

Bharat Heavy Electricals Limited
Industrial Valves Plant
Goindwal

IVP:QM:Tech Req:Fuel Coupling:01

Dated: January 23, 2012.

Technical Requirements for purchase of Machined castings for Fuel Pipe Coupling.

- 1.1 SCOPE: These technical requirements detail out the Quality requirements of Machined castings for Shoulder Type Pipe couplings used in fuel system.
- 1.2 Reference Documents: TDC:5:189/02.
- 1.3 General: The pipe couplings are of mechanical type connecting coal lines with a positive grip, which allow some degree of angular deflection.
- 1.4 Applicable Material Specification: ASTM A 47 Gr 32510 Or
ASTM A 536 Gr 65-45-12.

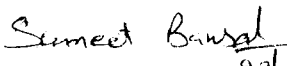
The machined castings shall be manufactured as per BHEL drawing and purchase specification.

- 1.5 Each coupling casting should be embossed with melt no. and vendor code for traceability to particular heat. All the relevant tests, as per the material specification, shall be carried out in a Govt. approved laboratory and the test certificate shall be provided. The foundry must send one test piece for each melt along with the castings to BHEL.
- 1.6 Dimensions shall be as per drawing and the profiles to be checked with template (Go and No Go). Templates will be developed by the vendor. Dimension report for coupling housing and assembly shall be submitted to BHEL.
- 1.7 One set of coupling (Six pieces/set – Preferably of same heat) shall be given a unique running serial number. Vendor will match mark the segment of coupling after machining and will encircle the same by paint.
- 1.8 Correlation report indicating coupling no. and Heat no. on segments will be submitted to BHEL.

Suresh Baisak
23/01/12

Shen
23/1/12

- 1.9 For all new vendors, hydraulic testing shall be done (As per para 1.11) on minimum five sets out of first fifty sets supplied by vendor. Vendor will not be treated as established vendor until successful completion of order of first fifty sets.
- 1.10 After establishment of vendor, BHEL may carry out hydraulic testing randomly on any set supplied by the vendor. If, at any time, coupling does not pass the hydraulic testing, then atleast five more couplings containing the defective heat no. coupling will be tested. In case of further failure, vendor will have to give replacement for all the couplings supplied under particular heat. Additionally, vendor will have to re-establish himself for that particular size of the coupling in case of any failure in testing
- 1.11 The coupling manufactured shall be hydraulic tested at BHEL at a pressure of 300 psi. The hydraulic testing shall be carried out both in horizontal and deflected position (At 1.5 degree).
- 1.12 The coupling should be thoroughly cleaned before supply. It should be free from rust, grease, oil and other foreign materials.
- 1.13 All machined surfaces should be applied with rust preventive oil. No paint is to be applied to couplings.
- 1.14 Proper care shall be taken to avoid any damage during handling and transportation.


(Sumeet Bansal) 23/01/12
Sr. Engineer – QM

Sr. Manager - QM


23/1/12