



QUALITY PLAN

QUALITY PLAN FOR HOUSING - SUPPLIERS

DOC NO

323-QP-CF-146

ISSUE NO

1

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1 Purpose

To establish procedures of inspection and testing of Housing Casting at suppliers' end.

2 Scope

Covers inspection and testing of Housing Casting :

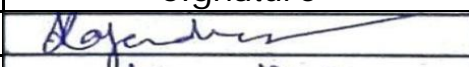
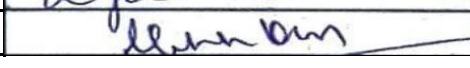
Part No.	Description	Material	Supply Condition
181FD31092	Housing	C1108-99 (Gr. 2 of IS:2707)	Normalise to 183-243 BHN
175FD31071			
171FD31621			

3 Responsibility

- (1)The section head of Castings/forgings materials group to ensure that the quality plan is sent to all suppliers along with the purchase order.
- (2)The suppliers shall ensure that quality plan is followed for testing and inspection of the Castings.

4 Procedure

The supplier should carry out inspection and testing of Castings as per Table -1

	Name	Signature	Date
Prepared by	RAJENDRA BABU K		16.09.2020
Approved by	MAHESH KULKARNI		16.09.2020

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Table -1				
SLNO	TEST DESCRIPTION	PERIODICITY OF TESTS		
1	Visual inspection	The Castings shall be free from foundry defects such as: shrinkage, porosity and blow holes, hot tear and cracks, hard spots, sand fusion etc. and other surface abnormalities, shall be checked on 100% of castings.		
2	Dimensions	For one number sample casting and audit check, dimensions shall be checked by layout method and lines drawn should be visible with punch marks. Dimensional check sheet should contain all dimension with baloon number in drawing with weight details. Untoleranced dimensions shall be as per IS4897-1994. Audit check to be done for every 10th number of casting for dimensional repeatability, check as per above check list.		
3	Mandatory Requirement	Weld reworks are not permitted on casting at shaft area as detailed with red marked area in sketch enclosed, as it is subjected to induction hardening.		
4	Foundry Defects	Prior approval to be obtained before rectification of foundry defects in the castings by forwarding defectogram and defect details to the		
5	Composition	1 No sample / heat shall be checked and report to be sent along with each consignment.		
6	NDT	RT: To be carried out at bore neck portion (mentioned in drawing) for all 100% of castings and shall be Level-II of ASTM E 186 or better. Shooting sketch should be sent for each casting consignment.		
		MPI/DP : 100% areas of all the castings shall be checked to ensure freedom from cracks and hot tears.		
		UT: To be carried out at bore area for all castings and shall conform to ASTM A609 Level-II.		
7	Heat treatment (Normalise)	Check hardness on every casting after normalising.		
8	Mechanical Properties	Check UTS, YS, %E, %RA and impact strength on test bar after heat treatment for every heat.		
9	Identification / Traceability	1)The Castings shall be marked with vendor code, part no., sl no., heat no. & BEM logo at location indicated in drawing. 2) Sample development castings identified with white paint to be submitted for approval prior to the bulk supply.		
10	General Note	Quality requirement and supply condition shall be as per BEM casting drawing and BEM standard.		
11	Weight Establishment	Shall be carried out as per weight establishment clause with respect to casting drawing.		
		Name	Signature	Date
Prepared by		RAJENDRA BABU K		16.09.2020
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Weld reworks are not permitted

