 EM DIVISION	QUALITY PLAN		DOC NO	323-QP-CF-189
	QUALITY PLAN FOR PILOT P/M CASTINGS - SUPPLIERS		ISSUE NO	1
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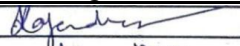
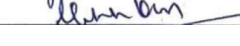
- 1 **Purpose**
To establish procedures of inspection and testing of castings at suppliers' end.

- 2 **Scope**
Covers inspection and testing of following casting :

Sl. No.	Casting No.	P/M Part No.	Description	Material	Supply Condition
1	110TF32131	110TF32642	PILOT	C1103-99	Normalised to 130 to 170 BHN

- 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 -2

	Name	Signature	Date
Prepared by	RAJENDRA BABU K		13.10.2020
Approved by	MAHESH KULKARNI		13.10.2020



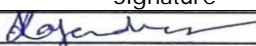
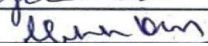
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Table -2		
SLNO	TEST DESCRIPTION	PERIODICITY OF TESTS
1	Visual inspection	The Castings shall be free from foundry defects such as: shrinkage, porosity and blow holes, hot tear and cracks, hard spots, sand fusion etc. and other surface abnormalities, 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	Composition	1 No sample /heat shall be checked and test report shall be sent along with every consignment.
4	NDT	100% MPI / UT to be done on all castings. RT : shall be done at sample stage to prove methoding and ensure defect free casting. Acceptance Level II ASTM E 446.
5	Mechanical Properties	One no. test bar per Heat to be checked for mechanical properties and report to be sent along with each consignment.
6	Mandatory Requirement	It is required to check and ensure all 100% castings at <u>all surface and core areas</u> are cleaned thoroughly to remove the sand adherence, metal deposit, carbon dust etc.. by adopting suitable methodology / developing special tools.
7	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.
8	General Note	Quality requirement and supply condition shall be as per BEML casting drawing and BEML standard.
9	Weight Establishment	Shall be carried out as per weight establishment clause with respect to casting drawing.

		Name	Signature	Date
	Prepared by	RAJENDRA BABU K		13.10.2020
	Approved by	MAHESH KULKARNI		13.10.2020