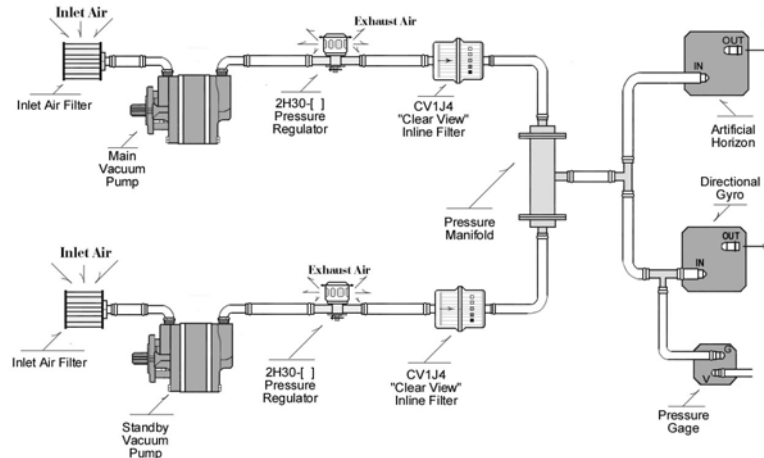


A "CLEAR VIEW"

Into Pressure Systems Construction & Operation



Description

With the importance of system redundancy for flight during IFR conditions, the above illustration depicts a single engine aircraft with standby pump installed.

Dual CV1J4 "Clear View" inline filters are shown installed allowing for the ability to constantly monitor carbon dust discharge caused by air pump deterioration.

Operation

Air pressure created by the pump is regulated by the 2H30-[] regulator valve. Pressure in excess of the desired 4.7" to 5.2" Hg. (2-1/3-2-2/3 psi) is exhausted from the system by the regulator.

Airflow is then routed through the inline filter to the pressure manifold where it is blocked from entering the "non-operating" pump side of the system by an internal check valve.

Airflow moves through the gyro instruments where a pressure differential is developed across one of the gyros as indicated by the gyro instrument pressure gage.

Increasing spring tension on the vacuum regulator will result in higher system vacuum at the regulator and higher differential pressure on the air pump. This condition will result in shorter pump life.

NOTE:

The gyro instrument pressure gage does not indicate air pump pressure !

The CV1J4 "Clear View" inline filter provides a positive means to monitor air pump performance and deterioration. Any increase in carbon dust discharge indicates an old or worn air pump, which may be about to fail, or a malfunctioning system creating higher than normal pressures that will eventually cause the air pump to fail.



Short Pump Life?

Pump outlet pressure should not exceed 1.5" Hg. (approx. 3/4 psi) more than value indicated on the gyro instrument pressure gage. If the pressure gage is indicating a low value, this may be due to dirty filters, plugged or kinked hoses, loose hose connections, deteriorated hose, or even a bad gyro instrument pressure gage.

Remember !

**If the regulator needs adjustment...
Your system needs maintenance!**

AEROTECH COMPONENTS, INC.