THIRD COAST EQUIPMENT

OPERATOR'S MANUAL
TAMPING RAMMER
PR40 / PR60 / PR70

Revision 2.23.24

www.thirdcoastequipment.com

To reduce the risk of injury, all operators and maintenance personnel must read and understand these instructions before operating, changing accessories, or performing maintenance on Third Coast Equipment machines. All possible situations cannot be covered in these instructions. Care must be exercised by everyone using, maintaining, or working near this equipment.

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SAFETY INFORMATON

1.1 Safety Precautions

This operator's manual provides information pertaining to the safe and proper operation of this machine. All operators must read this manual in full prior to operation or transportation of this machine.

This manual contains DANGER, WARNING, CAUTION callouts which must be followed to reduce the possibility of personal injury, damage to the equipment, or improper service.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

PROPOSITION 65 WARNING

1.2 Operating Safety

Familiarity and proper training are required for the safe operation of equipment! Equipment operated improperly or by untrained personnel can be dangerous! Read the operating instructions and familiarize yourself with the location and proper use of all instruments and controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate the rammer.

- **NEVER** operate rammer in applications for which it is not intended.
- **NEVER** allow improperly trained personnel to operate rammer.
- **NEVER** touch hot muffler, engine cylinders, or cooling fins. Burns will result.
- **NEVER** use accessories or attachments which are not recommended by Third Coast Equipment for rammer. Damage to rammer and/or injury to user may result.
- **NEVER** leave a running machine unattended.
- **NEVER** run machine indoors or in an enclosed area such as a deep trench unless adequate ventilation is provided. Exhaust gas from the engine contains poisonous carbon monoxide gas; exposure to carbon monoxide can cause loss of consciousness and may lead to death.
- **NEVER** tamper with or disable the function of operating controls.
- **NEVER** use choke to stop engine.
- **NEVER** operate the machine in areas where explosions may occur.
- **ALWAYS** remove or disconnect engine spark plug before servicing rammer to avoid accidental start-up.
- **ALWAYS** read, understand, and follow procedures in Operator's Manual before attempting to operate equipment.
- **ALWAYS** be sure that all other persons are at a safe distance from the rammer. Stop the machine if people step into the working area of the machine.
- **ALWAYS** be sure operator is familiar with proper safety precautions and operation techniques before using rammer.
- **ALWAYS** wear protective clothing when operating rammer. Wear goggles or safety glasses, hearing protection, and safety shoes.
- **ALWAYS** keep hands, feet, and loose clothing away from moving parts of rammer.
- **ALWAYS** be sure rammer will not tip over, roll slide, or fall when not being operated.
- **ALWAYS** turn engine OFF when rammer is not being operated.
- **ALWAYS** guide the rammer in such a way that the operator is not squeezed between the rammer and solid objects. Special care is required when working on uneven ground or when compacting coarse material. Make sure to stand firmly when operating the machine under such conditions.
- **ALWAYS** operate the rammer in such a way that there is no danger of it turning over or falling in, when working near the edges of breaks, pits, slopes, trenches and platforms.

1.3 Operator Safety while using Internal Combustion Engines

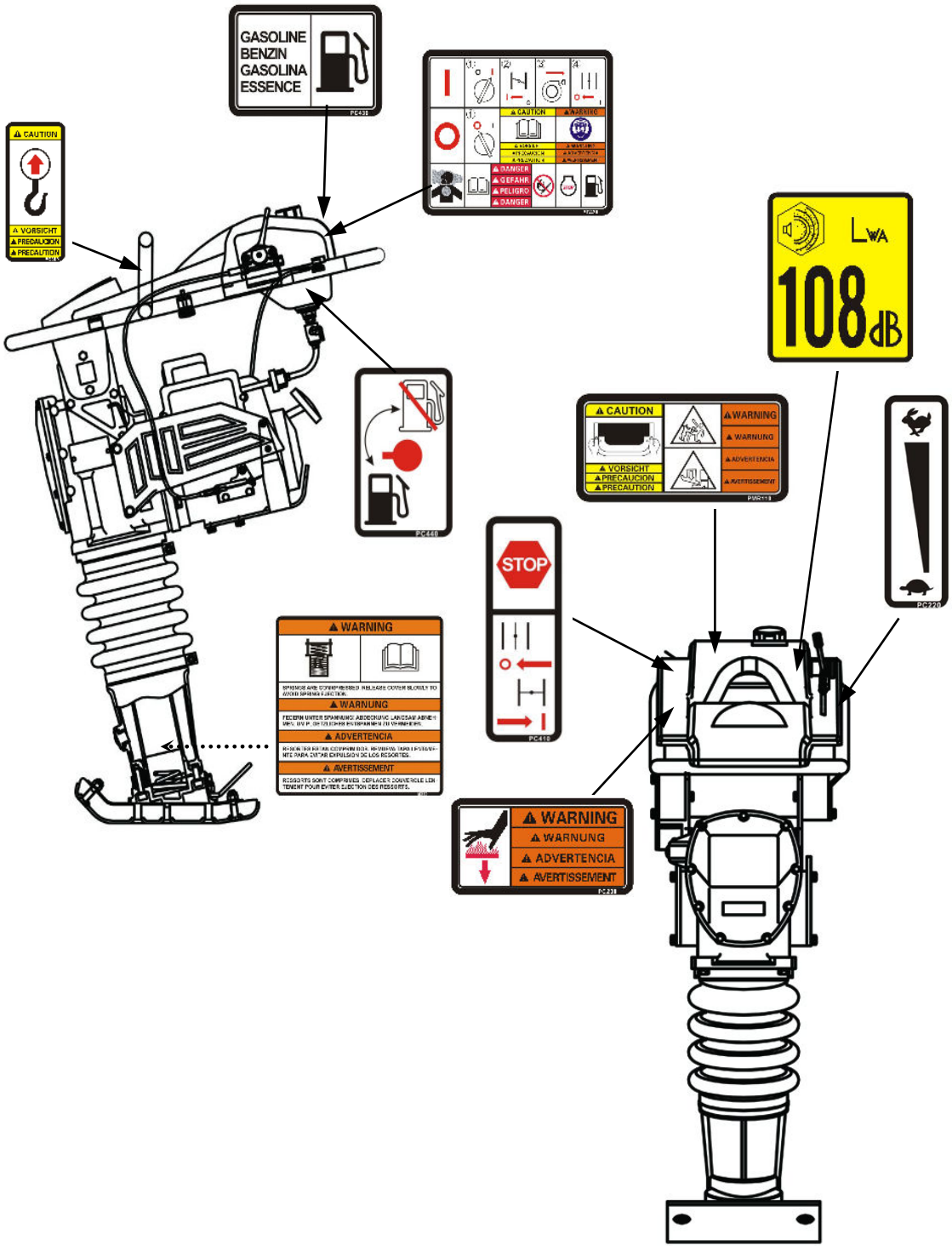
- DO NOT smoke when refueling the engine or during any other fuel handling operation.
- DO NOT refuel a hot or running engine.
- DO NOT refuel the engine near an open flame.
- DO NOT spill fuel when refueling the engine.
- DO NOT operate rammer near open flames.
- ALWAYS refill fuel tank in well-ventilated area.
- ALWAYS replace fuel tank cap after refueling.
- ALWAYS check fuel lines, fuel cap, and fuel tank for leaks and cracks before starting engine. Do not run machine if fuel leaks are present, or fuel cap or fuel lines are loose.
- If fuel is spilled during refueling, wipe it off from the engine immediately. Do not operate the unit if fuel or oil leaks exist-repair immediately.
- NEVER operate this equipment in an explosive atmosphere.
- NEVER operate any gas powered equipment in a poorly ventilated or enclosed area.
- NEVER perform any work on the unit while it is running. Before working on it, stop the engine and disconnect the spark plug wire to prevent accidental starting.
- Avoid prolonged breathing of exhaust gases.
- Avoid contact with hot exhaust systems and engine parts.
- Allow engine to cool before performing any repairs or service.
- ALWAYS transport and handle fuel only when contained in approved safety containers.
- ALWAYS keep the area around the muffler free of debris such as leaves, paper, cartons, etc. A hot muffler could ignite the debris and start a fire.

1.4 Service Safety

Poorly maintained equipment can become a safety hazard! In order for the equipment to operate safely and properly over a long period of time, periodic maintenance and occasional repairs are necessary.

- DO NOT attempt to clean or service rammer while it is running.
- DO NOT operate rammer with safety devices or guards removed or not in working order.
- DO NOT operate rammer without air cleaner.
- DO NOT remove air cleaner paper element, precleaner, or air cleaner cover while operating rammer.
- DO NOT alter engine speeds. Run engine only at speeds specified in Technical Data Section.
- ALWAYS replace safety devices and guards after repairs and maintenance.
- ALWAYS keep area around muffler free of debris.
- ALWAYS conduct Periodic Maintenance as recommended in Operation Manual.
- ALWAYS clean debris from engine cooling fins.
- ALWAYS replace worn or damaged components with Third Coast Equipment recommended spare parts.

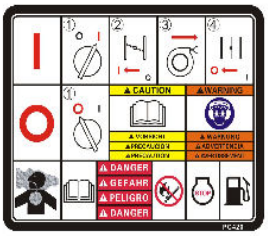
1.5 Label Locations



SAFETY INFORMATION

1.6 Safety Labels

This machine uses international pictorial labels where required. These labels are described below:

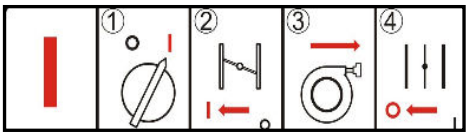
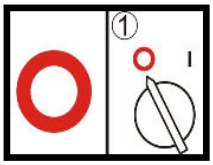
Label	Meaning
	This model-in label contains important safety and operating information. If it becomes illegible, the cover must be replaced. Reger to the Parts Manual for ordering information.
	DANGER! Engines emit carbon monoxide; operate only in well-ventilate area. Read the Operation Manual for machine information. No sparks, flames, or burning objects near the machine. Shut off the engine before refueling. Use only clean, filtered unleaded gasoline.
	CAUTION! Lifting point.
	CAUTION! Use only clean, filtered gasoline fuel.
	WARNING! Hot surface!

SAFETY INFORMATION

Label	Meaning
	CAUTION! For optimal control, performance, and minimal hand/arm vibration, grasp handle as shown.
	WARNING! Serious injury if struck by compressed spring or cover. If the spring system cover is removed improperly, the springs can eject.
	Guaranteed sound power level in dB(A).
	A nameplate listing the model number and serial number is attached to each unit. Please record the information found on this plate so it may be available if the nameplate becomes lost or damaged. When requesting service information, the serial number should be specified of the unit.

1.7 Operating Labels

This machine uses international pictorial labels where needed. These labels are described below:

	Start the engine: ① Turn the engine switch to the ON position ② Close the choke. ③ Pull the rewind starter. ④ Open the choke.
	Stop the engine: Turn the engine switch to OFF position.
	Fuel valve: Closed Open
	Engine stop button: Press to stop engine. Choke: O: Open I: Closed
	NOTICE! Throttle control lever: Turtle = Idle or Slow Rabbit = Full or Fast

OPERATION

2 Operation

2.1 Application

Rammers are designed to compact various types of soil and clay to prevent settling and provide a solid base for the placement of footings, concrete slabs, foundations, gas lines, utility piping, etc.

WARNING

Do not use in the following applications or scenarios as the rammer is likely to become unbalanced and may cause operator injury or machine damage.

- Hard, over-compacted soil
- Steep banks and slopes
- Large piles of loose soil

2.2 Before Starting

- Check the percussion system oil level through the sight glass located at the base of the foot. Replenish oil if oil is not visible at the window. For lubrication, use automobile engine oil of 10W-30 SE. Capacity is 28 oz.
- Fill the fuel tank with regular gasoline (unleaded).
- Check the in-line fuel filter for leaks or cracks and replace if necessary.
- Check engine oil and replenish if necessary. Low lubrication oil level may result in engine seizure due to consumption during operation. Use automobile engine oil of 10W-30 SE. See Engine Operating Manual for further detail.
- Inspect for any fuel or oil leaks. If present, repair prior to operation.
- Check for any loose hardware. ***Hardware may loosen over time due to compacting nature of the rammer.*** Tighten or repair as necessary.
- Remove any dirt or dust accumulation, particularly around the engine, control area, and ramming foot.

OPERATION

2.3 To Start

1. Slide the throttle lever from stop to the idle position.
2. Open the fuel shut-off valve by moving the fuel cock lever to the open position.
3. If starting the engine from cold, set the choke to the "CLOSED" position (If restarting a warm engine, the choke is usually not required.)
4. Set the engine ON/OFF switch to the “ON” position.
5. 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.
6. As the engine warms, return the choke lever slowly to full-open position.
7. If engine fails to start, avoid engine flooding by moving the choke lever to the half open position. Repeat above steps.
8. If engine still does not start, remove spark plug and check the sparking performance. If the plug is wet due to excessive fuel intake or soiled, clean or replace the coil as needed.

2.4 Operation

1. Allow engine to run for 5 minutes at low speed to warm the engine.
2. Move the throttle lever 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. Adjusting engine RPM outside the factory setting is NOT RECOMMENDED. Increasing throttle speed will not increase the compaction force and may result in machine damage.
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. To stop the tamping action, move throttle lever quickly from the FULL OPEN to IDLE position.

2.5 To Stop

2.5.1 Normal shutdown

1. Quickly move the throttle lever to the idle position and run the engine for 3-5 minutes at idle.
2. After engine temperature has cooled, turn the switch to the “OFF” position.
3. Close the fuel shut-off valve by moving the fuel cock lever to the CLOSED position.

2.5.2 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 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 Starting	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.

MAINTENANCE

3.2 Transporting

1. Shutdown engine prior to transportation or lifting.
2. Tighten fuel tank cap securely and close fuel cock to prevent fuel leaks.
3. For long distance transportation it is recommended to drain the fuel tank.
4. Ensure lifting equipment is adequately rated for rammer weight (see identification plate on machine for weight). Use central lifting point (a) when lifting machine.
5. Secure machine firmly to prevent shifting or tipping during transportation
6. Rammer should be transported on a level surface standing upright. If it must be laid down for transportation, drain fuel tank & carburetor and ensure the oil plug is tightened securely.
7. 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.

3.3 Spark Plug

Check and clean spark plug regularly. A dirty or poor performing spark plug may cause hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.

WARNING

The engine surface and muffler can become very hot during operation and remain hot after stopping the engine. Allow engine to cool before removing spark plug.

NOTICE: A loose spark plug can become very hot and may cause engine damage.

MAINTENANCE

3.4 Air Cleaner

Maintaining a clean engine will extend engine life. Keep air filter clean at all times. Clean air filter using the recommended solvent daily. See engine manual for proper cleaning procedure. Let the filter dry before reinstalling.

WARNING

NEVER use gasoline or other types of low flash point solvents for cleaning the air cleaner. A fire or explosion could result.

3.5 Storage

Rammer should be stored upright on a level surface in a cool and dry environment. Be sure to secure the rammer as necessary to tip over.

3.5.1 Long-Term Storage

For storage over 30 days, the following is recommended:

- Drain fuel from fuel tank, fuel line, and carburetor.
- Remove spark plug and pour a few drops of motor oil into cylinder.
- Slowly crank engine 3 to 4 times to distribute oil to internal components.
- Clean exterior with a cloth
- Store unit covered in a clean and dry location out of direct sunlight.

3.6 Troubleshooting

3.6.1 Rammer Troubleshooting

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Engine rotates but amplitude not uniform or does not strike	Operating speed of throttle lever is incorrectly set?	Set throttle lever to correct position.
	Oil in excess?	Drain excess oil. Bring to correct level.
	Clutch slips?	Replace or adjust clutch.
	Spring Failure?	Replace spiral spring.
	Speed of engine improper?	Adjust engine speed to correct operating RPM setting.

3.6.2 Engine Troubleshooting

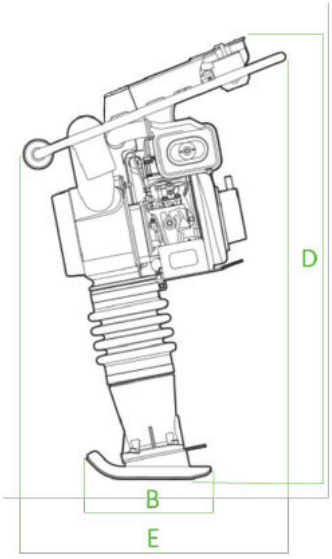
SYMPTOM	POSSIBLE CAUSE	SOLUTION
Difficult to start		
Fuel is available but spark plug will not ignite.(Power available at high tension code.)	Ignition plug being bridging?	Check ignition system.
	Carbon deposit at ignition?	Clean or replace ignition.
	Short circuit due to deficient insulator?	Replace insulators.
	Improper spark gap?	Set spark plug gap to the correct gap.
fuel is available but spark plug will not ignite.(Power NOT available at high tension code.)	Short circuit at stop switch?	Check stop switch circuit. Replace stop switch if defective.
	Ignition coil defective?	Replace ignition coil.
Fuel is available and spark plug ignites (compression normal).	Muffler clogged with carbon deposits?	Clean or replace muffler.
	Mixed fuel quality is inadequate?	Check fuel to oil mixture.
	Fuel in use inadequate (water, dust)?	Flush fuel system and replace with fresh fuel.
	Air cleaner clogged?	Clean or replac air cleaner.
Fuel is available and spark plug ignites (compression normal).	Defective cylinder head gasket?	Tighten cylinder head bolts or replace head gasket.
	Cylinder worn?	Replace cylinder.
	Spark plug loose?	Tighten spark plug.

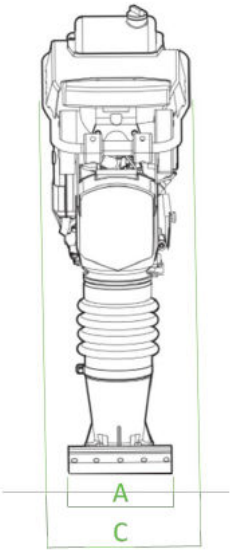
MAINTENANCE

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Operation not satisfactory		
Not enough power available (compression normal, no missfiring)	Air cleaner clogged?	Clean or replace air cleaner.
	Air in fuel line?	Bleed (remove air) from fuel line.
	Fuel level in carburetor float chamber improper?	Adjust carburetor float.
	Carbon deposit in cylinder?	Clean or replace cylinder.
Not enough power available (compression normal, no missfiring)	Ignition coil defective?	Flush fuel system and replace with fresh fuel.
	Ignition plug often shorts?	Replace ignition wires, clean ignition.
	Fuel in use inadequate (water, dust)?	Flush fuel system and replace with fresh fuel.
Engine overheats.	Mixed fuel quality is inadequate?	Check fuel to oil mixture.
	Excessive carbon deposition in combustion chamber?	Clean or replace crankcase.
	Exhaust or muffler clogged with carbon?	Clean or replace muffler.
	Spark plug heat value incorrect?	Replace spark plug with correct type spark plug.
Rotational speed fluctuates.	Governor adjustment improper?	Adjust governor to correct lever.
	Gvoernor spring defective?	Clean or replace ignition.
	Fuel flow erractic?	Check fuel line.
	Air taken in through suction line?	Check suction line.
Recoil starter not working properly.	Dust in rotating part?	Clean recoil starter assembly.
	Spiral spring failure?	Replace spiral spring.

4. TECHNICAL DATA

Weight	PR40H	PR60H	PR70H
Operating Weight	123 lb	149 lb	158 lb
Performance Data			
Blows per Minute Max	699 bpm	695 bpm	680 bpm
Shoe Jump Height	2.2 in	3.3 in	3.1 in
Impact Force	1215 lbf	2922 lbf	3147 lbf
Engine			
Engine Manufacturer	Honda	Honda	Honda
Engine Model	GXR120	GXR120	GXR120
Output Power	4 hp	3 hp	4 hp
Fuel Tank Capacity	.52 gal	.74 gal	.74 gal





Dimensions		PR40H	PR60H	PR70H
Shoe Width	A	11 in	11 in	11 in
Shoe Length	B	13 in	13 in	13 in
Overall Width	C	13.8 in	17 in	17 in
Overall Height	D	43.7 in	40 in	40 in
Overall Length	E	24.5 in	28.5 in	30 in

Sound Specification (According to 2000/14/EC)

Measured sound Power level	105 dB(A)
Guaranteed sound power level	108 dB(A)

Hand-Arm vibration Specification (According to ISO 5394, EN 1033 and EN500-4): 8.0m/s^2

WARRANTY

Reference the Third Coast Equipment consumer warranty policy online or refer to your local dealership.

MAINTENANCE RECORD

PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE PLAN

Preventative maintenance and routine service are essential to the long life of your tamping rammer. Please refer to your local Third Coast Equipment dealer for all OEM spare parts and service needs. For your convenience we have provided this space to record relevant data about your tamping rammer.

Invoice Number:		Type of Machine:	
Date Purchased:		Dealer Name:	
Serial Number:		Dealer Phone:	

REPLACEMENT PARTS USED					MAINTENANCE LOG	
PART NO.	DESCRIPTION	QTY	COST	DATE	DATE	OPERATION