

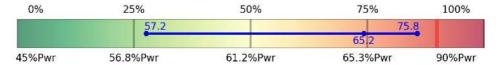
# Report Card

# Nxxxxx · SR22 Normally Aspirated · IO-550 · Perspective

Includes 27 flights between Nov 20, 2015 and Nov 19, 2016, compared with 46886 flights by a cohort of 741 SR22 Normally Aspirated aircraft.

### **Percent Power in Cruise**

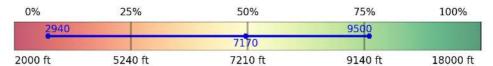
**Description:** Measures your engine's power output during cruise flight. High power output for extended periods can contribute to reduced fuel efficiency, elevated CHT and reduced cylinder life.



**Savvy says:** The median of your engine's power output during cruise flights is greater than 74% of the cohort, which will make you go fast, but at the cost of reduced cylinder longevity.

### **Altitude in Cruise (MSL)**

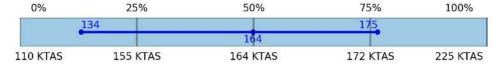
**Description:** Measures the altitude during the cruise phase of flight. For turbocharged aircraft, higher altitudes generally provide better performance and efficiency.



**Savvy says:** Your cruising altitudes tend to be at mid-levels, resulting in average fuel efficiency and performance.

## Speed in Cruise (K.)

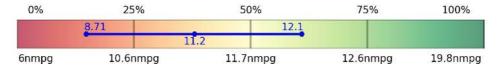
**Description:** We use TAS if available, otherwise ground speed. Higher speed might be due to high power output, resulting in high CHT and reduced cylinder life. Or possibly operation at higher, more efficient altitudes.



Savvy says: Your cruise speed is average when compared with your cohort.

### Fuel Efficiency (nm per gal.)

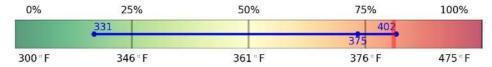
Description: Measures your aircraft's fuel efficiency during cruise flight.



Savvy says: Your aircraft's fuel efficiency is average when compared to your cohort.

# Maximum CHT during Flight (deg. F.)

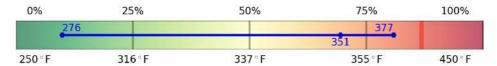
**Description:** Measures the maximum CHT attained during each flight, most likely during climb phase. Prolonged periods of high CHT can contribute to reduced cylinder life.



**Savvy says:** Your maximum CHTs have been higher than 74% of the cohort which is higher than we like to see. We suggest you confirm that your full power fuel flow is adequate, ignition timing advance is correct, baffling is in good shape, and climb airspeed is high enough.

# Maximum CHT in Cruise (deg. F.)

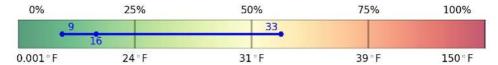
**Description:** Measures the maximum cylinder head temperature (CHT) during the cruise phase of flight, an indication of the stress placed on your engine's reciprocating components. High CHT correlates with reduced longevity of cylinder assemblies.



**Savvy says:** Not bad. Your cruise CHTs have been moderate, with a median value higher than 70% of the cohort. We think you can expect average longevity of your cylinders if you continue operating with your current leaning procedures and/or power settings.

# **Maximimum CHT Spread in Cruise (deg. F.)**

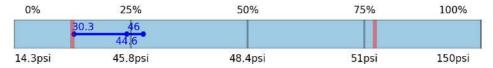
**Description:** Measures the median temperature spread between your hottest and coolest cylinders at maximum CHT during cruise. The spread is an indication of mixture distribution and the adequacy of cooling airflow to all cylinders.



**Savvy says:** The median value of the maximum CHT spread during cruise flights is lower than 94% of the cohort.

# Oil Pressure in Cruise (psi)

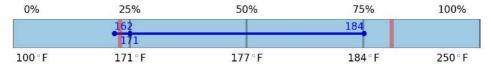
Description: Measures the average oil pressures during cruise for your flights.



**Savvy says:** Your average oil pressures during cruise have a median value lower than 84% of the cohort. Your oil pressures are in the normal range.

# Oil Temperature in Cruise

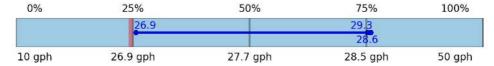
**Description:** Measures average oil temperature during cruise.



**Savvy says:** Your average oil temperatures during cruise are lower than 76% of the cohort. Your oil temperatures are in the normal range.

# **Maximum Fuel Flow during Flight**

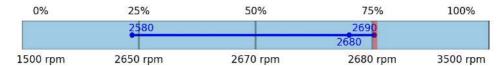
**Description:** Measures maximum fuel flow during flight, most likely during takeoff. Sufficient fuel flow is important for proper cylinder cooling during high power operations



**Savvy says:** Your maximum fuel flow is higher than average when compared with your cohort.

# **Maximum RPM during Flight**

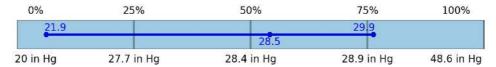
**Description:** Measures maximum rpm during flight, most likely during takeoff. Maximum permitted RPM is necessary for the engine to develop full rated power during takeoff and in initial climb.



Savvy says: Your maximum RPM is average when compared with your cohort.

# **Maximum MAP during Flight**

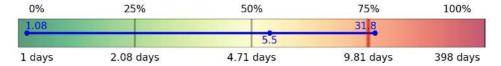
**Description:** Measures maximum manifold pressure during flight, most likely during takeoff. Sufficient MAP, not to exceed redline, is necessary for the engine to develop full rated power during takoff and initial climb



Savvy says: Your maximum MAP is average when compared with your cohort.

# **Inactivity Periods (days)**

**Description:** Measures the number of days your aircraft was inactive between flights. Inactivity can contribute to engine corrosion and reduced life of engine components.



**Savvy says:** Your engine's inactivity is about average when compared to your cohort. Savvy recommends continuing to fly as frequently as possible

### Interpreting these Report Card "thermometers" How do the maximum CHT's Lowest, for your aircraft's flights median and compare with the "cohort" highest max CHT for of other aircraft of the same your aircraft's make and model? flights 75% 0% 25% 50% 100% 388 409 392 333° F 373°F 383° F 395° F 436°F 25% quartile value of max CHT for your Median value of Savvy's cohort's aircraft (25% max CHT for your redline CHT had lower max CHT's) cohort's aircraft (50% were lower) For more information about the contents of this SavvyAnalysis Report Card and how

For more information about the contents of this SavvyAnalysis Report Card and how to interpret it, see our <u>FAQ page</u>. If you have questions or comments, please <u>let us know</u>.

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