

QUALITY MONITORING INSTRUCTION FOR INSPECTION		Issue No : 01
		Rev No :
		Date of Issue 18/08/2021
44P 06016* (SAFETY PLATE)		OFT/MI/AMR/44P 06016
Rev.No	Amendment	Date

MATERIAL SPECIFICATION : BS 1449 PT.1 1983 SEC.4 GRADE. CS40 (OR) CS 50
 ALTERNATE MATERIAL : IS: 2507-1975 DESIGN 45C8 (OR) 55C6

CONDITION OF SUPPLY : FULL FINISHED WITH FIRM'S MATERIAL.


END USE : 14.5/20mm AMR.

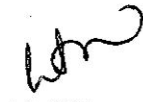
INSPECTION CHECK TO BE CARRIED OUT


Table 'A'

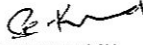
SL NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1.	Visual	The Component shall be free from defects such as rust, scale, burrs and any other harmful defects.	100%
2.	Dimension	100% Dimension to check as per drawing	
3.	Chemical Composition (%)	<u>BS 1449 PT.1 1983 SEC.4 CS40</u> C = 0.35-0.45 S = 0.045 (Max) Si = 0.05-0.35 P = 0.045 (Max) Mn = 0.50-0.90	One Sample Per Heat
		<u>BS 1449 PT.1 1983 SEC.4 CS50</u> C = 0.45-0.55 S = 0.045 (Max) Si = 0.05-0.35 P = 0.045 (Max) Mn = 0.50-0.90	
		<u>IS 2507:1975 Design. 45C8</u> C = 0.40-0.50 S = 0.050 (Max) Si = 0.10-0.35 P = 0.050 (Max) Mn = 0.60-0.90	
		<u>IS 2507:1975 Design. 55C6</u> C = 0.50-0.60 S = 0.050 (Max) Si = 0.10-0.35 P = 0.050 (Max) Mn = 0.50-0.65	
		(Permissible variations in value as per specification standard)	

4.	Mechanical Properties	<p>BS 1449 PT.1 1983 SEC.4 CS40</p> <p>Tensile Strength 420 N/mm² (Min) Yield Strength 250 N/mm² (Min) Elongation 18% (Min.) Hardness 155 HV (Max)</p> <p>BS 1449 PT.1 1983 SEC.4 CS50</p> <p>Hardness 165 HV (Max)</p> <p>IS 2507:1975, Gr.1 Design. 45C8</p> <p>Tensile Strength 1180-1420 N/mm² Yield Strength 1030 N/mm² (Min) Elongation 6% (Min.) Hardness 350-425HV</p> <p>IS 2507:1975, Gr.1 Design. 55C6</p> <p>Tensile Strength 1180-1420 N/mm² Yield Strength 1030 N/mm² (Min) Elongation 6% (Min.) Hardness 350-425HV</p>	One Sample Per Heat			
		5.		Other Tests	Bend Test, Decarburization Test carried out as per material specification standards.	Each Consignment
		6.		Hardness	Hardness 46-52 HRC (as per drawing)	
		7.		Packing	The Packing of the Material shall be done in such a manner to avoid corrosion and damage in handling and transit.	
8.	Marking	Each Packing shall be legibly marked with manufacturer's identity , Qty, Heat No, OFT Supply order No etc.,				


 U. MANGALASAstry
 HOS/STD.CELL
 CHECKED


 L.S. ASHA
 HOS / QCM
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 V. RAVEENDAR
 JWM/STD.CELL
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 S. KRISHNA SWAMY
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 A.K SINGH
 AGM / (WP & MAINT)
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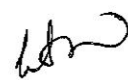
Note:

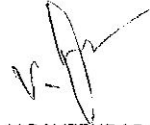
1. The Raw material/component/forging/casting to be tested by the firm on selection of the sample by the firm itself for chemical composition and mechanical properties in NABL accredited approved Lab as per Table 'A'.
2. The Firm has to check for the dimensions, visual defects, packing and marking as 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. **Raw material sample minimum of 300mm should be supplied for cross verification along with the first supply of stores.**
 - IV. Dimensional reports including visual as per Table 'A'.
 - V. Guarantee / Warrantee certificate of supplier against the supply.
3. All the above Documents mentioned at Note No.2 above are to be forwarded to GM/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.

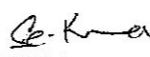
VERIFICATION OF INSPECTION DOCUMENTS

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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