

Preventing Thermal Lock in New Lancair Pumps installed in the 320/360

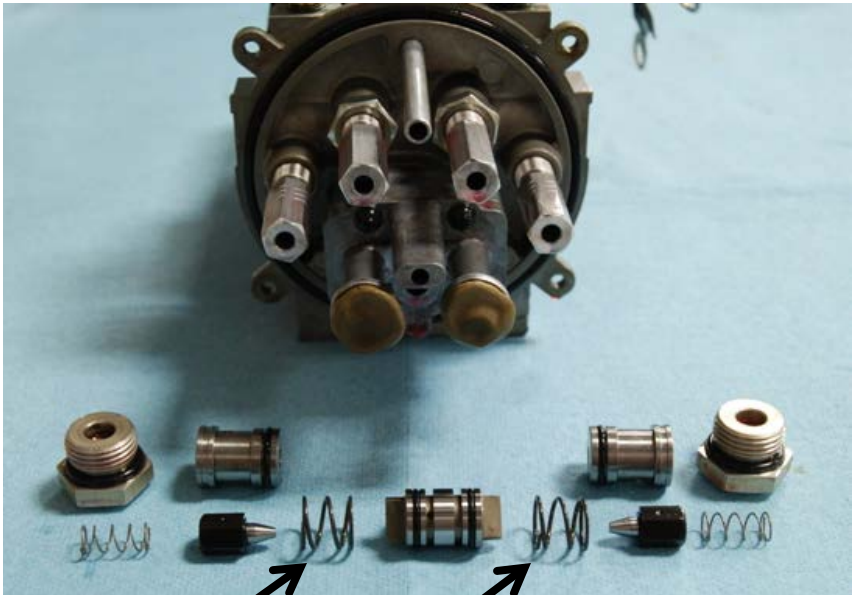
Parker/Oildyne hydraulic pumps sold by Lancair since 2003 (108AMS32-CZZ-3V-14-08-Y) as a replacement part for the 320/360 model aircraft are not configured the same as those sold in the original kits.

Two springs were added that center the spool after pump shut down. This has introduced the potential for complete system lock up in 320/360 if the hydraulic system is warmed sufficiently after parking the aircraft. Unfortunately this renders a stock aircraft unable to raise the gear. Unlocking the system requires either the pressure to be relieved by cracking a fitting or the pump must be forced on by-passing the pressure switches. The following video clip re-creates this phenomenon on the work bench.

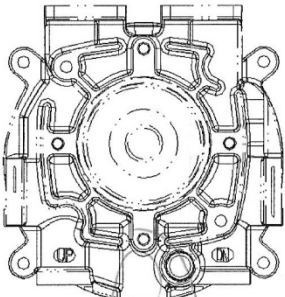
[Thermal Lock-Up](#)

http://www.n91cz.com/Hydraulics/NewPumpLockUp_0001.wmv

In order to avoid this condition, the pump can be reverted back to the original configuration. The centering springs are removed and a back pressure valve is added. The following pages show the parts involved.



Remove Springs



PLUG 1/8BSPP SEALING WSHR
414240

POPPET ASSEMBLY
773776

CHECK VALVE BODY
773763

SPRING
411874

SPOOL
774376

BACK-PRESSURE PORT

SPRING
410462

HEX PLUG RETAINER
774550
TORQUE TO 450-600 INLB

SPRING
410462

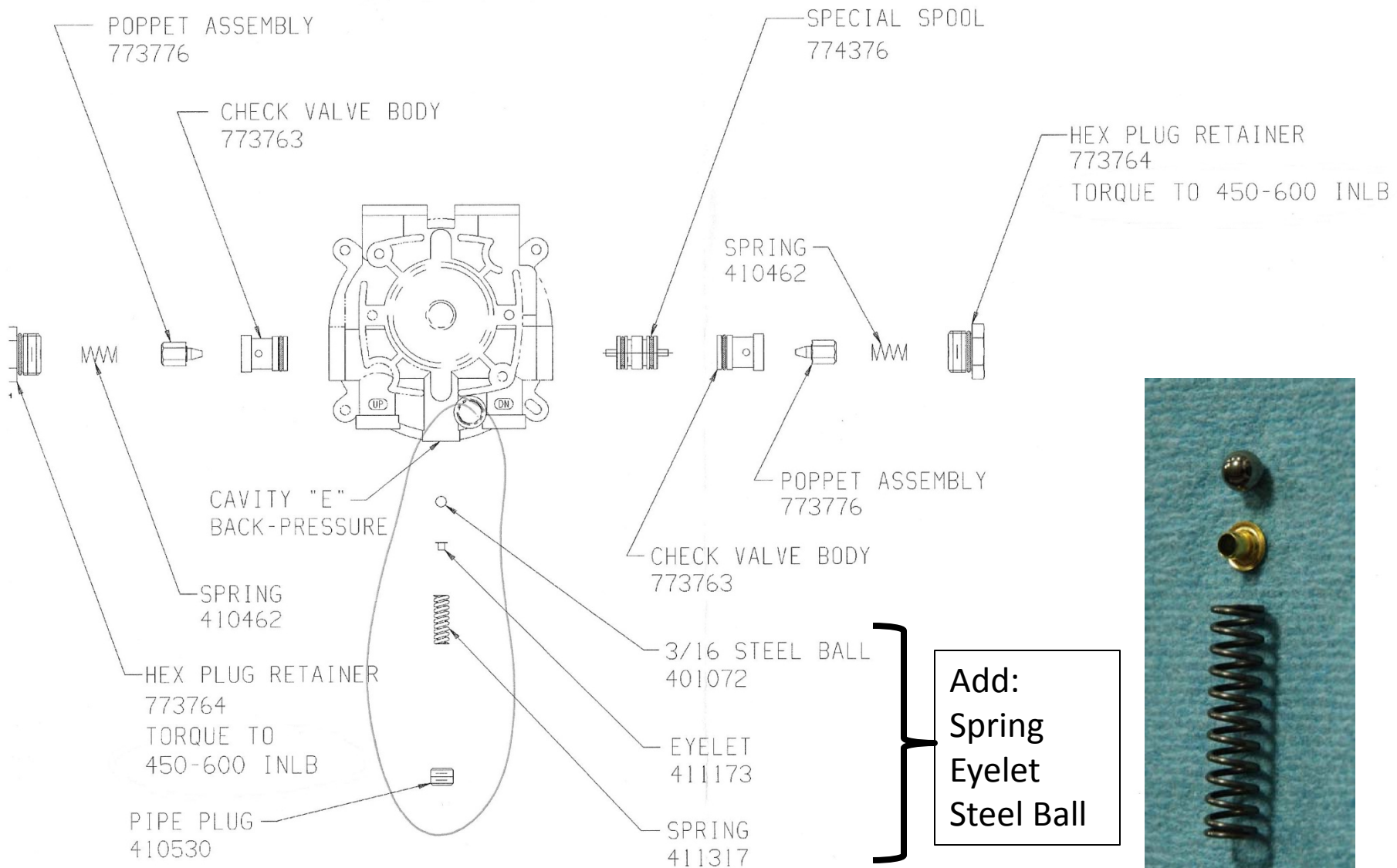
CHECK VALVE BODY
773763

PIPE PLUG
410530

POPPET ASSEMBLY
773776

HEX PLUG RETAINER
774550
TORQUE TO 450-600 INLB

PLUG 1/8BSPP SEALING WSHR
414240



**Add:
Spring
Eyelet
Steel Ball**

