



QUALITY PLAN
QUALITY PLAN FOR
IDLERS CASTINGS - SUPPLIERS

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1 Purpose

To establish procedures for inspection and testing of Idlers Castings of all models at Supplier's end.

2 Scope

Covers inspection and testing of Idler Castings :

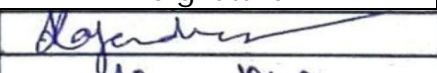
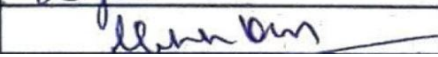
Sl.No.	P/m Part No.	Casting No.	Material	Condition of Supply
1	135TF33698	135TF31559	C1108-99 (Gr.2 of IS:2707)	Normalised to 183-243 BHN
2	130TF33925	130TF33869		
3	125TF31026	125TF33165		
4	116TF31068	116TF31051		
5	113TF32734	113TF32572		
6	110TF32342	110TF32197		
7	175TF31734	175TF31053		
8	155TF33051	155TF32136		
9	181TF33342	181TF31059		
10	160TF31008	160TF31024		

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 quality plan is applicable for Idlers Castings of all models Supplier should carry out inspection and testing of Castings as per Table -1

	Name	Signature	Date
Prepared by	RAJENDRA BABU K		23.09.2020
Approved by	MAHESH KULKARNI		23.09.2020


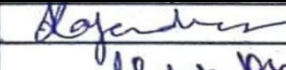
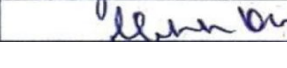
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Table -1

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. For regular supplies wall thickness to be ensured on 100% castings & As- cast radius Profile to be checked with template .
3	Mandatory Requirement	Weld Reworks are not permitted on the red marked area of the casting (as per sketch below) as it is subjected to induction hardening.
4	Composition	1 No sample /heat shall be checked and test report shall be sent along with every consignment.
5	Foundry Defects	Prior approval to be obtained before rectification of foundry defects in the castings by forwarding defectogram and defect details to the division.
6	NDT	MPI: 100% castings shall be checked after shot blasting on all surfaces to ensure freedom from cracks and hot tears. UT: To carryout on all supplies across all accessible area. RT: shall be done at sample stage to prove methoding and ensure defect free casting. Acceptance Level II ASTM E 446.
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. & BEML 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	Supply Condition	Sample castings identified with white paint to be submitted for approval prior to the bulk supply& regular supplies to be as per PR1029C.
11	General Note	Quality requirement and supply condition shall be as per BEML casting drawing and BEML standard.
12	Weight Establishment	Shall be carried out as per weight establishment clause with respect to casting drawing.

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