

Figure 2-1 Instrument Panel and Controls



Operation

2.1 INTRODUCTION

In order to safely operate the Layton Remote Trax TC30-1, you must familiarize yourself with the location and function of all instruments and controls before operating the unit.

2.2 CONTROLS AND INDICATORS

If any control or instrument does not respond correctly, shut down the tractor and correct the malfunction before resuming operation.

2.2.1 Instrument Panel and Controls

See Figure 2-1.

1. HYDRAULIC OIL LEVEL/TEMPERATURE

Normal oil level should be at the bottom of the temperature scale, normal operating temperature is a function of the ambient temperature, hydraulic oil temperature under any conditions should not exceed 180°F (82°C).

2. HYDRAULIC OIL SHUTOFF Valve. A manual flow control valve mounted in the line at the rear of the hydraulic oil reservoir. This valve must be open, handle aligned with the valve body, whenever the engine is running.

3. HOURMETER. Located at the left side of the instrument panel, this digital timer indicates operating time in hours and tenths of hours.

4. AMMETER. Located on the instrument panel, second from left, this gauge indicates the charge/discharge condition of the electrical system.

5. FUEL Gauge. Located on the instrument panel, left center, this gauge indicates relative fuel quantity—Empty, 1/2, or Full tank.

6. OIL PRESSURE Gauge. Located on the instrument panel, right center, this gauge indicates engine oil pressure. Normal engine oil pressure is 55–65 psi.

7. WATER TEMPERATURE Gauge. Located on the instrument panel, second from right, this gauge indicates engine coolant temperature. Normal engine coolant temperature should not exceed 210°F (100°C).

8. IGNITION Switch. Located at the right side of the instrument panel. Turn key clockwise to energize the electrical system; turn key counterclockwise to shut down the tractor.

9. WARNING Beacon. Mounted on a bracket at the front of the tractor, behind the mast, this rotating amber beacon warns that the electrical system is energized.

10. EMERGENCY STOP Switch. Three emergency stop switches are mounted on the tractor—one on the rear of the tractor above the winch, and one on each deck over the tracks, behind the mast frame. Pressing any one of the switches stops all tractor functions.

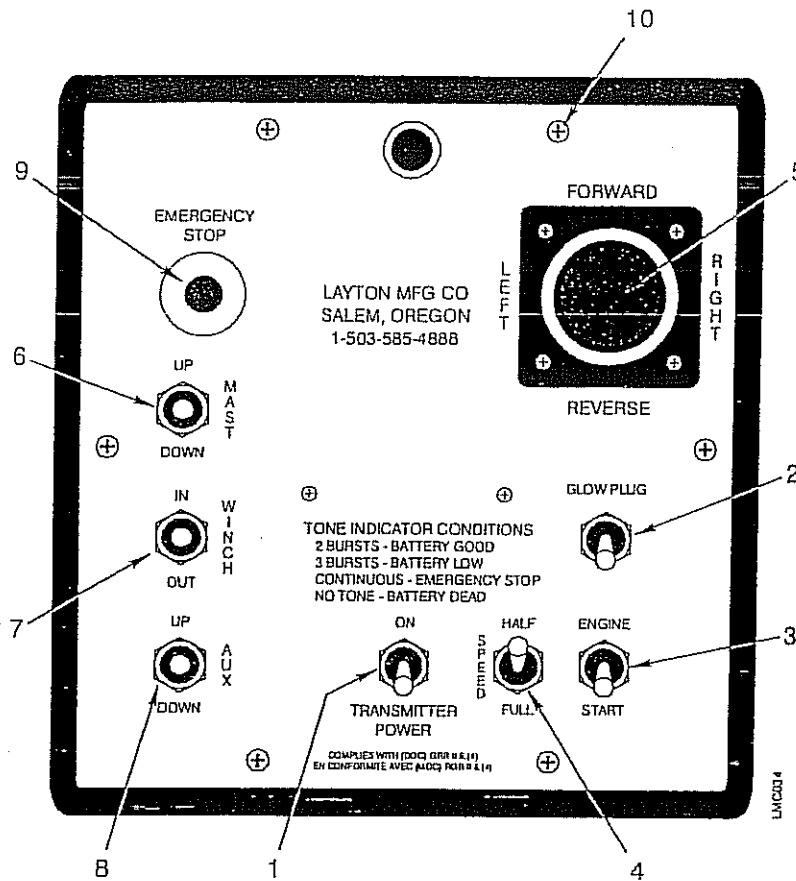


Figure 2-2 Remote Control Panel

2.2.2 Remote Control Panel

See Figure 2-2.

1. TRANSMITTER POWER Control. Mounted at the bottom center of the panel, this two-position toggle switch controls battery power to the transmitter. Push up to "ON" to enable the transmitter; pull back to disable the transmitter.

2. GLOW PLUG Control. Mounted at the right middle of the panel, this momentary switch applies power to the glow plugs for starting the tractor.

3. ENGINE START Switch. Mounted at the bottom right of the panel, below the glow plug switch, this momentary switch energizes the starter.

4. SPEED Switch. Mounted at the bottom of the panel, between transmitter power and engine start switches, this two-position toggle switch controls drive speed. Push up for "HALF" speed; pull back for "FULL" speed.

5. JOYSTICK Control. Mounted at the top right of the panel, this four-way joystick controls tractor motion. As marked on the control panel, tractor motion corresponds with joystick movement.

6. MAST Control. Mounted on the left side of the panel, above the winch control switch, this three-position toggle switch (spring-loaded to neutral) controls mast motion. Push up to move the mast "UP;" pull back to move the mast "DOWN."

NOTE: When the optional dozer blade is installed, this switch controls blade height.

7. WINCH Control. Mounted on the left side of the panel, above the auxiliary control switch, this three-position toggle switch (spring-loaded to neutral) controls winch function. Push up to hoist "IN" cable; pull back to pay "OUT" cable.

NOTE: When the optional dozer blade is installed, this switch controls blade angle.

8. **AUX Control.** Mounted at the bottom left of the panel, this three-position toggle switch (spring-loaded to neutral) controls motion of auxiliary equipment. Push up to move the auxiliary equipment "UP;" pull back to move the auxiliary equipment "DOWN."

NOTE: When the optional dozer blade is installed, this switch controls blade tilt.

9. **EMERGENCY STOP Pushbutton.** Mounted at the top left of panel, this momentary pushbutton stops all tractor functions.

NOTE: Always shut down the unit by using the emergency stop button (9) located on the top left of the remote control panel. After shut down, the ignition switch at the unit should be turned off.

NOTE: When you use the remote control Emergency Stop (9) to shut down the unit, you must cycle the ignition switch off, then back on in order to restart the tractor.

2.3 OPERATING PROCEDURES

2.3.1 Pre-Start

1. Check the hydraulic oil level and ensure that it is at least up to the mid point of the sight glass.
2. Ensure that the oil shutoff valve is open—handle aligned with valve body.
3. Check the track for loose, broken or worn chain or grouzers.
4. Check the condition of the three emergency shutoff switches—that the cover and electrical connections are intact.
5. Check engine oil level.
6. Ensure that the warning beacon is intact.

2.3.2 Starting

See Figure 2-2.

WARNING

ENSURE THAT NO ONE IS STANDING NEAR THE UNIT DURING START UP.

CAUTION

DO NOT TAP ON INSTRUMENT GLASS TO CHECK GAUGES FOR PROPER INDICATION.

1. Turn the ignition key (8, Figure 2-1) clockwise to "ON"—ammeter (4, Figure 2-1) should settle just left of null, fuel gauge (5, Figure 2-1) should indicate correct fuel level, warning beacon (9, Figure 2-1) should be flashing, and you should also hear the oil cooler fan running.

2. Push transmitter power switch (1) to "ON"—you should hear a two-burst tone, confirming that the remote control battery is good.

NOTE: No tone indicates a dead battery; a three-burst tone indicates that the battery is low, and a continuous tone indicates emergency stop.

Loosen the six screws (10) around the perimeter of the remote control faceplate in order to change the battery.

3. Actuate the glow plug switch (2)—you should hear a single-burst tone.

4. Actuate the engine start switch (3)—engine should start immediately.

5. Ensure the unit has warmed up 10-15 minutes (3-5 minutes minimum).

NOTE: During the initial start up, the joystick controls can be over sensitive if the hydraulic oil is cold. Allow the unit to warm up 10-15 minutes (3-5 minutes minimum).

2.3.3 Post-Start

1. Walk around the tractor once again to check for leaks or unusual noises.
2. Recheck all instruments—when all indications are normal, the unit is ready for operation. Ensure that the fuel tank is at least 1/2 full before starting a new job.

NOTE: All instruments are positioned so that normal indications appear in the mid-range of the scale.

3. Pull back on the mast control switch to ensure that the mast is in transport position, bottomed out approximately 12" above ground, before moving the tractor.

4. Become familiar with the controls before putting the unit to work in field conditions.

Section 2



2.3.4 Shutdown

Always shut down the Remote Trax by pressing the emergency stop pushbutton located on the top left of the remote control panel. After shut down, the ignition switch at the unit should be turned off.

NOTE: When you use the remote control Emergency Stop to shut down the unit, you must cycle the ignition switch off, then back on in order to restart the tractor.

In the event of an emergency you can shut down the Remote Trax by pressing any of the three emergency shutoff switches. These switches are located on the left side, the right side, and on the rear of the unit.

NOTE: The emergency shutoff switches on the Remote Trax unit are for **EMERGENCY SHUT DOWN ONLY**. Do not use these switches for normal shut down.

2.4 TRANSPORTING THE TRACTOR

Whenever loading/unloading the tractor, ensure that the mast is in transport position, approximately 12" above ground, and that the unit is warmed up.

NOTE: During the initial start up, the joystick controls can be over sensitive if the hydraulic oil is cold. Allow the unit to warm up 10-15 minutes (3-5 minutes minimum).

▲ WARNING

ALWAYS BACK THE TRACTOR UP AN INCLINE—WINCH END FIRST—TO AVOID OVERTURNING.

For stability, the tractor is designed to be heavy in the rear (winch) end. Therefore, you must back the tractor up a loading ramp, and run it forward down a loading ramp.