

ES1011 501-KB/KH TOT thermocouple conversion

Proven sensor re-location increases the accuracy of temperature measurement



Engineered solution purpose

This engineered solution increases mean time between overhaul and improves operational temperature monitoring.

Applicability

501-KB, KB5 and KH engines

Technical description

Turbine Inlet Temperature (TIT) thermocouples are re-located to the Turbine Outlet Temperature (TOT) position.

Benefits

By reducing maintenance costs, payback on this conversion can be realised in less than two years. Thermocouples located at the turbine outlet provide a greater accuracy in temperature monitoring.

Experience

TOT control is the production standard on all new units and has accrued millions of hours of operational experience. A partial list of customers includes:

Enterprise Products, Mount Belvieu - 2 units

Chevron Texaco, Bakersfield - 8 units

International Power Technologies - 6 units

AEC Ecuador - 7 units

BP China - 2 units offshore

Marathon Equatorial Guinea - 2 units



Scope of work

Replace the TIT thermocouples and harness with TOT thermocouples and harness.

Modify and/or replace controls (digital controls required).

Bill of materials

TOT thermocouples and harness

Controls modification or replacement

Undertaken

At site

Bundling opportunities

501-KB first stage turbine enhancement [ES1009]

501 second stage turbine enhancement [ES1010]

501-KB5 to KB5S upgrade [ES1013]

501 combustion liner upgrade [ES1001]