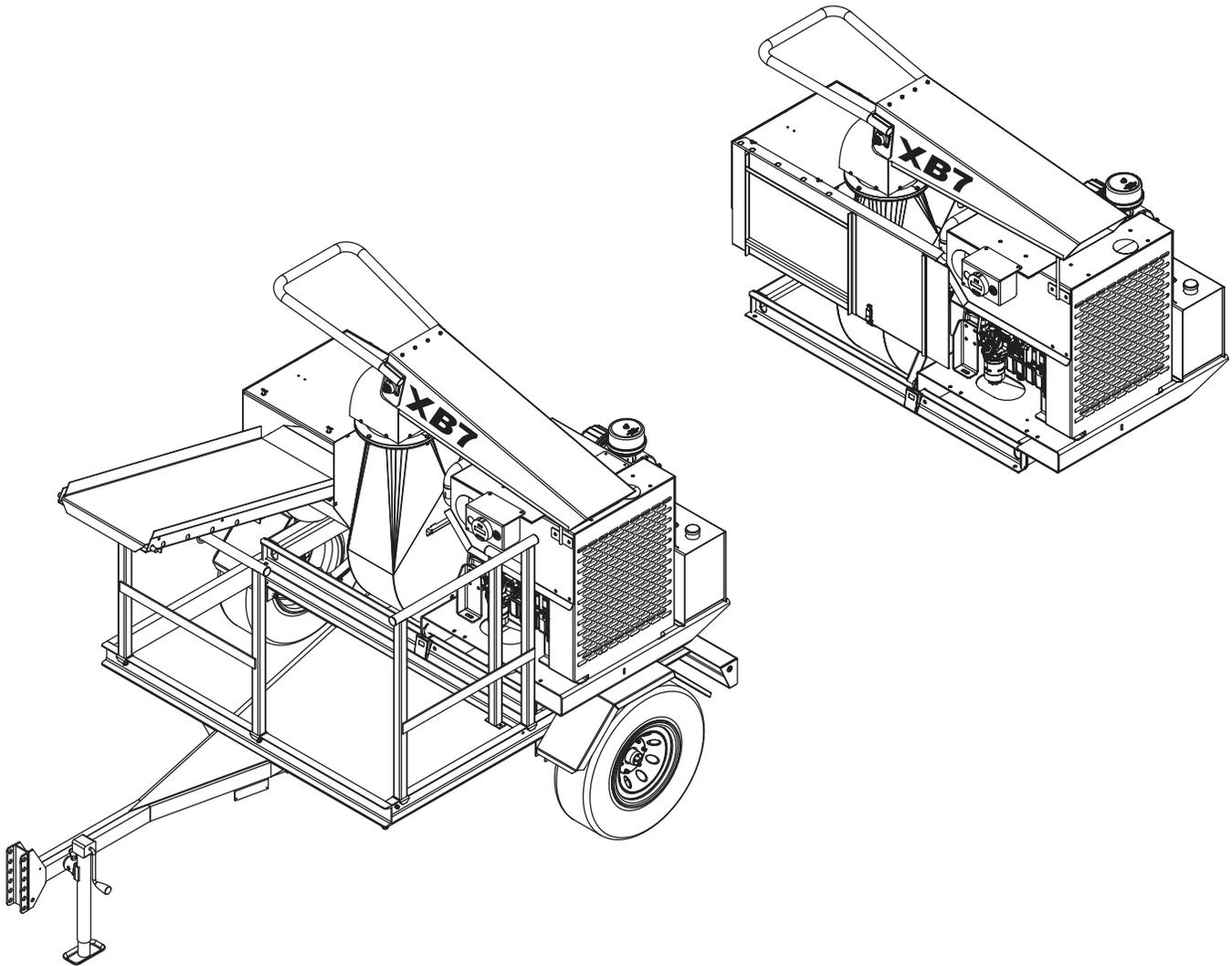




9281 LeSaint Drive • Fairfield, Ohio 45014
Phone (800) 638-1769 • Fax (513) 874-2914



XB7 Extreme Blower

Operator Instructions and Parts Manual

Model _____ Serial No. _____



ACTIVATE YOUR EQUIPMENT WARRANTY

☞ It is the responsibility of the Owner to register your equipment upon delivery of the unit. Please go to www.apexseeder.com/warranty/ to register your equipment.

It is also the responsibility of the owner to register the engine warranty with the engine manufacturer. Please be aware the Apex warranty is exclusive of the engine warranty.

This registration process activates the Limited Warranty.

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

How to get parts and or repairs done under warranty:

Download the warranty request form from www.Apexseeder.com. Complete the claim form and submit via e-mail to warranty@ecpcbrands.com immediately when you discover a faulty material, workmanship, or faulty component.

NOTE: Warranty work must be done by an Authorized Dealer in order to be covered by the Warranty Program, unless otherwise approved by the Warranty Administrator.

Instructions to Dealer on processing warranty work:

Initiating a claim

1. Be sure to fully complete the warranty request form, including the model, serial number and number of hours on unit.
2. A description of the problem as understood at the time.
3. Submit the claim to warranty@ecpcbrands.com.
4. You will receive a WRB number as well as instructions for your claim.
5. Any parts needed for the repair will be approved by the warranty administrator. These will be shipped to you at no charge pending the outcome of the investigation.
6. Labor hours must coincide with the published "Labor Schedule" or estimate approved by the Warranty Administrator.
7. All labor hours must be submitted no later than 2 weeks after the arrival of the last part. Labor hours after this time will not be paid out.

Faulty or failed parts:

IF the Warranty Administrator wants you to return failed parts, you will receive a return shipping label in the package with new parts. On that Label will be marked a return authorization number. (Which is the same number as you claim number.)

Please also mark the outside of the package that you are shipping back (using a marker) with the claim/return number. **THESE PARTS MUST BE RETURNED WITHIN 10 DAYS!** Failure to do so can void warranty coverage.



LIMITED WARRANTY
EFFECTIVE 01/01/2021

WARRANTY PERIOD

Base Warranty: 12 months or 1000 hours.

Extended warranty: 24 months or 2000 hours.

Doosan: 3 year or 3000 hour

Cummins: 2 year or 2000 hours

Stainless Tank: 15-year corrosion. For purposes of this warranty, corrosion is defined as naturally occurring through-wall penetration of the stainless steel.

CONDITIONS FOR WARRANTY APPLICATION

- Provide a copy of the Warranty Registration received at the time of purchase.

NOTE: In instances where there are discrepancies relating to the date of purchase, the Warrantor reserves the right to deny and/or charge back any warranty costs incurred outside the original warranty period.

- Provide proof (upon demand) that operational and maintenance guidelines specified in the technical publications were and are being respected.
- Vehicle servicing must be performed by an authorized Service Department or a service provider assigned by an authorized Warrantor agent.
- Return defective component with warranty tag to the Warranty Department within 30 days of the repair date.
- This limited warranty covers only new items manufactured. It does NOT extend to any used or rebuilt item, unless the sales order or contract for such item expressly provides for warranty coverage.

OEM WARRANTY

Parts which are manufactured by vendors or suppliers, but sold as part of the machine or as a repair/replacement part of the machine, are warranted to the limits of that manufacturer's product warranty.

BASE WARRANTY

Warrantor will repair and/or replace, at its discretion, all failures resulting from defects in material, design or workmanship for the first 12 months or 1000 hours from the in-service date of the product.

EXTENDED WARRANTY

Warrantor will repair and/or replace, at its discretion, failures resulting from defects in material, design or workmanship related to the powertrain components, frame and hydraulic components excluding hoses, seals and O-rings.

EXCLUSIONS – ARE NOT WARRANTED

- Engine, battery (Warranted to the limits of that manufacturer's product warranty.)
- Normal wear on all components (such as tires, engine belt, etc.)
- Replacement parts and/or accessories that are not genuine Warrantor parts and/or accessories.
- Damage resulting from installation of parts other than genuine Warrantor parts.
- Damage caused by failure to provide proper maintenance as detailed in Warrantor-provided technical publications.
- The costs of regular maintenance services including, but not limited to tune-ups, adjustments, parts, and lubricants. All optional accessories (as well as damages caused by optional accessories) installed on the machinery by any facility/shop other than Warrantor-approved.
- Damage resulting from but not limited to accidents, water intrusion, fire, misuse, abuse or neglect.
- Damage resulting from but not limited to operation of the machine in conditions incompatible with machine design as defined in the vehicle Operator's or Operator's/Service Guide.
- Damage resulting from modification to the vehicle not approved in writing by Warrantor.
- Damage or breakdown resulting from improper or inadequate storage by owner.
- Indirect or consequential losses incurred by the owner of the machine including but not limited to: travel time and mileage required for servicing product, transportation, towing or test drive, telephone/cellular calls and all electronic communications, taxis, rental or substitute vehicle, cost of service calls or any other incidental or consequential damages.
- Vehicle delivery inspections.

WARRANTY TRANSFER

The warranty described here and above is transferable to subsequent owner(s) for remainder of warranty period from original in-service date.

LIMITATIONS OF LIABILITY

THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATIONS ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED.

THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY, INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY.

No other person has been authorized to make any affirmation, representation or warranty other than those contained in this warranty, and if made, such affirmation, representation or warranty shall not be enforceable against Warrantor. Warrantor reserves its right to modify this warranty policy at any time, being understood that such modification will not alter the warranty conditions applicable to vehicles sold while this warranty is in effect.

LIMITATIONS ON OUR RESPONSIBILITY WITH RESPECT TO PRODUCTS PURCHASED

1. Normal wear parts, Allied Equipment, trade accessories not manufactured by Warrantor, such as but not limited to items such as various filters, fluids, brakes, clutch linings, coupler insert, belts, hoses, light bulbs, mechanical seal, over center clutches, tires, ignitions, starters, batteries, carburetors, engines or like or unlike equipment or accessories. (Such being subject to the warranty, if any, 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 Warrantor's Operators Manual(s).
4. Any defect or failure of products warranted arises out of or is caused by accessories or parts not manufactured or supplied by the manufacturer, whether same are supplied by purchaser, dealers, or any other party.

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 WARRANTOR-AUTHORIZED SERVICE PROVIDER OR AUTHORIZED REPAIR SHOP OF WARRANTOR'S CHOICE.

TRANSPORTATION, HAULING, STORAGE, OR OTHER SIMILAR COSTS ARE NOT PART OF WARRANTOR'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 the Warrantor 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.

INDEX

Safety Information	1 - 9
Operation And Maintenance Manual	10 - 29
Equipment Description	10
Reference Information.	10
Unpacking	12
Machine Assembly	12
Mounting.	13
Hauling and Towing	13
Training.	14
Pre-Operation Inspections	14 - 15
Pre-Operation Checklist	15
Engine Break-In	15
Startup	16
Operation Instructions	17 - 20
Mulching	17
Crew Requirements	18
Placing Mulch	18
Mulch Length	19
Anchoring Mulch	20
Cleaning and Maintenance	21 - 27
Drive Couplings	24
Insert (Bushing) Replacement.	25
Winterizing and Storage	26
Maintenance Schedule	27
Specifications	28
Engine Dimensions	29
Parts Manual	31 - 55
Instructions	32
Discharge Boom	33
Discharge Elbow	34
Transition Assembly	35
Lower Unit Details.	36 - 37
Drive Train Components	38 - 39
Flywheel Coupling.	40

Continued...

INDEX (CONTINUED)

Parts Manual (Continued)

Battery	41
Engine.....	42 - 43
Engine Instrument Wiring	44
Shutdown Instrument Wiring.....	45
Trailer Components.....	46 - 47
Trailer Axle	48
Hub Assembly.....	49
Trailer Wiring Schematic.....	50
Unit Decals	52 - 53
Trailer Safety Decals.....	54 - 55

SAFETY FIRST

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

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

The first 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.

⚠ DANGER

Danger indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

⚠ WARNING

Warning indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

⚠ CAUTION

Caution indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

NOTICE

Notice indicates important information, that if not followed, MAY cause damage to equipment.

NOTE: This is helpful information.

The **DANGER, WARNING, CAUTION** and **NOTICE** notifications and instructions in this manual *cannot* cover all possible conditions and situations that may occur.

It must be understood by the operator that caution is a factor which *cannot* be built into this product; caution must be supplied by the operator.

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. Wear protective equipment. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.



⚠ WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.



⚠ 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.

⚠ WARNING

This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Go to www.P65Warnings.ca.gov for more information.

SAFETY SUMMARY SECTION

It is important that all operators of this machine are familiar with all safety aspects mentioned below, and have read the entire Operator's Manual before operating the machine. Always keep a copy of this manual with the machine. It is the responsibility of the operator of the machine to fully understand this safety sheet. 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. Above all, remember that safety is up to you.

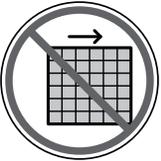


The Apex Extreme Blower is intended to be used as an applicator of vegetative hay or straw mulches onto the seedbed. Its use with other products or for other applications must be by approval of the product's manufacturer. If there are any questions, contact us at 1-800-543-7166.

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 is the correct size for the coupler. 
2. Check that all guard railing is in place and secure.
3. Verify that all guards are in place.
4. By carefully looking in the shredder box, inspect the shredder box for foreign objects.
5. With the ignition switch ON, verify that the signal horn is operating correctly.
6. Make sure no one is working on or inside the machine. Give a visual and audible signal that all is clear before starting the engine.

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 operate the machine without all guards in place. 

II. MACHINE OPERATION (Continued)

3. Make sure the discharge area is clear of all persons, animals, etc.
4. The driver of the carrying or 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 to the operator(s) on the machine, such as tree limbs, low power lines, etc. Vehicles on which equipment is mounted or towed must be started or stopped gradually. Avoid abrupt starts and stops. Never operate on a slope or a hill that may endanger the operator(s). All personnel should review and be familiar with start/stop signals between the driver and operator(s) before operation of the equipment.
5. Operator(s) of equipment should never ride on machine at speeds greater than 5 MPH (8 km/h). 
6. Never operate machine in an enclosed area without venting the exhaust of both the equipment and the vehicle on which the equipment is mounted or towed. Deadly carbon monoxide fumes can accumulate. 
7. 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.
8. A rotational unbalance of any sort will become obvious in the form of vibration. Vibration is an important warning sign of impending mechanical failure. Instruct all users of your equipment to report unusual vibration at the onset.

SAFETY SUMMARY SECTION (CONTINUED)

II. MACHINE OPERATION (Continued)

9. Never modify the machine. Never remove any part of the machine (except for service and then reinstall before operating).



10. Use proper means for mounting and dismounting of machine. Never mount or dismount a moving machine.

11. Do not aim discharge at people, animals, etc. Only aim the discharge at the intended seedbed.

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

13. Do not attempt to pull anything out of the feed chute or shredder box when machine is in operation. Shut down the engine and ensure non-operational machine state using the Occupational Safety and Health Administration (OSHA) lockout/tagout procedure (29CFR 1910.147) before removing any foreign objects. Give a visual and audible signal that all is clear before restarting the machine.



III. MAINTENANCE

1. Before servicing the machine, turn off engine and allow all moving parts to stop. Disconnect the battery cables to prevent accidental starting of the machine. Tag the engine operating area to show that the machine is being serviced. Use OSHA lockout/tagout procedure (29CFR 1910.147).



2. Perform general maintenance such as checking the safety chains, hitch, hitch bolts, tires, and brakes. Repair or replace if worn or broken. Never operate machine on improperly inflated or damaged tires. Always use a safety cage or cable restraints when reinflating a repaired tire.



III. MAINTENANCE (Continued)

3. Battery maintenance. Lead-acid batteries contain sulfuric acid, that will damage eyes or skin on contact. Always wear a face shield to avoid getting acid in the eyes.



If acid contacts 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 gases. Keep arcs, sparks, flames, and lighted tobacco away.

4. Filling of fuel. Never fill the fuel tank while the engine is 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 feet (3 meters) 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 used fluids and dispose of them properly.

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

6. Make certain that all decals on the machine are maintained in good legible condition. Replacement decals are available. See Parts Manual for the location and quantity of all decals on this unit.

7. Do not pressure wash this unit. Do not pressure wash around any control boxes, radio remotes or control panels. Pressure washing this unit can cause damage to the electrical systems and components and also cause the unit to not function. Pressure washing injects water into sensitive electrical components. To clean the unit, use a method that controls the amount of water that is applied to the surface of the unit.



SAFETY SUMMARY SECTION (CONTINUED)

IV. BATTERY SAFETY

1. When working with batteries ALWAYS wear safety goggles.
2. Before working with batteries turn the key switch to the OFF position.

⚠ WARNING *Battery electrolyte contains sulphuric acid and can quickly burn the skin and eat holes in clothing. If you spill acid on yourself immediately flush the area with water.*

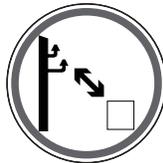
⚠ WARNING *If you accidentally ingest battery acid, drink a large quantity of water or milk. Call a doctor or hospital immediately.*

3. Avoid short circuiting the battery terminals through accidental contact with metallic objects, like tools, across the terminals.

⚠ WARNING *Batteries generate hydrogen gas. Hydrogen gas is very explosive and is easily ignited with a small spark or flame.*

V. OPERATION SAFETY

1. The noise level of the applicator at the operator station, unshielded, is above 80dBA. Take the following precautions:
 - Always keep doors and windows of the tow vehicle closed
 - Use ANSI S3 19-1975 approved hearing protectors with a noise reduction rating (NRR) of 25dB (A)
 - Ear plugs (disposable or re-useable)
2. Avoid power lines. Serious injury or death can result from contact with electric lines. Never move any part of the equipment closer than 10 ft. (3 m) plus twice the line insulator length to an electric line. Use a signal person to guide the operator. Use shrouds or insulators as necessary.
3. Keep the floor of your work area clear of bales or flakes of mulch, twine, scrap and trash that could cause you to stumble. Falling or slipping can result in painful or perhaps even fatal injuries. Put all fuel, tools and other equipment away when you are not using them.



V. OPERATION SAFETY (Continued)

4. It is the operator's responsibility to ensure the tow vehicle is properly maintained, including safety lighting and notifications. Do not use a tow vehicle before properly testing the road-worthiness.

- Tire Pressure
- Functioning traffic lights
- Properly attached
- Break-Away Switch
- Tongue weight

⚠ WARNING *Ensure the tow vehicle has the capacity to control the fully-loaded unit. Weights are listed in this manual.*

5. Handle the battery with care. When removing or installing the battery, check which is the negative and positive terminal.

Removing Batteries:

1. Disconnect the (-) terminal connected to the ground wire
2. Disconnect the (+) terminal connected to the starter

When installing the batteries, follow this procedure in reverse order.

Tighten the battery terminals securely; check that the terminals are not lose by trying to move the cables by hand. Loosened cables can generate sparks and lead to an explosion.

6. Never enter the unit through the loading hatch. The unit may be considered a confined space by OSHA under 29 CFR 1910.146. Before entering any confined space, your company must develop a procedure for safe entry. Make sure your company's plan meets all the requirements of 29 CFR 1910.146, and/or all applicable laws and regulations.
7. Fire is always a possibility. The potential for fire always exists. The combinations of fuels, heat from engines, and clean dry straw increase the risk. Have a fire extinguisher near the work area. Learn to look for it before you begin working. Always keep the machine clean of chaff and debris.
8. Clean as you go. Twine, when removed, should be disposed of immediately in a container away from the Extreme Blower.

SAFETY SUMMARY SECTION (CONTINUED)

V. OPERATION SAFETY (Continued)

9. 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.
10. 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 in accordance with all applicable laws and regulations.

11. To prevent fires, remove all fiber mulch, leaves, paper and other flammable material accumulated in the engine compartment or other places on the unit. This could cause a fire. Always keep the engine compartment and engine clean.

VI. SAFETY OVERVIEW

1. Personnel responsible for your Extreme Blower training program, maintenance, and operations must read and understand this safety manual and operator's manual.



No one should set up, operate or maintain a Extreme Blower until they understand it, its operation and know how to do their job safely.

IMPORTANT: These materials are for training purposes only, and are not a substitute for osha's occupational safety and health standards.

2. This is the safety alert symbol. When you see it in your operations manual be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.



VI. SAFETY OVERVIEW (Continued)

3. Carefully read all safety messages in your operations manual and on your Extreme Blower. Learn how to operate the machine and how to use the controls properly. Do not let anyone operate without instruction. Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life. If you do not understand any part of this manual and need assistance, contact us directly at 1-800-543-7166.

4. Keep clear of the work area. The purpose of a Extreme Blower is to thrash and separate strands of baled hay or straw and discharge the processed mulch away from the machine. The Extreme Blower utilizes engine power to turn a common main drive shaft, flailing chain stations and blower wheel at high speed to process the hay. It is obvious that this same capacity will sever arms, hands, fingers or any other part of the body that is in the work area when the machine is activated.

Additionally, the discharge from the blower is capable of discharging the processed mulch at high velocity. The discharge of the machine is powerful enough to dislodge pebbles, stones or other debris, which may cause eye or personal injury.

The person responsible for activating the machine is the boom operator. It is his responsibility to see not only that his own body is clear of the work area and all moving parts, but that his co-workers are clear also and are entirely visible in a safe location before activating the machine.

During set-up, maintenance or other work on the machine which requires manipulation within the beater drum, blower housing, discharge boom, feed tray, engine or other work area, the key should be removed from the machine and battery disconnected.

5. Bale twine or wire is dangerous. When cutting and removing twine from a mulch bale the handler must make sure that the twine is NOT pulled into the machine. The twine can wrap around a shaft and pull an arm or hand into the machine. It is capable of cutting through fingers. Pay attention to your fingers, the twine, and the moving equipment when handling twine.

SAFETY SUMMARY SECTION (CONTINUED)

VII. HYDRAULIC SYSTEM HAZARDS

1. Some Extreme Blowers are manufactured with hydraulically operated power feed systems. Hydraulic fluid lines are a high-pressure fluid hazard. To prevent serious injury or death always relieve system pressure before repairing or adjusting or disconnecting.
2. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Leaking hoses, fittings or components should be reported to your supervisor immediately.
3. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed in a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.



VII. HYDRAULIC SYSTEM HAZARDS (Continued)

4. On Extreme Blowers manufactured with hydraulically operated power feed systems, should the hydraulic power feed system jam and the feed flipper drum stop rotating, the pressure relief valve in the flow control valve will open. Before attempting to clear any feed system jam, turn the engine off and return the feed system control cable to its closed position. The jammed bale may now be cleared. Failure to shut the machine down will cause the power feed system to immediately resume operation when the system pressure drops below the relief valve setting. This could cause death or severe bodily injury.



IMPORTANT INFORMATION FOR TRAILER UNITS

The unit's frame must be level for ease of towing, as well as operator and crew safety. The hitch should be located so that the truck bed overhang will not interfere with the extended load tray.

- Provide adequate set back from the vehicle chassis frame so that jack knifing, when backing up, will not damage machine.
- Provide for securing the safety chains and breakaway. Make sure hitch is secured before attempting to tow machinery.
- Running lights are standard for over the road travel. They include stop, directional, tail side markers and license plate.
- Make sure all running lights are working at the start of each day.
- The flasher light switch of the truck, when engaged will also activate the directional and taillights mounted in the rear bumper.
- Whenever emergency signaling is required, use this circuit.
- It is important to check the torque of the wheel lug nuts.

Initially, These are set at the factory at 90-ft. lb. Due to relaxation associated with travel, they must be torqued at 25, 75, and 150-mile intervals.

Braking systems must be checked for proper adjustment and operation. Brake adjustments should be made after the first 200 miles (seating) and again at 3000-mile intervals.

SAFE MAINTENANCE PRACTICES

- Understand service procedure **before** doing work.
- Keep areas cleans and dry.
- Keep clothing away from moving or power driven parts.
- Disengage all power and operational controls, and relieve pressure.
- Stop engine and remove key. Allow engine to cool down before working on any engine component.
- Disconnect the battery before machine adjustments or welding on machine.
- Keep all parts in good condition and properly installed.
- Fix damaged components immediately.
- Replace worn or broken parts.
- Remove any build-up of grease, oil or debris.

SAFETY SUMMARY SECTION (CONTINUED)

IMPORTANT INFORMATION FOR SAFE AND PROPER ENGINE SERVICING

- Do not perform service on an engine if you are not qualified.
- Use care when refueling the engine. Fuels and their vapors are extremely flammable and may explode when ignited.
- Do not fill the fuel tank while the engine is hot or running, since spilled fuel may ignite if it is exposed to hot parts or sparks from the ignition.
- Do not start the engine near spilled fuel; wipe up spills immediately.
- Never use fuel for a cleaning agent.
- Store fuels in approved containers only. After refueling, remove any containers from the immediate work area.
- Do not add oil when engine is hot or running as oil may vaporize and ignite.
- Do not add coolant to water-cooled units when engine is hot due to the possibility of steam burns. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap first to relieve pressure before removing completely.
- Engines are a burn hazard. The crankcase, cylinder head, exhaust system, radiator, and other components can get extremely hot from operation.
- The electrical systems of engines can be a source of high voltage. Never touch electrical wires or components when engine is running.
- Never attempt to start the engine by shorting across the starter solenoid.
- Engine exhaust gases contain poisonous carbon monoxide. Never run engine in an enclosed area. Avoid inhaling exhaust fumes.
- Avoid accidental starts, which could cause injury to you or fellow workers. Remove the ignition key when servicing the unit. Disconnect and ground the spark plug wire on one or two cylinders. On electric start units, disconnect the battery cables. Always remove the ground (-) cable first.
- Never tamper with the governor component settings to increase the maximum speed.
- The components used to build the Extreme Blower are designed to operate at a specific maximum speed. Severe personal injury and damage to the Extreme Blower can result at speeds set above the maximum.
- A rotation unbalance of any sort will become obvious in the form of vibration. Vibration is an important warning sign of impending mechanical failure. Notify your supervisor of any unusual vibrations or noises at the onset.

Refer to the engine manufacturer's operation and safety manuals for more detailed information.

SAFETY WHILE REFUELING

Diesel fuel is flammable and explosive under certain circumstances. Observe these safety practices:

- Always handle fuel in a well-ventilated area.
- Do not smoke or allow open flames or sparks in the vicinity.
- Do not refuel with the engine hot or running.
- Avoid physical contact with diesel fuel.
- Regularly inspect fuel system components.
- If fuel or fumes are noted while operating the XA4000, the cause should be determined immediately.
- Never open the fuel lines or loosen the injectors if the applicator runs out of fuel.
- Avoid inhalation of exhaust particulate dust. Wear a dust mask. If respiratory irritation or discomfort occurs, leave the dusty area. Utilize breathing assistance or oxygen if necessary.
- Elevated concentrations of metals in the form of dust, soot, and contaminants are contained in these filters. Health regulations may exist for the materials found in these filters such as Zinc, Molybdenum, polynuclear aromatic sulfur, and iron.
- Proper disposal of the exhaust dust and filter are required. Dispose of in accordance with local and environmental regulations.
- Diesel particulate filter maintenance MUST be completed by appropriately trained personnel.

COMMON SAFETY SYMBOLS



Hazard/Attention



Electrical Shock Hazard



Hearing Hazard



Arc Flash Hazard or Explosion Hazard



Electrocution Hazard



Fire Hazard



Body Entanglement Hazard



Electrostatic Discharge Hazard



Fumes/Dust Hazard



Burn Hazard



Electrostatic Sensitive Area Hazard



Pinch Point/Entanglement Hazard



Carbon Dioxide Hazard



Explosive or High Pressure Hazard



Grounding Required Hazard



Corrosive Hazard



Explosive Material Hazard



Crush Hazard



Cut/Crush Hazard



Vision Damage Hazard



Crush/Pinch-point Hazard



Cut/Sever Hazard



Vision and Hearing Damage Hazard



Crush/Entrapment Hazard



Sever/Reach Hazard



Vision, Hearing and Respiratory Damage Hazard



High Voltage Hazard



Heavy Object Hazard



Skin Puncture Hazard

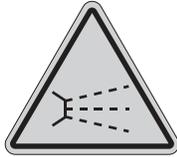


Poison Hazard

COMMON SAFETY SYMBOLS



Hot Surface Hazard



Splash/Spray Hazard



Radio Frequency Hazard



Loose Clothing Entanglement Hazard



Stumble Hazard



Remote Start Hazard



Pinch Point/Moving Belt Hazard



Trip Hazard



Sever by Rotating Parts Hazard



Rotating Shaft Hazard



Watch Head/Overhead Hazard



Fall/Loss of Balance Hazard



Mandatory Operator Action Required



Read Manual



Vision Protection Required



Breathing Protection Required



Hearing Protection Required



Vision, Hearing and Head Protection Required



Breathing, Vision, Hearing and Head Protection Required



Foot Protection Required



Lockout/Tagout Procedure Required



Gloves Required



Trailer Safety



Lift Point



Do Not Remove Guards



Do Not Obstruct or Block



Do Not Spray Power Lines



Do Not Touch



Diesel Engine



Do Not Pressure Wash

OPERATION AND MAINTENANCE MANUAL

This manual gives you step-by-step instructions for the operation and maintenance of the Apex XB7 Series Extreme Blower. For best results and to ensure longer life of the equipment, please follow these instructions carefully. For your safety, read the entire manual before operating this unit.

EQUIPMENT DESCRIPTION

The XB7 Series Extreme Blower is a self-contained, portable machine designed to process hay or straw into short, uniform lengths and then apply vegetative mulch at a uniform rate, utilizing a minimum of manpower.

The Model XB7 is powered by a heavy-duty engine which drives an in line beater/blower shaft. The engine, blower housing with lift ring, and beater drum are mounted to a fabricated steel frame. Rectangular discharge boom and elbow assemblies are mounted to the outlet side of the blower housing and allow the operator to direct the placement of mulch.

Mulch is fed to the beater drum via a removable feed tray that can be stored when the unit is in transit. A bale placed on the load tray must first be untied and the wire or twine removed to prevent it from being drawn into the machine. Care should be used to avoid entangling one's fingers in the baling twine.

The opening from the load tray to the beater drum has purposely been limited in height to prevent overloading. An ideal flake thickness of dry mulch material is about 4 to 5 inches.

Processing and debaling of the mulch flakes in the beater drum is accomplished by a series of beater chain stations. Air drawn into the beater drum, by the blower, sucks the processed stalks and strands through the beater drum, then conveys them under high static pressure and volume through the discharge boom.

An engine instrument control panel includes oil, temperature and alternator lamps, hour meter, and keyed ignition. Adjusting the engine speed, with the throttle control mounted within reach of the operator, controls discharge distance.

Model XB7X is a single axle trailer mounted unit. It has a fixed tongue, safety chains and top wind screw jack and footpad. A lunette eye hitch is supplied standard. Optional adjustable ball hitches in 2 in. and 2-5/16 in. ball types are also available, offering interchangeability between vehicles.

The skid and trailer mounted units are similar in construction; with the exception of the discharge boom length and the fixed/extendable load tray assembly.

REFERENCE INFORMATION

Each Apex Extreme Blower has an identification plate with its model number, serial number, and other related information. Use the serial number on this plate to identify the unit. There is a space provided on the front cover of the manual to write down your serial number.

KNOW YOUR MACHINE

Extreme Blowers all have one characteristic in common. Once the beater shaft starts spinning, simply turning off the machine will not stop the main shaft and blower wheel from spinning.

⚠ WARNING *Turning off the machine will NOT stop the main shaft and blower wheel from continuing to move. Moving machinery can cause serious injury and even death. Be aware that the shaft and the associated components, which rotate at more than 2000 revolutions per minute, are extremely dangerous.*

KNOW YOUR MACHINE (CONTINUED)

1. Before mulching, read this entire manual.
2. Do not operate unit if unfamiliar with operational and safety procedures on this or any unit.
3. The force from the blower can kick up dust and blow over small items that are not secure.
4. Never discharge the unit towards people. Bodily injury may occur.
5. Never force any material into the machine. Allow the machine to clear material from the drum.
6. Never attempt to clear the beater drum of debris or make adjustments while the engine is running.
7. Be sure to keep all body parts and clothing away from moving parts while engine is running.
8. Do not attempt to discharge rocks, nails, or other debris that may damage the blower or cause premature wear.
9. Do not operate machine without factory provided guards installed.
10. Twine or wire should be cut and removed to prevent loose trailing ends from being pulled into the beater chamber.
11. Do not allow fingers to become entangled in the bale twine.
12. Do not wear loose clothing, which may become entangled with the machinery.
13. Hydraulic fluid lines are a high-pressure fluid hazard. To prevent serious injury or death always relieve system pressure before repairing or adjusting or disconnecting.
14. Before attempting to clear any feed system jam, turn the engine off and return the feed system control cable to its closed position.
15. Do not add oil, water or fuel while engine is running or hot.
16. Do not perform maintenance while unit is running or battery is connected.
17. Do not, under any condition, operate the machine when vibrating.
18. Working space must be allowed not only for the boom operator, but also for access to the stacked mulch bales.
19. On a daily basis, inspect the flailing chains, blower wheel blades and drive coupling assembly for signs of wear or misalignment.
20. The flailing chains are made of case hardened steel. If a link breaks, an unbalance or vibration will occur. Always make sure chain stations are replaced in matched pairs.
21. Check the leading edges of the blower wheel paddles. Dry mulch causes very little wear, but dirt laden, wet or moldy material will abrade the leading edges of the paddles. When they begin to feather and bend back, replace the wheel. Rocks and other foreign matter that are found in some mulch bales might also cause bending of the wheel blades that may produce a noticeable vibration.
22. The drive coupling connects the engine to the blower shaft. Coupling misalignment will cause vibration. Realign immediately should this occur.
23. Secure the discharge boom before transporting the machine.
24. The Extreme Blower is not a passenger vehicle. Never board the machine while moving from site to site.
25. Do not stand on fenders.
26. Make sure all towing systems are operational and in good order.
27. Never attempt to hitch machine without using leveling jack.
28. It is imperative that common sense and good judgment be employed when operating this machine.

UNPACKING

The XB7 Series Extreme Blower is normally shipped unpacked on a flat bed truck. Some units however are shipped palletized or crated to accommodate other methods of transport. If it is received in the original factory packaging, your new Extreme Blower may require some light assembly.

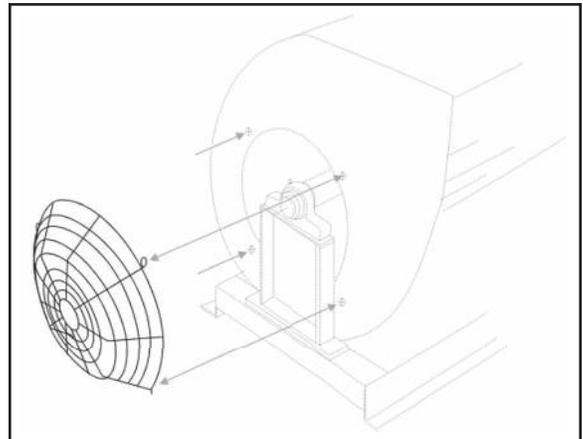
1. Cut away any packaging from the pallet, and remove the outer packaging.
2. If packed in a cardboard container the discharge assembly will be removed and packaged to minimize the container dimensions.
3. Mount the assembly to the discharge transition with the four bolts and nuts provided. Rotate the discharge boom and position to lock in the transport position.
4. Locate the lifting loop and lift the unit from the pallet with a hoist and sling.
5. Place the machine in an open area suitable for inspection.

MACHINE ASSEMBLY

The XB7 Series Extreme Blower is normally shipped fully assembled. Look the machine over to insure that all items appear to be installed and secured. On some occasions, assemblies must be broken down for shipment.

GUARD INSTALLATION

1. Remove Blower from shipping carton.
2. Locate the wire bearing guard.
3. Remove and retain the two (2) hex head cap screws and nuts located on the bearing side of the beater drum (the side opposite the engine).
4. Orient the guard so that the "looped ears" face up, then slip the bottom stringer hooks into the two (2) holes on the beater drum near the base frame.
5. Push the guard toward the beater drum and align the two (2) "looped ears" with the upper mounting holes.
6. Secure the guard with the two (2) 1/4-20 x 3/4 in. hex head cap screws previously removed.



LOCATING THE LOAD TRAY

Skid mounted units only:

Remove the load tray from the side of beater drum by removing the locking cotter pins and lifting. Position the tray in the mouth of the beater chamber so that it may be supported at a slight angle. Place the reinforced end of the tray over the support bar and under the support lip (both run cross ways in beater chamber opening). The tray angle will nest the tray on the crossbar.

Trailer units only:

The two-piece tray assembly consists of a fixed tray and sliding extension, angled to provide access to tow vehicle bed. Remove the tray-locking bar by removing one of the cotter pins and pulling the bar from the tray. Position the tray to extend to the tailgate overhang. Replace the locking bar and cotter to position the tray as desired. When mulching is completed, replace the tray in the original position for transport.

MOUNTING

The skid mounted Model XB7 Extreme Blower can be secured to any flatbed truck or trailer and is compact enough to be transported in a standard pickup truck. The ideal working position is in the back of the bed and on the shoulder side of the road with the load tray extending toward the mulch supply.

⚠ WARNING

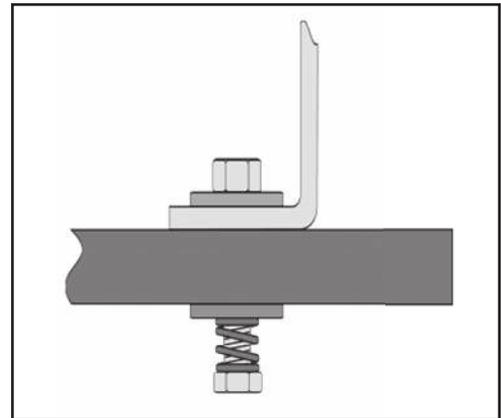
Adequate working space must be provided not only for the boom operator, but also for access to the stacked mulch bales. For a large truck or trailer, two men or more will be required for top productivity.

A lifting loop is provided so that a front-end loader, or a forklift with lifting chain or sling, can be used to transport and position the machine. Once in place, secure with binders or mounting cleats and blocks. The base frame has four bolt holes through which fasteners can be positioned to secure the machine.

Typically, bolts are installed only in opposite corners to allow the unit to remain rigid on the flexible bed. If all four corners are bolted, follow the suggested fastening system below.

SUGGESTED FASTENING SYSTEM FOR UNEVEN OR FLEXIBLE TRUCK OR TRAILER BED MOUNTING

- ***Bolts should be sufficient in length, to control movement of the machine. Do not tighten to compress springs completely.***
- ***Insure that the machine base is placed on a level surface before fastening. Do not twist or distort the frame.***



HAULING AND TOWING

The XB7 trailer frame tongue has permanently fixed hitch plate with five hitch positions. Optional hitch styles include an adjustable lunette eye (requires a pintle hook mounted on the towing vehicle) or adjustable ball style (2 in. or 2-5/16 in.). The adjustable feature provides for interchangeability when connecting to alternate tow vehicles. Either style requires a Class B hitch assembly.

⚠ WARNING

The trailer hitch must be properly positioned and secured on the vehicle.

- The first concern is height. Position the hitch to place the machine frame level for ease of towing, as well as operator safety.
- The vehicle hitch should be located so that the truck bed overhang will not interfere with the load tray when in the extended position.
- Provide adequate set back from the vehicle chassis frame so that jack knifing, when backing up, will not damage the machine.
- Provide for securing the safety chains and wiring hookup.

⚠ WARNING

Periodically check the torque of the wheel lug nuts. These are set at the factory at (90-ft. Lb.). Due to relaxation associated with travel, they must be torqued at 25, 75, and 150-mile intervals. DO NOT attempt to tow unit until all hookups are complete and properly functioning.

Running lights are provided as standard equipment. They include stop, directional, tail and license plate. A socket connector and pigtail harness is included to install on the vehicle chassis to complete the recommended trailer hook up. The vehicle hazard flasher switch will also activate the directional and tail lights mounted in the rear bumper. Use this circuit for standing or when working on roadways.

TRAINING

BEFORE operating this equipment, read all instructions and guidelines. This will help to you to minimize the hazards associated with the use of the XB7 Series Extreme Blower. Not all situations will apply to your unit since the mulcher configuration and specific job requirements will vary considerably.

- The XB7 Series Extreme Blower must only be operated by a trained and qualified operator who is familiar with the controls and their use.
- Read the Operation Section PRIOR to operating the machine in order to learn how to use the control devices properly.
- Be sure you understand the meaning of the DANGER, WARNING and CAUTION messages throughout this manual.
- Remember the check points and the method for checking fluid levels.
- Visually inspect the machine and check the function of all lighting and instruments before use.
- Frequently check the instrument panel. Do not operate the XB7 Series Extreme Blower when the display indicates a malfunction or error.

PRE-OPERATION INSPECTIONS

The Pre-Operation Inspection that an operator does before starting a piece of equipment is the single most important responsibility of the day. The operator is the key component in the walk-around and it is their responsibility to solicit help as required if areas of distress or concern are noted. Cell phones and digital pictures are extremely helpful when communicating potential problems or concerns.

Vital aspects of the walk-around are fluid type and quantity. To maximize the effectiveness of a fluid, it must be the proper viscosity and quality at starting temperatures. Next in degree of importance is the fluid quantity. Too much fluid can be as harmful as too little fluid. Be sure all fluids are in the proper level range and refer to the fluid specifications and tank capacities chart of this manual whenever replacing or adding fluids.

- The walk-around should be performed before each shift and before moving the machine or even starting the engine.
- The following describe in detail the recommended items to be checked, whether it is a daily check (every 8 hours) or a weekly check (every 40 hours).

Once the Pre-Operation Walk-Around is complete a final inspection should be done by operating the applicator for a short period of time. Stop the unit and check the gauges and display screen.

PRE-OPERATION INSPECTIONS (CONTINUED)

PRE-OPERATION CHECKLIST

Before operating the applicator it is important to inspect the following items for safety and performance.

- CHECK EVERY 8 HOURS (DAILY) - *all units*

- | | |
|--|---|
| <input type="checkbox"/> Check fuel level | <input type="checkbox"/> Crankcase oil level |
| <input type="checkbox"/> Check engine oil level | <input type="checkbox"/> Air cleaner assembly |
| <input type="checkbox"/> Check engine coolant level | <input type="checkbox"/> Battery connections (negative ground) |
| <input type="checkbox"/> Check hydraulic fluid level | <input type="checkbox"/> On-off and start switch, instruments, horn |
| <input type="checkbox"/> Check fuel/water separator | <input type="checkbox"/> Remove boom lock and actuate boom |
| <input type="checkbox"/> Remove feed tray, open and install | <input type="checkbox"/> Remove any debris from beater drum |
| <input type="checkbox"/> Inspect that all safety guards are in place | <input type="checkbox"/> Inspect flailing chain stations |

- CHECK EVERY 8 HOURS (DAILY) - *trailer option units*

- | | |
|--|---|
| <input type="checkbox"/> Wheel lugs and tires | <input type="checkbox"/> Hitch, safety chain and swing jack |
| <input type="checkbox"/> Trailer wiring cable and plug | <input type="checkbox"/> Verify that all lighting is in working order |

- CHECK EVERY 40 HOURS (WEEKLY)

- | | |
|---|---|
| <input type="checkbox"/> All Safety Decals | <input type="checkbox"/> Check ALL hoses for any wear |
| <input type="checkbox"/> Safety surfaces for wear | <input type="checkbox"/> Check engine air filter for clogs and debris |
| <input type="checkbox"/> Check grease in bearing | |

WARNING

Inspect machine for obstructions in beater chamber, blower housing and the rest of the drive mechanism. Check all bolts for tightness.

ENGINE BREAK-IN

The BREAK-IN period for the specific engine is noted in the engine manufacturer's operation manual supplied with this manual. Proper engine break in and maintenance scheduling will result as increased engine life.

CAUTION

Follow manufacturers recommended first and consecutive oil and filter changes.

STARTUP

⚠ CAUTION

Before starting engine, familiarize yourself with this entire manual. Then read the engine manual.

⚠ CAUTION

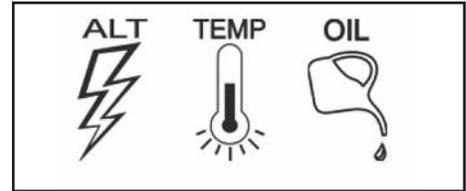
Force from the blower discharge can kick up dust and blow over items that are not secure.

After reading the engine manual, you may start the engine.

The diesel engine is provided with a keyed ignition star switch with a timed preheater switch. Turn the key to the left momentarily, or until the timer lamp shuts off, then turn the key to "start" position. Adjust the throttle to run smoothly as the engine warms up.

When running smoothly, adjust the throttle to a high idle. No strange noises or vibrations should occur. If there is, shut the engine down and rectify the problem (See Maintenance and Service Section of the manual). For break-in procedure, refer to the manufacturer's engine manual for details.

The engine is provided with instrument lamps including oil pressure, coolant temperature and alternator circuit. These lamps may illuminate for a short time while starting the unit. If either of the lamps remains illuminated, shut down the engine, identify the cause and correct before continuing to operate the unit.



A governor control is set at the factory for 2400-RPM maximum throttle extension. The throttle is a vernier type. By depressing the center button and pushing or pulling, quick adjustments are made. Releasing the button will lock the control, and by rotating the outside knob, a fine or vernier variation occurs. A tension-locking device is provided to maintain the desired operating speed, when desired.

OPERATING INSTRUCTIONS

⚠ CAUTION

Be sure all operators read and understand the following operational precautions. Before mulching, be sure to read this entire manual.

⚠ CAUTION

Twine/wire should be cut and removed to prevent loose trailing ends from wrapping around fingers and then being pulled into the beater chamber.

⚠ CAUTION

Never attempt to clear the beater drum of debris or make adjustments while the engine is running.

⚠ CAUTION

Check the flail chains at the end of every day's operation. The chains are made of case hardened steel. If a link breaks, an unbalanced vibration will occur. Do not, under any condition, operate the machine when vibrating. Always make sure chain stations are in matched pairs.

⚠ CAUTION

Routinely inspect the drive coupling connecting the engine drive shaft to the blower shaft. Wear on the center member or coupling looseness will result from a vibration situation caused by an imbalance or misalignment due to overloading, obstruction or low quality mulch. Do not operate the unit until the coupling has been aligned or repaired.

⚠ CAUTION

The engine has been set to a maximum operating speed of 2400 RPM. Do NOT exceed/set speed higher, wear from excessive vibration may occur.

⚠ CAUTION

Clean chaff from engine and radiator screen routinely. Clean the radiator cooling fins on a periodic basis.

⚠ CAUTION

The engine is intended to run in a level position. Intermittently, the engine may run at a maximum of 25° angle for not more than 10 minutes.

⚠ CAUTION

The available horsepower supplied by the engine drops approximately 3% per one thousand feet above sea level. When operating unit at an altitude of 5000 feet or greater, consult local engine service representative.

MULCHING

Your Model XB7 Extreme Blower will accept flakes or slabs of mulch for thrashing and blowing. The opening has been limited in height to minimize potential overloading.

The XB7 Extreme Blower as equipped with standard flailing chain stations will blow mulch strands uniformly at distances 60 to 65 feet in calm air. This may vary slightly depending on bale moisture content and the degree of decomposition.

This unit is nominally rated at 4-5 tons per hour. Dry bales, with a count of 40 to the ton would require 200-250 bales for this coverage equating to blowing ten to twelve bales every three minutes. Conversely, oversized or wet bales weighing as much as 100 pounds may require a few minutes or more for processing.

In practical terms, the machine can distribute mulch at higher outputs depending on the grade (quality), moisture content, and age. "Clean" mulch will be processed and blown faster than will old, moldy or mulch infused with foreign objects. Similarly, hay characteristically will not "mulch" as quickly as straw.

Every load of mulch varies one way or another and requires some human or mechanical adjustment. The machine is not programmed to do this for you.

OPERATING INSTRUCTIONS (CONTINUED)

CREW REQUIREMENTS

A bale placed on the load tray must first be untied and the wire or twine removed to prevent from being engaged by the machine. Either the feeder or operator must cut or remove the baling twine or wire. Since it is best to make the cut on the top of the bale closest to the beater chamber opening, it will probably be easiest for the operator to do the cutting. However, if the feeder loads each bale from the side opposite the operator it could be just as easy for the feeder to do the cutting and removal. In any case should twine or wire get into the machine, it should be stopped and removed. Baling wire and twine when wrapped with the mulch will reduce output and may damage the shaft bearings.

The boom operator is the essential man to the operation. While holding the bale with one hand, the operator allows individual segments (flakes) to fall forward into the beater chamber entrance. The airflow at the entrance will draw the segment from the tray. As each segment is processed, the operator then directs the discharge boom for best placement. The placement operator simply separates a flake from the untied bale and allows the blower suction to draw the mulch into the drum. An ideal flake thickness of dry mulch material is about 4 to 5 inches.

Pushing segments into the opening is not necessary and will often reduce the productivity of the machine. As the processed material draws through the blower, the airflow draft increase will draw consecutive segments into the opening. A simple nudge from the operator is all that may be normally required. If mulch does not flow into the beater chamber by the air suction and a slight nudge, or if it plugs completely, stop the machine before inspecting the beater chamber.



NEVER FORCE ANY MATERIAL INTO THE MACHINE.

PLACING MULCH

While introducing the material with one hand, the operator then directs the placement of the mulch by properly positioning and articulating the discharge boom discharge boom with the other. The throttle control determines blowing range and output. A low engine speed will blow only a portion of the maximum range while top engine speed will provide the greatest range. As engine speed decreases, the loading rate must be decreased accordingly. This adjustment in output should be coordinated with position, and travel speed to achieve the desired application rate. A horn with foot control switch is used to signal the vehicle driver. A simple signal system devised by the crew, to stop and to proceed will serve to regulate truck movement to best advantage.

The crew should quickly adapt to a comfortable routine, which will be clearly recognizable in the increased productivity.



***NEVER discharge the unit towards people.
Bodily injury may occur.***

OPERATING INSTRUCTIONS (CONTINUED)

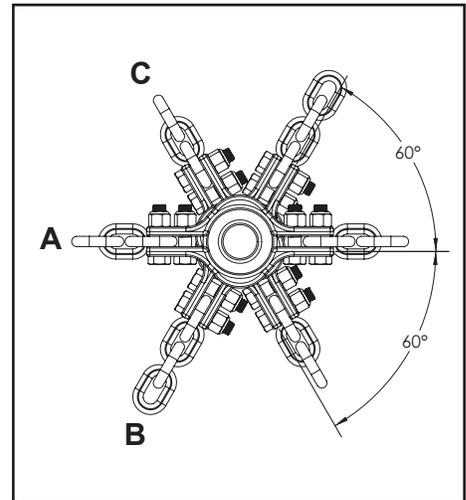
MULCH LENGTH

Chain Configuration

Pairs of forged steel clamps secure the chains to the beater shaft using 1/2-20NF bolts. The chains are of alloy steel, through hardened and mounted in pairs.

The first is mounted 4 in. from the beater drum end sheet. The next are positioned approximately 6 in. apart. Each station is set 120° from one another (first at 12:00 and 6:00 o'clock, next at 4:00 and 10:00, and the last at 2:00 and 8:00) as viewed from the open end of the shaft.

Chains do wear! Scheduled inspection should be made after every 40 hours as routine. If wet, moldy mulch is used, inspection should become a daily routine. The link chain used is a through-hardened alloy for wear resistance. On inspection, if an apparent groove is beginning to form between the mating links, the chain should be replaced in pairs.

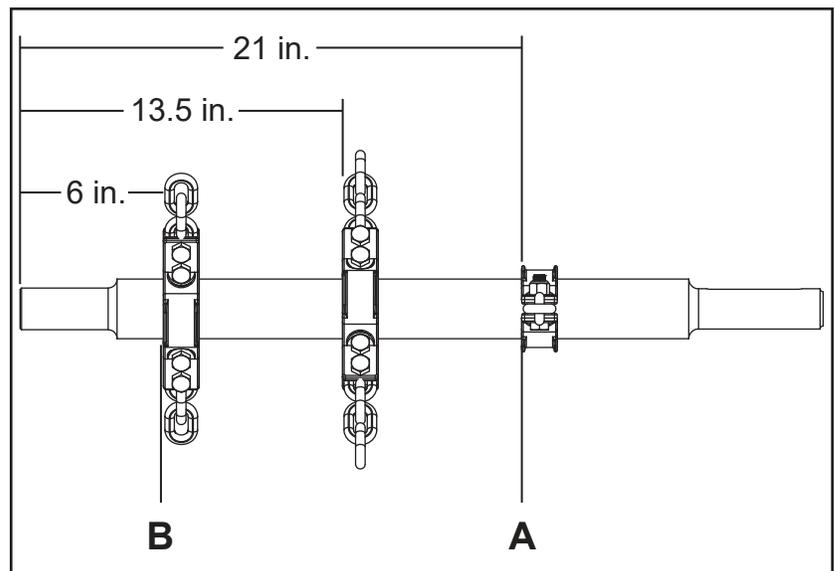


WARNING *Inspect the chain stations regularly for wear. Replace only with suitable hardened replacement sections. Standard grade (proof) chain will break and could cause serious injury or even death.*

Mulch Length Adjustment

The position of the chain on the beater shaft will determine the stalk length of the discharged mulch. The station nearest the blower inlet (A) will determine stalk length. Moving closer to the blower inlet will shorten the stalks. Positioning too close to the inlet, however, will act as a restriction in getting mulch to the blower.

The furthest station (B) will regulate the make up air to the blower. One or both of the stations farthest from the blower inlet may not be required, depending on the mulch. With very dry and old material, these may be completely removed.



OPERATING INSTRUCTIONS (CONTINUED)

ANCHORING MULCH

Mulch can be either "glued down" with tackifier, held down with netting, or "cut" into the soil with an implement. Anchoring the mulch material with a tackifier or Mulch Disc dramatically reduces the potential of damage from wind and rain.

Tackifier

Originally, emulsified asphalt was used predominantly for holding mulch in place. Although contractors still use this oil based tackifier, its use is becoming less common due to high cost, environmental concerns, availability problems and the associated cleanup liabilities in congested areas.

Alternative 'environmentally friendly' tackifiers are available in either liquid or powder form, yet both are always applied in a liquid slurry state through a HydroSeeder, HydroMulcher, or a similar mixing/spraying apparatus.

Hydraulic mulch can also be used as a tackifier sprayed onto hay or straw at the recommended rate of 700-850 pounds per acre.

Hydraulic mulch applications are water intensive. Tackifier used with hydraulic mulch may dramatically reduce material requirements and increase the effectiveness of the application.

CLEANING AND MAINTENANCE

The life of your equipment investment relates directly to the care that you give it. By following the recommendations below, your new Extreme Blower should last many years.

Basic	General	Keep your machine clean. Inspect beater chains; drive coupling, engine, oil and air cleaner before and after each use. Remove all dirt and chaff from the engine with an air nozzle or brush. Pay particular attention to shake out debris from the radiator chaff screen.
	Safety	Perform a daily inspection of the machine from a safety viewpoint. Replace safety decals when worn, faded or damaged.
	Bearings	The most common error committed by the casual operator is overlubrication of bearings. A shot or two of grease (Fiske Lubri-plate 930-AA or equivalent) every 100 hours is adequate. Periodically check locking collar set screws for tightness.
Drive Train	Beater Chains	The position of the beater chain station nearest the blower inlet will determine stalk length. Moving closer to the blower will shorten the stalks. Positioning too close to the inlet, however, will act as a restriction in getting mulch to the blower.
		Adjust strand length by moving the station either closer (shorter), or away (longer), from the fan inlet.
		Beater chains should be inspected on a daily basis for wear. Failure to replace worn chains could lead to serious injury if "thrown".
		Failure to replace "thrown" chains will cause an imbalance on the beater shaft, which may be evidenced by a noticeable vibration.
		Broken links of chain must be immediately replaced. Always install in matched pairs. If one side of a chain station needs replacement, the other side will need to be replaced shortly also.
		Standard commercially available chain is not suitable for operation in the Extreme Blower. Use beater chain purchased from Apex or a Apex Authorized Dealer only!
		⚠ CAUTION <i>Inspect the chain stations regularly for wear. Replace only with suitable hardened replacement sections. Standard grade (proof) chain will break and could cause serious injury or even death.</i>
		The XB7 Extreme Blower uses three matched flailing stations, using a 3 link, 4 link, 3 link configuration. The first is positioned approximately 4 in. from the drum side sheet (air inlet), and the others are positioned equidistant. Each station is oriented at 120° from the last.
		One of the stations may not be required depending on the mulch. With very dry and old material, the first or center station may be removed. BEATER SHAFT: If a foreign object such as a boulder or log enters the beater chamber, it may cause sufficient damage to bend the shaft. To check straightness, remove the shaft and have a machinist check for run out.
		If the total variation should exceed 0.015 in., replace the shaft.

CLEANING AND MAINTENANCE (CONTINUED)

Drive Train (Continued)	Blower Wheel	<p>The blower fan is keyed to the driven shaft with four square head set screws. Inspect these screws for tightness periodically and after the first twenty hours of use. If the fan becomes loose, reposition if necessary, then re-tighten screws. Screws can be accessed through blower outlet after discharge chute has been removed.</p> <p>Wear of the wheel is evident when the leading edges of the blades begin to curl back. If a heavy object hits the paddles, bending and unbalance can occur. In either case, replace the wheel.</p>
		<p>⚠ CAUTION <i>Do not attempt to repair the blades. Do not operate the machine with a worn wheel. A worn or unbalanced blower wheel is dangerous and may cause death or serious injury!</i></p>
	Drive Coupling	<p>The drive coupling transmits power to the blower and beater shaft. Excessive misalignment of the shafts (axial or angular) will produce vibration. If vibration is present, inspect and realign coupling as necessary.</p>
		<p>Inspect the set screws and connecting bolts every 100 operating hours for loosening or other abnormality. If the coupling becomes misaligned, contact your servicing dealer.</p> <p>Otherwise, follow this procedure: Determine the direction and degree of misalignment by measuring with a caliper or divider around the periphery of the drive coupling flanges. If the gap is measured on the top of one of the coupling flanges, this indicates that the alignment height requires adjustment. A gap is measured in the side of either flange this indicates that side alignment is required. If misalignment is detected, determine whether to adjust the blower shaft or engine [shim as required]. After making the adjustment, re-measure the coupling flanges. If the gap is eliminated, tighten all bolts and again recheck the alignment. If the alignment is within specifications, start engine, adjust the throttle and inspect for vibration. If vibration exists, contact your servicing dealer or the factory for assistance.</p> <p>For more information on coupling alignment, See Drive Coupling Alignment section.</p>
Discharge Assembly	Engine	<p>Daily inspection involves checking oil level, air cleaner and removing dirt and chaff from engine cowl. Refer to engine manual for the manufacturers maintenance schedule and further details.</p>
		<p>⚠ CAUTION <i>A governor setting limits the operating RPM nominally at 2400. If the maximum engine rpm exceeds 2400, adjust this setting.</i></p>
	Discharge	<p>Check operating engine RPM. Adjust the engine governor setting to a maximum of 2400 RPM. Do not exceed this setting.</p>
	Boom Rotation	<p>The bearing contacting surface may be dirty making it hard to turn. The boom elbow assembly must be removed, then cleaned and reassembled.</p>
	Boom Seals	<p>Inspect boom air seals (top and bottom) for wear. Worn, cracked or damaged air seals will cause discomfort to the boom operator.</p> <p>Replace as required.</p>

CLEANING AND MAINTENANCE (CONTINUED)

Trailer Assembly	Axle	Inspect all suspension components for exercise wear at approximately 6,000 miles of usage. Worn spring eye bushings, sagging or broken springs should be replaced. Repack bearings every 12 months or 12,000 miles.
	Brakes	Inspect and service trailer brakes at yearly intervals. Magnets, which are worn unevenly, should be replaced. Inspect drum surfaces and armature contact area for excessive wear or scoring.
		Test operation before each use.
		Recheck braking adjustments each 3,000 miles.
	Break-Away	Check switch operation routinely. If the switch does not engage with the pin removed, repair or replace the unit immediately.
	Hitch	Inspect hitch components for wear. Routinely check hitch-mounting hardware for loosening or wear. Replace all worn or damaged components.
	Jack	Oil tongue jack regularly. Clean dirt from retracting leg. Routinely inspect the locking pin and spring assembly for wear.
		Replace worn or damaged components as necessary.
	Lights	Routinely inspect and insure all lights are operational each time the unit is hitched. Do not transport unit without all lamps in working condition.
	Tires	Check inflation pressure weekly to insure maximum life and tread wear. Check for tire wear frequently.
Note: Once a wear pattern is established, it will continue even when cause is corrected. Replace worn or damaged tires regularly.		
Wheels	Retorque wheel bolts at 25, 75, and 150-mile intervals.	
	Inspect for cracks, dents, or distortion each six months or 6,000 mile intervals.	
Seed Broadcaster	Hopper	A light film of grease may be applied between the hopper and casting to minimize dust.
	Feed Gate	Dusty materials/residuals should be periodically cleaned from the feed gate and adjusting levers for ease of operation. Graphite or similar lubricant may be applied to the feed gate to minimize dust restriction.

CLEANING AND MAINTENANCE (CONTINUED)

DRIVE COUPLINGS

Flywheel to Shaft Pin Type Coupling

The pin type drive coupling allows for axial movement of the shafts to compensate for vibrations produced by the engine, (as during cold starting) and torque during heavy loads. Axial movement is not restricted. The rubber inserts can be replaced without complete disassembly of the coupling. No lubrication is required.

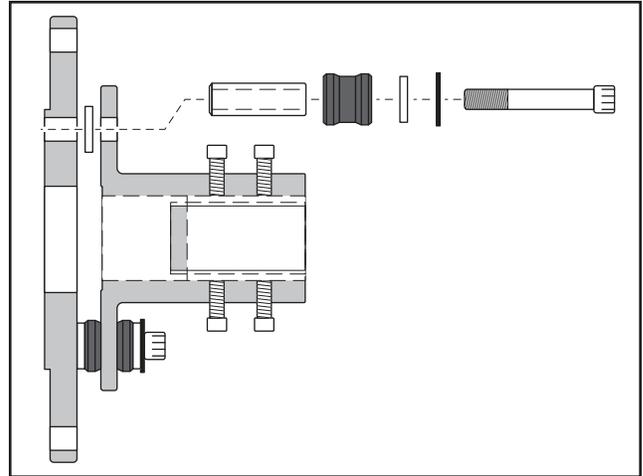
When installing and aligning the coupling, it is important that the centerline of the blower shaft be true to the centerline of the engine shaft. The coupling assembly aligns the shaft to the engine flywheel face. Alignment of the shaft hub and mating hub should not be necessary. However, wear on the flexible coupling components due to the axial and radial forces transmitted during operation will be minimized with proper alignment.

Coupling should be aligned within 0.015 in. parallel.

Coupling Alignment or Replacement

It should not be necessary to replace any parts on the drive coupling assembly, if misalignment is discovered at the onset. The following procedure covers replacement of the entire coupling assembly, and may be used as a guide for checking coupling alignment.

1. Inspect the coupling assembly for damage. Secure replacement coupling assembly or components required.
2. If replacement is necessary, loosen and remove the engine mounting bolts. Take measures to insure that existing shims are retained for reinstallation. Remove flywheel mounting bolts and lock washers. Move engine forward to remove coupling from flywheel face. Remove coupling hub from blower shaft.
3. Remove any protective coatings or lubricants from bores, mating surfaces and fasteners. Remove any burrs, etc. from the shaft.
4. Slide the complete coupling assembly onto the blower shaft using the proper, snug fitting key. Should the fit be loose, identify the cause and remedy before proceeding further. Do not secure the setscrews. The coupling assembly should be snug but free to slide on the shaft.
5. Move the engine to slide the coupling plate into the flywheel pilot or counter bore. If the coupling does not slide easily into the flywheel pilot, realignment is necessary. Do not attempt to pry or force the coupling into the pilot. Align and shim the engine as required, and tighten all bolts.
6. Using a dial indicator, caliper and/or micrometer, check parallel and angular alignment tolerances. Should the alignment be within specifications, proceed to step 8.
7. Loosen drum/housing assembly, shaft bearings and/or engine bolts as required and adjust or shim as necessary, to correct the misalignment. Torque all fasteners, then repeat step 6.
8. With the coupling aligned to the flywheel face, install and tighten the flywheel mounting screws and lock washers, then torque alternately to approximately 220 in.-lb. Using a thread locking resin, torque the setscrews on the shaft flange securely. Recheck that all fasteners are secure. Recheck the set screw torque to complete the installation.
9. Replace coupling guard and bearing end shaft guard.



CLEANING AND MAINTENANCE (CONTINUED)

INSERT (BUSHING) REPLACEMENT

The bushing and inserts used in these coupling styles allows for flexibility and movement of the shafts to compensate for vibrations produced by the engine, and torque during heavy loads.

Under normal conditions, the inserts will distribute these forces equally to protect the drive line components.

Continuous heavy loading of the Mulcher (i.e., wet moldy material) will cause early cycling or breakdown of the neoprene compound insert.

Insert (Bushing) Replacement Process

Replacement of the inserts does not require disassembly of the unit or the coupling components.

1. Remove retaining bolt, washer, spring washer, and bushing (sleeve) from the individual insert. It may be necessary to loosen all of the retaining bolts to provide clearance to remove the insert. Replacement of the inserts on the pin drive style coupling allows each insert to be serviced individually.

NOTE: Pre-mark any alignment aids (shims, etc.) currently used to aid in replacing them upon replacement process.

2. Using a needle nose or long nosed pliers, pull the worn insert from the hub.
3. Apply dissipating grease (petroleum jelly) to the replacement insert, and twist into the hub.
4. Inspect the bushing for distortion, (secure replacements if required). Apply grease to the bushing and press into the insert.
5. Clean the retaining bolt and tighten the bolt to seat (preload) the insert. Continue replacement of the inserts individually, around the face of the hub.
6. With the bolts seated, then torque alternately to approximately 400-in. lb.
7. Recheck the drive coupling alignment as referenced in the preceding pages.

CLEANING AND MAINTENANCE (CONTINUED)

WINTERIZING AND STORAGE

When the season is over, a preventive maintenance plan for laying up the machine over the winter months will simplify spring start up.

1. Thoroughly clean and wash down the entire unit.
2. Peeling paint or rusty spots should be scraped, primed and painted.
3. The standard 100-hour check should be performed on the engine.
4. Reference the specific engine manual for cold weather preparation.
5. Remove the battery, fill and charge, and store in a dry, preferably cool area. Check the unused battery charge at 90-day intervals.
6. Lubricate all components.
7. Any identified repairs should be performed now to simplify next season's start up.
8. If the machine cannot be stored inside during the winter months, cover the entire unit to protect from the elements.
9. Jack up trailer and place frame on stands to remove weight from tires. Never jack up or support unit on running gear components (springs, beam, shackles, etc.).

MAINTENANCE SCHEDULE

Interval	Description of Service
First Four (4) Hours	Check engine and all mounting bolts.
	Check drive coupling set screws. Retorque if loosened.
	Check engine controls. Check engine manual related information.
	Check engine fluid levels.
	Inspect running gear and hitch components.
Every Four (4) Hours	Clean air cleaner element. Check engine manual for related information.
	Clean chaff from engine radiator screen.
	Repeat the first 4 hours inspection.
Every Twenty (20) Hours	Inspect flail chains and blower wheel.
	Oil the throttle and choke mechanisms.
	Clean air cleaner element. Check engine manual for related information.
	Lubricate hitch components
Every Forty (40) Hours	Check battery electrolytes.
	Check and set engine RPM to 2400 maximum.
Every One Hundred (100) Hours	Tune up engine. Check engine manual for related information.
	Change engine oil. Check engine manual for related information.
	Replace air cleaner cartridge. Check engine manual related information.
	Lubricate blower shaft bearings.
	Lubricate feed system bearings.
	Lubricate discharge boom bearings.
	Lubricate blower shaft bearings.
	Check tires for inflation and wear pattern.
	Inspect axle springs and components.

NOTICE

Do not over grease bearings!

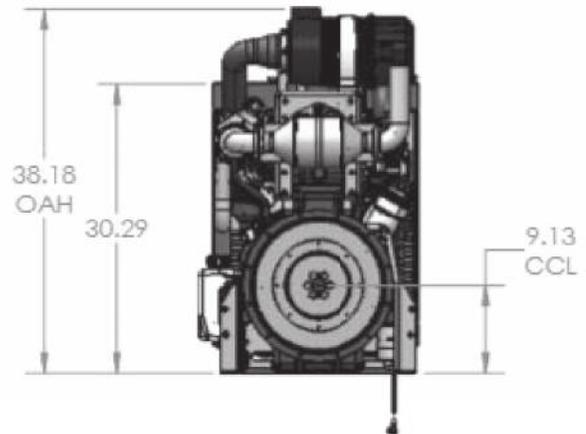
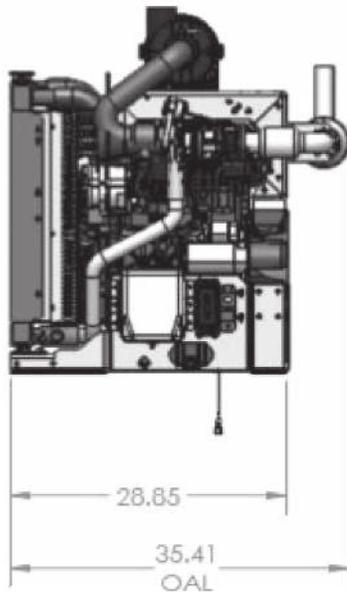
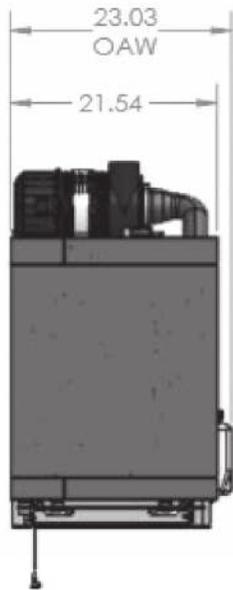
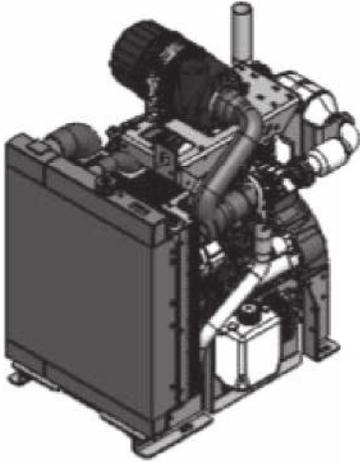
NOTICE

For specific engine maintenance instructions, please refer to the engine manufacturer's manual.

SPECIFICATIONS

FEATURE	OPTION	DESCRIPTION
Engine		49 HP Tier IV Kohler Diesel
Capacity		Up to 7 tons per hour
Fuel Tank Capacity		12 gallons (45.4 liters)
Drive		Direct flexible insert drive coupling features easy access replacement bushings
Flail		Three fully adjustable full hardened chan flail stations
Blower		22-5/8 in. OD, six blade reinforced material handling type wheel, dynamically and statically balanced
Discharge Head		UMHW nylon bearing mounted, counter balanced, 360 degree horizontal rotation, 60 degree vertical articulation, urethane abrasion resistant rolling boom seals and stainless steel side wipers
Range		Up to 65 ft. (18 m)
Brakes	Trailer	Electric brakes with brake away switch
Lights	Trailer	OT compliant LED lighting including marker, identification lights, and license plate bracket
Axle	Trailer	3500 lb precambered with steel shackle type spring assembly
Tires	Trailer	ST225/75R15 8 ply
Hitch	Trailer	Lunette eye (2-5/16 in. ball hitch optional)
Weight	Skid	1200 lbs. (544 kg)
	Trailer	1850 lbs. (839 kg)
Length	Skid	79.0 inches (2.1 m)
	Trailer	142.0 inches (3.6 m)
Width	Skid	44.0 inches (1.12 m)
	Trailer	90.0 inches (2.4 m)
Height	Skid	64.5 inches (1.7 m)
	Trailer	86.5 inches (2.2 m)

ENGINE SPECIFICATION



Estimated Weight: 900 lbs.

Estimated Standard Overall Dimensions:

Length (Rad to Housing): 28.9 in.

Width (Rad): 21.5 in.

Height (Rad): 30.0 in.

XB7 Extreme Blower

Parts Manual

REPLACEMENT PARTS

ORDERING REPLACEMENT PARTS

Identify the part(s) by item number using the pictorial schematic provided. Match the item number to the list, and identify the part required by stock number.

Contact your APEX dealer for price and availability. Parts may be ordered directly from the factory.

Many of the parts listed are commercially available and may be procured locally. Manufacturer's specific part numbers are available on request.

OPERATION INSTRUCTIONS AND PARTS MANUALS

Part Number	Description	Provider
AX5110.51	Axle Service Manual 100-M	Manufacturer
ED0053029490 Rev. 19.1	Engine Operation Manual Kohler	Manufacturer

COMPONENTS

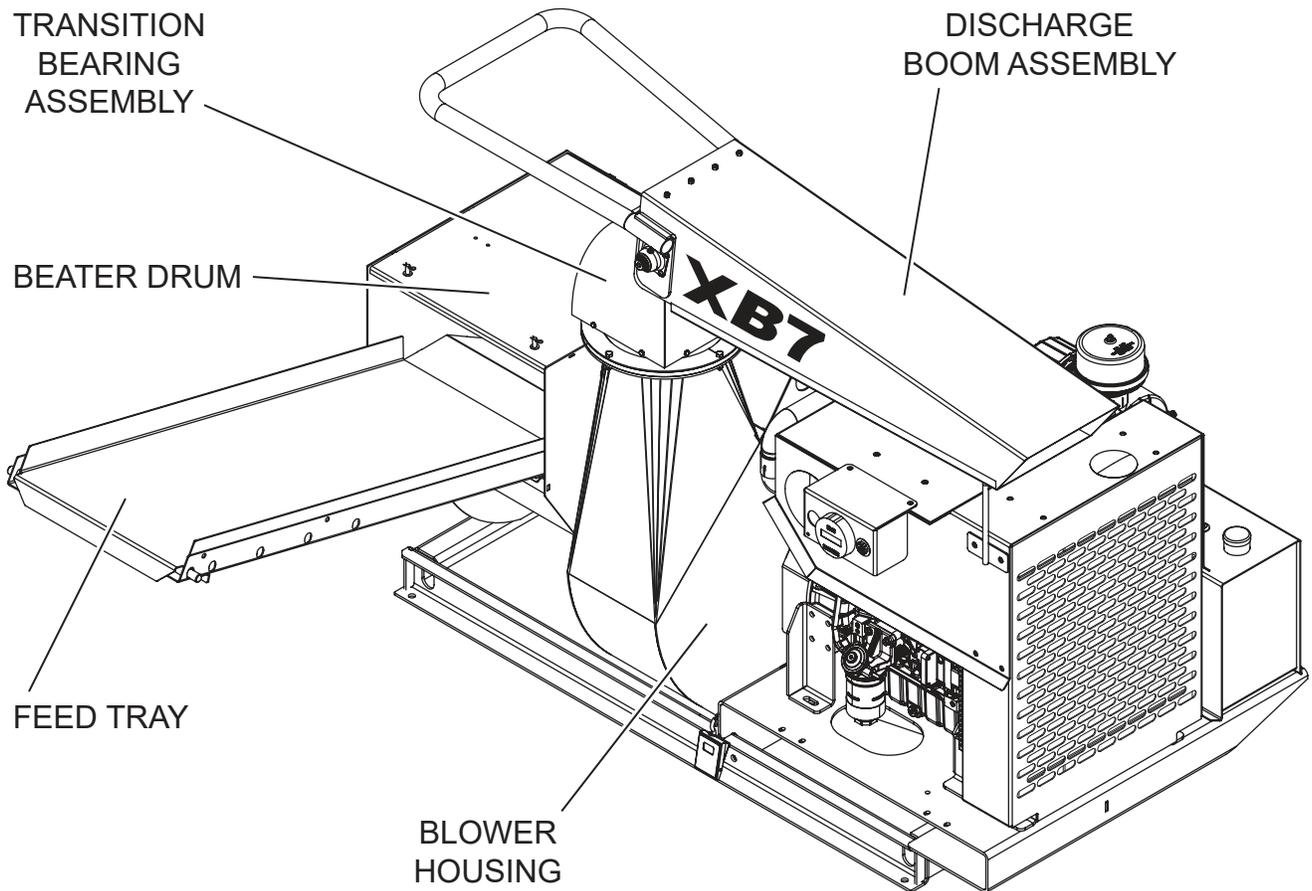
TRANSITION
BEARING
ASSEMBLY

DISCHARGE
BOOM ASSEMBLY

BEATER DRUM

FEED TRAY

BLOWER
HOUSING



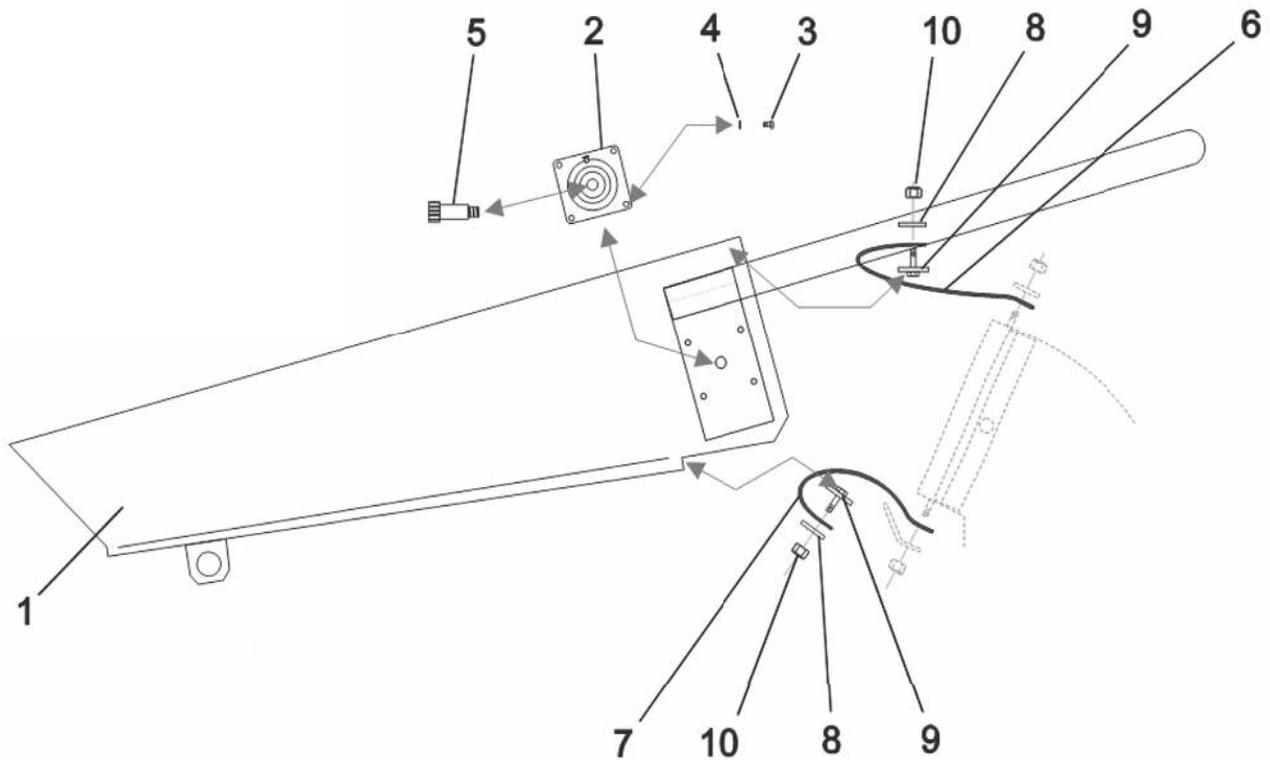
**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**

DISCHARGE BOOM

Ref. No.	Part Number	Description	No. Req'd
1	D-3010K-1AX	TM Discharge Boom - Skid	1
2	FEE12G	Bearing 3/4 in. Flanged	2
3	●	5/16-24 x 3/8 in. Button Head Socket Screw	8
4	●	5/16 Internal Lockwasher	8
5	●	3/4 x 2 Socket Shoulder Bolt	2
6	B-3054B-2	Seal - Top	1
7	B-3054B-1	Seal - Bottom	1
8	B-3054B-4B	Seal Strap	2
9	B-3054B-5AX	Seal Hold Down	2
10	●	1/4-20 Nylon Insert Nut	8

KITS AND MARKERS

- Standard Hardware Item - Available at your local hardware store.



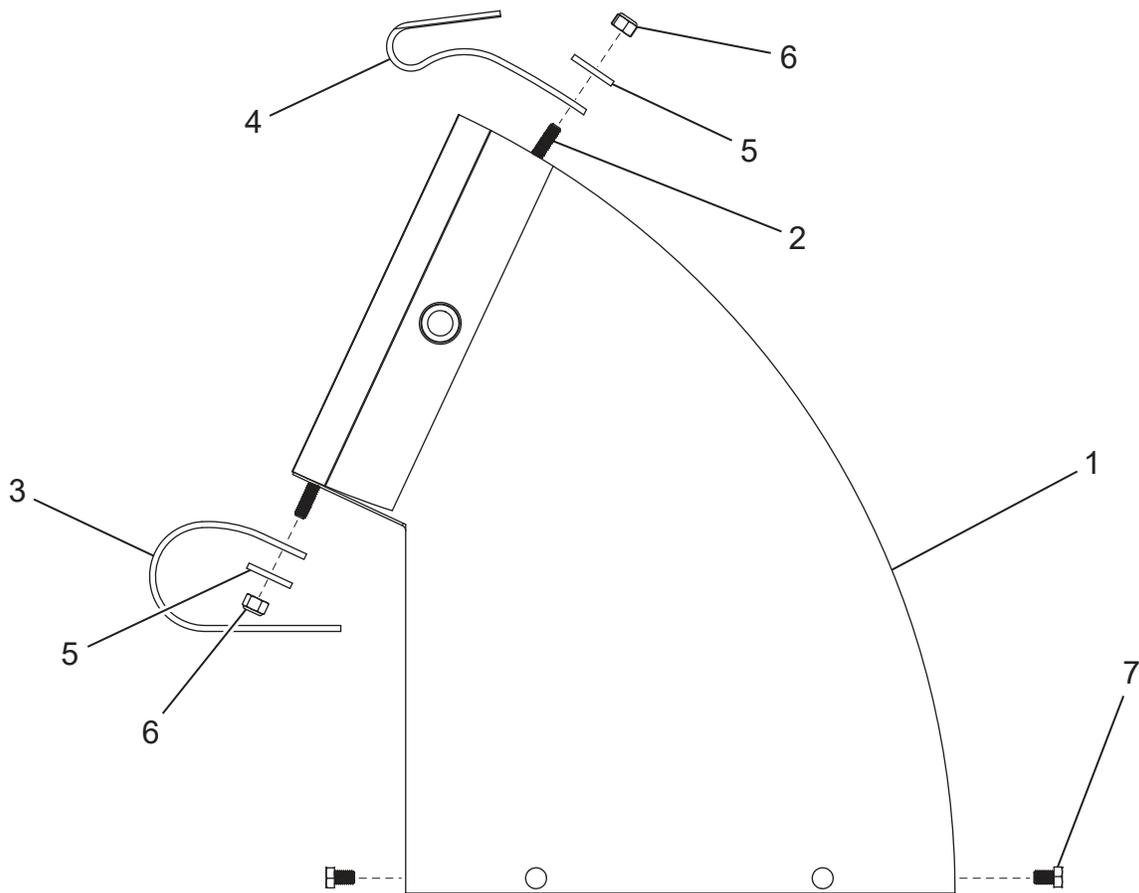
WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE

DISCHARGE ELBOW

Ref. No.	Part Number	Description	No. Req'd
1	C-3012C-AX	Elbow	1
2	B-3054B-5AX	Seal Hold Down	2
3	B-3054B-1	Seal - Bottom	1
4	B-3054B-2	Seal - Top	1
5	B-3054B-4B	Seal Strap	2
6	●	1/4 - 20 Nylon Insert Nut	2
7	●	1/4 - 20 x 1/2 in. Hex Head Cap Screw	8

KITS AND MARKERS

- Standard Hardware Item - Available at your local hardware store.



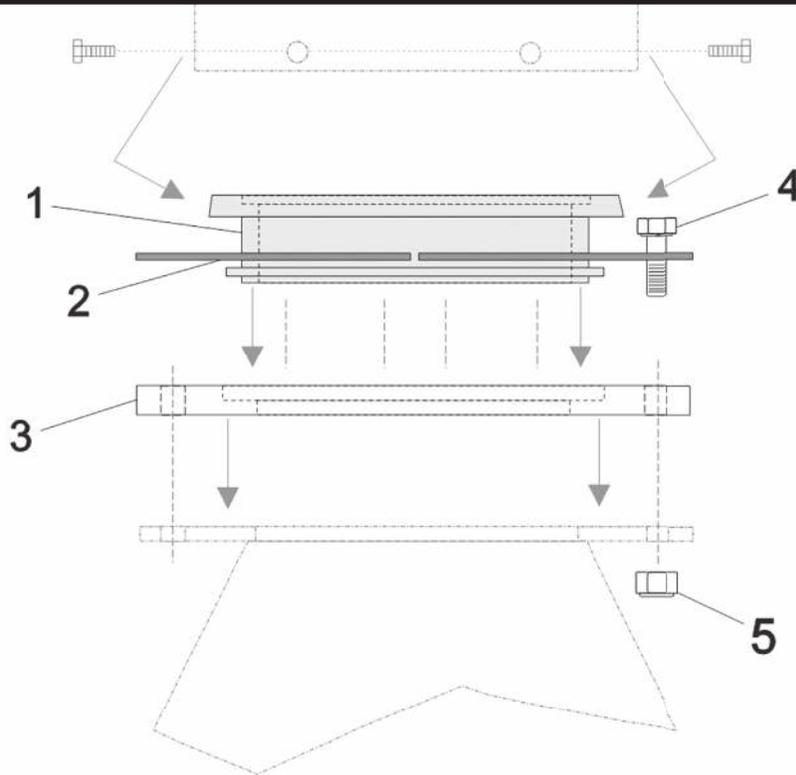
WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE

TRANSITION ASSEMBLY

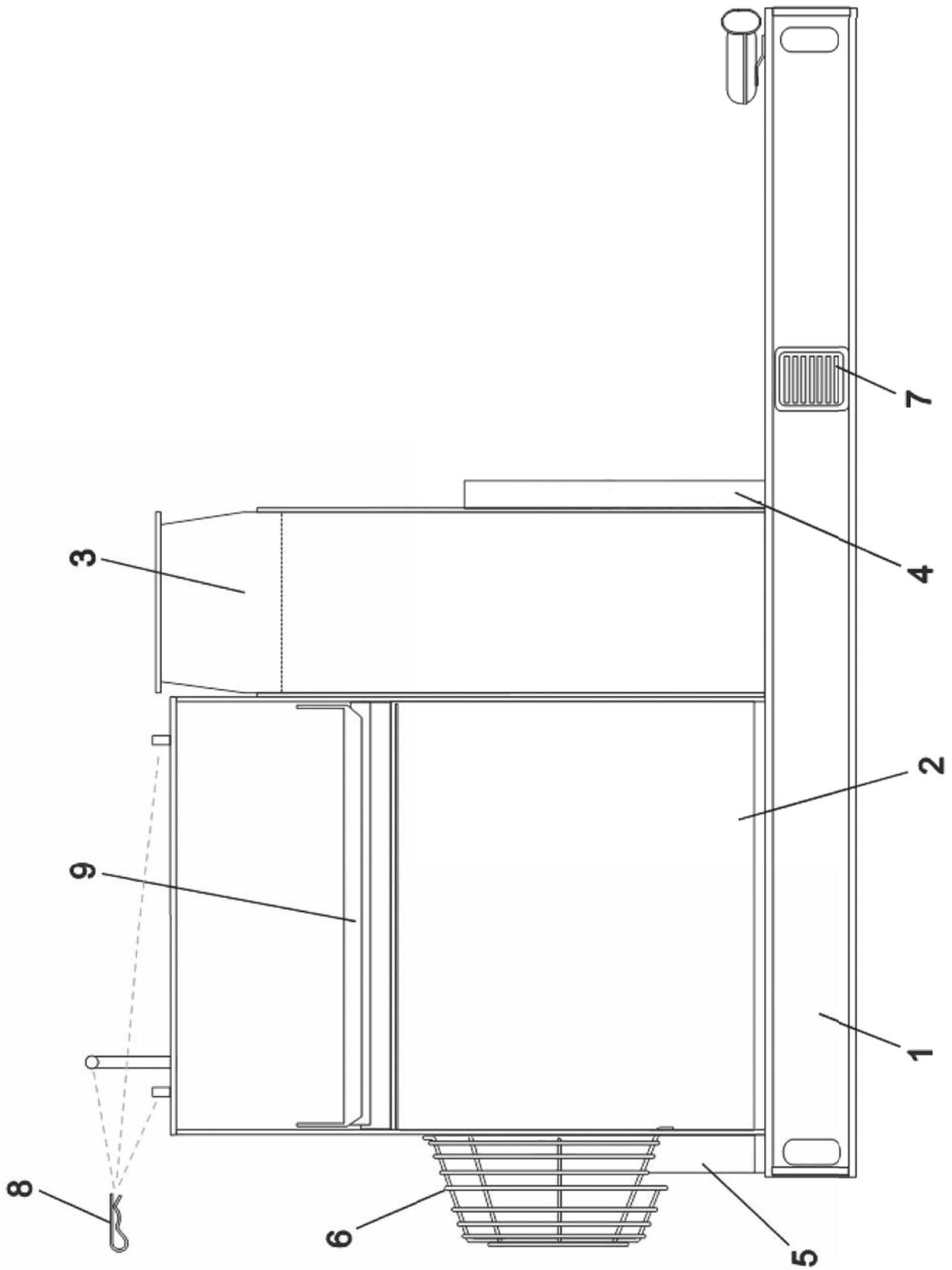
Ref. No.	Kit Ref.	Part Number	Description	No. Req'd
1	▲	C-3090A	Transition	1
2	▲	C-3057B-3	Clamp Ring (Split)	1
3	▲	C-3057B-1	Bearing, Cap Plate	1
4	▲	●	3/8-16 x 1-1/2 in. Hex Head Cap Screw	4
5	▲	●	3/8-16 Nylon Insert Jam Nut	4

KITS AND MARKERS

- ▲ TM35M00-AX Complete Transition Assembly
- Standard Hardware Item - Available at your local hardware store.



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



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

LOWER UNIT DETAILS

Ref. No.	Part Number	Description	No. Req'd
1	D-3034G-2R	Base Frame - Right	1
	D-3034G-2L	Base Frame - Left	1
2	D-3063F-1AX	Beater Drum	1
3	C-3050G-AX	Blower Housing	1
4	D-3034G-4	Side Plate Brace	1
5	TM35B10-AX	Shaft Bearing Support	1
6	B-3165A	Shaft Bearing Guard	1
7	862146000	Foot Switch	1
8	97245A676	Hairpin Cotter	3
9	C-3081C-1AX	Bale Feed Tray	1

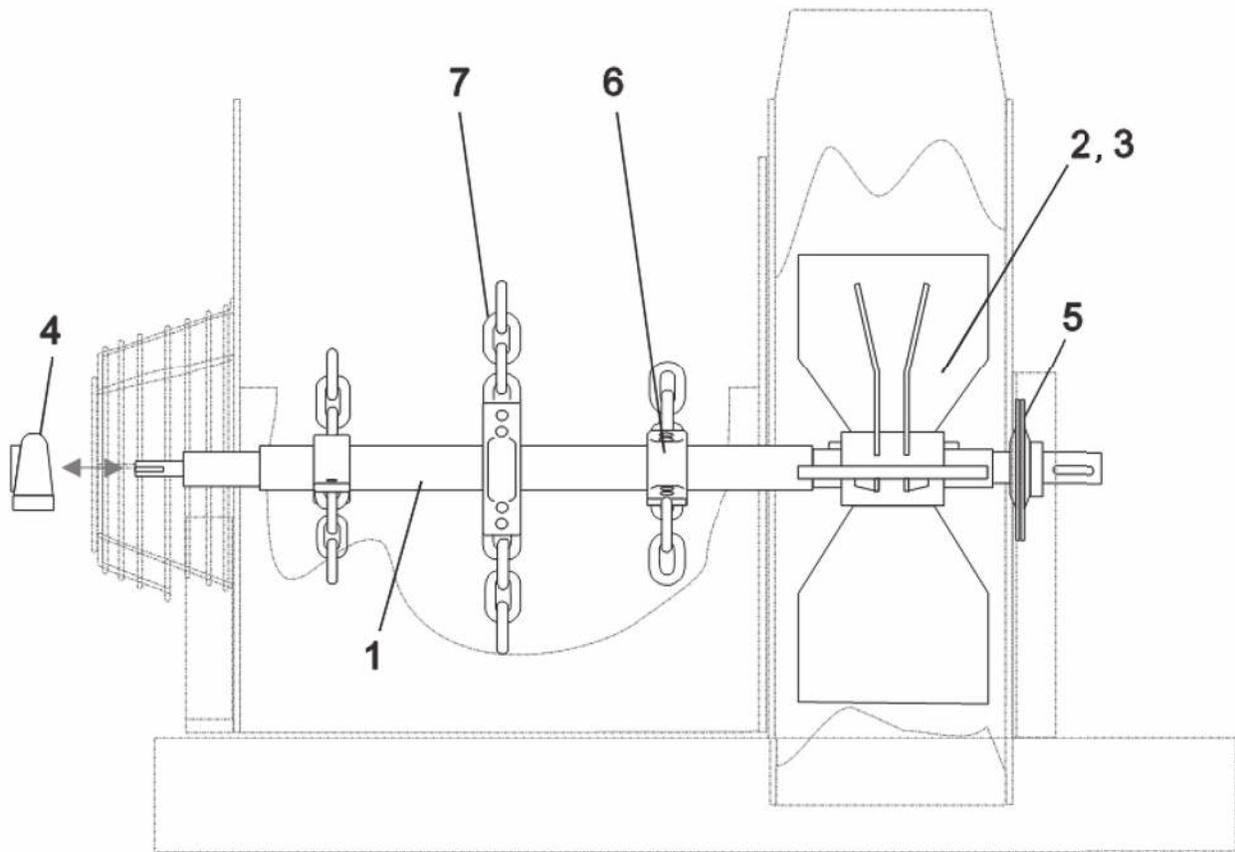
NOT SHOWN

	C-0162G-1AX	Tank, 12 Gallons	1
	●	3/8-16 x 3/4 in. Hex Head Cap Screw	4
	●	3/8-16 Nylon Insert Nut	

KITS AND MARKERS

- Standard Hardware Item - Available at your local hardware store.

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



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

DRIVE TRAIN COMPONENTS

Ref. No.	Part Number	Description	No. Req'd
1	B-3071C	Beater Shaft	1
2	EPRBL6030.01	Blower Wheel	1
3	EPRKE9003.10	Key, 3/8 x 4 in.	1
4	EPRBE0260.01	Shaft Pillow Block Bearing	1
5	EPRBE0342.01	Side Plate Flange Bearing	1
6	D-8320-8	Flail Chain Station - 3 Link	2
	EPRCH0642.43	Chain Only - 3 Link, Grade 100	4
	A-8325	Bracket Only	2
	●	1/2-20 x 2 Hex Head Cap Screw	4
	●	1/2-20 Nylon Insert Nut	4
7	D-8320-8B	Flail Chain Station - 4 Link	1
	EPRCH0642.44	Chain Only - 4 Link, Grade 100	2
	A-8325	Bracket Only	1
	●	1/2-20 x 2 Hex Head Cap Screw	2
	●	1/2-20 Nylon Insert Nut	2

NOT SHOWN

	002256-12	Battery	1
	080223	Battery box	1

KITS AND MARKERS

- Standard Hardware Item - Available at your local hardware store.

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

FLYWHEEL COUPLING

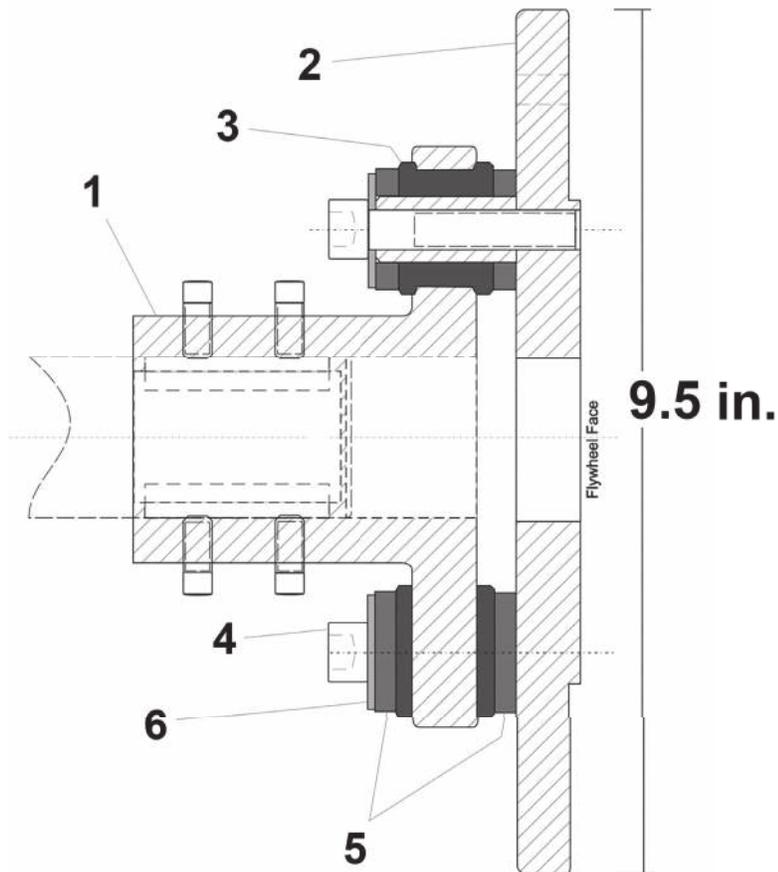
Ref. No.	Kit Ref.	Part Number	Description	No. Req'd
1	▲	-----	Hub Only 1-7/16 in. Bore	1
2	▲	-----	Flywheel Plate (Kub05/SAE7.5)	1
3	▲■	●	Bushing Only (Neoprene insert)	9
4	▲■	●	7/16 x 2-1/4 in. NF Socket Cap Screw (3/8 in. Allen key)	9
5	▲■	●	Urethane Spring Bushing	18
6	▲■	●	Flat Washer	9

NOT SHOWN

KE9002.13	Key - Blower Shaft 3/8 x 2 BER	2
-----------	--------------------------------	---

KITS AND MARKERS

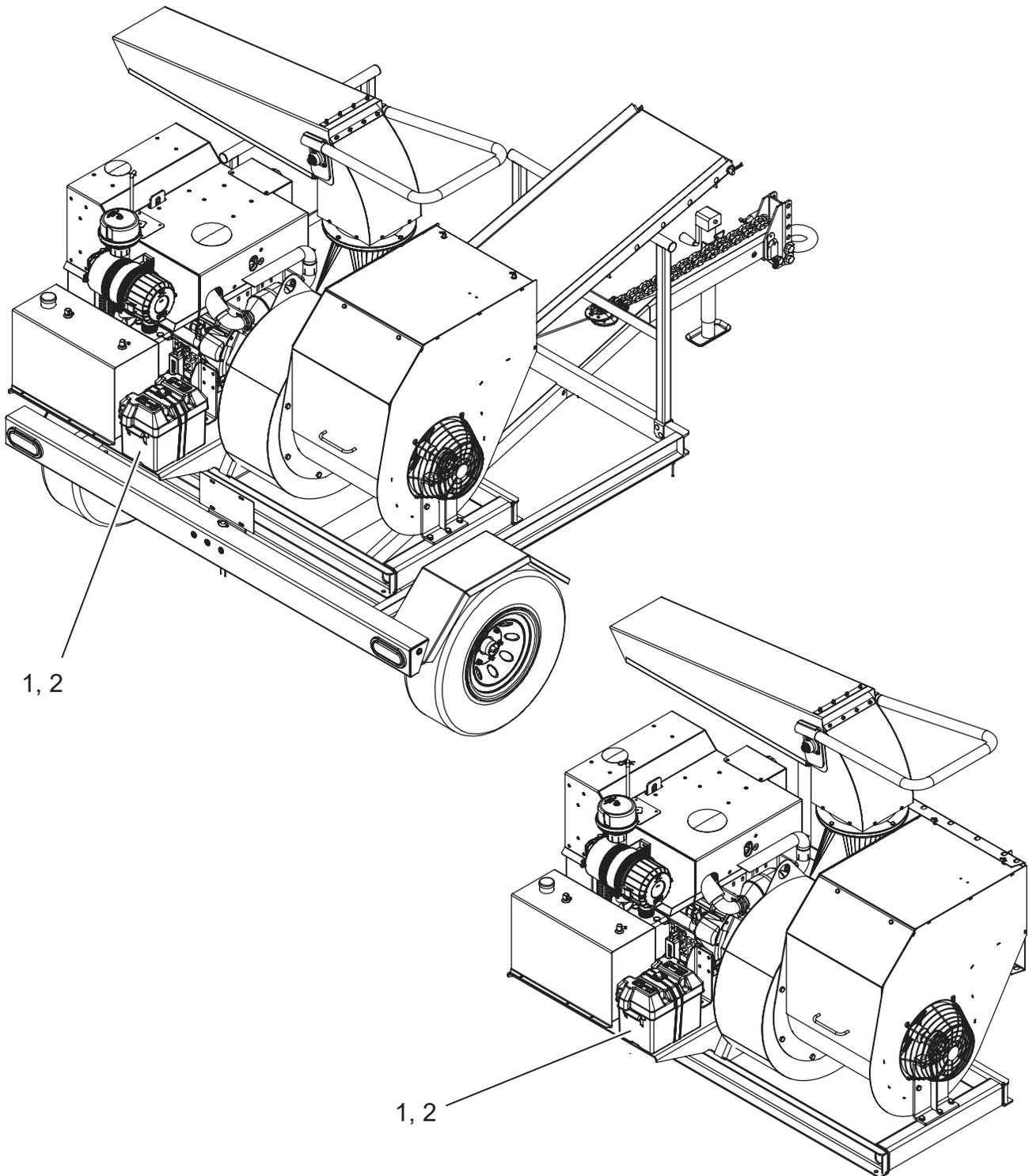
- ▲ EPRCO8515.40A Pin Style Flywheel Coupling Complete
(Serial Numbers 4660+)
- EPRCO8515.41A Overhaul Kit
- Standard Hardware Item - Available at your local hardware store.



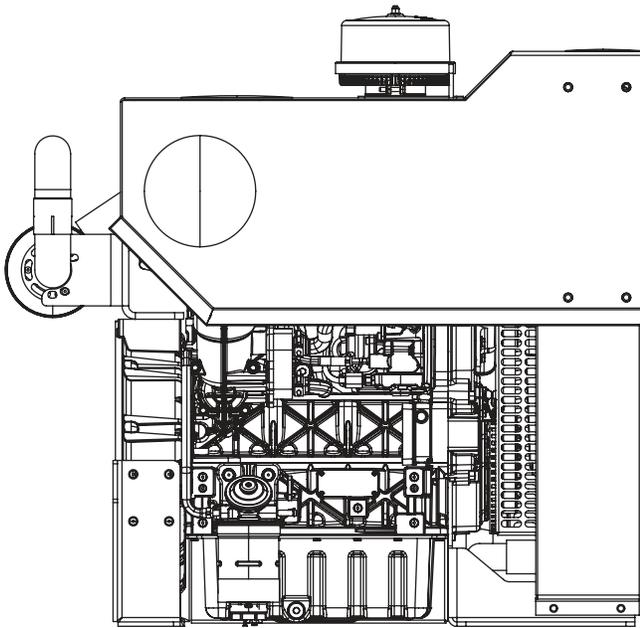
WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE

BATTERY

Ref. No.	Part Number	Description	No. Req'd
1	002256-12	Battery	1
2	080223	Battery Box	1

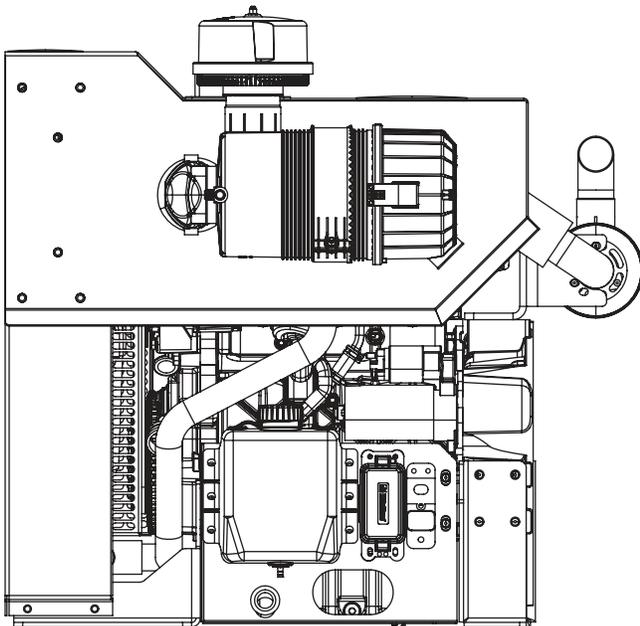
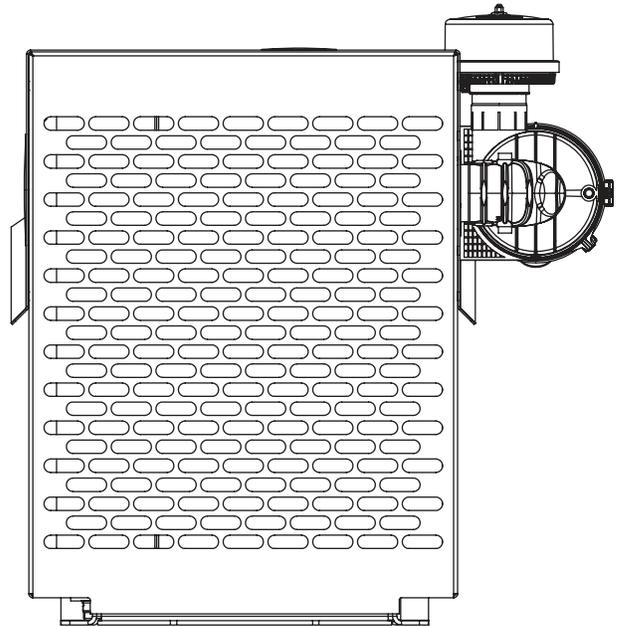


WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE



Side View

Front View

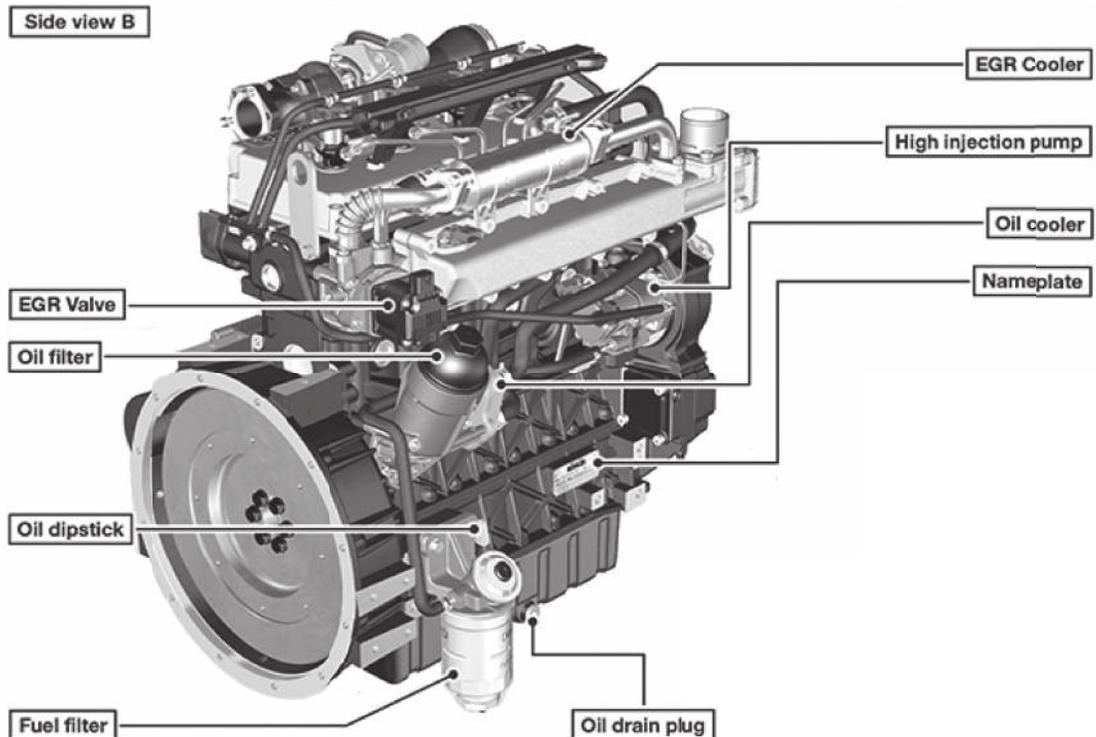
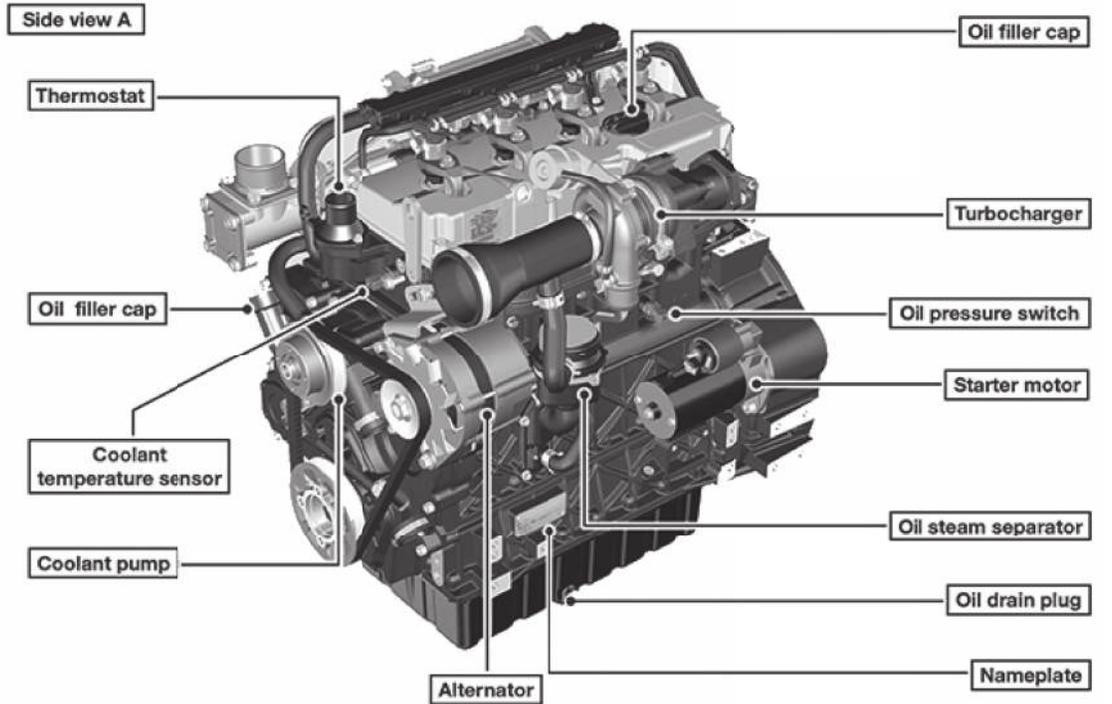


Side View

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

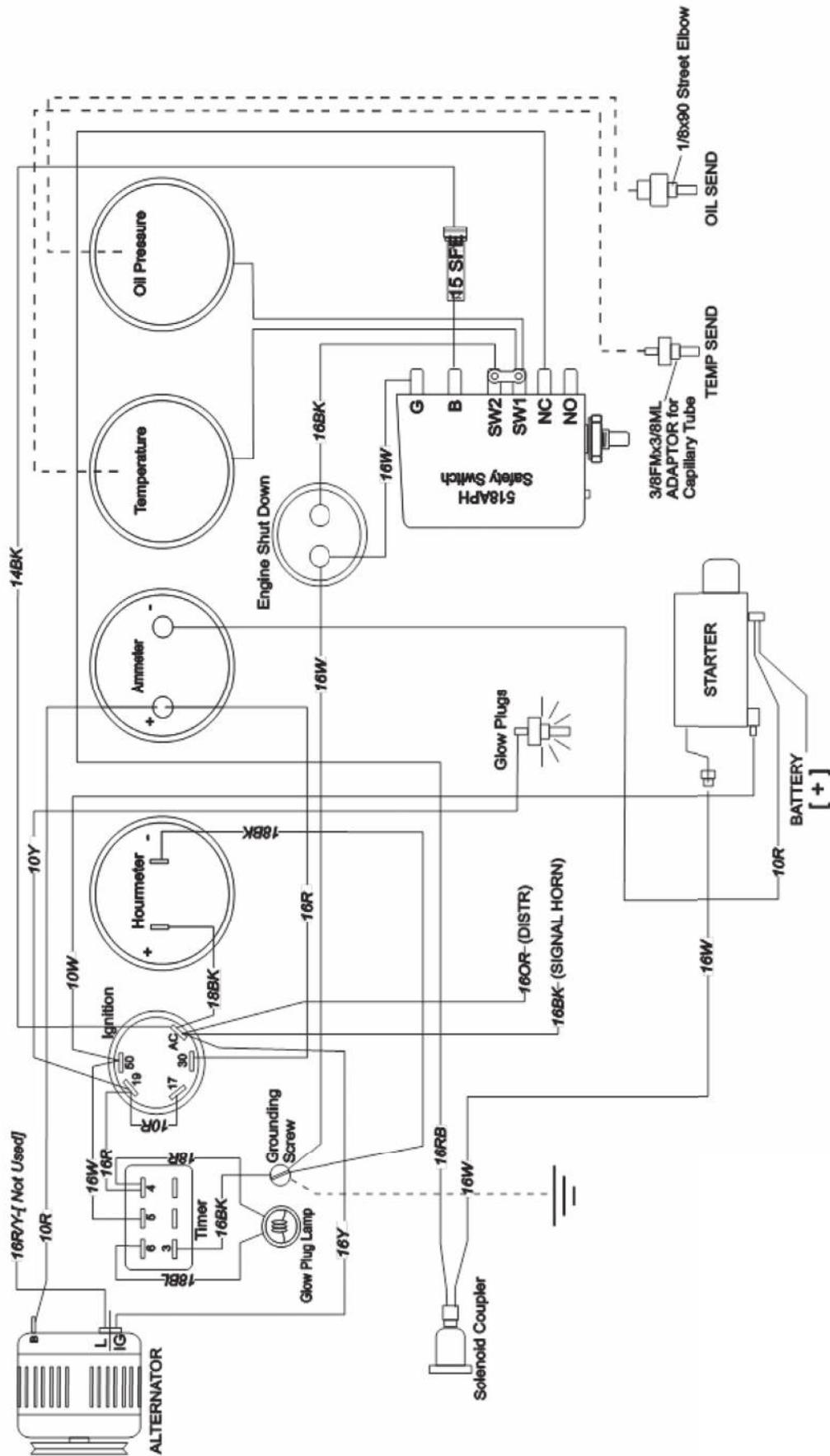
ENGINE – KOHLER

Part Number	Description
KF119E403-EPIC	Diesel Engine, Kohler T4 1903 KK
A7926-001	Oil Filter
A7927-001	Fuel Filter
A7928-001	Air Filter Element, Safety
A7929-001	Air Filter Element, Primary

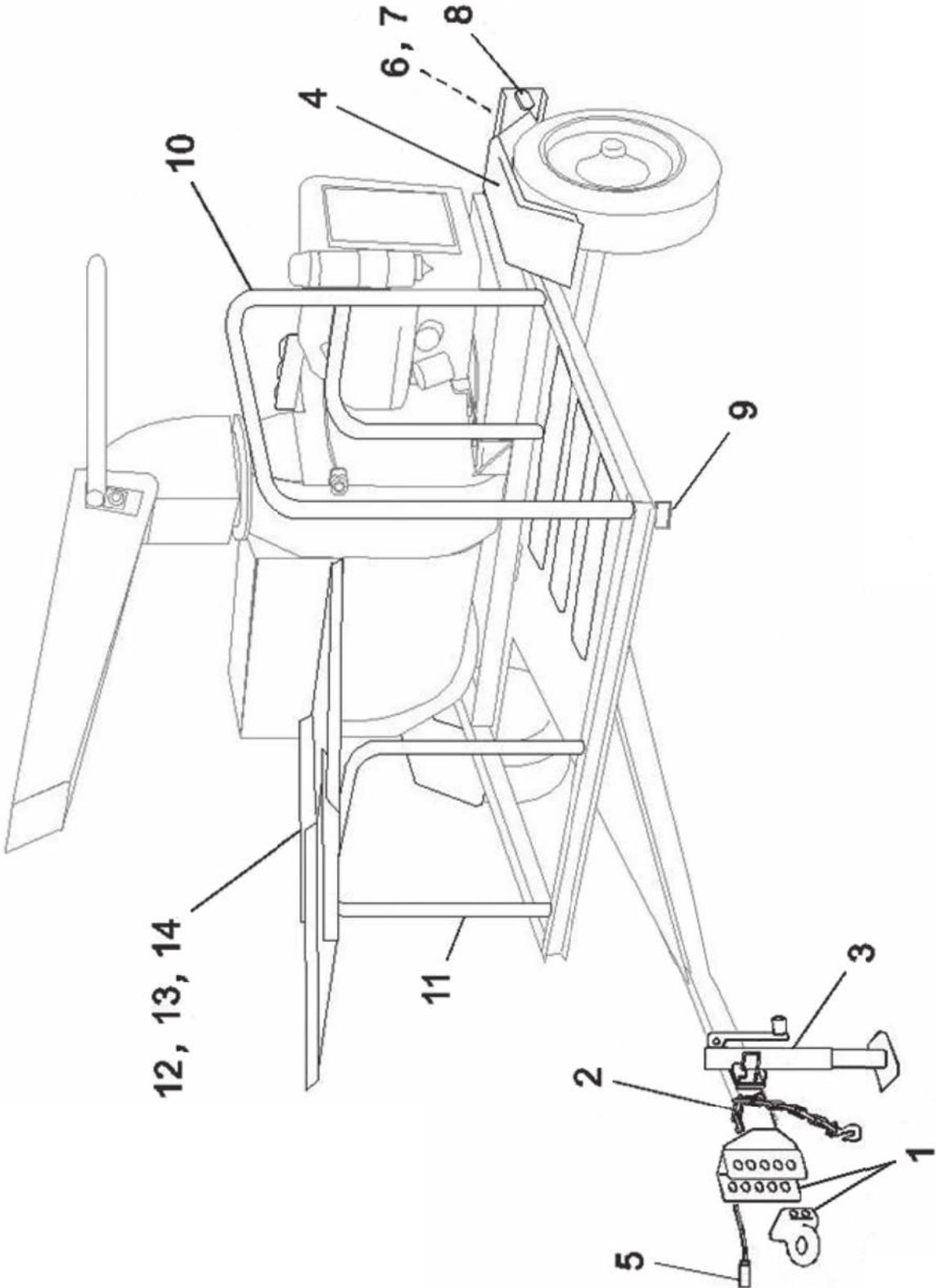


WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE

SHUTDOWN INSTRUMENT WIRING – KOHLER



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



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

TRAILER COMPONENTS

Ref. No.	Part Number	Description	No. Req'd
1	71-05-0009	Adjustable Eye, 3 in. Lunette Eye	1
	8978XL	5 Position Mounting Channel/Gusset	1
2	A6807-001	Safety Chain with Hooks	2
3	A6340-001	Swivel Jack	1
4	TM35F04	Fender	2
5	075592	Trailer Plug, 7 Blade	1
6	A2647-001	Tail Lamp - Combination, Red	2
7	ET-LPL12CB	License Plate Lamp	1
8	A1227-002	Marker Lamp - Red (Rear)	5
9	A1227-001	Marker Lamp - Amber (Forward)	2
10	TM35R01	Side Railing/Engine Guard Railing	1
11	TM35R02	Tray Support Railing	1
12	C-3081C-1AX	Feed Tray, Fixed	1
13	C-3082B-1AX	Feed Tray, Sliding	1
14	C-3082B-5.1	Tray Lock Bar	1

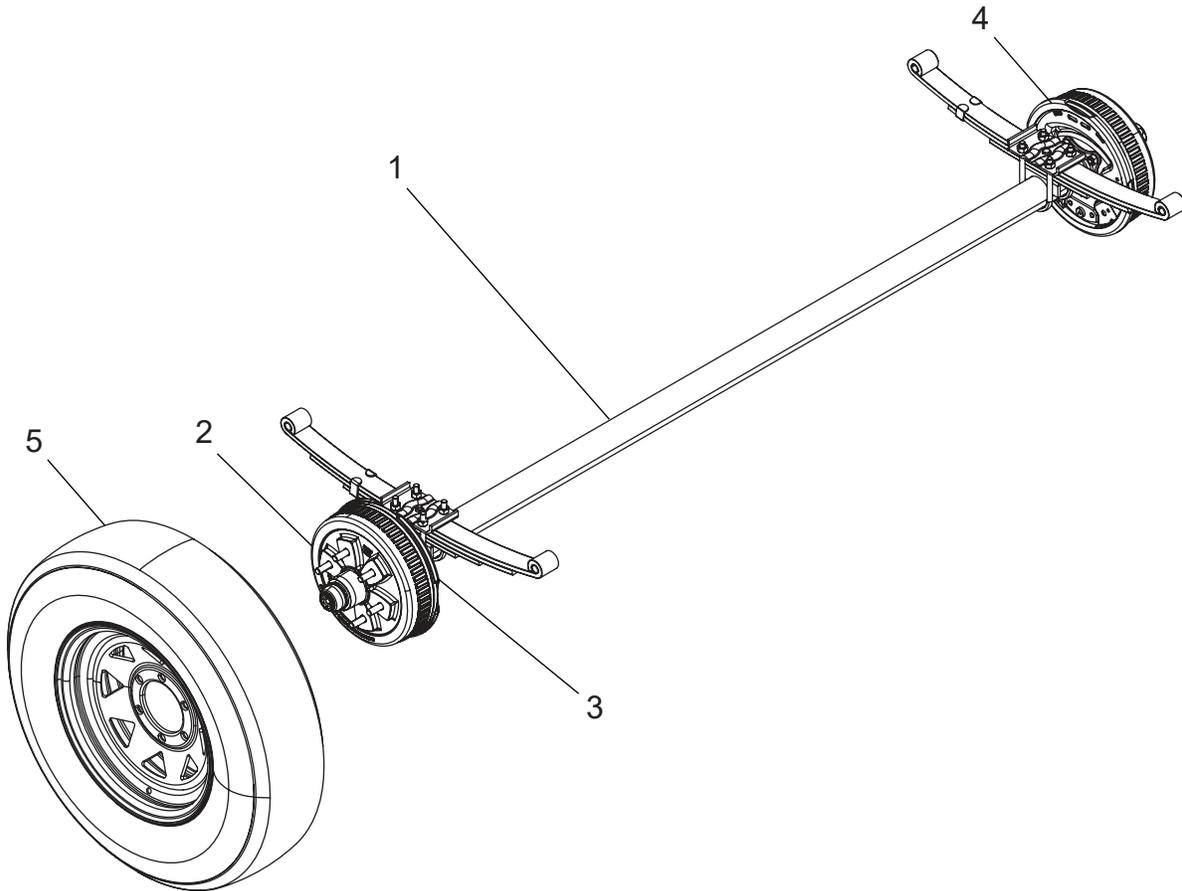
NOT SHOWN

LI4030.01	Reflector, Red [Bumper-Rear] Oval	2
A7619-001	Trailer Wiring Harness	1
LI4040.01	Reflector, Red 3-5/16	2
LI4040.02	Reflector, Amber 3-5/16	2
LI4040.12	Reflector, Amber 2-3/8	2
3043T625	U-Clamp for Feed Tray	2
HA7150.02	Hair Pin Cotter for Feed Tray	2
023424	Break Away Switch	1

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

TRAILER AXLE

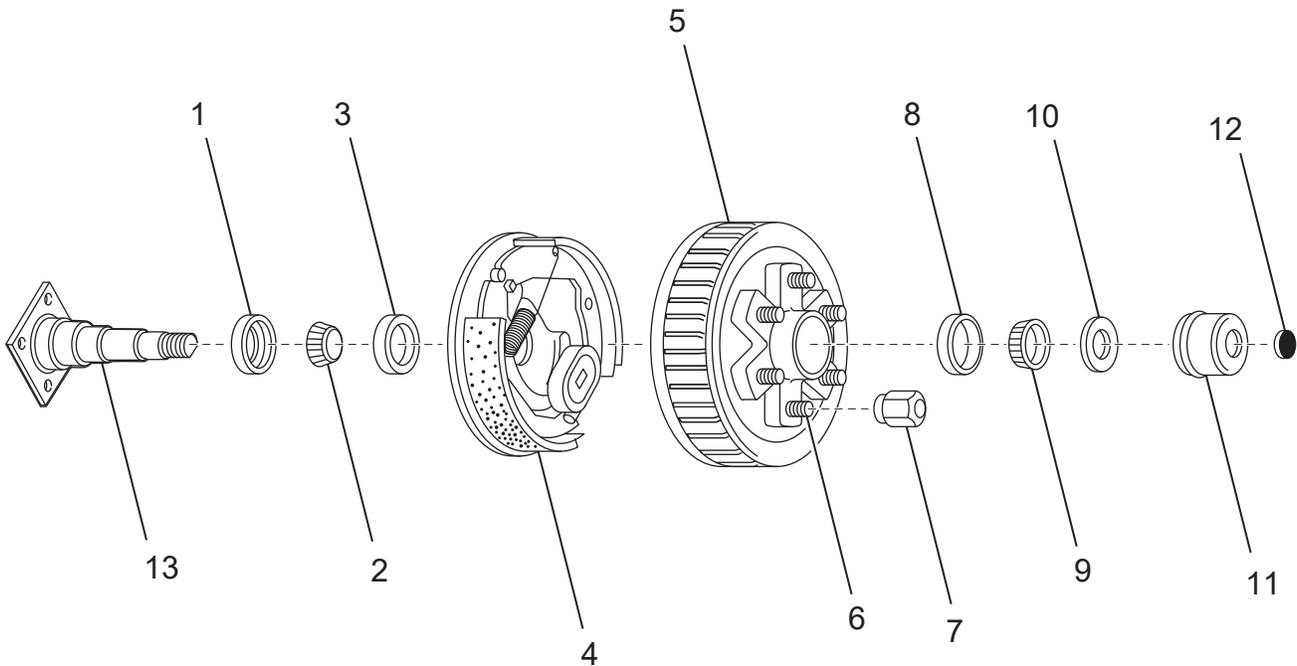
Ref. No.	Part Number	Description	No. Req'd
1	EPRAX5105.31	XB7 Brake/Axle with Leafs (Non-Serviceable)	1
2	WL8-250-5	Hub/Brake Drum Assembly	2
3	WL23-26	Brake Assembly, Left Side	1
4	WL23-27	Brake Assembly, Right Side	1
5	080819	Wheel Assembly (ST225/75D15 on 15 x 6 Rim)	2



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

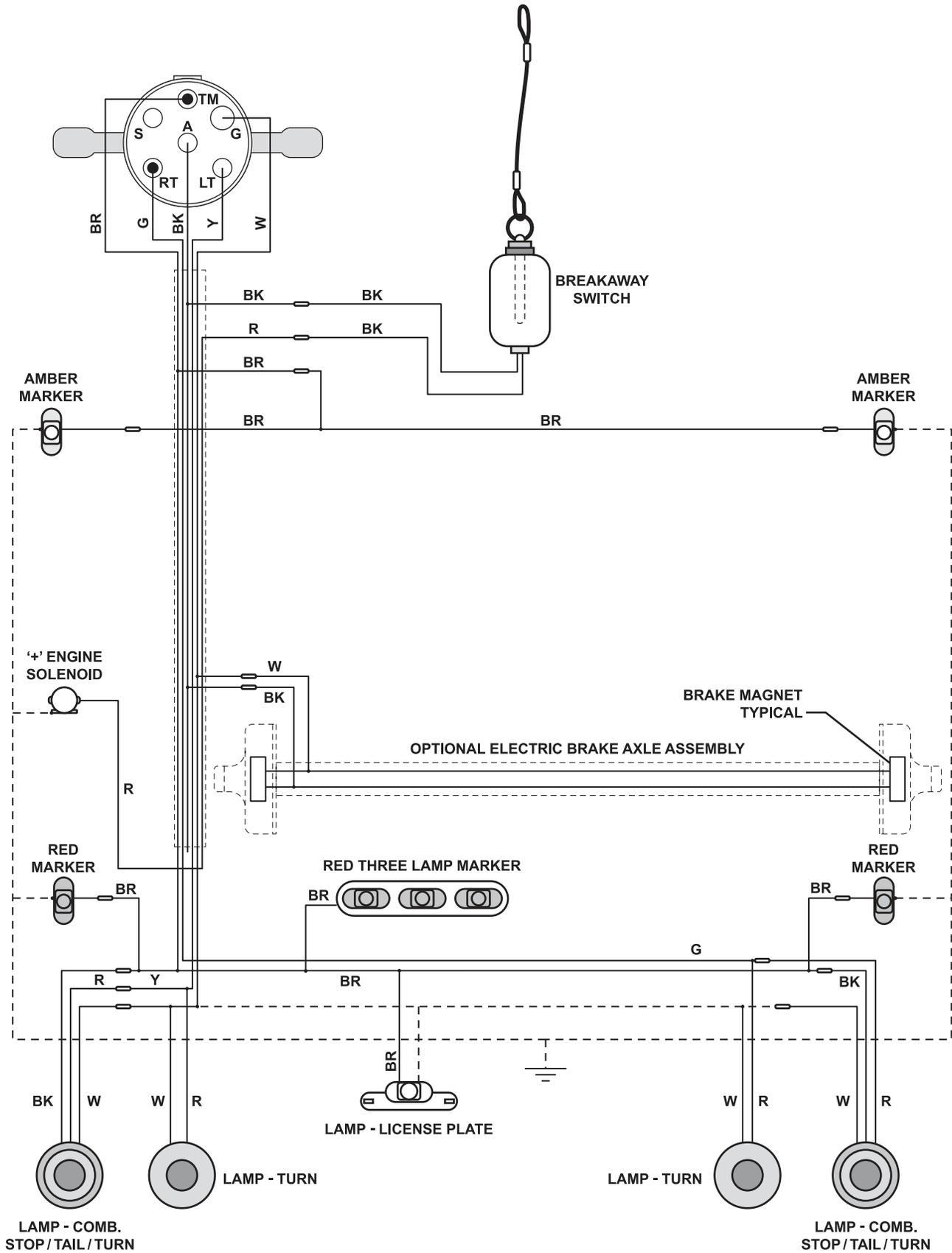
HUB ASSEMBLY

Ref. No.	Part Number	Description	No. Req'd
1	055789-12	Grease Seal	1
2	055789-14	Inner Bearing Cone	1
3	005820-02	Inner Bearing Cup	1
4	W23-26	Brake Assembly, Left Side	1
	W23-27	Brake Assembly, Right Side	1
5	WL8-250-5	Hub	2
6	WL7-15	Pressed Wheel Stud, 1/2-20	6
7	WL6-80	60° Cone Nut, 1/2-20	6
8	WL31-31-1	Outer Bearing Cup	1
9	WL31-31-2	Outer Bearing Cone	1
10	005815-01	Spindle Washer	1
11	055789-GC	Grease Cap	1
12	080821-GCP	Rubber Plug	1
13	-----	Axle (Reference)	--



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

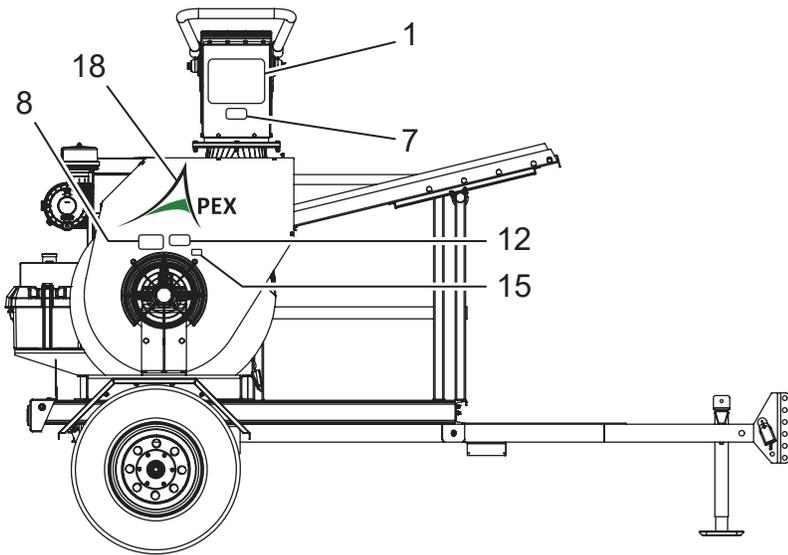
TRAILER WIRING SCHEMATIC



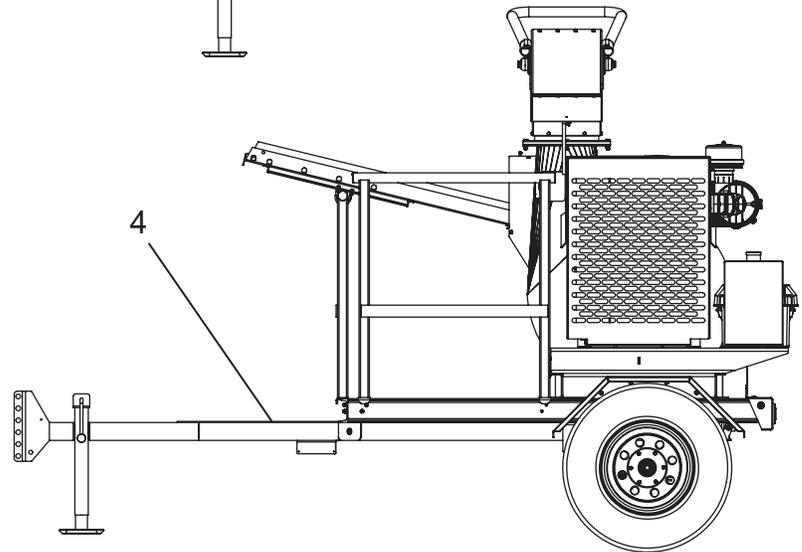
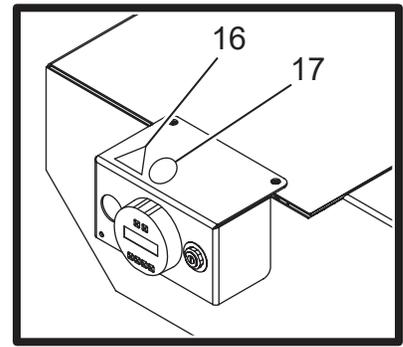
WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE

This Page Left Blank Intentionally

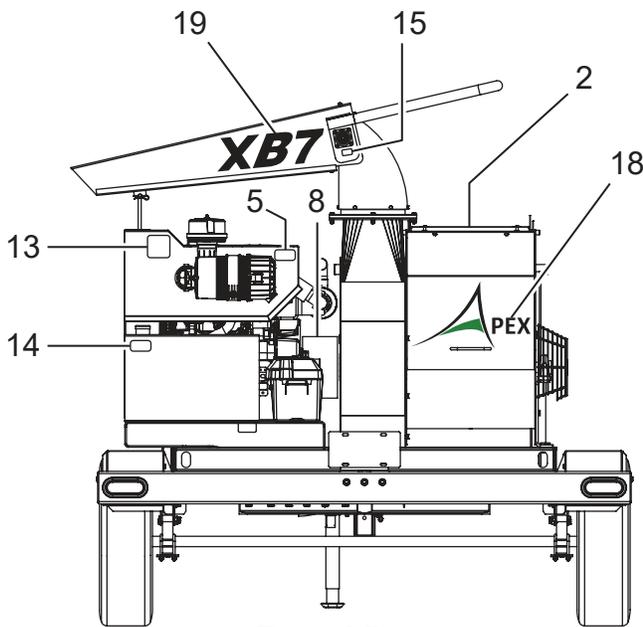
**WHEN ORDERING PARTS, BE SURE TO STATE
SERIAL NUMBER OF MACHINE**



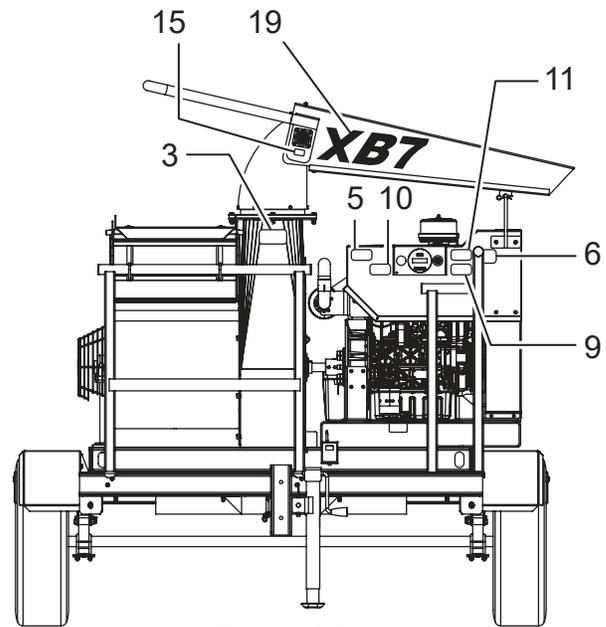
Curb Side



Road Side



Rear View



Front View

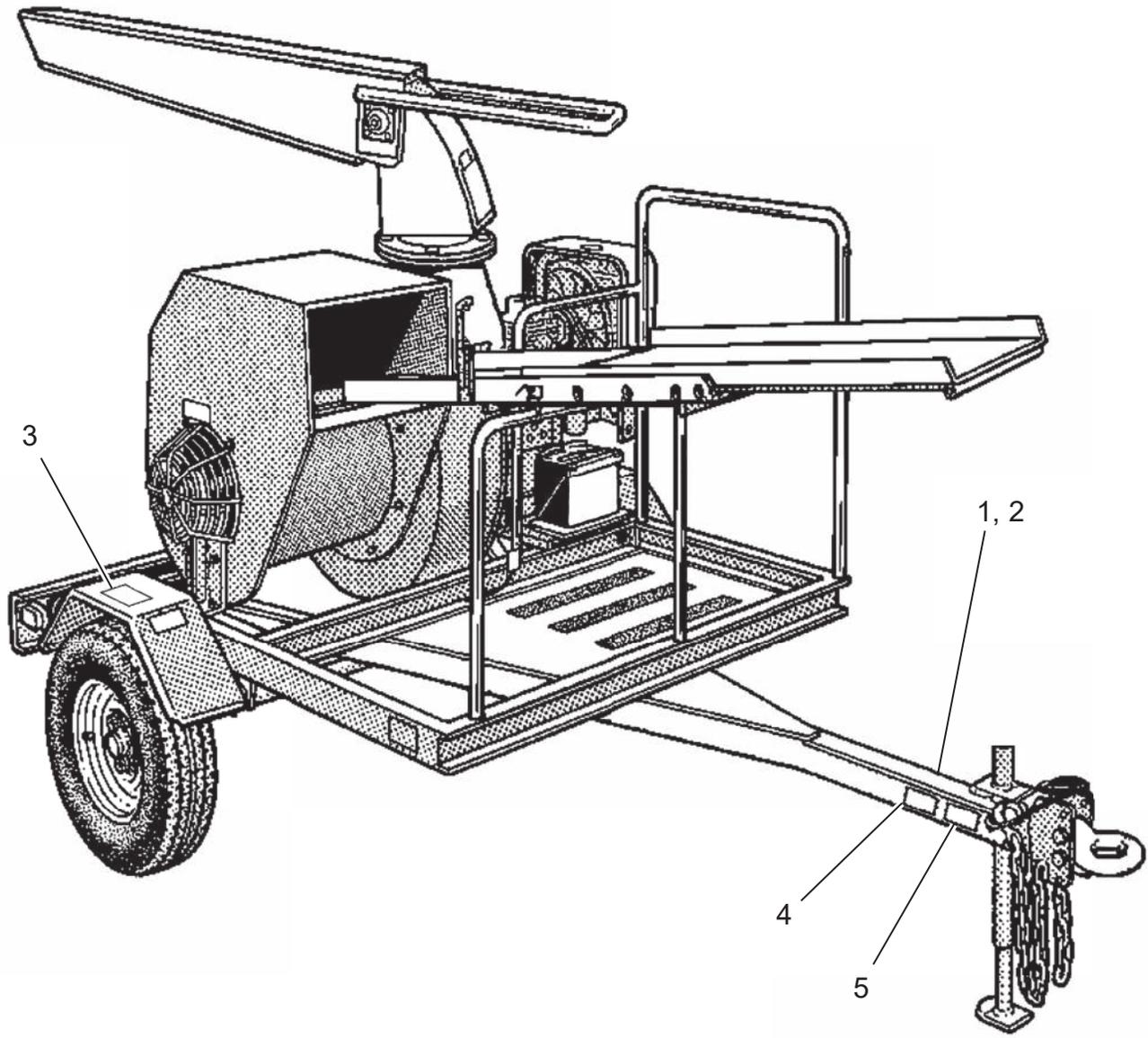
WHEN ORDERING PARTS, BE SURE TO STATE SERIAL NUMBER OF MACHINE

UNIT DECALS

Ref. No.	Kit Ref.	Part Number	Description	No. Req'd
1	▲	-----	Decal - Operating Instructions	1
2	▲	-----	Decal - DANGER Entanglement Hazard - Operation	1
3	▲	-----	Decal - DANGER Entanglement Hazard - Machinery	1
4	▲	-----	Decal - DANGER Fall Hazard	1
5	▲	-----	Decal - DANGER Hot Exhaust Pipe	2
6	▲	-----	Decal - WARNING Vibration Hazard	1
7	▲	-----	Decal - WARNING Hearing Protection	1
8	▲	-----	Decal - WARNING Entanglement Hazard - Guards	2
9	▲	-----	Decal - CAUTION Equipment Training	1
10	▲	-----	Decal - CAUTION Stop Machine and Remove Key	1
11	▲	-----	Decal - CAUTION 2400 RPM Max	1
12	▲	-----	Decal - NOTICE Do Not Overgrease	1
13	▲	-----	Decal - Replace Filter	1
14	▲	-----	Decal - Use Low Sulfur Diesel Fuel Only	1
15	▲	-----	Decal - Grease Every 80 Hours	3
16	▲	-----	Decal - Hazard Triangle Decal	1
17	▲	-----	Decal - OSHA Read Manual Decal	1
18		91-85-0009	Decal - Apex Logo	2
19		A7160-001	Decal - XB7 Model	2
NOT SHOWN				
		A6288-001	Serial Number Nameplate - Skid	1
		A6286-001	Serial Number Nameplate - Trailer	1
KITS AND MARKERS				
	▲	A7815-001	XB7 Decal Kit	

NOTE: *ALL* Decals are placed in the same position for skid units except for decal number 4, which only appears on trailer units.

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



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

TRAILER SAFETY DECALS

Ref. No.	Kit Ref.	Part Number	Description	No. Req'd
1	<input type="checkbox"/>	-----	Decal "Warning! Personal Injury Hazard! Trailer Jack..."	1
2	<input type="checkbox"/>	-----	Decal "Warning! Load Balance and GVWR..."	1
3	<input type="checkbox"/>	-----	Decal "Warning! Control Hazard! Tires..." (Single Axle)	1
4	<input type="checkbox"/>	-----	Decal "Warning! Control Hazard! Lights..."	1
5	<input type="checkbox"/>	-----	Decal "Warning! Runaway Vehicle Hazard! Breakaway..." and "Control Hazard! Chains..."	1
KITS AND MARKERS				
	<input type="checkbox"/>	A2270-001	Trailer Safety Decal Kit	

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

