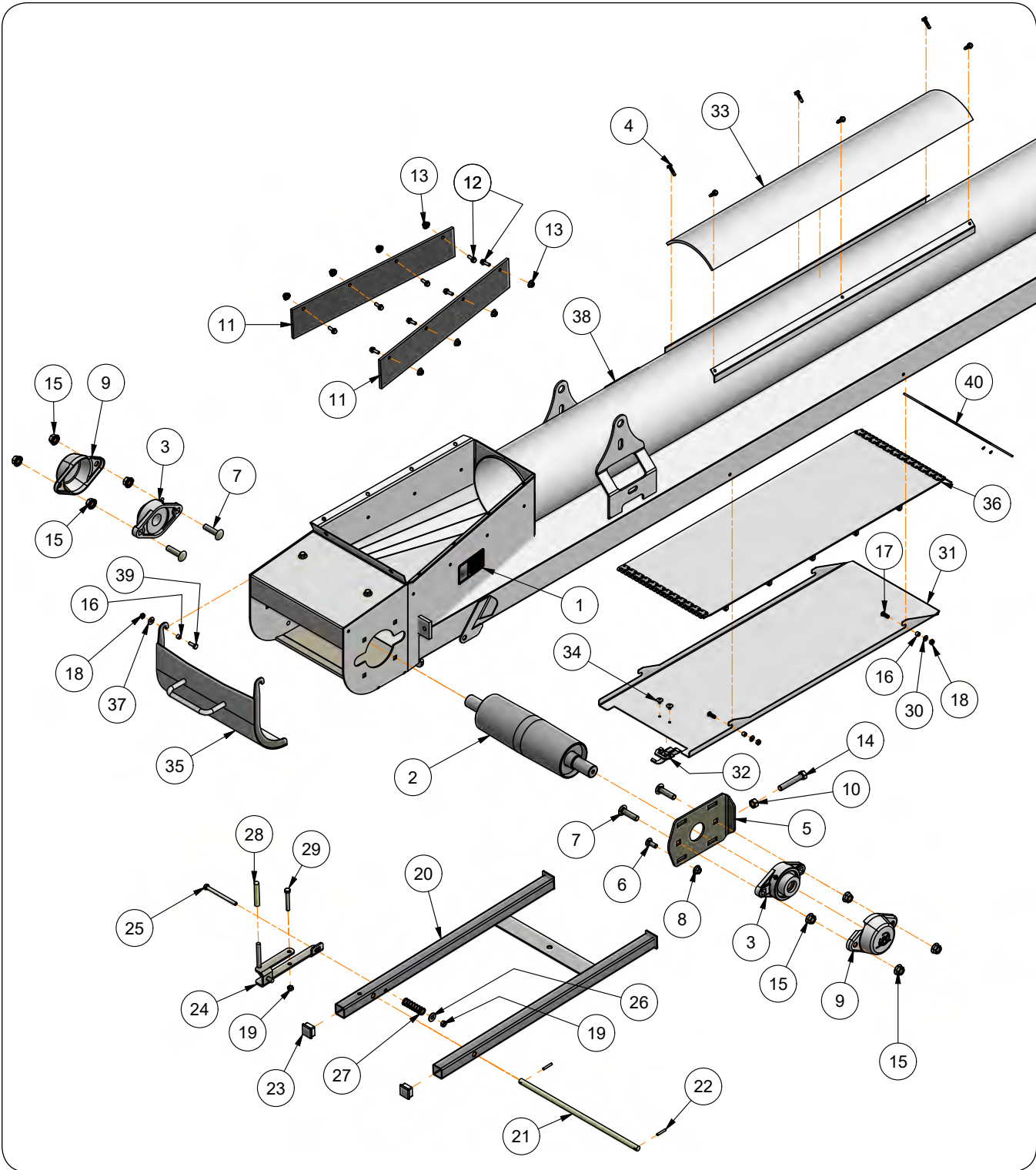
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	TA1-906109-0	Decal, WARNING "Moving Parts"	2	
2	900608	Idler Pulley	1	
3	TA0-903088-0	Bearing w/Flange (Includes Zerk, Setscrew & Single Lip Seal)	4	
4	23912TS	Adjustment Plate	1	=Tan Speckle=
5	9388-024	Carriage Bolt, 5/16"-18UNC x 3/4"	4	Grade 5
6	9500341	Carriage Bolt, 5/16"-18UNC x 1 3/4"	6	Grade 5 - Full Threaded
7	9394-004	Hex Nut, 5/16"-18UNC	16	GRADE 5
8	9404-019	Lock Washer, 5/16"	16	
9	9500310	Idler Cover	3	=Tan Speckle=
10	9394-006	Hex Nut, 3/8"-16UNC	10	Grade 5
11	24756	Poly Strip 3" x 17 1/2"	2	
12	97420	Flange Screw, 1/4"-20UNC x 3/4"	14	Grade 5
13	97189	Hex Nut/Large Flange, 1/4"-20UNC	18	Grade 5
14	TA0-907104-0	Capscrew, 3/8"-16UNC x 1 3/4"	1	Grade 5
15	91257	Large Flange Hex Nut, 5/16"-18UNC	8	
16	22018	Bushing	8	
17	9003829	Capscrew/Button Head Socket 1/4"-20UNC x 3/4"	4	Grade 5
18	9405-064	Flat Washer, 1/4" USS	4	
19	9936	Lock Nut, 1/4"-20UNC	8	
20	9512	Self-Drilling Screw 1/4-14 x 1"	6	
21	9807	Lock Nut, 5/16"-18UNC	4	
22	24943TS	Stand Weldment	1	=Tan Speckle=
23	24946	Pin 1/2" Dia. x 12 1/2"	1	
24	91144-121	Spiral Pin 3/16" Dia. x 1 1/8"	2	
25	9000117	Plug 1 1/4" Square	2	
26	27110TS	Latch Weldment	1	=Tan Speckle=
27	9390-042	Capscrew, 5/16"-18UNC x 4"	1	Grade 5
28	9405-070	Flat Washer, 5/16" USS	1	
29	TA510035	Spring 2 1/2" Long	1	
30	9003869	Yellow Hand Grip	1	
31	9390-035	Capscrew, 5/16"-18UNC x 2 1/4"	1	Grade 5
32	9405-052	Flat Washer, 3/16" USS	4	
33	2003793TS	Shield	1	=Tan Speckle=
34	TA0-902596-0	Draw Blade Latch	1	
35	9500175	Pop Rivet 3/16"	2	
36	2003807TS	Cleanout Door Weldment	1	=Tan Speckle=
37	2003862	Wear Guard 6" x 36"	1	
38	9501224	Conveyor Belt for 6" x 18' Conveyor	1	
	9501506	Splice Kit	-	
39	2005373TS	Conveyor Weldment 6" Dia. x 18' w/Decals	-	
40	2007527	Conveyor Belt Splice Pin Assembly	-	
41	9390-003	Capscrew, 1/4"-20UNC x 3/4" G5	2	

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Stand, Cleanout Door, Shield, & Idler End Components For 8" Tube Conveyors

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Stand, Cleanout Door, Shield, & Idler End Components For 8" Tube Conveyors

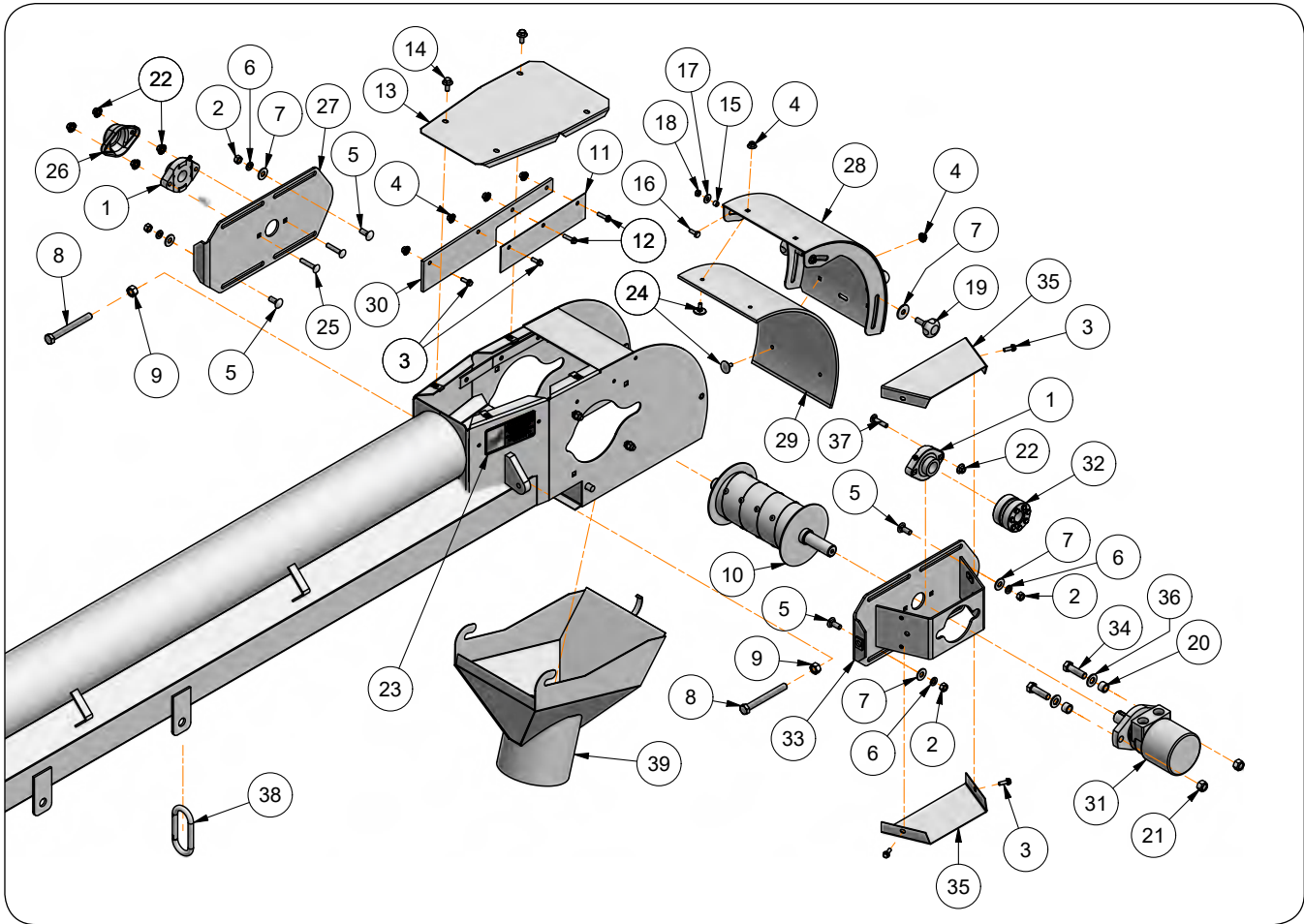
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	TA1-906109-0	Decal, WARNING "Moving Parts"	2	
2	28408	Idler Pulley	1	
3	902697	Bearing w/Flange (Includes Zerk, Setscrew & Single Lip Seal)	2	
4	9512	Self-Drilling Screw 1/4-14 x 1"	6	
5	2004158TS	Adjustment Plate	1	=Tan Speckle=
6	9388-051	Carriage Bolt, 3/8"-16UNC x 1" G5	4	Grade 5
7	9388-106	Carriage Bolt, 1/2"-13UNC x 2" G5	6	Grade 5 - Full Threaded
8	91263	Hex Nut/Large Flange 3/8"-16UNC	4	
9	9501223	Idler Cover	2	=Tan Speckle=
10	9394-010	Hex Nut, 1/2"-13UNC	3	
11	25258	Poly Strip 3 1/2" x 20 3/16"	2	
12	97420	Flange Screw, 1/4"-20UNC x 3/4"	14	Grade 5
13	97189	Hex Nut/Large Flange, 1/4"-20UNC	18	Grade 5
14	95452	Capscrew 1/2"-13UNC x 3"	1	
15	91267	Flange Nut 1/2"-13UNC	14	
16	22018	Bushing	8	
17	9003829	Capscrew/Button Head Socket 1/4"-20UNC x 3/4"	8	Grade 5
18	9936	Lock Nut, 1/4"-20UNC	8	
19	9807	Lock Nut, 5/16"-18UNC	4	
20	25260TS	Stand Weldment	1	
21	25261	Pin 1/2" Dia. x 16 1/4"	1	
22	91144-121	Spiral Pin 3/16" Dia. x 1 1/8"	2	
23	9000117	Plug 1 1/4" Square	2	
24	27110TS	Latch Weldment	1	=Tan Speckle=
25	9390-042	Capscrew, 5/16"-18UNC x 4"	1	Grade 5
26	9405-070	Flat Washer, 5/16" USS	1	
27	TA510035	Spring 2 1/2" Long	1	
28	9003869	Yellow Hand Grip	1	
29	9390-034	Capscrew, 5/16"-18UNC x 2"	1	Grade 5
30	9405-052	Flat Washer, 3/16" USS	4	
31	2003196TS	Shield	1	=Tan Speckle=
32	TA0-902596-0	Draw Blade Latch	1	
33	2003863	Wear Guard 7" x 36"	1	
34	9500175	Pop Rivet 3/16"	2	
35	2004106TS	Cleanout Door Weldment	1	=Tan Speckle=
36	9501250	Conveyor Belt for 8" x 18' Conveyor	1	
	9501208	Conveyor Belt for 8" x 21' Conveyor		
	9501508	Splice Kit	-	
37	9405-064	Flat Washer, 1/4" USS	2	
38	2005374TS	Conveyor Weldment 8" Dia. x 18' w/Decals	-	
	2005375TS	Conveyor Weldment 8" Dia. x 21' w/Decals	-	
39	9390-003	Capscrew, 1/4"-20UNC x 3/4" G5	2	
40	2007527	Conveyor Belt Splice Pin Assembly	-	

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Discharge Spout Components — 6" Tube Conveyor

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

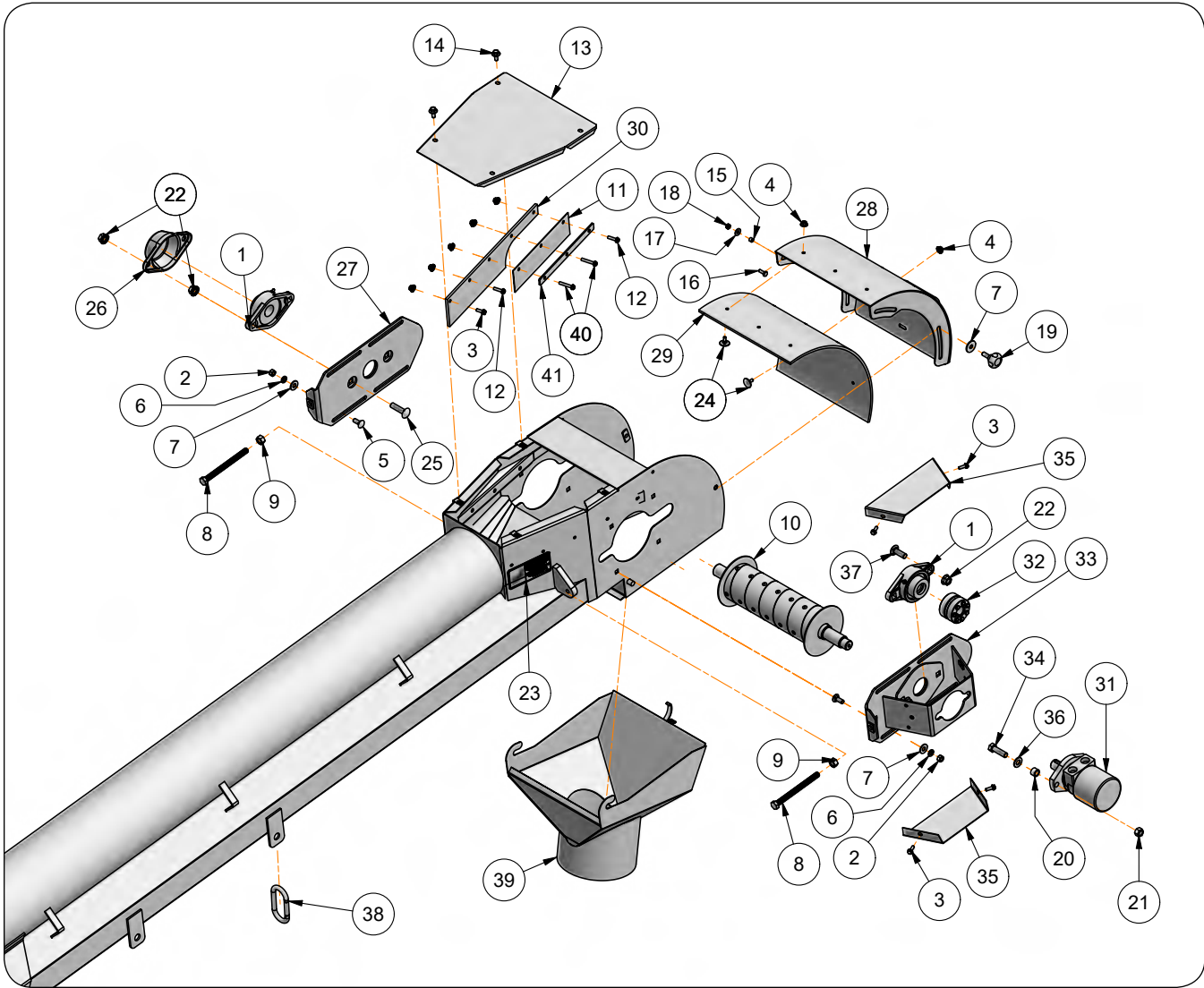
Discharge Spout Components — 6” Tube Conveyor

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	TA0-903088-0	Bearing w/Flange (Includes 90° Zerk)	2	
2	9394-006	Hex Nut, 3/8”-16UNC	8	Grade 5
3	97420	Flange Screw, 1/4”-20UNC x 3/4”	4	Grade 5
4	97189	Hex Nut/Large Flange, 1/4”-20UNC	14	Grade 5
5	9388-051	Carriage Bolt, 3/8”-16UNC x 1”	8	Grade 5
6	9404-021	Lock Washer, 3/8”	8	
7	9405-076	Flat Washer, 3/8” USS	10	
8	93400	Capscrew, 1/2”-13UNC x 4 1/2”	2	Grade 5
9	9394-010	Hex Nut, 1/2”-13UNC	2	Grade 5
10	901077	Drive Pulley	1	
11	24260	Seal 2 1/2” x 10 1/2”	2	
12	901101	Flange Screw, 1/4”-20UNC x 1”	4	Grade 5
13	2003730TS	Top Shield/Cover	1	=Tan Speckle=
14	91256	Screw/Large Flange, 5/16”-18UNC x 3/4”	4	Grade 5
15	22018	Bushing 3/8” Dia.	2	
16	9390-003	Capscrew, 1/4”-20UNC x 3/4”	2	Grade 5
17	9405-064	Flat Washer, 1/4” USS	2	
18	9936	Lock Nut, 1/4”-20UNC	2	
19	901046	Knob	2	
20	24550	Bushing	2	
21	9800	Lock Nut, 1/2”-13UNC	2	
22	91257	Large Flange Hex Nut, 5/16”-18UNC	6	
23	95445	Decal, WARNING (High-Pressure Leaks)	1	
24	902006	Elevator Bolt, 1/4”-20UNC x 3/4”	6	
25	9500341	Carriage Bolt, 5/16”-18UNC x 1 3/4”	2	Grade 5/full threaded
26	9500310	Idler Cover	1	
27	2003742TS	Adjustment Plate	1	=Tan Speckle=
28	2003745TS	Deflector Weldment	1	=Tan Speckle=
29	9501256	Neoprene Sheet	1	
30	2003762	Poly Strip	2	
31	9500806	Hydraulic Motor	1	
	901649	Woodruff Key	-	
	91687	Seal Kit	-	
32	9501220	Coupler	1	
33	2003765TS	Adjustment Plate Weldment	1	=Tan Speckle=
34	9390-102	Capscrew, 1/2”-13UNC x 1 3/4”	2	Grade 5
35	2003487TS	Shield	2	=Tan Speckle=
36	9405-086	Flat Washer, 1/2” SAE	2	
37	9388-027	Carriage Bolt, 5/16”-18UNC x 1 1/2”	2	
38	9500155	Spring Snap Hook	1	
39	2003772TS	Spout Weldment w/Metal Latch	1	=Tan Speckle=

Discharge Spout Components — 8" Tube Conveyor

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Discharge Spout Components — 8” Tube Conveyor

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

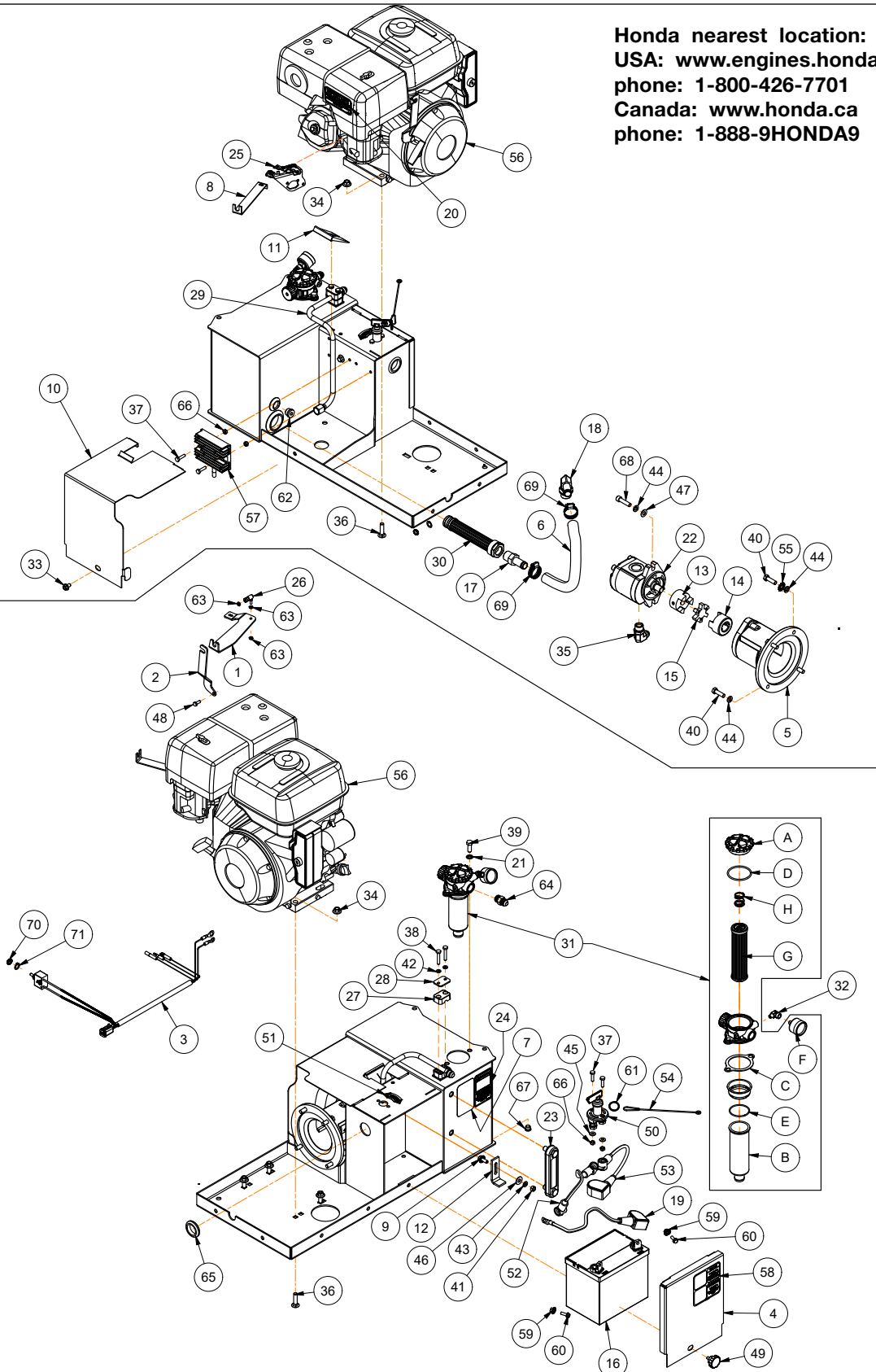
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	902697	2-Bolt Flange Bearing	4	
2	9394-006	Hex Nut, 3/8”-16UNC	8	Grade 5
3	97420	Flange Screw, 1/4”-20UNC x 3/4”	14	
4	97189	Hex Nut/Large Flange, 1/4”-20UNC	26	
5	9388-051	Carriage Bolt, 3/8”-16UNC x 1”	12	Grade 5
6	9404-021	Lock Washer, 3/8”	8	
7	9405-076	Flat Washer, 3/8” USS	11	
8	97171	Hex Bolt	2	Grade 5
9	9394-010	Hex Nut, 1/2”-13UNC G5	3	
10	9501222	Drive Pulley	1	
11	25256	Seal, 2 3/4” x 10 1/2”	2	
12	901101	Flange Screw, 1/4”-20UNC x 1”	4	
13	2003363TS	Top Shield	1	=Tan Speckle=
14	91256	Screw/Large Flange, 5/16”-18UNC x 3/4”	6	
15	22018	Bushing	8	
16	9390-003	Capscrew, 1/4”-20UNC x 3/4” G5	4	Grade 5
17	9405-064	Flat Washer, 1/4” USS	4	Grade 5
18	9936	Lock Nut, 1/4”-20UNC	8	Grade 5
19	901046	Knob	3	Grade 5
20	24550	Bushing	2	
21	9800	Lock Nut, 1/2”-13UNC	8	
22	91267	Flange Nut, 1/2”-13UNC	14	
23	95445	Decal, WARNING “High-Pressure Fluid...”	1	
24	902006	Elevator Bolt, 1/4”-20UNC x 3/4”	8	Grade 5
25	9388-106	Carriage Bolt, 1/2”-13UNC x 2” G5	6	
26	9501223	Cover	3	
27	2003483TS	Adjustment Plate Weldment	1	=Tan Speckle=
28	2003440TS	Deflector Weldment	1	=Tan Speckle=
29	9501210	Neoprene Sheet	1	
30	25257	Poly Strip	2	
31	9500806	Hydraulic Motor	1	=Tan Speckle=
32	9501220	Fenner Coupler	1	
33	2003486TS	Adjustment Plate Weldment	1	=Tan Speckle=
34	9390-102	Capscrew, 1/2”-13UNC x 1 3/4”	2	Grade 5
35	2003487TS	Shield	2	=Tan Speckle=
36	9405-086	Flat Washer, 1/2” SAE	4	
37	9388-104	Carriage Bolt, 1/2”-13 x 1 1/2” G5	2	Grade 5/full threaded
38	9500155	Spring Snap	1	
39	26284TS	Spout Weldment	1	=Tan Speckle=
40	901831	Flange Screw, 1/4”-20UNC x 1 1/2”	4	
41	26432B	Strip 3/4 x 10 1/4	2	=Tan Speckle=

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Honda Power Pak Components

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

Honda nearest location:
USA: www.engines.honda.com
phone: 1-800-426-7701
Canada: www.honda.ca
phone: 1-888-9HONDA9



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Honda Power Pak Components

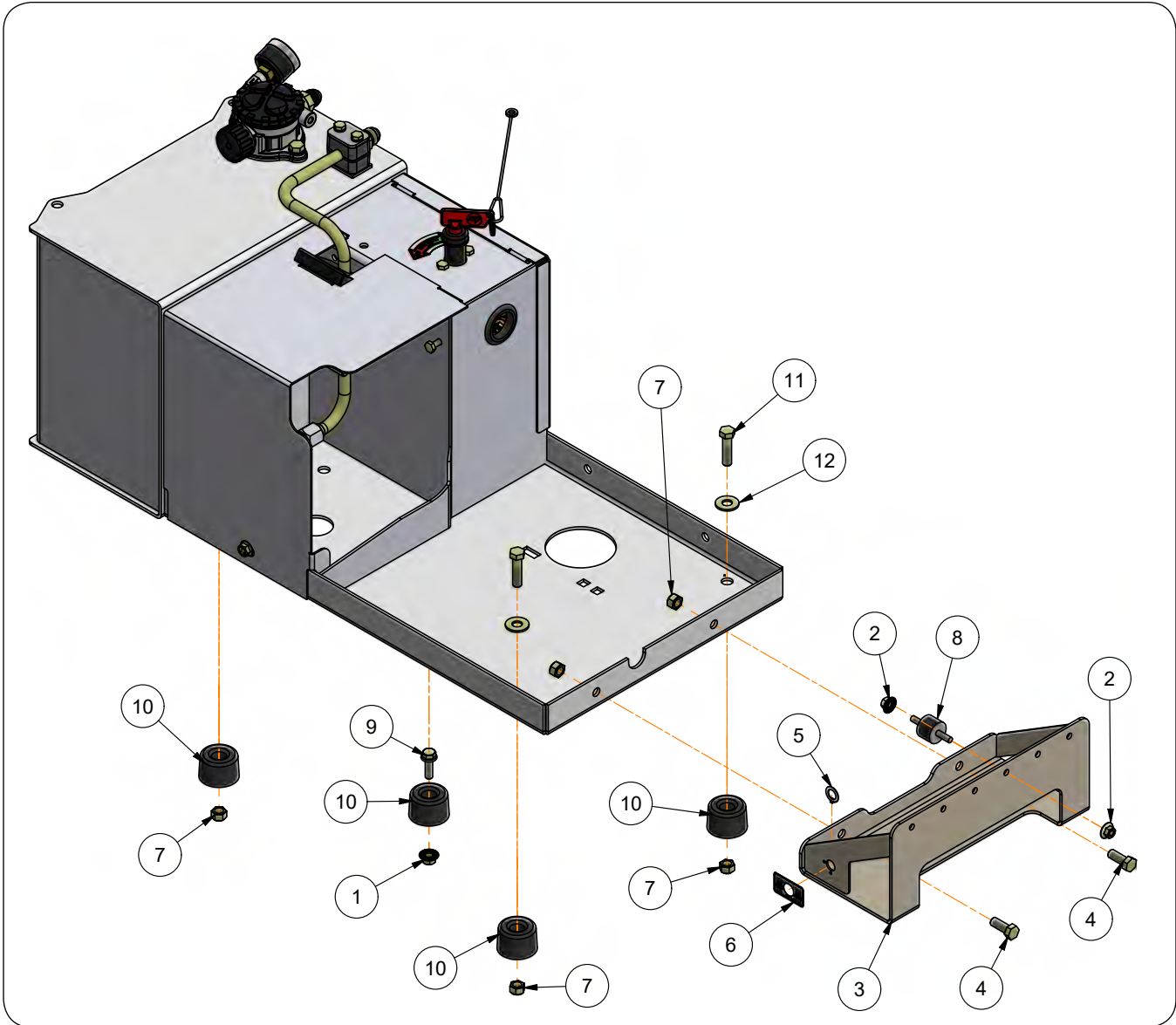
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	QTY	DESCRIPTION
1	2007490B	1	Throttle Bracket
2	2007491B	1	Throttle Vertical Support
3	2009998	1	Engine Harness
4	25508IV	1	Battery Cover
5	25515	1	Pump/Motor Mount Weldment
6	25519	1	Hydraulic Hose 3/4"
7	26823	1	Decal, IMPORTANT (Battery)
8	27163B	1	Strap
9	28664IV	1	Pan Weldment
10	28668IV	1	Pump Shroud
11	28670	1	Flap Seal Trim
12	28671B	1	Battery Hold Down Strap
13	901370	1	Jaw Coupling 5/8" Bore
14	901371	1	Jaw Coupling 1" Bore
15	901372	1	Coupler Insert/Spider
16	-	1	Battery 12-Volt Top Post (Purchase Battery Locally)
17	901379	1	Straight 3/4" Hose ID Insert x 3/4-14 NPTF Male
18	901380	1	90° Elbow 3/4" Hose Insert x 1 1/16-12 O-ring Male
19	901404	1	Battery Cable 14" (Black)
20	901507	1	Decal, IMPORTANT (Close Fuel Valve)
21	901567	2	Internal Lock Washer
22	901694	1	Pump 10 CU (2000RPM)
	903056	-	Key
23	901771	1	Site Gauge Assembly
24	902026	1	Decal, WARNING (Sparks)
25	902275	1	Choke Stay Control
26	902368	1	Ball Joint Quick Disconnect 10-32UNF Threaded Both Ends
27	902892	1	Clamp Body (2-Halves)
28	902893	1	Cover Plate - Clamp
29	902898	1	Hydraulic Steel Line 1/2" OD
30	902910	1	Suction Strainer w/Magnet
31	902915	1	In-Tank Return Filter 9.2GPM
	A 902123	-	Cover
	B 902124	-	Bowl
	C 902905	-	Gasket
	D 902906	-	O-Ring 2 5/16" Dia.
	E 902907	-	O-Ring 1 31/32" Dia.
	F 902911	-	Filter Gauge
	G 902912	-	Filter Replacement
	H 902125	-	Compression Spring
32	9006817	1	Adapter Street 90° Elbow
33	903161-014	2	Flange Screw, 5/16"-18UNC x 1/2" G5
34	91263	4	Large Flange Nut 3/8-16UNC

ITEM	PART NO.	QTY	DESCRIPTION
35	93599	1	90° Elbow 3/4-16 JIC Male x 7/8-14 O-ring Adj. Male
36	9388-053	4	Carriage Bolt 3/8-16UNC x 1 1/2 (Grade 5)
37	9390-005	2	Capscrew 1/4-20UNC x 1 (Grade 5)
38	9390-007	2	Capscrew 1/4-20UNC x 1 1/2 (Grade 5)
39	9390-055	2	Capscrew 3/8-16UNC x 1 G5
40	9390-056	4	Capscrew 3/8-16UNC x 1 1/4
41	9394-004	1	Hex Nut 5/16-18UNC
42	9404-017	2	Lock Washer 1/4"
43	9404-019	1	Lock Washer 5/16"
44	9404-021	6	Lock Washer 3/8"
45	9405-062	2	Flat Washer 1/4" SAE
46	9405-070	1	Flat Washer 5/16" USS
47	9405-074	2	Flat Washer 3/8" SAE
48	94917-038	1	Capscrew M6x16
49	9501669	1	Fluted Knob
50	9502619	1	Battery Disconnect Switch
	9502620	-	Service Key
51	9502623	1	Decal, On/Off Switch
52	9502625	1	Battery Cable 14 13/16" (Red)
53	9502626	1	Batter Cable 14 13/16" (Red)
	901405	-	Non-Disconnect Cable 18" (Red)
54	9502661	1	Nylon Lanyard 8"
55	9504045	1	Lock Washer, 3/8" Internal/ External Tooth
56	9504048	1	Honda 11.7 Net HP
	903057	-	Key
57	9504051	1	Rectifier
58	9504513	1	Decal, Cold Start Valve
59	97189	2	Large Flange Hex Nut 1/4-20UNC
60	97420	2	Flange Screw 1/4-20UNC x 3/4
61	97489	1	Split Ring 1"
62	98048	1	Plug 3/4-16 O-ring Male w/Hollow Hex Socket
63	9830-016	3	Hex Nut #10-32 (Grade 2)
64	9864	1	Adapter 3/4-16JIC Male x 3/4-16 O-ring Male
65	98830	1	Grommet/Rubber 1 1/4" Dia.
66	9936	2	Locknut 1/4-20UNC
67	99692	1	O-Ring Plug
68	99888-065	2	Socket Head 3/8-16UNC x 1 1/2 (Grade 8)
69	TA800912	2	Hose Clamp SAE#16
70	9502847	1	Facenut 0.570" Dia.
71	9502848	1	Locking Ring, 0.722" Dia.

Relay Mount & Power Pak Mounting Components

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



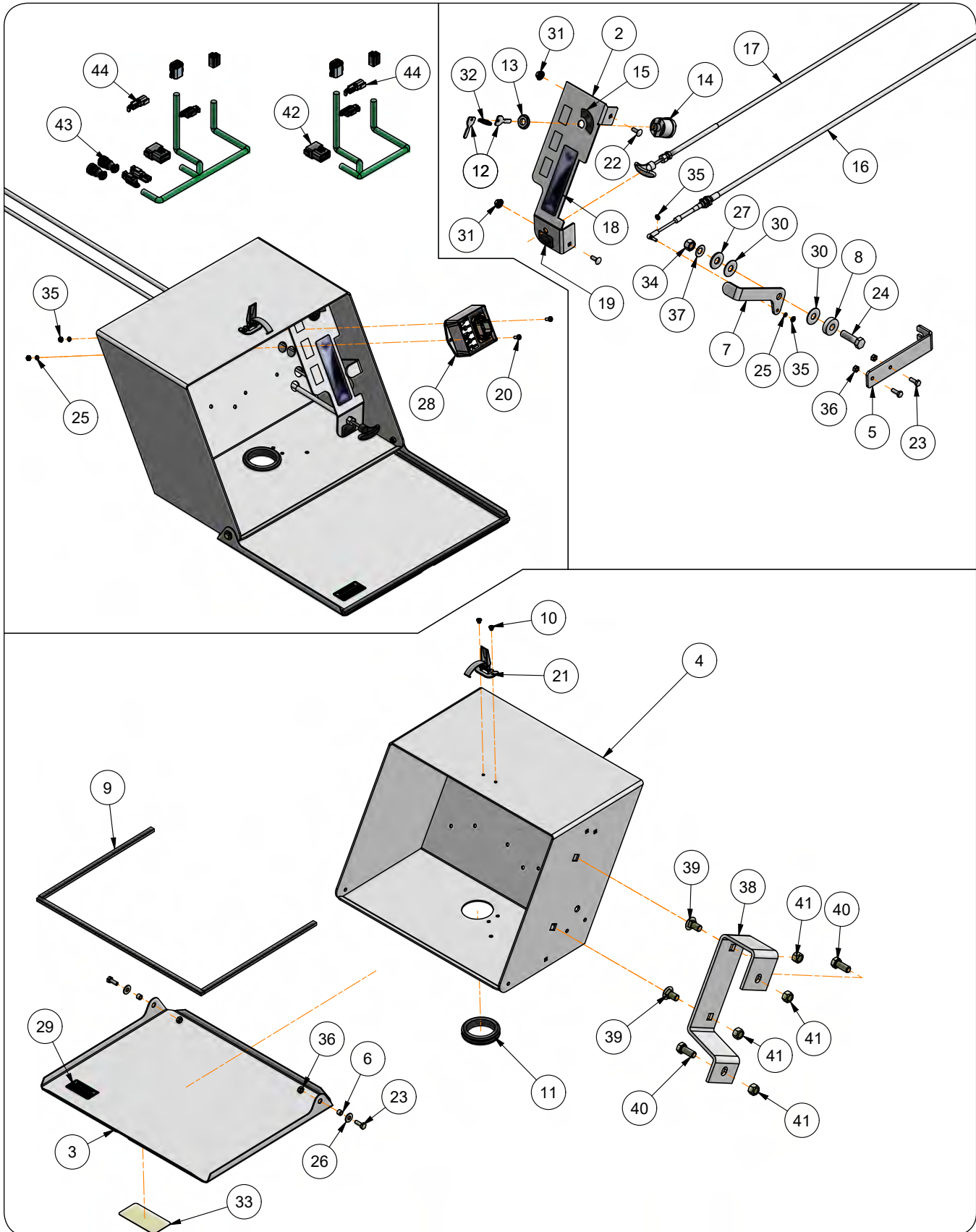
Relay Mount & Power Pak Mounting Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	91257	Large Flange Hex Nut, 5/16"-18UNC	1	
2	97189	Hex Nut/Large Flange 1/4"-20UNC	4	
3	2005069TS	Relay Mount Weldment =Tan Speckle=	1	
4	9390-055	Capscrew, 3/8"-16UNC x 1"	2	
5	9502848	Wiring Harness Lock Ring	1	
6	9504512	Decal, Ignition Override (Horizontal - Shown)	1	
	9503147	Decal, Ignition Override (Vertical)		
7	9928	Lock Nut, 3/8"-16UNC	5	
8	9500067	Isolator	2	
9	901044	Serrated Flange Bolt 5/16"-18UNC x 1"	1	Grade 5
10	901169	Rubber Bumper 1.7" Dia.	4	
11	9390-057	Capscrew, 3/8"-16UNC x 1 1/2"	3	Grade 5
12	9405-076	Flat Washer, 3/8" USS	3	

Enclosure and Master Keyswitch Components

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



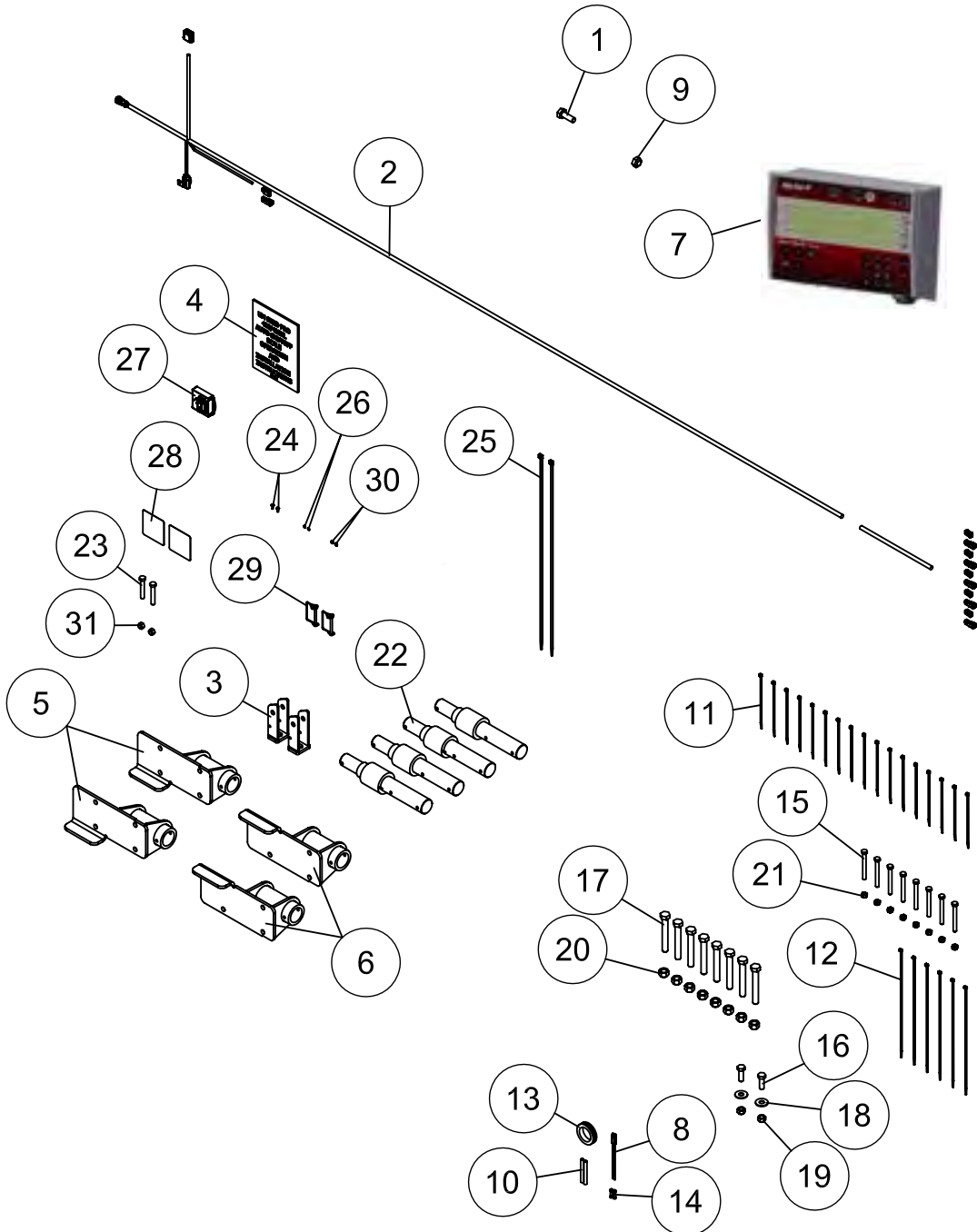
Enclosure and Master Keyswitch Components

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

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTE
1	N/A	Enclosure Assembly (2/3 Function)	1	Includes items 2 through 37
2	2002538TS	Plate-Keyswitch/Throttle/Choke	1	
3	2002539TS	Cover	1	
4	2002540TS	Remote Enclosure Weldment	1	
5	2002630TS	Cable Mount Bracket	1	
6	22018	Bushing	2	
7	27134TS	Throttle Lever	1	
8	29612	Spacer	1	
9	900152	Foam Strip	3	
10	9003503	Rivet 3/16" x 1/4"	2	
11	901334	Grommet 1/4W x 2 1/2D Groove, 2 1/4D	1	
12	901718	Key	2	
13	901719	Nut - Keyswitch	1	
14	901720	Ignition Switch	1	
15	901811	Keyswitch Decal	1	
16	902273	Control Cable	1	
17	902274	Choke Cable	1	
18	902321	Decal-Throttle	1	
19	902322	Decal-Choke	1	
20	903172-343	Screw #10-32UNF x 1/2" Pan Head Phillips	2	
21	9220	Draw Latch	1	
22	9388-002	Carriage Bolt, 1/4"-20UNC x 3/4" G5	2	
23	9390-003	Capscrew, 1/4"-20UNC x 3/4" G5	4	
24	9390-102	Capscrew, 1/2"-13UNC x 1 3/4 G5	1	
25	9404-013	Lock Washer, #10 (.190)	3	
26	9405-064	Flat Washer, 1/4" USS	2	Grade 2
27	9405-088	Flat Washer, 1/2" USS	1	Grade 5
28	9501811	Module-Smooth-Start	1	Grade 5
29	9504521	Decal, Transient Voltage Suppression Diode	1	
30	95236	Nylon Flat Washer	2	Grade 5
31	97189	Hex Nut/Large Flange, 1/4"-20UNC	2	
32	97489	Split Ring 1"	1	
33	97961	Decal Warning "Operator Manual"	1	
34	9800	Top Lock 1/2	1	
35	9830-016	Hex Nut, #10-32UNF G2	8	Grade 5
36	9936	Lock Nut, 1/4"-20UNC	4	
37	99913	Belleville Washer 1/2"	1	
38	2003162TS	Bracket-Side Mount	1	
39	9388-102	Carriage Bolt, 1/2"-13UNC x 1" G5	1	
40	9390-100	Capscrew, 1/2"-13UNC x 1 1/4" G5	2	
41	9800	Lock Nut/Top, 1/2"-13UNC	5	
42	2002130	Non-Scale Front Wiring Harness	1	
43	2002132	Common Scale Front Wiring Harness	1	
44	9504482	Transient Suppression Diode Plug	1	

UM2520 Scale Components (Optional)

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts**UM2520 Scale Components (Optional)**

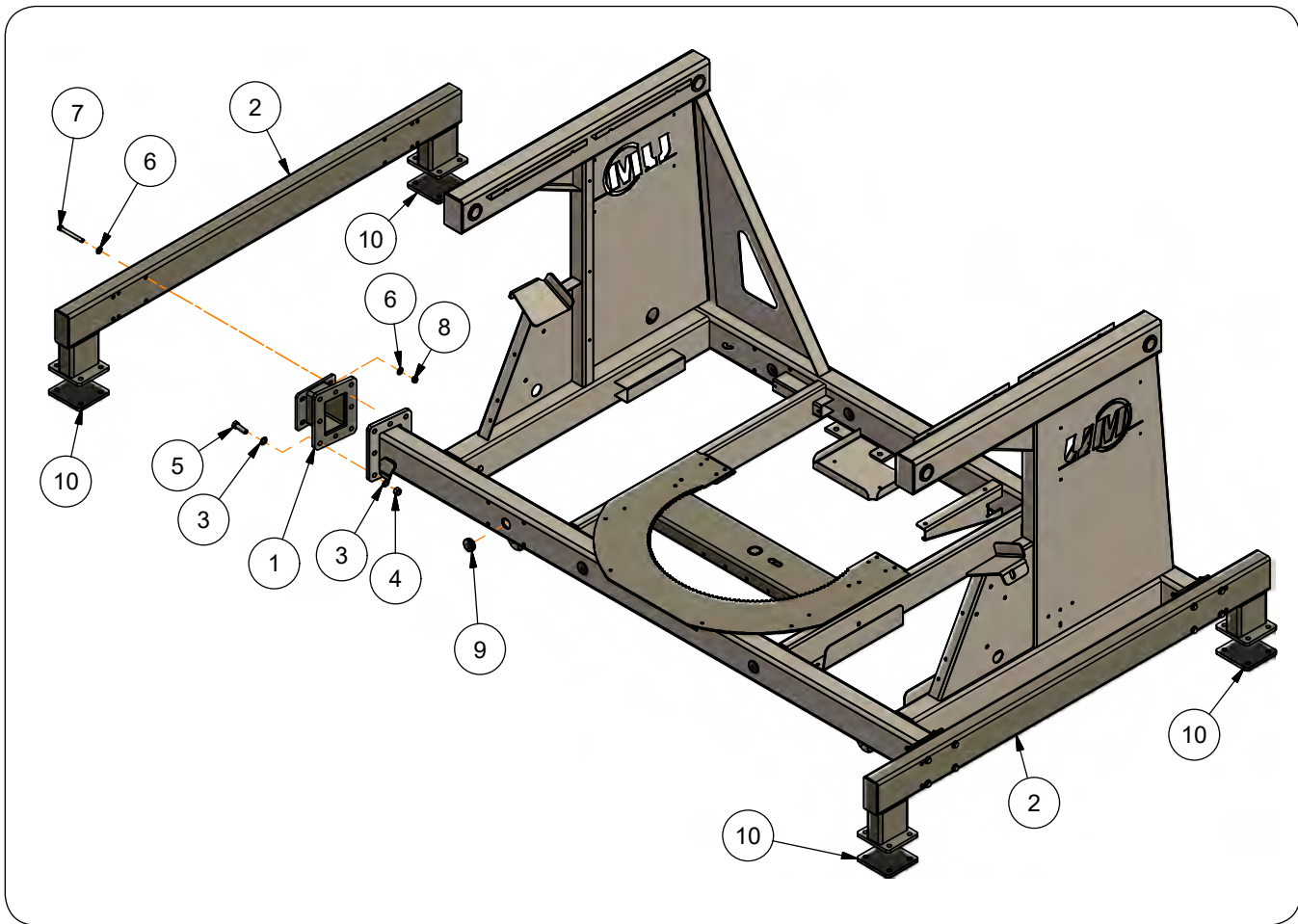
Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2009425TS	Scale Kit for 410/410XL BBC Without Auto-Shut Off	-	
	2009449TS	Auto-Shut Off Kit	-	Includes Items 2, 3, 4, 11, 23-31
1	9390-003	Capscrew, 1/4"-20UNC x 3/4 G5	2	
2	2004111	Wire Harness 229 1/2"	1	
3	2004247TS	Cylinder Stop Weldment =Tan Speckle=	2	
4	2008058	Instruction Sheet	1	
5	27778TS	Scale Bracket - Left-Hand =Tan Speckle=	2	
6	27779TS	Scale Bracket - Right-Hand =Tan Speckle=	2	
7	9500374	Scale Indicator, UM2520	1	
8	21903	Connector, 2-Way 6" LG	1	
9	9936	Locknut, 1/4"-20UNC	2	
10	26554	Heat Shrink Tube, 1/4 x 3	2	
11	9000106	Cable Tie, 7 1/2"	17	
12	9000107	Cable Tie, 14 1/2"	6	
13	900513	Rubber Grommet, 1/4W x 2D	1	
14	91023	Butt Connector	2	
15	9390-065	Capscrew, 3/8"-16UNC x 3 1/2 G5	8	
16	9390-101	Capscrew, 1/2"-13UNC x 1 1/2 G5	2	
17	9390-133	Capscrew, 5/8"-11UNC x 4 1/2 G5	8	
18	9405-088	Flat Washer, 1/2	2	
19	9800	Locknut, 1/2"-13UNC G5	2	
20	9801	Locknut, 5/8"-11UNC G5	8	
21	9928	Locknut, 3/8"-16UNC G5	8	
22	901173	Scale Load Bar, 2.125 DIA	4	
23	9390-107	Capscrew, 1/2"-13UNC x 3" G5	2	
24	903172-343	Pan Head, #10-32UNF x 1/2"	2	
25	94038	Cable Tie, 32"	2	
26	9404-013	Lock Washer, #10	2	
27	9501363	Control Module - Auto Shut-Off	1	
28	9501370	Decal, Warning Door Closing	2	
29	9501424	Lynch Pin, 1/4D x 2 1/2"	2	
30	9830-016	Hex Nut, #10-32 G2	2	
31	9800	Locknut, 1/2"-13UNC G5	2	

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Platform for Units Less Undercarriage (Optional)

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

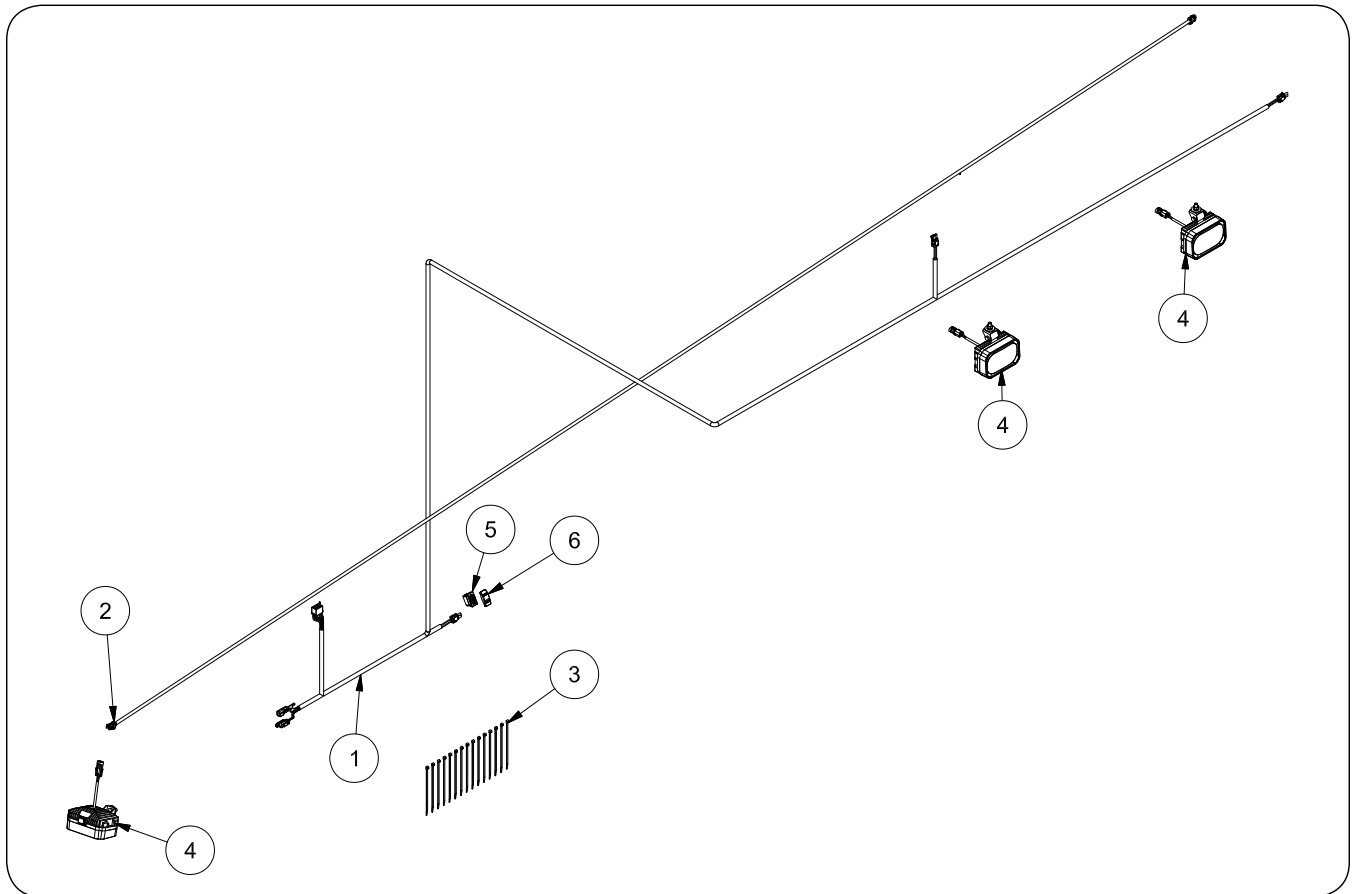


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2003133TS	Optional Platform for Units Less Undercarriage	-	Includes Items 1 through 10
1	2003078TS	Adapter Bracket Weldment =Tan Speckle=	2	
2	2003079TS	Stand Weldment =Tan Speckle=	2	
3	903108	Flat Washer, 5/8" (Stainless Steel)	32	
4	9801	Lock Nut, 5/8"-11UNC	16	
5	9390-125	Capscrew, 5/8"-11UNC x 2 1/4	16	
6	9405-086	Flat Washer, 1/2" SAE	32	
7	9390-112	Capscrew, 1/2"-13UNC x 4 1/2	16	
8	9800	Lock Nut, 1/2"-13UNC	16	
9	9501151	Round Plug	11	
10	2003075B	Backer Plate	4	

SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Light Kit (Optional) (Beginning with Serial Number D64690100)

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

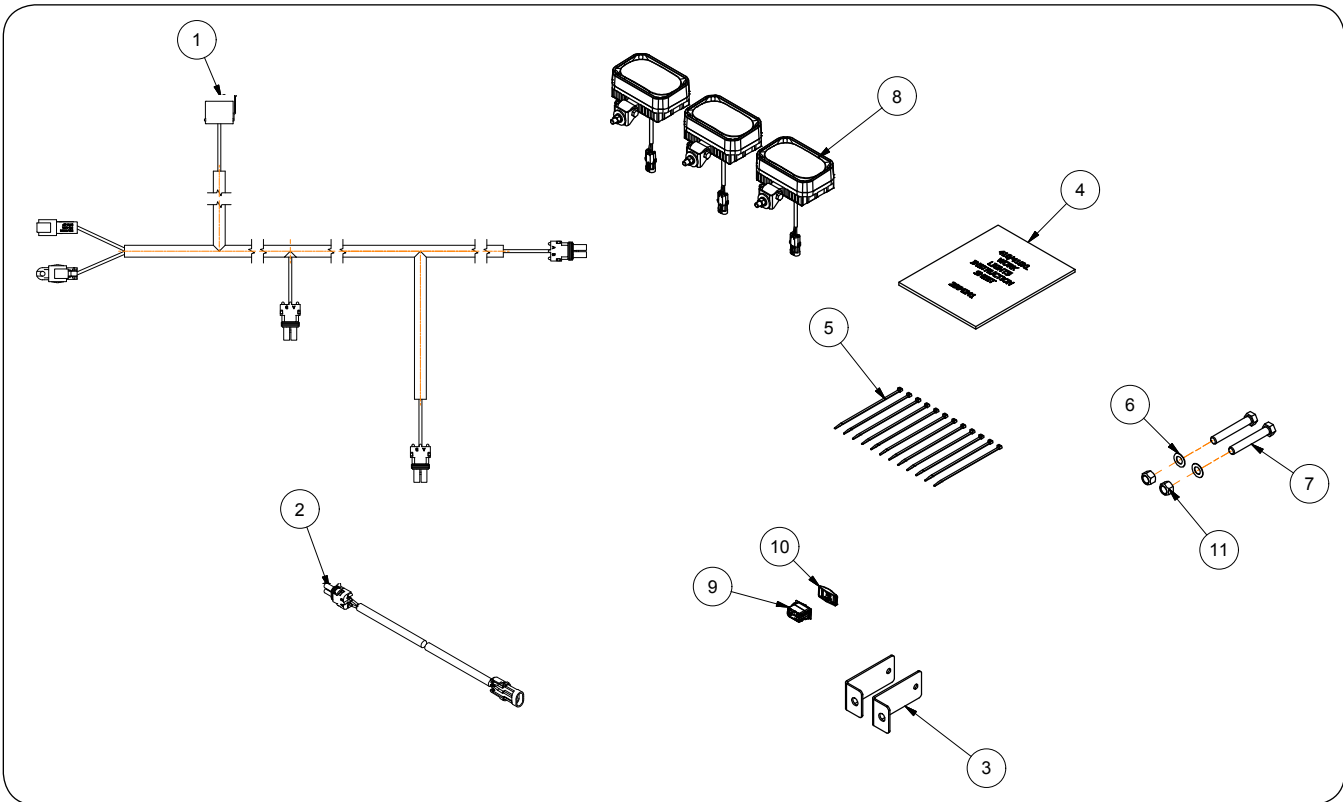


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2004450	Optional Light Kit		
1	2002125	Wire Harness Work Lights	1	
2	2002489	Wire Harness 420" Long	1	
3	9000106	Cable Tie, 6" Long	12	
4	301213	Work Light Replacement Kit	3	
5	9500977	Rocker Switch Body	1	
6	9500978	Rocker Switch Actuator	1	

SEED PRO® BULK BOX CARRIER 410/410XL — Parts

Light Kit (Optional) (Prior to Serial Number D64690100)

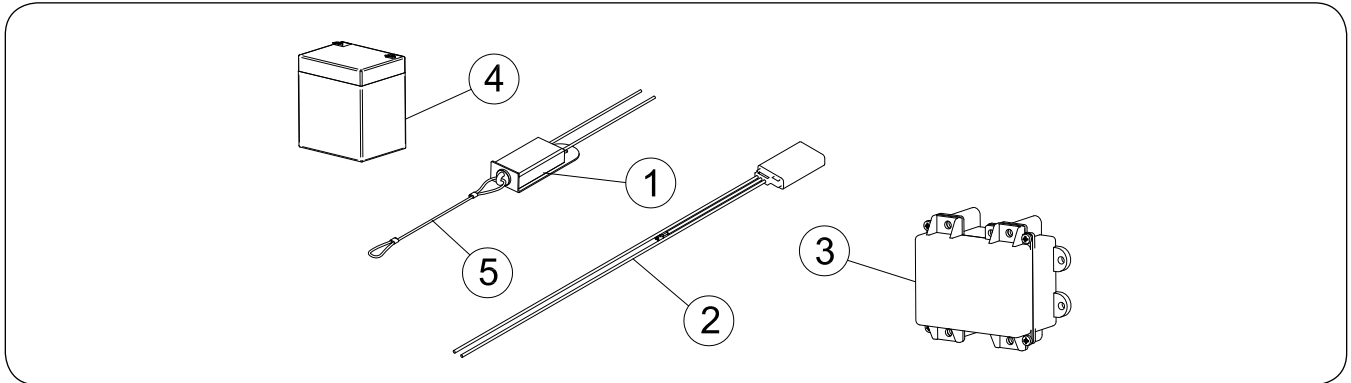
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2004102	Optional Light Kit		
1	2002125	Wire Harness Work Lights	1	
2	2002489	Wire Harness 420" Long	1	
3	2004097IV	Mounting Plate	2	
4	2004241	Instruction Sheet	1	
5	9000106	Cable Tie, 6" Long	12	
6	903108	Flat Washer, 5/8" (Stainless Steel)	4	
7	9390-132	Capscrew, 5/8"-11UNC x 4	2	Grade 5
8	301213	Work Light Replacement Kit	3	
9	9500977	Rocker Switch Body	1	
10	9500978	Rocker Switch Actuator	1	
11	9801	Lock Nut, 5/8"-11UNC	2	

Electric Breakaway Components

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



ITEM	PART NO.	DESCRIPTION	NOTES
1	900786	Breakaway Electric Switch w/Pull Pin	Includes Item 5
2	N/A	Battery 12V Charger	
3	902179	Battery Box w/Decals	
4	900789	Battery 12V Rechargeable	5.0 AMP-HR
5	901950	Pull Cord Breakaway Switch	
6	902764	Battery with Charger & Box (NOT SHOWN)	Includes Items 2, 3, & 4

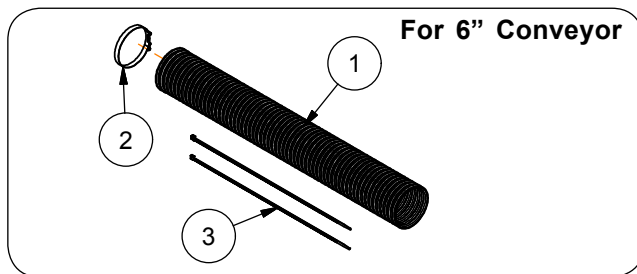
Hopper Cover (#9501361)

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

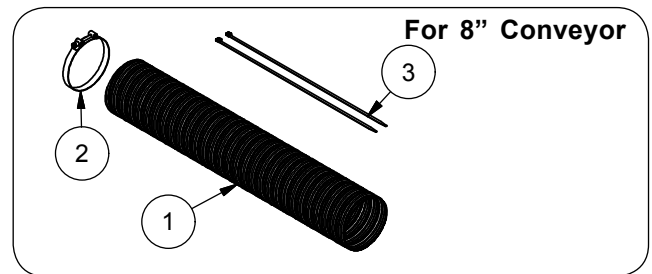


Telescopic Spout Components

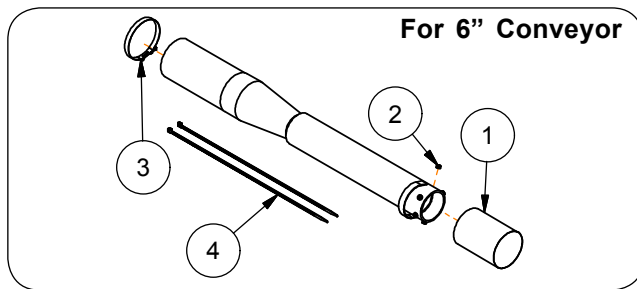
Please visit www.unverferth.com/parts/ for the most current parts listing.



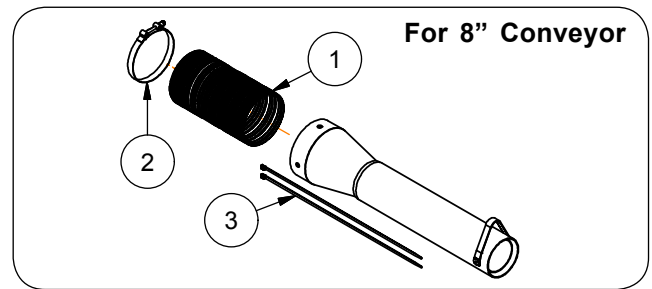
ITEM	PART	DESCRIPTION	QTY
	2005066	Standard Spout Bundle 6" x 48"	-
1	TAAU14170	4' Flex Spout	1
2	98060	Clamp 6" Dia.	1
3	94038	Cable Tie 32" Long	2



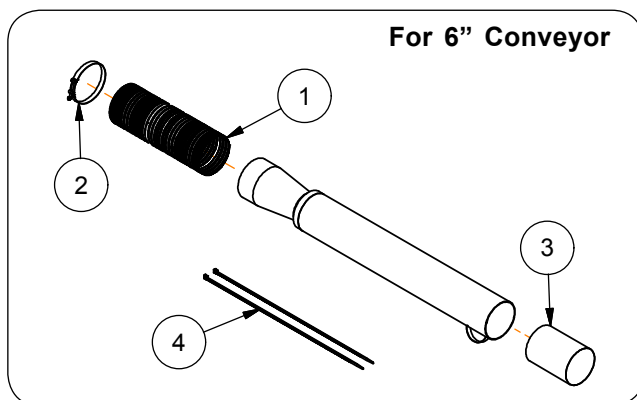
ITEM	PART	DESCRIPTION	QTY
	2005067	Standard Spout Bundle 8" x 48"	-
1	901544	4' Flex Spout	1
2	901485	Clamp 8" Dia.	1
3	94038	Cable Tie 32" Long	2



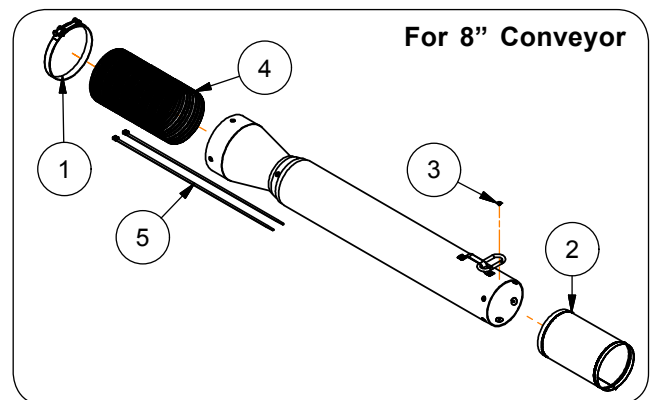
ITEM	PART	DESCRIPTION	QTY
	27629	Standard 2-Stage Telescopic Spout	-
1	22577	Canvas Sock	1
2	9003378	Rivet 3/16"	6
3	98060	Clamp 6" Dia.	1
4	94038	Cable Tie 32" Long	2



ITEM	PART	DESCRIPTION	QTY
	25532	Standard 2-Stage Telescopic Spout	-
1	25752	14 3/4" Flex Spout	1
2	901485	Clamp 8" Dia.	1
3	94038	Cable Tie 32" Long	2

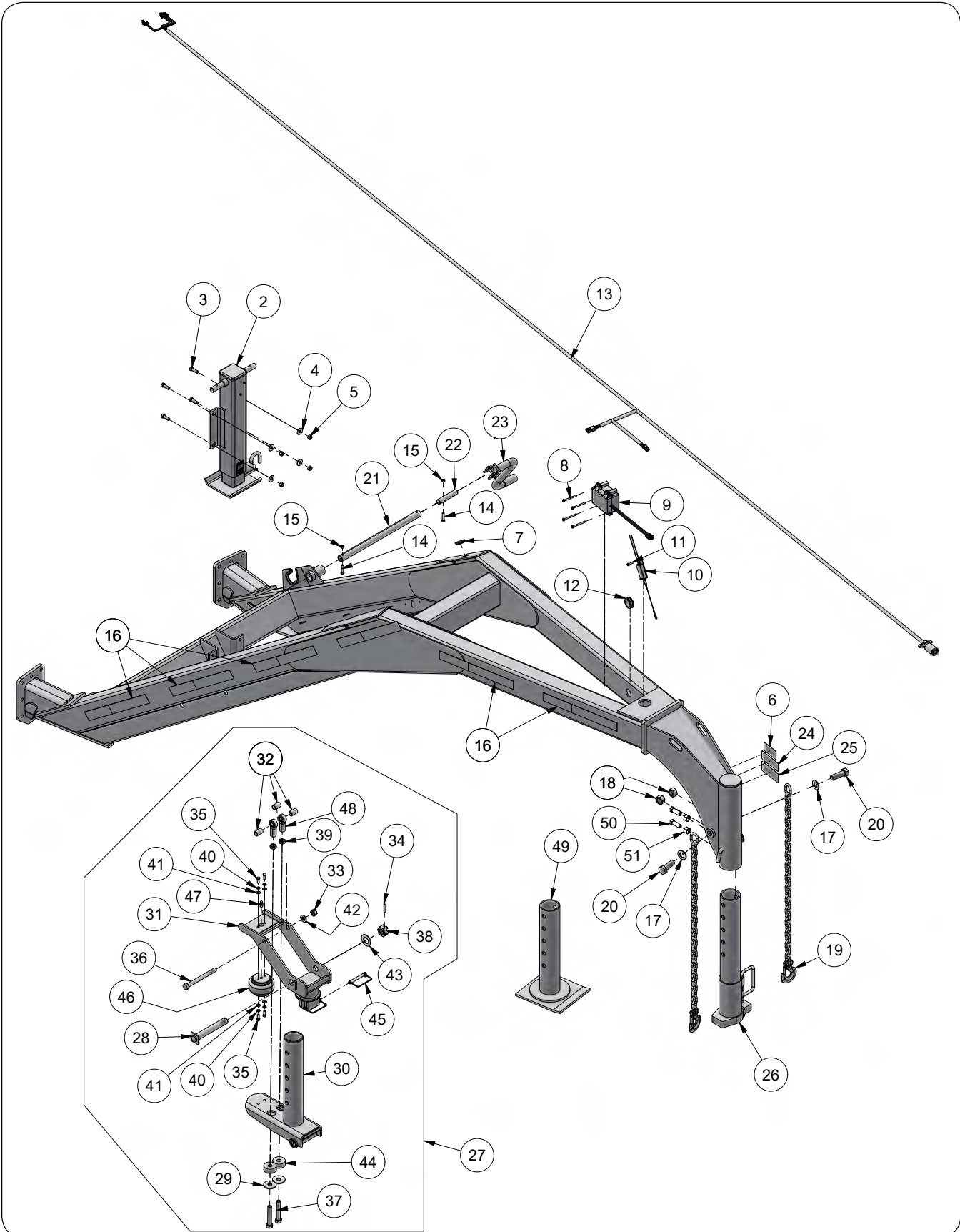


ITEM	PART	DESCRIPTION	QTY
	22578	3-Stage Telescopic Spout (Option)	-
1	21759	18" Flex Spout	1
2	98060	Clamp 6" Dia.	1
3	22577	Canvas Sock	1
4	94038	Cable Tie 32" Long	2



ITEM	PART	DESCRIPTION	QTY
	29782	3-Stage Telescopic Spout (Option)	-
1	901485	Clamp 8" Dia.	1
2	9500173	Vinyl Sock	1
3	9500175	Pop Rivet	2
4	25752	14 3/4" Flex Spout	1
5	94038	Cable Tie 32" Long	2

Gooseneck Hitch Components (Option)



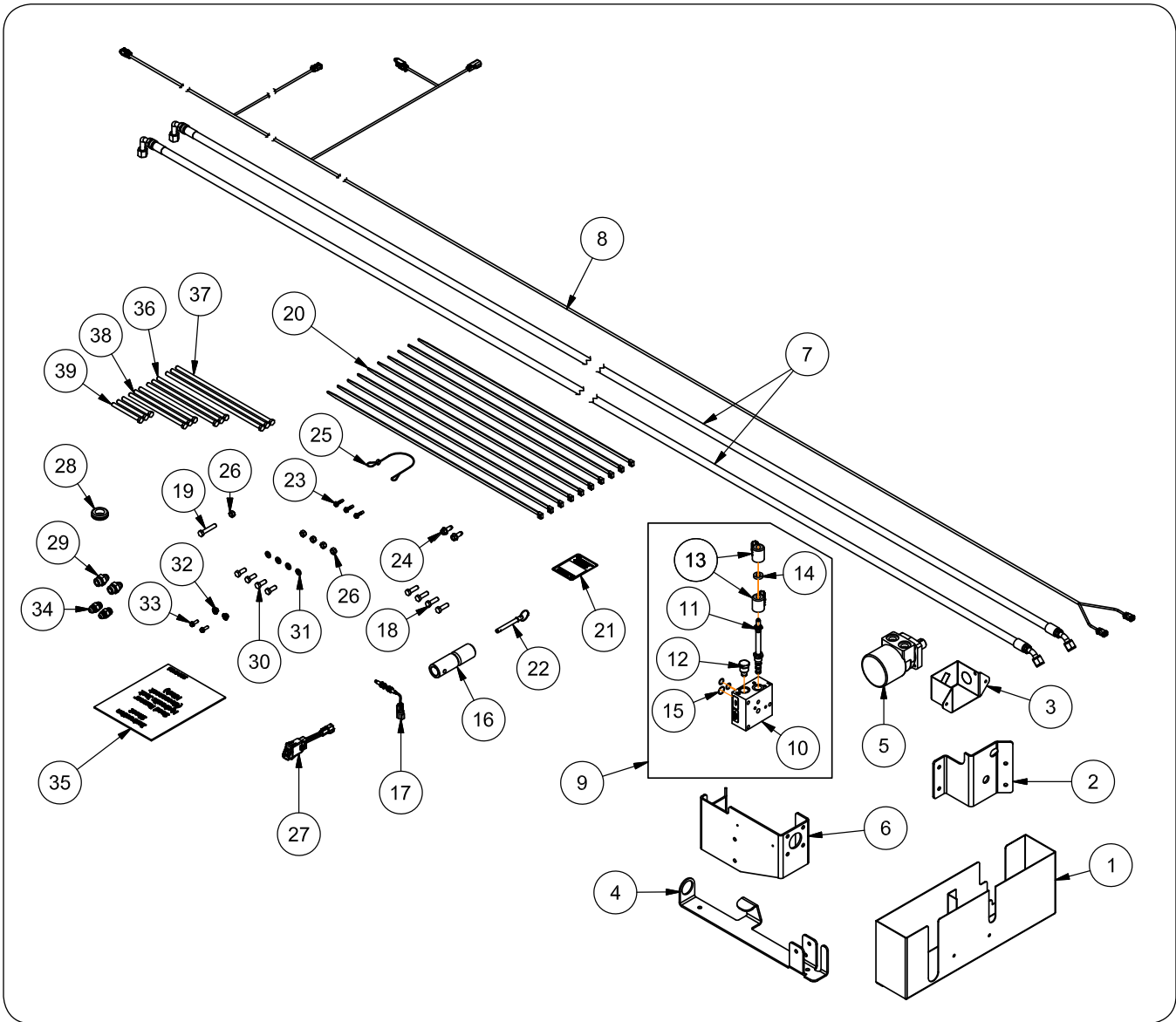
SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Gooseneck Hitch Components (Option)

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	2009901TS	Gooseneck Hitch Assembly	-	Includes Items 2-25
2	107905B	Jack Weldment	1	
3	9390-101	Capscrew, 1/2"-13UNC x 1 1/2"	4	Grade 5
4	9405-088	Flat Washer, 1/2"	4	
5	9800	Lock Nut, 1/2"-13UNC	4	
6	97961	Decal, WARNING (Read and Understand...)	1	
7	97422	Plug/Rubber	1	
8	902238	Flange Bolt 1/4"-20UNC x 3"	4	
9	----	Break Away Switch & Battery w/Charger & Box	1	Refer to "Electric Breakaway Components" in PARTS Section
10				
11	9512	Screw/Self-Drilling 1/4-14 x 1"	1	
12	98487	Grommet/Rubber	1	
13	27829	Wiring Harness Front	1	
14	9390-058	Capscrew, 3/8"-16UNC x 1 3/4"	2	Grade 5
15	9928	Lock Nut, 3/8"-16UNC	3	
16	25003	Conspicuity Marking / Reflectors	12	
17	9405-116	Flat Washer, 1"	4	
18	9663	Lock Nut, 1"-8UNC	2	
19	98792	Chain w/Hook & C-Link Assembly	2	
20	91299-187	Capscrew, 1"-8UNC x 3"	2	Grade 8
21	2001095B	Extension Tube	1	
22	2001097B	Bar 1" Dia. x 5"	1	
23	9500583	Jack Handle	1	
24	9500953	Decal, CAUTION (Always Use Transport Chain....)	1	
25	9500952	Decal, CAUTION (Unhitching of Trailer can cause...)	1	
26	2003304B	Gooseneck Hitch - Drilled	-	
27	2009544B	Cushion Gooseneck Hitch Assembly (Option)	-	Includes Items 28-48
28	2009330	Pin Weldment 1 1/4" Dia. x 8 1/2"	1	
29	2009331	Washer 2.5" Dia.	2	
30	2009615B	Receiver Weldment	1	
31	2009641B	Coupler Weldment	1	
32	2009812	Tube/Spacer 1" OD x .782" ID x 1 1/2"	3	
33	9008442	Lock Nut/Center, 3/4"-10UNC	1	
34	91144-165	Spiral Pin 1/4" Dia. x 1 7/8"	1	
35	9390-055	Capscrew, 3/8"-16UNC x 1" G5	4	
36	9390-161	Capscrew, 3/4"-10UNC x 8" G5	1	
37	9390-378	Capscrew, 3/4"-16UNF x 4 1/2" G5	2	
38	9393-023	Slotted Nut, 1 1/4"-7UNC	1	
39	9395-015	Hex Jam Nut, 3/4"-16UNF	2	
40	9404-021	Lock Washer, 3/8"	4	
41	9405-074	Flat Washer, 3/8" SAE	4	
42	9405-104	Flat Washer, 3/4" SAE	1	
43	9405-128	Flat Washer, 1 1/4" SAE	1	
44	9502921	Urethane Spring 2 1/2" Dia.	2	
45	9503022	Lynch Pin 1/2" Dia. x 3 3/4"	1	
46	9503203	Air Bag	1	
47	9503223	Tank Valve	1	
48	9503225	Ball Joint 3/4" ID Rod End	2	
49	2003321B	Gooseneck Round Fifth Wheel Hitch Adaptor (Option)	-	
50	97875	Set Screw, 3/4"-10UNC x 2" Square Head	2	
51	9394-016	Hex Nut, 3/4"-10UNC	2	

Hydraulic Jack for Gooseneck Hitch Kit #2004087B (Option)

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



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Hydraulic Jack for Gooseneck Hitch Kit #2004087B (Option)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2000192B	Jack Drive Cover Weldment =Black=	1	
2	2000156B	Jack Bracket =Black=	1	
3	2000176B	Switch Housing =Black=	1	
4	2001187B	Jack Handle Bracket Weldment =Black=	1	
5	9500273	Motor/Hyd 4.0 CU IN, 9 GPM, 1800 PSI	1	
6	2000191B	Jack Mount Weldment =Black=	1	
7	2000196	Hose 1/2 x 267 (90° 3/4-16 JIC Female x 45° 3/4-16 JIC Female)	2	3000 PSI
8	2002811	Wire Harness 370"	1	
9	2010674	Hydraulic Jack Valve Assembly	1	
10	9500659	Valve Body (Stackable)	1	
11	902842	Valve w/Solenoids	1	
12	903136	Plug SAE, 7/16-20UNF	4	
13	902811	Socket Head 10-24UNC x 1 1/4	4	Grade 8
14	9500620	O-Ring Kit (Set of 4)	1	
15	9500600	Seal Kit for Stackable Valves	1	
16	2000207	Coupler Weldment	1	
17	2000190	Magnetic Switch Assembly	1	
18	9390-056	Capscrew, 3/8"-16UNC x 1 1/4	4	Grade 5
19	9390-059	Capscrew, 3/8"-16UNC x 2	1	Grade 5
20	94038	Cable Tie .35 x 32	10	
21	9500279	Decal, DANGER (Jack Handle)	1	
22	9500603	Clevis Pin 3/8D x 2.5	1	
23	9512	Screw/Self Drill 1/4-14 x 1	3	
24	96972	Screw/Self Tapping 3/8"-16UNC x 1	2	
25	97879	Nylon Lanyard 10"	1	
26	9928	Lock Nut, 3/8"-16UNC	5	
27	9006061	Rocker Switch	1	
28	901675	Grommet/Rubber 1 3/4 OD x 1 ID	1	
29	93607	Adapter 3/4-16 JIC Male x 7/8-14 O-Ring Male	2	
30	9390-055	Capscrew, 3/8"-16UNC x 1	4	Grade 5
31	9404-021	Lock Washer, 3/8	4	
32	97189	Hex Nut/Large Flange 1/4"-20UNC	2	Grade 5
33	97420	Flange Screw, 1/4"-20UNC x 3/4	2	Grade 5
34	9864	Adapter 3/4-16 JIC Male x 3/4-16 O-Ring Male	2	
35	2004726	Instruction Sheet	1	
36	9390-9500625	Capscrew, 3/8"-16UNC x 10	3	Grade 5
37	9390-752	Capscrew, 3/8"-16UNC x 14	3	Grade 5
38	9390-075	Capscrew, 3/8"-16UNC x 8	3	Grade 5
39	9390-067	Capscrew, 3/8"-16UNC x 4	3	Grade 5

Hydraulic Jack for Bumper Hitch Kit #2012347TS (Option)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	2002811	Wire Harness 370"	1	
2	2005833	Loop Connector	1	
3	2011761TS	Hydraulic Jack Assembly	1	
4	900016	Adapter, 9/16"-18 JIC Male x 9/16"-18 O-Ring Male with 0.060 Restrictor	2	
5	9001495	Adapter	2	
6	9003118	Hydraulic Hose, 1/4" x 198" 9/16"-18 JIC Female x 9/16"-18 JIC Female 90° Short Drop	2	
7	93419	U-Bolt, 5/8"-11UNC	4	
8	9390-067	Capscrew, 3/8"-16UNC x 4" G5	3	
9	9390-075	Capscrew, 3/8"-16UNC x 8" G5	3	
10	9390-752	Capscrew, 3/8"-16UNC x 14" G5	3	
11	9390-9500625	Capscrew, 3/8"-16UNC x 10" G5	3	
12	94037	Cable Tie, .35 x 15 1/2"	10	
13	9404-019	Lock Washer, 5/16"	4	
14	9500058	Clamp Set	4	
15	9500059	Cover Plate	4	
16	9501021	Valve Assembly	1	
	9500600	Seal Kit for Stackable Valves	-	
17	9504377	Self-Drill Screw, 5/16-18 x 2"	4	
18	9504904	Hydraulic Hose 1/4" x 60" 9/16"-18 JIC Female x 9/16"-18 JIC Male	2	
19	9801	Locknut, 5/8"-11UNC	8	

Seed Tender Remote - Override Box

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

See manual #2009490 for complete setup instructions and parts listing.



**Override Box
2 & 3 Function
(2009341)**



**Override Box
6 Function
(2009333)**

3-Function Wireless Remote Control Pkg #2004078TS (Option)

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

See manual #2010519 for complete setup instructions and parts listing.



6-Function Wireless Remote Control Pkg #2004080TS (Option)

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

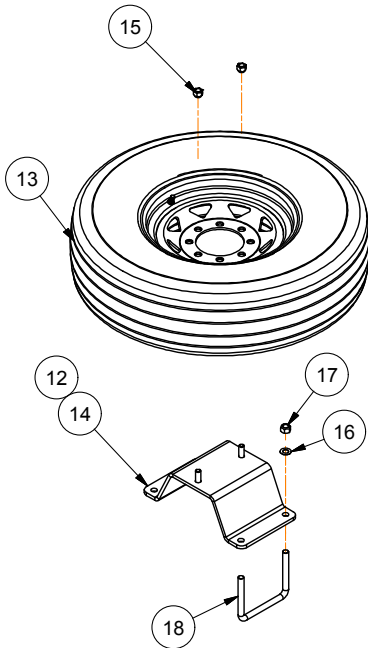
See manual #2010520 for complete setup instructions and parts listing.



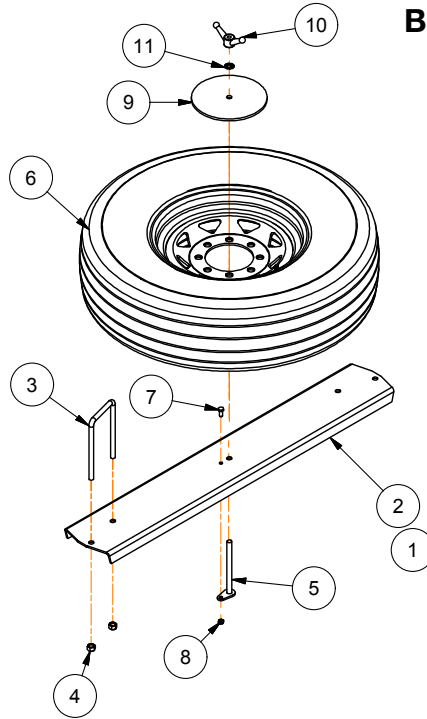
Spare Tires (Optional)

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

Gooseneck Hitch



Bumper Hitch



SEED PRO® BULK BOX CARRIER 410/410XL— Parts

Spare Tires (Optional)

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

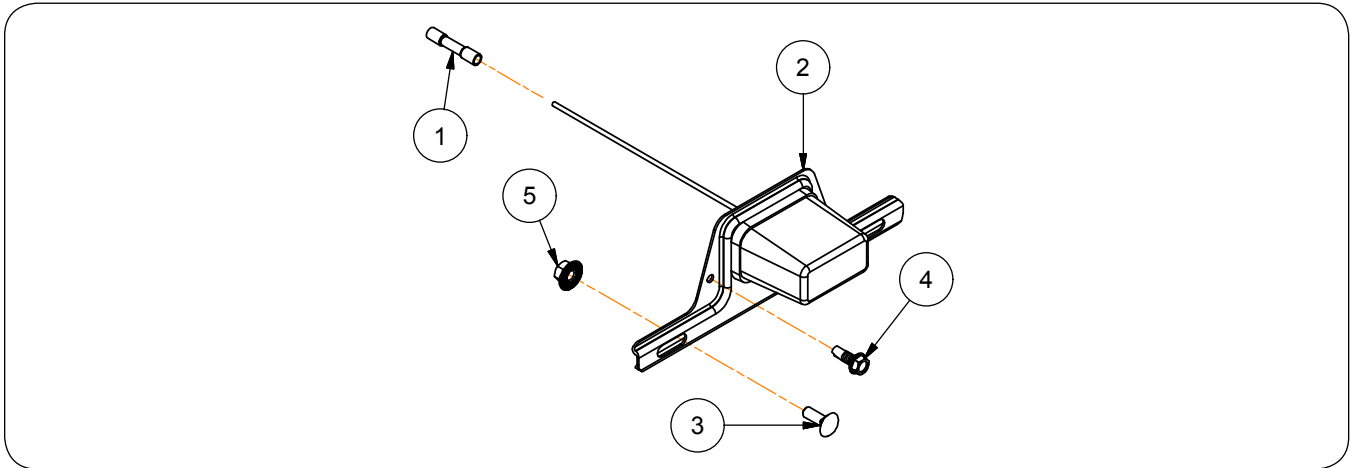
ITEM	PART NO.	DESCRIPTION	QTY	NOTES	
1	2000939TS	Spare Tire Assembly for Bumper Pull Hitch	1	Includes Items 2 through 11	
	2009551TS	Spare Aluminum Wheel/Tire Assembly for Bumper Pull Hitch			
	2	29736TS	Spare Tire Plate	1	
	3	91323	U-bolt 1/2"-13UNC x 7 1/8	2	
	4	9800	Lock Nut, 1/2"-13UNC	4	
	5	29751	Pin Weldment 1/2" Dia. x 6 5/8	1	
	6	902702	Wheel/Tire 6x16 / ST235/85R16	1	Load Range E
		9502990	Aluminum Wheel/Tire 6x16 / ST235/85R16		Aluminum Wheel
	7	9390-028	Capscrew, 5/16"-18UNC x 3/4	1	Grade 5
	8	9807	Lock Nut, 5/16"-18UNC	1	
	9	2001047TS	Washer	1	
10	9500475	Handle Nut 1/2"-13UNC	1		
11	TA500470	External Star Washer	1		
12	2000940TS	Spare Tire Assembly For Gooseneck Hitch	1	Includes Items 13 through 18	
	2009552TS	Spare Aluminum Wheel/Tire Assembly For Gooseneck Hitch			
	13	902702	Wheel/Tire 6x16 ST235/85R16	1	Load Range E
		9502990	Aluminum Wheel/Tire 6x16 / ST235/85R16		Aluminum Wheel
	14	2009560TS	Bracket Weldment	1	
	15	901669	Tapered Nut 9/16-18UNF	2	
	16	903108	Flat Washer, 5/8" USS	4	
	17	9801	Lock Nut, 5/8"-11UNC	4	
18	93419	U-Bolt 5/8"-11UNC x 5 1/4	2		

T&G Applicator (Optional) #2007758IV



License Plate/Lamp Holder Assembly (Optional) Kit #25481

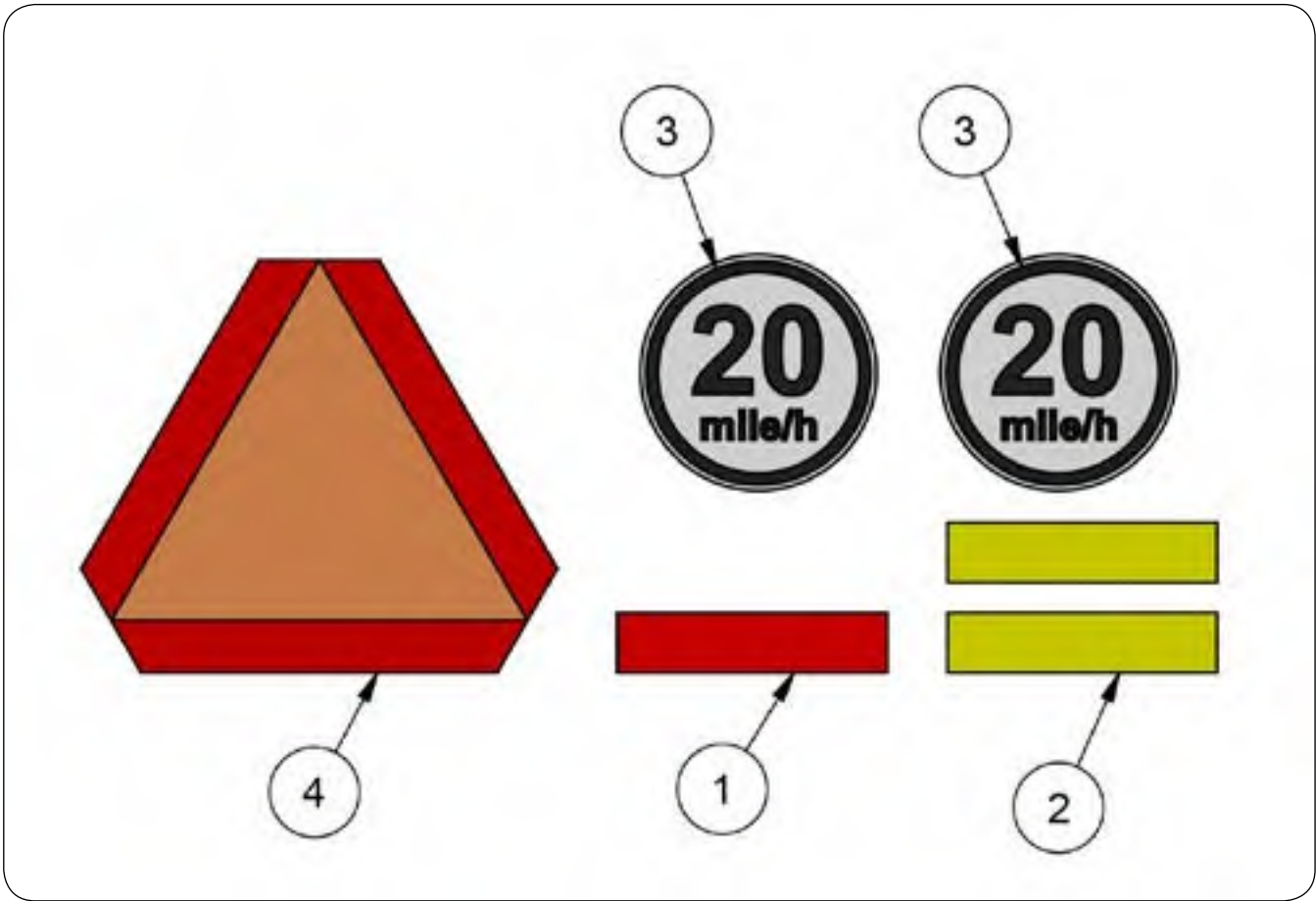
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	900368	Sealed Splice Connector	1	
2	93769	License Plate/Lamp Holder	1	
3	9388-002	Carriage Bolt, 1/4"-20UNC x 3/4	2	
4	9473	Screw/Self 1/4-14 X 3/4	2	
5	97189	Hex Nut/Large Flange 1/4"-20UNC	2	

AG Decal Package (Optional) - SMV, SIS Decals, & Reflectors

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



ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
	2010513	AG Decal Package Option		
1	9003126	Reflector, RED	1	
2	9003127	Reflector, AMBER	2	
3	9008714	Decal, Rear SIS 20MPH	2	
4	97530	Decal, SMV Emblem	1	

Notes



Unverferth
Manufacturing Company, Inc.

www.unverferth.com