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Topdresser

Owner's Manual

MODEL FX650

January 1, 2021

DISCLAIMER

The information in this manual is provided to promote the safe use of and assist the operator in achieving the best performance from the products described when used for their intended applications.

TurfTime Equipment, LLC reserves the right to alter, correct, and/or improve the documentation and the products described within the documentation at its own discretion and without giving prior notice as far as this is reasonable to the owner of the products.

You are responsible to verify the suitability and intended use of any TurfTime Equipment, LLC products for your specific application. All information made available in the documentation is supplied without any accompanying guarantee.

This manual, including all illustrations contained herein, is copyright protected. Any changes to the contents or the publication of extracts of this document is prohibited. This manual is furnished to you by TurfTime Equipment LLC as a guide to get the greatest benefit from your product. Before attempting to install or operate, carefully read all sections of this manual. Be sure that you thoroughly understand all of the safety information and operating procedures.

SAFETY PRECAUTION DEFINITIONS

Dangers, Warnings, Cautions, and Notes are strategically placed throughout this manual to further emphasize the importance of personal safety, qualifications of operating personnel, and proper use of the equipment in its intended application. These precautions supplement and/or complement the safety information decals installed on the equipment and include headings that are defined as follows:

⚠ DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a potentially hazardous situation or practice which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a potentially hazardous situation or practice which, if not avoided, will result in damage to equipment and/or minor injury.

NOTICE

Indicates an operating procedure, practice etc., or portion thereof, which is essential to highlight.

Always use caution and safe operating practices when operating this equipment.

Install all safety panels and guards before operating your equipment.

Stay clear of all moving parts when the machine is in operation.

Keep all people clear of the machine when it is running.

Read and comply with all safety recommendations of your tractor/skid steer manufacturer, as outlined in its operator and service manuals.

NOTE: Some equipment depicted in illustrations may not reflect exact production model configurations.

LIMITED WARRANTY STATEMENT

3-year Limited Warranty

TurfTime Equipment, LLC, (TTE) hereby warrants that TTE's products will be free from defects in material and workmanship under normal use according to the provisions and limitations herein set forth. All parts, specifically EXCLUDING expendable 'wear' parts, that become unserviceable, due to defective material or workmanship, within 3 YEARS of date of the original retail purchase, shall, at TTE's option, be repaired or replaced as detailed below.

If the equipment is used for rental purposes, warranty is limited to 90 days from the initial rental date.

Limitations

The obligations of TTE for breach of warranty shall be limited to products manufactured by TTE; (1) that are installed, operated, and maintained according to TTE's instruction furnished and/or available to the purchaser upon request; (2) that are installed according to all other applicable federal, state, and local codes or regulations; and (3) that the purchaser substantiates were defective in material and workmanship notwithstanding that they were properly installed and correctly maintained as set forth and were not abused or misused. The obligation of TTE shall be limited to replacing or repairing the detective product, at the option of TTE. TTE shall not be responsible for any labor or cost of removal or repairing or re-installation of its products and shall not be liable for transportation costs to and from its facility in New Holland, PA. Use of parts for modification or repair of the product or any component part thereof not authorized or manufactured by TTE specifically for such product shall void this warranty.

This warranty shall not apply to any damage to or defect in TTE's products that is directly or indirectly caused by; (1) FORCE MAJEURE, act of GOD, or other accident not related to an inherent product defect; or (2) abuse, misuse, or neglect of the such product, including any damage caused by improper assembly, installation, adjustment, or faulty instruction of the purchaser. Other than as expressly set forth herein above, TTE makes no other warranty, express or implied, with respect to any of TTE's products, included but not limited to any merchantability or fitness for a particular purpose. In no event shall TTE be responsible for any incidental or consequential damages of any nature suffered by purchaser or any other person or entity caused in whole or in part by any of TTE's products.

Any person or entity to whom this warranty extends and who claims breach of warranty against TTE must bring suit thereon within 60 days from the date of occurrence of such breach of warranty or be forever barred from any and all legal or other remedies for such breach of warranty. TTE is not responsible for and hereby disclaims any undertaking, representation, or warranty made by any dealer, distributor, or other person that is inconsistent with or in any way more expensive than the provisions of this limited warranty. This warranty grants specific legal rights and shall be read in conformity with applicable state law. In some jurisdictions, the applicable law mandates warranty provisions that provide greater rights than those provided for herein. In such case, this limited warranty shall be read to include such mandates provisions; and any provision herein that is prohibited or unenforceable in any such jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceable without invalidating the remaining provisions and without affecting the validity or enforceability of such provisions in any other jurisdiction.

Statement of Policy

In accordance with our established policy of constant improvement, we reserve the right to amend these specifications at any time without notice.

Warranty by Manufacturer

Dealer/distributor understands and agrees that the manufacturer extends only the following warranty to its customers. In the event dealer/distributor extends any additional warranty such as enlarging the scope or period of warranty or undertaking a warranty of fitness for any particular purpose or obligation not encompassed in manufacturer's warranty, dealer/distributor shall be solely responsible therefore and shall have no recourse against manufacturer with respect thereto.

CONTENTS

SETUP AND OPERATION

SAFETY

While operating this equipment use common sense and follow all safety guidelines.

In addition to observing the specific precautions listed throughout this manual, the following general statements apply. These must be adhered to in order to insure proper and safe operation.

⚠ DANGER

DO NOT get off the tractor while the tractor PTO is engaged. Insure that the PTO shield and safety chains are properly installed.

Keep hands and feet from under the equipment at all times. Make sure that all people are safely clear of the equipment before operating.

In order to prevent serious injury and to promote safe operation, keep shields in place during operation, and insure that all mounting hardware is properly tightened.

⚠ WARNING

DO NOT attempt to operate the equipment in areas with steep inclines, ditches, large rocks, stumps, or holes that may upset the tractor, endangering the operator or damaging the equipment.

Never clean, adjust or repair the equipment while it or the tractor are running. Never attempt to pull material from any part of the equipment while it is running.

Never wear loose clothing while operating the equipment as it may become caught in the moving parts of the machine.

For safe operation of the equipment, periodically inspect all parts for excessive wear. Replace worn components with authorized parts.

To prevent the hitch from becoming disconnected during operation, always use the proper size hitch pin and safety cotter pin.

Be sure to use proper safety chains when towing equipment on a public roadway.

⚠ CAUTION

Most equipment accidents can be avoided by the observance of a few simple safety precautions.

Do not clean, lubricate or make any adjustments on the equipment while it is in motion.

Do not start the machine until you know everyone is clear of the area and all tools have been stowed away.

Do not work around the unit in loose clothing that might catch on any of the moving parts.

Do not attempt to pull material from any part of the equipment while it is in operation.

Replace all shields after lubrication or repairs.

Do not allow anyone to ride on the equipment.

Park on level ground or block wheels to prevent the machine from rolling.

Always follow manufacturer's instructions for maintenance, repair and adjustments.

Read and pay close attention to hydraulic line safety.

⚠ WARNING

Never attempt to stop a leak by covering it with your hand as doing so can cause severe injury.

TurfTime Equipment LLC assumes no liability for injuries sustained because of failure to read this manual or due to carelessness. Always refer to this manual for guidance, or contact your local dealer.

ASSEMBLY

Inspection

While the Topdresser is shipped fully assembled, it is recommended that an inspection be made upon receipt and any damage or shortages be reported to the shipping company.

Warranty

Locate the warranty card in the literature packet and complete it. For proper warranty registration Turf Time requires that you fill out the warranty registration card and return it within 30 days.

SETUP AND OPERATION

Before use

Before initial use, check the following:

Check for proper assembly and adjustment making sure all bolts are securely tightened. Re-tighten the bolts after 4 hours of operation.

Torque the wheel bolts to 120 lb-ft. Recheck the bolts after every other load until the torque does not decrease and every 300 loads thereafter.

Check the tires and inflate them to the recommended pressure shown on the side wall of each tire.

Adjust the tractor hitch and attach the Topdresser to the tractor as detailed in this manual.

Connect the hydraulic hoses to the tractor hydraulic ports, if required.

Lubricate the machine completely and check the oil level in the hydraulic reservoir, if applicable.

Install a slow moving vehicle (SMV) emblem (available from your dealer) on the rear of the unit, if the Topdresser is to be transported on public roadways.

Do not operate the Topdresser until after "Safety" on page 1 in this manual has been read and understood by the operator.

Review **"Figure 3-16. Decals" on page 44"**, and ensure that all the decals are legible on the Topdresser. Read and understood each decal and understand what the dangers involved.

If equipped with an engine drive, ensure the engine oil and coolant have been checked and are within the specified fill level range.

Drawbar connection

⚠WARNING

Only connect the Topdresser to the tow vehicle drawbar. Never connect it to the 3-point hitch in any way.

Use only a 7/8" hitch pin of sufficient length to engage the upper and lower clevis of the drawbar.

Always use a clip to secure the hitch pin in the drawbar.

OPERATING CONSIDERATIONS

NOTICE

Not following these instructions may void the warranty.

Load capacity

⚠WARNING

Weight limitations apply!

Ensure the tow vehicle is capable of handling the gross vehicle weight (GVW) of the Topdresser and its load. The GVW of the Topdresser must not exceed 1.5 times the weight of the tractor.

The weight rating of the tires must not be exceeded. Refer to the tire sidewall for the maximum weight capacity.

The tire load capacity is printed on the sidewall of the tire. Multiply this capacity the number of tires to determine the gross vehicle weight rating (GVWR) of the Topdresser.

The volume capacity of the Topdresser may allow overloading of the tires, tow vehicle, or both, when using high-density products, such as sand. Know the weight of the product you are loading.

For example, the empty (tare) weight of a FX650 is 3500 lb. The capacity of each 33-15.50LL x 16.5 tire is 5520 lb. or 22800 lb. total. This will allow 19600 lb. of material to be loaded into the Topdresser. Some materials are very dense (sand is approximately 90 lb/ft^3), the FX650 may appear to be only approximately 3/4 full. Other materials (hydrated lime is approximately 25 lb/ft^3) will allow installation of the optional side extensions without exceeding the GVWR.

Hydraulic requirements

The Topdresser belt and spinners are hydraulically driven. The hydraulic system can be driven either directly from the tow vehicle or through a separate, PTO-driven hydraulic system mounted on the side of the Topdresser

If using the tow vehicle hydraulics, it must provide a minimum of 16 gpm flow at 1750 psi. Oil flow outside of this range may result in hydraulic components overheating and insufficient operational quality.

NOTICE

Refer to the tow vehicle documentation for details on setting and maintaining the hydraulic flow and pressure recommendations.

⚠ WARNING

Hydraulic oil under pressure can penetrate the skin causing serious personal injury. Before applying pressure to the system, ensure that all lines and couplers are tight and not damaged.

Before disconnecting lines, be sure to relieve pressure in the system.

Always clean the hydraulic quick couplers on the tow vehicle and Topdresser before connecting.

LOADING

Always load the Topdresser on a level surface and only when hitched to the tow vehicle. Be sure to engage the parking brake of the tow vehicle.

Never exceed the maximum weight load as shown on each tire. To calculate your maximum weight limit, multiply the tire rating times the number of tires and subtract the empty weight of the Topdresser.

Avoid keeping the Topdresser loaded for long periods of time. Some materials are acidic, some parts of the spreader may begin to rust and deteriorate.

⚠ CAUTION

When storing the loaded Topdresser outside, be sure to keep the load covered. Some materials, when saturated with rain will become very heavy and exceed the maximum load rating of the Topdresser.

Do not allow the Topdresser to be stored outside in freezing conditions. If the material becomes wet it will freeze and expand and could cause damage to the Topdresser sides.

Never allow a load to freeze in the Topdresser *as severe equipment damage may result.*

Top dressing

There are three variables which effect how much material is applied:

- Metering gate opening.
- Belt speed.
- Ground speed.

The spinner speed determines the width of the spread pattern, ranging from 6 to 50 ft.

Metering gate opening

For most sand applications, the metering gate opening should be in the two-inch to three-inch range. A two-inch opening is an ideal starting point for dry sand.

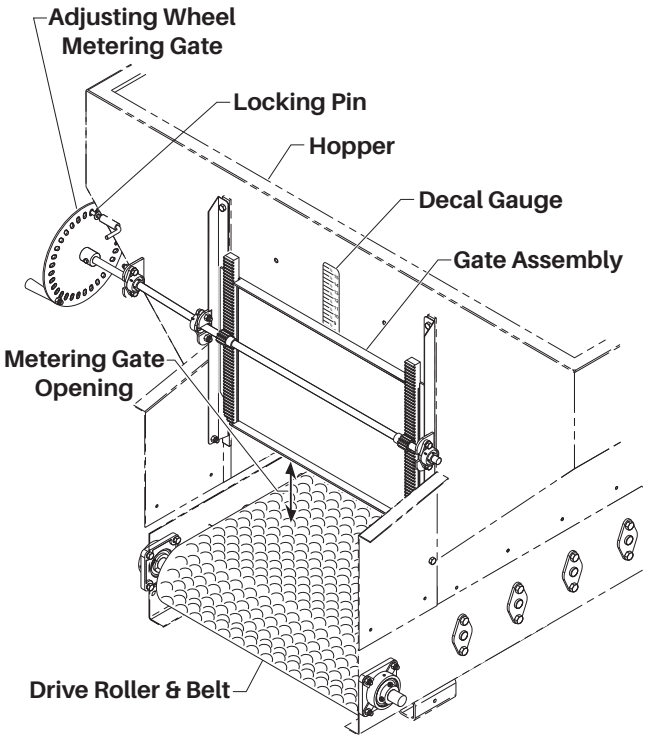


Figure 1-1. Metering gate adjustment

For most organic-material applications, the metering gate opening should be in the three-to six-inch range. A four-inch opening is recommended as a starting point.

Belt speed

Increasing the belt speed increases the rate of material delivered to the spinners. Belt speed can vary from 0 to 30 ft. per min. and is controlled by a remote Transmitter.

Position **10**, located at the 5 o'clock position, will produce the maximum belt speed. Most applications will utilize a belt speed between 7 and 9, with position **8** recommended as a starting point.

Ground speed

A typical ground speed for effective application is between 3 and 5 mph. This will vary according to application rate, material being applied, and weather conditions.

Spread pattern

The rotational speed of the spinners determines the width of the spread pattern, varying from 6 to 50 ft.

Normally, the spinner flow control valve is set to **10** for a maximum spread pattern. The spread pattern will vary depending upon the material being distributed, with lighter, organic material possibly only covering 25 to 30 ft.

If a narrower pattern is desired, the spinner flow control valve may be set lower.

ADJUSTMENTS

It is recommended that a smaller, known amount of material be spread over a specific area and then further adjustments can be made to obtain the correct application rate. Adjustments can be made to the metering gate, belt speed or spinner speed to fine tune the application rate and coverage.

⚠ CAUTION

Never stand behind the Topdresser to make adjustments, perform maintenance, or repair equipment when the power source is active.

Metering gate

To change the metering gate opening:

1. Turn off the hydraulic power source.
2. Remove the hairpin clip and stop pin securing the metering wheel in place (**see Figure 1-1**).
3. Rotate the metering wheel to adjust the gate to the desired opening size. Rotate the wheel clockwise to increase the opening and counterclockwise to reduce the opening.
4. Re-install the stop pin and secure it with the hair pin clip in the desired position.

Belt speed

The apron belt moves material to the rear of the Topdresser While you want to always have material available at the metering gate opening, too much material could accumulate against the metering gate and inhibit the material flow or cause bridging.

To adjust the belt speed, change the belt speed flow control box (**see Figure 1-4**). Higher-number positions increase the belt speed and lower-number positions decrease belt speed. Maximum belt speed is 30 ft. per min. and adjustments should be made in small increments. Each number position results in a 3.0 ft. per min. difference in belt speed.

Spinner speed

Spinner speed is adjusted by using the spinner flow control box (**see Figure 1-4**). Higher numbers on the valve result in higher rotational speed and a wider pattern. Lower numbers result in a lower rotational speed and a narrower pattern.

TRANSPORTING

The FX650 Topdresser is not designed to travel at highway speeds. Attempting to travel at highway speeds may cause damage to the tires, wheel bearings, and may impair your ability to drive safely. See imprint on the sidewall of the tire for maximum speed rating and do not exceed this speed at any time.

Slow down when turning to avoid instability and loss of control.

Do not travel on the road at night. Your Topdresser is not equipped with lights.

Follow all local regulations for moving equipment on public.

GENERAL OPERATION

Brake Controller

Plug the wire harness into the female plug on the front of the machine. Connect the alligator clamps to a 12 Volt DC battery. This wire harness controls all the electric/hydraulic functions and the electric wheel brakes. The brake controller should be adjusted to match the weight of the load each time the unit is used.

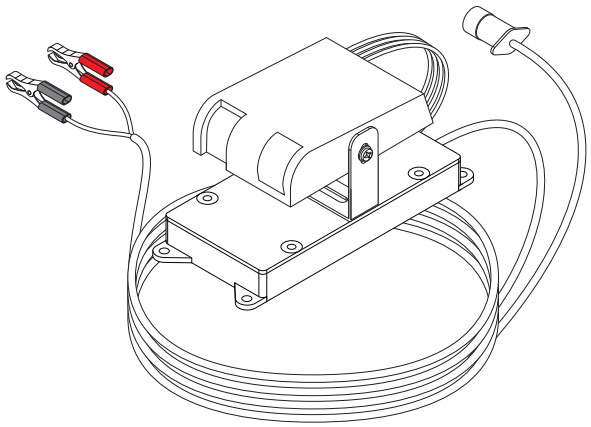


Figure 1-2. Wire Harness

Spinner Paddle Adjustment

The spinner discs have a series of holes so the angle of the paddle can be changed. Material density, weight, and moisture content will all have an effect on the spread pattern. If the outside of the spread radius is too heavy move the inner end of the paddle away from the hub to create a harder angle. If there is too much material landing on the inside of the spread radius move the inner end of the paddle towards the hub to decrease the angle.

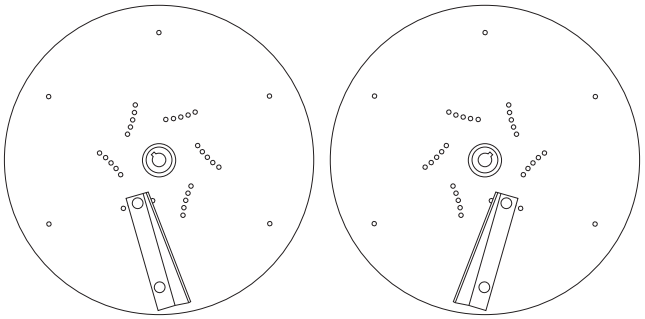


Figure 1-3. Spinner Pattern

⚠WARNING

The side conveyor must be lowered before placing in transport position to avoid coming in contact with the cross conveyor and causing damage.

Control Box/Transmitter

The handheld wireless remote control box controls all functions including apron belt (web) cross conveyor, side conveyor, spinners, metering gate, variable speed controls, etc. Each switch and knob is labeled with its function. The control box operates on two "D" cell batteries. There is also a tether cable included that enables you to connect the control box directly to the electrical box on the unit.

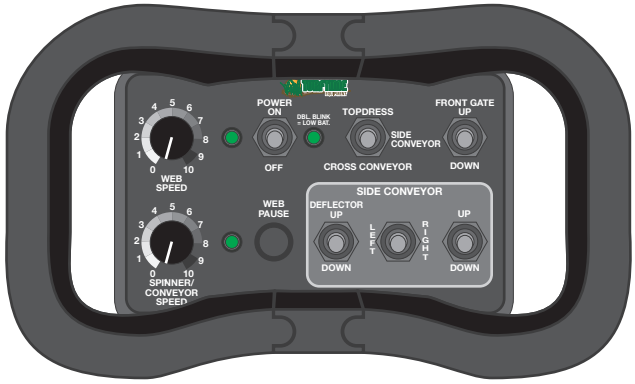


Figure 1-4. Control Box/Transmitter

The central three-position switch toggles between topdress, side conveyor, and cross conveyor and determines the operation mode.

- The topdress mode will activate only the web (apron belt) and the spinners.
- The side conveyor mode will be used when the operator is using smaller Topdressers and is refilling them with material from the FX650. All functions are active in this mode.
- The cross conveyor mode is used for row mulching and will deliver the material out the left side of the unit. The web speed, spinner/conveyor speed, front gate and cross conveyor functions will be active in this mode.

OPERATION

Topdressing

NOTE: A number of factors will determine how the material is spread. While this manual will attempt to provide basic starting adjustments, the most effective operation will be determined from experience.

- Rear Gate Opening - For most materials begin with the gate open approximately 2". Adjust to greater or lesser opening to increase or decrease material flow. The gate opening adjusts from closed to 16". The rear gate is operated manually. To changes the setting pull back the spring loaded locking pin and turn

the metering disc until the gate is at the desired location. Turn the handle clockwise to raise the gate and counter-clockwise to lower it.

- Spinner Speed - Normal speed of dual spinners creates up to a 35' spread pattern of most material. Reducing the spinner speed causes the spread pattern to be narrower, but with greater depth.
- Floor Belt Speed - Faster belt speeds increase the volume of material to the spinners, thereby increasing distribution. Belt speed varies from 0 to 120 feet per minute.
- Ground Speed - Optimum ground speed for topdressing is approximately 6 MPH. This speed will vary according to application rate, type of material being spread, and weather conditions. Dampness affects the rate at which some materials spread. Vary speed accordingly from 2 to 8 MPH.

ATTACHMENTS & ACCESSORIES

Spinner Attachment

The spinner attachment is standard on all units but can easily be removed and replaced with either the brush attachment or a beater attachment. The FX650 can even be used without a rear attachment if the operator wants to move a large volume of material onto a pile.

To detach the spinner or other attachment, remove the locking pins from both sides of the spreader and disconnect the hydraulic hoses. The exposed hydraulic hose ends should be locked together to avoid contaminating them with any foreign material.

Vibrator

The vibrator option can be installed on the spreader to shake the remaining material down onto the apron belt when the spreader is nearly empty. Some types of material will tend to hang up on the spreader sides and can result in an inconsistent spread pattern and/or promote material buildup which over time can rust or deteriorate the metal sides.

NOTE: Never use the vibrator when the spreader is loaded full. The material could settle and pack so tightly in the box that it would prevent apron belt movement which could cause damage to the drive system.

Self Contained Hydraulics

The self contained hydraulics option should be installed when the pulling tractor is not equipped with a sufficient hydraulic system. A hydraulic pump is attached directly to the PTO output shaft on the tractor. The pump output pressure and volume is sufficient to power all of the hydraulic functions.

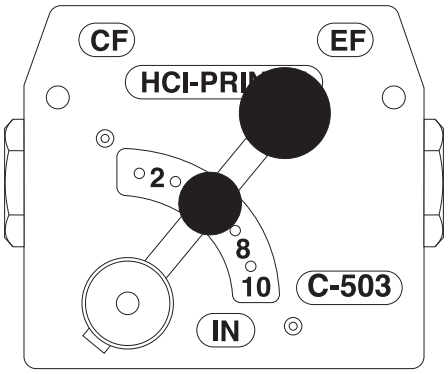


Figure 1-5. Flow Control

⚠ WARNING

Always stop the machine and turn off the power supply before servicing the machine.

LUBRICATION

The FX650 is designed to require minimal lubrication and maintenance. However, the importance of sufficient and proper lubrication cannot be over emphasized as it is the best insurance against unnecessary repairs and will greatly increase the life and performance of the machine.

The operator should become familiar with all lubrication points and establish a systematic routine to ensure complete and quick lubrication of the machine.

Lubricate all the grease fittings once a month or every 100 loads, whichever comes first. Be careful not to over grease the sealed bearings as too much grease could push out the seal and allow dirt or sand to contaminate the bearing. One half of a stroke from a manual grease pump should be sufficient. Be sure to wipe all the dust and chaff away from the grease fitting before greasing. If it is not clean you might force some dirt into the bearing.

Recommended procedure

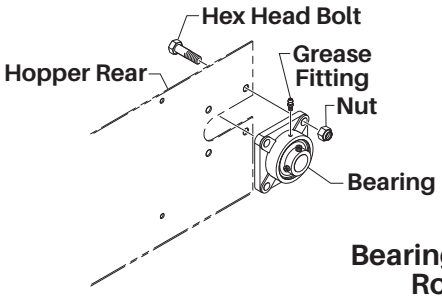
Use a high-quality, extreme pressure (EP) 2 lithium grease on all bearings. Examples of acceptable grease are Exxon Mobil Ronex MP and Lubriplate 1200-2.

Ensure grease fittings are free of paint and dirt. Grease should be forced into the fittings until it comes out around the shaft.

NOTICE

Do not over-lubricate sealed bearings. Apply one-half stroke or pump from a grease gun once per year.

Lubricate all roller bearings once per year.



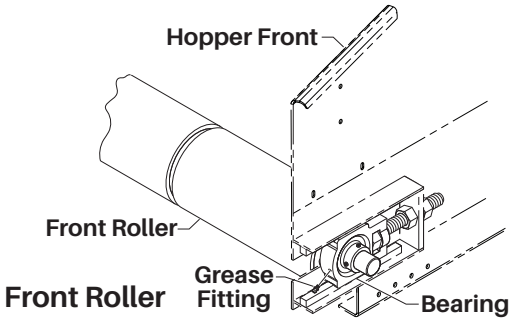


Figure 2-1. Roller bearings

Lubricate all belt-tightening bearings once per year.

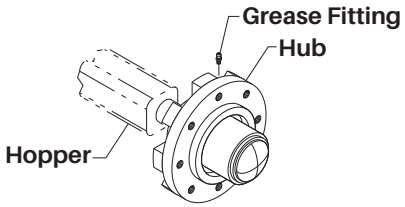


Figure 2-2. Wheel hub lubrication

GENERAL

⚠ CAUTION

Always replace shields after maintenance and before beginning operation.

Protect the machine from weather when it is not in use.

Check the hopper at the end of each day for material build up or more often if spreading particularly wet or sticky material. Clean out any excess material when found.

At the end of each season, check the Topdresser carefully and replace all worn or damaged parts. Use only genuine TurfTime parts supplied by your authorized TurfTime dealer.

Keep the spinners and apron belt clean. Remove any residue, spread material buildup, and foreign objects regularly.

Never store material in the Topdresser during cold months. Freezing of the material could cause severe damage, such as a torn apron belt.

Storing wet material in the Topdresser or keeping it outdoors with material in it will cause early corrosion.

Wheels and tires

Once each month:

Check the lug bolt torque on each wheel. Bolts should be torqued to 120 lb-ft.

Check tire air pressure. Recommended pressure rating is printed on the sidewall of the tire.

Wheel bearings

Wheel hub bearings must be adjusted after 100 loads or one year, whichever comes first.

To adjust the wheel hub torque:

1. Park the Topdresser on a level place and chock the wheels to ensure that it will not roll or move.
2. Raise one side of the Topdresser using a jack or appropriate lifting device.

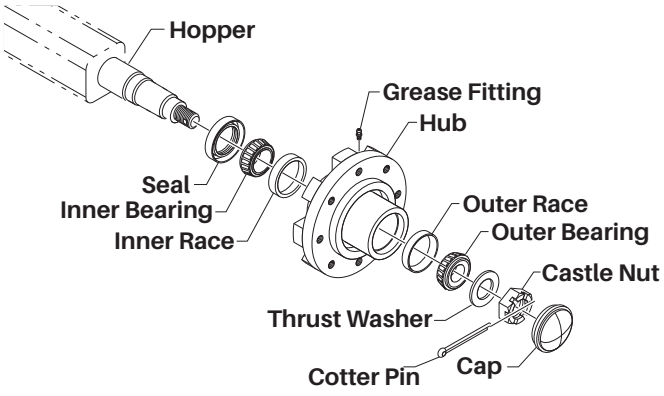


Figure 2-3. Wheel hub

3. Remove the hub cap from the center of the hub.
4. Remove the cotter pin from the slotted nut and loosen the slotted nut (rotate it counterclockwise) a turn or two.
5. While rotating the hub, use a torque wrench to torque the slotted nut to 35 lb-ft.
6. Rotate the slotted nut counterclockwise (back-off) just enough for a nut slot to align with the axle hole. Install the cotter pin through the slotted nut and axle. Do not back-off the slotted nut more than one-third turn.
7. Repeat steps 2 through 6 for the other side of the machine.

Hydraulic system

Once per month:

Inspect the hydraulic hoses for flexibility and any sign of rubbing or cracking. Replace any hose where a defect is found.

Auxiliary engine drive: Check hydraulic reservoir level.

Ensure the tractor hydraulics are well maintained with clean oil. Follow the prescribed maintenance plan of the tractor.

Auxiliary engine

The optional engine is a Honda GX390. Following recommended maintenance specified in the manuals that came with the engine.

NOTICE

For engine warranty and maintenance issues, contact an authorized Honda dealer.

Apron belt

Check the apron belt weekly for proper tension and tracking.

Belt tension

It is common for a new belt to stretch in the first few loads. Check the belt tension after two loads and again after ten loads on a new machine or if the belt has been replaced. If the belt slips, adjust the belt tension:

1. Park the Topdresser on a level place and chock the wheels to ensure that it will not roll or move.
2. Loosen the tensioner jam nut on each side of the machine.
3. Turn the adjustment nut clockwise one full turn on each side, making sure each side moves the same distance.
4. Tighten the jam nuts on each side to prevent movement.
5. With everyone clear, start and operate the Topdresser belt for 5 minutes to ensure there is no slippage.

6. If slippage occurs, repeat steps 2 through 5. Stop the Topdresser and turn off the drive system before readjusting.

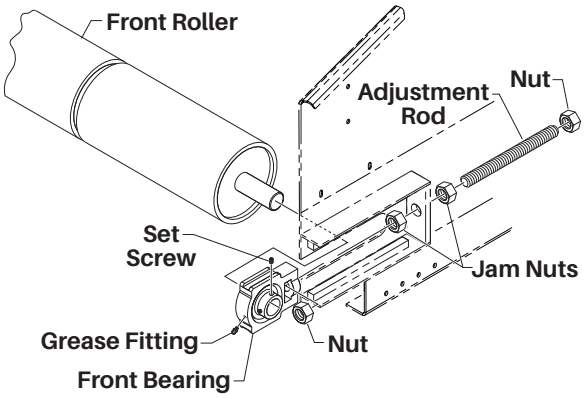


Figure 2-4. Belt tensioner

Belt tracking

NOTICE

If the apron belt is out of alignment, stop operation as soon as possible. While it is appropriate to empty the Topdresser to be able to adjust the belt, it is recommended that it be done so at a reduced speed.

The apron belt has a V-groove in the center, but it could potentially get out of alignment, if the belt tensioners are not set properly. This is indicated by a bulge in the belt at the rear roller and belt tracking to one side or the other.

This can be corrected by adjusting a belt tensioner.

1. Park the Topdresser on a level place and chock the wheels to ensure that it will not roll or move.
2. Determine the side to which the belt is moving. This is the "short" side and the belt tensioner must be lengthened on this side to realign the belt.

NOTICE

Alternatively, the "long" side can be shortened, but typically the belt has stretched since the last adjustment and needs to be lengthened anyway.

3. Loosen the tensioner jam nut on the short side of the belt.
4. Turn the adjustment nut clockwise one full turn.
5. Tighten the tensioner jam nut to prevent movement.
6. With everyone clear, start and operate the Topdresser belt for 5 minutes to ensure proper tracking.

General Maintenance

Remove spread material buildup regularly

Protect the machine from the weather when it is not in use. (Store indoors or cover with a tarp)

Check the rubber belt scrapers to make sure they are down against the apron belt.

Regularly check for loose or worn parts. Particularly check the common wear parts such as bearings, spinner paddles, rubber belting, etc.

Conveyor Belt Maintenance

Periodically check the conveyor belt for proper tension and tracking.

The belt will need to be tightened up occasionally to account for normal stretching. If it is not tightened properly, the belt may slip under a heavy load. Follow the steps below to tighten the belt.

1. Loosen nut (1) on both the right and left sides of the Topdresser (left side shown). (See **Figure 2-4**.)
2. Turn the adjustment nut (2) one full turn at a time. Be sure to tighten the tension the same amount on both sides of the Topdresser.
3. Check the tension. Run the machine for several minutes to check for slippage if desired.
4. Re-tighten the locking nut (1).

NOTE: If belt is not tracking properly you can tighten one side more than the other to correct.

Belt replacement

When installing a replacement belt, after installation and tracking the Belt. Cover the lacing with the silicone/calk that was provided with the new replacement belt.

Let it dry before using top dresser. This is to prevent sand from syphoning through the lacing and getting in between the belt.

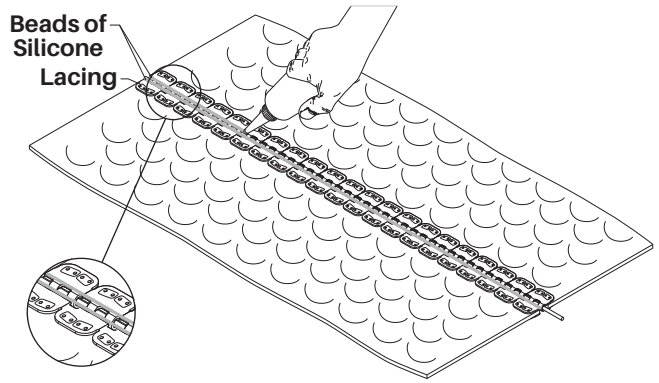


Figure 2-5. Belt Replacement

NOTE *Apply two beads of silicone and then smear all over the lacing,*

MAINTENANCE

TROUBLESHOOTING

Problem	Possible cause	Check
Machine is engaged, but not functioning	Material is bridged at the metering gate	Disengage the drive system (vehicle hydraulics or auxiliary engine), raise the metering gate, and clear material causing the blockage
	Material is jammed at spinners or beaters	Disengage the drive system and clear material from spinners
	Hydraulic oil level too low	Fill oil reservoir (vehicle or auxiliary engine hydraulic reservoir) to proper level
	Hydraulic controls not in correct position	Make sure hydraulic control valves are properly engaged in the correct direction
Spinners/beaters are turning but material is not feeding	Belt is slipping or broken	See belt maintenance section to replace or adjust belt
Belts and spinners/beaters are rotating in reverse	Vehicle hydraulic lines are reversed	Reverse lines on spreader
Hydraulic system doesn't have sufficient power to operate	Motor seals are worn, obstruction in hydraulic lines	See hydraulic maintenance section
	Oil overheated	Review hydraulic system requirements and ensure vehicle satisfies requirements
	Hydraulic oil level too low	Fill oil reservoir (vehicle or auxiliary engine hydraulic reservoir) to proper level

MAINTENANCE

SPECIFICATIONS

FX650	
Drive system	Tractor Hydraulic (8-12 GPM @ 1800 psi req'd)
Hopper capacity: Struck	6 yds·
Hopper capacity: Heaped	7 yds.
Hopper dimensions:	31 in. x 120 in. at Bottom and flares to 72 in. x 120 in. at Top
Hopper construction:	11 gauge welded steel with powder-coat paint
Frame construction:	5 in. x 2 in. x .187 Structural Tubing
Loading height:	86 in.
Overall width: (includes tires)	101 in.
Overall length:	18 ft. 4 in.
Tire size:	(4) 33/15.50 x 16.50 Turf Tire
Rear Delivery:	Twin Spinner Attachment -6 ft. to 50 ft. Spread Width
Side Conveyor:	12 ft. Conveyor RH Delivery: 84 in. Unloading Height
Adjustment:	Independent manual control of belt and spinner speed
Metering gate:	Full manual adjustment from 0 in. to 15 in. (Optional Hydraulic)
Conveyor belt:	Textured Belt w/ center tracking groove
Hitch:	Heavy-duty Adjustable Clevis
Top Dressing Speed:	3 to 5 mph depending on conditions
Transport Speed:	Up to 19 mph empty
⋆ Specifications subject to change without notice.⋆	

MAINTENANCE RECORDS

ITEM	COMMENT	DATE

MAINTENANCE RECORDS

ITEM	COMMENT	DATE

ILLUSTRATED PARTS BREAKDOWN

HOW TO ORDER REPAIR PARTS

Each Topdresser has its own model and serial number.

The model is on the side hopper and serial number for the Topdresser is located on the lower front frame above the drawbar.

Always mention the model and serial number when calling for service or when ordering repair parts.

All parts listed and illustrated in this manual may be ordered through your nearest authorized dealer. If parts you need are not available locally, your order will be processed through the factory and shipped promptly.

When ordering repair parts, have the following information ready:

1. Item part number
2. Quantity needed
3. Part description
4. Topdresser model and serial number

Be sure to record both the model and serial number of your Topdresser upon delivery. Keep this information in a safe place for future reference.

TurfTime Equipment
800 N. Railroad Avenue
New Holland PA 17557
Phone (800) 201-1031

Figure 3-1. Front End and Related Parts

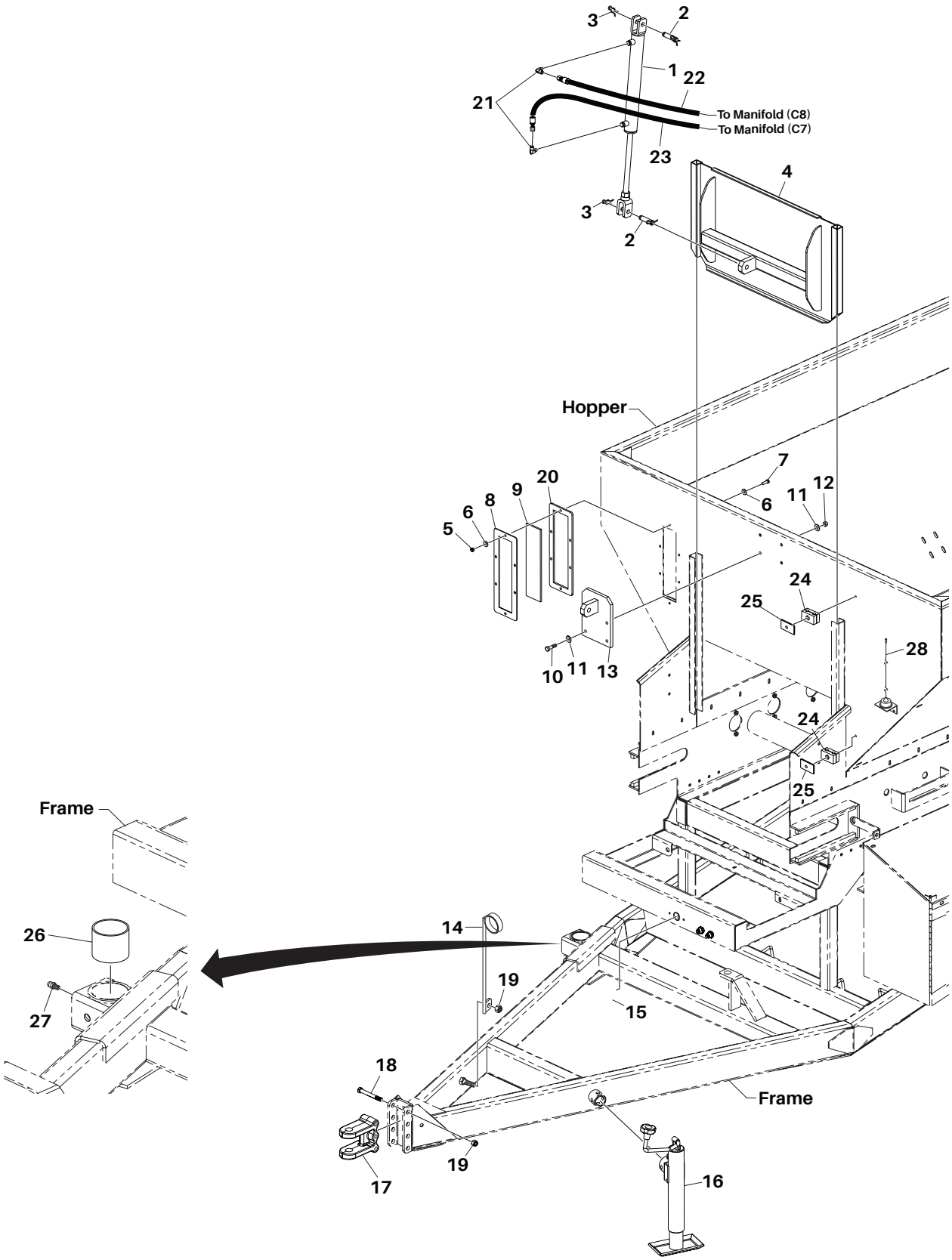
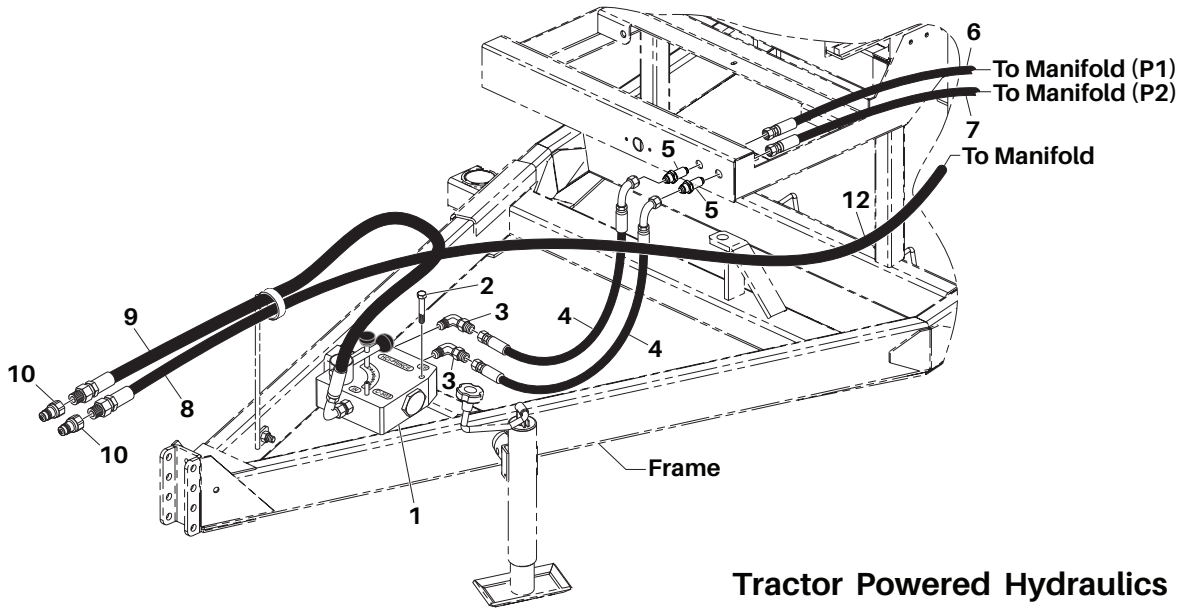


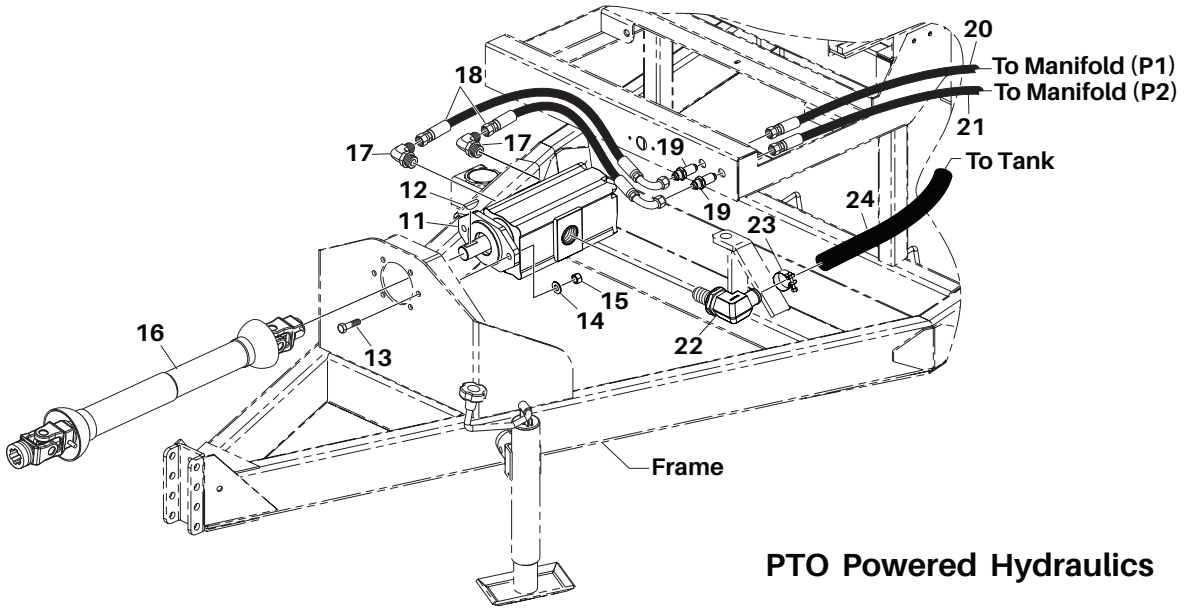
Figure 3-1. Front End and Related Parts

Item	Part No.	Qty	Description
1	800414	1	Cylinder, Gate Metering
2	800565	2	Pin, Cylinder, 5/8”
3	507274	2	Clip, Cylinder Pin
4	800512	1	Gate Weldment, Metering Front
5	000910	6	Nut, Hex, Nylon Lock, 5/16”-18UNC
6	001030	12	Washer, Flat, 5/16”
7	000221	6	Bolt, Hex Head, 5/16”-18UNC x 1” Long
8	800426	1	Spacer, Front Sight Gauge
9	800557	1	Plastic, Sight Gauge
10	000275	4	Bolt, Hex Head, 3/8”-16UNC x 1-1/4” Long
11	001035	8	Washer, Flat, 3/8”
12	000915	4	Nut, Hex, Nylon Lock, 3/8”-16UNC
13	800525	1	Bracket, Cylinder Mount
14	800556	1	Holder, Hose
15	100548	1	Plug, 6 Pole
16	100748	1	Jack Assembly
17	507018	1	Coupler, Clevis
18	801388	3	Bolt, Hex Head, 5/8"-11UNC x 4-1/2” Long
19	000972	4	Nut, Hex, Nylon Lock, 5/8"-11UNC
20	800425	1	Spacer, Rear Sight Gauge
21	702459	2	Fitting, Elbow 90°, 4MJ x 4MP
22	801375	1	Hose, 1/4” Dia. x 114” Long, 4FJX45 x 4FJX
23	801383	1	Hose, 1/4” Dia. x 123” Long, 4FJX45 x 4FJX
24	510632	2	Clamp, Hose
25	510630	2	Plate, Clamp
26	800572	1	Bushing, Bronze
27	000625	1	Fitting, Grease
28	800709	1	Antenna

Figure 3-2. Tractor and PTO Powered Hydraulics



Tractor Powered Hydraulics



PTO Powered Hydraulics

Figure 3-2. Tractor and PTO Powered Hydraulics

Item	Part No.	Qty	Description
1	801389	1	Flow Control
2	801390	2	Bolt, Hex Head, 1/4"-20UNC x 3" Long
3	801391	2	Fitting, Elbow, 90°
4	801376	2	Hose, 1/2" Dia. x 40" Long, 8FJX x 8FJX90S
5	290257	2	Fitting, Bulkhead
6	801378	1	Hose, 1/2" Dia. x 74" Long, 8FJX x 8FJX90L
7	801377	1	Hose, 1/2" Dia. x 74" Long, 8FJX x 8FJX90S
8	830797	1	Hose, 3/4" Dia. x 156" Long, IFCR2-10 IF10G-8MP GH10G-12FJX90
9	830798	1	Hose, 3/4" Dia. x 72" Long, IFCR2-10 IF10G-8MP GH10G-12FJX90
10	290105	2	Fitting, Quick Disconnect, Male
11	830164	1	Pump, Hydraulic, Includes Item 12
12	702822	1	Key, Woodruff, 5/16" x 1-1/2" Long
13	000435	2	Bolt, Hex Head, 1/2"-13UNC x 1-1/2" Long
14	001061	2	Washer, Flat, 1/2" SAE
15	000940	2	Nut, Hex, Nylon Lock, 1/2"-13UNC
16	830170	1	PTO Shaft Assembly
17	290050	2	Fitting, Elbow, 90°, 12MB x 8MJ90
18	801329	2	Hose, 1/2" Dia. x 40" Long, 8FJX x 8FJX90S
19	290257	2	Fitting, Bulkhead
20	801378	1	Hose, 1/2" Dia. x 74" Long, 8FJX x 8FJX90L
21	801377	1	Hose, 1/2" Dia. x 74" Long, 8FJX x 8FJX90S
22	290045	1	Fitting, Elbow, 90°
23	290169	1	Clamp, Hose, 1-1/4"
24	801379	1	Hose, Suction, 72" Long

Figure 3-3. Hydraulic Tank and Related Parts

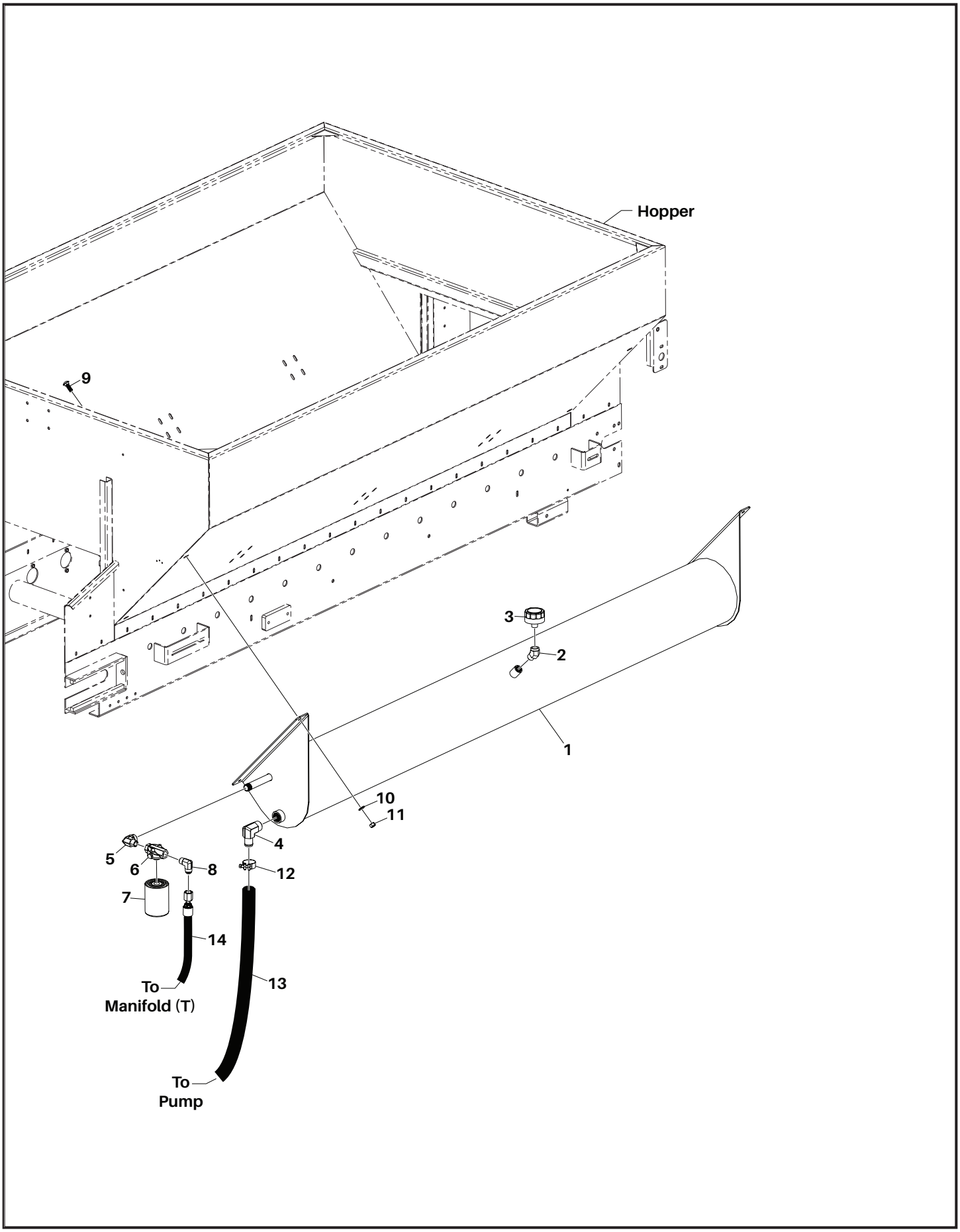


Figure 3-3. Hydraulic Tank and Related Parts

Item	Part No.	Qty	Description
1	800701	1	Tank, Weldment, Hydraulic
2	800995	1	Fitting, Elbow, 45°, 12MP x FP
3	290186	1	Cap, Breather, 3/4" NPT
4	290011	1	Fitting, Elbow, 90°, 20HB x 20MP
5	290043	1	Fitting, Elbow, 90°
6	290131	1	Head, Filter
7	290135	1	Filter, Oil, Hydraulic
8	290147	1	Fitting, Elbow, 90°, 12MJX x 12MP
9	000155	4	Bolt, Carriage, 1/2"-13UNC x 1-1/2" Long
10	001061	4	Washer, Flat, 1/2" SAE
11	000940	4	Nut, Hex, Nylon Lock, 1/2"-13UNC
12	290169	1	Clamp. Hose, 1-1/4"
13	801379	1	Hose, 1/2" Dia. x 72" Long
14	801380	1	Hose, 1/2" Dia. x 61" Long, 12FJX x 12FJX90

Figure 3-4. Axle and Wheel Assembly

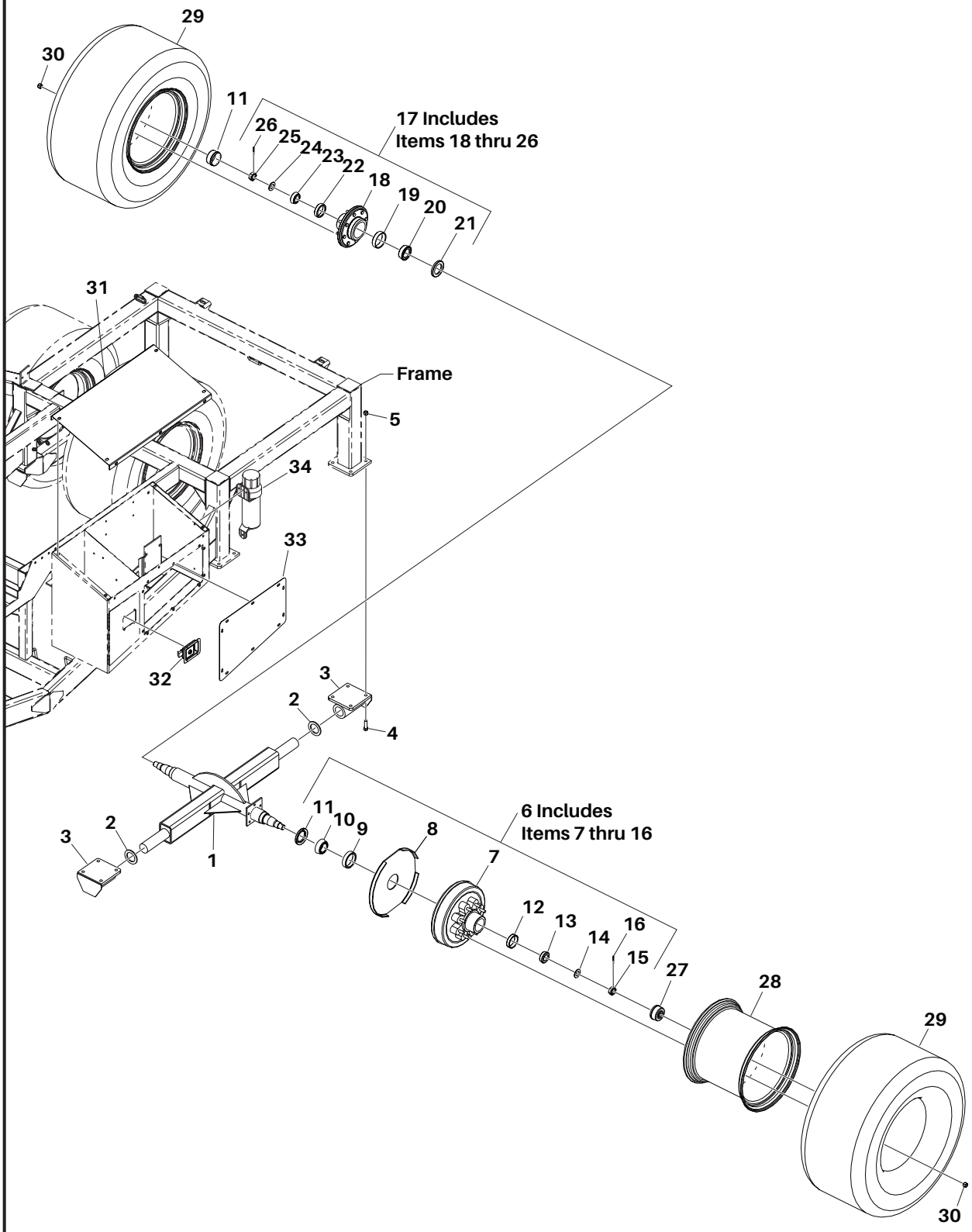


Figure 3-4. Axle and Wheel Assembly

Item	Part No.	Qty	Description
1	801347	2	Axle Weldment, Pivot
2	800272	4	Washer, Pivot
3	801348	4	Pivot, Axle
4	000445	16	Bolt, Hex Head, 1/2"-13UNC x 1-3/4" Long
5	000940	16	Nut, Hex, Nylon Lock, 1/2"-13UNC
6	101451K	2	Hub Assembly, 8-Bolt, Includes Items 7 thru 16
7	101451	2	Hub Assembly, 8-Bolt
8	101376	2	Brake Assembly, 7k Left (Shown)
	101384	2	Brake Assembly, 7k Right
9	101429	2	Race
10	101427	2	Bearing
11	101454	2	Seal, Grease, 10-36
12	101453	2	Race, 14276
13	101452	2	Bearing, 14125A
14	101545	2	Washer, Spindle, 1"
15	101440	2	Nut, Castle
16	300282	2	Pin, Cotter, 5/32" Dia. x 1-3/4" Long
17	800602K	2	Hub Assembly, Inside Rear, Includes Items 18 thru 26
18	800602	2	Hub Assembly, Inside Rear
19	101429	2	Race
20	101427	2	Bearing
21	101454	2	Seal, Grease, 10-36
22	101453	2	Race, 14276
23	101452	2	Bearing, 14125A
24	101545	2	Washer, Spindle, 1"
25	101440	2	Nut, Castle
26	300282	2	Pin, Cotter, 5/32" Dia. x 1-3/4" Long
27	101455	4	Cap, Grease, 8
28	800514	4	Wheel Weldment
29	800513	4	Tire, 18L x 16.1
30	101458	32	Nut, Cone Wheel, 1/2"
31	800332	1	Cover, Hydraulic Tank
32	800511	1	Latch Assembly
33	800337	1	Cover, Access, Manifold
34	503050	1	Canister, Owners Manual

Figure 3-5. Front Roller Assembly

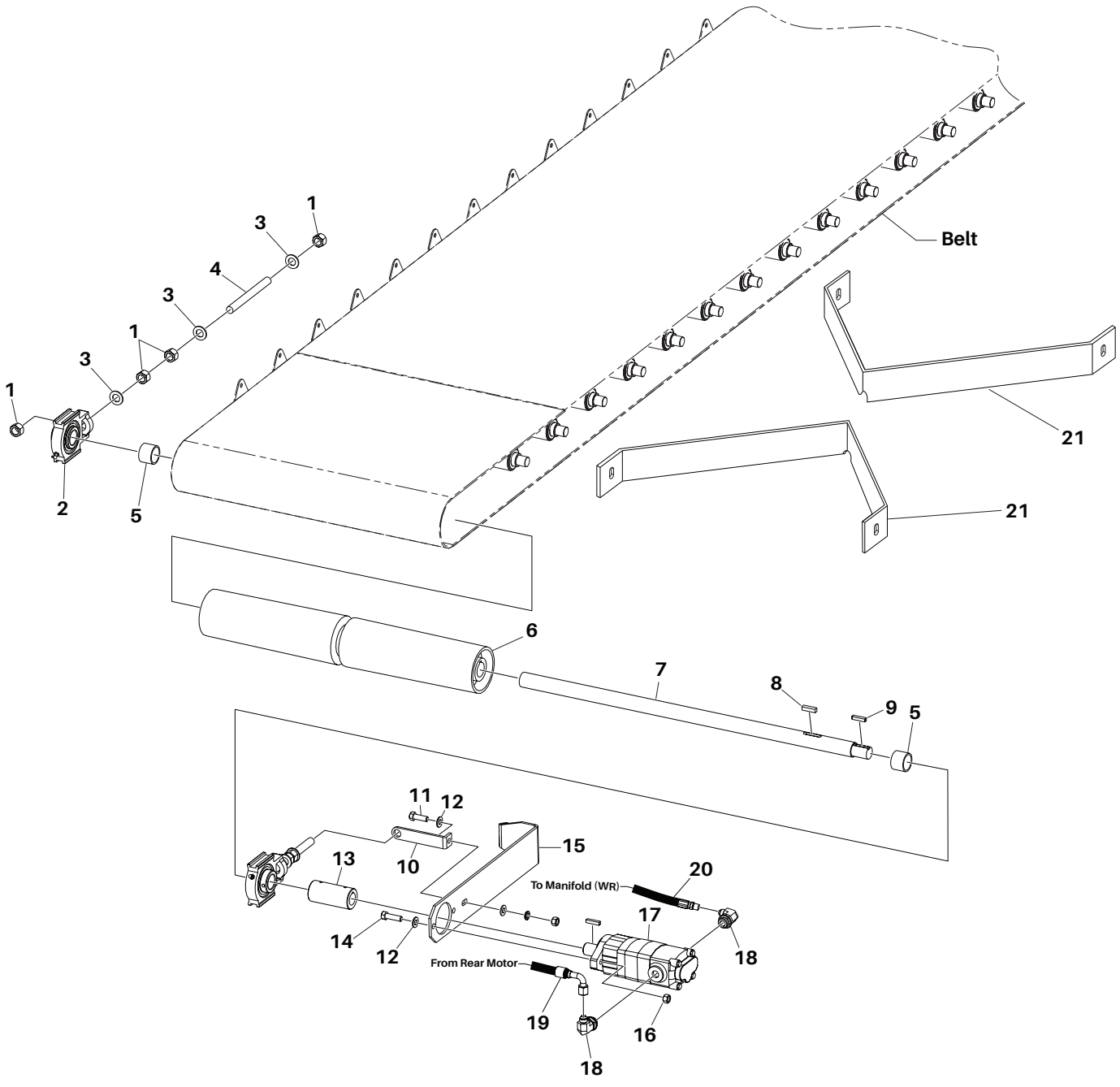


Figure 3-5. Front Roller Assembly

Item	Part No.	Qty	Description
1	000975	8	Nut, Hex, 3/4”-10UNC
2	801099	2	Bearing, Take Up, 1-1/2”
3	001086	6	Washer, Flat, 3/4” USS
4	801175	2	Rod, 3/4”-10UNC x 8-1/2” Long
5	800584	2	Bushing, Shaft, 1-1/8“, Front Apron
6	800359	1	Roller, Groove, 5” Dia. x 31” Long
7	800530	1	Shaft, Roller
8	401580	1	Key, 3/8” Sq. x 1-1/2” Long
9	702822	1	Key, 5/16” Sq. x 1-1/2” Long
10	800543	1	Bracket, Support, Torque Arm
11	000435	1	Bolt, Hex Head, 1/2”-13UNC x 1-1/2” Long
12	001061	3	Washer, Flat, 1/2”
13	290127	1	Coupling, Shaft, 1-1/4”
14	000445	2	Bolt, Hex Head, 1/2”-13UNC x 1-3/4” Long
15	800207	1	Bracket, Torque Arm
16	000940	2	Nut, Hex, Nylon Lock, 1/2”-13UNC
17	800047	1	Motor
18	290050	2	Fitting, Elbow, 90°, 12MB x 8MJ90
19	801369	1	Hose, 1/2” Dia. x 164” Long, 8FJX x 8FJX90S
20	801370	1	Hose, 1/2” Dia. x 55” Long, 8FJX x 8FJX
21	830544	2	Scrapper, Belt

Figure 3-6. Rear Roller Assembly

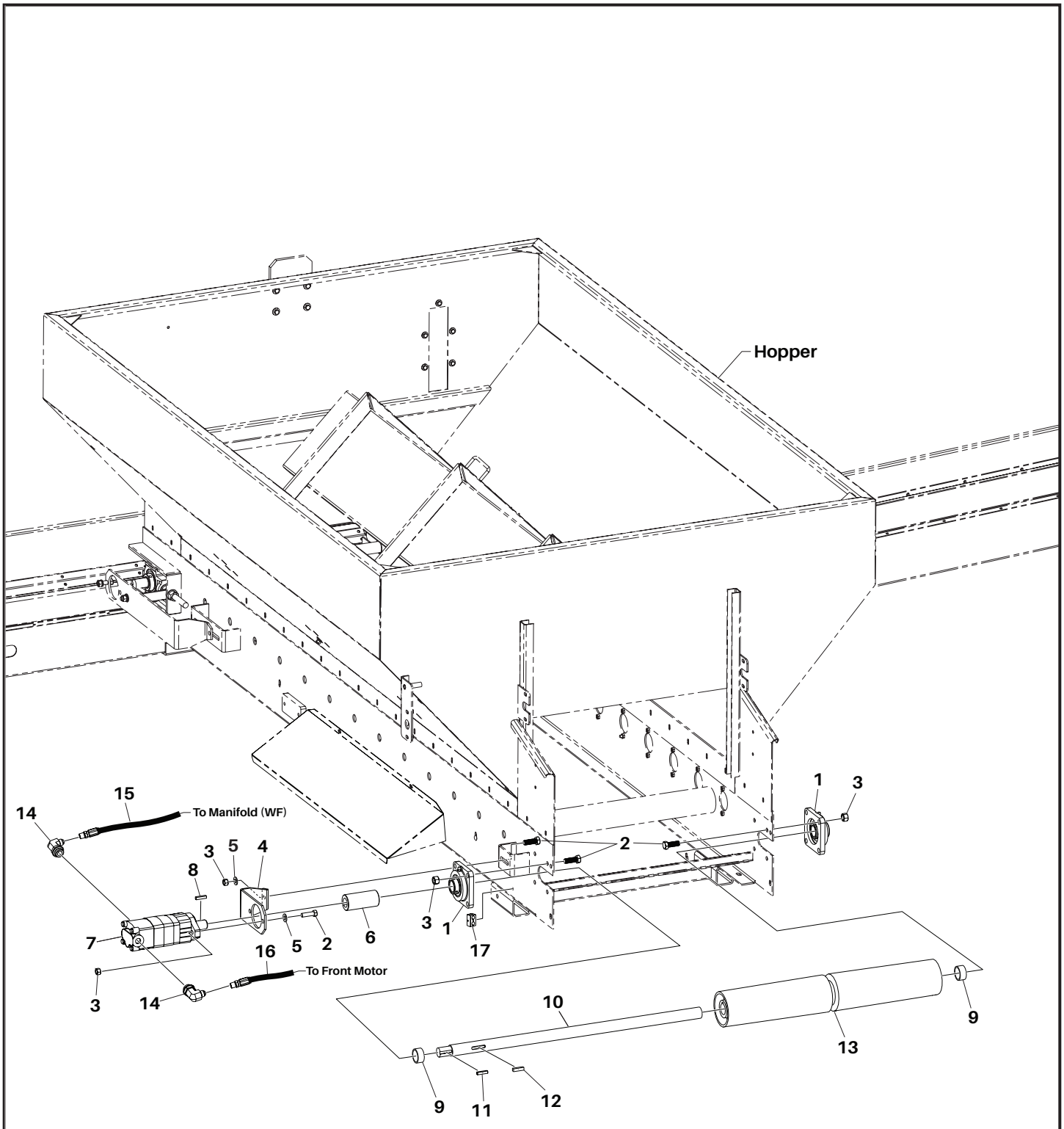


Figure 3-6. Rear Roller Assembly

Item	Part No.	Qty	Description
1	400810	2	Bearing, Flange, 1-1/2" Dia., 4 Hole
2	000445	10	Bolt, Hex Head, 1/2"-13UNC x 1-3/4" Long
3	000940	10	Nut, Hex, Nylon Lock, 1/2-13UNC
4	800208	1	Arm, Rear Torque
5	001061	2	Washer, Flat, 1/2" SAE
6	290127	1	Coupling, Shaft, 1-1/4" Dia.
7	800047	1	Motor
8	702822	1	Key, 5/16" Sq. x 1-1/2" Long
9	800993	2	Bushing, Shaft, Rear Apron
10	800593	1	Shaft, Roller
11	702822	1	Key, 5/16" Sq. x 1-1/2" Long
12	401580	1	Key, 3/8" Sq. x 1-1/2" Long
13	800359	1	Roller, Groove, 5" Dia. x 31" Long
14	290050	2	Fitting, Elbow, 90°, 12MB x 8MJ90
15	801368	1	Hose, 1/2" Dia. x 143" Long, 8FJX x 8FJX
16	801369	1	Hose, 1/2" Dia. x 164" Long, 8FJX x 8FJX90S
17	903443	1	Clamp Assembly, Hose

Figure 3-7. Main Belt and Rubber Skirt

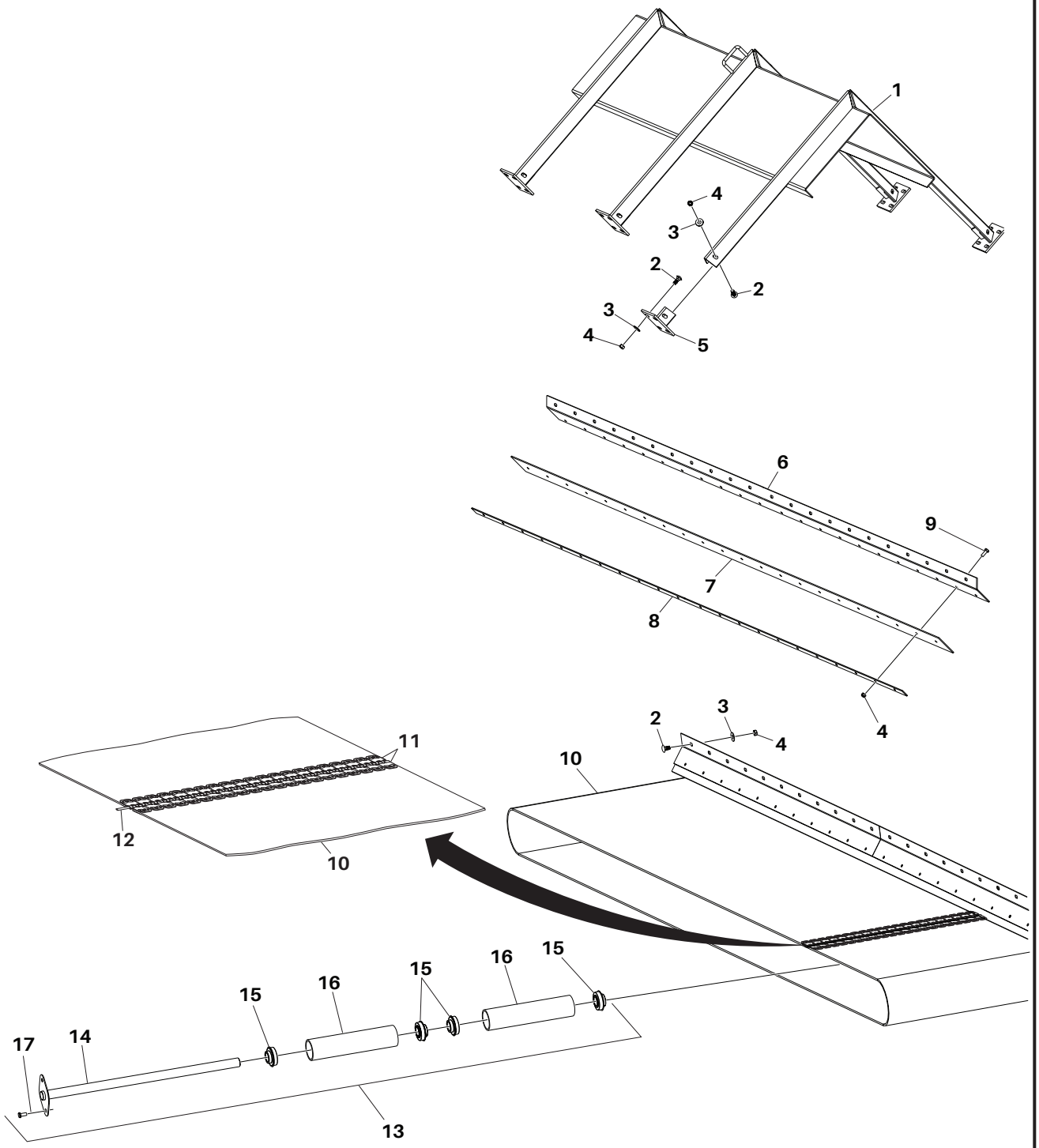


Figure 3-7. Main Belt and Rubber Skirt

Item	Part No.	Qty	Description
1	800611	1	Inverted V Weldment
2	000121	AR	Bolt, Carriage, 5/16”-18UNC x 3/4” Long
3	001030	AR	Washer, Flat, 5/16” USS
4	002999	AR	Nut, Hex, Nylon Lock, 5/16”-18UNC
5	800610	6	Bracket, Mount, Inverted V
6	800491	2	Skirt board, Apron
7	800408	2	Rubber, Skirt, 3” Wide x 132” Long, x 1/4” Thick
8	800551	2	Plate, Hopper Strip Board
9	000119	AR	Bolt, Hex Head, 5/16”-18UNC x 7/8” Long
10	800362	1	Belt, 30” Wide x 260” Long, Includes Items 11 & 12
11	NSS	1	Lace, Belt
12	801392	1	Pin, Belt Lace
	801397		Tube, Silicone, for Belt Lacing, Items 11 & 12
13	800304	1	Idler Assembly, 30” Long
14	800307	1	Shaft Weldment, Idler
15	806102	4	Bearing, Insert, 1”
16	800212	2	Roller, Ilder
17	000270	2	Bolt, Hex Head, 3/8”-16UNC x 1” Long

AR-As Required
NS-Not Shown
NSS- Not Sold Separately

Figure 3-8. Cross Conveyor Assembly

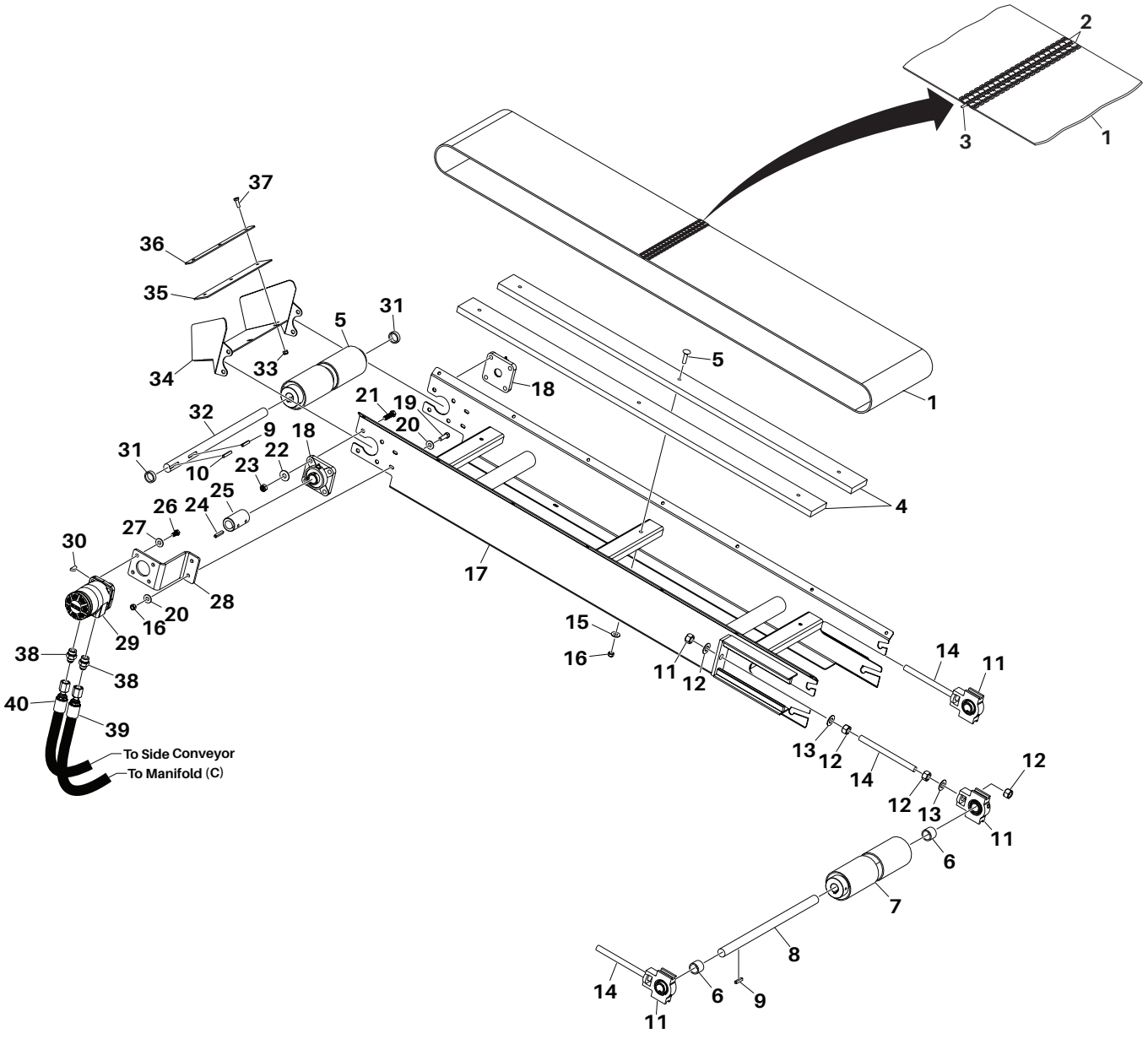


Figure 3-8. Cross Conveyor Assembly

Item	Part No.	Qty	Description
1	800374	1	Belt, Smooth, 12' Wide x 129" Long, Includes Items 2 & 3
2	NSS	1	Lace, Belt
3	801393	1	Pin, Belt Lace
NS	801397		Tube, Silicone, for Belt Lacing, Items 2 & 3
4	800922	2	Floor Board
5	000151	6	Bolt, Carriage, 3/8"-16UNC x 1-1/2" Long
6	800563	2	Spacer, Conveyor Roller
7	800520	2	Roller Weldment, Conveyor
8	800578	1	Shaft, 1" Dia.
9	400115	2	Key, 1/4" Sq. x 1-1/4" Long
10	902017	1	Key, 1/4" Sq. x 1-1/2" Long
11	806106	2	Bearing, Take Up, 1"
12	000970	6	Nut, Hex, 5/8"-11UNC
13	001076	4	Washer, Flat, 5/8"
14	806139	2	Rod, 5/8"-11UNC x 7-7/8" Long
15	001035	6	Washer, Flat, 3/8" USS
16	000915	8	Nut, Hex, 3/8"-16UNC
17	800341	1	Frame Weldment, Conveyor
18	700053	2	Bearing, Flange
19	000275	2	Bolt, Hex Head, 3/8"-16UNC x 1-1/4" Long
20	001035	4	Washer, Flat, 3/8" USS
21	000360	8	Bolt, Hex Head, 7/16"14UNC x 1-1/2" Long
22	001045	8	Washer, Flat, 7/16" USS
23	000935	8	Nut, Hex, Nylon Lock, 7/16"-14UNC
24	902017	1	Key, 1/4" Sq. x 1-1/2" Long
25	400113	1	Coupler, Drive Shaft
26	000250	4	Bolt, Hex Head, 3/8"-16UNC x 7/8" Long
27	000820	4	Washer, Lock, 3/8"
28	800244	1	Bracket, Motor, Conveyor
29	800046	1	Motor, 101-1750
30	900863	1	Key, Woodruff, 1/4" x 1" Long
31	800994	2	Spacer, Roller, 1" ID, x 3/8" Long
32	800542	1	Shaft, Drive, 1" Dia.
33	002999	3	Nut, Hex, Nylon Lock, 5/16"-18UNC
34	800947	1	Chute Weldment, Front Conveyor
35	800913	1	Rubber, Belt Scraper, Cross Conveyor
36	800912	1	Plate, Rubber Hold Down
37	000119	3	Bolt, Hex Head, 5/16"-18UNC x 1" Long
38	290010	2	Fitting
39	801371	1	Hose, 1/2" Dia. x 93" Long, 8FJX x 8FJX
40	801372	1	Hose, 1/2" Dia. x 147" Long, 8FJX x 8FJX

NS-Not Shown
NSS- Not Sold Separately

Figure 3-9. Cross Conveyor Rubber Skirt Assembly

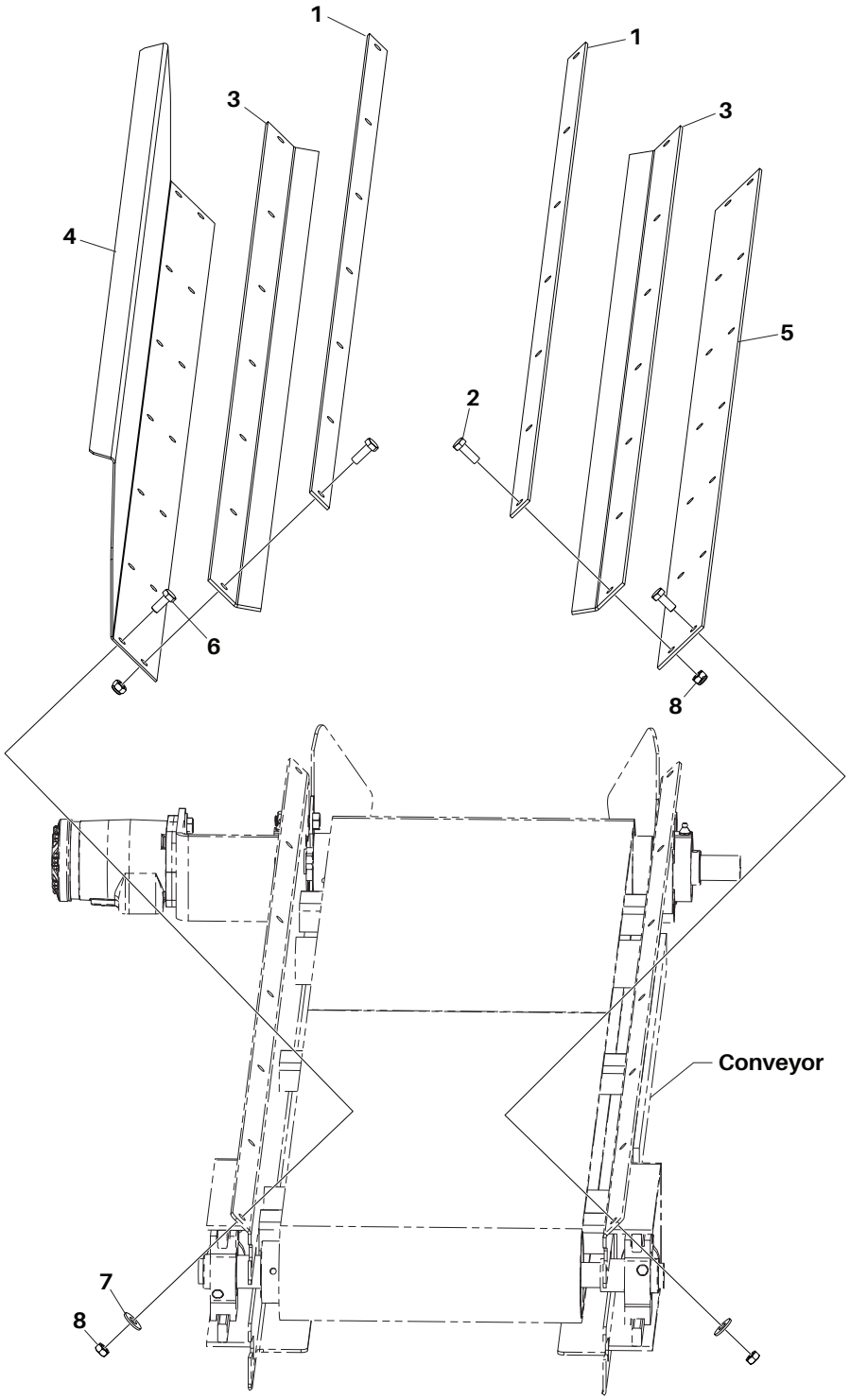


Figure 3-9. Cross Conveyor Rubber Skirt Assembly

Item	Part No.	Qty	Description
1	800407	2	Strip, Skirt Board Cross Conveyor
2	000119	AR	Bolt, Hex Head, 5/16”-18UNC x 7/8” Long
3	800403	2	Rubber, 3" Wide x 67" Long x 1/8" Thick
4	801218	1	Baffle
5	800406	1	Skirt Board
6	010005	AR	Bolt, Hex Head, 5/16”-18UNC x 3/4” Long
7	001030	AR	Washer, Flat, 5/16” USS
8	002999	AR	Nut, Hex, Nylon Lock, 5/16”-18UNC
		AR	AR-As Required

Figure 3-10. Rear Endgate Assembly

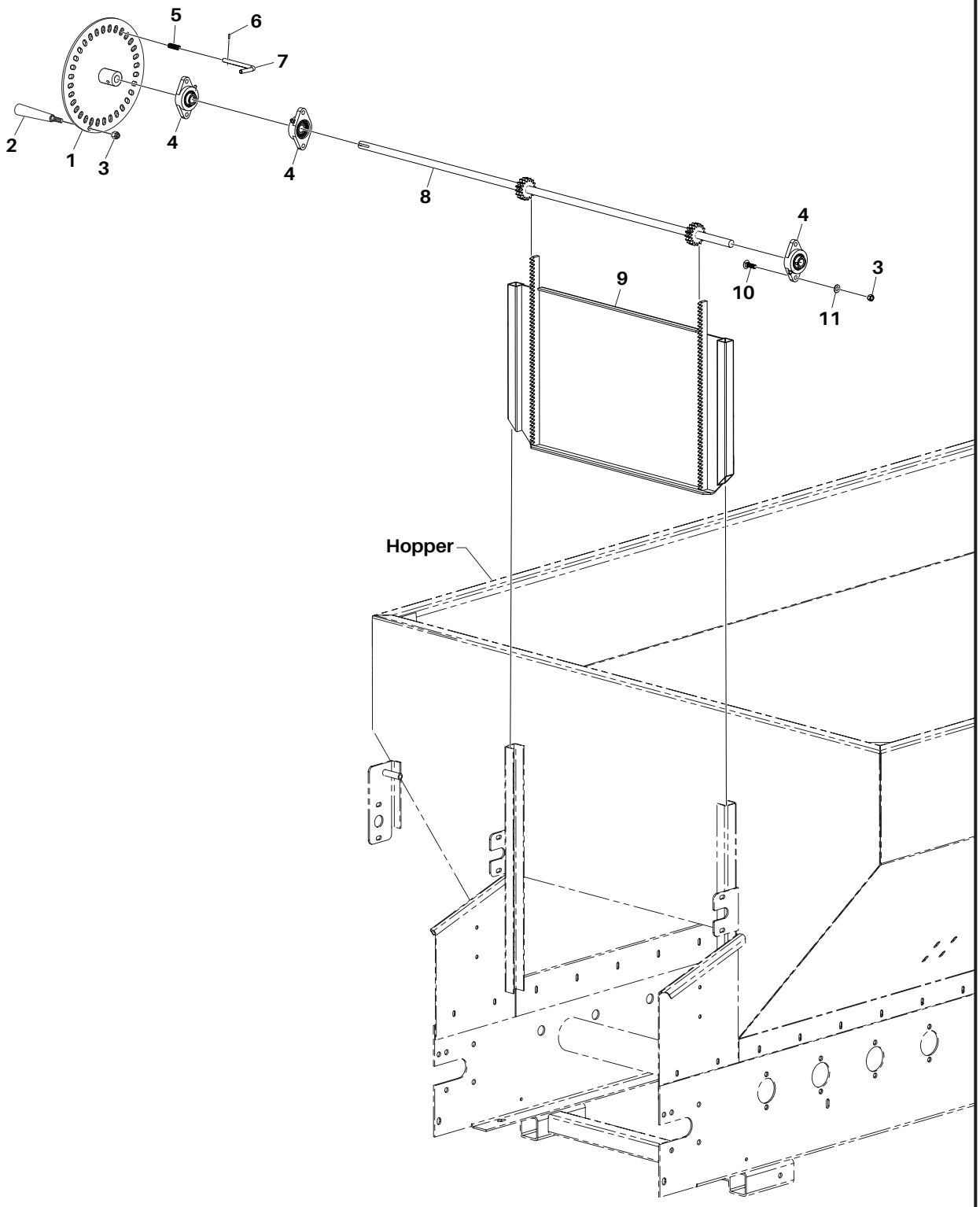


Figure 3-10. Rear Endgate Assembly

Item	Part No.	Qty	Description
1	830543	1	Wheel, Adjusting, Gate Assembly
2	830545	1	Handle, Adjusting Wheel
3	000915	1	Nut, Hex, Nylon Lock, 3/8”-16UNC
4	806108	3	Bearing, Flange, 3/4”, 2 Bolt
5	806166	1	Spring, Compression
6	000561	1	Pin, Roller, 1/8” Dia. x 3/4” Long
7	806052	1	Pin, Latch
8	800505	1	Shaft Weldment, Gate
9	800507	1	Gate Weldment, Metering, Rear
10	000150	6	Bolt, Carriage, 3/8”-16UNC x 1-1/4” Long
11	001036	6	Washer, Flat, 3/8” SAE

Figure 3-11. Side Conveyor Drive

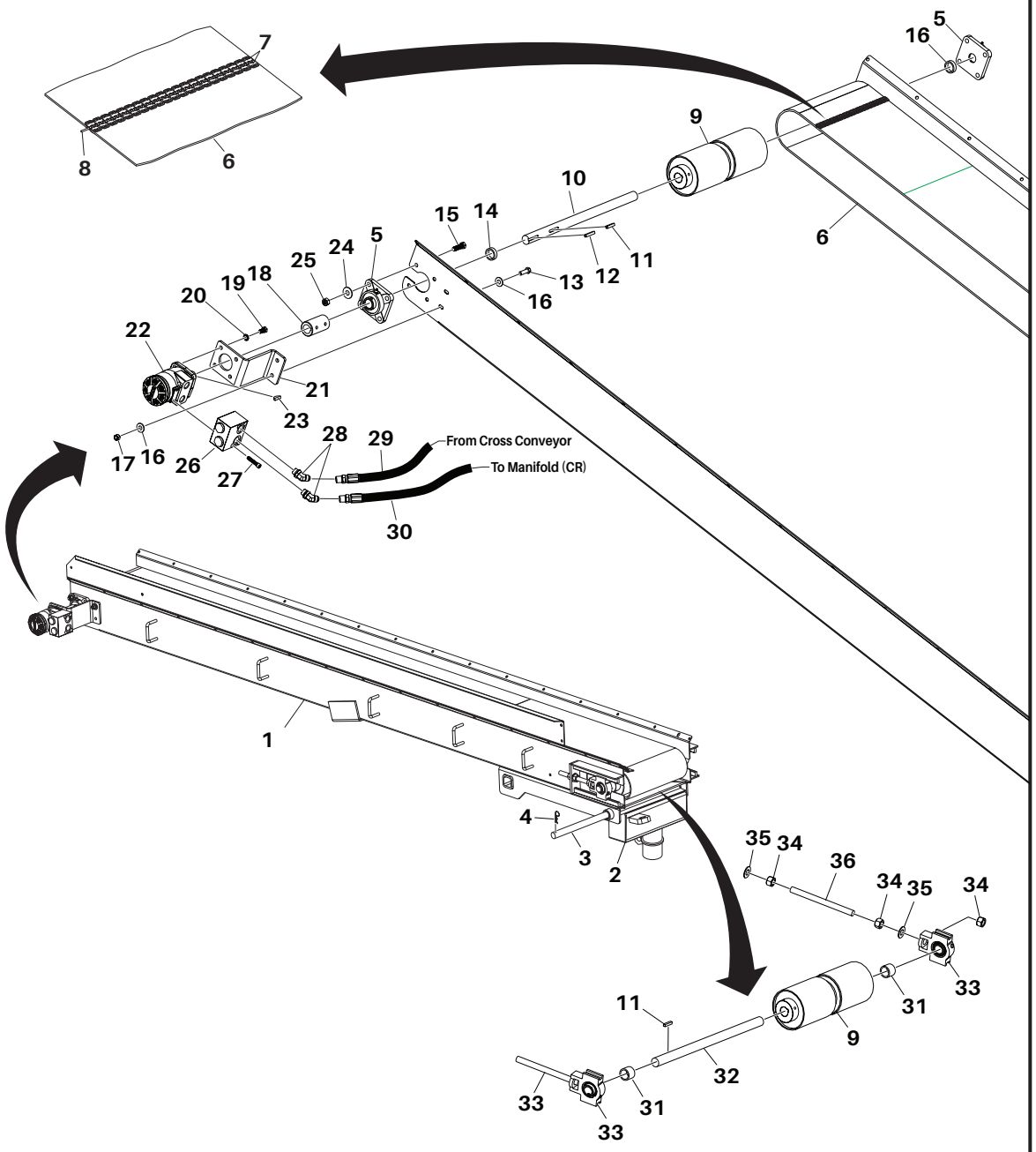


Figure 3-11. Side Conveyor Drive

Item	Part No.	Qty	Description
1	801394	1	Frame Weldment
2	801349	1	Mount, Side Conveyor
3	800526	1	Pin, 17-7/8" Long
4	801395	2	Pin, Cotter
5	700053	2	Bearing, Flange, 1", 4 Bolt
6	800375	1	Belt, 12" wide x 240" Long, Includes Items 7 & 8
7	NSS	1	Lace, Belt
8	801396	1	Pin, Belt Lace
NS	801397		Tube, Silicone, for Belt Lacing, Items 7 & 8
9	800347	2	Roller, 4-1/2" Dia. x 12" Long
10	800542	1	Shaft, Drive, 1" Dia. x 18-13/16" Long
11	400115	2	Key, 1/4" Sq. x 1-1/4" Long
12	902017	1	Key, 1/4" Sq. x 1-1/2" Long
13	000275	2	Bolt, Hex Head, 3/8"-16UNC x 1-1/4" Long
14	800994	2	Spacer, Roller, 1" ID, x 3/8" Long
15	000360	8	Bolt, Hex Head, 7/16"-14UNC x 1-1/2" Long
16	001035	4	Washer, Flat, 3/8" USS
17	000915	2	Nut, Hex, Nylon Lock, 3/8"-16UNC
18	400113	1	Coupler, Shaft Drive
19	000250	4	Bolt, Hex Head, 3/8"-16UNC x 3/4" Long
20	000820	4	Washer, Lock, 3/8"
21	800244	1	Bracket, Mount, Motor
22	800413	1	Motor, 101-1017
23	900863	1	Key, Woodruff, 1/4" x 1" Long
24	001045	8	Washer, Flat, 7/16"
25	000935	8	Nut, Hex, Nylon Lock, 7/16"-14UNC
26	800545	1	Valve, Check
27	000233	2	Bolt, Socket Head, 5/16"-18UNC x 1-1/2" Long
28	290037	2	Fitting, Elbow, 45°, 8MJ x 8MB
29	801372	1	Hose, 1/2" Dia. x 147" Long, 8FJX x 8FJX
30	801373	1	Hose, 1/2" Dia. x 210" Long, 8FJX x 8FJX
31	800563	2	Spacer, Conveyor Roller, 1-1/8"
32	800578	1	Shaft, 1" Dia. x 18-1/2" Long
33	806106	2	Bearing, Take Up, 1"
34	000970	6	Nut, Hex, 5/8"-11UNC
35	001076	4	Washer, Flat, 5/8
36	806139	2	Rod, 5/8"-11UNC x 7-7/8" Long

NS-Not Shown
NSS- Not Sold Separately

Figure 3-12. Side Conveyor Skirt and Chute Assembly

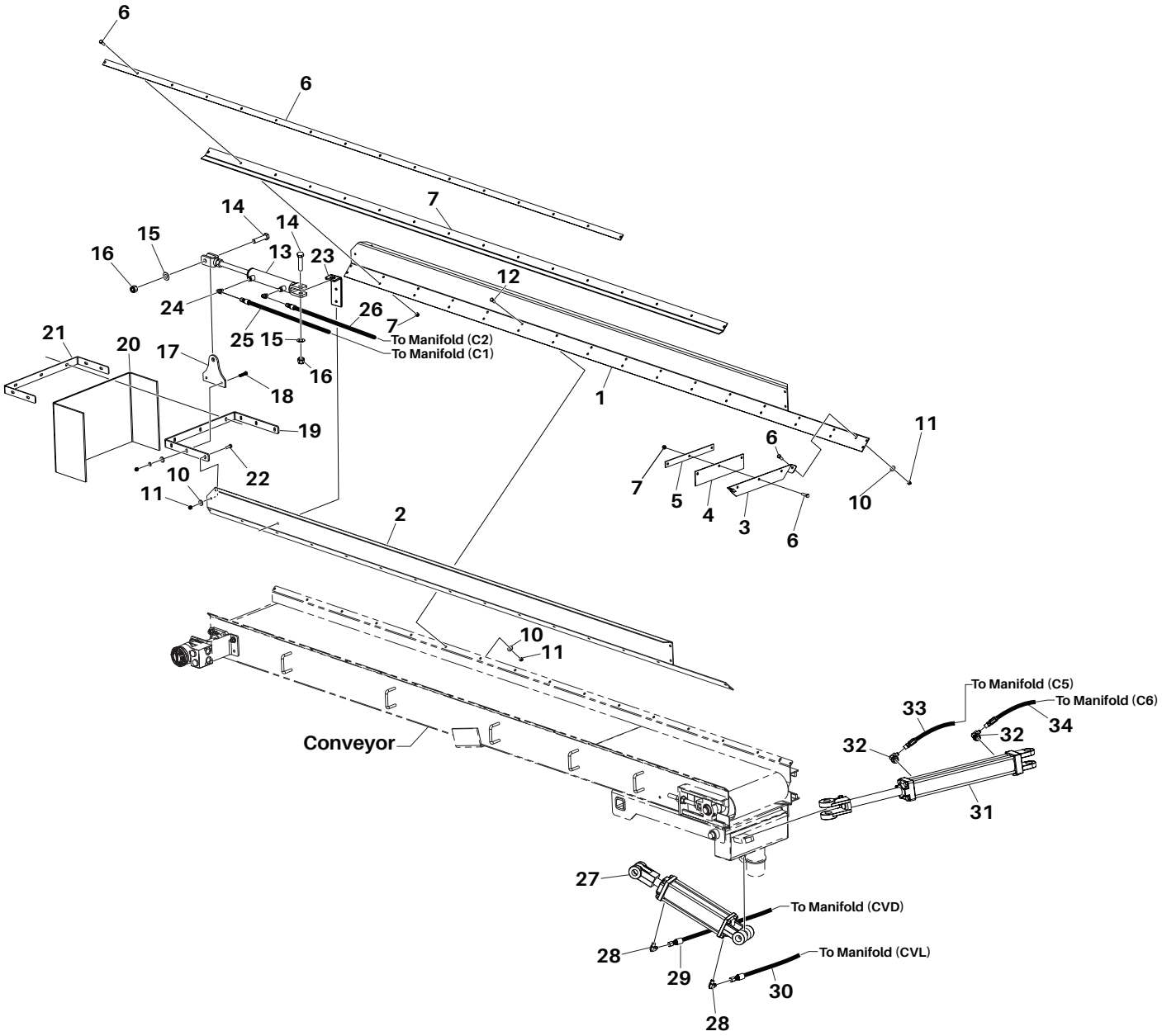


Figure 3-12. Side Conveyor Skirt and Chute Assembly

Item	Part No.	Qty	Description
1	800901	1	Guide, Left
2	800900	1	Guide, Right
3	800490	1	Deflector, Flow
4	800606	1	Rubber, Flow Deflector
5	800592	1	Bracket, Flow Deflector
6	000119	AR	Bolt, Hex Head, 5/16"-18UNC x 7/8" Long
7	002999	AR	Nut, Hex, Nylon Lock, 5/16"-18UNC
8	800402	2	Rubber, Skirt, 3" Wide x 120" Long x 1/4" Thick
9	800405	2	Plate, Skirt Board
19	001030	AR	Washer, Flat, 5/16" USS
11	002999	AR	Nut, Hex, Nylon Lock, 5/16"-18UNC
12	010005	AR	Bolt, Hex Head, 5/16"-18UNC x 3/4" Long
13	800415	1	Cylinder Assembly, 1-1/2" Dia. x 6" Stroke
14	000623	AR	Bolt, Hex Head, 5/8"-11UNC x 2-3/4" Long
15	001076	AR	Washer, Flat, 5/8"
16	000972	AR	Nut, Hex, Nylon Lock, 5/8"-11UNC
17	800944	2	Plate, Mount, Cylinder
18	000225	4	Bolt, Hex Head, 5/16"-18UNC x 1-1/2" Long
19	800555	1	Bracket, Inner Chute
20	800558	1	Rubber, Chute, 12" Wide x 30-1/2" Long x 1/4" Thick
21	800591	1	Bracket, Outer Chute
22	000221	AR	Bolt, Hex Head, 5/16"-18UNC x 1" Long
23	800945	1	Bracket, Mount, Cylinder
24	702459	2	Fitting, Elbow, 90°, 4MJ x 4MP
25	801386	1	Hose, 1/4" Dia. x 222" Long, 4FJX45 x 4FJX
26	801387	1	Hose, 1/4" Dia. x 216" Long, 4FJX45 x 4FJX
27	800416	1	Cylinder Assembly, 2-1/2" Dia. x 8" Stroke
	801408	1	Kit, Seal, Cylinder, 2-1/2" Dia. x 8" Stroke
28	101916	2	Fitting, Elbow, 90°, 4MJ x 6MP
29	801382	1	Hose, 1/4" Dia. x 100" Long, 4FJX45 x 4FJX
30	801383	1	Hose, 1/4" Dia. x 104" Long, 4FJX45 x 4FJX
31	800417	1	Cylinder Assembly, 2" Dia. x 14" Stroke
	801409	1	Kit, Seal, Cylinder, 2" Dia. x 14" Stroke
32	290255	2	Fitting, Elbow, 90°, 4MJ x 8MB
33	801381	1	Hose, 1/4" Dia. x 84" Long, 4FJX x 4FJX
34	801388	1	Hose, 1/4" Dia. x 75" Long, 4FJX x 4FJX
			AR-As Required

Figure 3-13. Spinner Assembly

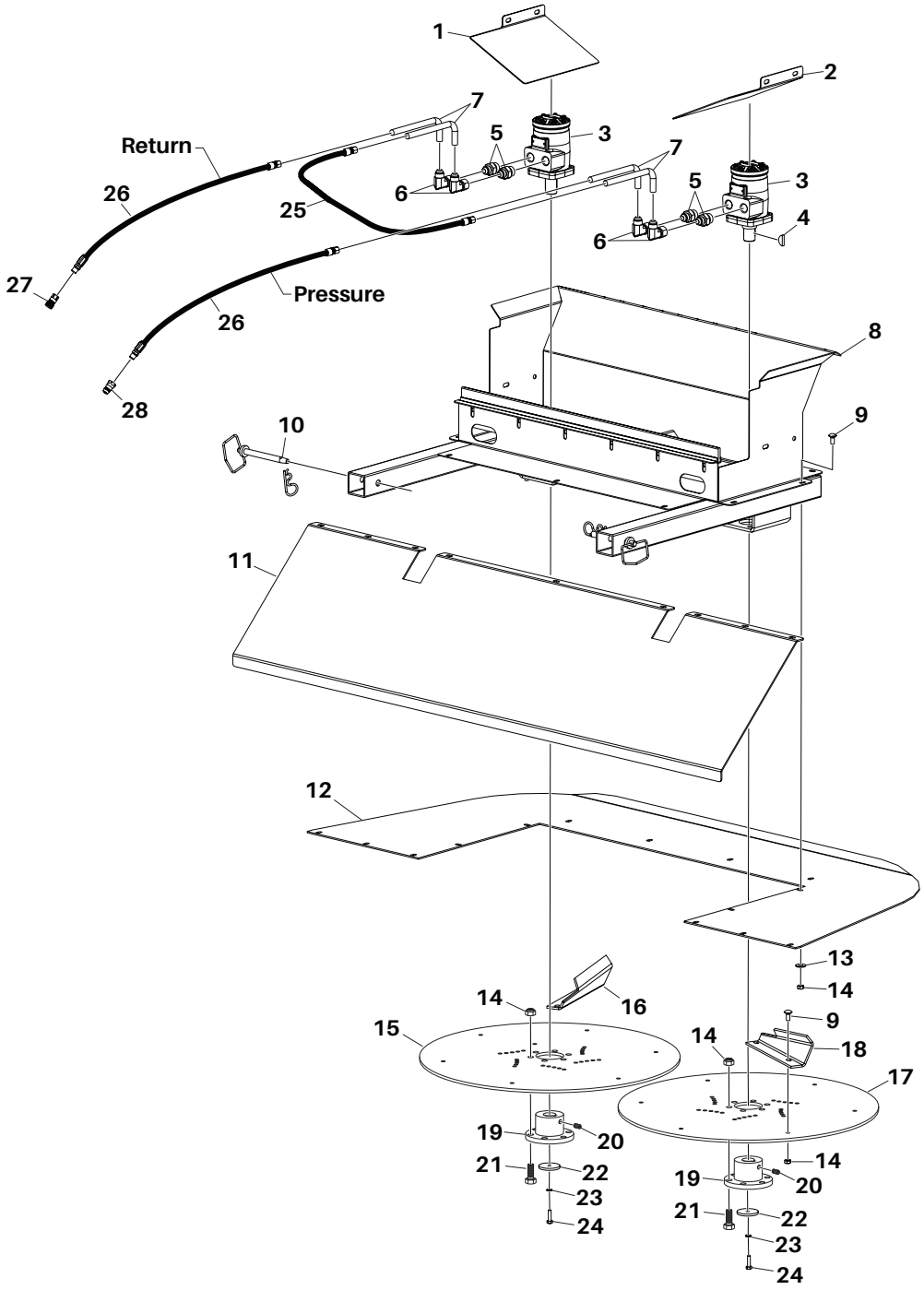


Figure 3-13. Spinner Assembly

Item	Part No.	Qty	Description
1	800242	1	Deflector, Hooper, Right
2	800243	1	Deflector, Hopper, Left
3	800046	2	Motor, 101-1750
4	900863	2	Key, Woodruff, 1/4" x 1" Long
5	290010	4	Fitting, Adapter
6	290049	4	Fitting, Elbow, 90°, 8FJX x 8FJX90
7	806224	4	Tube, Hydraulic
8	800920	1	Hopper Weldment, Spinner
9	000121	AR	Bolt, Carriage, 5/16"-18UNC x 3/4" Long
10	100292	2	Pin, Lock Hitch, 1/2" Dia. x 3-1/2" Long
11	800921	1	Deflector, Spinner
12	800937	1	Shield, Spinner
13	001030	14	Washer, Flat, 5/16" USS
14	002999	AR	Nut, Hex, Nylon Lock, 5/16"-18UNC
15	800582	1	Disc, Spinner, Right
16	800233	6	Paddle, Spinner, Right
17	800581	1	Disc, Spinner, Left
18	800594	6	Paddle, Spinner, Left
19	800583	2	Hub, Spinner, Includes Item 20
20	801399	4	Screw, Set, 3/8"-16UNC x 1/2" Long
21	000221	12	Bolt, Hex Head, 5/16"-18UNC x 1" Long
22	800236	2	Cap, Hub Spinner
23	000805	2	Washer, Lock, 1/4"
24	000182	2	Bolt, Hex Head, 1/4"-20UNC x 1" Long
25	801375	1	Hose, 1/2" Dia. x 36" Long, 8MJ x 8MJ
26	801374	2	Hose, 1/2" Dia. x 22" Long, 8MJ x 8MP
27	290105	1	Fitting, Quick Disconnect, Male
28	290183	1	Fitting, Quick Disconnect, Female
			AR AR-As Required

Figure 3-14. Manifold and Fittings

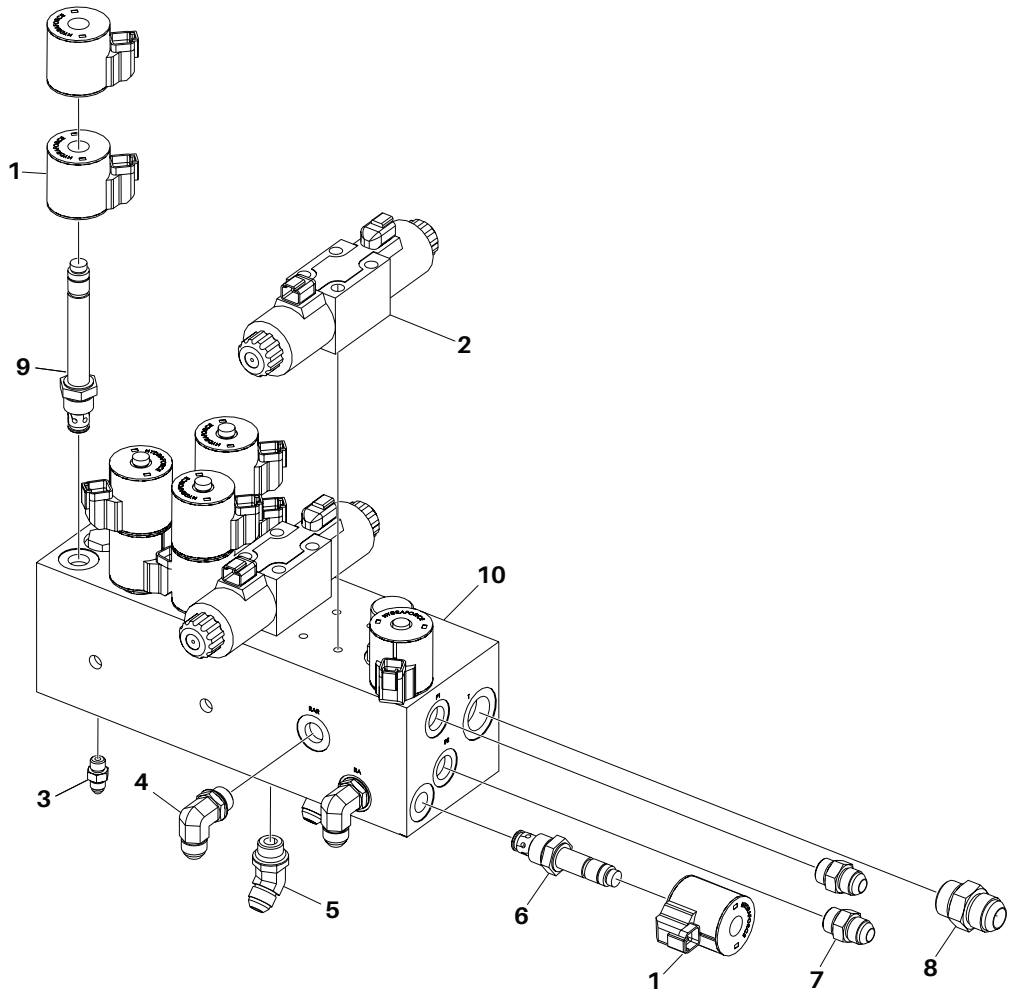


Figure 3-14. Manifold and Fittings

Item	Part No.	Qty	Description
1	830325	AR	Coil, Solenoid
2	800532	2	Valve, DO3
3	290195	1	Fitting, Adapter
4	290133	2	Fitting, Elbow, 90°, 8MB x 8MJ90
5	290037	1	Fitting, Elbow, 45°, 8MB x 8MJ45
6	800548	1	Valve, Poppet, 2 Way Normally Closed
7	290126	2	Fitting, Adapter, 8MB x 8MJ
8	290065	1	Fitting, Adapter
9	800534	AR	Valve, Poppet, 2 Way Normally Closed
10	800547	1	Manifold Assembly

Figure 3-15. Control Box/Transmitter

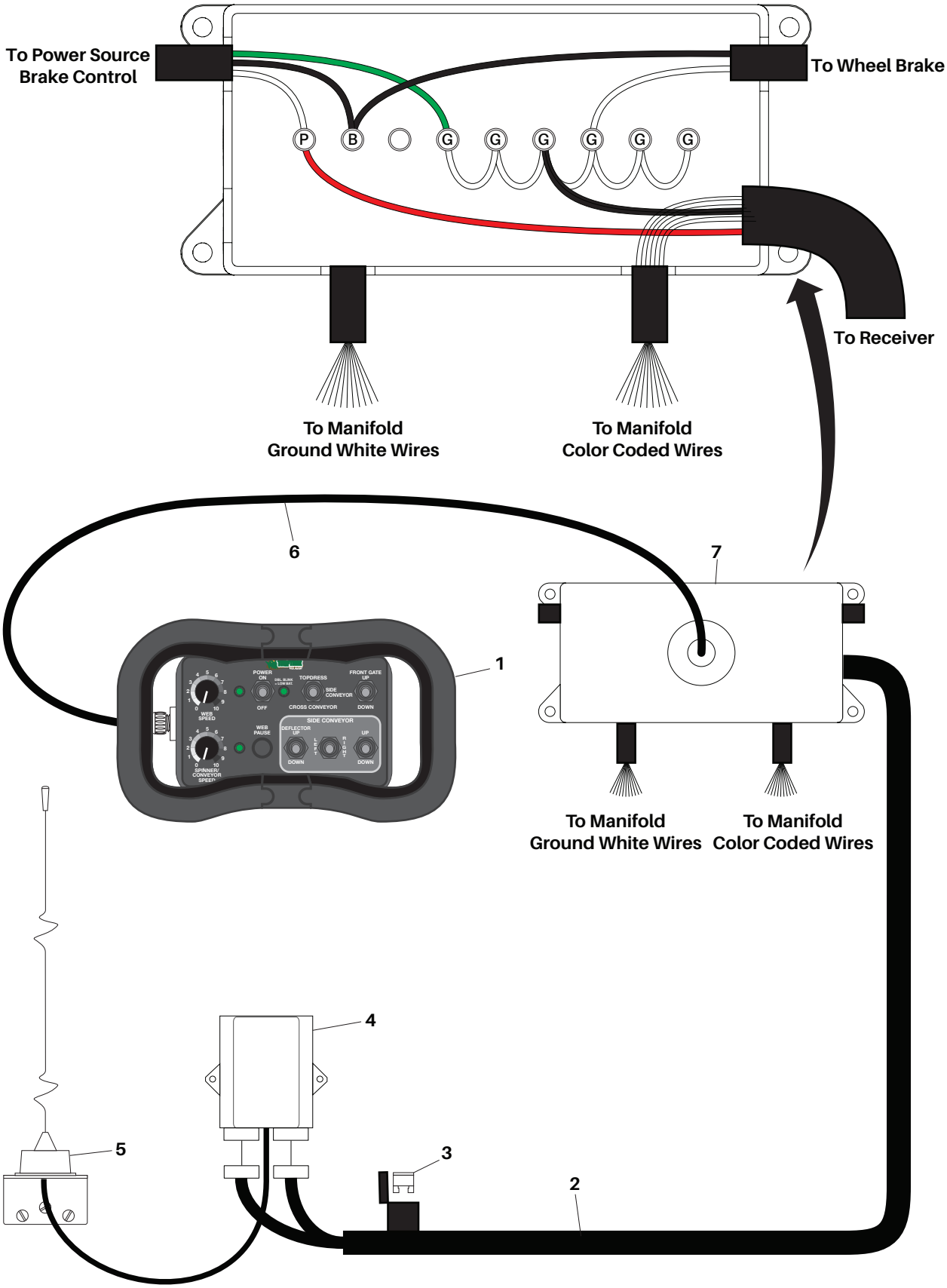


Figure 3-15. Control Box/Transmitter

Item	Part No.	Qty	Description
1	801440	1	Transmitter, Belly Pack
2	801441	1	Harness, Receiver Wire, Includes Item 3
3	801398	1	Fuse, 10 Amp
4	801442	1	Receiver, 1 to 16 Channel
5	800709	1	Antenna
6	800710	1	Tether Cable
7	290047	1	Junction Box

Figure 3-16. Decals

1

TURFTIME EQUIPMENT

2

FX650

3

DANGER

FLOOR BELT AND SPINNERS CAN ACCIDENTLY START MOVING

NEVER ALLOW RIDERS ON THIS MACHINE

PEOPLE WHO FALL OR GET PULLED INTO SPINNERS WILL BE SERIOUSLY INJURED OR KILLED

27003

4

WARNING

PINCH POINTS

5

DANGER

FLYING DEBRIS HAZARD

Do Not Stand Near the Machine While Engine Is Running and/or Machine Is Operating. Rotating Beaters and/or Flying Debris Can Cause Serious Injury Or Death.

Approach This Machine Only When All Power Sources Are Turned Off and All Parts Have completely Stopped.

27002

6

WARNING

Moving Parts. Stay Clear When Machine Is In Operation. Failure To Heed This Warning Can Result In Injury Or Death.

27004

7

WARNING

HIGH-PRESSURE FLUID HAZARD

To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.

SW700

8

CAUTION

To Help Prevent Bodily Injury, Entanglement, OR Amputation, Read the Operator's Manual and All Safety Instructions Before Attempting To Operate this Machine.

- Make Certain Everyone is Clear Of Machine Before Starting Engine Or Operation.
- Stop The Engine, Remove The Key And Wait For All Movement To Stop Before Leaving Operator's Position For Any Reason.
- Keep All Shields In Place. Keep Hands, Feet, Clothing, And Hair Away From Operating Parts.
- Never Adjust, Lubricate, Clean, Or Unplug Machine With The Engine Running. See Owners Manual For All Adjustment And Lubrication Procedures.
- Keep Riders Off The Machine
- Use Slow Moving Vehicle Placard Emblem and Flashing Warning Lights When Operating On Highways Except Where Prohibited by Law

27001

FAILURE TO HEED THESE WARNINGS CAN RESULT IN BODILY INJURY OR DEATH.

9

DANGER

ROTATING SPINNERS

To prevent serious injury or death from rotating spinners:
Do not service or make adjustments without first:

- Stopping power source.
- Ensuring bystanders are at least 100 feet away from machine.

FB-400 01

10

11

WARNING

Check Lug Bolts/Nuts Daily

12

TURFTIME EQUIPMENT

1-800-201-1031
www.TurfTimeEq.com

Serial No.

Figure 3-16. Decals

Item	Part No.	Qty	Description
1	FX0001	2	Decal, Logo TurfTime Equipment
2	FX0002	2	Decal, Model FX650
3	FX0003	2	Decal, Danger Belt and Spinners Start
4	FX0005	2	Decal, Danger Pinch Point
5	FX0006	2	Decal, Danger Flying Debris
6	FX0013	1	Decal, Warning, Moving Parts
7	FX0011	1	Decal, Warning, High Pressure Fluid
8	FX0009	2	Decal, Caution Prevent Bodily Injury
9	FX0014	1	Decal, Danger, Rotating Spinners
10	FX0008	2	Decal, Made in USA
11	FX0010	2	Decal, Warning Check Lug Bolts
12	FX0012	1	Plate, Serial Numbers

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