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## **JACK RETRACTION TIMES**

Due to many factors involved such as jack size, hose length and size, installation and hose routings, manufacturing tolerances and temperature, jacks, even of the same size, will not retract at the same speed. In seal design, there is a relationship between seal pressure and the ability to seal. Seal pressure is the amount of "squeeze" the seal exerts on the parts it is assembled into. The greater the seal pressure, the better the sealing capability. A tighter seal will cause a jack to retract slower. As long as all four jacks are fully retracted within the times listed below, service is not necessary when one or more jack(s) retract slower than the others.

The following are allowable retraction times for different temperature ranges and conditions.

NOTE: The temperatures noted are for the jacks and the oil in the hoses, not air temperature. Early in the day, especially in colder weather, the temperature of the jacks is probably lower than the air temperature. Even when the vehicle is brought into a heated building, it may take several hours for the jacks and oil to warm up to air temperature. An infrared temperature gun can be used to check the jack temperature.

DO NOT ESTIMATE TIMES. USE SOME TYPE OF WATCH TO DETERMINE THE RETRACTION TIME OF THE JACKS.

TEMPERATURE RANGE (FAHRENHEIT	Γ) JACK SIZE	ALLOWABLE RETRACTION TIME
1. ABOVE 60 DEGREES	6,000 and 9,000# JACKS 12,000 and 16,000# JACKS 24,000# JACKS	FOUR (4) MINUTES FIVE (5) MINUTES SEVEN (7) MINUTES
2. BETWEEN 30 DEGREES AND 60 DEGREES	6,000 and 9,000# JACKS 12,000 and 16,000# JACKS 24,000# JACKS	SEVEN (7) MINUTES NINE (9) MINUTES THIRTEEN (13) MINUTES
3. BETWEEN 0 DEGREES AND 30 DEGREES	6,000 and 9,000# JACKS 12,000 and 16,000# JACKS 24,000# JACKS	FOURTEEN (14) MINUTES EIGHTEEN (18) MINUTES TWENTY SIX (26) MINUTES

When temperatures are below 0 degrees Fahrenheit, there are no allowable retraction times given. Times for complete jack retraction can exceed the times given for temperatures between 0 and 30 degrees Fahrenheit.

If the jacks will retract completely but exceed the allowable retraction times, replacing the return springs will in most cases resolve the problem. In normal conditions above freezing, if a jack will retract with a little assistance, replacing the springs may resolve the problem. If a jack has to be forced up, as with a pry bar, the cylinder will most likely have to be replaced. If replacing the springs does not solve the problem, the cylinder must be replaced. NOTE: If the jack is equipped with the new style tapered springs, do not replace the springs, replace or repair the cylinder.

If a vehicle is parked or stored for an extended period of time and the jacks fail to retract completely, extend the jacks back down to the ground then retract the jacks again. If the jacks do not retract completely without assistance, replace the springs. The following are the correct replacement part numbers for return spring kits. There are two (2) springs included in each spring kit. The correct spring kit must be used.

All 6,000 and 9,000# jacks with 13" or 15" stroke	R3847
All 6,000 and 9,000# jacks with 16" stroke	R3848
All 12,000# jacks with 13" stroke	R91642
All 12,000# jacks with 16" stroke	R91933
All 16,000# jacks with 13" or 16" stroke	R2365
All 24,000# jacks with 13" or 16" stroke	R2365

It is possible a customer may experience a situation where a jack needs assistance when retracting that cannot be duplicated in the shop. If this occurs, contact HWH Corporation technical assistance.



OLD STYLE OBSOLETE



NEW STYLE TAPERED

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