Gas Field Policy 28: Quality Control/Quality Assurance Procedures

Siemens Energy standard QC/QA procedures includes a visual and dimensional inspection and material content reviewed for all major components. Inspection procedures are per Siemens Energy standard manufacturing specifications and all records for the standard procedures listed below are maintained at the Siemens Energy Painted Post Plant. All frame and running gear with cylinders normally mounted are mechanically run tested with a shop driver and cylinders are hydro-tested. Material test reports and certificates are kept at the supplier's location.

Siemens Energy standard compressor assembly record (QAF-262, form available in the Packager Guidelines) included with each compressor Instruction Book consists of:

- Run test documentation.
- Frame and running gear assembly clearances.
- Cylinder and piston measurements.
- Piston rod runout.
- Piston ring clearances.
- FE and OE clearance measurements.
- Balance information.

Siemens Energy standard cylinder hydrotest record (QAF14) is included with each compressor Instruction Book.

The following checks are made to major components:

FRAME AND RUNNING GEAR: (No documentation is provided)
Frame - A frame leak test is performed.
All frames are electronically measured on a Coordinate Measuring Machine (or wire aligned) - Chemical and physical properties confirmed.

Crankshaft - Chemical and physical properties confirmed. Magnetic particle and ultra-sonic tests made.

Connecting Rods - Chemical and physical properties confirmed.

Connecting Rod Bolts - Chemical and physical properties confirmed. Magnetic particle tests made.

Crossheads - Chemical and physical properties confirmed.

Crosshead Pins - Chemical and physical properties confirmed. Magnetic particle tests made.

Distance Pieces - Chemical and physical properties confirmed.

CYLINDER: (No documentation is provided other than QAF14)
Cylinder barrel - 1/2 hour hydrotest at 1.5 times MAWP, QAF14.
Chemical and physical properties confirmed.

Piston Rods - Chemical and physical properties confirmed. Magnetic particle tests made.

Valving - Leak tested.

NOTE: Over 90% of Siemens Energy HSRC orders require only Siemens Energy standard QC/QA Procedures. Any QC/QA additions to the above, such as material certifications, additional tests, and/or customer witness of any of the tests, etc. can be provided at an additional cost. **Any additional non-standard QC/QA requirement must be confirmed at time of order to ensure that adequate time is allotted for extra QC/QA material information procurement, witness test notifications, additional tests performed so that the all required information can be gathered from the pertinent sources.**