



## Hand-Guided Rammer

### User Manual

[Revision 3.0 October 2018]

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READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.



The product is NOT supplied with engine oil, although traces of oil from the manufacturing process may be present. It is essential to add adequate engine oil of the correct type to the engine before use. **Failure to add engine oil will void the product warranty.**

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# Preface

Though compact and lightweight, this rammer creates a strong impact and you may expect a large tamping effect on the ground.

It will compact nearly all types of soil, except soft soil that contains too much moisture.

Use this rammer to tamp the ground for creating roads, embankments, and to prepare the surface to support buildings. It can also be used when burying gas or water lines, and electric cables.

Do not use this machine on ground that is harder than the machine can handle, or for driving pilings or tamping rock beds. Furthermore, use of the machine on sloping ground such as the side of an embankment, may be make the machine unstable and can cause an accident. It can also result in premature machine wear due to uneven loads on the machine.

Use the machine with confidence for tamping earth and sand, soil, sand, gravel, and asphalt.

Do not use the machine for other type of jobs.

The upper section of the machine functions as a weight and consists of an engine section guide, a gear reducer section, and reciprocating section. It also accommodates the handle and the fuel tank sections, which are connected by rubber dampers.

The lower section of the machine which hits the ground, consists of a spring case to engage sliding motion, a sloping section to allow the machine to tilt toward the front, bellows to cover the foot, a sliding section, and a protective sleeve.

# Safety

## General Precautions



- **DO NOT** work in the following conditions.
  - If you do not feel well due to overwork or illness.
  - If you are taking any medicine.
  - If you are under the influence of alcohol.
- Read this instruction manual carefully and handle the machine as described so that you can work safely.
- For details about the engine, refer the separate instruction manual for the engine. Make sure you thoroughly understand the construction and operation of the machine.
- To work safely, always wear protective clothing (helmet, safety glasses, safety shoes, ear plugs etc.) and appropriate work clothes. Always check the machine to make sure that it is normal before starting operation.
- The decals on the machine body (operating methods, warning decals, etc.) are very important to ensure safety. Keep the machine body clean so that they can be read at all times. If any decal cannot be read, replace it with a new one.

- It is very dangerous if children come into contact with the machine. Take the utmost care about how and where the machine is stored.
- Before performing any maintenance, be sure to turn the engine off.
- The manufacturer does not accept any liability for accidents or problems caused as a result of not using genuine parts (foot assembly, etc.), or if the machine has been modified.

## Precautions when Adding Fuel

- When adding fuel:
  - Be sure to work in a well ventilated location.
  - Be sure to turn the engine off and wait until it has cooled down.
  - Take the machine to a clear flat location without any combustibles nearby. Be careful not any fuel. If you do spill some gasoline, wipe it all up.
  - Do not allow any open flames nearby while adding fuel. (In particular, smoking while adding fuel is strictly prohibited).
- Adding fuel until it comes too close to the top of the inlet may cause the fuel to overflow. That is dangerous. Follow the instructions in the engine manual about the specified fuel level.
- When through adding fuel, tighten the tank cap securely.

## Precautions about Where to Use the Machine

- **DO NOT** run the engine in an unventilated location, such as indoors or in a tunnel. The exhaust gas from the engine is carbon monoxide and is deadly.
- **DO NOT** operate the machine near open fires.

## Precautions before Starting Work

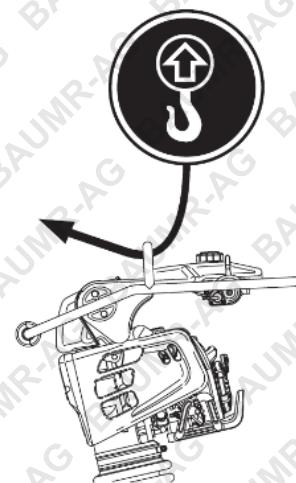
- If you use the machine for a long time, be careful to watch for signs of vibration syndrome. Since this machine vibrates, operation for a long time may have a negative effect on your body. Take sufficient breaks while working.
- Before starting to operate the machine, check for other people or obstacles that are too close for safe operation.
- When starting the engine, the rammer may jump suddenly. Hold the handle firmly with one hand and pull the recoil starter with the other hand.
- Always be careful around scaffolding. Operate the rammer in a stable manner so that it will not become unbalanced.
- During operation, don't let the foot of the machine come too close to your foot. The plate may smash your foot.
- The main parts of the engine, the muffler, and muffler cover will be very hot during operation. Be careful not to touch them during operation or soon after operation.
- If you encounter any problems or abnormality with the machine during operation, while moving it, or stopping operation, stop work immediately.
- Before leaving the machine, be sure to turn the engine off. Also, make sure to turn the engine off if you want to move the machine. When the throttle lever is in the stop position, the fuel cock is closed. Do not move the lever away from the stop position.

- When lifting the machine by the handle, be careful not to pinch your fingers between the handle and main body.
- Take the utmost care not to allow the machine to fall during work, or when stopped or stored. Secure the machine with a rope or similar tie when stored or left idle so that it cannot fall. If the rammer falls over when children are around, a serious accident may occur. If the machine foot is worn, the machine will be especially unstable. If the machine foot is worn badly, replace it with a new one.
- If the machine falls over while working, the machine will move forward due to the kicking motion of the foot while it is lying on its side. If the ground is solid, it will move quickly and is very dangerous. To ensure that the operator and anyone nearby are safe, turn the throttle lever to the engine stop position and make sure the machine stops. You must be extremely careful when working on a road because a serious accident can easily occur.



## Precautions While Lifting

- Before lifting the machine, make sure that there is no damage to any of the components on the machine (look especially for damage to the rubber dampers and the hook). There must not be any loose or missing screws and the machine must generally be in a safe condition.
- Turn the engine off before lifting the machine.
- Use wire cables with enough strength to support the machine.
- **DO NOT** lift it higher than necessary, for safety.
- **DO NOT** use a damaged wire cable.
- Only use the single hook to lift the machine. **DO NOT** support it from any other points (such as the handle).
- Never lift or lower the machine rapidly when using a hydraulic shovel or a crane.
- When lifting the machine, do not allow any people or animals to pass under or near the machine.
- When using any type of equipment to lift the machine, be careful that the lifting equipment does not cause an accident. Make sure you check the lifting equipment carefully, to ensure that there are no problems or damage.



## Transportation and Storage Precautions

### When Transporting

- Before transporting the machine, stop the engine.
- **DO NOT** try to move it before the engine and machine body have cooled down enough.
- Drain any fuel before transporting the machine.
- Transport the rammer in a manner that keeps it level. If you must lay the machine down to transport it, drain any fuel from the fuel tank and carburettor. Then close the fuel tank cap and oil fill plug securely. Next, position the machine so that the carburettor will be facing up.
- Secure the machine body so that the machine cannot move or fall during transportation.
- When you want to lift the machine by gripping the handle, be careful not to pinch your fingers or hands between the handle and the main body.
- Since this machine is quite heavy, use a truck specifically designed to transport heavy objects.

## When Storing the Machine

- After the engine and machine body have cooled down enough, store the rammer so that it is level. Fasten the machine as needed so that the machine cannot fall down. If it you must lay the machine down, close the fuel tank cap and oil fill plug securely. Arrange the machine position so that the carburettor will be facing up. After it is lying down, make sure there are no oil or fuel leaks. (If fuel is leaking, drain it all from the fuel tank).

## Maintenance Precautions

- Appropriate maintenance of the machine is required to ensure safety and keep the machine performing well. Always be aware of the machine's condition and keep it in good condition.
- Be sure to turn the engine off before checking or adjusting the machine.
- The muffler and muffler guard become very hot. Do not touch them until they will have cooled down.
- The lubrication oil and engine oil are very hot and can burn you. Do not start any maintenance on the machine while the oil remains hot.
- After performing any maintenance, check the condition of the safety components and the general safety of the machine. In particular, check the nuts and bolts thoroughly.
- If you have to disassemble any components on the machine, be sure to refer the maintenance standard sheets and always work safely.

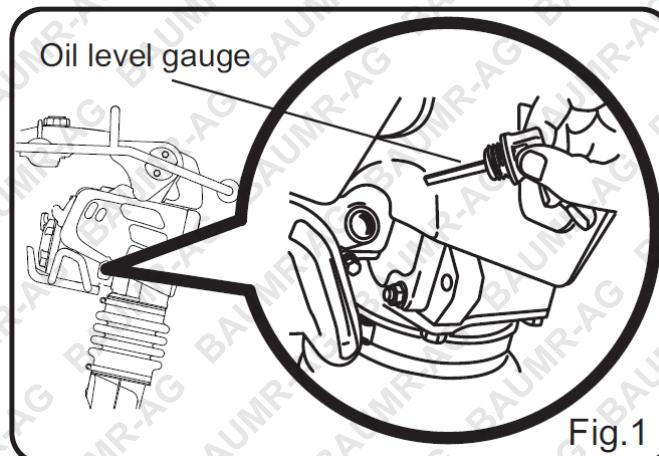


# Parts Diagram



## Set-Up

1. This product is shipped without engine oil. Please ensure that the oil is checked before initial use. Remove dipstick and pour **600mL of 10W-30 engine oil**



2. This product is shipped with hydraulic oil. To check oil level, place the machine body on a level surface and look at the oil gauge window. See if the oil is at the specified level (Figure 2). This uses **10W-30 engine oil**, the same oil as the engine. Fig 3, shows enough oil. Fig. 4, shows oil needs replacing.

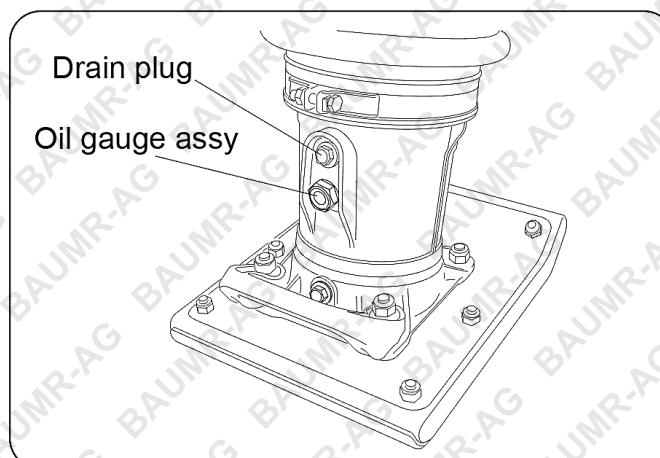


Fig. 3

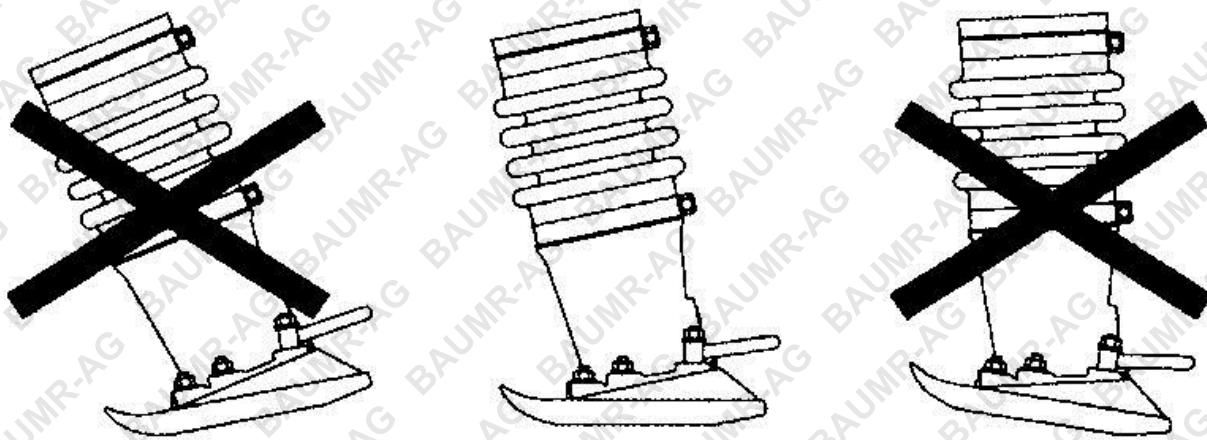
Fig. 4

3. Add regular unleaded petrol to the fuel tank.

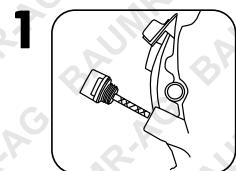


## Operation

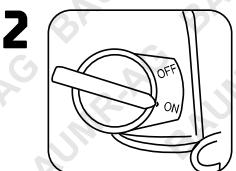
1. After starting the tamping action, adjust the jumping motion to suit particular soil condition by lightly controlling the throttle lever. When the engine speed falls between the set values shown on the engine, your work can be carried out at the best efficiently. Increasing the engine speed unnecessarily, does not cause the compaction force to increase. On the contrary, a result resonance can cause the compaction force to decrease, damaging the machine.
2. Under cold weather, the oil in the machine being viscous, resistance at reciprocating part is greater causing the tamping rammer to perform somewhat irregular movement. Therefore, it is recommended to perform warm-up run while moving the throttle lever repeatedly between ON and OFF positions, before entering the work.
3. Soil contacting surface of the foot is lined with heat-treated metal sheet for extra strength. However, for compacting cobblestone, use the filling-up soil for example so that the foot hits the soil uniformly.
4. The tamping rammer has been designed to advance while jumping. For quicker advance, erect the machine by pushing its handle down slightly so that flat surface of the foot at its rear-end contacts the ground.
5. For best results, the shoe must hit the ground at a flat angle. Not on its toe or heel. This will save on excessive shoe wear



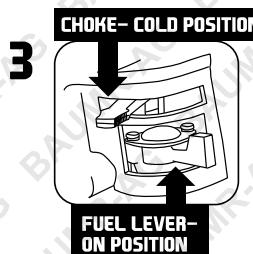
# Quick Start Guide



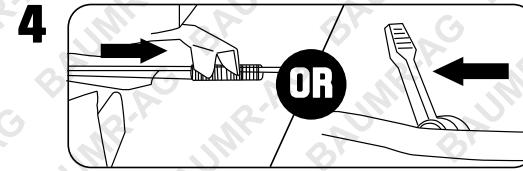
**1**  
REMOVE OIL  
DIPSTICK (OR CAP)  
AND ENSURE  
ENOUGH ENGINE OIL  
( 10W30 RECOMMENDED  
600ML )



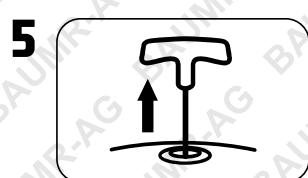
**2**  
LOCATE ON/OFF  
SWITCH AND  
TURN ON



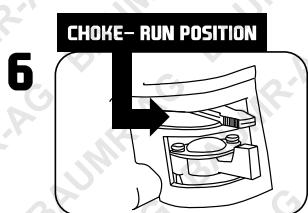
**3**  
FUEL LEVER-  
ON POSITION  
TURN FUEL  
LEVER ON AND  
CHOKE TO COLD



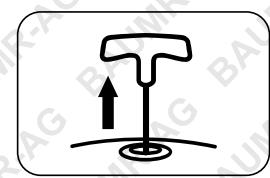
**4**  
ENSURE THROTTLE IS ON LOW



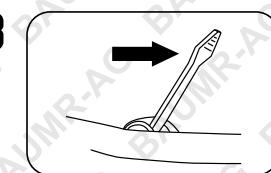
**5**  
PULL STARTER  
CORD UNTIL IT  
KICKS  
(ABOUT 3-4 TIMES,  
MORE IF COLD WEATHER)



**6**  
TURN CHOKE  
TO RUN

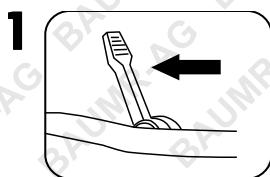


**7**  
PULL STARTER  
CORD UNTIL  
ENGINE STARTS

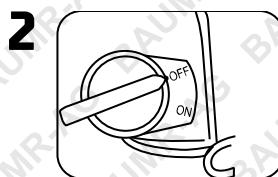


**8**  
ADJUST THROTTLE  
LEVER AS NEEDED

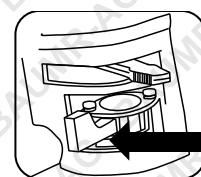
## When Finished



**1**  
WHEN  
FINISHED,  
TURN  
THROTTLE  
TO LOW



**2**  
SWITCH  
OFF  
ENGINE



**3**  
TURN FUEL  
LEVER  
OFF WHEN  
STORED  
FUEL LEVER-  
OFF POSITION

# Maintenance and Storage

1. Wash off any dirt or mud on each part of the machine using fresh water.
2. After the engine and main body have cooled down, store the rammer on a level location. Secure the machine body so that it cannot fall down. If you have to lay the machine down, close the fuel tank cap securely and tighten engine oil drain plug. After the engine and machine body have cooled down, lay the machine so that the carburettor is facing up. Once the machine has been laid down, make sure that there are no fuel lubrication oil leaks (If the fuel leaks, drain the fuel from the fuel tank).
3. Put a cover on the machine body to prevent dirt landing on it. Store the machine in a location that is not exposed to direct sunlight and which has low humidity.
4. For prolonged storage:
  - Slide the throttle lever to the stop position.
  - Drain any fuel and replace the lubrication oil.
  - Apply grease to the lubrication points. Be sure to remove any fuel in the fuel hose too.
  - Cover the air intake on the air cleaner and the exhaust outlet on the muffler.
  - Store the machine indoors. Do not leave it outside.

# Periodic Checks and Adjustments

| Places to Check                   | How Often?                           | Item to Check                          | Oil etc.      |
|-----------------------------------|--------------------------------------|--|---------------|
| Air cleaner                       |                                      | Dirt, flaws, deformation               |               |
| Rubber damper                     |                                      | Wear, deformity, cracks, damage        |               |
| Engine oil                        |                                      | Dirt, oil level                        | Engine oil    |
| Lubrication oil in the main body  |                                      | Dirt, oil level                        | Engine oil    |
| Fuel tank                         | Daily<br>(before starting operation) | Leaks, fuel level, dirt                | Gasoline      |
| Fuel system                       |                                      | Leaks, wear, looseness                 |               |
| Engine oil                        | Every 200 hours                      | Replace once, after the first 20 hours | Engine oil    |
| Spark plug                        |                                      | Clean, adjust gap                      | Engine oil    |
| Engine oil                        |                                      | Replace                                |               |
| Lubrication oil in the main body  |                                      | Replace                                | Engine oil    |
| Pre-air cleaner (primary element) | Every 200 to 300 hours               | Cleaning                               | Lamp kerosene |
| Fuel hose                         | Every 2 years                        | Replace                                |               |

# Specifications

|                                |                         |
|--------------------------------|-------------------------|
| <b>Manufacturer</b>            | MIT Group               |
| <b>Engine Type</b>             | Honda OHV GX160         |
| <b>Displacement</b>            | 163CC                   |
| <b>Max. Output</b>             | 7HP                     |
| <b>Fuel Type</b>               | Regular Unleaded 95+RON |
| <b>Fuel Capacity</b>           | 2.2L                    |
| <b>Oil Capacity</b>            | 0.6L                    |
| <b>Operation Mass</b>          | 80kg                    |
| <b>Percussion Rate (L/min)</b> | 600                     |
| <b>Walk Speed (m/min)</b>      | 17                      |
| <b>Leap Height (mm)</b>        | 65                      |
| <b>Rammer Oil Grade</b>        | SAE 10W 30              |
| <b>Rammer Capacity</b>         | 890mL                   |
| <b>Plate Size</b>              | 12"                     |
| <b>Compaction Depth</b>        | Up to 500mm (Soil)      |
| <b>Weight</b>                  | 83kg                    |



**Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

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