

<b>MONITORING INSTRUCTION FOR RAW MATERIAL &amp; COMPONENT INSPECTION</b>		Issue No. 01 Rev. No. 00
		Date of Issue 09/07/2014
<b>TAIL UNIT FOR A/S ROCKET RGB -60</b>	<b>HAPP/QA/SC/ZI/083</b>	

Drg No. : HAPP DRG. NO. C ROC 060 1 011 /T  
( NASK Drg.No. 1072 )

END USE : A/S ROCKET RGB 60 EMPTY

FOR SUB COMPONENTS REFER RELEVANT DRAWINGS

PART I OUTER CYLINDER DRG.NO.C ROC 060 1 136/T  
PART II INNER CYLINDER DRG.NO.C ROC 060 1 137/T  
PART II STRIP DRG.NO.C ROC 060 1 138/T

A. INSPECTION CHECKS TO BE CARRIED OUT AT FIRM'S PREMISES AT RAW MATERIAL STAGE BY NAI REP.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE FREE FROM ANY HARMFUL INTERNAL AND SURFACE DEFECTS SUCH AS CRACKS, LAPS, SEAMS AND SLAG INCLUSION.	100 %
2	RAW MATERIAL FOR 1.OUTER CYLINDER 2.INNER CYLINDER 3.STRIP	BS 970(PT -1) -1983 Grade 80 M40 <u>Chemical ( in % )</u> C - 0.36- 0.44 Mn - 0.6 - 1.0 P - 0.05 Max. S- 0.05 Max. Si - 0.10 - 0.40 <u>Mechanical</u> UTS - 550 MPa Min. YS - 280 MPa Min. EL - 16% Min. Hardness- 150 - 207 HB	1 SAMPLE PER HEAT  2 SAMPLES PER HEAT

**NOTE :**

1. THE RAW MATERIAL TO BE OFFERED FOR INSPECTION ALONG WITH CHEMICAL, MECHANICAL AND OTHER TEST CERTIFICATES DULY TESTED FROM NABL ACCREDITED OR GOVT. APPROVED LAB AND RAW MATERIAL ORIGINAL MANUFACTURER'S CERTIFICATE, HEAT NO., QTY. PURCHASED AND NO. OF BARS ARE TO BE MENTIONED IN THE INSPECTION CALL LETTER.
2. 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.
3. COMPONENTS TO BE MANUFACTURED ONLY AFTER GETTING RAW MATERIAL CLEARANCE FROM NAI.

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**B. MANUFACTURING PROCEDURE BY FIRM.**

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE FREE FROM ANY HARMFUL INTERNAL AND SURFACE DEFECTS SUCH AS CRACKS, LAPS, SEAMS AND SLAG INCLUSION.	100 %
2	MANUFACTURING PROCEDURE	THE PLATE SHALL BE CUT, ROLLED, WELDED & REROLLED AS PER THE REQUIREMENT TO GET OUTER & INNER CYLINDER. OR TUBES	100 %
		SUB COMPONENTS SUCH AS INNER CYLINDER, OUTER CYLINDER & STRIP TO BE MANUFACTURED AS PER THE PART DRAWINGS.  THREADS TO CONFORM IS.4218 <b>NOTE :</b> <b>ALL THE THREE COMPONENTS SHOULD GET CLEARED FROM NAI INSPECTORS BEFORE TAKING FOR ASSY.</b>	100 %
		STRIP TO BE WELDED TO INNER CYLINDER AND THEN TO BE WELDED TO OUTER CYLINDER	100 %
3	STRESS RELIVING	AFTER WELDING STRESS RELIVING OF TAIL UNIT TO BE DONE	100 %
4	MACHINING	AFTER STRESS RELIVING, FINAL MACHINING AT OD & ID TO BE DONE TO MAINTAIN CYLINDERICITY /STRAIGHTNESS OF ASSEMBLY TAIL UNIT SHOULD BE WITHIN THE 0.3MM .	100 %
5	DIMENSIONS	AS PER DRAWING 1. OVALITY ON NEGATIVE SIDE 0.3MM MAX. PASSING OF ASSY THROUGH CHAMBER GAUGE. 2. INSPECTION OF OUTER DIA OF OUTER CYLINDER 3. INSPECTION OF INNER DIA OF INNER CYLINDER 4. ENSURE TIGHT FITMENT OF STRIP BETWEEN INNER & OUTER CYLINDERS PRIOR TO WELDING.	100 %
6	RUST PREVENTIVE	TO BE SUPPLIED WITH RUST PREVENTIVE COATING ON ALL	100 %
7	PACKING	EACH ASSEMBLY TO BE COVERED BY POLYTHENE SHEET AND IT SHOULD BE PACKED IN A WOODEN CASE TO AVOID ANY TRANSIT DAMAGE.	100 %

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**C. INSPECTION CHECK TO BE CARRIED OUT IN FIRM'S PREMISES AT COMPONENTS STAGE BY NAI REP.**

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE FREE FROM ANY HARMFUL INTERNAL AND SURFACE DEFECTS SUCH AS CRACKS, LAPS, SEAMS AND SLAG INCLUSION.	100 %
2	DIMENSIONS	AS PER DRAWING HAPP DRG NO. C ROC 012 1 615 1. OUTER CYLINDER 2. INNER CYLINDER 3. STRIP	AS PER SPECN- A 31 B
3	CRITICAL DIMENSIONS AS PER DRAWING	AS PER DRAWING 5. OVALITY ON NEGATIVE SIDE 0.3MM MAX. PASSING OF ASSY THROUGH CHAMBER GAUGE. 6. INSPECTION OF OUTER DIA OF OUTER CYLINDER 7. INSPECTION OF INNER DIA OF INNER CYLINDER 8. ENSURE TIGHT FITMENT OF STRIP BETWEEN INNER & OUTER CYLINDERS PRIOR TO WELDING.	AS PER SPECN A 31 B

**NOTE :**

**1. THE FIRM SHOULD SUBMIT THE FOLLOWING DOCUMENTS / RECORDS DURING INSPECTION OF THE NAI REP.**

- a. TEST REPORTS FROM NABL ACCREDITED LAB OR GOVT. APPROVED LABORATORY FOR RAW MATERIAL (SUCH AS MECHANICAL, CHEMICAL ETC. )
- b. DIMENSIONAL REPORT
- c. GUARANTEE / WARRANTY CERTIFICATE OF SUPPLIER

**D. INSPECTION CHECK TO BE CARRIED AT HAPP AFTER RECEIPT BY HAPP.**

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE MATERIAL SHALL BE FREE FROM ANY HARMFUL INTERNAL AND SURFACE DEFECTS SUCH AS CRACKS, LAPS, SEAMS AND SLAG INCLUSION.	100 %
2	PACKING	EACH ASSEMBLY TO BE COVERED BY POLYTHENE SHEET AND IT SHOULD BE PACKED IN A WOODEN CASE TO AVOID ANY TRANSIT DAMAGE.	100 %
3	VERIFICATION OF DOCUMENTS	1. NAI - I NOTE	

**Note :**

**COMPONENTS WILL BE CLEARED BASED ON NAI I NOTE.**

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