**Bona Atomic® DCS – Trailer Mounted**
Item #AD0002667COM
Owner’s Manual

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**READ ENTIRE MANUAL BEFORE OPERATING EQUIPMENT!**

Failure to read this manual prior to operating or servicing equipment could result in injury or death to you or other personnel or damage to equipment or other personal property.

**DANGER!** Severe bodily injury or death can occur to you or other personnel if statements with this sign are not followed or are ignored.

**FIRE DANGER!** Fire can occur if statements with this sign are not followed or are ignored by you or other personnel.

**CARBON MONOXIDE DANGER!** Carbon Monoxide poisoning resulting in sickness or death can occur to you or other personnel if statements with this sign are not followed or are ignored.

**EXPLOSION DANGER!** Explosion can occur if statements with this sign are not followed or are ignored by you or other personnel.

**WARNING!** Bodily injury or damage to equipment can occur if statements with this sign are not followed or are ignored by you or other personnel.
Safety Precautions

DANGER means: Severe bodily injury or death can occur to you or other personnel if the DANGER statements found on this machine or in this owner’s manual are ignored or are not adhered to. Read this entire manual before operating this machine.

SHUT OFF the Atomic Dust Collection system before performing maintenance or making adjustments to avoid contact with moving parts. Obey all posted warnings when the machine is in operation. Never run the Atomic Dust Collection system if the belt guard is off or damaged.

FIRE DANGER. Do not store flammable or combustible materials near or around the Atomic Dust Collector; e.g., sealers, finish, stain, gasoline, or any other product that is flammable. Note: A fire extinguisher is mounted in the rear compartment. This is intended as a backup to the primary fire extinguisher which you should carry in the towing vehicle at all times.

FIRE DANGER. Do not store products or materials that are sensitive to heat around or near the Atomic Dust Collector. To ensure proper ventilation of the Kawasaki engine, the street side door must remain open during operation.

FIRE DANGER. Park the van/trailer/box truck a minimum of 25 feet from the home or business (including porches and roof overhangs). Inspect exhaust system for damage and to make sure it is not in direct contact with trailer floor. If exhaust system has been damaged and/or forced to make direct contact with the trailer’s floor, do not run the equipment until repairs are made.

CARBON MONOXIDE DANGER. Carbon Monoxide poisoning can result in severe sickness or even death. To ensure against Carbon Monoxide poisoning it is important to run the Atomic DCS in a well ventilated area. To reduce the possibility of Carbon Monoxide build-up:

- Park the van/trailer/box truck a minimum of 25 feet from the home or business (including porches and roof overhangs). If the wind is blowing from the vehicle toward the hose entry door, park farther from the home or business or in a location where the wind will not direct the exhaust toward the hose entry door.
- Open garage doors create an area where Carbon Monoxide can accumulate. Avoid routing hoses into the home or business through an attached garage. Wind from any direction may allow Carbon Monoxide to accumulate if the vehicle is too close.
- “L” shaped homes with the entry door at the inside of the “L” can be more prone to Carbon Monoxide entry. Any entry door with a roof overhang can also contribute to Carbon Monoxide build-up and entry into the home or business.
- Check for open windows that may allow Carbon Monoxide to enter the home or business.
**Carbon Monoxide** is known as the “Silent Killer” because you can’t see, hear, taste, or smell it. The only way to know if you are being affected by it is to be aware of its symptoms. These include:

- Headaches, dizziness, drowsiness, and confusion
- Nausea, vomiting, and rapid heartbeat
- Loss of consciousness
- Everyone in the house or business is feeling ill at the same time
- It feels as though you have the flu

**Shut off power to the Atomic DCS if you suspect any danger of Carbon Monoxide in the workplace area.**

**EXPLOSION DANGER.** Sanding/finishing wood floors can create an environment that can be explosive. The following safety procedures must be adhered to:

- Cigarette lighters, pilot lights, and any other sources of ignition can create an explosion when active during a sanding session. All sources of ignition should be extinguished or removed entirely, if possible, from the work area.
- Work areas that are poorly ventilated can create an explosive environment when certain combustible materials are in the atmosphere; e.g., solvents, thinner, alcohol, fuels, certain finishes, wood dust and other combustible materials. Read the manufacturer’s label on all chemicals being used to determine combustibility. Keep work area well ventilated.
- Remove contents of the dust bin when the bin is full. Remove the contents of the dust bin each time you finish using the machine. Never leave the dust bin unattended with sanding dust in it.
- Do not empty the contents of a dust bag into a fire.
- Hitting a nail while sanding can cause sparks and create an explosion or fire. Always use a hammer and punch to countersink all nails before sanding floors.

Airborne sanding dust should not be breathed in while operating equipment. Always wear a dust respirator while operating sanding equipment.

Injury to the eyes and/or body can occur if protective clothing and/or equipment is not worn while sanding. Always wear safety goggles, protective clothing, ear protection and a dust mask while sanding.

Ramp door can become slippery in wet weather conditions. Injury from slipping/falling can occur if care is not used when entering/exiting the trailer when ramp is wet. Grip tape has been placed on the ramp door to improve traction. Replace grip tape when it becomes worn or damaged.

Any modifications or alterations to the bulkhead/separator wall may result in damage to the Kawasaki engine or other components of the Atomic DCS.
Trailer Towing Requirements

- 2-5/16” ball
- 7-point round wiring harness
- Electric brake control module
- Trailer is rated at 7,000 pounds (this means the trailer and its cargo can be up to 7,000 lbs). The actual weight upon delivery is approx. 2,800 lbs. Make sure the vehicle and the hitch on the vehicle towing this trailer is rated to tow a trailer of this size.
## Atomic Trailer Accessories

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Hoses</th>
<th>Comes w/Trailer</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS3100269</td>
<td>2&quot; x 50' Beige/Blue Vacuum Hose (Fig. 1, A)</td>
<td>Yes (4 each)</td>
</tr>
<tr>
<td>AS3100270</td>
<td>1-1/2&quot; x 50' Blue/Beige Vacuum Hose (Fig. 1, B)</td>
<td>Yes (2 each)</td>
</tr>
<tr>
<td>AS3100271</td>
<td>1-1/2&quot; x 15' Red Vacuum Hose (Fig. 1, C)</td>
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<table>
<thead>
<tr>
<th>Item Number</th>
<th>Hose Clamps</th>
<th>Comes w/Trailer</th>
</tr>
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<tbody>
<tr>
<td>ASO539050</td>
<td>Power Clamp Complete 50mm (clamps vac hose to edger)</td>
<td>Yes (1 each)</td>
</tr>
<tr>
<td>ASO539060</td>
<td>Power Clamp Complete 60mm (clamps vac hose to sander)</td>
<td>Yes (1 each)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Cuffs / Barbs / Connectors</th>
<th>Comes w/Trailer</th>
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</thead>
<tbody>
<tr>
<td>AS3100272</td>
<td>2&quot; Hose Cuff (screws onto 2&quot; vacuum hose) (Fig. 2, D)</td>
<td>Yes (8 each)</td>
</tr>
<tr>
<td>AS3400273</td>
<td>1-1/2&quot; x 2&quot; Slip Cuff (screws onto 1-1/2&quot; vacuum hose) (Fig. 2, A)</td>
<td>Yes (5 each)</td>
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<tr>
<td>AS3100274</td>
<td>1-1/2&quot; Hose Cuff (screws onto 1-1/2&quot; vacuum hose) (Fig. 2, C)</td>
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<tr>
<td>AS3100275</td>
<td>1-1/2&quot; Angle Tip (screws onto red vacuum hose) (Fig. 2, B)</td>
<td>Yes (1 each)</td>
</tr>
<tr>
<td>AS3100276</td>
<td>2&quot; Connector Barb (connects 2&quot; vacuum hose) (Fig. 2, F)</td>
<td>Yes (4 each)</td>
</tr>
<tr>
<td>AS3100277</td>
<td>1-1/2&quot; x 2&quot; Connector Barb (connects 2&quot; vacuum hose to 1-1/2&quot; vacuum hose) (Fig. 2, E)</td>
<td>Yes (2 each)</td>
</tr>
<tr>
<td>AS3100278</td>
<td>1-1/2&quot; Connector Barb (connects 1-1/2&quot; vacuum hose) (Fig. 2, G)</td>
<td>Yes (2 each)</td>
</tr>
<tr>
<td>AS3100338</td>
<td>2&quot; Stainless Steel “Y” Connector (not shown)</td>
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<th>Adapters</th>
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<tr>
<td>AS1100430</td>
<td>Brand “X” Leather Adapter (see page 7)</td>
<td>Choose 1</td>
</tr>
<tr>
<td>AS2000432</td>
<td>Bona Belt DCS Adapter</td>
<td>Choose 1</td>
</tr>
<tr>
<td>AS2200433</td>
<td>Bona Super 8 Adapter (see page 6)</td>
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</tr>
<tr>
<td>AS2300575</td>
<td>Bona Super 10 Adapter</td>
<td>Choose 1</td>
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<table>
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<th>Item Number</th>
<th>Miscellaneous</th>
<th>Comes w/Trailer</th>
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<tr>
<td>AS310831</td>
<td>Filter Bag for Atomic Trailer</td>
<td>No Extra</td>
</tr>
<tr>
<td>AS3100310</td>
<td>Pre Separator for Atomic Trailer</td>
<td>No Extra</td>
</tr>
<tr>
<td>AS3100349S</td>
<td>Drive Belt for Atomic Blower</td>
<td>No Extra</td>
</tr>
<tr>
<td>AS3100370</td>
<td>Gas Cap for Atomic Trailer</td>
<td>No Extra</td>
</tr>
</tbody>
</table>

**Fig. 1**
Adapter Installation Instructions

![Fig. 1](image1.png)

![Fig. 2](image2.png)
Bona Super 8 Sander Adapter
Item #AS2200433

Installation Instructions:

1. Secure the 2” stainless steel connector to the stack of the Super 8 with a piece of tape (Fig. A). Do not force the connector into the stack. It is meant to sit flush against the stack.
2. Cover the stack and the connector with the black heat shrink tubing.
3. Using a heat gun, shrink the wrap around the stack and the connector (Fig. B). Be sure to completely cover the connector with the heat shrink tubing.
4. Once the heat shrink has cooled, cut away enough of the heat shrink tubing from the connector to expose the “rib” on the connector (Fig. B). This will allow the hose cuff to slip onto the connector.

Fig. A

Exposed Rib

Fig. B

Brand X Leather Sander Adapter
Item #AS1100430
Installation Instructions:

1. Using the leather piece and the metal hose clamp, attach the leather piece to the 2” vacuum hose.
2. When attaching the vacuum hose to the sander make sure the plastic cuff goes inside of the sander’s stack (Fig. C – shown without leather piece attached for easy viewing).
3. With the leather piece attached to the 2” vacuum hose, slip the leather piece over the sander’s stack until you are able to push the plastic hose cuff into the stack as mentioned in step 2.
4. Secure the leather piece to the sander’s stack with the blue strap (Fig. D).
Atomic Operating Procedures

Start-up procedures (see Fig. 3, page 12)
1. Make sure you have gas
2. Make sure machine is clear of debris or objects leaning against it
3. Pull out choke
4. Set throttle to ¼
5. Move toggle switch to “on” position
6. Turn ignition switch to first position, which will turn on the fuel pump. Once fuel filter is full of fuel, turn ignition switch on and start engine. (do not hold ignition switch on for more than 10 seconds at a time)
7. Whenever starting the Atomic Dust Collector, whether it is hot or not, you must always use the choke
8. Once engine starts gradually push the choke in
9. Pull throttle to full on position
10. Hook up vacuum hoses. See below for more details

Running procedures (see Fig. 4, 5 & 6; page 12)
1. Make sure electric vent fan is running
2. To ensure proper ventilation keep the street-side side door open while Atomic DCS is in use
3. Once the dust bin is full you must shut the machine down to empty
4. Remove the dust collector lid and agitate the bag assembly to remove build up. Failure to do so may cause damage to collector housing
5. Empty the dust bin and replace
6. Start up engine according to start-up procedures if more work is to be done

Shut-down procedures
1. Throttle the engine all the way down
2. Turn off ignition
3. Turn on/off toggle to the “off” position

Vacuum hose configuration (see Fig. 1, page 5)
1. The system comes with 300’ of vacuum hose
   a) 4x50’ 2” hose (grey/blue)
   b) 2x50’ 1.5” hose (blue/grey)
2. Running equipment
   a) Run 2” hose (grey/blue) to your Belt floor sanding machine
   b) Run 1.5” hose (blue/Grey) to either an edger or buffer
3. When using more than 50’ of hose for an edger or buffer, use the 2” (grey/blue) hose first and then reduce down to the 1.5” (blue/grey) hose for the last 50’
Maintenance Procedures

It is crucial that each area of maintenance be completed as scheduled and directed. Failure to do so may invalidate the warranty, or more importantly, may cost you business while your equipment is being repaired. The periodic maintenance chart on page 10 will tell you when all maintenance should be performed on the entire Atomic Dust Collector system.

1. **Daily Maintenance:**
   a. It is important to check engine oil and coolant levels every day (we recommend in the morning before the equipment is run). If the oil or coolant levels are low, refill to correct operating levels. Use the same grade of oil that is currently in the engine’s crankcase. Do not mix grades of oil. For the coolant use a 50/50 mixture of water and anti-freeze.
   b. In addition to checking the levels of oil and coolant it is important to check for any leaks of these fluids. If a leak is detected DO NOT RUN THE EQUIPMENT. Determine where the leak is coming from and repair.

2. **First 20 hour Maintenance:**
   a. Change the engine oil and filter. The engine comes with a synthetic blend for the break in period. With this oil change we recommend full synthetic motor oil. Use 2 quarts of oil for the job (The engine’s oil capacity is 3.8 US pints). Over filling the oil can cause the engine to overheat and smoke. Refer to the engine specification sheet attached for oil weight, viscosity and changing instructions.

3. **100 hour Maintenance: To be performed every 100 hours**
   a. Oil change. Same as in the “First 20 hour Maintenance” section.
   b. Clean air filter elements, both foam and paper.
   c. Check and tighten blower belt. The belt should have ¼” to ½” of play when properly tightened (see Fig. 7 & 8, page 12).
   d. Clean and re-gap sparkplugs. Measure the gap with a wire-type thickness gauge. If the gap is incorrect, carefully bend the side electrode with a suitable tool to obtain the correct gap. The spark plug gap standard is 0.6 to 0.7mm (0.024 to 0.028 inches).

4. **300 hour Maintenance: To be performed every 300 hours**
   a. Replace air cleaner elements, paper and foam. Take old air filter elements to a local lawn and garden store or your nearest Kawasaki service center to find exact replacements (www.kawpower.com)
   b. Inspect radiator and hoses. Check for leaks, cracks and loose hoses.
   c. Check allen set screws holding the sheaves/pulleys on the engine and blower shafts (4 total, 2 per sheave/pulley) (see Fig. 9 & 10, page 13). If screws are loose, remove and apply permanent thread lock and then replace. Before replacing make sure sheaves/pulleys are lined up and straight.

5. **1,500 hour Maintenance: To be performed every 1500 hours OR once every year**
   a. Change engine coolant.
   b. Clean dust and dirt from cylinder and cylinder head fins. Use compressed air to perform this cleaning.
   c. Check the fan belt condition and tension, clean the combustion chamber, check and adjust valve clearance, and clean and lap valve-seating surface. All of these items should be performed by an authorized Kawasaki service center (www.kawpower.com).
## Periodic Maintenance Chart for U.S.

### Kawasaki FD750D-S00

<table>
<thead>
<tr>
<th>Maintenance</th>
<th>Daily</th>
<th>First 20 hrs.</th>
<th>Every 100 hrs.</th>
<th>Every 300 hrs.</th>
<th>Once a year or every 1500 hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check and add engine oil</td>
<td>✓</td>
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<td></td>
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<tr>
<td>Check and add coolant</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check for loose or lost nuts and screws</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check for fuel and oil leaks</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Change engine oil &amp; filter</td>
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<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean air cleaner foam element</td>
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<td></td>
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<td>Clean air cleaner paper element</td>
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<td></td>
</tr>
<tr>
<td>Tighten blower belt (Fig. 7 &amp; 8, page 12)</td>
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<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Clean and re-gap spark plugs</td>
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<td>✓</td>
<td></td>
<td></td>
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<tr>
<td>Check allen set screws on engine and blower pulley (Fig. 9 &amp; 10, page 13)</td>
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<tr>
<td>Replace air cleaner elements</td>
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<tr>
<td>Inspect radiator and hoses</td>
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<td>Check fan belt conditions and tension</td>
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<td>Clean dust and dirt from cylinder and cylinder head fins</td>
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<td>✓</td>
</tr>
<tr>
<td>Change engine coolant</td>
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<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Clean combustion chamber</td>
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<td></td>
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<td>✓</td>
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<tr>
<td>Check and adjust valve clearance</td>
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<td>Clean and lap valve seating surface</td>
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*These items should be performed by an authorized Kawasaki service center ([www.kawpower.com](http://www.kawpower.com))

### Oil Filter Cross Reference

- **OEM – Kawasaki**: 49065-2071 / **Bosch**: 3311 / **STP**: S4967 / **Mobil 1**: M1-103
- **CarQuest**: 85394 / **Napa**: 21394 / **Fram**: PH4967
Troubleshooting

For technical assistance please refer to the troubleshooting flow chart located in the engine specifications addendum at the end of this manual. If the problem persists or is not mentioned in the flow chart, please call the BonaKemi USA technical hot line:

800-872-5515

Engine Model #
Kawasaki FD791D -DFI

Finding a Kawasaki Dealer near you:

1. Go to www.kawpower.com
2. Choose “Find a Dealer” (lower right)
3. Enter your zip code and click on “Submit”
Diagrams

Hour Meter
Fuel Gauge
Throttle
Choke
On/Off
Start

Fig. 3

Street Side Door
< Gas Tank fill location

Fig. 4

Collector Lid
Dust Collector Unit
Dust Bin

Fig. 5

Bag Assembly

Fig. 6

< Belt Tension Bolt

Fig. 7

Blower Belt

Fig. 8
Diagrams

Fig. 9

Fig. 10
Warranty Information

Bonakemi USA, Inc. warrants this apparatus to be free of defects in material and workmanship provided it is used under normal circumstances and the routine maintenance is performed.

Length of warranty:

- The Kawasaki 27hp water-cooled engine is warranted for two (2) years from the date of installation.
- The Collector and Vacuum producer are warranted for two (2) years from the date of installation.

This warranty will only be enforceable if the routine maintenance outlined in this manual is followed and documented (date, technician, hour meter reading, and receipts). Furthermore, this warranty does not apply to any “maintenance items” such as belts, oil, oil filters, spark plugs, air filter elements, and other such items, unless there was a defect from the factory which would cause premature wear or failure of the part.

This warranty applies only to equipment produced by Bonakemi USA, Inc. Bonakemi USA, Inc. will also inspect any defective part to determine if there was any misapplication or tampering by unauthorized personnel. If this is the case, then Bonakemi USA, Inc. will not be responsible for replacement or repairs on the respective part. The warranty can also be voided if alterations to the system are done. This warranty extends to the original purchaser of the equipment and is non-transferable.

If a problem occurs with this product, you should contact your nearest Bona Distributor, or the BonaKemi USA, Inc. office for the authorized repair location closest to you. All freight costs in shipping the machine to the repair location are to be paid by the purchaser.

BONAKEMI USA, INC.'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO REPAIR OF THE PRODUCT AND/OR REPLACEMENT OF PARTS AND IS GIVEN TO THE PURCHASER IN LIEU OF ALL OTHER REMEDIES, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES.

THERE ARE NO OTHER WARRANTIES EXPRESS OR IMPLIED.
SAFETY AWARENESS

Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.

⚠️ WARNING
This warning symbol identifies special instructions or procedures which, if not correctly followed, could result in personal injury, or loss of life.

⚠️ CAUTION
This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to, or destruction of equipment.

Note
○ This note symbol indicates points of particular interest for more efficient and convenient operation.

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READ THIS FIRST

For your safety, read this Owner’s Manual and understand it thoroughly before operating this ENGINE.

WARNING

DO NOT run the engine in a closed area. Exhaust gas contains carbon monoxide, an odorless and deadly poison.

Gasoline is extremely flammable and can be explosive under certain condition.

Stop engine and allow the engine to cool before refueling.

DO NOT smoke. Make sure area is well ventilated and free from any source of flame or sparks including the pilot light of any appliance while refueling, servicing fuel system, draining gasoline and/or adjusting fuel system.

DO NOT fill the tank so the fuel level rises into the filler neck or level surface of level gauge. If the tank is overfilled, heat may cause the fuel to expand and overflow through the vents in the tank cap.

Wipe off any spilled gasoline immediately.

To prevent fire hazard:

Keep the engine at least 1 m (3.3 ft) away from buildings, obstructions and other burnable objects.

DO NOT place flammable objects close to the engine.

DO NOT expose combustible materials to the engine exhaust.

DO NOT use the engine on any forest covered, brush covered or grass covered unimproved land unless spark arrester is installed on the muffler.

To avoid getting an electric shock, DO NOT touch spark plugs, plug caps or spark plug leads during engine running.

To avoid a serious burn, DO NOT touch a hot engine or muffler. The engine becomes hot during operation. Before you service or remove parts, stop engine and allow the engine to cool.

DO NOT place hands or feet near moving or rotating parts. Place a protective cover over pulley, V belt or coupling.

DO NOT run engine at excessive speeds. This may result in injury.

Always remove the spark plug caps from spark plugs when servicing the engine to prevent accidental starting.

Read warning labels which are on the engine and understand them. If any label is missing, damaged, or worn get a replacement from your Kawasaki dealer and install it in the correct position.
EMISSION CONTROL INFORMATION

Fuel Information
THIS ENGINE IS CERTIFIED TO OPERATE ON UNLEADED REGULAR GRADE GASOLINE ONLY. A minimum of 87 octane of the antiknock index is recommended. The antiknock index is posted on service station pumps in the U.S.A.

Emission Control Information
To protect the environment in which we all live, Kawasaki has incorporated an exhaust emission control system in compliance with applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Also, depending on when your engine was produced, it may have an assigned emissions durability period. * See below for the engine emissions durability period that may apply to your engine.

Exhaust Emission Control System
The exhaust emission control system applied to this engine consists of a fuel system and an ignition system having optimum ignition timing characteristics. The fuel system has been calibrated to provide lean air/fuel mixture characteristics and optimum fuel economy with a suitable air cleaner and exhaust system.
A sealed-type crankcase emission control system is also used to eliminate blow-by gasses. The blow-by gasses are led to a breather chamber through the crankcase and from there to the air cleaner.

Engine Emissions Compliance Period

<table>
<thead>
<tr>
<th>California</th>
<th>All Other States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engines Greater Than or Equal To 225 cc</td>
<td>Engines Greater Than or Equal To 225 cc</td>
</tr>
<tr>
<td>Model Year – 2008 and later</td>
<td>Model Year – 2007 and later</td>
</tr>
<tr>
<td>Durability Period – 1 000 hours</td>
<td>Durability Period – 1 000 hours (Category A)</td>
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</tbody>
</table>

If your engine has an assigned emissions durability period it will be located on the certification label attached to the engine (IMPORTANT ENGINE INFORMATION).
High Altitude Performance Adjustment Information

To improve the EMISSIONS CONTROL PERFORMANCE of engines operated above 1,000 meters (3,300 feet), Kawasaki recommends the following Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) approved modifications.

However, the models with DFI (Digital Fuel Injection system) does not require high altitude performance adjustment.

NOTE

*When properly performed, these specified modifications only are not considered to be emissions system "tampering" and engine performance is generally unchanged as a result.

Maintenance and Warranty

Proper maintenance is necessary to ensure that your engine will continue to have low emission levels. This Owner's Manual contains those maintenance recommendations for your engine. Those items identified by the Periodic Maintenance Chart are necessary to ensure compliance with the applicable standards.

As the owner of the engine, you have the responsibility to make sure that the recommended maintenance is carried out according to the instructions in this Owner's Manual at your own expense.

The Kawasaki Limited Emission Control System Warranty requires that you return your engine to an authorized Kawasaki dealer for remedy under warranty. Please read the warranty carefully, and keep it valid by complying with the owner's obligations it contains.

Tampering with Emission Control System Prohibited

Federal law and California State law prohibit 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 purposes 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 parts:

- Carburetor or DFI system, and their internal parts
- Spark Plugs
- Magneto or electronic ignition system
- Fuel filter element
- Air cleaner elements
- Crankcase
- Cylinder heads
- Breather chamber and internal parts
- Intake pipe and tube
- Muffler or any internal portion of the muffler
This Owner’s Manual provided to aid you in the safe and reliable operation of your Engine. READ AND UNDERSTAND IT THOROUGHLY BEFORE OPERATING YOUR ENGINE. READ THE OPERATING INSTRUCTIONS OF THE EQUIPMENT THIS ENGINE POWERS. To ensure a long, trouble-free life for your Engine, give it proper care and maintenance in accordance with this Owner’s Manual. Please note that the photographs and illustrations shown in this manual are made based on Model FD750D or FD791D as a typical example among other similar models.

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<td>Wiring Diagram (For FD791D Model)</td>
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</tbody>
</table>
8 GENERAL INFORMATION

Location of Safety Related Labels

A. Warning
B. Engine Maintenance
C. Engine Serial Number

The engine serial number is your only means of identifying your particular engine from others of the same model type.

This engine serial number is needed by your dealer when ordering parts.
Parts Location (FD750D Models)

A. Air Cleaner
B. Oil Gauge/Tube
C. Muffler
D. P.T.O. Shaft
E. Oil Drain Plugs
F. Electric Starter
G. Spark Plugs/Spark Plug Caps
H. Packard Connector
I. Fan Belt
J. Cooling Fan
K. Oil Filler Cap
L. Carburetor

M. Radiator Cap
N. Radiator Screen
O. Overflow Reservoir
P. Fuel Pump
Q. Fuel Filter
R. Coolant Drain Plug
S. Oil Filter
T. Oil Pressure Switch
U. Coolant Temperature Switch
10 GENERAL INFORMATION

Parts Location (FD791D Model)

A. Air Cleaner
B. Oil Gauge/Tube
C. Muffler
D. P.T.O. Shaft
E. Oil Drain Plugs
F. Electric Starter
G. Spark Plugs/Spark Plug Caps
H. Packard Connector
I. E.C.U. (Electronic Control Unit)
J. Cooling Fan
K. Oil Filler Cap
L. Voltage Regulator
M. Throttle Assembly
N. Control Panel
O. Radiator Cap
P. Radiator Screen
Q. Overflow Reservoir
R. Coolant Drain Plug
S. Oil Filter
T. Oil Pressure Switch
U. Coolant Temperature Switch
Tune-up Specifications

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignition Timing</td>
<td>Unadjustable</td>
</tr>
<tr>
<td>Spark Plugs: Gap</td>
<td>FD750D NGK BPR2ES FD791D NGK BPR4ES</td>
</tr>
<tr>
<td>Low Idle Speed</td>
<td>1 550 r/min (rpm)</td>
</tr>
<tr>
<td>High Idle Speed</td>
<td>3 600 r/min (rpm)</td>
</tr>
<tr>
<td>Valve Clearance</td>
<td>In 0.15 mm (0.006 in) Ex 0.15 mm (0.006 in)</td>
</tr>
<tr>
<td>Other Specifications</td>
<td>No other adjustment needed</td>
</tr>
</tbody>
</table>

NOTE
○ High and low idle speeds may vary depending on the equipment on which the engine is used. Refer to the equipment specification.

Coolant and Engine Oil Capacity

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coolant Capacity</strong></td>
<td></td>
</tr>
<tr>
<td>FD750D FD791D</td>
<td>2.7 L (2.9 US·qt)</td>
</tr>
<tr>
<td>Type: Permanent Type of Antifreeze. Green Colored Mixed Ratio: Water 50%; Antifreeze 50% (1 : 1) Freezing Point: -35°C (-31°F)</td>
<td></td>
</tr>
<tr>
<td><strong>Engine Oil Capacity</strong></td>
<td></td>
</tr>
<tr>
<td>FD750D</td>
<td>1.8 L (1.9 US·qt) [when oil filter is not removed]</td>
</tr>
<tr>
<td>FD791D</td>
<td>2.0 L (2.1 US·qt) [when oil filter is removed]</td>
</tr>
</tbody>
</table>
Fuel and Oil Recommendations

Fuel

Use only clean, fresh, unleaded regular grade gasoline.

CAUTION

Do not mix oil with gasoline.

Octane Rating

The octane rating of a gasoline is a measure of its resistance to "knocking". Using a minimum of 87 octane by the antiknock index is recommended. The antiknock index is posted on service station pumps in the U.S.A.

Antiknock Index: \( \frac{(RON + MON)}{2} \)

RON = Research Octane Number
MON = Motor Octane Number

NOTE

○ If "knocking or singing" occurs, use a different brand of gasoline or higher octane rating.

Oxygenated Fuel

Oxygenates (either ethanol or MTBE) are added to the gasoline. If you use the oxygenated fuel be sure it is unleaded and meets the minimum octane rating requirement.

The following are the EPA approved percentages of fuel oxygenates.

ETHANOL: (Ethyl or Grain Alcohol)
You may use gasoline containing up to 10% ethanol by volume.

MTBE: (Methyl Tertiary Butyl Ether)
You may use gasoline containing up to 15% MTBE by volume.

METHANOL: (Methyl or Wood Alcohol)
You may use gasoline containing up to 5% methanol by volume, as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system.
Engine Oil

The following engine oils are recommended. API Service Classification: SF, SG, SH or SJ.

Oil Viscosity

Choose the viscosity according to the temperature as follows:

NOTE

○ Using multi grade oils (5W-20, 10W-30, and 10W-40) will increase oil consumption. Check oil level more frequently when using them.
**WARNING**

Gasoline is extremely flammable and can be explosive under certain conditions. Before refueling, turn the engine switch to the OFF position. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks, including any appliances with a pilot light. Never fill tank so that fuel level rises into the filler neck. If tank is overfilled, heat may cause fuel to expand and overflow through vents in tank cap. After refueling make sure tank cap is securely closed. If gasoline is spilled, wipe it up immediately.

**Fuel**

**Preparation**

**Engine Oil**

Check the engine oil daily before starting the engine otherwise shortage of the engine oil may cause serious damage to the engine such as seizure.

- Place the engine on level surface. Clean area around the oil gauge before removing it.
- Remove the oil gauge (A) and wipe it with clean cloth.
- Insert the oil gauge into tube (B) and let its plug firmly fit into the tube, then remove the oil gauge and check the oil level.
- The oil level should be between the “H” (H) and “L” (L) marks on the oil gauge.
- If the oil level is near or below the “L” mark, remove the oil filler cap (C) and pour the engine oil slowly to bring oil level to the “H” mark.
- Insert firmly the oil gauge into the tube and tighten the oil filler cap.

**Engine Oil Capacity**

<table>
<thead>
<tr>
<th>Model</th>
<th>Engine Oil Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD750D</td>
<td>1.8 L (1.9 US·qt)</td>
</tr>
<tr>
<td>FD791D</td>
<td>2.0 L (2.1 US·qt)</td>
</tr>
</tbody>
</table>

If engine oil is too high, remove excess oil by loosening the drain plug (D).
PREPARATION 15

**CAUTION**
Do not fill above the “H” mark. Excess oil will cause a smoking condition, and may cause the engine to overheat.

**CAUTION**
The engine is shipped without fuel, engine oil and coolant.
16 PREPARATION

Coolant

NOTE
○Have the first original permanent type of antifreeze replenished by your authorized KAWASAKI Dealer.

- Check Coolant daily before starting the engine.
- Be sure the engine is level.
- Check the coolant level only at the overflow reservoir (A). The cooling system is a closed type. Never open the radiator cap. Doing so may induce air into the cooling system and may cause overheating.
- The coolant level should be between the “H”(H) and “L”(L) marks.

NOTE
○Check the level when the engine is cold (room or atmospheric temperature).

- If the amount of coolant is insufficient, remove the cap (B) from the reservoir and add coolant to the “H” mark. Install the cap.

Recommended Coolant Solution

Coolant Mixture Ratio:
Water 50% : Antifreeze 50%(1 : 1)

Recommended Antifreeze:
Permanent type antifreeze (ethylene glycol plus corrosion and rust inhibitor chemicals for cast-iron engines and aluminum radiators)
Start Engine

**WARNING**
Exhaust gases contain carbon monoxide, a colorless, odorless, poisonous gas. Do not operate the unit in enclosed areas. Provide adequate ventilation at all times.

**WARNING**
Engine exhaust may ignite combustible materials and cause a fire. Keep the area around the exhaust outlet clear. Locate the unit so that the exhaust outlet points toward an open area and is located at least one meter (3.3 feet) from any obstructions.

**NOTE**
- Be aware of the following in order to start the engine easily in cold weather.
- Use proper oil for temperature expected (See "FUEL AND OIL RECOMMENDATIONS" chapter).
- Use fresh gasoline.
- Protect the engine or the equipment from direct exposure to weather when not in operation.

**NOTE**
- Follow the operating instructions of the equipment this engine powers.

For FD750D Models
- Before starting the engine, insure all possible external loads are disconnected.
- Open the fuel valve (A) on the equipment.
- Move throttle lever on the equipment to half throttle position.
- Use full choke when the engine is cold, but in hot weather or when the engine is already warm, use half-choke or leave the choke fully open.
- Put the switch key into the engine switch.
- Turn the switch key to the START position on the equipment. Usually engine will start within 3 seconds.

**CAUTION**
Do not run the electric starter continuously for more than 5 seconds, otherwise the battery may discharge quickly. If the engine does not start right away, wait 15 seconds and try again.

**NOTE**
- When the engine is very warm, or when the engine does not start immediately, DO NOT keep trying.
STOPPING

Ordinary Stop

• Move throttle lever (A) to SLOW position.
• Lower the engine speed to an idle. Keep running at idle for about one minute.

**CAUTION**

Engine damage can occur from run-on or after-burning if engine is stopped suddenly from high speed loaded operation. Reduce engine speed to idle for one minute before shutting engine off.

• Turn the engine switch or the switch key to “OFF” position.
  For Control Panel Switch Type, move the throttle lever on the equipment against its low speed end to turn ignition off.

Emergency Stop

• Immediately turn the engine switch or the switch key to “OFF” position.
• Close the fuel valve on the equipment.

**WARNING**

Always remove Engine Key from switch when leaving equipment unattended or when equipment is not in use.
Throttle Cable Installation, Adjustment

For FD750D Models

• Link the throttle cable (G) to the speed control lever (C) and loosely clamp the throttle cable outer housing (F) with the cable clamp bolt (A).

• Move the throttle lever on the equipment to “FAST” position.

• Pull up the outer housing (F) of the throttle cable until the inner wire (G) has almost no slack, and tighten the cable clamp bolt (A).

• Move the throttle lever to “SLOW” position. Make sure that the carburetor throttle valve (H) is moved smoothly.
Choke Cable Installation, Adjustment

- Link the choke cable (K) to the choke control lever (D), and loosely clamp the choke cable outer housing (L) with the cable clamp bolt (B).
- Move the equipment choke control to "OPEN" position. Make sure that the carburetor choke valve (M) is fully opened.

- Pull up the outer housing (L) of the choke cable until the inner wire (K) has almost no slack, and tighten the cable clamp bolt (B).
- Move the equipment choke control to "CHOKE" position. Make sure that the carburetor choke valve (M) is completely closed.
- Make sure that the choke valve turns from fully closed position to fully opened position when actuating the equipment choke control.
26 ADJUSTMENT

For FD791 Model

• Link the throttle cable (A) to the speed control lever (B) and loosely clamp the throttle cable outer housing (C) with the cable clamp bolt (D).
• Move the throttle lever on the equipment to “FAST” position.
• Pull up the outer housing (C) of the throttle cable until the inner wire (A) has almost no slack, and tighten the cable clamp bolt (D).
• Move the throttle lever to “SLOW” position. Make sure that the throttle shaft Assembly (E) is moved smoothly.

B. Speed Control Lever
D. Cable Clamp Bolt
E. Throttle Shaft Assembly
Engine Speed Adjustment

NOTE
Do not tamper with the governor setting, the carburetor setting and/or DFI system to increase the engine speed. Every carburetor and/or DFI system is adjusted at the factory and a cap or stop plate is installed on each mixture screw.
If adjustment is needed, it must be performed by your authorized Kawasaki dealer.
30 MAINTENANCE

Oil Level Check

Check oil level daily and before each time of operation. Be sure oil level is maintained. (See “PREPARATION” chapter.)

![A. Oil Drain Plug](image)

Oil Change

Change oil after first 8 hours of operation. Then after change oil every 100 hours.

- Run the engine to warm oil.
- Be sure the engine (equipment) is level.
- Stop the engine.
- Remove the oil drain plug (A) and drain the oil into suitable container while engine is warm.

**WARNING**
Hot engine oil can cause severe burns. Allow engine temperature to drop from hot to warm level before draining and handling oil.

- Install the oil drain plug.
- Remove oil gauge and refill with fresh oil (See “FUEL AND OIL RECOMMENDATIONS” chapter.)
- Check the oil level (see “PREPARATION” chapter for oil level check).

**WARNING**
Engine oil is a toxic substance. Dispose of used oil properly. Contact your local authorities for approved disposal methods or possible recycling.
Oil Filter Change

• Change the oil filter every 200 hours of operation.

**WARNING**
Hot engine oil can cause severe burns. Allow engine temperature to drop from hot to warm level before attempting to remove oil filter.

• Drain engine oil into a suitable container.

**CAUTION**
Before removing the oil filter, place suitable pan under filter connection.

• Rotate the oil filter (A) counterclockwise to remove it.
• Coat a film of clean engine oil on seal of new filter.
• Install new filter rotating it clockwise until seal contacts mounting surface (B). Then rotate filter 3/4 turn more by hand.
• Supply engine oil as specified.
• Run the engine for about 3 minutes, stop engine, and check oil leakage around the filter.
• Add oil to compensate for oil level drop due to oil filter capacity (See "PREPARATION" chapter for oil level check).

**WARNING**
Engine oil is a toxic substance. Dispose of used oil properly. Contact your local authorities for approved disposal methods or possible recycling.
Cooling System Inspection

Inspect the radiator and the hoses every 200 hours of operation.

- Inspect the inlet and outlet hoses (A) for cracks or deterioration, and connections for looseness. Replace any damaged hose.
- Check for dirt and insects that may be lodged in the radiator (B). Clean them out by using compressed air or a low-pressure washer.

**CAUTION**

Using high-pressure water, as from a car wash facility, could damage the radiator fins and impair the radiator’s effectiveness. Do not run engine before all cooling system parts are reinstalled to keep cooling and carburetion as intended.

**WARNING**

Coolant is a toxic substance. Dispose of used coolant properly. Contact your local authorities for approved disposal methods.
Air Cleaner Service

CAUTION
Improper installing the air cleaner parts can result in engine damage.

CAUTION
To prevent excessive engine wear, do not run the engine with the air cleaner parts removed.

- Remove the nut (A), the washer (B) and the air cleaner cap (C) from the air cleaner case (D) by unscrewing the nut counterclockwise.
- Remove the wing nut (E), the foam element (F) and the paper element (G) from the air cleaner case by unscrewing the wing nut counterclockwise.
- Confirm that the seal (H) is on the air cleaner case when the paper element is removed from the air cleaner case. If the seal adheres to the paper element bottom, remove and reinstall the seal onto the air cleaner case immediately.

- Reinstall the cleaned or new air cleaner parts in the reverse of removal.

Foam Element
- Clean the foam element (F) every 25 hours.
- Wash the element in detergent and water, and dry it thoroughly.

Paper Element
- Clean the paper element (G) every 100 hours.
- Clean the paper element by tapping it gently on a flat surface to remove dust. If the element is very dirty, replace the paper element with a new one. Replace with a new paper element yearly or 300 hours, whichever comes first.

NOTE
- Operating in dusty condition may require more frequent maintenance than above.

CAUTION
- Do not use petroleum solvent to clean paper-element.
- Do not oil foam or paper element.
- Do not use pressurized air to clean or dry paper-element.
Fuel Filter and Fuel Pump Service

**WARNING**
Improper use of solvents can result in fire or an explosion.
Do not use gasoline or low flash-point solvents to clean the fuel filter and/or the fuel pump.
Clean only in a well ventilated area away from sources of sparks or flame, including any appliances with a pilot light.

- The fuel filter and the fuel pump cannot be disassembled.
- If these parts failed contact Kawasaki dealer.
Spark Plug Service

**WARNING**

Hot engine components can cause severe burns.

Stop engine and allow it to cool before checking spark plugs.

Clean or replace the spark plugs and reset gap (A) every 100 hours of operation.
- Disconnect the spark plug caps and remove the spark plugs.
- Clean the electrodes (B) by scraping with a wire brush to remove carbon deposits.
- Inspect for cracked porcelain or other wear and damage. Replace the spark plugs with a new one if necessary.
- Check the spark plug gap and reset it if necessary. The gap must be 0.75 mm (0.030 in). To change the gap, bend only the side-electrode, using a spark plug tool.
- Install and tighten the spark plug to 25 N·m (2.5 kgf·m, 18 ft·lb).

RECOMMENDED SPARK PLUG

FD750D Models
NGK BPR2ES
FD791D Model
NGK BPR4ES

- Fit the spark plug caps on the spark plug securely.
- Pull up the spark plug caps lightly to make sure of the installation of the spark plug caps.
Fuel System Draining

Engines to be stored over 30 days should be completely drained of fuel to prevent the deterioration of fuel and the gum deposits forming on essential fuel system parts, fuel filter and fuel tank.

**WARNING**
Gasoline is extremely flammable and can be explosive under certain conditions. Drain fuel before storing the unit for extended periods. Drain fuel in a well-ventilated area away from any source of flame or sparks, including any appliances with a pilot light. Store fuel in an approved container in safe location.

- Clean every part of the engine.
- Be sure that the engine switch or switch key is positioned at “OFF”.

**For FD750D Models**
- Close the fuel valve and remove the sediment bowl.
- Put a pan under the fuel valve to receive the drained fuel, and open the fuel valve to drain the fuel from fuel tank completely.
- Install the sediment bowl.

- Put a suitable pan under the carburetor (B) and loosen the drain screw (A) of the carburetor to drain the fuel completely.

**For FD791D Model**
- Close the fuel valve and remove the sediment bowl.
- Put a pan under the fuel valve to receive the drained fuel, and open the fuel valve to drain the fuel from fuel tank completely.

- Tighten the drain screw.
STORAGE 37

WARNING
Gasoline is a toxic substance. Dispose of gasoline properly. Contact your local authorities for approved disposal methods.

- Remove the spark plugs and pour approx 1 - 2 ml (0.06 - 0.1 cu. in.) of engine oil through the spark plug holes and then screw the spark plugs in after turning the engine a few times. Slowly turn the engine until you feel compression and then leave it there. This traps the air inside the cylinders and prevents rust inside the engine.
- Fit the spark plug caps on the spark plugs securely.
- Pull up the spark plug caps lightly to make sure of the installation of the spark plug caps.
- Wipe the body with oily cloth.
- Wrap the engine with plastic sheeting and store it in a dry place.
- Change engine oil for next use after period of storage (Refer to “Oil change” section in “MAINTENANCE” chapter).
If the engine malfunctions, carefully examine the symptoms and the operating conditions, and use the table below as a guide to troubleshooting.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Probable Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine won’t start or output is low</td>
<td>Insufficient compression</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>Faulty pistons, cylinders, piston rings, and head gaskets</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>Faulty valves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loose spark plugs</td>
<td>Tighten properly</td>
</tr>
<tr>
<td></td>
<td>Loose cylinder head bolts</td>
<td></td>
</tr>
<tr>
<td>No fuel to combustion chambers</td>
<td>No fuel in fuel tank</td>
<td>Fill fuel tank</td>
</tr>
<tr>
<td></td>
<td>Fuel valve not in &quot;ON&quot; position</td>
<td>Open fuel valve.</td>
</tr>
<tr>
<td></td>
<td>Blocked fuel filter or tube</td>
<td>Clean</td>
</tr>
<tr>
<td></td>
<td>Blocked air vent in tank cap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Faulty carburetor and/or DFI system</td>
<td>K</td>
</tr>
<tr>
<td>Spark plugs fouled by fuel</td>
<td>Over-rich fuel/air mixture</td>
<td>Open choke.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rotate engine with spark plugs removed to discharge excess fuel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clean spark plugs.</td>
</tr>
<tr>
<td></td>
<td>Clogged air cleaner</td>
<td>Clean</td>
</tr>
<tr>
<td></td>
<td>Faulty carburetor and/or DFI system</td>
<td>K</td>
</tr>
<tr>
<td>Incorrect grade/type of fuel</td>
<td>Change fuel</td>
<td></td>
</tr>
<tr>
<td>Symptom</td>
<td>Probable Cause</td>
<td>Remedy</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Water in fuel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No spark or weak spark</td>
<td>Faulty spark plugs</td>
<td>Replace spark plugs</td>
</tr>
<tr>
<td></td>
<td>Faulty ignition coils</td>
<td></td>
</tr>
<tr>
<td>Low output</td>
<td>Clogged air cleaner</td>
<td>Clean</td>
</tr>
<tr>
<td></td>
<td>Lodged dirt and insects in radiator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of coolant</td>
<td>Add coolant to correct level</td>
</tr>
<tr>
<td></td>
<td>Insufficient engine oil</td>
<td>Replenish or change oil</td>
</tr>
<tr>
<td></td>
<td>Loose or slipping fan belt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carbon build-up in combustion chamber</td>
<td></td>
</tr>
<tr>
<td>Engine speed won't increase</td>
<td>Poor ventilation around engine</td>
<td>Select a better location</td>
</tr>
<tr>
<td></td>
<td>Faulty governor</td>
<td></td>
</tr>
</tbody>
</table>

**K**: Have an authorized Kawasaki dealer perform these service.
To protect our environment, properly discard used batteries, engine oil, gasoline, coolant, or other components that you might dispose of in the future.
Consult your authorized Kawasaki dealer or local environmental waste agency for their proper disposal procedure.
# SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>FD750D</th>
<th>FD791D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of engine</td>
<td>Liquid–cooled, 4–stroke OHV, V-twin cylinder, gasoline engine</td>
<td></td>
</tr>
<tr>
<td>Bore x Stroke</td>
<td>78 × 78 mm (3.07 × 3.07 in.)</td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>745 mL (45.5 cu.in)</td>
<td></td>
</tr>
<tr>
<td>Ignition System</td>
<td>Solid–state ignition</td>
<td></td>
</tr>
<tr>
<td>Direction of rotation</td>
<td>Counterclockwise facing the PTO Shaft</td>
<td></td>
</tr>
<tr>
<td>Starting system</td>
<td>Electric starter</td>
<td></td>
</tr>
<tr>
<td>Dry weight : kg (lbs)</td>
<td>58 kg (128 lbs)</td>
<td>59 kg (130 lbs)</td>
</tr>
</tbody>
</table>

**NOTE**

○ Specifications subject to change without notice.
○ Dry weight excludes that of fuel tank.
PROCEDURE FOR PRIMING THE KAWASAKI MOTOR IF IT HAS RUN OUT OF GAS
PROCEDURE FOR PRIMING THE KAWASAKI MOTOR IF IT HAS RUN OUT OF GAS

• STEP ONE

LEFT SIDE OF MOTOR UNDER THE AIR FILTER

• LOCATE THE FUEL PRESSURE RELIEF SCREW

“GO TO STEP TWO”
PROCEDURE FOR PRIMING THE KAWASAKI MOTOR IF IT HAS RUN OUT OF GAS

• STEP TWO

WITH A FLAT BLADE SCREWDRIVER rotate screw 2 full turns “COUNTERCLOCKWISE” (YOU SHOULD BE ROTATING THE SCREWDRIVER TO THE LEFT)

PUSH THE OVERRIDE BUTTON WHILE CRANKING THE MOTOR UNTIL IT STARTS. (DO NOT CRANK FOR MORE THAN 10 SECONDS AT A TIME) ONCE THE MOTOR STARTS, LET IT RUN FOR A MINUTE AND THEN TURN IT OFF.

“GO TO STEP THREE”
PROCEDURE FOR PRIMING THE KAWASAKI MOTOR IF IT HAS RUN OUT OF GAS

• STEP THREE

WITH A FLAT BLADE SCREWDRIVER ROTATE SCREW 2 FULL TURNS “CLOCKWISE” (YOU SHOULD BE ROTATING THE SCREWDRIVER TO THE RIGHT) DO NOT OVER TIGHTEN THE SCREW, IT ONLY NEEDS TO BE SNUG.

PUSH THE OVERRIDE BUTTON WHILE CRANKING THE MOTOR UNTIL IT STARTS. (DO NOT CRANK FOR MORE THAN 10 SECONDS AT A TIME) ONCE THE MOTOR STARTS YOU ARE READY TO OPERATE YOUR ATOMIC TRAILER.