Thank you for purchasing a Honda Outboard Motor.

This manual covers operation and maintenance of the Honda BF2.3D Outboard Motor

All information in this publication is based on the latest product information available at the time of approval for printing.

Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the Outboard Motor and should remain with it if it is resold.

Throughout this manual, you will see safety messages proceeded by the following words and symbols. Here's what they mean:

#### **ADANGER**

Indicates serious injury or death WILL result if instructions are not followed.

#### **AWARNING**

Indicates a strong possibility that serious personal injury or death may result if instructions are not followed.

#### **▲**CAUTION

Indicates a possibility that personal injury or equipment damage could result if instructions are not followed.

#### NOTICE

Indicates that equipment or property damage could result if instructions are not followed.

**NOTE:** Gives helpful information.

If a problem should arise, or if you have any questions about the Outboard Motor, consult an authorized Honda Outboard Motor dealer.

#### **▲WARNING**

Honda Outboard Motors are designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the Outboard Motor. Failure to do so could result in personal injury or equipment damage.

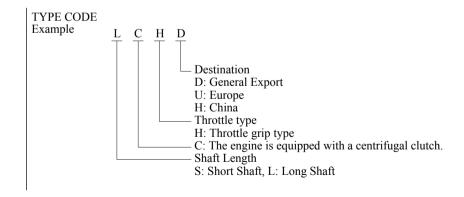
• The illustration may vary according to the type.

Honda Motor Co., Ltd. 2015, All Rights Reserved

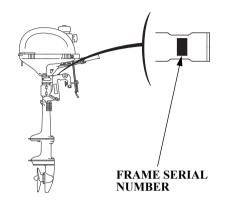
Model		BF2.3D				
Type		SCHU	SCHD	SCHH	LCHU	LCHD
Shaft length	Short	•	•	•		
	Long				•	•
Throttle type	Grip	•	•	•	•	•
Centrifugal clutch	•	•	•	•	•	•

NOTE: Note that the types of the outboard motor differ according to the countries where they are sold.

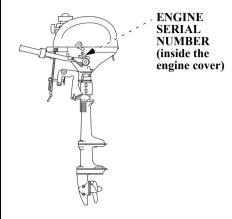
BF2.3D is provided with the following types according to the shaft length.



Check the type of your outboard motor and read this Owner's Manual thoroughly before operation. Texts with no type indication are the information and/or procedures common to all types.



Record the frame and engine serial numbers for your reference. Refer to the serial numbers when ordering parts, and when making technical or warranty inquiries.



The frame serial number is stamped on a plate attached on the upper part of the swivel case.

The engine serial number is stamped on a plate attached on the clutch housing.

Frame serial number:

Engine serial number:

## **CONTENTS**

1. SAFETY	6
Safety Information	6
2. SAFETY LABEL LOCATIONS	
CE mark location	9
3. COMPONENT IDENTIFICATION	
4. CONTROLS	11
Starter Grip	11
Choke Knob	
Emergency Stop Switch	11
Throttle Grip	12
Throttle Grip Friction Knob	13
Fuel Valve Lever	13
Oil Level Inspection Window	13
Emergency Stop Switch Lanyard/Clip	14
Tilt Lever	
Anode Metal	
Engine Cover Retaining Strap	
Steering Friction Bolt	
Transom Angle Adjusting Bolt and Wing Nut	
Fuel Filler Cap Vent Knob	
Clamp Screws	
5. INSTALLATION	18
Transom Height	18
Location	
Installation Height	
Outboard Motor Attachment	20

Outboard Motor Angle	20
5. PRE-OPERATION CHECKS	
Removing/Installing Engine Cover	22
Engine Oil Level	
Fuel Level	
Gasoline Containing Alcohol	26
Other Checks	
7. STARTING THE ENGINE	
Starting the Engine	28
Emergency Starting	
Troubleshooting Starting Problems	
B. OPERATION	
Operation	35
Tilting the Outboard Motor	
Shallow Water Operation	
High Altitude Operation	
P. STOPPING THE ENGINE	
10. TRANSPORTING	43
Transporting	43
Trailering	
11. CLEANING AND FLUSHING	

### **CONTENTS**

12. MAINTENANCE	48
Tool Kit and Spare Parts	49
MAINTENANCE SCHEDUL	E50
Engine Oil Change	
Gear Oil Change	
Starter Rope Check	54
Spark Plug Service	55
Lubrication	
Shear Pin Change	
Servicing a Submerged Outboo	
13. STORAGE	
Fuel	61
Draining the Gasoline	62
Engine Oil	63
Storage Position of the Outboa	ard Motor 63
14. DISPOSAL	
15. TROUBLESHOOTING	66
16. SPECIFICATIONS	68
17. MAJOR Honda DISTRIBUTO	OR ADDRESSES 70
18. "EC DECLARATION OF CO	ONFORMITY''
CONTENT OUTLINE	
19. INDEX	

#### 1. SAFETY

#### **SAFETY INFORMATION**

For your safety and the safety of others, pay special attention to these precautions.

#### **Operator Responsibility**



 Honda outboard motor is designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the outboard motor. Failure to do so could result in personal injury or equipment damage.



• The engine system will be heated during operation and remain hot immediately after stopping the engine.







Moving parts can injure you. Install the engine cover after emergency starting the engine. Do not operate the outboard motor without the engine cover.

- Know how to stop the engine quickly in case of emergency.
   Understand the use of all controls.
- Do not exceed the boat manufacturer's power recommendation, and be sure that the outboard motor is properly mounted
- Never permit anyone to operate the outboard motor without proper instruction.
- Stop the engine immediately if anyone falls overboard.
- Do not run the engine while the boat is near anyone in the water.
- Attach the emergency stop switch lanyard securely to the operator.
- Before operating the outboard motor, familiarize yourself with all laws and regulations relating to boating and the use of outboard motors.

- Do not attempt to modify the outboard motor.
- Always wear a life-jacket when on board.
- Do not operate the outboard motor without the engine cover. Exposed moving parts can cause injury.
- Do not remove any guards, labels, shields, covers or safety devices; they are installed for your safety.

#### Fire and Burn Hazards

Gasoline is extremely flammable, and gasoline vapor can explode. Use extreme care when handling gasoline. KEEP OUT OF REACH OF CHILDREN.

• Refuel in a well-ventilated area with the engine stopped. Keep flames and sparks away, and do not smoke in the area.

• Refuel carefully to avoid spilling fuel. Avoid overfilling the fuel tank (there should be no fuel in the filler neck). After refueling, tighten the fuel filler cap securely. If any fuel is spilled, make sure the area is dry before starting the engine.

The engine and exhaust system become very hot during operation and remain hot for a while after stopping. Contact with hot engine components can cause burns and may ignite some materials.

- Avoid touching a hot engine or exhaust system.
- Allow the engine to cool before performing maintenance or transporting.

# Carbon Monoxide Poisoning Hazard

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

• If you run the engine in an area that is confined, or even partially enclosed, the air can become contaminated with a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.

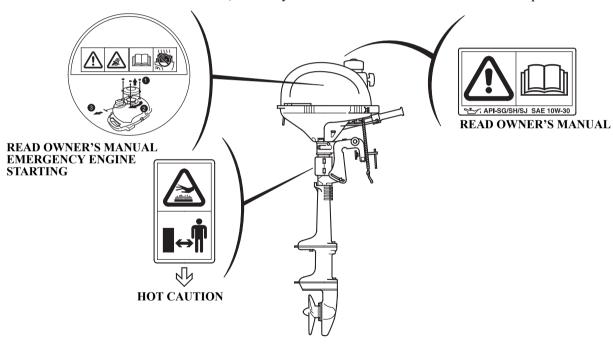
### 2. SAFETY LABEL LOCATIONS

#### [Equipped type]

These labels warn you of potential hazards that can cause serious injury.

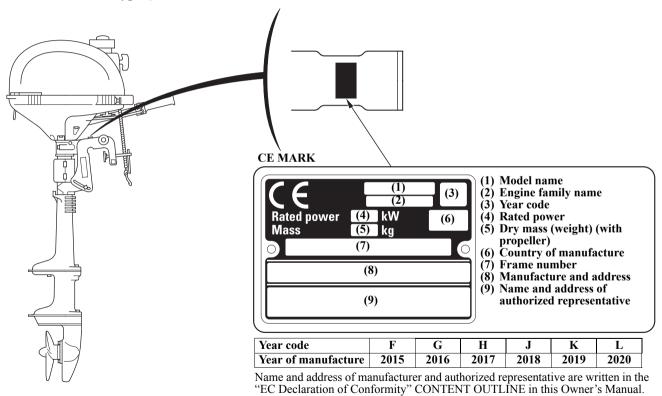
Read the labels and safety notes and precautions described in this manual carefully.

If a label comes off or becomes hard to read, contact your Honda outboard motor dealer for a replacement.

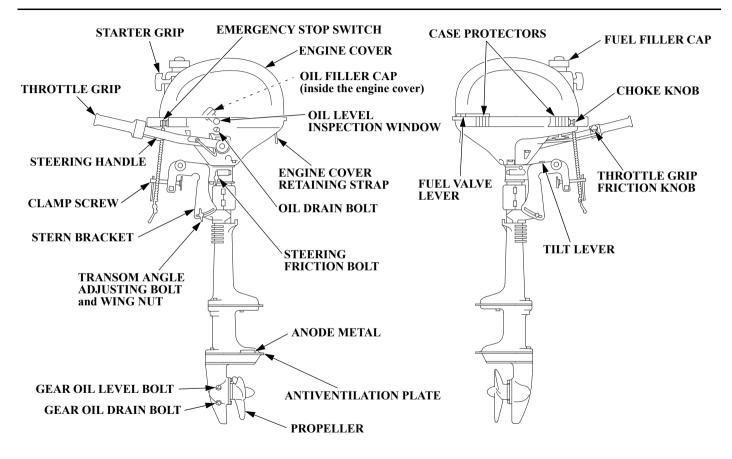


### SAFETY LABEL LOCATIONS

# CE mark location [SCHU and LCHU types]

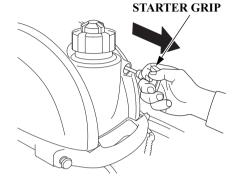


#### 3. COMPONENT IDENTIFICATION



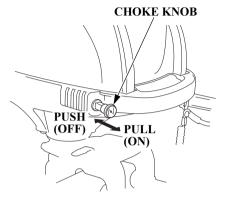
### 4. CONTROLS

### **Starter Grip**



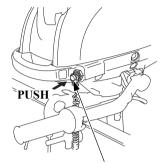
Use the starter grip to start the engine.

#### **Choke Knob**



When the engine is cold, pull the choke knob to start easily. Rich fuel mixture is provided to the engine by pulling the choke knob.

#### **Emergency Stop Switch**

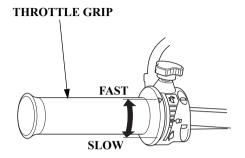


**EMERGENCY STOP SWITCH** 

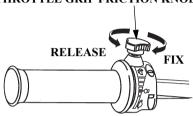
Press the emergency stop switch to stop the engine.

### **CONTROLS**

Throttle Grip
Move the throttle grip in the
directions shown to make the engine
run faster or slower.

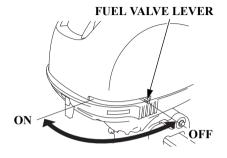


# Throttle Grip Friction Knob THROTTLE GRIP FRICTION KNOB



Use the throttle grip friction knob to cruise at a certain constant speed. Turning the throttle grip friction knob clockwise fixes the throttle grip in the place, and it is released by turning the throttle grip friction knob counterclockwise.

#### **Fuel Valve Lever**



Turn the fuel valve lever to the ON to open the fuel valve for the engine to run.

#### **Oil Level Inspection Window**



OIL LEVEL INSPECTION WINDOW

Use the oil level inspection window to check the engine oil level with the engine stopped and the outboard motor in the upright position.

#### **CONTROLS**

# **Emergency Stop Switch Lanyard/ Clip**

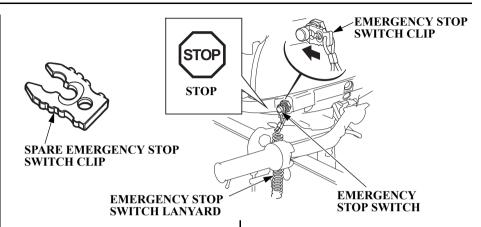


#### EMERGENCY STOP SWITCH CLIP

The emergency stop switch lanyard is provided to stop the engine immediately when the operator falls overboard or away from the outboard motor.

The engine stops when the clip at the end of the emergency stop switch lanyard is pulled out of the emergency stop switch.

When operating the outboard motor, be sure to attach one end of the emergency stop switch lanyard securely to the operator.



#### **AWARNING**

If the emergency stop switch lanyard is not set, the boat might run out of control when the operator, for example, falls overboard and is not able to operate the outboard motor.

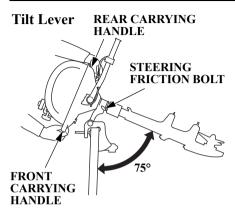
For the sake of the operator's and the passengers' safety, be sure to set the emergency stop switch clip located at one end of the emergency stop switch lanyard with the emergency stop switch. Attach the other end of

the emergency stop switch lanyard securely to the operator.

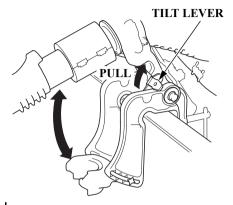
#### NOTE:

The engine does not start unless the emergency stop switch clip is set on the emergency stop switch.

A spare emergency stop switch clip is provided in the tool bag.

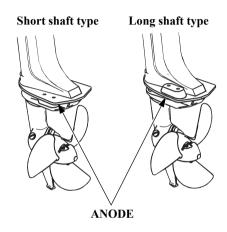


Use the tilt lever to tilt the outboard motor for shallow water operation, beaching, launching, or mooring. Tilt the outboard motor by holding the carrying handles, as shown. The spring-loaded tilt lever will automatically move into position and hold the outboard motor when it reaches approximately 75°.



To return the outboard motor to the normal running position, hold the outboard motor and pull the tilt lever, then slowly lower the outboard motor.

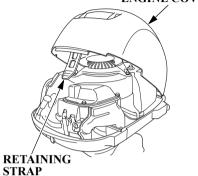
#### **Anode Metal**



The anode metal is a sacrificed metal which protects the outboard motor from corrosion

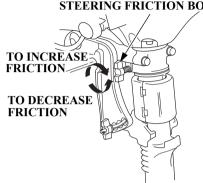
#### **CONTROLS**

# **Engine Cover Retaining Strap ENGINE COVER**



Use the retaining strap to hold the engine cover closed. Do not remove the engine cover while the engine is running.

# Steering Friction Bolt STEERING FRICTION BOLT

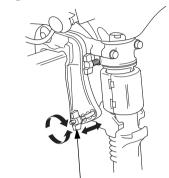


The steering friction bolt adjusts steering resistance.

Turn the bolt clockwise to increase friction for holding a steady course while cruising or to prevent the outboard motor from swinging while trailering the boat.

Turn the bolt counterclockwise to reduce steering friction.

# Transom Angle Adjusting Bolt and Wing Nut



#### ADJUSTING BOLT AND WING NUT

Use the adjusting bolt to adjust the outboard motor angle in the normal operating position.

The outboard motor angle can be adjusted to the four angles by changing the adjusting bolt position.

#### Fuel Filler Cap Vent Knob FUEL FILLER CAP VENT KNOB



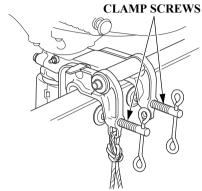
FUEL FILLER CAP

The fuel filler cap vent knob shuts off the fuel tank from the open air. Before operating the outboard motor, turn the fuel filler cap vent knob 2 or 3 turns counterclockwise to open the vent.

When refilling the fuel tank, turn the fuel filler cap vent knob counterclockwise to open and remove the fuel filler cap.

Turn the fuel filler cap vent knob clockwise and close it securely before transporting or storing the outboard motor.

### **Clamp Screws**



Use the clamp screws to secure the stern brackets to the transom.

#### 5. INSTALLATION

#### NOTICE

Improperly installed outboard motor can result in the outboard motor dropped into the water, boat not able to cruise straight ahead, engine speed not increase, and much fuel consumption.

We recommend that the outboard motor be installed by an authorized Honda outboard motor dealer. Consult the authorized Honda dealer in your area for the Y-OP (User Optional Parts)/equipments installation and operation.

Applicable Boat Select the boat suitable for the engine power:

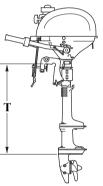
BF2.3D: 1.7 kW (2.3 PS)

Power recommendation is indicated on most of the boats.

#### **▲W**ARNING

Do not exceed the boat manufacturer's power recommendation. Damage and injury may result.

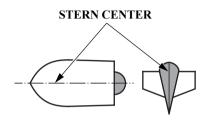
#### **Transom Height**



	_	
Type:	T (Outboard Motor	
	Transom Height)	
S:	418 mm (16.5 in)	
L:	571 mm (22.5 in)	

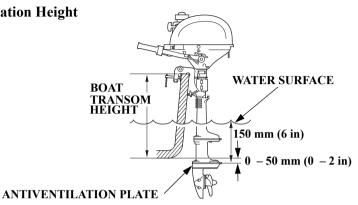
Select the outboard motor which is correct for the boat transom height of your boat.

#### Location



Install the outboard motor at the stern, at the center line of the boat.

#### **Installation Height**



With the boat in the water, properly loaded, and the engine stopped, check the installed depth of the outboard motor by looking at the antiventilation plate.

The antiventilation plate of the outboard motor should be 0 - 50 mm(0 - 2 in) below the bottom of the boat.

The antiventilation plate should be at least 150 mm (6 in) below the surface of the water.

The correct dimensions differ according to the type of the boats and the configuration of the bottom of the boats. Follow the manufacture's recommended installation height. If the outboard motor is installed too low, the boat will squat and be hard to plane, and the engine will spray water that may enter the boat. It will tend to porpoise, and high-speed stability will be reduced.

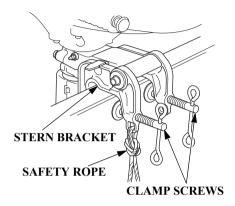
If the outboard motor is installed too high, that will cause propeller ventilation.

#### NOTICE

When the outboard motor is installed extremely low, water may enter into the engine under case and negatively affect the performance and durability. When installing, check that the outboard motor is high enough from the water level to keep the engine under case from waves, splash, etc. when the engine is stopped with the boat fully loaded.

#### **INSTALLATION**

#### **Outboard Motor Attachment**



Attach the stern bracket to the transom and tighten the clamp screws.

#### NOTICE

- While operating the boat, check the tightness of the clamp screws occasionally.
- Tie a rope through the hole in the stern bracket and secure the other end of the rope to the boat. This will prevent accidental loss of the outboard motor.

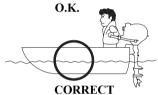
#### **Outboard Motor Angle (Cruising)**



INCORRECT CAUSES BOAT TO "SQUAT"



INCORRECT CAUSES BOAT TO "PLOW"



GIVES MAXIMUM PERFORMANCE

Install the outboard motor at the best trim angle for stable cruising and maximum power.

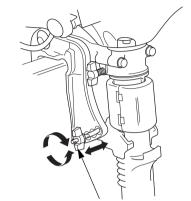
Trim angle too large: Incorrect causes boat to "squat".

Trim angle too small: Incorrect causes boat to "plow" (Sprayed water may enter the boat).

The trim angle differs according to the combination of the boat, outboard motor, and propeller, and the operating conditions.

# <Outboard Motor Angle Adjustment>

Adjust the outboard motor so that it is perpendicular to the water surface (i.e. axis of the propeller is parallel with the water surface).



ADJUSTING BOLT AND WING NUT

- 1. Loosen the wing nut to free the adjusting bolt.
- 2. Adjust the angle of the outboard motor, and tighten the wing nut. Be sure that the bolt head and wing nut are seated in one of the four recesses on the adjustment slot.

#### NOTICE

To prevent damage to the outboard motor or boat, make sure the adjusting bolt is locked.

#### 6. PRE-OPERATION CHECKS

The BF2.3D is the 4-stroke, forced air cooled outboard motor which uses automotive unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher) for fuel. It also requires the engine oil.

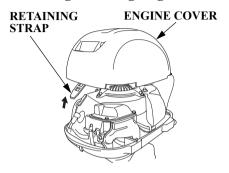
Check the following before operating the outboard motor.

#### **ACAUTION**

Perform the following pre-operation checks with the engine stopped.

Before each use, look around and underneath the engine for signs of oil or gasoline leaks.

#### Removing/Installing Engine Cover



Use the retaining strap to hold the engine cover closed or remove the engine cover.

#### **▲W**ARNING

Do not operate the outboard motor without the engine cover. Exposed moving parts can cause injury.

### **PRE-OPERATION CHECKS**

#### **Engine Oil Level**

#### NOTICE

- Engine oil is a major factor affecting engine performance and service life. Nondetergent and low quality oils are not recommended, because they have inadequate lubricating properties.
- Running the engine with insufficient oil can cause serious engine damage.

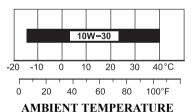
#### NOTE:

To avoid incorrect gauging of the engine oil level, inspect the oil level when the engine has cooled.

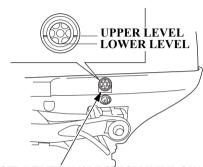
#### <Recommended oil>

Use Honda 4-stroke oil or an equivalent high detergent, premium quality outboard motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for Service category SG, SH or SJ. Outboard motor oils category SG, SH or SJ will show this designation on the container.

SAE 10W-30 is recommended for general, all-temperature use.



#### <Inspection and Refilling>



OIL LEVEL INSPECTION WINDOW

- 1. Position the outboard motor vertically and level, and check the oil level in the oil level inspection window.
- 2. If the oil level is down toward the lower level mark on the window, fill up to the upper level mark (see page 52).

#### PRE-OPERATION CHECKS

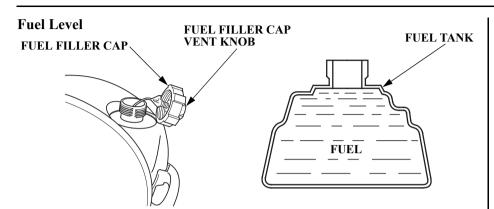
#### Oil capacity:

0.25 L (0.26 US qt, 0.22 Imp qt)

#### NOTICE

Do not overfill the engine oil. Check the engine oil after refilling. Excessive engine oil as well as the insufficient oil could cause damage to the engine. When you check the oil level in the oil level inspection window, you might notice the engine oil appears milky or the oil level has increased. If you notice either condition, change the engine oil. See the following table for an explanation of these conditions.

Operating Method	Result	Effect
Running the engine below 3,000 rpm for more than 30% of the time so the engine does not warm up.	Water condenses in the engine and mixes with the oil, resulting in a milky appearance.	The engine oil deteriorates, becomes less efficient as a lubricant, and causes an engine malfunction.
Frequent starting and stopping without allowing the engine to warm up.	Unburned fuel mixes with the oil, increasing the volume of oil.	



Remove the fuel filler cap and check the fuel level. Refill the tank if the fuel level is low.

#### NOTE:

Open the fuel filler cap vent knob before removing the fuel filler cap. When the fuel filler cap vent knob is firmly closed, the fuel filler cap will be difficult to remove.

After refueling, be sure to tighten the fuel filler cap firmly.

Use unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher). Use of leaded gasoline may cause damage to the engine.

Never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank.

#### **FUEL TANK CAPACITY:**

1.1 L (0.29 US gal, 0.24 Imp gal)

#### **AWARNING**

- Gasoline is extremely flammable and is explosive under certain conditions.
- Refuel in a well-ventilated area with the engine stopped.
- Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.
- Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the fuel filler cap is closed properly and securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor.
- KEEP OUT OF REACH OF CHILDREN.

#### PRE-OPERATION CHECKS

## GASOLINE CONTAINING ALCOHOL

If you decide to use a gasoline containing alcohol (gasohol), be sure its octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol.

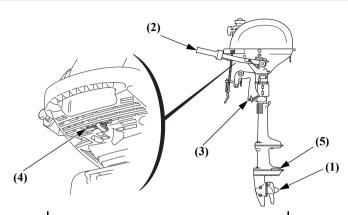
Do not use gasohol that contains more than 10% ethanol.

Do not use gasoline containing more than 5% methanol (methyl or wood alcohol) and that does not also contain co-solvents and corrosion inhibitors for methanol.

#### NOTE:

- Fuel system damage or engine performance problems resulting from the use of gasoline that contains more alcohol than recommended is not covered under the warranty.
- Before buying gasoline from an unfamiliar station, first determine if the gasoline contains alcohol, if it does, find out the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a particular gasoline. Switch to a gasoline that you know contains less than the recommended amount of alcohol.

#### Other Checks



#### **Check the following items:**

- (1) The propeller and cotter pin for damage or looseness.
- (2) The steering handle for impaired operation.
- (3) The stern bracket for damage and looseness
- (4) The tool kit for missing spare parts and tools (page 49).
- (5) The anode metal for damage, looseness or excessive corrosion.

The anode metal helps to protect the outboard motor from corrosion damage; it must be exposed directly to the water whenever the outboard motor is in use. Replace the anode when it has been reduced to about two-thirds of the original size, or if it is crumbling.

#### NOTICE

The possibility of corrosion damage is increased if the anode metal is painted over or allowed to deteriorate.

Parts/materials which should be installed on board:

- Owner's Manual
- Tool kit.
- Spare spark plugs, engine oil, propeller and cotter pins.
- Required information regarding boating laws and regulations.

#### **Starting the Engine**

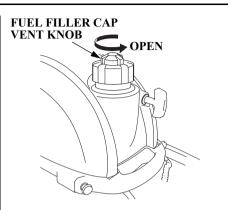
#### **AWARNING**

Exhaust contains poisonous carbon monoxide which can cause unconsciousness and may lead to death.

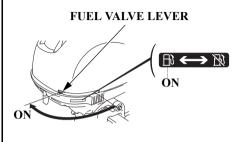
Never run the outboard motor in a closed garage or confined area.

#### NOTICE

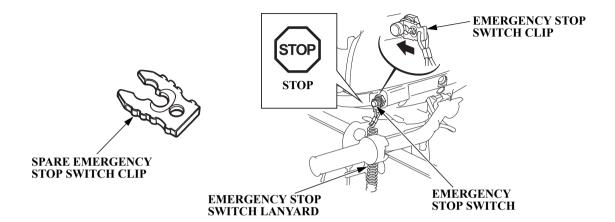
The propeller must be lowered into the water, running the outboard motor out of the water will damage the outboard motor.



1. Open the fuel filler cap vent knob 2 to 3 turns.



2. Turn the fuel valve lever to the ON.



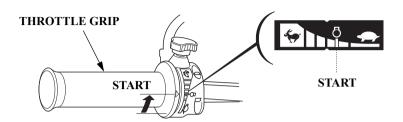
3. Engage the emergency stop switch clip located at one end of the emergency stop switch lanyard with the emergency stop switch. Attach the other end of the emergency stop switch lanyard securely to the operator.

#### **AWARNING**

If the operator does not attach the emergency stop switch lanyard, and is thrown from his seat or out of the boat, the out-of-control boat can seriously injure the operator, passengers, or bystanders. Always properly attach the lanyard before starting the engine.

#### NOTE:

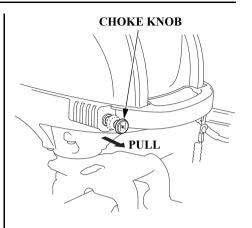
- The engine will not start unless the emergency stop switch clip is engaged with the emergency stop switch.
- A spare emergency stop switch clip is provided in the tool bag.



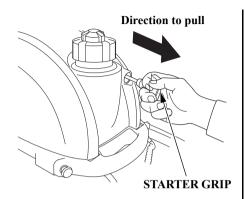
4. Move the throttle grip to the START position.

#### **▲**CAUTION

Do not start the engine with the throttle grip in any position other than the START position, or the boat will move suddenly when the engine starts.



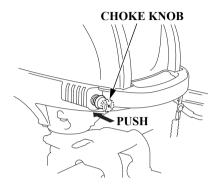
5. When the engine is cold or ambient temperature is low, pull the choke knob to the ON position. (It provides rich fuel mixture to the engine.)



6. Pull the starter grip lightly until you feel resistance, then pull briskly in the direction of the arrow as shown above.

#### NOTICE

- Do not allow the starter grip to snap back against the engine.
   Return it gently to prevent damage to the starter.
- Do not pull the starter grip while the engine is running, as that may damage the starter.
- Before pulling the starter grip position the outboard motor straight.

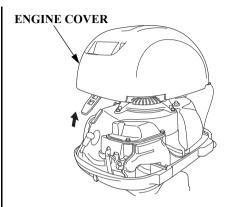


If the engine fails to start, check the emergency stop switch clip.

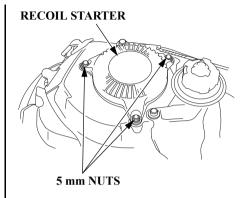
7. If the choke was used, push it in gradually as the engine warms up.

During operation, check to be sure the antiventilation plate remains underwater at all times. Excessive or imbalanced loading will affect the outboard motor's water depth. Loading too far forward will raise the outboard motor out of the water, reducing engine cooling. Loading too much or too far rearward will push the outboard motor deeper, reducing performance.

**Emergency Starting**If the recoil starter does not operate properly for some reasons, the engine can be started using the emergency starter rope that came with your outboard motor.



1. Remove the engine cover.

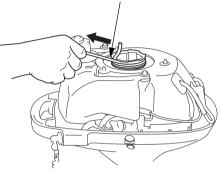


2. Remove the recoil starter by removing the three 5 mm nuts.

#### NOTE:

Take care not to lose the nuts

#### **EMERGENCY STARTER ROPE**



3. Wind the emergency starter rope clockwise around the pulley, and then pull it straight out to start the engine.

#### **AWARNING**

Keep clear of moving parts.

4. Leave the recoil starter off and reinstall the engine cover.

#### **AWARNING**

Exposed moving parts can cause injury. Use extreme care when installing the engine cover. Do not operate the outboard motor without the engine cover.

- 5. Attach the emergency stop switch lanyard securely to the operator and return to the closest boat landing.
- After returning to the closest boat landing, contact your closest authorized Honda outboard motor dealer and perform the following.
  - Have the starting system and electrical system checked.
  - Have your dealer reassemble the parts removed in the emergency starting procedure.

### **Troubleshooting Starting Problems**

SYMPTOM	POSSIBLE CAUSE	REMEDY
The engine does not start.	Emergency stop switch clip is not engaged.	Engage the emergency stop switch clip. (page 29)
	Throttle grip is not in the START position.	Move the throttle grip to the START position. (page 30)
	Out of fuel.	Supply fuel. (page 24)
	Fuel valve is not opened.	Move the fuel valve lever to the ON position. (page 28)
	Fuel filler cap vent knob not open.	Open fuel filler cap vent knob. (page 28)
	Fuel is not reaching the carburetor.	Loosen the carburetor drain screw to see if there is fuel in the carburetor float bowl. (page 62)
	Engine flooded.	Clean and dry spark plug. (page 55)
	Plug cap is not installed properly.	Install plug cap securely. (page 56)

#### **Operation**

#### **Break-in Procedure**

Break-in operation allows the mating surfaces of the moving parts to wear evenly and thus ensures proper performance and longer outboard motor life.

Break-in your new outboard motor as follows

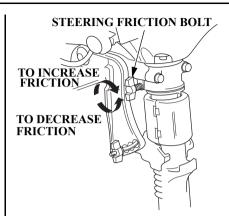
For the first 10 hours of operation, run the outboard motor at low speed, avoid prolonged full-throttle speed, and avoid abrupt operation of the throttle.

#### 1. Steering





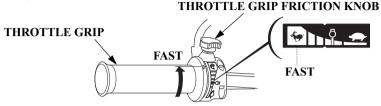
To change the direction of the boat to the right, swing the steering handle to the left. To turn to the left, swing the steering handle to the right.



For smooth steering, adjust the steering friction bolt so that a slight drag is felt when turning.

#### **OPERATION**

#### 2. Cruising



Move the throttle grip toward FAST to increase speed.

For normal cruising, open the throttle about 1/2.

To hold the throttle grip at a steady setting, turn the throttle grip friction knob clockwise. To free the throttle grip for manual speed control, turn the throttle grip friction knob counterclockwise.

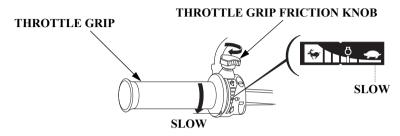
### **A**CAUTION

Do not operate without the engine cover. Exposed moving parts could cause injury; water may damage the engine.

#### NOTE:

For best performance, passengers and equipment should be distributed evenly to balance the boat.

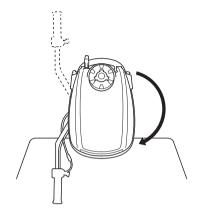
### 3. Reversing the Outboard Motor



1. Move the throttle grip to the SLOW position and hold it there by turning the throttle grip friction knob clockwise.

#### NOTICE

Before rotating the outboard motor (from either forward to reverse or from reverse to forward) reduce the engine speed to SLOW, or the boat could capsize.



2. To reverse direction, turn the outboard motor 180° and then pivot the tiller handle as shown.

Be careful not to hold and move the throttle grip when pivoting the tiller handle.

### NOTICE

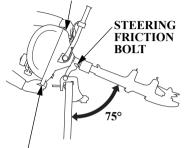
When operating in reverse, proceed with caution to avoid hitting any underwater obstructions with the propeller.

### **OPERATION**

### **Tilting the Outboard Motor**

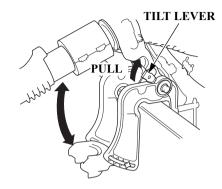
Tilt the outboard motor to prevent the propeller and gear case from hitting the bottom when the boat is beached or stopped in shallow water.





FRONT CARRYING HANDLE

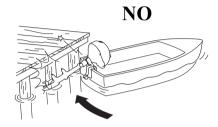
- 1. Stop the engine (page 41) and turn the fuel valve lever off (page 42).
- 2. Close the fuel tank vent by turning the vent knob clockwise (page 42).
- 3. With the outboard motor in the forward position, tilt the outboard motor using the front and rear carrying handles on the engine cover. The spring-loaded tilt lever will automatically move into position and hold the outboard motor when it reaches approximately 75°.
- 4. Adjust the steering friction bolt to keep the outboard motor from moving.



### NOTICE

- If the outboard motor is tilted in the reverse position, crankcase oil will enter the cylinder and may cause difficult starting or may prevent the engine from being cranked.
- Do not use the tiller handle to tilt the outboard motor.
- 5. To return the outboard motor to the normal running position, hold the outboard motor by the front carrying handle on the engine crankcase and pull the tilt lever toward you, then lower the outboard motor slowly.

## <Mooring>



### NOTICE

To avoid damaging the outboard motor, use the utmost care when mooring a boat, especially when its outboard motor is tilted up. Don't allow the outboard motor to strike against the pier or other boats.

### **OPERATION**

### **Shallow Water Operation**

### NOTICE

Excessive trim/tilt angle during operation can cause the propeller to raise out of the water and cause propeller ventilation and engine over-revving.

When operating in shallow water, tilt the outboard motor up to prevent the propeller and gear case from hitting the bottom (see page 38). With the outboard motor tilted up, operate the outboard motor at low speed.

### **High Altitude Operation**

At high altitude, the standard carburetor air-fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate the outboard motor at altitudes higher than 1,500 m (5,000 feet) above sea level, have your authorized Honda dealer perform these carburetor modifications.

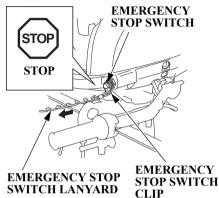
Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5% for each 300-m (1,000-feet) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

### NOTICE

When the carburetor have been modified for high altitude operation, the air-fuel mixture will be too lean for low altitude use. Operation at altitudes below 1,500 m (5,000 feet) with modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have an authorized Honda outboard motor dealer return the carburetor to original factory specifications.

### 9. STOPPING THE ENGINE

### **Stopping the Engine**

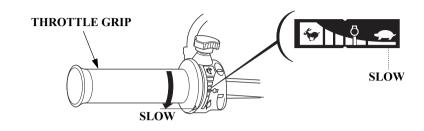


### • In an emergency;

Disengage the emergency stop switch clip from the emergency stop switch by pulling the emergency stop switch lanyard.

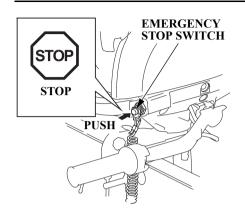
#### NOTE:

It is a good idea to stop the engine with the emergency stop switch lanyard from time to time to be sure that the emergency stop switch is operating properly.



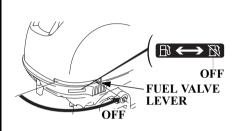
- In normal use;
- 1. Move the throttle grip to the SLOW position.

### STOPPING THE ENGINE



2. Push the emergency stop switch until the engine stops.

In the event that the engine does not stop when you push the emergency stop switch, pull the emergency stop switch lanyard. If the engine continues to run, move the fuel valve lever to the OFF position and pull the choke knob to stop the engine.

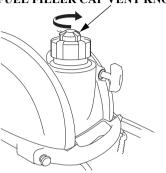


### NOTE:

After cruising, cool down the engine by idling for a few minutes before stopping the engine.

3. Turn the fuel valve lever to the OFF

#### FUEL FILLER CAP VENT KNOB



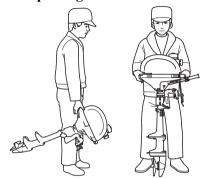
- 4. Close the fuel filler cap vent knob.
- 5. Remove the emergency stop switch lanyard and store it.

Turn the fuel filler cap vent knob clockwise and close it securely before transporting the outboard motor.

### **AWARNING**

- Be careful not to spill fuel.
   Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before storing or transporting the outboard motor.
- Do not smoke or allow flames or sparks where fuel is drained or stored.

### **Transporting**



To carry, hold the outboard motor by the carrying handle, or hold by the carrying handle and the lug beneath the engine cover retaining strap as shown here. Do not carry by the engine cover.

### **A**CAUTION

Do not carry the outboard motor by the engine cover. The outboard motor can drop, resulting in an accidental injury and damage.



INCORRECT

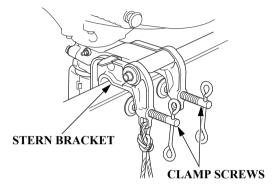
### NOTICE

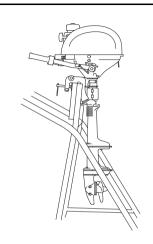
To avoid damaging the outboard motor, never use it as a handle for lifting or moving the boat.

## **TRANSPORTING**

Transport the outboard motor either vertically or horizontally as shown here when removed from the boat.

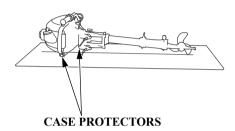
# Vertical transport





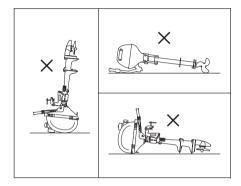
- 1. Attach the stern brackets to a motor stand and tighten the clamp screws to install the outboard motor securely.
- 2. Transport the outboard motor as shown above.

### **Horizontal transport**



Rest the outboard motor on the case protectors with the tiller handle folded.

#### **INCORRECT**



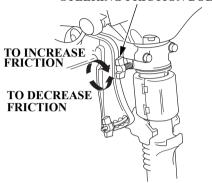
#### NOTICE

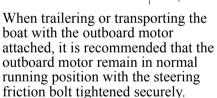
- Any other transport or storage position may cause damage or oil leakage.
- If the outboard motor is tilted in the reverse position, crankcase oil will enter the cylinder and may cause difficult starting or may prevent the engine from being cranked.

### **TRANSPORTING**

### **Trailering**

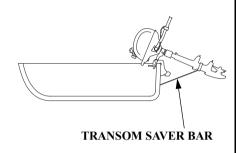
#### STEERING FRICTION BOLT





#### NOTICE

Do not trailer or transport the boat with the outboard motor in the tilted position. The boat or outboard motor could be severely damaged if the outboard motor drops.



The outboard motor should be trailered in the normal running position. If there is insufficient road clearance in this position, then trailer the outboard motor in the tilted position using an outboard motor support device such as a transom saver bar, or remove the outboard motor from the boat.

## 11. CLEANING AND FLUSHING

After each use in salt water or dirty water, thoroughly clean and flush the outboard motor with fresh water.

## **▲W**ARNING

Be sure the outboard motor is securely mounted.

Periodic maintenance and adjustment are important to keep the outboard motor in the best operating condition. Service and inspect according to the MAINTENANCE SCHEDULE.

#### **▲WARNING**

Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. Never run the engine in an enclosed or confined area. Exhaust contains poisonous carbon monoxide gas; exposure can cause loss of consciousness and may lead to death.

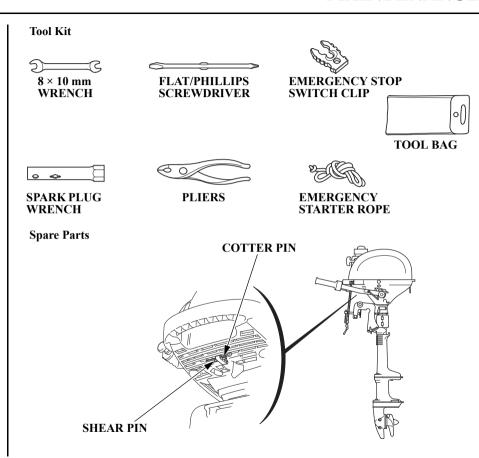
Be sure to reinstall the engine cover, if it was removed, before starting the engine. Hold the engine cover closed by using the engine cover retaining strap.

### NOTICE

Use only Honda Genuine parts or their equivalents for maintenance or repair. The use of replacement parts which are not of equivalent quality may damage the outboard motor.

## **Tool Kit and Spare Parts**

The following tools and spare parts are supplied with the outboard motor for maintenance, adjustment, and emergency repairs.



### MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD (3) Perform at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 10 hrs.	Every 6 months or 50 hrs.	Every year or 150 hrs.	Refer to page
Engine oil	Check level	0				23
	Change		0	0		52
Gear case oil	Change		0	0		53
Starter rope	Check			0		54
Carburetor linkage	Check-adjust		o (2)	o (2)		_
Valve clearance	Check-adjust				o (2)	-
Spark plug	Check-adjust/Replace			0		55
Propeller and Cotter pin	Check	0				27
Anode	Check	0				27
Idling speed	Check-adjust		o (2)	o (2)		_
Clutch shoes and drum	Check				o (2)	_

### NOTE:

- (2) These items should be serviced by an authorized Honda Marine dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda Shop Manual for service procedures.
- (3) For professional commercial use, log hours of operation to determine proper maintenance intervals.

REGULAR SER' Perform at every operating hour in first.  ITEM	VICE PERIOD (3) indicated month or terval, whichever comes	Each use	First month or 10 hrs.	Every 6 months or 50 hrs.	Every year or 150 hrs.	Refer to page
Swivel case lining and bush	Replace		Every 3	years (2)		-
Water seal	Replace		Every 3	years (2)		_
Fuel line	Check	o (4)				_
	Replace		Every 2 years (If	necessary) (2) (5	5)	_
Bolts and nuts	Check-tightness		o (2)		o (2)	_
Lubrication	Grease		o (1)	o (1)		57
Fuel tank and tank filter	Clean			o (2)		_
Crankcase breather tube	Check				o (2)	_
Emergency stop switch	Check	0				41

#### NOTE:

- (1) Lubricate more frequently when used in salt water.
- (2) These items should be serviced by an authorized Honda Marine dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda Shop Manual for service procedures.
- (3) For professional commercial use, log hours of operation to determine proper maintenance intervals.
- (4) Check the fuel line for leaks, cracks, or damage. If it is leaking, cracked, or damaged, take it to your servicing dealer for replacement before using your outboard.
- (5) Check the fuel line for leaks, cracks, or damage. Replace the fuel line if there are signs of leaks, cracks, or damage.

### **Engine Oil Change**

Insufficient or contaminated engine oil adversely affects the service life of the sliding and moving parts.

Wash your hands with soap and water after handling used oil.

### Oil change interval:

10 hours after the date of purchase or first month for initial replacement, then every 50 hours or 6 months.

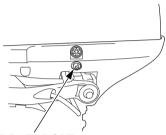
### Oil capacity:

0.25 L (0.26 US qt, 0.22 Imp qt)

#### **Recommended Oil:**

SAE 10W-30 engine oil or equivalent, API Service category SG, SH or SJ.

### <Engine Oil Change>



#### OIL DRAIN BOLT

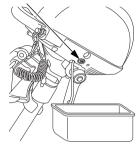
Drain the oil while the engine is still warm to assure rapid and complete draining.

- 1. Turn the fuel valve lever to the OFF, and close the fuel filler cap vent knob.
- 2. Remove the outboard from the boat.
- 3. Loosen the oil drain bolt, and turn the outboard motor on its steering handle side.

#### NOTE:

If you remove the oil drain bolt before turning the outboard motor on its steering handle side, oil may spill over the outboard motor.

#### OIL DRAIN BOLT



4. Remove the oil drain bolt and O-ring to drain the oil.

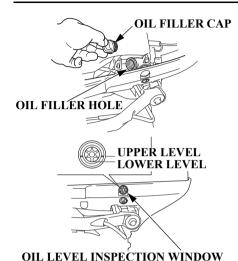
#### NOTE:

Please dispose of used outboard motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

- 5. Install the oil drain bolt and a new O-ring.
- 6. Stand the engine in upright position and tighten the oil drain bolt securely.

OIL DRAIN BOLT TORQUE:

6.5 N·m (0.66 kgf·m , 4.8 lbf·ft)



- 7 D ---- --- 41 ---- i--- ----
- 7. Remove the engine cover.
- 8. Remove the oil filler cap and fill the crankcase with the recommended oil (see page 23) up to the upper level mark in the oil level inspection window.
- 9. Recheck the oil level after shaking the outboard motor several times.
- 10. Reinstall the oil filler cap securely.
- 11. Reinstall the engine cover.
- 12. Reinstall the outboard on the boat.

### **Gear Oil Change**

### Oil change interval:

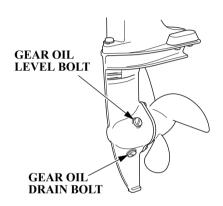
10 hours or 1 month after initial use for initial change, then every 6 months or 50 hours.

### Oil capacity:

0.05 L (0.05 US qt, 0.04 Imp qt)

#### **Recommended Oil:**

SAE #90 Hypoid gear oil or equivalent, API Service Classification (GL-4) Change the gear oil with the engine stopped and the outboard motor in the vertical position.



1. Place a suitable container below the oil drain hole to catch the used oil, then remove the oil level bolt, oil drain bolt and washers.



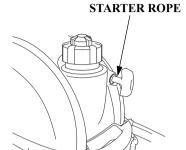
- 2. Allow the used oil to drain completely, then install an oil pump adapter in the oil drain hole. If water or contaminated (milky-colored) oil flows out the drain hole when the bolt is removed, have the outboard motor checked by authorized Honda Marine dealer
- 3. Add oil through the oil drain hole until it flows out the oil level hole, then install the oil level bolt, oil drain bolt and new washers

OIL LEVEL BOLT TORQUE: 3.5 N·m (0.36 kgf·m, 2.6 lbf·ft)

Avoid losing more than 30 cm<sup>3</sup> (1 US oz, 1,1 Imp oz) while reinstalling the drain bolt.

OIL DRAIN BOLT TORQUE: 3.5 N·m (0.36 kgf·m , 2.6 lbf·ft)

### **Starter Rope Check**



Check the starter rope every 6 months or after every 50 hours of outboard motor operation.

Replace the rope if it is frayed.

### **Spark Plug Service**

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

### **ACAUTION**

The spark plug becomes very hot during operation and will remain hot to awhile after stopping the engine.

### **Check-Adjust interval:**

Every 50 hours or 6 months.

### **Replacement interval:**

Every 50 hours or 6 months.

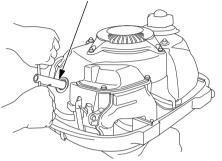
# Recommended spark plug:

LR4C-E (NGK)

### NOTICE

Use only the recommended spark plug or equivalent. Spark plug which have an improper heat range may cause engine damage.

#### SPARK PLUG WRENCH



- 1. Remove the engine cover.
- 2. Remove the spark plug cap.
- 3. Make sure the engine is cool. Remove the spark plug with the spark plug wrench and screwdriver provided in the tool.

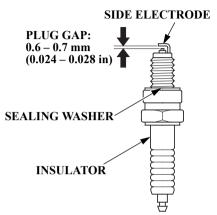
#### New plug



# Plug needing replacement



- 4. Inspect the spark plug.
  - (1) If the electrode is heavily corroded or carbon-soiled, clean with a wire brush.
  - (2) Replace a spark plug if the central electrode is worn. The spark plug can wear out in different ways. If the sealing washer shows signs of wear, or if the insulator is cracked or chipped, replace the spark plug.



5. Measure the plug gap with a feeler gauge.

The gap should be 0.6 - 0.7 mm (0.024 - 0.028 in). Correct as necessary by carefully bending the side electrode.

- 6. Check the sealing washer is in good condition, and thread the plug in by hand to prevent cross threading.
- 7. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

#### NOTE:

If installing new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer. If reinstalling a used spark plug, tighten 1/8 - 1/4 turn after the spark plug seats to compress the washer.

8. Attach the spark plug cap.

### NOTICE

The spark plug must be securely tightened. An improperly tightened plug can become very hot and may cause engine damage.

9. Reinstall the engine cover.

### Lubrication

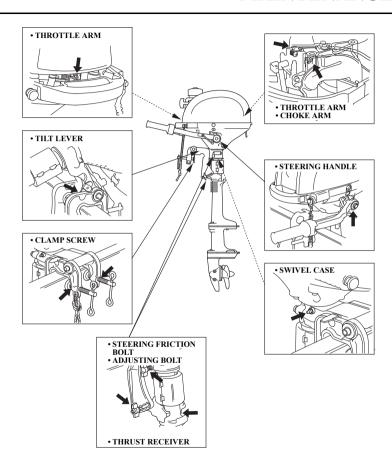
Wipe the outside of the engine with a cloth dipped in clean oil. Apply marine anticorrosion grease to the following parts:

### **Lubrication interval:**

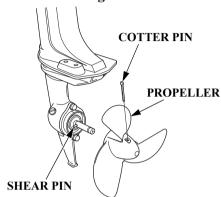
10 hours or a month after the date of purchase for initial lubrication, then every 50 hours or 6 months.

### NOTE:

Apply anticorrosion oil to pivot surfaces where grease cannot penetrate.



### **Shear Pin Change**

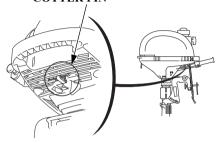


A shear pin is used to protect the propeller and drive mechanism from damage when the propeller strikes an obstruction.

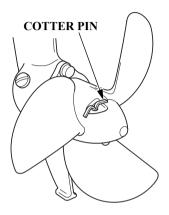
### **▲WARNING**

• When replacing, remove the emergency stop switch clip to prevent an accidental startup of the engine.

# SPARE SHEAR PIN AND COTTER PIN



- The propeller is thin and sharp. To protect your hands, wear the heavy gloves during replacement.
- 1. Remove the cotter pin and the propeller.
- 2. Remove the broken shear pin and replace it with a new one.
- 3. Install the propeller.



4. Install a new cotter pin, and spread the ends of it as shown.

### NOTE:

• Use a genuine Honda cotter pin and bend the pin ends as shown.

# Servicing a Submerged Outboard Motor

A submerged outboard motor must be serviced immediately after it is recovered from the water in order to minimize corrosion.

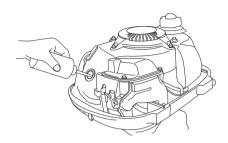
If there is a Honda outboard motor dealership nearby, take the outboard motor immediately to the dealer. If you are far from a dealership, proceed as follows:

- 1. Remove the engine cover, and rinse the outboard motor with fresh water to remove salt water, sand, mud, etc.
- 2. Drain the fuel tank into a suitable container
- 3. Loosen the carburetor drain screw, drain the contents of the carburetor into a suitable container, then retighten the drain screw (see page 62).

- 4. Change the engine oil (see page 52). If there was water in the engine crankcase, or if the used engine oil showed signs of water contamination, then a second engine oil change should be performed after running the engine for 1/2 hour
- 5. Remove the spark plug.
  Disengage the emergency stop
  switch clip from the emergency
  stop switch and pull the starter grip
  several times to completely expel
  water from the cylinder.

#### NOTICE

• When cranking the engine with an open ignition circuit (spark plug removed from the ignition circuit), disengage the emergency stop switch clip to prevent electrical damage to the ignition system.



- If the outboard motor was running when it submerged, there may be mechanical damage, such as bent connecting rods. If the engine binds when cranked, do not attempt to run the outboard motor until it has been repaired.
- 6. Pour a teaspoon (3 5 cm<sup>3</sup>) of engine oil into the spark plug hole, then pull the starter grip several times to lubricate the inside of the cylinder.

Reinstall the spark plug and engage the emergency stop switch clip with the emergency stop switch.

7. Attempt to start the engine.

### **AWARNING**

Exposed moving parts can cause injury. Use extreme care when installing the engine cover. Do not operate the outboard motor without the engine cover.

- If the engine fails to start, remove the spark plug, clean and dry the electrode, then reinstall the spark plug and attempt to start the engine again.
- If the engine starts, and no mechanical damage is evident, continue to run the engine for 1/2 hour or longer (be sure the water level is at least 150 mm (6 in) above the antiventilation plate).
- 8. As soon as possible, take the outboard motor to a Honda outboard motor dealer for inspection and service.

For longer service life of the outboard motor, have your outboard motor serviced by an authorized Honda outboard motor dealer before storage. However, the following procedures can be performed by you, the owner, with a minimum of tools.

#### Fuel

#### NOTE:

Gasoline spoils very quickly depending on factors such as light exposure, temperature and time. In worst cases, gasoline can be contaminated within 30 days. Using contaminated gasoline can seriously damage the engine (carburetor clogged, valve stuck). Such damage due to spoiled fuel is disallowed from coverage by the warranty.

To avoid this please strictly follow these recommendations:

- Only use specified gasoline (see page 25).
- Use fresh and clean gasoline.
- To slow deterioration, keep gasoline in a certified fuel container.
- If long storage (more than 30 days) is foreseen, drain fuel tank and carburetor.

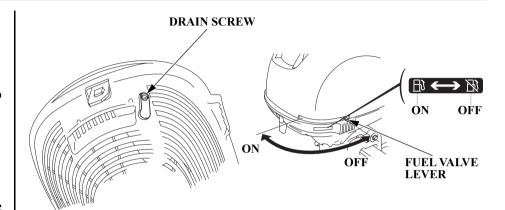
### **STORAGE**

### **Draining the Gasoline**

### **AWARNING**

Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death. Do not smoke or allow flames or sparks in your working area. KEEP OUT OF REACH OF CHILDREN.

- Be careful not to spill fuel.
   Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before storing or transporting the outboard motor.
- Do not smoke or allow flames or sparks where fuel is drained or stored.



- 1. Turn the fuel valve lever to the OFF.
- 2. Open the fuel filler cap vent knob.
- 3. Remove the fuel filler cap and drain the gasoline from the fuel tank into a suitable container.
- 4. Turn the fuel valve lever to the ON, loosen the carburetor drain screw, and drain the gasoline into a suitable container.
- 5. After draining, retighten the drain screw.
- 6. Reinstall the fuel filler cap.
- 7. Make sure the fuel filler cap vent knob is turned to OFF.

### **Engine Oil**

- 1. Change the engine oil (see page 52).
- 2. Remove the spark plug (see page 55), and remove the clip from the emergency stop switch.
- 3. Pour a teaspoon (3–5 cm<sup>3</sup>) of clean engine oil into the cylinder.
- 4. Pull the starter grip slowly several times to distribute the oil in the cylinder.
- 5. Reinstall the spark plug.

# **Storage Position of the Outboard Motor**

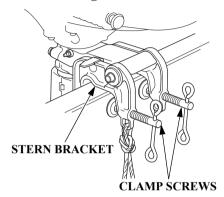
Store the outboard motor either vertically or horizontally as follows with the steering handle folded.

Store the outboard motor in a clean and dry area.

#### NOTE:

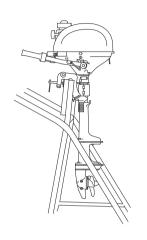
Before storing, clean, flush and lubricate the outboard motor as described on page 57.

### Vertical storage



1. Attach the stern brackets to a motor stand and tighten the clamp screws to install the outboard motor securely.

### **STORAGE**



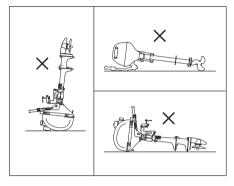
2. Store the outboard motor as shown above.

### Horizontal storage



Rest the outboard motor on the case protectors with the tiller handle folded.

#### **INCORRECT**



### NOTICE

- Any other transport or storage position may cause damage or oil leakage.
- If the outboard motor is tilted in the reverse position, crankcase oil will enter the cylinder and may cause difficult starting or may prevent the engine from being cranked.

## 14. DISPOSAL

To protect the environment, do not dispose of this product, battery, engine oil, etc. carelessly by leaving them in the waste. Observe the local laws and regulations or consult your dealer for disposal.

### 15. TROUBLESHOOTING

### <Engine fails to start>

1. Emergency stop switch — ► Engage the clip is not engaged. emergency stop switch clip in place. (page 29) 2. Throttle grip is not in the 
Move the throttle grip START position. to the START position. (page 30) 3. Out of fuel. -➤ Supply fuel. (page 25) 4. Fuel valve is not opened. → Move the fuel valve lever to the ON position. (page 28) 5. Fuel filler cap vent knob -➤ Open the fuel filler is not turned ON. cap vent knob. (page 28) 6. Fuel is not reaching the -➤ Loosen the carburetor carburetor. drain screw to see if there is fuel in the carburetor float bowl. (page 62) 7. Engine is flooded. -→ Clean and dry the spark plug. (page 55) 8. Plug cap is not installed → Install plug cap properly. securely. (page 56)

### TROUBLESHOOTING

### < Engine speed fluctuates or engine stalls>

- 1. Fuel level is low. → Add fuel. (page 25)
- 2. Fuel filter is clogged. 

  Replace fuel filter.
- 3. Spark plug is fouled. 
  → Remove spark plug and dry and clean it. (page 55)
- 4. Spark plug heat range is → Replace with spark plug incorrect of proper heat range. (page 55)
- 5. Spark plug gap is Adjust to proper gap. incorrect (page 55)

### <Engine speed does not increase>

- 1. Fuel filter is clogged. → Replace fuel filter.
- 2. Engine oil level is low. Check engine oil and add to specified level.
- 3. Unmatched propeller is → Consult with an selected.
- 4. Passengers are not ── Distribute the passengers distributed equally. equally.
- 5. Outboard motor is not Install the outboard installed properly.
- (page 23) authorized Honda
  - outboard motor dealer
  - motor in the proper position. (pages 19 to 21)

### <Engine overheats>

- 1. Engine is overloaded → Distribute the because of unequally distributed passengers or excessive load on the boat
  - passengers equally. Do not load on the boat excessively.
- 2. Ventilation. 

  → Install the outboard motor in the proper position. (page 19)

### <Engine overrevs>

- 1. Ventilation. 

  Install the outboard motor in the proper position. (page 19)
- 2. Shear pin is damaged. 

  Replace shear pin. (page 58)
- 3. Unmatched propeller is ➤ Consult with an selected.
  - authorized Honda outboard motor dealer.
- 4. Trim angle is not correct. → Trim to correct angle.
- (page 21)

# 16. SPECIFICATIONS

MODEL	BF2.3D				
Description Code	BABC				
Shaft Length	S (Short) L (Long)				
Туре	SCHU SCHD SCHH	LCHU LCHD			
Overall length	412 mm	(16.2 in)			
Overall width	285 mm	(11.2 in)			
Overall height	956 mm (37.6 in)	1,109 mm (43.7 in)			
Transom height (when Transom angle is 5°)	418 mm (16.5 in)	571 mm (22.5 in)			
Dry mass (weight)*	13.6 kg (30.0 lbs)	14.3 kg (31.5 lbs)			
Rated power	1.7 kW	1.7 kW (2.3 PS)			
Full throttle range	5,000 – 6,000 min <sup>-1</sup> (rpm)				
Engine type	4-stroke, overhead valve, single cylinder				
Displacement	57.2 cm <sup>3</sup> (3.49 cu-in)				
Valve tappet clearance	Intake: 0.06 – 0.10 mm (0.002 – 0.004 in) Exhaust: 0.09 – 0.13 mm (0.004 – 0.005 in)				
Spark plug gap	0.6 – 0.7 mm (0.024 – 0.028 in)				
Starter system	Recoil starter				
Ignition system	Transistorized magneto				

Lubrication system	Oil slinger system
Specified oil	Engine: API standard SG, SH, SJ, SAE 10W-30 Gear case: API standard (GL-4) SAE 90 Hypoid gear oil
Oil capacity	Engine: 0.25 L (0.26 US qt, 0.22 Imp qt) Gear case: 0.05 L (0.05 US qt, 0.04 Imp qt)
Cooling system	Forced air cooling
Exhaust system	Underwater exhaust
Spark plug	LR4C-E (NGK)
Fuel	Automotive unleaded gasoline (91 research octane, 86 pump octane, or higher)
Tank capacity	1.1 L (0.29 US gal, 0.24 Imp gal)
Steering equipment	Bar handle
Steering angle	360°
Transom angle	4 stages (5° -10° -15° -20°)
Tilt angle	75° (when Transom angle is 5°)
Standard propeller (No. of blades – diameter × pitch)	3 – 184 × 120 mm (3 – 7-1/4 × 4-3/4 in)

Honda outboards are power rated in accordance with ISO8665 (propeller shaft output).

<sup>\*</sup> With propeller

# Noise and Vibration [SCHU and LCHU types]

MODEL	BF2.3D
CONTROL SYSTEM	T (Tiller handle)
Sound Pressure level at operator's ears (2006/42/EC, ICOMIA 39-94)	83 dB (A)
Uncertainty	2 dB (A)
Measured sound power level (Reference to EN ISO3744)	89 dB (A)
Uncertainty	2 dB (A)
Vibration level at hand arm (2006/42/EC, ICOMIA 38-94)	7.0 m/s <sup>2</sup>
Uncertainty	2.1 m/s <sup>2</sup>

Reference to: ICOMIA Standard: as it specifies the engine operating conditions and measurement conditions.

### 17. MAJOR Honda DISTRIBUTOR ADDRESSES

For further information, please contact Honda Customer Information Centre at the following address or telephone number:

### For European

#### **AUSTRIA**

#### Honda Austria GmbH

Hondastraße 1 2351 Wiener Neudorf Tel.: +43 (0)2236 690 0 Fax: +43 (0)2236 690 480 http://www.honda.at ☑ HondaPP@honda.co.at

## BALTIC STATES (Estonia/Latvia/ Lithuania)

#### Honda Motor Europe Ltd Tulika 15/17

10613 Tallinn Tel.: +372 6801 300 Fax: +372 6801 301

#### **BELGIUM**

#### Honda Belgium

Doornveld 180-184 1731 Zellik Tel.: +32 2620 10 00 Fax: +32 2620 10 01 http://www.honda.be ☑ BH\_PE@HONDA-EU.COM

### **BULGARIA**

#### Kirov Ltd.

49 Tsaritsa Yoana Blvd 1324 Sofia Tel.: +359 2 93 30 892 Fax: +359 2 93 30 814 www.kirov.net ⊠ honda@kirov.net

#### **CROATIA**

#### Fred Bobek d.o.o.

Honda-Marine Croatia - Trg. - Ind. zona bb 22211 Vodice Tel.: +385 22 44 33 00/33 10 Fax: +385 22 44 05 00 www.honda-marine.hr

#### **CYPRUS**

#### Alexander Dimitriou & Sons Ltd.

162, Yiannos Kranidiotis Avenue 2235 Latsia, Nicosia Tel.: +357 22 715 300 Fax: +357 22 715 400

#### CZECH REPUBLIC

# BG Technik cs, a.s. U Zavodiste 251/8

15900 Prague 5 - Velka Chuchle Tel.: +420 2 838 70 850 Fax: +420 2 667 111 45 www.hondamarine.cz

#### **DENMARK**

#### TIMA A/S Tårnfalkevei 16

2650 Hvidovre Tel.: +45 36 34 25 50 Fax: +45 36 77 16 30 http://www.hondapower.dk

#### **FINLAND**

#### **OY Brandt AB** Tuupakantie 7B

01740 Vantaa Tel.: +358 207757200 Fax: +358 (0)9 878 5276 www.brandt fi

#### **FRANCE**

#### Honda Motor Europe Ltd

Relation Clients Produits d'équipements Parc d'activités de Pariest, Allée du 1er mai Croissy Beaubourg BP46, 77312 Marne La

Vallée Cedex 2
Tél.: 01 60 37 30 00
Fax: 01 60 37 30 86
http://www.honda.fr

⊠ espace-client@honda-eu.com

#### **GERMANY**

#### Honda Deutschland GmbH

Sprendlinger Landstraße 166 63069 Offenbach am Main Tel.: 01 80 5/20 20 90

Fax.: +49 69 8320 20 http://www.honda.de ⊠ info@post.honda.de

#### GREECE

#### Saracakis Brothers S.A.

71, Leoforos Athinon 10173 Athens Tel.: +30 210 3483582 Fax: +30 210 3418092 http://www.honda.gr ⊠ info@saracakis.gr

### MAJOR Honda DISTRIBUTOR ADDRESSES

For further information, please contact Honda Customer Information Centre at the following address or telephone number:

### For European (continued)

#### HUNGARY

Motor Pedo Co., Ltd. Kamaraerdei ut 3

2040 Budaors Tel.: +36 23 444 971 Fax: +36 23 444 972

http://www.hondakisgepek.hu
info@hondakisgepek.hu

#### **ICELAND**

#### Bernhard ehf.

Vatnagardar 24-26 104 Reykdjavik Tel.: +354 520 1100 Fax: +354 520 1101 www.honda.is

#### **IRELAND**

#### Two Wheels Itd

M50 Business Park, Ballymount Dublin 12 Tel.: +353 1 4381900 Fax: +353 1 4607851

http://www.hondaireland.ie

⊠ Service@hondaireland.ie

#### ITALY

#### Honda Italia Industriale S.p.A.

Via della Cecchignola, 13 00143 Roma Tel.: +848 846 632 Fax: +39 065 4928 400 www.hondaitalia.com

info.marine@honda-eu.com

#### **MALTA**

#### Associated Motors Company Ltd.

New Street in San Gwakkin Road -Mriehel Bypass Mriehel QRM17

Tel.: +356 21 498 561 Fax: +356 21 480 150

#### **NETHERLANDS**

#### Honda Nederand B.V.

Afd, Power Equipment Capronilaan 1 1119 NN Schiphol-Rijk Tel.: +31 20 7070001 Fax: +31 20 7070001 http://www.honda.nl

#### **NORWAY**

#### AS Kellox

Boks 170 - Nygårdsveien 67 1401 Ski Tel.: +47 64 97 61 00 Fax: +47 64 97 61 92

www.kellox.no

### **POLAND**

#### Aries Power Equipment Sp. z o.o.

ul. Wrocławska 25 01-493 Warszawa Tel.: +48 (22) 861 43 01 Fax: +48 (22) 861 43 02 www.ariespower.pl www.mojahonda.pl ⊠ info@ariespower.pl

#### **PORTUGAL**

#### Honda Motor Europe Ltd

Rua Fontes Pereira de Melo 16 Abrunheira, 2714-506 Sintra Tel.: +351 21 915 53 00 Fax: +351 21 915 88 87

http://www.honda.pt

⊠ honda.produtos@honda-eu.

### REPUBLIC OF BELARUS

#### Scanlink Ltd.

Kozlova Drive, 9 220037 Minsk Tel.: +375 172 999090

Fax: +375 172 999090 http://www.hondapower.by

#### **ROMANIA**

#### Hit Power Motor Srl

str. Vasile Stroescu nr. 12, Camera 6, Sector 2 021374 Bucuresti

> Tel.: +40 21 637 04 58 Fax: +40 21 637 04 78

http://www.honda.ro

☑ hit\_power@honda.ro

#### RUSSIA

#### Honda Motor RUS LLC

1, Pridirizhnaya Street, Sharapovo settlement, Naro-Fominsky district. Moscow Region.

Naro-Fominsky district, Moscow Region, 143350 Russia

Tel.: +7 (495) 745 20-80 Fax: +7 (495) 745 20 81 www.honda.co.ru

postoffice@honda.co.ru

### MAJOR Honda DISTRIBUTOR ADDRESSES

For further information, please contact Honda Customer Information Centre at the following address or telephone number:

### For European (continued)

# SERBIA & MONTENEGRO

Fred Bobek d.o.o.

Honda-Marine Croatia - Trg. - Ind. zona bb 22211 Vodice Tel.: +385 22 44 33 00/33 10 Fax: +385 22 44 05 00 www.honda-marine.hr

#### SLOVAK REPUBLIC

Honda Motor Europe Ltd

Prievozská 6 821 09 Bratislava Tel.: +421 2 32131112 Fax: +421 2 32131111 http://www.honda.sk

#### **SLOVENIA**

AS Domzale Moto Center D.O.O.

Blatnica 3A 1236 Trzin Tel.: +386 1 562 22 62 Fax: +386 1 562 37 05 www.honda-as.com ☑ informacije@honda-as.com

## SPAIN & Las Palmas province (Canary Islands)

Greens Power Products, S.L.

Poligono Industrial Congost -Av Ramon Ciurans n°2 08530 La Garriga - Barcelona Tel.: +34 93 860 50 25 Fax: +34 93 871 81 80 http://www.hondaencasa.com

# **Tenerife province** (Canary Islands)

Automocion Canarias, S.A.

Carretera General del Sur, KM. 8,8 38107 Santa Cruz de Tenerife Tél.: +34 (922) 620 617

> Fax: +34 (922) 618 042 www.aucasa.com

□ ventas@aucasa.com
 □ taller@aucasa.com

### **SWEDEN**

Honda Nordic AB

Box 31002-Långhusgatan 4 215 86 Malmö Tel. : +46 (0)40 600 23 00 Fax : +46 (0)40 600 23 19

www.honda.se

⋈ hpesinfo@honda-eu.com

#### **SWITZERLAND**

Honda Motor Europe Ltd 10 Route des Moulières

1214 Vernier-Genève Tel.: +41 (0)22 939 09 09 Fax: +41 (0)22 939 09 97 www.honda.ch

#### TURKEY

Anadolu Motor Uretim ve Pazarlama AS

Esentepe mah. Anadolu cad. No: 5 Kartal 34870 Istanbul Tel.: +90 216 389 59 60 Fax: +90 216 353 31 98 www.anadolumotor.com.tr ⊠ antor@antor.com.tr

#### UKRAINE

Honda Ukraine LLC

101 Volodymyrska Str. - Build. 2 Kyiv 01033

Tel.: +380 44 390 14 14 Fax: +380 44 390 14 10 http://www.honda.ua CR@honda.ua

#### UNITED KINGDOM

Honda Motor Europe Ltd 470 London Road

Slough - Berkshire, SL3 8QY Tel.: +44 (0)845 200 8000 http://www.honda.co.uk

#### For Australian

#### **AUSTRALIA**

Honda Australia Motorcycle and Power Equipment Pty. Ltd

1954-1956 Hume Highway Campbellfield Victoria 3061

Tel.: (03) 9270 1111 Fax: (03) 9270 1133 http://www.hondampe.com.au/

#### For Mexico

#### **MEXICO**

Honda de Mexico, S.A. de C.V.

Carretera a el castillo No. 7250 El Salto , Jalisco C.P.45680 TEL:+52 33 32 84 00 00 FAX:+52 33 32 84 00 60 http://www.honda.com.mx

# **MAJOR Honda DISTRIBUTOR ADDRESSES**

1) EC-DECLARATION OF CONFORMITY  2) THE UNDERSIGNED, (15), REPRESENTING THE MANUFACTURER, HEREWITH DECLARES THAT THE PRODUCT IS IN CONFORMITY WITH THE PROVISIONS OF THE FOLLOWING EC-DIRECTIVES  2006/42/EC, 2004/108/EC
3) REFERENCE TO HARMONIZED STANDARDS: EN ISO 8178 EN ISO 14509
4) DESCRIPTION OF THE MACHINERY
5) Generic denomination: Outboard engine 6) Function: Propulsion system 7) MAKE: Honda
8) TYPE:  9) SERIAL NUMBER:
10) Manufacturer:  Honda Mindong Generator Co.,Ltd.  No.7, Houyu Road Fuxing Economic Development Zone, Fuzhou City, Fujian Province, P.R.China
11) Authorized representative and able to compile the technical documentation:  Bracknell, RG12 1HL United Kingdom
12) SIGNATURE: 13) NAME: 14) TITLE 15) 16) DATE: 16) 17) PLACE: 17)

1) DECLARATION CE DE CONFORMITE 2) LE SOUSSIGNÉ,(15), REPRÉSENTANT DU CONSTRUCTEUR, DÉCLARE PAR	
LA PRÉSENTE QUE LE PRODUIT EST CONFORME AUX DISPOSITIONS DES DIRECTIVES CE SUIVANTES	
3) REFERENCE AUX NORMES HARMONISÉES 4) DESCRIPTION DE MACHINE	
5) Denomination générique: moteur hors-bord 6) Fonction : Sytème de propulsion 7) MARQUE	
8) TYPE 9) NUMÉRO DI SERIE 10) CONSTRUCTEUR 11)Représentant autorisé et en charge des éditions de documentation technques	
12) SIGNATURE 13) NOM 14) TITRE 15) Directeur Qualite 16) DATE 17) LIEU	
	français ( FRENCH )
1) DICHIARAZIONE DI CONFORMITA' CE 2) IL SOTTOSCRITTO, (15), RAPPRESENTANTE DEL COSTRUTTORE, DICHIARA	
QUI DI SEGUITO CHE IL PRODOTTO E' CONFORME A QUANTO PREVISTO DALLE SEGUENTI DIRETTIVE COMUNITARIE	
3) RIFERIMENTO ALLE NORME ARMONIZZATE 4) DESCRIZIONE DELLA MACCHINA	
5) Denominazione generica: MOTORE FUORIBORDO 6) Funzione : Sistema di propulsione	
7) MARCA 8) TIPO 9) NUMERO DI SERIE 10) FABBRICANTE	
11) Rappresentante autorizzato e competente per la compilazione della documentazione tecnica	
12) FIRMA 13) NOME 14) TITOLO 15) DIRETTORE DELLA QUALITA' 16) ADDÌ 17) LUOGO	italiano ( ITALIAN )
1) EG-KONFORMITÄTSERKLÄUNG 2) DER UNTERZEICHNER, (15), DER DEN HERSTELLER VERTRITT, ERKLÄRT	
HIERMIT, DAß DAS PRODUKT IN ÜBEREINSTIMMUNG MIT DEN BESTIMMUNGEN DER NACHSTEHENDEN EG-RICHTLINIEN IST	
3) VERWEIS AUF HARMONISIERTE NORMEN 4) BESCHREIBUNG DER MASCHINE	
5) Allgemeine Bezeichnung: Außenbordmotor 6) Funktion: Antriebsart	
7) FABRIKAT 8) TYP 9) SERIEN NUMMER 10) HERSTELLER	
11) Bevollmächtigter und in der Position, die technische Dokumentation zu erstellen	
12) UNTERSCHIFT 13) NAME 14) TITEL 15) Qualitatssi Cherung 16) DATUM 17) ORT	deutsch ( GERMAN )
1) EG-VERKLARING VAN OVEREENSTEMMING 2) ONDERGETEKENDE, (15), VERTEGENWOORDIGER VAN DE	•
FABRIKANT, VERKLAART HIERMEE DAT HET PRODUCT VOLDOET AAN DE BEPALINGEN VAN DE VOLGENDE EG-RICHTLIJNEN	
3) REFERENTIE NAAR GEHARMONISEERDE NORMEN 4) BESCHRIJVING VAN DE MACHINE	
5) Algemene benaming: buitenboordmotor 6) Functie: Aandrijfsysteem	
7) FABRIKAT 8) TYPE 9) SERIEN UMMER 10) FABRIKANT	
11) Gemachtigde van de fabrikant en in staat om de technische documentatie samen te stellen	
12) HANDTEKENING 13) NAAM 14) TITEL 15) Directeur Kwaliteitszorg 16) DATUM 17) PLAATS	nederlands ( DUTCH )
1) ΕΚ-ΔΗΛΩΣΗ ΕΝΑΡΜΟΝΙΣΗΣ 2) Ο ΥΠΟΓΡΑΦΩΝ, (15), ΕΚΠΡΟΣΩΠΟΝΤΑΣ ΤΟΝ ΚΑΤΑΣΚΕΥΑΣΤΗ, ΔΙΑ ΤΟΥ ΠΑΡΟΝΤΟΣ	( = = = = )
ΑΗΑΩΝΕΙ ΟΤΙ ΤΟ ΠΡΟΙΌΝ ΒΡΙΣΚΈΤΑΙ ΣΕ ΕΝΑΡΜΟΝΙΣΉ ΜΕ ΤΙΣ ΠΡΟΒΛΕΨΕΙΣ ΤΩΝ ΚΑΤΩΘΙ ΟΛΗΓΙΩΝ ΤΗΣ ΕΕ	
3) ΠΑΡΑΠΟΜΠΗ ΣΤΑ ΕΝΑΡΜΟΝΙΣΜΕΝΑ ΠΡΟΤΥΠΑ 4) ΠΕΡΙΓΡΑΦΗ ΜΗΧΑΝΗΜΑΤΟΣ	
5) Γενική ονομασία : Εξωλέμβια μηγανή 6) Λειτουργία : Σύστημα Πρόωσης	
7) ΕΡΓΟΣΤΑΣΙΟ ΚΑΤΑΣΚΕΥΗΣ 8) ΤΥΠΟΣ 9) ΑΡΙΘΜΟΣ ΣΕΙΡΑΣ 10) ΚΑΤΑΣΚΕΥΑΣΤΗΣ	
11) Εξουσιοδοτημένος αντιπρόσωπος και είναι σε θέση να καταρτίσει τον τεχνικό φάκελο	
12) ΥΠΟΓΡΑΦΗ 13) ΟΝΟΜΑ 14) ΤΙΤΛΟΣ 15) Υπεύθυνος Ποιότητας 16) ΗΜΕΡΟΜΗΝΙΑ 17) ΤΟΠΟΣ	Ελληνικά ( GREEK )
12) THOLIAM 13) ONDER 14) THOSE 21 THOSE 21 THOSE 21 THOSE 22 THOSE 22 THOSE 24 THOS	Ezzijvika (GREEK)
HERMED AT PRODUKTET ER I OVERENSSTEMMELSE MED BESTEMMELSERNE I FØLGE EF DIREKTIVERNE	
13) REFERENCE TIL HARMONISEREDE STANDARDER 4) BESKRIVELSE AF MASKINEN	
5) REFERENCE IIL HAMMONISERDE STANDARDER 4) DESKRIVED AF MASSINEN 5) FÆLLESBETEGNELSE: Utenbordsmotor 6) ANVENDELSE: Fremdrivningssystem 7) FABRIKANT	
3) FÆLLESBE I EUNELSE: Utenbotrasmotor o) ANVENDELSE: Fremdnynningssystem /) FABRIKANT 8) TYPE 9) SERIEN UMMER 10) FABRIKANT	
11) AUTORISERET REPRÆSENTANT OG I STAND TIL AT UDARBEJDE DEN TEKNISKE DOKUMENTATION	L L (DANIGH)
12) SIGNATURE 13) NAVN 14) TITEL 15) Kvalitets Leder 16) DATO 17) STED	dansk ( DANISH )

1) DECLARACIÓN DE CONFORMIDAD 2) EL ABAJO FIRMANTE, (15), EN REPRESENTACIÓN DE FABRICANTE, DECLARA QUE EL PRODUCTO ES CONFORME CON LAS DISPOSICIONES DE LAS SIGUIENTES DIRECTIVAS CE 3) REFERENCIA A ESTÁNDARES ARMONIZADOS 4) DESCRIPCIÓN DE LA MAQUINARIA 5) Denominación genérica: Motor fueraborda 6) Función: Sistema de propulsión 7) MARCA 8) TIPO 9) NUMERO DE SERIE 10) FABRICANTE 11) Representante autorizado que puede compilar el expediente técnico 12) FIRMA 13) NOMBRE 14) CARGO 15) Director de calidad 16) FECHA 17) LUGAR español (SPANISH) 1) DECLARAÇÃO CE DE CONFORMIDADE 2) O ABAIXO ASSINADO, (15), EM REPRESENTAÇÃO DO FABRICANTE, PELA PRESENTE DECLARA QUE O PRODUTO ESTÁ EM CONFORMIDADE COM O ESTABELECIDO NAS SEGUINTES DIRECTIVAS. COMUNITÁRIAS 3) REFERÊNCIA AS NORMAS HARMONIZADAS 4) DESCRICAO DA MÁQUINA 5) Denominação genérica: Motor fora de borda 6) Função: Sistema propulsor 7) MARCA 8) TIPO 9) NÚMERO DE SÉRIE 10) FABRICANTE 11) Mandatário com capacidade para compilar documentação técnica 12) ASSINATURA 13) NOME 14) TÍTULO 15) Director de Qualidade 16) DATA 17) LOCAL português ( PORTUGUESE ) 1) FY-VAATIMUSTENMIIKAISUUSVAKUUTUS 2) ALLEKIRIOITTANUT (15). IOKA EDUSTAA VALMISTAIAA VAKUUTTAA TÄTEN. ETTÄ TUOTE ON SEURAAVIEN EU-DIREKTIIVIEN VAATIMUSTEN MUKAINEN 3) VITTAUS YHTEISIIN STANDARDEIHIN 4) KUVAUS LAITTEESTA 5) ) Yleisarvomäärä: Peramoottori 6) Toiminto: Tvöntöjäriestelmä 7) MERKKI 8) MALLI 9) SARJANUMERO 10) VALMISTAJA 11) Valmistajan edustaja ja teknisten dokumettien laatja 12) ALLEKIRJOITUS 13) NIMI 14) TITTELI 15) Laatupäällikkö 16) PÃIVÃMÃÃRÃ 17) PAIKKA suomi / suomen kieli ( FINNISH ) 1) ЕО-ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ 2) ДОЛУ ПОДШИСАЛИЯТ СЕ (15), ПРЕДСТАВЛЯВАЩ ДИСТРИБУТОРА, ДЕКЛАРИРА, ЧЕ ПРОДУКТА СЪОТВЕТСТВА НА ИЗСКВАНИЯТА НА СЛЕДНИТЕ ЕВРОПЕЙСКИ ДИРЕКТИВИ 3) СЪОТВЕТСТВИЕ С ХАРМОНИЗИРАНИТЕ СТАНДАРТИ 4) ОПИСАНИЕ НА АРТИКУЛА 5) Общо наименование: ИЗВЪН БОРДОВИ ДВИГАТЕЛ 6) Функция: Задвижваща система 7) МАРКА 8) ТИП 9) СЕРИЕН НОМЕР 10) ПРОИЗВОДИТЕЛ 11) Упълномощен представител и отговорник за съставяне на техническа документация 12) ПОДПИС 13) ИМЕ 14) ТИТЛА 15) МЕНИДЖЪР НА КАЧЕСТВОТО 16) ДАТА 17) МЯСТО български ( BULGARIAN ) 1) EG-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE 2) UNDERTECKNAD. (15), REPRESENTERANDE TILLVERKARE. FÖRSÄKRAR HÄRMED ATT PRODUKTEN ÖVERENSSTÄMMER MED BESTÄMMELSERNA I FÖLJANDE EG-DIREKTIVE 3) REFERERANDE TILL HARMONISERADE STANDARDER 4) BESKRIVNING AV UTRUSTNINGEN 5) Allmän benämning: Utomborosmotor 6) Funktion: Framdrivningssystem 7) MERKKI 8) TYPBETECKNING 9) SERIENUMER 10) TILLVERKARE Auktoriserad representant och ska kunna sammanställa teknisk dokumentationen. 12) SIGNATUR 13) NAMN 14) TITEL 15) Kvalitetschef 16) DATUM 17) ORT svenska (SWEDISH) 1) DEKLARACJA ZGODNOŚCI WE 2) NIŻEJ PODPISANY (15), REPREZENTUJACY PRODUCENTA, DEKLARUJE Z CAŁA ODPOWIEDZIALNOŚCIA. ŻE PRODUKT SPEŁNIA WYMAGANIA ZAWARTE W NASTEPUJACYCH DYREKTYWACH UNIJNYCH 3) ZASTOSOWANE NORMY ZHARMONIZOWANE 4) OPIS URZĄDZENIA 5) Ogólne określenie: Silnik zaburtowy 6) Funkcja: Układ napedowy 7) MARKA 8) TYP 9) NUMERY SERYJNE 10) PRODUCENT 11) Upoważniony Przedstawiciel oraz osoba upoważniona do przygotowania dokumentacji technicznej 12) PODPIS 13) NAZWISKO 14) TYTUŁ 15) Menadżer Jakości 16) DATA 17) MIEJSCE polski (POLISH)

1)MEGFELELŐSÉGI NYILATKOZAT 2)ALULÍROTT (15). MINT A GYÁRTÓ KÉPVISELŐJE NYILATKOZIK. HOGY AZ ALÁBBI TERMÉK MINDENBEN MEGFELEL A KÖVETKEZŐ EC ELŐÍRÁSOK RENDELKEZÉSEINEK: 98/37/EC. 89/336/EEC-93/68/EC: 3)ÖSSZHANGBAN A KÖV. SZABVÁNYOKKAL 4)A GÉP LEÍRÁSA 5) Általános megnevezés : KÜLSŐ CSÓNAKMOTOR 6) Funkció : Haitás rendszer 7) GYÁRTOTTA 8) TÍPUS 9) SORSZÁM 10) GYÁRTÓ 11) Meghatalmazott képviselője és képes összeállítani a műszaki dokumentációt. 12) ALÁÍRÁS 13) NÉV 14) BEOSZTÁS 15) MINŐSÉGI IGAZGATÓ 16) KELTEZÉS DÁTUMA 17) KELTEZÉS HELYE magyar ( HUNGARIAN ) 1) Prohlášení o shodě 2) ZÁSTUPCE VÝROBCE. (15), SVÝM PODPISEM POTVRZUJE, ŽE DANÝ VÝROBEK JE V SOULADU S NÁSLEDUJÍCÍMI SMĚRNICEMI A NORMAMI EVROPSKÉHO SPOLEČENSTVÍ: 3) ODKAZ NA HARMONIZOVANÉ NORMY: 4) POPIS VÝROBKU 5) Všeobecné označení : ZÁVĚSNÝ LODNÍ MOTOR 6) Funkce : Pohonný systém 7) ZNAČKA: 8) TYP: 9) VÝROBNÍ ČÍSLO: 10) VÝROBCE: 11) Zplnomocněný zástupce a osoba pověřená kompletací technické dokumentace 12) PODPIS: 13) JMÉNO: 14) POZICE 15) Manažer kvality 16) DATUM: 17) MÍSTO: čeština ( CZECH ) 1) ES VYHLÁSENIE O ZHODE 2) DOLUPODPÍSANÝ. (15). ZASTUPUJÚCI VÝROBCU. TÝMTO DEKLARUJE. ŽE PRODUKT JE V SÚLADE S USTANOVENIAMI NASLEDOVNÝCH SMERNÍC ES 3) REFERENCIA K HARMONIZOVANÝM ŠTANDARDOM 4) IDENTIFIKÁCIA STROJOV 5) Druhové označenie : ZÁVESNÝ LODNÝ MOTOR 6) Funkcia : Systém pohonu 7) VÝROBCA/ZNAČKA 8) TYP 9) SÉRIOVÉ ČÍSLO 10) VÝROBCA 11) Autorizovaný zástupca schopný zostaviť technickú dokumentáciu 12) PODPIS 13) MENO 14) POZÍCIA 15) MANAŽÉR KVALITY 16) DÁTUM 17) MIESTO slovenčina (SLOVAK) 1) EF SAMSVARSÆRKLERING 2) UNDERTEGNEDE. (15), SOM REPRESENTERER FABRIKANTEN. ERKLÆRER HERVED AT PRODUKTET ER I OVERENSSTEMMELSE MED BESTEMMELSENE I FØLGENDE EU DIREKTIV 3) REFERANSER TIL HARMONISEREDE STANDARDER 4) BESKRIVELSE AV MASKINEN 5) Felles benevnelse: Utenbordsmotor 6) Funksion: Fremdrifts system 7) FABRIKANT 8) TYPE 9) SERIE NUMMER 10) FABRIKANT 11) Autorisert representant og i stand til å utarbeide den tekniske dokumentasjonen 12) SIGNATUR 13) NAVN 14) TITTEL 15) Kvalitetssief 16) DATO 17) STED norsk (NORWEGIAN) 1) EB-YFIRLÝSING 2) UNDIRRITAÐUR HR. (15) LÝSI YFIR FYRIR HÖND FRAMLEIÐANDA AÐ VARAN UPPFYLLIR EFTIRFARANDI EC-TILSKIPANIR 3) TILVÍSUN UM HEILDARSTAÐAL 4) LÝSING Á VÉLBÚNAÐI 5) Flokkur: Utanborðsmótorar 6) Virkni: knúningsafl kerfi 7) FRAMLEIÐSLA 8) GERÐ 9) SERÍAL NÚMER 10) FRAMLEIÐANDI 11) Löggildir aðilar og fær um að taka saman tækniskjölin 12) UNDIRSKRIFT 13) NAFN 14) TITILL 15) Skráningarstjóri 16) DAGSETNING 17) STAÐUR Íslenska (ICELANDIC) 1) DECLARATIE DE CONFORMITATE. 2) SUBSEMNATUL, (15), REPREZENTAND PE PRODUCATOR, DECLAR PRIN PREZE NTA CA PRODUSUL ESTE IN CONFORMITATE CU PREVEDERILE URMATOARELOR DIRECTIVE CE 3) REFERIRE LA STANDARDELE ARMONIZATE: 4) DESCRIEREA ECHIPAMENTULUI 5) Denumire generica: MOTOR IN AFARA BORDULUI (EXTERN) 6) Domeniu de utilizare: Sistem de propulsie 7) MARCA 8) TIPUL 9) NUMAR DE SERIE 10) PRODUCATOR 11) Reprezentant autorizat și abilitat să realizeze documentație tehnică 12) SEMNATURA 13) NUME 14) TITLUL 15) DIRECTOR DE CALITATE 16) DATA 17) LOCATIE română (ROMANIAN)

1)EÜ VASTAVUSDEKLARATSIOON 2)ALLAKIRJUTANU. (15). ESINDADES TOOTJAT. DEKLAREERIB SIINKOHAL. ET TOODE ON VASTAVUSES JÄRGMISTE EC DIREKTIIVIDE SÄTETEGA 3) VIIDE ÜHTLUSTATUD STANDARDITELE: 4) MEHHANISMI KIRJELDUS 5) Üldnimetus: Pardaväline mootor 6) Funktsiooon: Tõukursüsteem 7)VALMISTAJA: 8)TÜÜP: 9)SEERIANUMBER: 10)TOOTJA: 11) Volitatud esindaja, kes on pädev täitma tehnilist dokumentatsiooni 12)ALLKIRI: 13)NIMI: 14)AMET 15)Kvaliteedijuht 16)KUUPÄEV: 17)KOHT: eesti (ESTONIAN) 1) EK ATBILSTĪBAS DEKLARĀCIJA 2) ZEMĀK MINĒTAIS. (15), KĀ RAŽOTĀJA PĀRSTĀVIS AR ŠO APSTIPRINA, KA ŠIS PRODUKTS PILNĪBĀ ATBILST VISIEM STANDARTIEM, KAŠ ATRUNĀTI SEKOJOŠAJĀS EC-DIREKTĪVĀS 3) Atsaucoties uz saskanotajiem standartiem 4) Iekārtas apraksts 5) Vispārējais nosukums : Piekarināmais laivas dzinējs 6) Funkcija : Virzošā spēka sistēma 7) Preču zīme 8) Tips 9) Sērijas numurs 10) Izgatavotājs 11) Autorizētais pārstāvis, kas spēj sastādīt tehnisko dokumentāciju 12) Paraksts 13) Vārds, Uzvārds 14) Tituls 15) Kvalitātes vadītāis 16) Datums 17) Vieta latviešu (LATVIAN) 1) EB ATITIKTIES DEKLARACIJA 2) ŽEMIAUI PASIRAŠES, (15), ATSTOVAUJANTIS GAMINTOJA DEKLARUOJA KAD PRODUKTAS ATITINKA REIKALAVIMUS PAGAL ŠIAS EB DIREKTYVAS. 3) NUORODA Į HARMONIZUOTUS STANDARTUS. 4) MAŠINOS APRAŠYMAS. Bendras pavadinimas: PAKABINAMAS VARIKLIS 6) Funkcija: Varomasis būdas 7) MARKĖ. 8) TIPAS 9) SERLIINIS NUMERIS, 10) GAMINTOJAS, 11) Igaliotasis atstovas ir galintis sudaryti technine dokumentacija 12) PARAŠAS. 13) V. PAVARDĖ 14) PAREIGOS 15) KOKYBĖS VADYBININKAS. 16) DATA. 17) VIETA lietuviu kalba ( LITHUANIAN ) 1) ES-DEKLARACIJA O USTREZNOSTI 2) PODPISANI (15), PREDSTAVNIK PROIZVAJALCA, IZJAVLJAM DA IZDELKI USTREZAJO NASLEDNJIM DEKLARACIJAM 3) SKLADNOST Z NASLEDNJIMI STANDARDI 4) OPIS IZDELKOV 5) Vrsta stroja: Izvenkrmni motorji 6) Funkcija: Pogonski sistem 7) PROIZVAJA 8) TIP 9) SERIJSKA ŠTEVILKA 10) PROIZVAJALEC 11) Pooblaščeni predstavnik ki lahko predloži tehnično dokumentacijo 12) PODPIS 13) IME 14) FUNKCIJA 15) Direktor presoje 16) DATUM 17 ) KRAJ slovenščina (SLOVENIAN) I) AT UYGUNLUK BEYANI 2) AŞAĞIDA İMZASI BULUNAN VE İMALATÇININ YETKİLİ TEMSİLCİSİ OLAN (15) ÜRÜNÜN ŞU AT YÖNETMELİKLERİNİN HÜKÜMLERİNE UYGUN OLDUĞUNU BEYAN EDER. 3) UYUMLASTIRILMIS STANDARTLARA ATIF 4) MAKİNANIN TARIFİ 5) Flokkur: Distan takma motor 6) Virkni: tahrik sistemi 7) MARKA 8) TİP 9) SERİ NUMARASI 10) İMALATÇI 11) Teknik dosyayı hazırlamakla yetkili olan Toplulukta yerleşik yetkili temsilci 12) İMZA 13) ADI 14) ÜNVANI 15) Homologasyon Yöneticisi 16) TARİH 17) YER Türk (TURKISH) 1)EK-IZJAVA O SUKLADNOSTI 2)POTPISANI (15), PREDSTAVNIK PROIZVOĐAČA, IZJAVLJUJE DA JE PROIZVOD U SUKLADNOSTI S ODREDBAMA SLJEDEĆEG EK PROPISA 3)REFERENCA NA USKLAĐENE NORME 4)OPIS STROJA 5)Opća vrijednost : Vanbrodski motor 6)Funkcionalnost : Pogonski sustav 7)IZRADIO 8)TIP 9)SERIJSKI BROJ 10)PROIZVOĐAČ 11) Ovlašteni predstavnik i osoba za sastavljanje tehničke dokumentacije 12) POTPIS 13) IME 14) TITULA 15) Upravitelj homologacije 16) DATUM 17) MJESTO hrvatski (CROATIAN)

# **19. INDEX**

A	<b>F</b>	
Adjusting Bolt16	Fuel	
Anode Metal	Level	25
	Filler Cap Vent Knob	17
C	Storage	61
CE mark location9	Valve Lever	13
Choke Knob11		
Clamp Screws	G	
Cleaning and Flushing47	Gasoline Containing Alcohol	26
Component Identification	Gear Oil Change	53
Controls11		
	H	
D	High Altitude Operation	40
Disposal65		
Draining the Gasoline	I	
"EC DECLARATION OF CONFORMITY"	Installation	
Content Outline74	Height	
_	Location	18
E		
Emergency	L	
Starting	Lubrication	57
Stop Switch11		
Stop Switch Lanyard/Clip14		
Engine		
Cover Retaining Strap16		
Oil Change		
Oil Level23		
Inspection Window		

## **INDEX**

M		Starting Problems	34
Maintenance	48	Steering Friction Bolt	16
Schedule		Stopping the Engine	
Major Honda Distributor Addresses		Storage	61
Motor		Engine Oil	63
Angle	20, 21	Fuel	61
Attachment		Position of the Outboard Motor	63
0		Т	
Operation	35	Throttle	
φ <b></b>		Grip	12
P		Grip Friction Knob	13
Pre-Operation Checks	22	Tilt Lever	
Other Checks		Tilting the Outboard Motor	38
Removing/Installing Engine Cover		Tool Kit and Spare Parts	49
		Trailering	46
S		Transom	
Safety	6	Angle Adjusting Bolt and Wing Nut	16
Information	6	Height	18
Safety Label Locations		Transporting	
Servicing a Submerged Outboard Motor	59	Troubleshooting	
Shallow Water Operation		Starting Problems	34
Shear Pin Change			
Spark Plug Service	55		
Specifications68			
Starter Grip	11		
Starter Rope Check	54		
Starting the Engine	28		