



Activate
Your Warranty
By Registering
TODAY!!!

9281 LeSaint Drive • Fairfield, Ohio 45014
Phone (513) 874-2818 • Fax (513) 874-2914
Sales: 800-543-7166



MATERIAL TRANSFER SYSTEM

Parts and Operator's Manual

Model **SR** Serial No. _____

NOTES



ACTIVATE YOUR FINN EQUIPMENT WARRANTY

IMPORTANT INFORMATION ON ACTIVATING YOUR FINN EQUIPMENT WARRANTY!!!

IT IS IMPERATIVE THAT YOU, THE PURCHASER, COMPLETE THE FOLLOWING STEP IN ORDER TO ACTIVATE THE FINN CORPORATION LIMITED WARRANTY.



**COMPLETE THE EQUIPMENT REGISTRATION FORM ON
THE NEXT PAGE AND MAIL TO THE FINN CORPORATION.**

**IF FINN CORPORATION DOES NOT HAVE YOUR COMPLETED REGISTRATION
FORM ON FILE, YOUR WARRANTY CLAIM WILL BE DENIED.**

Once your FINN equipment has been registered, your FINN Limited Warranty will be activated per the warranty statement on the other side of this notice.

<<What should you do if you need repairs or parts under Warranty?>>



**1. NOTIFY FINN CORPORATION OF THE FAILURE OF MATERIAL OR WORKMANSHIP
1-800-543-7166 Extension (246)
WARRANTY@FINNCORP.COM**



2. AFTER YOU OR YOUR SERVICE DEALER NOTIFY FINN, FINN WILL:

- VERIFY THAT WE HAVE YOUR REGISTRATION ON FILE
- VERIFY THAT THE WARRANTY PERIOD IS IN EFFECT
- VERIFY THAT THE RELATED PART(S) ARE INCLUDED IN THE SCOPE OF WARRANTY (PENDING FINN'S INSPECTION OF DEFECTIVE PARTS)
- SEND YOU REPLACEMENT PART(S) AND A WARRANTY INFORMATION PACKET
- REQUEST YOU FOLLOW ALL INSTRUCTIONS AS NOTED IN THE PACKET

- **Completely fill out the Parts Tag.**
- **Attach the Parts Tag to the defective part(s).**
- **Return the part(s) and the completed Warranty Claim Form to FINN Corporation using the return shipping label. (Within 2 weeks)**
- **Tape the Orange identifier sheet, marked with the W/RMA#, on the outside of the box in which you are shipping the defective part(s).**

**Warranty period:**

Hydroseeders & Straw Blowers 2 years or 2000 hrs which ever comes 1st
All other equipment 1 year or 1200 hrs which ever comes 1st

Commercial Limited Warranty
Effective 4/1/2011

OUR WARRANTY TO YOU:

Finn Corporation warrants to you, the original purchaser, for use (or rental to others for use) all new construction machinery, parts and attachments (except those referred to herein) that are manufactured by Finn to be free from defects in material and workmanship for a period noted above. Replacement parts provided under the terms of this warranty are warranted for the remainder of the warranty period applicable to the product to which parts are installed, as if parts were original components of the product.

WHAT FINN WILL DO:

Upon notification of Finn concerning a failure of material or workmanship in accordance with the above stated Warranty, Finn Corporation will:

- Verify claim falls within the valid warranty time frame.
- Verify the product and equipment has been registered with Finn in order to be eligible for warranty coverage.
- Upon affirmation of warranty period and registration, Finn will send to you a new or repaired replacement part(s), whichever Finn elects and a "Warranty Claim Information packet" containing instructions for processing the warranty claim.
- Evaluate the part when defective part is returned. Note: Failure to return defective part within two weeks will result in an invoice being sent to the customer. In addition, if damage to a part is determined not to be covered under the warranty, the customer will be billed.
- Reconcile costs with customer for parts and shipping, as determined by our inspection of failed parts, and confirmation of warranty coverage, per the terms of this warranty.
- Correction of nonconformities, in the manner provided above, shall constitute fulfillment of all liabilities of Finn Corporation.

WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE:

- As the purchaser covered under the above limited warranty you must REGISTER the equipment with Finn FAILURE TO REGISTER WILL VOID THE WARRANTY.
- Claim Number: Notify the warranty Dept. same day or next day of any intent to do warranty work and obtain a "Warranty Claim Number."
- All warranty labor must be pre-approved by providing Finn with an estimate of labor costs. Once approved, Finn will issue you a Work Authorization Number, prior to work being performed. (EXCEPTION: Unless the labor is per the Labor Allowance Schedule or less)
- The labor costs reimbursement will be based on the Labor Allowance Schedule established by Finn and where not applicable, on a reasonable number of hours as determined by Finn.
- Notify Finn Corporation of any failure of material or workmanship as described under this warranty.
 - Web notification: Warranty@Finncorp.com
 - Phone 1-800-543-7166 extension 246
- Complete the required steps in the "Warranty Claim Information packet" (which Finn will send you) and return the defective part(s) as directed in the packet to Finn Corporation.
- Should the failed part, be a hydraulic component, Finn may send you an "Oil Analysis Kit," requesting that a sample of oil from the hydraulic system be taken, and mail it to a lab. Follow the instruction sheet, on how to use your Finn Oil Analysis Kit that comes with the Kit. Failure to comply when requested will void the warranty.

WHAT THE WARRANTY DOES NOT COVER:

1. Normal wear parts and Allied Equipment or trade accessories not manufactured by it, such as but not limited to items such as various filters, fluids, brakes, clutch linings, belts, hoses, light bulbs, mechanical seal, over center clutches, tires, ignitions, starters, batteries, magnetos, carburetors, engines and labor, or like or unlike equipment or accessories. (Such being subject to the warranty, if any, provided by their respective manufacture).
2. Secondhand, used, altered, or rebuilt machines or parts.
3. Defects, malfunctions or failures resulting from accidents, abuse, misuse, improper servicing, or neglect of required operational guidelines and maintenance service, as outlined in the Finn Corporation's Operators Manual(s).

4. The warranty shall be null and void to the extent any defect or failure of the products warranted arises out of or is caused by accessories or component parts not manufactured or supplied by Finn Corporation, whether same are supplied by purchaser, dealers, or any other party.

5. This Warranty does **NOT** cover any costs associated with transporting the equipment for warranty service, such as mileage, fuel, or man hours; such is the responsibility of the equipment owner.

6. Dealers & Customers are responsible to follow all guidelines related to Seasonal & Long Term Storage of Equipment, as advised in operation & equipment manuals. i.e. Finn, Engine, Clutch, Pump, Motor, etc. Equipment failures caused by neglect of these guidelines are not warrantable.

THIS IS THE ONLY EXPRESS WARRANTY ON OUR PRODUCTS:

We neither assume nor authorize anyone to assume for us any other express warranty. The Distributor/Dealer has no authority to make any representation or promise on behalf of Finn Corporation or to modify the terms or limitations of this warranty in any way.

THIS WARRANTY THEREFORE SHALL BE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

LIMITATIONS ON OUR RESPONSIBILITY WITH RESPECT TO PRODUCTS PURCHASED:

THE REMEDIES OF THE USER SET FORTH HEREIN ARE EXCLUSIVE, WITHOUT REGARD TO WHETHER ANY DEFECT WAS DISCOVERABLE OR LATENT AT THE TIME OF DELIVERY OF THE PRODUCT TO THE PURCHASER.

ALL WARRANTY REPAIR MUST BE DONE BY A FINN AUTHORIZED SERVICE PROVIDER OR AUTHORIZED REPAIR SHOP OF FINN'S CHOICE.

TRANSPORTATION, HAULING, STORAGE, OR OTHER SIMILAR COSTS ARE NOT PART OF FINN'S OBLIGATION UNDER THE LIMITED WARRANTIES AND IS THE RESPONSIBILITY OF THE EQUIPMENT OWNER.

THE ESSENTIAL PURPOSE of this exclusive remedy shall be to provide the original purchaser with repair or replacement of parts that prove to be defective within the period and under the conditions previously set forth. This exclusive remedy shall not have failed of its essential purpose (as that term is used in the Uniform Commercial Code) provided Finn remains willing to repair or replace defective parts within a commercially reasonable time after it obtains actual knowledge of the existence of a particular defect.

IN NO EVENT shall Finn be liable for any special, consequential, incidental or indirect damages, including lost profits or lost commercial opportunities, with respect to the sale of the above warranted product or anything done in connection therewith, or for property damage sustained by a person claiming to be a third party beneficiary of a surviving warranty under the law of any jurisdiction.

NOTICE:

FINN CORPORATION URGES the use of only Finn corporation supplied parts and attachments to assure proper performance and safe operation of Finn corporation equipment. Insist on parts and attachments manufactured or supplied by Finn corporation when you purchase, repair or replace your Finn equipment and attachments. Because Finn corporation cannot assure that parts and attachments not manufactured or supplied by Finn meet Finn corporation's quality standards, specifications, or operating requirements, our warranty is not effective to the extent any failure of or defect in a Finn corporation product arises from or is caused by parts, attachments or components not originating with Finn corporation. Use of Finn corporation equipment with parts and attachments not manufactured or supplied by Finn could result in personal injury.

INDEX

SAFETY FIRST	1
MTS SAFETY SUMMARY SECTION	2–3
CURRENT SET OF SAFETY DECALS	4
OPERATION & MAINTENANCE FOR MTS	6–15
Introduction	6
The FINN MTS & How It Works	6
Pre-Start Equipment Check	7
Starting Procedure	7
Controls	8–9
Operation	9
Leaf Vacuum	9
Side Conveyor	9
Quick Dump	9
Tracking a Conveyor Belt	10
Maintenance	11
After First 4 to 8 Hours	11
Daily	11
Weekly	11
Seasonal and Winter Storage Maintenance	11
Hydraulic Sysytem	11
Conveyor Belt Assembly And Service	12–13
Break-In and Adjustment of Conveyor Belts	12
Tools Needed	12
Make Adjustments	12
Measurements	13
Lubrication Chart	14–15
MTS PARTS MANUAL	17–39
MTS Parts	18–20
MTS Safety Lights	21
Hopper Main Floor Assembly	22–23
MTS Side Conveyor Assembly	24
Leaf Vacuum Assembly	25
Control Box Schematic	26–27
MTS Main Control Box	28
MTS Quick Dump Control Box Assembly	29
MTS Street Side Control Box Assembly	29
Trailer Brake Wiring Harness	30
Trailer Wiring Harness	31
Hydraulic Sysytem	32–33
MTS Tow and Tarp Assembly	34
MTS Tarp Wiring for Motor	35
Decals	36–37
MTS Spare Parts List	38
Leaf Vacuum Retrofit Kit	39



MTS
MATERIAL TRANSFER SYSTEM

SAFETY FIRST

With any piece of equipment, new or used, the most important part of its operation is **SAFETY!**

FINN Corporation encourages you and your employees to familiarize yourselves with your new equipment and stresses safe operation.

The first five pages of this manual are a summary of the main safety aspects associated with this unit. Be sure to read and understand completely before operating the machine.

The symbols below are used throughout the operation and maintenance sections of this manual to call attention to safety procedures.



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



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



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates practices that are not related to personal injury.

NOTE:

Gives helpful information.

CALIFORNIA

Proposition 65 Warning

The engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

CALIFORNIA

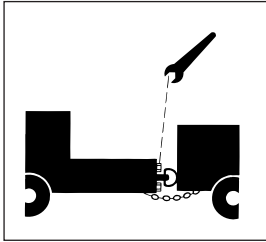
Proposition 65 Warning

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer, and reproductive harm. Wash hands after handling.

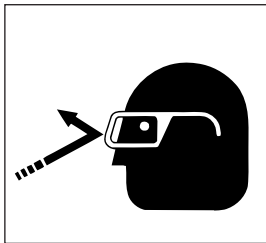
MTS SAFETY SUMMARY SECTION

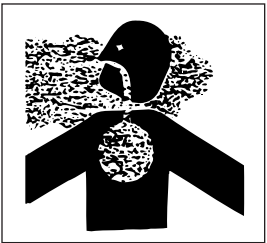
It is important that all operators of this machine are familiar with all of the safety aspects covered in this section and have read the entire Operator's Manual before operating the machine. Always keep a copy of this manual with the machine. It is the responsibility of the operator of the machine to fully understand this safety section. Remember that YOU are the key to safety. Good safety practices protect not only you but also the people working with and around you. Keep in mind that this safety section is written for this type of machine only. Practice all other usual and customary safe working precautions; and above all, remember that safety is up to you.


I. PRE-START EQUIPMENT CHECK (equipment check is to be made with the engine off):

1. If you have a chassis mounted unit, ensure that the devices securing MTS® to the truck or trailer frame are installed correctly and to proper specifications..

2. The MTS® is a trailer unit, check hitch and hitch bolts, lights, brakes and all safety components. Verify that the hitch ball, or pintle hook is the correct size for the coupler.
3. Remove unnecessary objects (or material) from the hopper and side conveyor.
4. Make sure no one is working on or inside the machine. Signal visually or audibly that all is clear before starting the engine.
5. Inspect all hydraulic hoses for cracks, bulges or damage. If hose(s) are cracked, bulging, or damaged, replace hose.
6. Inspect all vacuum hoses for cracks, bulges, or damage. If hose(s) are cracked, bulging, or damaged, replace hose.

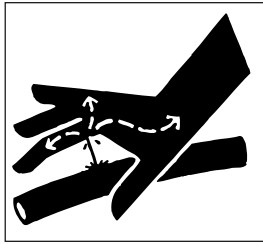
II. MACHINE OPERATION:

1. Always wear safety goggles when operating or feeding the machine. Other safety attire, such as safety shoes, ear protection, gloves, hard hats, dust masks, etc, should be worn as required by warning decals on machine, operator's manuals, or job site requirements. Remove rings, watches, etc. Avoid wearing loose-fitting clothing that may get caught in rotating machinery.


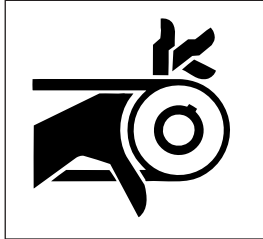
2. Do not load unit while in transit. Load only when parked with unit as level as possible.
3. The driver of the carrying or towing vehicle is responsible for the safety of the operator(s) of the machine. Make sure the driver is aware and avoids all possible hazards to the operator(s) of the machine such as low tree limbs, low power lines, etc. Vehicles on which the equipment is mounted or towed must be stopped gradually and started gradually. Avoid abrupt starts or stops. **NEVER** operate on a slope or a hill that may endanger the driver and/or the operator(s). All personnel should review, and be familiar with stop/start signals between the driver and operator(s) before going into operation. Only the operator should be located on the platform during operation.
4. Do not allow anyone to ride on the trailer or any other part of the machine for any reason.
5. Never operate machine in an enclosed area without venting the engine exhaust of both the equipment and vehicle on which the equipment is mounted. Failure to do so will cause deadly carbon monoxide fumes to accumulate.

6. Never operate this or any other machinery when fatigued, tired, under the influence of alcohol, illegal drugs, or medication. You must be in good physical condition and mentally alert to operate this machine.
7. Never modify the machine. Never remove any part of the machine (except for service and then reinstall before operating).

8. Be careful when operating the tarp near power lines. Raising the tarp into power lines may cause severe electrical shock. Always have the tarp either fully open or retracted when transporting the machine.


9. Diesel fuel or hydraulic fluid under pressure can penetrate the skin or eyes and cause injury, blindness, or death. To check for such leaks, use a piece of cardboard or wood instead of your hand. Pressure may build up in the hydraulic system; use caution when removing the cap.

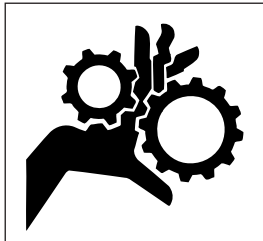


10. Do not operate the machine without all guards in place.



III. MAINTENANCE:

1. Before servicing the machine, turn off engine and allow all moving parts to stop. To prevent accidental starting, disconnect battery cables. Tag the engine operating area to show that the machine is being serviced. Use lockout/tagout procedure (Occupational Safety and Health Administration (OSHA) 29 CFR 1910.147).
2. On trailer units, perform general maintenance such as checking the safety chains, hitch, hitch bolts, tires, and brakes. Repair or replace if worn or broken. Never operate machine on improperly inflated or damaged tires. Always use a safety cage or cable restraint when re-inflating a repaired tire.
3. Battery maintenance: Lead-acid batteries contain sulfuric acid, which will damage eyes or skin on contact. Always wear a face shield to avoid getting acid in the eyes. If acid contacts the eyes, flush immediately with clean water and get medical attention. Wear rubber gloves and protective clothing to keep acid off skin. Lead-acid batteries produce flammable and explosive gasses. Keep arcs, sparks, flames, and lighted tobacco away.



4. Filling of fuel: Never fill the tank with the engine running, while smoking, or when near an open flame. Never smoke while handling fuel or working on the fuel system. The fumes in an empty fuel container are explosive. Never cut or weld on fuel lines, tanks or containers. Move at least 10 ft (3 m) away from fueling point before starting engine. Wipe off any spilled fuel and let dry before starting engine.

IMPORTANT: Be careful not to allow fuel, lubricant, hydraulic fluid, or cooling fluids to penetrate into the ground or be discharged into the water system. Collect all fluids and dispose of them properly.





5. It is recommended that only authorized, genuine FINN replacement parts be used on the machine.
6. Make certain that all decals on the machine are maintained and in good, legible condition. Replacement decals are available through FINN Corporation by the specifying part number shown in the lower right hand corner of the decal. See page 4 for the current safety decals mounted on the unit. See pages 36 and 37 in the Parts Manual for the location and quantity of all decals on this unit.

MTS Delivery/Unloading

When a crane is used to unload a FINN MTS unit a spreader bar is required to avoid damage. Please see the photo below for example.

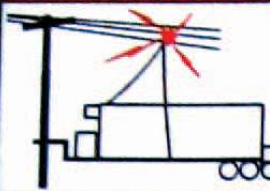


CURRENT SET OF SAFETY DECALS

	<h3 style="margin: 0;">⚠ WARNING</h3>	
<p>SEVER HAZARD! Keep hands clear! Sharp knives. Rotating fan and gears.</p>		
	<p>DO NOT operate without guards or doors in place. Shut off engine, disconnect battery and allow all moving parts to stop before servicing.</p>	
<p>FLYING DEBRIS! Wear eye protection around equipment. Failure to comply could result in death or serious injury.</p>		
		


	<h3 style="margin: 0;">⚠ WARNING</h3>
<p>RUNAWAY VEHICLE HAZARD! Always inspect tow vehicle and equipment hitch before towing. Tighten all hitch bolts and properly connect wiring and safety chains.</p>	
<p>BREAKAWAY SWITCH DO NOT use for parking. Attach cable to towing vehicle with enough slack for turning. Engine battery on trailer must be charged and hooked-up for proper breakaway function.</p>	
	<p>SAFETY CHAIN INSTALLATION Both the single and double chains must be crossed under tongue. They must be oriented in such a manner as to prevent tongue from dropping to ground in event of failure to hitch, coupler or ball. Chains must be connected to towing vehicle so slack for each length of chain, between trailer and towing vehicle, is the same and must have no more slack when in use than necessary to permit proper turning of vehicle. Forward end of chain must be attached to towing vehicle, not to ball, but to hitch or other frame member. Chain must be looped around member and hooked back into itself. Failure to comply could result in death or serious injury.</p>

⚠ DANGER



ELECTROCUTION HAZARD!
 DO NOT raise tarp under high voltage lines.
 Failure to comply will result in death or serious injury.

⚠ WARNING



BURN HAZARD!
 Hot exhaust!
 Stay back!
 Failure to comply could result in death or serious injury.

⚠ WARNING




Wear proper eye protection when operating machine.
 Failure to comply could result in death or serious injury.

⚠ DANGER



ENTANGLEMENT HAZARD!
 Keep arms and feet out!
 Never climb on or in unit before:
 Turning engine off.
 Allow all moving parts to stop.
 Disconnect battery cables and follow proper lock-out & tag-out procedures.
 Failure to comply will result in death or serious injury.

⚠ WARNING	<p>FLYING OBJECTS! Wear proper eye protection when feeding machine. Failure to comply could result in death or serious injury.</p>	
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NOTES

OPERATION AND MAINTENANCE MANUAL FOR MATERIAL TRANSFER SYSTEM

INTRODUCTION:

The FINN corporation would like to thank you for your latest FINN purchase. In our efforts to maintain a quality and growing relationship with each customer, we would like to encourage you to contact us for help with service, genuine replacement parts, or any other information you may require. This manual gives you step-by-step instructions for the operation and maintenance of the FINN MTS. For the best results and to ensure longer life of the equipment, please follow the instructions carefully. For your safety, read the entire manual before operation of this unit.

THE FINN MTS AND HOW IT WORKS:

The Material Transfer System (MTS) is an apparatus for conveying and discharging a variety of bulk materials. Material can be loaded into the hopper of the MTS and then delivered to the job site where the material can either be quick-dumped from the rear of the unit onto the ground, or the material can be discharged out either side of a belt conveyor at the front of the unit. This is achieved via a hydraulically-driven rubber belt at the bottom of the hopper that dispenses material into a wheel barrow or other transport device. The material flow can be controlled through the variable-speed setting on the hydraulic valve (See Figure 1). The front conveyor belt is controlled by a control box located on either side of the unit.

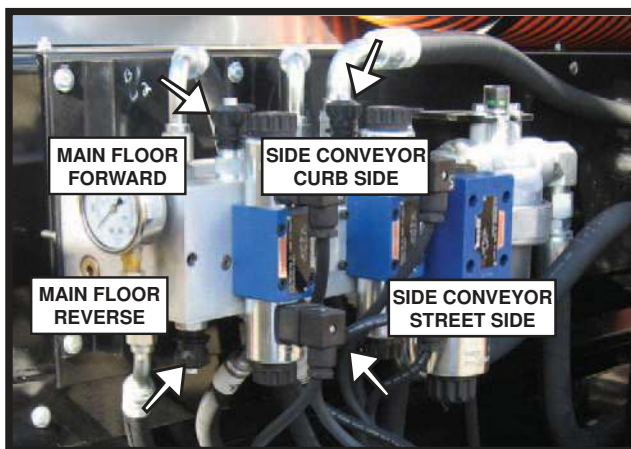


FIGURE 1

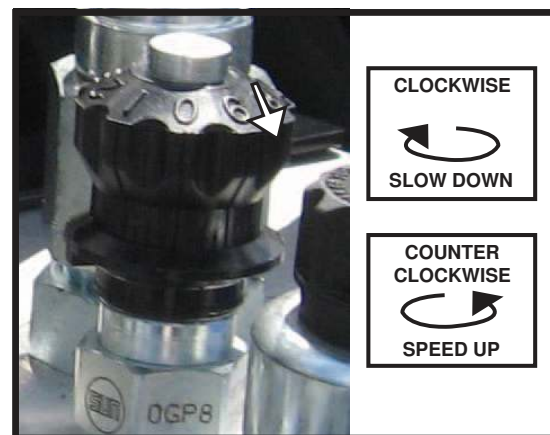


FIGURE 2

Bulk material that is to be discharged from the side conveyors falls into two main categories. Either the material is free-flowing, like sand, gravel, dirt, etc., or the material is binding, like bark mulch. The material type determines how fast the main floor should move. All material that is discharged onto the side conveyor must travel forward on the main floor. On free-flowing material, once the material reaches the end of the main floor, it simply falls off the main floor onto the side conveyor for discharge out either side. The main floor needs to be set on a lower speed setting for optimal output. When dealing with binding material, this material will fill the front slope wall and be metered off the bottom of the pile onto the side conveyor. This requires the main floor to be at a higher factory setting. When discharging from the side conveyor, the main floor will move forward, as long as the side conveyor is moving, to keep the slope wall full. When dealing with a free-flowing material, adjust the main floor forward control knob in 1-1/4 counterclockwise turns to speed up, then, clockwise to slow down. (See Figures 1 and 2).

The MTS also comes standard with a leaf vacuum that is integrated into the hydraulic system and into the main hopper. The leaf vacuum comes standard with ten feet of 10-in.-suction hose, and is equipped with a handle and suction nozzle. The vacuumed leaves are collected into the main hopper via a hose. The tarp must be extended over the hopper during the vacuum process to contain the leaves.

PRE-START EQUIPMENT CHECK:



Equipment check is made with the engine off and all rotating parts stopped. Failure to comply could result in death or serious injury.

Safety check to ensure operator safety:

1. Ensure that bolts on the hitch, safety chains, lights, brakes, and breakaway switch are all in proper working order.
2. Ensure that all guards are in place.
3. Lubricate equipment - Use Handgun Only. (See pages 12 and 13 for Lubrication Chart).
4. Check engine oil and fill or change if necessary. Refer to Engine Operator's Manual.
5. Check fuel level and fill as necessary. (Use proper fuel only.)
6. Inspect the air cleaner for dust and dirt; clean or replace if necessary.
7. Check hopper for foreign objects that could injure yourself, co-workers, or damage the equipment.
8. Check the hydraulic oil level and fill if necessary. See Hydraulic System on page 11 for oil specifications.

STARTING PROCEDURE:



See safety section of the manual (pages 2 and 3) before operating the machine. Failure to comply could result in minor to moderate personal injury. Failure to comply could also result in product or property damage.

1. Verify E-Stop button is in OUT/RUN position.
2. Set throttle about 1/4 open.
3. Turn key clockwise until the starter engages and engine starts.
4. Pull choke control out if necessary due to cold engine.
5. Push choke control in for smooth running.

NOTE: This engine has a safety system which will shut the engine off if the engine temperature rises above, or if the oil pressure decreases below, an acceptable level.

CONTROLS:

Your MTS is equipped with three separate control stations. The main control box is located on the curb side of the unit and allows the operator to control all functions regarding the movement of either belt floor (See Figure 3). Also at the main control box is the ignition switch for the engine (1), with throttle cable and choke control (2), as well as control for the tarp (3). The main control box is also equipped with an emergency stop button (4) that will shut off the engine if engaged. The main control box also houses the controls for the leaf vacuum (5). When using the side conveyor on the curb side of the unit, the main control box will be utilized.



**FIGURE 3
MAIN CONTROL BOX**

There is also a control box on the street side of the unit that allows for operation of the side conveyor on the street side of the machine (See Figure 4). On this control box, the operator can control the material on the side conveyor, as well as having an emergency stop button.

The third control box is located at the rear of the machine on the curb side (See Figure 5). This is the box that will primarily be utilized during the use of the quick-dump feature. On this control box, the operator has control of the main floor, as well as an emergency stop button.



**FIGURE 4
STREET SIDE**



**FIGURE 5
CURB SIDE**

On the hydraulic valve are knobs that allow the operator to adjust the speed setting on the main floor, as well as the side conveyor (See Figure 6). Turning the knob into the valve slows the function down, while turning the knob out of the valve will increase the speed of the function.

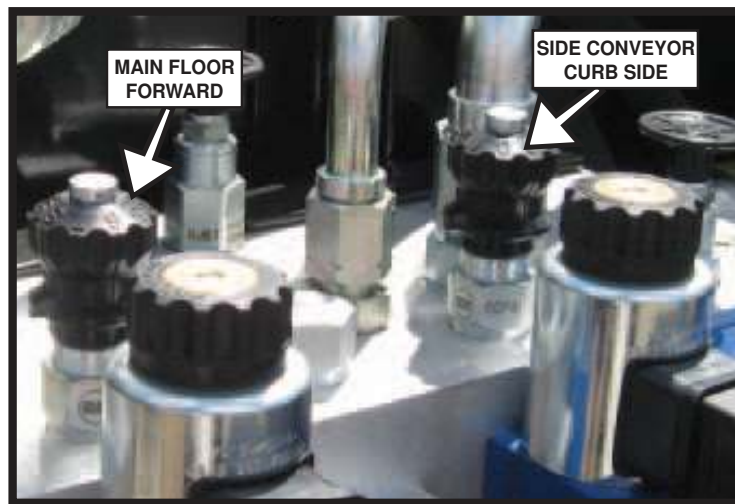


FIGURE 6
HYDRAULIC VALVE KNOBS

OPERATION

LEAF VACUUM

The leaf vacuum is designed to run by itself. To achieve maximum performance of the leaf vacuum, the engine needs to supply all of the available horsepower to the leaf vacuum circuit. Do not attempt to move either of the belts while the leaf vacuum is in operation.

SIDE CONVEYOR

The side conveyor is designed to allow material to be discharged from either street side, or curb side of the machine. When discharging material from the side conveyor, the engine should never reach over 200 rpm. Otherwise, damage to the hydraulic valves could occur.

QUICK DUMP

The main floor is what allows the material to be discharged out from the rear hopper. There is a control box located on the curb side rear of the MTS with controls to reverse the main floor. When using the quick-dump feature, make sure the machine remains hitched to the towing vehicle so the unit does not tilt. It may be necessary to pull the MTS forward while using the quick-dump feature with a full load to avoid excessive pile-up which could cause interference or damage to the machine.



Do not stand behind unit while using the quick-dump feature. Failure to comply could result in death or serious injury.

TRACKING A CONVEYOR BELT:

1. The basic rule of tracking a conveyor belt is the belt moves toward that end of the roll/idler that it contacts first. The reader can demonstrate this rule very simply by laying a round pencil on a flat surface in a skewed position. Lay a book across the pencil and gently slide it with your finger in a line directly away from you. See Figure 8 for example.

The book will tend to shift across either to the right or the left depending upon which side of the pencil the moving book contacts first.

2. CLEANLINESS is essential to maintaining a good belt tracking. Foreign matter creates a new roll or pulley face, adversely affecting tracking.
3. To eliminate uneven tracking, tighten belt on the same side to which the belt tracks.

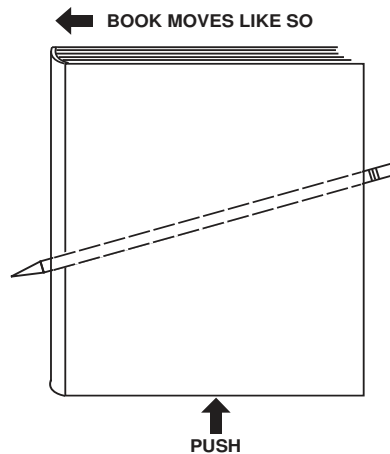


FIGURE 8
BOOK EXAMPLE

MAINTENANCE

AFTER FIRST 4 TO 8 HOURS OF OPERATION

1. Retorque wheel lugnuts. Torque again after 7 days.

DAILY

1. Check engine and blower air cleaner filters for dirt and debris. Remove and clean with dry compressed air if necessary.
2. Check hydraulic oil level in reservoir. The oil should be about half way up the sight glass. Add or replace if necessary.
3. Check fuel level. Add if necessary.
4. Check engine oil and add if necessary. Change oil and filter after first 5 hours, then every 100 hours after that. Check engine manual for correct oil, and engine break in procedure.

WEEKLY

1. Lubricate all bearings on the unit. Refer to Lubrication Chart on pages 14 and 15.
2. Check main floor and side conveyor belt tracking. Adjust as necessary.
3. Check air pressure in tires and add air if necessary.
4. Check main floor gear box oil level.

SEASONAL AND WINTER STORAGE MAINTENANCE

1. Park unit in suitable location and chock wheels to prevent unwanted movement.
2. If possible, cover machine with tarp, or park inside of enclosure.
3. Lubricate all grease fittings, see Lubrication Chart on pages 14 and 15.
4. Change hydraulic oil and filters.
5. Disconnect battery cables. In cold weather, remove battery and store in a safe, warm place.
6. Add fuel stabilizer to fuel tank.

HYDRAULIC SYSTEM

The hydraulic system on your FINN MTS is designed to give trouble-free service, when properly maintained. The most important areas of maintenance are the hydraulic oil and filtration. The reservoir holds 20 gal (76 L) of Mobil DTE-13M hydraulic fluid. The hydraulic oil should be replaced per the lubrication schedule or if the oil becomes milky or gives off a burnt odor. The system contains two hydraulic filters, one high-pressure (FINN part number 008705 for the element), between the hydraulic pump and the hydraulic valve, and one low-pressure return filter (FINN part number 008703 for the element), located between the hydraulic valve and the hydraulic reservoir. These filters must be replaced on schedule and must be of at least a 5 micron absolute rating.

CONVEYOR BELT ASSEMBLY AND SERVICE

BREAK-IN AND ADJUSTMENT OF CONVEYOR BELTS

the conveyor belts in the MTS have been pre-tensioned by the factory, prior to delivery, but due to a stretch factor of up to 1-1/2%, will need to be retensioned after the initial use and possibly, after the first few uses. Once the belt is broken in, the frequency of need to adjust the belt should be reduced.

SYMPTOM

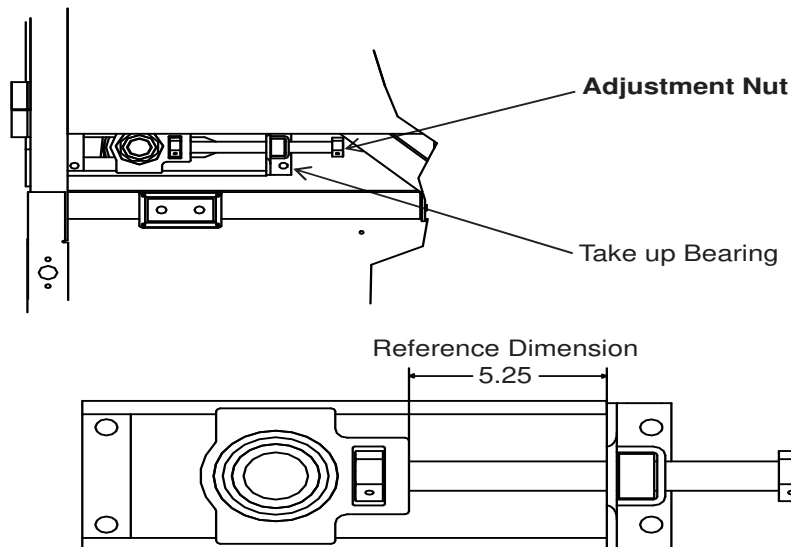
The symptom of lost tension on the belt is floor slippage during operation, making it difficult to unload material.

NOTICE

Do not overload the unit beyond recommended capacity. Failure to comply could result in product damage

TOOLS NEEDED

To tighten the floor, you will need a 1-13/16 in., open-ended wrench and a tape measure, scale, or calipers. At the rear of the machine, you will find a take-up bearing on both sides, as shown below in Figure 9 (Side Conveyor, use a 15/16-in. wrench).



**FIGURE 9
TAKE-UP BEARING**

MAKE ADJUSTMENTS

Prior to making any adjustments, check both bearings and note the measurement per Figure 9. These numbers may vary from side to side, due to adjustments made for belt tracking. For instance, the first side may start at 5.25 in. and you tighten to 5.375 in. In this case, you have increased tension by .125 in.. Therefore, the other side should be increased by 0.125 in. to maintain tracking. If the second bearing starts at 5.375 in., and you tighten it by 0.125 in., it should be at 5.500 in. after adjustment. (Reference dimension of 1.750 in. for the side conveyor.)

NOTE: If tracking issues occur, they should be corrected by tightening one side, not loosening.

Operate unit to see if the slipping issue has been resolved; if not, repeat the procedure until no slipping is present.

MEASUREMENTS

At this approximate location, take a measurement between the underside of the belt and top rail, as shown below. A properly tensioned floor should be between 3-3/8 in. and 3-1/2 in. (See figure 10 below.)

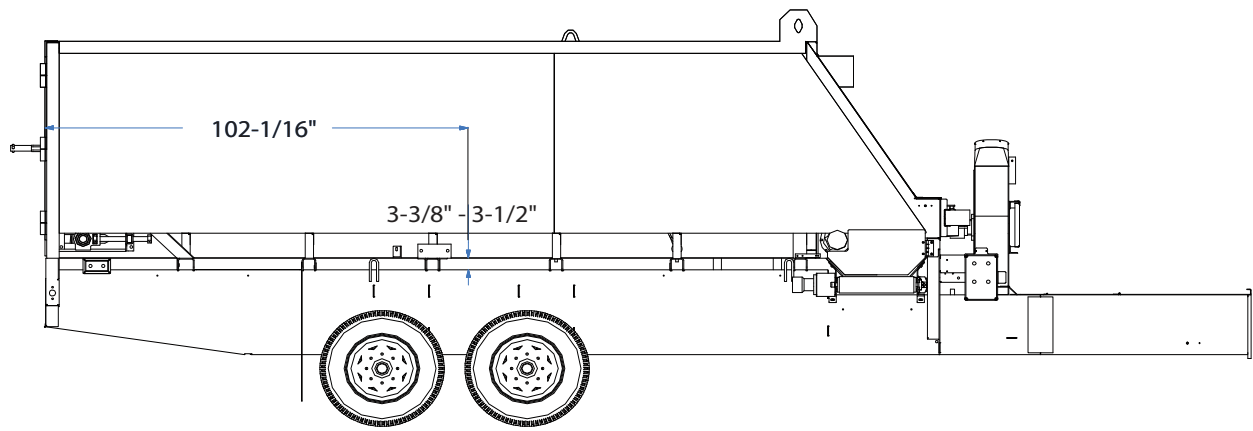
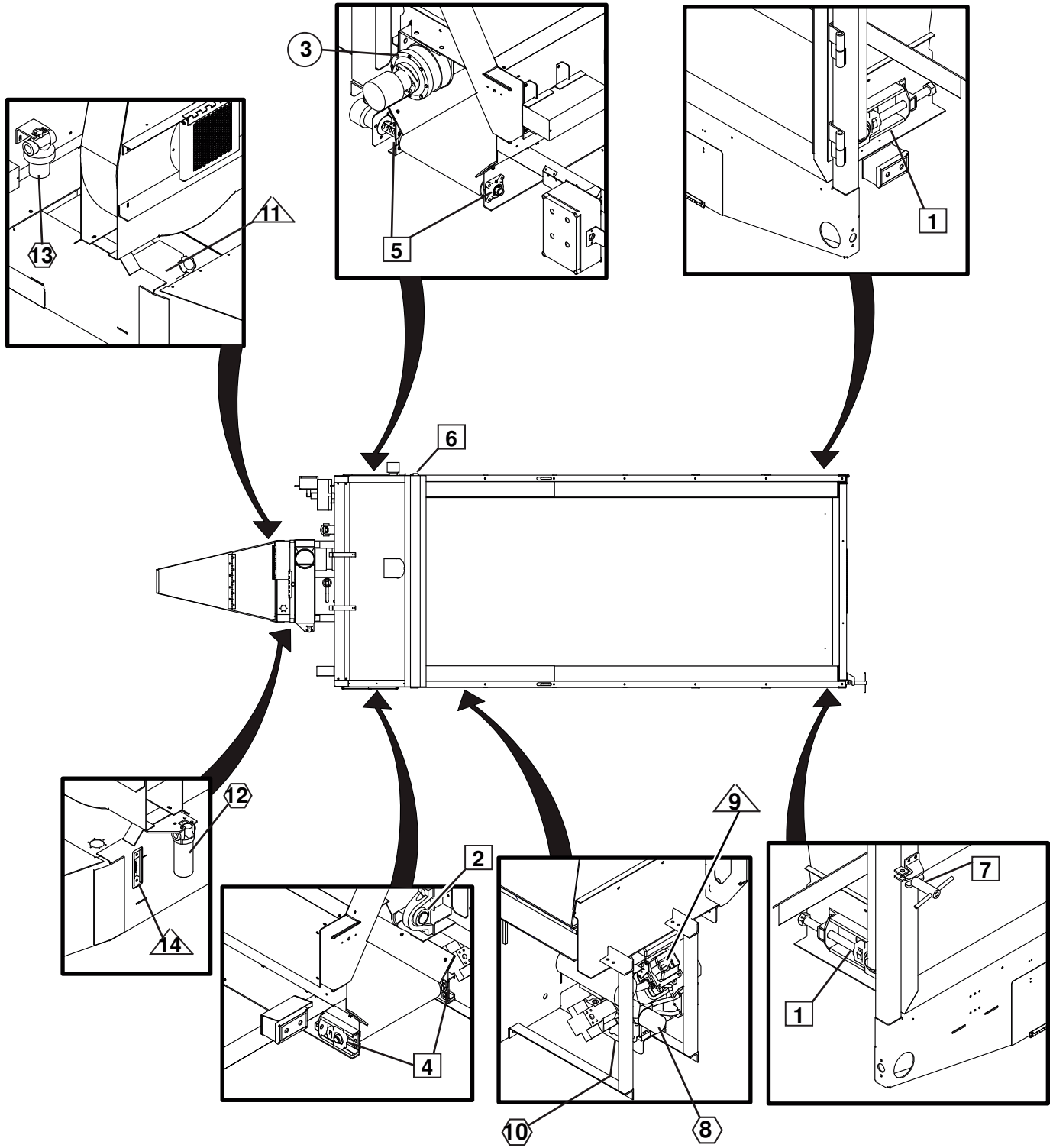


FIGURE 10
FLOOR



LUBRICATION CHART






Ref. No.	Location	Lubricant	Frequency	No.
1	Main Floor Take-Up Bearings	CL	Weekly	2
2	Main Floor Drive Bearing	CL	Weekly	1
3	Main Floor Gearbox	GO	50,100, then Seasonally	1
4	Side Conveyor Take-Up Bearings	CL	Weekly	2
5	Side Conveyor Drive Bearing	CL	Weekly	2
6	Tarp Bearing	CL	Weekly	1
7	Rear Door Latch	CL	Weekly	1
8	Engine Oil Filter	MO	See Engine Manual	1
9	Engine Oil Level	MO	Daily	1
10	Engine Fuel Filter	FU	See Engine Manual	1
11	Fuel Tank Level	FU	Daily	1
12	Hydraulic High Pressure Filter	HO	See Indicator *	1
13	Hydraulic Low Pressure, Return Filter	HO	See Indicator *	1
14	Hydraulic Fluid Level	HO	Daily	1

* - Service when indicator is triggered AND fluid is at operating temperature

Lubricant or fluid used

CL	Chassis Lubricant
MO	Motor Oil - See Engine Manual for recommendations
HO	Hydraulic Oil, Mobil DTE-13M
FU	Gasoline
GO	SAE 80W90 Gear Oil

Time Key

Daily (8 hours)	
Weekly (40 hours)	
Seasonally (500 hours)	
See Engine Manual	
See Indicator	

Fluid Capacities

Gasoline	10 Gallons (38 l)
Engine Oil	2 Quarts (2l)
Hydraulic Fluid	20 Gallons (76 l)
Gearbox Oil	17 Oz. (0.5 l)

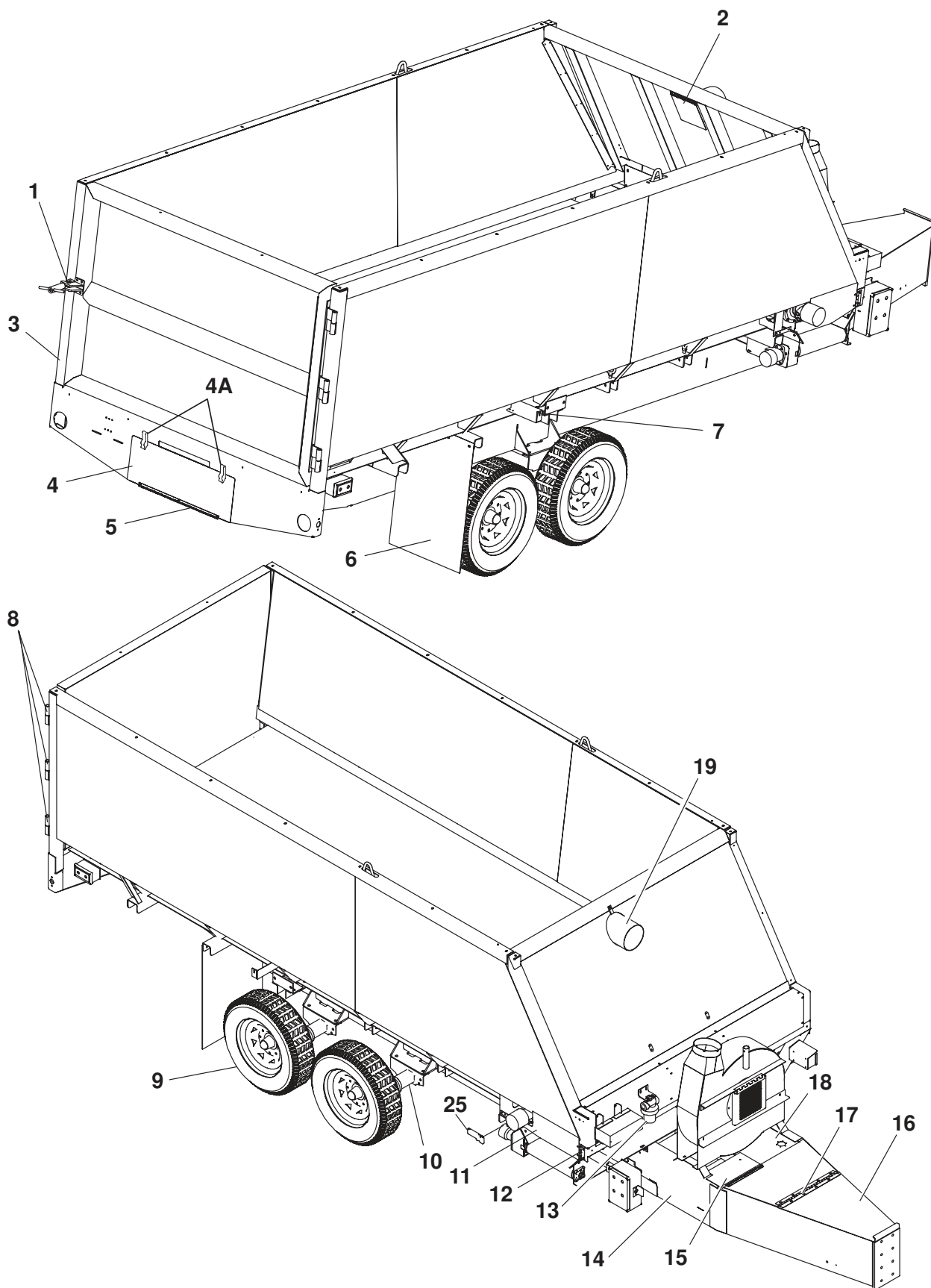
NOTES



MATERIAL TRANSFER SYSTEM

Parts Manual

Model SR

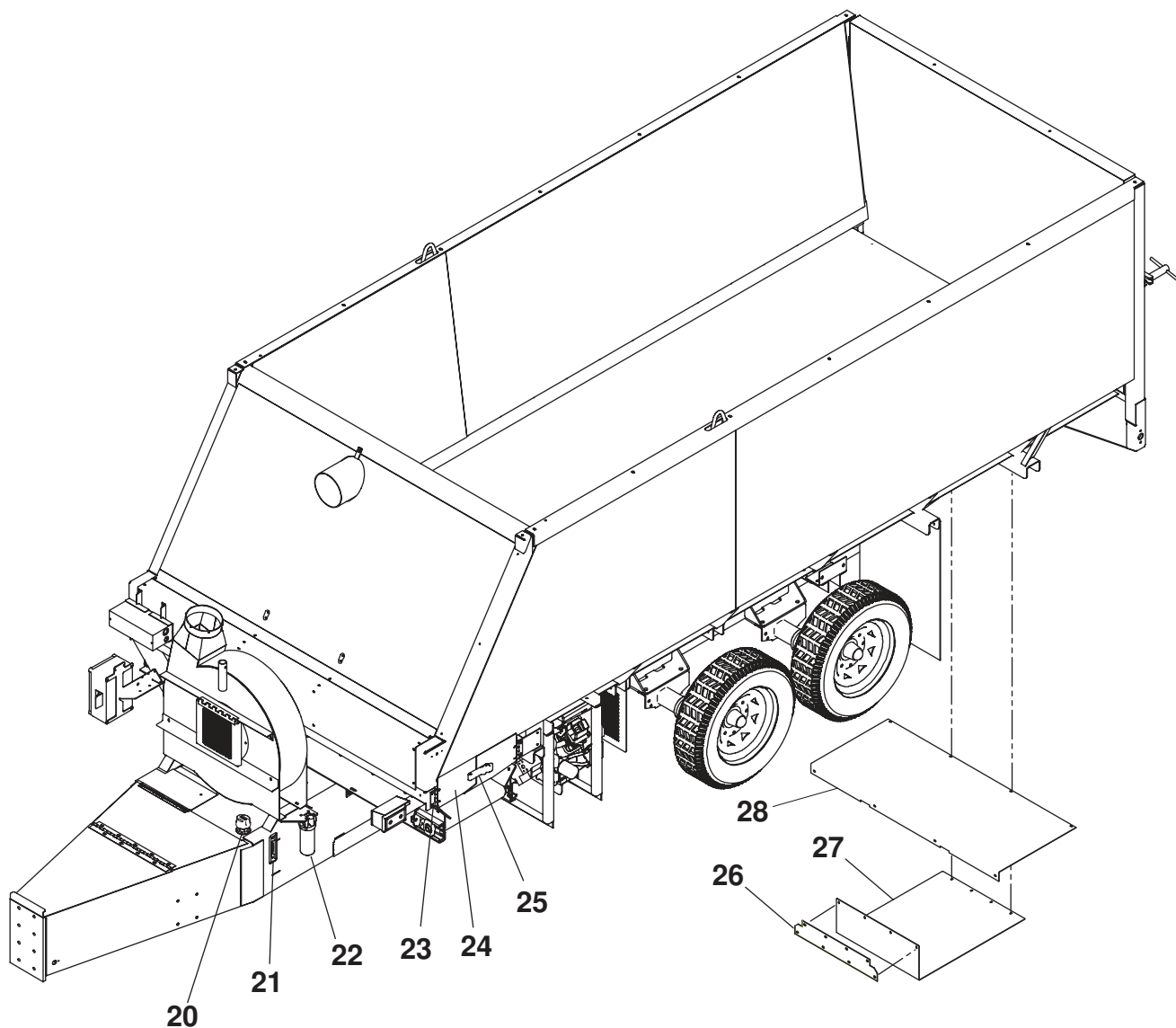


**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**

MTS PARTS

Ref. No.	Part Number	Description	No. Req'd
1	345048	Rear Door Latch	1
	345057	Rear Door Pin	1
	369510	Door Turn Buckle	1
2	FMTS15-0034	Flapper Door	1
	FMTS15-0035	Flapper Door Spacer	1
	345047	Flapper Door Hinge	1
3	FMTS15-0004	Rear Door	1
	002909	Handle (Not Shown)	1
4	FMTS15-0028	Rear Tool Box Door	1
4A	005592	Soft Latch	2
5	345046	Rear Tool Box Hinge	1
6	345074	Mud Flaps	2
7	345070	Positive Door Catch	1
	345064	Rear Door Open Latch	3
8	345044	Rear Door Hinge	3
	345058	Rear Door Thrust Washer	3
9	005249A	Tires	4
10	075608	Torsion Axle	2
11	FMTS15-0079	Curb Side Conveyor Door	1
	345107	Conveyor Door Flap RHS	1
12	345116	Conveyor Door Hinge	1
13	008702	Low Pressure Filter	1
	008703	Replacement Cartridge	1
14	080691	Fuel Tank	1
15	FMTS15-0053	Fuel Tank Cover	1
	345105-01	Cover Hinge	1
	052699	Knob (Not Shown)	1
16	FMTS15-0020	Front Tool Box Lid	1
17	345045	Front Tool Box Hinge	1
18	345071	Hydraulic Reservoir	1
19	345040	Leaf Vacuum Discharge Tube	1

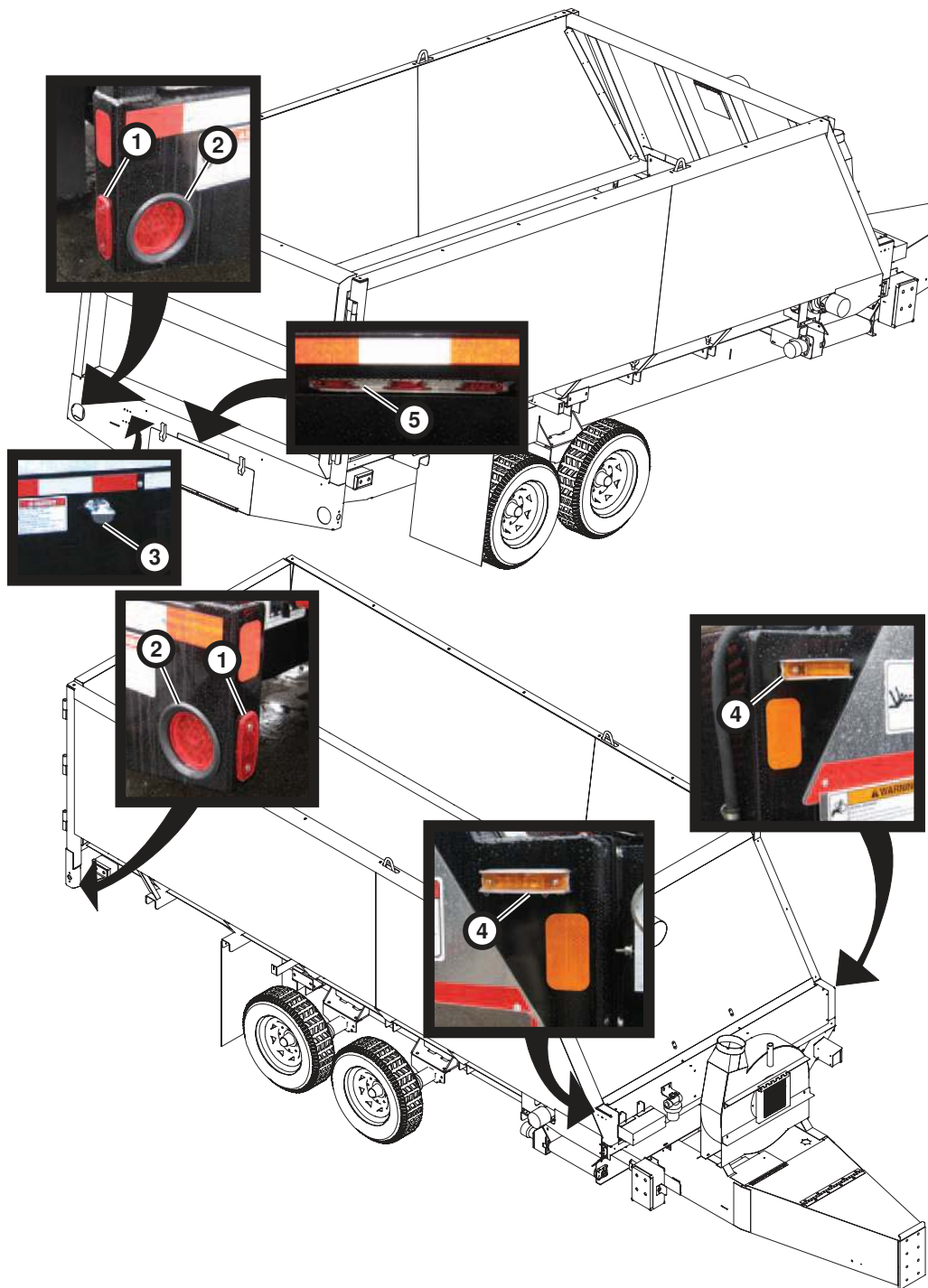
**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**



MTS PARTS CONTINUED

Ref. No.	Part Number	Description	No. Req'd
20	008706	Filter Breather	1
21	080329	Sight Gauge	1
22	008704	High Pressure Filter	1
23	345116	Conveyor Door Hinge	2
24	FMTS15-0063	Conveyor Door LHS	1
	FMTS15-0064	Conveyor Door RHS	1
	FMTS15-0061	Conveyor Door Mount	1
25	005433	Soft Latch	1
26	FMTS15-0026	Rear Tool Box Mount	1
27	FMTS15-0024	Rear Tool Box Extension	1
28	FMTS15-0025	Rear Shelf	1
	345107	Conveyor Door Flap RHS	1

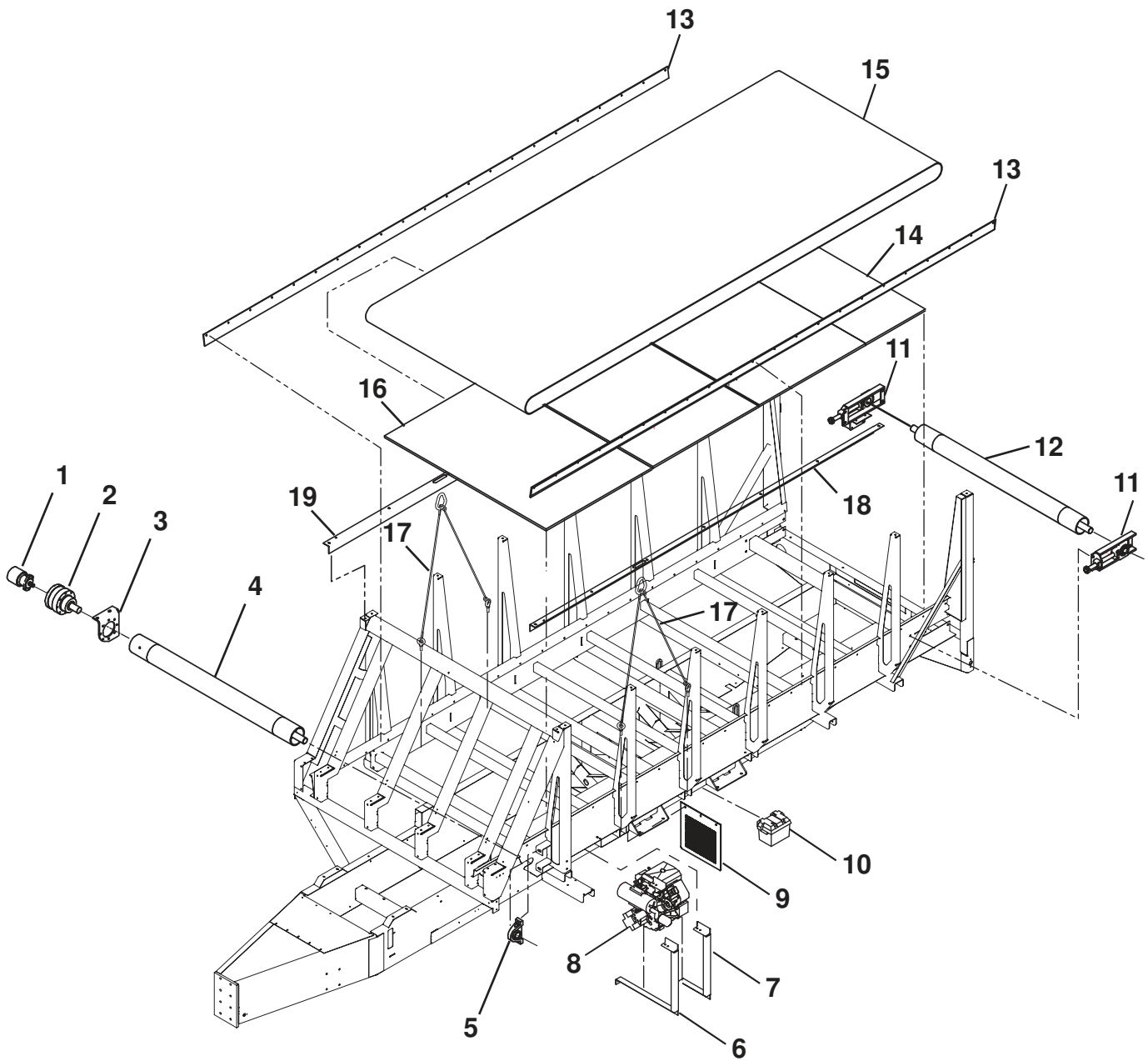
**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**



MTS SAFETY LIGHTS

Ref. No.	Part Number	Description	No. Req'd
1	345014	LED Red Side Marker Light	2
2	345013	LED Tail Light	2
3	345015	LED License Light	1
4	345016	LED Amber Side Marker Light	2
	345017	Sidemarket Light Pigtail	2
	345018	Side Marker Light Guard	2
5	345019	LED 3 Bar Light	1

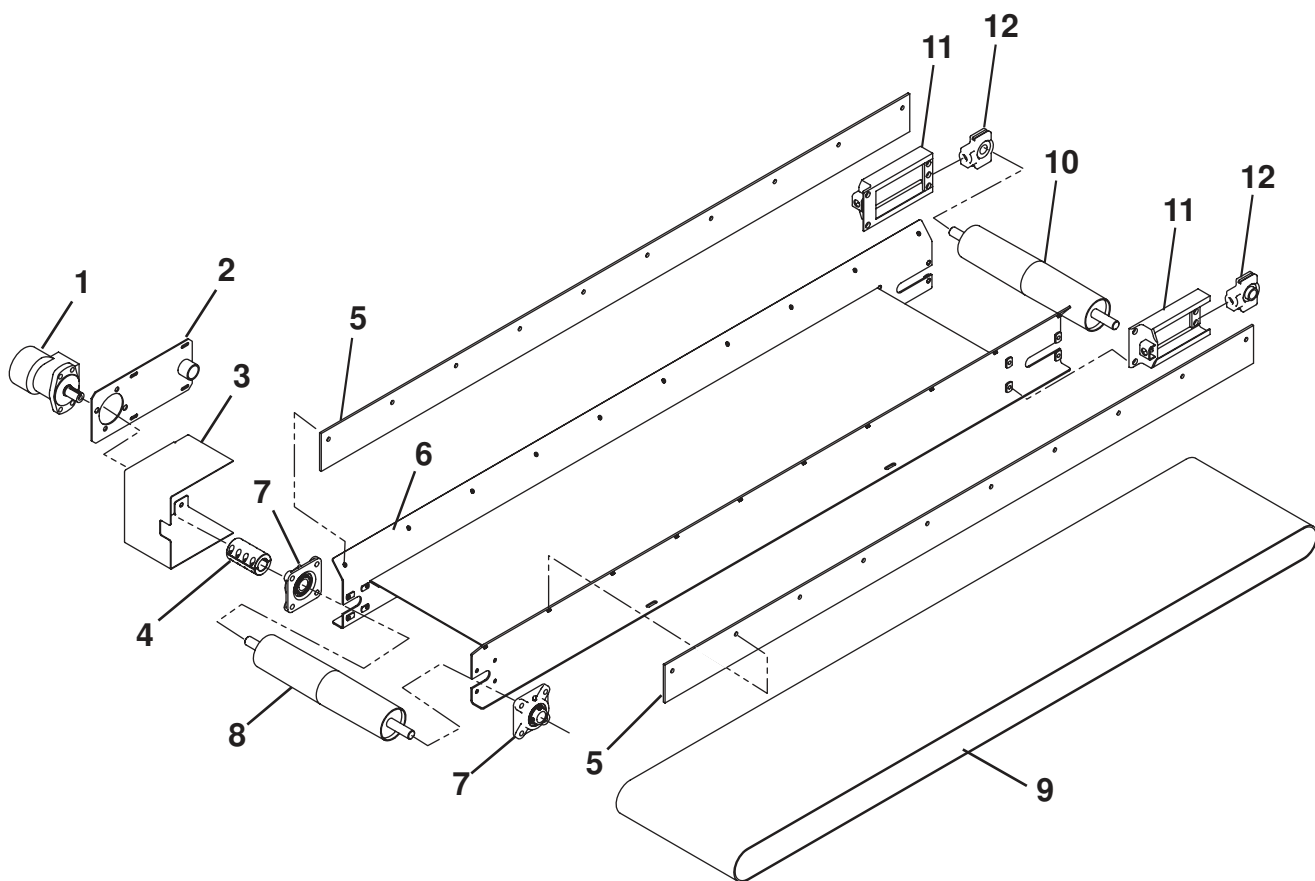
**WHEN ORDERING PARTS, BE SURE TO STATE
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HOPPER MAIN FLOOR ASSEMBLY

Ref. No.	Part Number	Description	No. Req'd
1	345008	Main Floor Motor	1
2	345002	Auburn Gear Box-Main Floor	1
3	FMTS15-0005	Main Floor Gear Box Mount	1
4	345137	Main Floor Drive Roll	1
5	045019	Bearing	1
6	345111	Front Engine Guard Bar	1
7	345113	Rear Engine Guard Bar	1
8	345032	MTS15 Engine Assembly	1
9	FMTS15-0057	Rear Engine Guard	1
10	080223	Battery Case	1
	002256-12	Battery 12-Volt (Not Shown)	1
	031031	Battery Cable 2 GA Red X 38" (Not Shown)	1
	000241	Ground Strap (Not Shown)	1
11	345020	Take-Up Bearing	2
	345021	Take-Up Bearing Frame	2
12	345001	Main Floor Idler Roll	1
13	345027	Main Floor Belt Skirt	1
14	345025	Main Floor FRP Board-Small	1
15	345029	Main Floor Belt	1
16	345024	Main Floor FRP Board-Large	3
17	345101	Lift Cable Assembly	2
18	FMTS15-0018	Wall Cap-LHS	1
19	FMTS15-0019	Wall Cap-RHS	1

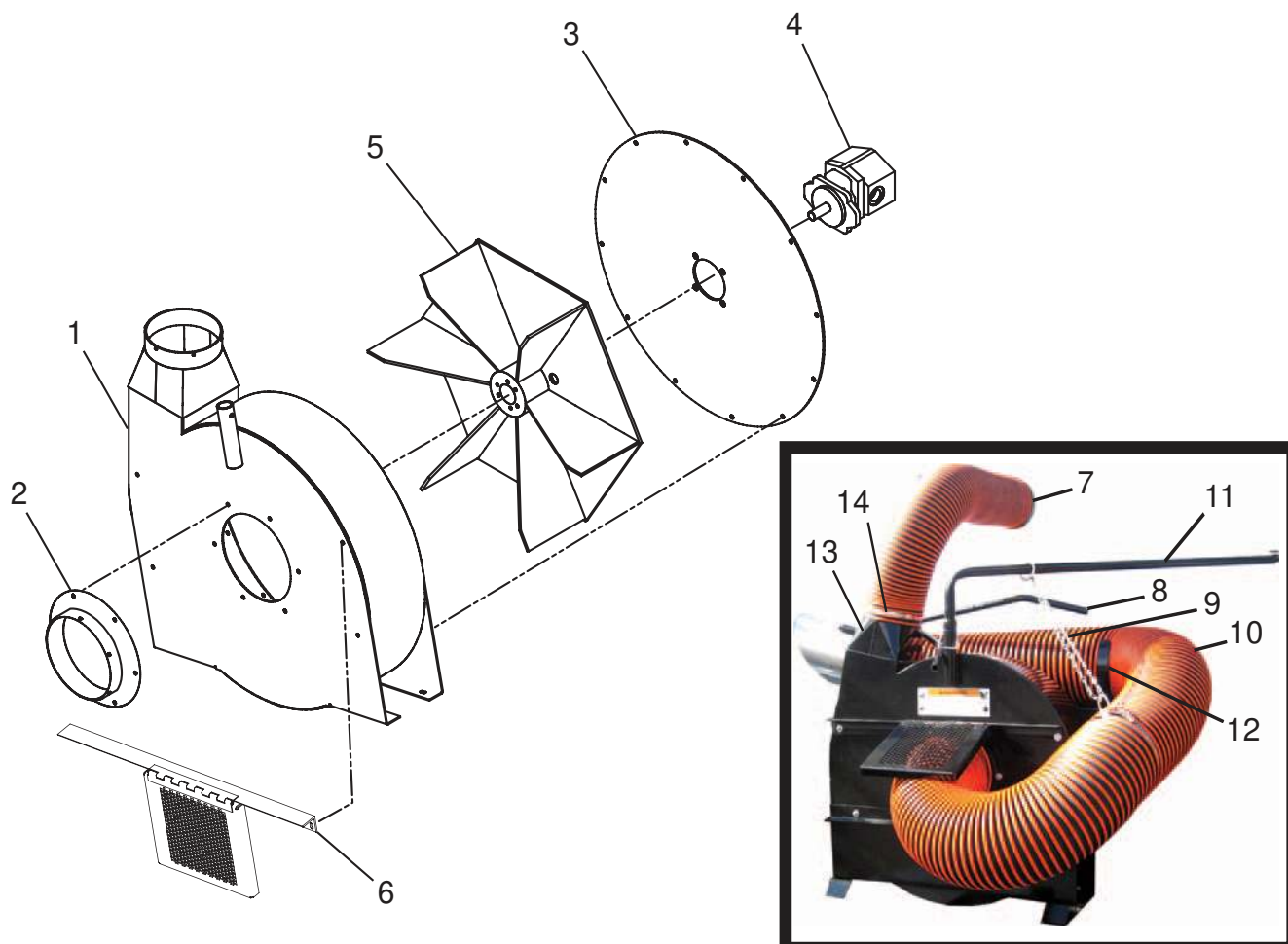
**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**



MTS SIDE CONVEYOR ASSEMBLY

Ref. No.	Part Number	Description	No. Req'd
1	345009	Side Conveyor Motor	1
2	055267-01	Motor Mount	1
3	FMTS15-0015	Side Conveyor Coupling Guard	1
4	345026	Drive Coupling-1"	1
5	345028	Side Conveyor Belt Skirt	2
6	FMTS15-0002	Side Conveyor Frame	1
7	340024	Bearing	2
8	345004	Side Conveyor Drive Roll	1
9	345030	Side Conveyor Belt	1
10	345005	Side Conveyor Idler Roll	1
11	345003	Side Conveyor Take-Up Frame	2
12	055487	Take-Up Bearing	2

**WHEN ORDERING PARTS, BE SURE TO STATE
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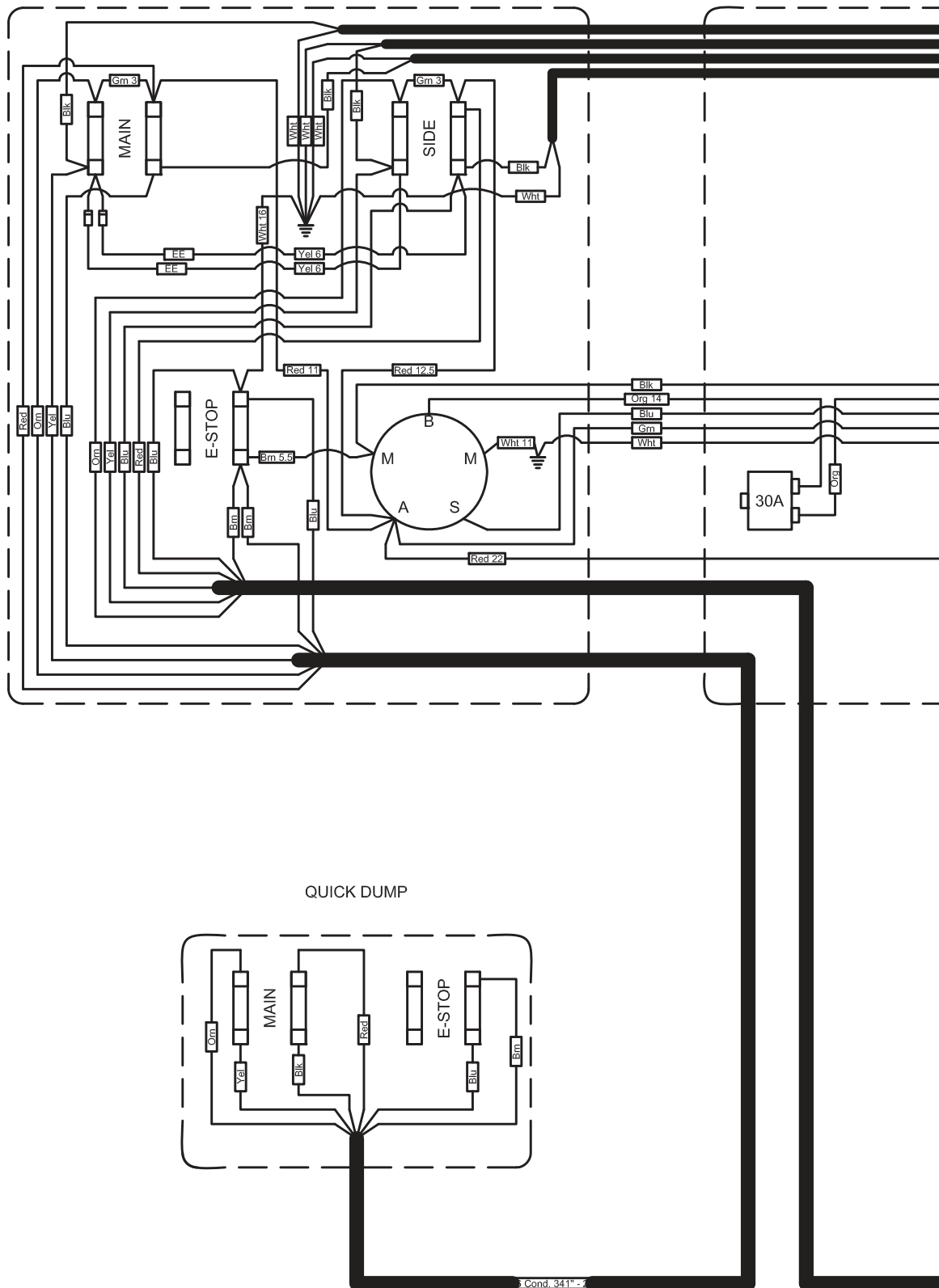
LEAF VACUUM ASSEMBLY *

Ref No	Part Number	Description	No. Req'd
1	FMTS15-0006	Leaf Vacuum Housing	1
2	FMTS15-0023	Suction Flange	1
3	FMTS15-0022	Cover Plate	1
4	345007	Leaf Vacuum Motor	1
5	FMTS15-0027	Leaf Vacuum Blade Weldment	1
6	345056	Suction Flange Guard	1
7	345060	Vacuum Discharge Hose 5' Long	1
8	345062	Leaf Vacuum Handle	1
9	190029	Chain 4' Long	1
10	345059	Leaf Vacuum Hose 10' Long	1
11	345065	Vacuum Hose Support	1
12	FMTS15-0054	Vacuum Hose Support	2
13	FMTS15-0036	Vacuum Hose Cone	1
14	345061	Hose Bridge Clamp	5

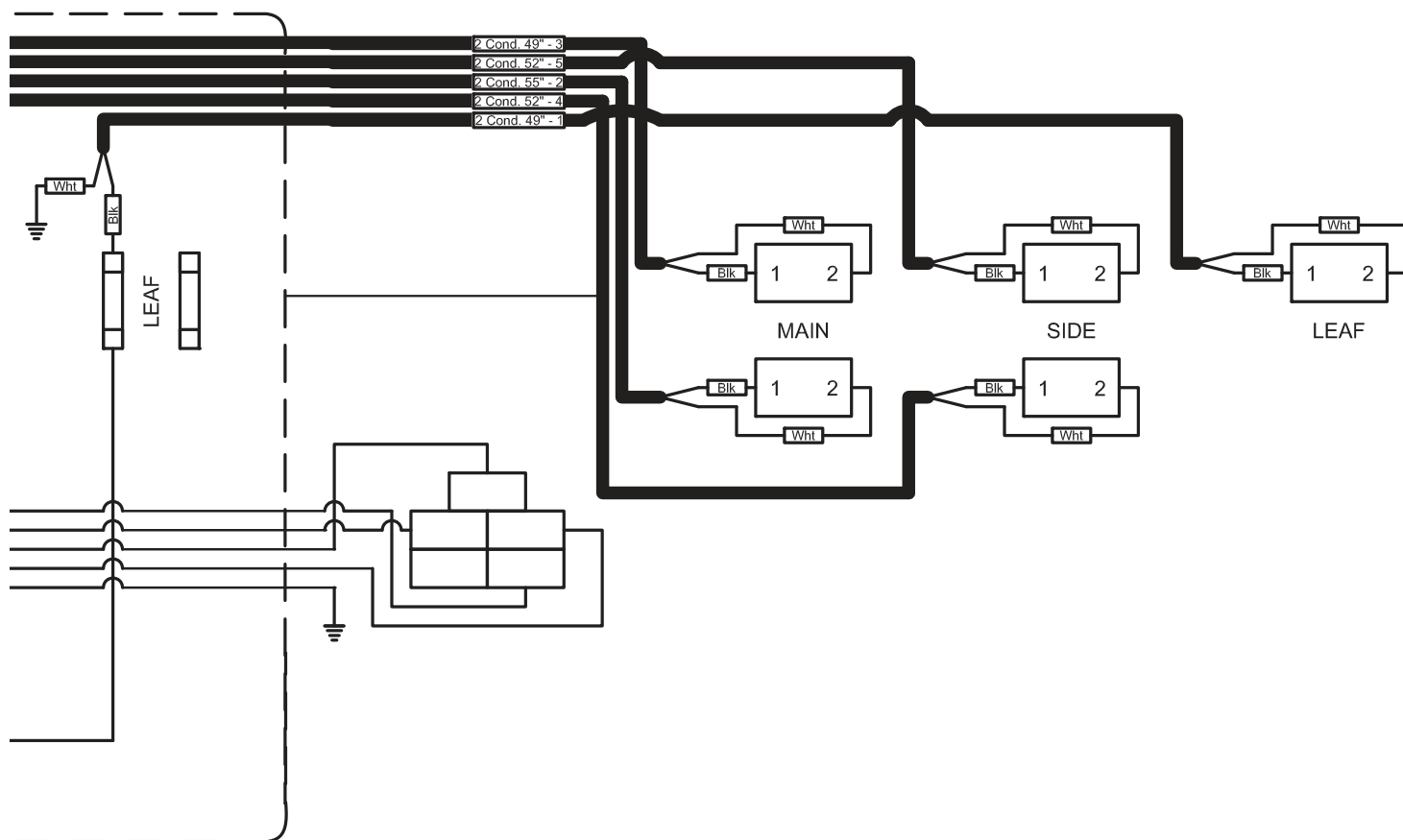
* SEE LEAF VACUUM RETROFIT KIT

**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**

CONTROL BOX SCHEMATIC



**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**



**WHEN ORDERING PARTS, BE SURE TO STATE
 SERIAL NUMBER OF MACHINE**



MTS MAIN CONTROL BOX

Ref. No.	Part Number	Description	No. Req'd
1	345169	Main Control Box Assy.	1
2	080654	Marine Starter Switch	1
3	045055	Panel Mount Cir. Brk. (Not Shown)	1
4	345051	3-Position Toggle Switch	1
5	345052	Contact Block w/Holder (Not Shown)	4
6	345053	Selector Switch	1
7	345054	2-Position Toggle Switch	1
8	345055	E-Stop Switch	1
9	345022	Throttle Cable	1
10	345023	Choke Cable	1
11	345110	Hour Meter	1

**WHEN ORDERING PARTS, BE SURE TO STATE
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MTS QUICK DUMP CONTROL BOX ASSEMBLY

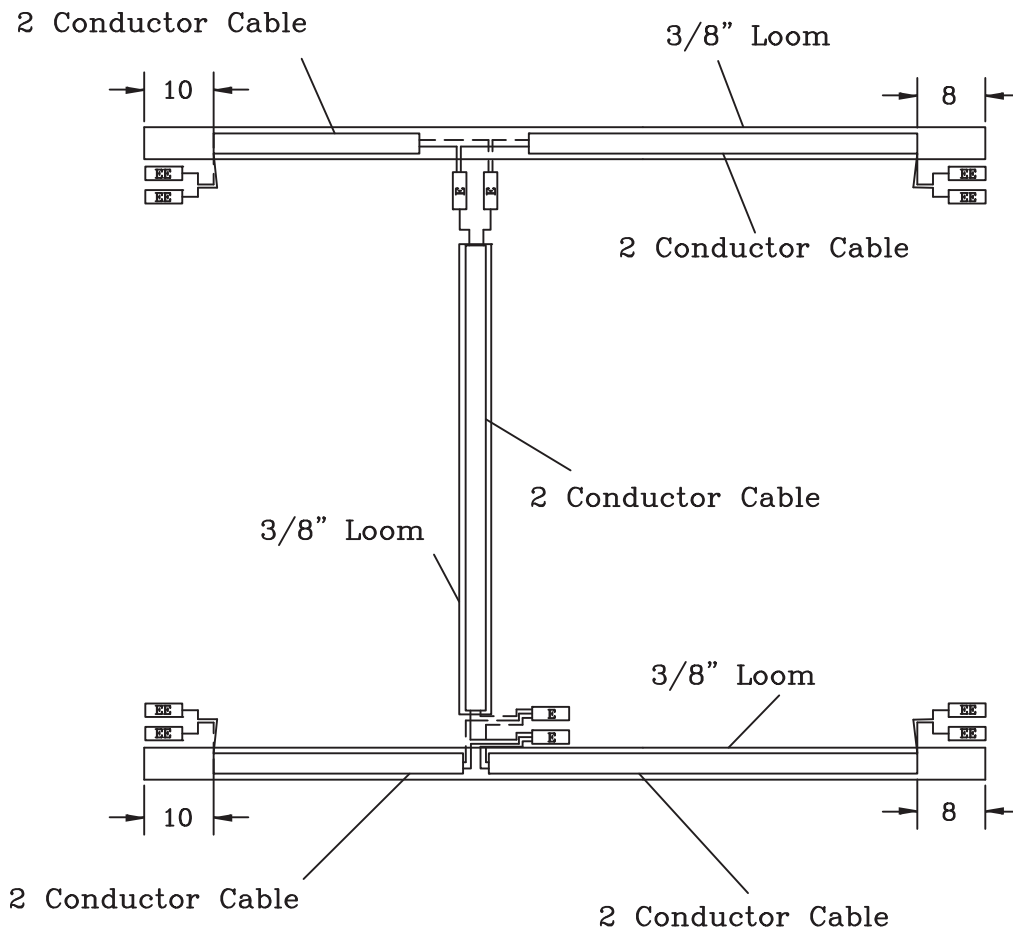
Ref. No	Part Number	Description	No. Req'd
1	345036	Street Side Control Box	1
2	345053	Momentary Selector Switch	1
3	345052	Contact Block w/Holder (Not Shown)	2
4	345055	E-Stop Switch	1



MTS STREET SIDE CONTROL BOX ASSEMBLY

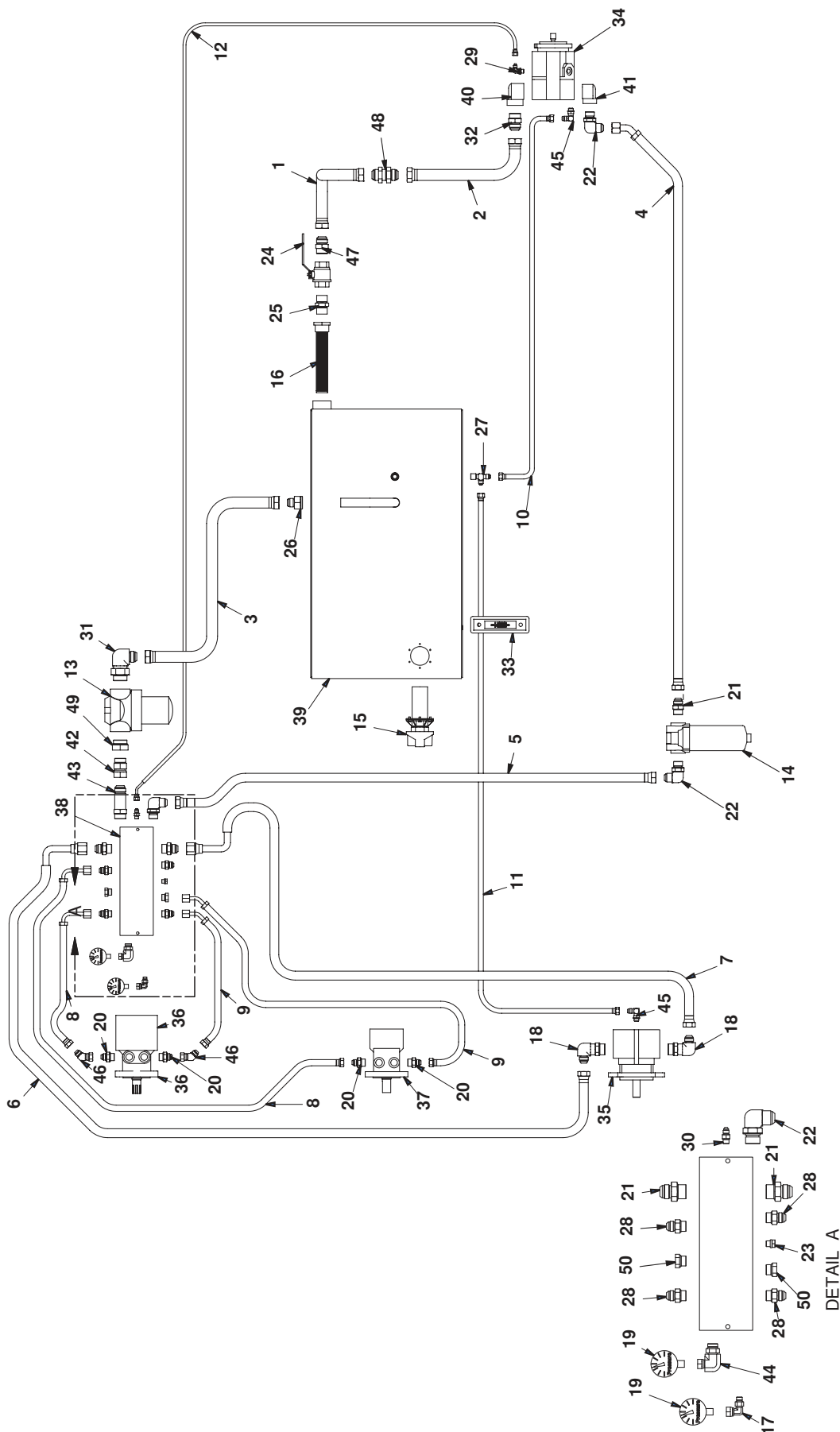
Ref. No	Part Number	Description	No. Req'd
1	345035	Street Side Control Box Assy.	1
2	345051	3-Position Toggle Switch	1
3	345052	Contact Block w/Holder (Not Shown)	2
4	345055	E-Stop Switch	1

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TRAILER BRAKE WIRING HARNESS

Ref. No.	Part Number	Description	No. Req'd
1	190005	2 Conductor Cable-Gray	1
2	190005	2 Conductor Cable-Gray	1
3	190005	2 Conductor Cable-Gray	1
4	190005	2 Conductor Cable-Gray	1
5	190011	3/8" Loom	1
6	190011	3/8" Loom	1
7	190011	3/8" Loom	1
8	170012	16-14 Butt Connector	8
9	170014	12-10 Butt Connector	4

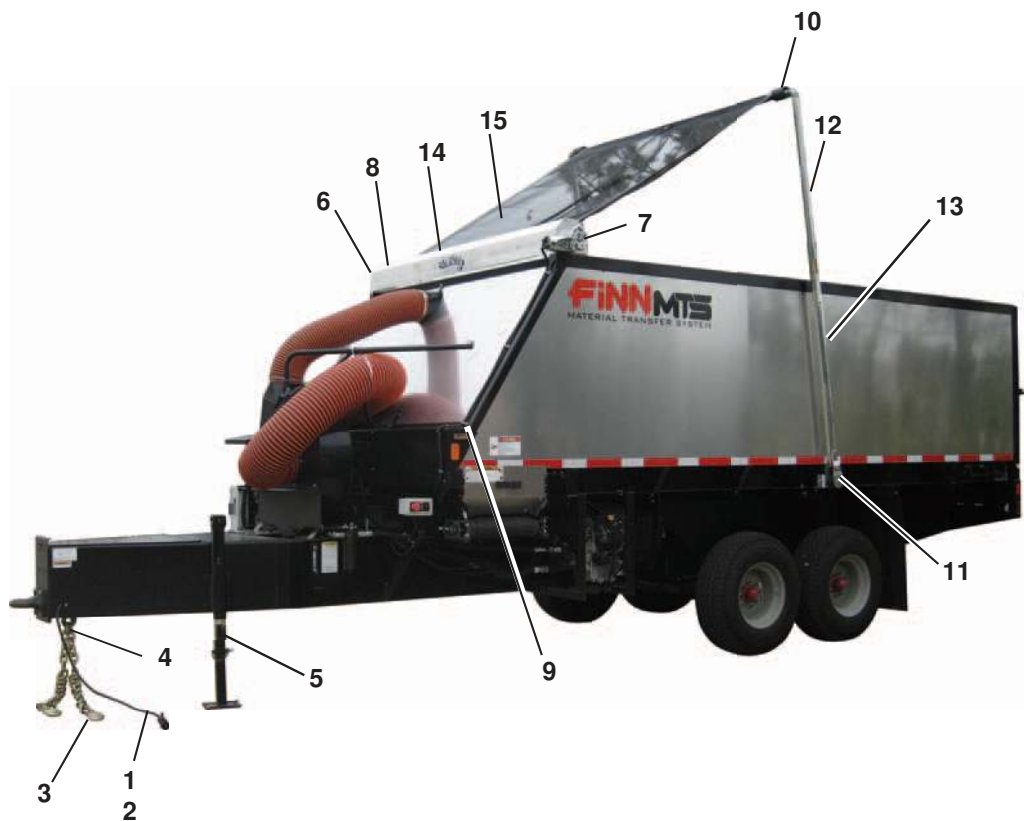


**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**

HYDRAULIC SYSTEM

Ref. No.	Part Number	Description	No. Req'd
1	345083	Suction Hose	1
2	345084	Suction Hose	1
3	345085	Return Hose	1
4	345086	3/4" Hose	1
5	345087	3/4" Hose	1
6	345088	3/4" Hose	1
7	345089	3/4" Hose	1
8	345090	1/2" Hose	2
9	345091	1/2" Hose	2
10	345092	3/8" Hose	1
11	345093	3/8" Hose	1
12	345094	1/4" Hose	1
13	008702	Low Pressure Filter Assembly	1
	008703	Low Pressure Cartridge	1
14	008704	High Pressure Filter Assembly	1
	008705	High Pressure Cartridge	1
15	008706	Filter Breather Assembly	1
16	011466	Suction Strainer	1
17	011929	Airway	1
18	011932	90° Male Elbow	2
19	012044	Pressure Gauge	2
20	012086	Male Connector	4
21	012087	Male Connector	3
22	012091	90° Male Elbow	3
23	012126	Airway	1
24	021559	1" Ball Valve	1
25	041162	Straight Male Connector	1
26	052028	Connector	1
27	052035	Male Branch Tee w/Nut	1
28	055232	Male Connector	4
29	055274	90° Male Elbow	1
30	055308	Male Connector	1
31	055358	90° Male Elbow	1
32	055383	Male Connector	1
33	080329	Hydraulic Level Gauge	1
34	345006	Hydraulic Pump	1
35	345007	Leaf Vacuum Motor	1
36	345008	Main Floor Motor	1
37	345009	Side Conveyor Motor	1
38	345010	Custom Manifold Assembly	1
39	345071	Hydraulic Reservoir	1
40	345079	Flange Fitting	1
41	345080	Flange Fitting	1
42	345081	Connector Fitting	1
43	345082	Connector Fitting	1
44	345112	Connector Fitting	1
45	FW71448	90° Male Elbow	2
46	FW71504	Male Connector	2
47	FW71712	Connector Fitting	1
48	FW71716	Connector Fitting	1
49	FW71897	Connector Fitting	1
50	FW71921	Connector Fitting	2

**WHEN ORDERING PARTS, BE SURE TO STATE
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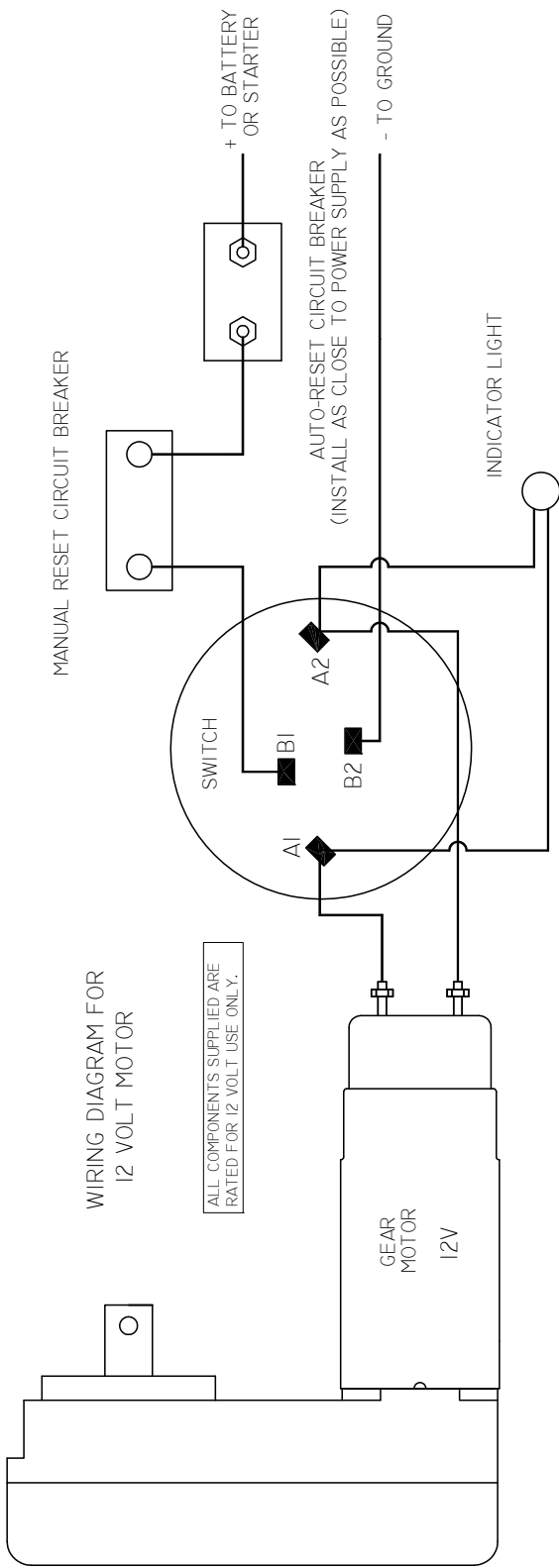


MTS TOW AND TARP ASSEMBLY

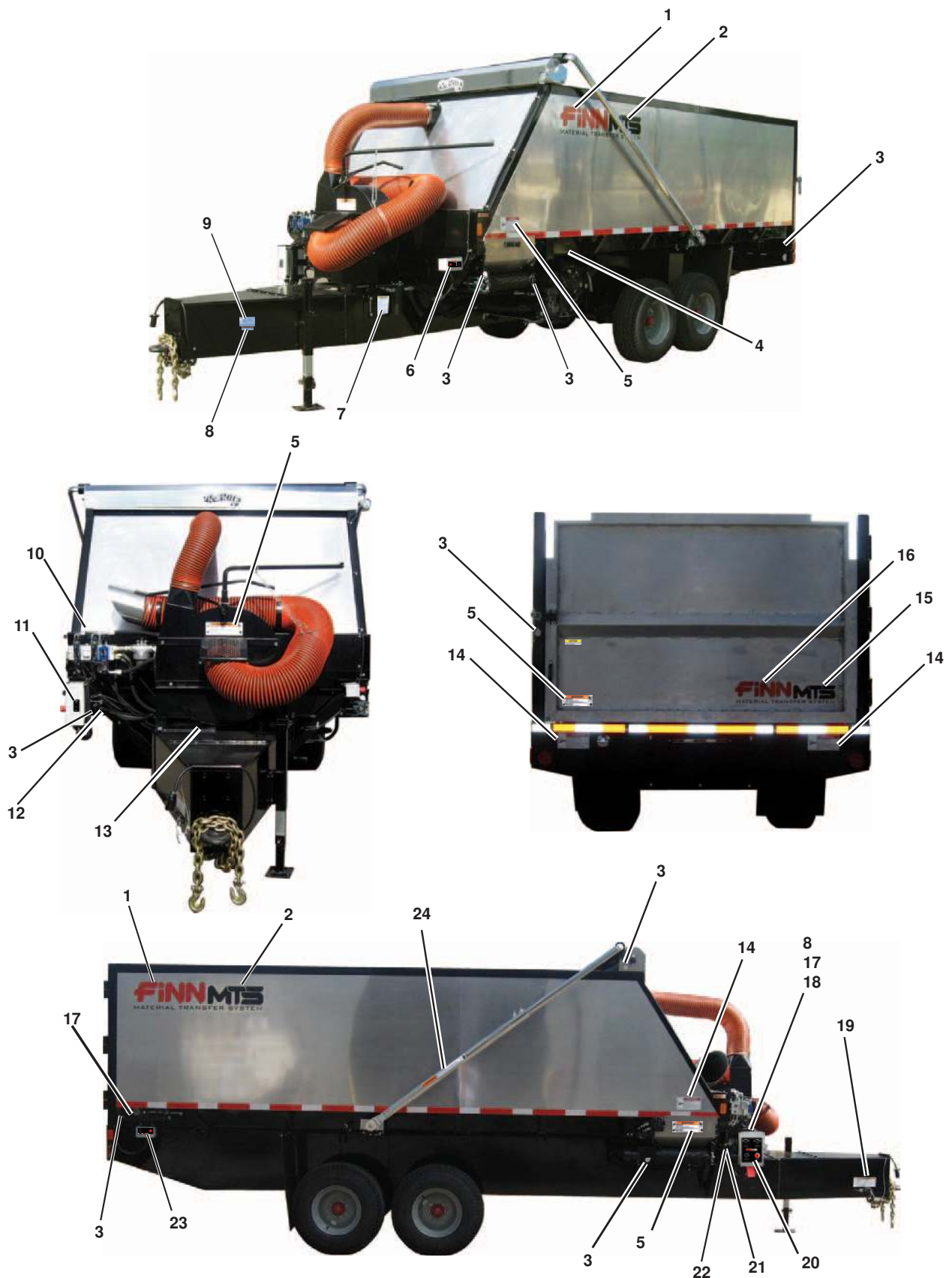
Ref. No.	Part Number	Description	No. Req'd
1	075592	7-Blade RV Style Trailer Plug	1
2	023424	Breakaway Switch	1
3	041007	Tow Ring	1
4	190033	Chain	6'
	005796	Grab Hook	2
	004888	Coupling Links (Not Shown)	2
5	080701	Drop Leg Jack	1
345012 Tarp Kit Assy			
6	RR31050	3/4" Flanged Axle Bearing	1
7	RR10310	Gear Motor	1
8	RR10160	3/4" x 5 1/4" Stub Shaft (Not Shown)	1
9	RR10906	Electric Kit	1
10	RR76810	Tarp Flange	3
11	RR45302	Pivot Mounting Bracket	2
12	RR76700	Bow Set	1
13	RR46440-60	60" Pivot Tube 4 Spring Torsion	1
14	RR36366	89" Wind Deflector	1
15	RR81160	Mesh Tarp 84" x 16'	1
	RR11330	Wire, 6 Ga.	12'
	RR36346	Spool Mounting Bracket (Driver)	1
	RR36347	Spool Mounting Bracket (Passenger)	1
	RR31016	Front to Back Axle	1

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MTS TARP WIRING FOR MOTOR



WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE



**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**

DECALS

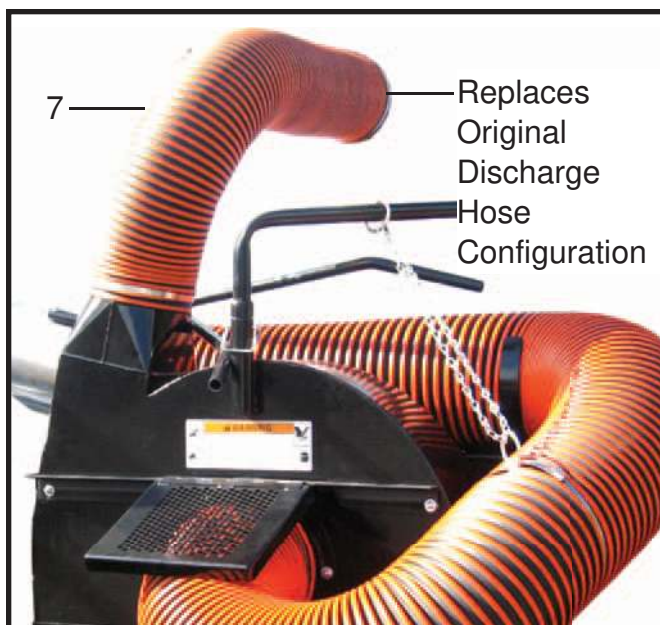
Ref. No.	Part Number	Description	No. Req'd
	345038	MTS15 Decal Sheet	1
1	023174	"FINN" Decal Large	2
2	345068	"MTS" Decal Large	2
3	007231	"Service Weekly" Decal	8
4	012278	"WARNING Burn Hazard" Decal	1
5	031463B	"WARNING Severe Hazard" Decal	4
6	345077	Street Side Control Box Decal	1
7	012687	"CAUTION Hydraulic Fluid Only" Decal	1
8	345097	"WARNING Maximum" Decal	2
9	345098	"MODEL NUMBER" Decal	1
10	345100	"CAUTION" Decal	1
11	345076	"LEAF VAC" Decal	1
12	045128	"DANGER Electrocutation..." Decal	1
13	031331	"DIESEL" Decal	1
14	052177	"DANGER Entanglement..." Decal	4
15	345069	"MTS Small" Decal	1
16	031235	"FINN Medium" Decal	1
17	345096	"WARNING Do Not Quick Dump.." Decal	2
18	KL2511317	"STOPPING INTRUCTIONS" Decal	1
19	031461	"WARNING Runaway..." Decal	1
20	345075	"Main Control Box" Decal	1
21	022199A	"THROTTLE" Decal	1
22	0345095	"TARP Open/Closed" Decal	1
23	0345078	"Quick Dump" Decal	1
24	022690	"WARNING Flying Objects" Decal	2

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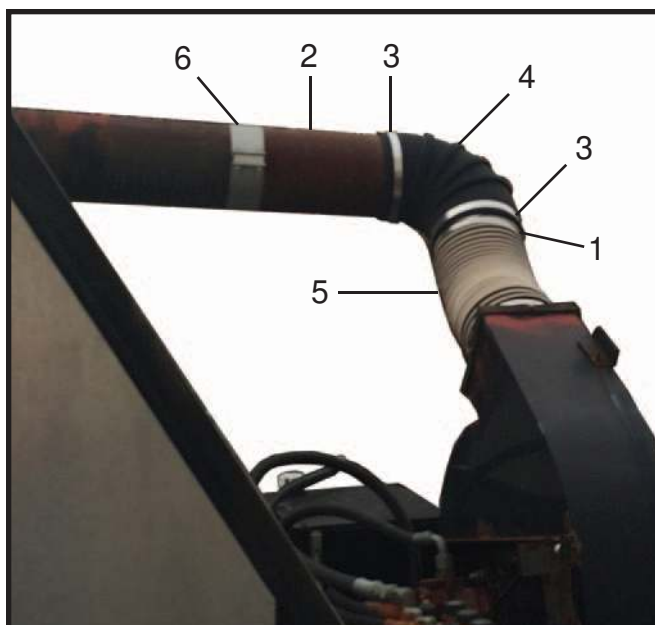
MTS SPARE PARTS LIST

Part Number	Description	No. Req'd
011784	Hydraulic Oil Filter	1
008703	Low Pressure Filter Replacement Cartridge	1
008705	High Pressure Filter Replacement Cartridge	1
080566	Throttle Control Cable Assembly	1
080567	Choke Cable Assembly	1
KL1205001	Oil Filter	1
KL2488303-S1	Air Filter	1
KL2406857-S	Muffler	
KL2405013-S	Fuel Filter	

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ORIGINAL LEAF VACUUM ASSEMBLY



LEAF VACUUM RETROFIT KIT

LEAF VACUUM RETROFIT KIT

Ref No	Part Number	Description	No. Req'd
	345122	Leaf Vacuum Retrofit Kit	
1	345123	8 in. Bridge Clamp	2
2	345120	Extension Tube	1
3	345119	8 in. Hose Clamp	2
4	345118	8 in. Rubber 90° Elbow	1
5	345124	8 in. Flex Hose 12 in. Long	1
6	055137	4 in. Butt Joint Clamp	2
	345121	Insert Coupler (Not Shown)	1
7	345060	Vacuum Discharge Hose 5' Long	1

**WHEN ORDERING PARTS, BE SURE TO STATE
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