QUALITY MONITORING INSTRUCTION FOR INSPECTION	Issue No : 01 Rev No :
	Date of Issue 16 / 10 / 2023
C-1096 (HANDLE)	OFT/MI/30 mm/ C 1096.

Rev.No	Amendment	Date

MATERIAL SPECIFICATION   : Steel 50, OST-3-98-80

MATERIAL FOR INDIA   : BS:970 Pt.1- 1983 Gde 080 M50 (OR)

   : IS:5517-93,DESIGN 50 C8

CONDITION OF SUPPLY   : FULL FINISHED WITH FIRM'S MATERIAL

END USE   : 30 mm CANNON.

INSPECTION CHECK TO BE CARRIED OUT

Table 'A'

SL NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	Visual	The Component shall be smooth and as free as possible from defects, such as grooves, seams, tears, rust, scale, scratches, pits, die-marks and any other harmful defects.	100%
2.	Dimension	100% Dimension check as per drawing.	
3.	Chemical Composition (%)	**STEEL 50 C8 OST 3-98-80 :-** (Refer GOST 1050-74) C = 0.47-0.55 Cu = 0.25(Max) Mn = 0.50-0.80 S = 0.040(Max) Si = 0.17-0.37 P = 0.035(Max) Cr = 0.25(Max) Ni = 0.25(Max) **BS: 970 Pt.1-1983 Grade 080 M50.** C = 0.45-0.55 Cr = 0.30 (Max) Mn = 0.60-1.00 Mo = 0.15 (Max) S = 0.050 (Max) Ni = 0.40 (Max) P = 0.050 (Max) Si = 0.10-0.40 **IS:5517-93,DESIGN 50 C8** C = 0.45- 0.55 Cu = 0.35(Max) Mn = 0.60 - 0.90 S = 0.035(Max) Si = 0.10 - 0.35 P = 0.035(Max) Cr = 0.25(Max) Ni = 0.25(Max) V = 0.05 (Max) Mo = 0.05(Max) B = 0.0003 (max) Sn = 0.05(max) % Copper+10x(%Tin) shall not exceed 0.60 percent (Permissible variations in value as per specification standard)	One Sample Per Heat

4.	Mechanical Properties	**STEEL 50 OST-3-98-80** Tensile Strength $\quad$ = $\quad$ 64 Kgf/mm^2 (Min) Yield Strength $\quad$ = $\quad$ 38 Kgf/mm^2 (Min) Elongation $\quad$ = $\quad$ 14 % (Min) Reduction of area $\quad$ = $\quad$ 40% (Min) Impact $\quad$ = $\quad$ 4 Kgfm/cm^2 (Min) **BS: 970 Pt.1-1983 Grade 080 M50.** Tensile Strength $\quad$ 850-1000 N/mm^2 0.2% Proof Stress $\quad$ 570 N/mm^2 (Min) % Elongation $\quad$ 12 % (Min) **IS:5517-93,DESIGN 50 C8, LRS-30mm.** Tensile Strength $\quad$ 800-950 MPa 0.2% Proof Stress $\quad$ 540 MPa (Min) % Elongation $\quad$ 13 % (Min)	One sample Per Heat.
5.	Hardness	38.5-45.5 HRC (As per drawing)	100%
6.	Protective Finish	Accelerated electroless phosphating with chromate treatment.	100%
7.	Packing	The Packing of the Material shall be done in such a manner to avoid corrosion and damage in handling and transit.	Each Consignment
8.	Marking	Each Packing shall be legibly marked with manufacturer's identity , Qty, Heat No, OFT Supply order No etc.,	

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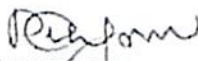HoS/STD.CELL
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WM(QCM)

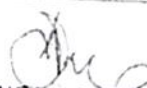SUKESH GEHLAUT,
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Note:

1. The Raw material / component to be tested by the firm on selection of the sample by the firm itself for chemical composition and mechanical properties in NABL accredited approved Lab as per Table 'A'.

2. The Firm has to check for the dimensions, visual defects, packing and marking as per Table 'A'. After completion of tests as per Note-1 as above, the Firm has to submit the following documents to OFT.

   I. The Raw material certificate from the original manufacturer, Heat number, and quantity purchased and number of bars is to be mentioned in the inspection letter to OFT.
   II. The Chemical and Mechanical test certificates from NABL accredited approved lab as per Table 'A'.
   III. Dimensional reports including visual as per Table 'A'.
   IV. Guarantee / Warrantee certificate of supplier against the supply.

3. All the above Documents mentioned at Note No.2 above are to be forwarded to ED/OFT along with supply.

4. OFT shall verify all the documents as above and accord clearance to the firm for dispatch of the material to OFT if all documents are in order.

5. OFT/Trichy shall verify all the parameters as per Table 'A' and after satisfactory results, the material will be accepted /cleared accordingly.

6. Material has to be replaced 100% by the firm in case of non conformity to specification as per Table-A, during inspection at OFT, Trichy.

VERIFICATION OF INSPECTION DOCUMENTS

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 approved Lab.
3	Dimension report including visual.
4	Packing slip details.

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