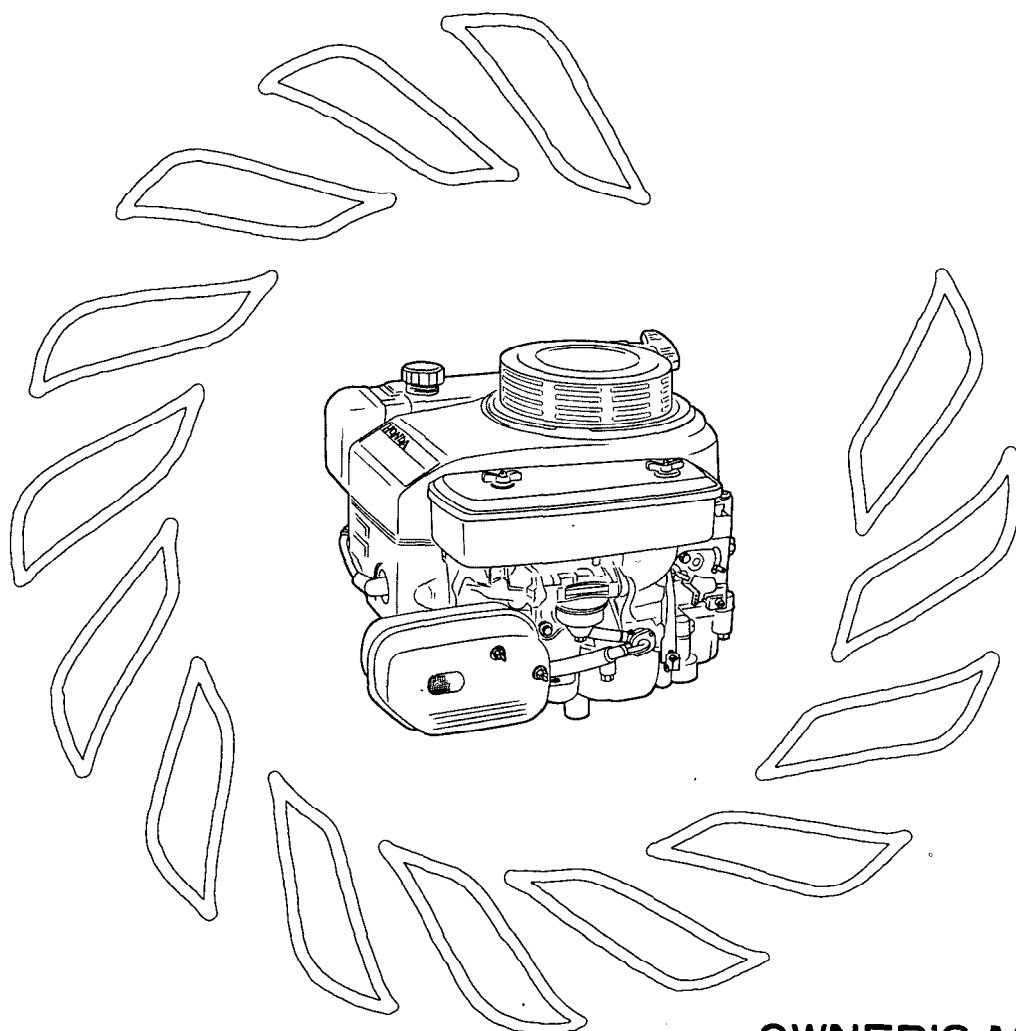


Click **SAVE** to save this manual to your computer. Thank you for choosing Honda.

# HONDA

## GV400

### VERTICAL ENGINE



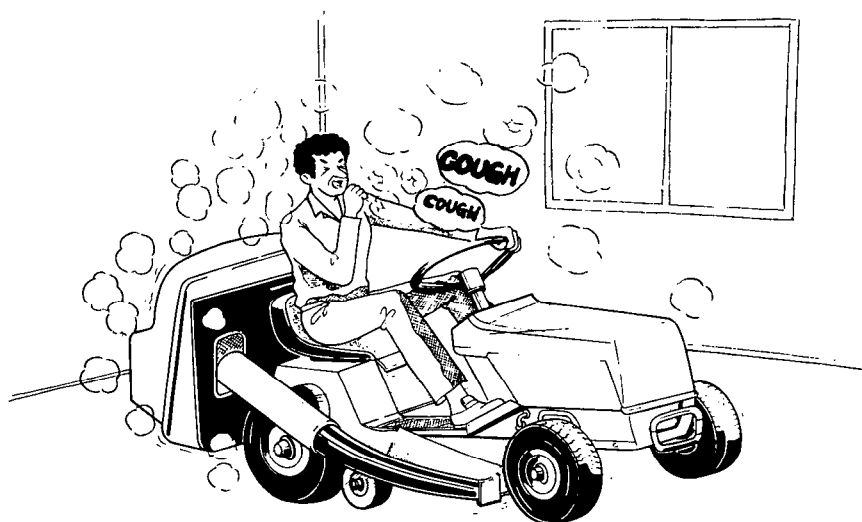
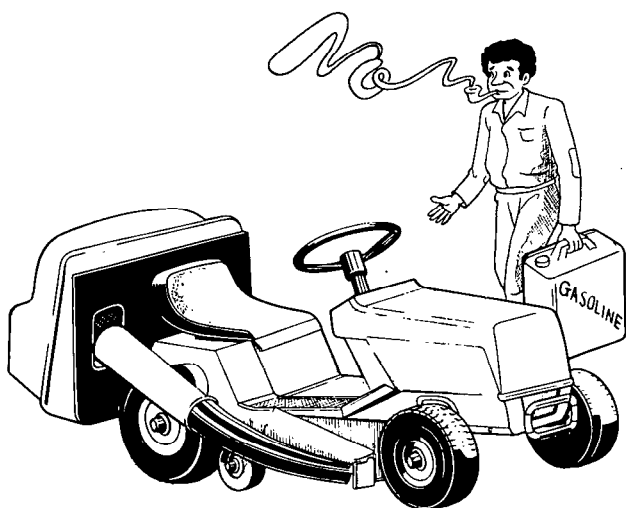
## OWNER'S MANUAL

Thank you for purchasing the HONDA GV400 vertical engine.  
If any trouble should develop with your unit, consult the dealer  
from whom you purchased it.

# FOR SAFE OPERATION

## **WARNING**

- ★ To prevent fire hazards and to provide adequate ventilation, keep the engine at least 3 ft away from buildings and other equipment, during operation.
- ★ Do not place flammable objects, such as, gasoline, matches, etc., close to the engine while it is running.
- ★ Refuel in a well ventilated area with the engine stopped. Gasoline is flammable and explosive under certain conditions.
- ★ Do not smoke or allow flames or sparks where the engine is refueled or where gasoline is stored.
- ★ Do not overfill the tank. There should be no fuel in the filler neck. Make sure that the filler cap is closed securely.
- ★ If any fuel is spilled, make sure the area is dry before starting.
- ★ Operate the engine on a level surface to prevent fuel spillage.
- ★ This engine is not equipped with a spark arrester, and operation may be illegal in some areas. Check local laws and regulations before operation.
- ★ Exhaust contains poisonous carbon monoxide gas. Avoid inhalation of exhaust gases. Never run the engine in a closed garage or confined area.

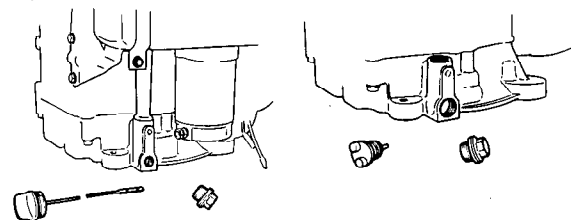


# MAINTENANCE

WARNING: SHUT THE ENGINE OFF BEFORE PERFORMING ANY MAINTENANCE.

## First 20 operating Hrs.

### CHANGE ENGINE OIL

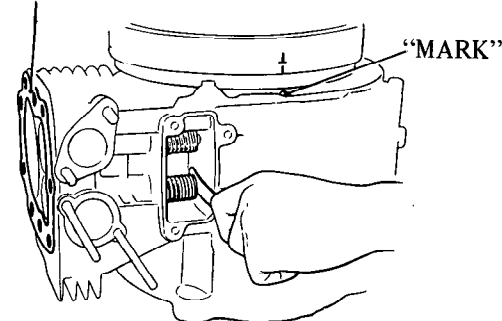


- ★ Engine oil capacity: 1.2 l (2.54 US pt, 2.11 Imp pt)
- ★ Use SE rated SAE 10W-40 engine oil.
- ★ Remove the drain plug and raise the carburetor side up to drain all of the oil.

### ADJUSTMENT

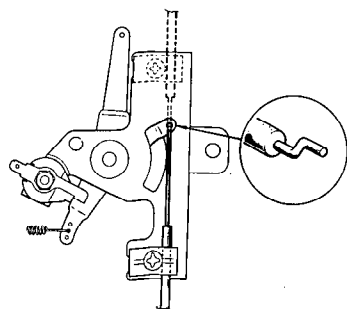
#### ADJUST VALVE CLEARANCE

##### CYLINDER HEAD GASKET



- ★ Measure at TDC on compression when engine is cold.
- ★ STANDARD:  
IN 0.06 – 0.12 mm (.002 – .005 in)  
EX 0.09 – 0.15 mm (.004 – .006 in)
- ★ If the clearance is less than the standard limit, grind valve stem or replace valve.

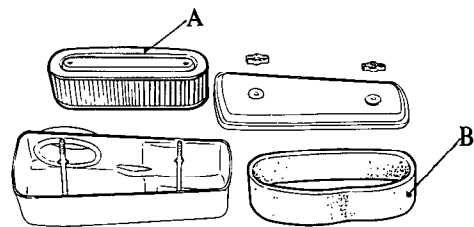
### INSTALLATION



- ★ A throttle control cable may be used in any one of the two pull directions shown.

## Every 20 operating Hrs.

### CLEAN AIR CLEANER

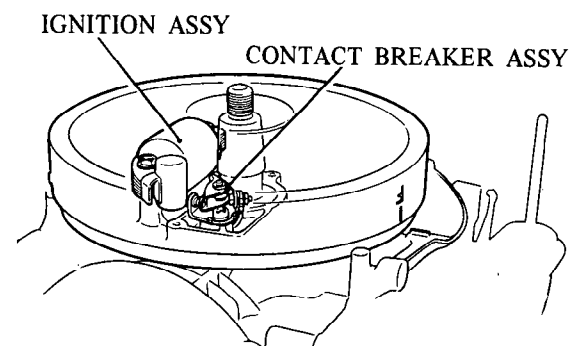


- ★ Remove dust from paper element A by applying compressed air or tapping the case lightly. If the paper element is excessively dirty, replace or wash it in liquid detergent and water and flush until water is clear. Dry it thoroughly by applying compressed air before installing.
- ★ Wash the foam element B in liquid detergent and water and flush until water is clear. Dry it thoroughly by applying compressed air. After drying, soak in oil and squeeze out the excess.

The following adjustments should be performed by your HONDA general purpose engine dealer.

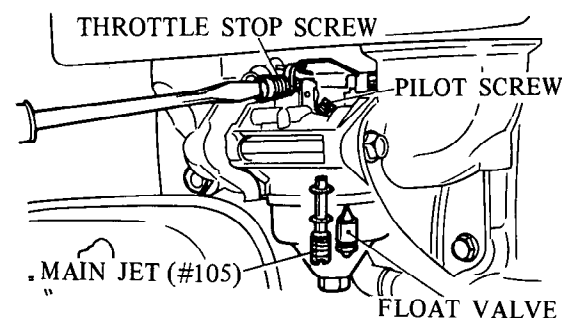
#### ADJUST IGNITION TIMING (Breaker type)

- ★ Adjust contact breaker points so that they just start to open when F mark on flywheel aligns with the mark on cylinder barrel.
- ★ IGNITION TIMING: 20° BTDC (fixed)



- ★ The CDI type does not require adjustment.

#### ADJUST CARBURETOR SCREW



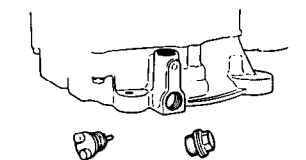
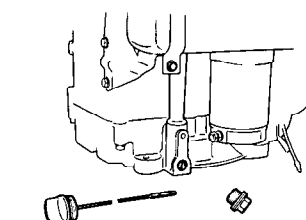
- ★ Idle Speed  
(1) Start the engine and run at idle until a normal operating temperature is obtained.  
(2) Turn the throttle stop screw in or out as necessary until the specified idle speed is obtained.  
Specified idle speed: 1,700 rpm
- ★ Pilot Screw  
If the pilot screw setting needs adjustment:  
(1) Turn pilot screw in or out until the highest idle rpm is reached.  
(2) Readjust to the specified idle speed using the throttle stop screw.

#### BATTERY

- ★ Use a battery rated at 12V-32AH or more.
- ★ Use only automobile type vinyl covered wire (for low voltage) whose effective diameter is more than 4.4mm (0.172 in) and which utilizes press fit terminals between the battery and the engine. Length must be within 1m (3 ft).
- ★ Protect the terminals with grease and completely cover the positive terminal with a rubber cap. When connecting terminals, ensure positive and negative leads are correctly connected.

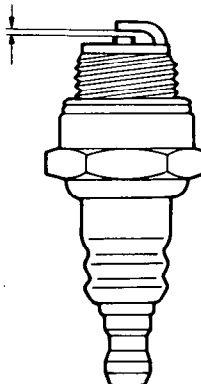
## Every 100 operating Hrs.

### CHANGE ENGINE OIL



### CLEAN SPARK PLUG AND CHECK GAP

Breaker type	CDI type
0.6 – 0.7 mm (0.024 – 0.027 in)	0.9 – 1.0 mm (0.035 – 0.039 in)
★ For replacement, use BM-6A or BMR-6A spark plug (NGK)	★ BPM-6A or BPMP-6A (NGK)



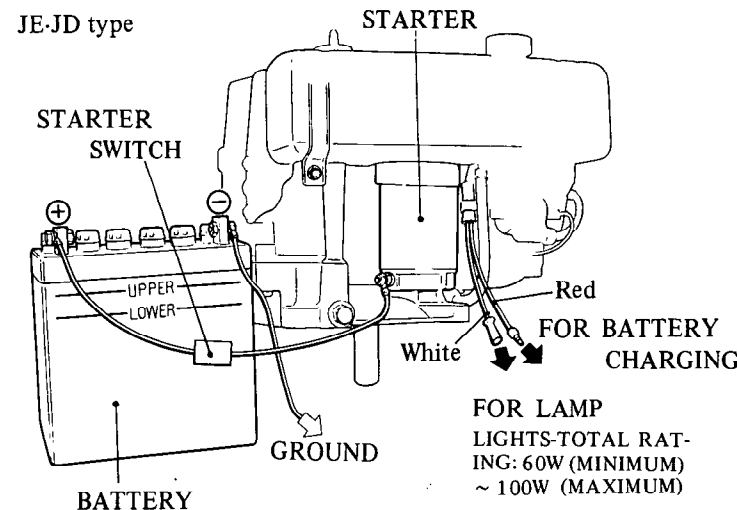
### CHECK FUEL LINE

- ★ Check the fuel line for cracks or leaks and replace it if necessary.

### BEFORE EXTENDED STORING

- ★ Drain gasoline from fuel tank and carburetor, and change the engine oil.
- WARNING: Use caution; gasoline is flammable.
- ★ Disconnect the battery.
- ★ Store in a dust-free, dry area on a level surface.
- ★ Pull the starter rope until resistance is felt to prevent dust from coming into engine! (JB type only)

### WIRING DIAGRAM



- ★ Do not interconnect AC light circuit and battery circuit as alternator and wiring will be damaged.

### SPECIFICATIONS

		*JE type
Cycle, valve arrangement		4-Stroke, side valve
Displacement	cm <sup>3</sup> (cu in)	406 (28.1)
Max. output	HP/rpm	11.0/3,600
Max. torque	kg-cm (ft-lb)	245 (18)
Fuel consumption	g/HP h (lb/HP h)	270 (0.82)
Dry weight	kg (lb)	32 (70.6)

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE 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 WHATEVER.

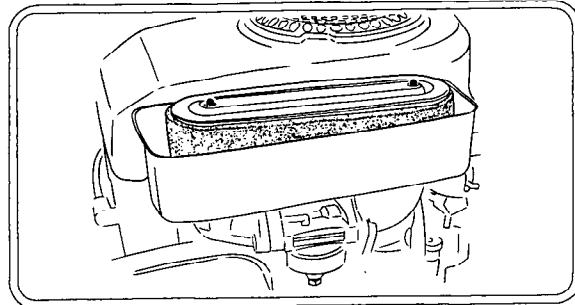
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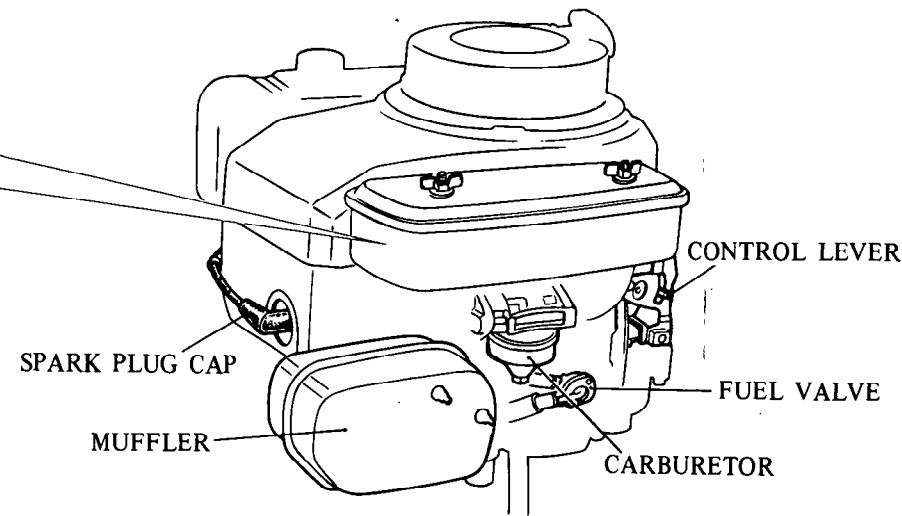
PROPERTY OF P/E  
SERVICE COMMUNICATIONS

# PRE-OPERATION CHECK

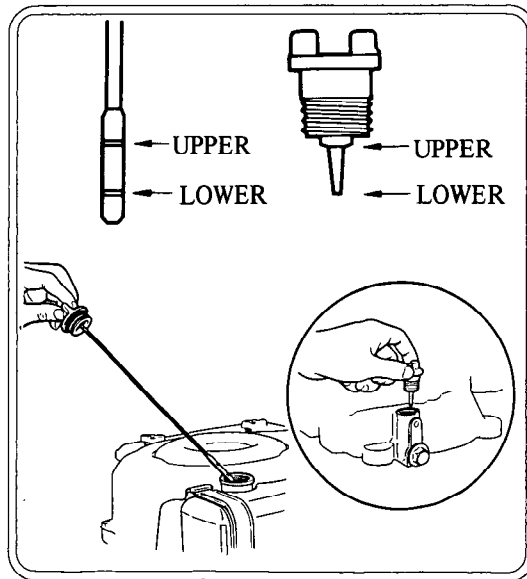
## AIR CLEANER



- ★ Check cleaner for dirt or obstruction of the elements.



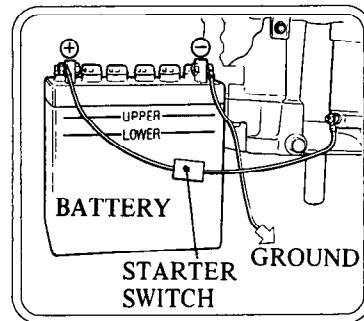
## OIL FILLER CAP



- ★ Fill with engine oil up to the upper level of the oil level gauge.
- ★ Engine oil capacity: 1.2 l (2.54 US pt, 2.11 Imp pt)
- ★ Use SE rated SAE 10W-40 engine oil.

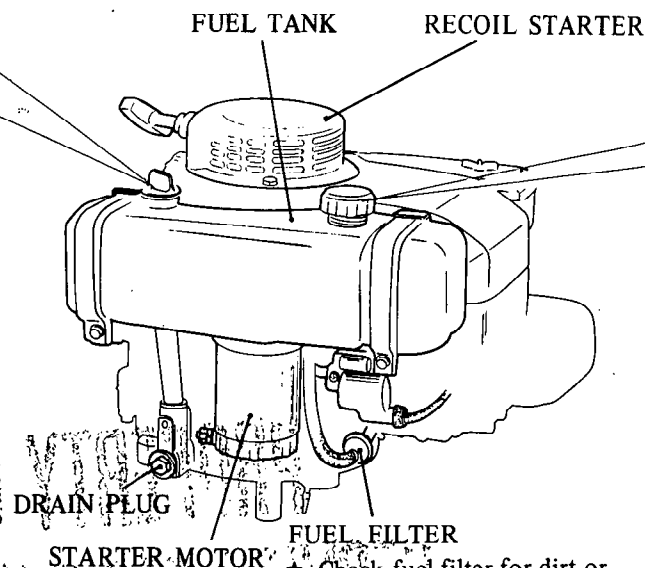
### NOTE:

- ★ Use a screwdriver when opening or closing the filler cap.

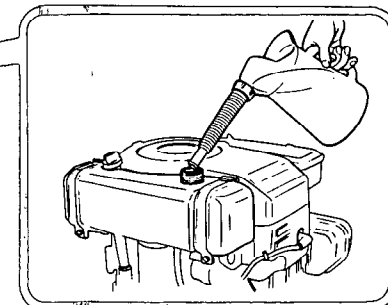


## CHECK BATTERY CONDITION

- ★ Be sure the fluid level of each cell is between upper and lower level marks.
- ★ Add distilled water if necessary.
- ★ Check battery ⊕ and ⊖ terminals for proper connection.



## FUEL FILLER CAP



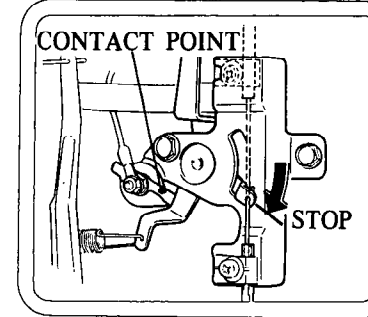
- ★ Fill fuel tank with regular automotive gasoline.
- ★ Tank capacity 2.3 l (0.61 US gal, 0.51 Imp gal)

NOTE: Always replace cap securely.

## STARTING

### NOTE:

- ★ When using the combination switch, remove the contact point.



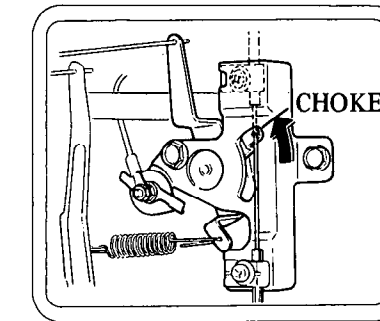
- ★ Move the control lever to STOP.
- ★ Move the control lever to IDLE and turn the combination switch OFF.

### NOTE:

- ★ To store the engine, run until it stops from lack of fuel.

## STOPPING

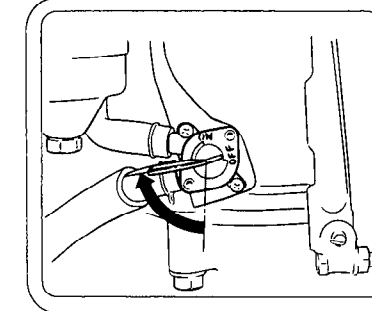
## RUNNING



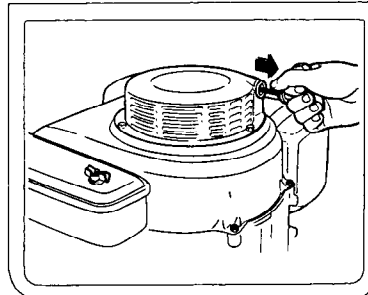
- ★ Move the control lever to CHOKE.

NOTE: Do not use CHOKE if the engine is warm or the air temperature is high.

- ★ Turn the fuel valve OFF.

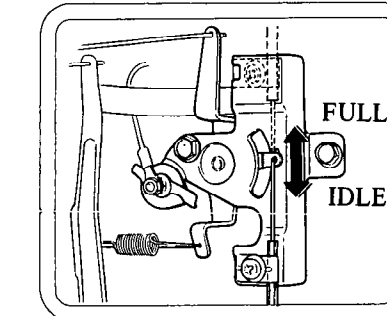


Operate the engine switch to START (If the engine fails to start after cranking for 10 seconds, wait for 5 seconds before trying it again.)



- ★ Pull the recoil starter briskly.

NOTE: Return it slowly.



- ★ When the engine warms up, adjust the control lever for the desired rpm.