

Operator's Manual

Tamping Rammer

CR68H

CR70H



Manufacturer

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Original instructions

This Operator's Manual presents the original instructions. The original language of the Operator's Manual is English.

Foreword

This manual contains important instructions for this machine. These instructions must be followed during installation, operation, and maintenance of the machines.

This manual provides information and procedures to safely operate. For your own safety and to reduce the risk of injury, carefully read, understand, and observe all instructions described in this manual.

We reserves the right to change any of the contents in this manual without notice.

Warranty

Our products are covered by warranty for a period of twelve (12) months from the date of purchase against defects in material or workmanship provided that:

- The product concerned has been operated and maintained in accordance with the operating instructions.
- Has not been damaged by accident, misuse or abuse.
- Has not been tampered with or repaired by any unauthorized person.

Any evidence of failure to meet these conditions may result in a denial of the warranty claim.

The owner is responsible for the cost of transportation to and from the authorized repairer and the unit is at the owners risk while in transit to and from the repairer.

Impact damage is not covered under warranty. Clutches are not covered under any warranty.

Engines are officially guaranteed by engine manufacturer. Please refer to the annex for engine warranty.

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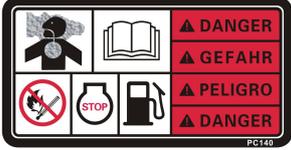
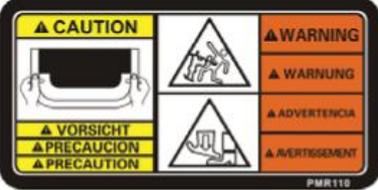
1. SAFETY INFORMATION

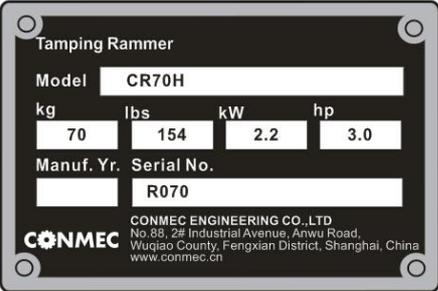
1.1 Operating Safety

- Only trained personnel are permitted to start, operate, and shut down the machine. They have received instruction on how to properly use the machine and are familiar with required safety devices
- The machine must not be accessed or operated by children and people impaired by alcohol or drugs.
- NEVER operate this machine in application for which it is not intended.
- NEVER allow anyone to operate this equipment without proper training. People operating this equipment must be familiar with the risks and hazards associated with it.
- NEVER operate the machine with the beltguard missing. Exposed drive belt and pulleys create potentially dangerous hazards that can cause serious injuries.
- DO NOT allow anyone to stank or lean on the unit during operation.
- Do not run the machine indoors or in an enclosed area such as a deep trench unless adequate ventilation, through such items as exhaust fans or hoses, is provided. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell. Exposure to carbon monoxide can cause loss of consciousness and CAN KILL YOU IN MINUTES.
- Do not operate the machine with unapproved accessories or attachments.
- ALWAYS wear protective clothing appropriate to the job site when operating the machine.
- ALWAYS close fuel valve on engines equipped with one when machine is not being operated.
- ALWAYS store the machine properly when it is not being used. The machine should be stored in a clean, dry location out of the reach of children.
- Read, understand, and follow procedures in the Operator's Manual before attempting to operate the machine.

1.4 Safety and Operating Labels

CONMEC machines use international pictorial labels where needed. These labels are described below:

Label	Meaning
	<p>DANGER! Engines emit carbon monoxide; operate only in well-ventilated area. Read the Operation Manual for machine information. No sparks, flames, or burning objects near the machine. Shut off the engine before refueling. Use only clean, filtered unleaded gasoline.</p>
	<p>CAUTION! For optimal control, performance, and minimal hand/arm vibration, grasp handle as shown.</p>
	<p>CAUTION! Read and understand the supplied Operator's Manual before operating the machine. Failure to do so increase the risk of injury to yourself or others.</p>
	<p>WARNING! Always wear hearing and eye protection when operating this machine.</p>
	<p>NOTICE! Throttle control lever: Turtle = Idle or Slow Rabbit = Full or Fast</p>

Label	Meaning
	<p>WARNING! Serious injury if struck by compressed spring or cover. If the spring system cover is removed improperly, the springs can eject.</p>
	<p>CAUTION! Lifting point.</p>
	<p>CAUTION! Use only clean, filtered fuel.</p>
	<p>WARNING! Hot surface!</p>
	<p>Guaranteed sound power level in dB(A).</p>
	<p>A nameplate listing the model number and serial number is attached to each unit. Please record the information found on this plate so it will be available if the nameplate lost or damaged. When requesting service information, the serial number should be specified of the unit.</p>

2. OPERATION

2.1 Application

This machine is a vibratory rammer. The Rammer consists of a gasoline, a clutch, a fuel tank, a spring-loaded ramming system, a ramming shoe, and a handle. The engine transmits power through the ramming system and ramming shoe, generating percussive impact force to compact soil. The operator guides and controls the machine from behind using the handle.

This machine is intended to be used for compacting cohesive, mixed, and granular soils in confined areas.

This machine has been designed and built strictly for the intended use described above. Using the machine for any other purpose could permanently damage the machine or seriously injure the operator or other persons in the area. Machine damage caused by misuse is not covered under warranty.

2.2 Preparing the machine for First Use

To prepare your machine for first use:

1. Make sure all loose packaging materials have been removed from the machine.
2. Check the machine and its components for damage. If there is visible damage, do not operate the machine! Contact your dealer immediately for assistance.
3. Take inventory of all items included with the machine and verify that all loose components and fasteners are accounted for.
4. Attach component parts not already attached.
5. Add fluids as needed and applicable, including fuel, engine oil, and battery acid.
6. Move the machine to its operating location.

2.3 Before Starting

1. Read safety instructions at the beginning of this manual.
2. Make sure that the fuel tank is full.
3. Check engine oil level.
4. Place rammer on loose soil or gravel. DO NOT start rammer on hard surfaces such as asphalt or concrete.

2.4 To Start

2.4.1 Start the Engine

1. Open the fuel shut-off valve by moving the fuel cock level to the open position.
2. Set the engine ON/OFF switch to the "ON" position.
3. Grip the recoil starter handle and pull it until you feel slight resistance. Then pull sharply and quickly. Return the recoil starter handle to the starter case before releasing.
4. Grip the recoil starter handle and pull it a little to feel a slight resistance. Then pull it powerfully from there. To release the handle do not release it at the position where it has been pulled to, but release it after returning closely to the starter case.
5. If the engine has started, while listening to explosion sounds, return the choke lever slowly to full-open position. Be sure to perform a warm-up run for the period 3 to 5 minutes at low speed, while paying careful attention to gas leakage or abnormal sound.

If it is difficult to start the engine by repeatedly pulling the starter rope, remove ignition plug and check the sparking performance. If the plug is wet due to excessive fuel intake or soiled, replace the coil or clean sufficiently to its internals. With the ignition plug removed, pull the recoil starter handle 2-3 times to discharge excessive blended gas.

2.4.2 Start for machine

1. Turning the choke level to open the choke. Running the engine for 5 minutes at low speed to warm the engine.
2. Move the throttle level quickly to the "FULL OPEN" position. DO NOT move the throttle level slowly as this may cause damage to the clutch or spring.

Caution: Make sure that the throttle lever is moved to the FULL OPEN position. Operating the rammer at less than full speeds can result in damage to the clutch springs or foot.

3. After starting to tamping action, adjusts 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 resultant resonance causes the compaction force to decrease, damaging the machine.
4. 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.
5. 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.
6. 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.
7. To stop the tamping action, move throttle lever quickly from the FULL OPEN to IDLE position.

2.5 To Stop

Normal shutdown

1. With the throttle lever closed from ON to OFF, run the engine for 3-5 minutes at low speed, and after temperature is lowered, turn the switch to the "OFF" position.
2. Close the fuel shut-off valve by moving the fuel cock lever to the CLOSED position.

Emergency shutdown

Move the throttle lever quickly to the IDLE position, and turn the engine ON/OFF switch to the OFF position.

3 MAINTENANCE

3.1 Periodic Maintenance Schedule

The chart below lists basic rammer and engine maintenance. Refer to engine manufacturer's Operator's Manual for additional information on engine maintenance. A copy of the engine Operator's Manual was supplied with the machine when it was shipped.

	Daily Before Startin g	After First 5 hours	Every Week or 25 hours	Every month or 100 hours	Every 3 months or 300 hours
Check fuel level.	●				
Check oil level of machine.	●				
Check fuel line and fittings for cracks or leaks.	●				
Tighten ramming shoe hardware.		●	●		
Check and tighten engine cylinder screws.		●	●		
Check and tighten external hardware.		●	●		
Clean engine cooling fins.			●		
Clean and check spark plug gap.			●		
Replace spark plug.				●	
Clean recoil starter.					●
Change ramming system oil. *					●
Clean engine muffler and exhaust port.					●

* **Change ramming system oil after first 50 hours of operation.**

Note: If engine performance is poor, check, clean, and replace air filter elements as needed.

3.2 Storage

Rammer should be stored in such position as it is placed on level, after engine and machine have been cooled down. Be sure to secure the rammer as necessary to avoid falling down. If the rammer has to be laid down inevitably, tighten fuel tank cap and engine oil plug securely and wait until engine and machine are cooled down. After laying it down, make sure that there is no leak of fuel or oil. (If fuel leaks, drain the tank)

For Long-Term Storage

- Drain fuel from fuel tank, fuel line and carburetor.
- Remove spark plug and pour a few drops of motor oil into cylinder. Crank engine 3 to 4 times so that oil reaches all internal parts.
- Clean exterior with a cloth soaked in clean oil.
- Store unit covered with plastic sheet in moisture free and dust free location out of direct sunlight.

3.3 Lifting and Transporting

3.3.1 Lifting the Rammer

1. Before lifting the machine, ALWAYS turn off the engine.
2. Make sure lifting device has enough capacity to hold machine (see identification plate on machine for weight).
3. NEVER lift the machine only by the handle.
4. Use lifting point (see safety label stick in the machine) when lifting the machine.

3.3.2 Transporting the Rammer

This rammer can be transported in a vehicle, or manually, depending on job site conditions and distance to be traveled.

Before transporting, check the below:

- Engine stopped and cool to the touch
- Lifting devices and gear
- Fuel tank drained (if transporting horizontally)

Transporting in a vehicle

Perform the procedure below to transport the rammer in a vehicle.

1. Lift the rammer into the transport vehicle. See *Lifting the Rammer*.
2. Secure the rammer to the transport vehicle in the upright position to prevent it from tipping, falling, or rolling.

If the rammer cannot be secured in the upright position,

- a. Drain the fuel tank to prevent fuel from leaking from the cap.
- b. Lay the rammer down only and tie it to the vehicle at points.

Transporting Manually

Rollers enable the rammer to be rolled from one location to another. Perform the procedure below to transport the rammer manually.

1. Drain the fuel tank to prevent fuel from leaking from the cap.
2. Lay the rammer down as shown.
3. Raise the rammer by the lifting handle.
4. Roll the rammer forward or backward as needed.

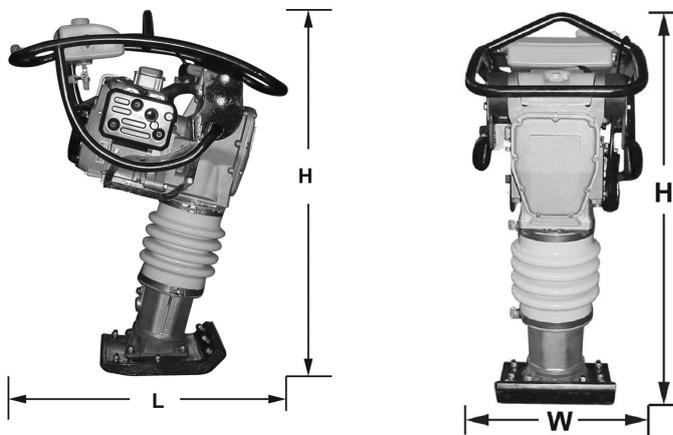
3.4 Trouble Shooting

SYMPTOM	POSSIBLE CAUSES	SOLUTION
Engine does not start, or stalls.	No fuel in tank	Add fuel.
	Spark plug fouled	Clean or replace spark plug.
	Engine oil level low	Add engine oil.
	Engine switch in the "OFF" position	Move engine switch to the "ON" position.
Engine does not accelerate, is hard to start, or runs erratically.	Spark plug fouled	Clean or replace spark plug.
	Obstructed muffler and/or exhaust port	Clear obstructions.
	Leaky crankshaft seals	Replace crankshaft seals.
	Dirty or clogged air cleaner	Service air cleaner.
	Engine oil level low	Add engine oil.
Engine runs, rammer does not tamp.	Damaged clutch	Repair or replace clutch.
	Broken connecting rod or crank gear	Replace broken parts.
	Low engine performance: compression loss	Adjust compression.
	Obstructed exhaust port	Clear obstructions.
Engine runs, rammer operation is erratic.	Oil or grease on clutch	Remove oil/grease from clutch.
	Broken or worn springs	Replace broken parts
	Soil buildup on ramming shoe	Clean soil from ramming shoe.
	Broken parts in ramming system or crankcase	Replace broken parts.
	Engine operating speed too high	Adjust engine operating speed.

4. TECHNICAL DATA

Model		CR68H	CR70H
Engine type		Honda GX100	Honda GX120
Power	kw(hp)	2.2(3.0)	3.0(4.0)
Operating weight	kg(lb)	68(152)	70(154)
Impact Force	kN	13	
Jumping Stroke	cm(in)	4-8.5(1.5-3.3)	
Fuel Tank	L	2.8	
Shoe Size	cm(in)	33*28.5(12.3*11)	

Working Size (L x W x H): 760mm x 430mm x 1020mm



Sound Specification

The required sound specification:

The sound pressure level at operator's location (LpA): 98 dB(A)

The guaranteed sound power level (LWA): 108 dB(A)

Products are tested for sound pressure level in accordance with EN ISO 11204. Sound power level is tested in accordance with European Directive 2000/14/EC - Noise Emission in the Environment by Equipment for use outdoors.

Vibration Specification

Products are tested for hand/arm vibration (HAV) level in accordance with ISO 5349, EN1033, and EN500-4 where applicable.

- HAV 6.5 m/s²

Refer to topic Position of the Operator for further details.

**EC DECLARATION OF CONFORMITY
CE-KONFORMITÄTSEKTLÄUNG
DECLARACIÓN DE CONFORMIDAD DE LA CE
DÉCLARATION DE CONFORMITÉ C.E.**

**CONMEC ENGINEERING CO., LTD
NO.88, 2# INDUSTRIAL AVENUE, ANWU ROAD, WUQIAO COUNTY,
FENGXIAN DISTRICT, SHANGHAI, P.R.C**

hereby certifies that the construction equipment specified hereunder /bescheinigt, da. das Bauger.t/
certifica que la máquina de construcción/atteste que le matériel :

1. Category / Art / Categoría / Catégorie:
Tamping Rammer

2. Type / Typ / Tipo / Type:
CR68H
CR70H

has been produced in accordance with the following standards:/in übereinstimmung mit folgenden
Richtlinien hergestellt worden ist:/ha sido fabricado en conformidad con las siguientes normas: / a été
produit conformément aux dispositions des directives européennes ci-après :

2005/88/EC
2006/42/EC
2004/108/EC/EN55012:2007
EN500-1
EN500-4



03.09.13

Date / Datum / Fecha / Date

John Lee
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