ILM – Series

Troubleshooting: ILM Medium Duty Railgate Lift

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Tools needed:

1. Voltmeter
2. Test light
3. 8” jumper cable (16ga. or smaller)
4. Philips Screw driver
5. 13mm (1/2”) wrench

*****MAKE SURE YOUR BATTERIES ARE FULLY CHARGED AND IN GOOD CONDITION*****

Always use CAUTION and allow SAFE distance from moving parts

Practice SAFETY, using common sense and good judgment
Platform and Motor Setup Overview

- Torsion Bar
- Hydraulic Hose
- Down Valve
- Filler Vent Cap
- Reservoir
- Motor Solenoid
- Check Valve
- Motor
- Lift Cylinder
- Pressure Adjustment
- Open/Close valve

ILM Series
1) GATE DOES NOT OPEN UP

a) Initial Checks
- Check Master Disconnect is "ON"
- Check that Circuit Breaker at battery box has not been tripped
- Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
- Check batteries. Batteries should be fully charged and in good condition
- Check voltage - minimum 10 volts at motor when closing or up function is engaged for 10 sec with gate in stored position.

b) Platform is not opening up
- Check if open/close valve on top of motor and down valve on top of lift cylinder are energized.
  - If not, check power supply to switches and signal line to valves while activating open function
  - Valves are energized – check grounding of valves
- Valves are energized, but Platform still does not open
  - Check coil for damage and magnetic function
  - Check torsion bars inside of platform behind cover plate for damage and correct adjustment.
  - Check open/close cylinder for damage or leaks
2) GATE IS NOT LOWERING DOWN

a) Initial Checks
- Check Master Disconnect is "ON"
- Check that Circuit Breaker at battery box and inside Pump and motor compartment has not been tripped
- Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
- Check batteries. Batteries should be fully charged and in good conditions
- Check voltage - minimum 10 volts at motor while activating the UP function with gate in upper position

b) Platform is not lowering down
- Check if down valve on top of motor is energized.
  - If not, check power supply to up/down switch and signal line to down valve while activating lowering function (check for voltage while activating function)
  - Valve is energized – check grounding of valve and make sure, valve is shifted over (hear click)
- Valve is energized, but Platform still does not lower down
  - Check if open/close valve is energized – it should NOT be energized.
  - Shift valve is not energized
    - Check if flow control valve is contaminated and/or cylinder is damaged
3) GATE IS NOT RAISING UP

a) Initial Checks
   → Check Master Disconnect is "ON"
   → Check that Circuit Breaker at battery box has not been tripped
   → Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground
     or a broken cable or connection
   → Check batteries. Batteries should be fully charged and in good condition
   → Check voltage - minimum 10 volts at motor after 10 sec holding the switch for closing function.
     (Deadhead the gate in actual position)

b) Motor does not run
   → Check power supply to up/down switch and for voltage at signal line to motor solenoid
     while activating up function
   → Check motor solenoid. If it is getting power (small connector at solenoid has voltage) but you do not
     hear a click, you should change the motor solenoid.
   → You hear it click - check if the motor gets power. If yes, check the motor of correct function.

c) Motor runs but platform does not raise
   → Check lift cylinder for damage or chain for broken chain links.

Chain setup for correct operation
4) GATE IS NOT CLOSING

a) Initial Checks

→ Check Master Disconnect is "ON"
→ Check that Circuit Breaker at battery box and fuse inside pump and motor compartment have not been tripped
→ Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
→ Check batteries. Batteries should be fully charged and in good condition
→ Check voltage - minimum 10 volts at motor at while holding the up function for 10 seconds (Deadhead)

b) Motor is not running

→ Check power supply to open/close and up/down switch and for voltage at motor solenoid and open/close valve while activating up function
→ Check motor solenoid. If it is getting power but you do not hear click, you should change the motor solenoid.
→ You hear it click, check if the motor gets power. If yes, check the motor of correct function.

d) Motor is running, but platform does not close

→ Check for power at open/close valve
→ Check cylinder for leaking, loose fittings or contaminated restrictor
→ Check the hydraulic oil level, low level oil in the reservoir – fill up and activate closing function