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# Model BB1208

## Operator Instructions and Parts Manual

Model MN      Serial No. \_\_\_\_\_





## 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 1<sup>st</sup>  
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.

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# 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.



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.

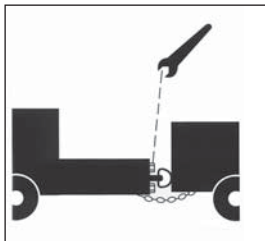


# BARK BLOWER SAFETY SUMMARY SECTION

It is important that all operators of this machine are familiar with all the safety aspects mentioned below 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 sheet 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):

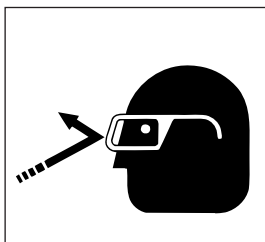
1. Check hitch and hitch bolts, safety chains, lights, brakes, and breakaway switch. Verify that the hitch ball or pintle hook is the correct size for the coupler.



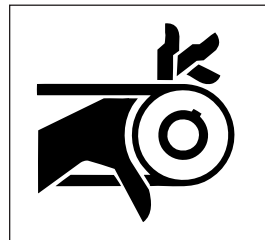
2. Verify that all guards are in place.
3. By carefully looking into the blower hopper and transition, inspect for and remove any foreign objects. Follow Occupational Safety and Health Administration (OSHA) lockout/tagout procedure (29 CFR 1910.147)
4. Inspect all hydraulic hoses and tubes for cracks, bulges, or damage. If hose is cracked, bulging, or damaged, replace immediately.
5. Inspect the material discharge hose and connections for cracks or damage. If cracks or damage is found, replace affected part immediately.

## 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 override or tamper with the safety-shutdown switches on the folding door or discharge. If switches fail, use OSHA lockout/tagout procedure (29 CFR 1910.147) until switches are repaired or replaced.



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



4. Never attempt to connect, or disconnect the discharge hose while the engine is running.
5. Make sure that no one is working in or on the machine. Make sure the discharge area is clear of all persons, animals, etc. Signal visually or audibly that all is clear before starting the engine. Keep unauthorized personnel away from the machine and discharge hose at all times.
6. The driver of the towing vehicle is responsible for the safety of the operator(s) and feeder(s) of the machine. Make sure the driver is aware of and avoids all possible hazards, such as tree limbs, low power lines, etc.
7. Do not allow anyone to ride on the trailer or any other part of the blower for any reason.



8. Never operate machine in an enclosed area without venting the engine exhaust of both the equipment and vehicle on which the equipment is mounted. Deadly carbon monoxide fumes can accumulate.



9. 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.



10. Never modify the machine. Never remove any part of the machine (except for service and then reinstall before operating).
11. During application through a hose, high pressure can be exerted at the end of the hose. Hose-holding personnel must establish good footing. The operator should apply gradual pressure to the hose only after hose-holding personnel are firmly positioned and have firm control of the hose. Additional personnel to direct hose may be necessary if working on slopes. The proper technique for grasping the hose used by hose-holding personnel is to route and firmly grasp the hose over the shoulder or under both arms. Never route/hold the hose so it goes between the legs. If the hose-holding personnel finds that it is uncomfortable for him to handle the hose by himself, additional hose holders should be positioned at the end of the hose.

12. The blower discharges material at pressures and velocities that can cause severe bodily injury. Do not aim discharge at people, animals, etc. Only aim the discharge at the intended discharge area. Unless properly protected, do not place hand into the discharge stream.

13. Do not open any doors or access panels while machine is in operation. Severe injury may result from rotating parts.



14. Do not attempt to pull anything out of the blower hopper while machine is in operation. Shut down the engine using the OSHA lockout/tagout procedure (29 CFR 1910.147) before removing any foreign objects. Signal visually or audibly that all is clear before operating the machine.



15. When leaving the blower unattended for any reason, be sure to:
- A. Shut off conveyor drive.
  - B. Shut off vehicle engine and blower engine.
  - C. Place transmission of the vehicle in NEUTRAL or PARK.
  - D. Set parking brake firmly.
  - E. Lock ignition and take keys with you.
  - F. Lock vehicle cab.
  - G. If parked on a steep grade, block the wheels.

These actions are recommended to avoid unauthorized use, runaway, vandalism, theft, and unexpected operation when the equipment is restarted.

16. Do not read, eat or otherwise lose or lessen your attention in any manner while operating the blower. Operating the equipment is a full-time job.

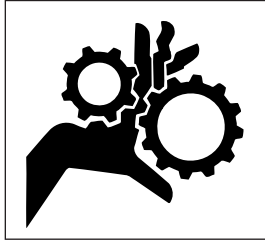
17. Be careful when getting on and off the blower, especially in wet, icy, snowy, or muddy conditions. Clean mud, snow, or ice from steps, fenders, and footwear.



18. All personnel operating and/or around the machine must be aware that the blower can be controlled via remote control. For safety reasons and to prevent accidental starting, always keep the power switch on the remote receiver in the OFF position when the remote control is not being used.
19. 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.
20. Turn slowly and travel carefully on rough surfaces and side slopes, especially with a loaded blower body.

### 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 (OSHA 29 CFR 1910.147).



2. Take extreme care when adjusting or replacing knives. Knife edges are very sharp and can cause severe bodily injury.

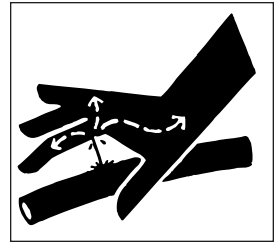


3. Radiator maintenance: Liquid cooling systems build up pressure as the engine gets hot. Before removing radiator cap, stop the engine and let the system cool. Remove radiator cap only after the coolant is cool. Mulch may accumulate in the radiator fins after extended usage based upon mulch properties. The radiator should be inspected prior to daily start-up and cleaned by pressure washing if obstruction is present.
4. 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.
5. 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.


6. It is recommended that only authorized, genuine FINN replacement parts be used on the machine.



7. Do not use either cold start fluid, if engine is equipped with glow plug type preheater, or other intake manifold-type preheater. It could cause an explosion or fire and severe injury or death.




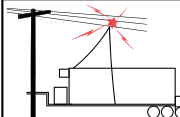
8. Diesel fuel or hydraulic fluid under pressure can penetrate the skin or eyes and cause injury, blindness, or death. To check for such leaks, use a piece of cardboard or wood instead of your hand. Pressure may build up in the hydraulic system; use caution when removing the cap.
9. Some parts and assemblies are quite heavy. Before attempting to unfasten any heavy part or assembly, arrange to support it by means of a hoist by blocking or by use of an adequate arrangement to prevent it from falling, tipping, swinging, or moving in any manner. Failure to do so could result in component damage, or physical injury to someone.
10. If repairs require use of a torch or electric welder, be sure that all flammable and combustible materials are removed. Fuel or oil reservoirs must be emptied, steam-cleaned, and filled with clean water before any cutting or welding on them is attempted. Do NOT weld or cut on any tank containing oil, gasoline, fumes, other flammable material, or on any container of which the previous contents were unknown.


## CURRENT SET OF SAFETY DECALS



|   |                |  |   |
|---|----------------|--|---|
|  | <b>WARNING</b> | <b>FLYING OBJECTS!</b><br>Wear proper eye protection when feeding machine.<br>Failure to comply could result in death or serious injury. |  |
|   |                |  |   |


|   |                |  |   |
|---|----------------|--|---|
|  | <b>WARNING</b> | <b>FLYING OBJECTS!</b><br>Wear proper eye protection when feeding machine.<br>Failure to comply could result in death or serious injury. |  |
|   |                |  |   |

|   |  |  |
|---|--|--|
|  | <b>WARNING</b>   |  |
|   | <b>BURN HAZARD!</b><br>Cooling system is under pressure.<br>Allow system to cool before handling.<br>Remove radiator cap slowly.<br>Wear appropriate safety gear.<br>Failure to comply could result in death or serious injury.<br><br><b>RADIATOR HANDLING INSTRUCTIONS</b><br>1. Use a 50/50 solution of water and antifreeze. Using 100% antifreeze will result in engine damage.<br>2. Check and replenish water prior to use. More water will be consumed when operating in hot conditions.<br>3. If overflow pipe begins emitting vapor, check and replenish water.<br>4. Remove and clean screen when dirty.<br>5. Check and clean fins periodically. Clogged fins will increase water consumption.<br>6. Protect radiator from fertilizer corrosion by washing radiator core with water. |  |


|  |
|--|
| <b>DANGER</b>  |
|   |
| <b>ELECTROCUTION HAZARD!</b><br>DO NOT raise tarp under high voltage lines.<br>Failure to comply will result in death or serious injury. |

|  |
|--|
| <b>WARNING</b>   |
|                               |
| Wear proper eye protection when operating machine.<br>Failure to comply could result in death or serious injury. |


|   |  |  |   |
|---|--|--|---|
|  | <b>WARNING</b>   |  |  |
|   | <b>SEVER HAZARD!</b><br>Keep hands clear!<br>Sharp knives. Rotating fan and gears.<br>DO NOT operate without guards or doors in place.<br>Shut off engine, disconnect battery and allow all moving parts to stop before servicing.<br><b>FLYING DEBRIS!</b><br>Wear eye protection around equipment.<br>Failure to comply could result in death or serious injury. |  |   |

|   |
|---|
| <b>CAUTION</b>  |
|   |
| Wear ear protection when operating machine.<br>The sound power level could exceed 80 dB(A) while the unit is in operation.<br>Failure to comply could result in moderate or minor injury. |

|   |
|---|
| <b>WARNING</b>  |
|    |
| <b>FLYING OBJECTS!</b><br><b>STAY BACK!</b><br>Stay away from discharge area during operation. Keep bystanders away.<br>DO NOT point discharge toward people, animals or property.<br><b>ALWAYS</b> wear appropriate protective gear.<br>Failure to comply could result in death or serious injury. |

|   |
|---|
| <b>WARNING</b>  |
|    |
| <b>CONTENTS UNDER HIGH PRESSURE!</b><br>To prevent injury or death:<br>• Turn off engine to relieve air pressure on system before uncoupling any hoses or loosening any clamps.<br>• Wear proper eye and hand protection when operating equipment.<br>• Keep all hoses, couplings and clamps in good condition.<br>Failure to comply could result in death or serious injury. |

|   |
|---|
| <b>WARNING</b>  |
|                            |
| <b>BURN HAZARD!</b><br>Hot exhaust!<br>Stay back!<br>Failure to comply could result in death or serious injury. |

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

|  |   |
|--|---|
|  | <b>DANGER</b>   |
|  | <b>SEVER HAZARD!</b><br>Keep hands and feet out!<br>Sharp knives will sever.<br>Failure to comply will result in death or serious injury. |

## NOTES

# OPERATION AND MAINTENANCE MANUAL FOR FINN BARK BLOWER

## 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 every customer, we would like to encourage you to contact us for help with service, genuine replacement parts, or for any other information you may require.

## THE FINN BARK BLOWER AND ITS FUNCTION

The FINN Bark Blower is an apparatus for conveying and discharging bulk materials, such as bark mulch, at a fast and uniform rate while utilizing a minimum amount of manpower. The product to be used is generally composted and processed, then, used as a soil amendment, ground cover for erosion, weed control, or for decorative purposes on landscaping (bark mulch).

This manual is intended to provide step-by-step instructions on the operation, care, and maintenance of the Bark Blower. In addition, it contains illustrations and a complete list of parts and components for easy identification.

## HOW THE BARK BLOWER WORKS

The bulk material is loaded into the hopper by a loader or by an infeed elevator. Located at the bottom of the hopper is a drag conveyor, which conveys the bulk material to an opening containing a feed roll. The feed roll and drag conveyor feed the bulk material into an airlock. The airlock is specifically designed and built to handle tough, fibrous material. The function of the airlock is to take the bulk material into open pockets exposed to the outside air, and to convey it to an area where the pocket is closed off. At that point, a high-pressure air stream, created by the blower, is channeled through the pocket, carrying the material through the hose for discharge.

### **NOTICE**

*For best results and to ensure safe operation and long life of the equipment, please read and follow all instructions carefully.*

## MOUNTING THE BARK BLOWER

The selection process of the vehicle onto which a blower is to be mounted has important safety aspects to avoid overloading:

- A. Do not mount a blower onto a chassis which, when fully loaded with material, will exceed either the Gross Axle Weight Rating (GAWR) or the Gross Vehicle Weight Rating (GVWR) for the chassis. See below.
- B. Do install the blower only onto a vehicle with cab-to-axle dimension recommended for the blower-body length selected. See below.

Once the proper carrier has been selected, the blower must be securely mounted onto it.

### CAUTION

The FINN Bark Blower should be mounted by a qualified truck body installer. Failure to comply could result in minor to moderate personal injury. Failure to comply could also result in product or property damage.

### NOTICE

*The mounting of the blower to the truck must allow for tire clearance, as well as frame twist. Place hard-wood spacers along the length of truck rails or use FINN Spring Mounting Kit (number 011562) or equivalent.*

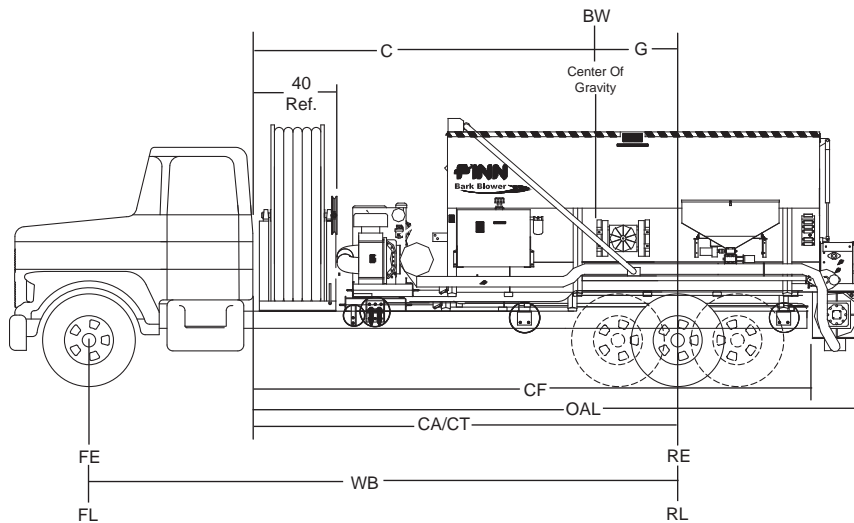
Follow mounting instructions given in Figure 1 and Figure 2 on Page 8. If mounting conditions require deviation from these instructions, consult the factory.

## DIMENSIONS, CAPACITIES, AND TRUCK REQUIREMENTS

|  |   |
|--|---|
| *CF  | - Back of cab to end of frame   |
| C  | - Distance from front of Bark Blower to center of gravity                         |
| *CA/CT   | - Back of cab to center of rear axle or trunnion                                  |
| *FE  | - Front axle weight - Empty   |
| FL   | - Front axle weight - Loaded  |
| G  | - Distance from center of rear axle or trunnion to Bark Blower™ Center of gravity |
| BW   | - Bark Blower weight  |
| *RE  | - Rear axle weight - Empty  |
| *RL  | - Rear axle weight - Loaded   |
| *WB  | - Truck wheel base  |
| * These dimensions needed from the truck supplier, as well as Front axle capacity and Rear axle capacity.  |   |
| ** Truck GVW depends on the truck weight. CA/CT dimensions are approximate only, and depend on the front and rear axle capacities, as well as the front and rear empty axle weights. |   |
| *** Weight of Bark Blower, hose reel, and mulch (800 lb per yard.) Weight may vary greatly due to the large variety of mulch materials.  |   |
| OAL  | - Overall Length  |

|           |        | 1208     |
|-----------|--------|----------|
| Truck GVW | Pounds | 25,900   |
| **        | (kg)   | (11,748) |
| CA/CT     | Inches | 156+     |
| **        | (cm)   | (396+)   |
| C         | Inches | 136      |
|           | (cm)   | (345)    |
| OAL       | Inches | 236      |
|           | (cm)   | (600)    |
| BW        | Pounds | 16,640+  |
| ***       | (kg)   | (7,548+) |

# TRUCK MOUNTING CALCULATIONS



$$\frac{(WB \times FL) - (WB \times FE)}{BW} = G$$

$$\frac{WB \times (RE + HW - RL)}{BW} = G$$

G + C must be equal to or less than CA

$$\frac{(WB \times FE) + (G \times BW)}{WB} = FL$$

$$\frac{(WB \times RE) + BW \times (WB - G)}{WB} = RL$$

Figure 1

## GENERAL MOUNTING GUIDELINES

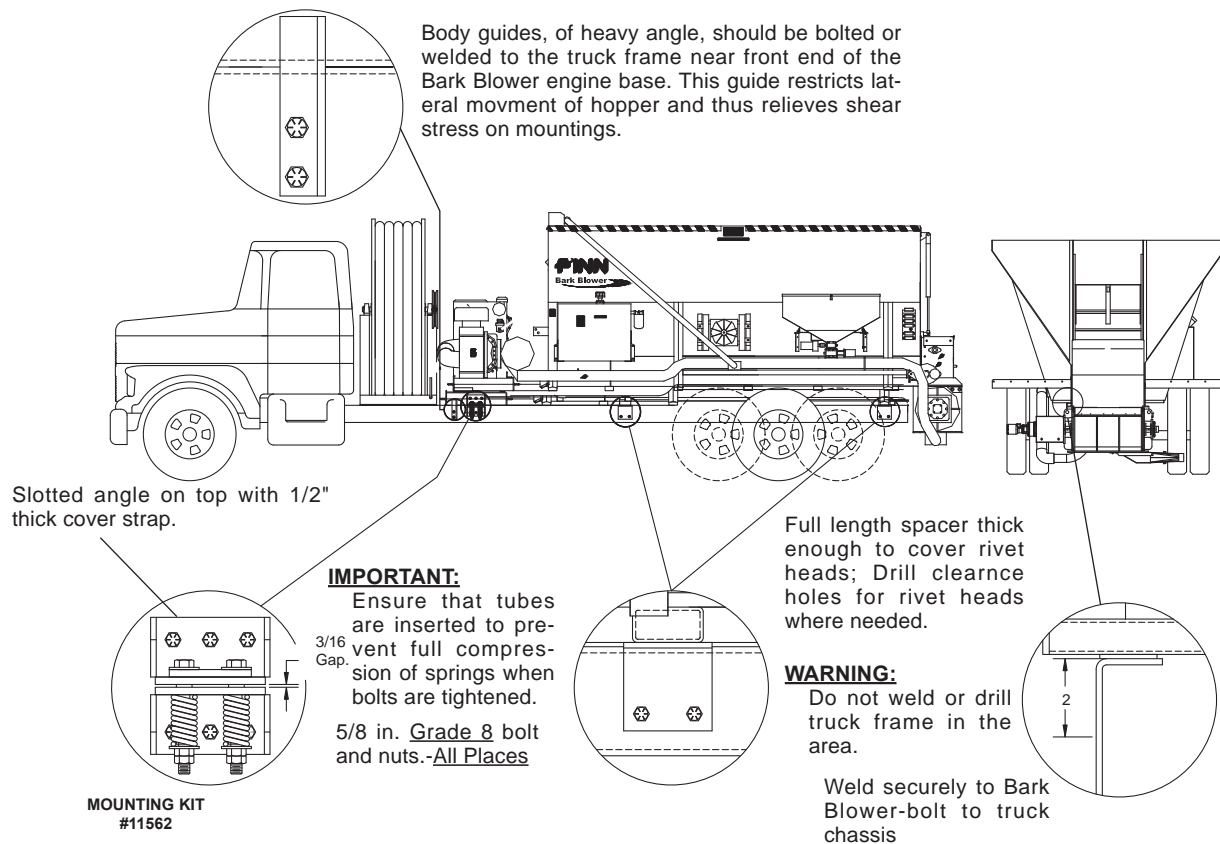


Figure 2



## SELECTING A MULCHING MATERIAL

Several factors must be considered when selecting material to convey through the Bark Blower. The variety of the wood used, how it is processed, its moisture content, and the presence of foreign objects all affect the ability of the Bark Blower to convey the mulch at a uniform and acceptable rate.

The mulch material must be processed and/or screened, so that a minimum of material is over 2 in. (5.1 cm) in any direction, with no material exceeding 4 in. (10.2 cm) in length. The Bark Blower is not a wood processor. The Bark Blower only reduces mulch fibers when they protrude above the airlock vanes. As the vanes rotate past the knife, the protruding fibers are sheared off. If the mulch contains long or large fibers and the wood fibers are harder to cut, then the machine's throughput is reduced. For example, if two mulches have the same mix of material sizes that the Bark Blower rotor must cut, but one is a softwood like pine and one is a hardwood such as oak, the pine would go through at a higher rate because it is easier to cut. Two characteristics must be considered when selecting a material: the greenness of the wood and the moisture of the mulch as a whole. Wood that is well seasoned is easier to cut than green wood. Seasoned wood also processes better, making a less stringy mulch. High moisture in the mulch may cause it to bridge in the hopper.



**Avoid using mulches that contain any hard foreign objects, such as rocks, nails, steel, cans, glass, etc. Failure to comply could result in minor to moderate personal injury. Failure to comply could also result in product or property damage.**

## PRE-START EQUIPMENT CHECK



**Equipment check must be made with the engine OFF and all rotating parts stopped. Failure to comply could result in minor to moderate personal injury. Failure to comply could also result in product or property damage.**

Safety check to ensure operator safety:

1. Check that all the truck mountings are secure.
2. Ensure that all guards are in place.
3. Tool Kit - make sure that it contains all prescribed items (see tool kit list Parts Manual).
4. Lubricate equipment. Use handgun only (see Lubrication Chart, pages 32 and 33).
5. Check engine oil and fill or change if necessary. Refer to Engine Operator's Manual.
6. Check liquid coolant level in radiator and fill or replace if necessary (protected to -34°F [-37°C] when shipped.)
7. Check fuel level. Use number 2-D diesel fuel oil, unless operating at ambient temperature below 40°F (4°C) or at an altitude exceeding 5,000 ft (1,524 m). In these instances, use number 1-D diesel fuel oil.
8. Inspect the engine air cleaner (refer to the Engine Operator's Manual), the radiator chaff screen, and the blower air cleaner for dust and dirt. If necessary, clean or replace the air filter.

9. Check hopper and transition for foreign objects that could injure workers or damage equipment.
10. Check the fluid level in the hydraulic tank. Make sure that the service valve is open on reservoir. Proper level is midway between the upper and lower indicator mark on the sight gauge. (See page 29 for oil specification.)
11. Install the discharge hose. Use the short hot-air hose section as the first connection after the airlock. This will help extend the life of the other hoses. Use the clamps provided with the machine.
12. Check to verify the radiator is free of mulch and debris obstruction to ensure overheating does not occur.

### **CAUTION**

**Do not use radiator-type clamps. These clamps may not hold under machine-operating pressure. Failure to comply could result in minor to moderate personal injury. Failure to comply could also result in product or property damage.**

## **STARTING PROCEDURE**

### **CAUTION**

**See safety section of the manual (pages 2 through 4) 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. Place the remote control switch in the OFF position on the control panel.
2. Turn the key clockwise until starter engages and the engine starts.

**NOTE:** This engine has a safety system that will shut the engine off if the engine oil pressure drops below 7 psi (48 kPa) or if the water temperature reaches 230°F (110°C).

3. Allow engine to warm up for 3 to 5 minutes.
4. Prior to mulch application, move the throttle position to fully open, and allow the governor to control the engine speed. Refer to page 16, Bark Blower Adjustments, for further information on control settings. Governed engine speed should be 2,575 to 2,625 rpm under load.

## **CREW MEMBERS AND THEIR DUTIES**

1. The Operator controls the placement of the mulch by moving and aiming the discharge hose.
2. The Loader(s) feed material to the machine by using a bucket loader or belt conveyor, dumping material directly into the hopper.

## **THE MATERIAL-FEED SYSTEM**

The material-feed system on the Bark Blower has been designed to give fast and uniform mechanical feeding. The adjustable feeding rate and the automatic reverse control system allow the use of varied materials while obtaining maximum production. The system is an integration of the following four subsystems, all of which contribute to efficient material flow:

## **SUBSYSTEM 1: MATERIAL HANDLING GROUP**

The four major components of the material handling group are the blower, the drag conveyor, the feed roll, and the airlock.

The blower is a rotary lobe, positive-displacement-type unit having two double-lobe impellers. The blower is directly driven off the engine flywheel via a flexible coupling. Therefore, whenever the engine is running, air is being pumped. The blower is equipped with a relief valve, limiting maximum air pressure to 16 psi (110 kPa), an inlet and outlet silencer for noise attenuation, and an inlet air filter.

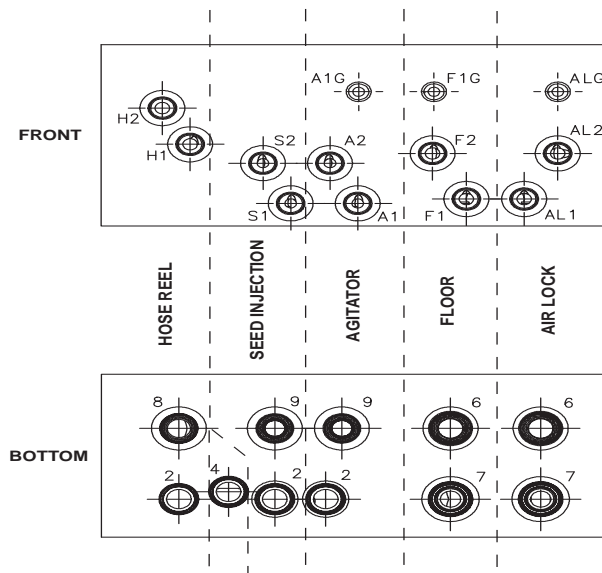
The drag conveyor receives material from the hopper and conveys it to an opening located at the rear of the hopper where the feed roll is located. The feed roll ensures a uniform feed of bulk material to the airlock. The drag conveyor is powered by a variable-speed hydraulic motor, which also powers the feed roll.

The airlock receives the material from the drag conveyor and receives pressurized air from the blower. Its primary function is to convey the material from the atmospheric air to a sealed chamber where the blower air picks it up and blows it out of the hose. To enable the Bark Blower to convey fibrous material, the rotary-air-valve housing is equipped with a cutting knife and the vanes on the rotor are angled and hardened. If any long material should protrude above a vane, it will be sheared off, before the vane enters the close tolerance of the housing, by a scissor-like action between the vane and cutting knife. The rotor of the airlock is directly coupled and driven by a bi-rotational hydraulic motor and gearbox.

## **SUBSYSTEM 2: HYDRAULIC SYSTEM**

Hydraulic power for the Bark Blower is generated by a flow-and-pressure-compensated, load-sensing pump that is driven off the engine auxiliary drive. This means the pump can measure how much load is on the hydraulic circuit and will only pump the oil needed to satisfy the demands of the circuit. The pump receives DTE-13M hydraulic fluid from the 36gal (136L) reservoir through a service valve and suction hose. It then delivers it to the valve manifold. The manifold is one block of machined aluminum, equipped with valve cartridges and solenoids that control all functions of the Bark Blower.

Two pressure gauges at the valve manifold read the valve inlet pressure. These gauges include the left/rear gauge and the load-sense pressure (right/front gauge). The left/rear gauge should always read about 300 psi (2,068 kPa) more than the right/front gauge. This 300 psi (2,068 kPa) difference is called the margin pressure. The margin pressure is a measurement of the pump's ability to respond to changes in the hydraulic circuit. If the margin pressure is set too high (over 500 psi [3,447 kPa]), the pump will be too sensitive and can become unstable. If the margin pressure is too low (below 200 psi [1,379 kPa]), the pump can become sluggish and not provide enough oil flow for the demand. The margin pressure can be adjusted using the lower compensator-adjustment screw in line with the load-sense hose on the back of the hydraulic pump. The only time the gauges will not show the margin pressure is when one of the hydraulic circuits has stalled, as if the floor conveyor somehow became jammed. In this case, both gauges will show the high-pressure standby of 2,800 psi (19,305 kPa) until the blockage is removed. High-pressure standby is the maximum pressure the pump will produce. A system relief valve is set for 3,500 psi (24,132 kPa) to protect the system if there is a failure in the pump compensator.



**Figure 3**

## DESCRIPTION OF VALVE SECTIONS

Figure 3 shows the valve block and the different hydraulic circuits. Each circuit, except for the Hose Reel (HR) circuit, is controlled by two valves. On the Floor (F) and Airlock (AL) circuits, the flow rate is controlled by the proportional valves. These valves can be manually stroked by inserting a small rod or screwdriver into the hole in the bottom of the solenoid. The Floor and Airlock circuits also have a directional valve that can be manually stroked by pressing the red knob on the bottom of the solenoid. The Agitator (A) and Seed Injection (S) circuits are controlled by a three-position valve that is actuated by one of two solenoids. These valves can be stroked manually by pressing or pulling on the red knob located on the bottom of the solenoid. The Hose Reel (HR) circuit is controlled by a two-position ON/OFF valve. Its solenoid can only be actuated in one direction by pressing on the red knob, located on the bottom. The flow rates for the Hose Reel, Seed Injection, and Agitator circuits are adjusted using the flow control valves. These valves are located directly behind the solenoids for their respective circuits.

### A. HOSE REEL

The left side of the manifold controls the hose reel. The flow rate is factory set, so the hose reel winds and unwinds at a rate of about 13 rpm.

### B. AGITATOR

The third valve section controls the speed and rotation of the agitator. The spool in this section is factory set, so the agitator rotates at approximately 4 rpm. This section also has a pressure switch installed on the forward port that is set for 2,400 psi (16,547 kPa). This pressure switch triggers the agitator auto-reverse function. Normal rotation of the agitator is clockwise when viewing from the rear of the machine.

### C. FLOOR (DRAG CONVEYOR)/FEED ROLL

The fourth valve from the left controls the floor and feed roll speed. It is an electrically-driven proportional valve that is controlled by the floor-speed settings on the control box. Adjusting the dial from 0 to 100 varies the input voltage to the solenoid and moves the spool in the valve accordingly, thus allowing more or less oil flow to the floor and feed roll. The feed roll is plumbed in series with the floor, meaning that the oil flows to the feed roll motor first and then down to the floor motors. This setup automatically causes the floor to slow down if the feed roll begins to jam up, which prevents overfeeding of the feed roll.

## **D. AIRLOCK**

The last valve section of the manifold runs the airlock. The spool in the valve is factory set, so the airlock turns at about 12 rpm. The proportional valve in combination with the control box, provides adjustment of the airlock speed. There is a pressure switch on the forward circuit that is set for 2,400 psi (16,547 kPa) that triggers the auto-reverse function on the airlock. Normal rotation of the airlock is clockwise if viewing from the driver side of the machine.

### **SUBSYSTEM 3: HYDRAULIC CONTROL SYSTEM**

The hydraulic control system is an electrical system that controls all the hydraulic functions on the Bark Blower. This 12-VDC system runs off the engine electrical system. It is a programmable logic control (PLC) system located in the electrical control box on the passenger-rear side of the machine. This module controls the solenoid valves in the hydraulic system. The solenoids are energized by way of the white DIN connectors mounted on each solenoid. The DIN connectors each have a small red light in them that illuminates if the circuit is active. This is an easy way to check if a particular circuit has electrical power.

When Material Start is selected from the PANEL OPERATE screen, the proportional solenoid on the airlock valve section is energized, which starts the airlock. If the floor toggle switch is in the ON position, the floor and feed roll solenoid is also energized after a factory-set 1.5 second delay. This delay ensures that the airlock has a chance to clear itself. After the delay, the floor and feed roll will begin to move at the speed relative to the Floor Speed %. This speed can be set by using the Material Increase and Material Decrease buttons on the PANEL OPERATE screen. The default adjustments are in 5% increments which can be changed in the USER SETTINGS screen.

As material drops into the top of the airlock, the pressure required to cut the material is monitored by the pressure switch. This switch is located on the forward port of the airlock valve section, in the manifold labeled AL1G (see Figure 3 on page 13). The switch is normally open. When the airlock motor stalls due to the rotor encountering an object it cannot cut, high pressure is created in the airlock circuit and the pressure switch closes. The amount of time the pressure switch is closed is monitored by a setting in the PLC box. If the switch remains closed for more than 0.5 second, the system automatically reverses the rotor by energizing the reverse solenoid. It also de-energizes the floor solenoid, thus shutting off the floor and the feed roll. The airlock will remain in reverse for approximately 1.5 second. The system will then restart the floor and feed roll after allowing the airlock to clear itself.

The agitator is also controlled through the PLC box. The agitator will start on a 3-second delay (in a similar manner to the floor) and will stop during an auto-reverse. The agitator circuit on the Bark Blower also has an auto-reverse feature for when the agitator may bog down and become unable to turn itself. This most often occurs at the beginning of a load when the hopper is completely full of wet or packed down mulch. The PLC system receives a signal from the pressure switch on the forward port of the agitator circuit labelled A1G when the agitator motor stalls. When this signal is received, the system automatically de-energizes the solenoid before the pressure switch and energizes the reverse solenoid on the valve circuit, causing the agitator to rotate in reverse. The reverse-rotation time is set for 10 seconds, after which the forward solenoid will energize and the agitator will return to its normal rotation. This process may be repeated several times until the agitator sufficiently breaks up the packed mulch material. The agitator auto-reverse process does not interrupt or affect any other function(s) on the Bark Blower.

When the Material Stop is activated, power is shut off to solenoids controlling the hydraulic motors on the floor, airlock, feed roll, and agitator. The hydraulics can also be stopped by turning the ignition key OFF. Please note that the hydraulics will also stop if the folding door on the feed roll housing is opened and cannot be restarted until they are closed and the Material Start is activated.

## **SUBSYSTEM 4: RADIO REMOTE TRANSMITTER (RRT)**

This Bark Blower is equipped with a RRT to control the MATERIAL FEED START/STOP, the FLOOR SPEED, and the ENGINE THROTTLE. It also contains an EMERGENCY STOP button that activates the Murphy shutdown system on the engine.

If using the RRT, a certain start-up sequence must be followed to activate the remote. When using the remote, start as follows:

1. Set the RRT ON/OFF switch, located on the control box, to the OFF position.
2. Set the switch, located on top of the RRT, to the OFF position.
3. Start the engine and allow to warm up as specified in the Starting Procedure on page 11.
4. Select the RADIO option from the PANEL OPERATE screen.
5. Set the RRT switch to the ON position.

To utilize the Material Feed Start/Stop feature of the RRT, Material START option must be selected on the RADIO screen. This doesn't actually set the unit into operation, but does allow operation to begin from the Radio Remote. The control box is the primary and overriding set of controls. When either the Material STOP is selected on the screen or a loss of power to the safety circuit occurs (i.e. the rear door on the feed roll housing is opened or a circuit breaker trips), the Material Feed Start/Stop feature on the RRT is deactivated. This feature will remain inactive until the initial start is once again made at the machine by pressing the START button.

The Material Increase/Decrease function on the RRT can be used to change the floor speed and effectively adjust the output of mulch from the machine. Adjustments to the floor speed made from the remote control will be shown on the Floor Speed display on the control box.

The Engine Increase/Decrease function on the RRT adjusts the throttle actuator on the engine. For use of the engine rpm function, refer to Mulching with the Bark Blower on current page.

Pushing the large, red E-STOP button on the RRT activates the shutdown system. This will shut off the engine, automatically return the engine throttle back to idle, and cut power to all the hydraulic valve solenoids. To reset the safety system:

1. Turn and release the E-STOP button on the RRT
2. Start the engine
3. Allow to warm up as specified in the Starting Procedure on (page 11).

## **MULCHING WITH THE BARK BLOWER**

1. Check all areas listed under Pre-Start Equipment Check (page 10).
2. Start the engine following all the steps listed under Starting Procedure (page 11).
3. Enter the SET-UP menu from the main screen to select a preset program or select No Program to manually enter the floor and airlock speeds on the PANEL OPERATE screen.
4. Fully open the gate.
5. Activate the Floor ON selecton on the PANEL OPERATE screen.
6. To activate the dust control system, select the water setting on the SET-UP screen. The dust control system will only operate when the floor setting is in the ON state. The needle valve above the airlock-discharge pan can be adjusted to vary flow.
7. Select RADIO to enter the RADIO screen, and then Material START to enable the Start/Stop functionality on the Radio Remote.
8. Increase the throttle to full throttle.



9. With a firm grip on the end of the hose, press the material start button on the RRT.
10. Floor speed can be adjusted for the desired flow. Watch for auto-reversing of the airlock as well as shock waves through the hose. Listen for the relief on the blower. Partial plugging in the airlock discharge or hose may cause it to open, causing a high-pitched whine indicating over-feeding of the airlock.
11. Use the engine rpm button on the RRT to decrease and increase air and material flow. A lower engine rpm may require a lower floor speed to avoid auto-reversing or plugging.
12. At the end of the load, press the material STOP button and shut down the engine.

## **BARK BLOWER ADJUSTMENTS**

The Bark Blower has been designed to be as simple as possible to operate. The feed roll and airlock are designed to create a smooth, consistent flow of material from the hopper to the discharge. The agitator has been designed to eliminate possible material bridging in the hopper and to help improve mulch consistency as it enters the feed roll chamber. However, material conditions can change from one load to the next or from one day to the next. The only adjustment the operator should have to make is to the drag conveyor speed. Adjusting the floor speed will allow the Bark Blower to efficiently convey many different types of mulch.

Knowing when and how much to adjust the floor is the key to maximizing the machine's performance. The floor conveyor speed is controlled by the Floor Speed Toggle Switch on the electrical control box, and by the Material Feed Toggle Switch on the Radio Remote Transmitter (RRT). The floor speed can be adjusted from 0% to 100% on the Floor Speed display with 0% being the slowest (0 rpm) and 100% being the fastest (approx. 8 rpm). For most materials, a setting of 30% is a good starting point. The floor speed can be increased (5% increments are recommended) until certain warning signs appear. They include the following:

### **A. CONSISTENT HOSE SHOCK**

The Bark Blower uses a large amount of air to blow the mulch material through the discharge hose, which can become difficult for an operator to handle. If rough shock waves become consistently tough on the operator at the end of the hose, the floor can be turned down to smooth out the flow of material into the airlock. Cutting back on the engine rpm can also smooth out the hose since there will be less air being pumped through the hose. Hose shock is usually due to partial plugging around the discharge. When the material gets dislodged, the larger clumps are shot through the hose and can make it jump significantly.

Another adjustment that could help with hose shock is the airlock speed itself. Refer to the Airlock section of the Material Feed System starting on page 11 for instructions on how to adjust the airlock speed. Certain materials may run more smoothly with a faster or slower airlock. Generally, the airlock should not be run any slower than 8 rpm and can be adjusted up to 15 rpm.

### **B. EXCESSIVE AUTO-REVERSING**

If the airlock starts to auto-reverse regularly (more than three times a minute), then the airlock is being overfed and the floor should be turned down. Excessive auto-reversing leads to less production than if the floor was turned down to a lower speed. This condition will occur more often with green stringy mulch, or less-processed material that contains larger chunks of wood that the airlock may have to cut.



## **C. REGULARLY TRIPPING THE BLOWER RELIEF**

The blower on your machine has a relief valve in the air line. This relief valve protects the blower against a large back-pressure that could build if the line becomes plugged. The relief valve, set for 14 psi (97 kPa), is located directly behind the blower in the engine area on the front of the machine. A blockage, temporary or otherwise can trip the relief valve, which causes a loud whining noise to be heard from the engine area. Occasional blowing through the relief is expected as long as the machine can clear itself. However, if the relief valve goes off repeatedly in a 10-second time span, the discharge area or hose is in danger of becoming completely blocked. The floor speed should be immediately reduced until the relief valve is not heard consistently. Partial plugging most often occurs with less-processed material or if the mulch is wet and dense.

## **D. MATERIAL METERING GATE**

The metering gate is a manually-operated gate located inside the rear of the hopper. It is a vertical door that can be moved up and down, as well as in and out, from the feed roll. When changing the metering gate location, it is important to understand the main material groups (page 12). The closer the material is to Dry Aged Material, the closer the gate should be to the feed roll, and the farther it should be from the floor. The metering gate should be moved away from the feed roll and closer to the floor when the material is closer to Wet or Heavy Material, leaving Green Material somewhere in between the two. The better the material is, the less interaction the metering gate should have. The heavier, wetter, and harder the material, the more interaction the metering gate needs.

## **CLEARING A BLOCKAGE**

If the unit does become plugged and the machine can not clear itself, immediately shut down the engine. Do so by pressing the emergency stop on the Radio Remote Transmitter (RRT), or with the ignition key on the control box. Perform the following steps:

1. Disconnect the discharge hose and determine if the blockage is in the airlock discharge. Any blockage should be seen through the outlet. If there is no blockage, then the hose is plugged.
2. If there is blockage, loosen the two clamps on the front and the rear of the discharge.
3. Remove the discharge.
4. Remove any blockage and clean the discharge of any mulch debris, especially on the gasket surface, to permit a tight seal.
5. Install the discharge outlet and clamp into place.
6. Reconnect the discharge hose if it is not plugged.
7. Restart the machine with the floor off, then, run the engine wide open to clear out the airlock and any mulch lying in the hose.
8. Resume normal operation.

## **QUICK DUMP FEATURE**

The Bark Blower has a Quick Dump feature that can be used to unload bulk material quickly.

1. Shut off the feeding system by activating Material STOP on the control panel.
2. Open the access door above the airlock.
3. Select the QUICK DUMP program from the SET-UP screen.

## CAUTION

In Quick Dump mode, the feed roll is exposed and can cause material to be thrown from the rear of the machine, especially at higher floor speeds. Please avoid being near the open gate at the rear of the machine. Failure to comply could result in minor to moderate personal injury.

4. With Floor ON activated, activate Material START to begin unloading material. The material will pass through the feed roll housing and out the rear of the machine over the airlock, which will not be turning.
5. The floor conveyor speed can be adjusted higher for faster unloading.
6. When finished, press the STOP button and close the control box lid using the four latches.

## WARNING

Do not place hands down inside the airlock vanes to remove material. Failure to comply could result in death or serious injury.

7. Close the rear access door securely using the clamps.
8. The Bark Blower should be run with the Floor OFF for a few seconds so the airlock has a chance to clear itself before resuming normal operation. The Starting Procedure on page 11 will need to be followed again before remote operation can be used.

## DUST CONTROL SYSTEM

The Dust Control System on the Bark Blower is helpful in reducing the amount of dust that can be generated by blowing very dry materials. Water is pumped from the 75-gallon poly tank down to a nozzle in the discharge pan. A metering valve on the discharge pan allows for varying amounts of water to be sprayed into the mulch as it is blown from the machine. A pressure regulator set for 30 psi (207 kPa) is mounted near the pump and sends any excess flow produced by the pump through the recirculation hose and back into the tank. The Dust Control System is activated by setting the Dust Control Switch to ON while the floor conveyor is operating.

The water pump has an internal thermal switch that will shut the pump off if it gets too hot. A clogged nozzle, clogged pump inlet, or too high of a regulator pressure setting can all cause excessive heat in the pump. If the pump shuts off frequently, make sure the water flow is not restricted and the regulator is not set above 30 psi (207 kPa).

## MAINTENANCE

### CAUTION

Turn engine OFF and disconnect battery before servicing equipment. Failure to comply could result in minor to moderate personal injury. Failure to comply could also result in product or property damage.

## DAILY - AFTER EVERY 4 TO 8 HOURS OF OPERATION

1. Check engine and blower air cleaner filters for dirt and debris. Remove and clean with dry compressed air if necessary.
2. Check engine coolant and oil levels. Add or replace as necessary.
3. Check hydraulic oil level in reservoir. The oil should be about half-way up the sight glass. Add or replace if necessary.
4. Check blower oil level. Add or replace if necessary. See blower manual.
5. Clean out front floor chain compartment. Unclamp and remove the front clean-out door from the front of the hopper by first sliding the door toward the passenger side of the unit, pulling toward the hitch, and finally, back toward the driver's side of the unit. Remove any buildup from under the floor pan and around the sprockets. This will minimize material overflow through the front take-up bearings during daily operation.
6. Check fuel level. Add if necessary.

## WEEKLY - AFTER EVERY 50 HOURS OF OPERATION

1. Lubricate the bearings on the drag conveyor, airlock, the blower and on the feed roll shaft. See Lube Chart on pages 28 and 29. Wipe each bearing before lubrication to remove dirt and prevent overheating.
2. Blow out radiator fins with dry compressed air. Do not use a pressure washer, as this will damage the radiator fins.
3. Remove and clean or replace air cleaner elements on the engine and rotary blower. To clean elements, use clean compressed air.
4. Check the oil in the airlock gearbox. Add or replace if necessary.
5. Check the gear case on the blower (see blower manual).
6. Check airlock knife for wear, chips, and clearance. To adjust knife, follow the procedure below:



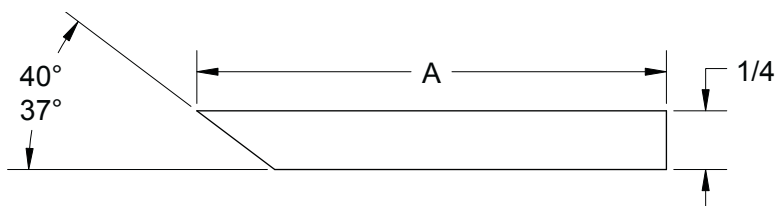
**Knives have very sharp edges that can cause serious injury. Adjust one at a time. Handle with care. Failure to comply will result in death or serious injury.**

- A) Using a 3/16-in. allen wrench, remove the six set-screw plugs in the access holes on the outside front/rear face of the airlock housing.

**NOTE:** To adjust the reversing knife, the rear catch pan will need to be removed to gain access to the reversing knife clamps.

- B) Loosen the two outer bolts on each of the three knife clamps in the top of the airlock.
- C) Slightly loosen the center bolt on each of the three knife clamps.
- D) You can reach the knife adjusting screws through the access holes in the outside front/rear face of the airlock housing. Using a 5/32-in. allen wrench, adjust each of the screw in until there is a uniform .003 in. to .006 in (.08 mm to .15 mm) gap between the knife and rotor. One full turn of the screw will move the knife approximately .055 in. (1.4 mm). Make sure the adjusting screws on each knife-clamp are adjusted equally.

- E) Tighten the nine bolts on the three knife-clamps and replace the set-screw plugs in the access holes.
- 7. If a knife is worn past adjustment and needs to be replaced, follow the procedure below:
  - A) Remove the nine bolts that hold the three knife clamps in place and remove the clamps and knife.
  - B) Clean the knife shelf so that it is free of debris and smooth.
  - C) Compare the replacement knife to the one removed. If the new knife is wider, back out the adjusting screws by at least that amount. Count the turns and back the screws out evenly.
  - D) Lay the knife down on the knife shelf. Ensure the knife is installed with the **cutting angle edge facing down** as shown in Figure 4. Loosely install the three knife clamps with the nine knife mounting bolts. Tighten the mounting bolts just enough to hold the knife in position while still allowing it to be moved.
  - E) Check the clearance between the knife and the rotor end walls, and along the rotor vane using a feeler gauge. There should be a .003 in. to .006 in (.08 mm to .15 mm.) gap.
  - F) If necessary, use the jacking screws to close the gap. One full turn of the screw moves the knife 0.055 in. (1.4 mm).



**Figure 4**

- G) Tighten mounting bolts.
- H) Immediately have the removed knife sharpened. Do not attempt to grind the knife by hand. It must be ground straight and true on a surface grinder by an experienced knife sharpener. Have the knife sharpener grind the knife to the profile shown in Figure 4:.

## NOTICE

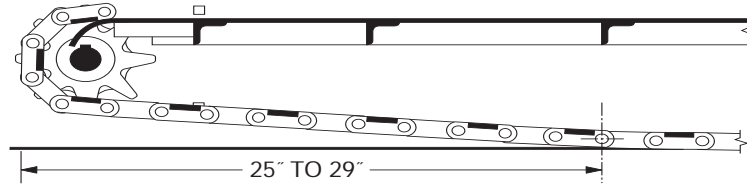
*When dimension A has been reduced to 1-3/8 in. (3.5 cm), the knife must be discarded.*

## **FLOOR CHAIN ADJUSTMENT: EVERY 50 HOURS**

1. The floor chain tension should be checked every 50 hours. If the chain is too loose, the chain flights can buckle under the floor pan and damage the chain linkages and flights. If the chain is too tight, it can put added wear on the floor bearings and cause excessive chain stretch. The chain originally contains 164 links. Over time as the chain stretches, some links may need to be removed in order to tighten the chain. When the chain has been shortened to 156 links, the entire chain must be replaced.
2. Shut the machine off and open the rear access door above the airlock. Remove any build-up under the floor pan between the chain links and the rear catch pan so an accurate measurement can be made. Check the tension on the floor chain in the Bark Blower as shown in Figure. 5 below:

3. To adjust the chain tension, find the take-up bearings on either side of the floorsill near the front of the hopper. Using a 1-1/2-in. wrench, turn the tensioning rod clockwise to tighten the chain and counterclockwise to loosen it. Always turn both tension rods the same amount so that the chain is always square with the drive shaft. A misaligned chain can come off the sprocket and buckle.

CHAIN TENSION TO BE MEASURED FROM REAR  
PROPER TENSION 25" TO 29"



**Figure 5**

## **AFTER FIRST 100 HOURS OF OPERATION**

1. Change engine oil and filter after 100 hours, then, every 250 hours after that, following the engine manufacturer's recommendations.
2. Change the gear box oil on the blower (see blower manual). Change oil every 500 hours after that.
3. Change the gearbox oil on the airlock using SAE 80W90 oil. Change every 1,000 hours after that.

## **WINTER SHUTDOWN AND STORAGE**

1. Blow all material out of machine, turn engine OFF, and disconnect battery cables.
2. Remove the inlet elbow to the blower air chamber, and coat internals of impeller cylinder with a rust inhibitor, such as WD-40. Reconnect piping to prevent foreign debris from entering blower chamber. Rotate the drive shaft three or four revolutions. Repeat this process every month or as conditions may require.
3. Remove any material buildup in the airlock vanes and endplates. Coat the rotor vane tips and airlock housing with a rust preventative. Rotate the airlock as necessary to coat all internal surfaces. Repeat this process as needed to prevent excessive rust buildup.

### **NOTICE**

*If the machine is stored outside, do not allow water to accumulate or ice to form in the airlock or the discharge pan. A severe buildup of rust on the rotor vanes can lock up a airlock, and ice expansion can damage the airlock discharge. Also, drain the water tank and water pump hoses to prevent freezing water from damaging the tank and pump.*

## NOTES

| <b>TROUBLESHOOTING CHART</b>                  |   |  |
|---|---|--|
| <b>Symptom</b>                                | <b>Probable Cause</b>                       | <b>Remedy</b>  |
| <b>Engine will not start</b>                  | No fuel                                     | Check fuel gauge on engine sheet metal.  |
| <b>Airlock not turning</b>                    | Safety switch open                          | Make sure rear cleanout door and airlock discharge are closed tightly and interlock switches are working properly. |
|   | Blue light out on panel                     | Check 10A circuit breaker in control box.  |
|   | Airlock speed control turned down too far   | Adjust airlock needle valve out. See page 12.  |
|   | Quick-Dump feature activated / left on      | Deselect Quick-Dump from the Option screen.  |
| <b>Floor not turning</b>                      | Motorized flow control valve closed         | Increase material feed control.  |
| <b>Airlock constantly auto-reversing</b>      | Overfeeding airlock                         | Decrease floor speed; see pg. 15 for tips.   |
|   | Dull airlock knives                         | Check knife clearance; sharpen if dull.  |
|   | Pressure switch time delay set too low      | Check timer TR1; should be set for 0.5 sec.  |
| <b>Airlock stalling, not auto-reversing</b>   | Pressure switch is not closing at 2,400 psi | Check pressure switch connections or replace switch in necessary.  |
| <b>Discharge material pulsing, not smooth</b> | Too much air                                | Decrease engine throttle and floor speed accordingly.  |
|   | Airlock turning too fast / slow             | Adjust airlock speed; see page 15 for tips.  |
|   | Partial plugging in airlock discharge       | Check airlock discharge pan for blockages and air leaks.   |
| <b>Engine Overheat</b>                        | Lack of Coolant                             | Check for leaks and add coolant  |
|   | Radiator Obstructed                         | Pressure wash radiator to clear obstruction  |
|   | Temp Switch Malfunction                     | Replace Temp Switch  |



# THEORY OF OPERATION

## NOTICE

*If at anytime you are using the control panel and a red data box appears on the screen, do not press any buttons. Wait for the red data box to disappear before continuing.*

## METHODS OF OPERATIONS

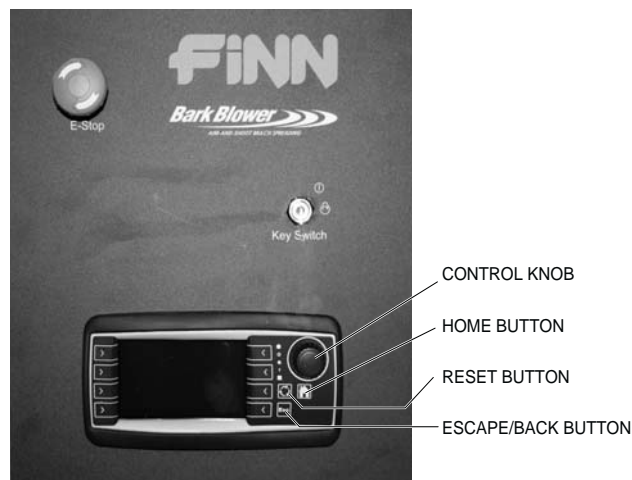
The BB1208 is equipped with a microprocessor-based Radio Frequency (RF) and Controller Area Network (CAN) control system to accumulate data and communicate instructions between the primary sources of power on the unit. There are two methods to choose from to control the BB1208. Both methods are selected at the Main Control Panel at the right-side rear of the unit.

### LOCAL

Local control enables the operator to run the unit by interacting and controlling all the Express Blower® functions from the Main Control Panel (see Figure 6, below). Running the unit in Local requires an individual to interact with the panel to start and stop the blower, to control the primary feeding functions, and to change the air and material flow settings.

### RADIO

The preferred method of operation for most is through the radio remote transmitter. By selecting radio on the Main Control Panel and turning the radio remote transmitter on, the operator has the ability to control the Bark Blower from remote locations as dictated by the job site and the areas needing product distribution. Although auxiliary and optional equipment must be initially activated from the Main Control Panel, the powerful remote also has the ability to control these, either directly or through logic programmed into the system. The radio remote transmitter is powered by rechargeable batteries, charged by the DC charger.



**Figure 6 MAIN CONTROL PANEL**

The key switch on the control box has three positions. From left to right, they are OFF, ON, and START. When the key switch on the control box is turned to the ON position, the FINN loading screen will appear for a few seconds before advancing to the MAIN menu screen (see Figure 7, page 24). From this screen, one can access the Master Settings, Maint., Maint. Sched., Help, SET-UP, Program Settings, Display Settings, and Diag. menus.

## NAVIGATING THE BARK BLOWER INTERFACE

**NOTE:** To return to the MAIN menu at any time, press the Home button on the Main Control Panel (see Figure 6).



Figure 7

On the right and left-hand sides of the MAIN menu screen (see Figure 7) are the names of eight sub menus. Pressing the corresponding button on the control box next to the sub-menu name will take you to the corresponding menu. From the MAIN menu screen, you can access the Main Settings, Maint., Maint, Sched., Help, SET-UP, Program Settings, Display Settings, and Diag. menu screens.

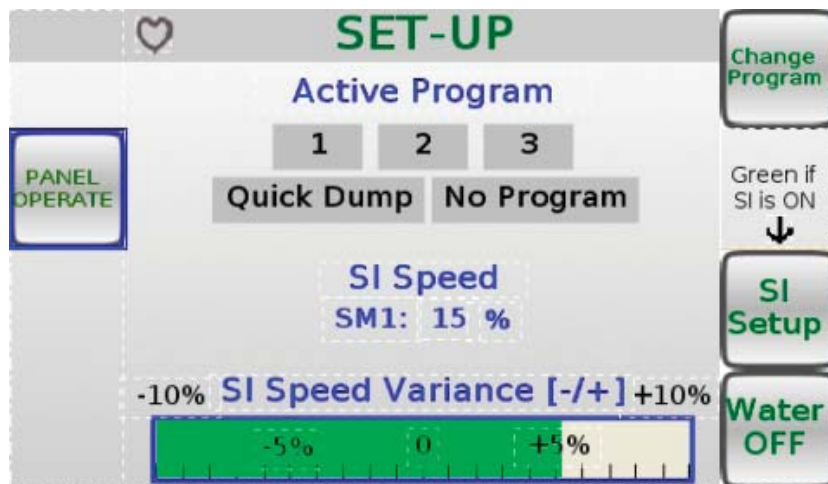


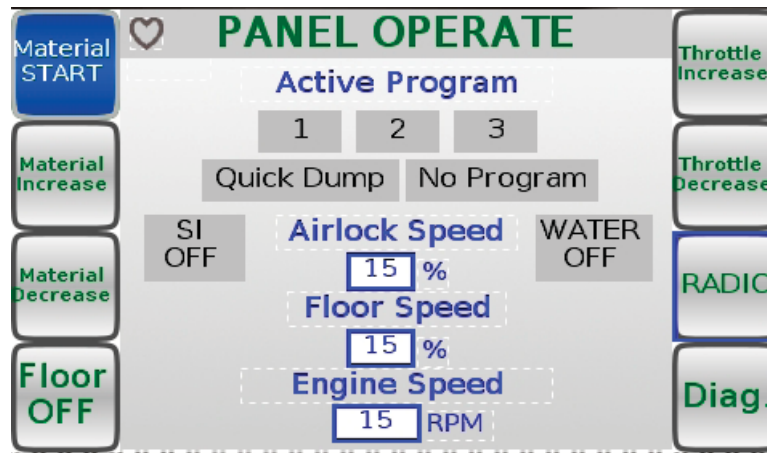
Figure 8

The PANEL OPERATE menu screen can be accessed by pressing the PANEL OPERATE button while in the SET-UP menu screen (see Figure 8). Seed Injection (SI) Speed Variance can be changed in the SET-UP menu screen. Turn the control knob located on the Main Control Panel to either the left or right to decrease or increase the SI Speed Variance. To turn the water control ON or OFF, press the Water ON/OFF toggle button while in the SET-UP menu screen (see Figure 8).

To select an Active Program to use during operation, press the button labeled Change Program. Programs 1, 2, and 3 are all customizable. To customize the settings for programs 1, 2, and 3, select the button labeled Program Settings, located in the MAIN menu screen (see Figure 7).

Quick Dump is a program for which the default settings cannot be changed.

Selecting No Program will allow you to change any of the settings to meet the needs at hand.



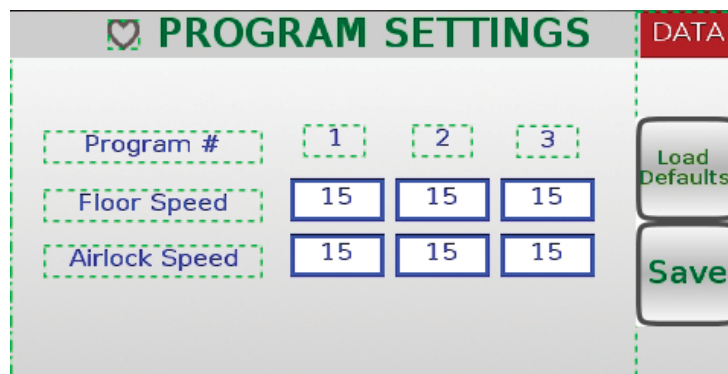
**Figure 9**

While in the PANEL OPERATE menu screen (see Figure 9), the operator can set the Airlock Speed, Floor Speed, and Engine Speed. The Floor, Material, Water (Dust Control), Quick Dump, and Seed Injection (SI) can all be turned either ON or OFF in this menu. The operator also has the ability to choose a preset program in the PANEL OPERATE menu screen.

By pressing the buttons now labeled Throttle Increase and Throttle Decrease, you can either increase or decrease the Engine Speed. By pressing the buttons now labeled Material Increase and Material Decrease, you can either increase or decrease the Floor Speed. The Floor and Airlock Speeds will range from 0% of capacity to 100% of capacity in 1% increments. The Engine Speed selection ranges from 1,250 rpm (idle) to 2,650 rpm (full throttle) in 1 rpm increments.

To turn the Floor ON or OFF, press the Floor ON/OFF toggle-button. To turn the material feed on, press the Material START/STOP toggle-button.

See Figure 10, below, for the Airlock Speed and Floor Speed for the three saved programs. To change the settings for any of the programs, use the control knob of the Main Control Panel. Turn the knob either left or right to highlight the setting you want to change. Once you have highlighted the setting you want to change, press in on the control knob. After pressing in on the control knob, turn the knob either left or right to either increase or decrease the setting. Once you have changed the setting, press the control knob in to deselect that setting. If you want to save the settings after you have changed them, press the Save button on the bottom-right of the screen. You can access the PROGRAM SETTINGS menu screen from the MAIN menu screen (see Figure 7, page 24).



**Figure 10**

## CHANGING AND SELECTING SEED MIX SETTINGS

To change your Seed Injection (SI) settings (if equipped), you will need to access the SI menu screen. To access the SI menu screen, you will need to press the SI Setup button, located in the bottom-right of the SET-UP menu screen (see Figure 8). The control knob can be used to change any of the SEED MIX settings (see Figure 11). Turn the knob either left or right to highlight the setting you want to change. Once you have highlighted the setting you want to change, press in on the control knob. After pressing in on the control knob, turn the knob either left or right to either increase or decrease the setting. Once you have changed the setting, press the control knob in to deselect that setting. If you want to save the settings after you have changed them, press the Save button on the right side of the screen.

To select a SEED MIX setting to use during blowing, press the button labeled Mix Select. The Mix Select button will allow you to select one of the four SEED MIX settings for use during blowing. To determine which SEED MIX setting you have selected to use, look for the Green colored circle to the left of the SEED MIX in the SI menu screen.

To turn the Seed Injection (SI) on, press the SI ON/OFF toggle on the bottom-left of the SI menu screen.

If the changed settings are not desirable you can either change them again, or press the button labeled Load Defaults. By pressing Load Defaults, all of the factory default settings are restored.

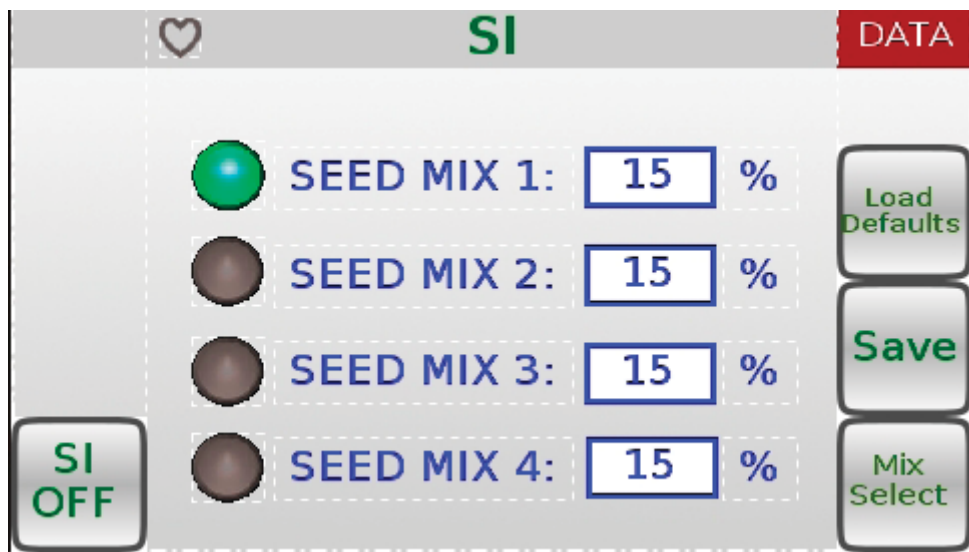


Figure 11

## CHANGING AND SELECTING SEED MIX SETTINGS

To access the DIAGNOSTICS menu screen, press on the button labeled Diag., located on the bottom-right of the MAIN menu screen (see Figure 7).

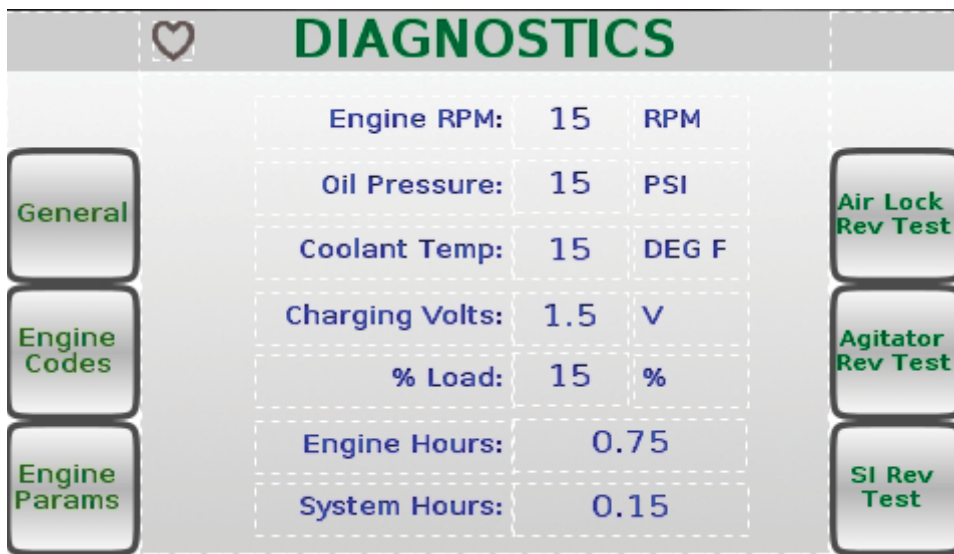


Figure 12

The DIAGNOSTICS menu screen displays engine information read from the engine's ECU (see Figure 12). By pressing the Engine Codes button on the left side of the DIAGNOSTICS menu screen, you can access the Engine Codes DIAGNOSTICS menu (see Figure 13).

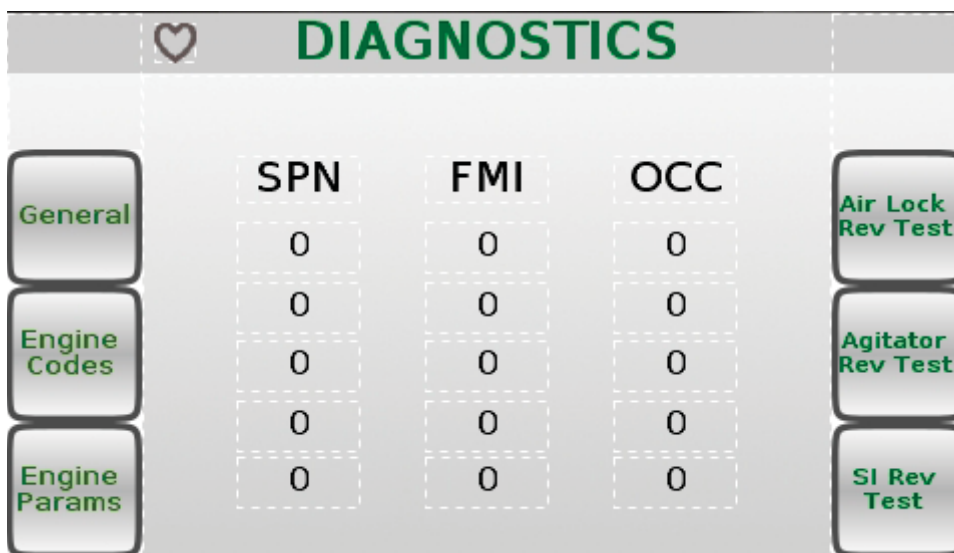


Figure 13

The Engine Code DIAGNOSTICS menu screen displays engine code information (see Figure 13). To return to the main DIAGNOSTICS menu screen, press the Esc button on the Main Control Panel



## CHANGING THE MASTER SETTINGS

To change the master settings on your Bark Blower, you will need to press the button labeled Master Settings, located in the MAIN menu screen (see Figure 14 below).



Figure 14

Once you have pressed the Master Settings button, you will be taken to the Pass Code screen (see Figure). In order to access the Master Settings menu screen, you will have to enter a four digit pass code. The four digit pass code is the number zero, plus the 3-digit serial number of your Bark Blower. The serial number is located on the right-front of your Bark Blower on the serial number sticker. To enter the pass code please use the following steps (see Figure 15):

1. Press in on the control knob as this allows your to begin changing your pass code.
2. Press in on the control knob again to select the first number.
3. Once the first number is selected, make sure that number is zero.
4. Once you have confirmed that the first number of the pass code is zero, press in on the control knob again, this will take you to the next number to be changed.
5. Turn the control knob to either the left or right to change the number.
6. Press in on the control knob once you have selected the correct number, and are ready to move to the next.
7. Repeat steps 5 and 6 until you have all four numbers selected.
8. Once you have all four numbers selected, press in on the control knob again, in order to deselect the pass code box.
9. Press the button labeled User Access to continue to the Master Settings screen (see Figure 15).

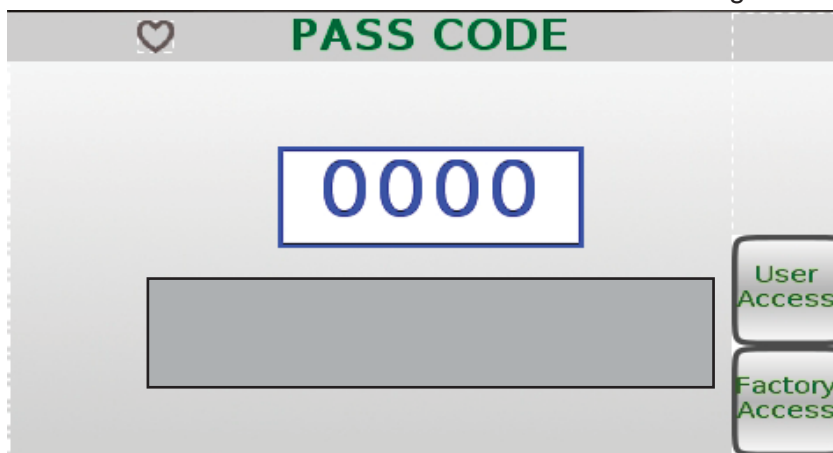



Figure 15


[User]

# MASTER SETTINGS

Page  
1 / 2

|                                      |     |     |
|--------------------------------------|-----|-----|
| Air lock pressure switch delay:      | 1.5 | Sec |
| Air lock reverse interval:           | 1.5 | Sec |
| Agitator start Delay:                | 1.5 | Sec |
| Agitator pressure switch delay:      | 1.5 | Sec |
| Agitator reverse interval:           | 1.5 | Sec |
| Seed injection start delay:          | 1.5 | Sec |
| Seed injection pressure switch de... | 1.5 | Sec |
| Seed injection reverse interval:     | 1.5 | Sec |

Page

Load Defaults

Save

DATA

Figure 16

In the MASTER SETTINGS menu (see Figure 16), you can change all of the settings to meet your needs. There are two pages located in the MASTER SETTINGS menu. To change between pages, press the button labeled Page. If you want to change any settings, use the control knob located on the Main Control Panel. Turn knob either left or right to scroll through the settings. Press in on knob to select a setting you want to change and turn the knob either left or right to change the setting. Press in on control knob to deselect a setting. Once the settings are changed, you can save the settings by pressing the button labeled Save. If the changed settings are not desirable, you can either change them again or press the button labeled Load Defaults. By pressing Load Defaults, all of the factory default settings are restored.



## NOTES

LUBRICATION LOCATIONS

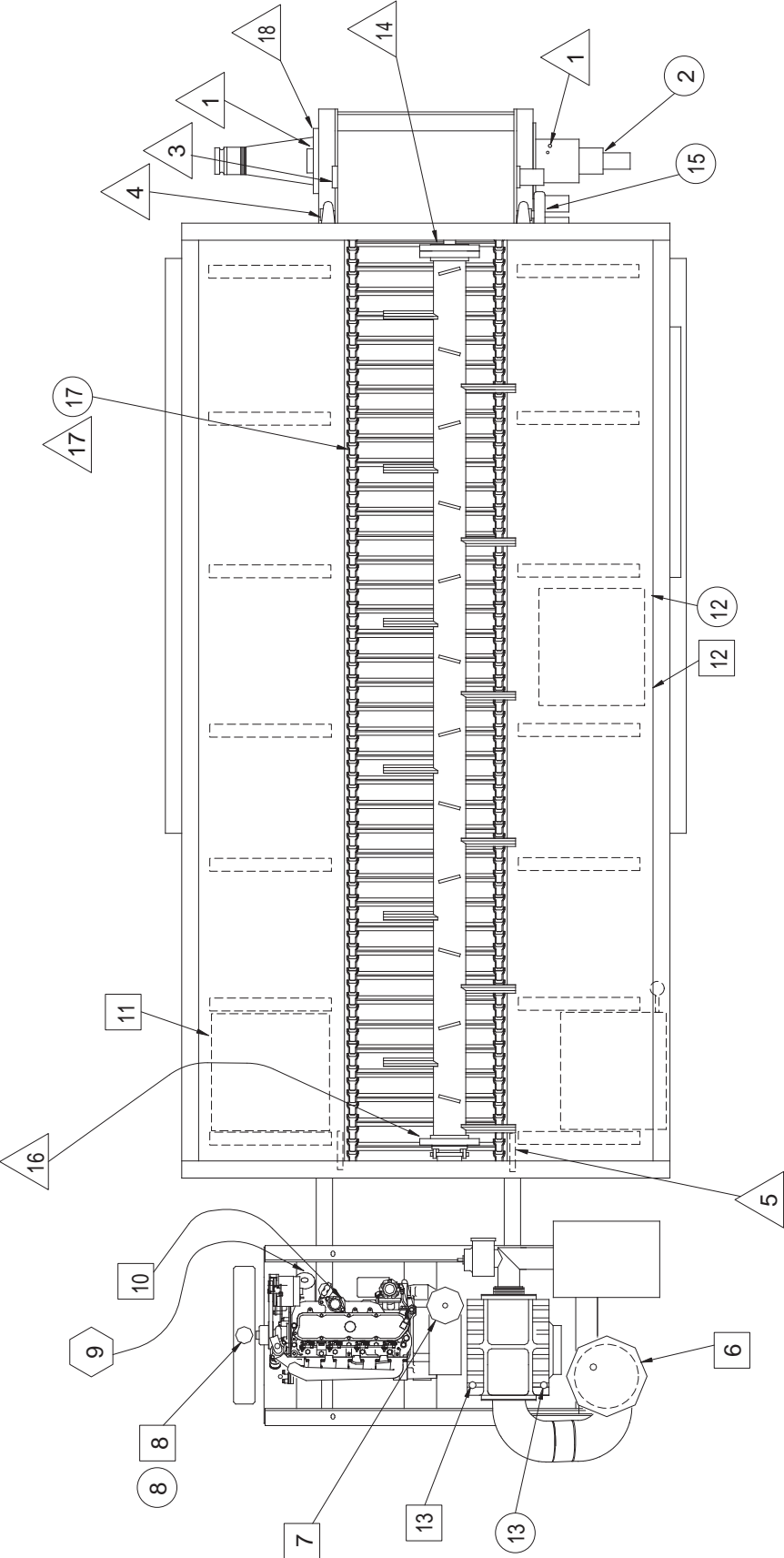






Figure 7

## LUBRICATION CHART

| Ref. No. | Location                        | Lubricant | Frequency                  | Number |
|----------|---------------------------------|-----------|----------------------------|--------|
| 1        | Airlock Bearing                 | CL        | Weekly                     | 2      |
| 2        | Change Air Lock Gearbox Oil     | GO        | 50,100,<br>then Seasonally | 1      |
| 3        | Feeder Roll Bearing             | CL        | Weekly                     | 1      |
| 4        | Floor Pillow Block Bearing      | CL        | Weekly                     | 1      |
| 5        | Floor Take-Up Bearing           | CL        | Weekly                     | 2      |
| 6        | Check Blower Inlet Filter       |           | Daily                      | 1      |
| 7        | Check Engine Air Cleaner        |           | Daily                      | 1      |
| 8        | Check Engine Coolant Level      | AF        | Daily                      | 1      |
|          | Change Engine Coolant           | AF        | Seasonally                 | 1      |
| 9        | Change Engine Oil and Filter    | HO        | See Engine Manual          | 1      |
| 10       | Check Engine Oil Level          | HO        | Daily                      | 1      |
| 11       | Check Fuel Level                | DF        | Daily                      | 1      |
| 12       | Check Hydraulic Oil Level       | HO        | Daily                      | 1      |
|          | Change Hydraulic Oil and Filter | HO        | Seasonally                 | 1      |
| 13       | Check Blower Oil Level          | BO        | Daily                      | 2      |
|          | Change Blower Oil               | BO        | 50,100,<br>then Seasonally | 2      |
| 14       | Agitator Bearing                | CL        | Weekly                     | 1      |
| 15       | Change Floor Drive Gearbox Oil  | GO        | 50,100,<br>then Seasonally | 1      |
| 16       | Change Agitator Gearbox Oil     | GO        | 50,100,<br>then Seasonally | 1      |
| 17       | Check Chain Tension             |           | Weekly                     | 1      |
|          | Lubricate Floor Chain           | CH        | Seasonally                 | 1      |
| 18       | Airlock Shaft Seals             | CL        | Weekly                     | 2      |

### TIME KEY

|                        |  |
|------------------------|--|
| DAILY (8 hours)        |  |
| WEEKLY (50 hours)      |  |
| SEASONALLY (500 hours) |  |
| SEE ENGINE MANUAL      |  |

### LUBRICANT OR FLUID USED

|    |                                     |
|----|-------------------------------------|
| CL | Chassis Lubricant                   |
| BO | Blower Oil Mobil SHC-630 Synthetic  |
| AF | 50/50 Antifreeze and Water Mixture  |
| DF | Number 1-D / Number 2-D Diesel Fuel |
| HO | Hydraulic Oil DTE-13M Hyd. Fluid    |
| GO | SAE 80W90 Gear Oil                  |
| CH | Mineral Oil or Chain Lubricant      |

### FLUID CAPACITIES

|  |  |
|--|--|
| Fuel - 38 gal (143.8 L)                        | Agitator Gearbox Oil - 2 qt (1.89 L)   |
| Hydraulic Oil - 36 gal (136.2 L)               | Airlock Gearbox Oil - 20 oz (0.59 L)   |
| Engine Coolant - 4 gal (15.1 L) 50/50 Mix Only | Floor Gearbox Oil - Fill to Level Plug |
| Engine Oil - See Engine Manual                 | Blower Oil - See Blower Manual         |

## NOTES

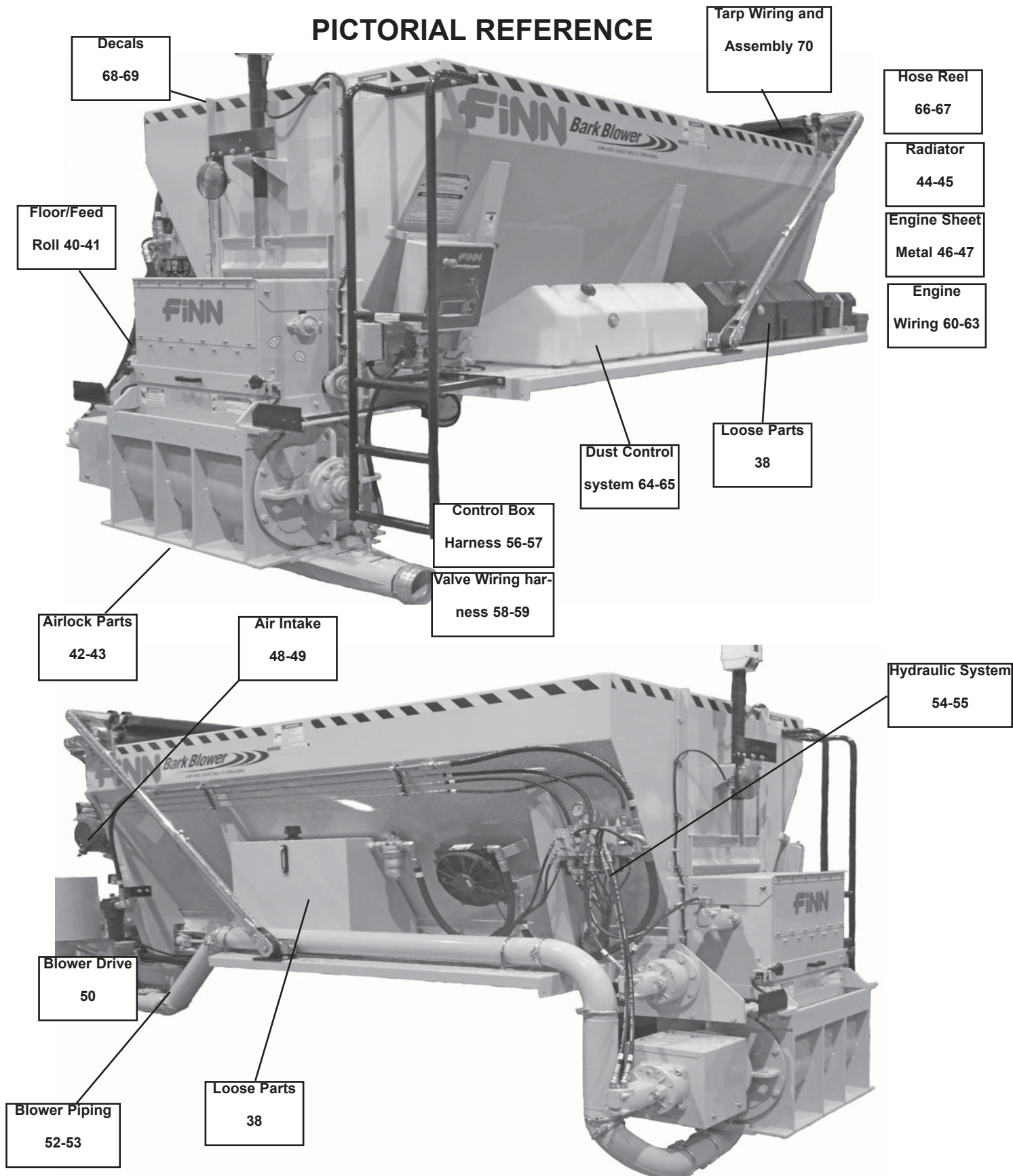
# **BARK BLOWER**

## **Model 1208 Parts Manual**

**Model MEA**

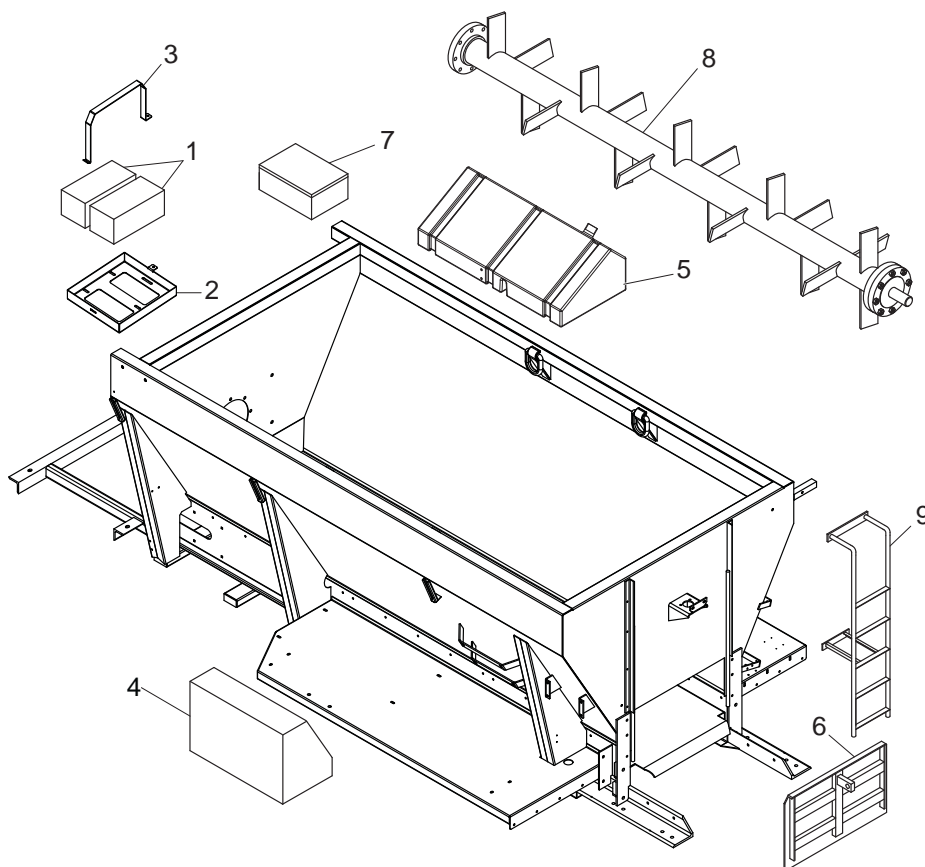
# NOTES

## PICTORIAL REFERENCE



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

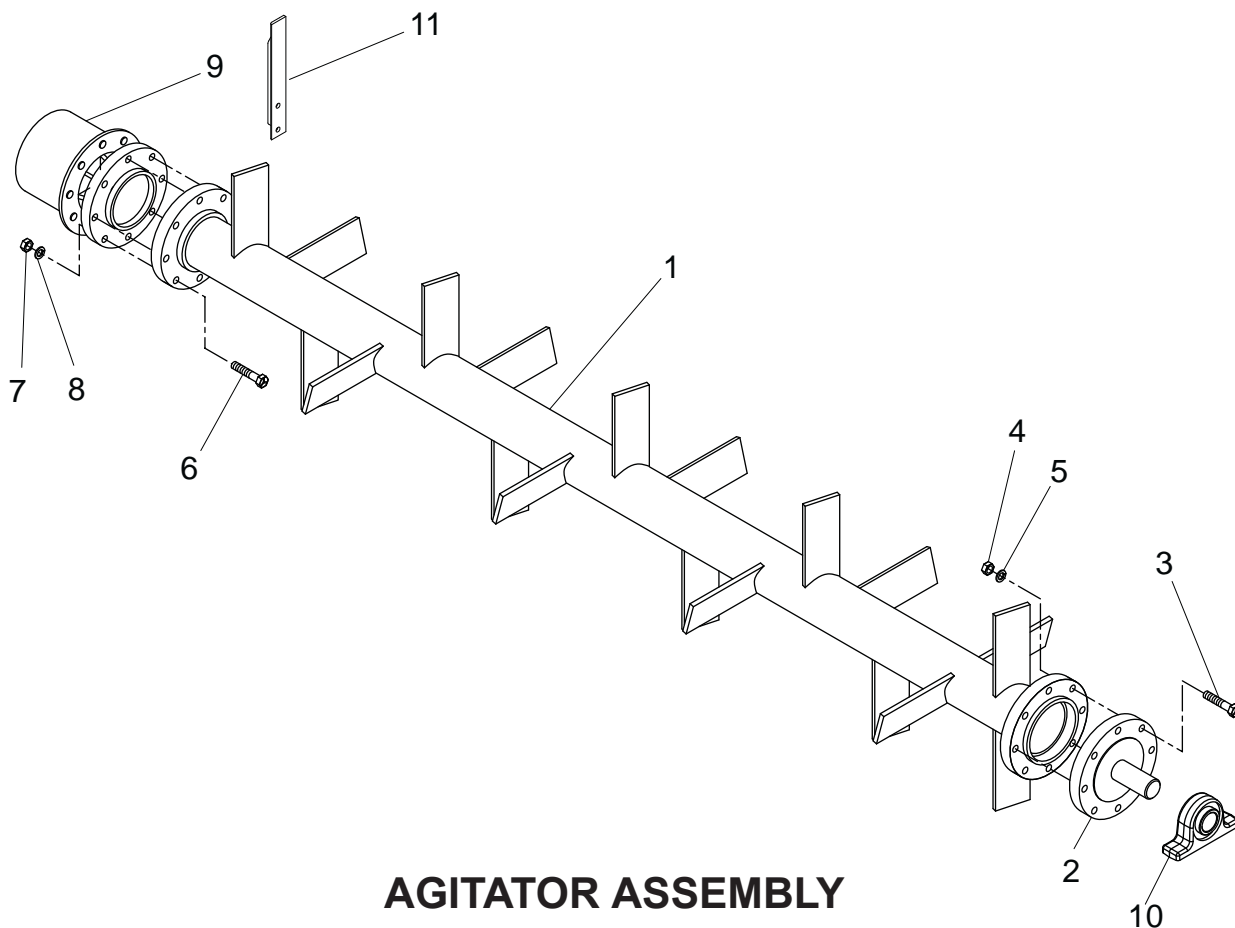




## LOOSE PARTS

| Ref. No. | Part Number      | Description                          | No. Req'd |
|----------|------------------|--------------------------------------|-----------|
| 1        | 011770           | Battery Box                          | 2         |
|          | 011851           | Battery                              | 2         |
| 2        | F400-0031        | Battery Tray                         | 1         |
| 3        | F400-0038        | Battery Holddown Strap               | 1         |
| 4        | 053004           | Hydraulic Reservoir                  | 1         |
|          | 011927           | Hydraulic Reservoir Suction Strainer | 1         |
|          | 008706           | Hydraulic Reservoir Fill Cap         | 1         |
| 5        | 012693           | Fuel Tank                            | 1         |
|          | 012694           | Fuel Level Sender                    | 1         |
| 6        | 052999           | Rear Gate Weldment                   | 1         |
| 7        | 052160           | Tool Box                             | 1         |
| 8        | 052872-01        | Agitator Assembly (see pg. 35)       | 1         |
| 9        | 053025           | Ladder                               | 1         |
|          | <b>NOT SHOWN</b> |                                      |           |
|          | 052730-01        | Hot Air Hose Cradle                  | 1         |
|          | 052742           | Hose Cradle Draw Latch               | 2         |
|          | 052731           | 1-1/2 in. Rubber Grommet             | 2         |

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

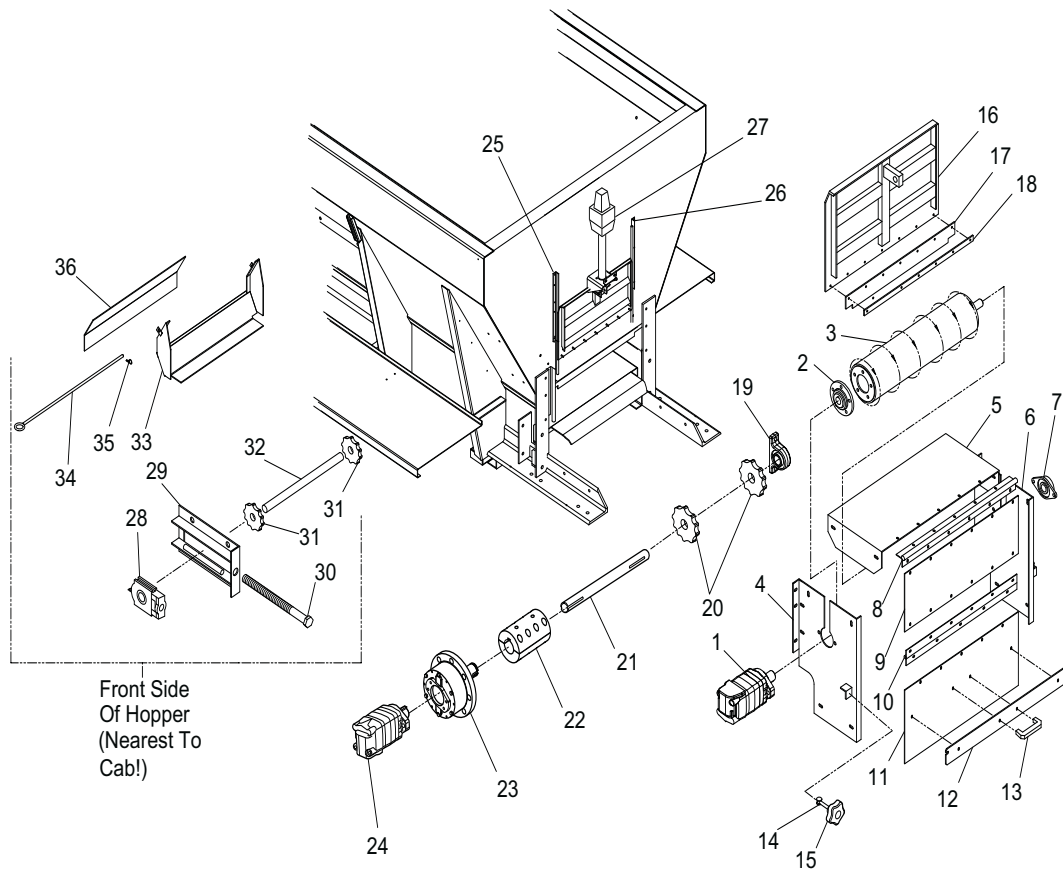


## AGITATOR ASSEMBLY

| Ref. No. | Part Number      | Description                  | No. Req'd |
|----------|------------------|------------------------------|-----------|
| 1        | 052872-01        | Agitator Shaft               | 1         |
| 2        | 052420           | Special Agitator Stub Shaft  | 1         |
| 3        | 0X1260           | 3/4-10 UNC HHCS x 3-3/4" Lg. | 8         |
| 4        | 00X12L           | 3/4-10 UNC Lock Nut          | 8         |
| 5        | 00W12L           | 3/4" Lock Washer             | 8         |
| 6        | 0X1040           | 5/8-11 UNC HHCS x 2-1/2" Lg. | 8         |
| 7        | 00Y10L           | 5/8-11 UNC Lock Nut          | 8         |
| 8        | 00W10L           | 5/8" Lock Washer             | 8         |
| 9        | 052446           | Gear Box                     | 1         |
|          | WL7-122          | 1/2-20 Press-In Stud         | 8         |
| 10       | 052129           | Agitator Bearing             | 1         |
| 11       | 053072           | Agitator Scraper             | 1         |
|          | <b>NOT SHOWN</b> |                              |           |
|          | 052991           | Hydraulic Motor              | 1         |

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

## FLOOR AND FEED ROLL PARTS



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

## FLOOR AND FEED ROLL PARTS

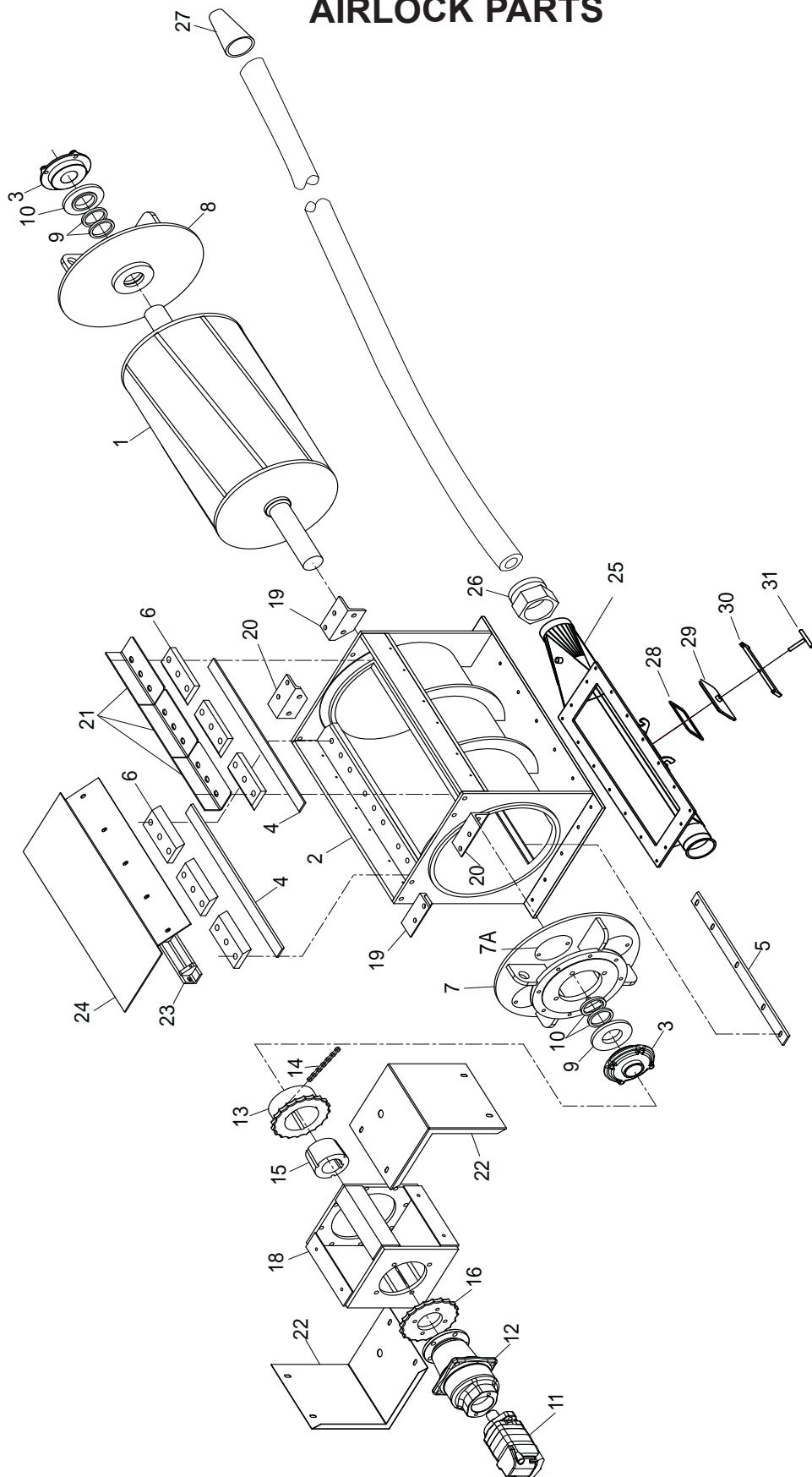
| Ref. No. | Part Number  | Description               | No Req'd |
|----------|--------------|---------------------------|----------|
| 1        | 052500       | Feed Roll Hydraulic Motor | 1        |
| 2        | 045031       | Feed Roll Mount Hub       | 1        |
| 3        | 052676       | Feed Roll                 | 1        |
| 4        | 052517-01    | Left-Hand Feeder Panel    | 1        |
| 5        | F916-0004    | Feeder Top Cover          | 1        |
| 6        | 052517-02    | Right-Hand Feeder Panel   | 1        |
| 7        | 020586       | 2-Bolt Feed Roll Bearing  | 1        |
| 8        | 052506-01    | Top Feeder Door Hinge     | 1        |
| 9        | F916-0006-01 | Top Feeder Door           | 1        |
| 10       | 052506-02    | Lower Feeder Door Hinge   | 1        |
| 11       | F916-0006-02 | Bottom Feeder Door        | 1        |
| 12       | 052502-02    | Door Stiffener Strap      | 1        |
| 13       | 055586       | Feeder Door Pull Handle   | 1        |
| 14       | 052703       | Swing Bolt                | 2        |
| 15       | 052699       | Black Knob                | 2        |
| 16       | 052999       | Rear Gate                 | 1        |
| 17       | 052372-01    | Rear Gate Seal            | 1        |
| 18       | 052372-02    | Rear Gate Seal Strap      | 1        |
| 19       | 045019       | Rear Floor Bearing        | 1        |
| 20       | 052224       | Rear Floor Sprocket       | 2        |
| 21       | 052986       | Rear Floor Drive Shaft    | 1        |
| 22       | 053023       | Steel 2 Piece Coupling    | 1        |
| 23       | 052989       | Floor Gear Box            | 1        |
| 24       | 052990       | Hyd Motor - Floor         | 1        |
|          | 055517       | Floor Motor Gasket        | 1 per    |
| 25       | F916-0001-07 | Left-Hand Gate Rail       | 1        |
| 26       | F916-0001-08 | Right-Hand Gate Rail      | 1        |
| 27       | 052985       | Gate Hydraulic Cylinder   | 1        |
| 28       | 052220       | Take-up Bearing           | 2        |
| 29       | 052780       | Bearing Frame             | 2        |
| 30       | 052780-06    | Adjustment Rod            | 2        |
| 31       | 075218       | Front Idler Sprocket      | 4        |
| 32       | 052507-02    | Front Idler Shaft         | 2        |
| 33       | F916-0045    | Front Clean-out Frame     | 1        |
| 34       | 052352-08    | Front Clean-Out Door Rod  | 1        |
| 36       | 052821       | Front Clean-Out Door      | 1        |

### NOT SHOWN

|            |                          |   |
|------------|--------------------------|---|
| 052996     | Floor Assy               | 1 |
| 053032     | Belt Scraper             | 1 |
| 053054-01  | Front Floor Seal         | 1 |
| 053054-02  | Front Seal Mount         | 1 |
| 053054-03  | Front Seal Retainer      | 1 |
| 053068-01  | Chain Cover Strap        | 6 |
| 053069     | Rubber Floor Chain Cover | 2 |
| F1216-0024 | Chain Guard Mount        | 6 |

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

## AIRLOCK PARTS



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

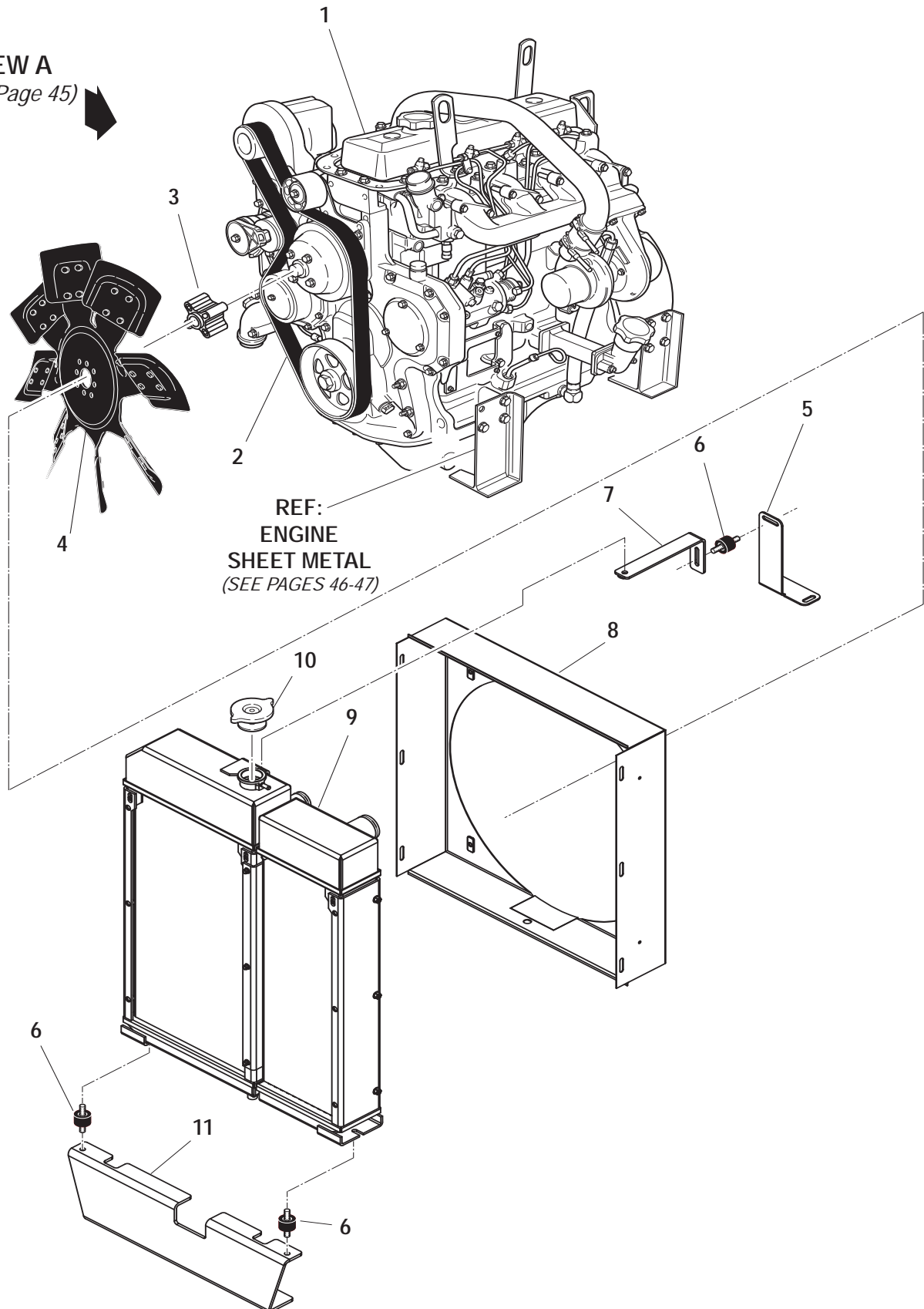
## AIRLOCK PARTS

| Ref. No. | Part Number   | Description                       | No. Req'd |
|----------|---------------|-----------------------------------|-----------|
|          | 052665        | 18 x 33 Standard Duty Airlock     | 1         |
| 1        | 052752        | Rotor Weldment                    | 1         |
| 2        | 052753        | Housing Weldment                  | 1         |
| 3        | 052754        | Flange Bearing                    | 2         |
| 4        | 045296-01     | Top Knife                         | 2         |
| 5        | 045296-02     | Bottom Wiper Knife                | 1         |
| 6        | 052757        | Top Knife Clamp                   | 6         |
| 7        | 052758        | Drive Endplate                    | 1         |
| 7A       | 052762        | Cleanout Door                     | 8         |
| 8        | 052759        | Discharge Endplate                | 1         |
| 9        | 052760        | Packing Media                     | 2         |
| 10       | 052761        | Packing Gland                     | 2         |
| 11       | 052535        | Airlock Hydraulic Motor           | 1         |
| 12       | 045378        | Gearbox                           | 1         |
| 13       | 045199        | Coupling Half                     | 1         |
| 14       | 045201        | Coupling Chain                    | 1         |
| 15       | 045202        | Taper Bore Bushing                | 1         |
| 16       | 045230        | Machined Coupling Sprocket        | 1         |
| 17       | 190131-48     | 3/4 Keystock x 3" Lg. (Not Shown) | 1         |
| 18       | 045254        | Gearbox Mount                     | 1         |
| 19       | 045273-01     | Left Mounting Angle               | 2         |
| 20       | 045273-02     | Right Mounting Angle              | 2         |
| 21       | F1240-0039-02 | Knife Cover Plate                 | 3         |
| 22       | F1240-0041    | Coupling Gaurd                    | 2         |
| 23       | F916-0064     | Rear Catch Pan Mount              | 1         |
| 24       | F1216-0017    | Rear Catch Pan                    | 1         |
| 25       | 053171        | Drop Pan Weldment                 | 1         |
| 26       | 012306        | 5" Male Aluminum Adapter          | 1         |
| 27       | 052878        | Red Diffuser Cone 4"              | 1         |
| 28       | 053174        | Cleanout Panel Gasket             | 1         |
| 29       | F1216-0049    | Airlock Cleanout Panel            | 1         |
| 30       | F1216-0048    | Clamp Bar                         | 1         |
| 31       | 053172        | T-Bolt                            | 1         |

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

## ENGINE AND RADIATOR

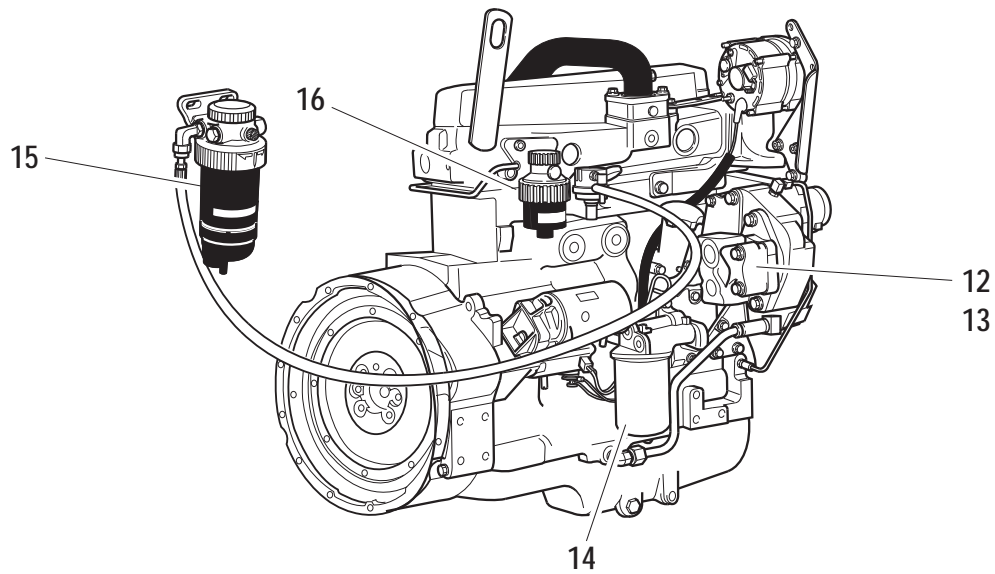
VIEW A  
(See Page 45)



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



# VIEW A

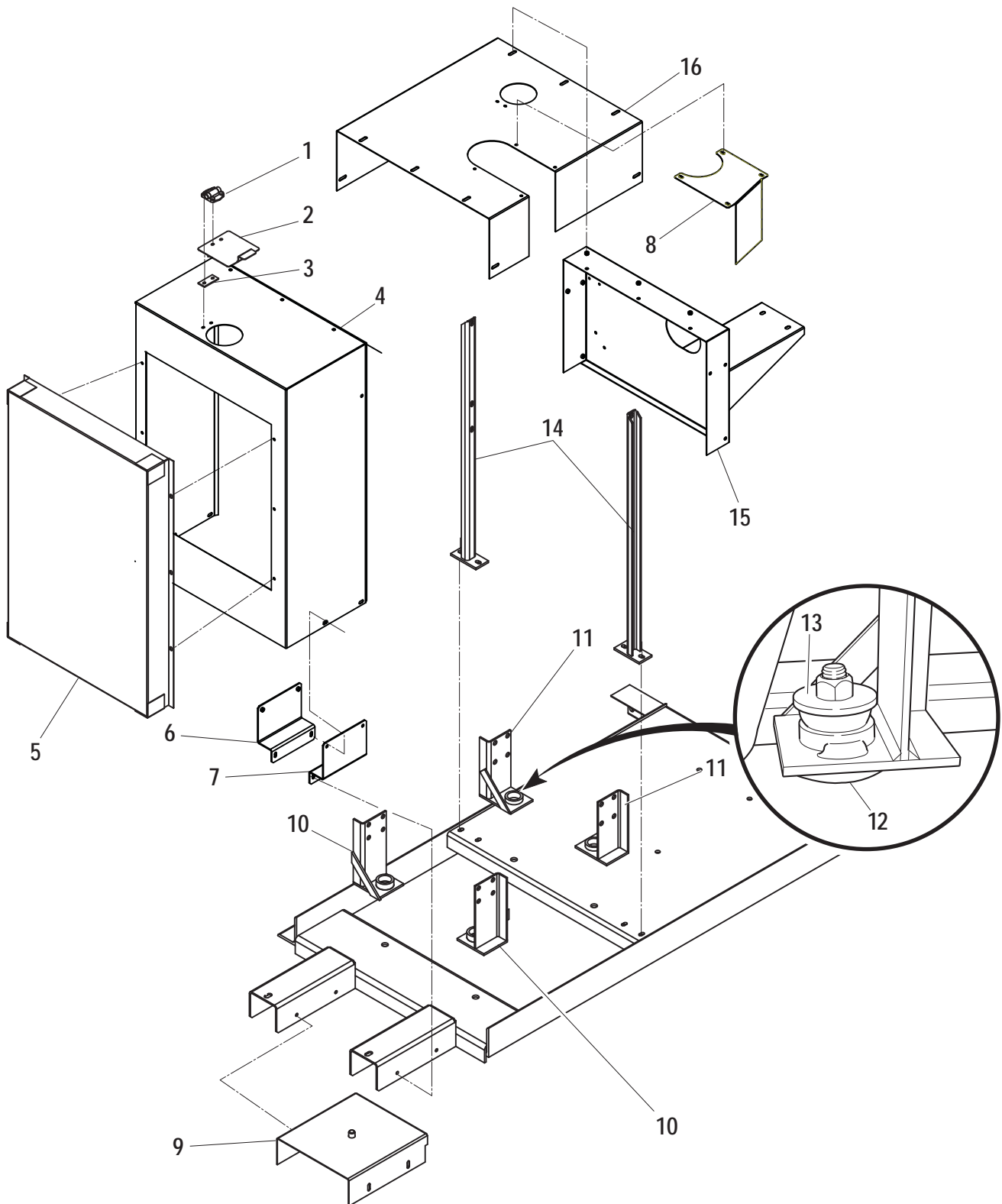


## ENGINE AND RADIATOR

| Ref. No. | Part Number | Description                  | No. Req'd |
|----------|-------------|------------------------------|-----------|
| 1        | 023916      | 4045T Tier 3 Engine Assembly | 1         |
| 2        | JDR524005   | Fan Belt                     | 1         |
| 3        | JDSD443     | Fan Spacer                   | 1         |
| 4        | JDART24834  | Pusher Fan                   | 1         |
| 5        | F330-0135   | Radiator Arm Support Bracket | 1         |
| 6        | 023438      | Rubber Mount                 | 3         |
| 7        | F330-0131   | Radiator Support Bracket     | 1         |
| 8        | JDSD284     | Fan Guard                    | 1         |
| 9        | JD50-0532   | Radiator                     | 1         |
| 10       | 023807      | Radiator Cap                 | 1         |
| 11       | F330-0130   | Radiator Mount               | 1         |
| 12       | 052817      | Eaton Hydraulic Pump         | 1         |
| 13       | JDR96934    | Pump Gasket                  | 1         |
| 14       | JDRE504836  | Oil Filter                   | 1         |
| 15       | JDRE517181  | Secondary Fuel Filter        | 1         |
| 16       | JDRE509031  | Primary Fuel Filter          | 1         |

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

## ENGINE SHEET METAL



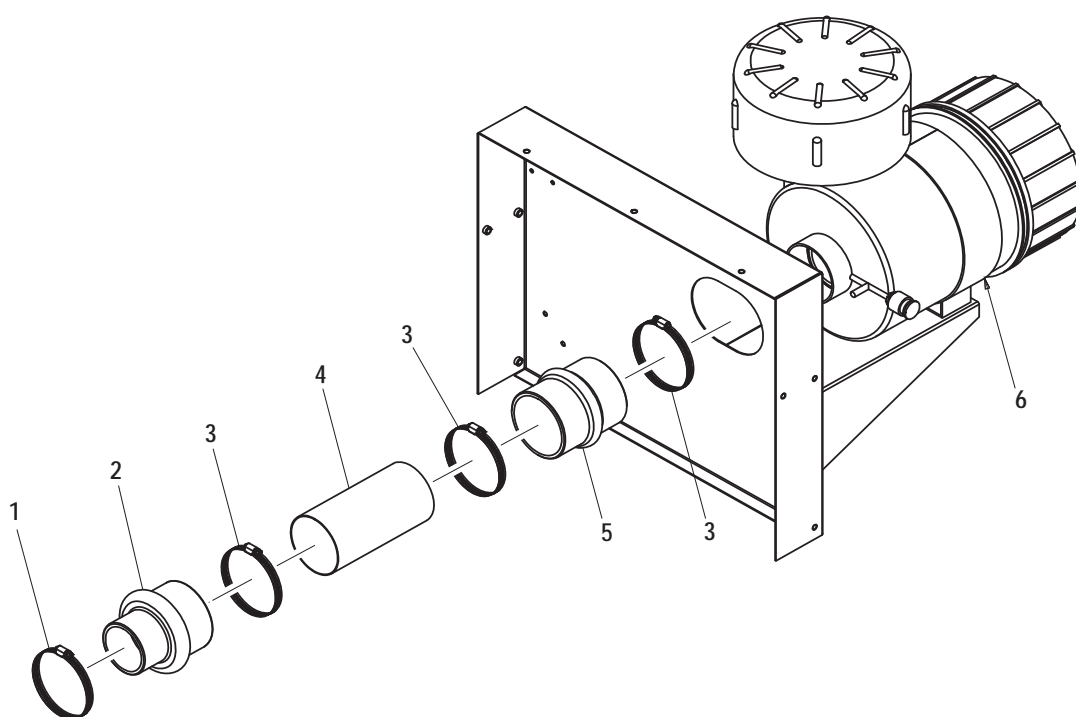
**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

## ENGINE SHEET METAL

| Ref. No. | Part Number   | Description                 | No. Req'd |
|----------|---------------|-----------------------------|-----------|
| 1        | 055669        | Lock Positioning Hinge      | 1         |
| 2        | F260-0006-02  | Radiator Cap Cover          | 1         |
| 3        | F260-0006-03  | Hinge Spacer                | 1         |
| 4        | F1216-0027    | Radiator Shroud             | 1         |
| 5        | F1216-0012    | Radiator Screen             | 1         |
| 6        | F1216-0031-01 | Left Radiator Shroud Mount  | 1         |
| 7        | F1216-0031-02 | Right Radiator Shroud Mount | 1         |
| 8        | F1216-0030    | Engine Exhaust Cover        | 1         |
| 9        | F170-0020     | Radiator Pan                | 1         |
| 10       | 012753        | Front Engine Foot           | 2         |
| 11       | 052397        | Rear Engine Foot            | 2         |
| 12       | 007433        | Rubber Shock Mount          | 6         |
| 13       | 007887        | Snubbing Washer             | 4         |
| 14       | 008664        | Rear Panel Mount            | 2         |
| 15       | F1216-0028    | Rear Engine Panel           | 1         |
| 16       | F1216-0029    | Engine Top Cover            | 1         |

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

## ENGINE AIR INTAKE

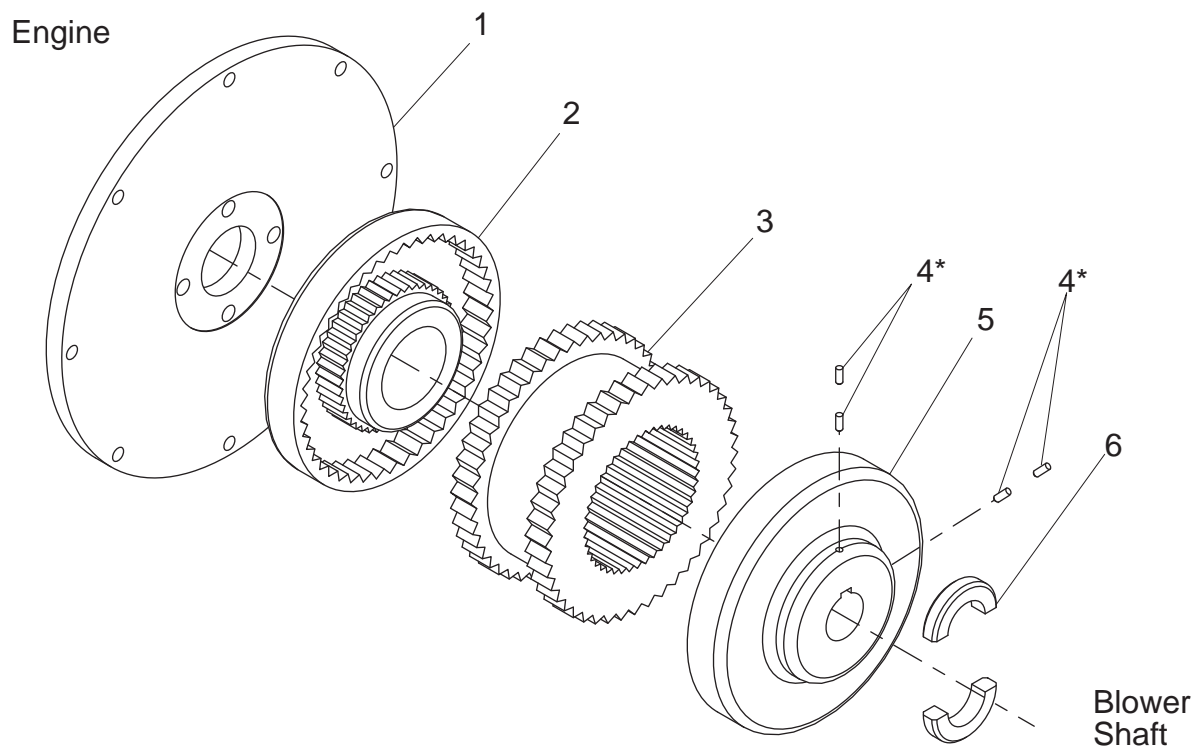


**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

## ENGINE AIR INTAKE

| Ref. No. | Part Number | Description                 | No. Req'd |
|----------|-------------|-----------------------------|-----------|
| 1        | 055496      | AC 300 Clamp                | 1         |
| 2        | 055498      | Hump Adapter #RH430         | 1         |
| 3        | 055335      | AC 400 Clamp                | 3         |
| 4        | 053084      | Air Cleaner Tube            | 1         |
| 5        | 055367      | Hump Adapter #RH440         | 1         |
| 6        | 013135      | Engine Air Cleaner Assembly | 1         |
|          | 013135-M    | Main Filter Element         | 1         |
|          | 013135-M    | Safety Filter Element       | 1         |

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

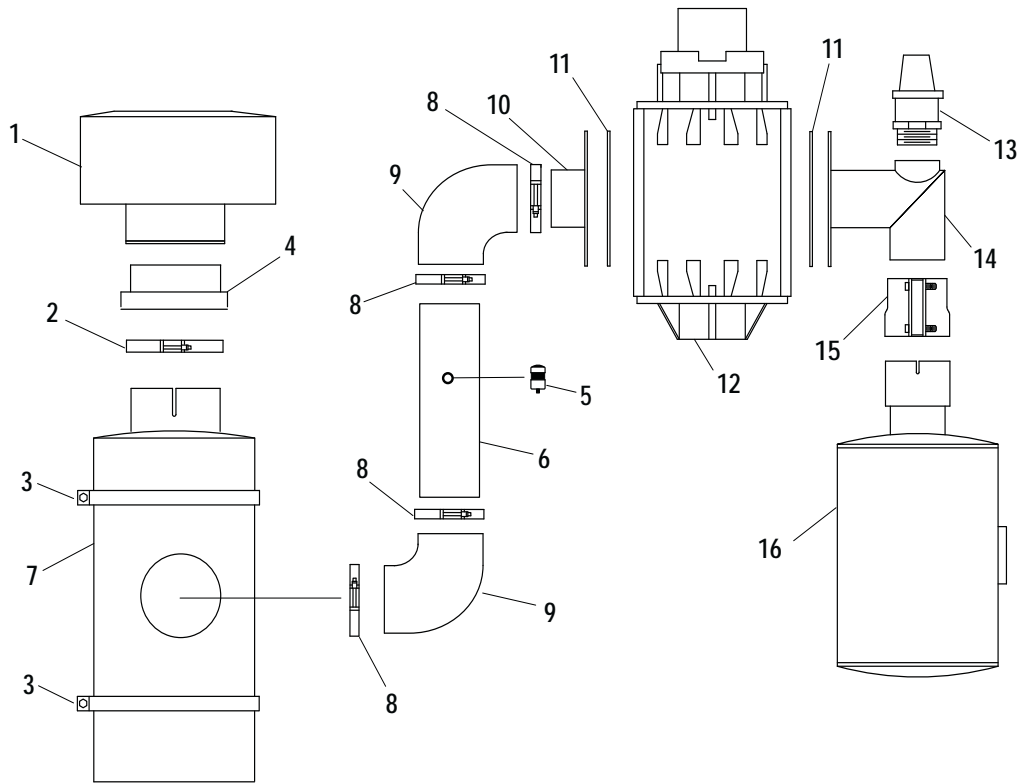


**\*Note:** Part number 045003 blower coupling half must be locked with double setscrews (two on top of each other.)

## BLOWER DRIVE ASSEMBLY

| Ref. No.         | Part Number   | Description                    | No. Req'd |
|------------------|---------------|--------------------------------|-----------|
| 1                | 045039        | Flywheel                       | 1         |
| 2                | 045002        | Flywheel Mount Coupling Half   | 1         |
| 3                | 045004        | Coupling Insert                | 1         |
| 4                | Z0606CPK      | Coupling Set Screw             | 4         |
| 5                | 045003        | Blower Coupling Half           | 1         |
| 6                | 045118        | Lock Collar                    | 1         |
| <b>NOT SHOWN</b> |               |                                |           |
|                  | F1240-0003-01 | Left Coupling Gaurd            | 1         |
|                  | F1240-0003-02 | Right Coupling Gaurd w/Weldnut | 1         |

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



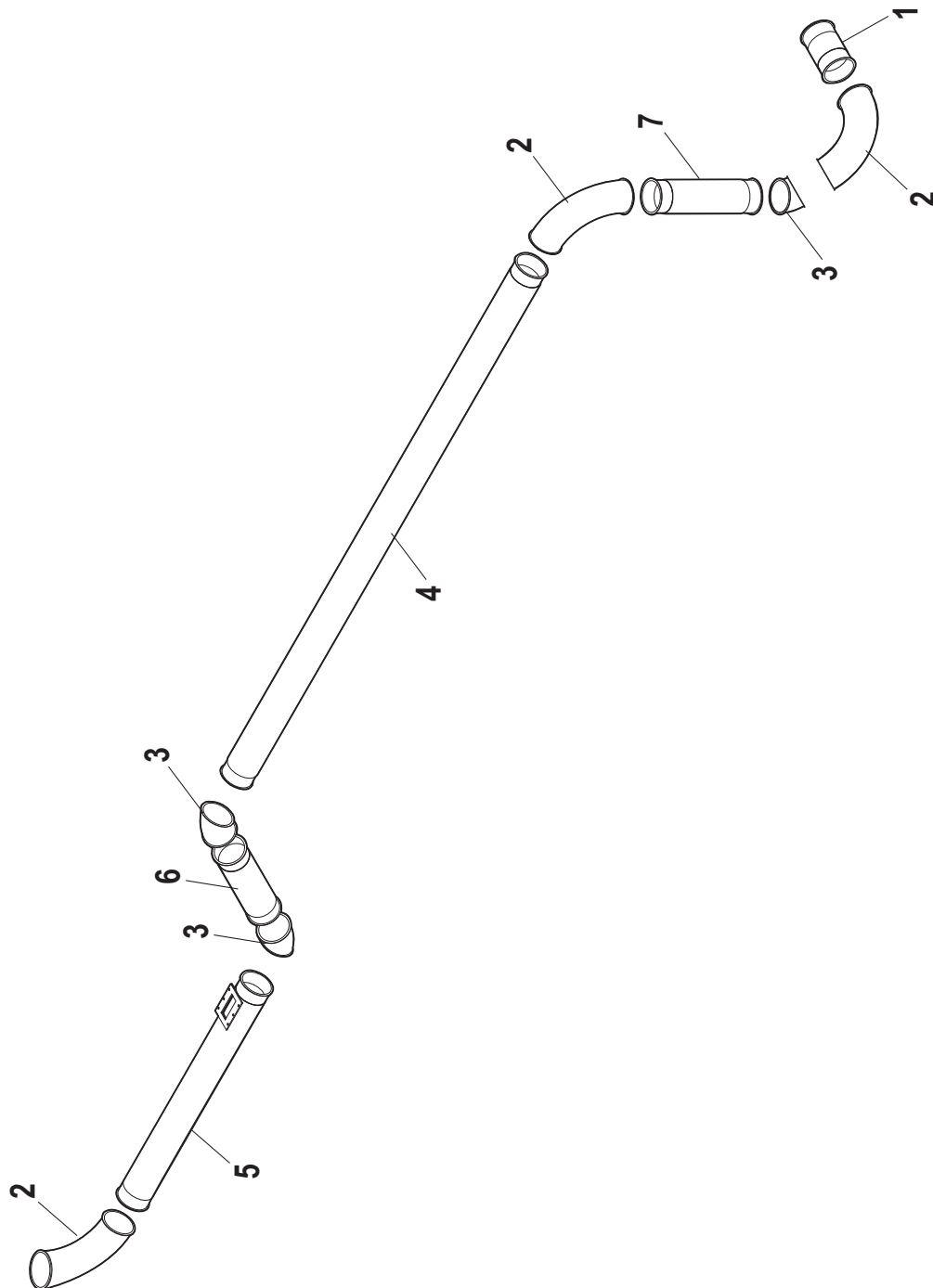
## BLOWER SYSTEM

| Ref. No. | Part Number | Description                  | No. Req'd |
|----------|-------------|------------------------------|-----------|
| 1        | 052905      | Pre-Cleaner                  | 1         |
| 2        | 052905-C    | Pre-Cleaner Clamp            | 1         |
| 3        | 052907      | Filter Bracket               | 2         |
| 4        | 052905-B    | Pre-Cleaner Bushing          | 1         |
| 5        | 053055      | Filter Gauge                 | 1         |
| 6        | 052919-02   | Inlet Tube                   | 1         |
| 7        | 052906      | Canister Filter              | 1         |
|          | 052904-01   | Filter Stand (Not Shown)     | 1         |
| 8        | 052908      | 7" Band Clamp                | 4         |
| 9        | 052915      | 7" Rubber Elbow              | 2         |
| 10       | 052919-01   | Blower Inlet Flange          | 1         |
| 11       | 045192-01   | Blower Gasket                | 2         |
| 12       | 045001      | Blower                       | 2         |
|          | 052532-01   | Blower Foot (not shown)      | 2         |
| 13       | 052937      | Relief Valve                 | 1         |
| 14       | 052994      | Blower Discharge Weldment    | 1         |
|          | 052778      | Pressure Gauge (not shown)   | 1         |
| 15       | 045186      | 5" Lap Joint Clamp           | 1         |
| 16       | 053000      | Outlet Silencer              | 1         |
|          | 052997      | Silencer Support (not shown) | 1         |

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



## BLOWER PIPING



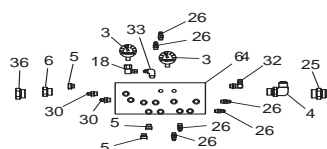
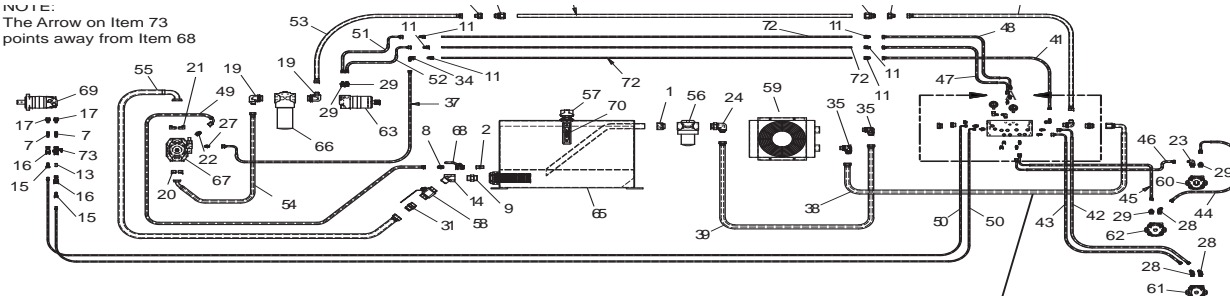
**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

## BLOWER PIPING

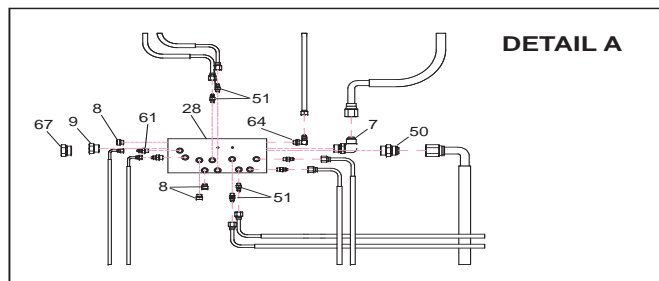
| Ref. No.  | Part Number | Description                          | No. Req'd |
|-----------|-------------|--------------------------------------|-----------|
|           |             | Model 1208 Blower Piping Assembly    | 1         |
| 1         | 052981-01   | 1208/1216 Short Air Tube Weldment    | 1         |
| 2         | 045338      | 5" 90° Elbow                         | 3         |
| 3         | 045362      | 5" 45° Elbow Segment                 | 3         |
| 4         | 052981-05   | 1208 Long Air Tube Weldment          | 1         |
| 5         | 053029-01   | 1216 Seed Hopper Air Tube Weldment   | 1         |
| 6         | 052981-06   | 1208 Connector Air Tube Weldment     | 1         |
| 7         | 052981-02   | 1208/1216 Vertical Air Tube Weldment | 1         |
| NOT SHOWN |             |                                      |           |
|           | 045336      | 5" Jacobs Pull Ring                  | 12        |
|           | 045337      | 5" Jacobs Gasket                     | 12        |

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

NOTE:  
The Arrow on Item 73  
points away from Item 68



DETAIL A  
SCALE 1 / 10



## HYDRAULIC SYSTEM

| Ref. No. | Part Number | Description                              | No. Req'd |
|----------|-------------|--|-----------|
|          | 053079      | Hydraulic Hose and Fitting Kit           |           |
| 1        | 008708      | Lenz #20-APC                             | 1         |
| 2        | 011504      | Lenz #8PN                                | 1         |
| 3        | 012044      | Pressure Gauge #CF-5000-25               | 2         |
| 4        | 012091      | Lenz #A3405-12                           | 1         |
| 5        | 012103      | Lenz #STP-06                             | 3         |
| 6        | 012362      | Lenz #12 STP Plug                        | 1         |
| 7        | 012419      | Midstate #6505-04-04                     | 2         |
| 8        | 041053      | Lenz #3105-8-8                           | 1         |
| 9        | 041150      | Lenz #20PN                               | 1         |
| 10       | 045203      | Lenz #100-16-F16                         | 2         |
| 11       | 045204      | Lenz #100-6-F6                           | 6         |
| 12       | 052028      | Lenz #2406-16-12                         | 2         |
| 13       | 052748      | Lenz #4SPN                               | 1         |
| 14       | 053018      | Lenz #20-45SE                            | 1         |
| 15       | 053046      | 1/4" Plug x 1/4" Female Pipe - H2F2      | 2         |
| 16       | 053047      | 1/4" Socket x 1/4" Female Pipe - 2HF2    | 2         |
| 17       | 053051      | Lenz #A3105-4-10                         | 2         |
| 18       | 053076      | Airway #6503-4-4                         | 1         |
| 19       | 053078      | Lenz #A3405-12-20 (Midstate #6801-12-20) | 2         |
| 20       | 053114      | Flange Kit #SKS-12                       | 1         |
| 21       | 053115      | Flange Kit #SKS-20                       | 1         |
| 22       | 055232      | Lenz #A3105-8-8 (Midstate#6400-08-08)    | 1         |
| 23       | 055309      | Lenz #A3405-6-10 (Midstate #6801-6-10)   | 1         |
| 24       | 055358      | Lenz #A3405-16-20                        | 1         |
| 25       | 055383      | Lenz #A3105-16 (Midstate #6400-16-16)    | 1         |

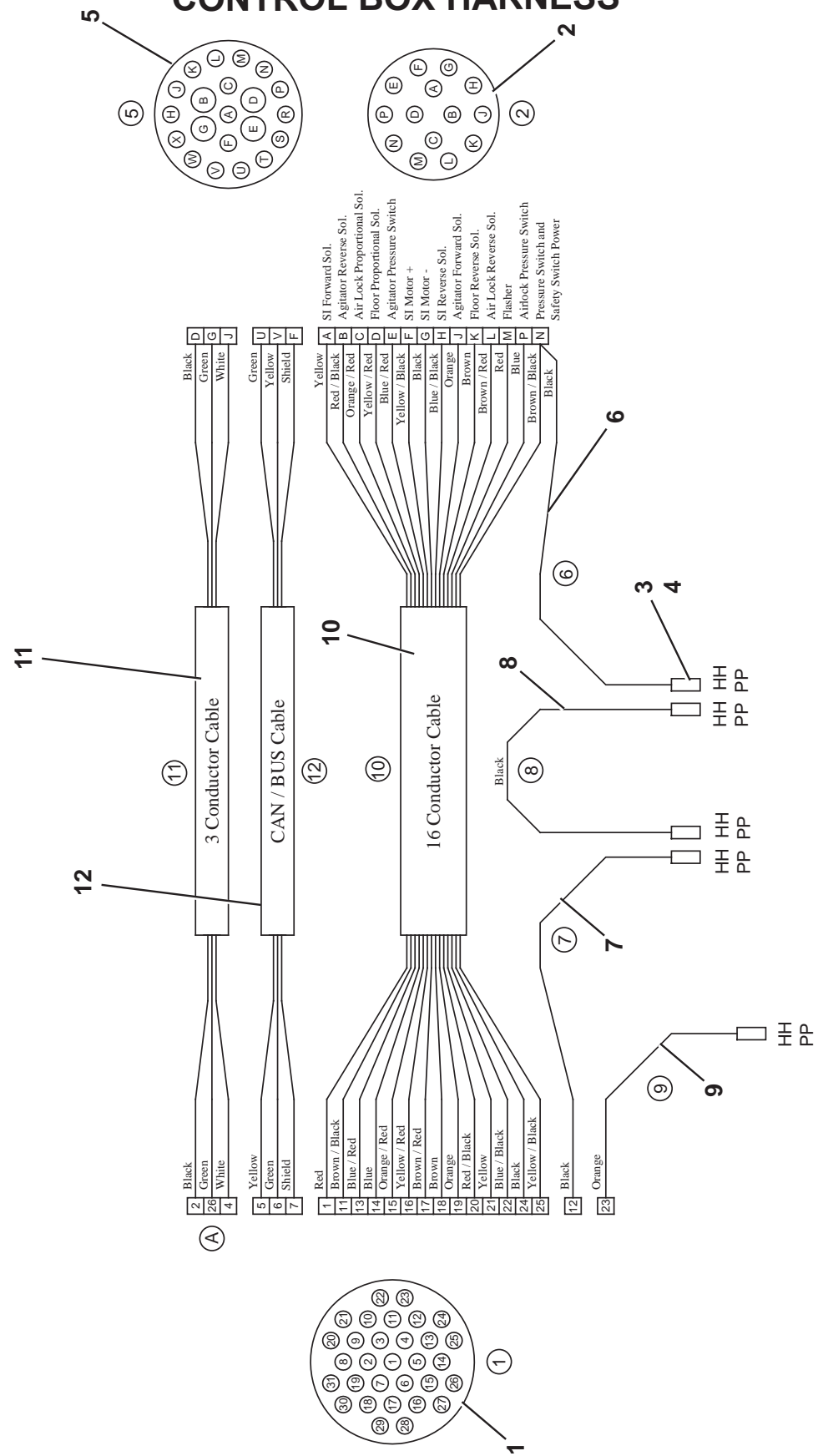
**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

# HYDRAULIC SYSTEM

| Ref. No. | Part Number | Description                              | No. Req'd |
|----------|-------------|--|-----------|
| 26       | 055601      | Lenz #A3105-6-6                          | 6         |
| 27       | 055602      | Lenz #A3105-6-4 (Midstate #6400-6-4)     | 1         |
| 28       | 055741      | Lenz #A3355-6-10                         | 3         |
| 29       | 085014      | Lenz #A3105-6-10 (Midstate #6400-6-10)   | 4         |
| 30       | FW65217     | Lenz #A3105-4-6 (Midstate #6400-04-06)   | 2         |
| 31       | FW65348     | Lenz #3105-20-20 (Midstate #2404-20-20)  | 1         |
| 32       | FW71448     | Lenz #A3405-6-6                          | 1         |
| 33       | FW71450     | Lenz#3405-4-4                            | 1         |
| 34       | FW71636     | Lenz #3505SW-6 (Midstate #6500-06-06)    | 1         |
| 35       | FW75113     | Lenz #A3405-12-16 (Midstate #6801-12-16) | 2         |
| 36       | FW75199     | Lenz #STP-16                             | 1         |
| 37       | 052554      | 3/8" 100R17 Hose                         | 1         |
| 38       | 053015-01   | 1" 100R1 Hose                            | 1         |
| 39       | 053015-02   | 1" 100R1 Hose                            | 1         |
| 40       | 053015-03   | 3/4" 3000 psi Hose                       | 1         |
| 41       | 053015-04   | 3/8" 100R17 Hose w/ #6 FJIC BE x 42"     | 1         |
| 42       | 053015-05   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 43       | 053015-06   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 44       | 053015-07   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 45       | 053015-08   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 46       | 053015-09   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 47       | 053015-10   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 48       | 053015-11   | 3/8" 100R17 Hose w/ #6 FJIC x #6         | 1         |
| 49       | 053015-12   | 1/2" 100R17 Hose w/ #8                   | 1         |
| 50       | 053015-13   | 1/4" 100R17 Hose w/ #4                   | 2         |
| 51       | 053045-04   | 3/8" 100R17 Hose w/ #6                   | 1         |
| 52       | 053045-05   | 3/8" 100R17 Hose w/ #6                   | 1         |
| 53       | 053079-02   | 3/4" 100R17 Hose w/ #12                  | 1         |
| 54       | 053089-03   | 3/4" 300 psi Hose w/ #12                 | 1         |
| 55       | 053089-04   | 1-1/4" 100R4 Hose w/ #20                 | 1         |
| 56       | 008702      | Hydac Low Pressure Filter Assembly       | 1         |
| 57       | 008706      | Hydac Filler Breather Assembly           | 1         |
| 58       | 012083      | 1-1/4" Stainless Steel Ball Valve        | 1         |
| 59       | 013192      | AKG DC16S-12-TC115 Heat Exchanger        | 1         |
| 60       | 052500      | Char-lynn Hyd Motor #104-1009            | 1         |
| 61       | 052535      | Eaton Hyd. Motor #104-1021-006           | 1         |
| 62       | 052990      | Char-Lynn Motor 104-1017-006             | 1         |
| 63       | 052991      | Char-Lynn Motor 104-1032-006             | 1         |
| 64       | 053086      | Custom Manifold                          | 1         |
| 65       | 053146      | Hydraulic Reservoir                      | 1         |
| 66       | 053077      | Hydac Filter Ass'y #02071996             | 1         |
| 67       | 052817      | Eaton Hydraulic Pump                     | 1         |
| 68       | 070122      | 1/2 NPT Ball Valve                       | 1         |
| 69       | 070660      | Hydraulic Motor 104-1028-006             | 1         |
| 70       | 080329      | Hydraulic Level Gauge                    | 1         |
|          | 0543147     | SS Tubing Kit 1208                       | 1         |
| 71       | 053147-01   | Tubing 1 OD X .049 Wall SS               | 1         |
| 72       | 053147-02   | Tubing 3/8 OD X .035 Wall SS             | 3         |
| 73       | FW71203     | Deltrol F20BK Flow Control Valve         | 1         |

**WHEN ORDERING PARTS, BE SURE TO STATE  
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# CONTROL BOX HARNESS



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

## CONTROL BOX HARNESS

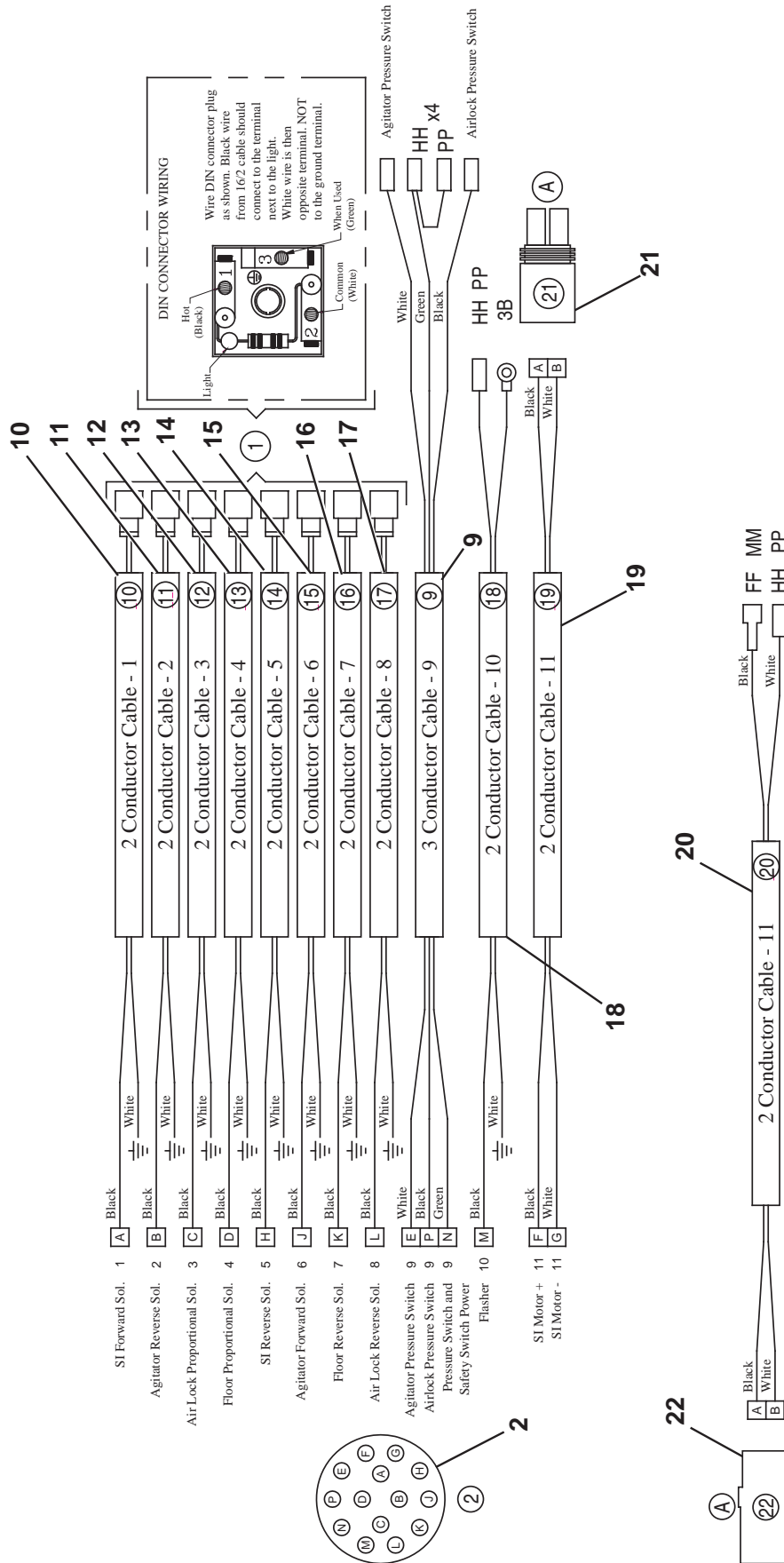
|    | Part Number | Description                    | No. Req'd |
|----|-------------|--------------------------------|-----------|
|    | 053060      | Control Box Wiring Harness     |           |
| 1  | 053017      | Deutsch #HD36-24-31ST          | 1         |
| 2  | 053042      | Deutsch #34-18-14PT Receptacle | 1         |
| 3  | 170019      | SINGLE CIR RECEPT HSG 480054-3 | 5         |
| 4  | 170023      | FASTON RECEPT #42282-2         | 5         |
| 5  | 170101      | Deutsch #HDP26-24-21SE Plug    | 1         |
| 6  | 190051      | WIRE 16GA BLACK SAE SXL        | 48"       |
| 7  | 190051      | WIRE 16GA BLACK SAE SXL        | 59"       |
| 8  | 190051      | WIRE 16GA BLACK SAE SXL        | 100"      |
| 9  | 190058      | WIRE 16GA ORANGE SAE SXL       | 37"       |
| 10 | 190108      | 16 CONDUCTOR SDN CABLE         | 96"       |
| 11 | 190146      | 16 GA./3 Conductor SOW-A Cable | 242"      |
| 12 | 190228      | Datacell 1939 TF Can-Bus Cable | 242"      |
| 13 | 170111      | Deutsch Socket (16 Ga.)        | 41        |
| 14 | 170112      | Deutsch Socket (12 Ga.)        | 2         |
| 15 | 170110      | Deutsch Socket (16 Ga.)        | 24        |

### ELECTRICAL COMPONENTS NOT INCLUDED IN HARNESSES

|           |                            |   |
|-----------|----------------------------|---|
| 023814    | Electric Throttle Actuator | 1 |
| FW71978   | Fuel Level Sender          | 1 |
| 007706    | Oil Gauge                  | 1 |
| 008473    | Oil Line Kit               | 1 |
| 021839    | Temperature Gauge          | 1 |
| 012537    | Temperature Adapter Kit    | 1 |
| FW71972   | Fuel Gauge                 | 1 |
| JDRE54092 | Engine Starter             | 1 |
| JDTY24485 | 95A Alternator             | 1 |
| 022891    | Solenoid Relay             | 1 |
| 011851    | 12-Volt Battery            | 1 |
| 031031    | Battery Cable              | 1 |
| 010516    | Ground Strap               | 1 |
| 011770    | Battery Box                | 1 |
| FW75186   | Hydraulic Oil Cooler w/Fan | 1 |
| FW75186-F | Fan Only                   | 1 |

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

## VALVE WIRING HARNESS



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

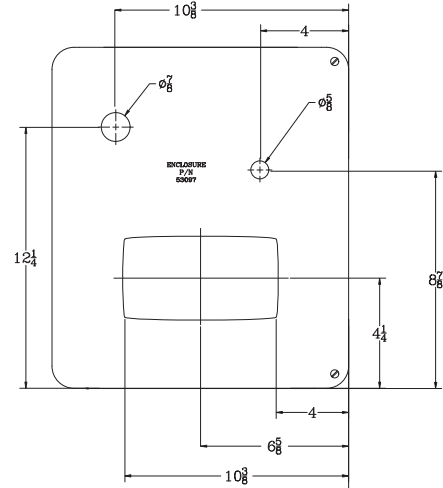
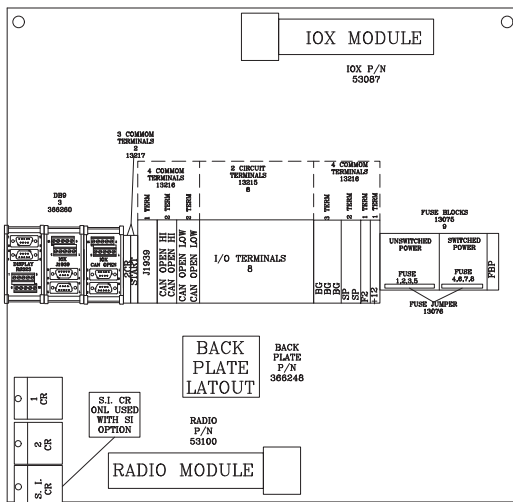
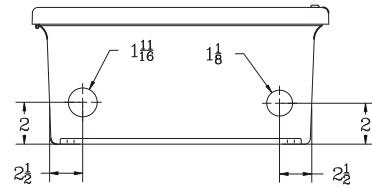
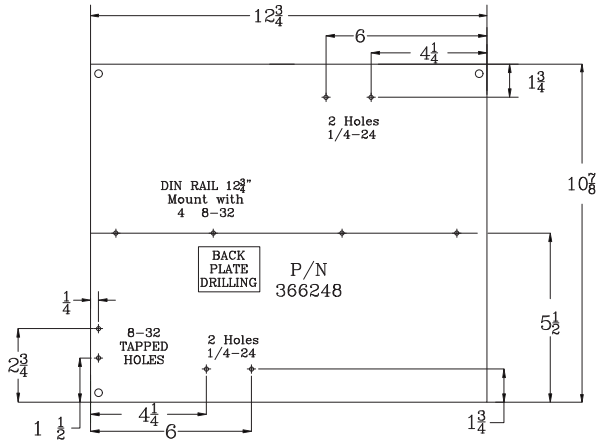


## VALVE WIRING HARNESS

| Part Number |        | Description                        | No. Req'd |
|-------------|--------|------------------------------------|-----------|
| 1           | 045136 | Lighted DIN (2+GND)                | 8         |
| 2           | 053042 | 18-14PT Receptacle                 | 1         |
| 3           | 170004 | Ring Tongue 16-14 1/4              | 1         |
| 4           | 170018 | Single CIR HSG                     | 1         |
| 5           | 170019 | Single CIR Recept HSG              | 6         |
| 6           | 170022 | Tab                                | 1         |
| 7           | 170023 | Recept                             | 6         |
| 8           | 190055 | Wire 16GA Green SAE SXL            | 2"        |
| 9           | 190146 | 16 GA./3 Conductor SOW-A Cable     | 25"       |
| 10          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 11          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 12          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 13          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 14          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 15          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 16          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 17          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 25"       |
| 18          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 72"       |
| 19          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) | 3"        |
| 20          | 190156 | 16 GA./2 Cond. SOW-A Cable (Black) |           |
| 21          | 035078 | Male Connector                     | 1         |
| 22          | 071208 | Female Connector Assy.             | 1         |

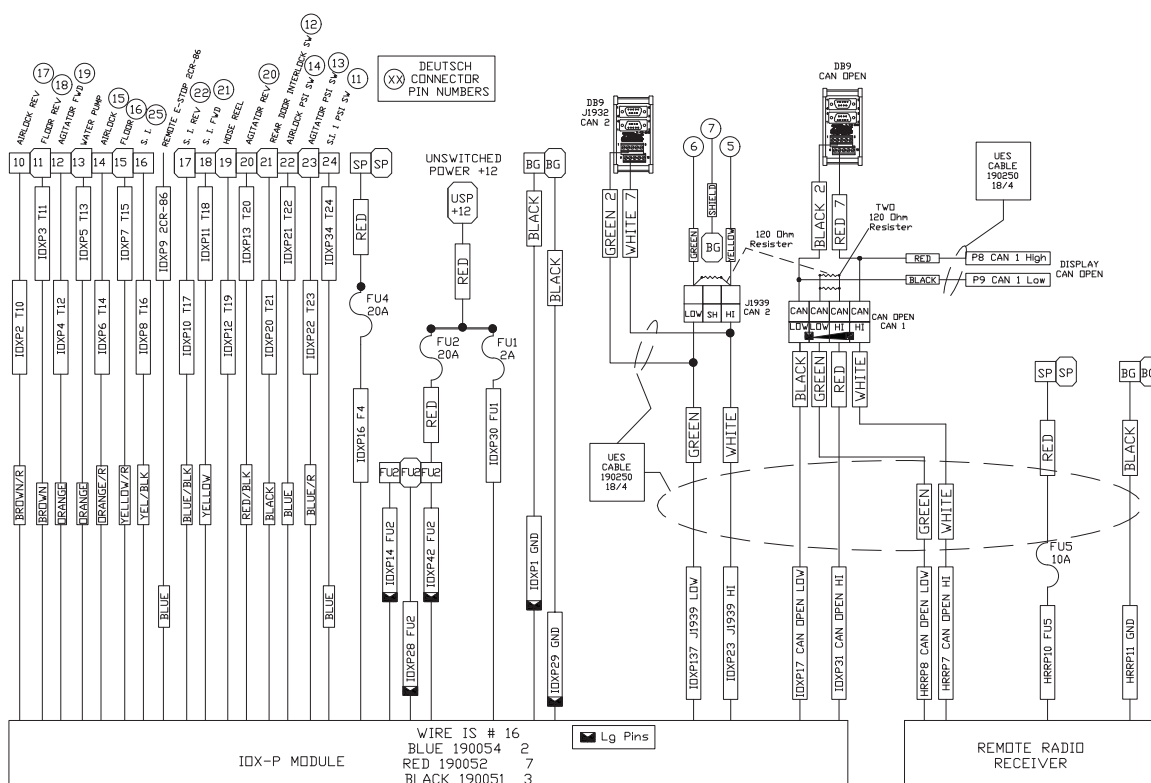
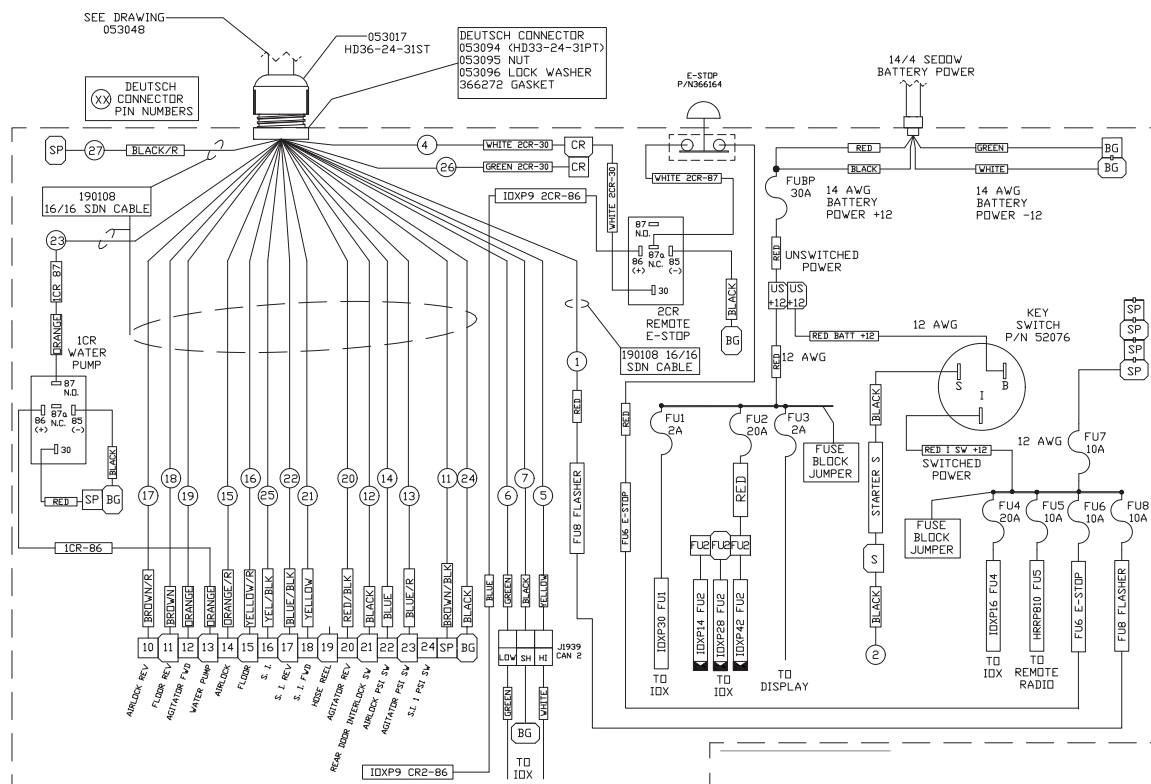
**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

# ENGINE WIRING



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

## ENGINE WIRING

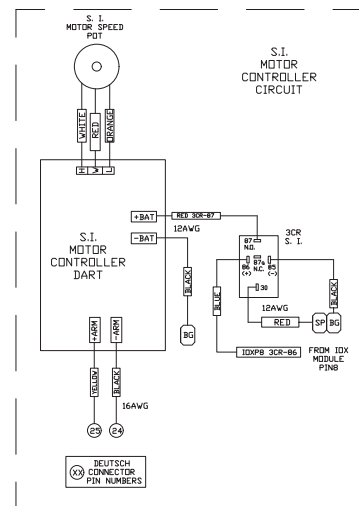
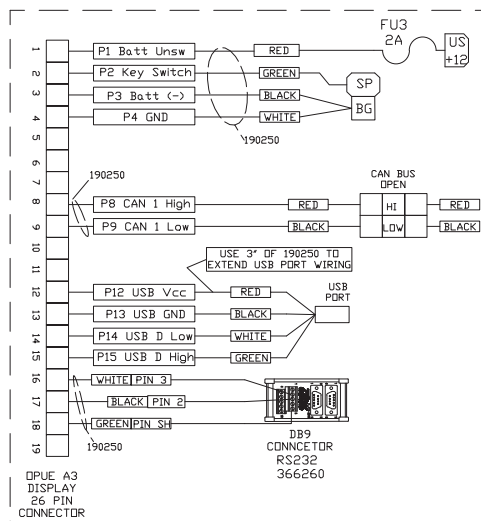
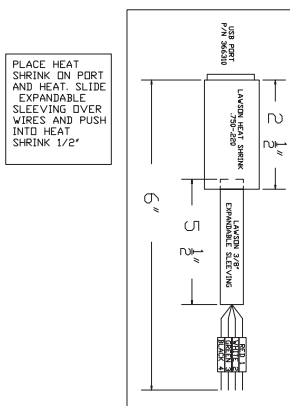
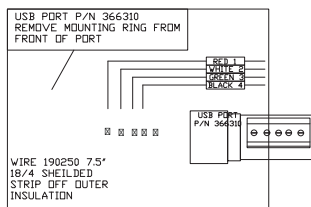
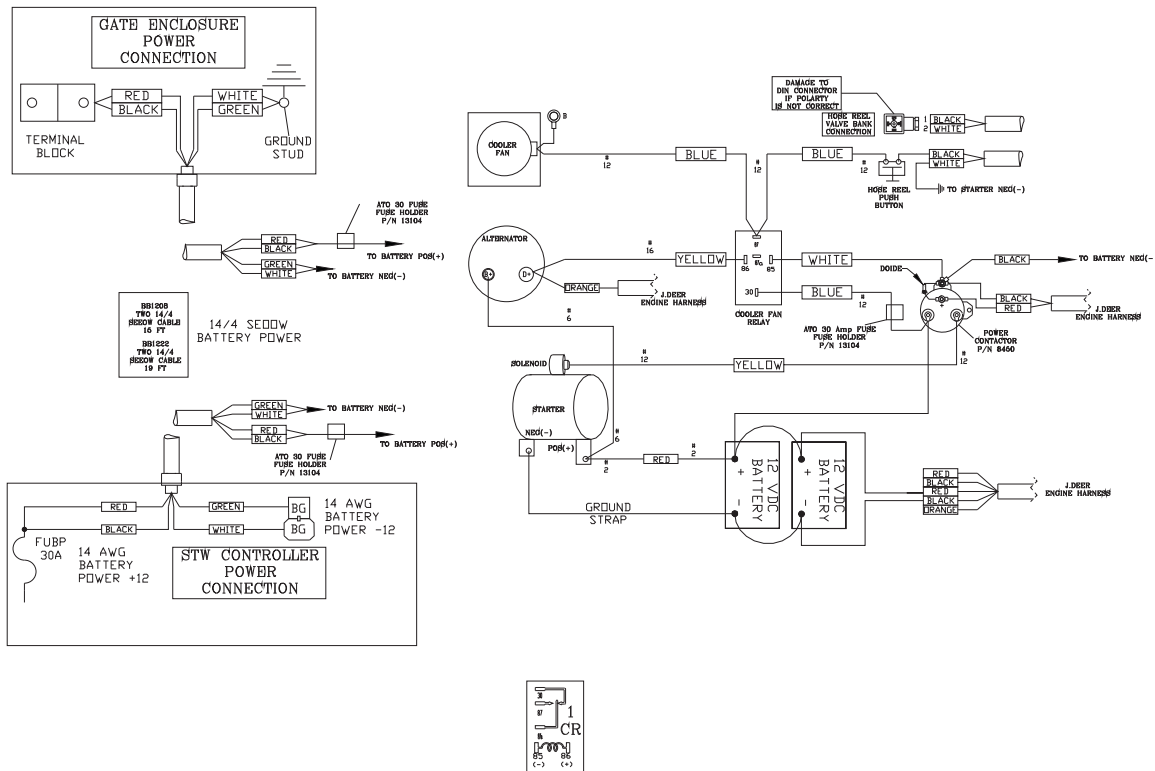


NOTE  
MUST HAVE A 120 OHM TERMINATION  
RESISTOR AT END OF CAN BUS  
FOR 60 OHMS TOTAL RESISTANCE  
ALL WIRING IS 16 GAUGE UNLESS NOTED

```
FU1 FU3 FU5 IS 2 AMP
FU4 FU7 FU8 IS 10 AMP
FU6 IS 15 AMP
FU2 IS 20 AMP
```

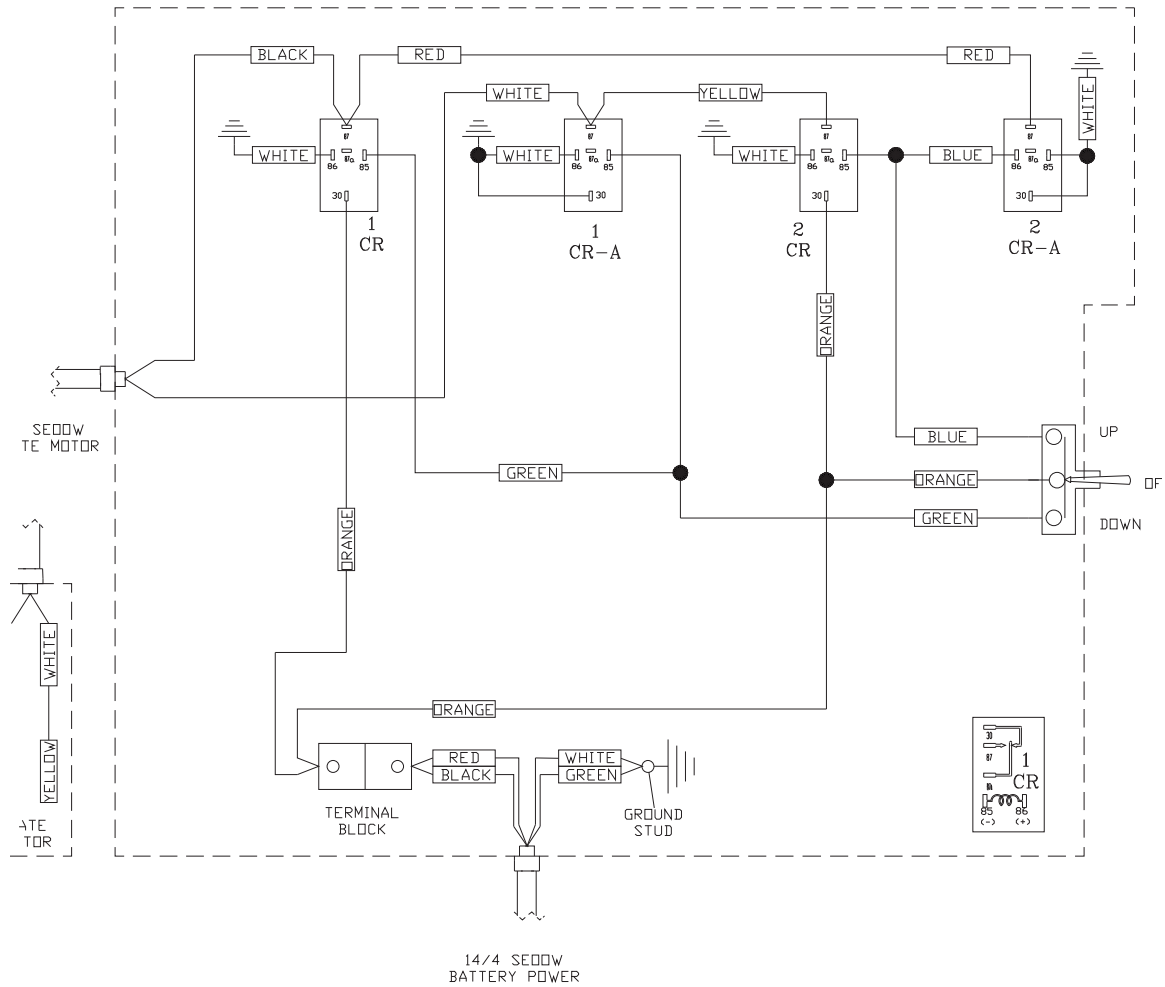
**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

## ENGINE WIRING



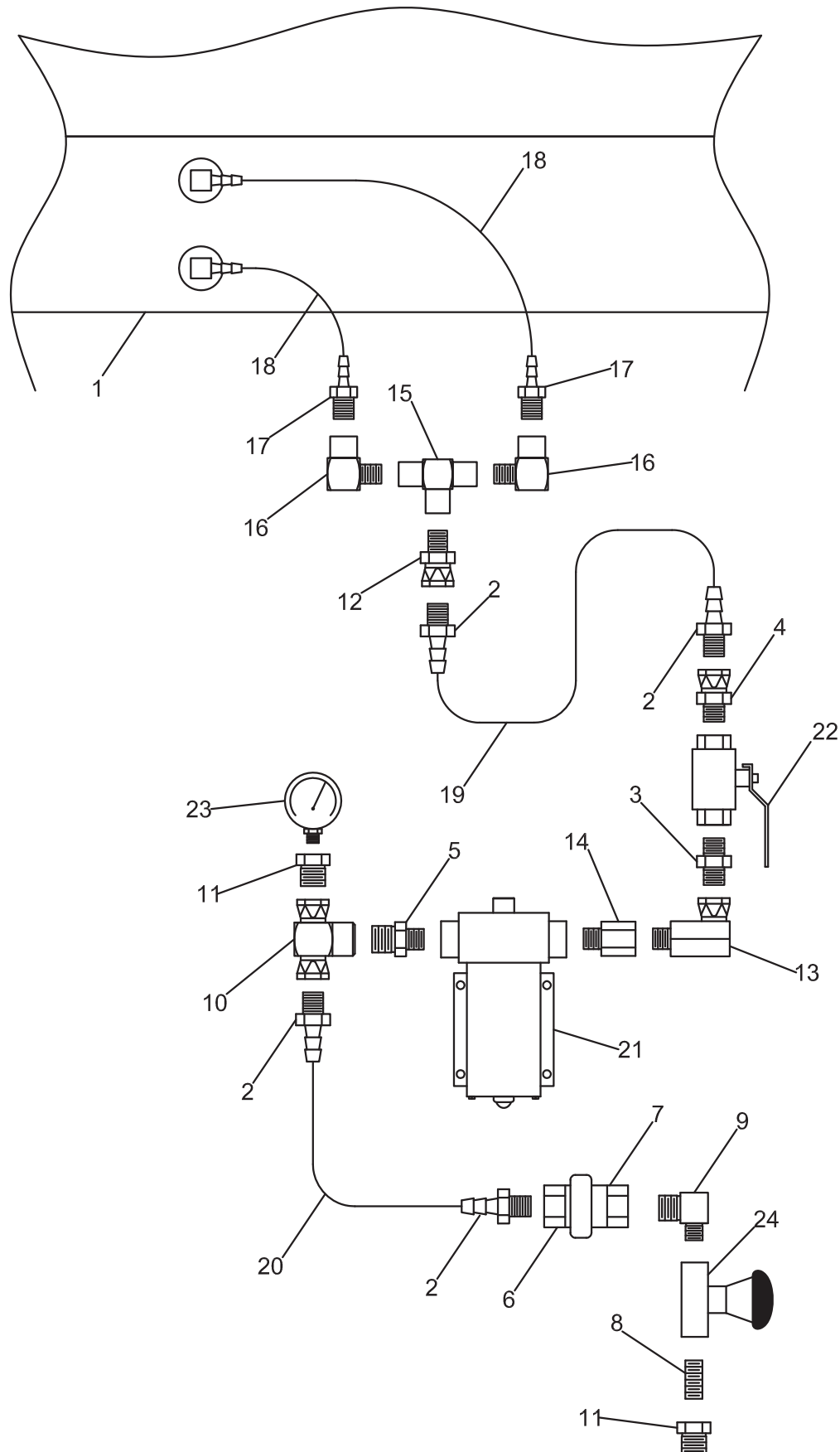
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# ENGINE WIRING



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

# DUST CONTROL SYSTEM

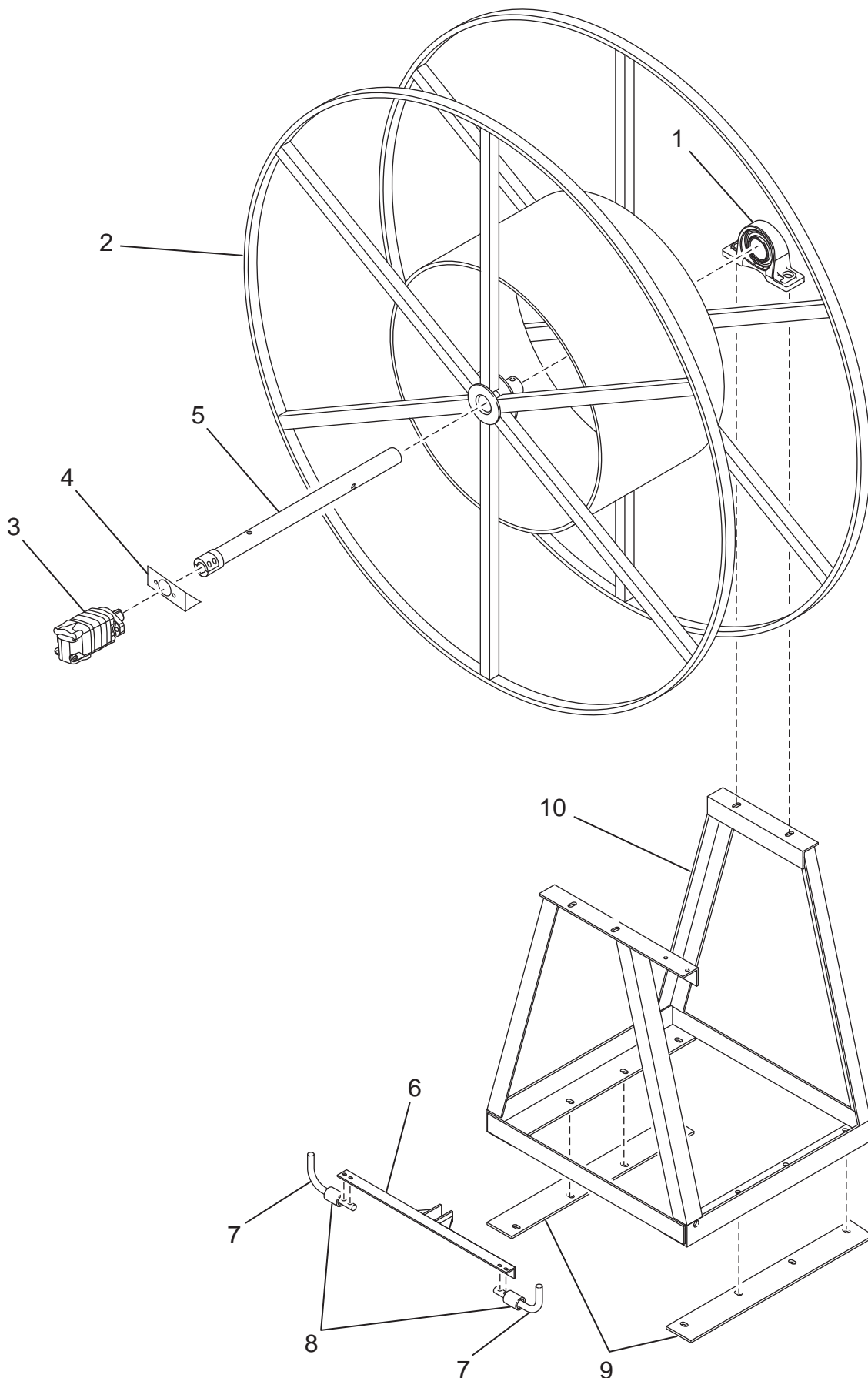


**WHEN ORDERING PARTS, BE SURE TO STATE  
SERIAL NUMBER OF MACHINE**

## DUST CONTROL SYSTEM

| Ref. No. | Part Number | Description                 | No. Req'd   |
|----------|-------------|-----------------------------|-------------|
| 1        | 053007      | Dust Suppression Tank       | 1           |
| 2        | 6772        | Hose Bar                    | 4           |
| 3        | 011504      | 8PN                         | 1           |
| 4        | 022305      | 8M-8UAD                     | 1           |
| 5        | 052032      | 6-8 RPN                     | 1           |
| 6        | 052734      | Female Disconnect           | 1           |
| 7        | 052735      | Male Disconnect             | 1           |
| 8        | 052748      | 4SPN Close Nipple           | 1           |
| 9        | 052749      | Pipe Elbow                  | 1           |
| 10       | 052901      | 8FT-8UAD                    | 1           |
| 11       | 055229      | 8-4HB                       | 2           |
| 12       | 052722-07   | Discharge Hose              | 1           |
| 13       | 021669      | 8MP x 8FPSW-90 Elbow        | 1           |
| 14       | 053066      | 6MP-8FP Reducer             | 1           |
| 15       | FW71498     | 6F NPT Tee                  | 1           |
| 16       | FW71502     | 6M NPT x 4F NPT-90 Elbow    | 2           |
| 17       | 010583      | 4M NPT x 5 Hose Barb        | 2           |
| 18       | 190013      | 5/16 ID Hose 5139 1 Braid   | 2 x 25-1/2" |
| 19       | 190030      | 1/2 Black Hose 2 Braid P287 | 41"         |
| 20       | 190030      | 1/2 Black Hose 2 Braid P287 | 32"         |
| 21       | 052667      | Pump                        | 1           |
| 22       | 070122      | Ball Valve, 1/2 Inch        | 1           |
| 23       | 052771      | 100 psi Gauge               | 1           |
| 24       | 052941      | Brass Needle Valve          | 1           |

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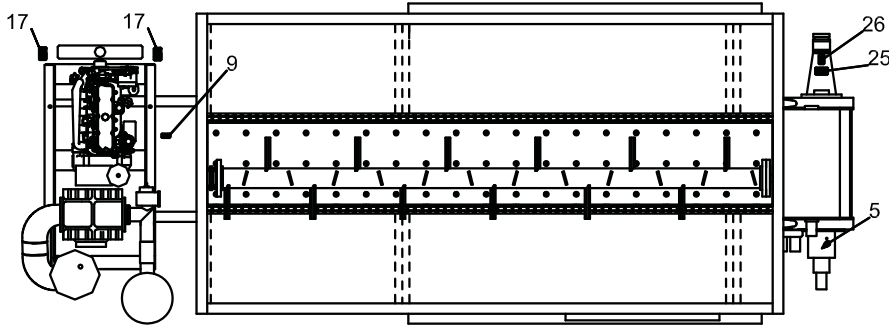


## HYDRAULIC HOSE REEL

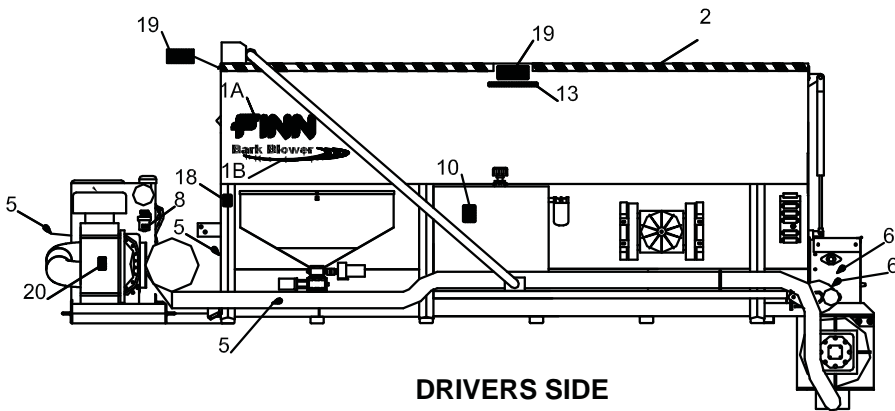
| Ref. No. | Part Number | Description                  | No. Req'd |
|----------|-------------|------------------------------|-----------|
|          | 053194      | Hydraulic Hose Reel Assembly | 1         |
| 1        | 053195      | 2" Special Pillow Block Brg. | 1         |
| 2        | 052416      | Reel Weldment                | 1         |
| 3        | 070660      | Hydraulic Motor              | 1         |
| 4        | F1216-0019  | Hose Reel Motor Mount        | 1         |
| 5        | 053193      | Hose Reel Shaft              | 1         |
| 6        | 053013      | Hose Reel Latch              | 1         |
| 7        | 052350-02   | Latch Handle Rod             | 2         |
| 8        | 052384-05   | Lock Spacer Tube             | 2         |
| 9        | 052384-06   | Mounting Strap               | 2         |
| 10       | 052383      | Hose Reel Mounting Frame     | 1         |

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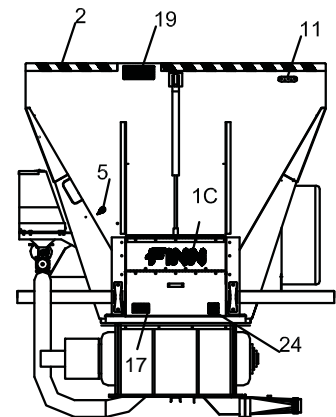
# DECALS



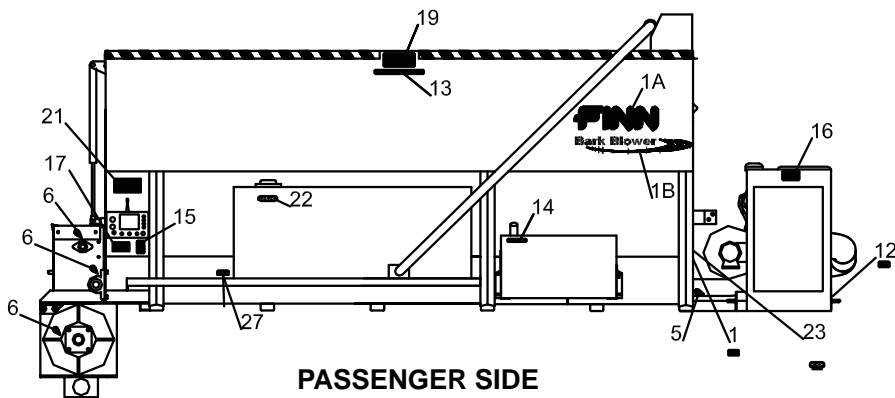
TOP VIEW



DRIVERS SIDE



REAR VIEW



PASSENGER SIDE

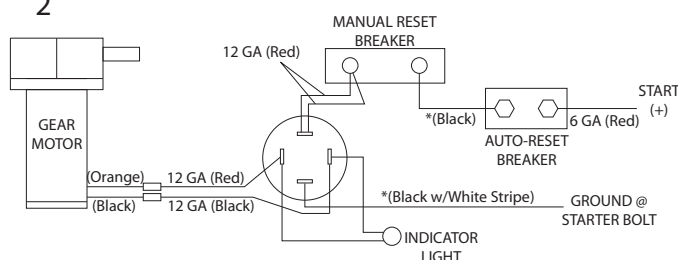
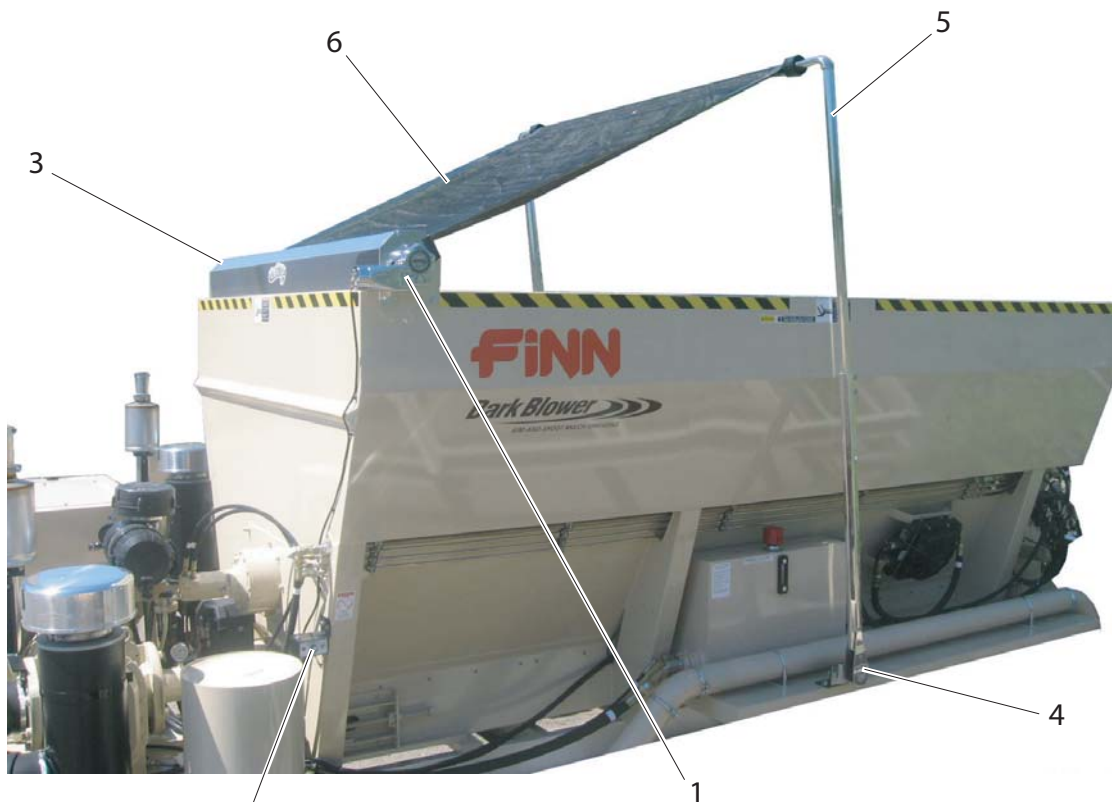
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## DECALS

| Ref. No. | Part Number | Description                           | No. Req'd |
|----------|-------------|---------------------------------------|-----------|
| *1       | 011690      | FINN Name Plate                       | 1         |
| *1A      | 023174      | Decal "FINN" Large                    | 2         |
| *1B      | 055639      | Decal "Bark Blower"                   | 2         |
| *1C      | 031235      | Decal "FINN" Medium Red               | 1         |
| *2       | 190173      | 2" Yellow-Black Warning Tape          | 40'       |
| 3        | 007230      | Decal "Service Daily"                 | 2         |
| 4        | 007230-02   | Decal "Service Daily"                 | 1         |
| 5        | 007231      | Decal "Service Weekly"                | 6         |
| 6        | 007231-01   | Decal "Service Weekly"                | 5         |
| 7        | 007231-02   | Decal "Service Weekly"                | 1         |
| 8        | 007607      | Decal "Drain Water Daily"             | 1         |
| 9        | 012278      | Decal "Warning! Burn Hazard"          | 1         |
| 10       | 012687      | Decal "Caution-Hydraulic System..."   | 1         |
| 11       | 012688      | Decal "Caution-Fall Hazard"           | 1         |
| 12       | 012868      | Decal "Hose Reel Rewind"              | 1         |
| 13       | 022690      | Decal "Wear Eye Protection"           | 2         |
| 14       | 023391      | Decal "Diesel Fuel Only"              | 1         |
| 15       | 023519      | Decal "Wear Eye Protection"           | 1         |
| 16       | 031462      | Decal "Warning! Radiator"             | 1         |
| 17       | 031463      | Decal "Warning! Sever Hazard"         | 4         |
| 18       | 045128      | Decal "Danger Do Not Raise"           | 1         |
| 19       | 052177      | Decal "Danger - Rotating Hazard"      | 4         |
| 20       | 052178      | Decal "Important - If The Machine..." | 1         |
| 21       | 053038      | Decal "Operating Instructions"        | 1         |
| 22       | 053062      | Decal "Water Only"                    | 1         |
| 23       | 055216      | Decal "PATENT NUMBERS"                | 1         |
| 24       | 055219      | Decal "Danger, Sharp Knives"          | 1         |
| 25       | 055280      | Decal "Warning! Flying Objects"       | 1         |
| 26       | 055375      | Decal "Warning! Contents Under..."    | 1         |
| *27      | 012260      | Metal Plate: Important...."           | 1         |

**\*Note:** These items are not part of the 12 Series Decal Sheet (P/N053037). All other decals are not available individually, they are only available by ordering 053037. Decals are shown on page 62 for location purposes only.

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## TARP ASSEMBLY

| Ref. No. | Part Number | Description                                   | No. Req'd |
|----------|-------------|---|-----------|
|          | 052588      | Tarp Assembly Includes:                       | 1         |
| 1        | RR1031      | Electric Gear Tarp Motor w/Protective Cover   | 1         |
|          | RR3103-08   | Pre-Threaded Aluminum Tarp Axle               | 1         |
|          | RR3105      | Flange Bearing                                | 2         |
| 2        | RR1050      | Electric Kit (Switch, Bracket, Breaker, Etc.) | 1         |
| 3        | RR3636-08   | Wind Deflector Housing                        | 1         |
| 4        | RR4643      | 3-Spring Pivot Set                            | 2         |
| 5        | RR7670-08   | Tarp Bow Set                                  | 1         |
|          | RR7677-08   | Crossbar                                      | 1         |
|          | RR7676-08   | Upper Arm                                     | 2         |
| 6        | RR8100-08   | Knit Mesh Tarp                                | 1         |

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## TOOL KIT

| Part Number | Description                                   | No. Req'd |
|-------------|---|-----------|
| 012681A     | FINN Beige Touch-Up Paint (Aerosol - 4.5 Oz.) | 1         |
| 012681T     | FINN Beige Touch-Up Paint (Wet - 0.5 Oz.)     | 1         |
|             | Engine Parts Manual                           | 1         |
|             | Engine Operators Manual                       | 1         |
|             | Blower Operators Manual                       | 1         |
|             | Radio Remote Control Manual                   | 1         |
|             | Bark Blower Parts/Operators Manual            | 1         |

## DISCHARGE HOSE

| Part Number | Description                                       | No. Req'd |
|-------------|---|-----------|
| 052952      | Severe Duty Discharge Hose Assy (4" Dia x 50' Lg) | 4         |
| 055377      | Hose Adapter                                      | 8         |
| 055374A     | Aluminum Male Coupler                             | 4         |
| 055375A     | Aluminum Female Coupler                           | 4         |
| 045347      | 5" x 4" Reducer w/ Couplings                      | 1         |
| 045304      | Hot Air Hose                                      | 1         |

## RECOMMENDED SPARE PARTS

| Part Number | Description                                 |
|-------------|---|
| 008703      | Low Pressure Filter Element                 |
| 013049      | High Pressure Filter Element                |
| 008706      | Hydraulic Reservoir Breather Filter         |
| JDRE60021   | Fuel Filter                                 |
| JDRE59754   | Engine Oil Filter                           |
| JDR123442   | Fan Belt                                    |
| 012622      | Main Filter Element                         |
| 012623      | Safety Filter Element                       |
| 045296-01   | Airlock Knife (2 per)                       |
| 045296-02   | Bottom Wiper Knife (1 per)                  |
| 052436      | Airlock Door/Discharge Interlock Switch     |
| 013135-S    | Air Cleaner Safety Filter Element (4.50-E2) |
| 013135-M    | Air Cleaner Main Filter Element (4.50-E1)   |
| JDR123442   | Fan Belt                                    |
| JDRE529643  | Primary Fuel Filter                         |
| JDRE522878  | Secondary Fuel Filter                       |
| JDRE504836  | Oil Filter                                  |
| 008703      | Hydraulic Filter Element                    |
| JDR96934    | Hydraulic Pump Gasket                       |

**NOTE:** Recommended spare parts are available to help avoid unnecessary down time.

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