Asphalt Roller
RA29-48

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") asphalt roller. 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 an asphalt road or a residential, commercial or industrial building, footing, pier; retaining wall, deck, or even a simple concrete sidewalk.

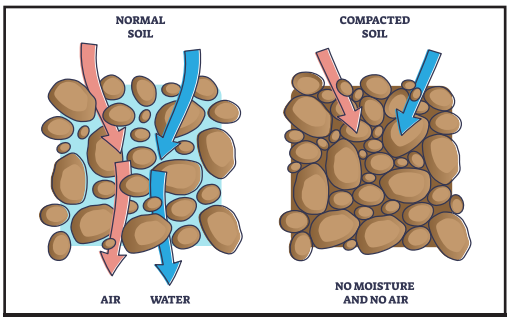
Any time earth is disturbed, whether through trenching, digging, excavation, or addition of gravel substrates, it must be compacted before building commences. Any time asphalt is laid on top of this compacted ground, it must be consolidated and smoothed.

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. In asphalt construction, it also ensures the roadway will not have cracking, depressions, slippage, potholes, or ruts.

Asphalt rollers feature a dual-drum design that vibrates under high frequency to smooth and consolidate asphalt. An integrated adjustable spray bar prevents asphalt from adhering to the drums, and an articulated design helps navigate the toughest jobsites. Featuring significantly more weight and power than walk-behind compactors, asphalt rollers are the tool of choice for larger jobsites.

Asphalt rollers are ideal for:

- Compacting granular & mixed soils
- Gravel/aggregate compaction
- Roadway preparation



SUBSTRATE 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.

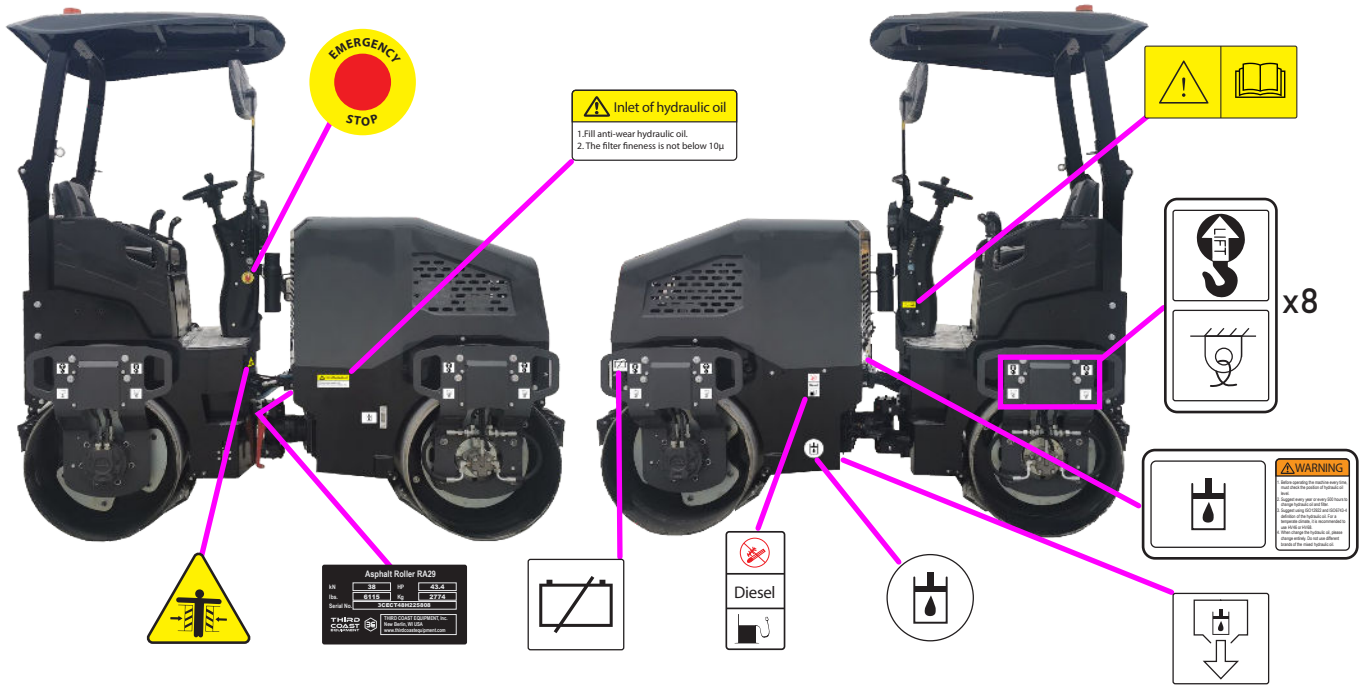
WARNING Indicates a hazard that **could** lead to serious injury or death if not avoided.

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

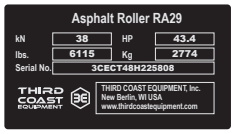
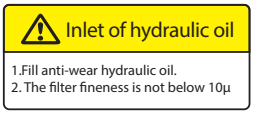
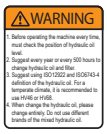
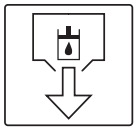
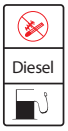
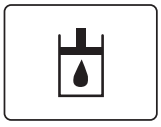
All possible hazardous situations cannot be covered in any operator's manual. Care must be exercised by everyone using, maintaining, or working on or near this equipment. If you are ever in doubt of how to safely operate or service this equipment, cease operation immediately and contact Third Coast or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

MACHINE LABEL LOCATIONS

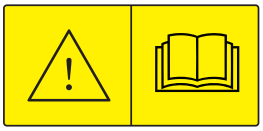
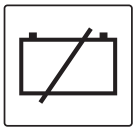
The labels shown below and on the following pages are included on this Third Coast machine and must be maintained as part of the machine. Any label that becomes illegible through operation, wear & tear, or for any other reason must be replaced before the machine is operated, transported, or serviced. All labels must be understood by all operators prior to operating this equipment. Note, other labels are found on and near the engine of this machine and are explained in your engine manufacturer's operation manual.



MACHINE LABELS

LABEL	INTERPRETATION
	NAMEPLATE: This label lists important information about the machine including model, serial number, and other information.
	TIE DOWN: This label identifies safe tie-down points for securing the machine for transport.
	HYDRAULIC OIL: This label indicates the presence of hydraulic oil.
	HYDRAULIC OIL INLET: This label contains information about filling the hydraulic oil tank.
	HYDRAULICS WARNING: This label warns of the need to inspect and maintain the hydraulic fluid type, level, and condition.
	LIFT POINT: This label identifies the safe lifting point for transporting the machine.
	HYDRAULIC OIL DRAIN: This label identifies the drain port for emptying hydraulic oil.
	DIESEL HAZARDS: This label warns of the presence of diesel fuel and the hazard an open flame presents.
	PINCH POINT: This label warns of a pinching hazard present at the articulation joint.
	HYDRAULIC FLUID LEVEL: This label indicates where to read the hydraulic fluid level.
	EMERGENCY STOP: This label indicates the location of the Emergency Stop button.

Labels continued on next page.

LABEL	INTERPRETATION
	READ THE MANUAL: This label instructs the operator to read the manual prior to operating the machine.
	BATTERY DISCONNECT: This label indicates the location of the battery disconnect switch.

HAZARDS & RISKS

CALIFORNIA PROPOSITION 65 WARNING

WARNING Use of this product may expose you to certain chemicals, including 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 technique 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 only. Do not attempt to lift this machine manually.
- Ensure a clear path to your destination and stable and clear ground before lifting.

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 machine is OFF before removing the guards or making adjustments or repairs.
- Ensure 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/near trenches, ensure adequate trench shoring is used to prevent collapse.
- Ensure the area in which you are working does not contain any live electrical cables, gas, water, or communication services that may be damaged by this equipment.
- Never stand on the unit while it is operating.
- Do not increase the governed no-load motor speed above 3,000 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 diesel fuel and generate heat that poses certain hazards.

- Diesel fuel is extremely flammable and explosive under certain conditions.
- Ensure fuel 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. 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 diesel fuel when refilling; spilled diesel or diesel 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 it is 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. Never attempt to restrict airflow over the engine cooling fins.
- Do not operate this machine off of gasoline; use only #2 diesel fuel blended for your expected ambient temperatures.

CHEMICAL HAZARDS

⚠ WARNING Certain chemical hazards exist due to the presence of diesel, 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. Diesel vapors may be hazardous to your health, and concentrated 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 and can cause temporary or permanent hearing loss.

- Wear an approved hearing protection device while operating this machine as required by OSHA regulations to limit noise exposure.
- 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.
- Control silica dust at the source when possible using water or other suppression means.
- 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 training, 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 and diesel.
- 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.

FAMILIARIZATION WITH THE ROLLER & ITS COMPONENTS

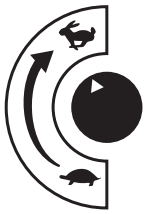
Prior to operating this roller, it is important to be aware of the critical components, safety features, and safe operating procedure of this machine.

EMERGENCY STOP BUTTON



The Emergency Stop button is located on the operator's right side of the steering column and is indicated by the label shown to the right. Engaging the Emergency Stop button ceases all machine functions including the engine, and should only be used in emergency situations. To engage the Emergency Stop button, depress it. To release it, twist it clockwise until it pops outward.

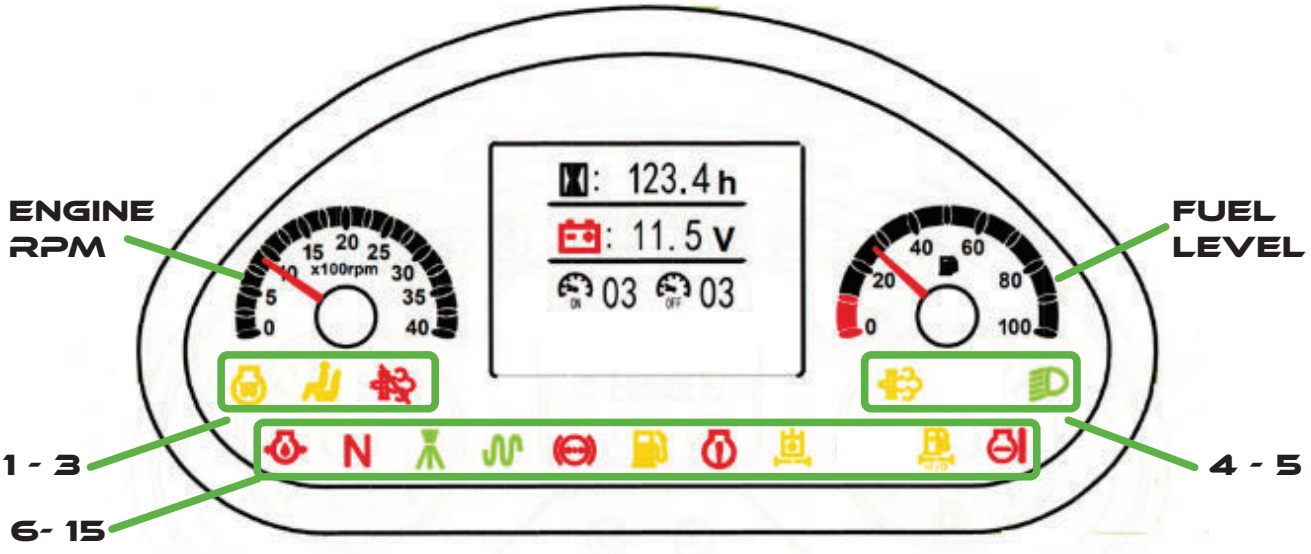
THROTTLE (ENGINE SPEED CONTROL)



The throttle dial, located just above the key start, adjusts engine speed. This roller should be started and operated with the throttle in the maximum speed position for best performance, achieved by turning the dial knob fully towards the icon. Minimum speed is achieved by positioning the throttle downwards towards the icon and is only used in special circumstances such as troubleshooting or cooldown.

CONTROL PANEL

The control panel provides important operator feedback including engine conditions, machine status, and other critical metrics. The information provided by each indicator light is detailed below:



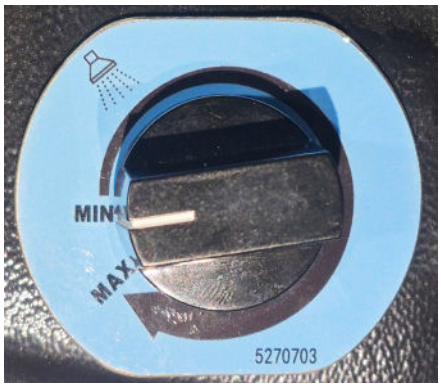
1. GLOW PLUG ON
2. SEAT SWITCH
3. DPF REGEN BYPASS MODE
4. DPF REGEN ACTIVE
5. LIGHTS ON
6. LOW OIL PRESSURE
7. NEUTRAL POSITION
8. WATER PUMP ON
9. VIBRATION ON
10. BRAKES ENGAGED
11. LOW FUEL ALERT
12. CHECK ENGINE
13. CHECK HYDRAULIC FILTER
14. WATER IN FUEL
15. HIGH ENGINE TEMP

PARKING BRAKE

When the engine is off, the parking brake on this machine is automatically activated via hydraulics, and no user intervention is necessary. When the engine is running, the parking brake can be enabled by positioning the parking brake switch towards the Ⓟ position and be released by toggling the same button away from the Ⓟ position.

WATER PUMP CONTROL PANEL

This roller has an adjustable water pump control that can vary the flow rate of water to the spray bar, allowing precise control of how much water is applied to the surface of the asphalt when the water delivery is enabled. To make adjustments to the water pump flow rate, rotate the water pump control knob (located on the top of the dashboard) until the desired setting is achieved. MAX is the highest rate of flow and equates to a constant flow of water. MIN is the lowest rate of flow and equates to three seconds on and eight seconds off. Note: The knob will adjust the amount of flow when the pump is engaged, but engaging the pump is done by the joystick control.



WATER PUMP CONTROL PANEL

JOYSTICK CONTROL

This machine has two interconnected joysticks that move in tandem. The joysticks control fore/aft travel, engage/disengage the exciters and water spray pump, and operate the edge cutter (if equipped). Unless actively moving the roller forward or backwards, the joystick should remain in the neutral position, indicated by an “N”.

Specific details on using the joystick are found under “OPERATING THE ROLLER”.



JOYSTICK CONTROL

DIESEL PARTICULATE FILTER REGENERATION

This Yanmar Tier 4f engine features a diesel particulate filter ("DPF") that removes soot from the exhaust during engine operation in a process known as regeneration ("regen"). The DPF is always in one of five operating states: Self-Regen, Assisted Regen, Stationary Regen, Recovery, or Regen Bypass.

SELF-REGEN MODE

- Status: The engine load/temperature is high enough to burn soot naturally.
- Indication: There is no dashboard indication of this mode.
- Operator Requirements: None. Operate normally.

ASSISTED REGEN MODE

- Status: The engine load/temperature is not high enough to burn soot naturally; the throttle valve will close slightly to increase the exhaust temperature to burn soot as needed.
- Indication: There is no indication of this mode.
- Operator Requirements: None. Operate normally. You may hear slightly increased engine speed.

STATIONARY REGEN MODE

- Status: Occurs when the engine is unable to clear soot using Self-Regen or Assisted Regen modes, especially if the Regen Bypass mode has been enabled.
- Indication: DPF regen light flashing. Check engine light on. Error code 3719-16 displayed. During the stationary regen process, the amber regen request light will illuminate solid and the high exhaust gas warning light may illuminate; this is normal.
- Operator Requirements: Complete stationary regeneration immediately. If not completed, the engine power will reduce 15% for the first two hours and 50% thereafter. Park the machine with the engine on in low idle with Regen Bypass mode disabled. When the engine either reaches 140° or after 15 minutes of operation, trigger a manual regen request by pressing the regen request button on the dash. All conditions must be met or the regen request will fail with error code "972-0 Driving Force Not Met." The process takes about 30 minutes.

RECOVERY MODE

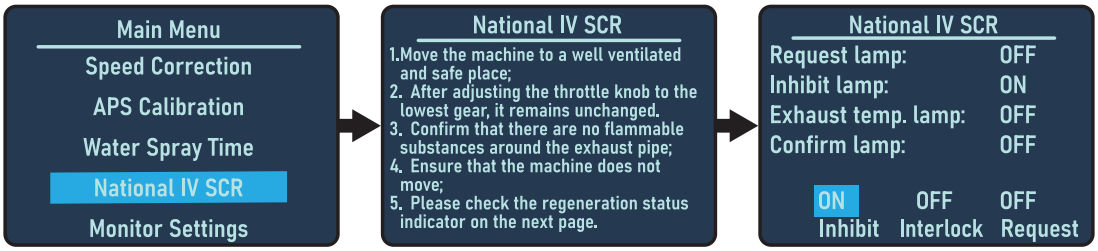
- Status: The operator has not completed the stationary regen as required and the DPF has plugged with particulate matter to the point the engine can no longer operate or regenerate.
- Indication: DPF regen light flashing. Check engine light on. Error code 3719-0 displayed.
- Operator Requirements: Call a Yanmar dealer. There is no service the end user can perform. A service technician can attempt a recovery regeneration, but it is possible the DPF will require non-warrantable replacement by a Yanmar certified technician.

REGEN BYPASS MODE

Regen Bypass mode can be enabled to prevent the machine from assisted regeneration, which is useful in certain situations. Unless your jobsite mandates the use of this mode, we recommend disabling it to minimize the need for a stationary regen.

To enable active Regen Bypass mode, press  to access the main menu, and tap  to scroll down to "National IV SCR." Press  again to proceed to the next screen. Read the notice,

then press again to proceed. You can change the value for “Inhibit” to ON to bypass active regeneration. The “Interlock” and “Request” modes should be left as-is and only adjusted by a Third Coast or Yanmar dealer.



DPF BYPASS ENABLE/INHIBIT MODE SELECTION

TIPS FOR DPF OPERATION

- Only enable Regen Bypass mode when absolutely needed. Normal operation allowing the Self-Regen and Assisted Regen modes is preferred to burn away soot and minimize stationary regen.
- To further reduce the need for stationary regeneration, avoid long periods of low-idle operation and avoid repeated cold starts with little use in between.
- Always operate the machine at full rpm to maintain full engine load.
- Perform stationary regenerations as soon as reasonably possible to minimize the chances of the machine entering recovery mode.

HEADLIGHTS

This roller features bright LED work lights that can be activated by pressing the switch with the headlight icon, . Use of the headlights while the engine is off will drain the battery.

STARTING THE ROLLER

- Ensure the area around the roller is free from personnel, debris, and other potential hazards prior to mounting the roller.
- Ensure the engine speed is in the position, the Emergency Stop is disengaged, and the joystick is in the NEUTRAL “N” position.
- Sit in the operator’s seat and fasten the seat belt before starting the roller.
- Turn the key one click to the “ON” position. The glow plug indicator on the dash will illuminate. Wait for 5-10 seconds until the glow plug cycle is complete (the indicator light will extinguish).
- Turn the key to the START position and hold it until the engine starts, then release the key.
- Allow 2-3 minutes for the roller to warm up. It is advisable to keep the parking brake engaged while warming up the roller. When ready to operate, release the parking brake.

OPERATING THE ROLLER

FORE/AFT TRAVEL

Basic fore/aft motion of the roller is controlled by either joystick. The joystick control is position-sensitive and will travel faster in either direction the further away the lever is from the “N” (neutral) position. To travel forwards, push either joystick in towards the operator to disengage it from its neutral position, then towards the front of the machine. To travel in reverse, push the joystick first towards the operator to disengage it from its neutral position, then towards the rear of the machine. NOTE: If the parking brake is engaged, an audible alarm will sound when attempting to move the roller forwards or backwards.

OPERATING THE EXCITERS, WATER PUMP & EDGE CUTTER

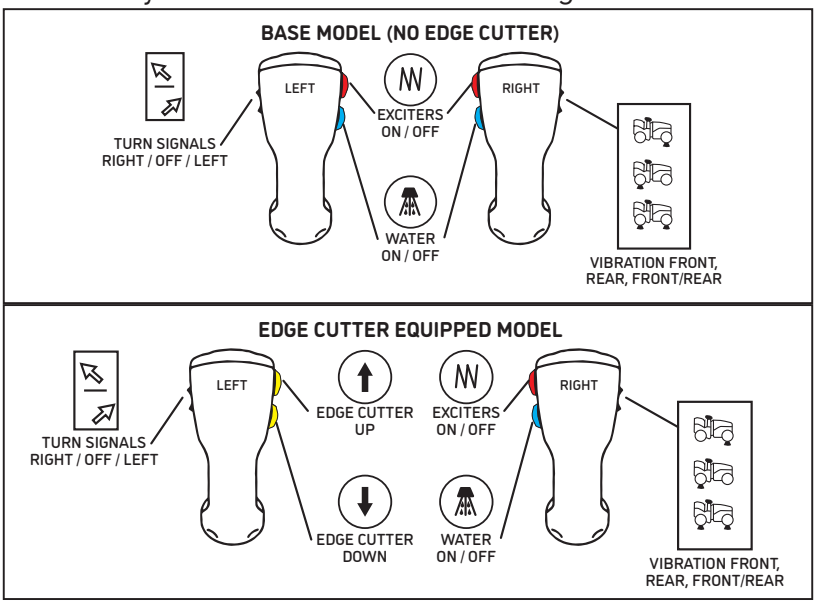
Set compaction mode to one of three settings by toggling the BLACK compaction mode rocker switch on the outboard side of the right joystick, as shown in the diagram below, to FRONT ONLY (🚜) REAR ONLY(🚜), or FRONT/REAR (🚜).

To engage and disengage the exciters, toggle the RED button on either joystick. On edge cutter equipped models, there will be no exciter control button on the left joystick.

To engage and disengage the water pump, toggle the BLUE button on either joystick. On edge cutter equipped models, there will be no water pump control button on the left joystick.

To engage the turn signals, use the left joystick's outboard rocker button to set the turn signal to either left, off, or right. The signal must be disabled manually; it will not disengage after turning.

To operate the edge cutter on edge cutter equipped models, use the upper yellow button to raise the edge cutter and the lower yellow button to lower the edge cutter.



POWERING OFF THE ROLLER

To power off the roller after use:

- Disengage the vibration, and turn off the lights.
- Shut off the engine by turning the key to the OFF position. The parking brake will engage automatically when the unit is in the OFF position.

EMERGENCY SHUTDOWN PROCEDURE

The machine is equipped with an Emergency Stop button that will stop all machine functions immediately when engaged, including shutting down the engine. To engage the Emergency Stop, depress the Emergency Stop button fully. To release the Emergency Stop, turn the Emergency Stop button clockwise until it stops and pops slightly outward.

The Emergency Stop is for emergencies only and should not be used for shutting down the roller in non-emergency situations.

USING THE EDGE CUTTER

The edge cutter is a factory-installed accessory for shaping the outer edges of an asphalt surface, either to provide a perfect finished edge, correct mistakes, or provide an ascending or descending shape for diverting or directing rainwater.

To operate the edge cutter, install the correct profile blade (straight, ascending, or descending), and then use the yellow buttons on the joystick to raise and lower the edge cutter as desired.



EDGE CUTTER

EXTENDED STORAGE

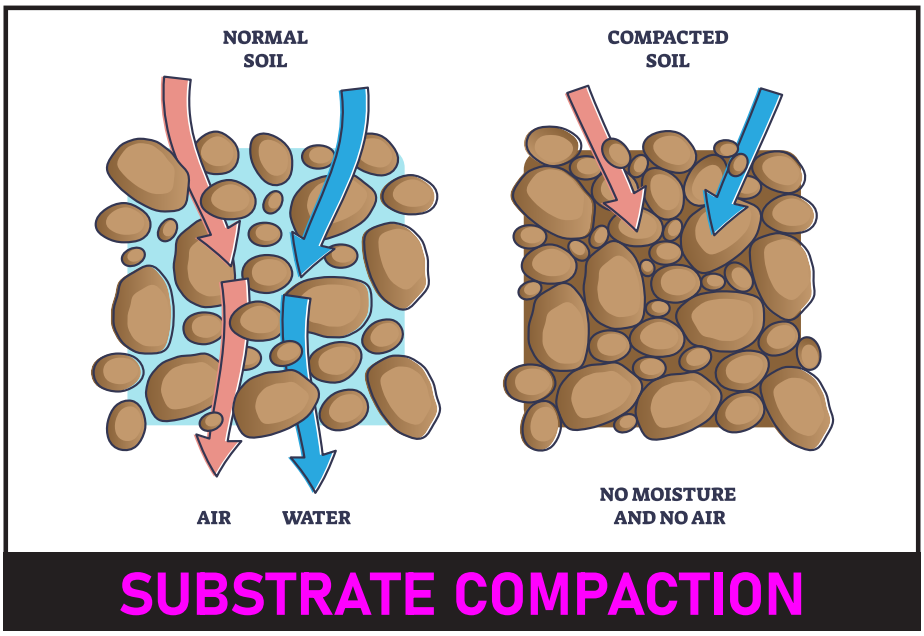
Following proper long-term storage procedures ensures the machine is ready to operate when you return to it. The following procedures should always be performed when the machine will not be in use for the next 30 days:

- 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 hydraulic oil levels, and top off if necessary.
- Drain all water from the water tank and spray bars.
- Store the machine in a clean and dry indoor storage location.

TIPS FOR PROPER COMPACTION

Proper compaction reduces the transport of air and water, resulting in a more stable base with less chance of shifting or settling. However, an over-compacted substrate is actually weaker and can yield long-term failures. If you have a jobsite engineer, always follow their specification for proper compaction, otherwise these rules of thumb may help to ensure proper compaction:

- Don't overdo it. Cracking soil or pulverized substrates indicates over-compaction. Over-compaction of substrates like gravel can inhibit drainage instead of promoting drainage.
- As you gain experience with this machine, you will understand the noises it emits and how they relate to under-compaction, proper compaction, and over-compaction. The guidance of a more experienced operator can help you build this experience, but, in general, over-compaction will be noisy with excessive and more erratic machine vibration.
- Count your passes in each area, and track your areas closely. Uniform compaction is equally as important as the right amount of compaction and helps prevent uneven settling.
- If in doubt of your lift requirements, a good rule of thumb is 3 inches for asphalt and up to 6 inches for granular (sand and gravel) soil.
- Water can be used on the substrate to minimize dust and should always be used on asphalt to minimize the chance that asphalt will stick to the drum. Program this roller's water pump timing to suit your local conditions to simplify this process.



SUBSTRATE COMPACTION

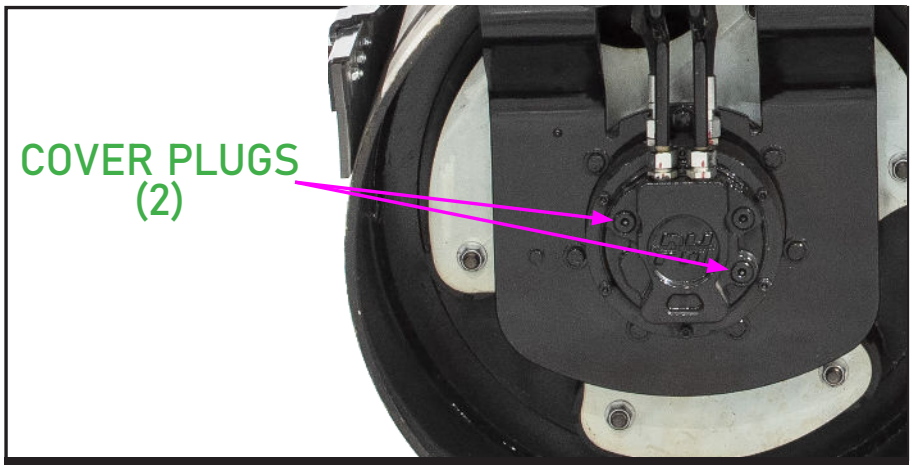
LIFTING & TRANSPORTATION

TO LIFT THIS MACHINE:

- Never lift this machine while it is operating.
- Use a four-point lift strap or hook rated for the weight.
- Engage the articulation lock prior to lifting this machine.
- Attach the lift strap through the indicated lifting points. There are eight in total, and one from each corner of the machine should be used. The lifting straps should always be connected symmetrically. Never lift this machine from the ROPS.
- Lift straight upwards, never at an angle, and never lift higher than necessary.
- Never walk underneath the machine when lifted.

TO TOW THIS MACHINE ACROSS A JOBSITE:

- Position the machine on flat ground, and block the roller drums with wheel chocks so the machine cannot move.
- Release the parking brake for each hydraulic drive motor. Note, this will enable the roller to roll freely, so ensure the drum chocks are properly installed.
    - Using an 8mm hex driver, remove the two cover plugs (shown in the image below) from the first black hydraulic motor located within the drum.
    - Insert the 8mm hex driver into the bolts located underneath the plugs that were removed in the previous step, and gently turn both bolts clockwise to drive them in until mild force is required. An internal spring will just start to engage.
    - Turn each bolt another 120° (1/3 rotation) inwards to release the parking brake.
    - Repeat this process on the second motor.
- With the roller drums still chocked, connect tow straps to the roller and to the towing vehicle. Ensure the tow straps and hardware are rated for the application and all hardware is secured.
- Remove the blocks from the drums and tow the machine as needed. Do not exceed 0.5 mph, and drive with smooth, controlled movement to avoid shock-loading the machine and tow straps.
- When finished towing, replace the wheel chocks to secure the roller position.
- Reconnect the hydraulic brakes by backing the two bolts in each hydraulic pump outwards until they gently snug against their backstop.
- Disconnect the tow straps.



HYDRAULIC MOTOR - BRAKE DISCONNECT

TO TRANSPORT THIS MACHINE BY TRAILER:

- When transporting over the road, always tie down the machine using straps of adequate strength secured through the front and rear tie-downs and engage the articulation lock.
- Always use multiple straps to secure this machine.
- When transporting across the jobsite using the roller's own power, always use smooth, controlled movements, a speed appropriate to the terrain, and position the roller straight up hills; avoid cross-slope climbs to reduce the risk of tipover.

NOTE: The lift point and tie downs on this machine are symmetrical about the centerline in the image shown on the right and should always be rigged symmetrically.



LIFTING & TIE-DOWN POINTS

CARE & PREVENTATIVE MAINTENANCE

Third Coast rollers are designed to provide years of trouble-free service, but as with all power equipment, periodic maintenance is required to keep this machine running smoothly. Maintenance is a normal part of ownership of any machine and must be carried out on time per the prescribed intervals or sooner, 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 roller must be inspected, at a minimum, at the lowest interval described in the "Machine Maintenance/Inspection" table below. In tough operating environments, more frequent inspection is recommended.

MACHINE MAINTENANCE/INSPECTION	
ITEM	OPERATION HOURS
Basic operation check	Every 8 hours or every day
Full visual inspection	Every 8 hours or every day
Check hydraulic oil level	Every 8 hours or every day
Check scraper bars for wear	Every 8 hours or every day
Grease articulation joint	Every 100 hours or monthly
Change hydraulic oil filter	Every 200 hours
Grease the roller bearings	Every 200 hours
Inspect shock absorbers	Every 300 hours
Change hydraulic oil	Every 500 hours or yearly
Clean battery terminals	Every 600 hours

DAILY OPERATIONAL CHECKS

Prior to each daily use of the equipment and at the start of each operator's shift:

- 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, engine cooling fins, articulation joint, and in the control panel.
- Check all hardware to ensure proper tightness. See the "Tightening Torque Tables" section for proper fastener torque.
- Check the engine oil level and hydraulic oil level, and refill as needed.
- Check for fuel and oil leaks, and repair as needed.
- Check scraper bars for wear. The scraper bars are spring loaded and self-adjusting; no maintenance is needed, but they should be replaced when worn.

MONTHLY OPERATIONAL CHECKS

After each month of operation, or each 100 hours, whichever occurs first:

- Grease the articulation joint (both top and bottom pins) with NLGI No. 2 synthetic multipurpose grease.
- Clean the fuel and air filters.

After each month of operation, or each 200 hours, whichever occurs first:

- Replace the hydraulic oil filter.
- Grease the drum bearings.

LONG-TERM OPERATIONAL CHECKS

- Change the hydraulic oil every 500 hours or yearly, whichever occurs first.
- Clean the battery terminals every 600 hours.

ENGINE INSPECTION & MAINTENANCE TABLES

To maximize the lifespan of your engine, inspect and maintain it per the schedule in the "Engine Maintenance" table below. This table is an excerpt from the engine manufacturer's manual and is not a substitute for reading your engine manual in its entirety.

ENGINE MAINTENANCE	
ITEM	OPERATION HOURS
Inspect for oil leakage	Every 8 hours or every day
Check oil level	Every 8 hours or every day
Check for loose or missing hardware	Every 8 hours or every day
Replace engine oil & oil filter	Every 500 hours
Clean or replace air filter	Every 100 hours
Replace fuel filter	Annually

A complete list of required engine maintenance tasks can be found in your engine manual.

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

TIGHTENING TORQUE FOR CLASS 8.8 FASTENERS								
THREAD SIZE>	M6	M8	M10	M12	M14	M16	M18	M20
TORQUE, FT·LB>	7	17	34	59	94	146	210	292
TORQUE, N·M>	9.5	23	49	80	127	198	285	395

TIGHTENING TORQUE FOR CLASS 12.9 FASTENERS								
THREAD SIZE>	M6	M8	M10	M12	M14	M16	M18	M20
TORQUE, FT·LB>	11	26	51	88	139	210	285	401
TORQUE, N·M>	15	35	69	119	188	285	386	544

SERVICE PARTS & FLUIDS TABLES

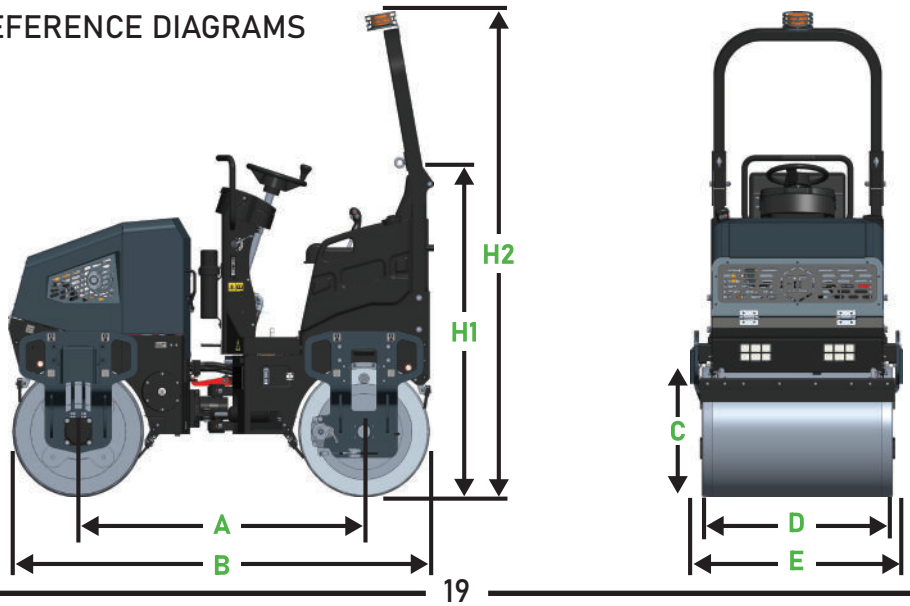
SERVICE PARTS & FLUIDS		
ITEM	PART/TYPE	QUANTITY
Exciter Oil	Mobil SHC 629	2.4 qt (2.3L)
Articulation Joint Grease	NLGI #2 Synthetic	-
Engine Oil	15W-40	5.3 qt (5.0L)
Hydraulic Oil	AW ISO 46 Hydraulic Oil	19.8 gal (75L)
Hydraulic Oil Filter	Donaldson P170591	1
Engine Fuel Filter	Yanmar Y117609	1
Engine Outer Air Filter	Donaldson P821575	1
Engine Inner Air Filter	Donaldson P822858	1
Engine Oil Filter	Yanmar 119005-35170	1

MACHINE SPECIFICATIONS

TABLE 5: ROLLER SPECIFICATIONS	
DIMENSIONS & WEIGHT	
Wheelbase (“A”)	67.4 in
Overall Length (“B”)	94.9 in
Drum Diameter (“C”)	27.2 in
Drum Width (“D”)	47.2 in
Drum Thickness	0.46 in
Overall Width (“E”)	52.1 in
Height, ROPS Folded (“H1”)	67.8 in
Height, ROPS Extended (“H2”)	104 in
Operating Weight	6,646 lb
PERFORMANCE DATA	
Parking Brake Type	Hydraulic
Drive System	Hydraulic
Vibration Frequency, Hz	60 Hz
Centrifugal Force, per drum	High: 8,542 lbf (38kN) Low: 5,171 lbf (23kN)
Travel Speed (with vibration),	7.5 mph
Gradeability Maximum	40% (Without Vibration) 30% (With Vibration)
Inside turning radius, ft	8.53 ft
Water Tank Capacity, US gal	52.9 gal

Note: Roller and engine specifications are both subject to change at any time.

DIMENSIONS REFERENCE DIAGRAMS



ENGINE SPECIFICATIONS

This machine features a Yanmar liquie-cooled Tier 4 final diesel engine. Full engine specifications can be found in your Honda engine manual, but key specifications are summarized below:

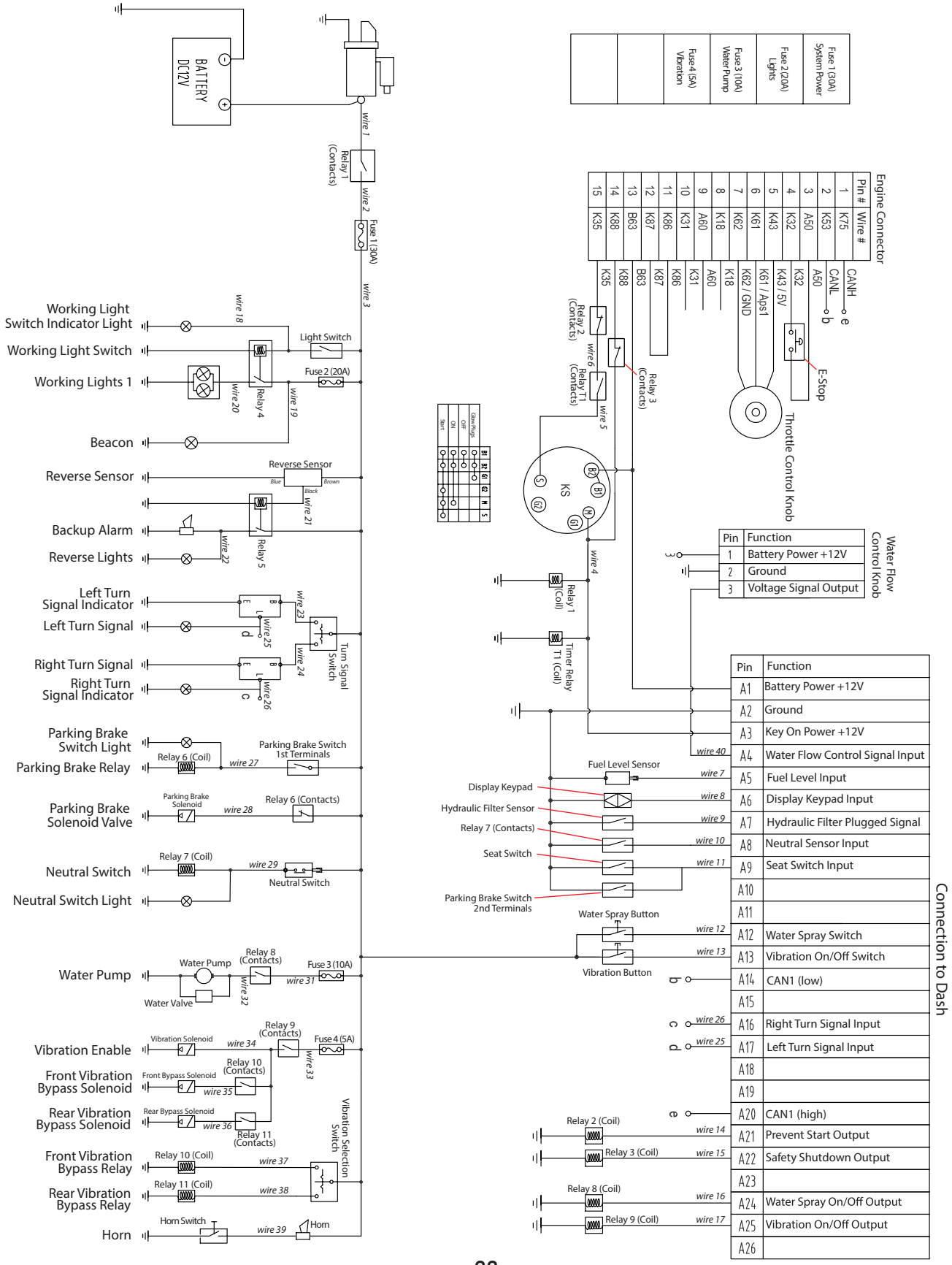
TABLE 6: ENGINE SPECIFICATIONS	
ENGINE DATA	
Engine Manufacturer	Yanmar
Engine Model #	3TNV86CT-DTY
Fuel Type	Diesel
Cooling	Liquid Cooled
Emissions	Tier 4f/Stage V
Aftertreatment	DPF
Number of Cylinders	3
Bore x Stroke, mm	86 x 90
Displacement, cu. in.	96
Peak Output Power, hp	43.5
Operating Speed, rpm	3,000 max
Fuel Tank Capacity, gal	7.9

TROUBLESHOOTING

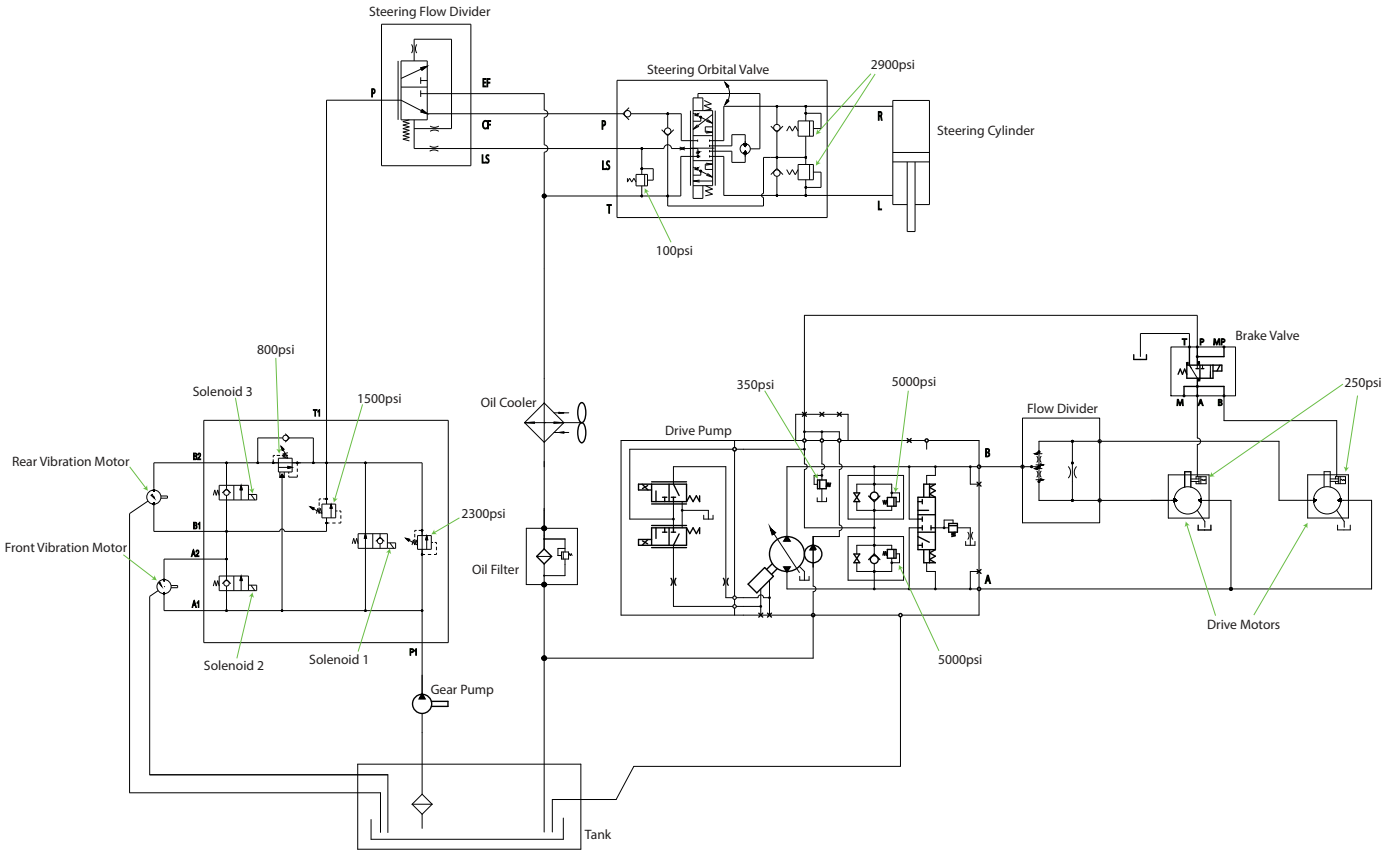
SYMPTOM	POSSIBLE CAUSE	SOLUTION
Engine does not start and will not turn over.	Battery disconnect is in OFF position.	Turn battery switch to ON position.
	Operator is not in the seat.	Ensure operator is in the seat before starting, and that operator presence light on dash is not illuminated.
	Battery is not charged.	Check for at least 12V indicated on the voltmeter on the dash when the key is in the ON position. Charge or replace roller battery.
	Emergency Stop is engaged.	Disengage Emergency Stop by twisting it counterclockwise.
	Loose battery wires.	Check that both red and black main battery wires are tightly connected to the battery.
	Loose wire connection at starter.	Check that the large red wire is connected tightly at the starter terminal.
	Travel lever not in neutral position.	Move to neutral position and retry.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Engine does not start; it turns over but will not maintain operation.	Low engine oil.	Check oil level and refill as needed.
	Low fuel level or bad fuel.	Check fuel level and age of fuel.
	Inadequate glow plug cycle time.	Cycle glow plugs for five seconds, and try starting engine again.
	Water in the fuel.	Check fuel/water separator. If necessary, drain fuel system and refuel.
	Plugged fuel filters.	Check sight glass on fuel filters for debris. Replace filters if necessary.
	Air is trapped in the fuel system.	Crack open fuel lines at fuel pump and each injector. Bleed air out of lines and retighten fuel lines.
Engine is difficult to start, or will not remain running at idle.	Low fuel level or bad fuel.	Check fuel level and age of fuel.
	Water in the fuel.	Check fuel/water separator. If necessary, drain fuel system and refuel.
	Plugged or partially plugged fuel filters.	Inspect fuel filters and replace if necessary.
	Air is trapped in the fuel system.	Crack open fuel lines at fuel pump and each injector. Bleed air out of lines and retighten fuel lines.
	Engine is very cold.	Extend glow plug cycle time and try starting again.
Engine shuts off after being operated for a long period of time.	Low fuel level or bad fuel.	Check fuel level and age of fuel.
	Plugged fuel filters.	Check sight glass on fuel filters for debris. Replace filters if necessary.
	Oil level too low. Low oil cut off engaged.	Check oil level. Refill if necessary.
	Air filter plugged.	Check air filter for dirt. Replace if necessary.
	Machine battery drains because the charging circuit is faulty.	Check the charging circuit is providing >13.5V when the engine is running at high speed.
Engine operates normally but will not transmit power to the drums.	Low hydraulic oil level.	Check hydraulic oil level with sight glass on tank. Refill if necessary.
	Parking brake engaged.	Disengage parking brake using the toggle switch on the dashboard.
	Travel control cable disconnected	Turn off machine, then verify that moving the travel control lever causes movement in both the control cable and at the pump lever arm.
	Leaking hydraulic hoses.	Check for leaks in the hydraulic hoses and fittings. Repair if necessary.

WIRING DIAGRAM



HYDRAULIC DIAGRAM



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 Yanmar 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

THIRD COAST EQUIPMENT

3CE Dealer Card

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