AIR LOCK

PROBLEM: Integral will not pump – Rod will not retract – No pressure obtained

The problem may be "air lock": Too much air in the oil, preventing the check balls from seating or closing system. Air lock is most likely to occur after shipping or if the integral is not stored in an upright position in off-season. Possibly, if not used for a while. Try this procedure:

STEP ONE
Open the valve and pump the handle quickly for 30 – 60 seconds. Close valve. Pump the handle. Sometimes, if you're lucky, this will release the trapped air. If it doesn't pump, go to Step Two.

STEP TWO
Take integral off the boat.
Hold in an upright position.
In order to gain purchase, slide a dowel or the like, through the lower jaw, clevis (stand on it), and another through the upper jaw (grasp it).
"Plunge" the system: open valve and pull the piston rod out of cylinder. Then close valve and push the piston rod in. You may turn integral upside down and push rod into cylinder. Repeat the plunging three to four times. This action lubricates the parts and moves the check balls so they will set. The last time the rod is out/extended, close the valve and pump the rod in.
Store the integral upright for a few hours, more or less.

Quite often, after this procedure is performed, the integral will pump and hold pressure immediately. This procedure should return the integral to working condition.

If the problem is air lock, this procedure may need to be done more than once. If it does not work, call or e-mail SAILTEC.

Integral Test & Trouble-Shoot Check List & Periodic Review

AIR LOCK: If integral, does not pump rod down initially, open valve (knob) and pump several times for 1-2 minutes, clearing air out of pump. Close valve and try again. If necessary, review the more thorough "air lock" procedure.

Periodic Review of System Checklist:

- ✓ Check for visual evidence of external oil.
- ✓ Check for visual evidence of cracked seals at rod or nicks on piston rod.
- ✓ Pump to pressure. Leave handle out. To pass, the pressure will hold and the handle will remain out.
- ✓ Check lever pin for full engagement.

General Care:

Periodic inspection is recommended for your safety. Have a qualified rigger check rod or wire terminations for fatigue.

Procedure for testing an integral:

- Clean integral making note of any locations where external oil appears.
- Open release valve.
- Pull out piston.
  - Inspect rod. To be free of nicks and scratches, polish out with 150 to 220-emery cloth.
  - Inspect wiper seal for cracks. Replace as needed. UV rays and time will cause failure.
- Close release valve.
- Pump in upright position until ram is retracted. If more than an inch or so of ram is exposed, system is low of oil.
- Place spacer on each side of piston rod between upper jaw and gland cap to act as dead stop. Pump to pressure – pump action should be smooth. Leave pump at pressure with handle out away from cylinder.
- Inspect system visually for evidence of external oil (leaks) including elbows, fittings, gauge port, between jaws, and upper end of cylinder.
- Clean system and leave pressure on one day. If gauge drifts to lower pressure more than a few hundred pounds, inspect for evidence of oil. Pressure is temperature sensitive when using a dead stop so higher or lower pressure reading will result from higher or lower ambient room temperature.
- Handle should remain out when under pressure. If it drifts back to upright, you will have a pressure loss and service is required.
- Service system if pressure loss occurs. Pressure loss is caused by a worn cartridge release valve, external oil leaks, a check ball, or seal leaks.


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HUNTER 216 SPECIAL MAINTENANCE

The -10LI-H is an integral, customized to lift the keel of a Hunter 216, a boat with trailer.

As the integral is more susceptible to corrosion due to its position on the boat, a little extra care will help it to last longer.

Keep the upper and lower parts of the cylinder clean; wash off regularly. Maybe use a lubricant in these areas.

In addition, hydraulic seals last longer if they are under pressure and if bathed in oil regularly by pumping the unit.

The more the pump is used, the better it will perform.

Once per month, clean the unit and pump it.

SAILTEC INTEGRAL SERVICE MANUAL