Operation & Maintenance Manual

Access System

(LeTourneau L1150)

Model: ADE007218

AUSTRALIAN DIVERSIFIED ENGINEERING PTY. LTD.

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1 Overview

1.1 Literature Information

The operation and maintenance manual should be permanently stored in the operator's cabin.

The operation and maintenance manual contains safety, operation and maintenance information for the access system as fitted by Australian Diversified Engineering and **must** be used in conjunction with the machine specific Operation and Maintenance Manual supplied by LeTourneau.

Whenever a question arises regarding the access system, or the operation and maintenance manual for the access system, please consult Australian Diversified Engineering Pty Ltd for the latest available information.

1.2 Safety

The safety section lists basic safety precautions. In addition, this section identifies the text and locations of warning signs used on the access system.

1.3 Operation

The operation section includes a description of the controls, their location and operation with respect to the access system. Photographs and illustrations are provided to guide the operator through the correct operating procedures for the access system.

1.4 Maintenance

The maintenance section is a guide to equipment care. The illustrated, step-by-step instructions are grouped by servicing intervals. Items without specific intervals are listed under "When Required".

Under extremely severe, dusty or wet operating conditions, more frequent lubrication than is specified in the Maintenance Intervals schedule may be necessary.

2 Safety

2.1 Important Safety Information

Most accidents involving product operation, maintenance and repair are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognising potentially hazardous situations before an accident occurs. A person must be alert to potential hazards. This person should also have the necessary training, skills and tools to perform these functions properly.

Improper operation & maintenance of this product can be dangerous and could result in injury or death.

Do not operate or perform maintenance on this product, until you have read and understood the operation and maintenance information.

Safety precautions and warnings are provided in this manual and on the product. It these hazard warnings are not heeded, bodily injury or death could occur to you or other persons.

The hazards are identified by the Safety Alert Symbol" and followed by a 'Signal Word" such as "WARNING" as shown below.

⚠ WARNING

The meaning of this safety alert symbol is as follows:

Attention! Become Alert! Your Safety is involved.

Australian Diversified Engineering cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication and on the product are therefore not all inclusive. If a tool, procedure, work method or operating technique not specifically recommended by Australian Diversified Engineering is used, you must satisfy yourself that it is safe for you and others. You should also ensure that the product would not be damaged or made unsafe by the operation, lubrication, maintenance or repair procedures you choose.

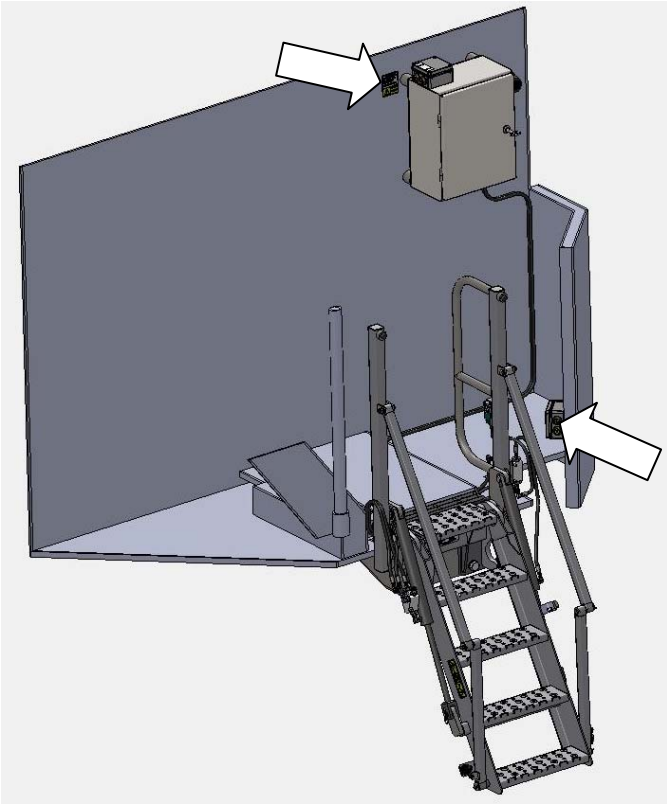
⚠ WARNING

Do not operate or work on this machine unless you have read and understand the instructions and warnings in the Operation and Maintenance Manual. Failure to follow the instructions or heed the warnings could result in injury or death. Contact Australian Diversified Engineering for replacement manuals. Proper care is your responsibility.

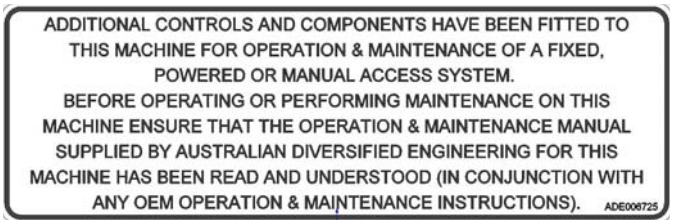
The information, specifications, and illustrations in this publication are on the basis of information available at the time it was written. Obtain the complete and most current information before starting any job from Australian Diversified Engineering.

2.2 Safety Signs & Labels

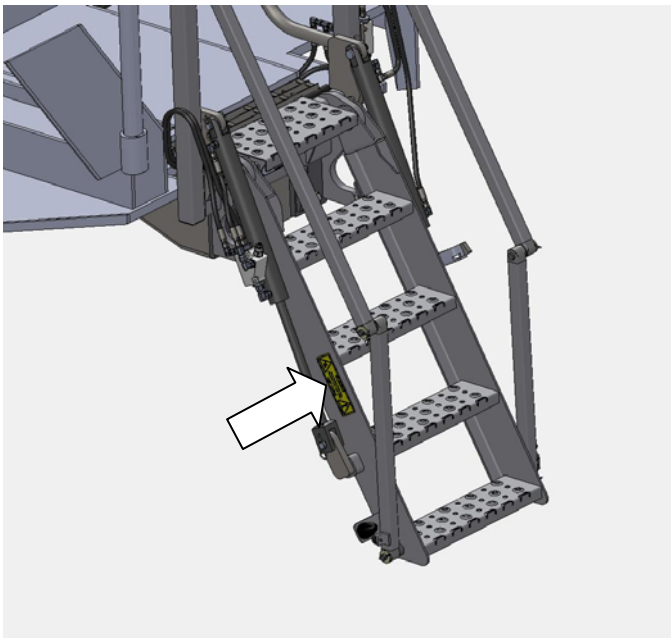
There are several specific safety signs specific to the access system. Their exact location and description of the hazard are reviewed in this section. Make sure that you can read all safety signs. You must replace a label if it is damaged, missing or cannot be read. If a label is on a part that is replaced, make sure a new label is installed on the replaced part. Contact Australian Diversified Engineering for replacement labels.

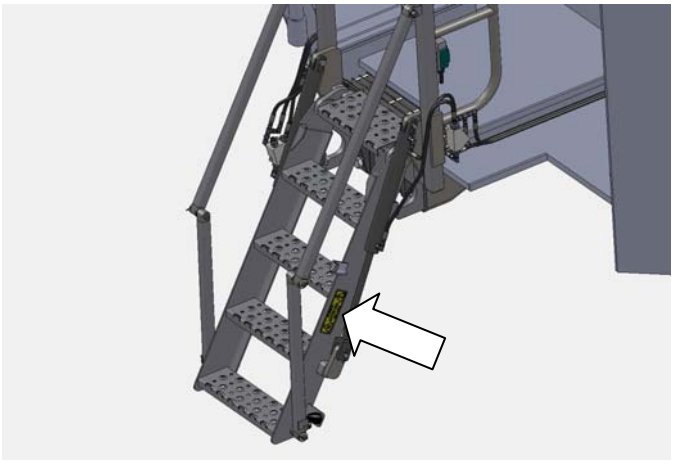


This sign is located adjacent to each control panel for the access system



This sign is located inside the cab in view of the operator



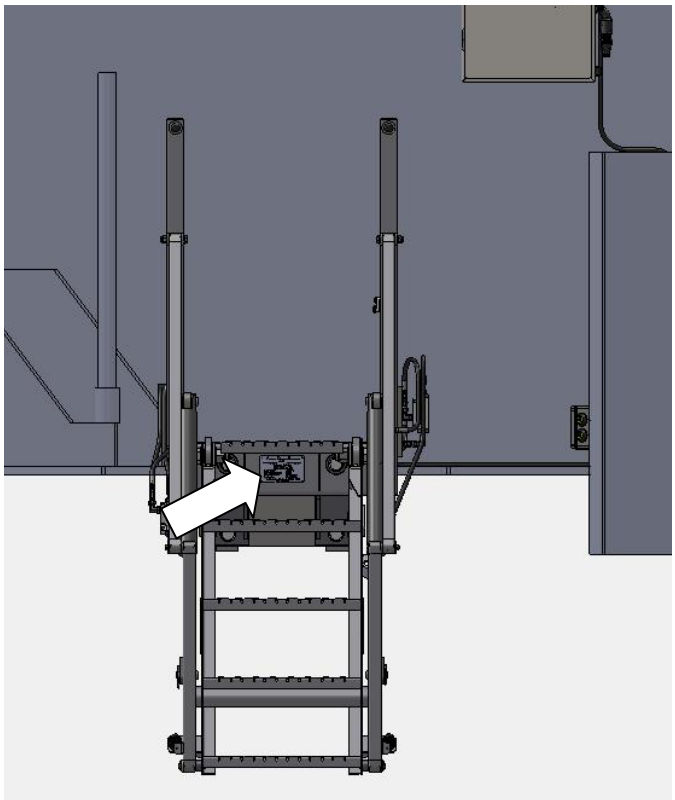


This sign is located on both sides of the access system ladder

3 Product Identification Information

3.1 Access System – ID Plate

An ID plate has been fitted to the access system which indicates information such as the model number, date of manufacture and the serial number. Refer to the plate fitted to each machine for specific details.



ID plate fitted to the mounting beam for the access system ladder

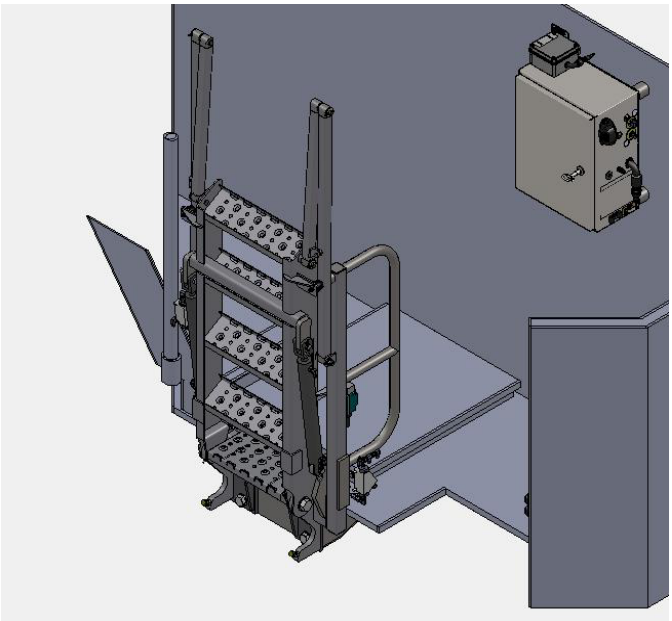
4 Operation Section

NOTICE

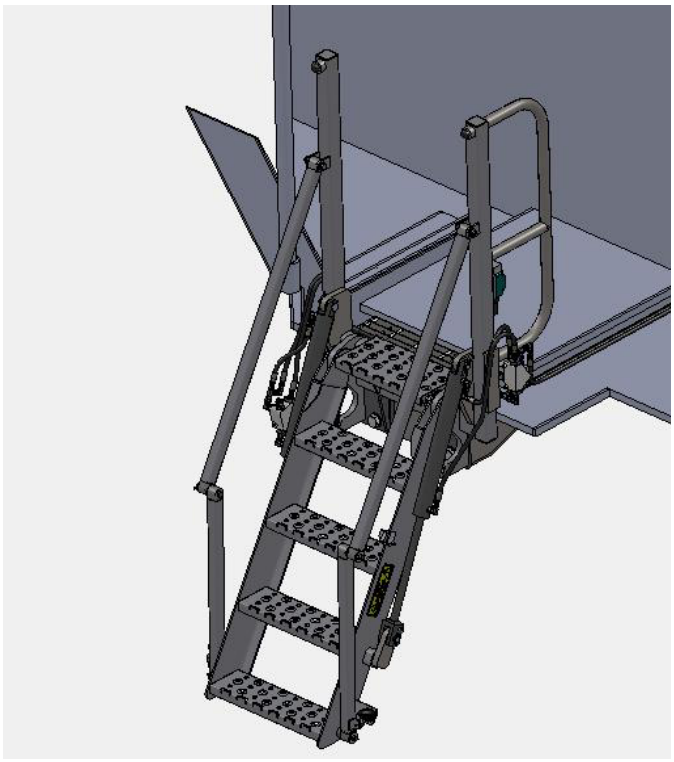
The following information must be read in conjunction with instructions outlined in the LeTourneau Operation and Maintenance Manual for an L1150 fitted with a powered access system.

4.1 General Description

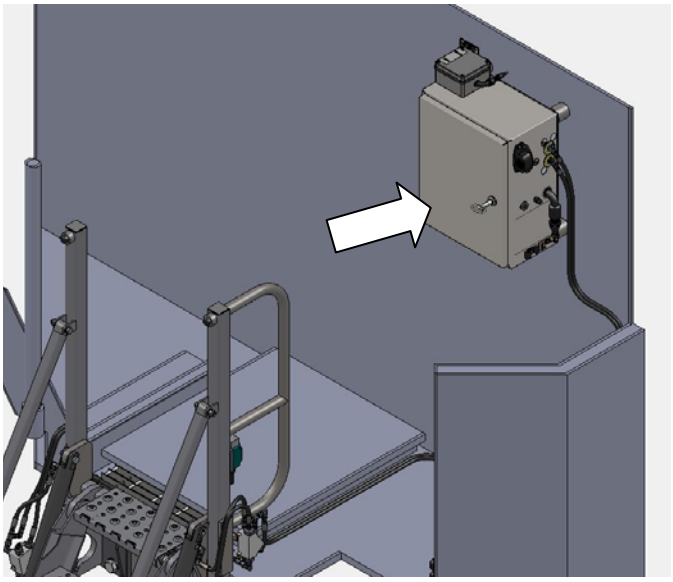
The access system is a single stage electric-over-hydraulic folding system fitted to the left rear of the loader. The access system utilises a 24V DC hydraulic power pack to drive and control the hydraulic cylinders that raise and lower the access system.



Access system in the raised position for machine operation

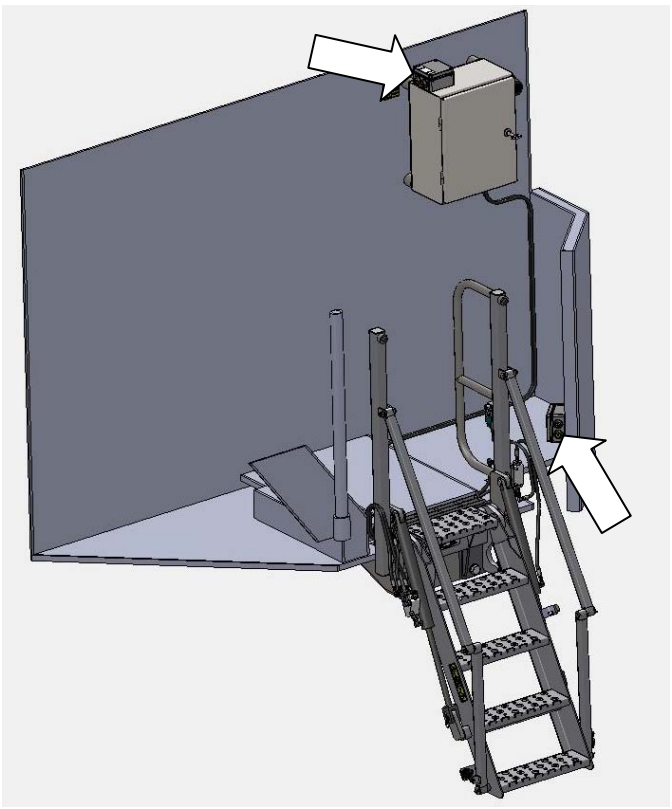


Access system in the lowered position for mounting and dismounting the machine



Hydraulics cabinet for the access system

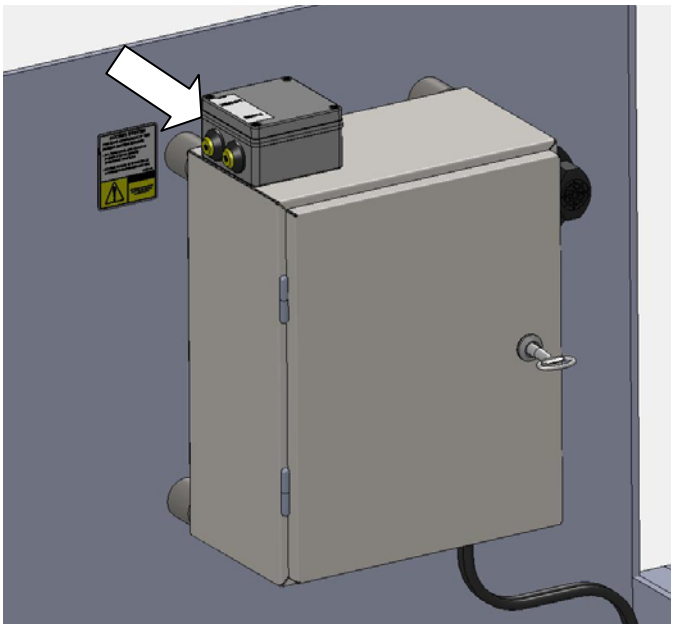
Access system installed on the machine



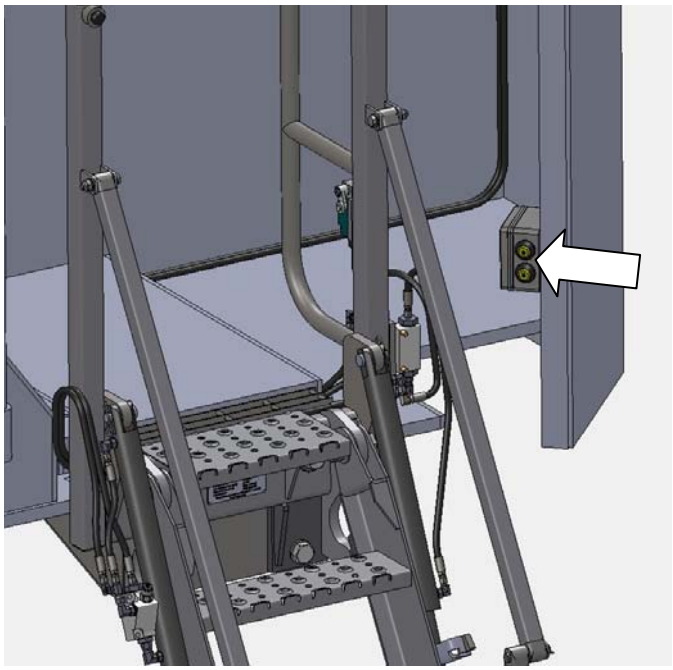
Control panels for the access system

4.2 Controls

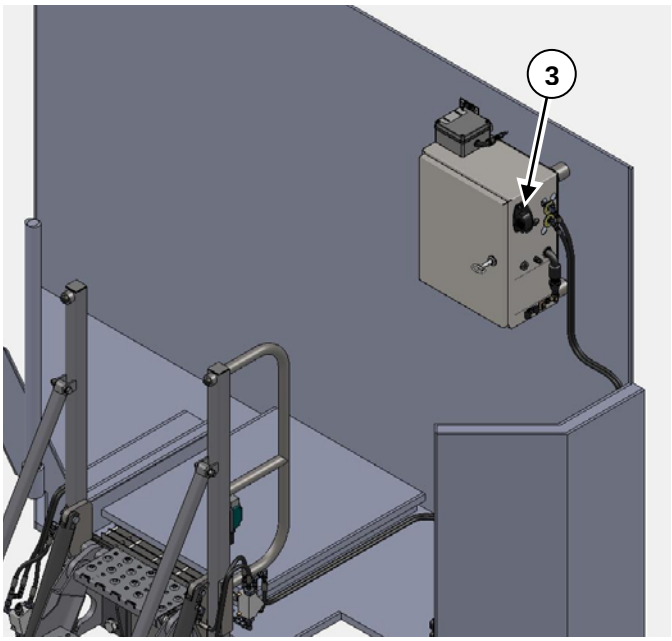
Controls for raising and lowering the access system are located at ground level and at the top of the access system on the hydraulics cabinet. There may be additional controls, indicators and interlocks fitted as standard to the machine to operate in conjunction with this access system. Refer to the LeTourneau Operation and Maintenance Manual for further information.



Upper control panel position



Lower (ground level) control panel position



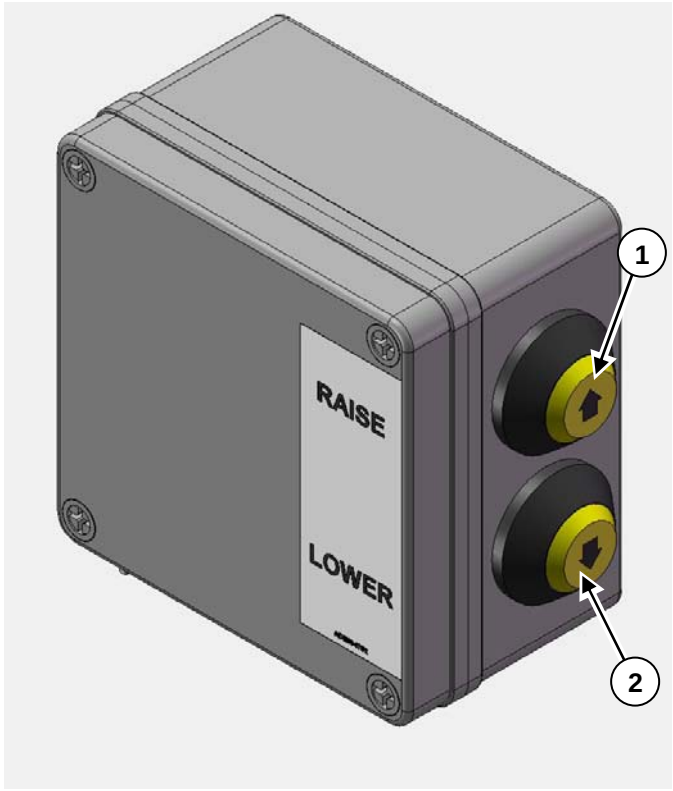
External audible alarm (3) mounted to the access system hydraulics cabinet

The controls for the access system include:

(1) Raise Control

(2) Lower Control

(3) Hydraulics Cabinet Audible Alarm



Control panel

(1) & (2) Raise and Lower Controls

Depress the required button to either raise or lower the access system.

The access controls utilised on this machine are of the momentary push button type. This requires the operator to press the button for the duration of raising or lowering. If the button is released at any point in the system operation then power will be cut immediately and the access system will cease to move (commonly known as ‘dead-man’ controls).

(3) Audible Alarm

When the access system is being raised or lowered the hydraulics cabinet mounted alarm will sound.

4.3 Park Brake

Refer to the LeTourneau Operation & Maintenance Manual for interaction of the access system with the park brake.

5 Mounting & Dismounting

5.1 General Information

- Do not operate access when personnel are mounting dismounting the system.
- Inspect, and when necessary, clean and have repairs made to steps and handholds before mounting and dismounting.
- Face the ladder when mounting and dismounting the access system ladder.
- Maintain a three-point contact (two feet and one hand or one foot and two hands contact) with the steps and handholds.
- Never jump off the access system.
- Ensure adequate lighting for mounting and dismounting of the machine in low light conditions.
- Ensure that the access system is fully lowered before use.

5.2 Mounting Procedure

Do not attempt to access the machine whilst still moving or whilst another operator is in the machine and the engine running. Refer to applicable mine site regulations for approaching machines. If not governed by mine site regulation ensure two-way radio contact has been made with the operator prior to approaching the machine.

To mount the machine using the access ladder:

1. With the access system in the lowered position mount the ladder facing the stairs whilst maintaining a three point contact. If the access system is not lowered operate the ground level switch to completely lower the system.
2. Ensuring that the access system is free from personnel, use the upper control panel to raise the ladder to the raised position.
3. Start and operate the machine in accordance with procedures outlined in the LeTourneau Operation and Maintenance Manual as well as applicable mine site instructions.

5.3 Dismounting Procedure

To dismount the machine via the access system:

1. Stop the machine in accordance with procedures outlined in the machine specific LeTourneau Operation and Maintenance Manual as well as applicable mine site instructions.
2. Exit the cab to the upper control panel for the access system on the left side of the machine.
3. Ensuring that the ground area is free from personnel use the lower button on the control panel to completely lower the access system.
4. Visually inspect to ensure the access system has lowered completely.
5. Dismount the machine facing the ladder whilst maintaining three point contact at all times.
6. If required raise the access system to the stowed position using the ground level controls.

5.4 Emergency Dismounting Procedure

Refer to the LeTourneau Operation & Maintenance Manual for an emergency dismounting procedure.

5.5 Dismounting Procedure – Partial or Complete Access System Failure

Use alternate methods to egress the machine in the event of partial or complete access system failure. Refer to the LeTourneau Operation & Maintenance Manual for alternate egress methods.

6 Maintenance Section

⚠ WARNING

Unintended machine movement may result in personal injury or death. Before performing maintenance on this machine ensure it has been isolated in accordance with mine site and manufacturer procedures and a Do Not Start Tag has been applied in the appropriate location on the machine.

⚠ WARNING

Disconnection of hoses and removal of supporting pins and bolts of the access system may result in unintended machine movement and/or release of stored energy. Personal injury or death may result. Before disassembly of any components of the access system ensure that stored energy has been relieved and components are chocked/blocked to prevent unintended movement.

NOTICE

You must read and understand the warnings and instructions contained in the Safety Section of this manual, before performing any maintenance procedures.

6.1 General Hazard Information

Perform all maintenance unless otherwise specified as follows:

- The machine parked on level ground.
- The park brake engaged.
- The engine stopped.
- The start switch key off and the key removed.
- All disconnect switches locked out and a Do Not Start Tag applied.
- All other external energy sources disconnected from the machine.

6.1.1 Crushing & Cutting Prevention

⚠ WARNING

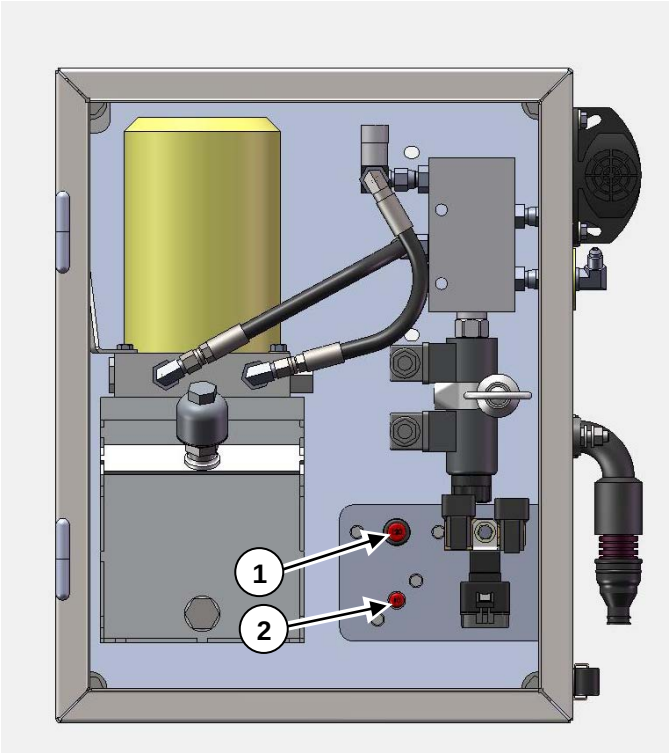
Disconnection of hoses and removal of supporting pins and bolts of the access system may result in unintended machine movement and/or release of stored energy. Personal injury or death may result. Before disassembly of any components of the access system ensure that stored energy has been relieved and components are chocked/blocked to prevent unintended movement.

- Support equipment and attachments properly when working beneath them. Never attempt adjustments while the machine is moving or the engine is running unless otherwise specified.
- Stay clear of all rotating and moving parts.

6.2 When Required

6.2.1 Circuit Breaker - Reset

The electrical system for the access system contains two circuit breakers located inside the hydraulics cabinet. Reset the circuit breakers when required. If a circuit breaker continually trips have the circuit checked.



(1) Main Circuit Breaker – 120 Amp
(2) Switching Circuit Breaker – 10 Amp

6.3 Before Use

6.3.1 Walk-Around Inspection

Perform a walk-around inspection on the machine prior to operation.

- Clean the access steps from any rubbish build-up or debris.
- Visually inspect components for damage and wear and tear. Have any damaged or missing components repaired or replaced.
- Check to ensure that the audible alarm on the hydraulics cabinet sounds whenever the access system controls are activated.
- Visually inspect all hydraulic lines, hoses, fittings and hose clamps for security, damage, deterioration and leaks. Check for pools of oil under the machine which may indicate a possible problem or damaged item.
- Visually inspect all switches of the system. Ensure all visual indicators are operational.
- Check the level of the hydraulic oil compartment. Top-up if required referring to section ***Hydraulic Oil Compartment*** section in the Maintenance Section of this manual.

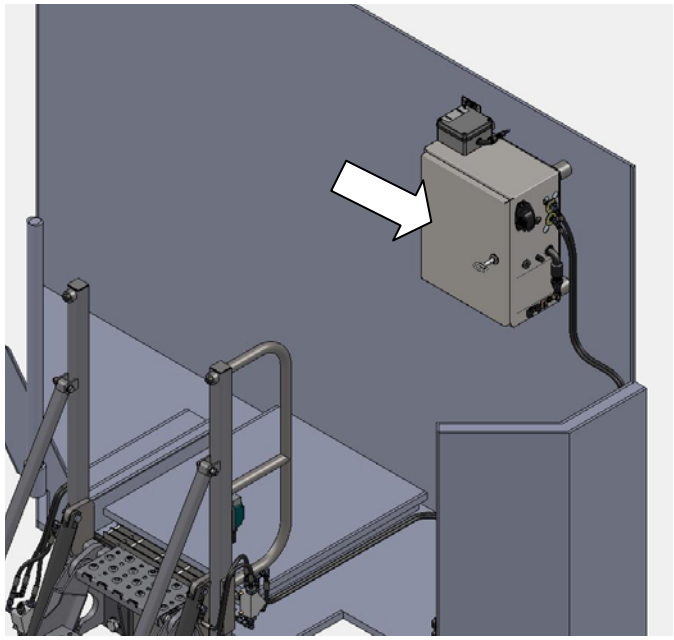
6.4 Every 1000 Service Hours or 6 Months

6.4.1 Bolts and Mounting Hardware

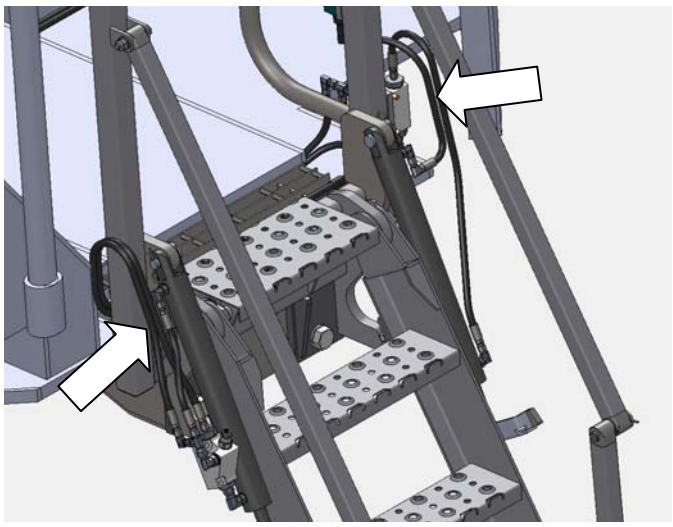
Check the tightness of all bolts fitted to the access system. This includes checking the handrails, access platforms and their mountings.

6.4.2 Hydraulic System – Inspect

Inspect all lines, hoses fittings, hose clamps and cylinders for damage and deterioration. If there are any damaged, missing or leaking parts ensure that they are replaced. Check to ensure the mountings for the hydraulic cabinet are secure.



Hydraulics cabinet located at the left rear of the machine

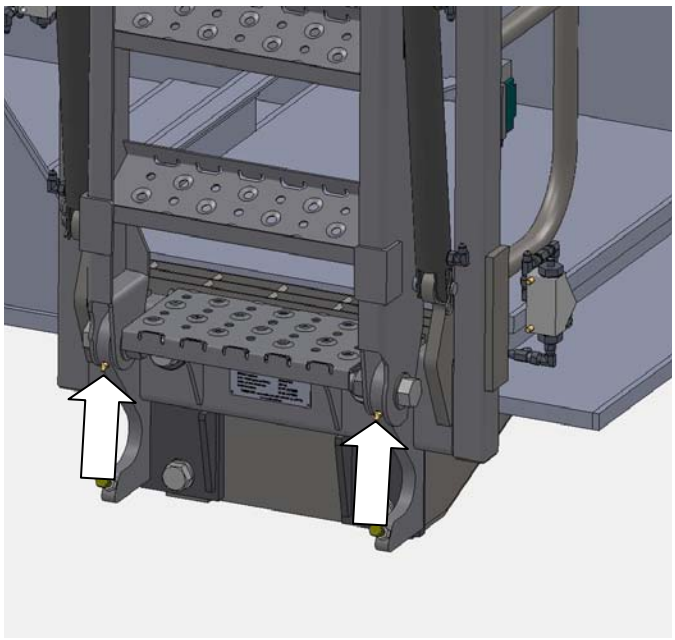


Inspect ladder hoses

Open the hydraulics cabinet lid and inspect all hoses and fittings for leaks. Replace any items as required. Hydraulic systems and components should be serviced only in consultation with Australian Diversified Engineering.

6.4.3 Pivot Points – Lubricate

Lubricate the two main pivot points of the system via the grease fittings with good quality molybdenum based grease.

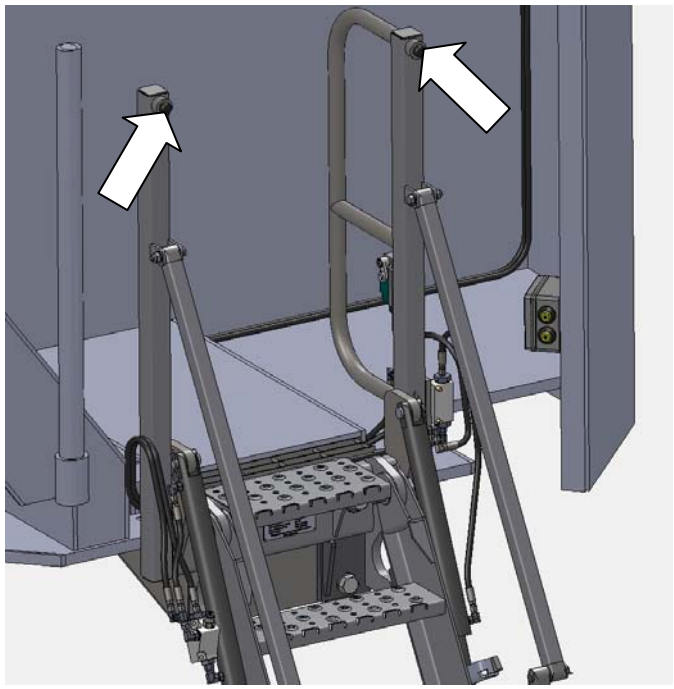


Two grease fittings for the ladder pivot bearings

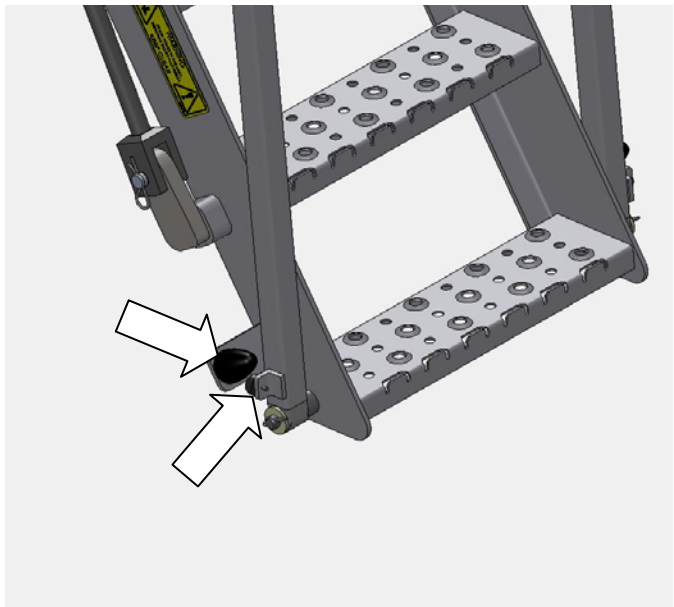
6.5 Every 2000 Service Hours or Yearly

6.5.1 Rubber Bump Stop – Inspect

Inspect the condition of the rubber bump stops mounted to the access system. Replace as required.



Two rubber bump stops for the access system

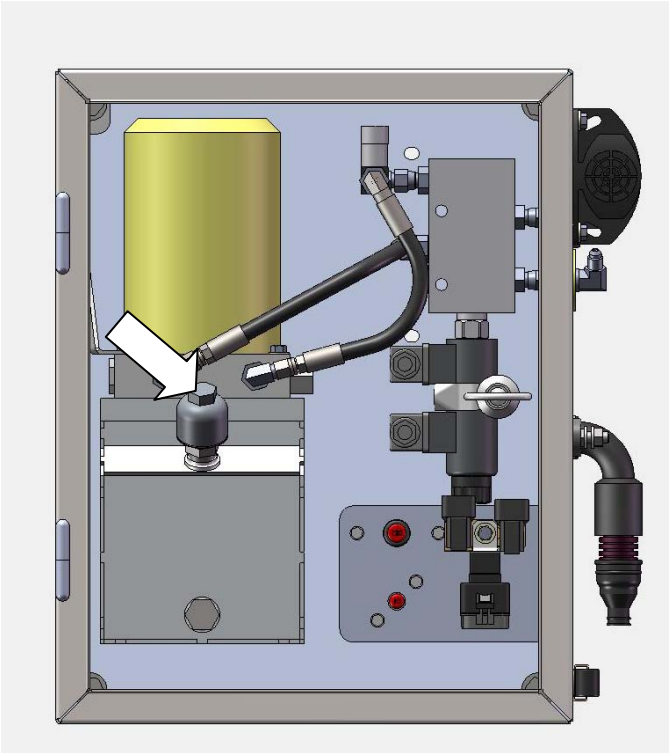


Two rubber bump stops at the bottom of each side of the ladder

6.6 Every 4000 Service Hours or 2 Years

6.6.1 Hydraulic Oil Compartment

Replace the hydraulic oil every 24 months / 2 years in consultation with Australian Diversified Engineering. Use only Castrol Hyspin AWH-M ISO Viscosity grade 68 oil or an equivalent specification oil in the hydraulic system.



Fill point cap for the hydraulic oil compartment

7 Literature Reference Materials

7.1 Reference Material

Machine specific LeTourneau Operation and Maintenance Manual.