Operator's Manual

revolution

RXL33 and RXL40

Ride-On UHS Propane Burnisher

Failure to read and understand this manual before operating this machine or performing service on this machine may result in injury to the operator or nearby personnel or result in damage to the machine or nearby property. Each operator must be trained in the operation of this machine before being allowed to use it. Contact Amano Pioneer Eclipse Customer Service at 1-800-367-3550 or 1-336-372-8080 or an authorized Amano Pioneer Eclipse Distributor to inquire about training or to request a replacement manual.

La falta de leer y de entender este manual antes de usar esta máquina o de realizar servicio en esta máquina puede dar lugar a lesión al operador o al personal próximo o a resultado en daño a la máquina o propiedad próxima. Cada operador debe ser entrenado en la operación de esta máquina antes de ser permitido utilizarla. Ponerse en contacto con el servicio de Amano Pioneer Eclipse 1-800-367-3550 o 1-336-372-8080 o un distribuidor autorizado por Amano Pioneer Eclipse para investigar sobre el entrenamiento o para solicitar un manual.

Manquer de lire et de comprendre ce manuel d'utilisation avant l'utilisation de cette machine ou avant faire de maintenance sur la machine peut être résulter en blessure à l'opérateur ou au personnel proche ou peut endommagé la machine ou la propriété proche. Chaque utilisateur doit être entraîné dans l'opération de cette polisseuse avant l'utilisation. Veuillez contacter le service àpres-vente de Amano Pioneer Eclipse à 1-800-367-3550 ou 1-336-372-8080 et/ou un distributeur de Amano Pioneer Eclipse pour vous renseigner concernant l'entraînement ou pour obtenir un autre manuel d'utilisation.

CE

Pioneer Eclipse®

DANGER! For your safety, if you smell gas:

1. Extinguish any open flame.
2. Open window.
3. Do not touch electrical switches.
4. Immediately call your gas supplier.

DANGER!

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Record This Important Information

Date of Purchase _____

Purchased From _____

Address _____

City _____ State _____ Zip _____

Phone _____ Contact _____

Machine Model _____

Machine Serial Number _____

Important Phone Numbers

Medical Emergency _____

Police _____

Fire Department _____

In this Operation Manual you will find three statements that you must read and observe to ensure safe operation of this machine.

DANGER! indicates that the possibility of severe bodily injury or death can occur if DANGER! statements are ignored. Read and observe all DANGER! statements included in the Operation Manual and attached to the machine.

WARNING! indicates that the possibility of bodily injury to the operator and other people can occur if WARNING! statements are ignored. Read and observe all WARNING! statements included in the Operation Manual and attached to the machine.

CAUTION! indicates that the possibility of damage to the machine or other property can occur if CAUTION! statements are ignored. Read and observe all CAUTION! statements included in the Operation Manual and attached to the machine.

Contents

Quick Reference Specifications:

Capacities:

- LP Cylinder: 15.2kg (33.5lb)
- Engine Oil:
  - Filter not removed: 2L (2.1 U.S. qt.)
  - Filter removed: 2.3L (2.4 U.S. qt.)

- Cooling System: 2.7L (2.9 U.S. qt.)
- Hydrostatic Pump: 2L (2.1 U.S. qt.)
- Hydraulic Steering: 2L (2.1 U.S. qt.)

Routine Maintenance Parts:

- Engine Monitor and Diagnostic Software: MP322300
- Engine Oil Filter: KA490652078
- Engine Primary Air Filter: KA110137020
- Engine Secondary Air Filter: KA110137019
- Spark Plug: KA920702112
- Battery: MP198000
- Deck Drive Belt: MP284100 (RXL33) MP248300 (RXL40)
- Hydrostatic Pump Drive Belt: MP248400
- Dust Container Filter: RX008800 (RXL33) RX000600 (RXL40)
- Fuses:
  - 20A: SS2570
  - 7.5A: MP043000
- LP Cylinder: MP236400
- Dust Skirt Wear Edge: MP284000 (RXL33) MP211700 (RXL40)
- Pads:
  - 17” Blue Blend: PD006017
  - 17” White Lightning: PD010017
  - 17” Thermal Thunder: PD001417
  - 17” Natural Poly-Blend: PD002017
  - 21” Blue Blend: PD006021
  - 21” White Lightning: PD010021
  - 21” Thermal Thunder: PD001421
  - 21” Natural Poly-Blend: PD002021

Your Authorized Amano Pioneer Eclipse Distributor _____

Authorized Amano Pioneer Eclipse Distributor Telephone Number _____

Amano Pioneer Eclipse Customer Service: 1-800-367-3550

Safety Precautions

Anyone operating the machine should read the following carefully and be informed of potentially dangerous operating conditions. Operators should be familiar with the location and use of all safety devices on the machine. Do not use the machine if it is not in proper operating condition, and report any damage or operation faults immediately.

DANGER! Operate this machine in a well-ventilated area. It is the responsibility of the machine operator, machine owner, and the site manager to ensure that the air exchange system where the machine is to be used is in compliance with local building codes and is operating properly. Failure to operate this machine in a well-ventilated area could lead to sickness, injury or death from carbon monoxide (CO) exposure.

DANGER! This machine emits CO, which is colorless, odorless, non-irritating gas. The first symptoms of CO exposure include headache, drowsiness, dizziness, and nausea. If you should experience any of these symptoms while operating the machine, shut off the machine and go outside to get fresh air. Have the machine tested for CO emissions by a qualified service technician before using it again.

DANGER! Prolonged or high exposure to CO may result in vomiting, confusion, and collapse in addition to loss of consciousness and muscle weakness. If such symptoms occur, call 911 for emergency medical attention. If you have experienced these symptoms, do not operate this machine or any other propane machine again until cleared by a physician. Excessive exposure to CO can result in death.

DANGER! Propane is a highly flammable fuel. If you smell propane, shut off the machine immediately and take it outside the building. Do not use the machine again until a qualified service technician has corrected the propane leak. Do not use or allow another person to use an ignition source such as a cigarette lighter near the propane machine. Do not smoke near the propane machine. Do not vent a propane cylinder inside a building. Do not store propane cylinders inside a building.

DANGER! This machine has parts including the pad assemblies that can cause severe injury if these parts are contacted while they are moving. Do not allow any part of the body or clothing to come in contact with these parts while they are moving. Do not try to change the pads while the machine is running. Do not allow other people to come near the machine while it is in operation. Do not allow the machine to run unattended. Do not leave the machine in a place where unauthorized or untrained personnel could use the machine. Do not run the machine with the pads off center, damaged or missing. Do not run machine with unsecured guards and shields. Do not operate the machine if the machine has loose parts.

DANGER! Federal law and California State law prohibits the following acts or the causing thereof: (1) the removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new engine for the purpose of emission control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the engine after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below: Do not tamper with the original emission related part.

- Throttle body and internal parts
- Spark plugs
- Magneto or electronic ignition system
- Air cleaner elements
- Crankcase
- Cylinder heads
- Breather chamber and internal parts
- Intake pipe and tube
- Regulator
- Fuel injector
- Fuel lock-off

WARNING! Modifications or alterations to this machine can lead to personal injury or damage to the machine. Do not make unauthorized modifications or alterations to this machine. Amano Pioneer Eclipse assumes no liabilities for injury or damage resulting from an unauthorized modification or alteration to the machine. Any unauthorized modification or alteration to this machine voids all warranties.

WARNING! The muffler and the engine become hot enough while the machine is in operation, and for a long time after the machine is shut off, to cause severe burns. Do not touch these parts of the machine until they have cooled.

WARNING! Injury can occur to the eyes and body while using the machine. Safety goggles, safety shoes, and safety clothing are recommended while operating the machine.

WARNING! Continuous exposure to high noise levels can cause hearing loss. Hearing protection is recommended while the machine is in operation.

WARNING! Machine vibration may cause tingling or numbness in the fingers or hands. Gloves are recommended to reduce machine vibration. If tingling or numbness persists, shut off the machine. If the vibration is caused by loose parts such as an off center pad, adjust or tighten these parts before using the machine again.

CAUTION! A dirty engine filter can cause overheating. Check and replace following recommended maintenance schedule.

CAUTION! Overheating can be caused by insufficient or low oil. Check oil before each use, and fill or change as needed.

CAUTION! Never over-fill with oil. Over-filling could cause irreparable damage to the engine.

CAUTION! Overheating can be caused by dirty oil. Check oil before each use and change regularly following recommended maintenance schedule.

CAUTION! Do not engage starter for more than 10 seconds. Allow a 60 second cool-down period for second failed start-up attempt.

CAUTION! Perform all recommended scheduled maintenance. Regular maintenance of your propane powered floor machine is necessary to keep it in safe working condition.

CAUTION! Do not operate machine unless trained and authorized. Do not operate machine unless you have read and understand the operation manual. Do not operate machine in flammable or explosive areas.

CAUTION! Before starting machine ensure all safety devices are in place and functioning properly. Before starting machine check for proper operation.

CAUTION! When using machine, go slowly on inclines or slippery surfaces. Use care when operating machine in reverse.

CAUTION! When servicing machine, stay clear of moving parts. Do not wear loose clothing when working on machine. Block machine wheels before raising or jacking up machine. Use hoist stands that will support the weight of the machine. Wear eye and ear protection when using pressurized air or water. Disconnect battery connections before servicing machine. Use only replacement parts supplied by Amano Pioneer Eclipse or an Amano Pioneer Eclipse Authorized Distributor or Service Center.

CAUTION! When loading or unloading machine onto or off a truck or trailer, turn machine OFF. Only use a truck or trailer that will support the weight of the machine to transport. Do not push the machine onto or off a truck or trailer unless the load height is 15 in (380mm) or less from the ground. Use a winch. Machine is front heavy, only pull the machine up a ramp and back down a ramp. Block machine wheels when transporting. Tie the machine down securely to truck or trailer when transporting.

CAUTION! Do not run the engine with the LP cylinder secured to the body and the body raised. This will cause undue stress on the body and cause premature failure.

CAUTION! Do not drive the machine recklessly. Rapid acceleration and abrupt movements can cause the rear wheel to slip and damage the floor.

CAUTION! Allow engine to operate 45 sec. prior to burnishing. This will allow air pressure to build and prevent over-aggressive burnishing.

CAUTION! Only use the brake for emergencies and parking. Extended use of the brake during operation can cause excessive wheel and wheel hub failure.

This machine is manufactured for commercial use only.

This machine is designed and manufactured for indoor use in burnishing wax coated hard floor surfaces. Amano Pioneer Eclipse does not recommend use of this machine in any environment other than an indoor environment. This propane powered floor machine is designed and manufactured for commercial floor burnishing only. This machine is designed to burnish most modern types of floors including composition tile, stone, marble, terrazzo, and resilient floor covering, and some coated wood floors. Even though NFPA 58 8-4.5 says..."these machines shall be permitted to be used in buildings frequented by the public, including the times when such buildings are occupied by the public," Amano Pioneer Eclipse suggests usage when occupancy of a given work area is minimal.

These machines should not be used

- In nursing homes, hospitals, day-care centers, etc.
- By unqualified or untrained personnel.
- Unless properly maintained and adjusted.
- On areas with obstructions such as thresholds, floor outlet boxes, etc.
- In areas where loose tile or other objects are present.
- In rooms without proper ventilation.

Refueling and Storage of Fuel Cylinders

The Revolution RXL uses a 33.5lb (15.2kg) capacity aluminum or steel cylinder, which meets the DOT 4E240 standards. These cylinders are also listed by UL. In addition, the steel cylinder meets European TPED specifications and is CE compliant. Filling should be done ONLY by a qualified propane dealer. FILL THROUGH THE SERVICE VALVE ONLY. A properly filled cylinder should not exceed 80% of the rated capacity.

DO NOT attempt cylinder repair. Return the cylinder to your propane dealer if repair is necessary. Please note that DOT regulations prohibit shipping of cylinders after the cylinder has been filled with propane.

When not in use, cylinders always should be stored outside in an upright position in a secure, tamper-proof, steel mesh storage cabinet. The cabinet may be located next to the building, but with at least five feet (1.5 m) of space between the cabinet and the nearest building opening (door or window).

The cylinder supplied with the Revolution RXL is a vapor withdraw cylinder. A 33.5 lb (15.2 kg) liquid withdraw cylinder may be used on the machine.

The National Fire Protection Association (NFPA) Standard for Storage and Handling of LP Gas is the appropriate authority for safe propane use. A copy of this publication is available through the National Fire Protection Association (1-800-344-3555).

Canadian Safety Requirements

1. A sign indicating "NO SMOKING" shall be permanently displayed at the storage area. The sign shall be in accordance with the sign required in Clause 10.12.3 of CAN/CGA-B149.2-M91, Propane Installation Code.
2. When the cylinder is attached to the floor maintenance machine for use, the operator shall not leave the unit unattended except for short periods of time such as rest stops, washroom, or meal stops.
3. The requirements of 1.10.1 (e) and (g) do not apply in industrial buildings.
4. A floor maintenance machine shall only be used in buildings:
   a. Provided with continuous mechanical ventilation that removes products of combustion to the outdoors of not less that 300 CFM for each 10,000 BTU-hr or fraction thereof.
   b. Provided with natural ventilation of not less than 300 CFM for each 10,000 BTU-hr input or fraction thereof, based on a maximum of one-quarter-air exchange per hour for the net building volume.
5. The owner of a floor maintenance machine shall ensure that the operator has participated in a course authorized by the manufacturer of the unit on the safe handling of propane and the safe operation of the machine.
6. The owner of a floor maintenance machine shall ensure that the unit is maintained in accordance with the manufacturer's recommended maintenance procedures in a safe operating condition and the owner shall maintain a record of the maintenance for a period of two years.
7. Before transporting a floor maintenance machine, the cylinder shall be securely fastened with the system valve closed, and the cylinder shall be located in a well-ventilated space.

Operator Responsibility

The operator is responsible for performing the recommended daily maintenance and checkups of the machine to keep it in good working condition. The operator must inform the service mechanic or supervisor when recommended maintenance procedures are required as described in the MAINTENANCE section of this manual.

Read this manual carefully before operating this machine.

FOR SAFETY: Do not operate machine before reading and understanding the operation manual.

Check the machine for shipping damage.

Keep your machine regularly maintained by following the maintenance information in this manual. We recommend taking advantage of a service contract from your Amano Pioneer Eclipse Authorized Distributor or Service Center. Order parts and supplies only from an Authorized Amano Pioneer Eclipse Distributor. Use the parts illustration section of your manual when ordering parts.

During and after operation, perform the recommended daily and hourly procedures outlined in the Maintenance Chart.

Test for Operator-Ear Sound Pressure Level

Amano Pioneer Eclipse measures and rates the operator-ear sound pressure level for hand-guided floor treatment and floor cleaning machines for industrial use. All tests are performed in accordance with European Machinery Directive (98/37/EC).

- Outdoor test area consists of a flat open space free from effects of signboards, buildings or hillsides for at least 15 m (50 ft) from the center of the test surface. Indoor tests are conducted in a semi-anechoic or sound deadening room.
- The test surface is a single sheet of floor covering at least 1 m (3.3 ft) wider and longer than the equipment being tested. In order to not affect the sound reading, the observer taking readings is at least 2 m (6.6 ft.) from the equipment being tested, or standing directly behind the operator.
- All machines are tested while stationary and centered on the test surface. With the traction drive in neutral (where applicable) the test is conducted with the machine at maximum engine or motor speed as specified by the manufacturer.
- The operator is located in the normal operating position with the microphone or meter supported independent of the machine, 1,68 m (66 in) above the test surface, 25 cm (10 in) to the right and left centerline of the operators position, and 20 cm (8 in) to the rearmost point of the handle, with the handle in the most forward position.
- The sound level meter is observed for a minimum of 5 seconds or until a stabilized reading is obtained. The maximum repeatable sound level observed during the test at each microphone position is recorded and documented.

Test for Hand-Arm Vibration at the Grip Surface of Hand-Guided Machinery

Amano Pioneer Eclipse measures and rates the vibration at the machine-hand contact surface of hand-guided machines that are provided with handles in accordance with European Machinery Directive (98/37/EC).

- The test area consists of a flat open floor area that allows the machine to be operated normally.
- The transducer is mounted firmly at a point halfway along the length of the handle where the handle would normally be held.
- Machines are tested while stationary, with all mechanisms necessary for the equipment to perform its intended functions engaged and the traction drive in neutral (if applicable). The machine will be tested at maximum engine or motor speed as specified by the manufacturer of the subject machine.
- The measurements are recorded from the dominant axis.

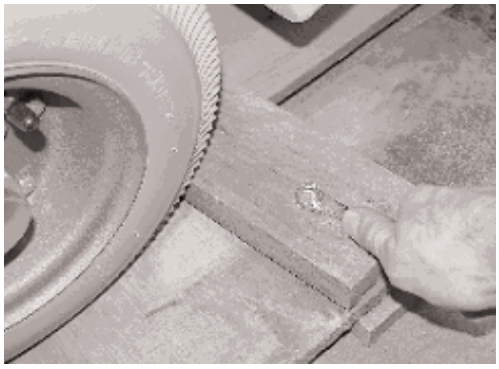
Machine Preparation

Unpacking the Machine

The machine is shipped boxed on a wooden pallet. To unpack machine:

1. Cut and remove black bands holding the box to the pallet.
2. Remove staples attaching the box to the platform at the bottom edge of the box.
3. With two people, one at either end of the box, lift box straight up and off machine.

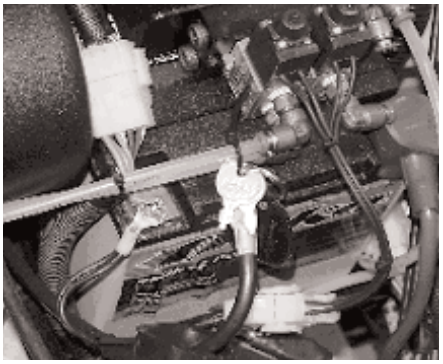
4. Cut and remove the black bands securing the machine to the pallet.
5. With a 7/16" wrench or socket, remove the four lag screws securing the front wheel blocks.



6. Open the LP cylinder cover and unlatch the cylinder strap.

7. Remove protective wrap from LP cylinder coupling and remove the LP cylinder. Close the LP cylinder cover.

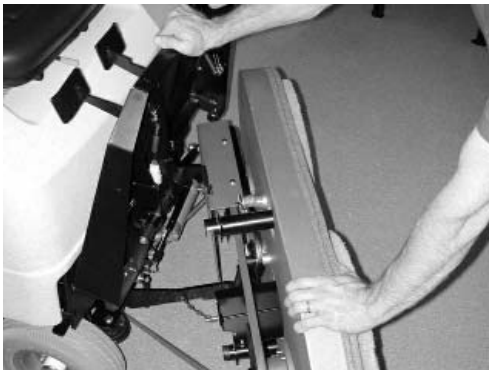
8. Raise the body by lifting up on the control arm and connect the battery .See "Battery Removal and Installation" in the "Maintenance" section.



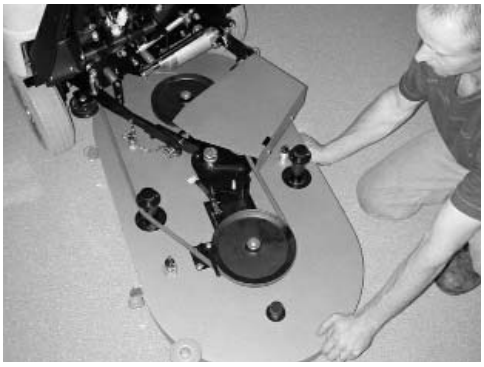
9. Check machine fluid levels (engine oil, engine coolant, wheel drive hydraulic reservoir, steering hydraulic reservoir). See "Maintenance" section.

Note: If the machine was shipped by airfreight, add engine oil and remove seal from hydrostatic pump reservoir.

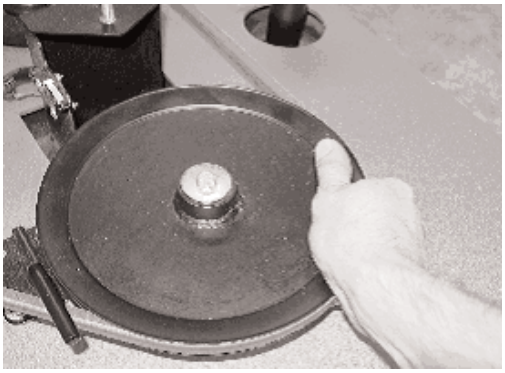
10. Push up on the front of the platform and lower the deck.



11. Loosen ratcheting handle lever and pivot deck inward.



12. Secure belt around both deck drive pulleys.



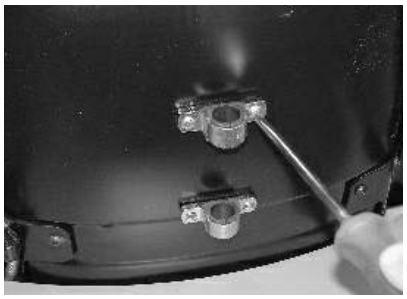
13. Pivot deck back to operating position and tighten ratcheting handle.

Note: Make sure ratcheting handle lever is not contacting belt.

14. Attach dust container assembly to the deck.

15. If the machine comes equipped with a strobe light, continue with steps 13-16. If not, proceed to step 17.

16. Cut the straps securing the light to the seat.
17. Remove the clamps attached to the seat.



18. Place the clamps on the strobe light mount pipe.

19. Secure clamps to seat and adjust to desired height.

20. The LP cylinder shipped with the machine is empty. Either fill the provided cylinder or attach a filled VAPOR WITHDRAW cylinder.

CAUTION! Do not overfill the cylinder or use a liquid withdraw cylinder on the machine. **Make sure cylinder is designed for horizontal mount, vapor withdraw.**

21. Start the machine. See "Starting the Machine". Allow the pneumatic system to build air pressure and lift the deck. This will take between 45 and 60 seconds.
22. Release the parking brake. Straighten the rear wheel and back the machine off of the pallet.

Filling the LP Cylinder

The Revolution RXL uses the 33.5 lb (15.2 kg) capacity cylinder, which meets the D.O.T. 4E240 standards. These cylinders are also listed by UL. In addition, the steel cylinder meets European TPED specifications and is CE compliant. Filling should be done ONLY by a qualified propane dealer. A properly filled cylinder should not exceed 80% of the rated capacity.

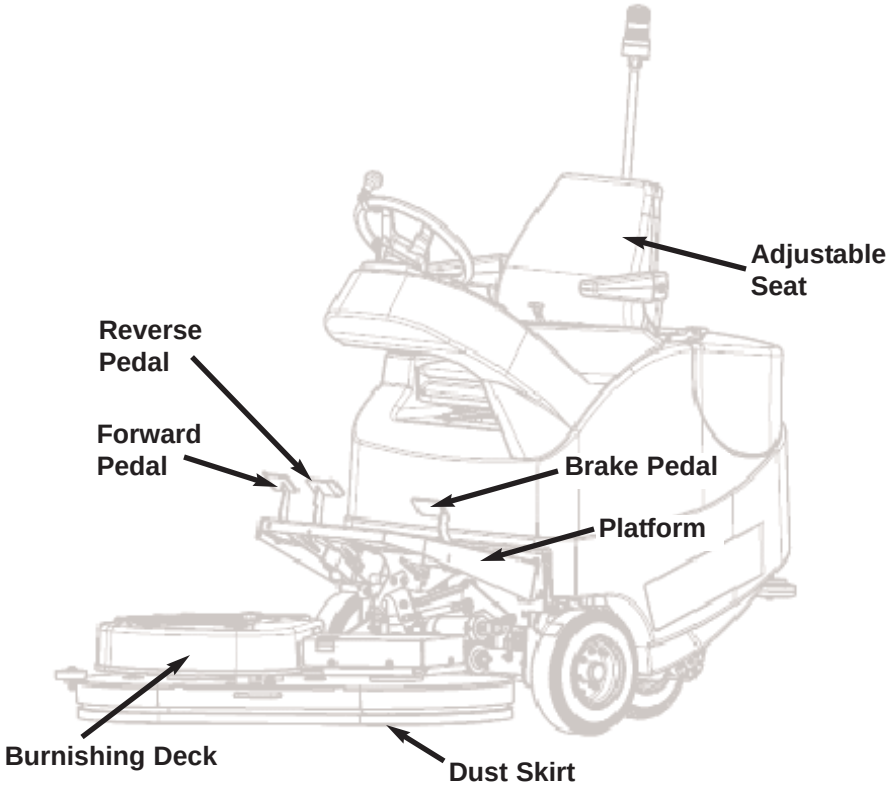
Installing the LP Cylinder

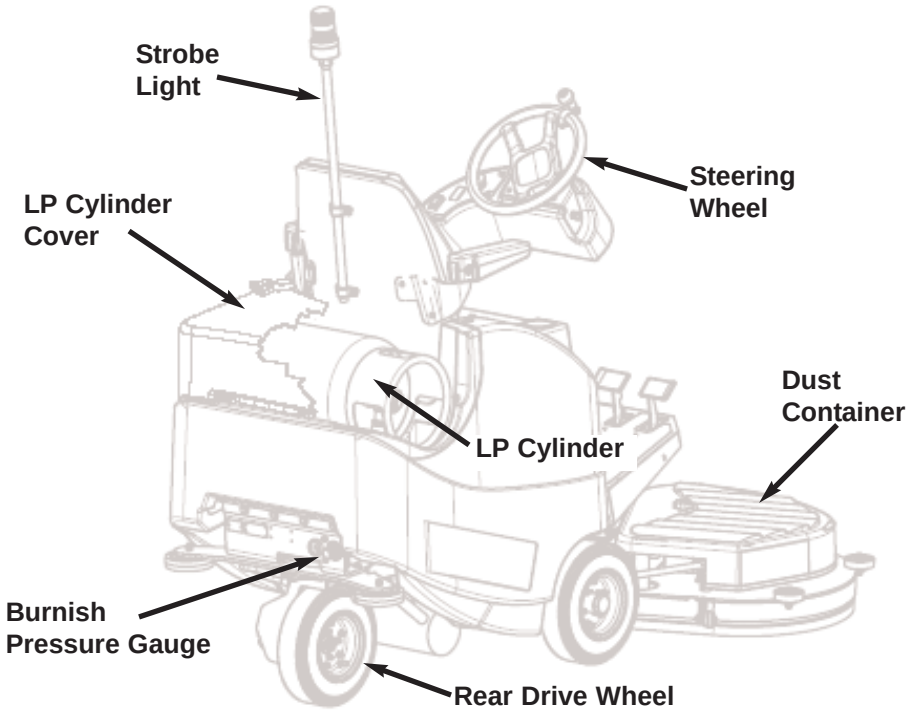
Open the LP cylinder cover located behind the operators seat. Place the LP cylinder in the cylinder cradle. MAKE SURE CYLINDER IS VAPOR WITHDRAW. Make sure the safety pin cutout is located by the safety pin. Connect the fuel hose coupling to the LP cylinder service valve by turning clockwise. HAND TIGHTEN ONLY! Make sure coupling is not cross threaded and check for leakage by noting any propane odors immediately after cylinder is connected. Finally, connect the two ends of the tank strap together. Close the LP cylinder cover.

TO REMOVE THE LP CYLINDER, reverse the above procedure. Always connect or change cylinders in a well-ventilated area.

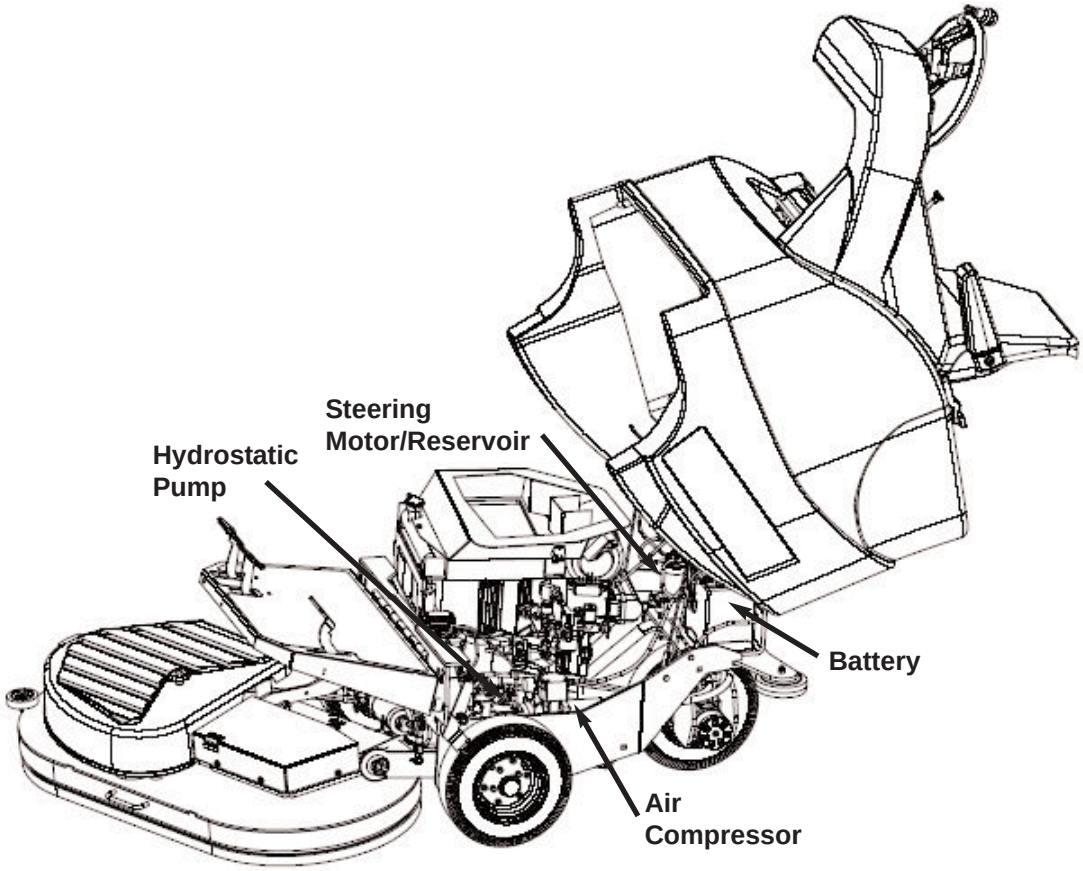
Machine Operation

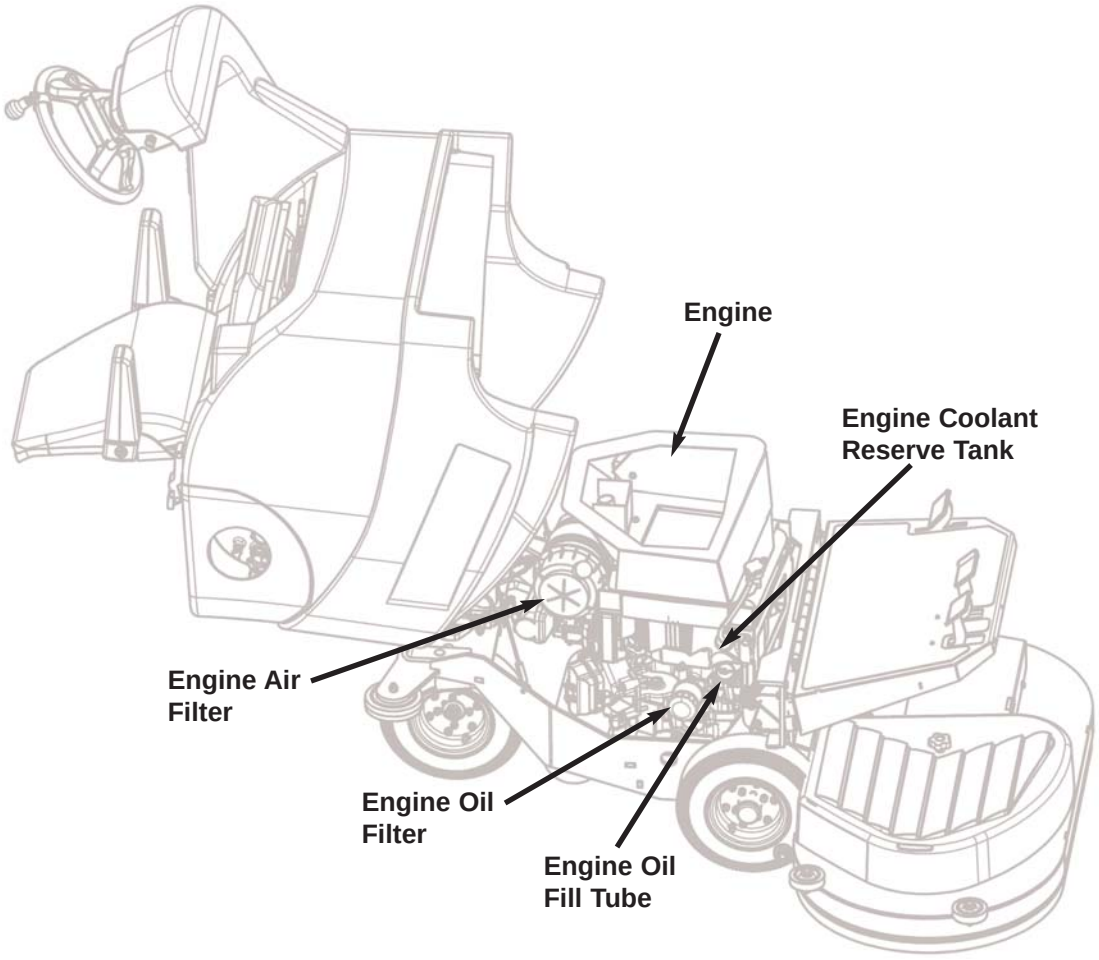
Machine Components

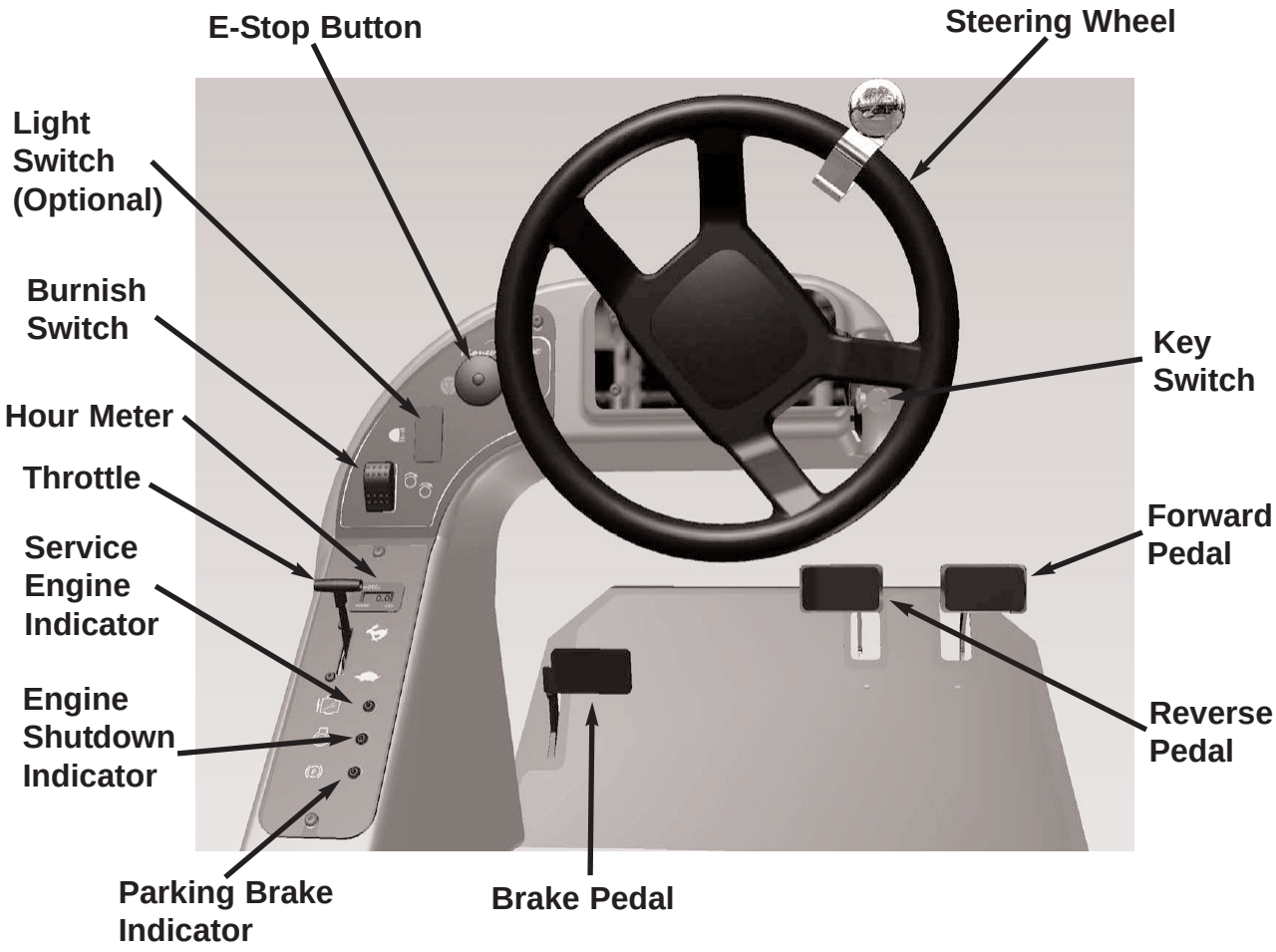




Machine Components Continued







Service Engine Indicator

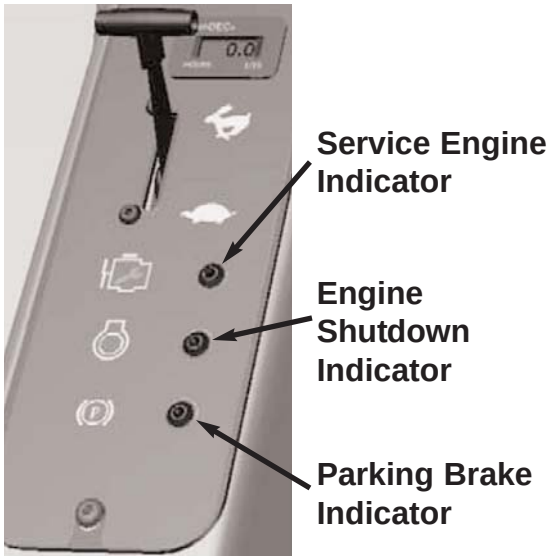
This Revolution RXL has an onboard ECU that monitors and controls the engine's fuel system. If a problem occurs, the Service Engine Indicator alerts the operator with a series of blink codes. This is explained further in the Maintenance section.

Engine Shutdown Indicator

If the engine shuts down abnormally, an LED will light. If this occurs, stop the machine immediately and refer to the "Machine Troubleshooting" section in this manual.

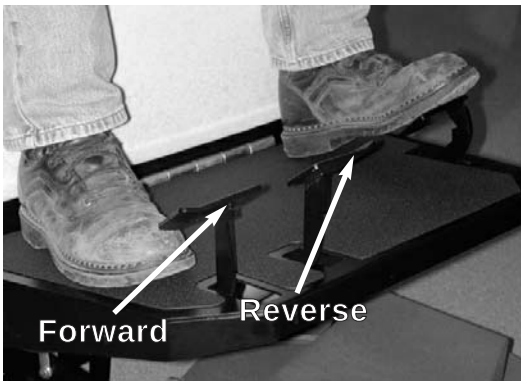
Parking Brake Indicator

When the parking brake is engaged, the parking brake indicator will light. When the parking brake is disengaged, the indicator will not light.



Direction and Speed Controls

Forward: Depress right pedal. The further you depress the pedal, the faster the machine will travel.
Reverse: Depress the center pedal. The further you depress the pedal, the faster the machine will travel.
Stop: Remove foot from either right or center pedals. Machine will automatically stop. FOR EMERGENCY BRAKING ONLY, depress left pedal. To set parking brake, depress left pedal and cock to left.



Engine Ignition Switch

The Revolution RXL features a key switch ignition.
Start: Turn the key all the way forward or START to engage the engine starter motor. Release the key when the engine starts.
Note: *Start the engine with the throttle in the Mid-throttle position.*
Off: Turn the key to the back or OFF position.
Note: *When the key is turned to the OFF position, the fuel lock-off shuts and the engine continues to run until the fuel is depleted from the regulator. Under normal conditions this requires an additional 1-2 seconds. If it takes longer, liquid propane has entered the system due to using an improper cylinder, an overfilled cylinder, or aggressive driving. The cylinder should be inspected to verify the cause.*

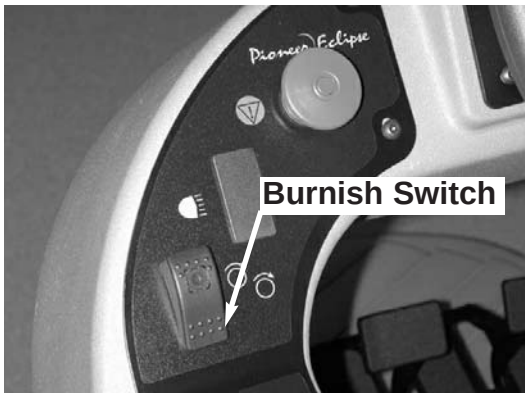
Engine Throttle

The engine throttle lever controls the engine speed. For operation, push the lever all the way forward. Pull the lever back for idle position.
Best Practice: While burnishing, the throttle should be pushed all the way forward.

Hour Meter

The hour meter records the number of hours the machine has been powered ON. The hour meter reading is used to mark recommended maintenance intervals. The hour meter alerts the operator when the machine requires scheduled maintenance. This occurs after the first 8 hours and every 100 hours thereafter.

Burnish Switch



The burnish switch controls the burnishing operation.
Lower deck and start burnishing: Press the top of the switch.
Note: *The burnishing heads will not begin to turn until the operator is in the seat, the deck is in the operating position, the dust box is secured to the deck, and the machine is moving. If one of these requirements is not met, the burnishing heads will not turn.*
CAUTION! Allow engine to operate 45 sec. prior to burnishing. This will allow air pressure to build and prevent over-aggressive burnishing.
Raise deck and stop burnishing: Press the bottom of the switch.

Emergency Stop

The emergency stop is provided for added safety. To disable the machine, press the red button.
CAUTION! The emergency stop should only be used in the event of an emergency or for added safety after the machine has been shut down. The key switch should be used to shut down the machine during normal operation. This ensures that all propane is depleted from the regulator.

Burnish Pressure Gauge

The burnish pressure gauge is located at the back of the machine underneath the body hinge. The burnish pressure gauge indicates the pressure in the air cylinder to hold up the deck during burnishing. The less pressure on the gauge, the more pad pressure. Conversely, the more pressure on the gauge, the less pad pressure. It is recommended to operate the machine between 15 and 75 psi. To lower the gauge pressure, pull the knob out, rotate counter-clockwise to the desired setting, and depress the knob. To increase gauge pressure, pull the knob up, rotate clockwise to the desired setting, and depress the knob.
Note: *The pneumatic system maximum pressure is 110 psi. The air compressor automatically turns on to maintain this system pressure. Only set the gauge pressure after the air compressor has built up pressure and stopped operating.*
Note: *The higher the gauge pressure, the longer it takes the deck to lower to the floor.*
Best Practice: The air compressor is electric. Make gauge pressure adjustments with the engine off and the key switch in the "ON" position.
CAUTION! Operating the burnisher under 15 psi gauge pressure could result in damage to softer floor finishes. Always start at a higher gauge pressure setting (lower pad pressure), and adjust down until desired performance is met.

Light Switch (Optional)

If your RXL is equipped with a headlight, it has a switch to activate it.
Turn On: Press the top of the switch. The green light is ON.
Turn Off: Press the bottom of the switch. The green light is OFF.

Release Valve for Towing

The hydrostatic transmission that propels the RXL forward is locked in the neutral position. If the machine is disabled for any reason and must be pushed or towed, the release valve must be engaged first. To engage the valve, raise the platform and locate the red neutral button behind the air cylinder. Depress the button and shift down until it is locked into the frame.

WARNING! Do not tow or push the machine at a high rate of speed (over 3mph or 4.8 km/h). Moving the machine in neutral faster than this speed could damage the wheel drive system.

Note: *The towing valve must be released for normal operation.*

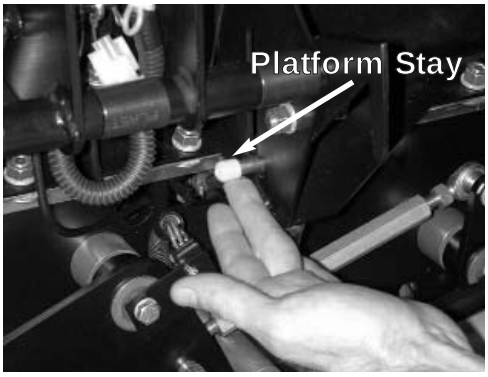
Raising the Platform

The platform must be raised to perform several routine functions.

To raise the platform: Turn off machine and set the parking brake. Raise the front of the platform. The platform automatically latches and remains in the "up" position.

Note: *Parking brake must be set for the platform to be raised.*

To lower the platform: Press platform stay while supporting the front of the platform. Lower the platform to the operating position.

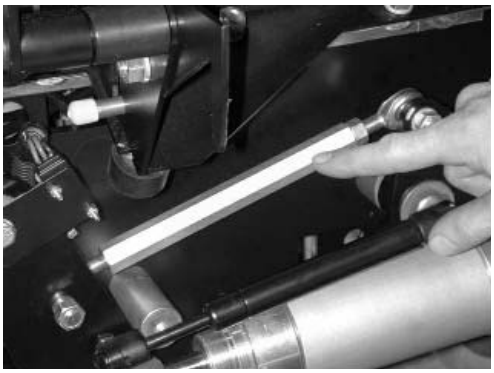


Deck Level Adjustment

The deck lift arms can be adjusted to level the deck. This adjustment can be seen by raising the platform.

To raise left side of deck (operators perspective): Loosen jam nut and turn the turnbuckle clockwise. Tighten the jam nut.

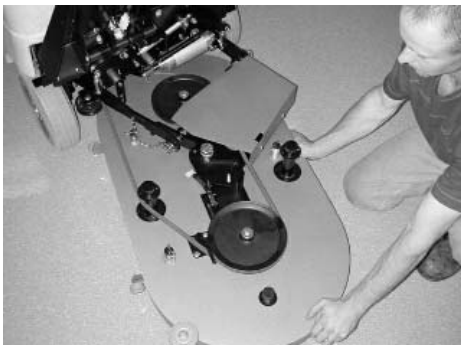
To lower left side of deck (operators perspective): Loosen jam nut and turn the turnbuckle counterclockwise. Tighten the jam nut.



Deck Pivot

The deck can be pivoted to allow the burnisher to drive through a 36" (91.4 cm) door.

Pivot Deck to Narrow Position: Turn off machine and set the parking brake. Raise the platform and loosen air cylinder drain valve. Remove the dust container assembly. Loosen the ratcheting handle lever and pivot the deck inward. Retighten the ratcheting handle lever and close air cylinder drain valve. Lower the platform. Restart engine, release parking brake and drive through doorway.



Note: *Burnishing heads will not operate when the deck is in the narrow position.*

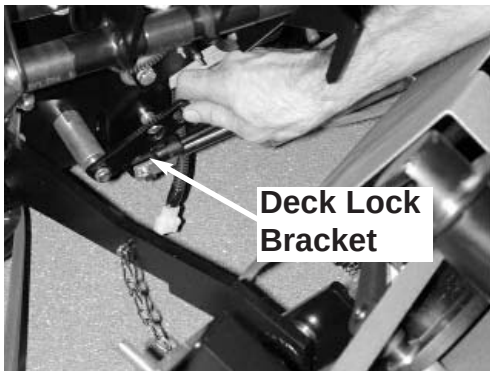
Pivot Deck to Operating Position: Turn off machine and set the parking brake. Raise the platform and loosen air cylinder drain valve. Loosen the ratcheting handle lever and pivot the deck outward. Retighten the ratcheting handle lever and replace the dust container assembly. Close the air drain valve and lower the platform.

Deck Lock

For storage, transport, or in the event of an air system failure, the deck can be either locked up or down.

To lock up with functioning air system:

1. Turn off the machine and set the parking brake.
2. With the air system pressurized, raise the platform.
3. Secure the deck lock pin with the deck lock bracket in the first hole.



To lock up with failed air system:

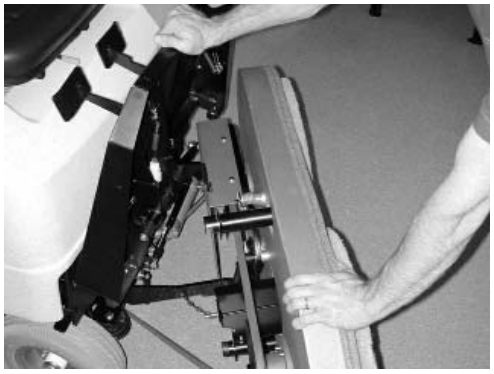
1. Turn off the machine and set the parking brake.
2. Raise the platform.
3. Remove the dust container assembly.
4. Lift front of deck up, rock back, and secure with hook.
5. Secure the deck lock pin with the deck lock bracket in the first hole.

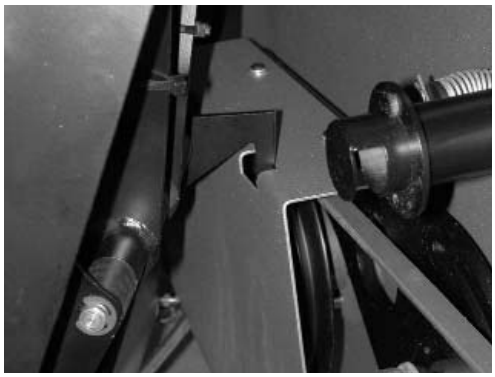
To lock the deck down:

1. Turn off the machine and set the parking brake.
2. Raise the platform.
3. Loosen air cylinder drain valve.
4. Secure the deck lock pin with the deck lock bracket in the second hole.
5. Retighten air cylinder valve.

Pad Change

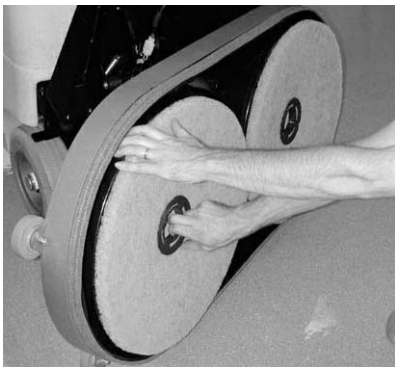
1. Turn off machine and set the parking brake.
2. Raise the platform.
3. Remove dust container assembly.
4. Lift front of deck up, rock back, and secure with hook.





Note: *Damage could occur to the dust container assembly, if it is not removed prior to rocking the deck back.*

5. Remove centering device and remove pads. If pads have worn less than 1/4" (6 mm), replace them.

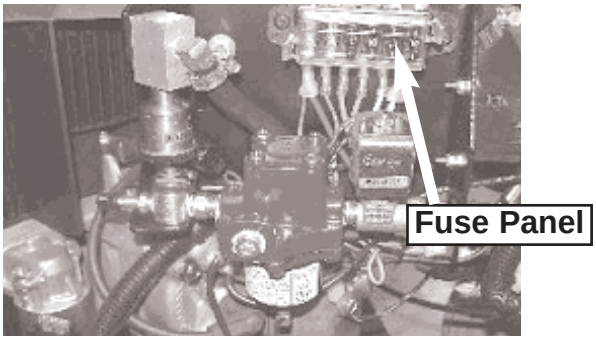


Fuse Panel

The machines electrical circuit is protected by fuses, which stop the flow of current in the event of a circuit overload. Once a fuse blows, it must be replaced. If the overload that caused the fuse to fail is still present, the new fuse will fail and the problem must be corrected. The fuse panel is located on the left side of the engine above the regulator assembly. Refer to the chart below to identify fuse locations and the electrical components they protect.

Fuse Location and Protection

Fuse	Rating	Protects
1	20 Amp	Electrical Systems
2	20 Amp	Air Compressor
3	7.5 Amp	Head Light (Optional)
4	7.5 Amp	Clutch
5	7.5 Amp	Strobe Light (Optional)
6	7.5 Amp	Fuel Injection System



Strobe Light

If machine is equipped with strobe light, the light flashes when the key switch is in the "ON" position.

How the Machine Works

The Revolution RXL has a burnishing deck that is belt driven via an electric clutch that is activated by a switch on the control panel. The deck is lowered and the pad pressure is controlled through an air cylinder. An air regulator adjusts the pad pressure. Dust generated during burnishing is contained by a floating steel skirt and collected in a dust container. For the deck to be engaged, the operator has to be in the seat, the dust container secured, the deck lowered, and the machine moving.
Two pedals control the direction and speed of the machine. Depress the right pedal to move forward. The further you depress the pedal, the faster the machine will travel. Similarly, the center pedal moves the machine in reverse. The left pedal serves as a parking and emergency brake.
The machine has a zero turning radius and is controlled through a conventional steering wheel.

Pre-Operation Checklist

- Check the engine oil level. Add oil if needed. Refer to Maintenance.
- Check the engine coolant level. Add coolant if needed. Refer to Maintenance.
- Check the hydrostatic pump reservoir and the hydraulic steering reservoir. Refer to Maintenance.
- Check the engine air filters. Clean or replace if needed. Refer to Maintenance.
- Inspect the engine radiator and clean off any debris or dust buildup. Refer to Maintenance.
- Inspect the burnishing pads and replace, if necessary. Refer to Maintenance.
- Inspect the pad holders for cracks or damage! Replace if necessary. Refer to Maintenance.

WARNING! A DAMAGED PAD HOLDER ROTATING AT HIGH SPEEDS MAY BE AN EXTREME HAZARD IF IT SHOULD DISINTEGRATE.

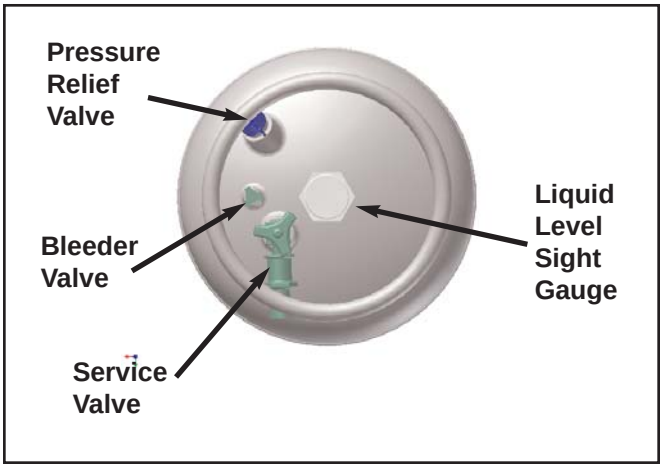
- Inspect the deck drive belt and the hydrostatic pump belt. Replace if necessary. Refer to Maintenance.
- Check under the machine for leaks.

LP Fuel Cylinder

The Revolution RXL uses a 33.5 lb (15.2 kg) capacity cylinder, which meets the D.O.T. 4E240 standards. These cylinders are also listed by UL. In addition, the steel cylinder meets European TPED specifications and is CE compliant. Filling should be done ONLY by a qualified propane dealer. A properly filled cylinder should not exceed 80% of the rated capacity. **Make sure cylinder is designed for horizontal mount.**

Installing the LP Cylinder

Open the LP cylinder cover located behind the operators seat. Place the LP cylinder in the cylinder cradle. Make sure the safety pin cutout is located by the safety pin. Connect the fuel hose coupling to the LP cylinder service valve by turning clockwise. HAND TIGHTEN ONLY! Make sure coupling is not cross threaded and check for leakage by noting any propane odors immediately after cylinder is connected. Finally, connect the two ends of the tank strap together. Close the LP cylinder cover.



Starting the Machine

1. Complete your pre-operation check.
2. Turn propane cylinder service valve counter-clockwise to open.

Note: *Always open the service valve slowly to allow pressure to equalize in the hoses. Opening the service valve too quickly may cause the flow check valve to engage, limiting the fuel flow.*

3. With the engine throttle lever in the mid-throttle position, engage the starter by turning the key switch to the starting position for approximately 5 seconds. If the engine does not start, release the key switch for 10 seconds, then try to start again for another 5 seconds.
4. After the engine has started, allow the engine to warm up and the pneumatic system to build air pressure for approximately 45 seconds. For optimum performance, only burnish at the full throttle position.

Note: *The Revolution RXL comes with an onboard ECU that continually monitors and controls the engine's fuel injection system. In addition, the machine is equipped with a catalytic muffler. The Service Engine light will NOT be illuminated as long as the machine is safely and properly operating. Refer to the "Machine Troubleshooting" section, if the Service Engine light flashes.*

Note: *If the operator is not in the seat, the engine will stop after 60 seconds.*

WARNING! Catalytic mufflers require a few minutes to warm up before effectively removing harmful emissions. Make sure of proper ventilation during this warm-up period!

Burnishing

1. Dust mop and scrub the floor to clean it.
2. Try to burnish in larger areas with minimal obstructions. Use a smaller walk-behind burnisher for more confined areas. Overlap the burnishing paths by a few inches.
3. If you are using the machine for the first time, or if you are on a recently waxed floor, set the burnish pressure gauge between 65 and 75 psi. The burnish pressure gauge is located at the back of the machine underneath the body hinge. It indicates the pressure in the air cylinder to hold up the deck during burnishing. The less pressure on the gauge, the more pad pressure. It is recommended to operate the machine between 15 and 75 psi. To lower the gauge pressure, pull the knob out, rotate counter-clockwise to the desired setting, and depress the knob. To increase gauge pressure, pull the knob up, rotate clockwise to the desired setting, and depress the knob.

Note: *Only set the gauge pressure after the air compressor has built up pressure and stopped operating.*

Note: *The higher the gauge pressure, the longer it takes the deck to lower to the floor.*

CAUTION! Operating the burnisher under 15 psi gauge pressure could result in damage to softer floor finishes. Always start at a higher gauge pressure setting and adjust down until desired performance is met.

4. Start the machine and drive to the area to be burnished.

Note: *Accelerate slowly in either forward or reverse. Slow down in turns. Rapid acceleration or movement could cause wheel slip and damage the floor finish.*

Note: *Make sure parking brake is released.*

5. Press the top of the burnish switch to activate the burnishing function. The deck will lower, the burnishing heads will begin to turn.

Note: *The burnishing heads will not begin to turn until the operator is in the seat, the deck is in the operating position, the dust box is secured to the deck, and the machine is moving. If one of these requirements is not met, the burnishing heads will stop.*

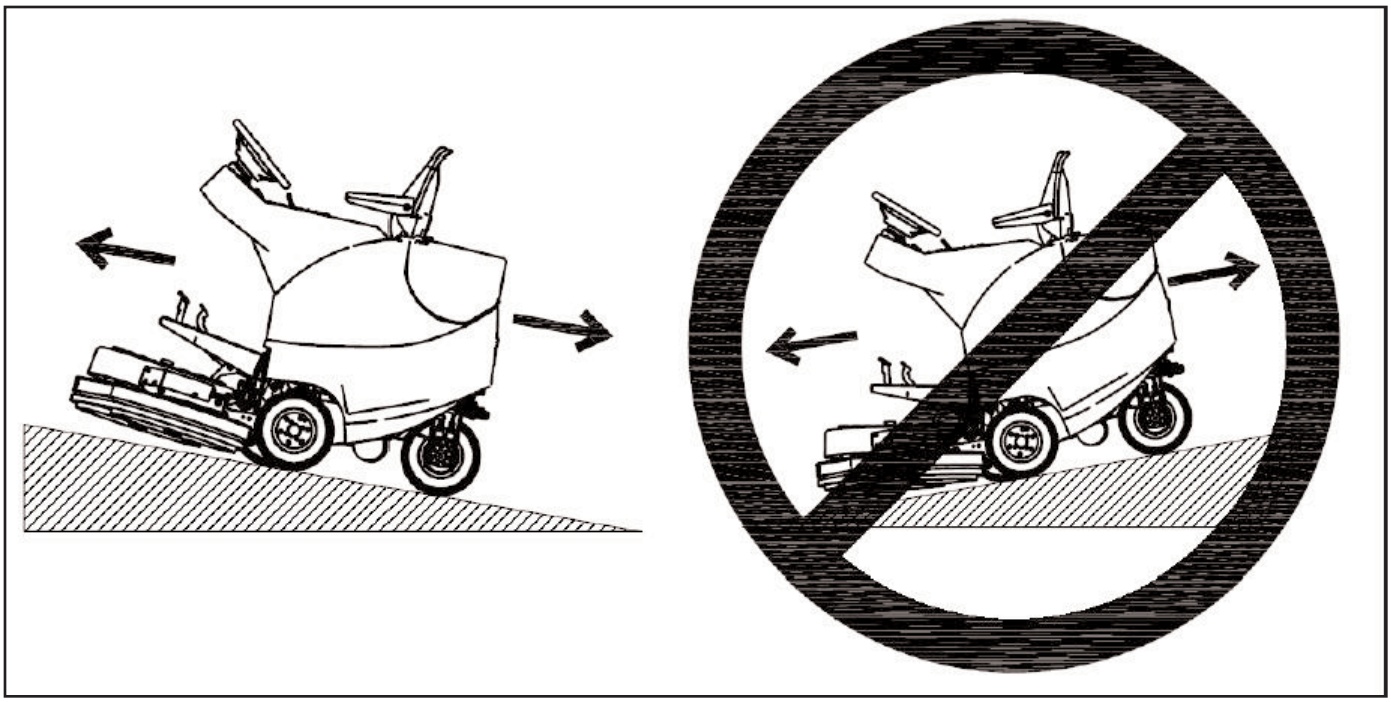
CAUTION! Keep the burnisher moving when the burnishing heads are operating. If you get the machine in a tight area that requires very slow movement, turn the deck OFF. Failure to do this may result in finish damage.

6. Press the bottom of the burnish switch to stop burnishing.
7. When done burnishing, drive the machine to the desired location. Turn off the LP cylinder service valve. When the fuel is depleted and the engine stops, turn the key switch OFF.
8. Remove the LP cylinder and store properly. Refer to Refueling and Storage of Fuel Cylinders.

Operation on Inclines

Drive the machine slowly on inclines. Only drive forward up and backward down an incline. The maximum rated forward climb and reverse descent is 8°.

CAUTION! DRIVING FORWARD DOWN AN INCLINE OR BACKWARD UP AN INCLINE COULD CAUSE THE REAR DRIVE WHEEL TO LOSE TRACTION. THIS COULD RESULT IN THE OPERATOR LOOSING CONTROL OF THE MACHINE!



Post Operation Checklist

- Turn off the LP cylinder service valve. When the fuel is depleted and the engine stops, turn the key switch OFF.
- Check the dust container and dust filter. Empty the container and clean the filter, if necessary. Refer to *Maintenance.*
- Check under the machine for leaks.

Troubleshooting

ECU with Engine Monitor and Diagnostic Software

The Revolution RXL comes with an onboard ECU that continually monitors and controls the engine's fuel injection system. The engine may be diagnosed by two methods. The first is by the blink codes that are displayed by the Service Engine Indicator on the control panel. The Service Engine Indicator will blink two digit fault codes to indicate engine problems. Blink codes are shown below. The system blinks the first digit of the code, followed by a pause, then the last digit. This will be followed by a long blink and then the sequence will begin again. For example, a "System Rich" failure would have the following code: one blink, pause, and two blinks. A "Low Battery Voltage" failure would have the following code: five blinks, pause, and one blink.

Engine ECU

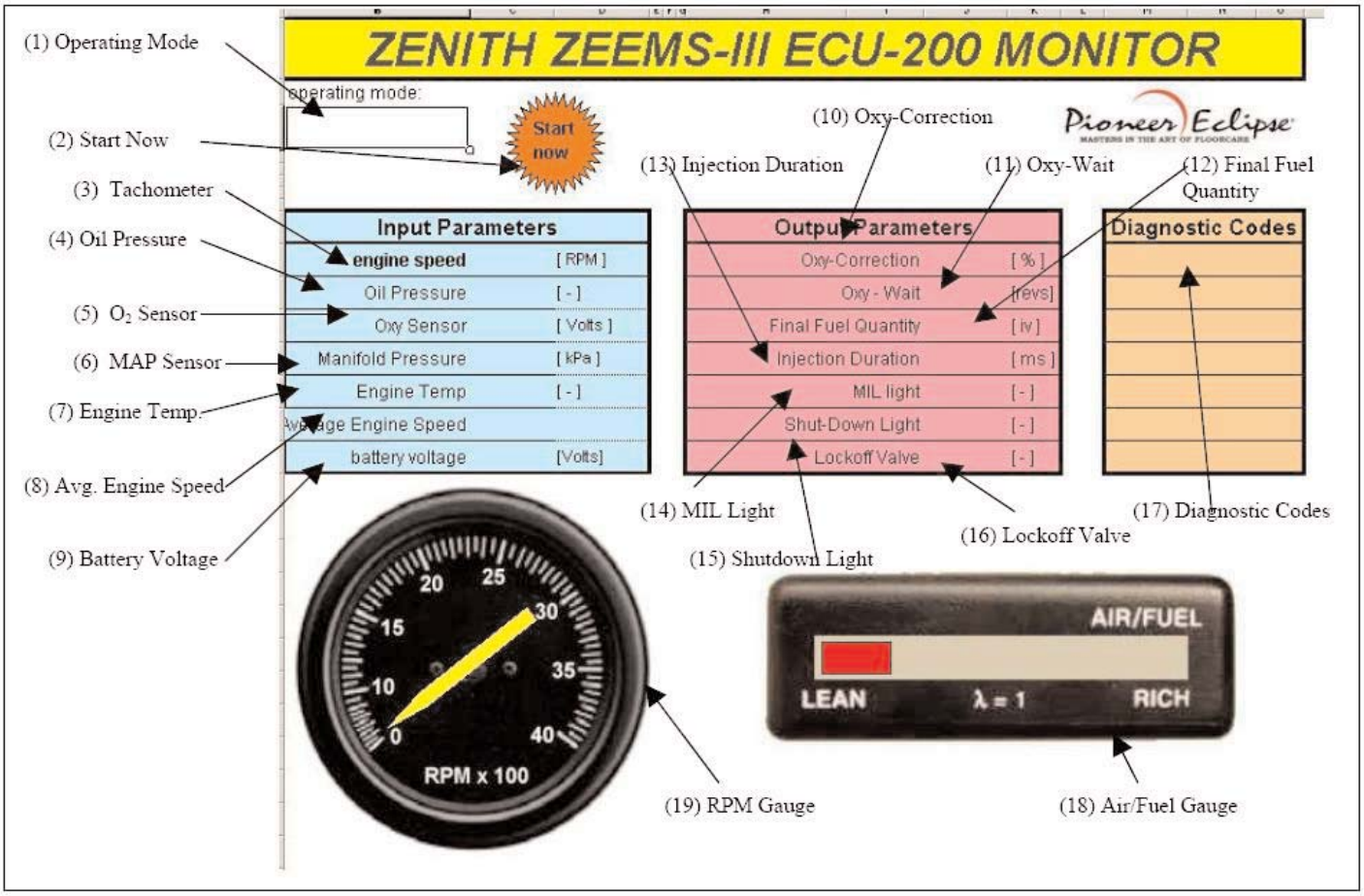
Blinks	Failure	Shutdown Delay
1-2	System Rich	1 min
1-3	System Lean	1 min
2-2	MAP Signal High	3 sec
2-3	MAP Signal Low	3 sec
3-1	Over Speed	3 sec
4-1	Low Oil Pressure	1 Sec
5-1	Low Battery Voltage	NA
6-1	Engine Overheat	1 min

A more detailed evaluation may be found using the Engine Monitor and Diagnostic Software that is available for the Revolution RXL. The software's display can be seen on the next page.

To view, load the software on a computer according to the instructions on the software CD. Next, connect the engine ECU to the computer via a nine-pin serial cable and communication box.

The software gives a more detailed description of the fault. In addition, it displays critical engine parameters, including engine RPM.

Engine Monitor and Diagnostic Software



Display Explanation

1. Operating Mode: Tells operational status of Engine Monitoring Software.
2. Start Now: Click this button to start the Engine Monitor Software.
3. Tachometer: This measures the real time engine speed.
4. Oil Pressure: Displays if the Engine Oil Pressure is normal.
5. O_2 Sensor: Displays the Oxygen Sensor's voltage signal. This measures the oxygen content of the exhaust, which the ECU uses to constantly adjust the desired Air/Fuel Ratio.
6. MAP Sensor: Manifold Absolute Pressure is the engine's intake vacuum. The ECU monitors this to determine engine load.
7. Engine Temp: Displays if the Engine Temperature is normal or too high.
8. Average Engine Speed: Displays the average Engine Speed
9. Battery Voltage: Displays the charging system's voltage.
10. Oxy-Correction: Displays fuel correction percentage to achieve desired performance and emissions.
11. Oxy-Wait: Displays the Fuel Correction Rate.
12. Final Fuel Quantity: Displays the volume of fuel being delivered to the engine.
13. Injector Duration: Displays the duration the injector is injecting fuel.
14. MIL Light: Displays if the Service Engine Indicator light is ON or OFF.
15. Shut-Down Light: Displays if the Engine Shutdown light is ON or OFF.
16. Lockoff Valve: Displays if the Fuel Lock is Open or Closed.
17. Diagnostic Code: Displays Engine Fault code.
18. Air/Fuel Gauge: Displays the Air Fuel Mixture.
19. RPM Gauge: Displays the Engine RPM.

Blink Code	Parameter	Failure Mode	Fault Management
12	Oxygen Sensor Fueling Correction	Below Normal Operating Range	1. Verify that the LPG tank is a vapor (not liquid) tank and is not overfilled.
			2. Check MAP sensor vacuum line for leaks & kinks.
			3. Verify that the MAP sensor vacuum line is as short as possible without kinking.
			4. Verify that the MAP port in the MAP sensor is higher than the MAP port at the carburetor.
			5. Verify that fuel pressure to the injector is 9.5 +/-0.5 psig.*
			6. Check the O2 sensor connector and wiring harness for opens or shorts.
			7. Check the fuel injector for debris and internal leakage.*
			8. Connect PC Tool: Verify ECU operation, signals, fuel trim. etc.*
13	Oxygen Sensor Fueling Correction	Above Normal Operating Range	1. Verify that the LPG tank valve is fully open
			2. Check MAP sensor vacuum line for leaks & kinks.
			3. Verify that the MAP sensor vacuum line is as short as possible without kinking.
			4. Verify that the MAP port in the MAP sensor is higher than the MAP port at the carburetor.
			5. Verify that fuel pressure to the injector is 9.5 +/-0.5 psig.*
			6. Check the O2 sensor connector and wiring harness for opens or shorts.
			7. Check the fuel injector for debris and internal leakage.*
			8. Connect PC Tool: Verify ECU operation, signals, fuel trim. etc.*
			9. Verify that there are no air leaks around the carburetor, especially downstream of the throttle plate.*
22	Air Inlet Pressure (MAP)	Below Normal Operating Range	1. Check the O2 sensor connector and wiring harness for opens or shorts.1
			2. Connect PC Tool: Verify ECU operation, signals, fuel trim. etc.*
23	Air Inlet Pressure (MAP)	Above Normal Operating Range	1. Check MAP sensor vacuum line for leaks & kinks.
			2. Connect PC Tool: Verify ECU operation, signals, fuel trim. etc.*
31	Engine Speed	Above Normal Operating Range	1. Verify that the throttle moves freely.
			2. Verify that the throttle plate and cable return to the low idle position.
			3. Verify that the governor is adjusted and functioning properly. Check FD731V Service Manual.*
			4. Check the RPM signal wire and connections.*
			5. Connect PC Tool: Verify ECU operation & signals.*
41	Engine Oil Pressure	Below Normal Operating Range	1. Check oil level.
			2. Check for oil leaks
			3. Check the oil pressure sensor, connector, and wire.
			4. Connect PC Tool: Verify ECU operation, signals, etc.*
51	Battery Voltage, Switched	Below Normal Operating Range	1. Verify that the regulated alternator output voltage is 13-15V.*
			2. Load test the battery.*
			3. Connect the PC Tool: Verify ECU operation, signals, etc.*
61	Engine Coolant Temperature	Above Normal Operating Range	1. Check Coolant level.
			2. Verify that the radiator cooling fins are clean
			3. Verify that the thermostat is working properly. Check FD731V Service Manual.*

*Contact Pioneer Eclipse Certified Technician

Engine Troubleshooting

Problem	Possible Cause	Solution
Engine is hard to start	Propane cylinder is not properly connected.	Check propane cylinder connection.
	Spark plug or head bolts are loose.	Retorque. Check FD731V Service Manual. Contact Pioneer Eclipse Certified Tech.
	Head gasket blown.	Replace head gasket. Check FD731V Service Manual. Contact Pioneer Eclipse Certified
	Coil air gap out of adjustment.	Adjust coil air gap. Check FD731V Service Manual. Contact Pioneer Eclipse Certified
Engine stops 1-3 seconds after keyswitch is turned OFF	Normal operation. Propane is being bled from regulator.	No change required.
Engine takes longer than 5 seconds to stop after keyswitch is turned OFF.	Overfilled cylinder.	Use properly filled cylinder
	Liquid withdraw cylinder.	Replace with vapor withdraw cylinder.
	Aggressive driving sloshing propane in cylinder.	Avoid aggressive driving.
Engine will not start	Propane cylinder is empty.	Install properly filled cylinder.
	ECU fuse blown.	Replace ECU fuse.
	Head gasket blown.	Replace head gasket. Check FD731V Service Manual. Contact Pioneer Eclipse Certified
	Spark plug gap incorrect.	Adjust gap to 0.025" (.635 mm).
	Spark plug defective	Replace spark plug (KA920702112).
	Coil defective.	Replace coil. Check FD731V Service Manual. Contact Pioneer Eclipse Certified Tech.
	Wires broken or disconnected.	Reconnect or replace wires. Contact Pioneer Eclipse Certified Tech.
Engine lacks power	Air filter is dirty.	Clean or replace primary air filter (KA11013-7020) or replace secondary air filter (KA11013-
	Head gasket leaking.	Replace head gasket. Check FD731V Service Manual. Contact Pioneer Eclipse Certified
	Throttle out of adjustment.	Make sure throttle will go wide open.
	Governor out of adjustment or malfunctioning.	Adjust governor and replace if necessary. Check FD731V Service Manual. Contact Pioneer Eclipse Certified Tech.
	Valves need adjusting.	Adjust valves. Check FD731V Service Manual. Contact Pioneer Eclipse Certified Tech.
Engine stops after 1 min.	No operator in seat.	Operator must be in the seat.

Machine Troubleshooting

Problem	Possible Cause	Solution
Machine is burnishing too aggressively	Burnishing Gauge pressure is too low.	Increase burnish gauge pressure.
	Air compressor fuse blown.	Replace fuse.
	Air cylinder drain valve is open.	Close valve.
	Deck locked down.	Unlatch deck lock.
	Air system leak.	Inspect all air lines and fittings for leaks.
	Improper pads.	Only use recommended burnishing pads.
Machine is burnishing unevenly.	New pad on one side & old pad on other.	Use similarly worn pads.
	Deck is not level.	Reset deck level adjustment.
Burnishing dust is not contained	Dust container filter is dirty.	Clean filter.
	Skirt edging is not sealing with the floor.	Adjust or use new skirt edging.
	Dust skirt tubes are blocked.	Remove obstruction.
Burnishing deck does not activate	Dust container not attached to the deck.	Attach dust container.
	Machine not moving.	Machine must be moving for deck to engage.
	Operator not in seat.	Operator must be setting for deck to engage.
	Deck locked up.	Unlatch deck lock.
	Gauge pressure too high (pad pressure too low).	Reduce gauge pressure (increase pad pressure).
Machine does not move	Parking brake set.	Release parking brake.
	Hydrostatic pump is in neutral.	Release neutral valve.
Machine only steers when engine is running	Leak in hydraulic steering check valve.	Inspect check valve. Contact Pioneer Eclipse Certified Tech.
Machine does not steer	Air bubble in hydraulic steering system.	Relieve air pressure from system and briefly open drain valve on steering motor manifold.
	Leaky component.	Replace failed component. Reprime system. Contact Pioneer Eclipse Certified Tech.

Scheduled Maintenance

Operation	Interval							
	Daily	First 8 Hrs.	Every 100 Hrs.	Every 200 Hrs.	Every 300 Hrs.	Every 400 Hrs.	Every 500 Hrs.	Every 1000 Hrs.
Check & add engine oil.	●							
Check coolant level.	●							
Check for loose or lost fasteners.	●							
Check for oil or coolant leakage.	●							
Inspect fuel hose and connections.	●							
Check steering fluid.	●							
Check wheel drive fluid.	●							
Clean dust container filter	●							
Inspect pad holder.	●							
Replace dust container filter	As Required							
Change engine oil.		●	●					
Change engine oil filter.		●		●				
Check & clean primary air filter.			●					
Check secondary air filter.			●					
Replace primary air filter.					●			
Replace secondary air filter.							●	
Inspect, clean, & re-gap spark plugs. Replace, if necessary.			●					
Check & adjust valve clearance.* Retorque heads.*					●			
Clean & lap valve seating surface. *					●			
Change coolant. *						●		
Check engine emissions.							●	
Inspect deck drive belt.			●					
Inspect hydrostatic pump belt.			●					
Replace deck drive belt.	As Required							
Replace hydrostatic pump drive belt.	As Required							
Inspect hydraulic & pneumatic fittings & hoses.			●					
Replace wheel drive fluid.								●
Clean and regrease front wheel bearings.								●
Clean and regrease rear wheel thrust bearing.								●
* **Check FD731V Service Manual. Contact Pioneer Eclipse Certified Tech.**								

Maintenance

Engine

Note: *For all maintenance procedures requiring the body to be raised please perform the following.*

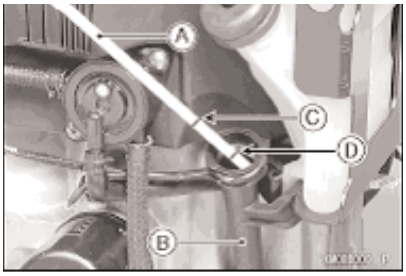
1. Drive the machine to a level surface, turn off the LP cylinder, and remove it.
2. Lift the body by the under side of the control arm.

3. As the body nears it's fully open position, support it from the topside of the control arm.

Note: *If the body lanyards ever need to be removed, the provided LP cylinder can support the body via the seat.*

Oil Level Inspection

1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Clean area around the oil gauge (A) before removing it.
5. Remove the oil gauge and wipe it with a clean cloth.



6. Insert the oil gauge into the tube (B), but do not tighten the oil gauge.
7. Check the oil level. It should be between the "FULL" (C) and "ADD" (D) marks on the oil gauge.

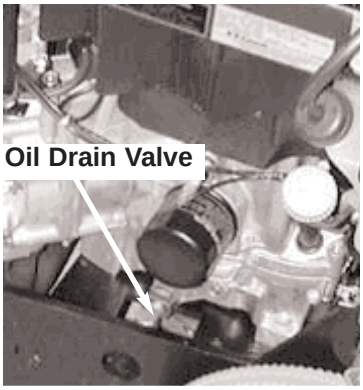
Note: *If the oil level is near or below the "ADD" mark, remove the oil filler gap and add enough engine oil to bring oil level to the "FULL" mark.*

Note: *If the oil level is too high, remove the excess oil by loosening the oil drain valve.*

CAUTION! Do not fill above the "FULL" mark. Excess oil will cause a smoking condition and may cause the engine to overheat.

Oil change

1. Change the oil after the first 8 hours of operation and every 100 hours thereafter. The hour meter alerts the operator when an oil change is required. To reset the hour meter, hold a magnet near the hour meter.
2. Start and warm the engine so the oil will drain easily and completely. Drive machine to a level surface. Stop the engine.
3. Turn off LP cylinder and remove it.
4. Raise the body.
5. Place a suitable container under the oil drain valve.
6. Open the drain valve and drain the oil.



WARNING! Be careful with hot oil being drained. It may be hot enough to cause severe burns.

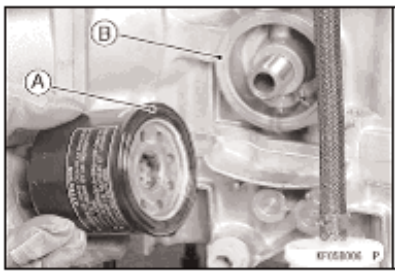
7. Close the drain valve.
8. Remove oil cap and add clean SH or SJ SAE 30 oil. Use 2.1 U.S. qt. (2.0 L) when the filter is not changed and 2.4 U.S. qt. (2.3 L) when filter is changed.
9. Screw in oil gauge. Reconnect the LP cylinder to the fuel hose, but leave the LP cylinder setting on the floor.

CAUTION! Do not run the engine with the LP cylinder secured to the body and the body raised. This will cause liquid propane to enter the fuel system and cause the engine to shut down.

10. Run the engine at low idle for 2 minutes. Check for leaks around the engine.
11. Stop the engine. Check the oil level (see Oil Level Inspection section).

Oil Filter Replacement

1. Place a suitable container underneath the oil filter.
2. Using a strap wrench or oil filter wrench, remove the oil filter. Turn the filter counter-clockwise to remove it.
3. Apply a thin coat of new oil or grease to the oil filter seal (A).
4. Install the new filter by turning it clockwise.
5. Turn the filter until the seal contacts the mounting service (B) of the engine. Then turn the filter BY HAND ¾ turn more.



6. Reconnect the LP cylinder to the fuel hose with the LP cylinder setting on the floor.

CAUTION! Do not run the engine with the LP cylinder secured to the body and the body raised. This will cause liquid propane to enter the fuel system and cause the engine to shut down.

7. Run the engine at low idle for 2 minutes. Check for leaks around the engine.
8. Stop the engine. Check the oil level (see Oil Level Inspection section).

Spark Plug Inspection and Replacement

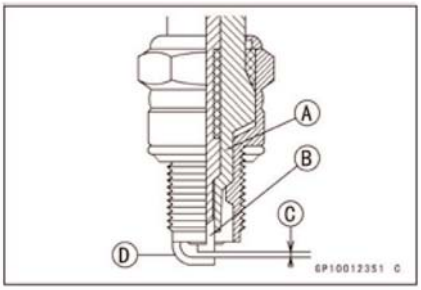
1. Turn off LP cylinder and remove it.
2. Raise the body.
3. Pull spark plug cap off of spark plug.
4. Remove spark plug by turning counter-clockwise and inspect it.

Note: *If the plug is oily or has carbon build up on it, clean the plug using a high flash-point solvent and a wire brush or other suitable tool.*

Note: *If the spark plug electrodes are corroded or damaged, or if the insulator is cracked, replace the plug. Use Only Amano Pioneer Eclipse part # KA920702112.*

5. Measure the gap with a wire-type thickness gauge. The correct gap is .025 in (.635 mm). If the gap is incorrect, carefully bend the side electrode with a suitable tool to obtain the correct gap.

A: Insulator
B: Center Electrode
C: Plug Gap
D: Side Electrode

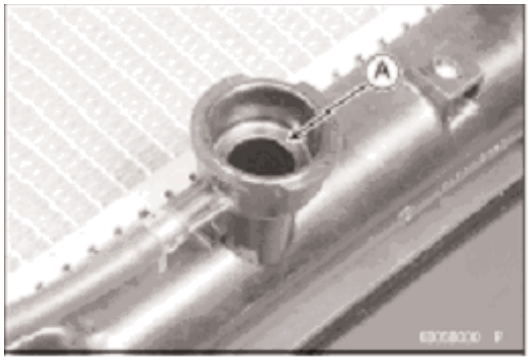


Checking & Adding Coolant

1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.

WARNING! Always allow the engine to cool before removing the radiator cap. Then remove the cap slowly and carefully to avoid a possible fast discharge of hot coolant which could cause severe burns.

4. Remove the radiator cap by turning it counterclockwise and check the coolant level in the radiator.
5. Coolant must be level with the filler neck bottom (A) and between the high and low marks on the reserve tank. If additional coolant is required, use only 50% mix of permanent type antifreeze for aluminum engine and radiator. Completely empty, the system requires 2.9 U.S. qt (2.7 L).

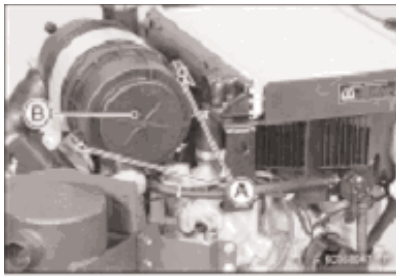


CAUTION! Use only soft or distilled water for the antifreeze mix in the cooling system. If hard water is used, it causes scale accumulation in the water passages and reduces the efficiency of the cooling system.

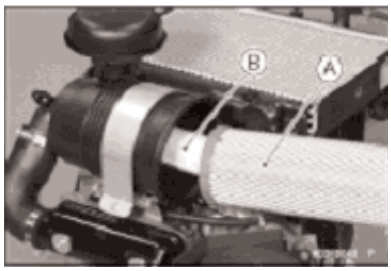
6. Install the radiator cap by pushing it down and turning it clockwise.

Air Filter Inspection & Replacement

1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Locate the air cleaner housing, unhook the two clips (A), and remove the cap (B).



5. Remove primary filter (A) and secondary filter (B).

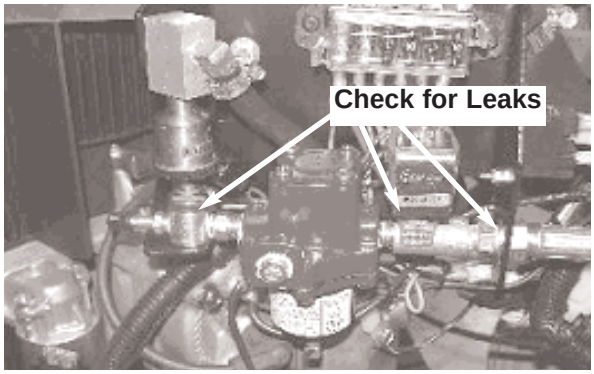


CAUTION! Do not wash the air cleaner filters. Do not oil the air filters. Do not use pressurized air to clean the air filters.

6. Inspect both primary and secondary air filters. If necessary, clean primary filter by lightly tapping and wipe seal ends with a clean cloth. If primary filter cannot be cleaned, is bent, or damaged, it must be replaced (part # KA110137020). If secondary filter is dirty, do not attempt to clean it. Replace it with a new filter (part # KA110137019).
7. Clean the housing with detergent and water and dry thoroughly.
8. Check the housing for cracks or other damage. The housing must seal well and permit only filtered air to the carburetor.
9. Slide the secondary and primary filters into place in the air cleaner housing.
10. Install the cap and fasten the two clips.

Inspect Fuel Hose & Connections

1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Inspect hoses for abrasions and other signs of wear. Replace all worn or damaged hoses.
5. Check for gas leaks by spreading a soapy water solution around all connections while the LP cylinder is reconnected and the service valve is turned ON. Leave the LP cylinder setting on the floor.

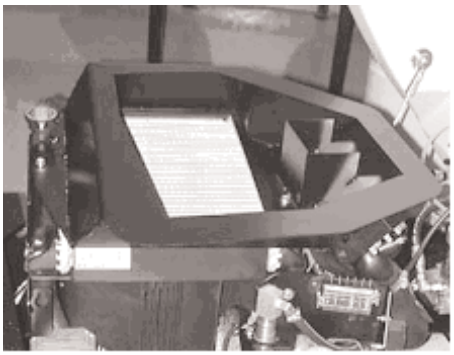


CAUTION! Do not run the engine with the LP cylinder secured to the body and the body raised. This will cause liquid propane to enter the fuel system and cause the engine to shut down.

6. If a leak is detected, turn off the LP cylinder. If the leak is in a hose, replace it. If the leak is at a fitting, loosen and clean it. Apply pipe-sealing compound and re-tighten it.
7. Recheck for leaks using a soapy water solution. If leaks persist at fittings, replace them and recheck with a soapy water solution once more.

Inspect Radiator & Hoses

1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Check the radiator core. If the corrugated fins are deformed, carefully straighten them with the blade of a thin screwdriver.



5. Inspect the inlet and outlet tubes for cracks, kinks, dents, and fractured seams. Repair or replace (refer to Kawasaki's FD731V service manual), if necessary.
6. Check for debris that can be lodged in the radiator. Clean them out by using compressed air or a low-pressure washer.

CAUTION! Using high-pressure water could damage the radiator fins and impair the radiator's effectiveness.

Check and adjust valve clearance. Re-torque heads:

Refer to Kawasaki's FD731V service manual.

Clean and lap valve-seating surface:

Refer to Kawasaki's FD731V service manual.

Change coolant:

Refer to Kawasaki's FD731V service manual.

Maintenance

Machine

Clean Dust Container Filter

1. Turn off machine and set the parking brake.
2. Raise the platform and remove dust container assembly by loosening dust container retaining knob.
3. Remove the filter retainer and empty the dust container.

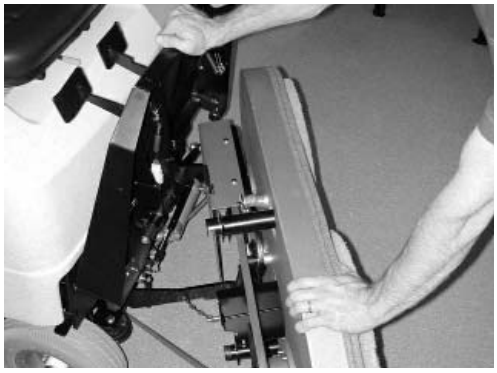
4. Clean the dust filter with a vacuum cleaner, water, or compressed air. After numerous cleanings, the filter will begin to degrade and will require replacement. Replace with Amano Pioneer Eclipse part # RX008800 (RXL33) or # RX000600 (RXL40).

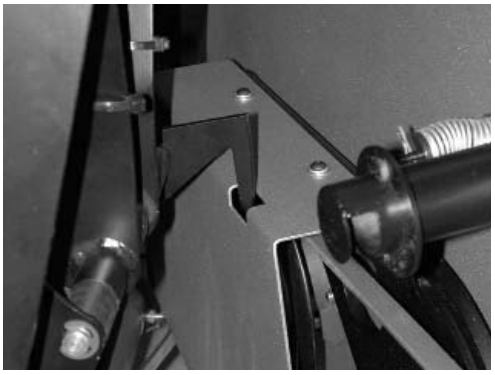
Note: *Burnishing heads will not operate when the dust container assembly is removed from the deck.*

5. Set dust container on the deck then the filter in the dust container. Place the filter retainer over the filter and secure with retaining knob.

Inspect Pads & Pad Holders

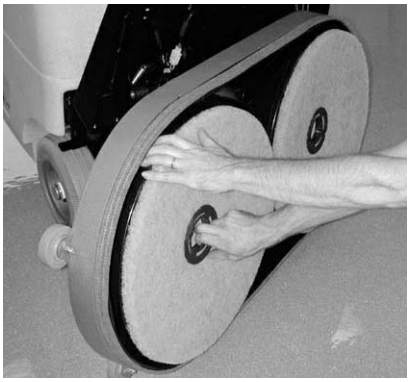
6. Turn off machine and set the parking brake.
7. Raise the platform.
8. Remove dust container assembly.
9. Lift front of deck up, rock back, and secure with hook.





Note: *Damage could occur to the dust container assembly, if it is not removed prior to rocking the deck back.*

10. Remove centering device and remove pads. If pads have worn less than 1/4" (6 mm), replace them.



11. Inspect the pad holders for cracks or damage. If the pad holders do not have any damage proceed to step 9.

WARNING! A damaged pad holder rotating at a high rate of speed may be an extreme hazard if it should come apart.

12. If the pad holder(s) need to be removed, loosen bolt retaining pad holder to the spindle. Pull pad holder. If the pad holder does not come off, use Pioneer pad holder removal tool (MP258700) or screw an SAE 3/8"-16 bolt into the insert in the center of the pad holder. This will push the pad holder off of the spindle.

13. Save the key from the old pad holder and insert into new pad holder assembly.
14. Secure pad holder to spindle with bolt.
15. Secure both pads with the centering devices.
16. Let deck down, re-attach the dust container assembly, and lower the platform.

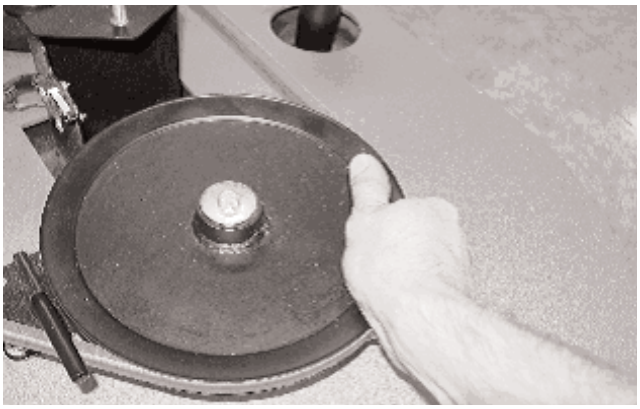
Inspect Dust Skirt Wear Edge

1. Turn off machine and set the parking brake.
2. Raise the platform.
3. Remove dust container assembly.
4. Lift front of deck up, rock back, and secure with hook.
5. Inspect dust skirt wear edge. Look for notches, excessive abrasions, and make sure the edge of the felt strip is between 1/8" and ¼" (3mm and 6mm) below the steel skirt. Replace if necessary with PE part # MP284000 (RXL33) or # MP211700 (RXL40).

6. Let deck down, re-attach the dust container assembly, and lower the platform.

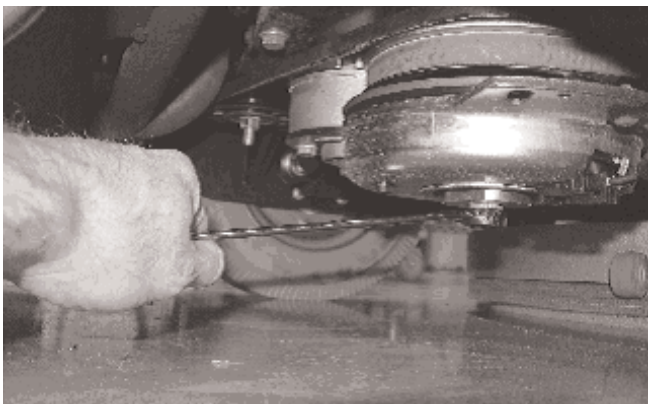
Inspect Deck Drive Belt

1. Turn off machine and set the parking brake.
2. Raise the platform.
3. Remove dust container assembly.
4. Loosen air cylinder drain valve if deck is not lowered.
5. Rotate right deck pulley (operators perspective) while inspecting the belt.
6. If cracks or excessive wear is present, replace with part # MP284100 (RXL33) or # MP248300 (RXL40).



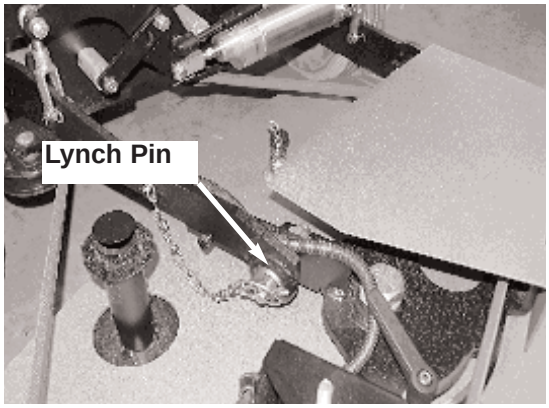
Inspect Hydrostatic Pump Drive Belt

1. Turn off the machine and set the parking brake.
2. Turn the engine shaft with a 9/16" wrench clockwise (as if you were tightening the fastener).
3. Inspect the belt while you are rotating the engine.
4. If cracks or excessive wear appear, replace with MP248400.



Replace Deck Drive Belt

1. Turn off machine and set the parking brake.
2. Raise the platform and loosen air cylinder drain valve.
3. Remove the dust container assembly.
4. Loosen the ratcheting handle lever and pivot the deck inward.
5. Lock the deck down (see Controls and Instruments).
6. Unlatch right lynch pin and remove right deck arm.
7. Remove belt from deck.
8. Remove clutch presto pin, push up on clutch retaining pin, rotate clutch 90° and unplug clutch electrical connector.
9. Remove belt from clutch.
10. Reverse directions 1-9 to install new belt.



Replace Hydrostatic Pump Drive Belt

1. Turn off machine and set the parking brake.
2. Raise the platform and loosen air cylinder drain valve.
3. Remove the dust container assembly.
4. Loosen the ratcheting handle lever and pivot the deck inward.
5. Lock the deck down (see Controls and Instruments).
6. Remove clutch presto pin, push up on clutch retaining pin, rotate clutch 90o and unplug clutch electrical connector.
7. Remove clutch from engine shaft.
8. Loosen hydrostatic pump tensioner and remove belt.
9. Reverse directions 1-8 to install new belt.

Battery Maintenance

The battery supplied with this machine is a sealed, absorbed glass mat (AGM), maintenance free type. It never needs servicing. When battery replacement is necessary, use Amano Pioneer Eclipse part #: MP198000.

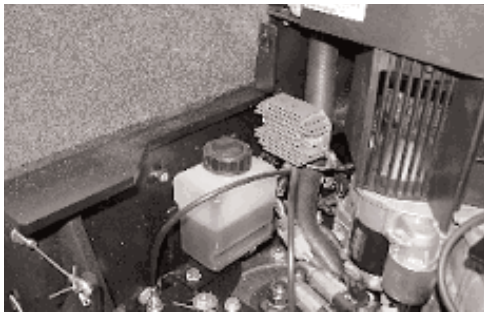
1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Remove battery-retaining bracket.
5. Disconnect the BLACK negative battery cable first. Disconnect the RED positive battery cable last.
6. Lift out old battery and replace with new battery.
7. Connect the RED positive battery cable first. Connect the BLACK negative battery cable last.
8. Reinstall the battery-retaining bracket

PROPOSITION 65 WARNING

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

Inspect Hydrostatic Pump Fluid

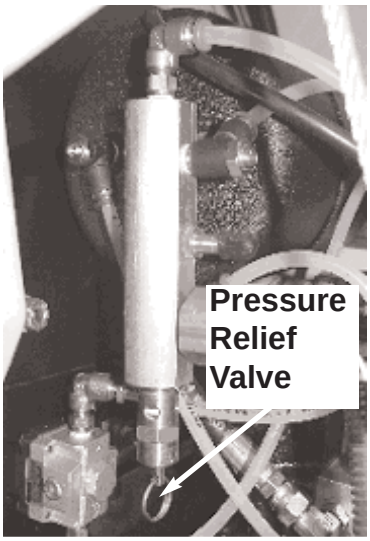
1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Inspect fluid in reservoir at the hydrostatic pump. Reservoir should be between ½ and ¾ full.
5. If fluid is required, add SAE 5W-20 engine oil.



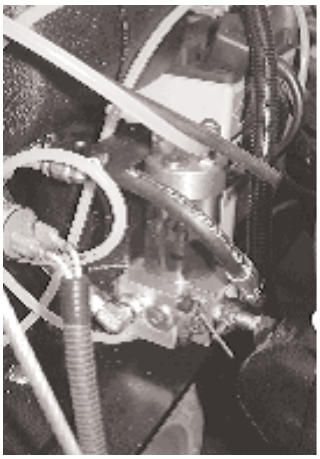
Inspect Hydraulic Steering Fluid

1. Drive machine to level surface.
2. Turn off LP cylinder and remove it.
3. Raise the body.
4. Inspect fluid in reservoir attached to the rear steering manifold. Reservoir should be between ½ and ¾ full.

CAUTION! Make sure the air system is purged before adding fluid to the steering reservoir. Open the valve on the deck cylinder or pull the pressure relief valve on the air system manifold.



5. If fluid is required, add SAE 5W-20 engine oil.



Body Maintenance

The body may be cleaned with a damp cloth to remove dust and scuff marks. More stubborn scuffmarks on the body exterior can be removed with a vinyl cleaner.

Machine Storage

Only authorized, trained personnel should have access to propane cylinders and machines.

1. Remove propane fuel cylinder when not in use and store it outside in a storage cage in accordance with NFPA Section 5 or Subsection 9.5.2 of CAN/CGA B149.2. Do not release or bleed propane inside the building. Please consult your local Fire Marshal to ensure that you are in compliance with local fire codes.
2. Store machine away from objects that may fall and damage it.
3. Never store machine or fuel cylinders near an open flame or heat-producing device.
4. Make sure machine is cleaned properly before storing.
5. Never store machine with cylinders installed, or store spare cylinders in an enclosed van or trailer.
6. Store machine in a dry location, temperature not to exceed 120°F (50°C).
7. Never store machine with body opened.

Repacking the Machine

Refer to Unpacking and repack the machine using original packing materials and container.

Transporting the Machine

When transporting a propane powered floor machine with the fuel cylinder installed, the cylinder should be securely fastened with the service valve closed and the machine should be secured in the vehicle. Any propane fuel cylinders not installed should be securely fastened to avoid movement and damage. Never store machine with cylinder installed or store spare cylinders in an enclosed van or trailer. It is a good practice to check propane cylinders for overfilling before transporting them. If overfilled, correct before loading them in the vehicle by venting the excess propane outside in a safe area using the bleeder valve.

Machine Specifications

Productivity

Burnishing Rate:
51,150 sq ft/hr (4752 m^2/hr) (RXL33)
62,000 sq ft/hr (5760 m^2/hr) (RXL40)

Burnishing Width: 33 in (84 cm) (RXL33)
40 in (1 m) (RXL40)

Pads: 2 x 17" (2 x 43 cm) (RXL33)
2 x 21" (2 x 53 cm) (RXL40)

Ground Speed, Forward: 0-4.5 mph (0-7.2 km/hr)

Ground Speed, Reverse: 0-3 mph (0-4.8 km/hr)

Engine

Engine: Kawasaki FD731V 675 cc water-cooled.

Fuel System: Electronic fuel injection with engine and emissions monitoring system.

Engine Speed, Idle: 1,600 rpm

Engine Speed, High Idle: 3,600 rpm

Engine Oil: SAE 30W SH or SJ

Engine Oil Capacity, Filter Not Removed: 2.1 U.S. qt (2 L)

Engine Oil Capacity, Filter Removed: 2.4 U.S. qt. (2.3 L)

Coolant: Permanent type of anti-freeze for aluminum engine. Mixed 50%.

Coolant Capacity: 2.9 U.S. qt. (2.7 L)

Spark Plug Part #: KA920702112

Spark Plug Gap: 0.025 in (0.635 mm)

Engine Primary Filter: KA11013-7020

Engine Secondary Filter: KA11013-7019

LP Cylinder Type: 33.5 lb (15.2 kg) horizontal vapor withdraw

LP Cylinder Part #: MP236400

Engine Monitor and Diagnostic Software: MP322300

Controls

Steering: Self-contained hydraulic rear-wheel.

Steering Fluid: SAE 5W-20 engine oil

Steering Fluid Capacity: 2.1 U.S. qt. (2 L)

Wheel Drive: Self-contained hydrostatic pump with single rear-wheel drive hydraulic motor.

Hydrostatic Pump Fluid: SAE 5W-20 engine oil.

Hydrostatic Pump Fluid Capacity: 2.1 U.S. qt. (2 L)

Hydrostatic Pump Drive Belt: MP248400

Seal Kit for Rear Drive Motor (MP206100) & Rear Steering Motor (MP206400): MP191100

Seal Kit for Steering Wheel Motor (MP205700): MP264500

Seal Kit for Hydrostatic Pump (MP204300): MP264600

Machine Specifications (Continued)

Deck Drive

Drive: Electric clutch with B-Section Belt.

Clutch: MP220000

Deck Drive Belt: MP284100 (RXL33) MP248300 (RXL40)

Dust Container Filter: RX000300

Recommended Pads:

- 17" Blue Blend: PD006017
- 17" White Lightning: PD010017
- 17" Thermal Thunder: PD001417
- 17 Natural Poly-Blend: PD002017
- 21" Blue Blend: PD006021
- 21" White Lightning: PD010021
- 21" Thermal Thunder: PD001421
- 21" Natural Poly-Blend: PD002021

Pad Holder Asm.: RX008000

Pad Holder Removal Tool: MP258700

Literature

Operators Manual: LT045400

FD731V Kawasaki Parts Catalog: KA99907258801

FD731V Kawasaki Service Manual: KA99924206501

Electrical

Battery Type: 12V, 360 CCA, AGM starter battery

Battery Part #: MP198000

20A Fuse: SS2570

7.5A Fuse: MP043000

Size

Weight: 765 lb. (347 kg) (RXL33)
780 lb. (354 kg) (RXL40)

Width: 35.5 in (90.17 cm) (RXL33)
44 in (112 cm) (RXL40)

Length: 65 in (165 cm) (RXL33)
69 in (175 cm) (RXL40)

Height: 53 in (135 cm)

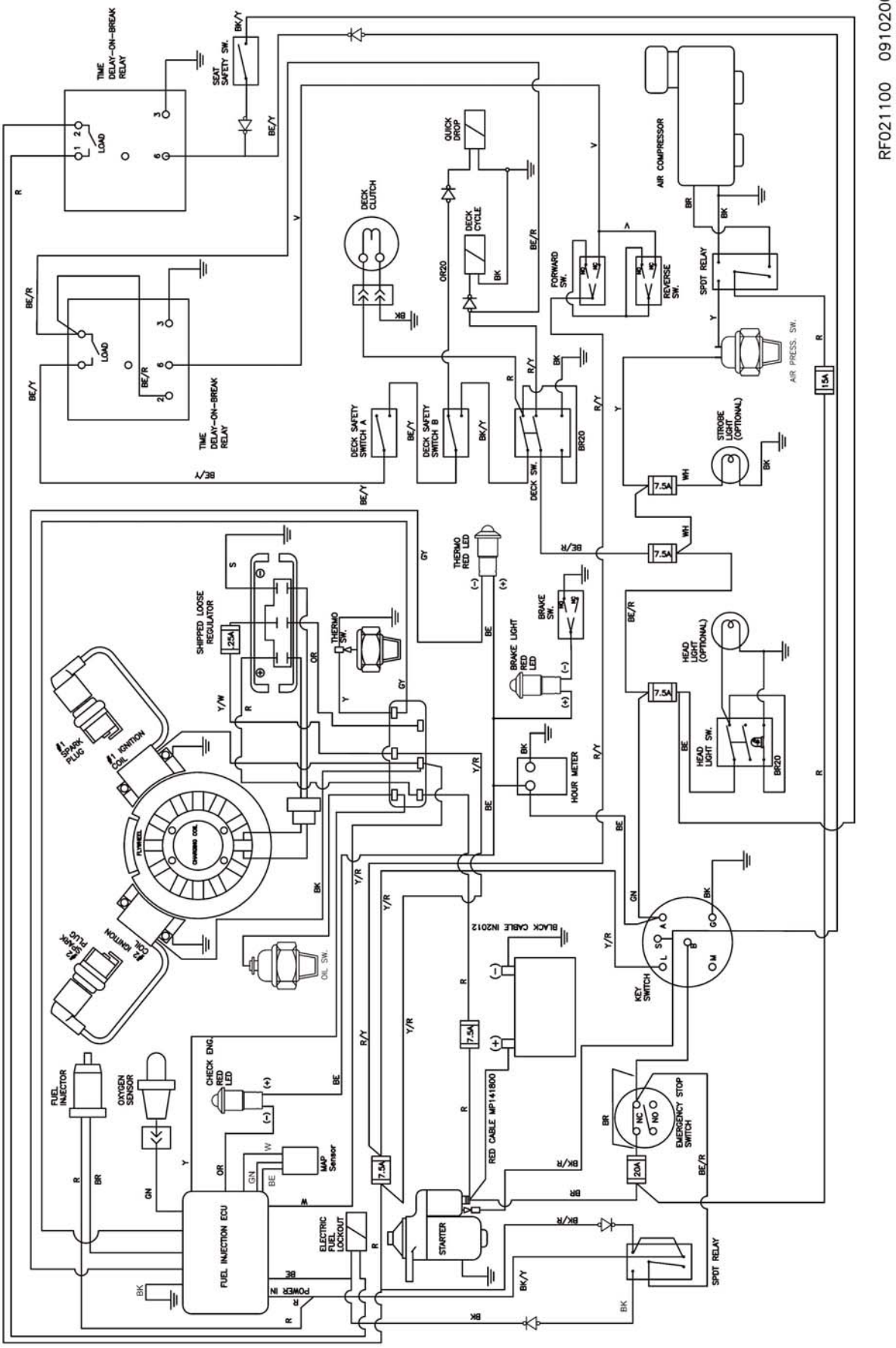
Ergonomics

Noise: 85 dBA

Vibration: Less than 2.5 m/sec^2.

Wiring Schematic

092508



Wiring Schematic Continued

COLOR LEGEND	
SYMBOL	COLOR
BK	BLACK
BK / R	BLACK / RED
BK / Y	BLACK / YELLOW
BK / W	BLACK / WHITE
BE	BLUE
BE / R	BLUE / RED
BE / Y	BLUE / YELLOW
BR	BROWN
BR21	BROWN (20 AWG)
GY	GRAY
GN	GREEN
GN / W	GREEN / WHITE
OR	ORANGE
O / W	ORANGE / WHITE
V	VIOLET
R	RED
R / BK	RED / BLACK
R / Y	RED / YELLOW
WH	WHITE
Y	YELLOW
Y / R	YELLOW / RED
Y / W	YELLOW / WHITE

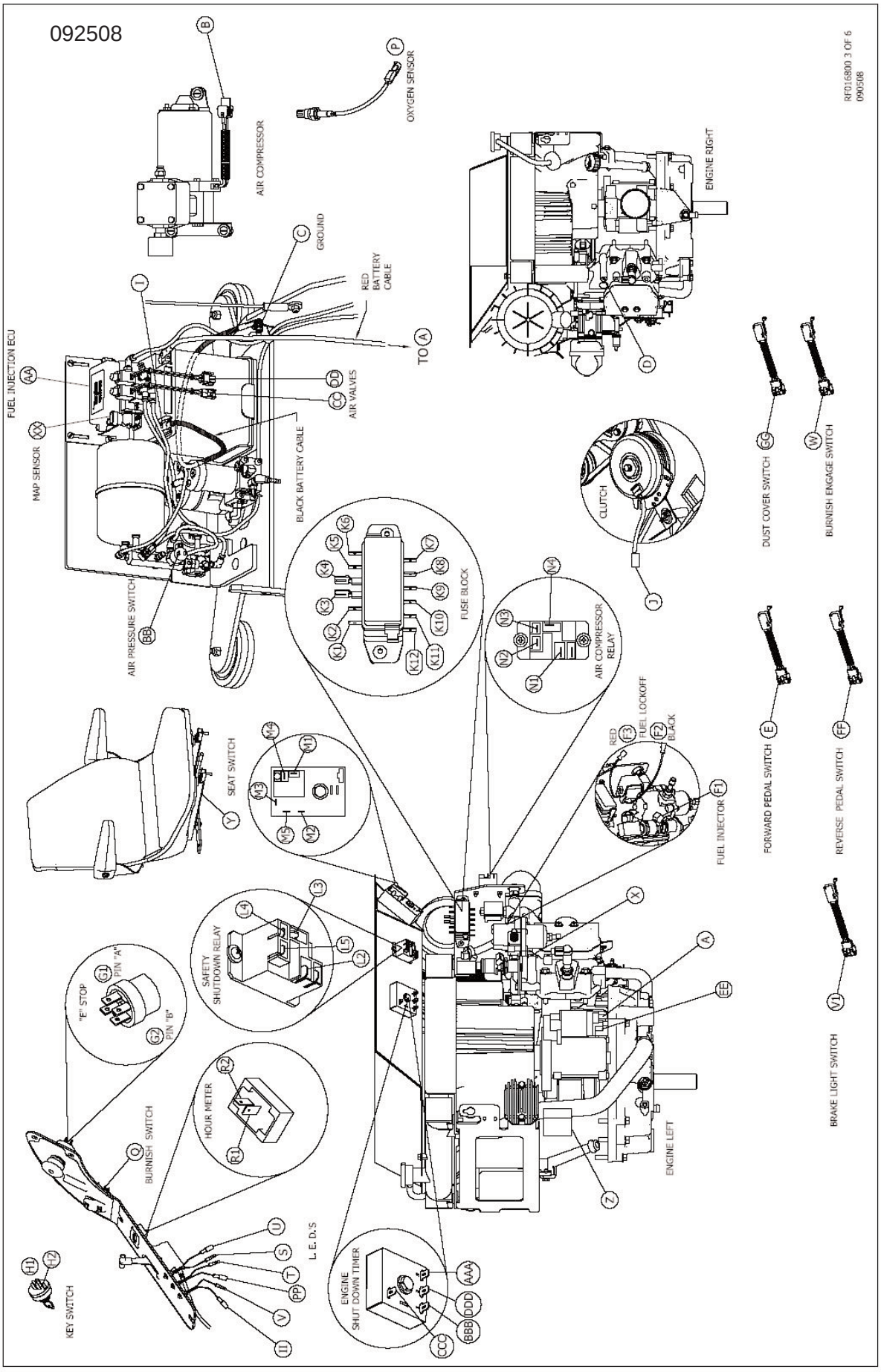
KEY SWITCH DIAGRAM						
	A	L	B	S	G	M
OFF					*	*
RUN	*	*	*			
START		*	*	*		

Exploded Views and Replacement Parts

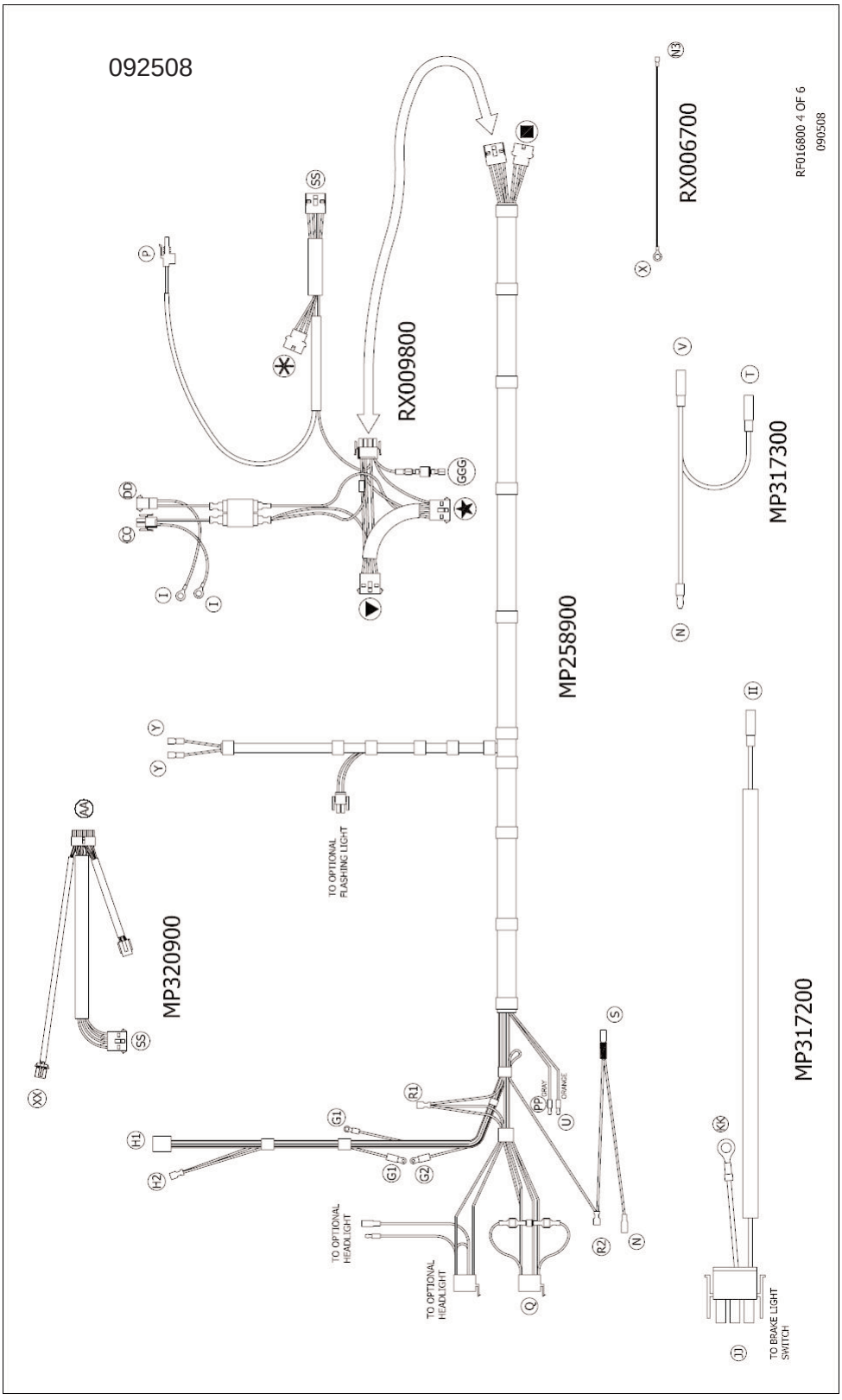
We recommend Amano Pioneer Eclipse quality parts, available through your Amano Pioneer Eclipse Distributor or direct from the factory.

When you order parts, you need to have your machines serial number. This is the number that you recorded in the Product Registration section of this manual.

Electrical Connections



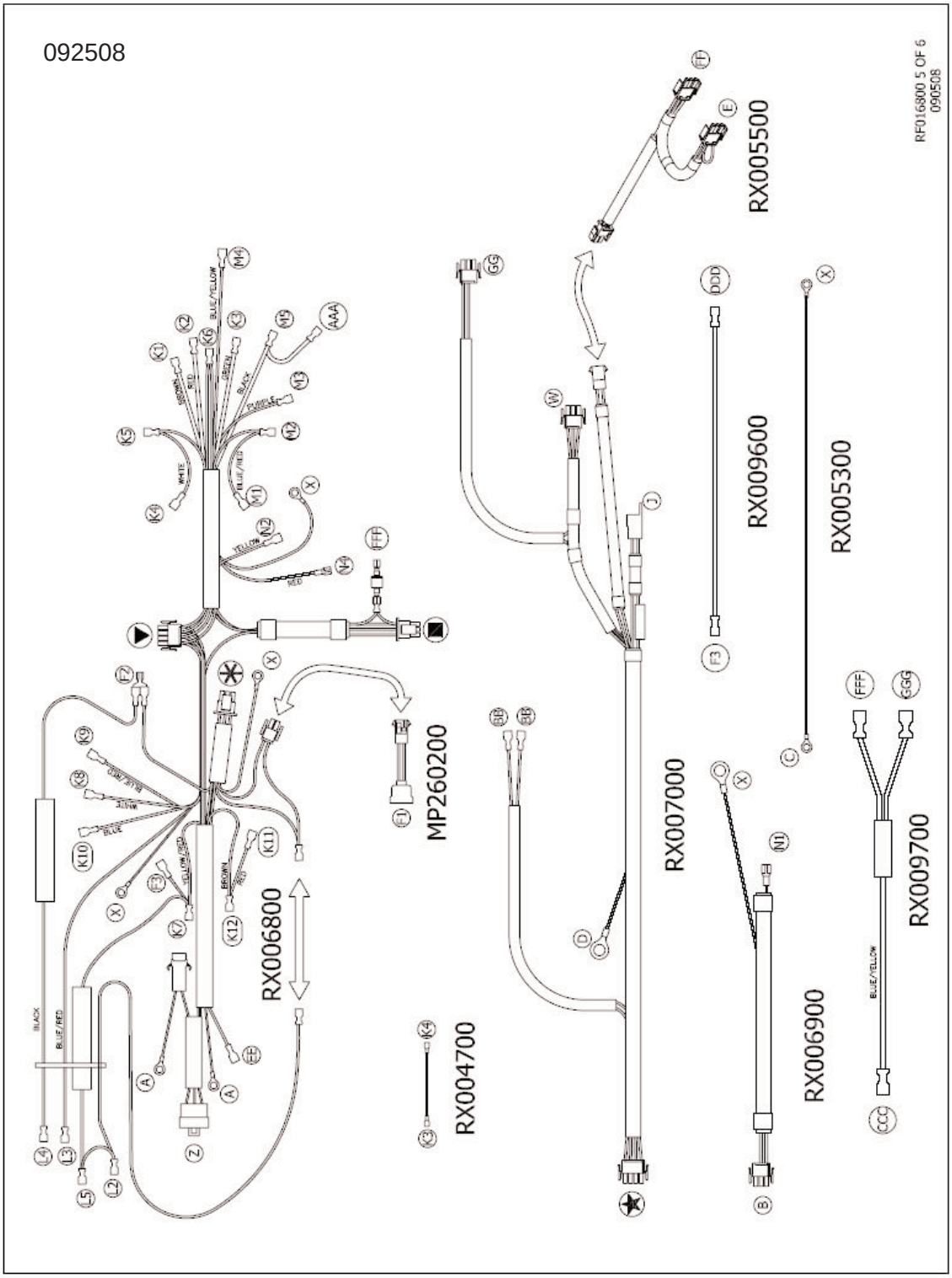
Electrical Connections Continued



Ref.	Part #	Description	Qty.
1	MP258900	HARNESS, CONTROL ARM	1
2	RX006700	WIRE, GROUND RELAY	1
3	RX009400	HARNESS, JUNCTION	1

070108

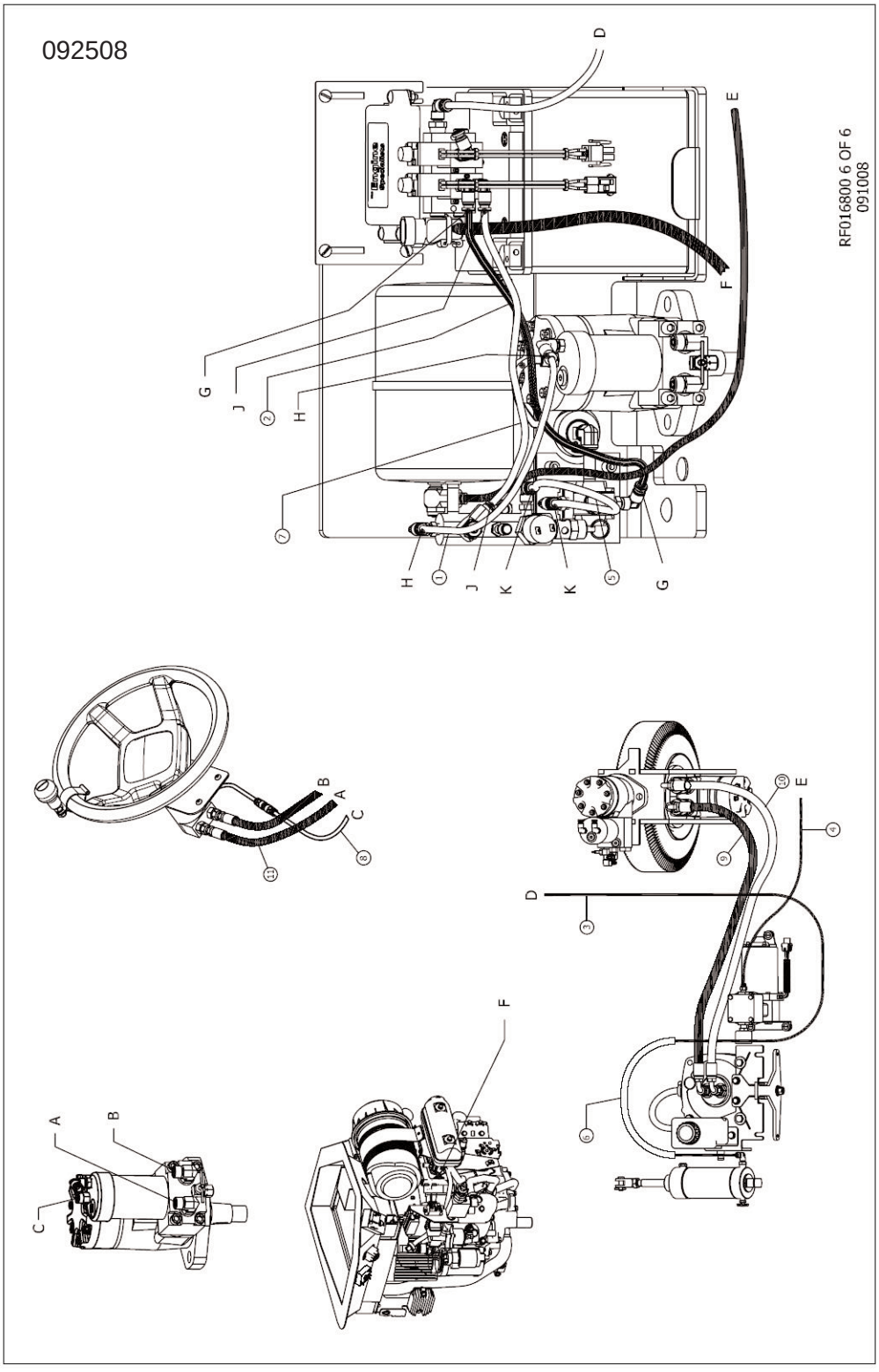
Electrical Connections Continued



Ref.	Part #	Description	Qty.
1	MP260200	HARNESS, PIGTAIL, FUEL INJ.	1
2	RX004700	WIRE, JUMPER, FUSEBLOCK	1
3	RX005300	WIRE, GROUND, ENGINE	1
4	RX005500	HARNESS, PLATFORM, JUMPER	1
5	RX006800	HARNESS, ENGINE	1
6	RX006900	HARNESS, AIR COMPRESSOR	1
7	RX007000	HARNESS, DECK	1

012507

Hydraulic and Pneumatic Connections



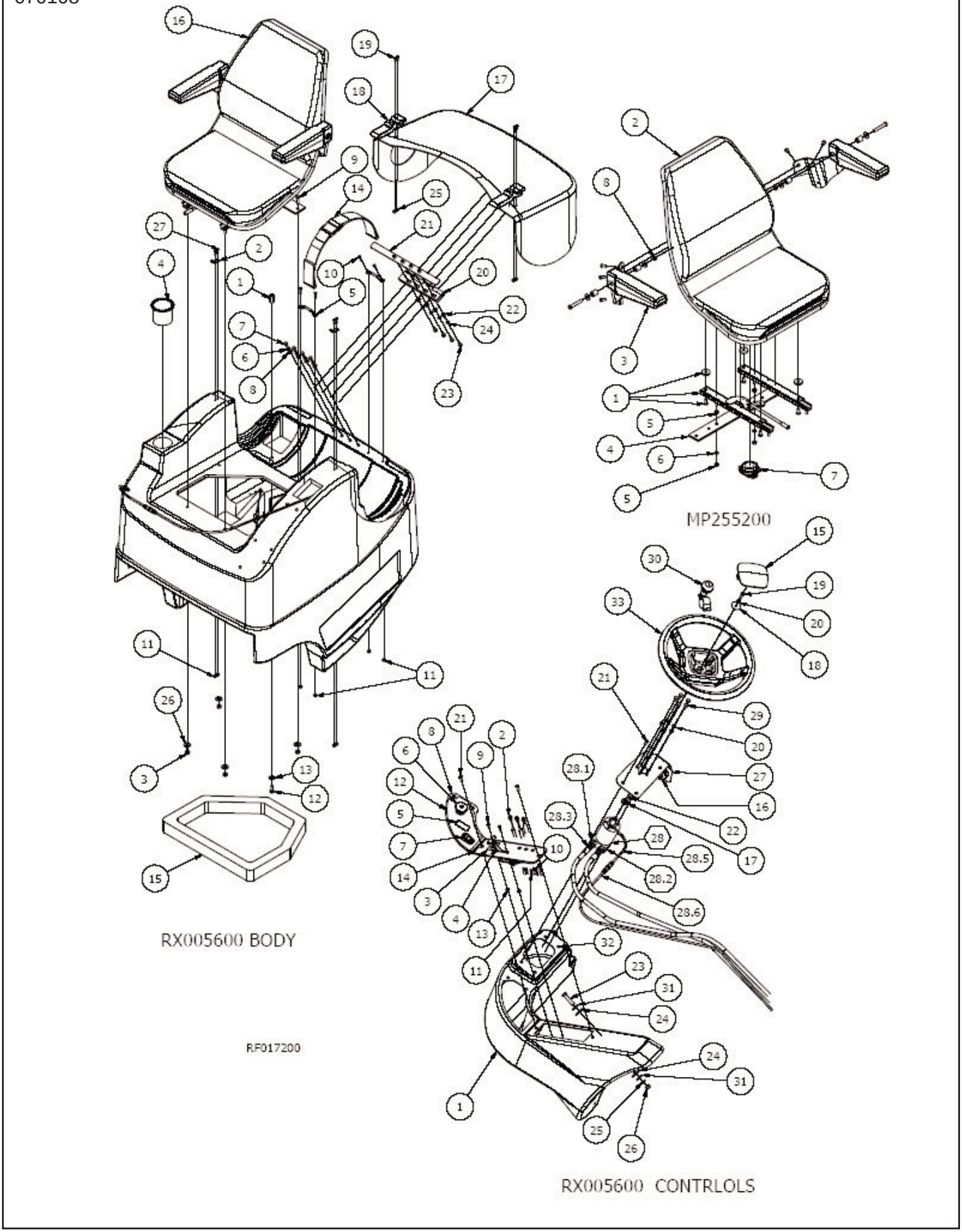
Ref.	Part #	Description	Qty.
1	MP184200	TUBING, NYLON, 1/4”	9”
2	MP184200	TUBING, NYLON, 1/4”	18”
3	MP184200	TUBING, NYLON, 1/4”	48”
4	MP184200	TUBING, NYLON, 1/4”	36”
5	MP184200	TUBING, NYLON, 1/4”	10”
6	NB7240	VARFLEX, SLEEVE	18”

Ref.	Part #	Description	Qty.
7	MP184200	TUBING, NYLON, 1/4”	14”
8	MP184200	TUBING, NYLON, 1/4”	92”
9	MP242200	HOSE, HYDRAULIC, 32.5”	1
10	MP242100	HOSE, HYDRAULIC, 36.5”	1
11	MP254200	HOSE, HYDRAULIC, 89”	2

070108

Body and Control Arm

070108



RX005600 BODY

Ref.	Part #	Description	Qty.
1	MP213300	SPACER, MOUNT	1
2	MP166000	LATCH, DRAW, 6.45”	2
3	NB3260	NUT, 5/16”-18, NC	4
4	MP215800	CUPHOLDER, 3”	1
5	RV009500	FOOTMAN LOOP	2
6	NB6110	WASHER, LOCK, 1/4”	4
7	NB019100	BOLT, HEX, 1/4-20 X 3/4, GD 5	4
8	NB3350	WASHER, FLAT, 1/4”	4
9	NB001800	BOLT, HEX, 5/16”-18 X 1 1/4”	2
10	NB5350	SCREW, MACHINE, TH, 10-24 X 1”	4
11	NB9510	NUT, SPIN LOCK, 10-24	8
12	NB6545	SCREW, CAP, HH, 5/16”-18 X 1”	1
13	NB9267	WASHER, FLAT, 5/16”	1
14	MP073900	STRAP, TANK	1
15	RX006600	SEAL, INTAKE, ENGINE, RXL	1
16	MP255200	SEAT, BURNISHER, RIDE-ON, ASM.	1
17	RX000500	COVER, TANK, RXL	1
18	MP166000	LATCH, DRAW, 6.45”	2
19	NB020500	SCREW, BH, 10-24 X 5/8	4
20	MP127700	HINGE, SS, 8” X 3”	1
21	RX007800	BRACE, COVER, TANK, ASM.	1
22	NB3350	WASHER, FLAT, 1/4”	4
23	NB019100	BOLT, HEX, 1/4-20 X 3/4, GD 5	4
24	NB6110	WASHER, LOCK, 1/4”	4
25	NB9510	NUT, SPIN LOCK, 10-24	4
26	NB3450	WASHER, FLAT, 3/8”	4
27	NB019500	SCREW, BH, 10-24 X 3/4	4

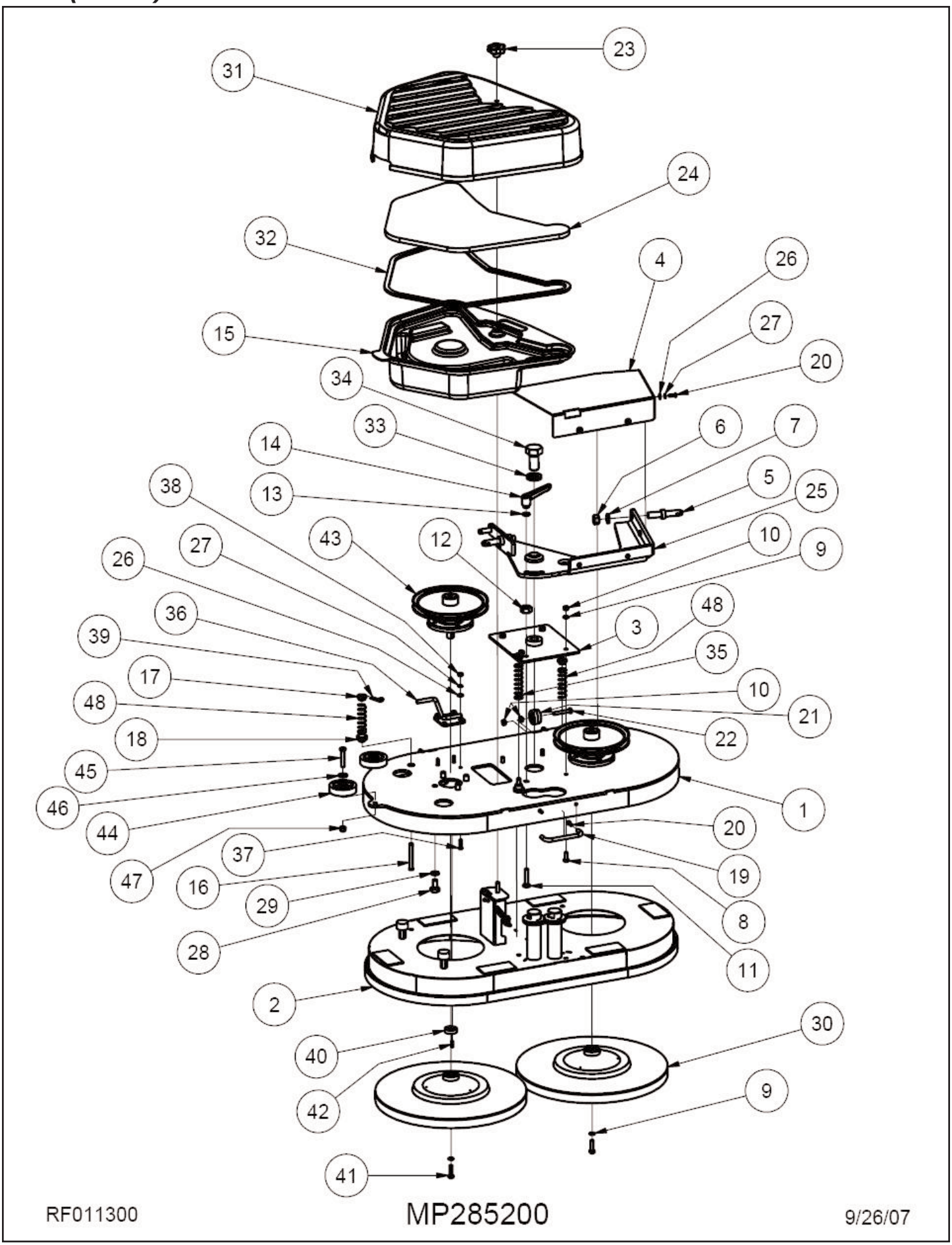
MP255200 SEAT, BURNISHER, RIDE-ON, ASM.

Ref.	Part #	Description	Qty.
1	MP206200	SLIDE, SEAT, 4”	1
2	MP198600	SEAT, BURNISHER, RIDE-ON	1
3	MP206300	ARMREST, SEAT, BURNISHER, RIDE-ON	1
4	MP248600	PLATE, MOUNT, SEAT	1
5	NB3260	NUT, 5/16”-18, NC	4
6	NB6111	WASHER, LOCK, 5/16”	2
7	MP198200	SWITCH, SAFETY, SEAT	1
8	NB9310	NUT, LOCK, JAM, 3/8-16	2

RX005600 CONTROLS

Ref.	Part #	Description	Qty.
1	RX000200	ARM, CONTROL, RXL	1
2	MP200100	LIGHT, RED, EXTERNAL RESISTOR	3
3	MP199800	METER, HOUR, SENDEC	1
4	MP246100	CABLE, THROTTLE, 62”	1
5	MP230200	PLUG, HOLE, CONTURA, BLACK	1
6	MP151700	SWITCH, STOP, EMERGENCY	1
7	MP209700	SWITCH, ROCKER, 36V, DPST,	1
8	RX009001	PLATE, DASH PANEL, RXL	1
9	NB020500	SCREW, BH, 10-24 X 5/8	3
10	NB044200	CONNECTOR, 22-18, BULLET, FEMALE (ON BLACK)	3
11	NB044100	CONNECTOR, 22-18, BULLET, MALE (ON RED)	2
12	RX006100	DECAL, PANEL, DASH, TOP, RXL	1
13	NB9510	NUT, SPIN LOCK, 10-24	2
14	RX009100	DECAL, PANEL, DASH, BOTTOM, RXL	1
15	MP212200	COVER, STEERING WHEEL	1
16	MP199000	KEYSWITCH, BURN., RIDE-ON	1
17	MP211100	SPACER, 11/16 ID	1
18	NB006400	WASHER, FENDER, 1/4” X 1 1/4”	1
19	NB050400	BOLT, HEX, 1/4-28 X 1”, GD 5	1
20	NB6110	WASHER, LOCK, 1/4”	6
21	NB3001	BOLT, HEX, 1/2 X 1, NC	8
22	MP246000	KEY, 3/16 X 1/2	1
23	NB024500	SCREW, CAP, 3/8 X 1 3/4	6
24	NB9269	WASHER, FLAT, 7/16	12
25	MX1075	WASHER, LOCK, 3/8”	6
26	NB046200	NUT, HEX, 3/8”-16, GR5	6
27	RX004101	PLATE, MOUNT, STEERING, RXL	1
28	RX008200	MOTOR, STEERING, RXL, ASM.	1
28.1	MP215100	FITTING, HYDRAULIC, 4 ORFS X 6 STR. O-RING	2
28.2	MP205700	MOTOR, STEERING, RXL	1
28.3	MP254200	HOSE, HYDRAULIC, 89”, ASM.	2
28.5	MP280300	VALVE, PRESSURE-RELEASE, ASM.	1
28.6	MP184200	TUBING, NYLON, 1/4” OD, w/ 0.035 WALL	92”
29	NB050300	BOLT, HEX, 1/4-28 X 5/8”, GD 5	5
30	MP199100	KNOB, SPINNER, STEER. WHEEL	1
31	NB3450	WASHER, FLAT, 3/8”	12
32	NB047700	INSERT, T-NUT, 1/4-20, 4-PRONG	8
33	MP212100	STEERING WHEEL, W/ 5/8” HUB	1

Deck (RXL33)



Deck Continued (RXL33)

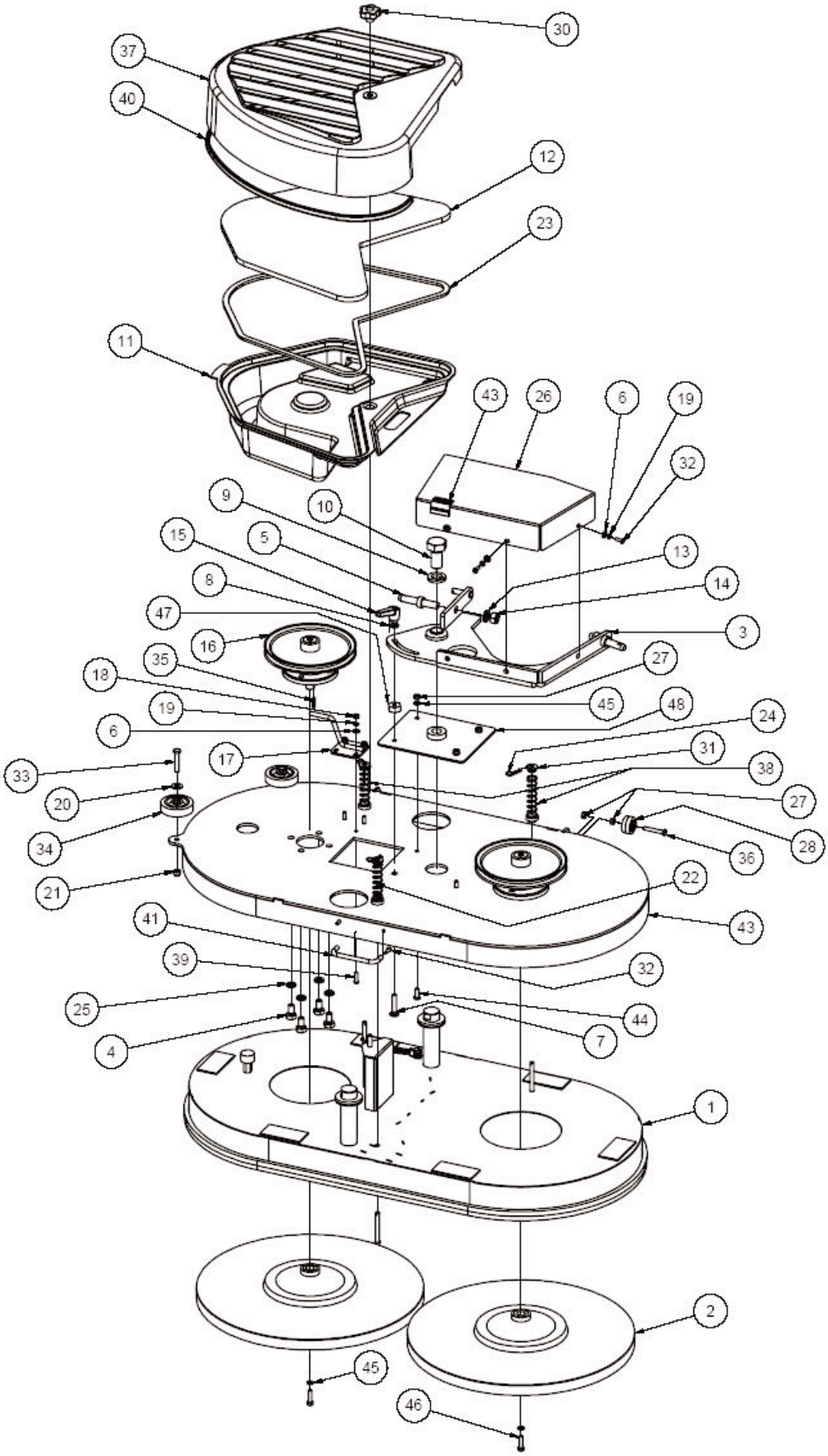
MP285200 DECK, BURNISHING

Ref.	Part #	Description	Qty.
1	MP285100	DECK, 33” WELDMENT	1
2	MP284900	SHROUD, DUST, 33”, ASM.	1
3	MP281100	PLATE, HUB, RXL, WELDMENT	1
4	RX002301	COVER, PULLEY, DECK, RXL40	1
5	NB046400	PIN, LINK, CAT.0, 5/8”	2
6	NB046800	NUT, HEX, 5/8-11, GD5	2
7	NB046900	WASHER, LOCK, 5/8”	2
8	NB054900	BOLT, HEX, 5/16 X 7/8L	3
9	NB6111	WASHER, LOCK, 5/16”	5
10	NB3260	NUT, 5/16”-18, NC	7
11	NB010100	BOLT, CARRIAGE, 3/8”-16 X 2”	1
12	MP281400	SPACER, PIVOT, DECK	1
13	MX1080	WASHER, FLAT, 3/8	1
14	MP5950	HANDLE, ADJUSTABLE LEVER	1
15	RX008300	CONTAINER, DUST, RXL 33	1
16	MP275000	PIN, CLEVIS, ADJUSTABLE, 3/8” X 3”	3
17	MP274800	GUIDE, SPRING, 0.41” I.D.	3
18	MP274900	BOSS, SKIRT PIN, 0.41” I.D.	3
19	LX2065	HANDLE, LIFT	1
20	NB3001	BOLT, HEX, 1/2 X 1, NC	5
21	MP246200	WHEEL, PERFORMA, 1 5/8 X 7/8	2
22	NB011800	BOLT, HEX, 5/16-18 X 2, GD5	2
23	RV005100	KNOB, HANDLE	1
24	RX008800	FILTER, CONTAINER, DUST, RXL33	1
25	MP285000	YOKE, DECK, 33”, WELDMENT	1
26	NB3350	WASHER, FLAT, 1/4”	6
27	NB6110	WASHER, LOCK, 1/4”	6
28	NB6863	BOLT, HEX, 1/2 X 1, NC	8
29	MX1105	WASHER, LOCK, 1/2”	8
30	RX008500	PADHOLDER, 17”, RXL33, MALISH, ASM.	2
31	RX008700	COVER, CONTAINER, DUST, RXL33, ASM.	1
32	MP075200	FOAM, SKINNED, 1/2 X 38 X 1/4 THK	2
33	NB047000	WASHER, LOCK, 1”	1
34	NB047300	BOLT, HEX, 1-8 X 2”, GD5	1
35	MP203900	SPRING, COMPRESSION, .750” I.D. X 4” L	1
36	MP254500	GUIDE, BELT, DECK, WELDMENT	1
37	NB9308	SCREW, BH, 1/4-20 X 1	3
38	MX1045	NUT, HEX, 1/4-20	3
39	NB8175	PIN, PRESTO, 3/32” X 1 5/8”	3
40	MP288300	SPACER, 1 3/8 O.D. X 3/4 I.D., .385L	2
41	MP288700	BOLT, HEX, 5/16-18 X 1 1/4” LH	2
42	MP210100	KEY, 3/16” X 3/4”	2
43	MP223700	SPINDLE, W/ 8.5” PULLEY, ASM.	2
44	MP038700	WHEEL, 3”, PERFORMA, FLAT TREAD, GREY	2
45	NB4791	SCREW, CAP, 3/8” X 2”	2
46	NB3450	WASHER, FLAT, 3/8”	2
47	NB3267	NUT, LOCK, 3/8”, NC	2
48	MP310500	SPRING, COMPRESSION, .750 I.D. X 3L	2

011408

Deck (RXL40)

012508



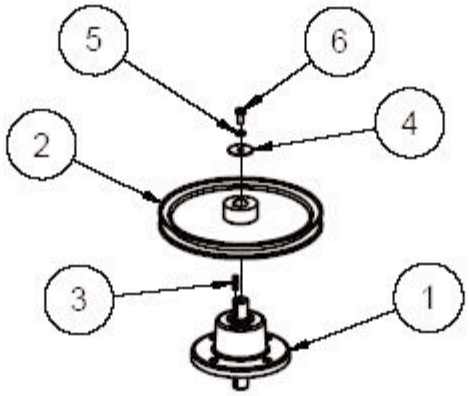
RF017900

MP210000 DECK, BURNISHING, 40” ASM.

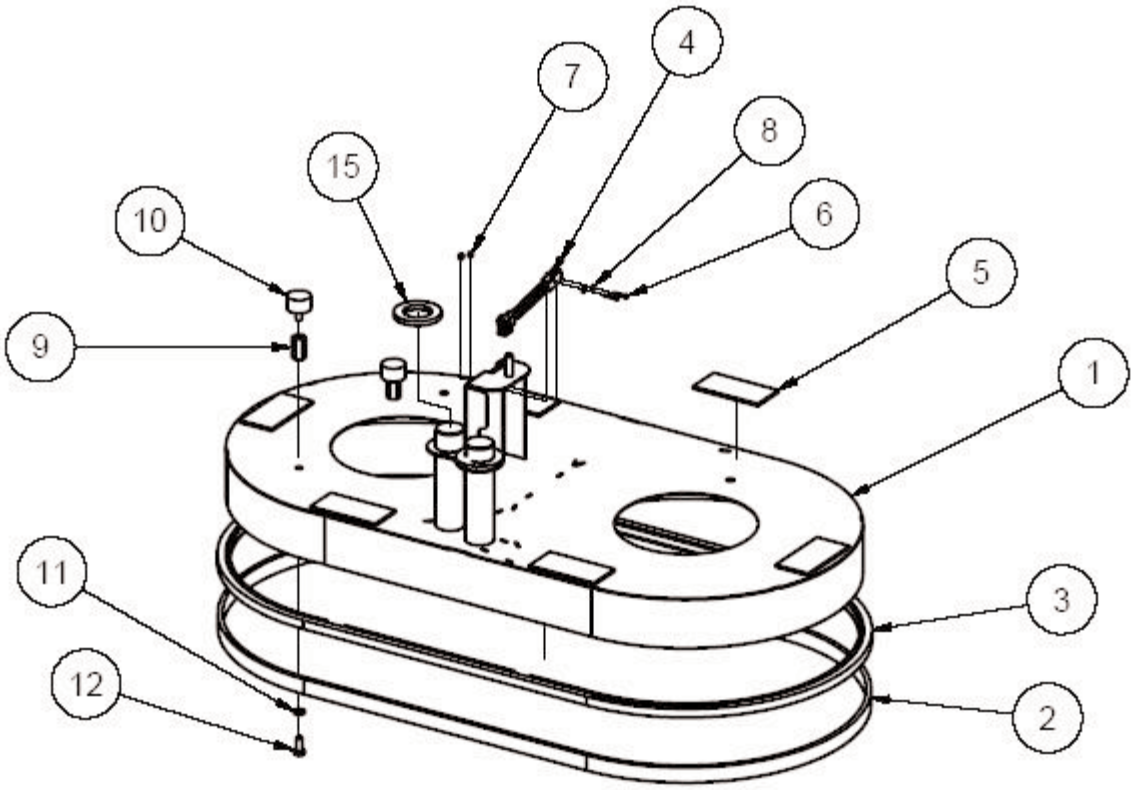
Ref.	Part #	Description	Qty.
1	MP276400	SHROUD, DUST, ASM. 3/8” PIN	1
2	RX008000	PADHOLDER, 21", RXL40, MALISH, ASM.	2
3	MP215400	YOLK, DECK, WELDMENT	1
4	NB6863	BOLT, HEX, 1/2 X 1, NC	8
5	NB046400	PIN, LINK, CAT.O, 5/8”	2
6	NB3350	WASHER, FLAT, 1/4”	6
7	NB010100	BOLT, CARRIAGE, 3/8”-16 X 2”	1
8	MX1080	WASHER, FLAT, 3/8	1
9	NB047000	WASHER, LOCK, 1”	1
10	NB047300	BOLT, HEX, 1-8 X 2”, GD 5	1
11	RX000300	CONTAINER, DUST, RXL40	1
12	RX000600	FILTER, CONTAINER, DUST	1
13	NB046900	WASHER, LOCK, 5/8”	2
14	NB046800	NUT, HEX, 5/8-11, GD 5	2
15	MP5950	HANDLE, ADJUSTABLE LEVER	1
16	MP210200	SPINDLE, W/ 8.5” PULLEY, ASM.	2
17	MP254500	GUIDE, BELT, DECK, WELDMENT	1
18	MX1045	NUT, HEX, 1/4-20	3
19	NB6110	WASHER, LOCK, 1/4”	6
20	NB3450	WASHER, FLAT, 3/8”	2
21	NB3267	NUT, LOCK, 3/8”, NC	2
22	MP311900	SCREW, BH, 1/4-20 X 1 1/4”	2
23	MP075200	FOAM, SKINNED, 1/2 X 38 X 1/4 THK	2
24	NB8175	PIN, PRESTO, 3/32” X 1 5/8”	3
25	MX1105	WASHER, LOCK, 1/2”	8
26	RX002301	COVER, PULLEY, DECK, RXL	1
27	NB3260	NUT, 5/16”-18, NC	7
28	MP246200	WHEEL, PERFORMA, 1 5/8 X 7/8	2
29	MP274900	BOSS, SKIRT PIN, 0.41” I.D.	3
30	RV005100	KNOB, HANDLE	1
31	MP274800	GUIDE, SPRING, 0.41” I.D.	3
32	NB3001	SCREW, BH, 1/4-20 X 3/4	5
33	NB4791	SCREW, CAP, 3/8” X 2”	2
34	MP038700	WHEEL, 3”, PERFORMA, FLAT TREAD, GREY	2
35	BA003200	KEY, 3/16 X 1	2
36	NB011800	BOLT, HEX, 5/16-18 X 2, GD 5	2
37	RX006500	COVER, DUST BOX, W/DECAL	1
38	MP203900	SPRING, COMPRESSION, .750” I.D. X 4” L	2
39	NB9308	SCREW, BH, 1/4-20 X 1	3
40	IN1015	TRIM, BATTERY TRAY	55”
41	LX2065	HANDLE, LIFT	1
42	MP275000	PIN, CLEVIS, ADJUSTABLE, 3/8" X 3"	3
43	MP281000	DECK, RXL40, WELDMENT	1
44	NB054900	BOLT, HEX, 5/16-18 X 7/8, GD5, ZINC	3
45	NB6111	WASHER, LOCK, 5/16	5
46	NB056600	BOLT, HEX, 5-16-18 X 1 1/4” LH	2
47	MP281400	SPACER, PIVOT, DECK	1
48	MP281100	PLATE, HUB, RXL, WELDMENT	1

Deck Continued (RXL33)

012508



MP223700



MP284900

RF011400

12/12/07

Deck Continued (RXL33)

MP223700 Parts List

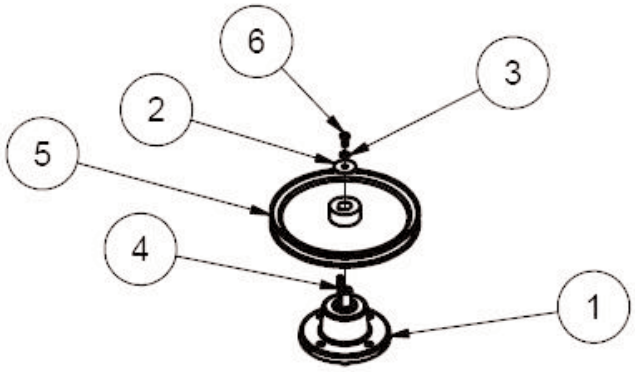
Ref.	Part #	Description	Qty.
1	MP288500	SPINDLE, REVOLUTION, RXL40	1
2	MP199400	PULLEY, DECK, 8.5”	1
3	MP210100	KEY, 3/16” X 3/4”	1
4	NB006400	WASHER, FENDER, 1/4” X 1 1/4”	1
5	NB6110	WASHER, LOCK, 1/4”	1
6	NB003200	BOLT, HEX, 1/4-20 X 5/8	1

MP284900 Parts List

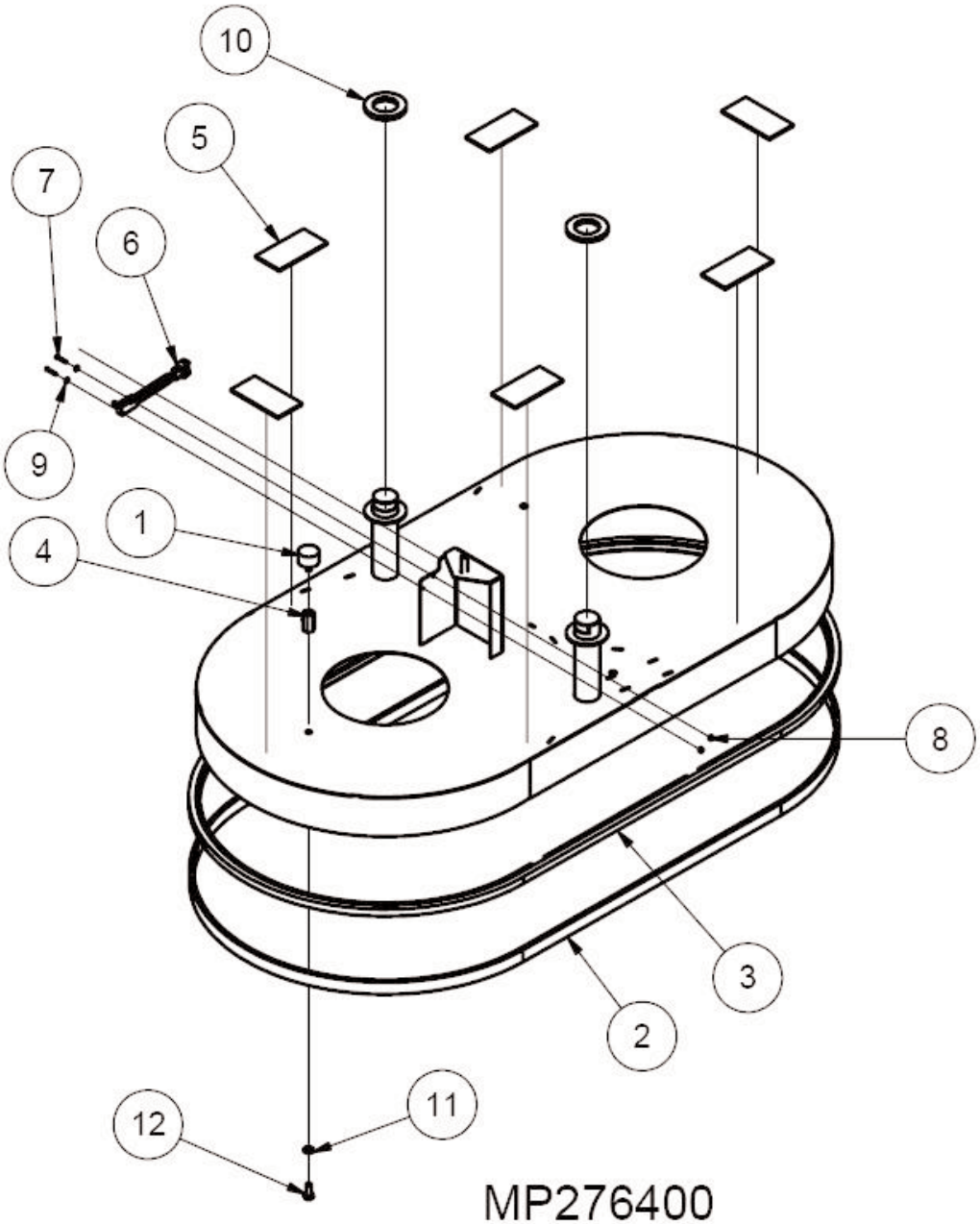
Ref.	Part #	Description	Qty.
1	MP284800	SHROUD, DUST, 33”, WELDMENT	1
2	MP311800	EDGING, WEAR, FELT, 1/4 X 7/8	1
3	MP311200	EDGING, BOTTOM, SKIRT, OFFSET	7.83 FT
4	MP248700	SWITCH, SPDT, LEVER, ROLLER, ASM.	1
5	MP6600	VELCRO, FELT, BLACK	2 FT
6	NB9625	SCREW, 4-40 X 3/4”	2
7	NB007000	NUT, LOCK, NYLON, 4-40	2
8	NB048300	WASHER, FLAT, #4	2
9	MP213300	SPACER, MOUNT	2
10	MP199900	MOUNT, VIBRATION, STUD, 5/16-18	2
11	NB6111	WASHER, LOCK, 5/16”	2
12	NB9745	SCREW, CAP, 5/16”-18 X 3/4”	2
15	MP212400	SEAL, FELT, 1.5” I.D. X 2.5” O.D.	2

Deck Continued (RXL40)

012508



MP210200



MP276400

MP210200 SPINDLE, W 8.5” PULLEY, ASM.

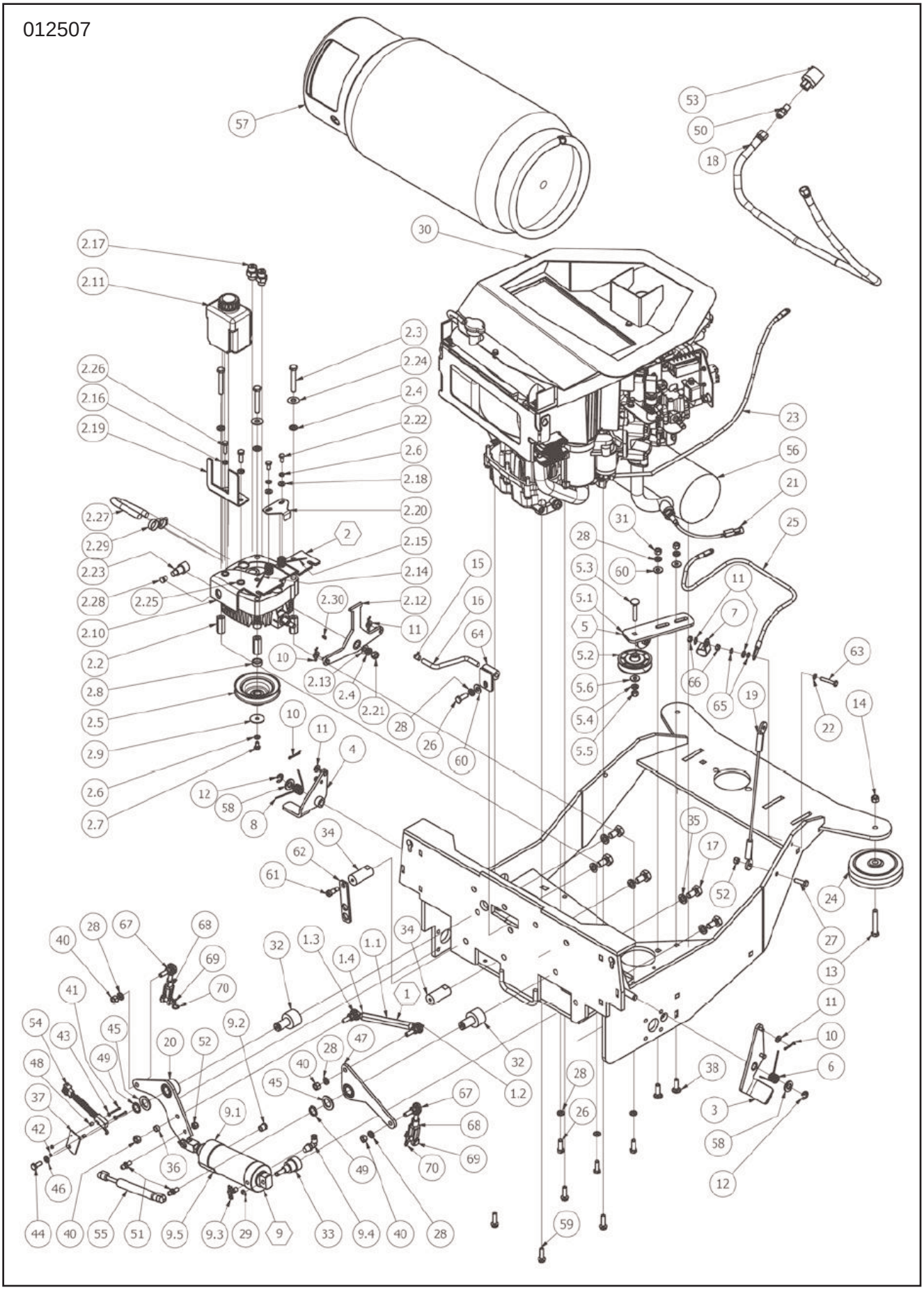
Ref.	Part #	Description	Qty.
1	MP210300	SPINDLE, REVOLUTION, RXL	1
2	NB006400	WASHER, FENDER, 1/4” X 1 1/4”	1
3	NB6110	WASHER, LOCK, 1/4”	1
4	MP210100	KEY, 3/16” X 3/4”	1
5	MP199400	PULLEY, DECK, 8.5”	1
6	NB003200	BOLT, HEX, 1/4-20 X 5/8	1

MP276400 SHROUD, DUST, ASM. 3/8 PIN

Ref.	Part #	Description	Qty.
1	MP199900	MOUNT, VIBRATION, STUD, 5/16-18	1
2	MP311800	EDGING, WEAR, FELT, 1/4 X 7/8	1
3	MP311200	EDGING, BOTTOM, SKIRT, OFFSET	9.58 FT
4	MP213300	SPACER, MOUNT	1
5	MP6600	VELCRO, FELT, BLACK	2 FT
6	MP248700	SWITCH, SPDT, LEVER, ROLLER, ASM.	1
7	NB9625	SCREW, 4-40 X 3/4”	2
8	NB007000	NUT, LOCK, NYLON, 4-40	2
9	NB048300	WASHER, FLAT, #4	2
10	MP212400	SEAL, FELT, 1.5” I.D. X 2.5” O.D.	2
11	NB6111	WASHER, LOCK, 5/16”	1
12	NB9745	SCREW, CAP, 5/16”-18 X 3/4”	1

Frame Front

012507



Frame Front Continued

Parts List

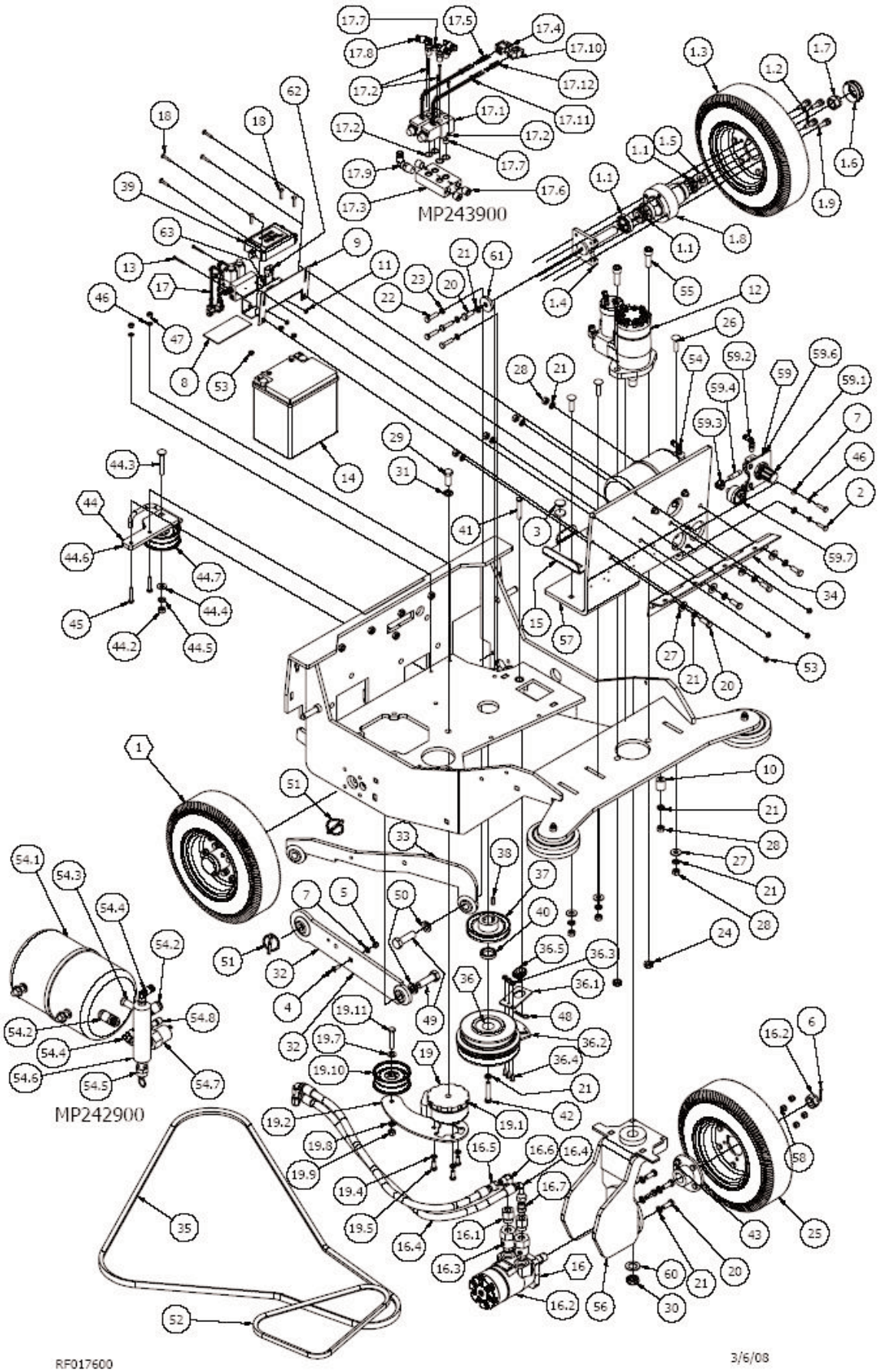
Ref.	Part #	Description	Qty.
1	MP248800	TURNBUCKLE, BELLCRANK, ASM.	1
1.1	MP211900	TURNBUCKLE, 3/8-24	1
1.2	MP156800	END, ROD, TIE W/STUD, 3/8-24 UNF, LH	1
1.3	MP156600	END, ROD, TIE, W/STUD, 3/8"-24 UNF, RH	1
1.4	NB9540	NUT, HEX, 3/8"-24, GR. 5	1
2	MP218900	PUMP, HYDROSTATIC, MOD. 7, ASM.	1
2.1	MP204300	PUMP, HYDROSTATIC, MODEL 7	1
2.2	MP211800	SPACER, THREADED, 3/8-16	3
2.3	NB1588	BOLT, HEX, 3/8" X 2 1/2", NC	3
2.4	MX1075	WASHER, LOCK, 3/8"	4
2.5	MP202900	PULLEY, PUMP, HYDROSTATIC, 4.12"	1
2.6	NB6110	WASHER, LOCK, 1/4"	3
2.7	NB015700	SCREW, CAP, HH, 1/4-20 X 5/8	1
2.8	MP211100	SPACER, 11/16 ID	1
2.9	NB006400	WASHER, FENDER, 1/4" X 1 1/4"	1
2.10	RX003000	BRACKET, HYDROSTATIC, WELDMENT	1
2.11	MP198400	RESERVOIR, OIL	1
2.12	RX003200	ARM, HYDROSTATIC PUMP, WELDMENT	1
2.13	MX1080	WASHER, FLAT, 3/8	1
2.14	MP203600	SPRING, TORSION, LEFT, .620 I.D., .84" L	1
2.15	MP203700	SPRING, TORSION, RIGHT, .620 I.D., .84"L	1
2.16	NB6111	WASHER, LOCK, 5/16"	2
2.17	MP215200	ARM, HYDROSTATIC PUMP, WELDMENT	2
2.18	NB3350	WASHER, FLAT, 1/4"	2
2.19	MP249301	BRACKET, RESERVOIR	1
2.20	MP249901	BRACKET, STOP, SPRING	1
2.21	NB046200	NUT, HEX, 3/8"-16, GR5	1
2.22	NB003200	BOLT, HEX, 1/4-20 X 5/8	2
2.23	MP249200	PLUNGER, ENGAGE, DISENGAGE	1
2.24	NB3450	WASHER, FLAT, 3/8"	2
2.25	NB010200	INSERT, 5/16-18, COMPRESSION TYPE, AVK	2
2.26	NB6545	SCREW, CAP, HH, 5/16"-18 X 1"	2
2.27	MP205500	INSERT, 5/16-18, COMPRESSION TYPE, AVK	1
2.28	NB1621	CAPLUG, K8, RED	1
2.29	NB050700	CLAMP, HOSE, 1/4"-5/8"	2
2.30	MP249800	KEY, WOODRUFF, 1/8 X 1/2	2
3	RX001100	BRAKE, LEFT, RXL, WELDMENT	1
4	RX001200	BRAKE, RIGHT, RXL, WELDMENT	2
5	MP249000	IDLER, W/3" A-PULLEY, ASM.	1
5.1	MP215000	PLATE, TENSIONER, HYDROSTATIC PUMP	1
5.2	MP210800	IDLER, W/3" A-PULLEY	1
5.3	NB010100	BOLT, CARRIAGE, 3/8"-16 X 2"	1
5.4	MX1075	WASHER, LOCK, 3/8"	1
5.5	NB046200	NUT, HEX, 3/8"-16, GR5	1
5.6	NB9267	WASHER, FLAT, 5/16"	1
6	MP203600	SPRING, TORSION, LEFT, .620 I.D., .84"L	1
7	NB8130	CLAMP, 3/4" I.D., RETAINER	1
8	MP203700	SPRING, TORSION, RIGHT, .620 I.D., .84"L	1
9	MP253900	CYLINDER, PNEUMATIC, 3" ST., 2.5" BORE, ASM.	1
9.1	MP206500	CYLINDER, PNEUM., 3"ST., 2.5" BORE	1
9.2	MP205000	SILENCER, VENT, BREATHER	1
9.3	MP205100	VALVE, DRAIN, 1/8" NPT	1
9.4	MP170900	FITTING, AIR, 1/4 TUBE, 1/4 NPT, 90 SWIVEL	1
9.5	MP6600	VELCRO, FELT, BLACK	3.5"

Parts List

Ref.	Part #	Description	Qty.
10	NB026500	PIN, COTTER	4
11	NB3350	WASHER, FLAT, 1/4"	6
12	NB002900	RING, RETAINER, 1/2", E-STYLE	2
13	NB1588	BOLT, HEX, 3/8" X 2 1/2", NC	2
14	NB3267	NUT, LOCK, 3/8", NC	2
15	NB4000	CAPLUG, .312" X 1/2", YELLOW VINYL	1
16	RX001000	STAY, PLATFORM	1
17	NB6863	BOLT, HEX, 1/2 X 1, NC	5
18	MP243100	HOSE, FUEL, L.P., 42", ASM.	1
19	MP288000	LANYARD, 14"	2
20	RX004400	BELLCRANK, RIGHT, ASM.	1
21	MP018000	SENSOR, OXYGEN	1
22	MX1115	WASHER, STAR LOCK, 1/4"	1
23	MP2011	CABLE, BATTERY, POSITIVE	1
24	MP060800	WHEEL, 5", PERFORMA, FLAT TREAD, DELRIN	2
25	MP2012	CABLE, BATTERY, NEGATIVE	1
26	NB6042	SCREW, CAP, 3/8" X 1"	4
27	NB6545	SCREW, CAP, HH, 5/16"-18 X 1"	3
28	MX1075	WASHER, LOCK, 3/8"	7
29	NB013600	RING, RETAINER, 3/8", E-STYLE	1
30	RX003800	ENGINE, KAW., 26HP, FD731V, ASM.	1
31	NB046200	NUT, HEX, 3/8"-16, GR5	2
32	MP202000	PIN, BELLCRANK, PIVOT	2
33	MP202300	PIN, CYLINDER, PIVOT	1
34	MP218700	PIN, LIMIT, BELLCRANK	2
35	MX1105	WASHER, LOCK, 1/2"	6
36	MP244500	SPACER, LOCK, DECK	1
37	MP248901	MOUNT, SWITCH, DECK POSITION	1
38	NB5520	BOLT, CARRIAGE, 3/8"-16 X 1 1/4"	2
40	NB9540	NUT, HEX, 3/8"-24, GR. 5	4
41	NB051000	SCREW, MACH., PAN HD., 4-40 X 1, PHILLIPS	2
42	NB007000	NUT, LOCK, NYLON, 4-40	2
43	NB007100	WASHER, FLAT, #6	2
44	NB9745	SCREW, CAP, 5/16"-18 X 3/4"	1
45	NB023400	WASHER, FLAT, NARROW, 3/4"	2
46	NB6111	WASHER, LOCK, 5/16"	3
47	RX004300	BELLCRANK, LEFT, ASM.	1
48	NB038900	SPACER, THREADED, 4-40, 1/4" OD X 1/4" LONG	2
49	NB018500	RING, RETAINER, 3/4", C-STYLE, HD	2
50	MP4320	FITTING, 48 X 6	1
51	MP206000	BALL, STUD, 10MM	2
52	NB3265	NUT, LOCK, 5/16"-18, NC	3
53	MP4500	COUPLER, QUICK REGO, FEMALE	1
54	MP248700	SWITCH, SPDT, LEVER, ROLLER, ASM.	1
55	MP205900	SPRING, GAS, 80MM STROKE, 445N	1
56	RX004200	MUFFLER, RXL	1
57	MP236400	CYLINDER, 33.5 LB, STEEL, HORIZONTAL	1
58	NB017100	WASHER, FLAT, NARROW, 1/2"	2
59	NB3104	BOLT, FLANGE, M8 X 1.25 X 30	4
60	NB9267	WASHER, FLAT, 5/16"	3
61	NB026200	SCREW, SHOULDER, 3/8" X 1/2" X 5/16"-18, SS	1
62	MP244400	BRACKET, LOCK, DECK	1
63	NB9000	SCREW, CAP, 1/4"-20 X 1 1/2", GD5	3
64	RX005800	PIVOT, STAY, DECK, WELDMENT	1
65	NB6110	WASHER, LOCK, 1/4"	2
66	MX1045	NUT, HEX, 1/4-20	4
67	MP156600	END, ROD, TIE, W/STUD, 3/8"-24 UNF, RH	2
68	MP205800	YOKE-END, 3/8"-24	2
69	NB050900	PIN, CLEVIS, 3/8" X 1 1/4"	2
70	NB8175	PIN, PRESTO, 3/32" X 1 5/8"	3

Frame Rear

070108



Frame Rear Continued

Parts List

Ref.	Part #	Description	Qty.
1	MP313900	CONE, BEARING, .750 ID x 1.781 OD	2
1.1	MP313700	SEAL, SHAFT, RADIAL, 1.125 X 1.785	1
1.2	NB026500	PIN, COTTER	1
1.3	MP143900	WHEEL, 13” GREY, FILLED, FOAM	1
1.4	RX003600	AXLE, STUB, WELDMENT	1
1.5	NB023400	WASHER, FLAT, NARROW, 3/4”	1
1.6	MP198800	CAP, GREASE	1
1.7	NB047600	NUT, SLOTTED, THICK, 3/4-16	1
1.8	SA020900	HUB, WHEEL, RXL, KIT	1
1.9	NB060100	BOLT, LUG, 5/16-24	4
2	NB6530	SCREW, CAP, HH, 1/4”-20 X 1”	2
3	MP140000	FELT, DOT	6
4	NB3001	BOLT, HEX, 1/2 X 1, NC	1
5	NB3275	NUT, LOCK, 1/4”	1
6	NB026500	PIN, COTTER	1
7	NB3350	WASHER, FLAT, 1/4”	3
8	MP6600	VELCRO, FELT, BLACK	4.5”
9	RX009301	BRACKET, ECU, RXL	1
10	MP244300	STOP, DRIVE, WHEEL, REAR	1
11	NB9710	NUT, KEPS, 8-32, ZINC	2
12	MP267400	MOTOR, REAR STEER. W/ MANIFOLD	1
13	NB050800	SCREW, SH, 8-32 X 1 1/4”	2
14	MP198000	BATTERY, DEKA, 12V, 360CCA, AGM	1
15	MP250901	TRAY, BATTERY, RXL	1
16	MP216200	REAR WHEEL DRIVE ASM.	1
16.1	MP215900	FITTING, HYDRAULIC, 10STR, O-RING X 6STR RD	2
16.2	MP206100	MOTOR, WHEEL, REAR	1
16.3	MP260700	FITTING, SWIVEL, 6-6, O-RING MALE X ST.FEM	2
16.4	MP260900	HOSE, HYD, 36.5” MED 90 X SHORT 90, ASM.	1
16.5	MP260800	HOSE, HYDRAULIC, 34” ST. X SHORT 90, ASM	1
16.6	MP169700	FITTING, HYD, 6 ORFS, STR O-RING-90	1
16.7	MP169500	FITTING, HYD, 6 ORFS, STR O-RING	1
17	MP243900	MANIFOLD, VALVE, SOLENOID, ASM.	1
17.1	MP204700	VALVE, SOLENOID, PNEUMATIC 12VDC	2
17.3	MP204900	MANIFOLD, VALVE, SOLENOID	1
17.4	MP172300	CONNECTOR, SOCKET, 2 CIRCUIT, PLUG	1
17.5	NB004800	TERMINAL, PIN, 20-14 AWG	2
17.6	MP230600	PLUG, PIPE, COUNTERSUNK, HH, 1/4”	3
17.7	MP230500	PLUG, PIPE, COUNTERSUNK, HH, 1/8”	2
17.8	MP171000	FITTING, AIR, 1/4 TUBE, 1/8 NPT, 90 SWIVEL	3
17.9	MP170900	FITTING, AIR, 1/4 TUBE, 1/4 NPT, 90 SWIVEL	1
17.10	MP172200	CONNECTOR, SOCKET, 2 CIRCUIT, CAP	1
17.11	NB6035	TIE, NYLON, 1/8 X 4, BLK	4
17.12	NB004700	TERMINAL, SOCKET, 20-14 AWG	2
18	NB5350	SCREW, MACHINE, TH, 10-24 X 1”	4
19	MP211200	TENSIONER, HEAVY DUTY, ASM.	1
19.1	MP210700	TENSIONER, HUB, ROTARY	1
19.2	MP211300	ARM, TENSIONER	1
19.4	NB6111	WASHER, LOCK, 5/16”	3
19.5	NB9745	SCREW, CAP, 5/16”-18 X 3/4”	3
19.7	MX1080	WASHER, FLAT, 3/8	1
19.8	MX1075	WASHER, LOCK, 3/8”	1
19.9	NB046200	NUT, HEX, 3/8”-16, GR5	1
19.10	MP262400	IDLER, FLAT, 3.2”	1
19.11	NB4791	SCREW, CAP, 3/8” x 2”	
20	NB6042	SCREW, CAP, 3/8” X 1”	8
21	MX1075	WASHER, LOCK, 3/8”	17
22	NB001800	BOLT, HEX, 5/16”-18 X 1 1/4”	8
23	NB6111	WASHER, LOCK, 5/16”	12
24	NB003100	NUT,HEX,1/2”-13, JAM	2
25	MP143900	WHEEL, 13” GREY, FILLED, FOAM	1

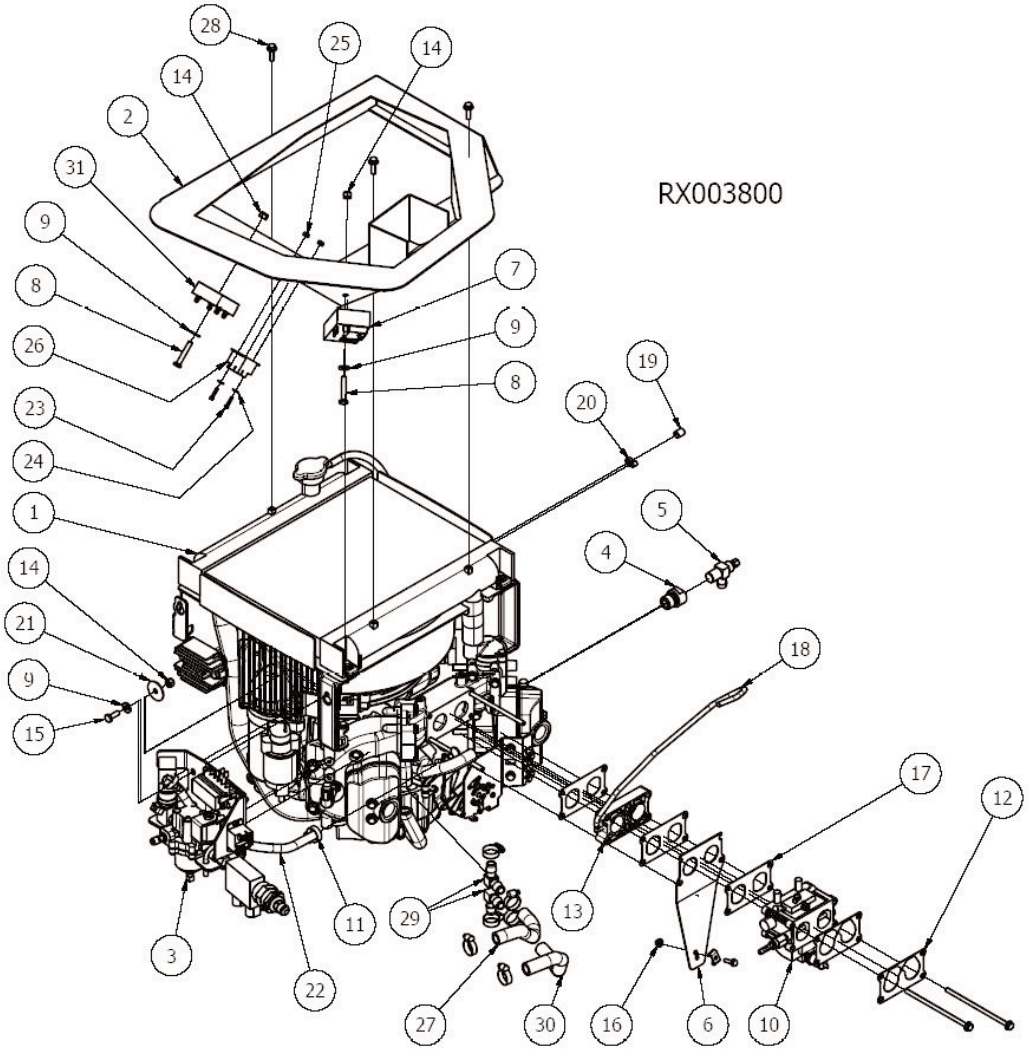
Parts List

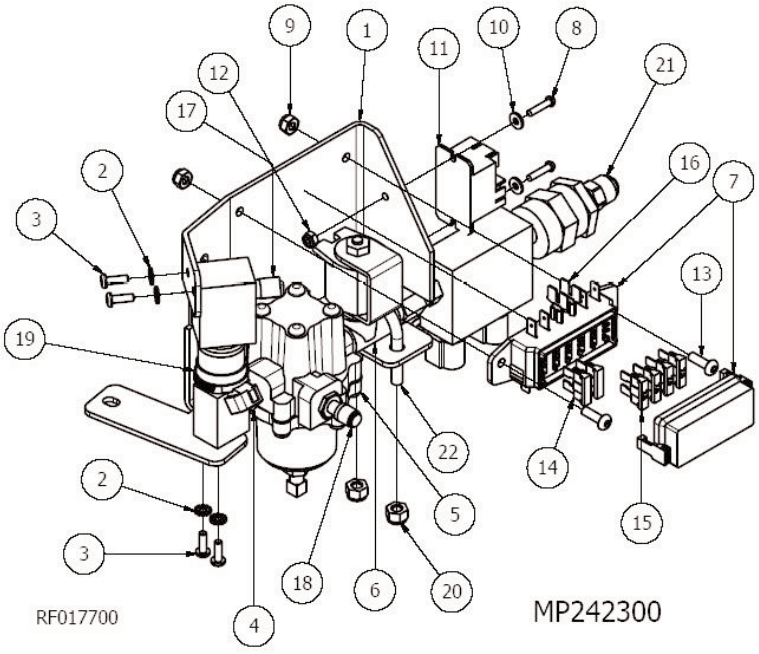
Ref.	Part #	Description	Qty.
26	NB050200	BOLT, CARRIAGE, 3/8” X 1 1/2”	3
27	NB3450	WASHER, FLAT, 3/8”	7
28	NB046200	NUT, HEX, 3/8”-16, GR5	8
29	NB6864	BOLT, HEX, 1/2” X 1 1/4”, NC	1
30	NB045700	NUT, LOCK, NYLON, 3/4-16 UNF, NYLON	1
31	MX1105	WASHER, LOCK, 1/2”	1
32	RX002500	ARM, LIFT, LEFT, WELDMENT	1
33	RX002600	ARM, LIFT, RIGHT, WELDMENT	1
34	MP212500	HINGE, 16”	1
35	MP248300	BELT, DRIVE, DECK	1
36	MP250300	CLUTCH, RXL, ASM.	1
36.1	MP211001	TANG, CLUTCH	1
36.2	MP220000	CLUTCH, ASM., MODEL 5219-61A	1
36.3	NB9510	NUT, SPIN LOCK, 10-24	3
36.4	NB020500	SCREW, BH, 10-24 X 5/8	3
36.5	NB009900	GROMMET, 11/16 X 1	1
37	MP203000	PULLEY, ENGINE, 4.12”	1
38	MP250500	KEY, 1/4” X 3/4”	1
39	MP318800	ECU, FUEL INJECTION, FD731	1
40	MP210900	SPACER, CLUTCH, 1 1/8” I.D.	1
41	MP038100	PIN, CLEVIS, 3/8” X 2-1/8”	1
42	NB4791	SCREW, CAP, 3/8” X 2”	1
43	MP144200	HUB, WHEEL, DRIVE	1
44	RX000900	IDLER, W/3” FLAT PULLEY, ASM.	1
44.2	NB046200	NUT, HEX, 3/8”-16, GR5	1
44.3	NB053600	BOLT, CARRIAGE, 3/8”-16 X 2”	1
44.4	NB9267	WASHER, FLAT, 5/16”	1
44.5	MX1075	WASHER, LOCK, 3/8”	1
44.6	RX006300	BRACKET, IDLER, WELDMENT	1
44.7	MP262400	IDLER, FLAT, 3.2”	1
45	NB9000	SCREW, CAP, 1/4”-20 X 1 1/2”, GD5	2
46	NB6110	WASHER, LOCK, 1/4”	4
47	MX1045	NUT, HEX, 1/4-20	2
48	NB8175	PIN, PRESTO, 3/32” X 1 5/8”	1
49	NB046700	BOLT, HEX, 5/8”-11 X 2”, GD5	2
50	NB046900	WASHER, LOCK, 5/8”	2
51	NB046300	PIN, LYNCH, 1/4” X 1 3/4”	2
52	MB248400	BELT, PUMP, HYDRAULIC	1
53	NB9510	NUT, SPIN LOCK, 10-24	4
54	MP242900	TANK, AIR, ASM.	1
54.1	MP198300	TANK, AIR	1
54.2	MP204800	VALVE, CONTROL, FLOW	2
54.3	MP099100	FITTING, 1/8” X 1/8” X 1” NIPPLE	1
54.4	MP171000	FITTING, AIR, 1/4 TUBE, 1/8 NPT,90 SWIVEL	2
54.5	MP236000	VALVE, SAFETY, AIR, 1/4” NPT, 125 PSI	1
54.6	MP236200	MANIFOLD, PNEUMATIC SYSTEM	1
54.7	MP204100	SWITCH, PRESSURE, AIR, 110PSI	1
54.8	MP205600	VALVE, FILLER, AIR TANK	1
55	NB041800	BOLT, SOCKET HD, 1/2”-13 X 1 1/2”	2
56	MP267500	BRACKET, WHEEL, REAR, WLDMT.	1
57	RX002401	BRACKET, HINGE, RXL	1
58	NB055100	NUT, LOCK, 5/16-24, NYLON	4
59	RX004900	REGULATOR, AIR PRESSURE, ASM.	1
59.1	MP243200	REGULATOR, AIR PRESSURE	1
59.2	MP171000	FITTING, AIR, 1/4 TUBE, 1/8 NPT, 90 SWIVEL	2
59.3	MP099000	FITTING, 1/8” FPT X 1/8” FPT 90	1
59.4	MP099100	FITTING, 1/8” X 1/8” X 1” NIPPLE	1
59.6	MP248100	PLATE, REGULATOR, AIR PRESSURE	1
60	NB023400	WASHER, FLAT, NARROW, 3/4”	3
61	MP4805	SPACER, CLUTCH, BOTTOM, HUB BASE	2
62	MP318700	SENSOR, PRESSURE, MANIFOLD (MAP)	1
63	NB6040	TIE, NYLON, 3/16 x 8 1/2, BLK	1

061108

Engine

092508





RF017700

090508

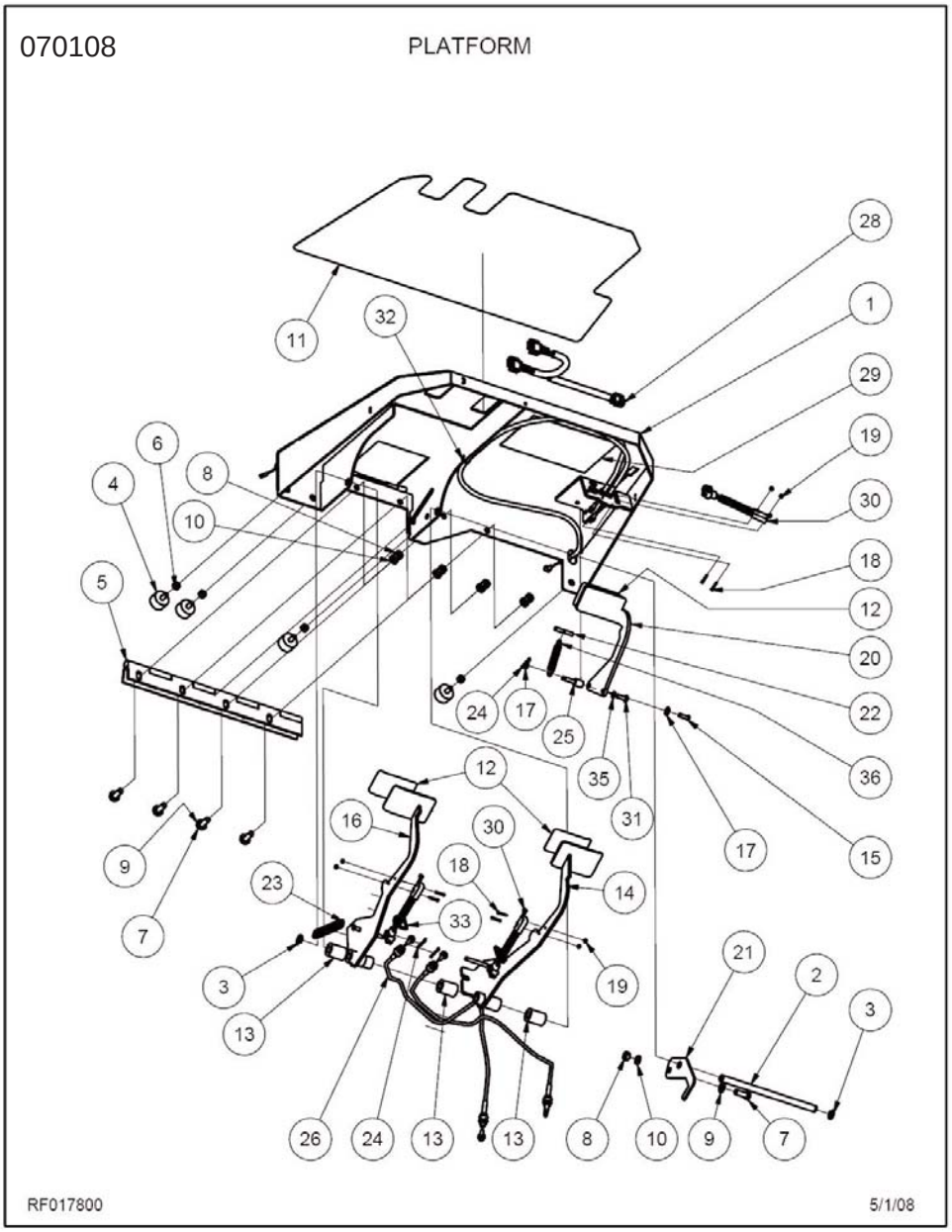
RX003800 ENGINE, KAW., 26HP,FD731V, ASM.

Ref.	Part #	Description	Qty.
1	MP195100	ENGINE, KAWASAKI, 26HP, FD731V	1
2	MP250400	SHROUD, RADIATOR	1
3	MP242300	FUEL INJECTION, FD731, ASM.	1
4	KA590717004	ADAPTER, DRAIN, OIL	1
5	MP072300	DRAIN, OIL	1
6	MP252101	BRACKET, THROTTLE CABLE	1
7	MP198700	MODULE, TIMING, FIXED, 3 SEC.	1
8	NB9000	SCREW, CAP, 1/4"-20 X 1 1/2", GD5	2
9	NB3350	WASHER, FLAT, 1/4"	3
10	MP243800	CARBURETOR, FD731V, ASM.	1
11	NB050700	CLAMP, HOSE, 1/4"-5/8"	8
12	KA110612075	GASKET, CARB, KAW.	2
13	MP244000	BLOCK, SPACER, INTAKE, SUB-ASMI	1
14	NB3275	NUT, LOCK, 1/4"	3
15	NB019100	BOLT, HEX, 1/4-20 X 3/4, GD 5	1
16	NIG5055	NUT, FLANGE 5MM	1
17	KA110612128	GASKET, CARB, KAW.	3
18	NB2460	HOSE, VACUUM, 5/32	20"
19	NB4000	CAPLUG, .312" X 1/2", YELLOW VINYL	1
20	NB6040	TIE, NYLON, 3/16 X 8 1/2, BLK	1
21	NB006400	WASHER, FENDER, 1/4" X 1 1/4"	1
22	MP239600	HOSE, FUEL, 1/4" I.D.	11"
23	NB9200	SCREW, MACH., ROUND HD, 6-32 X 5/8	2
24	NB007100	WASHER, FLAT, #6	2
25	NB020800	NUT, LOCK, NYLON, 6-32	2
26	MP151500	RELAY, BOARD, CIRCUIT, PRINTED, 12V	1
27	NB019600	HOSE, FUEL, 1/2" I.D.	1.1FT
28	OBD6012	BOLT, HEX, M6 X 12	1
29	MP165300	FITTING, ELBOW, PP, 1/2" X 1/2" HB	2
30	NB019600	HOSE, FUEL, 1/2" I.D.	.8FT
31	MP165900	MODULE, TIMING, FIXED, 60 SECOND	1

MP242300 FUEL INJECTION, FD731, ASM.

Ref.	Part #	Description	Qty.
1	MP319500	BRACKET, REGULATOR, RXL40	1
2	NB9730	WASHER, STAR #8	4
3	NB6540	SCREW, BH, 8-32 X 1/2	4
4	MP242500	FITTING, 1/4" MNPT X 1/8" MNPT	1
5	MP245600	REGULATOR, FUEL INJECTION	1
6	MP245500	FUELOCK, 12V, VALTEK	1
7	MP236100	FITTING, 48 X 6	1
8	NB9200	SCREW, MACH., ROUND HD, 6-32 X 5/82	
9	NB9735	NUT, LOCK, 10-24, NYLON	2
10	NB007100	WASHER, FLAT, #6	2
11	MP151500	RELAY, BOARD, CIRCUIT, PRINTED, 12V	1
12	NB020800	NUT, LOCK, NYLON, 6-32	2
13	NB020500	SCREW, BH, 10-24 X 5/8	2
14	SS2570	FUSE, 20 AMP, ATO	2
15	MP043000	FUSE, 7.5 AMP	4
16	NB5516	TERMINAL ADAPTER	2
17	MP243700	FITTING, 1/8"MNPTX1/4" BARB, 90 DEG, ELB	1
18	MP306000	VALVE, FILLER, AIR TANK	1
19	MP318900	INJECTOR, FUEL, PROPANE	1
20	NB3275	NUT, LOCK, 1/4"	2
21	MP279100	MANIFOLD, VAPORIZER, LP, ASM.	1
22	NB060200	BOLT, U, 1/4-20 x 1" I.D.	1

Platform



MP217000 PLATFORM, RXL, ASM.

Ref.	Part #	Description	Qty.
1	MP217100	PLATFORM, RXL, WELDMENT	1
2	MP211400	SHAFT, PEDAL PIVOT	1
3	NB002900	RING, RETAINER, 1/2”, E-STYLE	2
4	MP199900	MOUNT, VIBRATION, STUD, 5/16-18	4
5	MP212500	HINGE, 16”	1
6	NB3260	NUT, 5/16”-18, NC	4
7	NB6042	SCREW, CAP, 3/8” X 1”	5
8	NB046200	NUT, HEX, 3/8”-16 GR5	5
9	MX1080	WASHER, FLAT, 3/8	5
10	MX1075	WASHER, LOCK, 3/8”	5
11	MP210500	TREAD, FLOORBOARD	1
12	MP210400	TREAD, PEDAL, 2” X 3.5”	3
13	MP218300	SPACER, PEDAL, NYLON	3
14	MP217900	PEDAL, REVERSE, WELDMENT	1
15	NB026400	PIN, CLEVIS, 1/4” X 3/4”, SS	1
16	MP218000	PEDAL, FORWARD, WELDMENT	1
17	NB3350	WASHER, FLAT, 1/4”	2
18	NB9625	SCREW, 4-40 X 3/4”	6

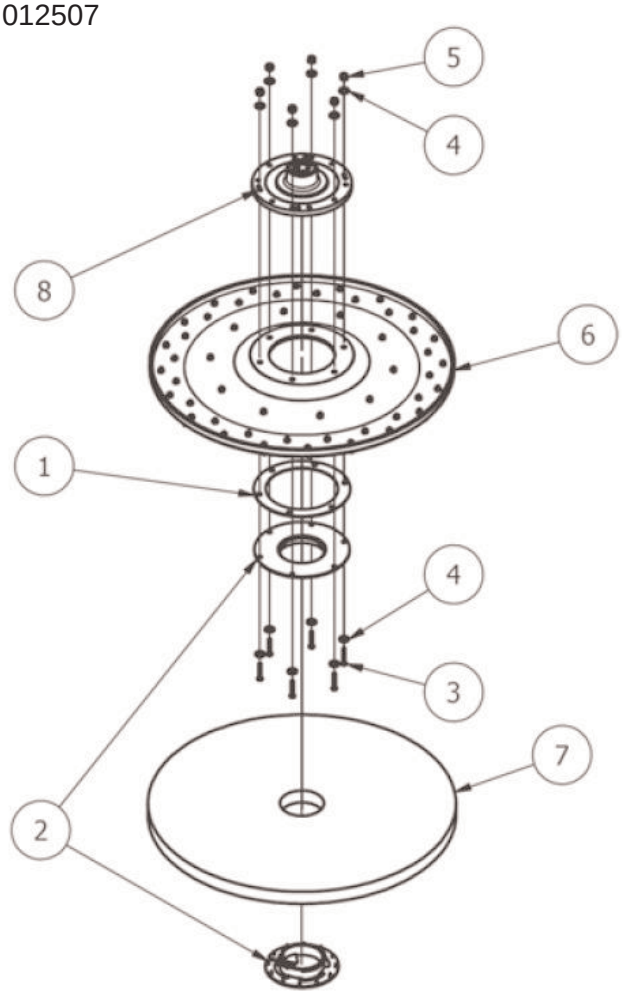
MP217000 PLATFORM, RXL, ASM.

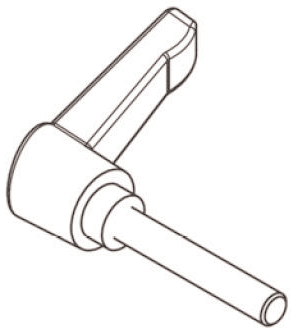
Ref.	Part #	Description	Qty.
19	NB007000	NUT, LOCK, NYLON, 4-40	6
20	MP217801	PEDAL, BRAKE	1
21	RX005400	HOOK, HANGER, DECK	1
22	MP082400	PIN, SPRING, RETURN, LOCK, HANDLE	1
23	MP199700	SPRING, RETURN, PEDAL	2
24	NB022700	PIN, COTTER, 3/32 X 1”	3
25	MP256000	PIN, BRAKE, SPRING	1
26	MP250100	CABLE, ASSEMBLY, FORWARD/REVERSE	1
27	MP250200	CABLE, ASSEMBLY, BRAKE	1
28	RX005500	HARNESS, WIRING, PLATFORM JUMPER, RXL	1
29	RX008100	DECAL, DIAGRAM, BELT, RXL	1
30	MP248700	SWITCH, SPDT, LEVER, ROLLER, ASM.	3
31	NB6535	SCREW, CAP, HH, 1/4-20 X 3/4	1
32	NB6035	TIE, NYLON, 1/8 X 4, BLK	3
33	NB6040	TIE, NYLON, 3/16 X 8 1/2, BLK	2
35	NB6110	WASHER, LOCK, 1/4”	1
36	MP076900	SPRING, RETURN, LOCK, HDL.	1

070108

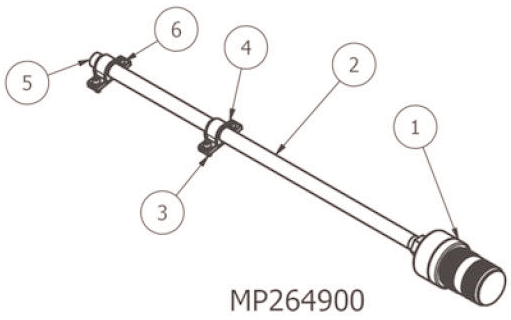
Optional Equipment

012507





MP258700 PADHOLDER REMOVAL TOOL



MP264900

MP214700 PADHOLDER, 21", RXL40, ASM.

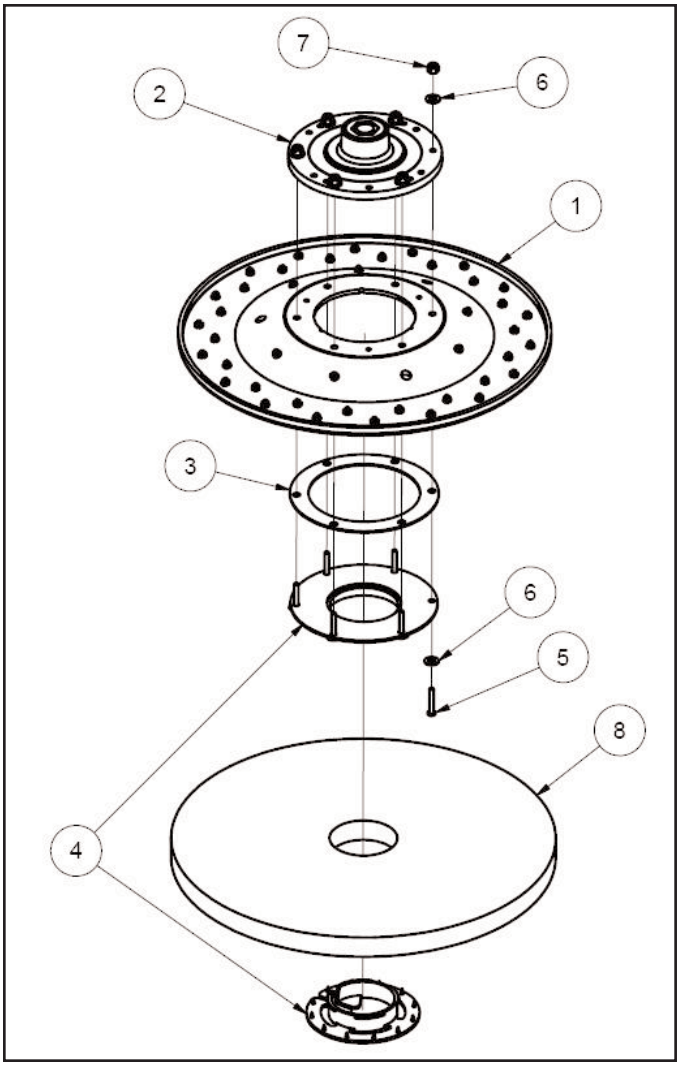
Ref.	Part #	Description	Qty.
1	MP081300	RING, RELIEF, STRESS, PADHOLDER, 21"	1
2	MP8505	PAD GRAB III (SNAP-IN)	1
3	NB9319	SCREW, BH, 1/4-20 X 1 1/4"	6
4	NB3350	WASHER, FLAT, 1/4"	12
5	NB3275	NUT, LOCK, 1/4"	6
6	SA003900	PADHOLDER, 21", W/STUDS ONLY	1
7	PD006021	PA, 21" BLUE BLEND-RND	1
8	MP257900	FLEXI-DISK, W/O LIP, .75" BORE W/ INSERT	1

MP264900 STROBE, AMBER, 1/2"FEM. PIPE MOUNT, KIT

Ref.	Part #	Description	Qty.
1	MP262800	STROBE, AMBER, W/CONNECTORS	1
2	MP262600	PIPE, MOUNT, STROBE	1
3	MP264200	SPACER, STROBE, MOUNT	2
4	NB053300	CLAMP, PIPE, 1/2", OMEGA	2
5	MP262700	HARNESS, WIRING, STROBE	1
6	NB3001	BOLT, HEX, 1/2 X 1, NC	4

012507

Optional Equipment



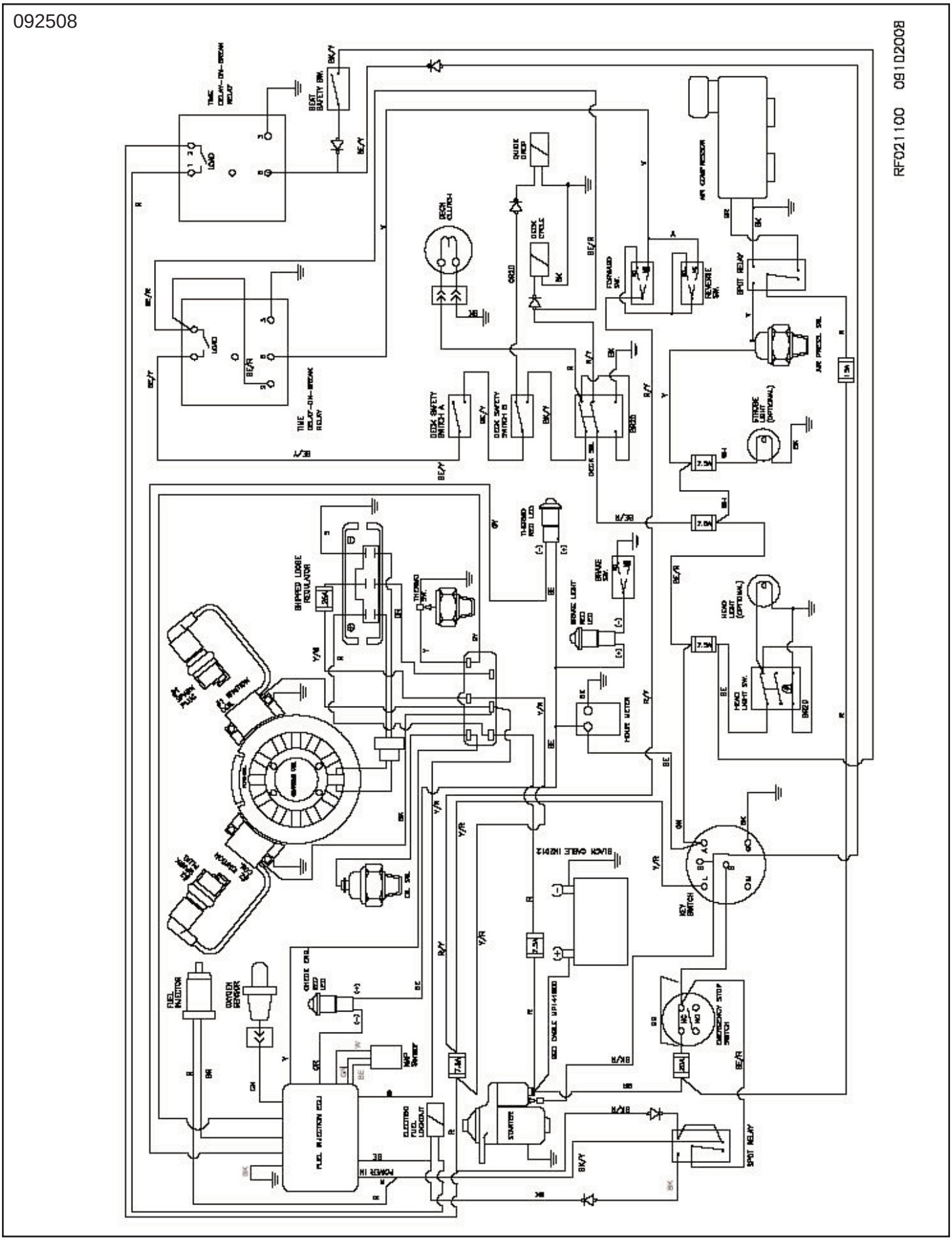
MP296200 RXL33 17” OPTIONAL PAD HOLDER ASSEMBLY

Ref.	Part #	Description	Qty.
1	SA013200	PADHOLDER, 17”, W/STUDS ONLY (PROPANE)	1
2	MP257900	FLEXI-DISK, W/O LIP, .75” BORE W/INSERT	1
3	MP081300	RING, RELIEF, STRESS, PADHOLDER, 21”	1
4	MP8505	PAD GRAB III (SNAP-IN)	1
5	NB9319	SCREW, BH, 1/4-20 X 1 1/4”	6
6	NB3350	WASHER, FLAT, 1/4”	12
7	NB3275	NUT, LOCK, 1/4”	6
8	PD006017	PAD, 17” BLUE BLEND-RND	1

062707

Wiring Schematic

092508



Limited Warranty
Revolution RXL Burnisher

The Revolution RXL Burnisher is warranted to be free of defects in materials and workmanship for a period of three (3) years from the date of purchase by the original owner apart from the EXCLUSIONS AND EXCEPTIONS noted below.

TO QUALIFY FOR THIS WARRANTY:

1. Machine must be registered at the time of purchase on a form provided by Amano Pioneer Eclipse Corporation. Your Amano Pioneer Eclipse Distributor is responsible for the registration of your machine. Please cooperate with your distributor in supplying necessary information on the card.
2. The machine must have been purchased from Amano Pioneer Eclipse or an authorized Amano Pioneer Eclipse Distributor.
3. This warranty extends to the original purchaser only and is not transferable to subsequent owners.

EXCLUSIONS:

1. Parts that fail through normal wear by reason of their characteristics including, pads, dust skirt edging, deck guide wheels, belts, dust container filters, spark plugs, air filters, oil filters, etc., are not warranted.
2. Parts affected by misuse, neglect, abuse, or improper maintenance are not warranted.

EXCEPTIONS:

1. The engine is warranted, except for the valve train noted below, for four (4) years provided that Kawasaki approved oil is used each time the oil is changed or added to the crankcase. Written records are required to show that Kawasaki approved oil was used. Revolution RXL Burnishers shipped by overland freight have the correct amount of Kawasaki oil added to the engine before shipping.
2. The engine is warranted, except for the valve train noted below, for two (2) years if Kawasaki approved oil is not used each time the oil is changed or added to the crankcase.
3. The engine valve train is warranted by Pioneer Eclipse for one (1) year.
4. Batteries are warranted by the battery manufacturer for one (1) year.
5. Rotational molded parts and the machine frame are warranted for five (5) years.

THE OBLIGATION OF AMANO PIONEER ECLIPSE CORPORATION:

1. The obligation of Amano Pioneer Eclipse under this warranty is limited to repairing or replacing, at it's option, any part which is proven to be defective in material or workmanship under normal use for the applicable period stated above.
2. Warranty repairs will be made by your Amano Pioneer Eclipse Distributor without charge for parts for a period of three (3) years and without charge for labor for a period of one (1) year from the date of purchase by the original owner apart from the Exclusions and Exceptions noted.
3. Parts repaired or replaced under this warranty are warranted only during the balance of the original warranty period. All defective parts replaced under these warranties become the property of Amano Pioneer Eclipse.
4. All defective parts must be returned to an authorized Amano Pioneer Eclipse Distributor for credit.

WARRANTY SERVICE:

To obtain warranty service, take your machine and proof of purchase to any authorized Amano Pioneer Eclipse Distributor. Amano Pioneer Eclipse will not reimburse expenses for service calls or travel. For the distributor in your area, call Amano Pioneer Eclipse Customer Service Department at 1-800-367-3550 or 1-336-372-8080. If you are dissatisfied with the service that you receive, call or write Amano Pioneer Eclipse Customer Service Department for further assistance.

DISCLAIMER OF CONSEQUENTIAL:

AMANO PIONEER ECLIPSE DISCLAIMS ANY RESPONSIBILITY FOR LOSS OF USER TIME OF THE PIONEER ECLIPSE MACHINE OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGE EXCEPT AS STATED IN THE WARRANTY APPLICABLE TO EACH MACHINE. EXCEPT AS STATED IN SUCH WARRANTIES, THE COMPANY DOES NOT OTHER-WISE WARRANT ANY MACHINE AND NO WARRANTY, EXPRESS, IMPLIED, OR STATUTORY IS MADE BY THE COMPANY.

LT045400-J; 092508

1 Eclipse Rd., PO Box 909
Sparta, NC 28675
1-336-372-8080 / 1-800-367-3550
www.pioneer-eclipse.com

Machinery Directive 98/37/EC as amended by Directive 89/392/EEC, Directive 91/368/EEC, and Directive 93/68/EEC.

Model # _____

Serial # _____

DOM: _____

Built in NC, USA