

Prestolite Installation and Troubleshooting

PRIOR TO INSTALLATION, THE AIRCRAFT HYDRAULIC SYSTEM MUST BE THOROUGHLY FLUSHED & ALL FOREIGN CONTAMINATE & OLD OIL PURGED FROM THE SYSTEM. FAILURE TO DO SO DRAMATICALLY INCREASES THE LIKELIHOOD OF PREMATURE FAILURE OF YOUR FRESHLY OVERHAULED POWER PACK. THE HIGH-PRESSURE CHECK VALVE IS EXTREMELY SENSITIVE TO FOULING DUE TO CONTAMINATION, AND SO EXTREME CARE MUST BE USED UPON INSTALLATION.

ALL TROUBLESHOOTING TO BE DONE WITH A POWER CART.

- TROUBLE: LANDING GEAR WILL NOT STAY RETRACTED / UP & LOCKED
 - POSSIBLE CAUSES
 - INTERNAL CHECK VALVE IN POWER PACK IS FAILED & ALLOWING FLUID TO BYPASS
 - CAP OFF ALL LINES FROM POWER PACK AND TEE IN LINE AND HYDRAULIC GAUGE TO "HIGH SIDE" OF THE POWER PACK. ENGAGE RETRACT CYCLE & CHECK PUMP OUTPUT PRESSURE & LOOK FOR ANY PRESSURE BLEED OFF. (IF NO BLEED OFF PROCEED TO NEXT STEP)
 - EMERGENCY GEAR RELEASE VALVE ("HOOF VALVE") IS FAILED & PREVENTING SYSTEM FROM OBTAINING RETRACTED / UP & LOCKED PRESSURE
 - TEE IN HYDRAULIC GAUGE & CYCLE GEAR UP WITH EMERGENCY GEAR RELEASE VALVE PLUMBED IN ONLY WITH THE POWER PACK. LOOK FOR ANY PRESSURE BLEED OFF. (IF NO BLEED OFF PROCEED TO NEXT STEP)
 - LANDING GEAR ACTUATOR(S) ARE ALLOWING FLUID TO BYPASS, PREVENTING SYSTEM FROM OBTAINING RETRACTED / UP & LOCKED PRESSURE
 - TEE IN HYDRAULIC GAUGE & CHECK FOR PRESSURE BLEED OFF AT EACH ACTUATOR POSITION (ISOLATE EVERY GEAR FROM THE SYSTEM)
- TROUBLE: HYDRAULIC POWER PACK WILL NOT SHUT OFF, GEAR UP
 - POSSIBLE CAUSES
 - RIGGING OF GEAR SWITCHES OR SWITCHES/ WIRES BAD.
 - BROKEN SPRING IN MOUNTING BAD OR LOW SIDE SHUTTLE VALVE.
 - PRESSURE SWITCH NOT SHUTTING OFF. (BAD SWITCH)
 - CHECK PRESSURE SWITCH CONTINUITY WITH PRESSURE AND WITHOUT PRESSURE APPLIED TO POWER PACK.
 - PUMP NOT PUTTING OUT REQUIRED PRESSURE.
 - TEE IN GAUGE ON HIGH PRESSURE SIDE TO CHECK PUMP OUTPUT.
 - LOW VOLTAGE/AMPERAGE FROM BATTERY.
 - USE A VOLTMETER TO SEE HOW MUCH AMPERAGE AND VOLTAGE YOU ARE GETTING TO THE MOTOR.
 - IF YOU HAVE A VOLTAGE DROP MOST LIKELY CAUSE IS A BAD IN BOARD SOLENOID OR WEAK BATTERY.
- TROUBLE: HYDRAULIC POWER PACK WILL NOT SHUT OFF, GEAR DOWN

- POSSIBLE CAUSES
 - RIGGING OF GEAR SWITCHES
- TROUBLE: OIL VENTING FROM HYDRAULIC POWER PACK RESERVOIR AT FILL PORT
 - POSSIBLE CAUSE
 - SPRING IN MANIFOLD IS DAMAGED OR DEFORMED, ALLOWING HYDRAULIC FLUID TO RETURN TO AND OVERFILL RESERVOIR
- TROUBLE: GEAR NOT GOING DOWN, BUT GOES UP
 - POSSIBLE CAUSE
 - SPRING BROKEN IN MANIFOLD MOUTING PAD OR BYPASS IN LOW PRESSURE SHUTTLE VALVE DUE TO CUT ORING OR BROKEN SPRING.