

QUALITY MONITORING INSTRUCTION FOR INSPECTION		Issue No : 01
		Rev No:
		Date of Issue / / 2021
44P 02001* (CYLINDER)		OFT/MI/AMR/44P 02001
Rev.No	Amendment	Date

MATERIAL SPECIFICATION : 30XH2MØA, GOST 4543-71
 ALTERNATE MATERIAL : BS 970 PT.1 1983 GR.826 M31 (OR) EN 25
 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 (%)	<p><u>30XH2MØA, GOST 4543-71</u></p> <p> C = 0.27-0.34 V = 0.10-0.18 Si = 0.17-0.37 Mo = 0.20-0.30 Mn = 0.30-0.60 Cu = 0.30 (Max) Cr = 0.60-0.90 S = 0.025 (Max) Ni = 2.0-2.4 P = 0.025 (Max) </p> <p><u>BS:970 Pt.1, 1983 GR.826 M31</u></p> <p> C = 0.27-0.35 Mo = 0.45-0.65 Si = 0.10-0.35 S = 0.040 (Max) Mn = 0.45-0.70 P = 0.035 (Max) Cr = 0.50-0.80 Ni = 2.30-2.80 </p> <p><u>EN-25</u></p> <p> C = 0.27-0.35 Mo = 0.40-0.70 Si = 0.10-0.35 V = 0.05 (Max) Mn = 0.50-0.70 S = 0.050 (Max) Cr = 0.50-0.80 P = 0.050 (Max) Ni = 2.30-2.80 </p> <p>(Permissible variations in value as per specification standard)</p>	One Sample Per Heat

4.	Mechanical Properties	<u>30XH2MØA, GOST 4543-71</u> Tensile Strength 90 Kg/mm ² (Min) Yield Point 80 Kg/mm ² (Min) Elongation 10% (Min) Reduction of area 40% (Min) Impact Strength 9 Kg.m/cm ² (Min) (Cross section of blanks to be heat treated -Ø25mm or 25 SQ) <u>BS:970 Pt.1, 1983 GR.826 M31 ('X' Condition)</u> Tensile Strength 1150-1300 N/mm ² Yield Strength 1020 N/mm ² (Min) Elongation 10 % (Min.) ^c Impact Izod 25 ft.lb (Min). <u>EN-25 ('X' Condition)</u> Tensile Strength 75 Tons/Sq.In (Min) Yield Stress 63 Tons/Sq.In (Min) Elongation 14% (Min.) Impact Izod 25 ft.lb (Min).	One Sample Per Heat		
		5.		Hardness	34-41 RC (as per drawing).
		6.		Protective Finish	Phosphate to specification JSS: 0465-01-1988 , Class-I (Accelerated) Oil Finish. Surface 'Y' should be chrome flashed – 0.01, Max.
		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.,	Each Consignment		

U.MANGALASAMY
HOS/STD.CELL
CHECKED

L.S. ASHA
HOS / QCM
CHECKED

V.RAVEENDAR
JWM/STD.CELL
PREPARED

S. KRISHNA SWAMY
JT.GM (QC and R&D)

G.DEVENDIRANE
AWM (QCM & HT)

A.K SINGH
AGM / (WP & MAINT)
APPROVED