TEREX®

Service Manual

Compact Track Loader

PT-30 CE/ROW

Part Number: 2010-254
Printed (1-11)

Table of Contents

15. Troubleshooting

16. Maintenance

17. Hydraulic Pressure Check & Adjustment

1. Product Safety

Chapter Overview

This chapter contains product safety information for the Terex PT-30 Compact Track Loaders. Read and understand all product safety information before attempting to service any Compact Track Loader.

Safety Alert Symbol
This symbol means: **Attention! Be alert! Your safety is involved!**

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

This symbol is used as an attention-getting device throughout this manual as well as on decals and labels fixed to the machinery to assist in potential hazard recognition and prevention.

Property or equipment damage warnings in this publication are identified by the signal word "NOTICE".

NOTICE

"NOTICE" Indicates a hazardous situation which, if not avoided, could result in property or equipment damage.

The word "Note" is used throughout this manual to draw your attention to specific topics or to supplement the information provided in that section.

Improper or incomplete maintenance/repair of a Compact Track Loader can be dangerous and may result in machine damage, injury or death.

Do not attempt to perform any type of repair or maintenance on a Compact Track Loader until you have read and fully understood both this manual and the machine specific operation and maintenance manual.

Refer to the Operation and Maintenance manual for instructions regarding proper machine operation and maintenance techniques before operating or servicing any Compact Track Loader.

The person(s) in charge of servicing a Compact Track Loader may be unfamiliar with many of the systems on the machine. This makes it especially important to use caution when performing service tasks. Familiarize yourself with the affected system(s) and components before attempting any type of maintenance or service.

It is not possible to anticipate every potential hazard. The safety messages included in this document and displayed on the machine are not all-inclusive. They are intended to make you aware of potential risks and encourage a safe approach to performing service work. If you use a tool, procedure, work method or operating technique that is not specifically recommended by Terex, you must satisfy yourself that it is safe for you and others. You must also ensure that the machine will not be damaged or be made unsafe by the operation, lubrication, maintenance or repair procedures that you choose.

Basic Precautions

Safety Labels

Safety labels have been included and are displayed in various places throughout the machine to serve as warnings of potentially dangerous conditions. Read and understand all "Safety" labels on any Compact Track Loader before attempting to operate, maintain or repair it. Replace any damaged, illegible or missing labels immediately, prior to service.

Personal Protective Equipment

Personal protection equipment is recommended when performing maintenance or service on a machine. Always wear appropriate protective equipment for working conditions when working on or around the machine. Loose clothing should not be worn and long hair should be restrained. Wear hard hats, protective face/eyewear, safety shoes and any other equipment necessary to ensure your safety and the safety of others around you as you work.

Entering and Exiting

Always use steps and handholds when entering or exiting a Compact Track Loader. Clean any mud or debris from steps or work platforms before using them. Always face the machine when using steps and handholds. When it is not possible to use the designed entry/exit system, utilize ladders, scaffolds, or work platforms to safely gain access to the machine.

Lifting

Use a hoist when lifting components that weigh 23 kg (50 lb) or more, to avoid back injury. Make sure all chains, hooks, slings, etc., are in good condition and are of the correct capacity. Be sure hooks are positioned correctly and equipped with a spring latch. Lifting eyes are not to be side loaded during a lifting operation.

Hot Fluids and Components

Stay clear of hot components and system fluids of the engine, exhaust, radiator/oil cooler and hydraulic lines/tubes. Also, use caution when removing fill caps, breathers and plugs on the machine. Hold a rag over the cap or plug to prevent being sprayed or splashed by liquids under pressure. Be especially careful if the machine has been operated recently, fluids may still be hot. To ensure your safety, allow the machine to cool before attempting any service procedure that involves hot fluids or components.

Corrosion Inhibitor

Corrosion inhibitor contains alkali. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not take internally. In case of contact, wash skin immediately with soap and water. For eyes, flush with large amounts of water for at least 15 minutes. Call Physician. Keep out of reach of children.

Batteries

Do not smoke when inspecting the battery electrolyte level. Never disconnect any charging unit circuit or battery circuit cable from the battery when the charging unit is operating. A spark can cause an explosion from the flammable vapor mixture of hydrogen and oxygen that is released from the electrolyte through the battery outlets. Do not let electrolyte solution make contact with skin or eyes. Electrolyte solution is an acid. In case of contact, immediately wash skin with soap and water. For eyes, flush with large amounts of water for at least 15 minutes. Call Physician. Keep out of reach of children.

Pressurized Items

1. Do not use hands or any other body part to check for fluid leaks in the hydraulic system. Always use a solid material like wood or metal to check for this type of leak. Leaking fluid under pressure can penetrate body tissue. Fluid penetration can cause serious injury and even death. If fluid is injected into your skin, get treatment immediately. Seek treatment from a doctor that is familiar with this type of injury.

2. Relieve pressure from the hydraulic system before disconnecting or removing any lines, fittings or related items. Do this by relaxing all hydraulic actuators. If the lift arms are raised, make sure they are securely braced. Be alert for possible pressure release when disconnecting any device from a pressurized system.

3. Lower the lift arms before performing any work on the machine. If this cannot be done, make sure they are securely braced to prevent them from dropping unexpectedly during service.

4. Loose or damaged fuel, oil, hydraulic, lines, tubes and hoses can cause fires. Do not bend or strike high pressure lines or install ones that have been bent or damaged. Check lines, tubes and hoses carefully. See item 1 for precautions on checking for fluid leaks.

5. Pressurized air or water can also cause injury. When pressurized air or water is used for cleaning, wear a protective face shield, protective clothing, and protective shoes. The recommended maximum air pressure for cleaning purposes is 205 kPa (30 psi). When using a pressure washer, keep in mind that nozzle pressures are typically very high. Generally, pressures are well above 13790 kPa (2000 psi). Follow all recommended practices provided by the pressure washer manufacturer.

⚠ Repair

⚠ Accidental machine starting can cause injury or even death to personnel working on a Compact Track Loader.

As a precaution, disconnect the battery cables from the battery terminals, tape the battery clamps and remove the key from the ignition switch prior to performing any service work on a Compact Track Loader.

Place a "Do Not Operate" tag prominently on the machine to inform personnel that the machine is being serviced.

1. Disconnect the battery and discharge any capacitor before beginning work on a machine. Attach a **Do Not Operate** tag in the cab to alert any operator that service is in progress.

2. If possible, make all repairs with the machine parked on a level, hard surface. Use blocks to prevent the machine from rolling while working on or under the machine.

3. Do not work on or under any machine that is v supported only by a hydraulic jack or hoist. Always use some sort of mechanical support to ensure that the machine will not fall. Terex jack stands work well to support the machine while performing maintenance or repair work.

4. Make sure the work area around the machine is safe and make yourself aware of any hazardous conditions that may exist. If the engine needs to be started inside an enclosure, make sure that the engine's exhaust is properly vented.

5. Be sure all protective devices including guards and shields are properly installed and functioning correctly before beginning any service task. If a guard or shield must be removed to perform the repair work, use extra caution.

6. Always use the appropriate tools for the work to be performed. Tools should be in good condition and you should understand how to use them properly before performing any service work.

7. When replacing fasteners, use parts of equivalent grade and size. Do not use a lesser quality fastener if replacements are necessary.

8. Be prepared to stop an engine if it has been recently overhauled or the fuel system has been recently serviced. If the engine has not been assembled correctly, or if the fuel settings are not correct, the engine can possibly overspeed and cause bodily injury, death or property damage. Be prepared to shut off the fuel and air supply to the engine in order to stop the engine.

9. Be careful when removing cover plates. Gradually back off the last two bolts or nuts located on opposite sides of the cover. Then, pry the cover loose to relieve any spring or other pressure before removing the last two nuts or bolts completely.

10. Repairs requiring welding should be performed only by personnel adequately trained and knowledgeable in welding procedures and with the guidance of appropriate reference information. Determine the type of metal being welded and select the correct welding procedure and filler material to provide a weld that is as strong or stronger than the original weld.

11. Take precautions to avoid damaging wiring during removal and installation operations. Carefully route wires so that they will not contact sharp corners, objects or hot surfaces during operation.

12. When performing service that requires the lift arms to be in the raised position, always utilize the lift arm brace located on the rear of the loader tower.

13. Relieve hydraulic system pressure by relaxing all hydraulic actuators prior to attempting any hydraulic maintenance or repair.

14. Always tighten connections to the correct torque specification. Make sure that all shields, clamps and guards are installed correctly to avoid excessive heat, vibration or unwanted contact between parts during operation. Shields that protect exhaust components from oil spray in event of a line, tube or seal failure must be correctly installed.

15. Do not operate a machine if any rotating part is damaged or contacts other parts during operation. Any high speed rotating component that has been damaged or altered should be checked for balance before reusing. Make sure all protective devices, including guards and shields, are properly installed and functioning correctly before starting the engine or operating the machine.

Attachments

Only use attachments that are recommended by Terex.

Make sure that all necessary guards and protective equipment are in place and functioning prior to operating any attachment.

Wear protective glasses and protective equipment as required by conditions or as recommended in the attachment's operation manual.

When replacement parts are required for your machine, use only genuine Terex replacement parts or parts that meet or exceed original specifications including, but not limited to physical dimensions, type, strength and material.

Installing lesser components can lead to premature failures, product damage, personal injury or death.

Ensure that all personnel are far enough away from the work area so they will not be struck by flying objects.

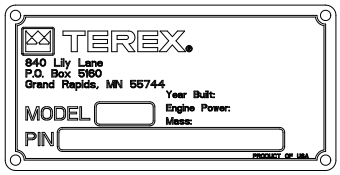
Stay clear of the cutting edges, pinching surfaces or crushing surfaces of the attachment while performing any attachment maintenance, testing or adjustments.

Machine Labels and Decals

Labels and decals placed on the machine provide safety information and operating instructions. Familiarize yourself with the location and significance of these labels to ensure your safety.

Product Identification Number

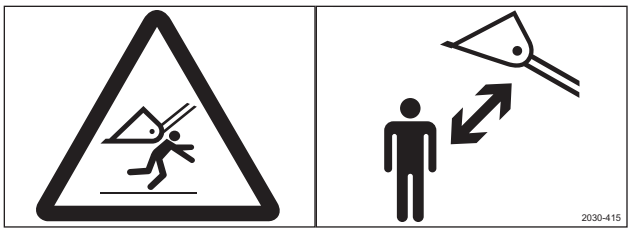
The Product Identification Number (PIN) is located on the left side of the firewall next to the operator seat. (figure 1-1). Always provide the PIN when contacting the dealer about parts, service, warranty or accessories. No warranty claims will be processed unless the PIN is provided.

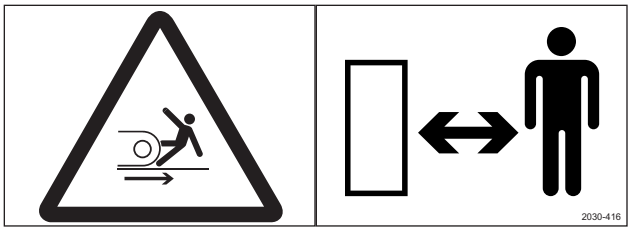


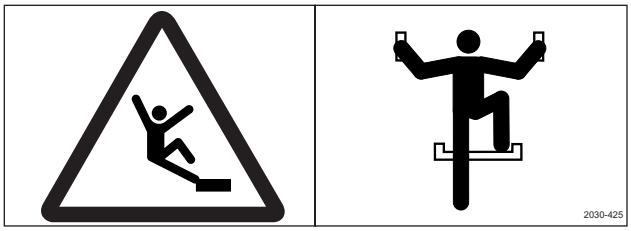
1-1

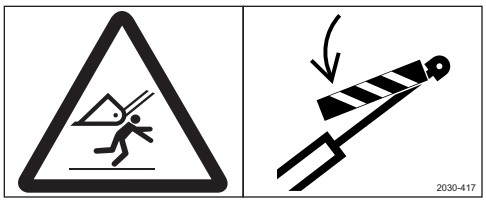
Safety Label Examples

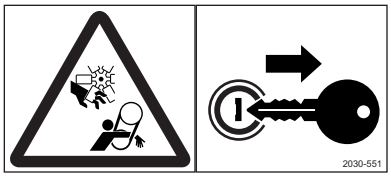
Examples of the labels and decals displayed on the machine are shown on this page.

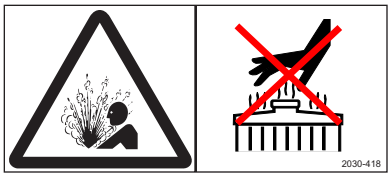













2030-420
2030-426
2030-553


2030-565
2030-552

2. Technical Specifications & Service Tools

PT-30CE Specifications

Engine
- Model: Perkins 403-D15
- Displacement: 1.5 liter
- Gross horsepower: 29.5 hp (22 kW)
- Peak Torque: 70.81 lb-ft. (96 Nm)
- Idle rpm: 1175 (low idle), 2200 (high idle)
- Average water /thermostat temperature: 190°F, 87.8°C

Transmission
- Model: Cat A10VG18 tandem (Rexroth)

Drive Pumps (2)
- Displacement: 1.098 in3/rev (18 cc/rev)
- Relief pressure: 3800 psi (26,200 kPa)
- Flow: 10.45 gpm (39.6 lpm) @ 2200 rpm (per pump)

Charge Pumps (2)
- Displacement: .33 in3/rev (5.4 cc/rev) x2
- Relief pressure: 360 +/- 20 psi (24.82 bar)
- Flow: 3.2 gpm (12.11 lpm) @2200 rpm

Drive Motors
- Model: Rexroth Sauer Danfoss
- Displacement: 19.215 in3/rev (314.9 cc/rev)

Pilot Controls (Joysticks)
- Model: Rexroth 4TH6

Auxiliary Pump
- Make: Rexroth
- Type: Gear
- Displacement: 0.87 in3/rev (14.3 cc/rev)
- Max Flow: 8.11 gpm (30.7 lpm) @ 2200 rpm
- Relief pressure: 3000 psi (20,684 kPa)
- Cooling/filtering: Oil is filtered and cooled at all times. In auxiliary mode, the oil is filtered after the attachment to protect the machine if the attachment motor fails or contaminants are introduced from the quick couplers.

Lift Arm Control Valve
- Make: Husco
- Relief Pressure: 3000 psi (20,684 kPa)
- Pilot pressure required to move spools: 180-220psi (1241-1517 kPa)

Oil Cooler
- Operating pressure: 250 psi (1724 kPa)
- Bypass relief pressure: 80 psi (551.6 kPa)
- Hot oil sending unit: 225°F (107.2°C)
- Avg. oil operating temp. 50-60°F (10-16°C) above ambient. (extreme application 80°F , 27°C above ambient.)

Critical Torque Specs
- Transmission Mounting Bolts
  - 80 ft-lb (108 Nm). w/Blue Loctite
- Drive Sprocket Drive Teeth Bolts
  - 62 ft-lb (84 Nm). -Dry
- Bogie Wheel Retaining Nuts
  - 110 ft-lb (149 Nm). - Dry
- Drive Sprocket Retainer Bolt
  - 270 ft-lb (366 Nm)

Service Tools

Listed below are common service tools which are identified and utilized in the service procedures described in this manual. Use tools recommended by Terex whenever possible to reduce risk of injury and or machine damage during service.

- Terex Jack Stands (2) (P/N: 0402-900)
- Heavy Duty Hydraulic Jack (5-ton rating)
- Test Gauge Kit (P/N: 0402-935)
- Long Pry Bar(s)
- Service Cart (0402-871)

PT-30 ROW Specifications

Engine

- Model: Perkins 403-D15
- Displacement: 1.5 liter
- Gross horsepower: 32.7 hp (25.1 kW)
- Peak Torque: 70.81 lb-ft. (96 Nm)
- Idle rpm: 1175 (low idle), 2800 (high idle)
- Average water /thermostat temperature: 190°F, 87.8°C

Transmission

- Model: Cat A10VG18 tandem (Rexroth)

Drive Pumps

- Displacement: 1.098 in3/rev (18 cc/rev)
- Relief pressure: 3800 psi (26,200 kPa)
- Flow: 13 gpm (11.4lpm) @ 2800 rpm (per pump)

Charge Pumps (2)

- Displacement: .33 in3/rev (5.4 cc/rev) x2
- Relief pressure: 360 +/- 20 psi (24.82 bar)
- Flow: 3 gpm (11.4 lpm combined) @1175 rpm
- Flow: 8.1 gpm (30.7 lpm combined) @2800 rpm

Drive Motors

- Model: Rexroth Sauer Danfoss
- Displacement: 19.215 in3/rev (314.9 cc/rev)

Pilot Controls (Joysticks)

- Model: Rexroth 4TH6

Auxiliary Pump

- Make: Rexroth
- Type: Gear
- Displacement: 0.87 in3/rev (14.3 cc/rev)
- Max Flow: 10 gpm (37.9 lpm) @ 2800 rpm
- Relief pressure: 3000 psi (20,684 kPa)
- Cooling/filtering: Oil is filtered and cooled at all times. In auxiliary mode, the oil is filtered after the attachment to protect the machine if the attachment motor fails or contaminants are introduced from the quick couplers.

Lift Arm Control Valve

- Make: Husco
- Relief Pressure: 3000 psi (20,684 kPa)
- Pilot pressure required to move spools: 180-220psi (1241-1517 kPa)

Oil Cooler

- Operating pressure: 250 psi (1724 kPa)
- Bypass relief pressure: 80 psi (551.6 kPa)
- Hot oil sending unit: 225°F (107.2°C)
- Avg. oil operating temp. 50-60°F (10-16°C) above ambient. (extreme application 80°F , 27°C above ambient.)

Critical Torque Specs

- Transmission Mounting Bolts
  - 80 ft-lb (108 Nm). w/Blue Loctite
- Drive Sprocket Drive Teeth Bolts
  - 62 ft-lb (84 Nm). -Dry
- Bogie Wheel Retaining Nuts
  - 110 ft-lb (149 Nm). - Dry
- Drive Sprocket Retainer Bolt
  - 60 ft-lb (81 Nm). w/Blue Loctite

Service Tools

Listed below are common service tools which are identified and utilized in the service procedures described in this manual. Use tools recommended by Terex whenever possible to reduce risk of injury and or machine damage during service.

- Terex Jack Stands (2) (P/N: 0402-900)
- Heavy Duty Hydraulic Jack (5-ton rating)
- Test Gauge Kit (P/N: 0402-935)
- Long Pry Bar(s)
- Service Cart (0402-871)

3. Circuit Diagrams

Chapter Overview

This chapter contains diagrams for the following Compact Track Loader systems.

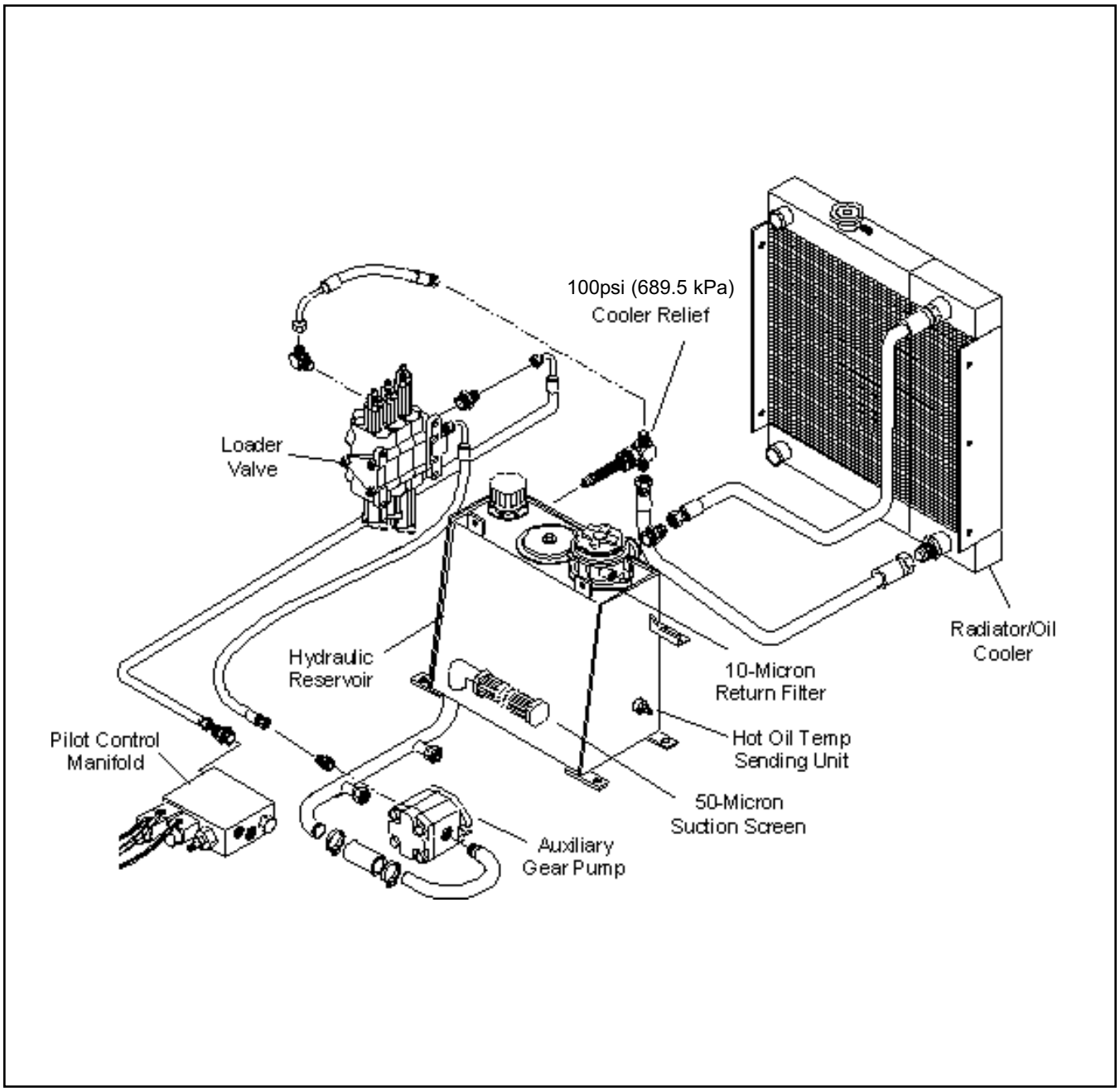
- Filtering and cooling system
- Auxiliary circuit system
- Drive loop system

Filtering and Cooling System

The filtering and cooling system (Figure 3-1) contains the following major components.

- Hydraulic reservoir
- Radiator/oil cooler
- Loader valve
- Auxiliary gear pump
- Pilot control manifold

Figure 3-1 PT-30 Filtering and Cooling System

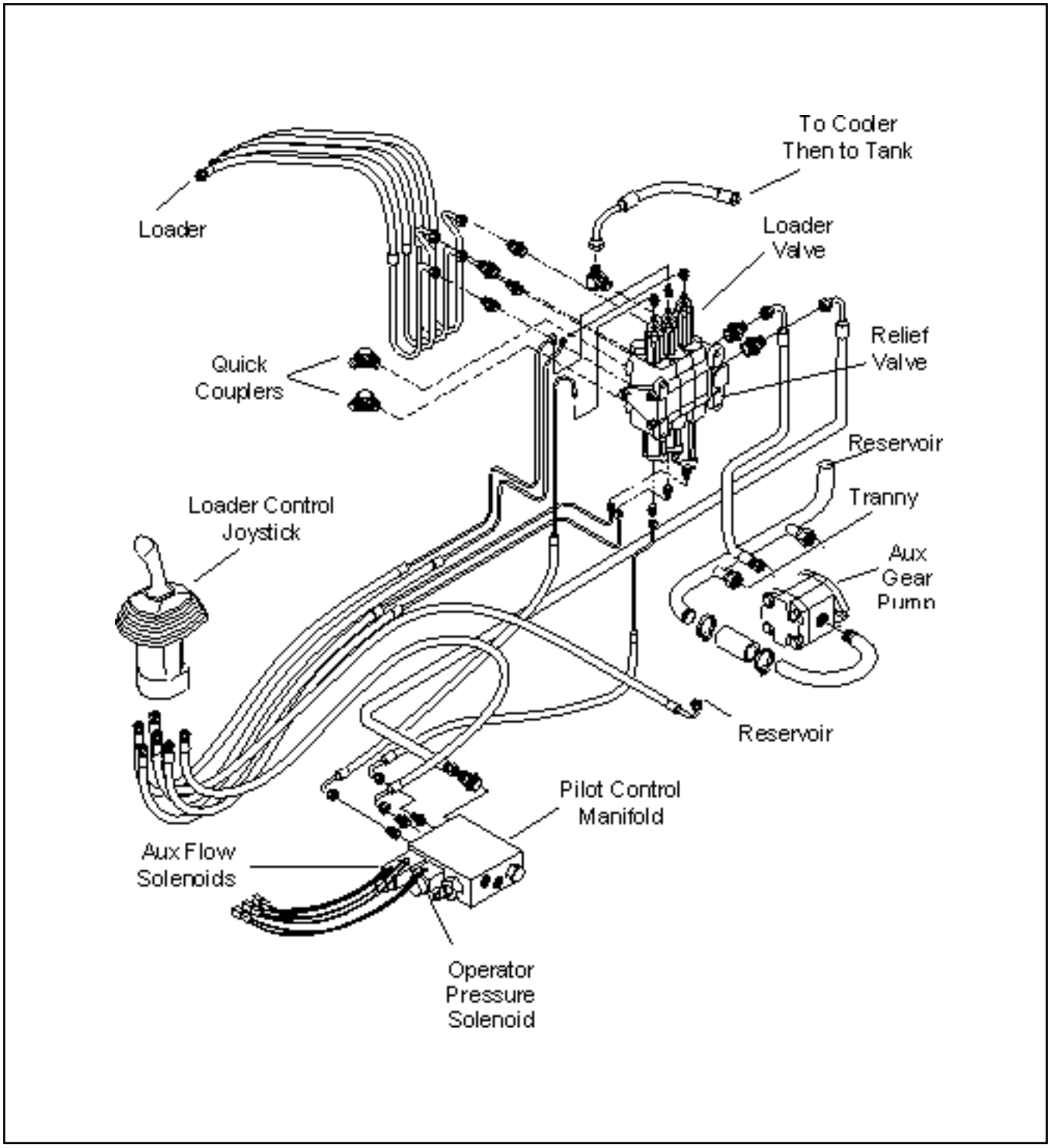


Auxiliary Circuit System

The auxiliary circuit system (Figure 3-2) contains the following major components.

- Loader valve
- Pilot control manifold
- Auxiliary gear pump
- Loader control joystick

Figure 3-2 PT-30 Auxiliary Circuit System

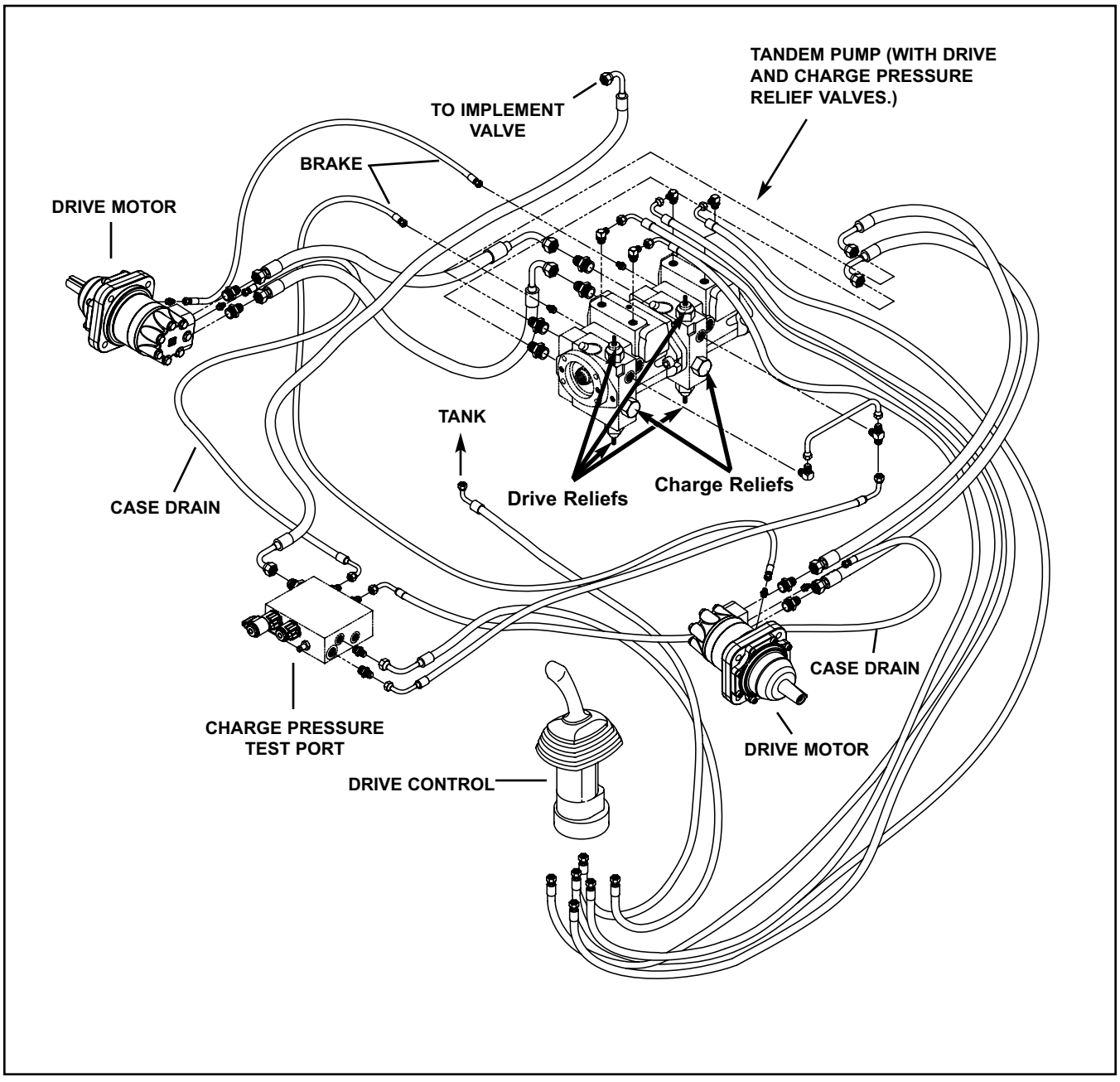


Drive Loop System

The drive loop system (Figure 3-3) contains the following major components.

- Tandem pump
- Drive motors
- Pilot control manifold
- Drive control joystick

Figure 3-3 PT-30 Drive Loop System



4. Machine Controls and Instrumentation

Chapter Overview

This chapter contains an overview of the machine controls and instrumentation. For further information regarding machine controls, instrumentation or operation, refer to the operation and maintenance manual for your particular machine. Included here are illustrations of the following controls and instrumentation components and a description of their functions.

- Machine Controls
- Instrument Location and Function
- Switch Location and Function

Machine Controls (fig. 4-1)

There are three primary machine controls: loader control (1), drive control (2) and throttle (3).

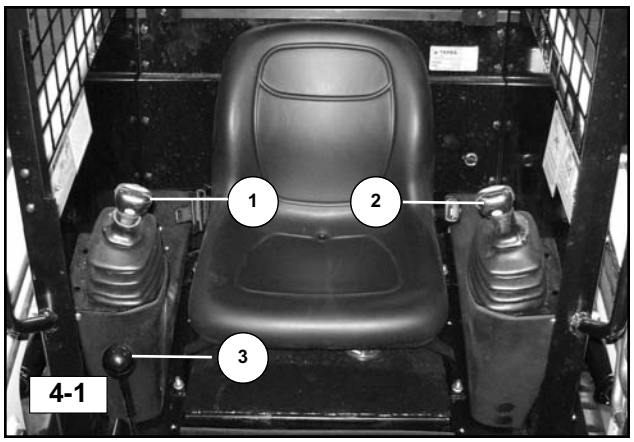
Loader Control

The loader control (1) is a pilot operated joystick that allows the operator to raise or lower the loader and dump or curl the quick attach mechanism.

Drive Control

The drive control (2) is also a pilot operated joystick. It allows the operator to change the direction and speed of the machine.

Throttle

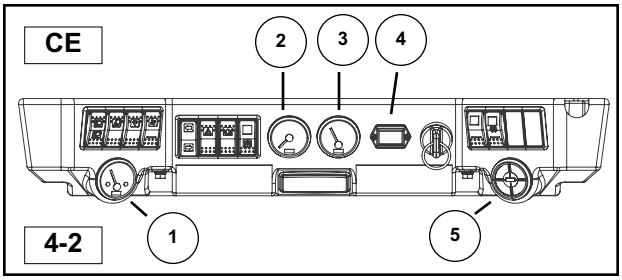


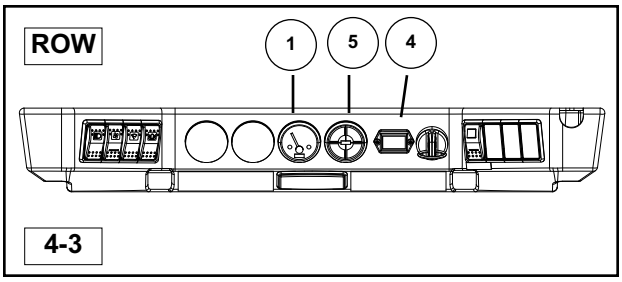
The hand throttle (3) controls engine rpm.

Instrumentation

The Instruments (Figure 4-2, 4-3) are positioned in the overhead dash panel for ease of access and visibility when seated inside the operator enclosure. Instruments include the following components.

(1) Fuel Gauge
(2) Tachometer
(3) Engine Coolant Temp. Gauge
(4) Hour Meter
(5) Warning Indicator Display
- Engine Oil Pressure Warning Light
- Engine Temperature Warning Light
- Hydraulic Oil Temperature Warning Light
- Battery Voltage Warning Light





NOTICE

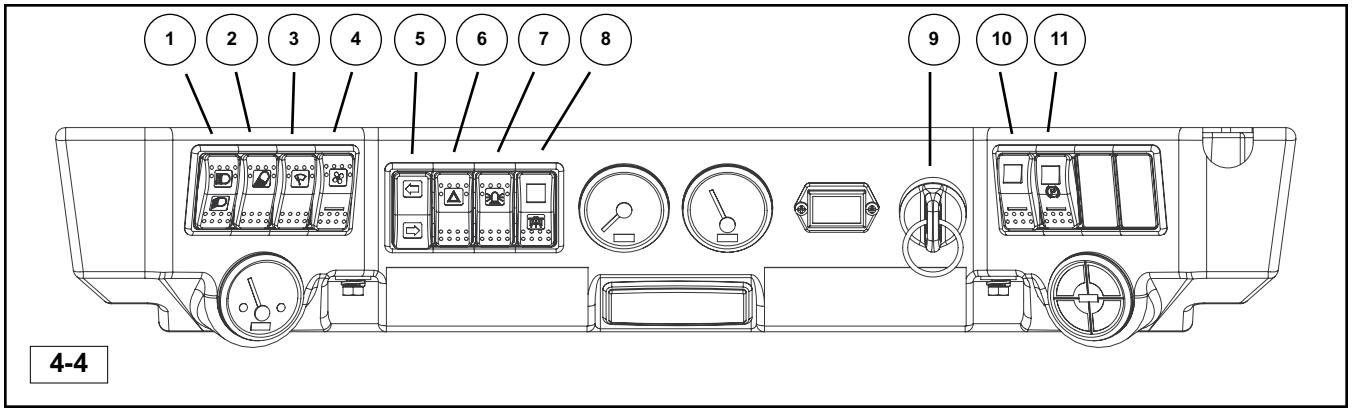
If the engine temperature, engine oil pressure or hydraulic oil temperature lights illuminate or should the eng. coolant temp. gauge read excessive temperatures during normal machine operation, shut the machine down immediately (in a safe location). Diagnose the problem and make any necessary repairs before resuming normal operation.

NOTICE

If the battery low-voltage light should illuminate during operation, drive the machine to a suitable location and shut the engine off. Diagnose the problem and make any needed repairs before resuming operation.

The glow plug operation light illuminates only when the key switch is turned to engine pre-heat, showing normal operation.

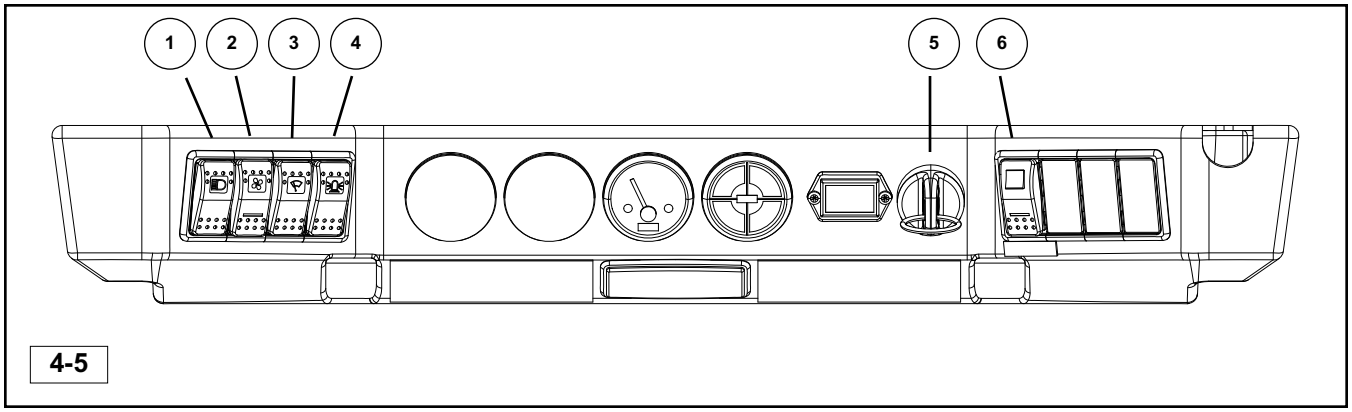
PT-30 CE Switches



The various switches (Figure 4-4) are positioned to provide good access and visibility. The standard and optional switches are listed below.

(1) Driving lights (road mode)
(2) Work lights
(3) Front wiper (optional)
(4) Heater fan (optional)
(5) Turn signals (road mode)
(6) Hazard lights (road mode)
(7) Beacon light (optional)
(8) Road mode (on road operation)
(9) Ignition, glow plug (pre-heat)
(10) Auxiliary hydraulics
(11) Parking brake

PT-30 ROW Switches



The various switches (Figure 4-5) are positioned to provide good access and visibility. The standard and optional switches are listed below.

(1) Work lights
(2) Heater fan (optional)
(3) Front wiper (optional)
(4) Beacon light (optional)
(5) Ignition, glow plug (pre-heat)
(6) Auxiliary hydraulics

5. Operator Enclosure Disassembly and Assembly

Chapter Overview

This chapter provides disassembly and assembly procedures for the operator enclosure assembly.

⚠ Personal Safety

Improper or incomplete maintenance/repair of a Compact Track Loader can be dangerous and may result in machine damage, injury or death.

Do not attempt to perform any type of repair or maintenance on a Compact Track Loader until you have read and fully understood the information in this manual.

Refer to the Operation and Maintenance manual for instructions regarding proper machine operation techniques before operating any Compact Track Loader.

Prior to performing any type of service work on a Compact Track Loader, read and understand Chapter 1 (Product Safety) for personal safety information.

⚠ Machine Preparation

Accidental machine starting can cause injury or death to personnel working on a Compact Track Loader.

As a precaution, disconnect the battery cables from the battery terminals, tape the battery clamps and remove the key from the ignition switch prior to performing any service work on a Compact Track Loader.

Place a “Do Not Operate” tag prominently on the machine to inform personnel that the machine is being worked on.

Operator Enclosure Disassembly and Assembly Procedures

Disassembly and assembly procedures are provided for the following operator enclosure components.

- Light Bar
- Ignition Switch
- Gauges
- Lap Bar Gas Assist Spring

Note: Procedures are provided for only those operator enclosure components listed above. However, information for removal and installation of other operator enclosure components can be obtained from the machine specific parts manual.

Light Bar Removal and Installation

The tools required for light bar console removal and installation are listed in Table 5-1. Use manufacturer recommended tools whenever possible.

Table 5-1

Required Tools
Combination Wrench

Light Bar Removal

Figure 5-1

1. Loosen the two cap screws that attach the light bar to the cab frame.

Figure 5-2

2. Carefully lower the light bar with the wire harness attached.

Figure 5-3

3. View of light bar interior components. Interior components are now accessible for servicing.

Figure 5-4

4. View of dome light. If removal is required, simply insert a lever (blade-type screw driver) at opposite end of switch in pry-pocket, and gently pry the light assembly out of the light bar.

Light Bar Installation

Figure 5-5

1. Carefully position the light bar, without pinching the wiring harness against the cab roof.

Figure 5-6

2. Secure the light bar to the cab roof with the two capscrews

Ignition Switch Removal and Installation

The tools required for ignition switch removal and installation are listed in Table 5-2. Use manufacturer-recommended tools whenever possible.

Table 5-2

Required Tools
Combination Wrench

Ignition Switch Removal

1. Lower the light bar. Refer to *Chapter 5. Light Bar Removal* procedure.

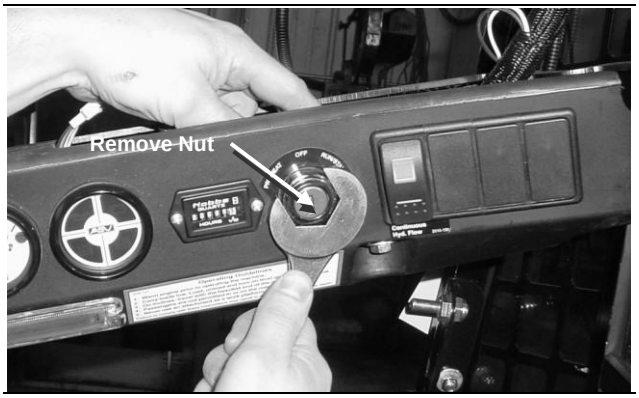


Figure 5-7

2. Remove the nut that secures the ignition switch to the dash panel.

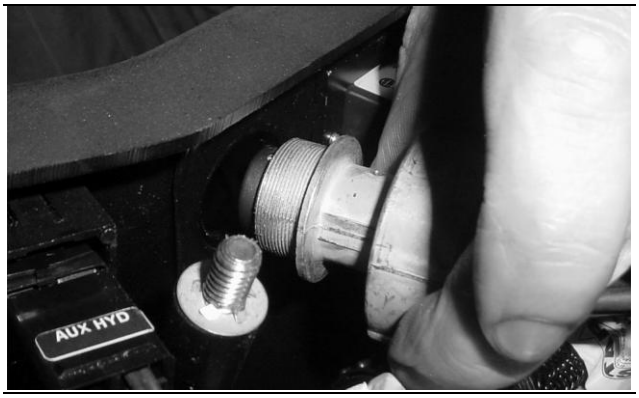


Figure 5-8

3. Pull the ignition switch out from the rear of the dash panel.

Figure 5-9

4. Unplug the ignition switch connector.

Ignition Switch Installation

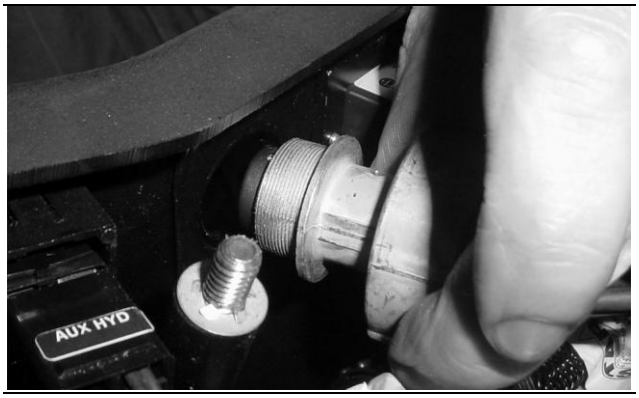


Figure 5-10

1. Insert the ignition switch from the rear of the dash panel.

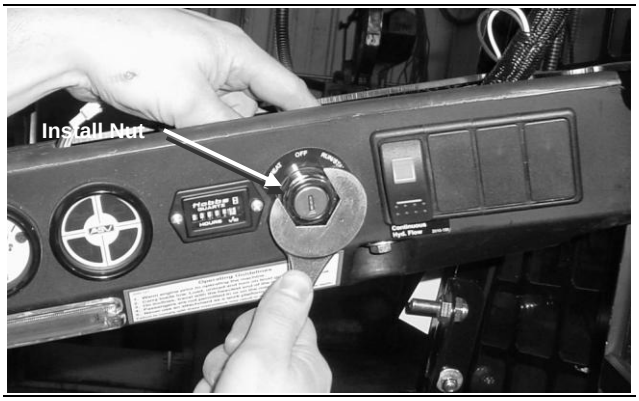


Figure 5-11

2. Install the nut that secures the ignition switch to the dash panel.

Figure 5-12

3. Plug in the ignition switch connector.

4. Install the light bar. Refer to *Chapter 5. Light Bar Installation* procedure.

Gauge Removal and Installation

The tools required for gauge removal and installation are listed in Table 5-3. Use manufacturer recommended tools whenever possible.

Table 5-3

Required Tools
Combination wrench

Gauge Removal

1. Lower the light bar. Refer to *Chapter 5. Light Bar Removal* procedure.

Figure 5-13

2. Disconnect the connector from the gauge.

Figure 5-14

3. Remove the two nuts that secure the gauge to the retaining bracket.

Figure 5-15

4. Pull the gauge out from the front of the dash panel.

Gauge Installation

Figure 5-16

1. Insert the gauge from the front of the dash panel.

Figure 5-17

2. Install the two nuts that secure the gauge to the retaining bracket.

Figure 5-18

3. Reconnect the gauge connector.

4. Install the light bar. Refer to *Chapter 5. Light Bar Installation* procedure.

Lap Bar Gas Assist Spring Removal and Installation

The tools required for gas assist spring removal and installation are listed in Table 5-4. Use manufacturer-recommended tools whenever possible.

Table 5-4

Required Tools
Screwdriver

Lap Bar Gas Assist Spring Removal

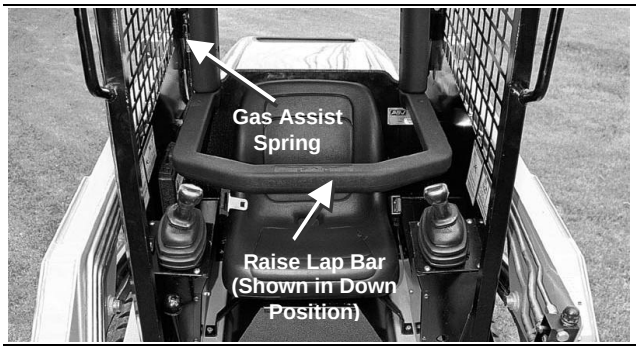


Figure 5-19

1. Put the lap bar in the UP position to relieve tension on the lap bar gas assist spring.

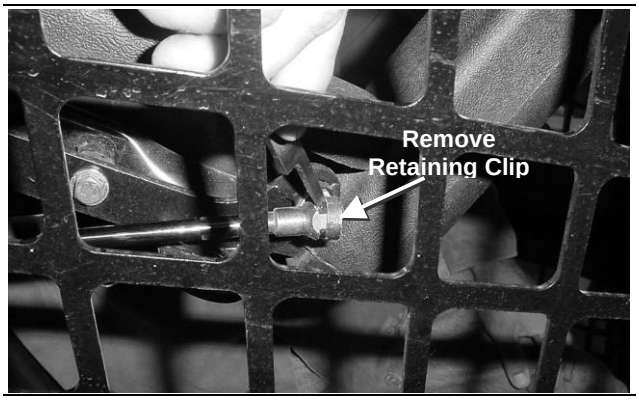


Figure 5-20

2. Using a small screwdriver, remove the retaining clip from each end of the gas assist spring.

Figure 5-21

3. Remove the gas assist spring by pulling both ends out from the ball joints.

Lap Bar Gas Assist Spring Installation

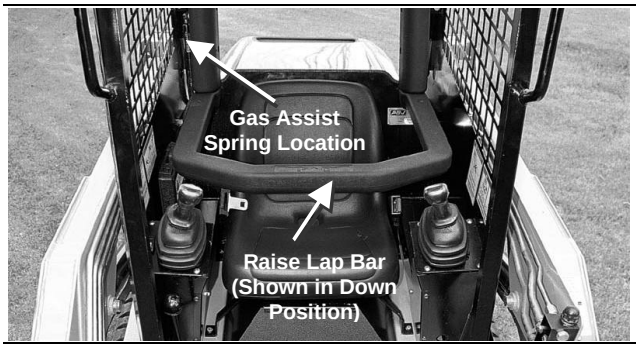


Figure 5-22

1. Put the lap bar in the UP position to minimize tension on the lap bar gas assist spring during installation.

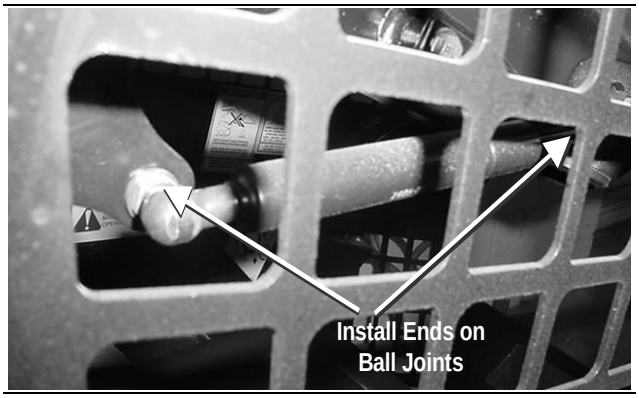


Figure 5-23

2. Install the ends of the lap bar gas assist spring onto the ball joints.

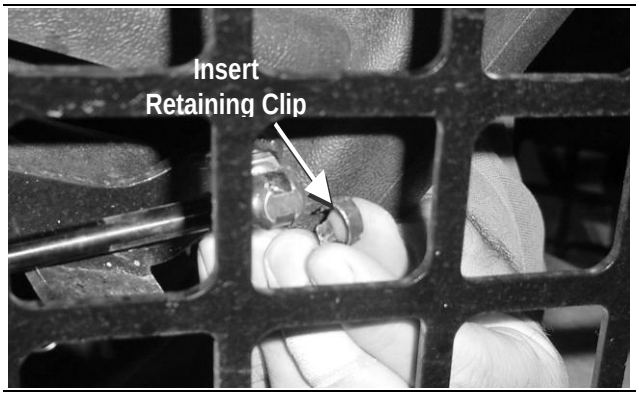


Figure 5-24

3. Slide the retaining clip on to each end of the gas assist spring.

6. Chassis Disassembly and Assembly

Chapter Overview

This chapter provides disassembly and assembly procedures for the chassis assembly.

⚠ Personal Safety

Improper or incomplete maintenance/repair of a Compact Track Loader can be dangerous and may result in machine damage, injury or death.

Do not attempt to perform any type of repair or maintenance on a Compact Track Loader until you have read and fully understood the information in this manual.

Refer to the Operation and Maintenance manual for instructions regarding proper machine operation techniques before operating any Compact Track Loader.

Prior to performing any type of service work on a Compact Track Loader, read and understand Chapter 1 (Product Safety) for personal safety information.

⚠ Machine Preparation

Accidental machine starting can cause injury or death to personnel working on a Compact Track Loader.

As a precaution, disconnect the battery cables from the battery terminals, tape the battery clamps and remove the key from the ignition switch prior to performing any service work on a Compact Track Loader.

Place a “Do Not Operate” tag prominently on the machine to inform personnel that the machine is being worked on.

Chassis Disassembly and Assembly Procedures

Disassembly and assembly procedures are provided for the following chassis components.

- Seat
- Fuel Sending Unit
- Fuel Sending Unit Hose
- In-Tank Weight
- Fuel Tank

Note: Procedures are provided for only those chassis components listed above. However, information for removal and installation of other chassis components can be obtained from the exploded view illustration provided in the machine specific parts manual.

Seat Removal and Installation

The tools required for seat removal and installation are listed in Table 6-1. Use manufacturer-recommended tools whenever possible.

Table 6-1

Required Tools
Socket Wrench

Seat Removal

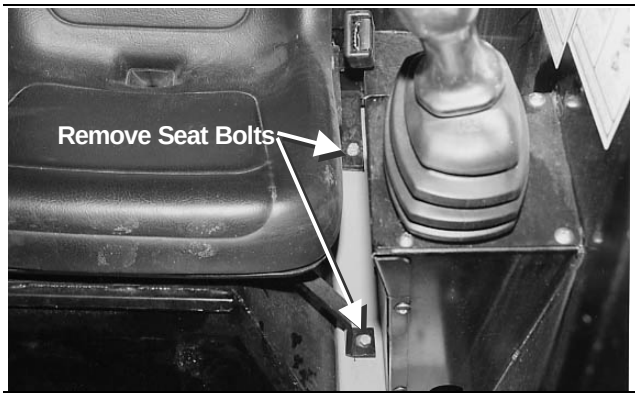


Figure 6-1

1. Remove the four bolts that fasten the seat mounts to the frame.

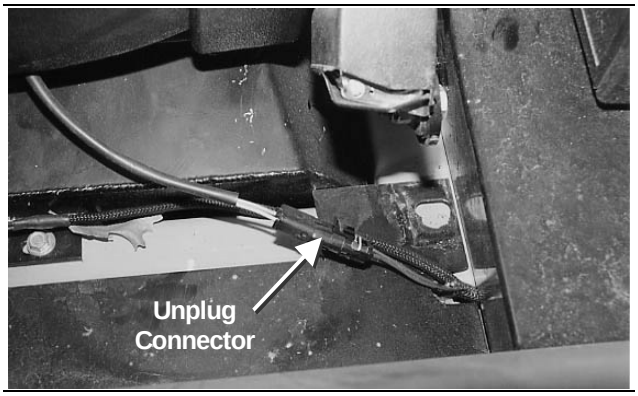


Figure 6-2

2. Tilt the seat forward and reach behind the seat to unplug the seat switch wiring harness.

Figure 6-3

3. Remove the seat. Be careful not to scratch the control panel or sides of the cab.

Seat Installation

Figure 6-4

1. With the seat mounts attached, place the seat in the cab. Be careful not to scratch the control panel or sides of the cab.

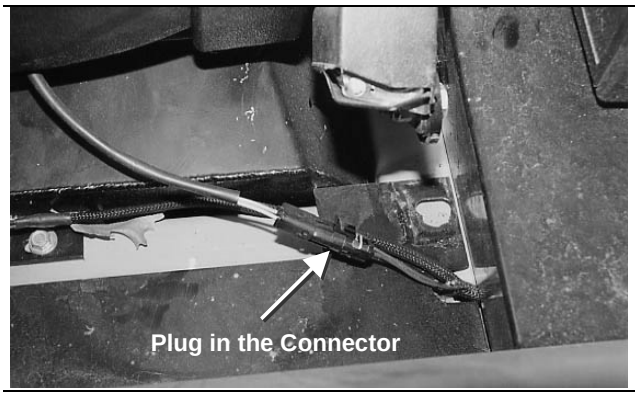


Figure 6-5

2. Tilt the seat forward and reach behind the seat to plug in the seat switch connector

Note: The machine will not operate unless the seat switch connector is plugged in.

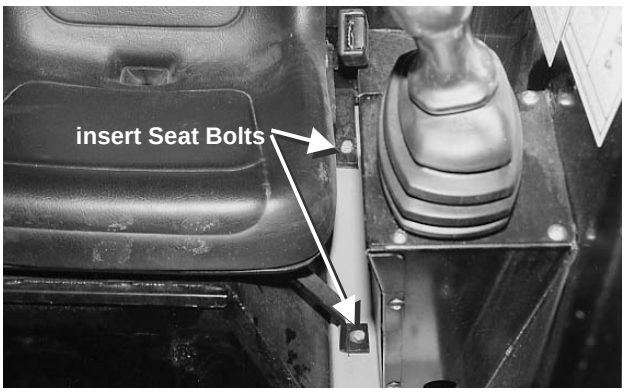


Figure 6-6

3. Position the seat so the holes in the seat mounts are aligned with the holes in the frame. Insert the four seat mount bolts and washers.

Fuel Sending Unit Removal and Installation

The tools required for fuel sending unit removal and installation are listed in Table 6-2. Use manufacturer-recommended tools whenever possible.

Table 6-2

Required Tools
Screwdriver
Combination Wrench
Socket Wrench

Fuel Sending Unit Removal

1. Remove the seat. Refer to *Chapter 6. Seat Removal* procedure.
2. Pump fuel from the tank until there is no fuel remaining above the sending unit.

Collect and contain liquids in a suitable container. Dispose of all liquids according to local regulations and mandates.

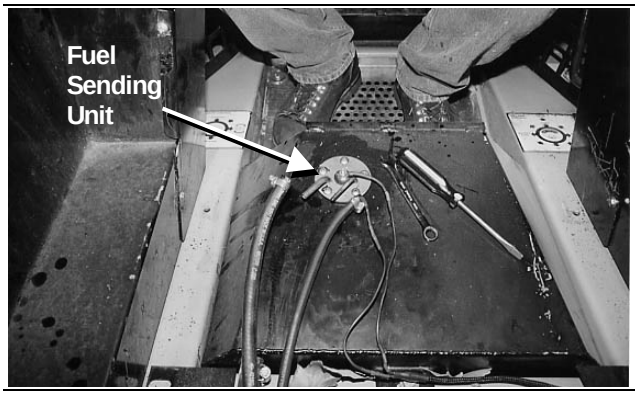


Figure 6-7

3. Remove the hoses and wires from the fuel sending unit, then remove the screws that fasten the unit to the tank. Mark the wires and hoses.

Note: If the fuel sending unit wires are crossed, the fuel gauge will not work. If the hoses are crossed, the engine will not run.

Figure 6-8

4. Remove the fuel sending unit. Be careful not to damage the float mechanism when pulling it through the opening in the fuel tank.

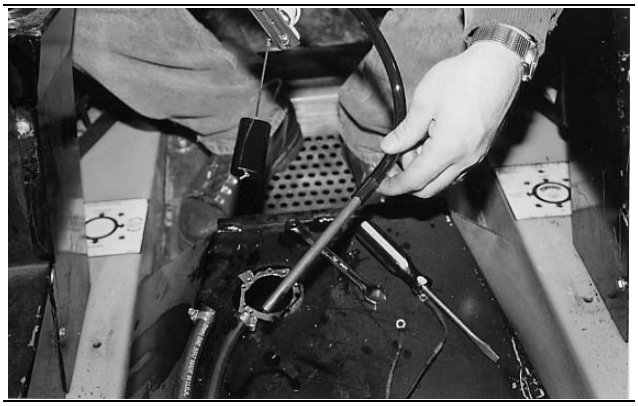


Figure 6-9

5. The fuel pickup line will also come out with the fuel sending unit.

Fuel Sending Unit Installation

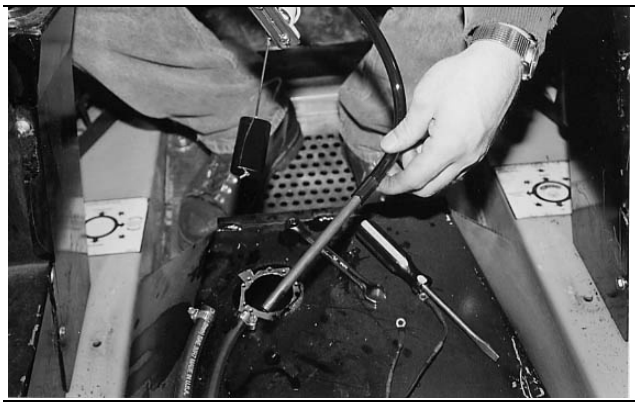


Figure 6-10

1. Insert the fuel pickup line into the fuel tank opening. The pickup line is attached to the fuel sending unit.

Note: The weight on the end of the fuel pickup line must rest on the bottom of the tank for proper operation.