## MONITORING INSTRUCTION FOR INSPECTION

Rev. No. 04

Date of Issue

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%

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- 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 ENGLOSED

SL.	INSPECTION DOCUMENTS MUST BE ENCLOSED WITH EACH SUPPLY,		
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.		
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