

GENERAL TROUBLE SHOOTING GUIDE

Problem	Possible Cause	Remedy
<p>#1) Liftgate will not raise or raises slowly, unloaded</p>	<ul style="list-style-type: none"> • Motor not running • Little or no hydraulic oil in the reservoir • No oil supply to cylinder • Defective lift cylinder • Hydraulic locking valve on cylinders malfunctioning • Mechanical damage or obstruction • Hydraulic oil thickened due to low temperature 	<ul style="list-style-type: none"> • Check Master Disconnect is “ON”. • Check Circuit Breaker is “ON”. • Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection. • Check battery for charge. • In below freezing temperatures, check for frozen water accumulation in the motor housing. • Check motor solenoid. Replace if non-functional. • Check control switch. Replace if non-functional. • Fill with correct hydraulic fluid <p>Check for any broken or blocked hoses, valves or filters.</p> <ul style="list-style-type: none"> • Check function. Replace if non-functional. • Check function. Replace if non-functional. • Check for and remedy any damage or obstruction in sliders, track or path of travel of platform • Change to lower viscosity hydraulic oil.
<p>#2) Liftgate will not raise, or raises slowly, loaded</p>	<ul style="list-style-type: none"> • All of the above • Reduced hydraulic oil delivery to the cylinder 	<p>All of the above</p> <ul style="list-style-type: none"> • Check voltage supply to motor. Minimum should be 10.5 volts under load. If voltage is too low, increase the power supply. • Check for poor electrical connections

	<ul style="list-style-type: none"> • Ground Fault • Liftgate overloaded • Pump worn <p>Pressure relief valve out of adjustment</p>	<ul style="list-style-type: none"> • Check the ground from the chassis to the battery (Minimum #4 battery cable). • Check the ground from the chassis to the motor (minimum #4 battery cable). • Decrease load • Have pump serviced or replace <p>Adjust</p>
#3) Liftgate will not raise to full height	<ul style="list-style-type: none"> • Insufficient oil in reservoir • Air in hydraulic system • Mechanical damage or obstruction 	<ul style="list-style-type: none"> • Fill with hydraulic oil • Raise and lower the liftgate several times and then fill the reservoir with hydraulic oil • Check for and remedy any damage or obstruction in sliders, track or path of travel of platform
#4) Liftgate will not descend, or does so slowly	<ul style="list-style-type: none"> • Motor not running • Little or no hydraulic oil in the reservoir • No oil supply to cylinder • Defective lift cylinder • Hydraulic locking valve on cylinders malfunctioning • Mechanical damage or obstruction • Hydraulic oil thickened due 	<ul style="list-style-type: none"> • Check Master Disconnect is “ON”. • Check Circuit Breaker is “ON”. • Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection. • Check battery for charge. • In below freezing temperatures, check for frozen water accumulation in the motor housing. • Check motor solenoid. Replace if non-functional. • Check control switch. Replace if non-functional. • Fill with correct hydraulic fluid <p>Check for any broken or blocked hoses, valves or filters.</p> <ul style="list-style-type: none"> • Check function. Replace if non-functional. • Check function. Replace if non-functional. • Check for and remedy any damage or obstruction in sliders, track or path of travel of platform • Change to lower viscosity hydraulic oil.

	<p>to low temperature</p> <ul style="list-style-type: none"> • Control Valve stuck • Reduced hydraulic oil delivery to the cylinder • Ground Fault 	<ul style="list-style-type: none"> • Clean or replace control valve • Check solenoid for proper operation • Check voltage supply to motor. Minimum should be 10.5 volts under load. If voltage is too low, increase the power supply. • Check for poor electrical connections • Check the ground from the chassis to the battery (Minimum #4 battery cable). • Check the ground from the chassis to the motor (minimum #4 battery cable).
#5) Liftgate creeps down while the platform is in the unfolded position	<p>Leaks in the hydraulic system</p> <ul style="list-style-type: none"> • Worn lift cylinder(s) <p>Hydraulic locking valve on lift cylinder defective</p> <p>Electrical short circuit</p>	<ul style="list-style-type: none"> • Check all hoses, connections and control valves; replace or service any faulty parts <p>Check cylinder packing. Replace if necessary Check cylinder for scoring. Replace if necessary</p> <p>Clean or replace Check plunger assembly for proper adjustment Check for short circuit at valve pin</p> <p>Check for electrical short circuit.</p>
#6) Liftgate descends unevenly	<p>Defective control valve in power unit.</p>	<p>Replace.</p>
#7) Liftgate vibrates up and down while lifting	<p>Mechanical damage or obstruction</p> <ul style="list-style-type: none"> • Defective lift cylinder <p>Air in system</p> <p>Tank breather is plugged</p> <p>Low pressure feed to pump is restricted</p>	<p>Check for and remedy any damage or obstruction in sliders, track or path of travel of platform</p> <ul style="list-style-type: none"> • Check function. Replace if non-functional. <p>Lower platform to ground and fill reservoir. Now raise and lower the platform several times. Refill reservoir if necessary</p> <p>Unplug breather</p> <ul style="list-style-type: none"> • Remove restriction
#8) Excessive battery discharge	<p>Alternator/generator not working properly.</p> <p>Frequent use with insufficient</p>	<ul style="list-style-type: none"> • Service or replace • Check battery water level frequently

	<p>charging time.</p> <ul style="list-style-type: none"> • Defective battery • Defective pump motor 	<ul style="list-style-type: none"> • Avoid use for frequent short periods without allowing adequate recharging time. Do not use liftgate with engine off <p>Replace battery</p> <ul style="list-style-type: none"> • Replace motor
#9) Overflowing through reservoir breather	<ul style="list-style-type: none"> • Overfilled reservoir • Air in system 	<ul style="list-style-type: none"> • Drain to proper volume <p>Raise and lower the platform several times, refill if necessary</p>
#10) Platform will not open or close, or does so slowly	<p>Hydraulic system fault</p> <ul style="list-style-type: none"> • Defective POC cylinder • Defective power unit. • Ground Fault 	<p>Check hoses for kinks or sharp bends and reroute if necessary</p> <p>Check to make sure orifice is not blocked at POC cylinder end</p> <p>Check POC cylinder seals. Replace if defective.</p> <ul style="list-style-type: none"> • Check valves on power unit for function • Check electrical wiring for sufficient current (min. 10.5 volts) to valves. • Check electrical connections. • Check the ground from the chassis to the battery (Minimum #4 battery cable). • Check the ground from the chassis to the motor (minimum #4 battery cable).