Single-Direction Vibratory Plate Compactor

SP140 • SP210 • SP250

Operator's Manual



THIRD COAST EQUIPMENT

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To reduce the risk of injury, all operators and maintenance personnel must read and understand their machine's instruction manual in full before operating, changing accessories, or performing maintenance on that machine.

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INTRODUCTION

Thank you for your purchase of this Third Coast Equipment, Inc. ("Third Coast") single-direction vibratory plate compactor. Please read this operator's manual in its entirety prior to using your new machine. This manual provides information pertaining to the safe use, proper operation, and routine maintenance of this machine. All operators and maintenance personnel must read and understand this manual in full before operating, changing accessories, or performing maintenance on this machine.

This manual is written for Third Coast machines in production at the time of publication, and Third Coast reserves the right to change any portion of this manual at any time without notice to reflect any changes to current production machine configurations or updates to regulatory compliance or for any other reason deemed appropriate by Third Coast.

The latest revision of this manual can be obtained by visiting us online at:

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APPLICATIONS

Compaction is an essential step in construction; proper ground preparation is critically important in setting a base for any structure, whether that structure be a road; residential, commercial or industrial building; footing or pier; retaining wall; deck; or even a simple concrete sidewalk.

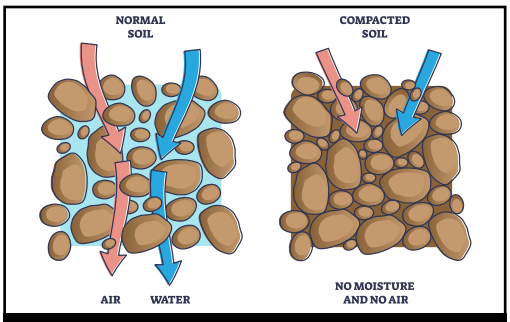
Any time earth is disturbed, whether through trenching, digging, excavation, or addition of gravel substrates, it must be compacted before building commences.

Proper compaction ensures the ground is prepared to handle the weight of the structure above it by increasing the packing factor of ground solids, eliminating unnecessary air, and reducing compressibility. Proper mechanical compaction reduces the chances that the ground will shift or further compress, thereby increasing the load capacity of that ground, reducing the risk of frost heave, and increasing structural stability of the improvements above it.

Single-direction plate compactors feature a heavy-duty cast iron baseplate that vibrates under high frequency to consolidate the earth or asphalt beneath it. An eccentric weight in the plate exciter causes the machine to automatically travel in the forward direction; the operator needs only to guide the compactor across the ground as it compacts the earth.

Single-direction plate compactors are ideal for:

- Compacting granular & mixed soils
- Gravel/aggregate compaction
- Asphalt compaction & smoothing
- Paver stone installation
- Utility & trench compaction



SOIL COMPACTION

SAFETY LABELING

HAZARD & NOTICE ICONOGRAPHY

Third Coast machines use International Standardization Organization (ISO) compliant iconographic labeling to depict and differentiate this machine's dangers, warnings, and cautions (collectively referred to as "hazards") as well as to provide non-hazard related notices.

NOTICE Indicates information not related to machine hazards, including tips for improved operation or maintenance.

CAUTION Indicates a hazard that **could** lead to minor or moderate injury if not avoided.

WARNING Indicates a hazard that **could** lead to serious injury or death if not avoided.

DANGER Indicates a hazard that **will** lead to serious injury or death if not avoided.

The one ISO label exception is the California Proposition 65 label, which per the California Office of Environmental Health Hazard Assessment (OEHHA) requirement is a yellow warning triangle.

All possible hazardous situations cannot be covered in any operator's manual. Care must be exercised by everyone using, maintaining, or working on or near this equipment. If you are ever in doubt of how to safely operate or service this equipment, cease operation immediately and contact Third Coast or any Third Coast authorized dealer for assistance.

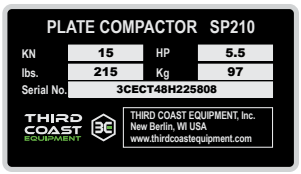
MACHINE LABEL LOCATIONS

The following labels are included on this Third Coast machine and must be maintained as part of the machine. Any label that becomes illegible through operation, wear & tear, or for any other reason must be replaced before the machine is operated, transported, or serviced.



MACHINE LABELS

The following hazard, notice, and informational labels are included on this Third Coast machine and must be understood by all operators prior to operating this equipment.

LABEL	INTERPRETATION
	NAMEPLATE: The nameplate contains important information about the model, weight, gross horsepower, manufacturer, and other machine-specific information.
	READ THE MANUAL: Prior to use, read and familiarize yourself with this manual. HEARING PROTECTION REQUIRED: When operating or working nearby this equipment, always wear proper hearing protection. PROPER FOOTWEAR REQUIRED: While working near this equipment, always wear proper protective footwear. HAND PROTECTION REQUIRED: When operating this machine, always wear gloves. HOT SURFACES: Risk of burn hazard. PINCH HAZARDS: Risk of pinch and entanglement hazards. FLAMMABILITY: Risk of fire or explosion of fuel. Do not smoke near this equipment.
	COMBUSTIBLES / INDOOR OPERATION: This label warns of the risk of asphyxiation from carbon monoxide poisoning and the risk of fire if operated indoors.
	LIFTING: This label identifies the proper lifting point for transport of this equipment and cautions the user of the hazards associated with improper lifting practices.
	NOISE EMISSIONS: This label identifies the hazard related to loud operating noise up to 108dB.

HAZARDS & RISKS

CALIFORNIA PROPOSITION 65 WARNING

WARNING Use of this product may expose you to certain chemicals, including gasoline engine exhaust, which are known to the State of California to cause cancer.

GENERAL HAZARDS & RISKS

WARNING General hazards are those that do not fall under a specific hazard classification, or that relate to multiple hazard classifications.

- Ensure all operators read and understand the operator's manual prior to using this machine.
- Never operate or allow anyone else to operate this machine without understanding the operational and safety controls of this machine. Even after reading the manual, new operators should receive instruction from an experienced operator.
- Never leave a machine operating while unattended.
- Use only accessories recommended by Third Coast. Any non-approved accessories may lead to operator injury or machine damage.
- Inspect this machine before every operation and at the required intervals listed in the "Care & Preventative Maintenance" section.
- Clean the machine during and after each use to ensure all safety labels remain legible. Replace any illegible safety labels before continued operation.
- Serious injury can result from improper or careless use of this machine.
- Keep this machine out of the reach of children at all times, including when not in use.

TRANSPORTATION HAZARDS

WARNING Failure to adequately secure this machine while transporting and failure to lift with proper form can result in damage to the equipment or injury or death.

- Inspect all lifting hardware (both on this machine and all ancillary lifting equipment) prior to lifting this machine.
- Never lift this machine while it is operating.
- Ensure the fuel cap is tight prior to lifting or transporting this machine.
- Only lift this machine with proper load-rated straps or slings rated for the weight and application.
- Never stand or work under a lifted machine.
- This machine is heavy. Lift using auxiliary equipment whenever possible. If you must lift manually, always have help from additional persons, ensure a clear path to your destination, ensure stable and clear ground, maintain a good grip on the machine, and lift with proper ergonomic form.

MECHANICAL HAZARDS

⚠ WARNING Certain mechanical hazards are inherit in operating this machine due to the weight, operation, travel, and vibration of this machine. Disregarding these warnings can lead to serious injury.

- Do not operate this machine unless all protective guards are in place.
- Keep hands and feet clear of rotating and moving parts.
- Ensure the engine operation switch is in the OFF position and the spark plug ignition lead is disconnected before removing the guards or making adjustments or repairs.
- Ensure both the machine and the operator are set up on stable ground while in operation or service.
- Do not leave this machine unattended while in operation.
- When working in trenches, ensure the trench walls are stable and will not collapse due to the action of the vibration prior to commencing compaction. Trench shoring should be utilized.
- Ensure the area to be compacted does not contain any live electrical cables, gas, water, or communication services that may be damaged by the vibration.
- Never stand on the unit while it is operating.
- Do not increase the governed no-load motor speed above 3,600 rpm; personal injury and damage to the machine may result.
- All machine and engine repairs should be conducted by a certified servicing dealership.

FIRE, EXPLOSION & THERMAL HAZARDS

⚠ WARNING Internal combustion engines contain flammable gasoline and generate spark and heat that pose certain hazards.

- Gasoline is extremely flammable and explosive under certain conditions.
- Ensure gasoline is only stored in an approved storage container.
- Do not refuel while the engine is operating or hot.
- Do not refuel in the vicinity of sparks or open flame.
- Do not refuel in confined spaces. Gasoline vapors may concentrate and ignite.
- Only fuel this machine on the ground. Do not fuel in truck beds or other areas where static electricity may be present.
- Do not overfill the fuel tank.
- Ensure the fuel cap is securely fitted after refueling.
- Avoid spilling gasoline when refilling; spilled gasoline or gasoline vapors may ignite. If spillage occurs, clean the area per local environmental regulations prior to resuming operation.
- Avoid contact with the engine and muffler while this machine is running or while hot. Extreme heat may cause severe burns.
- Do not operate this product in enclosed spaces or modify it in any way that reduces engine cooling.

CHEMICAL HAZARDS

⚠ WARNING Certain chemical hazards exist due to the presence of gasoline, grease, oil, and other chemicals presented by the combustion process including carbon monoxide, a colorless, odorless gas that can cause death if inhaled. Failure to follow the below instructions may lead to severe injury or death.

- Do not operate in a confined space or without adequate ventilation. Carbon monoxide exhaust

gases from internal combustion engine driven equipment can cause death in confined spaces.

- Do not refuel this machine in confined spaces. Gasoline vapors may be hazardous to your health, and concentrated gasoline vapors may cause an explosive atmosphere.
- Any fluids spilled from the machine, whether flammable or not, must be cleaned up in a manner consistent with all local environmental regulations.
- Always use approved fluids when maintaining or servicing this machine. Improper fluids may lead to poor performance or failures of the machine and may create a hazardous situation for the operator or bystanders. Dispose of all fluids properly in accordance with local regulations.

NOISE HAZARDS

⚠ WARNING This equipment exceeds the Occupational Safety & Health Administration ("OSHA") safe noise levels that can cause temporary or permanent hearing loss.

- Wear an approved hearing protection device while operating this machine to limit noise exposure as required by OSHA regulations.
- Bystanders may also require hearing protection, depending on their distance to the machine.
- Always be visually aware of your surroundings. While operating this machine, you may not hear other auditory warnings from nearby equipment. Heightened awareness is required.

PERSONAL PROTECTIVE EQUIPMENT & HUMAN HEALTH HAZARDS

⚠ WARNING Proper personal protective equipment and operating practices are important to minimize the inherent hazards that this machine presents.

- Always wear proper protective clothing when operating this equipment, including hearing protection, respiratory protection, shatterproof eye protection, safety-toe boots, and other personal protective equipment ("PPE") as required by OSHA or local regulations.
- Exercise care when operating this unit. Exposure to vibration or repetitive work actions may be harmful to the hands and arms.
- Slip/trip/fall hazards are a major cause of serious injury and death. Beware of uneven or slippery work surfaces.
- Exercise care when working in the vicinity of open trenches, holes, or excavations.
- Never operate this equipment under the influence of drugs or alcohol. This includes prescription drugs without your doctor's consent.
- Never operate this equipment when you are not feeling well.

ADDITIONAL HAZARDS

⚠ WARNING It is not possible to document all of the scenarios that could result from misuse of this machine, and proper operation and jobsite safety best practices should always be followed to minimize the occurrence and severity of all hazards.

- Only use this machine for its intended application.
- Always have an emergency preparedness plan, and practice it often.
- Always have a first aid kit and fire extinguisher on the jobsite. Ensure the fire extinguisher is rated for the applications, including fires caused by the combustion of gasoline.
- Do not work alone; always ensure someone else is on the jobsite with you.
- Know your jobsite address so you can give it to first responders in an emergency.

STEPS BEFORE FIRST USE

Pre-delivery service is completed at Third Coast's warehouse prior to shipping your machine to you. This consists of filling all fluids to proper levels (except gasoline), torquing all fasteners to the proper operational torque, and validating machine operation and performance. Upon receipt of your machine, you only need to attach the handle and perform a pre-operation inspection.

HANDLE INSTALLATION

Follow the procedure below to install the handle, and tighten both bolts to 74 ft-lbs final torque.



DAILY PRE-OPERATION INSPECTION

The following inspections must be completed prior to each daily use of the plate compactor, and again after every four hours of machine operation.

- Visually inspect the machine for signs of damage. Remove any dirt, debris, or material that may have accumulated from prior use.
- Clear any dust accumulation from the air filter, carburetor, and engine cooling fins.
- Check all hardware to ensure proper tightness. See the "Care & Preventive Maintenance" section for proper fastener torque.
- Check the engine oil level, and refill as needed.
- Check for fuel and oil leaks, and repair as needed.
- Refuel your plate compactor.

VANGUARD ENGINE START-UP

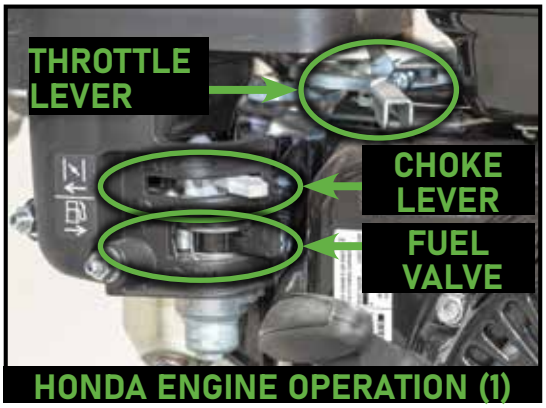
- Position the throttle lever to the idle speed position, indicated by a turtle icon ( ).
- If starting a cold engine, position the choke lever in the CLOSED position indicated by the full choke icon ( ). A warm engine may only need partial or no choke ( ).
- Gently pull the recoil starter until mild resistance is felt, then pull sharply to turn over the engine. Allow the recoil starter to gently return to the retracted position.
- Repeat pulling the recoil starter as needed until the engine is running.
- As the engine warms up, begin moving the choke slowly to the OPEN position ( ). If the engine stalls while doing this, repeat the entire startup process and proceed more slowly in



VANGUARD ENGINE OPERATION

transitioning the choke from CLOSED to OPEN.

- Allow the engine a few minutes to warm up in the idle position before starting compaction.
- To start compaction, move the throttle lever to the FAST position, indicated by the icon of a rabbit (). See the “Operating the Plate Compactor” section.



HONDA ENGINE OPERATION (1)



HONDA ENGINE OPERATION (2)

HONDA ENGINE STARTUP

- Position the On/Off lever and fuel valve to the ON position, and the throttle lever to the IDLE position ().
- If starting a cold engine, position the choke lever in the CLOSED position indicated by the full choke icon (). A warm engine may only need partial or no choke ().
- Gently pull the recoil starter until mild resistance is felt, then pull sharply to turn over the engine. Allow the recoil starter to gently return to the retracted position.
- Repeat pulling the recoil starter as needed until the engine is running.
- As the engine warms up, begin moving the choke lever slowly to the OPEN position (). If the engine stalls, repeat the entire startup process and proceed more slowly in transitioning the choke from CLOSED to OPEN.
- Allow the engine a few minutes to warm up in the idle position before starting compaction.
- To start compaction, move the throttle lever to the FAST position, indicated by the a rabbit ().

OPERATING THE PLATE COMPACTOR (EITHER ENGINE)

- To begin the compaction process, set the throttle to the FAST position (). The plate compactor will begin to travel forwards. Do not force the plate compactor forward or attempt to retard its motion; its travel speed is pre-set for optimal compaction.
- Do not operate this machine with the throttle lever set to anything other than IDLE () or FAST (); engine speeds in between idle or full throttle will cause premature wear to the clutch and belts and provide inadequate compaction; such wear and tear is misuse and is not covered under warranty.
- Keep both hands on the plate compactor handle as it travels down your compaction surface, and use gentle pressure on the handle to steer it as required.
- To briefly pause compaction, set the throttle to the IDLE ()position. Do not attempt to hold a moving machine in a fixed position. Do not leave an idling compactor unattended. If the machine will be unattended, follow the shutdown instructions listed under the “Powering off the Plate Compactor” section.
- Do not over-compact your soil. Not only is over-compaction a bad practice for jobsite preparation, leading to a weaker substrate, but over-compaction may also have damaging effects on your compactor, including increased wear and tear, as well as transmit a high hand-arm vibration to the operator.

For useful suggestions for achieving the ideal level of soil compaction, see the “Tips for

Proper Compaction" section. If you are ever in doubt of how to prepare your surface for proper compaction, consult your jobsite engineer for guidance.

USING THE WATER TANK

This single-direction plate compactor features an integrated water tank to distribute water under the plate compactor. While compacting soil, water under the plate compactor can help with jobsite dust control in dry climates. When finishing asphalt, adding water under the compactor is imperative to improve surface finish of the asphalt and to prevent bottom of the compactor.



WATER VALVE

- The water tank can be filled by inserting a fill hose through the slotted cap. The cap will help retain the hose while filling. Alternatively, the cap can be removed when pouring water in.
- To start or adjust the flow of water, open the water valve.
- Always use clean water from a known source. Debris or hard water will clog the distribution bar, reducing performance of the water system. The distribution bar can be removed for cleaning; frequent cleaning should be a point of routine maintenance.
- The water tank can be removed by lifting the tank off the compactor. Depending on the model, the hose clamp holding the water hose to the water distribution bar may need to be removed to fully remove the water tank.

POWERING OFF THE PLATE COMPACTOR

- To shut down the plate compactor during the workday, when further work is expected within 24 hours, position the throttle lever in the STOP (STOP) position (Vanguard) or position the On/Off lever to the OFF position (Honda).
- To shut down the Honda engine equipped plate compactor and prepare it for short-term storage (between 1 day and 30 days), position the throttle lever to the IDLE ( ) position while the engine is still running, then position the fuel On/Off lever to the OFF position. Allow the engine to consume the fuel in the carburetor until the engine shuts off, then turn the engine On/Off switch to the OFF position. This procedure allows the carburetor to empty its fuel, which reduces the chance for gumming or plugging of the carburetor.
- For the Vanguard engine, there is no special power-down sequence for short-term (1 to 30 day) storage. Follow the standard shutdown procedure listed above.
- When preparing plate compactors for short-term storage, it is always recommended to treat the fuel with a fuel stabilizer to help ensure it is ready for its next operation.
- To prepare the plate compactor with either engine for extended storage (more than 30 days), see the "Extended Storage" section.

EMERGENCY SHUTDOWN PROCEDURE

HONDA ENGINE: To shut down the Honda engine equipped plate compactor in an emergency situation, position the On/Off switch to the OFF position.

VANGUARD ENGINE: To shut down the Vanguard engine equipped plate compactor in an emergency situation, position the throttle lever to the STOP (STOP) position.

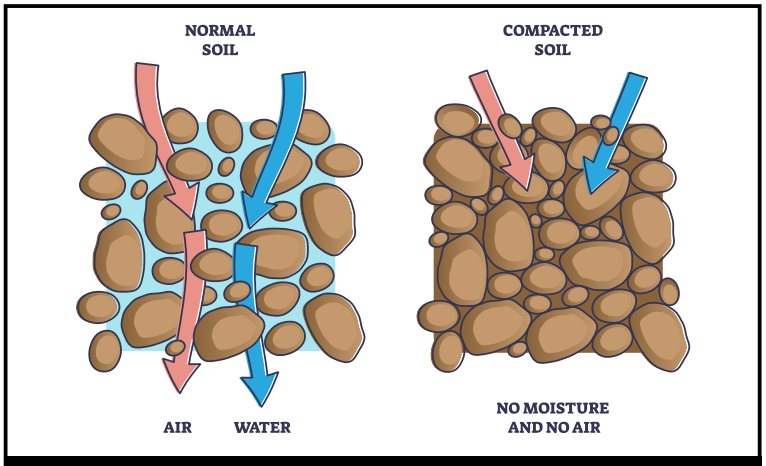
TIPS FOR PROPER COMPACTION

Proper compaction is extremely important in construction, as it eliminates extraneous air in the substrate and reduces the transport of air and water, resulting in a more stable base with less chance of shifting or settling. Builders can usually compensate for surfaces that are out of level, but they cannot compensate for substrates that are poorly compacted; settling of improperly compacted substrates will always cause defects in the improvements, whether a dip in a driveway, a crack in a foundation, or a shift in a footing.

Your best resource regarding proper jobsite compaction is your jobsite engineer. If you have a jobsite engineer, they will dictate the lift height (the thickness of each layer to be compacted) as well as the number of passes required for each lift based on the local soil conditions and any infill aggregate type. If you have a jobsite engineer, always follow their specification for proper compaction.

If you do not have a jobsite engineer, you can ensure the best possible compaction with these helpful rules of thumb:

- Don't overdo it. Cracking soil indicates over-compaction. Over-compaction can break down the soil itself, resulting in a much weaker substrate than properly compacted soil. Over-compaction can also cause premature wear and tear to your plate compactor, shortening its life.
- As you gain experience with this machine, you will understand and interpret how the machine feels as you start to compact, attain proper compaction, and when you are over-compacted. The guidance of a more experienced operator can help you build this experience, but a general rule of thumb is that over-compaction will result in erratic machine movements and excessive hand-arm vibration.
- Count your passes in each area and track your areas closely. Uniform compaction is equally important as the right amount of compaction.
- If in doubt of your lift requirements, a good rule of thumb is three passes over a lift of 6" to 12" for typical soils. For very dry soils, reduce lift to 75% of the nominal. It is better to have a lower lift and fewer passes than to try to compact too large a lift with more passes.
- If in doubt of your local conditions, use a field test apparatus such as a dynamic cone test to ensure your soil is properly compacted prior to building.



SOIL COMPACTION

EXTENDED STORAGE

Following proper long-term storage procedures ensures the machine is ready to operate when you return to it. The following procedure should always be performed when the machine will not be in use for the next 30 days:

- Drain the fuel tank completely.
- Operate the plate compactor to consume any residual fuel in the fuel lines and carburetor.
- Thoroughly clean the exterior of the machine with a damp rag, then dry it. Do not use solvents.
- Check and repair any leaks and tighten any loose hardware prior to storage.
- Check the engine oil, and top off if necessary.
- Clean the fuel filter.
- Clean or replace the air filter.
- Remove the spark plug and pour 1-2cc (about a half-teaspoon) of engine oil into the spark plug hole. Pull the recoil starter a few times to distribute this oil while the spark plug is removed. Replace the spark plug.
- Store the machine in a clean and dry indoor storage location.

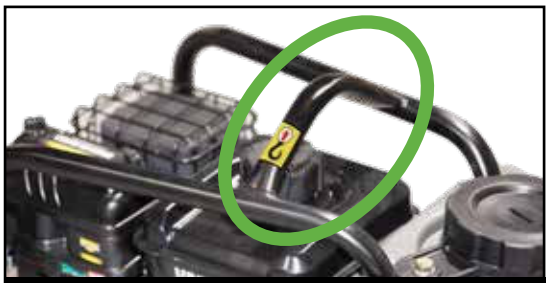
LIFTING & TRANSPORTATION

PRIOR TO LIFTING OR TRANSPORTING YOUR MACHINE:

- Power down the machine.
- Ensure all hardware, including the fuel cap, is secure on the machine. Tighten any loose bolts.
- Close the fuel valve.

TO LIFT THIS MACHINE:

- Use a single-point lift bail rated for the weight.
- Attach the lift bail only around the lift eye.
- Lift straight upwards, never at an angle.
- Never lift higher than necessary.
- Never walk underneath the machine when lifted.



LIFTING POINT

TO TRANSPORT THIS MACHINE:

- For transporting short distances around the jobsite, use the optional wheel kit.
- When transporting over the road, always tie down the machine using tie-down straps of adequate strength for the weight of this machine.
- Always use more than one strap to secure this machine.

CARE & PREVENTATIVE MAINTENANCE

Third Coast plate compactors are designed to provide years of trouble-free service, but as with any high-vibration equipment, periodic maintenance is required to keep it running smoothly. Maintenance is a normal part of ownership of any plate compactor and must be carried out on-time per the prescribed intervals or as needed. Please note, this operator's manual is not a service guide. All service should be done by a qualified, trained service technician.

⚠ CAUTION Inspection and other service should always be carried out on hard, level ground with the engine shut down.

MACHINE INSPECTION INTERVALS

This plate compactor must be inspected, at a minimum, at the intervals described in "Table 1" below. In tough operating environments, more frequent inspection is recommended.

TABLE 1: MACHINE INSPECTION

ITEM	OPERATION HOURS
Basic Operation Check	Every 4 hours or every day
Full Visual Inspection	Every 8 hours or every day
Machine Control Check	Every 8 hours or every day
Exciter Oil Check	Every 100 hours
V-Belt (Clutch) Check	Every 200 hours
Exciter Oil Replacement	Every 300 hours

BASIC OPERATION CHECK

Prior to each daily use of the equipment, and again after every four hours of operation, the following inspection must be completed:

- Visually inspect the machine for signs of damage. Remove any dirt, debris, or material that may have accumulated from prior use.
- Clear any dust accumulation from the air filter and carburetor.
- Check all hardware to ensure proper tightness.
- Check for fuel and oil leaks and repair as needed.

FULL VISUAL INSPECTION

At the start of each workday, or after each eight hours of machine operation, perform a full visual inspection of the machine, looking for signs of visible damage to any component. Repair or replace any defects found prior to operating the machine.

MACHINE CONTROL CHECK

At the start of each workday, or after each eight hours of machine operation, perform a full inspection of all machine controls, including those on the engine. Confirm all cables, knobs, and levers operate smoothly and through their full range of motion. Repair or replace any defects found prior to operating the machine.

EXCITER OIL CHECK

After every 100 hours of machine operation, check the exciter oil and refill as required.

V-BELT/CLUTCH CHECK

After every 200 hours of machine operation, perform a visual inspection of the machine drive belt and clutch. Repair or replace any defects found prior to operating the machine.

EXCITER OIL REPLACEMENT

After every 300 hours of machine operation, replace the exciter oil.

ENGINE INSPECTION & MAINTENANCE TABLES

To maximize the lifespan of your plate compactor's engine, inspect and maintain it per the schedule in "Table 2" below.

TABLE 2: ENGINE MAINTENANCE

ITEM	OPERATION HOURS
Oil Leakage	Every 8 hours or daily
Oil Level Replenishment	Every 8 hours or daily
Loose or Missing Hardware	Every 8 hours or daily
Engine Oil Replacement	After first 20 hours, then every 100 hours
Air Cleaner Clean/ Replace	Every 50 hours

TIGHTENING TORQUE TABLES

The threaded fasteners on this machine are all right handed, coarse-thread, metric, Class 8.8 or Class 12.9 fasteners.

All fasteners on this machine are marked by strength class and must be torqued to the proper specification for that class. To identify whether a fastener is a Class 8.8 or Class 12.9 fastener, check the identifying marks stamped on the head.



CLASS 8.8 FASTENER



CLASS 12.9 FASTENER

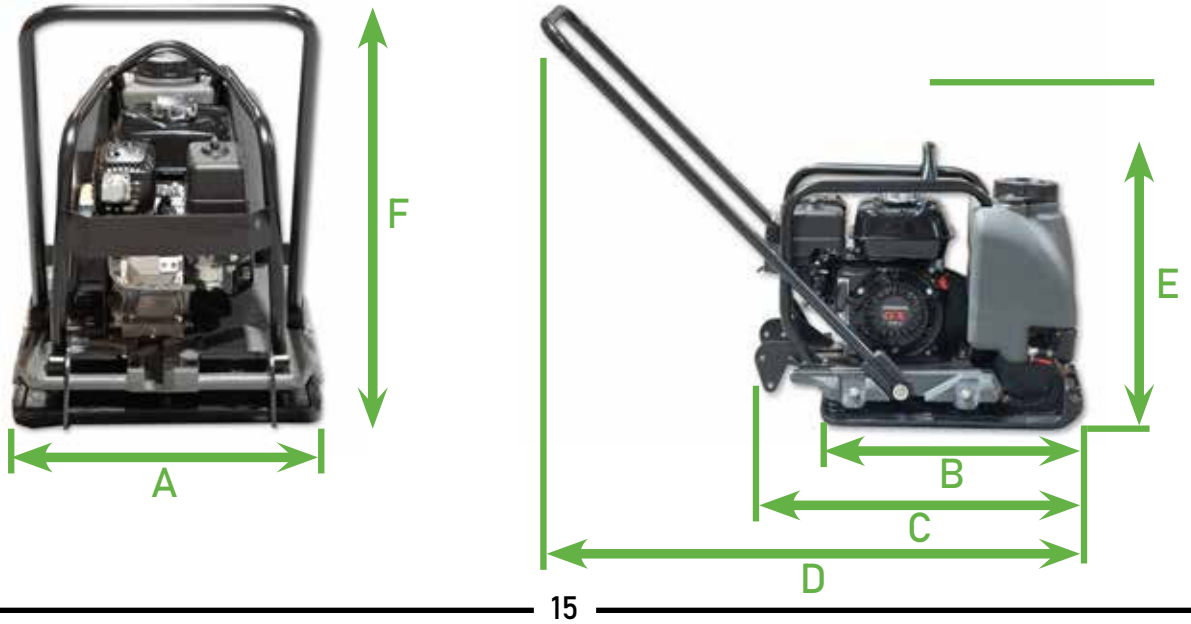
TABLE 3: TIGHTENING TORQUE FOR CLASS 8.8 FASTENERS								
THREAD SIZE>	M6	M8	M10	M12	M14	M16	M18	M20
TORQUE, FT·LB>	9	22	44	76	122	190	262	370
TORQUE, N·M>	12	30	60	103	165	257	355	501

TABLE 4: TIGHTENING TORQUE FOR CLASS 12.9 FASTENERS								
THREAD SIZE>	M6	M8	M10	M12	M14	M16	M18	M20
TORQUE, FT·LB>	16	38	75	131	209	326	451	636
TORQUE, N·M>	22	52	102	178	283	442	611	862

MACHINE SPECIFICATIONS

TABLE 5: COMPACTOR SPECIFICATIONS			
WEIGHT & DIMENSIONS	**SP140**	**SP210**	**SP250**
Operating Weight, lb	147.7	213.8	233.6
Base Plate Width, in (A)	14.6	19.7	19.7
Base Plate Length, in (B)	19.3	20.9	23.2
Machine Length, in (C)	24.8	29.9	27.6
Overall Length, in (D)	38.2	42.5	41.7
Machine Height, in (E)	22.0	20.5	24.0
Overall Height, in (F)	37.0	33.1	37.0
PERFORMANCE DATA	**SP140**	**SP210**	**SP250**
Baseplate Material	Cast Iron	Cast Iron	Cast Iron
Centrifugal Force, kN	11	15	18
Vibration Frequency, Hz	93	100	70
Travel Speed, ft/min	82	82	82
Drive Belt	A30 13x762 mm 1/2" x 32"	A33 13x838 1/2" x 35"	A33 13x838 1/2" x 35"
Centrifugal Clutch	Sealed, Grease Lubricated		
Exciter	Sealed, Oil Bath Lubricated		
Exciter Oil Type	15W-40	15W-40	15W-40
Exciter Oil Capacity	8.5 oz (250 mL)	11.8 oz (350mL)	11.8 oz (350mL)

WEIGHT & DIMENSIONS REFERENCE DIAGRAMS



ENGINE SPECIFICATIONS

This machine is available with Honda GX160 or Vanguard 200 engine options:

TABLE 6: ENGINE SPECIFICATIONS		
	HONDA GX160	**VANGUARD 200**
Engine Manufacturer	Honda	Vanguard
Engine Model #	GX160	12V3
Horsepower, Gross	Not Published	6.5 HP
Horsepower, Net	4.8 HP	Not Published
Operating Speed	3,600 rpm	3,600 rpm
Bore	68mm	68mm
Stroke	45mm	56mm
Displacement	163 cm^3	203 cm^3
Compression Ratio	9:1	8.4:1
Lubrication	Splash	Splash
Engine Oil Type	SAE 30 or 10W-30	SAE 30 or 10W-30
Engine Oil Capacity	20.3 fl oz (0.6L)	20 fl oz (0.59L)

Notice: Both compactor and engine specifications are subject to change at any time. The specifications in the manual provided with your machine are accurate for your machine, but if accessing this manual online, please note the specifications may not match your machine.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Engine does not start, but has spark.	Ignition switch in Off “O” position (Honda only).	Turn switch to On “I” position.
	Fuel valve in Off position (Honda only).	Move fuel lever to the On position.
	Engine throttle lever in Stop position (Vanguard only).	Move throttle lever to the idle speed position.
	Fuel level too low.	Fill fuel tank.
	Stale or old fuel.	Confirm fuel is clear, fresh, and free of water and contaminants. Replace fuel if necessary.
	Summer blend fuel used in temperatures below 45°F.	Replace with winter blend fuel (manufactured October 15 - April 15).
	Oil level too low (oil sensor will prevent starting).	Check oil level and refill.
	Fuel system clogged.	Clean fuel filter, fuel lines, carburetor float needle valve, carburetor bowl, and carburetor fuel nozzles, and try again.
Engine has no spark, or has weak spark.	Spark plug worn or damaged.	Replace spark plug.
	Poor connection between ignition wire and spark plug.	Check connection between ignition wire and spark plug. Tighten or replace.
	Damaged ignition kill switch (Honda only).	Check ignitions kill switch function and replace if needed.
	Worn or damaged ignition coil.	Check for spark from ignition coil using spark tester or inductive tachometer. Replace if no spark present.
Engine difficult to start, or will not remain running at idle.	Clogged fuel system.	Clean fuel filter, fuel lines, carburetor float needle valve, carburetor bowl, and carburetor fuel nozzles.
	Stale or old fuel.	Confirm fuel is clear, fresh, and free of water and contaminants. Replace fuel if necessary.
	Summer blend fuel used in temperatures below 45°F.	Replace with winter blend fuel (manufactured October 15 - April 15).
Engine will not reach full speed.	Choke lever is in ON position.	Move choke lever to OFF position after warming up the engine.
	Stale or old fuel.	Confirm fuel is clear, fresh, and free of water and contaminants. Replace fuel if necessary.
	Dirty air filter.	Inspect the air filter. Replace if necessary.
	Lack of exciter oil; this causes bearings to swell and overload the engine.	Inspect exciter oil level. If low, replace exciter bearings and exciter oil.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Engine shuts off after operating for a short period of time.	Fuel valve partially closed (Honda only).	Move fuel lever to Open position.
	Oil level too low. Low oil cutoff engaged.	Check oil level. Refill if necessary.
	Fuel system clogged.	Clean fuel filter, fuel lines, carburetor float needle valve, carburetor bowl, and carburetor fuel nozzles, and try again.
Engine shuts off after being operated for a long period of time.	Winter blend fuel used in temperatures >70°F causing vapor lock.	Winter blend (manufactured October 15 - April 15) evaporates too easily. Replace with summer blend fuel.
	Fuel level too low.	Fill fuel tank.
	Oil level too low. Low oil cutoff engaged.	Check oil level. Refill if necessary.
Engine operates normally, but there is no compaction.	Engine speed too low.	Only compact at full throttle.
	V-Belt loose.	Check V-Belt tension. Proper tension is 1/4" - 3/8" deflection when pressing on middle of belt.
	Broken V-Belt.	Replace V-Belt.
	Failed or slipping clutch.	Confirm clutch is engaging at full throttle. Replace if not engaging.
Engine achieves full RPM but vibration impact or travel speed seems low.	Ground is too wet and/or sticky, especially when compacting clay soils.	Allow soil to partially dry before resuming compaction.
	Dirt/debris accumulation on bottom of plate, especially common with heavy clay soils.	Clean build up off of plate, allow ground to partially dry if needed, and resume compaction.
	Slipping V-Belt due to loose tension.	Check V-Belt tension. Proper tension is 1/4" - 3/8" deflection when pressing on middle of belt.
	Worn V-Belt.	Check the V-Belt condition and replace if stretched or showing visible wear.
	Slipping clutch.	Confirm clutch is operating at the same rotational speed as the engine. Replace clutch if slipping.
Excessive handle vibration.	Soil over compacted or too hard.	Move machine to a compactable surface.
	Loose main shockmount hardware.	Torque shockmount hardware to proper specification.
	Loose handle hardware.	Torque handle hardware to proper specification.
	Worn or damaged hand pivot shockmounts.	Inspect rubber shockmounts on both inside and outside of handle pivot point for cracking or wear. Replace if needed.
	Worn or damaged main shockmounts.	Inspect rubber shockmounts between baseplate and engine mounting plate for cracking or wear. Replace if needed.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Water system fails to deliver water.	Low water level.	Refill water tank.
	Clogged water system.	Check water tank, hose, and distribution bars for build up. Clean if necessary.
	Loose water valve lever.	Check the water valve lever nut. Tighten if necessary.
	Bad water valve.	Remove the water valve and inspect for proper function. Replace if necessary.
Water system delivers too little water.	Clogged water system.	Check water tank, hose, and distribution bars for build up. Clean if necessary.
	Bad water valve.	Remove the water valve and inspect for proper function. Replace if necessary.
	Loose water valve lever.	Check the water valve lever nut and tighten if necessary.
Uneven water distribution across water distribution bar.	Clogged water system.	Check water tank, hose, and distribution bars for build up. Clean if necessary.
	Water valve not in fully open position.	Open water valve more to ensure uniform distribution.

WARRANTY



Third Coast Equipment stands behind all of its products with a best in class warranty, including:

- Five-year warranty on spare parts
- Four-year warranty on Vanguard engines
- Three-year warranty on Honda engines
- Two-year warranty on labor

This limited warranty contains certain exclusions and limitations and is restricted to repair or replacement of the machine or affected parts only. Other exclusions may apply.

To view the full Third Coast Equipment warranty policy, visit:
HTTPS://THIRDCOASTEQUIPMENT.COM/WARRANTY-POLICY

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