

MERIDIAN

BULK SEED TENDER OPERATOR'S MANUAL



SEED EXPRESS

FOR OWNERS AND OPERATORS OF THE 240 RT / 375 RT



PRODUCT WARRANTY REGISTRATION FORM



WARRANTY REGISTRATION

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery. Please mail or fax the completed form for validation of the equipment registration.

Customer's Name _____

Address _____

City, State, Postal Code _____, _____, _____

Phone Number (_____) _____ - _____

PRODUCT INFORMATION

Tender Model # _____

Serial Number # _____

DEALER INSPECTION REPORT

____ Tender frame secured to trailer

____ Check fuel level and gas shut-off

____ Check crankcase oil level

____ Start Honda eEngine

____ Brake and lighting harness connection

____ Remote throttle control functions

____ Conveyor platform pivots correctly

____ Lubricate unit where necessary

____ Check air pressure in tires

____ Electric brakes in working condition

____ All guards/shields installed correctly

____ All safety signs installed and intact

____ Reflectors and lights clean and working

____ Review safety and operating instructions

____ Inspect customer's hitch for 2-5/16" ball/gooseneck hitch

____ Verify receipt of all options ordered

I have thoroughly instructed the buyer on the above-described equipment, including review of the Operator's Manual content, equipment care, adjustments, operational use, safety procedures, and applicable warranty policy.

Dealer/Company Name _____

City, State, Postal Code _____, _____, _____

Dealer's Signature _____ Date ____/____/____

The above equipment and Operator's Manual have been received by me, and I have been thoroughly instructed as to care, adjustments, safe operation, and applicable warranty policy.

Owner's Signature _____ Date ____/____/____

2902 Expansion Blvd. Storm Lake, Iowa 50588 Phone: 800-437-2334 Fax: 712-732-1028 Email: iowa_warranty@meridianmfg.com



2902 Expansion Blvd.
Storm Lake, IA 50588
Phone: 712-732-1780
Fax: 712-732-1028

CERTIFICATE OF ORIGIN

LICENSING INFORMATION

Date: ____/____/____

DEALER:

Business

Contact

Address

City, State, Zip

SOLD TO:

Business

Contact

Address

City, State, Zip

TENDER MODEL # _____
TENDER WEIGHT _____
TENDER SERIAL # _____
TRAILER MODEL # _____
TRAILER SERIAL #* _____
TRAILER WEIGHT _____

*(*Only one serial number is issued for a complete tender package which will include the trailer. The trailer in these complete packages does not receive a separate serial number.)*

Tender 110 BST Wagon	80110	1,004#	Tender T4SE Wagon	80401	2,803#
Tender 110 BST-T (trailer included)	80111	1,830#	Tender T4SE-BWT (trailer included)	80403	4,833#
Tender 220 BST Wagon	80220	1,866#	Tender T4SE-T (trailer included)	80402	4,431#
Tender 220 BST-T (trailer included)	80221	3,495#	T6000ST Trailer	80311	826#
Tender 240RT6 Wagon	80242	2,545#	T14000ST Trailer	80307	1,628#
Tender 240RT6-BWT (trailer included)	80247	4,475#	T21000ST Trailer	80308	2,501#
Tender 240RT6-T (trailer included)	80244	4,174#	Tender 275BH-6DX (trailer included)	80203	4,807#
Tender 240RT8 Wagon	80245	2,604#	Tender 275GN-6DX (trailer included)	80204	5,399#
Tender 240RT8-BWT (trailer included)	80241	4,534#	Tender 275-6DX	80202	4,188#
Tender 240RT8-T (trailer included)	80246	4,232#	Tender 275BH-8DX (trailer included)	80206	4,924#
Tender 240SE-T (trailer included)	80243	4,491#	Tender 275GN-8DX (trailer included)	80207	5,517#
Tender 375RT6 Wagon	80375	3,094#	Tender 275-8DX	80205	4,305#
Tender 375RT6-T (trailer included)	80378	5,636#	Tender 375BH-6DX (trailer included)	80332	5,029#
Tender 375RT6-BWT (trailer included)	80374	5,942#	Tender 375GN-6DX (trailer included)	80333	5,623#
Tender 375RT8 Wagon	80376	3,106#	Tender 375-6DX	80331	4,343#
Tender 375RT8-BWT (trailer included)	80377	5,913#	Tender 375BH-8DX (trailer included)	80335	5,146#
Tender 375RT8-T (trailer included)	80379	5,607#	Tender 375GN-8DX (trailer included)	80336	5,739#
Tender T2SE-T (trailer included)	80201	2,002#	Tender 375-8DX	80334	4,460#
Tender T2-T (trailer included)	80200	1,555#			

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1. INTRODUCTION

1.1 CONGRATULATIONS

Congratulations on your choice of a Meridian Manufacturing Group 240RT or 375RT Bulk Seed Tender to complement your seed delivery system in your farming operation. This equipment has been designed and manufactured to meet the exacting standards for such equipment in the agricultural industry and will keep your seed delivery system at optimum efficiency.



The Bulk Seed Tender system is designed to handle any kind of bulk seed, quickly transport it, and then transfer it into planters and drills, as required. This unit is designed to not only off-load bulk seed into the planting equipment, but it can also load itself from a bulk seed storage container or truck.

Safe, efficient, and trouble-free operation of your Bulk Seed Tender requires that you and anyone else who will be operating or maintaining the machine, read and understand the Safety, Operation, Maintenance, and Troubleshooting information contained within this Operator's Manual.

This manual covers both the 240RT or 375RT models manufactured by Meridian Manufacturing Group, Inc. The differences are explained where appropriate. Use the Table of Contents and Index as a guide to locate required information.

1.2 OPERATOR ORIENTATION

The directions left, right, front, and rear, as mentioned throughout this manual, are as seen from the truck drivers' seat and facing in the direction of travel.

1.3 OWNER/OPERATOR

It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine. Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders, and the area around the work site. Untrained operators are not qualified and must not operate the machine.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment. It is the responsibility of the owner or operator to read this manual and to train all operators before they start working with the machine. Follow all safety instructions as laid out in this manual.

Keep this manual handy for easy reference and to pass on to new operators or owners. Call your Meridian Manufacturing Group, Inc. dealer if you need assistance, information, or additional copies of the manuals.

The information, specifications, and illustrations in this manual are those in effect at the time of printing. We reserve the right to change specifications or design at any time without notice.



2. SAFETY

SAFETY ALERT SYMBOL

This Safety Alert symbol means
ATTENTION! BECOME ALERT!
YOUR SAFETY IS INVOLVED!



The Safety Alert symbol identifies important safety messages on the Meridian Bulk Seed Tender Models and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

WHY IS SAFETY IMPORTANT TO YOU?

3 Big Reasons

- Accidents Disable and Kill •
- Accidents Cost •
- Accidents Can Be Avoided •

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

CAUTION - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

WARNING - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

DANGER - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.





If you have any questions not answered in this manual, require additional copies of the manual, or the manual is damaged, please contact your dealer or Meridian Manufacturing Group, 2902 Expansion Blvd., Storm Lake, Iowa, 50588, toll free 1-800-437-2334, phone (712) 732-1780, or fax (712) 732-1028.








YOU are responsible for the **SAFE** operation and maintenance of your Meridian Manufacturing Group Bulk Seed Tender. **YOU** must ensure that you and anyone else who is going to operate, maintain, or work around the Bulk Seed Tender be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alert you to all good safety practices that should be adhered to while operating the Bulk Seed Tender system.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follow all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Bulk Seed Tender system owners must give operating instructions to operators or employees before allowing them to operate the machine, and then annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety feature on this equipment is a **SAFE** operator. It is the operator's responsibility to read and follow **ALL** Safety and Operating instructions in the manual. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. Always be and stay alert to any possible unsafe operating or maintenance procedures or conditions.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety of the components and systems and could affect the life of the equipment, possibly invalidating the warranty coverage.
- Think **SAFETY!** Work **SAFELY!**

2.1 GENERAL SAFETY

1.  Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting, filling, unloading, or unplugging the Bulk Seed Tender system.
2.  Have a first aid kit available for use should the need arise and know how to use it.
3.  Have a fire extinguisher available for use should the need arise and know how to use it.
4.  Do not allow riders.
5. When working around or operating this equipment, wear appropriate personal protective equipment. This list includes but is not limited to:

 - A hard hat
 - Protective shoes with slip resistant soles
 - Protective goggles, glasses, or face shield
 - Heavy gloves and protective clothing
 - Respirator
6.  Do not allow long hair, loose fitting clothing, or jewelry around equipment.
7.  Install and secure all guards before starting.
8.  Stop engine, remove ignition key, and wait for all moving parts to stop before servicing, repairing, adjusting, loading, filling, or unplugging.
9.   Establish a lock-out or tag-out policy for the work site. Be sure all personnel are trained in and follow all procedures. Lock-out or tag-out all power sources before working around loading/unloading equipment.
10.  Clear the area of people, especially small children, before starting.
11.  Review safety related items annually with all personnel who will be operating, using, or maintaining the Bulk Seed Tender system.

2.2 EQUIPMENT SAFETY GUIDELINES


1. Safety of the operator and bystanders is one of the main concerns in designing and developing a machine. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you, follow them.
2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
3. Never use alcoholic beverages or sedative drugs while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
4. Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and how it works. Review the safety instructions with all users annually.
5. This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained, and physically able person familiar with farm machinery and trained in this equipment's operations. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.
6. Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**
7. Do not modify the equipment in any way. Unauthorized modification may result in serious injury or death and may impair the function and life of the equipment.

8. In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer to Safety Messages and operation instruction in each of the appropriate sections of the auxiliary equipment and machine Manuals. Note all Safety Signs affixed to the auxiliary equipment.

2.3 SAFETY TRAINING

1. Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
2. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of this equipment.
3. The best safety feature is an informed, careful operator. It is the operator's responsibility to read and comply with ALL Safety and Operating instructions in the manual. Accidents can be avoided.
4. Working with unfamiliar equipment can lead to injuries. Read this manual, as well as the manual for your auxiliary equipment, before assembling or operating to acquaint yourself with the machines. If this machine is used by any person other than yourself, it is your responsibility to make certain that the operator reads and understands the operator's manuals and is instructed in safe and proper use.
5. Know your controls and how to immediately stop augers, conveyors, and any other auxiliary equipment in an emergency. Read this manual and the one provided with all auxiliary equipment.
6. Train all new personnel and review instructions frequently with employees. Be certain only a properly trained and physically able person will operate the machinery. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.


2.4 SAFETY SIGNS





1.  Keep safety signs clean and legible at all times. Replace any safety sign or instruction sign that is missing or not legible. Refer to the Safety Sign Location section for additional information.
2. Replacement parts that displayed a safety sign should also display the current sign.
3. Replacement safety signs (labels) are available from your authorized Dealer Parts Department or the factory at no cost.

2.4.1 How to Install Safety Signs





- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Determine exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using a piece of sign backing paper.











2.5 PREPARATION

1.  Never operate the seed delivery system and auxiliary equipment until you have read and completely understand this manual, the auxiliary equipment Operator's Manual, and each of the Safety Messages found on the safety signs on the delivery system and auxiliary equipment.




2.  **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!** Motors or equipment can be noisy enough to cause permanent or partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the operator's position exceeds 80db. NOTE: Hearing loss from loud noise (tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime with uncertain natural recovery.
3.  Clear working area of debris, trash, or hidden obstacles that might be hooked or snagged, causing injury, damage, or tripping.
4. Operate only in daylight or good artificial light.
5. Be sure machine is properly attached to the trailer, adjusted, and in good operating condition.
6.  Ensure that all guards, shielding, and safety signs are properly installed and in good condition.
7.  Before starting, give the machine a "once over" for any loose bolts, worn parts, cracks, leaks, frayed belts, and make necessary repairs. Always follow maintenance instructions.








2.6 OPERATING SAFETY

1.  Make sure that anyone who will be operating the Bulk Seed Tender system or working on or around the unit reads and understands all the operating, maintenance, and safety information in the operator's manual.
2.  Keep all bystanders, especially children, away from the machine when loading or unloading, or when authorized personnel are carrying out maintenance work.
3.   Establish a lock-out or tag-out policy for the work site. Be sure all personnel are trained in and follow all procedures. Lock-out or tag-out all power sources before servicing the unit or working around loading/unloading equipment.




4.  Stop engine, remove ignition key, and wait for all moving parts to stop before servicing, repairing, adjusting, loading, filling, or unplugging.
5.  Keep working area clean and free of debris to prevent slipping or tripping.
6.  Do not allow riders on the trailer or frame when transporting.
7.  Keep hands, feet, hair, and clothing away from rotating parts.
8.  Do not place hands, fingers, or arms between moving parts.
9.  Stay away from overhead power lines. Electrocutation can occur without direct contact.
10.  Install and secure all guards before starting.
11.  Use care when climbing on frame or ladder to prevent slipping or falling.
12.  Fasten frame securely to trailer before transporting.
13. Always empty compartment 2 first to prevent an unbalanced load. An unbalanced load can cause the tender to upend.
14.  Review safety related items annually with all personnel who will be operating, using, or maintaining the seed delivery system.

2.7 MAINTENANCE SAFETY

1. Good maintenance is your responsibility. Poor maintenance is an invitation for trouble.
2. Follow good shop practices.
3.  Ensure proper ventilation. Never operate the engine in a closed building. The exhaust fumes may cause asphyxiation.
4.  Before working on this machine, shut off the engine and remove the ignition keys.
5.  Never work under equipment unless it is securely blocked.

6.  Always use personal protection devices, such as eye, hand, and hearing protectors, when performing any service or maintenance.
7.  Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to the original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
8.  A fire extinguisher and first aid kit should be readily accessible while performing maintenance on this equipment.
9.  Periodically tighten all bolts, nuts, and screws and ensure all cotter pins are properly installed to ensure the unit is in safe condition.
10.  When completing a maintenance or service function, make sure all safety shields and devices are installed before placing the unit in service.
11.  Turn OFF all electrical power and tag-out or lock-out the power source before performing any electrical test or before connecting or disconnecting valve coils or other electrical loads.
12.  Never operate or test any function of the equipment when people are in an area of a potential crush hazard.



2.8 LOCK-OUT OR TAG-OUT SAFETY

1.  Establish a formal Lock-Out or Tag-Out program for your operation.
2.  Train all operators and service personnel before allowing them to work around the seed delivery system.
3.  Provide tags on the machine and a sign-up sheet to record tag-out details.





2.9 STORAGE SAFETY

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.
3. Store the unit in a dry, level area. Support the frame with planks, if required.

2.10 TRANSPORT SAFETY

1.  Comply with local, state, and federal laws governing safety and conveyance of farm machinery on public roads.
2. Ensure all lights, reflectors, and other lighting requirements are installed and in good working condition.
3. Ensure that the trailer is equipped with brakes that are in good working order. Be familiar with their operation.
4. Do not exceed a safe travel speed. Slow down for rough terrain and when cornering.
5.  Fasten frame securely to trailer before transporting.
6. Be sure the trailer is securely hitched to the towing vehicle and a retainer is used through the hitch jaws. Always attach a safety chain between the hitch and the towing vehicle.
7.  Stay away from overhead power lines. Electrocutation can occur without direct contact.
8. Plan your route to avoid heavy traffic.
9. Install auger spout transport lock before transporting.
10. Do not drink and drive.
11. Be a safe and courteous driver. Yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
12.  Never allow riders on the tender or the trailer.

2.11 REFUELLING SAFETY

1.  Handle fuel with care. It is highly flammable.
2.  Allow engine to cool for five minutes before refuelling. Clean up spilled fuel before restarting engine.
3.  Do not refuel the machine while smoking or when near open flame or sparks.
4. Fill fuel tank outdoors.
5.  Prevent fires by keeping machine clean of accumulated trash, straw, grease, and debris.

2.12 BATTERY SAFETY

1.  Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive.
2. Avoid contact with battery electrolyte: wash off any spilled electrolyte immediately.
3.  Wear safety glasses when working near batteries.
4. Do not tip batteries more than 45 degrees, to avoid electrolyte loss.
5.  To avoid injury from spark or short circuit, disconnect battery ground cable before servicing any part of electrical system.

2.13 SIGN-OFF FORM

Meridian Manufacturing Group follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE) and Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the Meridian Manufacturing Group Bulk Seed Tender must read and clearly understand ALL Safety, Operating, and Maintenance information presented in this manual.

Do not allow anyone to operate this equipment until such information has been reviewed. Annually review this information before the season start-up.

Make these periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment. We feel an untrained operator is unqualified to operate this machine.

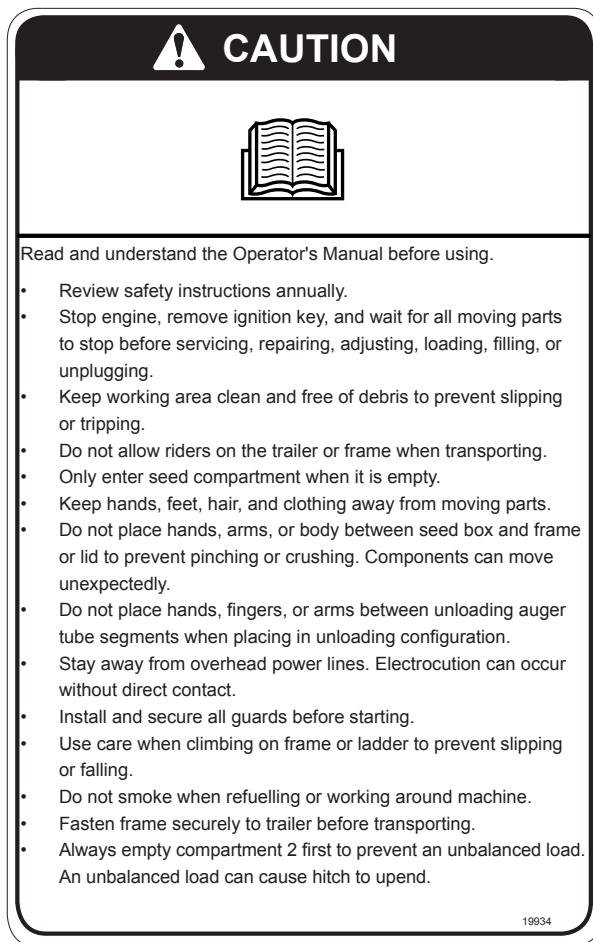
A sign-off sheet is provided for your record keeping to show that all personnel who will be working with the equipment have read and understand the information in the Operator's Manual and have been instructed in the operation of the equipment.

[illegible]

3. SAFETY SIGN LOCATIONS

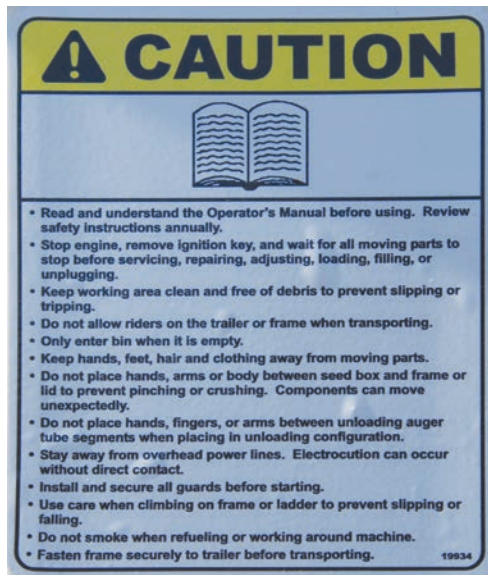
The types of safety signs and locations on the equipment are shown in the following pages. Good SAFETY AWARENESS requires that you familiarize yourself with the various safety signs, the type of warning and the area, or a particular function related to that area.

REMEMBER - If safety signs have been damaged, removed, become illegible, or parts replaced without signs, new signs must be applied. New safety signs are available from your authorized dealer free of charge.

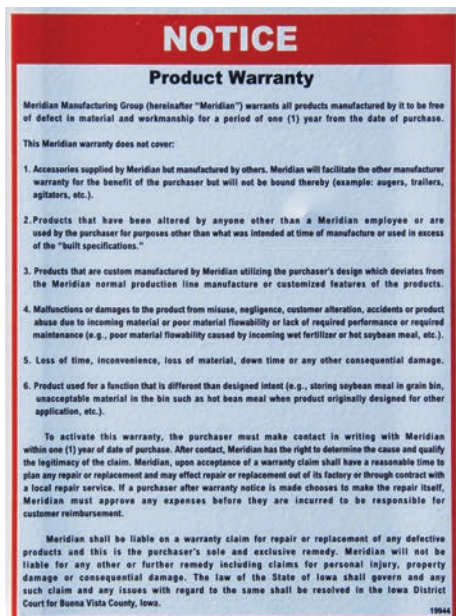




1. CAUTION — Read and Understand (#19934)



2. NOTICE — Product Warranty (#19944)



3. Product Serial Number Decal (#19984)



4. DANGER — Pinch Point (#20087)



5. WARNING — Rotating Parts (#19936)





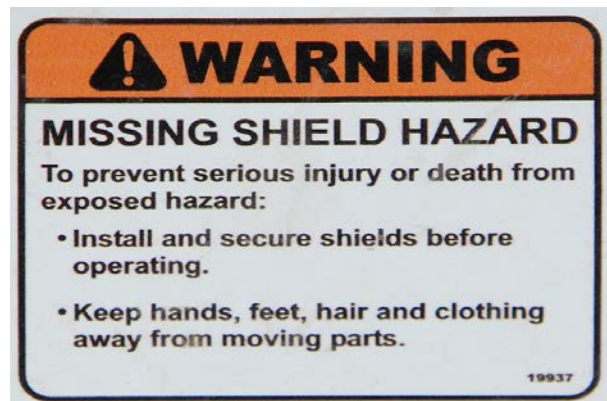
6. WARNING — Fall Hazard (#19939)



7. WARNING — Hot Surface (#20088)

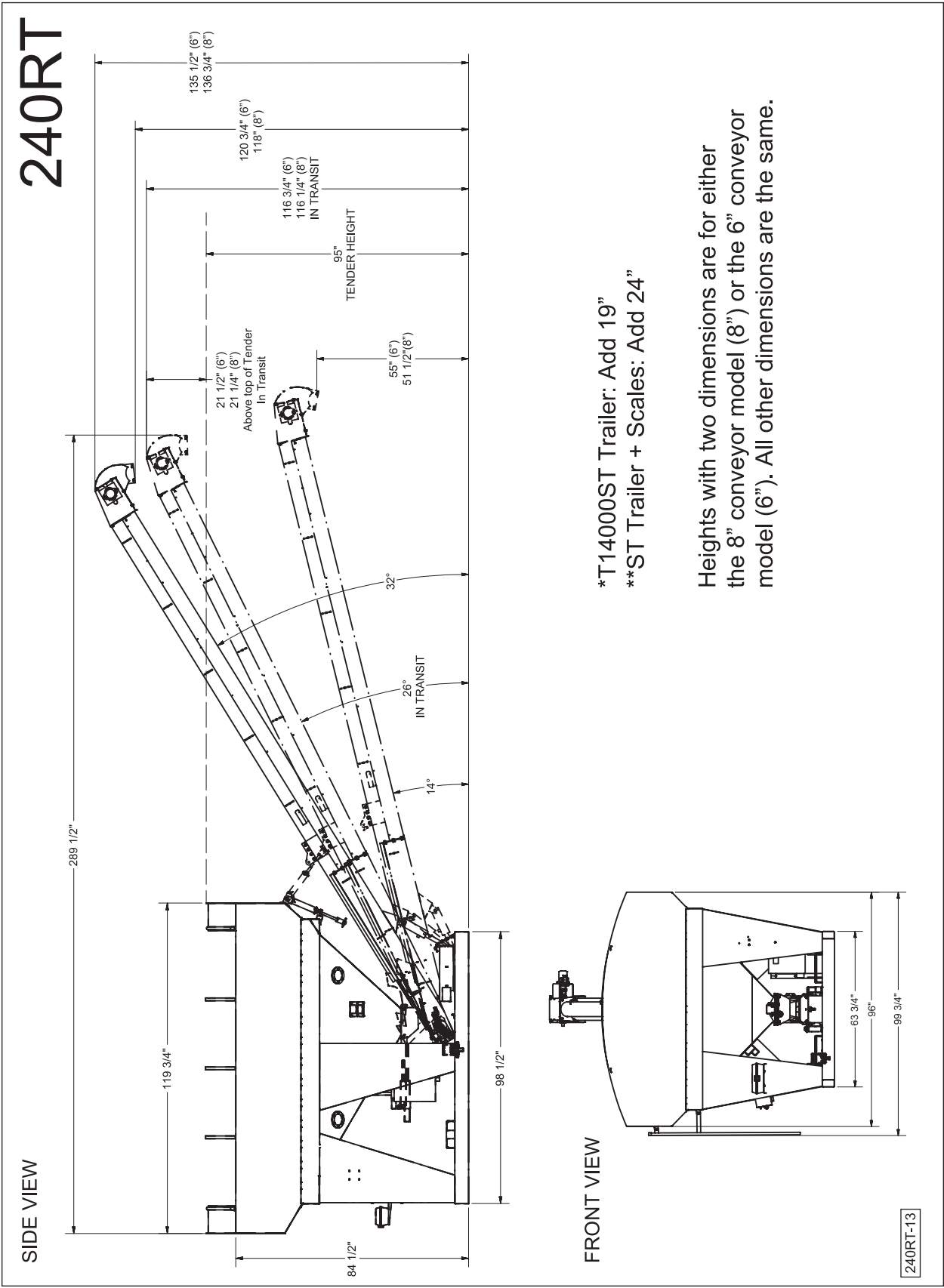


8. WARNING — Missing Shield (#19937)

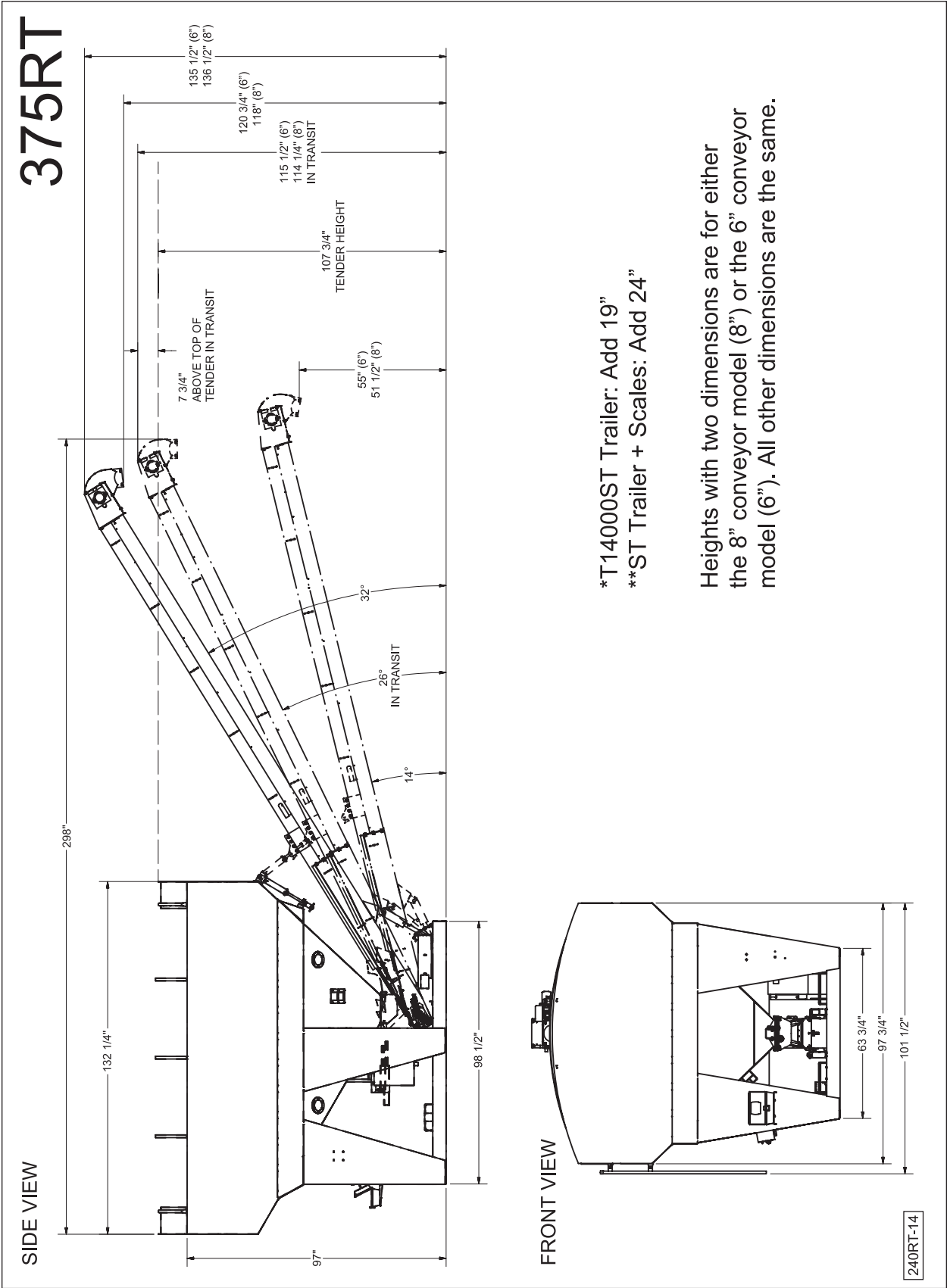


4. SPECIFICATIONS

4.1 OVERALL 240RT SEED TENDER SPECIFICATIONS (6" AND 8" CONVEYORS)



4.2 OVERALL 375RT SEED TENDER SPECIFICATIONS (6" AND 8" CONVEYORS)



4.3 BOLT SPECIFICATIONS

WARNING




The torque value for bolts and capscrews are identified by their head markings. Replacing higher “Grade” bolts (Grade 8) with lower Grade bolts (Grade 5) will lead to equipment failure and can result in injury or death. Always use replacement bolts with the same Grade markings as the removed bolt.

4.3.1 Bolt Torque Values

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise instructed in this manual. When using locking elements, increase torque values by 5%.

Bolt Diameter “A”	SAE Grade 2 N·m (ft-lbs)		SAE Grade 5 N·m (ft-lbs)		SAE Grade 8 N·m (ft-lbs)	
1/4"	8	(6)	12	(9)	17	(12)
5/16"	13	(10)	25	(19)	36	(27)
3/8"	27	(20)	45	(33)	63	(45)
7/16"	41	(30)	72	(53)	100	(75)
1/2"	61	(45)	110	(80)	155	(115)
9/16"	95	(70)	155	(115)	220	(165)
5/8"	128	(95)	215	(160)	305	(220)
3/4"	225	(165)	390	(290)	540	(400)
7/8"	230	(170)	570	(420)	880	(650)
1"	345	(225)	850	(630)	1320	(970)

4.3.2 Grade Markings Chart

 No Markings	Grade 2 Low or medium carbon steel
 3 Radial Lines	Grade 5 Medium Carbon Steel, Quenched and Tempered
 6 Radial Lines	Grade 8 Medium Carbon Alloy Steel, Quenched and Tempered

5. MACHINE COMPONENTS AND CONTROLS

5.1 COMPONENT NOMENCLATURE AND LOCATION

The Meridian 240RT or 375RT Seed Express models are designed as bulk seed transfer units to transfer large amounts of seed into a planter or drill.

Large bulk seed containers are loaded into the seed tender compartments (3 & 5). The seed can be dumped into one of two compartments from a seed box or other means. The center-mounted conveyor (2) then transfers the seed from the compartments into planters or drills. Slide gates (36 & 37) on the compartments control the flow of seed into the conveyor.

Gasoline engine (13) mounted on the frame powers hydraulic pump (28), which operates hydraulic motors (19 & 27) for the conveyor and the conveyor turntable. It also actuates control cylinders (16, 36, & 37) which raise and lower the conveyor and open and close the slide gates.

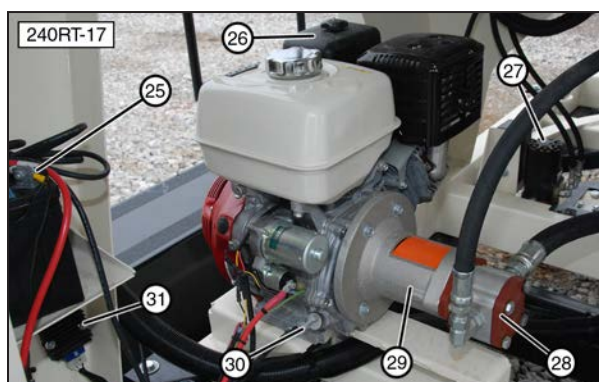
The conveyor is mounted on rotating platform (39) that rotates 180° from side-to-side. An optional spout on the end of the conveyor allows for convenient distribution.



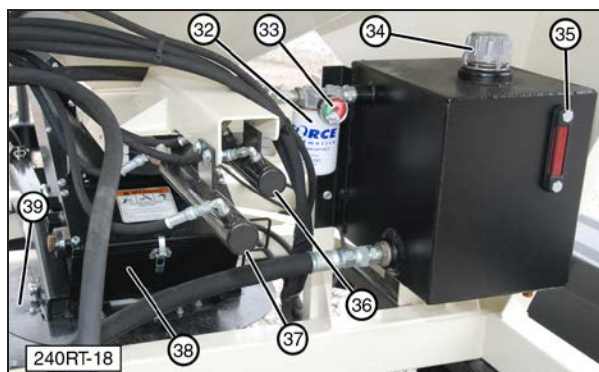
(1) Delivery Hood. (2) Conveyor in Transport Position. (3) Compartment 1. (4) Ladder Assembly. (5) Compartment 2. (6) Roll Tarp and Open/Close Bar. (7) Seed Tender Frame. (8) Trailer. (9) Load Cell, if equipped. (10) Tool Box. (11) Control Panel and Wireless Remote Control (not shown). (12) Scale Unit. (13) Gasoline Engine to Power Hydraulic Pump. (14) Bolt-On Trailer Tongue Assembly. (15) Break-Away Trailer Brake System. (16) Conveyor Raise and Lower Cylinder.



(17) Document Storage Tube. (18) Conveyor Transport Lock Mechanism. (19) Hydraulic Motor for Conveyor. (20) Transport Safety Chain (prevents rotation of turntable). (21) Trailer Jack. (22) Seed Pan. (23) Seed Sample Gate. (24) Compartment View Glass.



(25) 12 Volt Battery. (26) Engine Air Cleaner. (27) Hydraulic Motor for Rotating Platform. (28) Hydraulic Pump. (29) Bell Housing with Coupler (connects engine to pump). (30) Engine Oil Level Plug. (31) Rectifier Regulator (regulates Voltage when charging battery).



(32) Hydraulic Oil Filter. (33) Dirty Filter Indicator. (34) Hydraulic Tank and Fill Cap. (35) Oil Level Site Gauge. (36) Compartment 1 Open/Close Cylinder and Gate. (37) Compartment 2 Open/Close Cylinder and Gate. (38) Clean-out Access Door. (39) Rotating Platform.

5.2 ENGINE AND CONTROLS

A Honda® engine is used with this unit. Always read the engine Operator's Manual supplied with the seed tender for the detailed operating procedures.



1. Electrical System Key Switch

This key switch controls the power to the electrical system. Turn the key clockwise to turn the electrical system ON. The key must be in the ON position for the engine to start. Turn the key counterclockwise to stop the engine and turn OFF the electrical system.

2. Engine Start Button

Press and hold this button until the engine starts. Also set the choke lever on the engine when starting the engine. Turn the key switch counterclockwise to turn OFF the engine.



3. Fuel Shut-Off Valve

Each engine is equipped with a valve between the fuel tank and the carburetor. Slide the fuel valve toward the engine to turn ON and away for OFF. Turn the fuel OFF when not in use or before transporting.

4. Throttle Lever

This lever controls the engine RPM. Move the lever to increase or decrease the RPM. Always run at maximum throttle while operating.

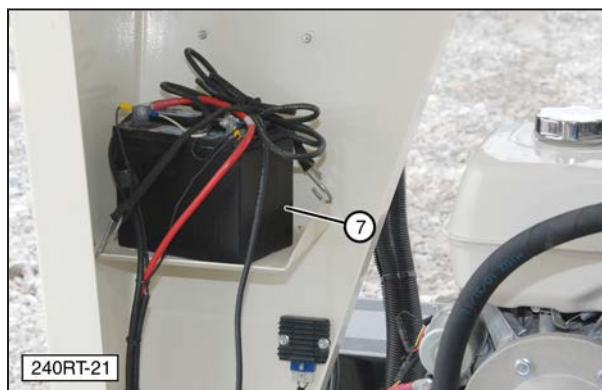
5. Choke Lever

The choke lever controls the fuel/air mixture to the engine. Close the choke when starting if the engine is cold. Open the choke as the engine warms. Always open the choke fully during operation.



6. Starting Rope

This retracting rope and T-bar is an optional method used to start the engine. Grasp the T-bar firmly and pull the rope sharply to start the engine. The key on master control must be ON for the engine to start.



7. Battery (12 Volt)

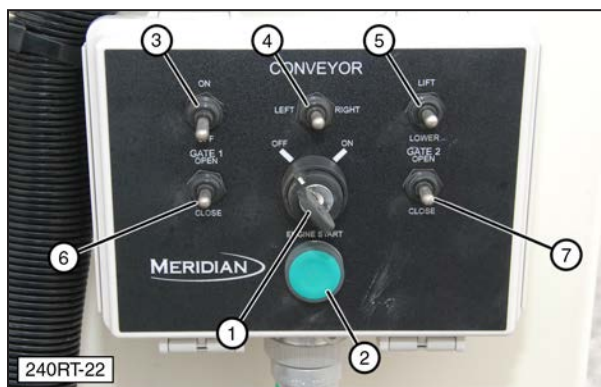
A 12 Volt battery supplies the power to start the gasoline engine. When the engine is operating, a trickle charge is sent to the battery to keep it fully charged.

5.3 CONTROL SYSTEM FUNCTIONS

The MEGA REMOTE system is a state-of-the-art microprocessor based Radio Frequency (RF) control system. It provides the operator the ability to operate the seed tender from the control panel or from the handheld wireless remote control.

5.3.1 Control Functions

The controls on this panel are intended to be used only as a backup resource. All of the functions of the seed tender can more easily be controlled using the handheld wireless remote control.



On/Off Key Switch (1)

This key switch controls the power to the electrical system. Turn the key clockwise to turn the electrical system ON. The key must be in the ON position for the engine to start or the handheld wireless remote control to function. Turn the key counterclockwise to turn OFF the electrical system.

Starting the Engine (2)

Press and hold this button until the engine starts. Also set the choke lever on the engine when starting the engine. Turn the key counterclockwise to turn OFF the engine.

Conveyor ON and OFF (3)

This toggle switch starts and stops the conveyor belt. Press the toggle switch UP to start the conveyor. Press the toggle switch DOWN to stop the conveyor.

Conveyor Swing Left and Swing Right (4)

This toggle switch positions the conveyor to the right or left. Press the toggle switch to the LEFT to position the conveyor to the left or the passenger's side of the tow vehicle. Press the toggle switch to the RIGHT to position the conveyor to the right or the driver's side of the tow vehicle.

Conveyor Lift and Lower (5)

This toggle switch raises and lowers the conveyor. Press the toggle switch UP to raise the conveyor. Press the toggle switch DOWN to lower the conveyor.

Slide Gate 1 (6)

This toggle switch opens and closes the slide gate at the bottom of compartment 1. Press the toggle switch UP to open the slide gate, and press the toggle switch DOWN to close the slide gate. The opening can be varied to provide the desired flow rate of seed onto the conveyor belt.

Slide Gate 2 (7)

This toggle switch opens and closes the slide gate at the bottom of compartment 2. Press the toggle switch UP to open the slide gate, and press the toggle switch DOWN to close the slide gate. The opening can be varied to provide the desired flow rate of seed onto the conveyor belt.

5.3.2 Control System Compliance Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference. This equipment generates radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to the reception of other electronics, which can be determined by turning the equipment off and on, DO NOT operate this equipment around those devices.

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to electronic device reception. The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate this equipment.

5.3.3 Wireless Remote Control

Each radio wireless remote control is designed to operate with a unique radio ID code and RF channel sequence. Each receiver is programmed to respond only to the wireless remote control with the correct ID code/RF channel sequence for which it is set. This feature allows multiple systems to work in close proximity to one another without interference.

If the wireless remote control goes out of range for more than two seconds, all latched outputs will turn off as a safety feature.

In the event that a wireless remote control becomes damaged and a new one is needed, the receiver can be reprogrammed to respond to the new wireless remote control. Refer to the 10.1.3 Remote Control Transmitter and Receiver Synchronization section in the Maintenance section of this manual.

All of the normal functions of the seed tender can be controlled by the wireless remote control.



5.3.3 Functions of Keypad Buttons

Use the buttons on the keypad to operate the desired functions of the seed tender.



POWER (1)

Press Power button (1) to turn wireless remote control ON. Press and hold the button to turn it OFF.

To save battery life, the wireless remote control will automatically turn off when it is idle (no functions are used) for a period greater than 15 minutes. Press the POWER button to turn the unit ON.

NOTE: The wireless remote control will NOT automatically shut off as long as the receiver has power applied to it.

ENGINE STOP (2)

Press Engine Stop button to turn OFF engine.

ENGINE START (3)

Press the engine start button to start the engine. If the engine has not been started recently, set the choke to ON.



CONVEYOR STOP (4)

This button stops the conveyor belt.

CONVEYOR SPEED INC (5)

This button starts the conveyor belt. Press the STOP button to stop conveyor.

CONVEYOR LEFT (6)

This button positions the conveyor to the left. Press the LEFT button to position the conveyor to the left side of the unit or the drivers side of the tow vehicle.

CONVEYOR RIGHT (7)

This button positions the conveyor to the right. Press the RIGHT button to position the conveyor to the right side of the unit or the passenger's side of the tow vehicle.

CONVEYOR LIFT (8)

This button raises the conveyor.

CONVEYOR LOWER (9)

This button lowers the conveyor.



GATE 1 OPEN (10)

The Gate 1 OPEN button opens the slide gate at the bottom of compartment 1. Press the OPEN button to open the slide gate, and press Gate 1 CLOSE button (11) to close the slide gate. The opening can be varied to provide the desired flow rate of seed onto the conveyor belt.

GATE 1 CLOSE (11)

The Gate 1 CLOSE button closes the slide gate at the bottom of compartment 1. Press the button to close the slide gate. The opening can be varied to provide the desired flow rate of seed onto the conveyor belt.

GATE 2 OPEN (12)

The Gate 2 OPEN button opens the slide gate at the bottom of compartment 2. Press the OPEN button to open the slide gate, and press Gate 2 CLOSE button (13) to close the slide gate. The opening can be varied to provide the desired flow rate of seed onto the conveyor belt.

GATE 2 CLOSE (13)

The Gate 2 CLOSE button closes the slide gate at the bottom of compartment 2. Press the button to close the slide gate. The opening can be varied to provide the desired flow rate of seed onto the conveyor belt.

5.4 SCALE UNIT

The scale unit is simple to operate. Described below are the basic functions of the scale; however, for complete instructions, see the OEM operator manual that was shipped with the seed tender. The manual can also be found at www.agscales.com

This unit also has an Automatic Shut-Down feature and a Low Battery Warning. An automatic shut-down will occur when the battery drops below 9 Volts. An optional programmable sleep mode shut-down can also be programmed after a time of inactivity of the scale.



ON/OFF (1)

Press the ON/OFF button to turn the unit ON or OFF.

RM (2)

Press the RM key to access memory channels. This unit stores up to 100 six-character alpha-numeric memory accumulators which are useful in identifying fields, seed type, etc.

M+ (3)

Press the M+ key to accumulate weights manually or use Auto-LOC to automatically accumulate weights.

TARE (4)

Press the TARE key to temporary “zero” the scale.

G/N (5)

Press the G (gross) or N (net) key to view either the gross or net weights.

HOLD/MENU (6)

Press the HOLD key to hold the weight constant when moving the seed tender.

PRINT/SELECT (7)

Press the PRINT key to transfer weight data to an optional printer, a computer, or a transfer data module (TDM-40).

ZERO/CLEAR (8)

Press the ZERO key to zero the scale. This key is also used to clear the memory channels.

6. PRE-OPERATING INSTRUCTIONS

6.1 MACHINE BREAK-IN PERIOD

A special break-in procedure has been developed to ensure the integrity of the seed tender when first put into service. Follow the Before Starting instructions and then follow the Inspections for 1/2, 5, and 10 Hours instructions at the appropriate interval.

After completing these instructions, follow the normal service schedule in the Maintenance section and engine manual.

6.1.1 Before Starting

1. Read and follow the instructions in the Honda® engine and the Meridian Operator's Manuals.
2. Review and follow Set-Up Instructions and the Pre-operation Checklist before starting machine.
3. Initially check wheel bolt torque and then again at 10, 25, and 50 miles. Refer to the Wheel Bolt Torque Requirements section in this manual for tightening instructions.
4. Start the engine and check the controls. Be sure that they function properly.

6.1.2 Inspections for 1/2, 5, and 10 Hours

1. Recheck machine fluid levels. Refill, as required.
2. Recheck the tension and alignment of the delivery belt.
3. Recheck hardware and fasteners; frame to trailer tie-downs, all fasteners, and wheel bolts. Tighten to their specified torque.
4. At 10 hours, change the engine oil with the specified oil.

6.2 PRE-OPERATION CHECKLIST

Efficient and safe operation of the Meridian Bulk Seed Tender system requires that each operator reads and follows the operating procedures and all related safety precautions outlined in this section.

A pre-operational checklist is provided for the operator. It is important for both personal safety and maintaining the efficient operation of the delivery system that this checklist be followed.

Before operating the delivery system and each time thereafter, the following areas should be checked:

1. Lubricate the machine, as outlined and shown in the Grease/Lubrication Location Diagram in the Maintenance section of this manual. Follow the prescribed schedule.
2. Check the engine fluid levels, fuel, and crankcase oil. Add, as required.

- d. Press the Test button. The indicator should illuminate green. If the red light illuminates, the battery charge is low. Refer to the Break-Away System in the Maintenance section for instructions on charging the battery.

9. Check the fluid level in the hydraulic tank. Add fluid, as needed.
10. Start the engine and check the filter status indicator. Replace the filter if indicated.
11. Check the tension of the delivery belt. Follow the instructions in the manual to correct the tension and/or alignment.
12. When the machine is operating, check the alignment of the delivery belt. Follow the instructions in the manual to correct the tension and/or alignment.

IMPORTANT

The engine warranty is void if the engine is run without oil.

3. Check hardware and fasteners; seed tender frame to trailer tie-downs, hitch bolts, trailer hitch to trailer bolts, and all other fasteners. Tighten to their specified torque.
4. Make sure the wheel bolt lug nuts are tight.
5. Check the tires and ensure that they are inflated to their specified pressure.
6. Remove all entangled material.
7. Visually inspect the conveyor and frame for damage.
8. Test the Break-Away brake unit and the trailer brakes.
 - a. Make sure the trailer brakes are operating properly.
 - b. Make sure the trip wire to the break-away switch is connected to the tow vehicle.
 - c. Make sure the pin is correctly installed in the break-away switch.

7. OPERATION



OPERATING SAFETY

- Make sure anyone operating the seed delivery system or working on or around the unit reads and understands all the operating, maintenance, and safety information in the Operator's Manual.
- Keep all bystanders, especially children, away from the machine when loading or unloading is being done, or when authorized personnel are carrying out maintenance work.
- Establish a lock-out or tag-out policy for the work site. Be sure all personnel are trained in and follow all procedures. Lock-out or tag-out all power sources before servicing the unit or working around loading/unloading equipment.
- Stop engine, remove ignition key, and wait for all moving parts to stop before servicing, repairing, adjusting, loading, filling, or unplugging.
- Keep working area clean and free of debris to prevent slipping or tripping.
- Do not allow riders on the trailer or frame when transporting.
- Keep hands, feet, hair, and clothing away from moving parts.
- Do not place hands, arms, or body between the seed box and frame or lid to prevent pinching or crushing. Components can move unexpectedly.
- Stay away from overhead power lines. Electrocution can occur without direct contact.
- Install and secure all guards before starting.
- Use care when climbing on frame or ladder to prevent slipping or falling.
- Do not smoke when refueling or working around machine.
- Fasten frame securely to trailer before transporting.
- Review safety related items annually with all personnel who will be operating, using, or maintaining the seed delivery system.

7.1 CONNECTING THE TRAILER

WARNING



To prevent serious injury or death from upending hazard, do not stand over hitch when unhooking the trailer from the tow vehicle. Load or fill compartment 1 first to keep weight on the hitch. Unload or empty compartment 2 first to keep weight on the hitch.

7.1.1 Bumper Hitch

1. Complete the Pre-operation Checklist.

CAUTION



Ensure that all bystanders, especially small children, are clear of the working area. Ensure there is enough room and clearance to safely back up to the machine.

2. Use the trailer jack to lift the hitch above the height of the receiver on the tow vehicle (standard hitch assembly shown).



3. Remove the retainer clip. Release or open the receiver by rotating the locking handle clockwise, as shown.



4. Slowly back the tow vehicle until the hitch and ball are aligned.



5. Lower the hitch onto the ball.



6. Raise the jack and place it in its stowed position.
7. Close the receiver using the locking handle. Install the retainer clip to prevent unwanted opening of the receiver.

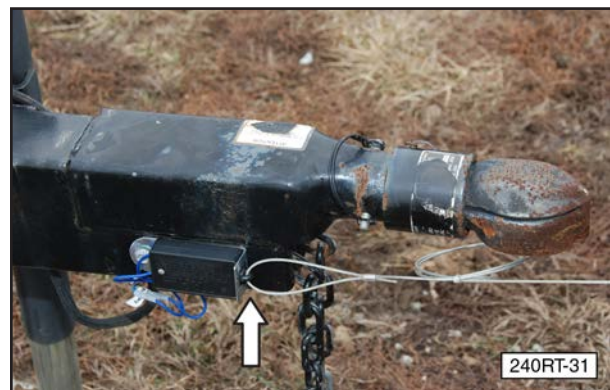


8. Attach the safety chain securely to the tow vehicle to prevent unexpected separation. Cross the chains when attaching.



9. Connect the wiring harness for the lights and brakes.

10. Connect the break-away system cable to the tow vehicle. Make sure the key on the end of the cable is properly plugged into the receiving unit.

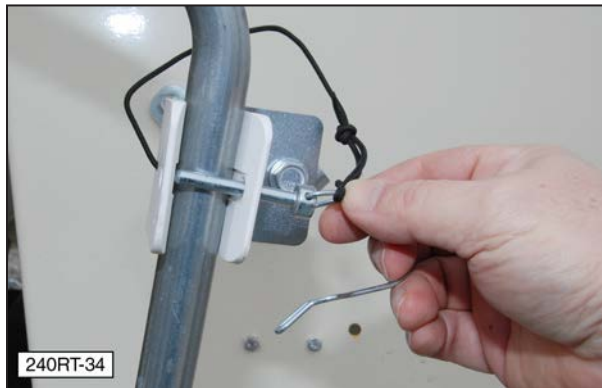


11. Route all the cables in a manner that will prevent snagging. Be sure to provide slack for turning.

7.2 OPENING AND CLOSING ROLL-UP TARP



1. Remove the retaining pin from the crank holder. Using both hands, carefully remove the crank from the holder.



2. Extend the crank handle assembly to a comfortable operating position.
3. Roll the tarp to the fully opened position.



4. Place the crank back in the holder and reinsert the retaining pin.



7.3 OPERATION

This Operation section provides a step-by-step procedure for first loading seed into the seed tender at the farm and then unloading it in the field.

7.3.1 Loading (Filling the Seed Tender)

IMPORTANT

An anti-rotation chain prevents the rotating platform from swinging side-to-side when road transporting the seed tender from one location to another. Unhook the chain before moving the table to prevent damage to the machine.



1. Before loading seed, make sure the two slide gates are in the closed position.



2. Open the roll-up tarp.
3. Load the seed compartments from a storage box, storage bag, or other means directly into the seed tender compartments.

CAUTION



Always load compartment 1 first to maintain a positive tongue weight. Negative tongue weight can cause the hitch to rapidly swing upward if not securely fastened to the tow vehicle, which can result in personal injury.

4. When the seed tender is filled, move it to the location of the planting equipment following all safe towing practices.

NOTE: Two sample slide gates, one in each compartment, can be used to retrieve samples of the seed from the compartments.



7.3.2 Unloading (Filling the Planter)

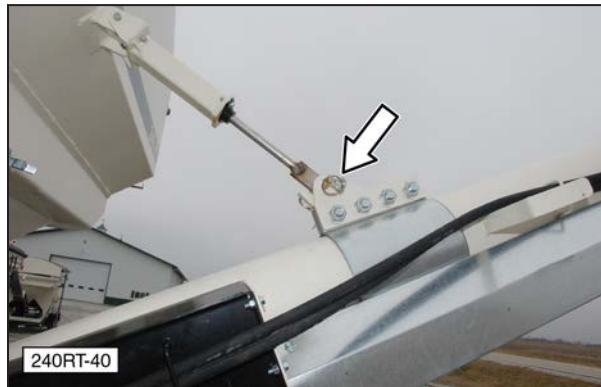
CAUTION



Always unload compartment 2 first to maintain a positive tongue weight. Negative tongue weight can cause the hitch to rapidly swing upward if not securely fastened to the tow vehicle, which can result in personal injury.

1. Before unloading, shut off the engine of the tow vehicle, set the parking brake, and remove the ignition key.

2. Remove the lock pin from the damper mechanism. The conveyor may need to be lowered slightly to remove the tension from the lock pin. Store the pin in a safe location.



3. Turn the key switch to the ON position.



4. Move the fuel valve lever to the ON position (toward the front of the machine).
5. To start a cold engine, move the choke lever to the CLOSED position (toward the back of the machine). Also, move the throttle lever 1/3 the distance of the full open position.
6. Start the engine and move the throttle lever to run the engine at full speed.



7. Rotate the conveyor to the desired location.



8. Start the conveyor from the seed tender control panel or use the wireless remote control.



9. Open the slide gate from the seed tender control panel or use the wireless remote control to the desired seed flow.



IMPORTANT

Close the slide gate and stop the conveyor prior to the planter's seed box being completely full. If the seed box requires additional seed, start the conveyor without opening the slide gate; this will use the seed that is already on the conveyor. This method will also help prevent overfilling of the seed box or the seed tender's pan.

10. When the planter is filled, close the slide gate and then stop the conveyor belt.

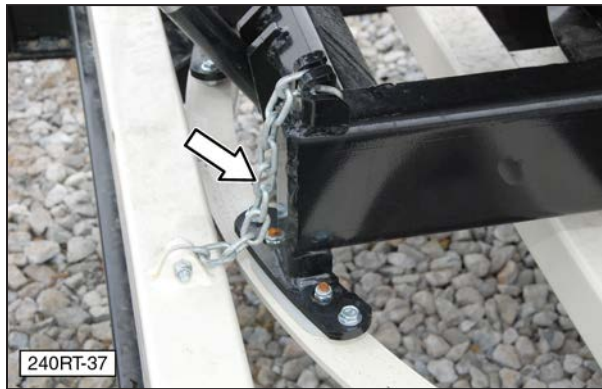


11. When finished loading the planter, return the conveyor to the transport position and install the lock pin and retaining clip.

Note: If the seed tender is being moved within a field location, it is not necessary to install the damper mechanism to the conveyor.



12. Connect the anti-rotation chain to its clip.



13. If necessary, close the roll-up tarp.

14. Place the engine's fuel lever in the OFF position before towing the seed tender on the open road.



8. STORAGE

8.1 GENERAL INFORMATION

After planting or when the machine will not be used for a period of time, completely inspect all major systems of the seed tender. Replace or repair any worn or damaged components to prevent unnecessary downtime at the beginning of the next season.

IMPORTANT

To prevent component damage, store the seed tender in a dry, level area. If the seed tender is not attached to a trailer, support the frame with planks to raise the unit off the ground.

8.2 PLACING IN STORAGE

CAUTION



Store the unit in an area away from human activity. To prevent the possibility of serious injury, do not permit children to play on or around the stored machine.

1. Remove all seed from the seed tender.
2. Place the gasoline engine fuel valve in the OFF position.
3. Thoroughly wash the machine with a pressure washer or water hose to remove all dirt, mud, or debris.
4. Inspect rotating parts for entangled material. Remove all entangled materials.
5. Check the condition of the conveyor belt. Replace or adjust, as required.
6. Check the condition of the hydraulic pump to the engine shaft connectors and spider. Replace or adjust, as required.
7. Touch up paint nicks and scratches to prevent rusting.
8. Remove the ignition key and store in a secure place.
9. Remove the battery and store it in a cool, dry area on wooden blocks or a wooden pallet. Charge it monthly to maintain an adequate charge.
10. It is best to store the machine inside and if that is not possible, cover with a waterproof tarp and tie down securely.

11. Inspect, clean, and lubricate the chain and sprockets on the rotating platform

8.3 REMOVING FROM STORAGE

When removing the machine from storage, follow this procedure:

1. Remove the tarp, if covered.
2. Install and connect the battery.
3. Review and follow the Pre-Operation Checklist.
4. Review and follow the Service Checks in the Maintenance section.

IMPORTANT

If the machine has been stored for more than twelve months, warm the engine by running it for two to three minutes and then drain the oil. Change the oil while the oil is warm to remove any condensation. Refer to the Engine Oil Change in the Maintenance section.

9. MAINTENANCE



MAINTENANCE SAFETY

- Good maintenance is your responsibility.
- Follow good shop practices.
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light.
- Make sure there is plenty of ventilation. Never operate the engine in a closed building. Exhaust fumes may cause asphyxiation.
- Before working on this machine, shut OFF the engine, and remove the ignition keys.
- Never work under equipment unless it is securely blocked.
- Always use personal protection devices, such as eye, hand, and hearing protectors when performing any service or maintenance.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to the original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
- A fire extinguisher and first aid kit should be readily accessible while performing maintenance on this equipment.
- Periodically tighten all bolts, nuts, and screws and check that all cotter pins are properly installed to ensure the unit is in safe operating condition.
- When completing a maintenance or service function, make sure all safety shields and devices are installed before placing the unit in service.
- Disconnect all electronic device cables from the seed tender before performing any arc welding repair. Damage from high currents may cause internal electronic device damage.

9.1 LUBRICATION

Use the Service Checks information in the Maintenance section to keep a record of all scheduled maintenance.

1. Use an SAE multi-purpose high temperature grease or a multi-purpose lithium base grease.
2. Use only a handheld grease gun for all greasing. An air-powered greasing system can damage the seals on the bearings and lead to early failures.
3. Wipe grease fitting with a clean cloth before greasing to avoid injecting dirt and grit.
4. Replace and repair broken fittings immediately.
5. If fittings will not take grease, remove and clean thoroughly. Also, clean lubricant passageway. Replace fitting, if necessary.

9.1.1 Grease Fitting Locations

Each axle is equipped with a grease zerk under the center dust cap of the wheel.



9.1.2 Rotating platform drive chain

Clean and lubricate the drive chain and sprockets as prescribed in 10.6 Chain Drive System.

10. SERVICE PROCEDURES

10.1 REMOTE CONTROL UNIT

The wireless remote control unit is powered by two AA batteries. A low battery indicator on the wireless remote control indicates the remaining battery life. When red indicator light (2) turns ON, the batteries should be replaced immediately, or discontinue the use of the wireless remote control.



10.1.1 Battery Replacement Tips

- Check the batteries at least every six months (for low Voltage, leakage, etc.).
- Always use the correct size and type of battery. Replace old batteries with new 1.5 Volt AA, alkaline batteries.
- Always replace both batteries at the same time.
- Do not mix types, brands, or ages of replacement batteries.
- Do not install the batteries backwards. Make sure you insert the batteries with the + (plus) and – (minus) terminals aligned correctly.
- Remove the batteries from the controller if not expected to be in use for several months.
- Do not attempt to recharge a battery unless it is specifically marked “rechargeable”.
- Dispose of old batteries properly.

10.1.2 Battery Replacement

1. Remove the two Phillips head screws from the cover on the back of the unit.

2. Replace the batteries, making sure they are correctly positioned.



10.1.3 Remote Control Transmitter and Receiver Synchronization



To reprogram the ID code to the receiver, use the following procedure.

NOTE: Do not interrupt this procedure before it has completed or the system may not operate correctly.

1. Turn the wireless remote control and receiver OFF (turn key switch to OFF position).
2. Press and hold the POWER button on the wireless remote control for more than ten seconds.
3. When directed, apply power to the receiver (turn key switch to ON position). Green LED stays on constantly when reprogramming is in progress.
4. When the process is completed, the green LED will blink on and off. Test the wireless remote control to make sure it functions properly.

10.2 HYDRAULIC SYSTEM

10.2.1 Hydraulic Oil Change



An oil and filter change is recommended annually or every 400 hours of operation using an AW HVI Hydraulic ISO 32 oil.

IMPORTANT

Never run the hydraulic pump unless the hydraulic oil tank is full (indicated in sight level gauge).

1. Place a large waste oil container under the inlet hose. The hydraulic tank holds approximately ten gallons of oil.
2. Drain the hydraulic tank by removing the inlet hose from the pump. Allow the tank to drain completely.
3. Remove and replace the oil filter. Apply a thin coat of oil to the rubber seal of the new oil filter. Hand-tighten only.
4. Reconnect the inlet hose to the pump.
5. Fill the tank to the fill line at the top of the gauge with approximately ten gallons of AW HVI Hydraulic ISO 32 oil. Replace the cap.
6. Start the engine and cycle all the cylinders several times.
7. Recheck the oil level in the tank and add, as needed.

10.2.2 Hydraulic Manifold

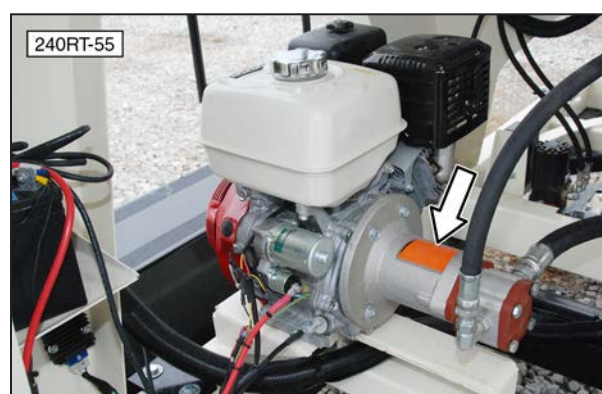
IMPORTANT

The manifold contains pressure relief valves and solenoids which have been factory installed and set up for the most efficient operation of the seed tender. **DO NOT** adjust these relief valves or replace the solenoid valves. If the unit is not operating properly, refer to the Troubleshooting section, call an authorized dealer, or call the factory.



10.2.3 Hydraulic Motor Coupling

Changing the pump coupling does not require the hydraulic tank to be drained. If the pump must be disconnected, drain the hydraulic tank and be prepared to catch any oil that remains in the two hydraulic hoses.



1. Remove the orange protective cover from the adapter assembly.
2. Remove the two pump mounting bolts.

3. Pull the pump away from the adapter to separate the coupling halves.



4. Loosen the setscrews in each coupling half and remove the old couplings.
5. Install new couplings on the engine shaft and the pump shaft. When completely assembled, the shaft length in each coupling half should be the same. Tighten the pump end setscrews to 78 to 87 lb-in. Do not tighten the engine shaft coupling at this time.
6. Place the urethane spider in the pump coupling. Align and install the pump and pump coupling.
7. Tighten the pump bolts to a "Grade 5" bolt torque for that size of bolt. Refer to the 4.2 Bolt Specifications section.
8. Slide the engine coupling against the other coupling half and tighten the setscrew.
9. Replace the orange protective cover.

NOTE: If the adapter plate was removed, tighten the four retaining bolts to "Grade 5" bolt torque for that size of bolt.

10.3 ENGINE

For any questions concerning the Honda® engine not provided in this manual, refer to the OEM manual that was provided with the seed tender.

To contact Honda®, refer to the OEM Literature section in this manual.

10.3.1 Approved Fuel

Use a regular unleaded automotive gasoline for all operating conditions. The fuel tank capacity is 1.0 liter (2.1 US pints).

10.3.2 Engine Oil

Use a typical SAE 10W-30 or 10W-40 multi-viscosity motor oil for normal operating conditions. Consult your engine manual for the recommended oil in cold temperatures. The crankcase capacity is 1.1 liters (1.16 US qt.).

10.3.3 Change Engine Oil

1. Review the Operator's Manual for the engine.
2. Allow the engine to cool before changing the oil. Draining works best when the oil is warm.

CAUTION



Burn Hazard. Hot engine oil can burn skin.

3. Be sure the engine key switch is in the OFF position and the fuel valve is turned OFF.
4. Place a pan under the drain plug.
5. Remove the drain plug and allow the oil to drain for ten minutes.
6. Reinstall the engine drain plug and tighten.
7. Dispose of the oil in an approved container. Follow industrial disposal regulations.
8. Fill the engine with SAE 10W-30 oil for general usage. If the engine is operated in more extreme conditions, refer to the OEM manual for oil recommendations.
9. Run the engine for one minute and recheck the oil level. Add oil, as needed.

10.3.4 Clean Air Cleaner

Check and remove any debris from the foam cover of the air cleaner daily before each usage. Thoroughly clean or replace the foam cover every three months or 50 hours of operation (clean it more frequently when used in dusty conditions).



10.4 LOAD CELLS

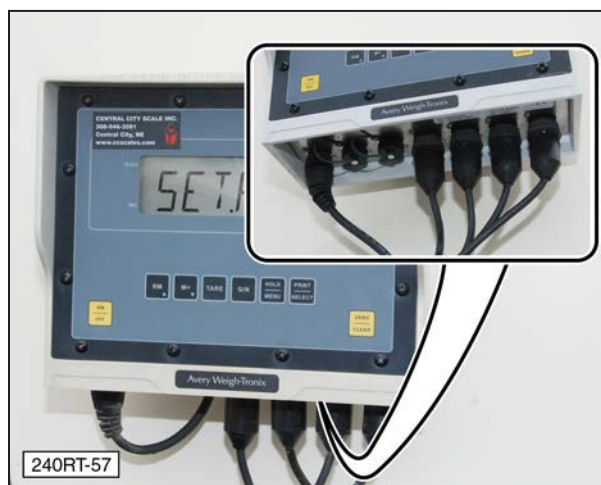
Four load cells are used with the models equipped with a weighing system. There is no maintenance required for these load cells. If the seed tender does not seem to be functioning correctly, refer to the Troubleshooting section, call an authorized dealer, or call the factory.

Note: The load cells on the 240RT and 375RT are contained within the frame of the seed tender. This photo is for instructional purposes only and does not represent the actual design of the seed tender itself.



10.4.1 Wiring Connections to Scale Box

All four load cells are connected to the scale box. If the system is not working correctly, make sure the wiring connections are securely attached to the bottom of the scale box. If the problem continues, contact Meridian.



10.5 BELT DELIVERY TUBE

10.5.1 Unplugging

IMPORTANT

Do not operate the conveyor when it is plugged with excess seed or is hindered from moving by a foreign object. Continued operation can cause damage to the conveyor or result in a broken conveyor belt.

If the conveyor becomes plugged, follow this procedure:

1. Position the conveyor with easy access to both ends.
2. Stop the engine and remove the ignition key. Place a lock-out tag on the control box to prevent accidental starting of the conveyor.
3. Open the lower access door at the bottom of the conveyor and remove any excess seed or obstruction.



4. Close and secure the lower access door.
5. Also check the delivery hood for blockage and remove any obstructions.



6. In some extreme case it may be necessary to remove the galvanized belt guards and/or the belt itself.

10.5.2 Belt Tension Adjustment

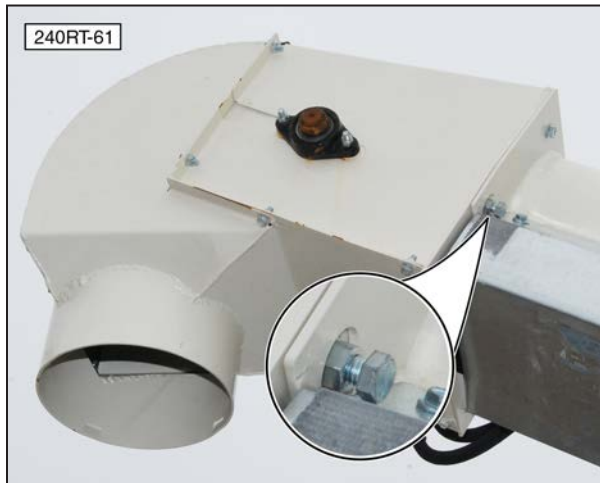


1. Loosen the locknut on each side of the belt tension mechanism.
2. Tighten the two adjusting bolts equally to 23 ft-lbs. While holding the adjusting bolt in place, retighten both locking nuts.
3. Start the conveyor and make sure the belt is tracking in the center of the drive drum. If the belt is not tracking properly, use the Belt Tracking Adjustment procedure to correct the problem.

IMPORTANT

The drive drum at the bottom of the conveyor must be square (drive shaft must be equal distance from end of unit) for the belt to track properly.

10.5.3 Belt Tracking Adjustment



1. Loosen the locking nuts on the two adjusting bolts.
2. Tighten or loosen the bolts on either side of the discharge hood to correct the tracking problem.
3. Using a wrench, hold the adjusting bolt in place while tightening the locking nut against the housing. Repeat this procedure for the other adjusting bolt.
4. Start the conveyor and make sure the belt is tracking in the center of the drive drum. Readjust, if needed.

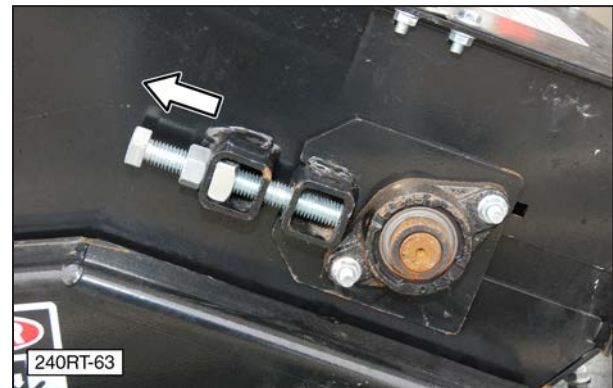
10.5.4 Belt Replacement

If the belt is unbroken, it may be possible to use the old belt to thread the new belt into the delivery tube.

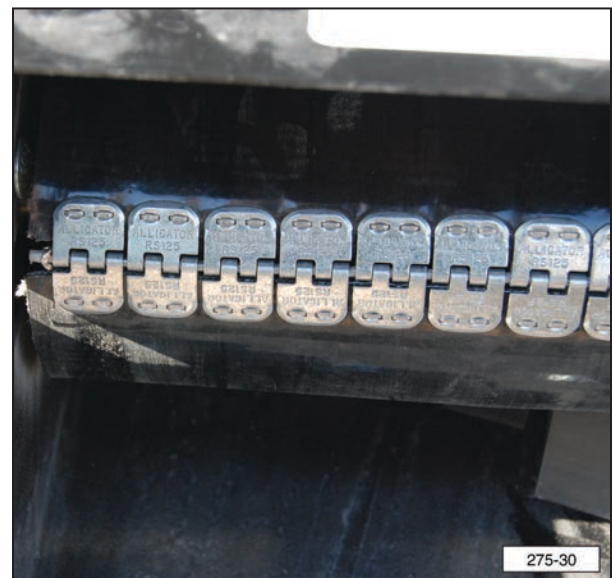
1. Position the conveyor with easy access to both ends.
2. Open the clean out door.



3. Position the lower drive drum adjusting bolts to their loosest position.



4. If the old belt can be used to install the new belt continue with this step; if not, continue to Step 5.
 - a. Disconnect the two ends of the conveyor belt. Attach the replacement belt to the end of the old conveyor belt.



- b. Slowly pull the old belt out of the delivery tube and thread the new one into position.
- c. Disconnect the old belt and connect the ends of the new belt together.

5. If the old belt cannot be used:
 - a. Remove the discharge hood and lower the galvanized belt guards.

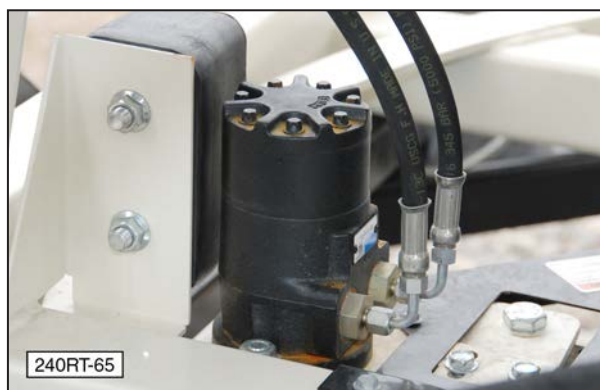


- b. Install the new belt and connect the two ends together.
6. Tighten the two drive drum adjusting bolts equally to 23 ft-lbs. While holding the adjusting bolt in place, retighten both locking nuts.
7. Start the conveyor to make sure the belt is tracking properly. If the belt is not tracking properly, use the Belt Tracking Adjustment procedure to correct the problem.
8. Recheck the tension and alignment of the belt frequently during the first ten hours of operation and adjust, as needed.

NOTE: Then, resume regular maintenance. Typically, a belt will seat itself during the first ten hours of operation and then require less or no adjustment.

10.6 CHAIN DRIVE SYSTEM

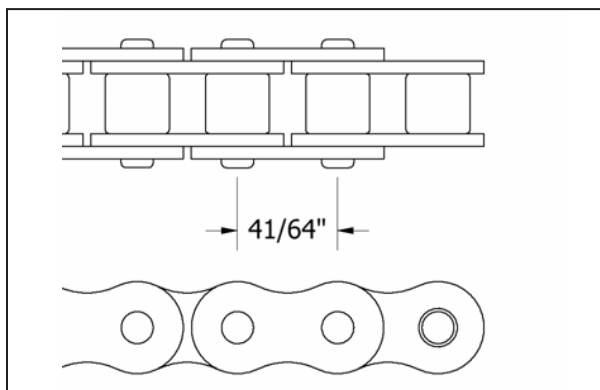
The rotating platform chain should be periodically maintained to ensure a long service life. Regularly inspect the chain for potential problems and to avoid premature failure. Early identification of a problem is crucial to prevent costly downtimes.



1. The chain drive will operate successfully with little or no lubrication beyond the initial factory lubrication. However, periodic lubrication will greatly extend the functional life of the chain drive. The chain drive requires lubrication for four purposes.
 - a. To resist wear of the pin-bushing joint.
 - b. To cushion impact loads.
 - c. To lubricate chain-sprocket contact surfaces.
 - d. To retard rust or corrosion.
2. Lubricate the chain with a good grade of clean petroleum oil without additives. The oil should be free flowing for the ambient temperature in which the seed tender is operating.

Recommended Grade	Temperature, °F
SAE 5	-50 to + 50
SAE 10	-20 to + 80
SAE 20	+10 to +110
SAE 30	+20 to +130
SAE 40	+30 to +140
SAE 50	+40 to +150

3. The chain must always be kept snug but not too tight. To check the tightness of the chain:
 - a. On the slack side of the chain, between the drive sprocket and rotating sprocket, push the chain inward.
 - b. Now pull the chain outward.
 - c. The distance the chain travels, side-to-side, should be between 1/8" inch and 1/4".
 - d. If the travel exceeds this amount, tighten the chain using the adjustment mechanism.
4. Remove any dirt or debris on the chain. Dirt buildup on the roller chain and sprockets will have an abrasive effect when suspended in lubrication and can cause premature wear.
5. Check for signs of wear on the inner surfaces of the roller chain and teeth of the sprockets.
6. Inspect the chain for flexibility, making certain that each and every link joint is free to pivot.
7. The roller chain will stretch and elongate over the life of the tender. A chain should be replaced if any or all of the pitches (distance from one pin to the adjoining pin) exceed 41/64".



8. Check the entire chain for any signs of fatigue such as cracks, loose pins, or loose bushings. Also check for corrosion or pitted surfaces. Replace any damaged chain.
9. Check the sprockets for signs of wear, such as cracks, thinning of the teeth, hook-shaped teeth, or wear patterns on the sides of the teeth. Also check for corrosion or pitted surfaces. Replace any damaged sprockets.

10.7 TRAILER BREAK-AWAY SYSTEM



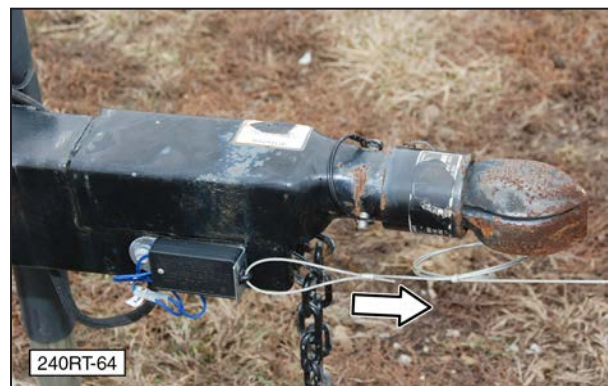
10.7.1 Testing the Battery

1. Disconnect the trailer plug from the tow vehicle; otherwise, you are testing the tow vehicle's battery.
2. Press the green TEST button on the control box located inside the frame of the trailer. The green indicator light should illuminate if the battery is fully charged. If the yellow or red indicator lights illuminate, the unit's battery should be charged before towing the trailer.

IMPORTANT

If the battery is weak or dead (red indicator, even after charging), as indicated by the indicator light, the battery must be replaced.

3. Plug the trailer into the tow vehicle. The yellow "Charging" light should be ON.
4. Test the system by pulling the pin out of the break-away switch. The battery will activate the brakes. (**Note:** Do not use this kit as a parking brake). The battery should be charged and tested prior to each trailer outing.



10.7.2 Changing Battery

The battery in the break-away system is rechargeable, but not replaceable. If the battery will not hold a charge, replace the unit.

10.8 WHEEL BOLT TORQUE REQUIREMENTS



1. Initially check the wheel bolt torque at 10, 25, and 50 miles and after each wheel removal. Refer to the Wheel Bolt Torque Requirements section in this manual for tightening instructions.

NOTE: Torque wrenches are the best method to ensure the proper amount of torque is being applied to a wheel nut.

CAUTION



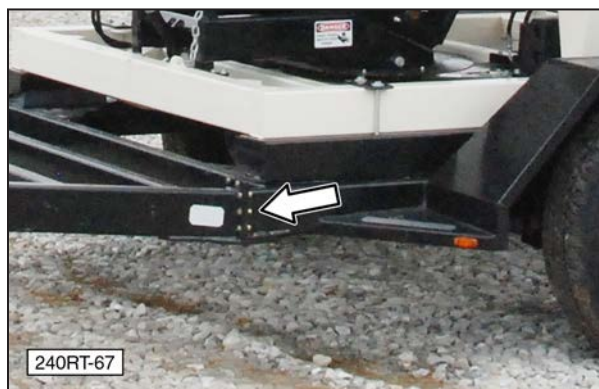
To prevent injury due to possible dangerous separation of wheels from the axle, the wheel nuts must be maintained at the proper torque levels. Properly maintained wheel nuts prevent loose wheels and broken studs.

2. Tighten the wheel nuts in three stages.
 - First stage: 20 to 25 foot pounds.
 - Second stage: 50 to 60 foot pounds.
 - Third stage: 90 to 120 foot pounds.
3. Tighten the wheel nuts in a clockwise, cross-axle alternating pattern.

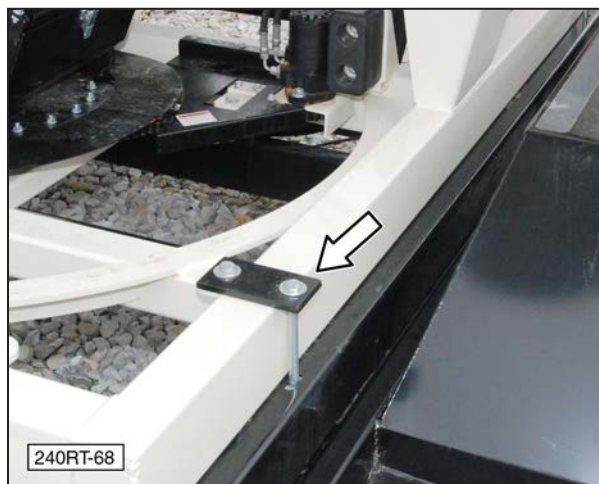
10.9 TRAILER HITCH BOLTS AND FRAME HOLD-DOWN BOLTS

The front hitch section of the seed tender is bolted to the trailer frame. This design allows the same trailer to use either a standard hitch assembly or a gooseneck trailer hitch if this option is available.

Check the torque on the trailer hitch bolts at least once per year. Tighten the bolts to 115 ft-lbs.



Check the torque on the frame hold-down bolts at least once per year. Tighten the bolts to 40 ft-lbs.



10.10 SERVICE RECORD CHART

The chart on the following page should be copied and filled out as maintenance is performed on the machine. Refer to the Lubrication, Maintenance, and Service sections for additional instructions.

**10.10 SERVICE RECORD CHART
(CONTINUED)**

[illegible]

10.11 SERVICE CHECKS

10.11.1 Daily (8 Hours)

WARNING



Gasoline is a highly combustible fuel. Improper use, handling, or storage of gasoline can be dangerous. Never touch or fill a hot engine. DO NOT fill the engine's fuel tank near an open flame while smoking or while engine is running. DO NOT fill tank in an enclosed area with poor ventilation. Wipe up spills immediately.

1. Check engine oil level and fill, as needed.
2. Check engine fuel level and fill, as needed.
3. Check hydraulic fluid level (1) and fill, as needed.



4. Check filter life indicator (2). Change the filter if the indicator needle is in the yellow or red area.



5. Test trailer break-away system. Refer to section 10.5 in this manual.

6. Initially check wheel bolt torque at 10, 25, and 50 miles. Refer to 10.6 Wheel Bolt Torque Requirements section in this manual for tightening instructions.
7. Check wireless remote control battery life and change them, if needed. Refer to section 10.1 in this manual for additional information.
8. Check delivery belt for proper tension and tracking. Refer to section 10.5.2 and 10.5.3 on adjusting the belt in this manual.

10.11.2 Weekly (50 Hours)

1. Change engine oil.
2. Clean or replace the foam filter element. Replace the paper air filter, as required.

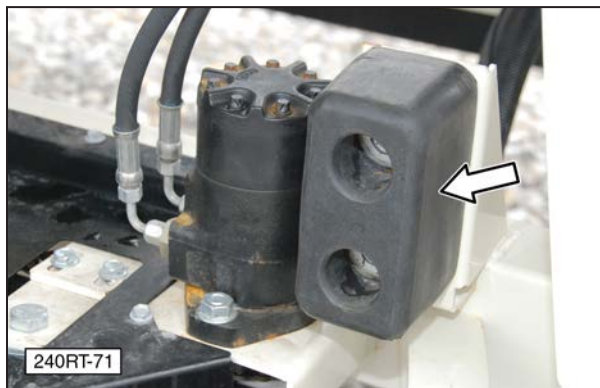


3. Check the tension on the delivery belt. Adjust tension if needed. Refer to section 10.5.2 in this manual for instructions.
4. Check the tire pressure. Inflate the tires to the recommended pressure stated on the tire.

10.11.3 Annually (400 Hours)

1. Check wheel bolt torque. Refer to 10.8 Wheel Bolt Torque Requirements section in this manual for tightening instructions.
2. Check frame and trailer hold-down bolts.

3. Check hydraulic motor to engine shaft coupling and spider. Refer to the Changing Hydraulic Motor Coupling section for instructions.
4. Check turntable nylon slide blocks.
5. Thoroughly clean the seed tender.
6. Check the tires for wear, and replace if needed.
7. Make sure the rubber stop bumpers are securely tightened and in place.



10.12 AXLE MAINTENANCE

10.12.1 First 200 Miles

1. Adjust brakes. Refer to OEM manual for procedure.

10.12.2 3,000 Miles or 3 Months

1. Adjust brakes. Refer to OEM manual for procedure.
2. Check torque on wheel nuts. Refer to the section in this manual.
3. Inspect tires for wear. Refer to OEM manual for procedure.

10.12.3 6,000 Miles or 6 Months

1. Inspect brake magnets for wear. Refer to OEM manual for procedure.
2. Inspect suspension parts for wear. Refer to OEM manual for procedure.

10.12.4 12,000 Miles or 12 Months

1. Inspect brake lining wear, check brake cylinder for leaks, and inspect brake wiring for damage. Refer to OEM manual for procedure.
2. Grease the wheel bearings and check the hub for wear. Refer to OEM manual for procedure.
3. Inspect grease seal for leakage. Refer to OEM manual for procedure.
4. Inspect springs for any wear or loss of arch. Refer to OEM manual for procedure.

10.13 TIRES

Check the tires for normal and/or abnormal tire wear. Replace tires that are damaged or worn beyond normal tread life. Refer to the axle OEM manual for a Tire Wear Diagnostic Chart.

Replace the tires with Meridian part number 18131 or an equivalent tire:
 3T235/80R16
 TR643
 Load Range E
 For Trailer Service Only

10.14 WELDING REPAIRS



Repair welding must be done with care and with procedures that may be beyond the capabilities of the ordinary welder.

Before performing any type of welding repair to the seed tender, contact Meridian for approval.

WARNING



Personal Injury Hazard. Repairs or modifications to the trailer, trailer tongue, or trailer hitch can result in serious injury or death should these repairs fail.

IMPORTANT NOTICE

Anyone performing a welding repair should be certified in accordance to the American Welding Society (AWS) standards.

11. OEM LITERATURE

OEM literature can be stored on the seed tender using the document storage tube.



11.1 HONDA® ENGINE

For any questions concerning the Honda® engine, refer to the OEM manual that was provided with the seed tender.



Additional information can be obtained from:

United States Power Equipment Division
Customer Relations Office
4900 Marconi Drive
Alpharetta, GA 30005-8847
(770) 497-6400

Honda® Canada, Inc.
715 Milner Avenue
Toronto, ON M1B 2K8
(888) 946-6329

11.2 RETRACTABLE COMPARTMENT TARP

For any questions concerning the Agri-Cover, refer to the OEM manual that was provided with the seed tender.



Three decals are also provided showing the correct operation and maintenance for the tarp. Attaching these decals is the responsibility of the purchaser.



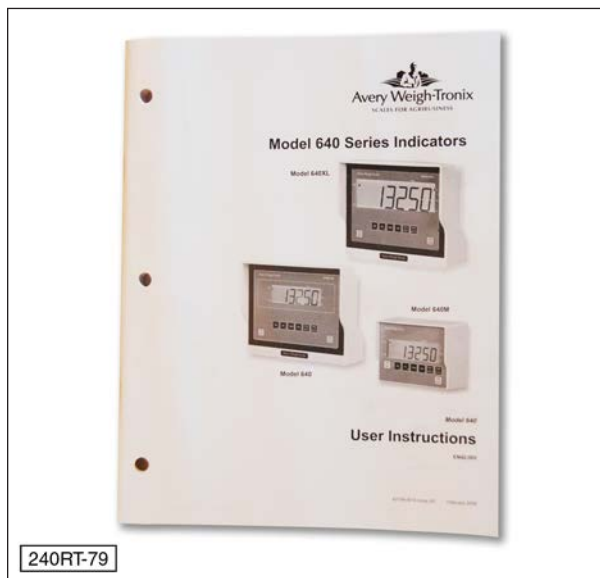
Additional information can be obtained from:

ACI Agri-Cover
PO Box 508
Jamestown, ND 58402

Phone: (866) 414-5422
Fax: (701) 251-1512
customerrelations@agricover.com

11.3 WEIGH-TRONIX SCALE

For any questions concerning the Avery Weigh-Tronix scale, refer to the OEM manual that was provided with the seed tender.



Additional information can be obtained from:

Avery Weigh-Tronix, LLC
1000 Armstrong Dr.
Fairmont, MN 56031 USA

Phone: 800-458-7062
Fax: 507-238-8283
E-mail: ag@weigh-tronix.com
Web: www.agscales.com

11.4 AXLE

For any questions concerning the Axis Products axle, refer to the OEM manual that was provided with the seed tender. An Owner's Manual and parts listing is provided with the seed tender.

Additional information can be obtained from:
Axis Products, Inc.
3403 Reedy Drive
Elkhart, IN 46514
Phone: (574) 266-8282

12. TROUBLESHOOTING

12.1 TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
Engine will not start.	No fuel.	Fill the fuel tank.
	Low engine oil.	Fill the crankcase with oil.
	Cold engine.	Open choke.
	Ignition key switch off.	Turn ignition key switch on.
	Battery dead.	Recharge or replace battery.
	Engine problem.	Refer to engine manual.
Conveyor belt will not start.	No power.	Start engine and increase speed above 1400 RPM.
	Drive motor coupling.	Repair or replace coupling.
	Belt tension.	Increase belt tension.
	No hydraulic oil.	Check oil level.
Electrical or hydraulic functions are not working properly.	Transmitter power is OFF.	Turn Power ON.
	Receiver power is OFF.	Turn Power ON.
	Battery cable or battery.	Check battery cable and make sure battery is fully charged.
	Error in the control system.	Check LED Error Code light.
	Improper ground.	Check for proper grounding electrical circuit.
	Hydraulic valve or motor.	Ensure hydraulic pump is working properly and hydraulic tank is filled with oil.
	Intermittent function.	Check receiver antenna for damage and proper connection. Loose connector at the valve coil.
Weigh-Tronix display is not working when power is ON.	No input power.	Inspect the power cable for possible damage.
		Check the wiring connections for corrosion, bent pins, or wire damage.
	Incorrect Voltage.	The required Voltage is 10 to 17 Volts with a negative ground. If the Voltage is between 9 and 10 Volts, the indicator will alternate between LOW.BAT and the appropriate mode.
	Dead battery.	Make sure the seed tenders 12 VDC battery is fully charged and the output is 12 Volts.
	Internal fuse.	Replace the 3.15 Amp fuse on the PC board. Replace the fuse with Avery Weigh-Tronix style fuse or equivalent (AWT P/N 48561- 0190). The fuse is soldered directly to the main board and should be replaced by a certified scale technician.
	Check for incorrect connection to the battery.	Connect BLACK wire to Ground and WHITE wire to +12 VDC.
Weigh-Tronix display turns OFF automatically.	Insufficient power.	The indicator will automatically turn OFF if the Voltage drops below 9 Volts for more than five seconds.

12.2 WEIGH-TRONIX DISPLAY



12.2.1 Error Message Outputs

The following are messages that may appear on the display and their meaning.

Message	Message Meaning
HELLO	Message displayed on power-up sequence for three seconds.
-----	UPPER DASHES, Indicator is in a state of overcapacity or analog input is too high.
-----	LOWER DASHES, Indicator is in a state of under capacity or analog input is too low.
NO TARE	Displayed when G/N key is pressed and there is no tare weight established.
PRINT	Indicator is transmitting data. Appears after pressing the print key for one second.
LO-BAT	Alternates on the display between current mode and LO-BAT when input Voltage is between 9 and 10 Volts.
HOLD	Used when moving a portable system.
L XXXX	XXXX = weigh value displayed when the indicator is in AUTO-LOC mode and has locked on a weight.
+RANGE	Displayed when weight input exceeds 8 mV/V.
-RANGE	Displayed when weight input exceeds -8 mV/V.
SHTDWN	Message displayed when pressing and holding the ON/OFF key to shut down unit. Message displayed prior to shutting the indicator OFF after the sleep timer has expired (ten seconds before sleep timer shutdown the alarm beeps several times).
CAN'T	Displayed when attempting to access too large of a numeric entry or the memory channel number is greater than 100.

13. WARRANTY

13.1 WARRANTY STATEMENT

Limited Materials and Workmanship Warranty For Bulk Seed Tenders

Meridian Manufacturing Group (hereinafter referred to as the Manufacturer) hereby warrants the Bulk Seed Tender(s) sold by it to be free from any defect in material or workmanship under normal use and service for a period of one (1) year from the date of shipment. The Manufacturer's obligation under this warranty shall be limited to the repair or replacement only, FOB the original point of shipment, of any defective parts or portions of the seed tender or accessories manufactured by Meridian. Any warranty claim must be reported to the Manufacturer within one (1) year from the date of shipment.

THIS WARRANTY IS SUBJECT TO THE FOLLOWING LIMITATIONS, PROVISIONS AND CONDITIONS:

1. This warranty does not apply:
 - a) To any product sold by the Manufacturer where it is used in areas exposed to corrosive or aggressive conditions including salt water, acids, alkaloid, ash, cement dust, animal waste or other corrosive chemicals from either inside or outside the bin.
 - b) For failures or defects arising out of damage during shipment or during storage on site.
 - c) To materials replaced or repaired under this warranty except to the extent of the remainder of the applicable warranty.
 - d) To damage resulting from misuse, negligence, accident or improper site preparation by others.
 - e) If the product has been altered or modified by others.
 - f) If in the case of coating failures the failure is the result of damage, lack of proper maintenance or failure to remove road salt or other contaminants that may have come in contact with the bin surface.
 - g) To loss of time, inconvenience, loss of material, down time or any other consequential damage.
 - h) For a function that is different than original designed intent.
2. The obligation of the Manufacturer under this warranty shall not arise unless the Manufacturer is notified and this warranty is presented together with a written statement specifying the claim or defect within thirty (30) days after the failure is first detected or made known to the owner and within one (1) year from the shipment date. The Manufacturer in its sole discretion shall determine if the claim is valid and whether correction of the defect or failure shall be made by repair or replacement of the materials.
3. The coating warranty is based on the manufacturer's performance specification for Polyester Powder finishes and does not include repair of minor blemishes or rusting that is normally part of the general maintenance of the seed tender. This warranty does not cover excessive wear on interior coatings. See attachment for full Performance Specification details on Polyester Powder Finishes.
4. The obligation of the Manufacturer hereunder extends only to the original owner and to the Meridian dealer to whom the materials may have been initially sold. This warranty shall not be subject to any assignment or transfer without the written consent of the Manufacturer.
5. The customer shall acknowledge that it has made its own independent decision to approve the use of the supplied materials and also the specific fabrication and construction procedures utilized to complete the seed tender, and has satisfied itself as to the suitability of these products for this particular application.
6. The foregoing sets forth the only warranties applicable to said materials and said warranties are given expressly and in lieu of all other warranties, expressed or implied, statutory or otherwise, of merchantability or fitness for a particular purpose and all warranties which exceed or differ from said warranties herein are disclaimed by the Manufacturer.
7. The owners sole and exclusive remedy against the Manufacturer shall be limited to the applicable warranty set forth herein and the endorsements, if any, issued together with this document and no other remedy (including but not limited to the recovery of assembly or disassembly costs, shipping costs, direct, incidental, special, indirect or consequential damages for lost profits, lost sales, injury to person or property or any other loss, whether arising from breach of contract, breach of warranty, tort, including negligence, strict liability or otherwise) shall be available to the owner or Meridian Dealer or any other person or entities whether by direct action or for contribution or indemnity or otherwise.
8. The financial obligation of the Manufacturer under this warranty shall be limited to the repair or replacement of the product as originally supplied and in no event shall exceed the original cost of the product supplied.
9. The Manufacturer shall not have any obligation under any warranty herein until all accounts for materials, installation and erection of the said product thereof and for labor and other work performed by the Manufacturer or its dealers have been paid in full by the owner.

Warranty Claim Procedure

1. Registering product with Meridian Manufacturing.
2. Contact the dealer unit was purchased from upon discovery of any defects.
3. A completed warranty claim form submitted by dealer to Meridian warranty representative for review and course of action.
4. Warranty repair work will only be performed by Meridian, the dealer or an approved representative. No warranty work completed prior to approval. Failure to follow procedure may affect any or all reimbursement.
5. Claims will be adjudicated at the sole discretion of the manufacturer and in accordance with the terms and conditions of the applicable limited warranty.
6. A complete list of warranty procedures can be procured from the Warranty Department or found in your owner's manual.

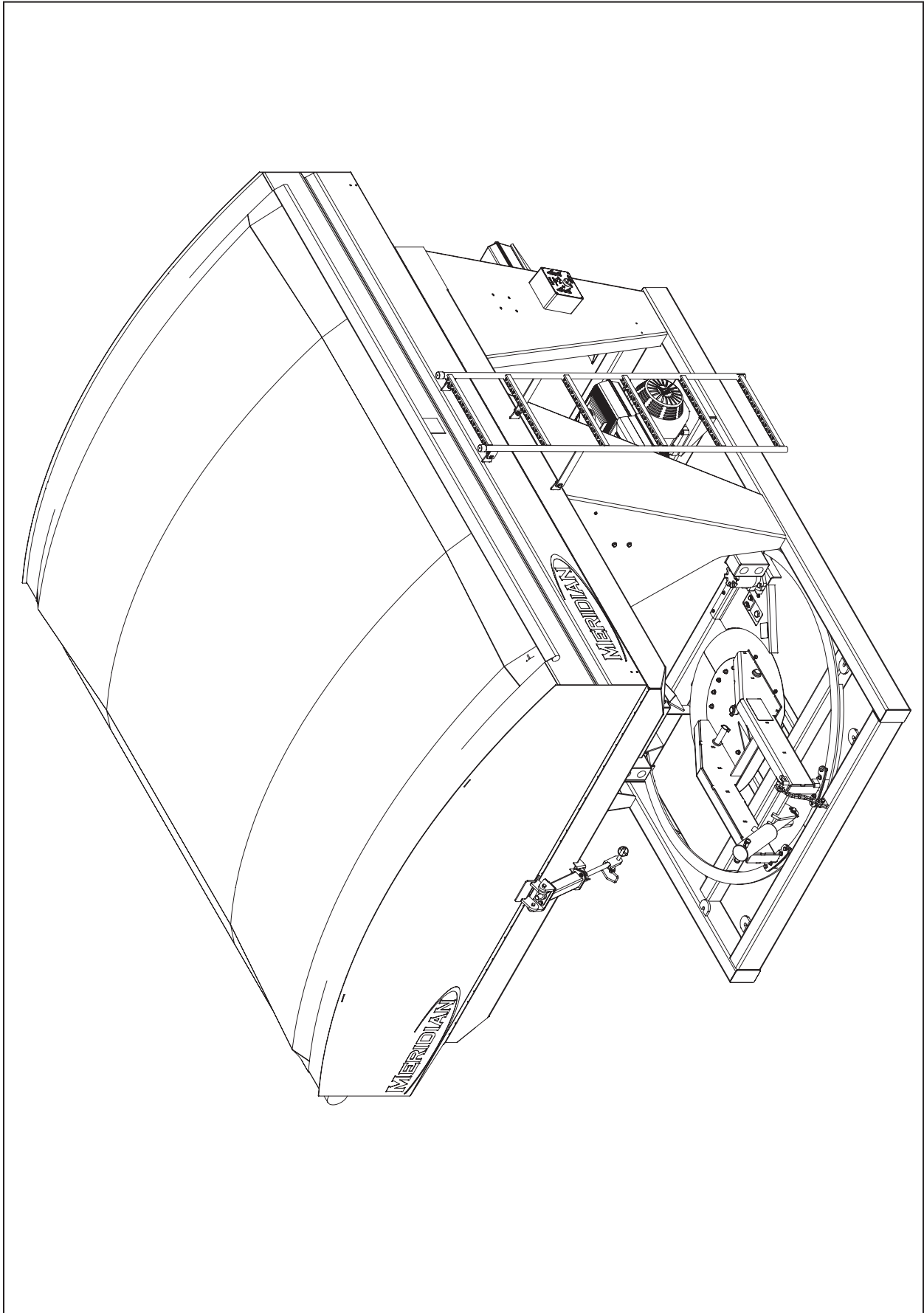
Effective July 1, 2009

14. PARTS

The following pages contain a list of serviceable parts for both the 240RT or 375RT Seed Express units.

Parts are available from your authorized Dealer Parts Department.

14.1 240RT SEED TENDER

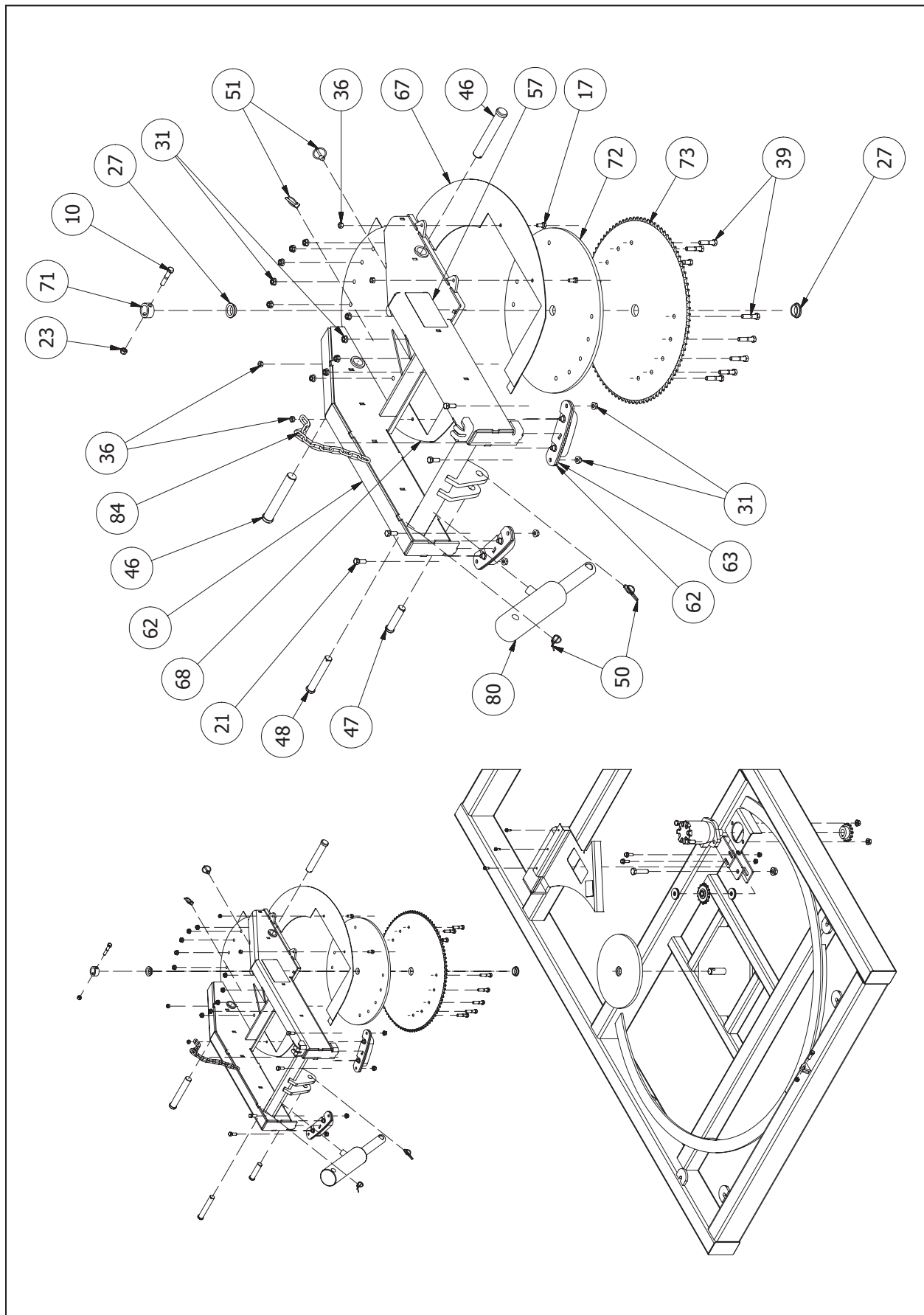


1	1	21270	Motor, Eaton T, 158-1430-001
2	1	18128	Holder, Manual OMC-1
3	2	18577	Capscrew, Socket Head, Hex
4	2	19052	Decal, Gate 1
5	2	19053	Decal, Gate 2
6	2	19126	Nut, Hex, Flanged, 1/4-20
7	12	19129	Rivet, 3/16" x 1/2"
8	2	19141	Screw, Pan, Round Head #8-32 x 5/8"
9	6	19142	Nut, Hex, Flanged, Steel, Mild, 8-32
10	1	19243	Bolt, Hex, 3/8-16 x 2" Grade 8
11	1	19247	Coupling, 3/16" x 3/32"
12	1	19248	Coupling, Key, 5/8" x 5/32"
13	1	19289	Housing, Bell
14	1	19290	Spider, Spacer
15	1	19295	Pump, Hydraulic
16	2	19307	Washer, Flat, 1/4"
17	7	19309	Bolt, Hex, 5/16-18 x 3/4"
18	4	19311	Capscrew, Hex Head, 5/16-18 x 1-1/2"
20	3	19318	Nut, Hex, Flanged, 5/16-18
21	8	19325	Bolt, Hex, 3/8-16 x 1"
22	1	19326	Bolt, Hex, Steel, Mild, 3/8-16 x 1-1/4"
23	5	19347	Locknut, Nylon, 3/8-16
24	4	19372	Washer, Flat, 1/2"
25	1	19376	Capscrew, Hex Head, 5/8-11 x 2-1/2"
26	6	19384	Washer, Flat, 5/8"
27	2	19405	Bushing
29	2	19548	Rivet, Steel, 1/8" Grip
30	2	19560	Bolt, Hex, 1/4-20 x 3/4"
31	25	19564	Nut, Hex, Flanged, 3/8-16
32	1	19566	Nut, Flanged, 5/8-11
33	6	19569	Bolt, Hex, Flanged, 3/8-16 x 1"
34	4	19574	Bolt, Hex, 1/2-13 x 3"
35	8	19577	Bolt, Hex, Flanged, 3/8-16 x 3/4"
36	8	19586	Locknut, Nylon, 5/16-18

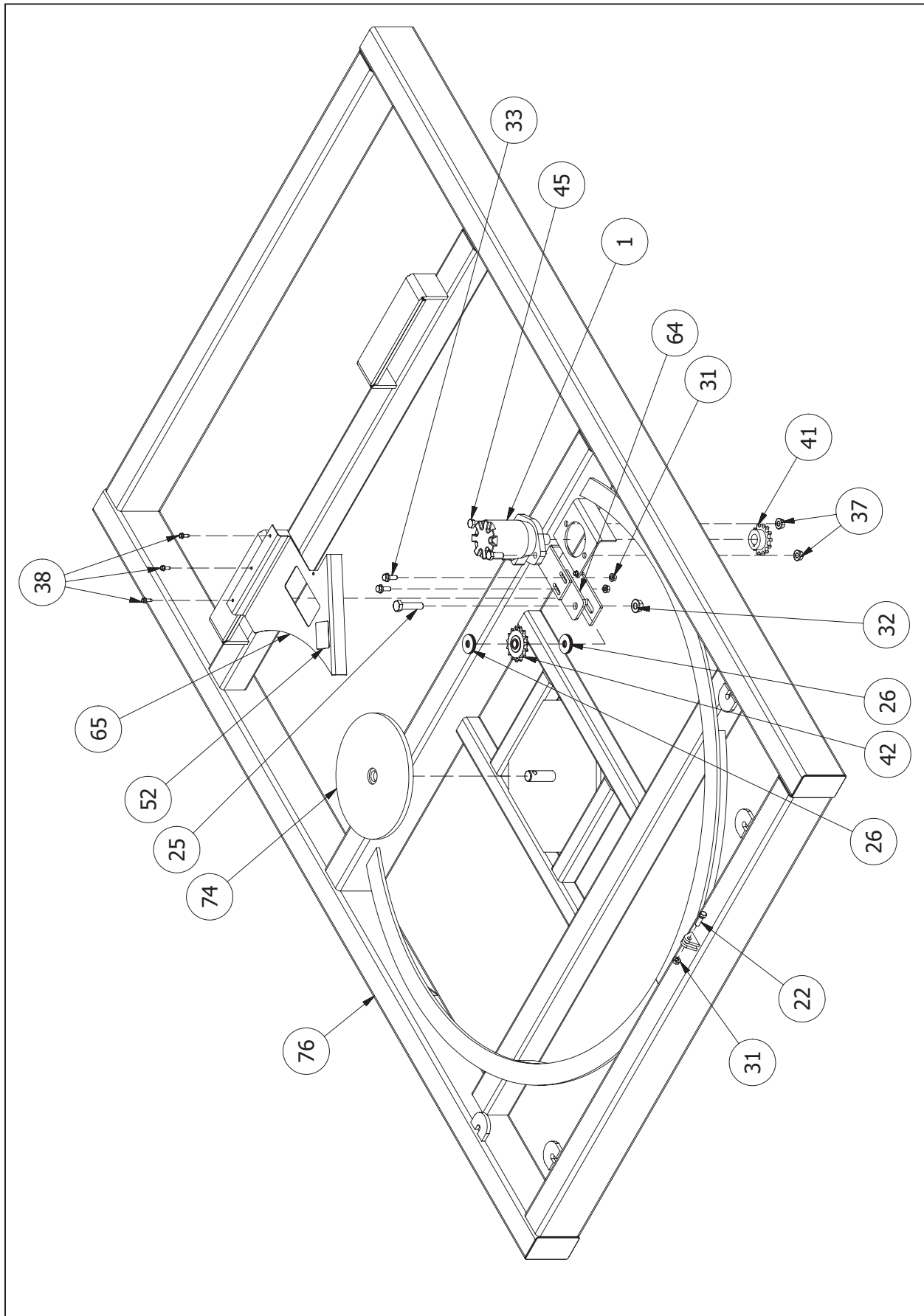
37	6	19595	Nut, Hex, Flanged, 1/2-13
38	4	19597	Screw, Self Drilling, 1/4-14 x 3/4"
39	10	19618	Bolt, Hex, 3/8-16 x 1-3/4" Steel, Mild
40	2	19708	Bumper, Rubber
41	1	19743	Sprocket, Drive
42	1	19767	Sprocket, Idler
43	1	19770	Manifold, Valve
44	1	19771	Box, Tool
45	2	19773	Capscrew, Hex Head, 1/2-13 x 1-1/4"
46	2	19774	Pin, Clevis, 1" x 5-45/64"
47	1	19776	Pin, Clevis, 3/4" x 2-33/64"
48	1	19777	Pin, Clevis, 3/4" x 3-49/64"
49	1	19784	Grip, Spring #SG2
50	2	19785	Pin, Cotter, Ringed Lock, 0.080"
51	2	19794	Pin, Lynch, 3/16" x 1"
52	1	19937	Decal, Warning, Missing Shield
53	1	19939	Decal, Falling Hazard
54	1	19944	Decal, Warranty Notice
55	1	19984	Decal Serial Number
56	4	20081	Meridian Decal (25" x 6-1/2")
57	2	20087	Decal, Pinch Point Hand
58	1	20088	Decal, Warning, Hot Surface
59	1	21270	Motor, Honda, GX340
60	1	21286-00	Battery, SP-30
61	1	23600-00	Assembly, Slide Gate
62	1	23620-00	Weldment, Turret
63	2	23642-00	Assembly, Wear Pad
64	1	23646-00	Plate, Idler
65	1	23658-00	Guard, Chain
66	1	23663-00	Dampener, Load Shock
67	1	23764-00	Guard, Turret Chain, Right
68	1	23765-00	Guard, Turret Chain, Left
69	1	29369	Assembly, Ladder, 240
71	1	29869	Collar

72	1	29872	Spacer, Chain
73	1	29873	Sprocket, Conveyor
74	1	29875	Disc, Wear
75	2	36150-00	Gate, Sample
76	1	37105-00	Assembly, Welded, Base, 240RT
77	1	19153	Remote, 375_240
78	4	47008	View Glass, Stainless Steel, Ring Assm.
80	1	19244	Cylinder, 5" Stroke
81	1	19294	Tank, Oil, 10 Gallon with Filter
82	1	19268	Box, Control
83	1	19268	Receiver, Kartech
84	1	16336	Chain, Safety
85	1	19246	Cylinder, Gate
86	1	19245	Cylinder, Gate
87	4	19328	Bolt, Hex, 3/8-16 x 2"
88	8	19348	Washer, Flat, 3/8"
89	1	26096	Kit, Agri Cover Tarp, 240RT
---	1	18657	Battery Cable, Set, 45" (Not Shown)
---	2	19758	Decal, Seed Express White (Not Shown)
---	2	19757	Decal, White, 240RT (Not Shown)
---	2	19751	Decal, Gradient, 3-1/4" x 75" (Not Shown)
---	2	19750	Decal, Gradient, 3-1/4" x 98" (Not Shown)
*			Refer to Section 3 for decal locations

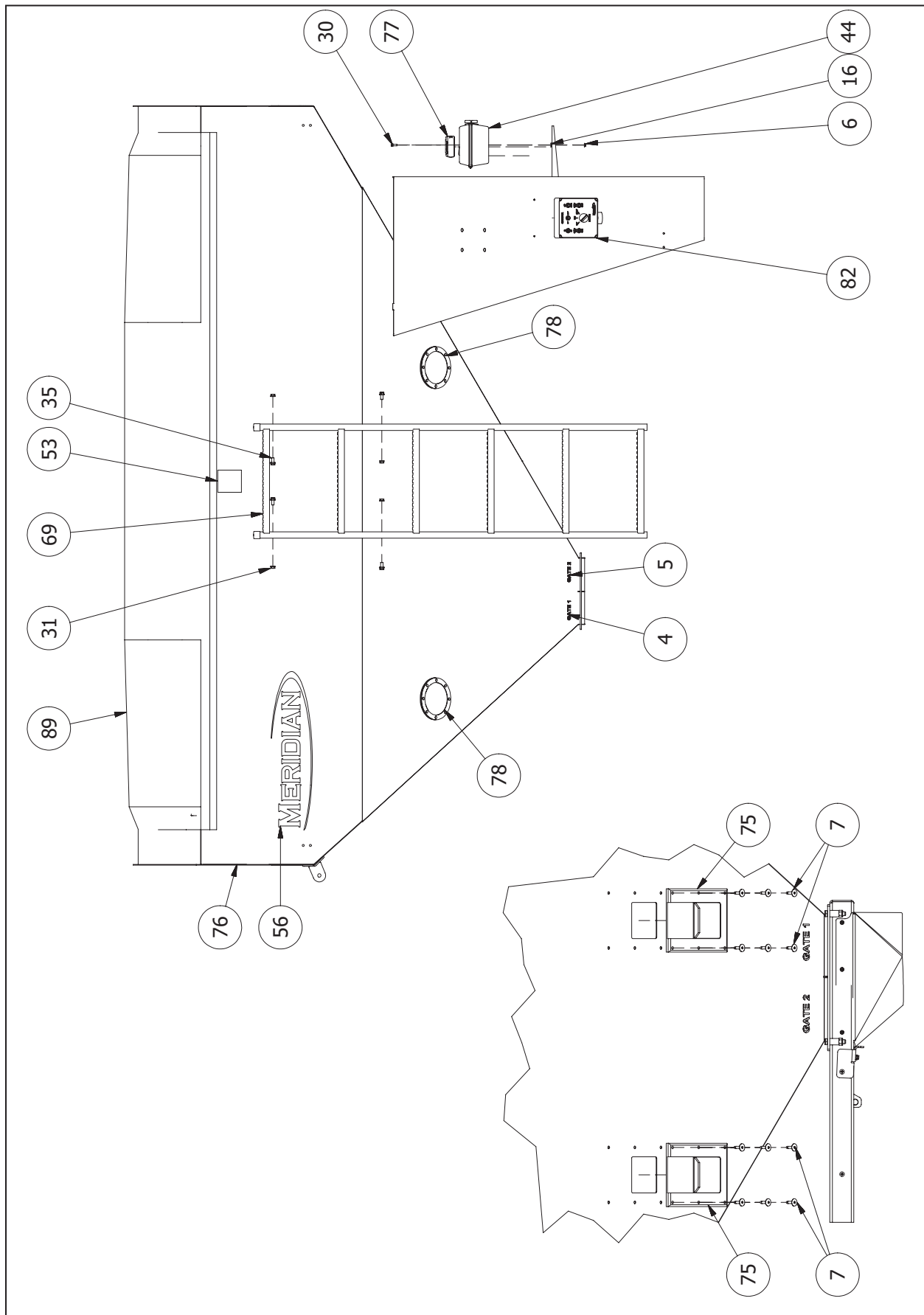
14.1.1 Turret Detail (240RT)



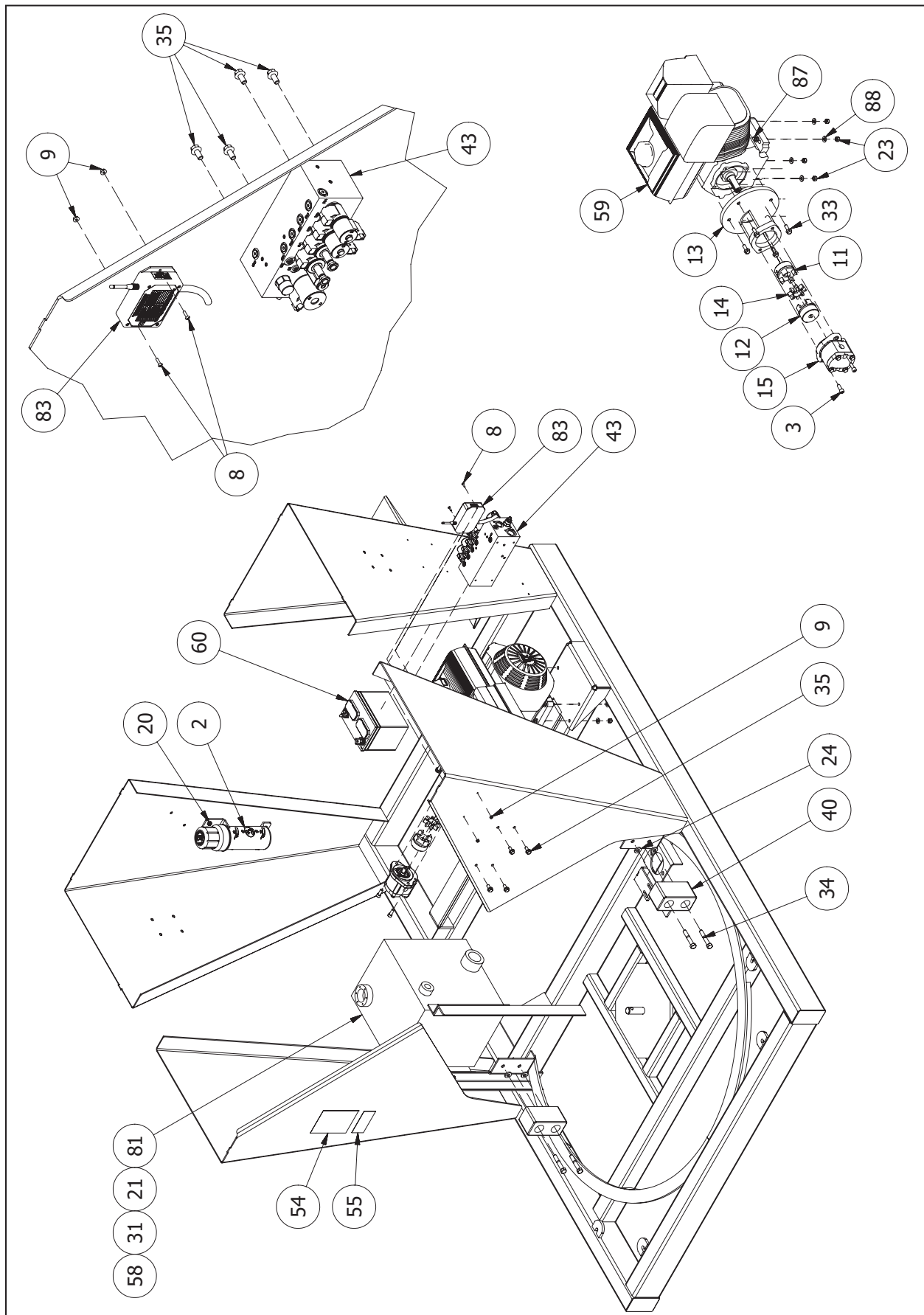
4.4.1.8 Tunnel Detail (Continued) (340BT)



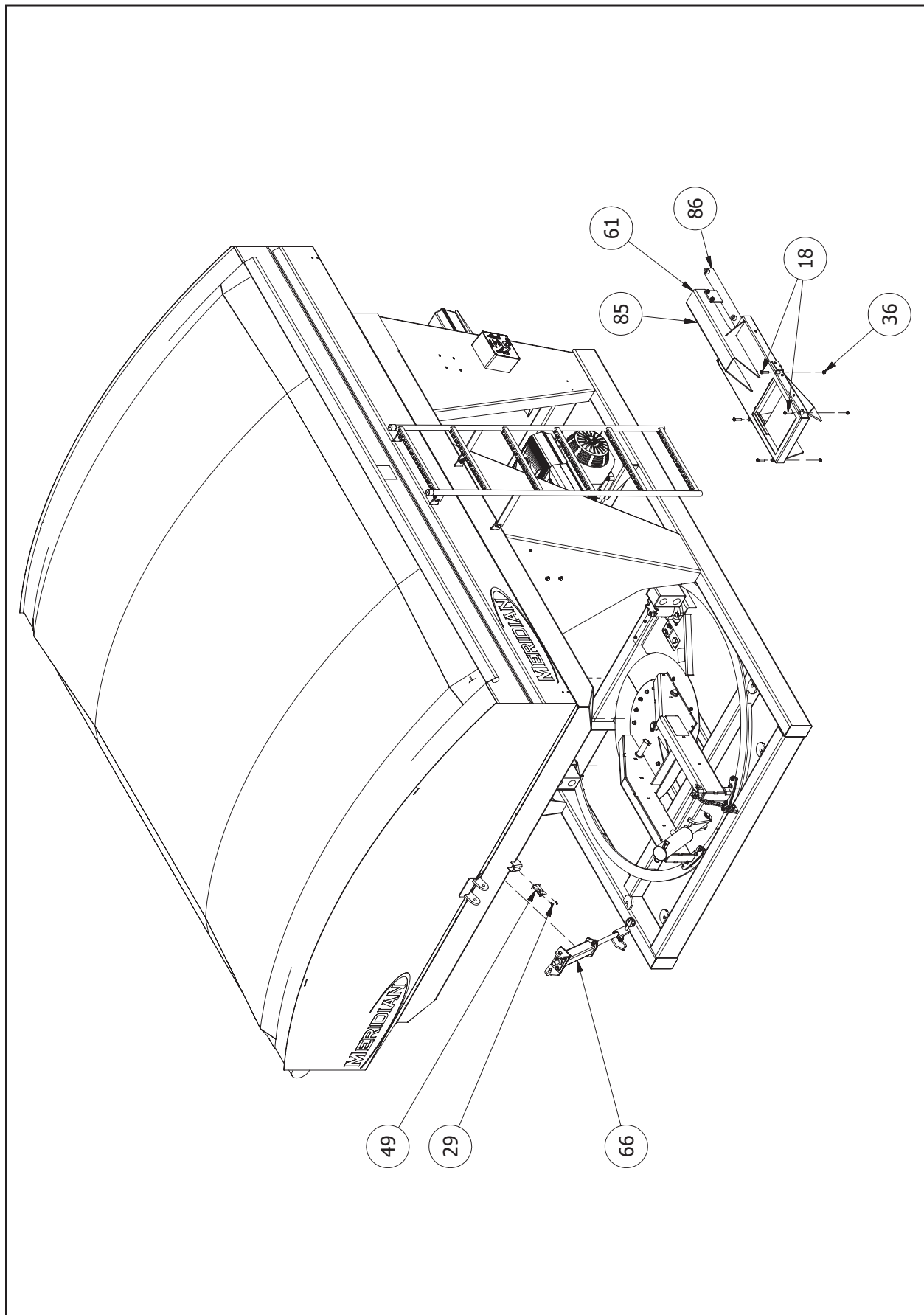
14.1.3 Side View Detail (240RT)



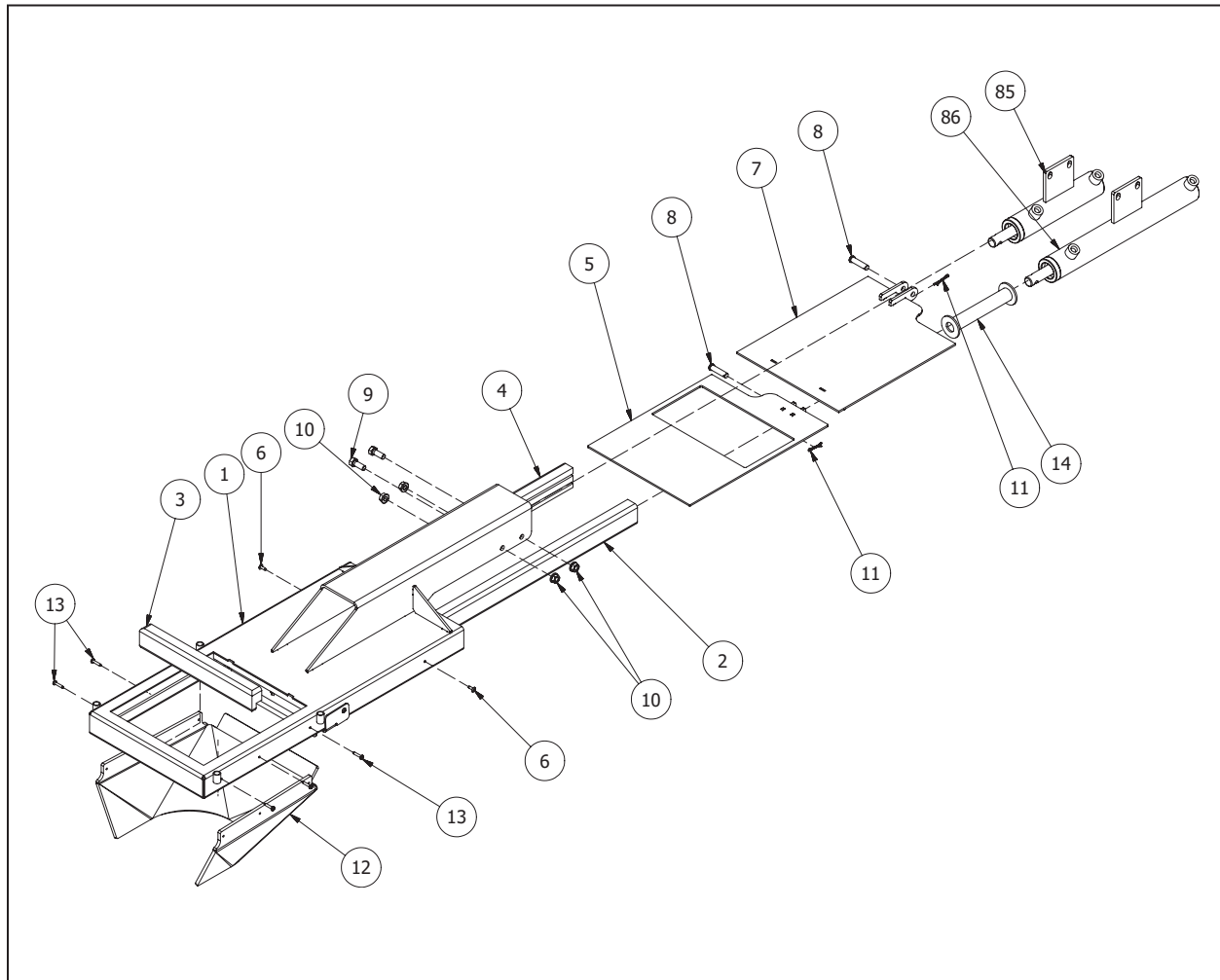
14.1.4 Undercarriage Detail (240RT)



14.1.5 Slide Gate Detail (240RT)

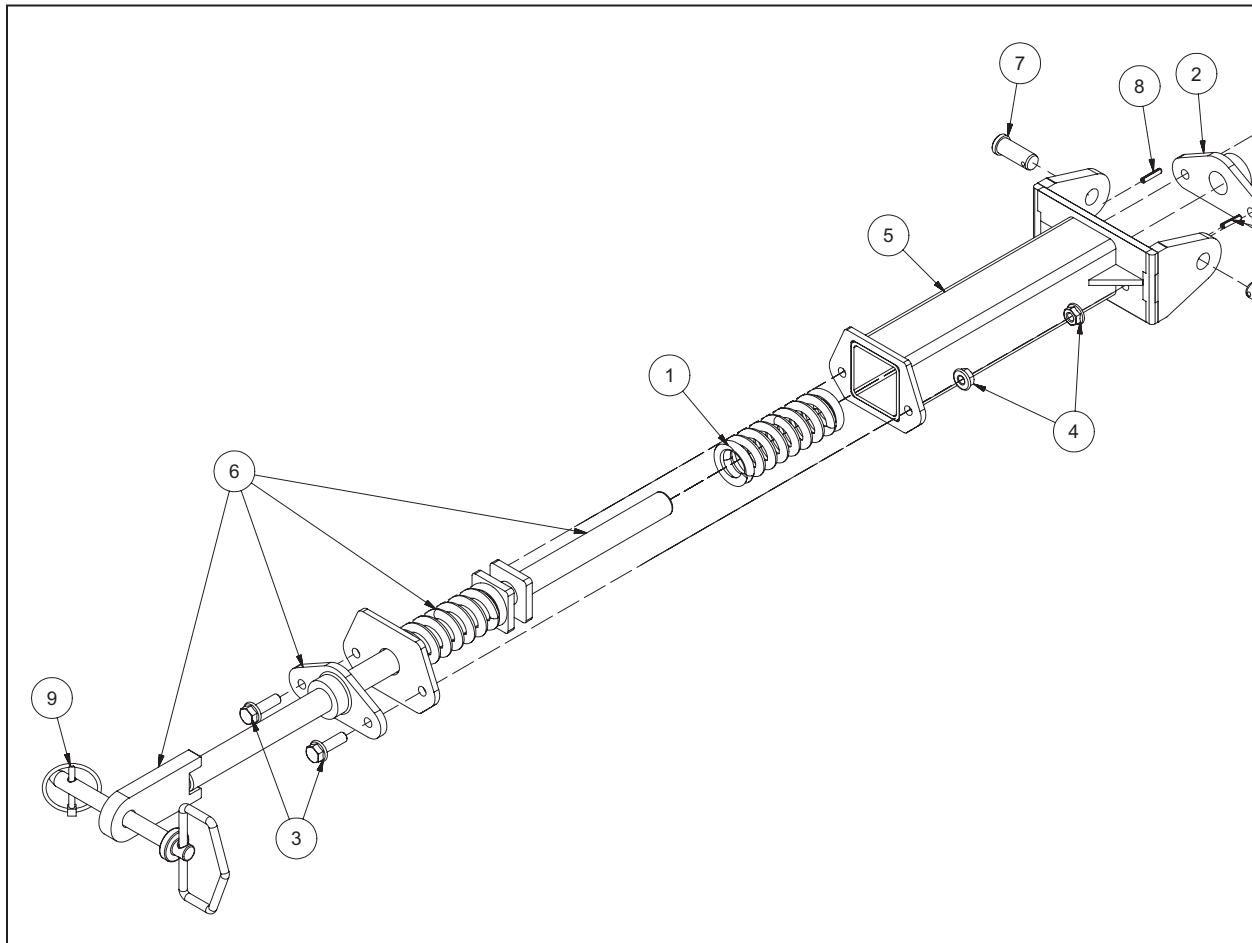


14.1.6 Slide Gate (Continued) (240RT)



1	1	23601-00	Weldment, Housing
2	1	23604-00	Guide, Gate, Right UHMW
3	1	23606-00	Guide, Gate, End UHMW
4	1	23605-00	Guide, Gate, Left UHMW
5	1	23612-00	Weldment, Bottom Gate
6	4	19699	Screw, Self Drilling, #8-32 x 1/2"
7	1	23656-00	Weldment, Top Gate
8	2	19775	Pin, Clevis, 3/8" x 1-17/64" Effective Length
9	4	19325	Bolt, Hex, 3/8-16 x 1"
10	4	19564	Nut, Hex, Flanged, 3/8-16
11	2	19795	Pin, Cotter 1/8" x 1" Extend
12	1	23725-01	Skirt, Gate Boot
13	6	19779	Screw, Self Drilling, Zinc, #8-18 x 3/4"
14	1	23609-00	Weldment, Stop Tube
85	1	19246	Cylinder, Gate
86	1	19245	Cylinder, Gate

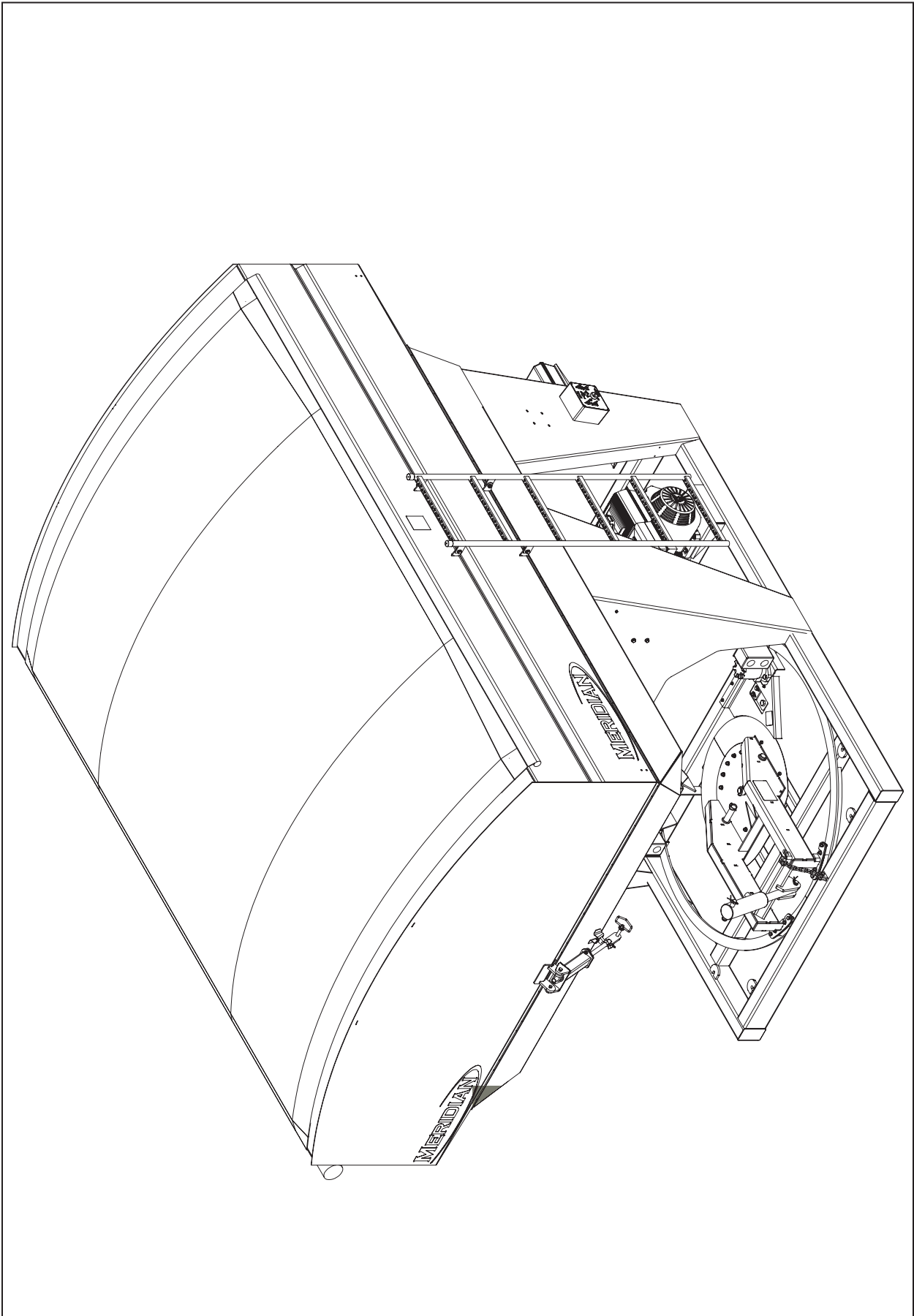
14.1.7 Damper Detail (240RT)



1	1	19744	Spring, Compression
2	1	19403	Bushing, Nylon, 3/4"
3	4	19581	Bolt, Hex, Flanged, 5/16-18 x 1"
4	4	19318	Nut, Hex, Flanged, 5/16-18
5	1	23673-00	Assembly, Body
6	1	23662-00	Assembly, Rod
7	2	19070	Pin, 1/2" x 1-1/4"
8	2	19237	Pin, Spring
9	1	19748	Pin, Hitch, 1/2" x 4" Effective Length

NOTES

14.2 375RT SEED TENDER

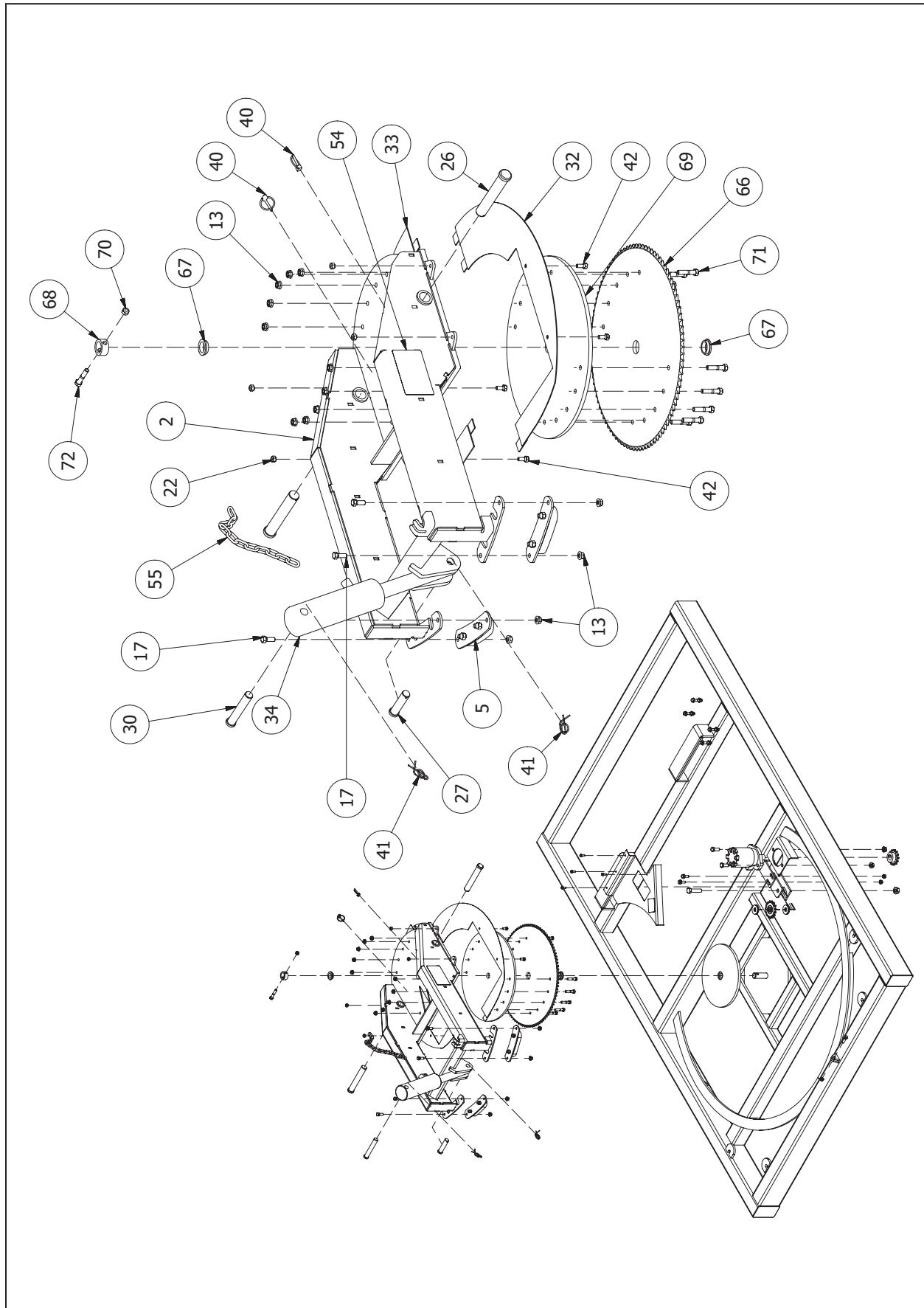


1	1	28924	Base Model, 375RT	
2	1	23620-00	Weldment, Turret	
3	1	23600-00	Assembly, Slide Gate	
4	1	23663-00	Dampener, Shock Load	
5	2	23642-00	Assembly, Wear Pad	
6	1	19292	Motor, Hydraulic	
7	1	19743	Sprocket, Drive	
8	2	19708	Bumper, Rubber	
9	1	23646-00	Plate, Idler	
10	1	19767	Sprocket, Idler, #50 Roller Chain	
11	1	19376	Capscrew, Hex Head, 5/8-11 x 2-1/2"	
12	1	19566	Nut, Flanged, 5/8-11	
13	21	19564	Nut, Hex, Flanged, 3/8-16	
14	1	19294	Tank, Oil, 10 Gallon with Filter	
15	1	19770	Manifold, Valve	
16	1	23658-00	Guard, Chain	
17	8	19325	Bolt, Hex, 3/8-16 x 1"	
18	4	19372	Washer, Flat, 1/2"	
19	11	19595	Nut, Hex, Flanged, 1/2-13	
20	4	19574	Bolt, Hex, 1/2-13 x 3"	
21	4	19311	Capscrew, Hex Head, 5/16-18 x 1-1/2"	
22	8	19586	Nut, Lock, Nylon, 5/16"-18	
23	2	19773	Capscrew, Hex Head, 1/2-13 x 1-1/4"	
24	2	36150-00	Gate, Sample	
25	12	19129	Rivet, 3/16" x 1/2"	
26	2	19774	Pin, Clevis, 1" x 5-45/64"	
27	1	19776	Pin, Clevis, 3/4" x 2-33/64"	
28	1	36176-02	Assembly, Ladder	
29	8	19577	Bolt, Hex, Flanged, 3/8-16 x 3/4"	
30	1	19777	Pin, Clevis, 3/4" x 3-49/64"	
32	1	23764-00	Guard, Chain, Right Turret	
33	1	23765-00	Guard, Chain, Left Turret	
34	1	19244	Cylinder, Lift	
35	1	19784	Grip, Spring, #SG2	

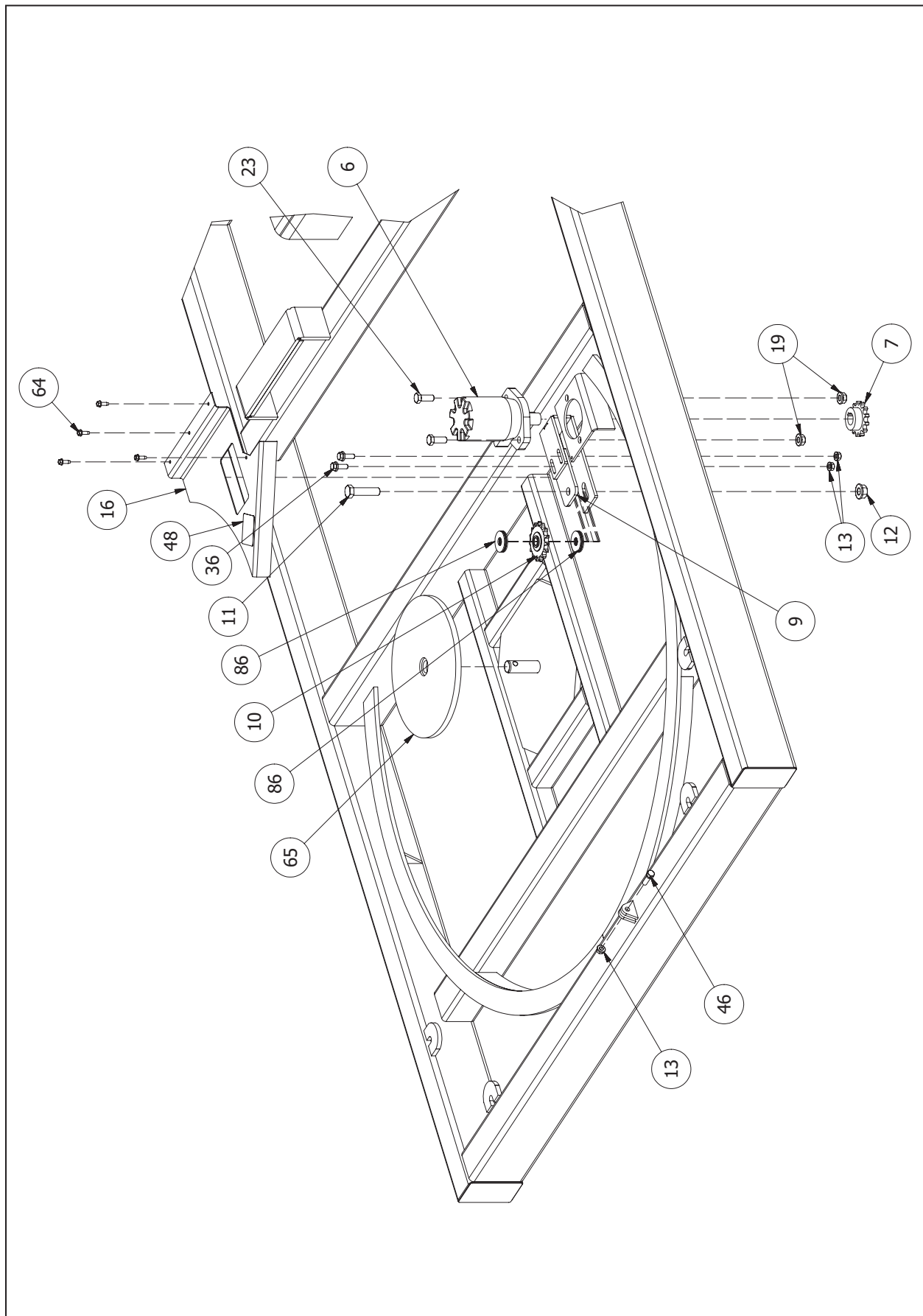
36	6	19569	Bolt, Hex, Flanged, 3/8-16 x 1"	
37	1	19268	Box, Control	
38	1	19268	Receiver, Kartech	
40	2	19794	Pin, Lynch, 3/16 x 1"	
41	2	19785	Pin, Ringed Lock, Cotter	
42	7	19309	Bolt, Hex, 5/16-18 x 3/4"	
43	6	19142	Nut, Hex, Flanged, Steel, Mild, 8-32	
44	2	19141	Screw, Round Head, Pan, #8-32 x 5/8"	
45	1	19771	Box, Tool	
46	1	19326	Bolt, Hex, Steel, Mild, 3/8-16 x 1-1/4"	
47	1	21286-00	Battery, SP-30	
48	1	19937	Decal, Warning, Missing Shield	
50	7	19318	Nut, Hex, Flanged, 5/16-18	
51	2	19548	Rivet, Steel, 1/8"	
52	1	18128	Holder, Manual OMC-1	
53	1	20088	Decal, Warning, Hot Surface	
54	2	20087	Decal, Pinch Point, Hand	
55	1	19336	Chain, Safety	
56	1	19939	Decal, Falling Hazard	
57	1	19944	Decal, Notice, Warranty	
58	2	19307	Washer, Flat, 1/4"	
59	2	19560	Bolt, Hex, 1/4-20 x 3/4"	
60	2	19126	Nut, Hex, Flanged, 1/4-20	
61	1	19267	Remote, 375-240	
62	2	19052	Decal, Gate 1	
63	2	19053	Decal, Gate 2	
64	4	19597	Screw, Self Drilling, 1/4-14 x 3/4"	
65	1	29875	Disc, Wear	
66	1	29873	Sprocket, Conveyor	
67	2	19405	Bushing	
68	1	29869	Collar	
69	1	29872	Spacer, Chain	
70	5	19347	Locknut, Nylon, 3/8-16	
71	10	19618	Bolt, Hex, 3/8-16 x 1-3/4" Steel, Mild	

72	1	19243	Bolt, Hex, 3/8-16 x 2" Grade 8	
73	1	19984	Decal, Serial Number	
74	4	47008	Assembly, Stainless Steel Ring, View Glass	
75	1	21270	Engine, Honda, GX340	
76	1	19289	Housing, Bell	
77	1	19247	Coupling, 3/16" x 3/32"	
78	1	19290	Spider, Spacer	
79	1	19248	Coupling, 5/8" x 5/32" Key	
80	1	19295	Pump, Hydraulic	
81	2	18577	Capscrew, Socket Head, Hex	
83	1	19245	Cylinder, Gate	
84	1	19246	Cylinder, Gate	
85	4	20081	Decal, Meridian, 25" x 6-1/2"	
86	6	19384	Washer, Flat, 5/8"	
87	4	19328	Bolt, Hex, 3/8-16 x 2"	
88	8	19348	Washer, Flat, 3/8	
89	1	26097	Kit, Agri Cover Tarp, 375RT	
---	1	19782	Chain, Turret Drive (Not Shown)	
---	1	18657	Set, Battery Cable, 45" (Not Shown)	
---	2	19758	Decal, Seed Express, White (Not Shown)	
---	2	19752	Decal, Gradient, 3.25" x 109" (Not Shown)	
---	2	19751	Decal, Gradient, 3.25" x 75" (Not Shown)	
---	2	19759	Decal, 375RT, White (Not Shown)	
*			Refer to Section 3 for decal locations	

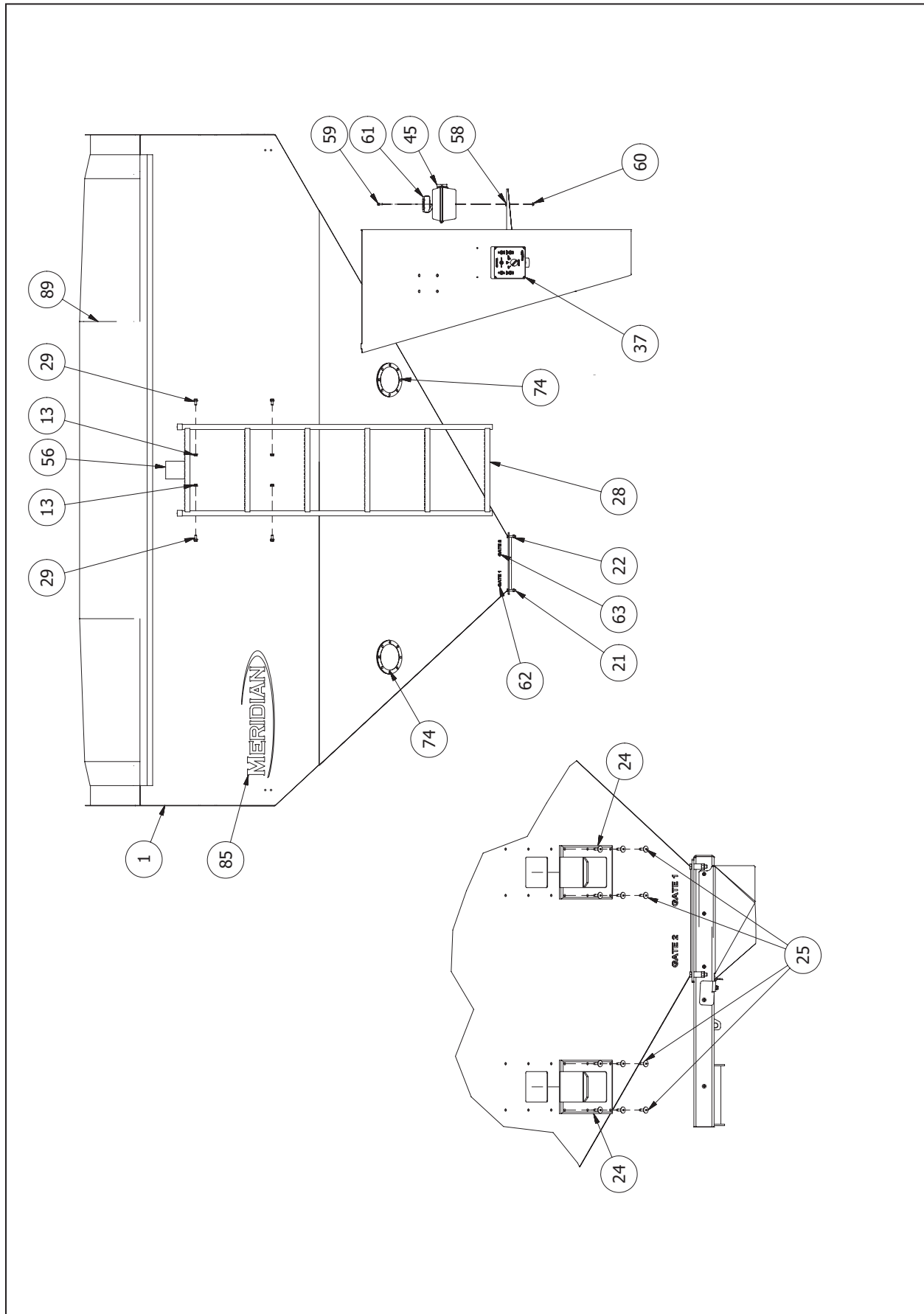
14.2.1 Turret Detail (375RT)



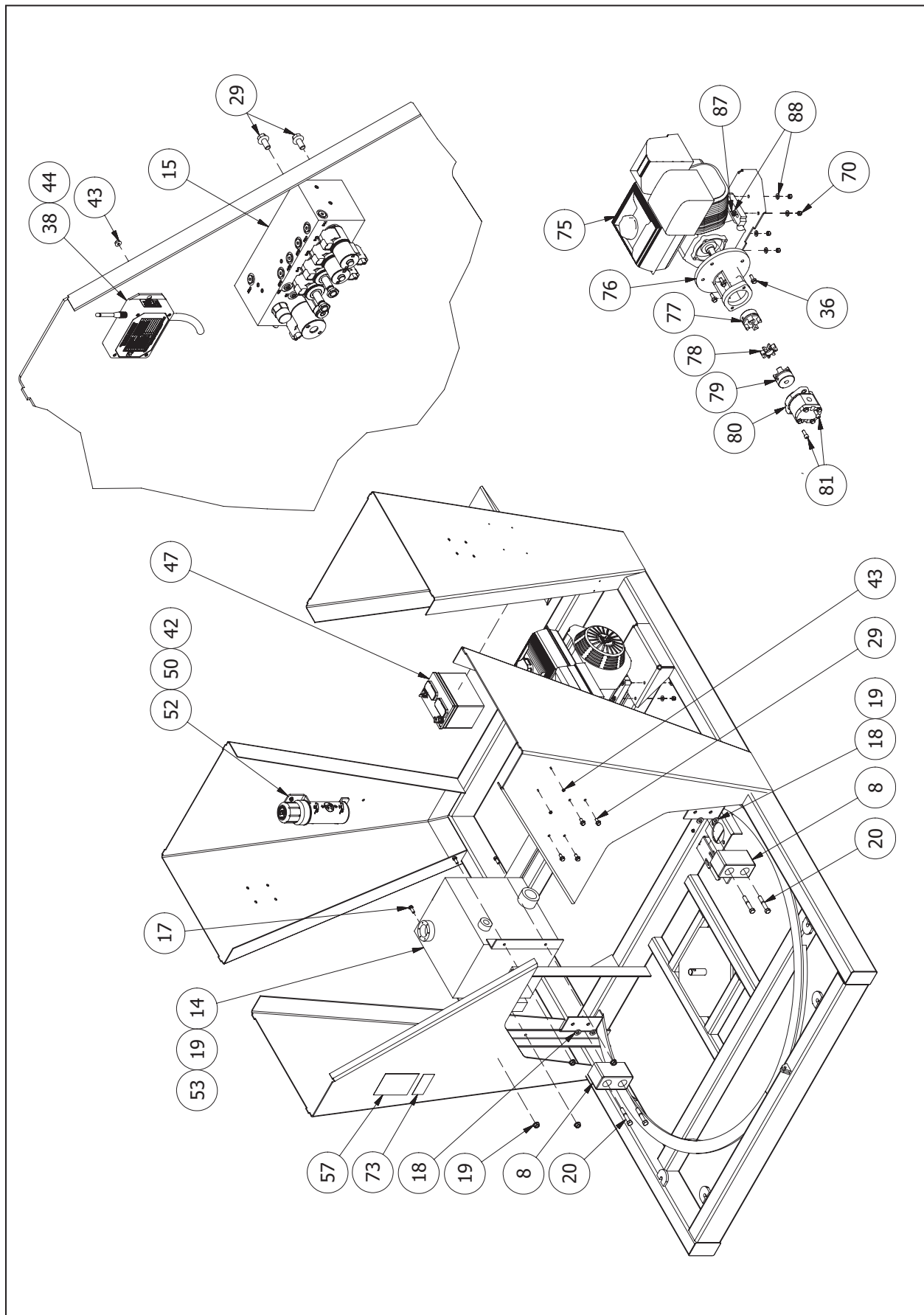
14.2.2 Turret Detail (Continued) (375RT)



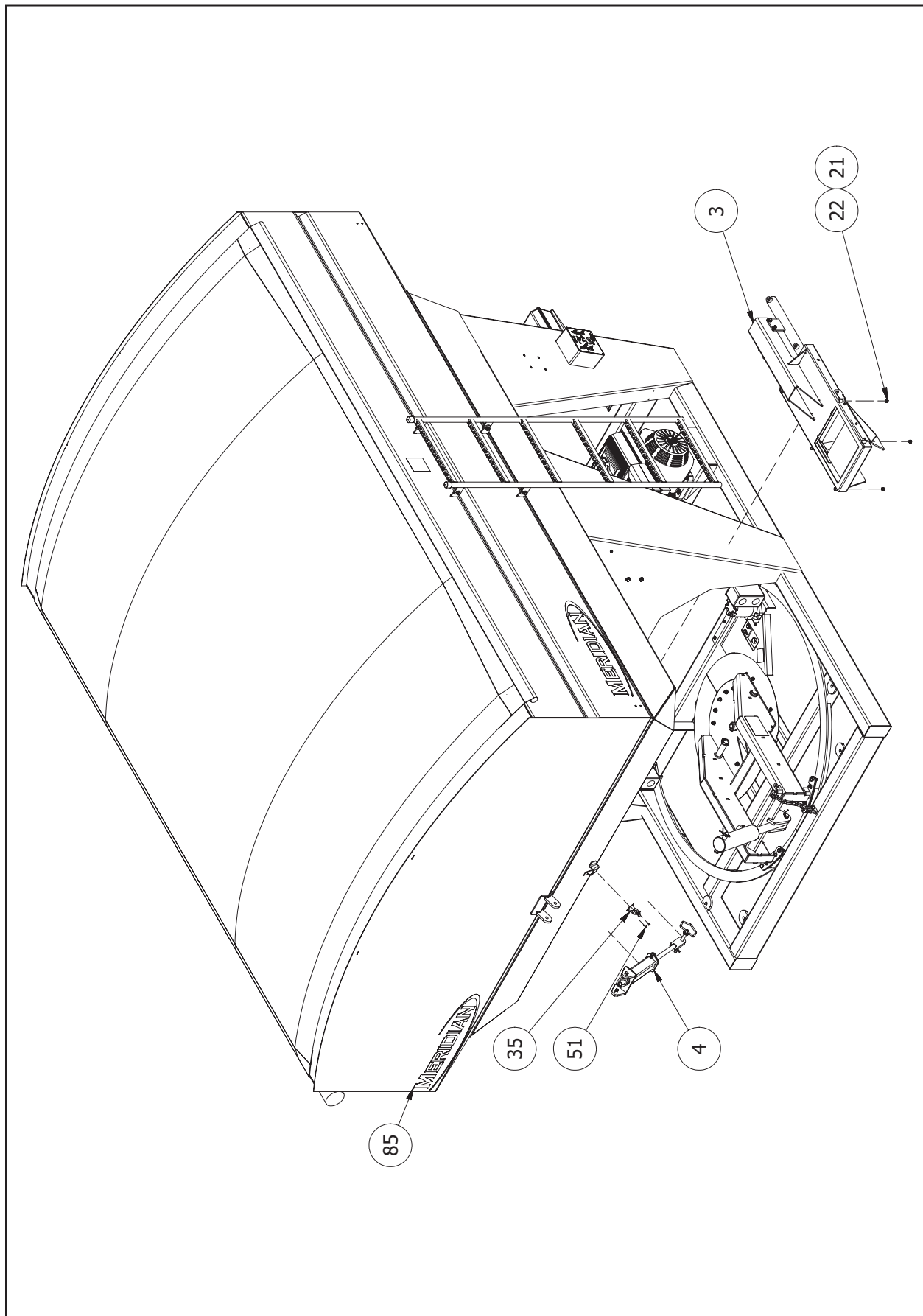
14.2.3 Side View Detail (375RT)



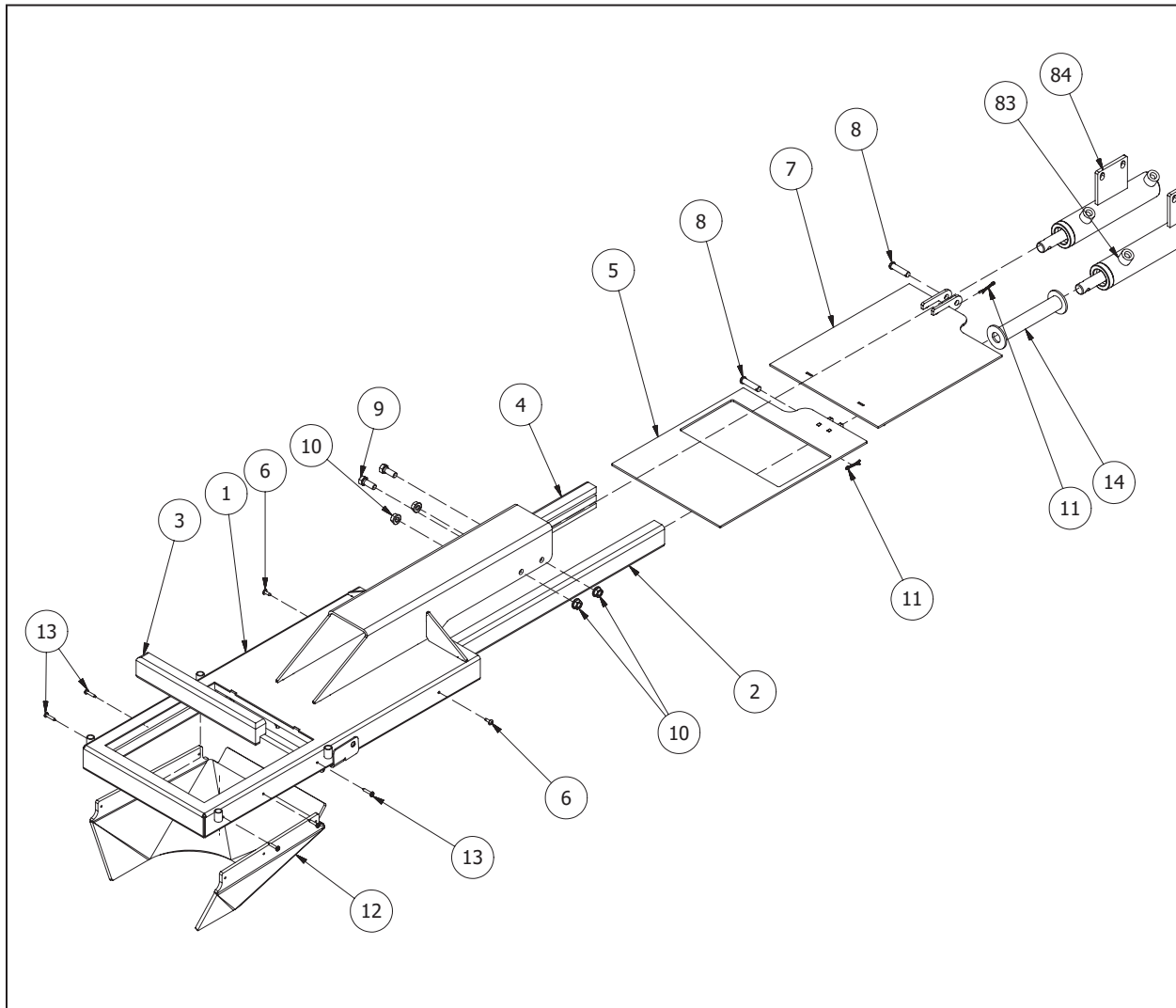
14.2.4 Undercarriage Detail (375RT)



14.2.5 Slide Gate Detail (375RT)

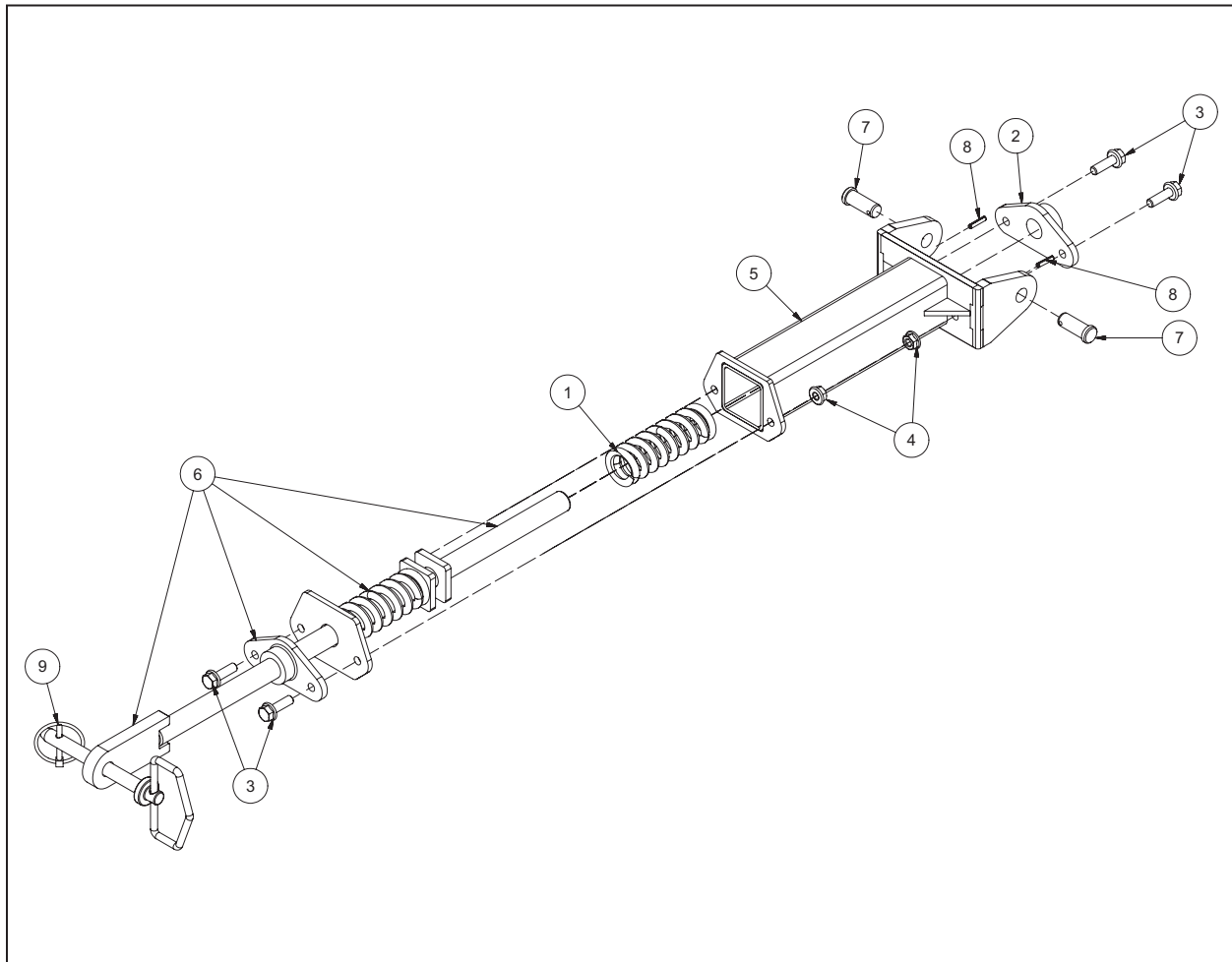


14.2.6 Slide Gate (Continued) (375RT)



1	1	23601-00	Housing Weldment
2	1	23604-00	Guide, Gate, Right, UHMW
3	1	23606-00	Guide, Gate, End, UHMW
4	1	23605-00	Guide, Gate, Left, UHMW
5	1	23612-00	Weldment, Gate, Bottom
6	4	19699	Screw, Self Drilling, #8-32 x 1/2"
7	1	23656-00	Weldment, Gate, Top
8	2	19775	Pin, Clevis, 3/8" x 1-17/64" Effective Length
9	4	19325	Bolt, Hex, 3/8-16 x 1"
10	4	19564	Nut, Hex, Flanged, 3/8-16
11	2	19795	Pin, Cotter, Square Cut Type, Extended Prong, 1/8" x 1"
12	1	23725-01	Skirt, Gate Boot
13	6	19779	Screw, Self Drilling, Zinc, #8-18 x 3/4"
14	1	23609-00	Weldment, Stop Tube
83	1	19245	Cylinder, Gate
84	1	19246	Cylinder, Gate

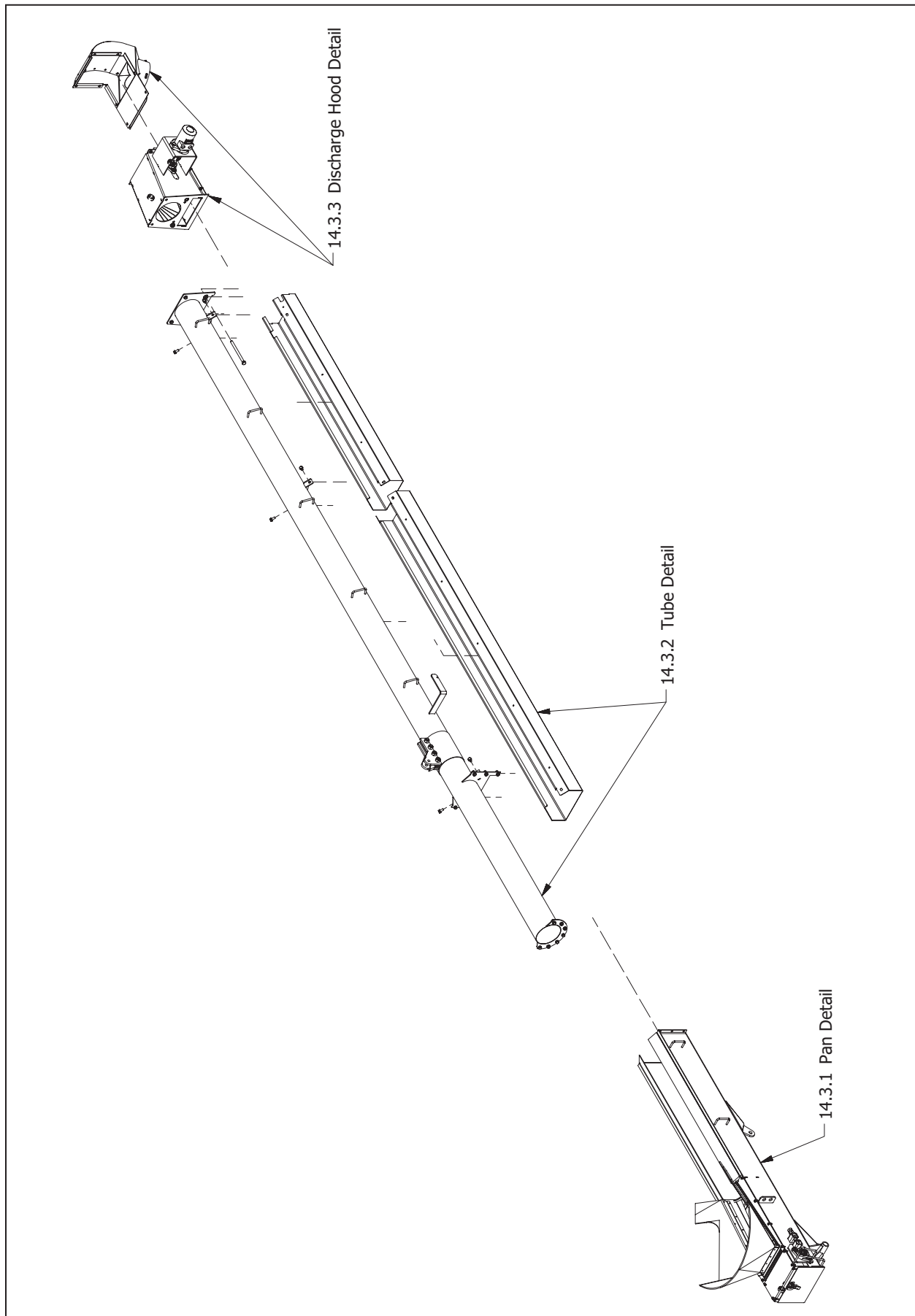
14.2.7 Damper Detail (375RT)



1	1	19744	Spring, Compression
2	1	19403	Bushing, Nylon, 3/4"
3	4	19581	Bolt, Hex, Flanged, 5/16-18 x 1"
4	4	19318	Nut, Hex, Flanged, 5/16-18
5	1	23673-00	Assembly, Body
6	1	23662-00	Assembly, Rod
7	2	19070	Pin, 1/2" x 1-1/4"
8	2	19237	Pin, Spring
9	1	19748	Pin, Hitch, 1/2" x 4" Effective Length

NOTES

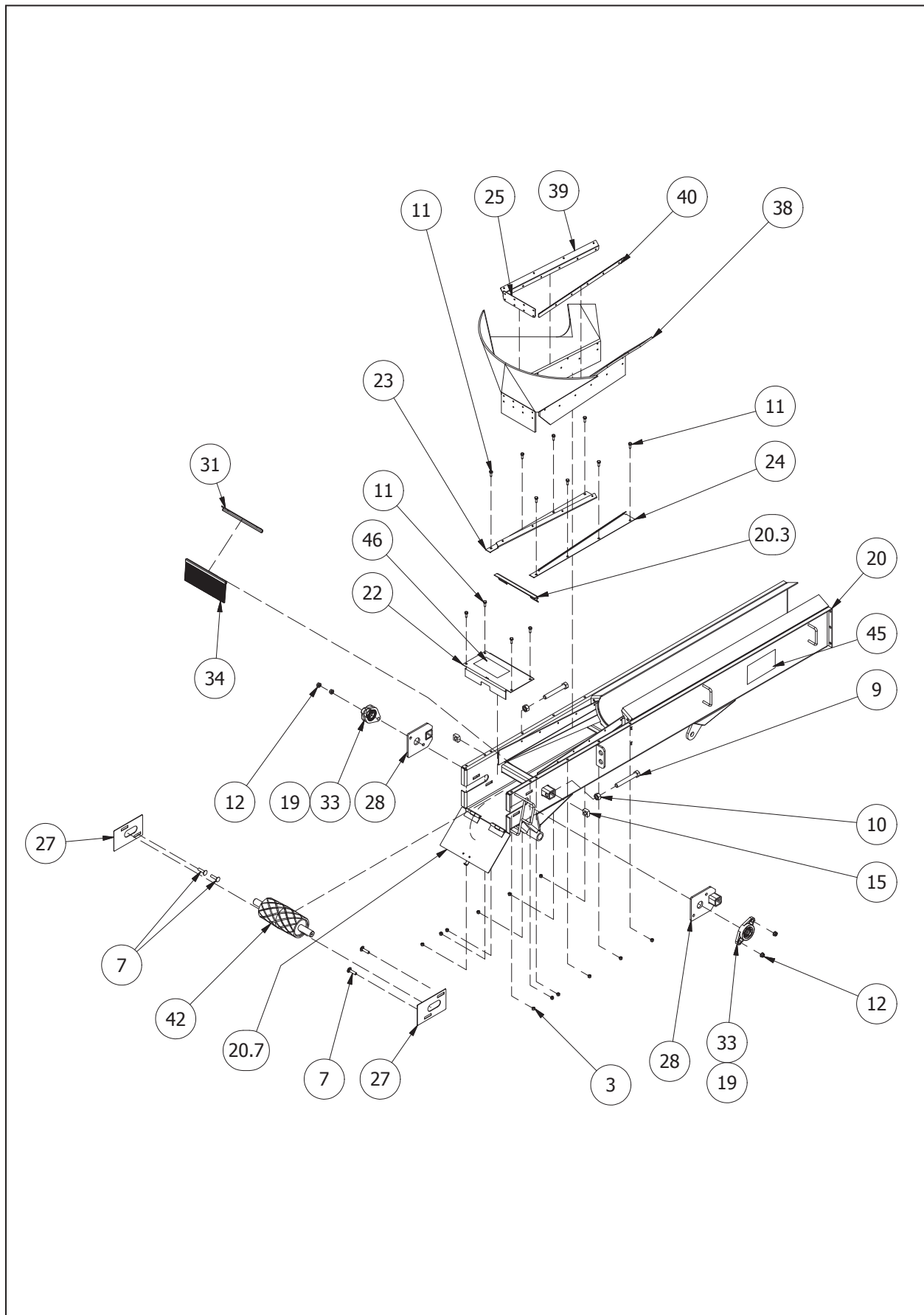
14.3 CONVEYOR (6") 80624



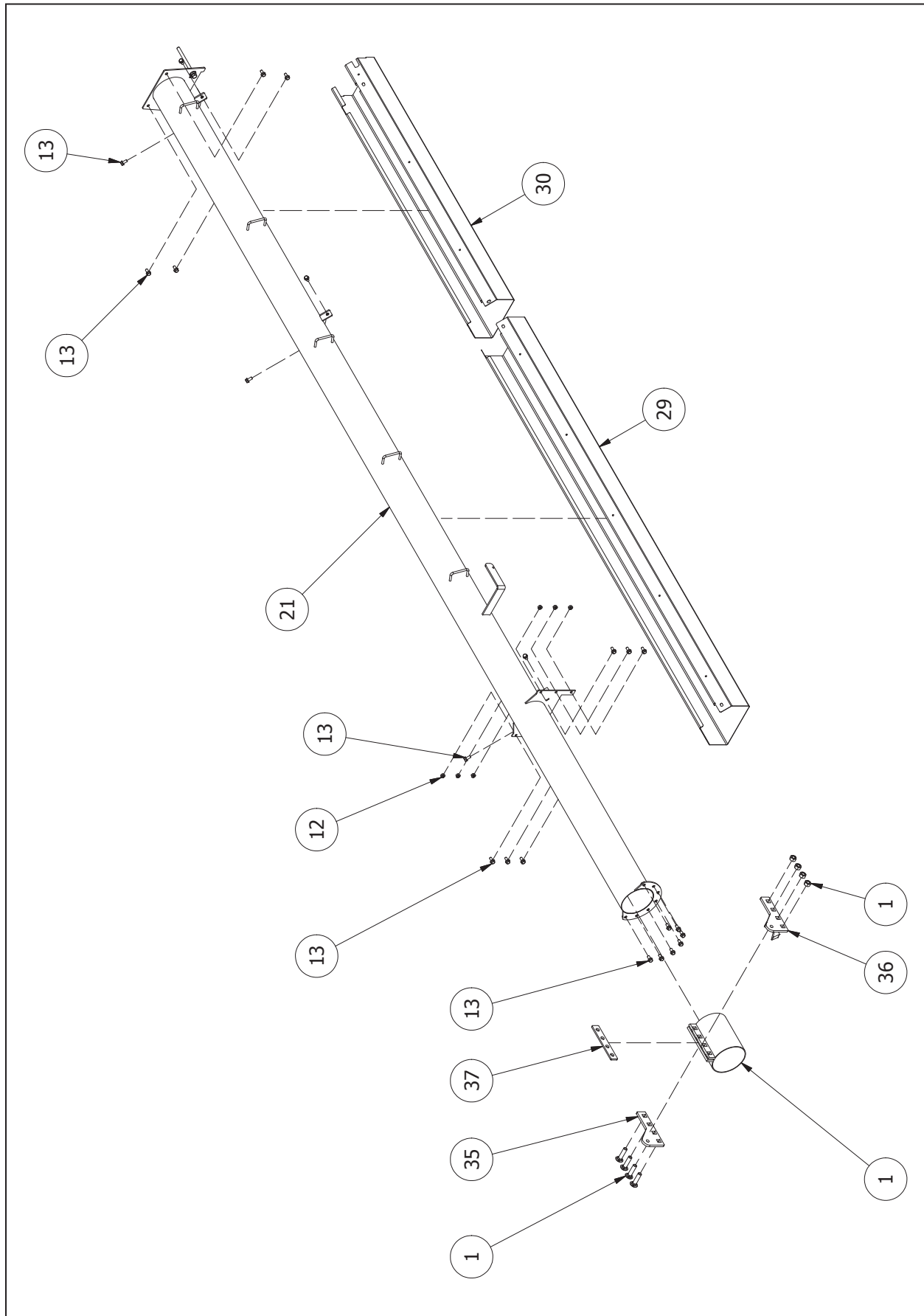
1	1	18760	Clamp, Compression 6 inch
2	2	18960	Bolt, Hex, 1/2-13 x 6-1/2" Steel, Mild, Full Thread
3	12	19128	Nut, Nylon Hex, 1/4-20
4	2	19249	Coupler, Lovejoy
5	1	19291	Spider, Red Coupling
6	8	19318	Nut, Hex, Flanged, 5/16-18
7	4	19335	Bolt, Carriage, 3/8-16 x 1-1/2"
8	2	19355	Cap Screw, Hex Head, 1/2-13 x 1-1/2"
9	2	19380	Bolt, Hex, 5/8-11 x 4-1/2"
10	2	19382	Nut, Hex, 5/8-11
11	12	19560	Bolt, Hex, 1/4-20 x 3/4"
12	14	19564	Nut, Hex, Flanged, 3/8-16
13	23	19577	Bolt, Hex, Flanged, 3/8-16 x 3/4"
14	4	19595	Nut, Hex, Flanged, 1/2-13
15	2	19663	Nut, Square, 5/8-11
16	4	19695	Bolt, Carriage, 3/8-16 x 1-1/4"
17	1	19769	Motor, Hydraulic, 2.8 Cubic Inch
18	8	19772	Cap Screw, Flanged Hex Head, 5/16-18 x 1/2"
19	4	21258-00	Bearing
20	1	23324-00	Pan Assembly, 6" Conveyor
20.3	1	23325-00	Transition, Belt Forming, Rear
20.7	1	23330-00	Weldment, Cleanout Door
21	1	23331-00	Tube Assembly, Conveyor
22	1	23335-00	Plate, Brush Holder
23	1	23336-00	Plate, Left Cap
24	1	23337-01	Plate, Right Cap
25	1	23338-00	Plate, End Skirt Retainer
26	1	23339-00	Weldment, Discharge Hood
27	2	23341-00	Plate, Roller Cover
28	2	23687-00	Weldment, Roller Slide Plate
29	1	25489	Guard, Belt, Galvanized
30	1	25862	Guard, Belt, Galvanized (Top Section)
31	1	27009-00	Guard, Brush Holder Clamp
32	4	27019-00	Washer, Belt Tightener Spacer

33	4	27040-00	Housing, Roller Bearing
34	1	27051-00	Brush
35	1	29376	Plate, Dampener Pin
36	1	29377	Plate, Dampener Pin Rest
37	1	29378	Spacer
38	1	29393	Boot, 6" Conveyor
39	1	29400	Plate, Right Side Skirt Retainer
40	1	29401	Plate, Left Side Skirt Retainer
41	1	36200-01	Roller Assembly, Drive
42	1	36201-02	Roller Assembly, Idler
43	1	36211-00	Weldment, Discharge Transition
43.6	1	27053-01	Liner, Rubber Hood
43.7	12	19548	Rivet, Grip Steel, 1/8"
43.8	12	19547	Washer, Back-Up, 3/8" (for 1/8" Rivet)
44	2	36217-00	Plate, Belt Tightener
45	1	19934	Decal, Caution, Read Manual
46	1	19936	Decal, Warning, Rotating Parts
—	1	21108	Belt, Cleated, 8" x 38'10" (Not Shown)
—	1	19167	Hose Kit, Conveyor 2011 (Not Shown)
—	1	19293	Fitting Kit With Couplers 2011 (Not Shown)

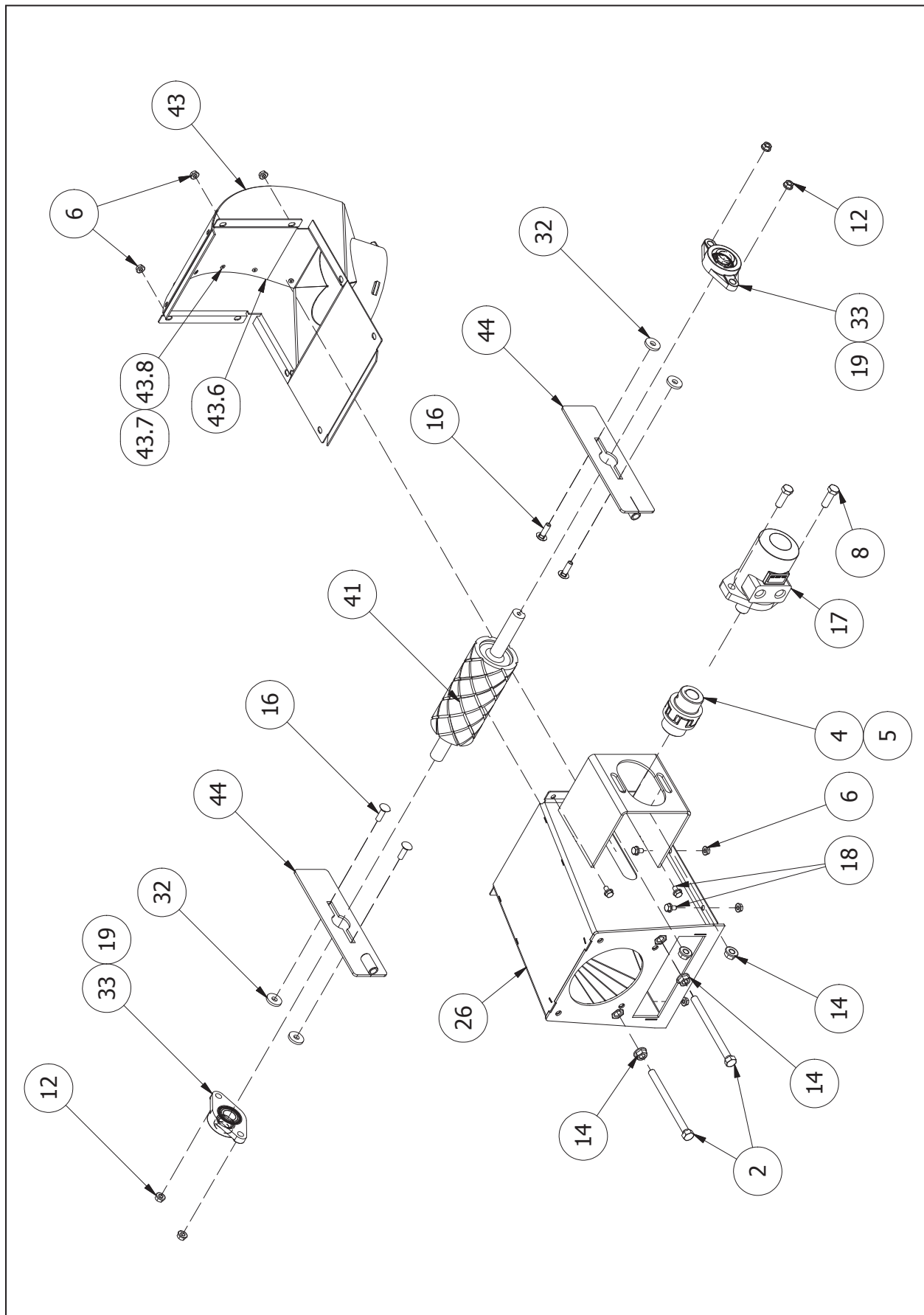
14.3.1 Pan Detail



14.3.2 Tube Detail

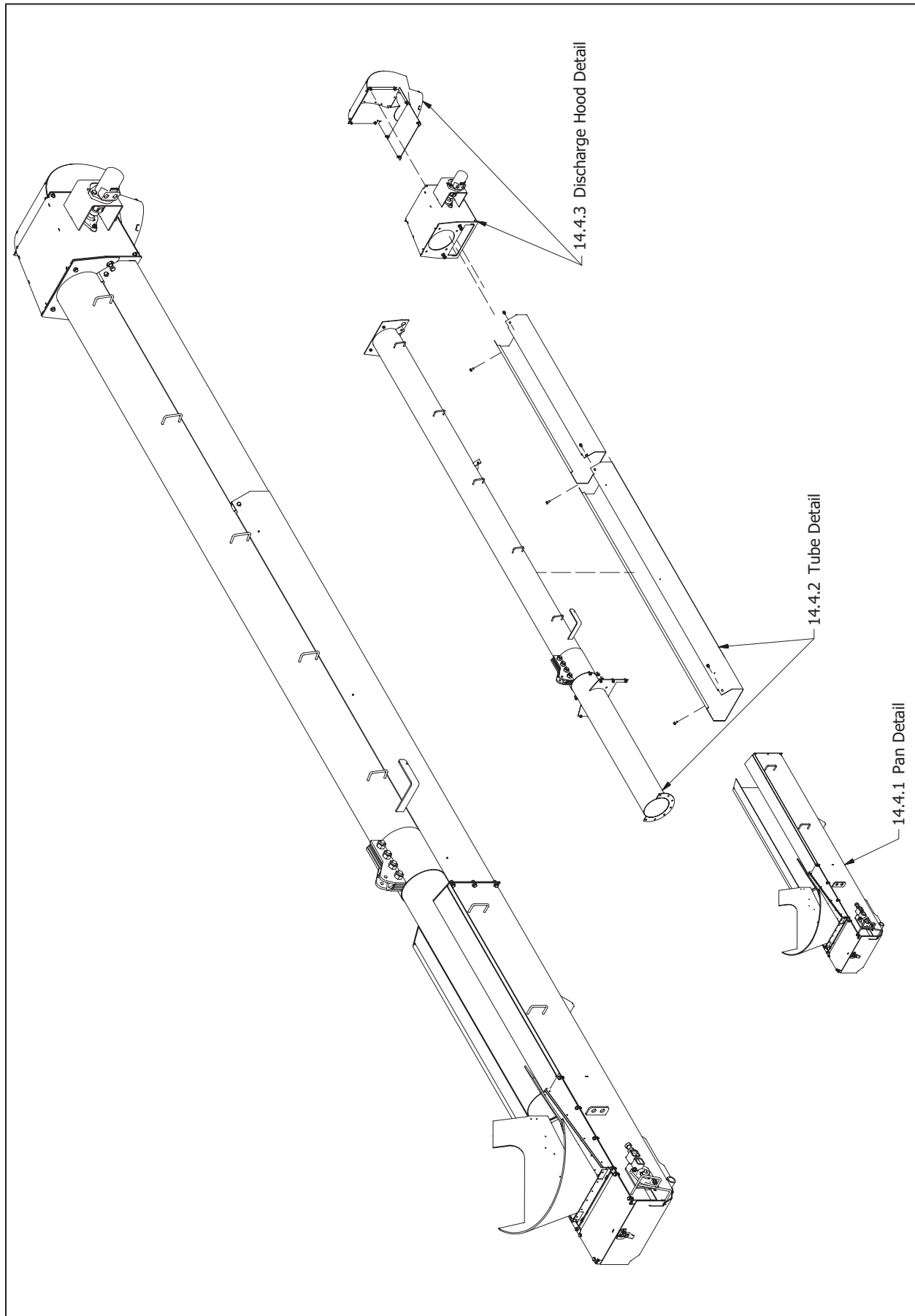


14.3.3 Discharge Hood Detail



NOTES

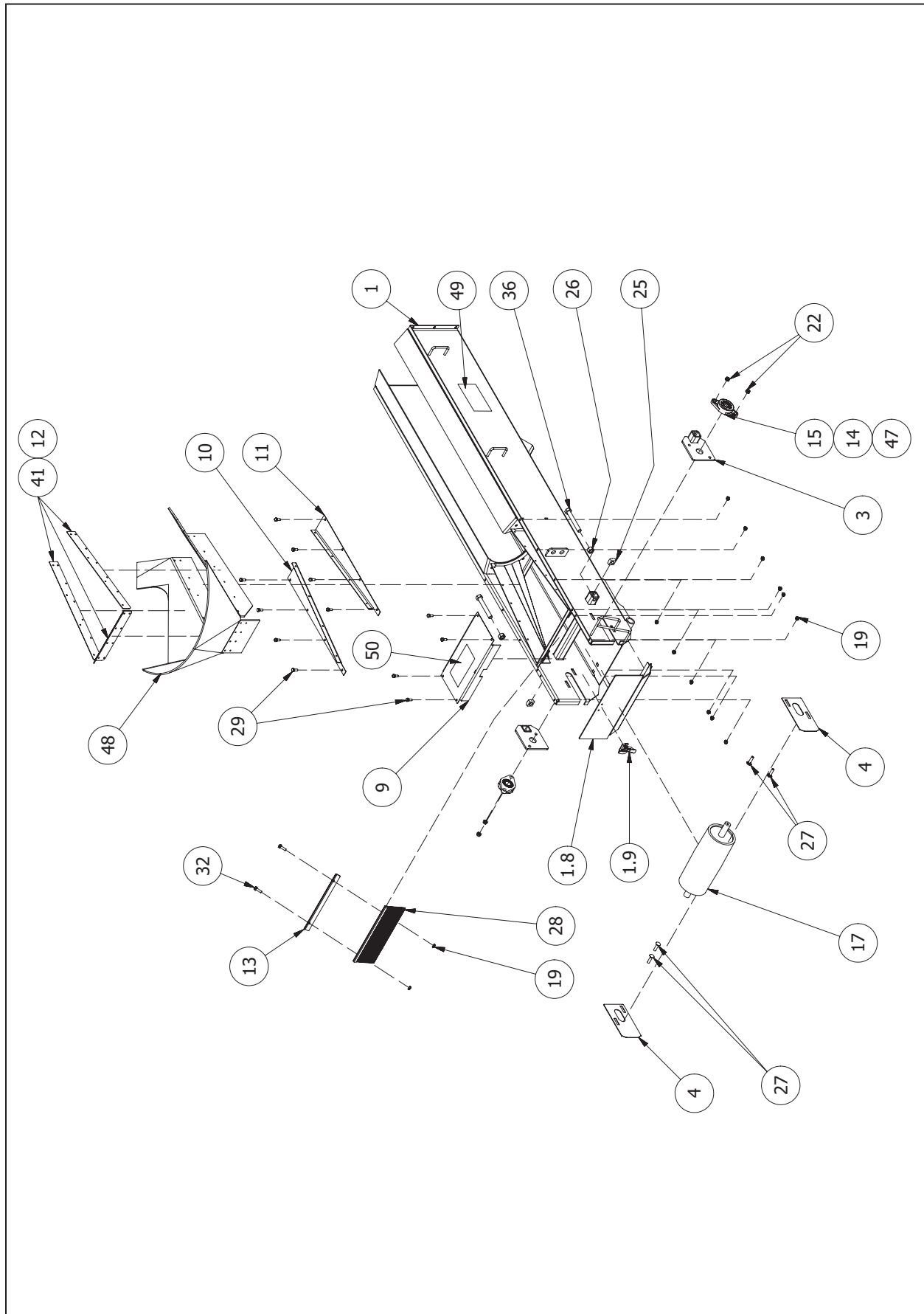
14.4 CONVEYOR (8") 80622



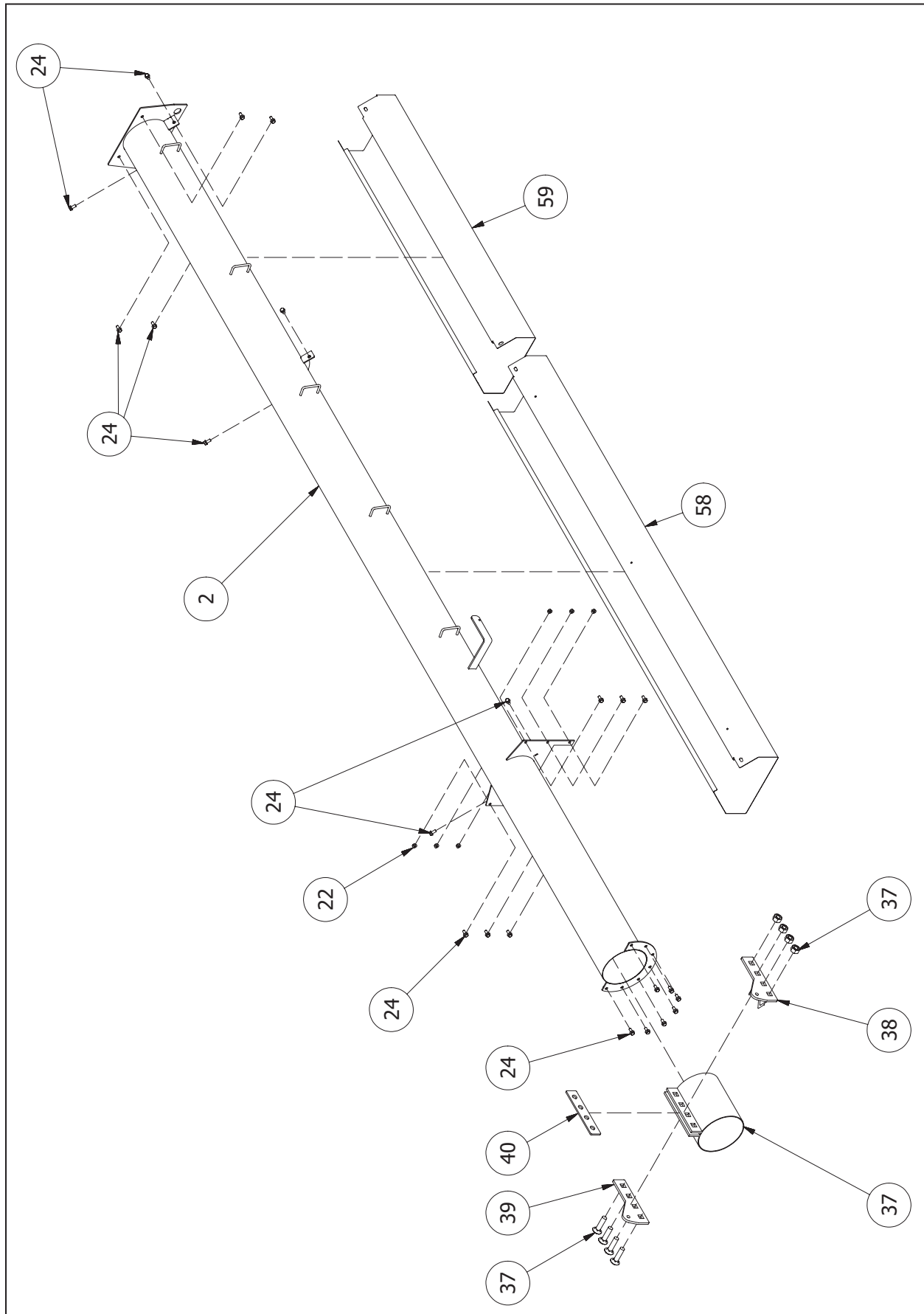
1	1	23680-00	Conveyor Pan Assembly
1.8	1	23684-00	Door, Clean Out
1.9	1	21257-00	Latch, Over-Center
2	1	23686-00	Weldment, 8" Conveyor Tube, 2011
3	2	23687-00	Weldment, Roller Slide Plate
4	2	23689-00	Plate, Roller Cover
5	1	29411	Weldment, Head Section
6	1	28046-00	Discharge Assembly
6.6	1	19536	Liner, Hood
6.7	18	19548	Rivet, 1/8" Grip Steel Rivet
6.8	18	19547	Washer, 3/8" Back-Up For Rivet
7	2	23692-00	Roller, Tightener
8	1	23693-00	Plate, Brush Holder
9	1	23694-00	Plate, Left Cap
10	1	23695-00	Plate, Right Cap
11	1	23696-00	Plate, End Skirt Retain
12	1	23719-00	Clamp, Brush Holder
13	4	21258-00	Bearing
14	4	21258-00C	Collar, Bearing
15	4	27040-00	Housing, Roller Bearing
16	1	19533	Drive Roller Assembly
17	1	19554	Idle Roller Assembly
18	8	19568	Bolt, Hex, Flanged, 5/16-18 x 3/4"
19	22	19318	Nut, Hex, Flanged, 5/16-18
20	4	27019-00	Washer, Belt Tightener Spacer
21	4	19695	Bolt, Carriage, 3/8-16 x 1-1/4"
22	14	19564	Nut, Hex, Flanged, 3/8-16
23	23	19577	Bolt, Hex, Flanged, 3/8-16 x 3/4"
24	2	19663	Nut, Square, 5/8-11
25	2	19382	Nut, Hex, 5/8-11
26	4	19335	Bolt, Carriage, 3/8-16 x 1-1/2"
27	1	28053-00	Brush
28	12	19309	Bolt, Hex, 5/16-18 x 3/4"
29	2	19595	Nut, Hex, Flanged, 1/2-13

30	2	19355	Cap Screw, 1/2-13 x 1-1/2"
31	2	19581	Bolt, Hex, Flanged, 5/16-18 x 1"
34	2	19369 MS	Nut, Hex, 1/2-13 Steel, Mild
35	2	19380	Bolt, Hex, 5/8-11 x 4-1/2"
36	1	18775	Clamp, Compression 8" Four Bolt
37	1	23721-00	Plate, Dampener Pin Rest
38	1	23660-00	Plate, Pin Mounting
39	1	23766-00	Spacer
40	2	20491	Plate, Side Skirt Retain
41	1	19768	Motor, Hydraulic, 4.5 In ³
43	2	19249	Coupler, Lovejoy
44	1	19291	Spider, Red Coupling
45	1	25847	Guard, Belt, Galvanized
46	1	25863	Guard, Belt, Top Section
47	2	18946	Bolt, Hex, 1/2-13 x 5" Steel, Mild
48	1	23420-00	Boot, Conveyor, 8 Inch
49	1	19934	Decal, Caution, Read Manual
50	1	19936	Decal, Warning, Rotating Parts
---	1	21106	Belt, Cleated, 12" x 38' (Not Shown)
---	1	19167	Kit, Hose, Conveyor (Not Shown)
---	1	19293	Kit, Fitting with Couplers (Not Shown)

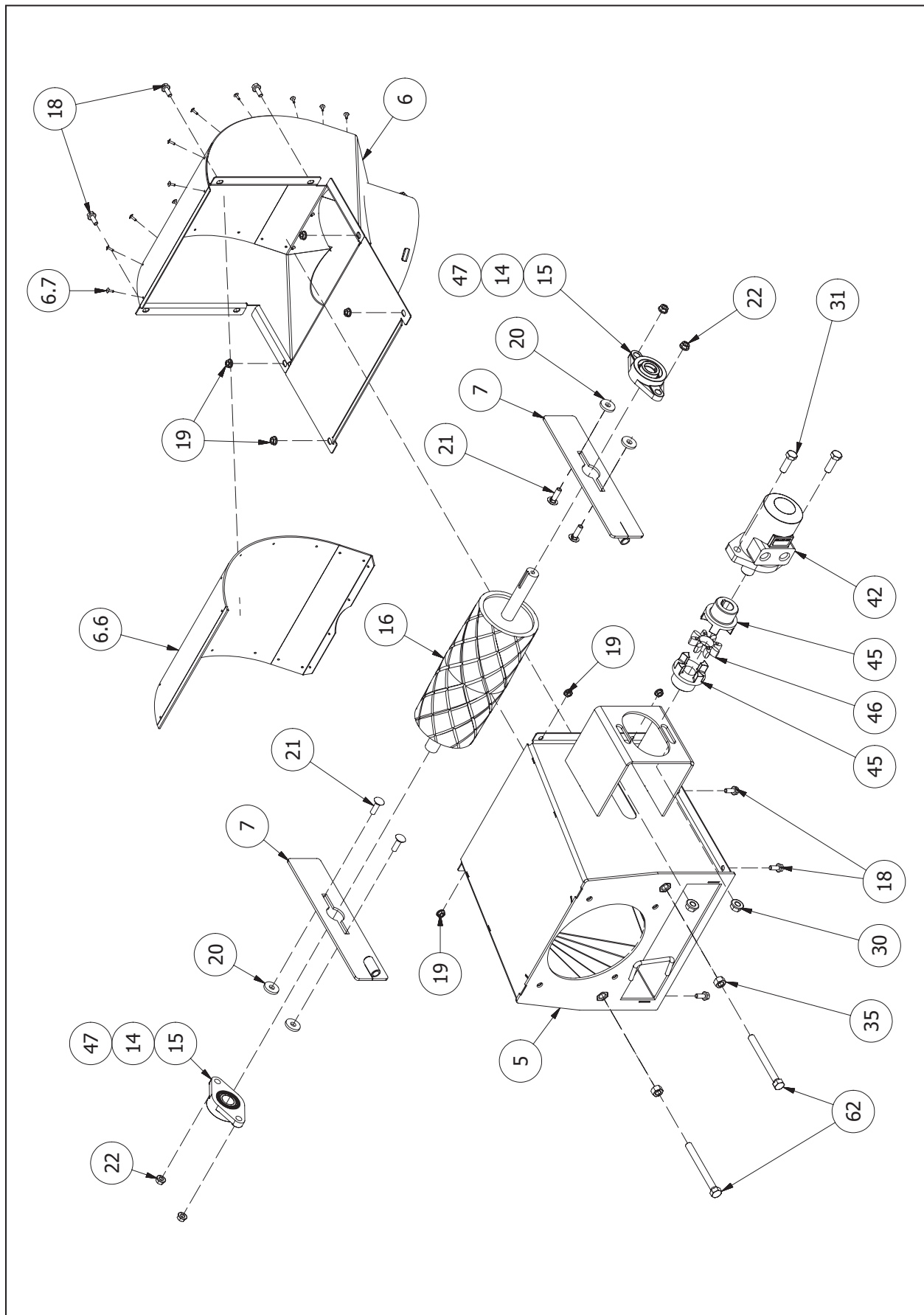
14.4.1 Pan Detail



14.4.2 Tube Detail



14.4.3 Discharge Hood Detail



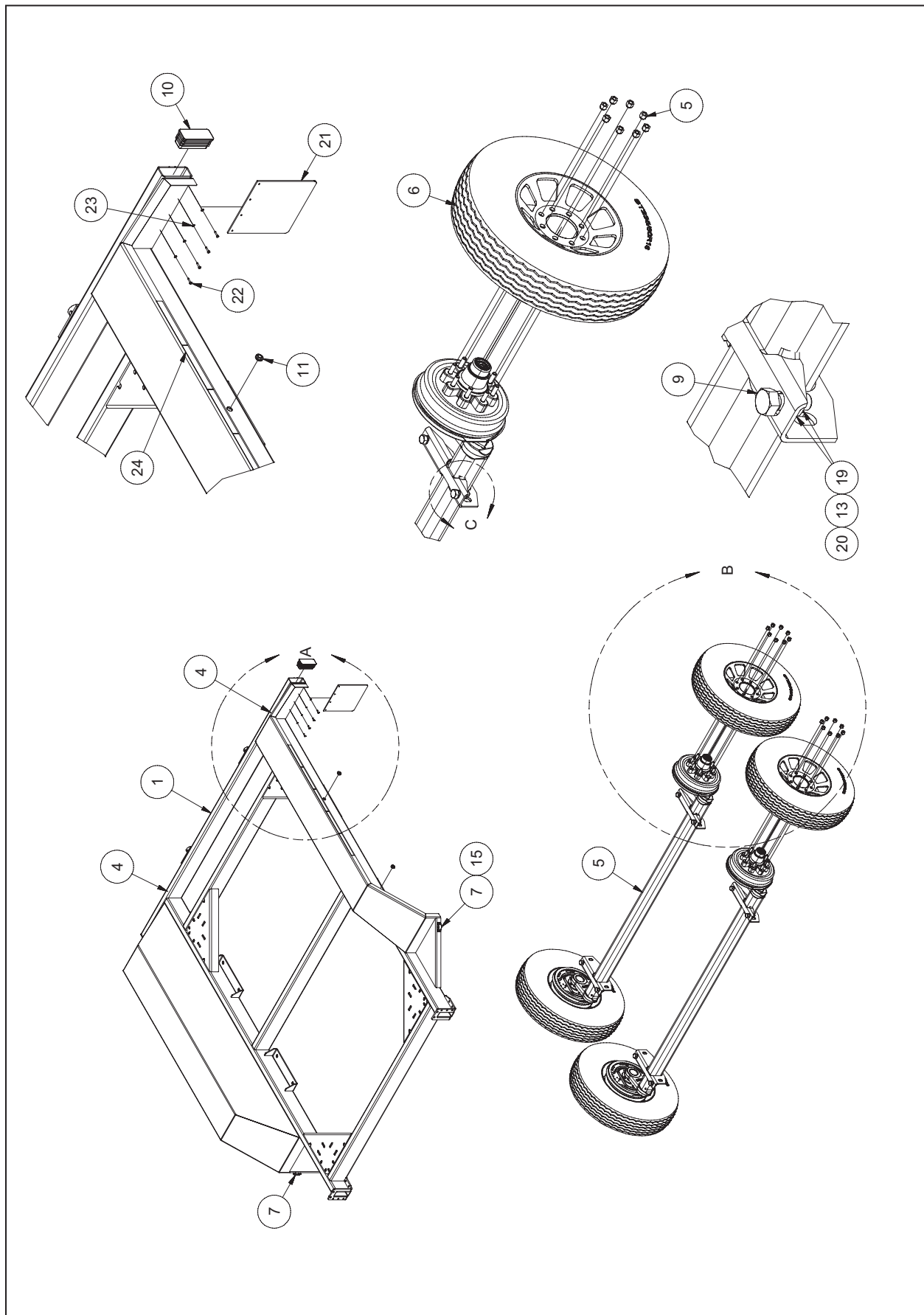
14.5 Bumper Hitch Trailer

1	1	22910	Weldment, Frame
2	1	22916	Weldment, Tongue
3	1	19275	Breakaway, Battery BA10-150
4	2	18117	Light, Tail with 10 Diodes (LED STL-78RB)
5	2	18193	Axle, 7,000 Lbs.
6	4	18131	Tire, ST235/80R16
7	2	18151	Light, Amber Clearance
8	1	18192	Jack, Top Wind A-Frame
9	8	19388	Bolt, Hex, 3/4-10 x 2"
10	2	19619	Plug, Tube, 5" x 2"
11	5	14021	Grommet
12	18	19299	Bolt, Hex, Grade 8, 3/8-16 x 1-1/4"
13	8	19396	Washers, Helical Spring Lock
14	3	19577	Bolt, Hex, Flanged, 3/8-16 x 3/4"
15	4	19141	Screw, Round Head Pan, #8-32 x 5/8"
16	15	19142	Nut, Hex Flanged, Mild Steel, #8-32
17	18	19191	Nut, Hex, Grade 8, 3/8-16
18	18	18091	Washers, Helical Spring Lock
19	8	19394	Nut, Hex, Mild Steel, 3/4-10
20	8	18097	Washer, Narrow, 3/4"
21	2	19274	Mud Flap
22	8	19779	Screw, Self Drilling, #8-18 x 3/4"
23	8	19629	Washer, Flat, 5/32" diameter
24	3	18153	Tape, Fender Reflective
25	2	18096	Tape, Reflective Meridian 2" x 6" x 6"
26	1	19597	Screw, Self Tapping, 1/4-14 x 3/4"
---	1	14041	Body Wire (Not Shown)
---	1	14040	Harness, Tongue Wire (Not Shown)

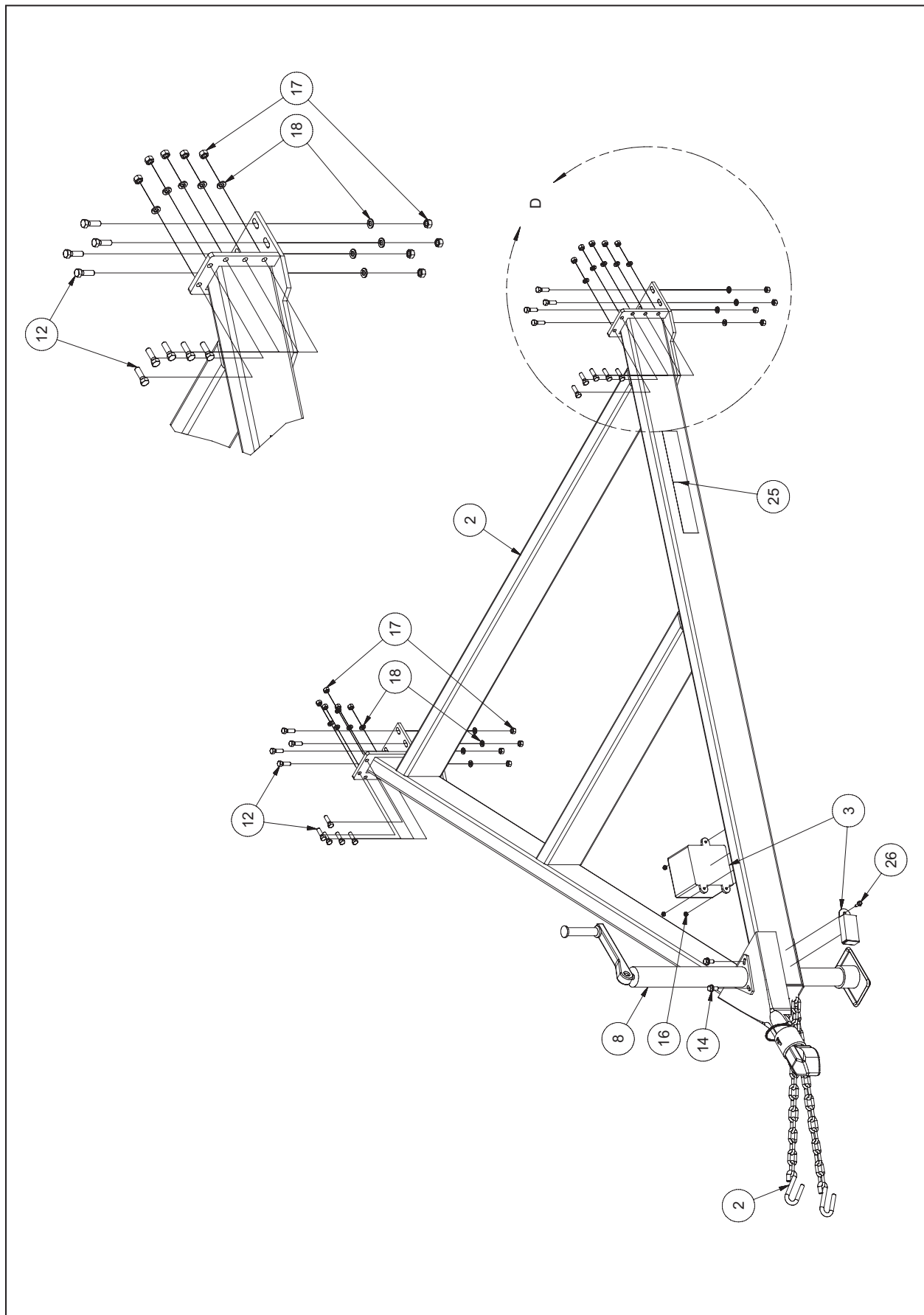
14.5.1 Bumper Hitch Detail

14.5.2 Frame and Axle Detail

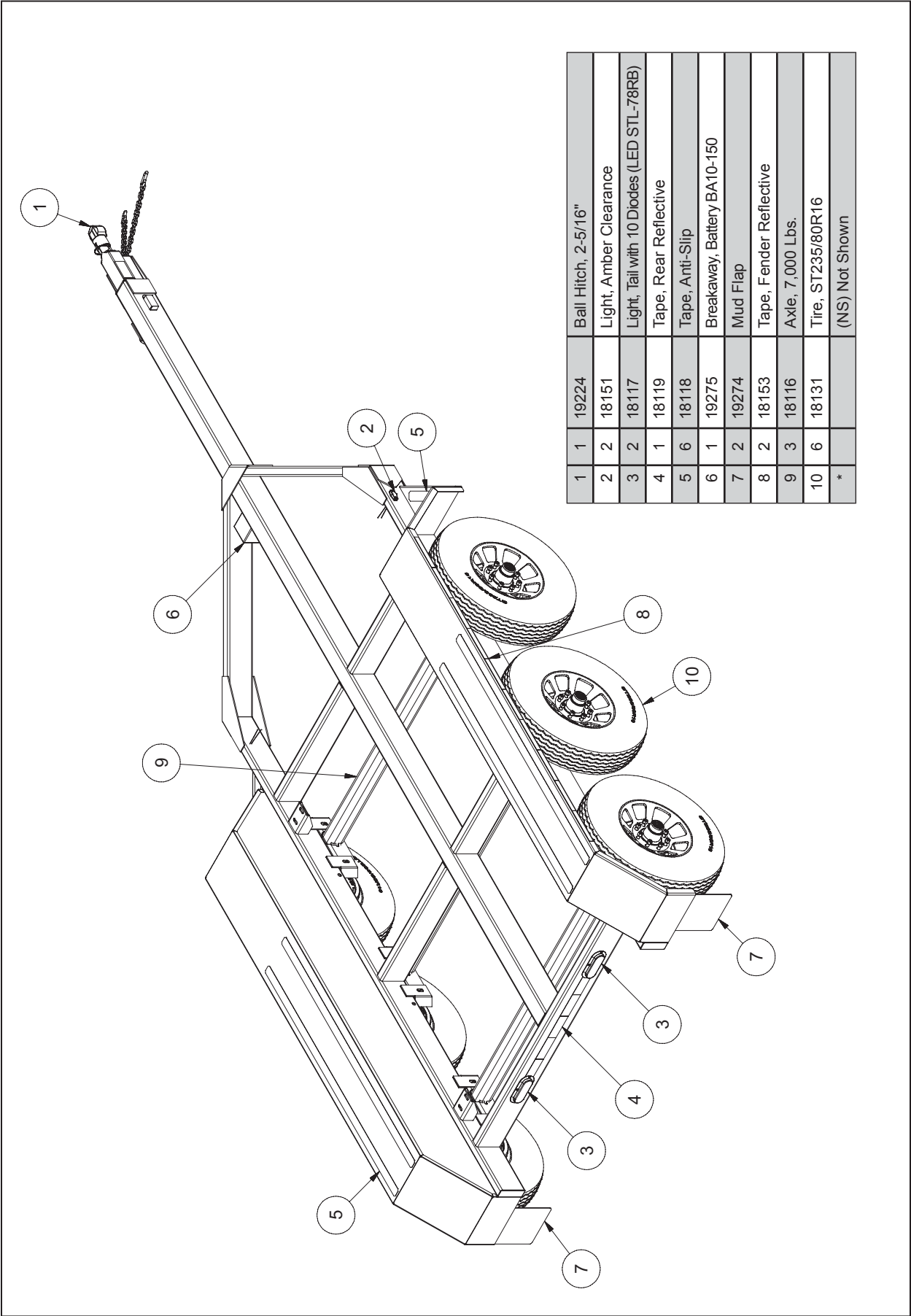
14.5.1 Bumper Hitch Trailer



14.5.2 Bumper Hitch Trailer



14.6 BUMPER HITCH TRAILER



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