

# **Owner's Manual**

# **Mortar / Plaster Mixer**

**Models** 

M785 M1000 M1200

# Tiger Equipment LLC.

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#### 1. PREFACE

This manual contains important information on how to use Tiger Tow Behind Mortar / Plaster Mixers properly and safely. Read through this manual BEFORE you attempt to operate the machine. Remember, it is the owner's responsibility to understand and communicate all information, especially safety and operation information, in this owner's manual to all operators of this unit.

#### 2. SPECIFICATIONS

| Model           | M785                                      | M1000             | M1200             |  |
|-----------------|---|-------------------|-------------------|--|
| Weight          | 762 lbs (345kg)                           | 800 lbs (363kg)   | 854 lbs (388kg)   |  |
| Overall Width   | 46 in (1170mm)                            | 46 in (1170mm)    | 46 in (1170mm)    |  |
| Overall Length  | 64 in (1625mm)                            | 67 in (1700mm)    | 71 in (1805mm)    |  |
| Overall Height  | 56 in (1425mm)                            | 57 in (1450mm)    | 57 in (1450mm)    |  |
| Engine Type     | 4 Stroke, Air Cooled, OHV Gasoline Engine |                   |                   |  |
| Standard Engine | 5.5hp Honda GX160                         | 5.5hp Honda GX160 | 8.0hp Honda GX240 |  |
| Engine Output   | 8.0hp Honda GX240                         | 8.0hp Honda GX240 | n/a               |  |
| Fuel            | Automotive Gasoline                       |                   |                   |  |

#### 3. SAFETY

The following safety instructions must be followed to avoid any property damage, personal injury, or possible death.

# 3.1. General Safety

- 3.1.1. This machine must be operated by well-trained personnel, and for its intended purpose only.
- 3.1.2. The owner of the machine must observe, and have the operator of the machine observe, the effective labor protection regulations in the country of application.
- 3.1.3.It is the owner's responsibility to understand and communicate all information, especially safety and operation information, in this owner's manual to all operators of this unit.
- 3.1.4. This machine must be operated on the ground where the stability is guaranteed.
- 3.1.5. Keep the work area clean and free from obstacles.
- 3.1.6. Keep unauthorized personnel away from the machine during operation.
- 3.1.7.ALWAYS wear proper O.S.H.A approved ear protection, hard-hat (helmet), dusk mask, safety goggles, gloves, and steel toe capped shoes during assembly and operation.
- 3.1.8.Do not wear loose clothing, jewelry, etc. near machinery.
- 3.1.9.Ignition systems can cause severe electrical shocks. Avoid contacting these systems or their wiring.
- 3.1.10. Set the engine switch to the "OFF" position before transportation or maintenance.
- 3.1.11. Close the fuel shut-off valve before transportation or storage.
- 3.1.12. Do not attempt to remove any cover or guard. Always check the condition of guards and covers before operation.
- 3.1.13. Never leave the engine running unattended.
- 3.1.14. This machine is heavy, and must not be lifted single-handedly. Use proper hoist to lift the machine.
- 3.1.15. The engine is liable to be extremely hot during and immediately after operation. DO NOT TOUCH HOT ENGINE
- 3.1.16. Fuel is flammable. Handle Fuel Very Carefully.
- 3.1.17. Before refueling, switch off the engine and allow it to cool.
- 3.1.18. Wipe off any spilt fuel from the engine and the machine.
- 3.1.19. Keep the fuel in proper containers and in a safe place.
- 3.1.20. Exhaust Fumes Contain Poisonous Carbon Monoxide. Operate the machine only where proper ventilation is guaranteed.

# 3.2. Safety Notices & Decals

3.2.1.Read all safety decals carefully. Keep all notices and decals in good condition. If any become damaged or illegible, replace as necessary.

## 3.3. Residual Risks

This machine is designed to eliminate the possible risks arising from the use of it. However, the risks DO reside, and these residual risks are not clearly recognizable, and may cause personal injury or property damage, and possible death. If such unpredictable and unrecognizable risks

become apparent, the machine must be stopped immediately, and the operator or his supervisor must take appropriate measure to eliminate such risks. It is sometimes necessary that the manufacturer must be informed of such event for future counter measuring.

#### 3.3.1.Mechanical Hazard

Personal injury or property damage may be caused by knocks, crushing, slipping, tripping, falling or by flying chips due mainly to the improper or careless handling of the machine, or working in a confined area.

To prevent such hazards, wear proper working gloves, close-fitting clothing, protective shoes, and face and eye protection. Clear the obstacles around the site to prevent unpredictable movement of the machine.

#### 3.3.2. Hazards caused by fuel and oil

Oil and fuel used in this machine may cause the following hazards:

- · Poisoning if the fuel or oil vapor is inhaled.
- Allergies if the fuel or oil comes in contact with the skin.
- Fire and Explosion if the fuel and oil is handled near smoking or open fires.

WHEN HANDLING THE FUEL OR OIL, SMOKING OR USE OF OPEN FIRE IS STRICTLY PROHIBITED.

Keep the fuel and oil in the suitable and approved container, and keep the container in a cool and dark place to prevent any hazard arising from the storage. Use extra caution when handling fuel. Remember, gasoline is highly flammable. When refueling, be sure to do so after the engine has completely cooled off, and avoid spilling over the engine.

#### 3.3.3. Hazards from noise

Noise from the machine itself, as well as noise from the ground being compacted, may cause hearing difficulties or physical disorder such as loss of balance or consciousness disorder. WEAR PROPER EAR PROTECTION DURING OPERATION.

#### 4. ASSEMBLY INSTRUCTIONS

- 4.1. It is the owner's responsibility to understand and communicate all information, especially safety and assembly information, in this owner's manual to all personnel involved in any aspect of assembly of this unit.
- 4.2. Anyone involved in any aspect of assembly of this unit must use EXTREME caution and follow the instructions below.
- 4.3. Remove all packaging and discard properly.
- 4.4. Remove axle, and wheel and tire assemblies. NOTE: Spring is attached to axle assembly. Take caution when unpacking not to lose spring.
  - 4.4.1.Mount axle assembly on to frame using four (4) nuts and bolts provided. Tighten properly. Note spring tension plate to the right, leaning toward the front of the mixer.
  - 4.4.2. Mount wheel and tire assemblies to the axle using lug nuts, four (4) per wheel. Tighten properly.
  - 4.4.3. Attach spring to idler arm and spring tension plate.
  - 4.4.4.Attach dump handle using two (2) nuts and bolts provided. Tighten properly.
  - 4.4.5.Remove the two (2) pallet bolts that hold mixer frame to pallet.
  - 4.4.6. Extend tow pole and properly secure into position with securing pin and hitch pin.
  - 4.4.7. Ensure that safety bolt is secured in place with lock washer and nut.
  - 4.4.8. With proper lifting equipment, lean mixer forward slowly on to its wheels and front foot.

#### 5. OPERATION INSTRUCTIONS

- 5.1. Before Operation
  - 5.1.1.It is the owner's responsibility to understand and communicate all information, especially safety and operation information, in this owner's manual to all operators of this unit.
  - 5.1.2. Before operating, review the SAFETY section of this manual
  - 5.1.3. Familiarize yourself with the operation of the unit and confirm that all controls function properly BEFORE starting the unit.
  - 5.1.4. Make sure all personnel know how to stop the unit.
  - 5.1.5.Make sure all personnel are at a safe distance from any moveable parts BEFORE starting the unit.

- 5.1.6. Shrouds and safety grates are provided to protect the operator and property in close proximity to rotating and/or hot engine parts. It is the responsibility of the operator to see that they are properly in place and functioning properly.
- 5.1.7. Check the entire machine for any sign of damage or leaks. Never attempt to run the machine before such damage or leak has been replaced or repaired.
- 5.1.8. Check the Engine Oil Level before operation. Place the machine on a level surface and remove the Oil Filler Cap. Check to see if the oil level is between L and H level using the oil level gauge at the filler cap.
- 5.1.9. Check the condition of the Air Filter element before each use. If the filter element is contaminated, clean the element of replace it in accordance with the instruction manual for the engine.
- 5.1.10. Check that the fuel is sufficient. If not, supply fuel. (See SAFETY instruction for the handling of fuel).
- 5.1.11. Make sure all grease points have been greased.
- 5.1.12. Make sure the paddles are adjusted to approximately 1/16" interference.
- 5.1.13. Make sure the mixer engagement lever is in the "IDLE" position.
- 5.2. Operating the engine
  - NOTICE: Refer to the engine operation manual for detailed engine operating instructions.
  - 5.2.1. Make sure the engine stop switch is pulled out to "RUN" position
  - 5.2.2. Open the engine shroud
  - 5.2.3. Open the Fuel Shut-off Valve at the fuel tank.
  - 5.2.4. Set the engine switch to "ON" position.
  - 5.2.5. Set the Throttle Lever halfway between "H" and "L" position.
  - 5.2.6. Move the Choke Lever to close it. When the engine is warm, let the lever partially open.
  - 5.2.7. Hold the machine firmly with one hand, and slowly pull the recoil starter with the other hand, until you feel resistance.
  - 5.2.8. Pull the recoil starter briskly to start the engine.
  - 5.2.9. Move the Choke Lever to the "OPEN" position and let the engine run at idle for 2-3 minutes.
- 5.3. Operating the machine
  - 5.3.1. Allow the engine to warm up.
  - 5.3.2. Move the throttle to the "FAST" position.
  - 5.3.3.Close the engine shroud.
    - DO NOT OPERATE THE MACHINE WITH THE SHROUD OPEN.
  - 5.3.4. Move the engagement lever to the mix position.
  - 5.3.5. Pull lever to release drum to "MIX" position.
  - 5.3.6. Charge the mixer.
  - 5.3.7. Pull dump handle discharge mixed mortar.
  - 5.3.8.Repeat as necessary.
- 5.4. Stopping the machine
  - 5.4.1. After discharging the final batch or mortar, add water to the drum with the mixer running. Discharge the water after the inside of the mixer is clean.
  - 5.4.2. Move the engagement lever to "IDLE" position.
  - 5.4.3. Push the engine stop switch on the engine shroud.
  - 5.4.4. After the engine has stopped, open the engine shroud.
  - 5.4.5. Switch the engine switch to "OFF"
  - 5.4.6.Close the fuel valve.
  - 5.4.7. Close the engine shroud.

# ALWAYS STOP THE ENGINE BEFORE:

- Adding fuel.
- Leaving the equipment unattended.
- Making any repairs or adjustments to the machine.
- Transportation.

## 6. TOWING

#### ONLY TOW THE MACHINE WITH A PROPERLY EQUIPPED VEHICLE

6.1. Stop the machine (refer to OPERATION INSTRUCTIONS – Stopping the machine)

- 6.2. Ensure that the engine is off, the fuel valve is closed, and the engine shroud is securely closed.
- 6.3. Rotate the drum into the tow position and secure the locking pin.
- 6.4. Extend tow pole and properly secure into position with securing pin and hitch pin.
- 6.5. Ensure that safety bolt is secured in place with lock washer and nut.
- 6.6. Secure the mixer hitch to the vehicle
- 6.7. Secure the safety chains to the vehicle.

## **MAXIMUM TOWING SPEED: 45 mph**

## 7. SERVICING

#### 7.1. Engine

7.1.1. See engine owner's manual for servicing instructions and maintenance schedule.

#### 7.2. Mixer

- 7.2.1.Clean the drum after each use.
- 7.2.2. After cleaning, pull the locking pin to tip the drum forward and drain any excess water.
- 7.2.3.Return drum to tow position and secure with locking pin before moving mixer.
- 7.2.4. Grease all fittings daily.
- 7.2.5. Apply a light coat of crease to the gear teeth and idler arm at least once per week

## 8. MAINTENANCE SCHEDULE

|          | Maintenance                           | Each Use | Every 20<br>Hours | Yearly |
|----------|---------------------------------------|----------|-------------------|--------|
| Engine   | Refer to engine operator/owner manual | Х        |                   | Х      |
| Bearings | Grease and check                      | Х        |                   | Х      |
| V-Belts  | Check for wear                        |          | Х                 | Х      |
| Gears    | Grease and check                      |          | Х                 | Х      |
| Hardware | Check and tighten                     |          | Х                 | Х      |
| Tires    | Check air pressure                    | Х        |                   | Х      |

- 8.1. Check all hardware after the first 4 hours of use then follow the standard maintenance schedule.
- 8.2. Tighten and check the shroud and axle hardware after the first 50 miles traveled, then follow the standard maintenance schedule.

#### 9. REPLACEMENT

| Engine Components | Refer to your engine manufacturer's operator/owner manual.   |  |
|-------------------|--|--|
| V-Belts           | Replace stretched belts if the idler does not work properly.   |  |
|                   | Replace if cracked or worn   |  |
| Gears             | Replace if the teeth become cracked or become sharp.   |  |
| Hardware          | Tighten all nuts and bolts after the first four (4) hours of operation and check every twenty (20) hours of operation. Replace any worn or damaged hardware as needed. Replacement hardware should be grade 5 zinc plated. |  |
| Safety decals     | Replace if they become damaged or illegible.   |  |