

REFERENCE

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 05 Date of Issue 17/11/15
PLUG REAR	HAPP/QA/SC/E/007

HAPP DRAWING NO. : C PLG 081 1 030 REV 0
 RAW MATL. SPECN : BS 970 PART-3 1991 GR. 070 M20
 SAMPLING SPECIFICATION : MIL-STD-105 OR ANSI ASQC Z 1.4
 CONDITION OF SUPPLY : NORMALISED **OR** BRIGHT FINISHED
 (OTHER THAN COLD DRAWN)
 END USE : 81 MM BOMB BODY

A.INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES BY FIRM REP.

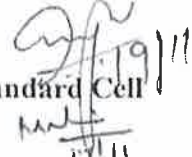
SL. NO.	CHARACTERITICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE COMPONENT SHALL BE FREE FROM THREAD DAMAGES SURFACE FINISH SHALL NOT EXCEED 3.2 Ra ALL OVER..	AQL 1.5 / IL. S3
2	PACKING	SUITABLY PACKED IN POLY BAGS TO AVOID TRANSIT DAMAGES. EACH POLY BAG SHOULD HAVE PACKING SLIP INDICATING HAPP SUPPLY ORDER NO., RAW MATERIAL HEAT NO., LOT NO. QUANTITY (IN NOS.) AND PRODUCER'S NAME OR CODE.	EACH CONSIGNMENT
3	CHEMICAL COMPOSITION (%)OF RAW MATERIAL	CARBON - 0.16 to 0.24 MANGANESE - 0.50 TO 0.90. PHOSPHORUS - 0.050 MAX. SULPHUR - 0.050 MAX.	ONE SAMPLE FOR EACH HEAT / CAST
4	MECHANICAL PROPERTIES OF RAW MATERIAL	UTS - 430 M Pa Min.. YIELD STRENGTH - 215 M Pa Min. % ELONGATION - 21 % Min.	1 SAMPLE / HEAT OR CAST
5	HARDNESS OF RAW MATERIAL	126 TO 179 HB .	2 SAMPLE / HEAT
6	DIMENSIONS	AS PER DRAWING	AQL 1.5 / IL. S3

Note :

1. Self inspection report (including dimensions), Raw material Test report duly tested from NABL accredited OR Govt. approved Laboratory for tests mentioned at Sl. No. 3, 4 & 5 is to be submitted along with EACH SUPPLY.

VETTED

D.O. / Standard Cell


 17/11

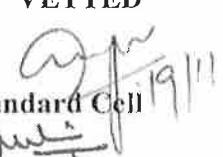
REFERENCE

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 05
		Date of Issue 17/11/15
PLUG REAR	HAPP/QA/SC/E/007	

B. INSPECTION CHECK TO BE CARRIED OUT ON RECEIPT AT HAPP BY HAPP REP

SL. NO.	CHARACTERITICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE COMPONENT SHALL BE FREE FROM THREAD DAMAGES SURFACE FINISH SHALL NOT EXCEED 3.2 Ra ALL OVER..	AQL 1.5 / IL. S3
2	PACKING	SUITABLY PACKED IN POLY BAGS TO AVOID TRANSIT DAMAGES. EACH POLY BAG SHOULD HAVE PACKING SLIP INDICATING HAPP SUPPLY ORDER NO., RAW MATERIAL HEAT NO., LOT NO. QUANTITY (IN NOS.) AND PRODUCER'S NAME OR CODE.	EACH CONSIGNMENT
3	CHEMICAL COMPOSITION (%) OF RAW MATERIAL	CARBON - 0.16 to 0.24 MANGANESE - 0.50 TO 0.90. PHOSPHORUS - 0.050 MAX. SULPHUR - 0.050 MAX.	ONE SAMPLE FOR EACH HEAT / CAST
4	HARDNESS OF RAW MATERIAL	126 TO 179 HB .	2 SAMPLES / HEAT
5	DIMENSIONS	AS PER DRAWING	AQL 1.5 / IL. S3
6	FITMENT TRAIL	SHOULD NOT BE ANY LEAKAGE	20 NOS PER CONSIGNMENT
7	VERIFICATION OF INSPECTION DOCUMENTS	<ol style="list-style-type: none"> 1. FIRM'S SELF INSPECTION REPORT FOR DIMENSIONS 2. RAW MATERIAL TEST REPORT FROM NABL LAB. FOR CHEMICAL, MECH. PROPERTIES AND HARDNESS. 3. GAURANTEE / WARRANTY CERTIFICATE OF SUPPLIER 	

ALL TEST REPORTS / CERTIFICATES MUST BE COUNTER SIGNED BY FIRM'S HEAD OF QUALITY AND SHOULD HAVE LINK TO HAPP SUPPLY ORDER NO. AND QTY. IN EACH CASE.

VETTED

D.O. / Standard Cell
17/11

REFERENCE

MONITORING INSTRUCTION FOR COMPONENT INSPECTION		Issue No. 02 Rev. No. 04
		Date of Issue 12/04/10
ADAPTOR FORGING	HAPP/QA/SC/ZD/002	

DRAWINGG NO. : HAPP DRAWING NO.O ADF 155 2 010 REV 8

RAW MATL SPECN. NO. : STEEL BAR AS PER SPECIFICATION.
BS 970 Pt.-I 1983 GR **709 M40**

CONDITION OF SUPPLY : AS FORGED, SHOT BLASTED & PROOF MACHINED

END USE : FOR ADAPTOR

A INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES.

(I) AT RAW MATERIAL STAGE.

SL. NO.	CHARACTERITICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	CHEMICAL ANALYSIS (%)	CARBON - 0.36 to 0.44 MANGANESE - 0.70 to 1.00. CHROMIUM - 0.90 to 1.20 MOLYBDENUM - 0.25 TO 0.35 OTHERS - AS APPLICABLE PER SPECIFICATION	1 SAMPLE / HEAT
2	ULTRASONIC TESTING	RAW MATERIAL IS ROLLED BAR AND SHALL BE ULTRASONICALLY INSPECTED TO USCO PROCEDURE 1261/0003.	100%
3	MECHANICAL TESTING	BARS SHALL BE CUT, FORGED AND HEAT TREATED TO OBTAIN MECHANICAL PROPERTIES IN ACCORDANCE WITH CONDITION - V. BS970 PART 1, 1983. UTS - 1000 TO 1150 N/MM ² 0.2 % PROOF STRESS - 835 N/MM ² MIN. YIELD STRENGTH - 850 N/MM ² MIN. % ELONGATION - 12 MIN. IMPACT TEST - 42 J MIN. HARDNESS - 239 TO 352 HB / 32-37 HRC	2 SAMPLE / HEAT.

Note :

1. Raw material Sample will be selected from the bulk by HAPP rep./ Inspector at Firm's premises for the characteristics mentioned at Sl. No. 1 TO 3.
2. Raw material test certificate (physical, chemical, mechanical, ultrasonic etc.) from manufacturer co-relating purchase order of the firm clearly indicating Quantity, Heat No., color code, ultrasonic test details to be submitted by the firm.
3. On obtaining raw material clearance from HAPP, the firm should under take manufacture of forging.

VETTED

D.O. / Standard Cell

II) FORGING STAGE (INSPECTION AT MANUFACTURER'S END)

SL. NO.	CHARACTERITICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	VISUAL	THE FORGING SHOULD BE FREE FROM CRACKS, FLAWS, RUST, SCALING, MIS MATCH, SURFACE DEFECTS , PIT MARKS (ON SPECIFIC AREA(X) IN DRG.) AND OTHER INJURIOUS FORGING DEFECTS.	100 %
2	DIMENSIONS AND EST. MASS	AS PER DRAWING.	DEF 131
3	MARKING OF LOT NUMBER	MANUFACTURER'S LOT NUMBER TO BE MARKED (PUNCHED OR WITH PERMENANT MARKER) IN EVERY HEAT TREATMENT LOT.	EVERY HEAT
4	MAGNAFLUX CRACK DETECTION	FORGINGS SHALL THEN BE 100% MAGNAFLUX FOR CRACK DETECTION AT FORGING MANUFACTURER. NO CRACK / FLAW SHALL BE ACCEPTABLE.	100 %
5	MECHANICAL TESTING	BARS SHALL BE CUT, FORGED AND HEAT TREATED TO OBTAIN MECHANICAL PROPERTIES IN ACCORDANCE WITH CONDITION - V. BS 970 PART 1, 1983. UTS - 1000 TO 1150 N/MM ² 0.2 % PROOF STRESS - 835 N/MM ² MIN. YIELD STRENGTH - 850 N/MM ² MIN. % ELONGATION - 12 MIN. IMPACT TEST (CHARPY) - 42 J MIN.	2 SAMPLE / HEAT.
6	HARDNESS	HARDNESS OF EACH FORGING SHALL BE TESTED AT MANUFACTURER END. THE FORGING SHALL BE MARKED FOR SL. NO. & HARDNESS VALUE WITH PERMENANT MARKER. HARDNESS : 32 - 35 HRC	100 %

Note :

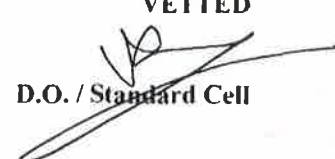
1. Firm should supply forgings with all Inspection reports as mentioned below.
 - a) Dimensional report & estimated mass report.
 - b) Hardness Test report for 100 %.
 - c) Mechanical Test report.
 - d) Magna flux test report for 100 %.
2. Raw material test certificates (physical, chemical, mechanical, ultrasonic etc.) from manufacturer, co-relating purchase order of the firm clearly indicating Quantity, Heat No., color code, ultrasonic test details to be submitted by the firm along with each supply. ALL TEST REPORTS / CERTIFICATES MUST BE COUNTER SIGNED BY FIRM'S HEAD OF QUALITY AND SHOULD HAVE LINK TO HAPP SUPPLY ORDER NO. AND QTY. IN EACH CASE.

ADAPTOR FORGING MI NO. HAPP/QA/SC/ZD/002 ISS:2 REV: 4 DT. 12/04/10

B INSPECTION CHECK TO BE CARRIED OUT ON RECEIPT AT FACTORY.

SL. NO.	CHARACTERITICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	VISUAL	THE FORGING SHOULD BE FREE FROM CRACKS, FLAWS, RUST, SCALING, MIS MATCH, SURFACE DEFECTS , PIT MARKS (ON SPECIFIC AREA(X) IN DRG.) AND OTHER INJURIOUS FORGING DEFECTS.	100 %
2	PACKING	EACH SUPPLY SHOULD BE ACCOMPANIED WITH PACKING SLIP / TAG INDICATING LOT NO. QTY, SUPPLIER CODE, SUPPLY ORDER NO. ETC.	EACH CONSIGNMENT
3	DIMENSIONS, EST. MASS & MARKING	AS PER DRAWING	DEF 131
4	CHEMICAL ANALYSIS(%)	CARBON - 0.36 to 0.44 MANGANESE - 0.70 to 1.00. CHROMIUM - 0.90 to 1.20 MOLYBDENUM - 0.25 TO 0.35 OTHERS - AS APPLICABLE PER SPECIFICATION	1 SAMPLE / HEAT
5	MECHANICAL TESTING	ON RECEIPT 1 FORGING SHALL BE SELECTED AT RANDOM FROM EACH FORGING/HEAT TREATMENT LOT AND SUBJECTED TO MECHANICAL TESTING TO OBTAIN MECHANICAL PROPERTIES UTS - 1000 TO 1150 N/MM ² 0.2 % PROOF STRESS - 835 N/MM ² MIN. YIELD STRENGTH - 850 N/MM ² MIN. % ELONGATION - 12 MIN. IMPACT TEST (CHARPY) - 42 J MIN.	2 SAMPLE / HEAT.
6	HARDNESS	HARDNESS OF EACH FORGING SHALL BE TESTED AT MANUFACTURER END. THE FORGING SHALL BE MARKED FOR SL. NO. & HARDNESS VALUE WITH PERMENANT MARKER. HARDNESS : 32 - 35 HRC	100 %
7	MAGNAFLUX CRACK DETECTION	FORGINGS SHALL THEN BE SUBJECTED TO MAGNAFLUX TEST FOR CRACK DETECTION. NO CRACK / FLAW SHALL BE ACCEPTABLE.	5 %

VETTED


D.O. / Standard Cell

ADAPTOR FORGING MI NO. HAPP/QA/SC/ZD/002 ISS:2 REV: 4 DT. 12/04/10

C. **VERIFICATION OF INSPECTION DOCUMENTS.**

FOLLOWING INSPECTION DOCUMENTS MUST BE ENCLOSED ALONG WITH EACH SUPPLY OF RAW MATERIAL.

SL. NO.	INSPECTION DOCUMENTS
1	TEST CERTIFICATES FOR PHYSICAL, CHEMICAL , MECHANICAL. ULTRASONIC, HARDNESS AND 100% MAGNAFLUX CRACK DETECTION REPORT FROM NABL ACCREDITED LAB OR GOVT. APPROVED LABORATORY.
2	PACKING SLIP DETAILS (INDICATING SUPPLY ORDER, LOT NO. , QTY. & H/T CONDITION)
3	DIMENSIONAL INSPECTION REPORT FROM SUPPLIER.
4	GAURANTEE / WARRANTY CERTIFICATE,

ALL TEST REPORTS / CERTIFICATES MUST BE COUNTER SIGNED BY FIRM'S HEAD OF QUALITY AND SHOULD HAVE LINK TO HAPP SUPPLY ORDER NO. AND QTY. IN EACH CASE.

VETTED

D.O. / Standard Cell

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 02
	Date of Issue 15/02/2017
PLASTIC CONTAINER	HAPP/QA/SC/C/012

DRAWING NO. : HAPP Drg. H OMA 120 1 054 REV 2

RAW MATERIAL : 1. FOR SL.NO. 1,2,4,5 & 7 - HIGH DENSITY POLYTHENE TO SPEC JSS 9330-03 : 2007 (TYPE 2) IN NATURAL COLOUR .
 2. FOR SL. No.3 (GASKET) – NEOPRENE RUBBER TO SPEC IND/ME/884 (PROV).
 3. FOR SL. No.6 (CUSHION PAD TOP) –SPONGE RUBBER TO SPEC IND/ME/645 (PROV).

END USE : 120 MM FSAPDS

A. INSPECTION CHECK TO BE CARRIED OUT FOR RAW MATERIAL BY THE FIRM.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE																																										
1	WORKMANSHIP (VISUAL)	THE PARTS SHALL BE FREE FROM DAMAGES, BUBBLES, SURFACE IMPERFECTIONS, POROSITY, VOIDS DUE TO DUST INCLUSIONS & OTHER OBVIOUS DEFECTS LIKELY TO IMPAIR THEIR USEFULNESS OR LIFE	100 %																																										
2	DIMENSIONS	AS PER DRAWING	100 %																																										
3	DROP TEST	AS PER SPECIFICATION JSG 0102	AS PER JSG 0102																																										
4	PROPERTIES	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Test parameters</th> <th>Test Method</th> <th>Specified value</th> </tr> </thead> <tbody> <tr> <td>Melt flow index (190°C /2.16 Kg)</td> <td>ASTM D 1238</td> <td>8± 20%</td> </tr> <tr> <td>Density g/cc</td> <td>ASTM D -1505</td> <td>0.955 to 0.959</td> </tr> <tr> <td>Yield stress (MPa)</td> <td>ASTM D -638</td> <td>23Mpa(Min)</td> </tr> <tr> <td>Elongation at yield %</td> <td></td> <td>10% (Min)</td> </tr> <tr> <td>Ash %</td> <td>IS 1060(Part - 1)</td> <td>0.05%(Max)</td> </tr> <tr> <td>pH of water Extract</td> <td>IS 1060(Part - 1) Method 10</td> <td>5 to 8</td> </tr> <tr> <td>Water soluble matter %</td> <td>Appendix- A</td> <td>0.2 (Max)</td> </tr> <tr> <td>Water soluble chlorides as NaCl %</td> <td>IS 1060(Part - 2) Method 17</td> <td>0.05 (Max)</td> </tr> <tr> <td>Water soluble Sulphate as Na₂SO₄ %</td> <td>IS 1060(Part - 2) Method 18</td> <td>0.1 (Max)</td> </tr> <tr> <td>Solubility in Toluene at 80°C ±3°C</td> <td>Appendix- B</td> <td>Insoluble</td> </tr> <tr> <td>Impact strength notched mj/ mm²</td> <td>ASTM D – 256</td> <td>2.7 (Min)</td> </tr> <tr> <td>Solubility in Ethy 1 Acetate acetone at 25 ± 1°C</td> <td>Appendix- D</td> <td>Insoluble</td> </tr> <tr> <td>Effect of organic solvent below 80° C</td> <td>Appendix- E</td> <td>Should be resistant</td> </tr> </tbody> </table>	Test parameters	Test Method	Specified value	Melt flow index (190°C /2.16 Kg)	ASTM D 1238	8± 20%	Density g/cc	ASTM D -1505	0.955 to 0.959	Yield stress (MPa)	ASTM D -638	23Mpa(Min)	Elongation at yield %		10% (Min)	Ash %	IS 1060(Part - 1)	0.05%(Max)	pH of water Extract	IS 1060(Part - 1) Method 10	5 to 8	Water soluble matter %	Appendix- A	0.2 (Max)	Water soluble chlorides as NaCl %	IS 1060(Part - 2) Method 17	0.05 (Max)	Water soluble Sulphate as Na ₂ SO ₄ %	IS 1060(Part - 2) Method 18	0.1 (Max)	Solubility in Toluene at 80°C ±3°C	Appendix- B	Insoluble	Impact strength notched mj/ mm ²	ASTM D – 256	2.7 (Min)	Solubility in Ethy 1 Acetate acetone at 25 ± 1°C	Appendix- D	Insoluble	Effect of organic solvent below 80° C	Appendix- E	Should be resistant	TWO SAMPLES FOR EACH HEAT
Test parameters	Test Method	Specified value																																											
Melt flow index (190°C /2.16 Kg)	ASTM D 1238	8± 20%																																											
Density g/cc	ASTM D -1505	0.955 to 0.959																																											
Yield stress (MPa)	ASTM D -638	23Mpa(Min)																																											
Elongation at yield %		10% (Min)																																											
Ash %	IS 1060(Part - 1)	0.05%(Max)																																											
pH of water Extract	IS 1060(Part - 1) Method 10	5 to 8																																											
Water soluble matter %	Appendix- A	0.2 (Max)																																											
Water soluble chlorides as NaCl %	IS 1060(Part - 2) Method 17	0.05 (Max)																																											
Water soluble Sulphate as Na ₂ SO ₄ %	IS 1060(Part - 2) Method 18	0.1 (Max)																																											
Solubility in Toluene at 80°C ±3°C	Appendix- B	Insoluble																																											
Impact strength notched mj/ mm ²	ASTM D – 256	2.7 (Min)																																											
Solubility in Ethy 1 Acetate acetone at 25 ± 1°C	Appendix- D	Insoluble																																											
Effect of organic solvent below 80° C	Appendix- E	Should be resistant																																											
5	PACKING	PACKING SLIP INDICATING SOURCE CODE, MATERIAL GRADE , LOT NO. AND QTY.	FOR EACH CONSIGNMENT																																										

NOTE: 1

FIRM SHOULD OFFER THE FOLLOWING DOCUMENTS ALONG WITH ADVANCE SAMPLE..

1. THE RAW MATERIAL PROPERTIES CHEMICAL, MECHANICAL AND OTHER TEST CERTIFICATES DULY TESTED FROM NABL ACCREDITED OR GOVT. APPROVED LAB AND RAW MATERIAL ORIGINAL MANUFACTURER'S CERTIFICATE. (HEAT NO. & PURCHASED QTY)

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 15/02/2017
PLASTIC CONTAINER		HAPP/QA/SC/C/012

2. DIMENSIONAL INSPECTION REPORT FROM SUPPLIER.
3. THE FIRM SHOULD SUPPLY 5 NOS AS ADVANCE SAMPLE FOR INSPECTION OF VARIOUS PARAMETERS. BULK PRODUCTION / SUPPLY SHOULD BE EFFECTED ON RECEIVING CLEARANCE FROM HAPP.

B. INSPECTION CHECK TO BE CARRIED OUT ON RECEIPT AT FACTORY.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	WORKMANSHIP (VISUAL)	THE PARTS SHALL BE FREE FROM DAMAGES, BUBBLES, SURFACE IMPERFECTIONS, POROSITY, VOIDS DUE TO DUST INCLUSIONS & OTHER OBVIOUS DEFECTS LIKELY TO IMPAIR THEIR USEFULNESS OR LIFE	DEF 131
2	DIMENSIONS	AS PER DRAWING	DEF 131
3	DROP TEST	AS PER SPECIFICATION JSG 0102	DEF 131
4	PACKING	PACKING SLIP INDICATING SOURCE CODE, MATERIAL GRADE, LOT NO. AND QTY.	DEF 131

C. FOLLOWING INSPECTION DOCUMENTS MUST BE ENCLOSED ALONG WITH EACH SUPPLY OF RAW MATERIAL.

SL. NO.	INSPECTION DOCUMENTS
1	DIMENSIONAL INSPECTION REPORT FROM SUPPLIER.
2	TEST REPORTS FROM NABL ACCREDITED LAB OR GOVT. APPROVED LABORATORY FOR TESTS MENTIONED TABLE NO. A.
3	PACKING SLIP DETAILS (INDICATING HEAT NO. & QTY. ETC)
4	GAURANTEE / WARRANTY CERTIFICATE

Mithlesh Chandra
15/02/17
MITHLESH CHANDRA
AWM / ASSY
MEMBER / MI COMMITTEE

D. Bhaskar Rao
D. BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE

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

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 03
Date of Issue 03/09/16	
HEAD ROCKET BODY (PRE MACHINED) RGB-60	HAPP/QA/SC/ZI/060

DRAWING NO. : HAPP Drg.. NO. O ROC 060 1 230 1

RAW MATERIAL : STEEL AS PER ASTM 106 GR.' B'

END USE : HEAD ROCKET ASSEMBLY OF RGB 60 ROCKET.

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 OR OTHER HARMFUL DEFECTS.	100 %
2	DIMENSIONS	RAW MATERIAL DIMENSION	100 %
3	CHEMICAL COMPOSITION (%)	C - 0.30 Max. Mn - 0.29 - 1.06 P - 0.035 Max. S - 0.035 Max. Si - 0.10 Min. Cr - 0.40 Max. Cu - 0.40 Max Mo - 0.15 Max. Ni - 0.40 Max. V - 0.08 Max. Note: 1. In case of carbon for each reduction of 0.01% below the specified carbon maximum, an increase of 0.06% manganese above the specified maximum will be permitted up to a maximum of 1.35%. 2. Cr, Cu, Mo, Ni and V combined not to exceed 1%.	ONE SAMPLE PER HEAT
4	MECHANICAL TESTING	UTS - 415 MPa Min. YS - 240 Mpa Min. EL - 30 % Min.	ONE SAMPLE PER HEAT
5	ULTRASONIC TEST	COMPONENTS SHOULD BE TESTED FOR ULTRASONIC TESTING AS PER SPECIFICATION ASTM A388.	100 %

NOTE 1:

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, MECHANICAL AND ULTRASONIC PROPERTIES THE FIRM HAS TO SUBMIT/FORWARD THE FOLLOWING DOCUMENTS 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, MECHANICAL AND ULTRASONIC TEST CERTIFICATES FROM NABL ACCREDITED OR GOVT. APPROVED LAB AS PER THE TABLE A.
 - III. DIMENSION REPORT INCLUDING VISUAL AS PER TABLE A.
 - IV. GUARANTEE/WARRANTEE CERTIFICATE OF ORIGINAL MANUFACTURER.

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 03/09/16
HEAD ROCKET BODY (PRE MACHINED) RGB-60	HAPP/QA/SC/ZI/060	

3. 100% ULTRASONIC INSPECTION TEST AS PER **ASTM A388** TO BE CARRIED OUT TO ENSURE THE HEAT TREATED COMPONENTS ARE FREE FROM INTERNAL FLAWS AND REPORT SHOULD BE SUBMITTED FROM STEEL SUPPLIER /MANUFACTURER ALONG WITH MATERIAL.
4. PRE MACHINING OF COMPONENT SHOULD BE DONE ONLY AFTER GETTING RAW MATERIAL CLEARANCE FROM NAI.

NOTE 2:

1. THE FIRM SHOULD SUPPLY 2 NOS ADVANCE SAMPLE FOR INSPECTION OF VARIOUS PARAMETERS BEFORE BULK PRODUCTION. BULK SUPPLY SHOULD BE AFFECTED ONLY ON RECEIVING CLEARANCE FROM HAPP.
2. MATERIAL TO BE DESPATCHED ONLY AFTER GETTING CLEARANCE OF PILOT SAMPLES FROM HAPP..

B. INSPECTION CHECK TO BE CARRIED OUT AT HAPP AFTER THE RECEIPT.

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 OR OTHER HARMFUL DEFECTS.	100 %
2	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 %

1. MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.
2. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.


K.V KIRAN KUMAR
WM / MAINT
MEMBER / MI COMMITTEE


D.BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE


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

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 04 Date of Issue 30/03/2017
LINER	HAPP/QA/SC/ZI/001

DRAWING NO. : NASK 1062/3

RAW MATERIAL : SINGLE PIECE METHOD: (DEEP DRAWING)
 STEEL AS PER IS : 513 – 2008 EDD GR.CR4*

END USE : HEAD ROCKET ASSEMBLY 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 (%)	IS:513 EDD GR.CR4 C - 0.08 Max. Mn - 0.40 Max. P - 0.02 Max S - 0.03 Max	ONE SAMPLE PER HEAT
4	MECHANICAL TEST	UTS – 350 Mpa Max. YS – 210 Mpa Max. E – 36 % Min. HARDNESS – 50 HRB Max	

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 DIMENTIONS, VISUAL DEFECTS AND MARKING AS PER TABLE A. AFTER COMPLETION OF DIMENTIONAL, 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.
4. MANUFACTURING OF COMPONENT SHOULD BE DONE ONLY AFTER GETTING RAW MATERIAL CLEARANCE FROM NAI AND SHOULD BE MANUFACTURED AS PER THE DRAWING NASK 1062/3 NOTE NOS. 4,5,9,10 &11 AND AS PER THE MANUFACTURING QUALITY PLAN OF LINER (EXCEPT LEAK TEST)AND INSPECTION REPORT NOTE NOS.3,4 & 6.
5. A PILOT SAMPLE OF 5 NUMBERS FROM SUPPLY ORDER QUANTITY SHALL BE FORWARDED TO HAPP FOR CONDUCTING LEAK TEST AFTER WELDING WITH SLEEVE (PNEUMATIC AT 3 KGF/CM² FOR 1 MINUTE) AND PHOSPATING, PRIOR TO ACCORDING BULK PRODUCTION CLEARANCE TO RULE OUT ANY FAILURE DURING PROCESS AT HAPP.
6. CLEARANCE FOR BULK PRODUCTION WILL BE GIVEN BY NAI IF THE RESULTS OF LEAK TEST ARE FOUND SATISFACTORY.

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 04
		Date of Issue 30/03/2017
LINER		HAPP/QA/SC/ZI/001

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

SL. NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	DIMENSIONS	AS PER DRAWING	100 %
2	VISUAL	THE COMPONENT SHALL BE FREE FROM INTERNAL CRACK, FLAWS & DISTORTION ETC.	

7. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.

8. 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.

SL. NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	VISUAL	THE COMPONENT SHALL BE FREE FROM INTERNAL CRACK, FLAWS & DISTORTION ETC.	100%
2	DIMENSIONS	AS PER DRAWING.	
3	PACKING	PACKING OF THE MATERIAL SHOULD BE DONE IN SUCH A MANNER TO AVOID CORROSION AND DAMAGE IN HANDLING AND TRANSIT.	EACH CONSIGNMENT
4	MARKING	EACH PACKING SHOULD BE LEGIBLY MARKED WITH MANUFACTURER'S IDENTITY, QUANTITY, HEAT NUMBER AND HAPP SUPPLY ORDER NUMBER ETC.	
5	VERIFICATION OF DOCUMENTS	1. NAI - I-NOTE	

D. VERIFICATION OF INSPECTION DOCUMENTS.

FOLLOWING INSPECTION DOCUMENTS MUST BE ENCLOSED WITH EACH SUPPLY.

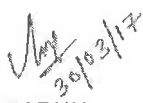
SL. NO	INSPECTION DOCUMENTS
1.	THE RAW MATERIAL ORIGINAL MANUFACTURER'S CERTIFICATE, DETAILS OF HEAT NUMBER, QUANTITY PURCHASED AND NUMBER OF BARS ETC.
2.	THE CHEMICAL AND MECHANICAL TEST CERTIFICATES FROM NABL ACCREDITED OR GOVT. APPROVED LAB
3.	DIMENSION REPORT INCLUDING VISUAL
4.	PACKING SLIP DETAILS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

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

10. 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

REFERENCE

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 11/04/2017
DIAPHRAGM	HAPP/QA/SC/ZI/019	

DRAWING NO. : NASK 1071/4 .

MATERIAL SPECN : STEEL AS PER IS 2856-87 GR. 2 (NORMALISED)

END USE : FOR NOZZLE PLATE ASSY 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 FREE FROM SHARP EDGES, CRACK, BEND, MISMATCH, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	CHEMICAL COMPOSITION (%)	C - 0.30 Max Mn - 1.00 Max P - 0.040 Max S - 0.045 Max Si - 0.60 Max	ONE SAMPLE PER HEAT
4.	MECHANICAL PROPERTIES	UTS : 485 - 655 Mpa YS : 250 Mpa.Min E : 20% Min. IMPACT TEST : 20 Min (CHARPY V-NOTCH)	

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. 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.

**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 FREE FROM SHARP EDGES, CRACK, BEND, MISMATCH, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	BLOW HOLE TEST	BLOW HOLES TO BE INSPECTED AS PER IS:5630 - 1969	100 %
4	PROTECTIVE FINISH	AS PER DRAWING	100 %
5	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%

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
- 4.. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
5. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 11/04/2017
DIAPHRAGM	HAPP/QA/SC/ZI/019	

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 FREE FROM SHARP EDGES, CRACK, BEND, MISMATCH, SURFACE IMPERFECTION AND OTHER INJURIOUS 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 %

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.

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

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

Mithlesh
MITHLESH CHANDRA
 AWM / ASSY
 MEMBER / MI COMMITTEE

D. Bhaskar Rao
D. BHASKAR RAO
 WM / E
 MEMBER / MI COMMITTEE

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

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 04
		Date of Issue 03/04/2017
DIAPHRAGM (ASSY ADAPTER)	HAPP/QA/SC/ZI/011	

DRAWING NO. : NASK 1068/7

MATERIAL SPECN : STEEL AS PER IS 2856 : 1987 GR.3

END USE : FOR ASSY ADAPTER OF 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 - 0.25 Max Mn - 0.70 Max Si - 0.60 Max P - 0.040 Max S - 0.045 Max	ONE SAMPLE PER HEAT
4.	MECHANICAL PROPERTIES	UTS : 415 - 585 Mpa YS : 205 Mpa.Min E : 22% Min. IMPACT TEST (CHARPY V- NOTCH) - 22 Min	
5.	RADIOGRAPHIC EXAMINATION	AS PER IS 2595:1978	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.

**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	DIMENSION	AS PER DRAWING.	
3	RADIOGRAPHIC EXAMINATION	AS PER IS 2595:1978	100%
4	PROTECTIVE FINISH	AS PER DRAWING	100%
5	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%

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 04
		Date of Issue 03/04/2017
DIAPHRAGM (ASSY ADAPTER)	HAPP/QA/SC/ZI/011	

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 %

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.

Mithlesh Chandra
MITHLESH CHANDRA
WM / P
MEMBER / MI COMMITTEE

D. Bhaskar Rao
D. BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE

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

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 07/04/2017
BUS BAR	HAPP/QA/SC/ZI/021	

DRAWING NO. : NASK 1071/8

END USE : FOR NOZZLE PLATE ASSY 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 ASSY. SHALL BE FREE FROM SHARP EDGES, RUST, SCALLING, CRACK, BEND, MISMATCH, SURFACE, WELDING AND OTHER INJURIOUS DEFECTS	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	RAW MATERIAL	FOR ITEM 1 (STEEL) – AS PER IS 6603:1972 GR. 07 Cr18 Ni9 (OR) IS 513 GR. 'O' EDD FOR ITEM 2 (PHENOL FORMALDEHYDE) –AS PER JSS 1097 GR. 'A'	ONE SAMPLE PER HEAT

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 AS PER TABLE A. AFTER CHECKING, 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.

**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 ASSY. SHALL BE FREE FROM SHARP EDGES, RUST, SCALLING, CRACK, BEND, MISMATCH, SURFACE, WELDING AND OTHER INJURIOUS 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%

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 07/04/2017
BUS BAR	HAPP/QA/SC/ZI/021	

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 ASSY. SHALL BE FREE FROM SHARP EDGES, RUST, SCALLING, CRACK, BEND, MISMATCH, SURFACE, WELDING AND OTHER INJURIOUS 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 %

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.

Mithlesh Chandra
MITHLESH CHANDRA
AWM / ASSY
MEMBER / MI COMMITTEE

D. Bhaskar Rao
D.BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE

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

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 02
	Date of Issue 10/04/2017
HOLDER	HAPP/QA/SC/ZI/017

DRAWING NO. : NASK 1070

MATERIAL SPECN : STEEL AS PER IS 513 GR. EDD (NORMALISED)

END USE : FOR ADAPTER ASSY 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 FREE FROM SCALES, RUST, BLISTERS, LAMINATIONS, PITTING, SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	CHEMICAL COMPOSITION (%)	C - 0.08 Max Mn - 0.40 Max P - 0.02 Max S - 0.03 Max	ONE SAMPLE PER HEAT
4.	MECHANICAL PROPERTIES	UTS : 350 Mpa Max YS : 210 Mpa. Max E : 36% Min. Hardness : 50 HRB Max	

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. 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.

**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 FREE FROM SCALES, RUST, BLISTERS, LAMINATIONS, PITTING, SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	BEND TEST	AS PER SPECIFICATION IS 1599:1985	ONE SAMPLE PER HEAT
4	PROTECTIVE FINISH	AS PER DRAWING	100 %
5	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%

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
4. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
5. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 10/04/2017
HOLDER	HAPP/QA/SC/ZI/017	

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 FREE FROM SCALES, RUST, BLISTERS, LAMINATIONS, PITTING, SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS 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 %

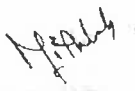
D. VERIFICATION OF INSPECTION DOCUMENTS.


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.

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

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


MITHLESH CHANDRA
 AWM / ASSY
 MEMBER / MI COMMITTEE


D. BHASKAR RAO
 WM / E
 MEMBER / MI COMMITTEE


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

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 21/04/2017
TEXTOLITE SEALING RING	HAPP/QA/SC/ZI/018	

DRAWING NO. : NASK 1071/2

MATERIAL SPECN : THERMOSETTING SYNTHETIC RESIN BONDED LAMINATED SHEET
AS PER IS 2036 F2

END USE : FOR HEAD ROCKET ASSY 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 FREE FROM SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	RAW MATERIAL PROPERTIES	AS PER IS 2036 F2	ONE SAMPLE PER HEAT

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. 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.

**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 FREE FROM SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	FITMENT TRIALS	TO BE SUBJECTED TO FITMENT WITH MATTING PART / GAUGE.	100 %
4	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%

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
4. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
5. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 21/04/2017
TEXTOLITE SEALING RING	HAPP/QA/SC/ZI/018	

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 FREE FROM SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS 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 %

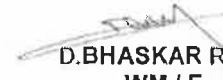
D. VERIFICATION OF INSPECTION DOCUMENTS.


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.

6. MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.
7. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.


MITHLESH CHANDRA
 AWM / ASSY
 MEMBER / MI COMMITTEE


D. BHASKAR RAO
 WM / E
 MEMBER / MI COMMITTEE


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

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 07/04/2017
GASKET	HAPP/QA/SC/ZI/020	

DRAWING NO. : NASK 1071/5

MATERIAL SPECN : NEOPRENE RUBBER AS PER IND/ME/678

END USE : FOR ASSY NOZZLE PLATE 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 COMPONENT SHALL BE FREE FROM DAMAGES, CRACK, SURFACE IMPERFECTION AND OTHER MOULDING / INJURIOUS DEFECTS	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	RAW MATERIAL	NEOPRENE RUBBER AS PER IND/ME/678	TWO SAMPLE PER LOT /BATCH OF RAW MATERIAL

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 AS PER TABLE A. AFTER CHECKING, 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.

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 07/04/2017
GASKET	HAPP/QA/SC/ZI/020	

**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 COMPONENT SHALL BE FREE FROM DAMAGES, CRACK, SURFACE IMPERFECTION AND OTHER MOULDING / INJURIOUS DEFECTS	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	FITMENT	SHALL BE SATISFACTORY TO SPECIMEN SAMPLE OF MATTING PART OR GAUGE	30 SAMPLES / LOT
4	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 DESPACHED 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 COMPONENT SHALL BE FREE FROM DAMAGES, CRACK, SURFACE IMPERFECTION AND OTHER MOULDING / INJURIOUS 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 %

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.

REFERENCE

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 02
	Date of Issue 07/04/2017
GASKET	HAPP/QA/SC/ZI/020

- MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.
- MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.

Mithlesh
**MITHLESH CHANDRA
AWM / ASSY
MEMBER / MI COMMITTEE**

D. Bhaskar RAO
**D.BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE**

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

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 21/04/2017
SPRING (1.2 MM)	HAPP/QA/SC/ZI/007	

DRAWING NO. : NASK 1068/4
MATERIAL SPECN : STEEL TO SPEC IS: 4454 (Pt-1)-2001 GRADE- SM
END USE : FOR HEAD ROCKET ASSY 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 SURFACE OF THE SPRING SHALL BE SMOOTH AND FREE FROM DEFECTS, SUCH AS RUST, SCALE, CUT MARKS, CRACKS, SCRATCHES, AND /OR ANY OTHER HARMFUL DEFECTS, WHICH MAY HAVE ADVERSE EFFECT ON THE APPLICATION OF THE SPRING.	100%
2	DIMENSIONS	AS PER DRAWING.	
3	CHEMICAL COMPOSITION (%)	C - 0.35 - 1.00 Si - 0.10 - 0.30. Mn - 0.30 - 1.20 S - 0.03 Max P - 0.03 Max Cu - 0.2 Max. NITROGEN - 0.01 % Max	ONE SAMPLE / HEAT
4	TENSILE TEST	TENSILE STRENGTH - 1920 TO 2160 M Pa	
5	BEND TEST	AS PER SPECIFICATION IS 1599:1985	
6	TORSION TEST	AS PER SPECIFICATION IS 1717	
7	WRAPPING TEST	AS PER SPECIFICATION IS 1755	ONE SAMPLE / HEAT
8	DECARBURIZATION TEST	AS PER SPECIFICATION IS 6396	
9	PROTECTIVE FINISH.	AS PER DRAWING	100 %
10	HEAT TREATMENT	AS PER NOTE NO. 5 OF DRAWING	100 %

NOTE :

1. THE RAW MATERIAL SAMPLES / TEST SPECIMENS FOR TESTS MENTIONED AT SL. NO. 3 TO 8 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. 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.

**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 SURFACE OF THE SPRING SHALL BE SMOOTH AND FREE FROM DEFECTS, SUCH AS RUST, SCALE, CUT MARKS, CRACKS, SCRATCHES, AND /OR ANY OTHER HARMFUL DEFECTS, WHICH MAY HAVE ADVERSE EFFECT ON THE APPLICATION OF THE SPRING.	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%

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 03
		Date of Issue 21/04/2017
SPRING (1.2 MM)	HAPP/QA/SC/ZI/007	

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
- 4.. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
5. 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 SURFACE OF THE SPRING SHALL BE SMOOTH AND FREE FROM DEFECTS, SUCH AS RUST, SCALE, CUT MARKS, CRACKS, SCRATCHES, AND /OR ANY OTHER HARMFUL DEFECTS, WHICH MAY HAVE ADVERSE EFFECT ON THE APPLICATION OF THE SPRING.	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 %

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.

6. MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.
7. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.


MITHLESH CHANDRA
 AWM / ASSY
 MEMBER / MI COMMITTEE


D.BHASKAR RAO
 WM / E
 MEMBER / MI COMMITTEE


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

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 04
		Date of Issue 26/04/2017
SPRING (0.8 MM)	HAPP/QA/SC/ZI/006	

DRAWING NO. : NASK 1068/2/3

MATERIAL SPECN : STEEL TO SPEC IS: 4454 (Pt-1)-2001 GRADE- SM

END USE : FOR ASSY VALVE 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
	WORKMANSHIP (VISUAL)	THE SURFACE OF THE SPRING SHALL BE SMOOTH AND FREE FROM DEFECTS, SUCH AS RUST, SCALE, CUT MARKS, CRACKS, SCRATCHES, AND /OR ANY OTHER HARMFUL DEFECTS, WHICH MAY HAVE ADVERSE EFFECT ON THE APPLICATION OF THE SPRING.	100%
	DIMENSIONS	AS PER DRAWING.	
3	CHEMICAL COMPOSITION (%)	C - 0.35 - 1.00 Si - 0.10 - 0.30. Mn - 0.30 - 1.20 S - 0.03 Max P - 0.03 Max Cu - 0.2 Max. NITROGEN - 0.01 % Max	ONE SAMPLE / HEAT
4	TENSILE TEST	TENSILE STRENGTH - 2050-2300 M Pa	2 SAMPLES / HEAT
5	BEND TEST	AS PER SPECIFICATION IS 1599:1985	2 SAMPLES / HEAT
6	TORSION TEST	AS PER SPECIFICATION IS 1717	2 SAMPLES / HEAT
7	WRAPPING TEST	AS PER SPECIFICATION IS 1755	2 SAMPLES / HEAT
8	DECARBURIZATION TEST	AS PER SPECIFICATION IS 6396	2 SAMPLES / HEAT
9	PROTECTIVE FINISH.	AS PER DRAWING	100 %
10	HEAT TREATMENT	AS PER NOTE NO. 5 OF DRAWING	100 %

NOTE :

1. THE RAW MATERIAL SAMPLES / TEST SPECIMENS FOR TESTS MENTIONED AT SL. NO. 3 TO 8 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. 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.

**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 SURFACE OF THE SPRING SHALL BE SMOOTH AND FREE FROM DEFECTS, SUCH AS RUST, SCALE, CUT MARKS, CRACKS, SCRATCHES, AND /OR ANY OTHER HARMFUL DEFECTS, WHICH MAY HAVE ADVERSE EFFECT ON THE APPLICATION OF THE SPRING.	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%

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 04
		Date of Issue 26/04/2017
SPRING (0.8 MM)	HAPP/QA/SC/ZI/006	

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
4. 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 SURFACE OF THE SPRING SHALL BE SMOOTH AND FREE FROM DEFECTS, SUCH AS RUST, SCALE, CUT MARKS, CRACKS, SCRATCHES, AND /OR ANY OTHER HARMFUL DEFECTS, WHICH MAY HAVE ADVERSE EFFECT ON THE APPLICATION OF THE SPRING.	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 %


D. VERIFICATION OF INSPECTION DOCUMENTS.

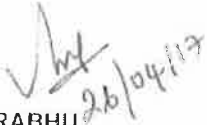
FOLLOWING INSPECTION DOCUMENTS MUST BE ENCLOSED WITH EACH SUPPLY.

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.

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

REFERENCE

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 02
	Date of Issue 25/02/2017
ASSEMBLY CONTACT	HAPP/QA/SC/ZI/010

DRAWING NO. : NASK 1068/6

END USE : ASSEMBLY ADAPTER FOR RGB 60.

FOR SUB COMPONENTS DRAWING NO. AND RAW MATERIAL SPECIFICATION ARE SHOWN BELOW.

PART-1 BODY - STEEL TO SPEC BS 970(PT-1)-83 GR.080M40.
PART-2 CONTACT - BRASS TO SPEC IS 4170 GR. Cu Zn 40.
PART-3 NUT - BRASS TO SPEC IS 2389.

A. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES FOR RAW MATERIAL FOR PART- 1 & PART- 2 BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE COMPONENT SHALL BE CLEAN, SMOOTH AND FREE FROM SHARP EDGES, POROSITY, CRACKS OR OTHER DEFECTS.	100%
2.	DIMENSIONS	PART-1 - AS PER DRAWING NO. NASK 1068/6/1 PART-2 - AS PER DRAWING NO. NASK 1068/6/2	
3.	CHEMICAL COMPOSITION (%)	PART-1 - AS PER BS 970(PT-1)-83 GR.080M40. PART-2 - AS PER IS 4170 GR. Cu Zn 40.	ONE SAMPLE PER HEAT
4.	MECHANICAL PROPERTIES	PART-1 - AS PER BS 970(PT-1)-83 GR.080M40. PART-2 - AS PER IS 4170 GR. Cu Zn 40.	
5.	SURFACE FINISH.	PART-1 - AS PER DRAWING NO. NASK 1068/6/1 PART-2 - AS PER DRAWING NO. NASK 1068/6/2	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 DIMENTIONS, VISUAL DEFECTS AND MARKING AS PER **TABLE A.** AFTER COMPLETION OF DIMENTIONAL, 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.

B. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES (COMPONENT STAGE) FOR PART-1 & PART - 2 BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE COMPONENT SHALL BE FREE FROM DAMAGES, CRACKS OR OTHER DEFECTS..	100%
2.	DIMENSIONS	PART-1 - AS PER DRAWING NO. NASK 1068/6/1 PART-2 - AS PER DRAWING NO. NASK 1068/6/2	

4. AFTER GETTING CLEARANCE FROM NAI, THE COMPONENT SHALL BE ASSEMBLED WITH PART NO. 1,2 & 3 ALONG WITH PHENOLIC MOULDING FIBRE GLASS GRADE SP 16 (PS CODE 514) AS SHOWN IN DRAWING.

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 02
	Date of Issue 25/02/2017
ASSEMBLY CONTACT	HAPP/QA/SC/ZI/010

C. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES (ASSEMBLY STAGE) BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE ASSY. SHALL BE FREE FROM DAMAGES, CRACKS OR OTHER DEFECTS..	100%
2.	DIMENSIONS	AS PER DRAWING NO. NASK 1068/6	100 %

5. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
6. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.
7. MANUFACTURER'S TEST CERTIFICATES FOR RAW MATERIALS USED FOR PROTECTIVE SURFACE FINISH COATING AND COATING THICKNESS REPORT FOR 30 SAMPLES ARE TO BE SUBMITTED ALONG WITH EACH SUPPLY.

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

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
3.	WORKMANSHIP (VISUAL)	THE ASSY. SHALL BE FREE FROM DAMAGES, CRACKS OR OTHER DEFECTS..	100%
4.	DIMENSIONS	AS PER DRAWING NO. NASK 1068/6	100 %

C. 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.

8. MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.
9. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.

Mithlesh
MITHLESH CHANDRA
 AWM / ASSY
 MEMBER / MI COMMITTEE

D. Bhaskar Rao
D.BHASKAR RAO
 WM / E
 MEMBER / MI COMMITTEE

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

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 03
	Date of Issue 25/02/2017
ASSEMBLY CENTRE CONTACT	HAPP/QA/SC/ZI/015

DRAWING NO. : NASK 1068/8

END USE : ASSEMBLY ADAPTER FOR RGB 60.

FOR SUB COMPONENTS RAW MATERIAL SPECIFICATION ARE SHOWN BELOW.

- PART-1 BODY** - STEEL TO SPEC BS 970(PT-1)-83 GR.080M40.
PART-2 CONTACT - BRASS TO SPEC IS 4170 GR. Cu Zn 40.
PART-3 CONNECTOR - BRASS TO SPEC BS 2870 GR. CZ 108 'O' CONDITION.

A. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES FOR RAW MATERIAL FOR PART-1, PART-2 & PART-3 BY NAI.

SL. NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE COMPONENT SHALL BE CLEAN, SMOOTH AND FREE FROM FROM SHARP EDGES, POROSITY, CRACKS OR OTHER DEFECTS.	100%
2.	DIMENSIONS	PART-1 - AS PER DRAWING NO. NASK 1068/8/1 PART-2 - AS PER DRAWING NO. NASK 1068/8/2 PART-3 - AS PER DRAWING NO. NASK 1068/8/3	
3.	CHEMICAL COMPOSITION (%)	PART-1 - AS PER BS 970(PT-1)-83 GR.080M40. PART-2 - AS PER IS 4170 GR. Cu Zn 40. PART-3 - AS PER BS 2870 GR. CZ 108 'O' CONDITION	ONE SAMPLE PER HEAT
4.	MECHANICAL PROPERTIES	PART-1 - AS PER BS 970(PT-1)-83 GR.080M40. PART-2 - AS PER IS 4170 GR. Cu Zn 40. PART-3 - AS PER BS 2870 GR. CZ 108 'O' CONDITION	
5.	SURFACE FINISH.	PART-1 - AS PER DRAWING NO. NASK 1068/8/1 PART-2 - AS PER DRAWING NO. NASK 1068/8/2 PART-3 - AS PER DRAWING NO. NASK 1068/8/3	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 DIMENTIONS, VISUAL DEFECTS AND MARKING AS PER TABLE A. AFTER COMPLETION OF DIMENTIONAL, 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.

B. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES (COMPONENT STAGE) FOR PART-1, PART-2 & PART-3 BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE COMPONENT SHALL BE FREE FROM DAMAGES, CRACKS OR OTHER DEFECTS..	100%
2.	DIMENSIONS	PART-1 - AS PER DRAWING NO. NASK 1068/8/1 PART-2 - AS PER DRAWING NO. NASK 1068/8/2 PART-3 - AS PER DRAWING NO. NASK 1068/8/3	

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 03
	Date of Issue 25/02/2017
ASSEMBLY CENTRE CONTACT	HAPP/QA/SC/ZI/015

4. AFTER GETTING CLEARANCE FROM NAI, THE COMPONENT SHALL BE ASSEMBLED WITH PART NO. 1,2 & 3 ALONG WITH PHENOLIC MOULDING FIBRE GLASS GRADE SP 16 (PS CODE 514) AS SHOWN IN DRAWING.

C. INSPECTION CHECK TO BE CARRIED OUT AT FIRM'S PREMISES (ASSEMBLY STAGE) BY NAI.

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE ASSY. SHALL BE FREE FROM DAMAGES, CRACKS OR OTHER DEFECTS..	100%
2.	DIMENSIONS	AS PER DRAWING NO.NASK 168/8	

5. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.

6. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.

7. MANUFACTURER'S TEST CERTIFICATES FOR RAW MATERIALS USED FOR PROTECTIVE SURFACE FINISH COATING AND COATING THICKNESS REPORT FOR 30 SAMPLES ARE TO BE SUBMITTED ALONG WITH EACH SUPPLY.

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

SL. NO.	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	WORKMANSHIP (VISUAL)	THE ASSY. SHALL BE FREE FROM DAMAGES, CRACKS OR OTHER DEFECTS..	100%
2.	DIMENSIONS	AS PER DRAWING NO.NASK 168/8	


E. 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.

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

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


MITHLESH CHANDRA
AWM / ASSY
MEMBER / MI COMMITTEE


D.BHASKAR RAO
WM / E
MEMBER / MI COMMITTEE


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

REFERENCE

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 02
		Date of Issue 21/04/2017
PLUG	HAPP/QA/SC/ZI/003	

DRAWING NO. : NASK 1063

MATERIAL SPECN : MOULDED PLASTIC (PHENOLIC) / MOULDED MATERIAL GDE SP 16 / POLYPROPELENE

END USE : FOR HEAD ROCKET ASSY 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 FREE FROM SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100%
2.	DIMENSIONS	AS PER DRAWING.	
3.	CHEMICAL COMPOSITION (%)	AS PER JSS 9330-05 : 2002 TYPE II (OR) SP 16	ONE SAMPLE PER HEAT

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. 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.

**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 FREE FROM SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS DEFECTS	100 %
2	DIMENSIONS	AS PER DRAWING.	
3	FITMENT TRIALS	TO BE SUBJECTED TO FITMENT WITH MATTING PART / GAUGE.	100 %
4	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%

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
- 4.. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
5. THE FIRM HAS TO DESPATCH THE MATERIAL/COMPONENT ALONG WITH NAI I-NOTE ONLY.

MONITORING INSTRUCTION FOR INSPECTION	Issue No. 01 Rev. No. 02
	Date of Issue 21/04/2017
PLUG	HAPP/QA/SC/ZI/003

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 FREE FROM SHARP EDGES, CRACK, BEND, SURFACE IMPERFECTION AND OTHER INJURIOUS 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 %


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.

6. MATERIAL/COMPONENT WILL BE CLEARED/ACCEPTED BASED ON NAI I-NOTE/CLEARANCE CERTIFICATE ONLY.
7. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF ANY DAMAGES DURING INSPECTION AT HAPP, TRICHY.


MITHLESH CHANDRA
 AWM / ASSY
 MEMBER / MI COMMITTEE


D. BHASKAR RAO
 WM / E
 MEMBER / MI COMMITTEE


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

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.

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

**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 KG/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 %

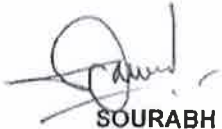
MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 01
		Date of Issue 21/03/2017
CHAMBER AFT MOTOR	HAPP/QA/SC/ZI/072	

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

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

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

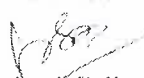
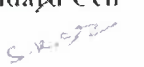
A. INSPECTION CHECKS TO BE CARRIED OUT AT FIRM'S PREMISES AT RAW MATERIAL STAGE BY NAI REP.

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.

VETTED


 DO / Standard Cell


TAIL UNIT FOR A/S ROCKET RGB -60
TO MI NO. HAPP/QA/SC/ZI/083 ISS: 01 REV:00 DATE 09/07/2014

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 NOTE : ALL THE THREE COMPONENTS SHOULD GET CLEARED FROM NAI INSPECTORS BEFORE TAKING FOR ASSY.	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 %

VETTED

[Signature]
DO / Standard Cell

[Signature]

TAIL UNIT FOR A/S ROCKET RGB -60
TO MI NO. HAPP/QA/SC/ZJ/083 ISS: 01 REV:00 DATE 09/07/2014

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.

VETTED

DO / Standard Cell

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 01
		Date of Issue 11/04/2017
CHAMBER FORE MOTOR	HAPP/QA/SC/ZI/082	

DRAWING NO. : NASK 1064

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. 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.

**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%

MONITORING INSTRUCTION FOR INSPECTION		Issue No. 01 Rev. No. 01
		Date of Issue 11/04/2017
CHAMBER FORE MOTOR	HAPP/QA/SC/ZI/082	

3. 100 % LOT SHALL BE INSPECTED BY NAI REP. / INSPECTORS AT FIRM'S PREMISES.
- 4.. MATERIAL TO BE DESPATCHED TO HAPP ONLY AFTER GETTING CLEARANCE FROM NAI.
5. 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 %

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.

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