

# MONITORING INSTRUCTION FOR INSPECTION

Issue No. 01  
Rev. No. 01

Date of Issue  
12.02.2020

**STEEL TUBE OD 159mm ID 132.8mm**

**HAPP/QA/SC/ZI/095**

Rev no	Amendment	Date
1	Specification BS970-Pt-3:91 Was BS970-Pt-1:83	12.02.2020

SPECIFICATION : BS 970 (PT-3)-91 GR. 817M40(En 24)

CONDITION OF SUPPLY : HARDENED AND TEMPERED 'X' CONDITION

END USE : INNER CYLINDER OF ASSEMBLY FIN (RGB-60)

**TABLE A. INSPECTION CHECK TO BE CARRIED OUT BY THE 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.	AS PER NA SPEC A-31B
2.	OUTER DIAMETER	159.0 ± 0.6 mm	
3.	INNER DIAMETER	132.8 ± 0.6 mm	
4.	LENGTH	170.0 ± 2.0 mm or Its multiples. But Total length not to exceed 3 meters.	
5.	CHEMICAL COMPOSITION (%)	BS 970 (PT-3)-91 GR. 817M40	1 SAMPLE PER HEAT
6.	MECHANICAL PROPERTIES	BS 970 (PT-3)-91 GR. 817M40 HARDENED AND TEMPERED 'X' CONDITION	2 SAMPLES PER HEAT
7.	MARKING	EACH TUBE SHALL BE LEGIBLY STAMPED WITH MANUFACTURER'S IDENTITY & HEAT NUMBER.	EACH CONSIGNMENT
8.	PACKING	PACKING OF THE MATERIAL SHALL BE DONE IN SUCH A MANNER TO AVOID CORROSION AND DAMAGE IN HANDLING AND TRANSIT.	

**NOTE:**

1. THE RAW MATERIAL TO BE TESTED BY THE FIRM BY SELECTING THE SAMPLE BY THE FIRM ITSELF FOR CHEMICAL AND MECHANICAL PROPERTIES FOR EACH HEAT IN NABL ACCREDITED TABLE A
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 FORWARD THE FOLLOWING DOCUMENTS TO NAI/TRICHY.
  - I. THE RAW MATERIAL ORIGINAL MANUFACTURER'S CERTIFICATE, HEAT NUMBER, QUANTITY PURCHASED AND NUMBER OF TUBES ARE TO BE MENTIONED IN THE INSPECTION LETTER TO NAI/TRICHY.
  - I. THE CHEMICAL AND MECHANICAL TEST CERTIFICATES FROM NABL ACCREDITED LAB AS PER TABLE A.
  - II. DIMENSION REPORT INCLUDING VISUAL AS PER TABLE A.
3. ALL THE ABOVE DOCUMENTS ARE TO BE FORWARDED TO NAI/TRICHY WITH A COPY TO GM/HAPP.
4. THE NAI/TRICHY SHALL VERIFY ALL THE DOCUMENTS AS ABOVE AND ACCORD CLEARANCE FOR DISPATCH OF THE MATERIAL TO HAPP IF ALL DOCUMENTS ARE IN ORDER.
5. MATERIAL HAS TO BE DESPATCHED TO HAPP ONLY AFTER DUE SUBMISSION OF ALL RELATED DOCUMENTS AS DETAILED IN TABLE A AND AFTER GETTING CLEARANCE FROM NAI/TRICHY.

ISSUED BY  
**STANDARD CELL**  
MPC No 1-190208 dt. 20/2/19  
DATE: 20/2/20 SIGNATURE:

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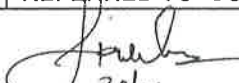
**TABLE B. INSPECTION CHECK TO BE CARRIED OUT AT HAPP IN ASSOCIATION WITH NAI/TRICHY AFTER RECEIPT OF MATERIAL.**

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.	AS PER NA SPEC A-31B
2.	OUTER DIAMETER	159.0 ± 0.6 mm	
3.	INNER DIAMETER	132.8 ± 0.6 mm	
4.	LENGTH	170.0 ± 2.0 mm or Its multiples. But Total length not to exceed 3 meters.	
5.	CHEMICAL COMPOSITION (%)	BS 970 (PT-3)-91 GR. 817M40	1 SAMPLE PER HEAT
6.	MECHANICAL PROPERTIES	BS 970 (PT-3)-91 GR. 817M40 HARDENED AND TEMPERED 'X' CONDITION	2 SAMPLES PER HEAT
7.	MARKING	EACH TUBE SHALL BE LEGIBLY STAMPED WITH MANUFACTURER'S IDENTITY & HEAT NUMBER.	EACH CONSIGNMENT
8.	PACKING	PACKING OF THE MATERIAL SHALL BE DONE IN SUCH A MANNER TO AVOID CORROSION AND DAMAGE IN HANDLING AND TRANSIT.	

1. THE NAI/TRICHY SHALL VERIFY ALL THE PARAMETERS AS ABOVE AND AFTER SATISFACTORY RESULTS, NAI/TRICHY SHALL ISSUE I-NOTE FOR THE MATERIAL RECEIVED AND THE MATERIAL WILL BE ACCEPTED / CLEARED ACCORDINGLY.
2. MATERIAL HAS TO BE REPLACED 100% BY THE FIRM IN CASE OF NON CONFORMITY TO SPECIFICATION AS PER TABLE-A, DURING NAI INSPECTION AT HAPP, TRICHY

**TABLE 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 TUBES ETC.
2.	THE CHEMICAL AND MECHANICAL TEST CERTIFICATES FROM NABL ACCREDITED LAB.
3.	DIMENSION REPORT INCLUDING VISUAL.
4.	PACKING SLIP DETAILS.
5.	GUARANTEE / WARRANTY CERTIFICATE OF SUPPLIER.
6.	NAI - I-NOTE.
7.	IN ADDITION TO THE ABOVE SOFT COPIES OF ALL THE CERTIFICATES MENTIONED IN TABLE - A SHALL BE SENT TO E-MAIL ID's. happqa.ofb@ofb.gov.in , mmhapp.ofb@ofb.gov.in
NOTE	1. IN CASE OF ANY DIFFERENCES, QAP & DRAWING SHALL PREVAIL 2. EXPLICIT DEVIATION(S) IF ANY SUCH AS TYPOGRAPHICAL ERROR, VALUES, NUMERIC, OTHER PARAMETER, ETC IS/ARE FOUND IN MONITORING INSTRUCTION OF THE ABOVE STORES, THE RELEVANT STANDARD CONFORMING TO THE SPECIFICATION BS 970 ( PT- 3)- 91 SHALL BE REFERRED TO CONFIRM THE PARAMETER

  
20/2/2020  
**AKHILESH GAUR**  
AWM / P

MEMBER / MI COMMITTEE

  
**M. RAMESHPARAN**  
AWM / R&D  
CHAIRMAN / MI COMMITTEE

  
D. BHASKAR RAO  
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