TEREX®

Service Manual

Rubber Track Loader

PT-80 CE/ROW

Part Number: 2046-287
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1. Product Safety

Chapter Overview

This chapter contains product safety information for the Terex PT-80 Rubber Track Loaders. Read and understand all product safety information before attempting to service any Rubber 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 Rubber 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 Rubber 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 Rubber Track Loader.

The person(s) in charge of servicing a Rubber 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 Rubber 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 Rubber 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 Rubber 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 Rubber 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 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.

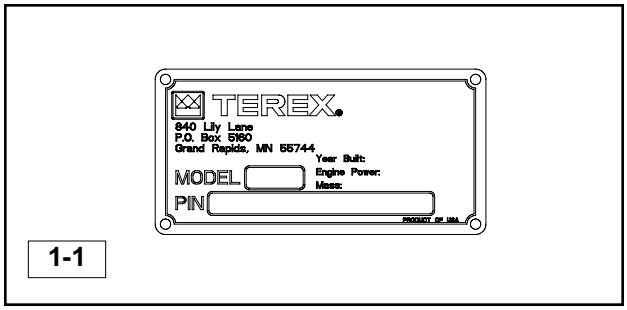
Stay clear of the cutting edges, pinching surfaces or crushing surfaces of the attachment while performing any attachment maintenance, testing or adjustments.

⚠ 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 front of the cab enclosure (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.



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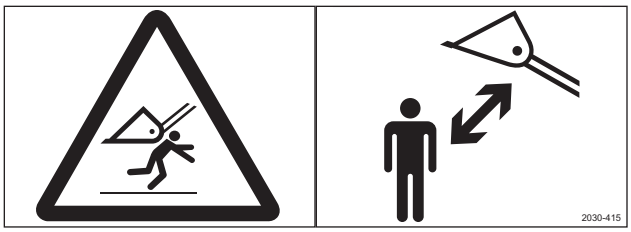
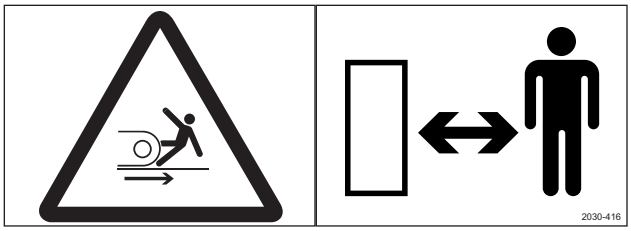
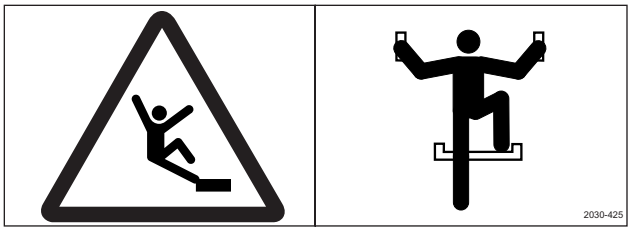
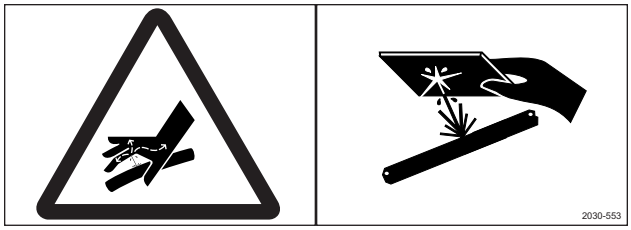
Safety Label Examples

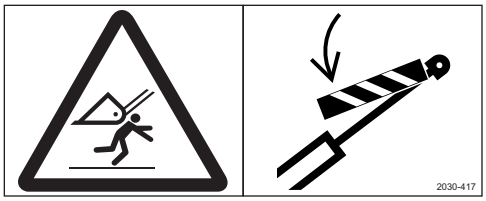
Examples of the labels and decals displayed on the machine are shown on this page.

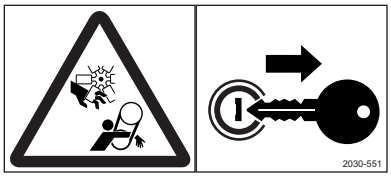


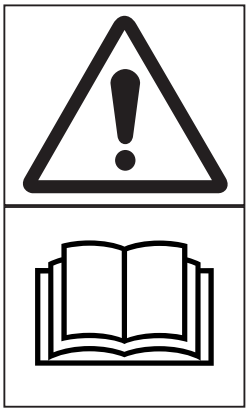


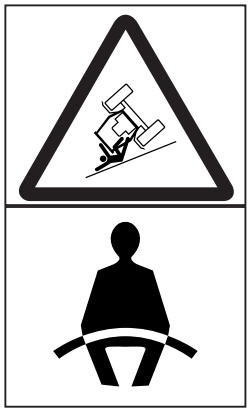










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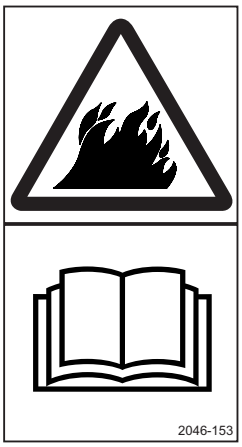
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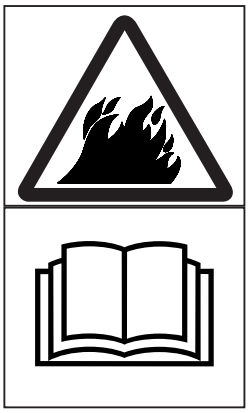

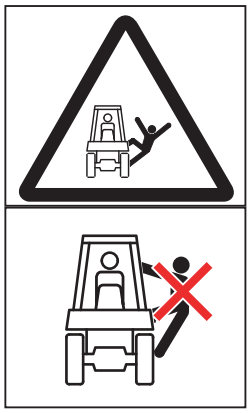


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2. Technical Specifications & Service Tools

PT-80 CE Specifications

Engine
- Model: Perkins 804C-33T
- Displacement: 3.3 liter
- Gross horsepower:75.1 hp (56 kW)
- Torque: 186 lb-ft. (253 Nm)
- Idle rpm: 1200 (low idle), 2230 (high idle)
- Average water /thermostat temperature: 190°F, 87.8°C

Transmission
- Model: Cat A22VG tandem (Rexroth)

Drive Pumps
- Displacement:2.349 in3/rev (38.5 cc/rev)
- Relief pressure: 5500 psi (380 bar)
- Flow: 22.7 gpm (85.8 lpm) @2230 rpm (per pump)

Charge Pump
- Displacement: 1.373 in3/rev (22.5 cc/rev)
- Relief pressure: 475 +/- 30 psi (32.75 bar)
- Flow: 13.2 gpm (49.9 lpm) @2230 rpm

Drive Motors
- Model: Rexroth MCR 5
- Displacement: 50 in3/rev (820 cc/rev)

Pilot Controls (Joysticks)
- Model: Rexroth 08-351

Auxiliary Pump
- Make: Rexroth
- Type: Axial Piston, Variable Load Sense
- Displacement: 2.75 in3/rev (45 cc/rev)
- Max Flow 26.5 gpm (100.3 lpm) @2230rpm
- Relief pressure: 3000 psi (20,680 kPa)
- Marginal (Standby) Pressure: 218 psi (1,503 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: Rexroth
- Type: Load Sense

Oil Cooler
- Operating pressure: 150 psi (1034 kPa)
- Bypass relief pressure: 80 psi (689 kPa)
- Hot oil sending unit: 225°F (107.2°C)
- Avg. oil operating temp. 50-60°F / 28-33°C above ambient.
  (High flow application 80°F / 44°C above ambient.)

Critical Torque Specs
- Transmission Mounting Bolts
  -- 85 ft-lb. / 115 Nm - w/Blue Loctite
- Drive Sprocket Drive Teeth Bolts
  -- 85 ft-lb. / 115 Nm - Dry
- Bogie Wheel (10” Idler) Retaining Bolt
  -- 180 ft-lb. / 244 Nm - w/Red Loctite
- 15” Idler Wheel Retaining Nut
  -- 350 ft-lb. / 475 Nm -Dry
- Drive Sprocket Lug Nut
  -- 177 ft-lb. / 240 Nm -Dry
- Drive Motor Mounting Bolts
  -- 177 ft-lbs. / 240 Nm -Dry

Cycle Times
- Lift-Arm up: 3.6 seconds (+/- .36 seconds)
- Lift-Arm Down: 4.3 seconds (+/- .43seconds)
- Bucket Curl: 2.8 seconds (+/- .28 seconds)
- Bucket Dump: 1.9 seconds (+/- .19 seconds)

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

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

PT-80 ROW Specifications

Engine

- Model: Perkins 804C-33T
- Displacement: 3.3 liter
- Gross horsepower:80 hp (60 kW)
- Torque: 186 lb-ft. (253 Nm)
- Idle rpm: 1200 (low idle), 2600 (high idle)
- Average water /thermostat temperature: 190°F, 87.8°C

Transmission

- Model: Cat A22VG tandem (Rexroth)

Drive Pumps

- Displacement: 2.349 in3/rev (38.5cc/rev)
- Relief pressure: 5500 psi (380 bar)
- Flow: 26.4 gpm (100 lpm) @ 2600 rpm (per pump)

Charge Pump

- Displacement: 1.373 in3/rev (22.5 cc/rev)
- Relief pressure: 475 +/- 30 psi (32.75 bar)
- Flow: 15.4 gpm (58.3 lpm) @2600 rpm

Drive Motors

- Model: Rexroth MCR 5 (2-speed)
- Displacement: 50 in3/rev (820 cc/rev)

Pilot Controls (Joysticks)

- Model: Rexroth 08-351

Auxiliary Pump

- Make: Rexroth
- Type: Axial Piston, Variable Load Sense
- Displacement: 2.75 in3/rev (45 cc/rev)
- Max Flow: 30 gpm (113.6 lpm) @ 2600 rpm
- Relief pressure: 3000 psi (20,680 kPa)
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- 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: Rexroth
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  - 180 ft-lb. / 244 Nm - w/Red Loctite
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  - 350 ft-lb. / 475 Nm -Dry
- Drive Sprocket Lug Nut
  - 177 ft-lb. / 240 Nm -Dry
- Drive Motor Mounting Bolts
  - 177 ft-lbs. / 240 Nm -Dry

Cycle Times

- Lift-Arm up: 3.5 seconds (+/- .35 seconds)
- Lift-Arm Down: 3.3 seconds (+/- .33 seconds)
- Bucket Curl: 1.7 seconds (+/- .17 seconds)
- Bucket Dump: 1.9 seconds (+/- .19 seconds)

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) (TEREX P/N: 0402-900)
- Heavy Duty Hydraulic Jack (5-ton rating)
- Test Gauge Kit (TEREX P/N: 0402-935)
- Ratchet Strap
- Long Pry Bar(s)
- TEREXService Cart (0402-871)

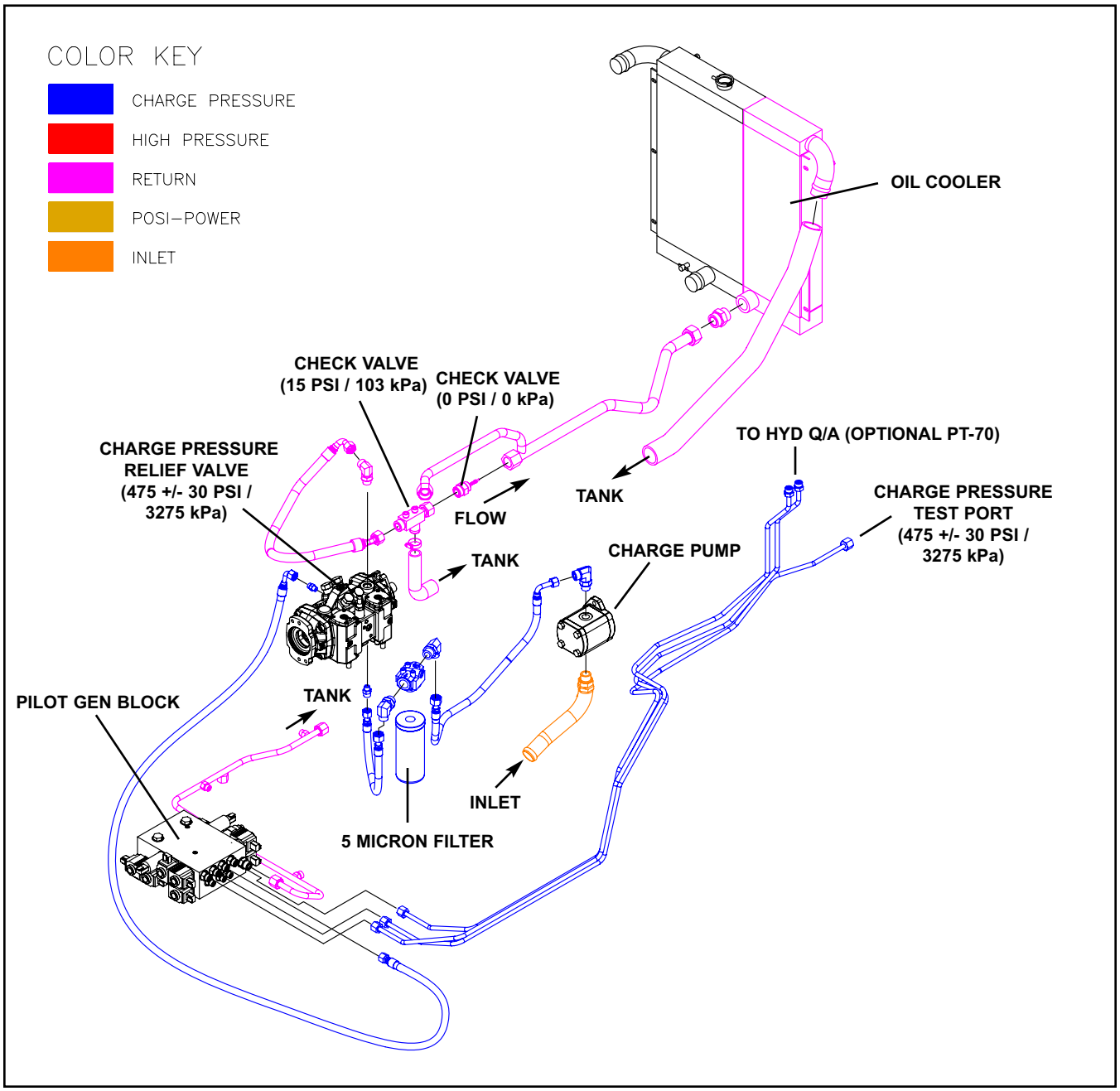
3. Circuit Diagrams

Chapter Overview

This chapter contains diagrams for the following PT-80 circuits: hydraulic charge circuit, hydraulic auxiliary circuit, hydraulic drive circuit, loader valve, hydraulic pilot generation (solenoid) block and electrical attachment outlet. It also contains hose routing information for the control configurations for the drive and lift arm pilot controls.

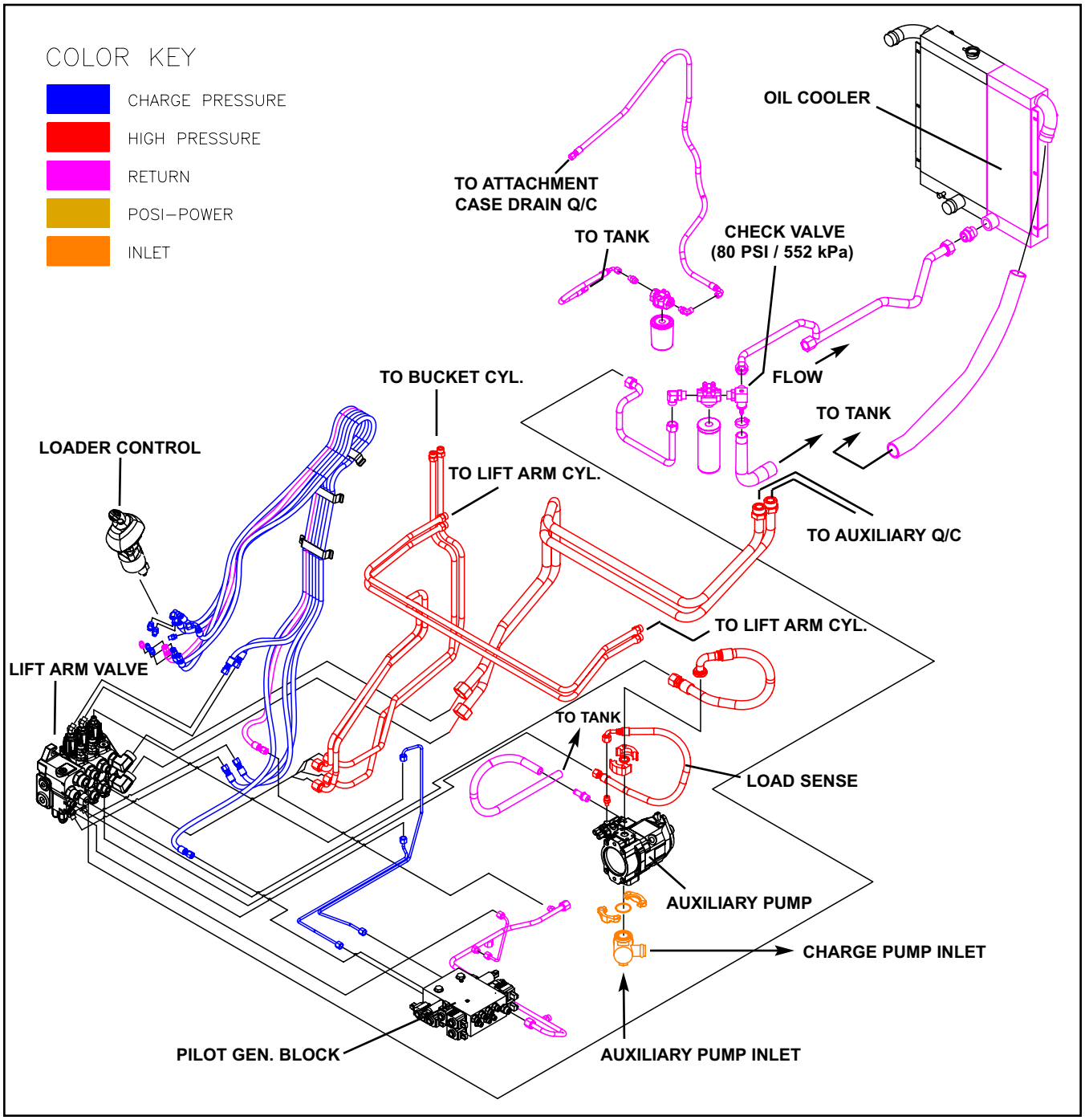
Hydraulic Charge Circuit

Figure 3-1 PT-80 Hydraulic Charge Circuit



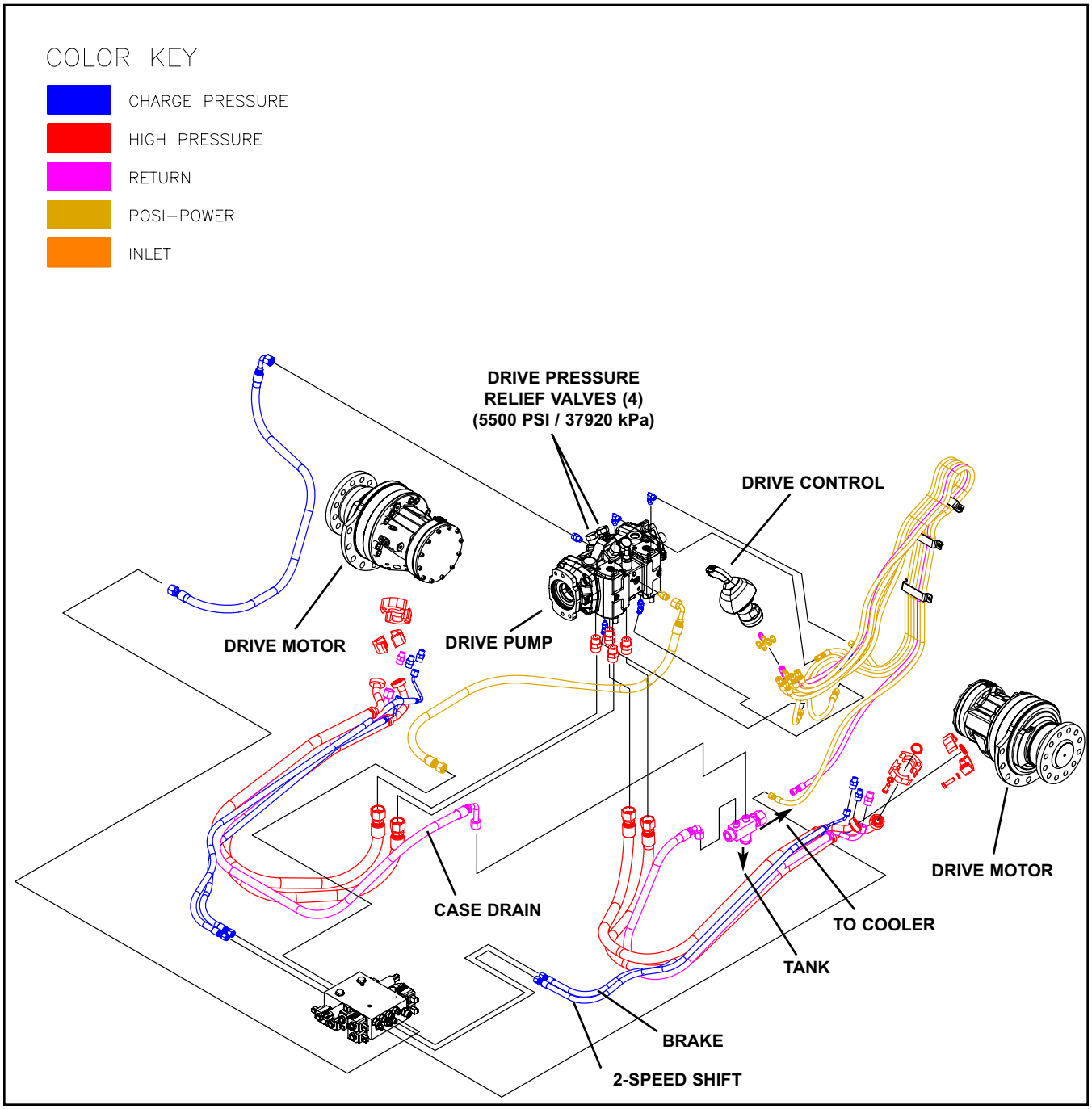
Hydraulic Auxiliary Circuit

Figure 3-2 PT-80 Hydraulic Auxiliary Circuit



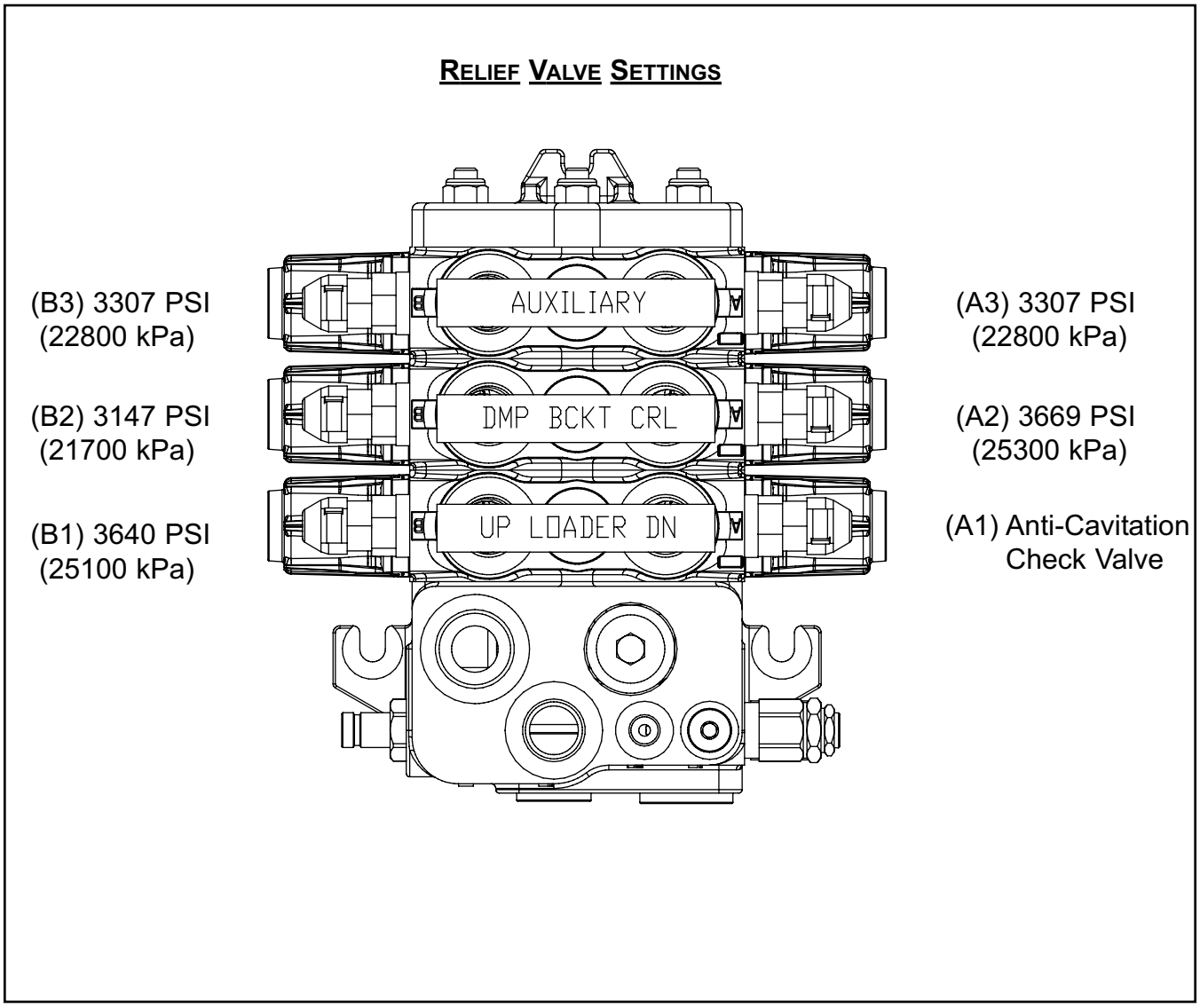
Hydraulic Drive Circuit

Figure 3-3 PT-80 Hydraulic Drive Circuit



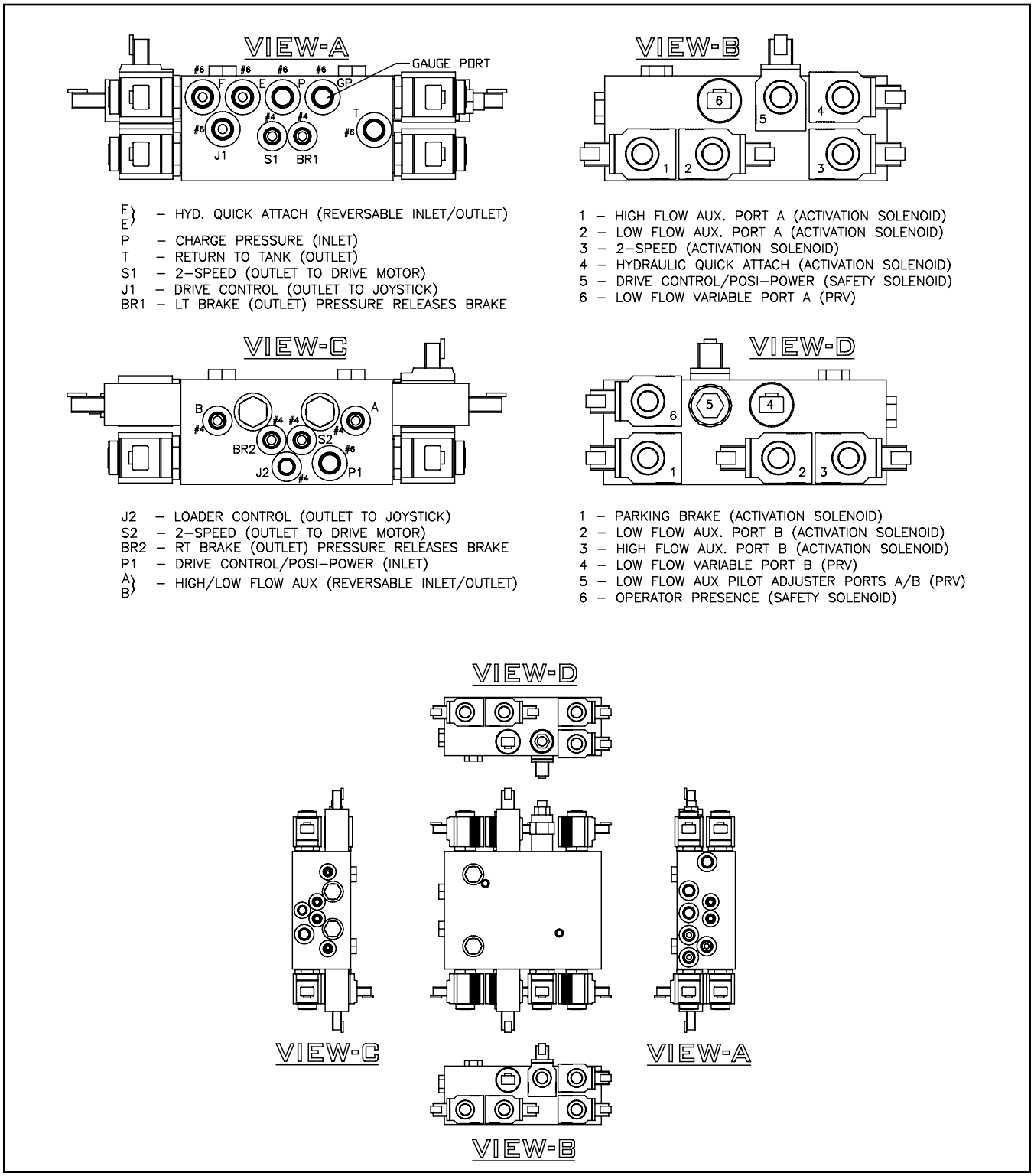
Lift Arm Control Valve

Figure 3-4 PT-80 Lift Arm Control Valve



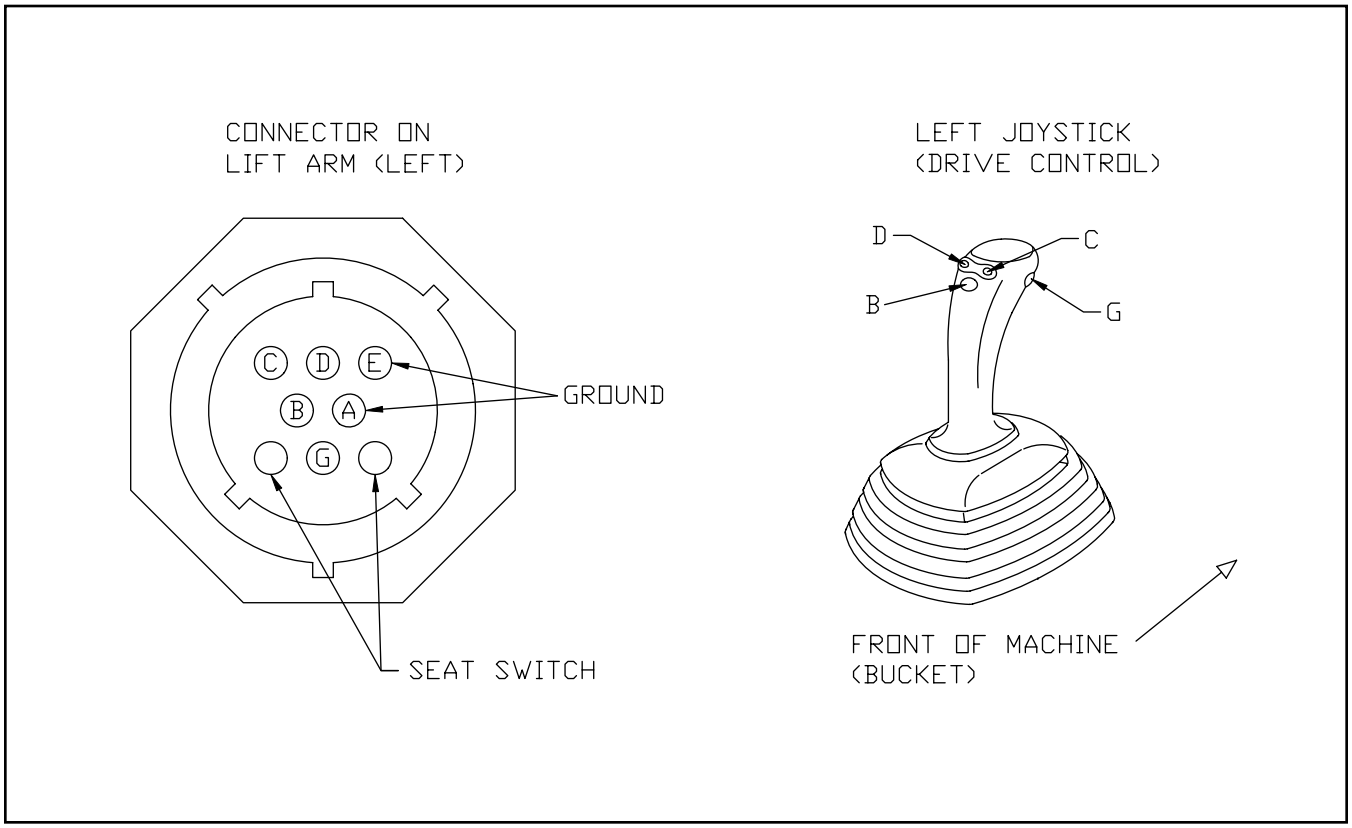
Hydraulic Pilot Generation Block

Figure 3-5 PT-80 Hyd. Pilot Generation Block



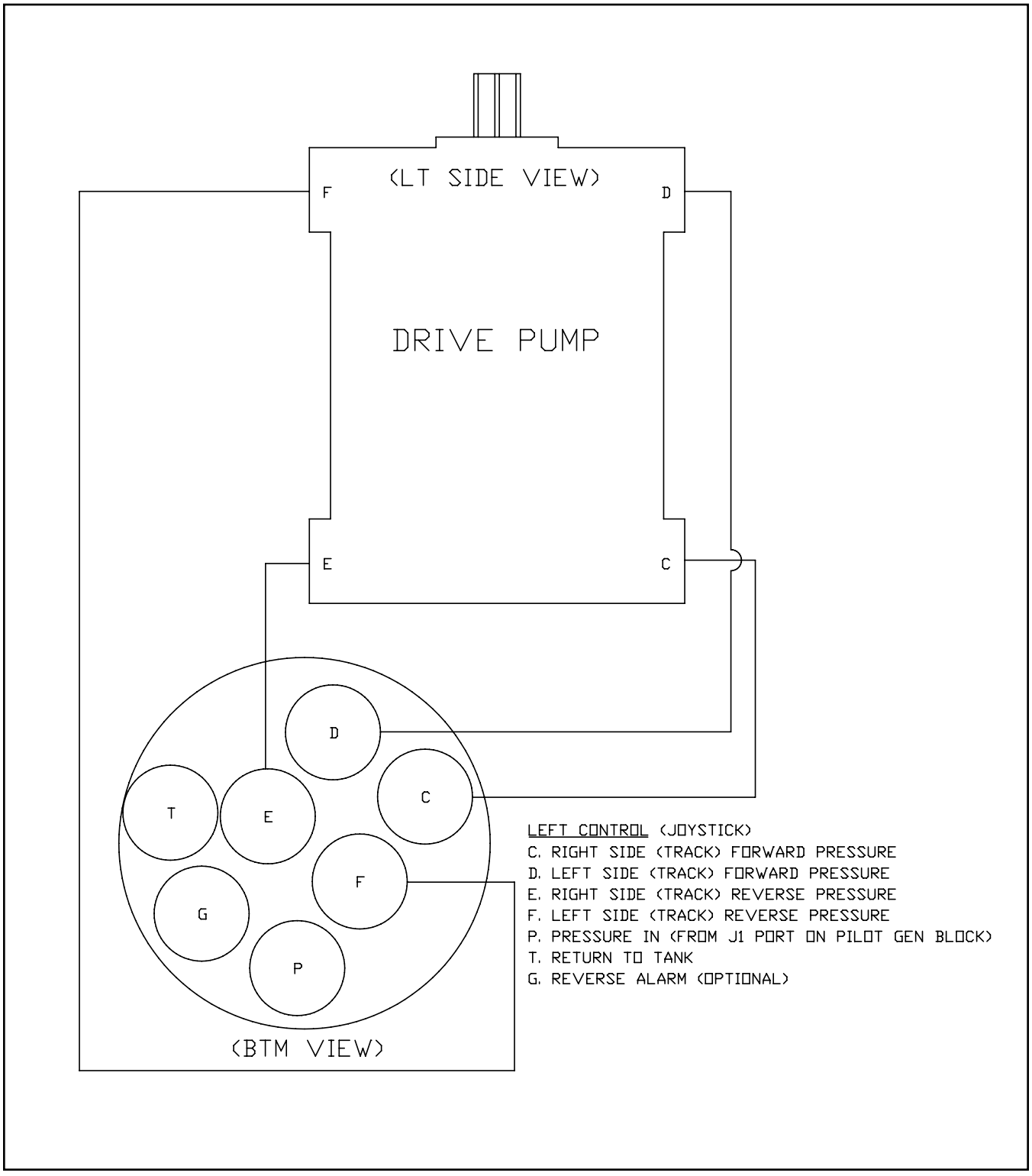
Electrical Attachment Outlet

Figure 3-6 PT-80 Electrical Attachment Outlet



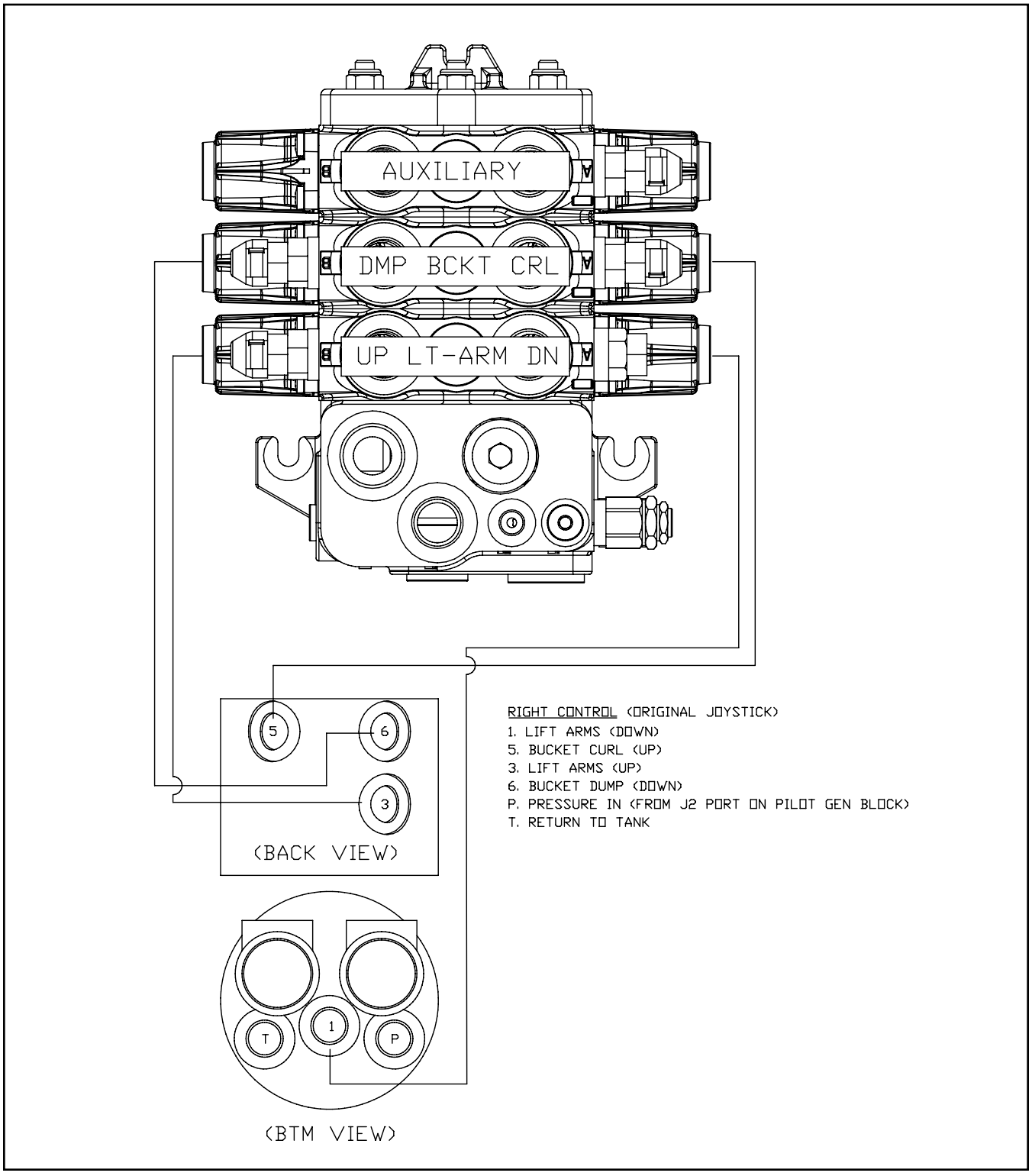
Drive Control (line routing)

Figure 3-7 PT-80 Standard Drive Control



Lift Arm Control (line routing)

Figure 3-8 PT-80 Lift Arm Control



4. Maintenance

Chapter Overview

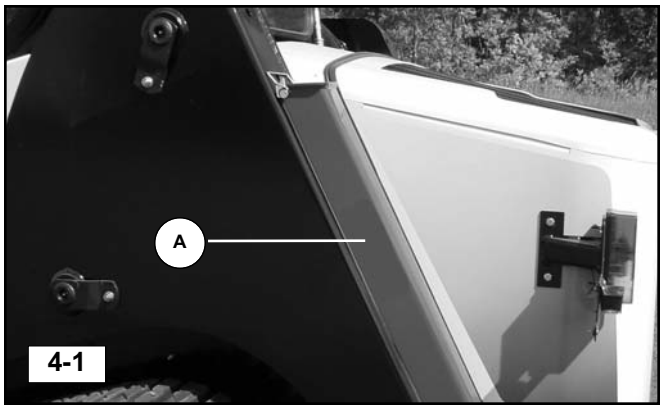
This chapter provides information on general maintenance procedures for the PT-80. If there is an issue that requires troubleshooting, refer to Chapter 18, Troubleshooting.

⚠ Personal Safety

Improper or incomplete maintenance/repair of a Rubber 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 Rubber 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 Rubber Track Loader.

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



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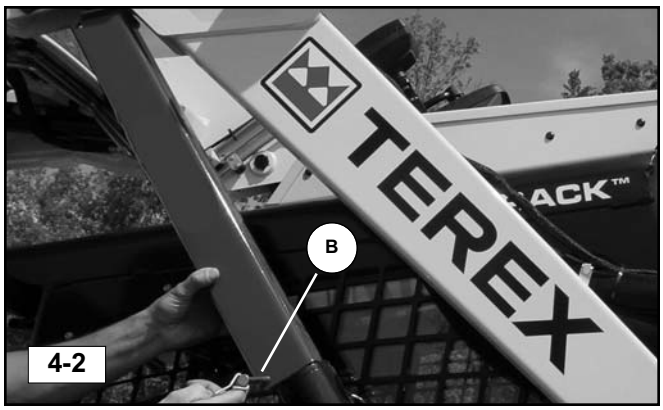


4-2

Lift Arm Brace

The lift arm brace (A) is intended to keep service personnel safe when it is necessary to work on a machine with the lift arms in the raised position. It is not safe to rely on the hydraulic system to hold the lift arms in the raised position just as it is not safe to crawl under a machine supported only by a jack. The lift arm brace is used to support the weight of the lift arms much like jack stands are used to mechanically support vehicle weight.

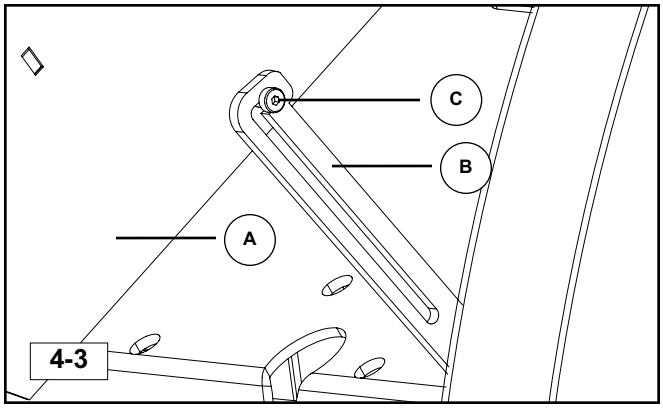
To install the lift arm brace:

1. Park the machine on level ground in a safe area for performing service work.
2. Remove any attachments that may be fastened to the quick attach.
3. Have an assistant remove the retaining pins (B) securing the lift arm brace and remove it from the machine.
4. Make sure bystanders are clear of the lift arms, then raise them to the upper limit.
5. Have an assistant Install the brace around the cylinder shaft as shown and reinstall the pins to secure it to the cylinder.
6. Lower the lift arms slowly until they come to rest on the brace.
7. It is now safe to shut the engine off and exit the machine.

> ⚠ **Do not work on or near the machine with the lift arms in the raised position unless the lift arm brace has been correctly installed.**

To remove the lift arm brace:

1. Start the machine and raise the lift arms until they are clear of the brace.
2. Once clear, have an assistant remove the brace from the cylinder and stow it on the machine with the pins.
3. Once the brace has been stowed and the assistant is clear of the lift arms, lower the arms to the ground and shut the engine off to complete the procedure.



Tilt-Up Cab

The ROPS/FOPS approved cab (A) tilts up to allow easier access while performing maintenance. It features a gas spring assist and a brace mechanism to hold it in place while tilted.

To tilt the cab:

1. Remove any attachments that may be fastened to the machine.
2. (Optional) Raise the lift arms and secure them with the lift arm brace. (See page 4-1.)
3. Remove the two bolts that fasten the cab to the chassis. They are located inside the cab, one in each of the front corners.
4. Once the bolts have been removed, tilt the cab slowly upwards. The cab brace (B) should fall onto the shoulder bolt (C) locking the cab in its upright position.

The cab is now secure.

To lower the cab:

1. Raise the cab brace so that the locking channel is clear of the shoulder bolt.
2. Hold the brace upwards and lower the cab until the locking channel is clear of the shoulder bolt then release the brace.
3. The cab is now free to be lowered into operating position.
4. Lower the cab completely and then fasten it to the chassis with the two bolts removed previously.

Jacking Procedure

Occasionally, your machine may need to be suspended off of the ground to perform maintenance. Exercise caution when jacking the machine. Always use a jack that is capable of lifting the machine and support its weight with Terex approved jack stands while suspended. Never work on or under a machine supported only by a jack.

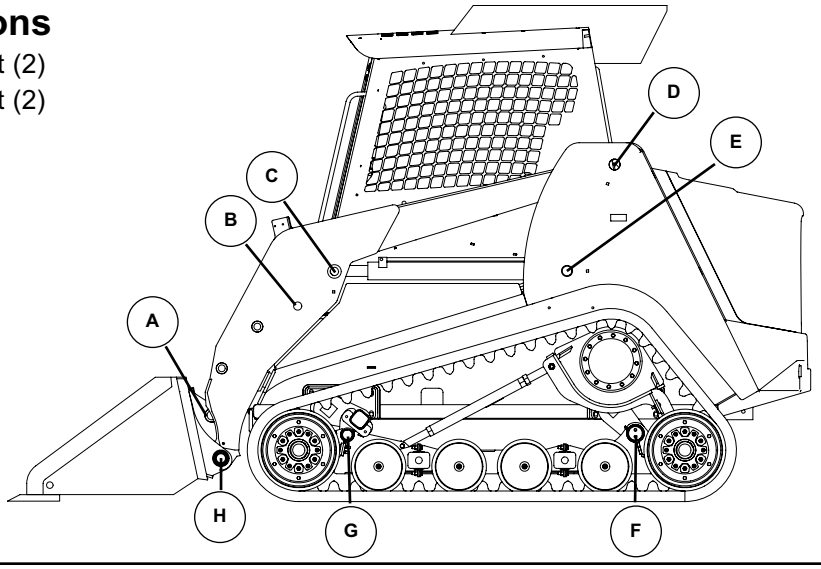
To safely jack your machine:

1. Remove any attachments that may be fastened to the machine and raise the lift arms.
2. Install the lift arm brace as instructed on page 4-1.
3. Once the lift arms are secured, carefully exit the machine.
4. Roll or slide your jack under the front of the machine and center the lifting pad directly under the middle of the front torsion axle.
5. Once in place, jack the machine upward making sure it remains stable until it has reached sufficient height to install an Terex jack stand beneath the machine. (fig. 4-4)
6. Slide the jack stand into place making sure it is centered under the machine (left to right when viewed from the front) and far enough back for the machine to remain stable when the jack is lowered and the front of the machine rests on the stand. (fig. 4-5)
7. Once the stand is in place, slowly lower the machine onto the stand and then remove the jack.

Repeat steps 4-7 at the rear of the machine should both ends of the machine need to be off of the ground for service.

Grease Fitting Locations

- **A.** Lower Bucket Cylinder Pivot (2)
- **B.** Upper Bucket Cylinder Pivot (2)
- **C.** Front Lift Cylinder Pivot (2)
- **D.** Lift Arm Pivot (2)
- **E.** Rear Lift Cylinder Pivot (2)
- **F.** Rear Axle Pivot (2)
- **G.** Front Axle Pivot (2)
- **H.** Lower Bucket Pivot (2)



4-6

Grease Fittings

The PT-80 are equipped with grease fittings at pivot points throughout the machine. The illustration above shows the locations of all fittings on the left side of the machine. An identical fitting exists on the right side of the machine for each one identified in the illustration. Lubricate all fittings **DAILY** or after every 10 hours of operation to maximize component life and ensure proper machine function. (fig. 4-6)

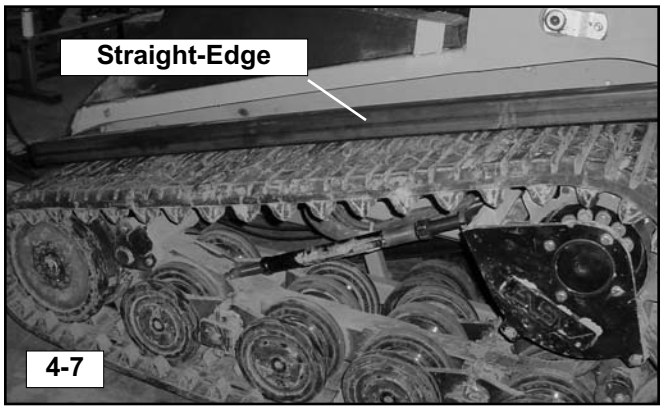
Undercarriages

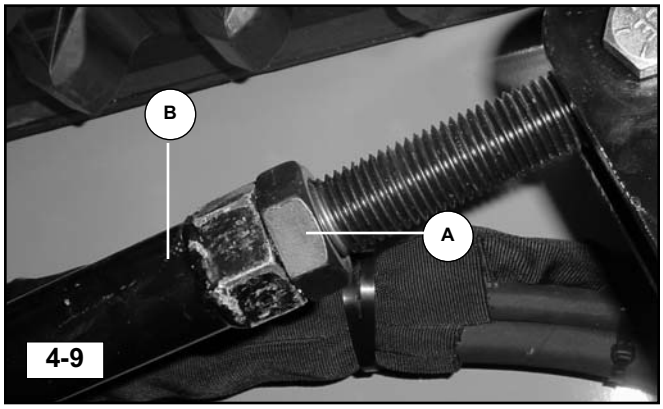
The undercarriage assemblies in Rubber Track Loaders typically operate in harsh working conditions. They work in mud, gravel, debris and various other abrasive materials during operation. Terex recommends a daily inspection of the undercarriage assemblies and cleaning if necessary.

Materials that are particularly sticky or abrasive like clay, mud, or gravel should be cleaned from the undercarriages more often to minimize component wear. A pressure washer works well for cleaning materials from the undercarriages. At times when a pressure washer is not available, use a bar, shovel or similar device to remove foreign materials.

When cleaning, pay particular attention to the drive tables, sprockets, and the front and rear wheels where debris is likely to accumulate. If working in scrap or debris, inspect more often and remove foreign objects that may wrap around or lodge themselves between components causing premature wear and damage.

Operation in loamy sand or on turf or other finished surfaces may require less frequent cleaning, but daily inspection is still advised.





Track Tension

Proper track tension must be maintained for optimal performance and track/undercarriage life. Running a track that is too loose may cause the track to misfeed possibly causing damage to the track and or undercarriage components. Running a track that is too tight may cause track stretch, premature bearing failure, or other preventable damage to the machine. As a rule, a track should only be tightened to the point where there is no visible sag. Never tighten your tracks beyond this point.

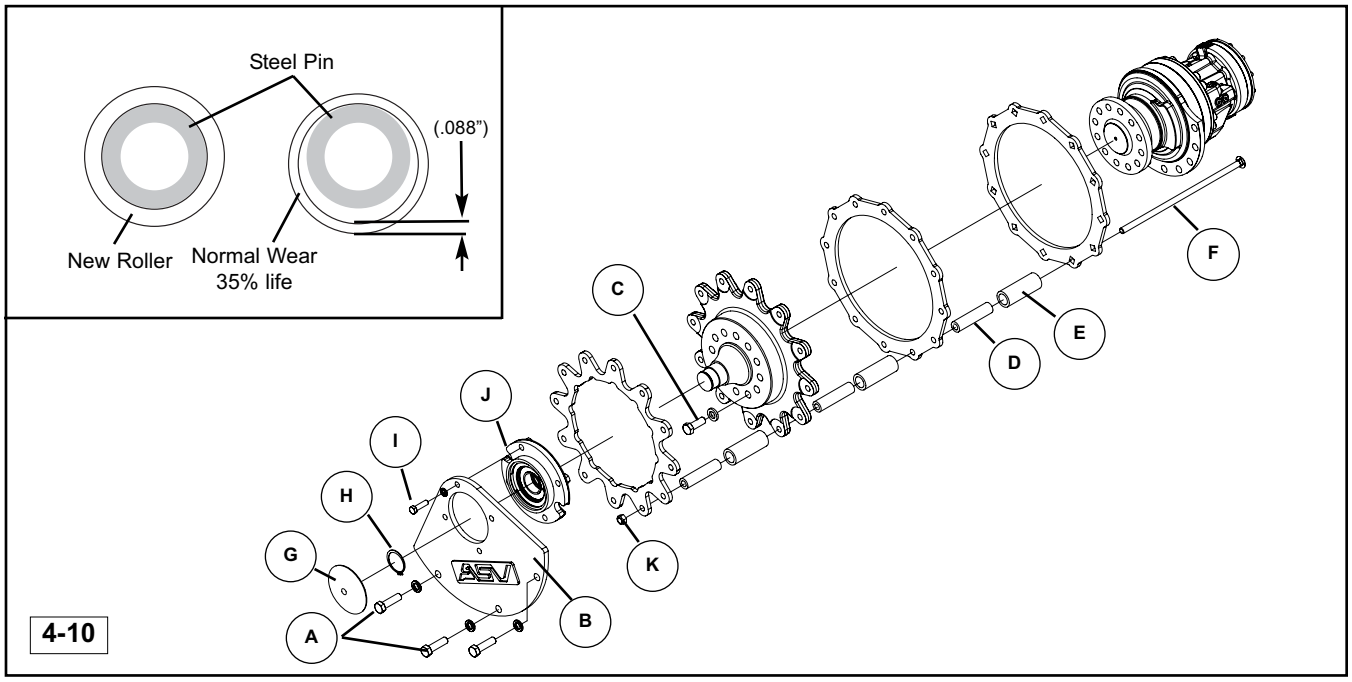
Note: During the first 50 hours of operation the tracks will "break-in" and will most likely require adjustment.

To check track tension: (fig. 4-7, 4-8)

1. Drive the machine forward 5 feet to remove belt slack from the lower and rearward portions of the track.
2. Lay a straight edge along the top of the track bridging the drive sprocket and front idler wheel.
3. Apply 90 lbs (41kg). of force to the track by either placing weight on top or hanging it using rope or wire midway between the drive sprocket and front idler.
4. Measure from the bottom of the straight edge to the lug surface (top) of the track. The deflection should measure between 3/4" and 1" (1.9-2.5cm).

To adjust track tension: (fig. 4-9)

1. Loosen the lock nut (A) on the turnbuckle (B) and adjust by turning the turn buckle itself until proper tension has been achieved.
2. Then tighten the turnbuckle lock nut to complete the procedure.
3. Repeat the adjustment procedure on the other side of the machine if necessary.



Drive Sprocket Rollers

Terex rubber track loaders utilize rollers on the drive sprockets to drive the track. These rollers help minimize friction between the track and the drive sprocket to prolong track life.

The rollers rotate around hardened steel pins and usually wear on their inside surfaces. As they wear, the rollers become thinner, but will continue to function as long as they rotate freely around the pins. Sprocket rollers should be inspected every 50 hours of operation and replaced if cracked or worn to less than 35% of original thickness. (.088"/.22cm)

To replace worn rollers:

1. Begin by performing steps 1-4 in the track removal procedure on page 4-6 to allow the sprocket to be removed.
2. Remove the seven bearing plate mounting bolts (A, I), then remove the plate (B) from the drive table.
3. Remove the bearing cap (G) by tapping around the bulged area of the cap with a hammer. This will relieve the outward pressure on the cap and allow for removal.
4. Remove the external snap ring (H) from the bear ing shaft.
5. Using a puller, remove the bearing assembly (J) from the shaft.
6. Remove the sprocket mounting bolts (C), then remove the sprocket.

Note: You may need to pry or lift the track upwards with a hoist above the drive sprocket to provide clearance for removal.

7. Remove one bolt (F) holding the steel pins (D) and rollers (E) in place. Install the new rollers over the pins, then slide the bolt back through the sprocket and pins and secure it with the nut (K).
8. Repeat this process as required throughout the sprocket.
9. Reinstall the sprocket by reversing steps 2-6.

Note: During removal of the bearing cap (step 3) the bulged area of the cap is beaten inward. When reinstalling, orient the cap so that the domed area is facing outward. Then tap the center of the cap with a ball peen hammer or similar device to reset the cap. Do this gently. Too much inward force can damage (mushroom) the bearing shaft.

10. Repeat steps 1-9 on the other side of the machine if necessary.
11. Perform the track tension adjustment and check procedures on page 4-4.

Note: Replace rollers as a set to simplify inspection and maintain proper sprocket function.

Track Removal/Installation

Tracks may need to be removed periodically to inspect undercarriage components or for replacement if worn or damaged. This section covers the procedure to remove and install a track on PT 80 machines.

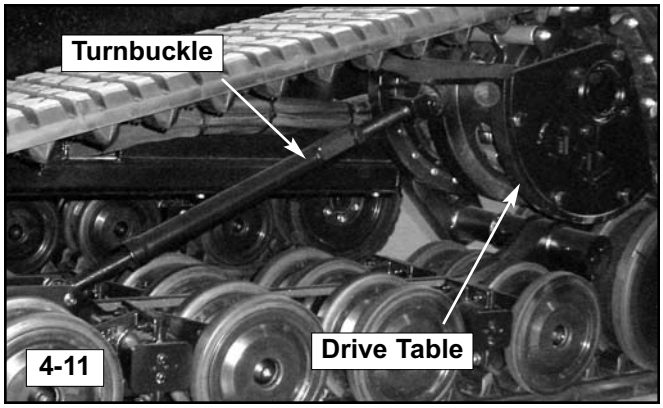
Tools required:
- Socket/impact wrench
- Ratchet strap
- Heavy duty hydraulic jack
- Combination wrench
- Long pry bar(s)
- Terex approved jack stands (2)
- Spray lubricant
- Shop vac or Pressure washer

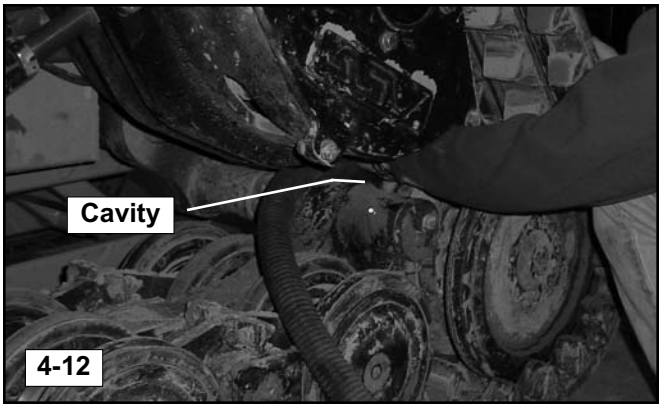
Track Removal

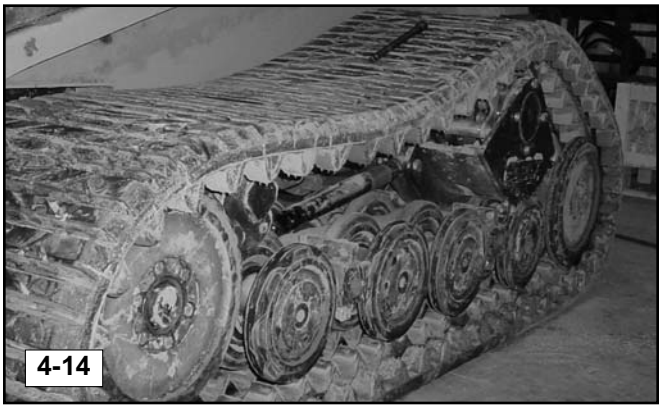
1. Break up and remove any foreign material from the cavity between the suspension rail and the drive table support. (fig. 4-12)

Note: A shop vac or pressure washer will work well to remove material from this cavity.

2. Clean the threads on the turnbuckle thoroughly using a stiff bristle brush.
3. Loosen the lock nut on the turnbuckle and spin it to the end of the threaded shaft to allow clearance when the drive table is lowered.(fig. 4-13)
4. Rotate the turnbuckle and lower the drive table as far as it will go. (fig. 4-14)
5. Remove the bolts securing the outer front wheel to the hub. Then remove the wheel. (fig. 4-11, 4-15, 4-16)



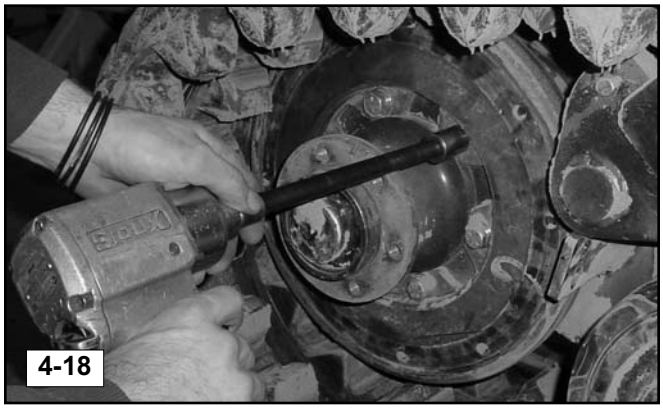





4-16

6. Remove the outer scraper plate from the suspen sion rail. (fig. 4-17)
7. Remove the bolts securing the inner wheel to the hub, then remove the wheel. (fig. 4-18, 4-19)
8. Use a pry bar to peel the track over the inner wheel(s) toward the outside of the machine. (fig. 4-20)
9. Once the track is off of the front wheel(s), pull the rear of the track clear of the suspension. (fig. 4-21, 4-22)


4-17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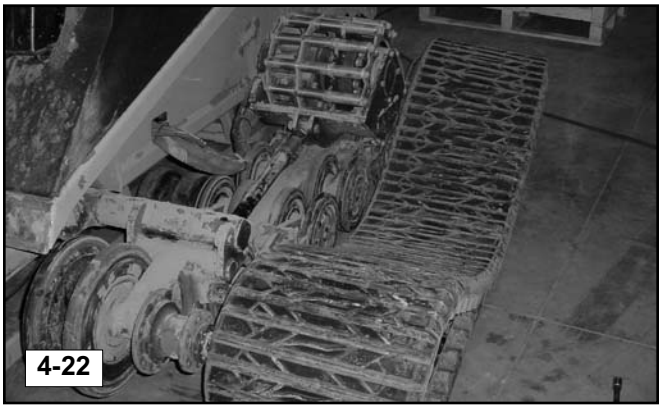
4-22

Track Installation

1. Slide the track over the drive sprocket at the rear of the machine. (fig. 4-23, 4-24)
2. Slide the front of the track into position for installa tion. (fig. 4-25)
3. Lubricate the inner front wheel(s) and the inside of the front portion of the track with a spray lubricant. (fig. 4-26)
4. Attach a ratchet strap to the upper front portion of the track and the other end to one of the tow hooks on the front of the machine. (fig. 4-27)
5. Tighten the strap until the track is pulled upward slightly and in position to slide over the inner idler wheel(s) at the front. (fig. 4-27)
6. Pull all of the slack forward and make sure the track drive lugs are properly meshed with the sprocket to provide as much slack as possible for installation.
7. If you have an assistant, have them pull the track forward while you push inward on the track. Work the track over the wheel(s) and into place.
8. If you do not have an assistant, push the track for ward in inward in a quick forceful motion to slide the track into place. The ratchet strap will help to keep the track in place while you work it over the idler(s). (fig. 4-28)


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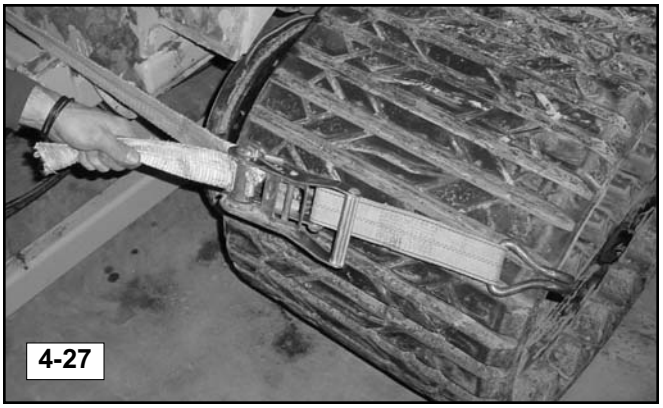
4-24


4-25


4-26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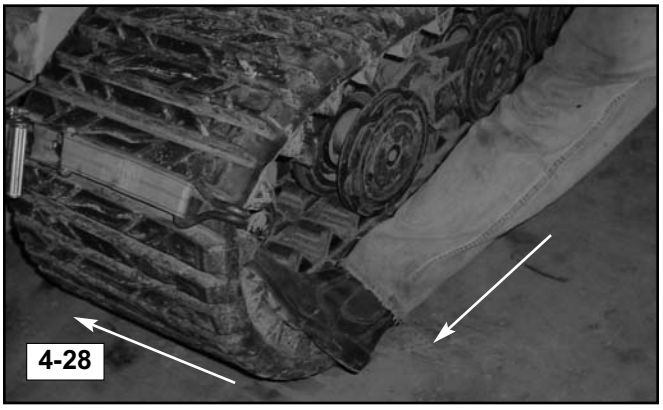
4-28