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1650RT | 1650RT (EU)
1650RT X-Series

Compact Track Loader
Operator's Manual

50950266 Rev. H 04/22



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Mustang 1650RT Compact Track Loader Operator Manual (50950266H)

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Brand: Mustang

Models: 1650RT

Machine: Compact Track Loader

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Main contents

- Introduction
- Safety
- Safety Equipment
- Indicators and Controls
- Operation
- Maintenance
- Troubleshooting

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Note: Refer to Figure 2 on page 24 for decal locations.

A

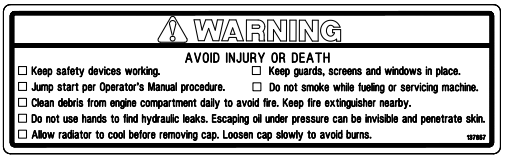


Located on the front panel below the door, behind the attachment hitch.

DANGER: AVOID INJURY OR DEATH

- **Keep out from under work tool, unless lift arm is supported.**
- **No riders! Never use work tool as work platform.**

B



Located on the inside of the right lift arm pillar.

WARNING: AVOID INJURY OR DEATH

- **Keep safety devices working.**
- **Jump start per Operator's Manual procedure.**
- **Clean debris from engine compartment daily to avoid fire. Keep fire extinguisher nearby.**
- **Do not use hands to find hydraulic leaks. Escaping oil under pressure can be invisible and penetrate skin.**
- **Allow radiator to cool before removing cap. Loosen cap slowly to avoid burns.**
- **Keep guards, screens and windows in place.**
- **Do not smoke while fueling or servicing machine.**

C



Located next to the fuel filler neck.

USE PROPER DIESEL FUEL ONLY!

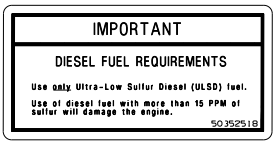
D



Located on the bottom of the side panels behind the tracks (both sides), and at the front of each pontoon on the outside face (both sides).

Tie-down point. Only use tie-down points indicated on machine when transporting machine.

E



Located near the fuel filler neck.

IMPORTANT: DIESEL FUEL REQUIREMENTS

- **Use only Ultra-Low Sulfur Diesel (ULSD) fuel.**
- **Use of diesel fuel with more than 15 PPM of sulfur will damage the engine.**

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Optional Lights/Lockout Keypad Indicators/Buttons

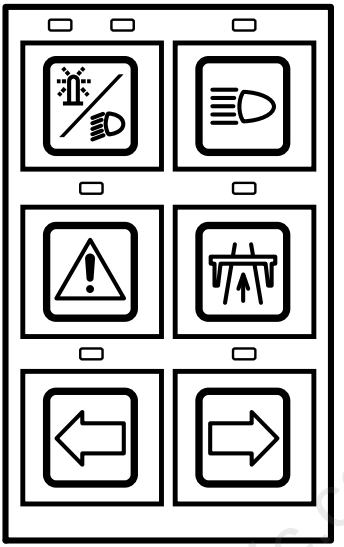


Figure 19 – Road Lights Keypad Indicators/Buttons

Table 5: Optional Road Lights Keypad Buttons

Button	Description	Function
	Beacon / Position / Work Lights Button	Operates optional road lights, and works with main control keypad to control the beacon and position lights. If all lights are off, one press activates the beacon and all position lights; a second press additionally turns on the road lights. If the work lights are on, pressing this button turns off the work lights and turns on the road lights. If the road lights are on, all lights turn off if this button is pressed.
	High-Beam Button	Activates optional road lights high-beam.
	Hazard Lights Button	Activates optional flashing road hazard lights. Operates even if the ignition switch is off.
	Hydraulics Lock-out Button	Activates optional lift and tilt hydraulics lock-out. Used when driving the machine on roadways. See “Transport Hydraulics Lock-out (Option)” on page 95.
	Left Directional Button	Activates optional flashing road lights left directional indicator.
	Right Directional Button	Activates optional flashing road lights right directional indicator.

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Warm Up

⚠ WARNING Do not operate the machine until the hydraulic system reaches operating temperature. When cold, hydraulic response is slow and can be unpredictable, presenting an unsafe condition. Damage to the machine can also result.

1. After starting, allow the engine to run at low idle with no load for a minimum of 5 minutes without operating the drive, lift, tilt or auxiliary functions.
2. Run the engine at 1800 rpm with no load for 5 minutes.
3. Raise the lift arm so the attachment is off the ground.
4. Extend and retract each of the cylinders several times with no load.
5. Travel slowly forward and backward several times.
6. In cold weather, tilt the attachment all the way forward and keep it there for 20-25 seconds. Repeat this step until the attachment tilt speed is normal.

Run-In Period

The performance and service life of the machine is heavily dependent on using the machine carefully during its first 100 operating hours.

- Do not operate the machine at the maximum rated operating capacity.
- Do not run the engine at a high speed for extended periods of time.
- Increase the load gradually while varying the engine speed.
- Follow the maintenance schedule. See “Maintenance Schedules” on page 127.

Stopping the Machine

When stopping the machine, perform the “Mandatory Safety Shutdown Procedure” on page 14. Raise the operator restraint bar, unfasten the seat belt(s) and grasp the hand-holds while climbing out of the operator’s compartment.

Important: *Do not stop the engine at full throttle. Damage to the engine can result.*

Note: *The machine is equipped with a spring-applied automatic parking brake. The parking brake is applied when the operator restraint bar is lifted, the operator’s leaves the operator’s seat, the engine is shut off, or the parking brake switch is actuated.*

Engine Stalling

⚠ WARNING If the engine should stall for any reason during operation, always turn the ignition keyswitch all the way counter-clockwise to the OFF position and place the lift/tilt, drive and auxiliary hydraulic controls into the neutral positions before re-starting the engine according to “Starting the Engine” on page 85.

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3. Inspect the water separator (Figure 94) for the presence of water:
   - If the indicator ring (M) is at the bottom of the cup, no action is required.
   - If the indicator ring (M) is floating off the bottom of the cup, water is present and needs to be drained.
4. If water needs to be drained, position a suitable collection container underneath the water separator drain.
5. Turn the fuel valve lever (V) on the water separator to the OFF position.
6. Loosen drain plug (N) at the bottom of the water separator. Allow water to drain until indicator ring falls to the bottom of the cup.

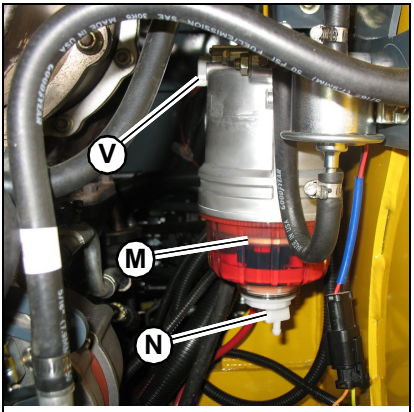


Figure 94 – Water Separator

7. Tighten drain plug (N) and discard fuel/water according to environmental laws.

Important: *Dispose waste fuel according to environmental laws. DO NOT pour fuel onto the ground or down a drain.*

8. Turn the fuel valve lever (V) on the water separator to the ON position.
9. Prime the fuel system by turning the ignition key to the ON position without starting the engine for 30 seconds. Repeat this step 3 times to ensure the fuel system is completely primed.

⚠ CAUTION **Do not use the starter motor to crank the engine to prime the fuel system. Damage to the engine starter motor, coils, pinion/ring gear could result.**

10. Start the engine and check for leaks.

Changing Water Separator Filter

⚠ WARNING **NEVER service the fuel system while smoking, while near an open flame, or if the engine is hot.**

1. Perform the “Mandatory Safety Shutdown Procedure” on page 14.
2. Wait until the engine has cooled.
3. Turn the fuel valve lever (V, Figure 94) on the water separator to the OFF position.
4. Unscrew the separator bowl from the housing and pull down on the existing filter to release it from the housing.
5. Install a new filter and reinstall the bowl.
6. Turn the fuel valve lever (V) on the water separator to the ON position.

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Table 29: Yanmar Engine Diagnostic Trouble Codes (DTC)

DTC			Error Item	
SPN	FMI	P-Code	Part	State
522572	6	P062A	SCV (MPROP)	High-pressure pump drive circuit (drive current [high level])
	11	P1645	SCV (MPROP)	High-pressure pump drive circuit (pump overload error)
522573	0	P2463	DPF	Over-accumulation (method C)
522574	0	P1463	DPF	Over-accumulation (method P)
522575	7	P2458	DPF	Regeneration defect (stationary regeneration failure)
522576	12	P160E	EEPROM	EEPROM memory read error
522577	11	P2459	DPF	Regeneration defect (stationary regeneration not performed)
522578	12	P160F	EEPROM	EEPROM memory write error
522579	12	P1405	EGR	Short-circuit between the EGR motor coils
522580	12	P0488	EGR	EGR position sensor malfunction
522581	7	P148A	EGR	EGR stuck open valve malfunction
522582	7	P049D	EGR	EGR initialization malfunction
522583	1	P1410	EGR	EGR high temperature thermistor malfunction
522584	1	P1411	EGR	EGR low temperature thermistor malfunction
522585	12	P1613	ECU Internal Malfunction	CY146 SPE/SPI communication error
522588	12	P1608	ECU Internal Malfunction	Excessive supply 1 voltage error
522589	12	P1617	ECU Internal Malfunction	Dropped/Insufficient supply 1 voltage error
522590	12	P1609	ECU Internal Malfunction	Sensor supply voltage error 1
522591	12	P1618	ECU Internal Malfunction	Sensor supply voltage error 2
522592	12	P1619	ECU Internal Malfunction	Sensor supply voltage error 3
522593	12	P1624	ECU Internal Malfunction	Power for sensor SRC low error
522594	3	P160A	ECU Internal Malfunction	Actuator drive circuit 1 VB short-circuit
522595	3	P1625	ECU Internal Malfunction	Actuator drive circuit 2 VB short-circuit
522596	9	U0292	CAN 2	TSC1 (CAN message) reception time out (SA1)
522597	9	U1301	CAN 2	TSC1 (CAN message) reception time out (SA2)
522598	11	P160B	ECU Internal Malfunction	SW reset (recovery) execution 1
522599	9	U1292	CAN 2	Y_ECR1 (CAN message) reception time out error
	11	P1636	ECU Internal Malfunction	SW reset (recovery) execution 2

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