

ES1016 501-KC MGT thermocouple conversion

Re-located thermocouple position extends in-service life



Engineered solution purpose

This engineered solution increases thermocouple life and reduces overall engine operating costs by adopting the Measured Gas Temperature (MGT) position for the thermocouple.

Applicability

501-KC

Technical description

This conversion re-locates temperature measurement from the Turbine Inlet Temperature position to the cooler environment to be found between the second stage turbine blades and third stage turbine vanes.

Benefits

The in-service life of the thermocouple is increased by an order of magnitude. The reduction in maintenance costs generates payback on the conversion in less than two years.

Experience

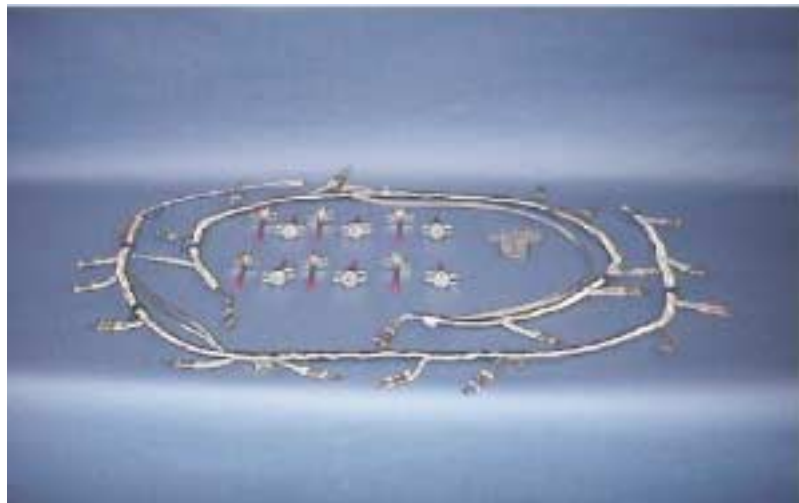
The MGT thermocouple is utilised on over 100 engines. A partial list of customers includes:

Enterprise Products - 10 units

Pemex - 5 units

Oasis Pipelines - 20 units

EPIC Energy - 8 units



Scope of work

- Install MGT thermocouples
- Install MGT harness, inner & outer
- Install new MGT ring
- Install modified diaphragm
- Control system modification (digital control required).

Bill of materials

- MGT thermocouples
- MGT harness, inner & outer
- MGT ring
- Modified diaphragm
- Control system modification

Undertaken

In berth

Bundling opportunities

- Controls upgrade [ES6006]
- 501 fuel manifold upgrade [ES1005]
- 501-KC to KC5 upgrade [ES1017]