



TJ109LS

Hydraulic Track Jack

Operating, Maintenance, & Repair Manual

The TJ109LS is shipped fully assembled, complete with oil and level bar, and is ready to use.

1.1 Before Putting A New Jack In Service:

Fully extend and retract the jack without a load. This will assure that the jack is primed and oil levels are correct.

1.2 To Raise The Jack:

Close the release knob (#18) by turning it clockwise until it is hand tight.

Note: Over-tightening of the release knob can damage the valve seat, reducing the jack life. Never use pliers, or pipe wrenches, or tighten excessively, hand tightening is sufficient. Pump the lever socket (#11) by hand until the jack advances to, and engages with the load. At this point, the lever socket will become difficult or impossible to pump by hand. Insert the lever bar and continue pumping until you have reached the desired amount of lift; remove the lever bar from the socket.

Note: The jack will advance using only the lever socket under a no load or very light load condition. The lever bar provides the additional leverage for lifting heavier loads.

1.3 To Lower The Jack:

Make sure all personnel are clear, then open the release screw knob (#18) by turning it counterclockwise. Never open the release screw knob more than two full turns. The lowering speed can be controlled with the release screw knob by opening the release knob slightly.

Note: Full retraction speed is reached when the release knob is opened two full turns. Do not open the release screw knob more than two full turns.

The jack can also be lowered in small increments by simply reclosing the release knob at any time during the jack's descent.

1.4 Horizontal Application:

The jack is fully functional when used in a horizontal position as long as the release knob is facing upward, however the stroke will be limited to 9". The oil reservoir is not vented and should not leak regardless of the jack's position.

2.1 Care & Storage:

The TJ109LS requires minimal protection from rain, dust, mud or other potential contaminant's as long as the reservoir fill plug (#23) is kept closed and tight.

After using the jack in any particularly dirty application where excess dirt, mud or grime has built up on the jack, it is recommended the jack be wiped down prior to storage. The jack should be stored in a clean, dry area and should always be stored fully retracted.

2.2 Hydraulic Oil:

The TJ109LS holds approximately 50 cu. in. of oil. The oil should be changed approximately once a year. SIMPLEX oil Part #AO1, 1 gallon is highly recommended.

WARNING: Do not use brake fluid or other non-approved substitute oil: Lighter weight oils may be used when ambient temperatures are below 32 F.

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2.3 Adding oil, When Needed:

A jack that is low on oil will lift a full load but will not extend to its full 9" lift. As the reservoir runs dry, the lever socket becomes very easy to pump and the jack stops advancing. **To add oil, first fully retract the jack** and remove the fill plug (#2, Fig.B). With the jack in its normal vertical position, fill the reservoir until the oil level is even with the fill hole and replace fill plug.

Note: It is important that the oil level is no more or less than even with fill hole.

2.4 Changing The Oil (approximately once a year)

To drain the oil, thoroughly clean the area around the fill plug (#2, Fig.B). Be sure the jack is fully retracted and remove the fill plug. Lay the jack on its back side and allow the oil to drain into an appropriate receptacle through the fill plug hole. Take extra care to make sure no dirt or other contaminants enter the reservoir while the fill hole is open. While the reservoir is empty, take the time to inspect the reservoir for contamination. If you find dirt or grime in the reservoir or if the drain oil appears dirty or feels gritty, simply flush the reservoir out with a clean flushing solvent before refilling. (Be sure to dispose of used oil in accordance to E.P.A. regulations.)

Refill the reservoir using the recommended oil. With jack fully retracted and in its normal position, fill the reservoir until the oil level is even with the fill hole and reinstall fill plug. It is important that the oil level be accurate. Be sure the oil level is even with fill hole.

Warning: Do not fill the reservoir unless the jack is fully retracted.

Before returning the jack to service, fully extend the jack without a load by pumping the lever socket by hand (no lever bar). If the oil is accurate, the lever socket will become impossible to pump by hand when the jack reaches its full extension.

- 2.5** Inspect the jack for leaks, cracks, or other damage, **Immediately take out of service** any jack that appears to be damaged or leaking. Contact Simplex (708) 865-1500 for the name of the Authorized Service Center in your area. Have the jack serviced only at a Simplex Authorized Service Center.

Troubleshooting:

PROBLEM	PROBABLE CAUSE	REMEDY
1) Jack will not raise.	A) Release screw #28 Fig. A is not closed. B) Release screw not seating properly. C) Ball check in pump piston housing D) Seal Failure	A) Turn release screw clockwise until it hand tight. B) Remove release screw #21 Fig. A. and check ball #18 Fig. A. Flush and clean the release screw seat and replace check ball #18 Fig. A. C) Remove pump piston assembly #32 Fig. A. Flush & clean ball seats & replace check ball #10 & #12 Fig. B. D) Have jack serviced at an Authorized Service Center.
2) Jack raises but will not hold the load.	A) See 1B or 1D (troubleshooting)	A) See 1B or 1D (troubleshooting)
3) Jack only raises part way.	A) Jack is low on oil.	A) Add oil as specified in section 2.3
4) Jack leaks oil.	A) Seal Failure	A) Have the jack serviced at a Authourized Service Center.
5) Jack retracts slow	A) Air in hydraulic system.	A) Remove fill plug #2 check oil level, & completely raise and lower jack, replace plug.