



TAMPING RAMMER

MTR-40F

INSTRUCTION MANUAL

EN

Contents of "Declaration of Conformity"

Please refer the
EC DECLARATION OF CONFORMITY
in this manual as well.


Original



MIKASA CONSTRUCTION EQUIPMENT

302-05201

1) DECLARATION OF CONFORMITY

2) Manufacturer's name and address.		Mikasa Sangyo Co., Ltd. 4-3, Sarugaku-cho 1 chome, Chiyoda-ku, Tokyo101-0064, Japan				
3) Name and address of the person who keeps the technical documentation.		Yoshiharu Nishimaki, engineer R. & D. Division, Mikasa Sangyo Co., Ltd. Shiraoka-machi, Saitama, Japan				
4) Type: Vibratory Rammers						
5) model	MTR-40F					
6) Equipment item number	251314 251315 251316					
7) Serial number	For serial number, please refer it on front page.					
8) power source cont. output <max.output>	Robin EH09-2D 1.5kW <2.1kW>					
9) Measured sound power level(dB)	107					
10) Guaranteed sound power level(dB)	108					
11) Max. Sound pressure level(dB)	97					
12) Conformity assessment according to Annex:		VIII (Full Quality Assurance procedure)				
13) Name and address of the Notified Body		Société Nationale de Certification et d'Homologation (SNCH) 11, route de Luxembourg L-5230 Sandweiler LUXEMBOURG				
14) Related Directive		Directive 2000/14/EC and, to be followed by Directive 2005/88/EC , relating to the noise emission in the environment by equipment for use outdoors.				
15) Declaration		The equipment referred in this document, fulfills with all the requirements of Directive 2000/14/EC				
16) Other related Community Directives		2006/42/EC, 2005/88/EC, 2004/108/EC, 2002/88/EC(2004/26/EC) EN500-1, EN500-4				
17) EC Conformity Certificate No:		e13*2000/14*2005/14*0472*01				
18) Place and date of the declaration		Tokyo, Japan Feb, 2010 Signed by:  Keiichi YOSHIDA Director, Product Control Division Mikasa Sangyo Co., Ltd.				

1. SPECIFICATION FOR MTR-40F

Body		
Model		MTR-40F
Overall length	mm	623
Overall width	mm	350
Overall height	mm	1,109
Impact force	kg(kN)	550 (6.4)
Jamping stroke	mm	70
Blows per min.	blows/min.	650-695
Std.shoe size (length x width)	mm	270x150
Operating weight	kgf	46.0
weight only without fuel (Shipping weight)	kgf	44.0
Engine		
Model		Robin EH09 Air cooled, 4 stroke gasoline engine
Displacement	cc	86
H.P.rating (max)	kw/rpm (hp/rpm)	1.9/3,600(m ⁻¹) (2.6PS/3,600(m ⁻¹))
Engine r.p.m	rpm	3,800 - 4,100
Starting		Recoil starting
Spark plug		NGK-MB6A
Lubricant (engine)		300cc (upper level)-200cc(lower level)
Fuel		Regular grade gasoline
Fuel tank capacity	liters	2.0

(Specifications are subject to change without notification.)

Sound Power Level and Sound Pressure Level

Related Directive: 200014/EC for sound power level
98/37/EC for max. sound pressure level

Type of Equipment: Compaction machines

Model	Power source	Measured sound power level(dB)	Guaranteed sound power level(dB)	Max. Sound pressure level (dB)
MTR-40F	Robin EH09 1.7kW	105	107	95

2. FOR YOUR OPERATING SAFETY

BEFORE STARTING TO OPERATE

Read instruction manual carefully for proper and safe operation. Do not allow anyone to operate it unless one is familiar with the operation.

See separate engine manual for its operation.

Wear properly for machine for loosened fasteners or any other abnormality.

Be sure to shutdown the engine before starting service work.

Replace obscured caution plate with new, clearly legible one.

Be sure to store the machine beyond children's' reach.

Mikasa is not liable for any trouble attributable to added modification without Mikasa's approval.

REPLENISHING WITH FUEL

Be sure to shutdown engine and allow it to cool before refueling.

Do not allow any fire in the vicinity during fueling. (No smoking in particular)

Be careful not spill fuel around. If spilled, wipe it off carefully.

Filling up to filler port is hazardous as it may spill over.

DURING OPERATION

Engine exhaust is hazardous as it contains toxic carbon monoxide or the like.

Do not operate in poorly ventilated area including indoors or tunnel.

When starting or during operation, make sure to protect safety for personnel or against any obstacle around.

Always pay attention to foothold and work in easy position that allows to keep your machine in good balance. Discontinue operation promptly whenever your machine goes deficient or you notice any abnormality.

Be careful not to touch muffler as becomes hot in operation. Be sure to stop engine before leaving the machine. Also shutdown engine for transporting it.

LOADING OR UNLOADING WITH CRANE IN USE REQUIRES QUALIFICATION.

CRANE OPERATION OR WIRE ROPE ENGAGEMENT SHOULD BE CARRIED OUT BY QUALIFIED PERSON.

Stop engine before lifting.

Use wire rope sufficient strength.

Use one point lifting hook and lift up-right without applying any shock.

Do not allow person or animal enter below lifted machine.
For safety, do not lift to height any more than necessary.

FOR TRANSPORTATION

Shutdown engine for transportation.

For transportation, tighten fuel tank cap securely and close to prevent fuel from spilling.

Drain fuel for transportation over long distance or bad road.

Secure machine firmly to prevent it from moving or tipping.

Rammer should be transported in such position as it is placed on level ground.

In case, it must be laid down for transportation, drain fuel tank as well as carburetor and make sure that oil plug is tightened securely.

Direction to lay down the rammer, must be such that air cleaner comes to top.

After laying it, make sure that there is no leak of oil or residual fuel.

3. PRIOR TO STATING THE OPERATION

- 3-1. This rammer should be greased daily before operation. Be sure to use PENNZOIL #731, SHELL STAMINA EP-2 greased is used, the grease could become too thick or too thin due to change in temperature and improper lubrication may result.
- 3-2. Fill the fuel tank with regular gasoline (unleaded). Simultaneously, check engine oil and make it a habit to replenish on the earlier side. Low lubrication oil level may result in engine seizure due to consumption during operation. Nevertheless, oil level should be checked prior to start up without fail. For lubrication, use automobile engine oil of 10W-30 SE, SF or better grade. See engine operating manual for further details.
- 3-3. Check every bolt, nut or screwed area for tightness. Loosened due to vibration may result in unexpectedly serious trouble. Be sure to tighten any screwed area.
- 3-4. Remove dirt and dust. Particularly clean the vicinity of recoil starter and foot.

4. STARTING-UP

- 4-1. To start, switch must be in the "ON" position and fuel cock lever to let fuel flow.
- 4-2. With carburetor choke lever closed, set throttle lever to "OFF" position. In cold weather, it should be closed fully, while in summer season or if engine is warm, make it half-open or full open. In case the engine failed to start, leaving the choke lever fully closed caused an excessive fuel intake. Therefore it should be returned to the half-open position.

- 4-3. 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.
- 4-4. 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.
- 4-5. 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 gas.

5. OPERATION

- 5-1. To start the rammer tamping action, move the throttle lever quickly from CLOSE to the FULL OPEN position. Do not move the clutch or spring.
- 5-2. After starting to 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 resultant resonance causes the compaction force to decrease, damaging the machine.
- 5-3. Under the cold weather, the grease in the machine being solid, 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.
- 5-4. 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.
- 5-5. 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.
- 5-6. To discontinue the work, contrary to the starting, move the throttle lever quickly from "ON" to "OFF". The throttle lever should not be moved slowly.

6. SHUT-DOWN

- 6-1. 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.
- 6-2. Close the fuel cock.

7. SERVICE AND STRAGE

Flammable liquid. Stop engine and do not smoke or allow work in immediate area when refueling. Fire or explosion could result from flames or sparks.

Moving part shutdown engine before performing service or maintenance. Contact with moving parts can cause serious injury.

High temperature. Allow machine and engine to cool before performing service or maintenance. Contact with hot components can cause serious burns.

7-1. Dairy Service:

Remove dirt and dust from engine and control area. Clean air cleaner as necessary. Check spring box and bellow for oil leaks. Repair as needed.

7-2. Fifty Hours Service:

Clean air cleaner cover. Adjust spark plug gap to 0.02-0.03 inch (0.6-0.7mm). This unit has electronic ignition that requires no adjustments.

7-3. Grease-up

This rammer has grease nipple of four points and should be greased every eight hours using the grease gun. Be sure to use PENNZOIL #731, SHELL STAMINA EP-2 grease or the equivalent. If inferior type grease is used, the grease could become too thick or too thin due to change in temperature and improper lubrication may result.

7-4. Air Cleaner Cleaning

1) Pre-Cleaner

Removing element from pre-cleaner at the top of crank case and clean it with cleaning oil (kerosene). Take off bolt, cover of the crankcase upper part and take Element off Air cleaner. Wet the bottom element (gray) with 7-9cc and let upper element (yellow) be familiar with oil.

2) Secondary (Engine side) Cleaner

In case cleaner element shows dart, clean it up by compressed air. If it cannot be removed, replace the element as necessary.

7-5. Check fuel hose for damage or tightness. Fuel hose should be replaced every two years, even if it no damaged. Also,

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. Of 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)

Long-term storage: Drain fuel from fuel tank, fuel line and carburetor. Remove spark plug and pour a few drops of motor oil cylinder. Crank engine 3 or 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.



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