

Aerial hydraulics, stabilizers and interlocks

How the hydraulic circuit holds a ladder up, why interlocks refuse to let you operate, and where to look when a function is slow or dead.

PROCEDURE

- 1 Confirm the interlock chain first**
PTO, parking brake, stabilizers down and pinned. Most no-operate calls end right here.
- 2 Check fluid and temperature**
Level, condition and temperature. Cold thick fluid mimics a failing pump.
- 3 Compare functions**
One dead function versus all dead tells you whether the fault is local or upstream.
- 4 Watch for creep**
Load it, centre the control and watch. Creep means a holding valve or cylinder seal, not the pump.
- 5 Read pressure at the test port**
Compare against the placard before condemning the pump or the relief valve.

NUMBERS

Interlock chain	PTO - park brake - stabilizers deployed	exact chain varies by builder; check the manual
Creep with control centred	holding valve or cylinder seal	the pump is not involved when centred
All functions slow	fluid level, temp, suction, pump wear	check the cheap causes first
Inspection standard	NFPA 1911	annual inspection and NDT of the aerial

COMMON MISTAKES

- Bypassing an interlock to prove it - the interlock exists because of a fatality somewhere.
- Condemning a hydraulic pump for creep, which happens while the pump is idle.
- Testing on cold fluid and calling the whole system slow.
- Overlooking short-jack or torque-box sensors, which silently gate everything.

Overhaul Prep · overhaulprep.app/learn/aerial-hydraulics · practice and prep material, not a substitute for the manufacturer's service information.