

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 01
		Date of Issue 21/03/2017
CHAMBER AFT MOTOR	HAPP/QA/SC/ZI/072	

DRAWING NO. : NASK 1069

MATERIAL SPECN : STEEL AS PER EN19 HARDENED & TEMPERED
(TURNED OR GROUND) IN "W" CONDITION.

END USE : FOR A/S ROCKET OF RGB 60.

A. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES FOR RAW MATERIAL BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE CLEAN AND FREE FROM SHARP EDGES, INTERNAL FLAWS LIKE PIN HOLES, POROSITY, CRACKS & DISTORTION OR OTHER HARMFUL DEFECTS.	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	CHEMICAL COMPOSITION (%)	C = 0.36 – 0.44 Mn=0.70 – 1.00 Si =0.10 – 0.35 Cr =0.90 – 1.20 Cu =0.25 – 0.35 P =0.040 Max. S =0.035 Max.	ONE SAMPLE PER HEAT
4.	ULTRASONIC TEST	ALL COMPONENTS SHOULD BE TESTED 100% FOR NDT ULTRASONIC TESTING AS PER SPECIFICATION : IS 8791/78 CLASS 'B'.	100 %

NOTE :

1. THE RAW MATERIAL SAMPLES / TEST SPECIMENS FOR EACH HEAT SHALL BE SELECTED FROM BULK AT FIRM'S PREMISES BY NAI REP. AND FORWARDED TO NEARBY NABL ACCREDITED OR GOVT. APPROVED LABORATORY FOR TESTING.
2. THE FIRM HAS TO CHECK FOR THE DIMENSIONS, VISUAL DEFECTS AND MARKING AS PER TABLE A. AFTER COMPLETION OF DIMENSIONAL, CHEMICAL AND MECHANICAL PROPERTIES, THE FIRM HAS TO SUBMIT/FORWARD THE FOLLOWING DOCUMENTS TO NAI/TRICHY WITH A COPY TO HAPP.
 - I. THE RAW MATERIAL ORIGINAL MANUFACTURER'S CERTIFICATE, DETAILS OF HEAT NUMBER, QUANTITY PURCHASED AND NUMBER OF BARS ARE TO BE SUBMITTED.
 - II. THE CHEMICAL AND MECHANICAL TEST CERTIFICATES FROM NABL ACCREDITED OR GOVT. APPROVED LAB AS PER TABLE A.
 - III. DIMENSION REPORT INCLUDING VISUAL AS PER TABLE A.
 - IV. GUARANTEE/WARRANTEE CERTIFICATE OF ORIGINAL MANUFACTURER.
3. MANUFACTURING OF COMPONENT SHOULD BE DONE ONLY AFTER GETTING RAW MATERIAL CLEARANCE FROM NAI AND SHOULD BE MANUFACTURED AS PER THE MANUFACTURING QUALITY PLAN OF NAI.

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**B. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES BY NAI.
(FINISHED PRODUCT STAGE)**

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE CLEAN AND FREE FROM SHARP EDGES, INTERNAL FLAWS LIKE PIN HOLES, POROSITY, CRACKS & DISTORTION OR OTHER HARMFUL DEFECTS.	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	MECHANICAL TEST	HARDNESS : 34 - 41 HRC	100%
4	PRESSURE TEST	HYDRAULIC PRESSURE TESTING TO 315 KGF/CM ² FOR DURATION OF 01 MINUTE. (100% PRESSURE TEST TO BE CARRIED OUT)	100%
5	ULTRASONIC TEST	ALL COMPONENTS SHOULD BE TESTED 100% FOR NDT ULTRASONIC TESTING AS PER SPECIFICATION : IS 8791/78 CLASS 'B'.	100%
6	PACKING	SUITABLY PACKED TO AVOID TRANSIT DAMAGES AND SECURELY TIED WITH METAL / PLASTIC TAG PACKING SLIP SHOULD SPECIFY HAPP SUPPLY ORDER NO. QUANTITY IN NOS. AND PRODUCER'S NAME OR CODE. THE MATERIAL SHOULD BE FREE FROM CORROSION. (APPLY RUST PREVENT OIL)	100%

4. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
5. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
6. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.

C. INSPECTION CHECK TO BE CARRIED OUT AT HAPP AFTER RECEIPT BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE CLEAN AND FREE FROM SHARP EDGES, INTERNAL FLAWS LIKE PIN HOLES, POROSITY, CRACKS & DISTORTION OR OTHER HARMFUL DEFECTS.	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	PACKING	SUITABLY PACKED TO AVOID TRANSIT DAMAGES AND SECURELY TIED WITH METAL / PLASTIC TAG PACKING SLIP SHOULD SPECIFY HAPP SUPPLY ORDER NO. QUANTITY IN NOS. AND PRODUCER'S NAME OR CODE. THE MATERIAL SHOULD BE FREE FROM CORROSION. (APPLY RUST PREVENT OIL)	100 %

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D. VERIFICATION OF INSPECTION DOCUMENTS.

FOLLOWING INSPECTION DOCUMENTS MUST BE ENCLOSED WITH EACH SUPPLY.

SL. NO.	INSPECTION DOCUMENTS
1.	THE RAW MATERIAL ORIGINAL MANUFACTURER'S CERTIFICATE, DETAILS OF HEAT NUMBER, QUANTITY PURCHASED AND NUMBER OF BARS ETC.
2.	THE CHEMICAL AND MECHANICAL TEST CERTIFICATES FROM NABL ACCREDITED OR GOVT. APPROVED LAB.
3.	DIMENSION REPORT INCLUDING VISUAL.
4.	PACKING SLIP DETAILS.
5.	GUARANTEE / WARRANTY CERTIFICATE OF SUPPLIER.
6.	NAI - I-NOTE.

7. MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.

8. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.



SOURABH NEGE
WM / P
MEMBER / MI COMMITTEE



D. BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE



T. PRABHU
JT. GM / QA
CHAIRMAN / MI COMMITTEE