

## FOREWORD

**T**hank you for your selection of **ORIMAS POWER TROWEL**. This manual contains necessary maintenance information for you to ensure proper operation and care for this machine. Thus, it is essential for you to read through this manual thoroughly. Please do not hesitate to contact your local dealer or agent for any problem or suggestion as we always welcome feedback and comments from our valued customers.



### **CAUTION**

This safety alert symbol identifies important safety messages throughout this manual. When you see this symbol, carefully read the message that follows.

# CONTENTS

Foreword	1
Contents	2
Safety Precautions	3
Pre Start Up Checking	4
Belt Installation & Setting	5
Starting	6
Operation	7
Shut down	8
Maintenance & Storage	9
Trouble Shooting	12

## Safety Precautions

Before operating this equipment, the operator should read this manual. Whenever possible, he/she should be shown how to operate the unit by an experienced operator. It is dangerous for an inexperienced person to operate any machine. Trial and error is not the safe way to become familiar with a piece of equipment.

- **WEAR SAFETY BOOT, HELMET, SHATTER PROOF GLASSES** and other protective devices required by job conditions.
- **STAY AWAY FROM BLADE DURING OPERATION.**
- Be cautious with the ventilation of work place. **AVOID OPERATING MACHINE IN CLOSED AREA**, since engine exhaust contains poisonous gases.
- **BE CAREFUL WITH HOT COMPONENTS.** Mufflers and other parts of engine are hot during operation and right after shut down.
- Fasten fuel cap tightly and closed fuel strainer cock during transportation.

## Belt Setting

**Step 1.** Loosen engine bolt (underneath engine) to allow engine movement along engine bolt slot.

**Step 2.** Insert V-belt into engine pulley and cutter pulley one at a time.

**Step 3.** Adjust the engine position by tightening tensioning bolt to ensure v-belts are tight enough.

**IMPORTANT :** Normal slack should be approximately 10~15mm (½”) when the belts are forcibly depressed in the middle position between rotor pulley and clutch pulley.

**Step 4.** Tighten all engine bolts and cover the engine pulley with belt cover, tighten cover bolts.

## Pre Start Up Checking

- Check all bolts and screws for tightness. Loose bolts and screws may cause damage to the unit.
- Make sure that all dirt, mud, etc., are thoroughly removed from areas such as cooling air inlet of engine, carburetor, and air cleaner.
- Check V-belt tightness. The normal slack should be approximately 10~15mm (½”) when the belts are forcibly depressed in the middle position between two pulleys. To set belt tightness; refer to **Belt Setting** at page 4.
- Check engine oil level. If engine oil level is low, refill it with proper motor oil according to **Maintenance & Storage** at page 9 & 10.

## Starting



### CAUTION

Make sure the blade is not touching ground surface during starting.

**Step 1.** Open engine fuel cock.

**Step 2.** Set throttle lever to starting position.

**Step 3.** For cold engine starting, close carburetor choke lever (leave choke lever half-open when engine is warm).

**Step 4.** Set engine switch to “ON”.

**Step 5.** Pull recoil starter.

**IMPORTANT :** Do not pull recoil starter rope to the end as it may cause damage. When the rope is pulled out, release the rope slowly. Do not let the rope snap back.

**Step 4.** After engine starts, open the choke halfway and warm up the engine for 2~3 minutes with low speed position. The warm up procedure should particularly be followed during cold weather.

## Operation

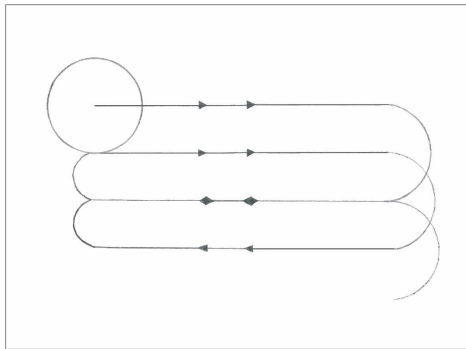


### CAUTION

**Poisonous fumes.** Start and operate only in well-ventilated area.  
Be careful with **hot components**, mufflers and other engine parts are hot during operation. Do not touch them.

Step 1. Adjust throttle lever to the desired speed.

Step 2. Follow the pattern illustrated below during operation.



- To smooth partially set floor surface, operate the machine with blades flattened. For a luster finish, operate with the blades slightly tilted. Over tilted blades on unset floor will create a wavy surface.
- Floor has completely set is difficult to smooth. If this is the case, tilt blades as lean as possible. Sprinkle water on the floor beforehand.

## Shutdown

- Step 1.** Move throttle cover to low speed position quickly and run engine for 2~3 minutes at low speed.
- Step 2.** Push the red stop button, the engine stops completely.
- Step 3.** Close engine fuel cock.
- Step 4.** Cover the machine after the muffler had cooled off and keep road cutter in a dry place.

### **EMERGENCY SHUTDOWN:**

Move throttle lever to OFF and press engine stop button.



## Maintenance & Storage



### CAUTION

**FLAMMABLE LIQUID.** When performing maintenance, stop engine and do not smoke in adjacent area.

**HIGH TEMPERATURE.** Allow machine and engine to cool down before performing maintenance. Contact with hot components can cause serious injury.

**Moving part.** Shut down engine before maintenance. Contact with moving parts can cause serious injury.

### Daily service :

- Wash blades and rotary parts with water before adhering concrete hardens. Then, dry thoroughly and apply grease or oil on them.
- Constantly check for any lose screws, nuts and bolts; retighten all loosen parts.

**Weekly service** (every 50 hours of operation):

- Detach air cleaner cover and clean filter.
- Remove spark plug, clean and adjust spark plug gap to 0.5~0.6mm.
- Drain engine motor oil and replace with new specified oil as suggested in the following table.

Season or Temperature	Grade of Engine Oil (Higher than MS class)
Spring, Summer or Autumn +120°F to 40°F	SAE 30
Winter +40°F to +15°F	SAE 20
Below +15°F	SAE 10W-30

**Reduction Gear Maintenance:**

- Lubricating oil in reduction gear should be changed after the first 50hours and 250 hours of operation; and at every 1,000 hours of operation thereafter.
- Following oil is recommended for reduction gear :

Temperature		0°c ~ 32°c	33°c ~ 50°c
Viscosity suv. sec.		120 ~ 150	150 ~ 190
Type of oil		Equivalent of gear oil class 2, No.5	Equivalent of gear oil class 2, No.7
Maker	Esso	EP3	ESP
	Mobil	Compound DD	Compound FF
	Shell	Macoma Oil 73	Macoma Oil 78

### Storing for long period :

- Thoroughly drain the fuel from the fuel tank, fuel pipe and carburetor.
- Pour a few drops of motor oil into the cylinder by removing the spark plug. Rotate the engine several times by hand so that the cylinder interior is covered with oil.
- Clean the outer surface of the machine with an oil-moistened cloth. Cover the unit and store in a humidity-free, dust-free area.

## Trouble Shooting

When any malfunction is noted, immediately shutdown the machine. Some simple trouble shooting and lubrication tips are given as below :

<b>Fault</b>	<b>Cause</b>	<b>Action</b>
Engine stops suddenly or does not run	No fuel in the engine	Refill fuel
	Spark plug carbonized	Clean spark plug
	Containment is being snagged up to fuel strainer	Clean fuel strainer
Engine runs but the machine does not	Air cleaner is full of dust	Clean air filter
	Shortage of engine power	Refer to engine manual
	Clutch slip	Refer to engine manual
Power trowel is slow or erratic	Over flowing of oil in crankcase	Lack of oil
	Loose V-belt	Adjust V-belt (Refer to Belt Installation & Setting

**IF THE FAULT PRESISTS, CONTACT YOUR LOCAL DEALER.**