



# QUALITY PLAN

DOC NO

323-QP-CF-185

QUALITY PLAN FOR CARRIER  
ROLLER CASTING - SUPPLIERS

ISSUE NO

1

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## 1 Purpose

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

## 2 Scope

Covers inspection and testing of Roller Casting :

SL.No.	PROOF M/C No.	CASTING No.	MATERIAL	SUPPLY CONDITION
1	135TF31072	135TF31064	C1108-99 (Gr.2 of IS:2707)	Normalised to 183-243 BHN
2	130TF31446	130TF33714		
3	125TF35993	125TF33173		
4	116TF32437	116TF31651		
5	113TF32386	113TF32653		
6	110TF32601	110TF32253		
7	155TF32299	155TF32274		
8	175TF31726	175TF31159		
9	181TF33359	181TF31188		
10	NA	171TF31012		

## 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

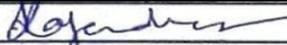
The supplier should carry out inspection and testing of Castings as per Table-1

	Name	Signature	Date
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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. 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 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 report to be sent along with each 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	<b>MPI</b> : 100% castings shall be checked after shot blasting on all surfaces to ensure freedom from cracks and hot tears. <b>UT</b> :To carryout on all supplies across all accessible area. <b>RT</b> : 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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**WELD REPAIRS ARE NOT PERMITTED**

