

ES3011 RB211 IP and HP speed probe upgrade

Eliminate engine non-availability due to speed probe failure



Engineered solution purpose

This engineered solution improves the reliability and availability of Intermediate Pressure (IP) turbine and High Pressure (HP) turbine speed monitoring.

Applicability

All RB211 gas generators except for the -24G-T.

Technical description

The existing speed probes can experience a loss of the potting compound that supports the output wire. This can result in breakage of the wire and loss of speed signal. Should the HP speed probes fail then the engine must be removed and returned to an overhaul facility for repair.

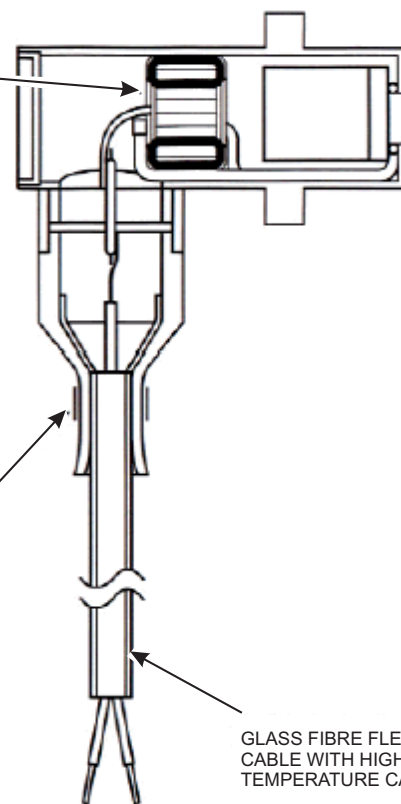
The new speed probes utilise a higher temperature potting compound together with mechanical crimping of the output wire to eliminate the failure mode described above.

Benefits

By upgrading IP and HP speed probes, improvements are realised in terms of reliability, availability and mechanical integrity.

Since the introduction of this upgrade, no engine removals have been reported due to speed probe

PATENTED TRANSFORMER DESIGN WITH GOOD LOW SPEED VOLTAGE RESPONSE



CRIMPED NECK FOR CABLE RETENTION

GLASS FIBRE FLEXIBLE CABLE WITH HIGH TEMPERATURE CAPABILITY

Speed probe

Experience

The revised IP and HP speed probes are the current RB211 production standard and have accumulated in excess of 3 million operating hours in over 300 engines.

Scope of work

Replace 3 IP and 4 HP speed probes

Bill of materials

3 IP and 4 HP speed probes (Mod

Undertaken

At overhaul

Bundling opportunities

RB211 VIGV transducer upgrade [ES3010]

RB211 closed loop VIGV control upgrade [ES3009]

RB211 IP compressor life improvement package [ES3005]