

BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL
QA-HYDRO
STANDARD QUALITY ASSURANCE PLAN FOR BAR MATERIAL

QAP NO. : QA/HT/1044 Rev. 00
SPECIFICATION : AA 10723 Rev. 08 (Stainless Steel Bars - Martensitic Gr: X 17 CrNi 16-2)
SUPPLY CONDITION : upto 100 mm - Hot Rolled ; Hardened & Tempered
Greater than 100 mm - Hot Rolled / Forged ; Hardened & Tempered

Dated :- 16.05.2018

SPECIFICATION : upto 100 mm - Hot Rolled ; Hardened & Tempered											12	
SUPPLY CONDITION : upto 100 mm - Hot Rolled / Forged ; Hardened & Tempered												
1	2	3	4	5	6	7	8	9	10	11	12	
SL. NO.	STAGE	CHARACTERSTIC	METHOD	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	P	V	W	REMARKS	
1	Raw Material	Chemical	Chemical test	1 Sample / Heat	AA 10723 Rev. 08	AA 10723 Rev. 08	Mill Test Certificate	1	2	-	-	
2	Heat Treatment	Hardened & Tempered	Hardened & Tempered	1 Sample / Heat & H.T Batch	AA 10723 Rev. 08	AA 10723 Rev. 08	H.T. Chart	1	2	-	-	
3	Final Stage	Stamping on test bar for mechanical Testing	Hard Stamp by TPIA	-do-	-do-	-do-	Stage Inspection Report	1	-	2	Test Piece duly stamped by TPIA	
			i) Tensile Test	As Specified in AA 10723 Rev. 08	-do-	-do-	-do-	Supplier's Test Certificate	1	-	2	-
			ii) Charpy Impact Test (on 3 samples)	-do-	-do-	-do-	-do-	Supplier's Test Certificate	1	-	2	-
			iii) Yield strength	-do-	-do-	-do-	-do-	Supplier's Test Certificate	1	-	2	-
			iv) %Elongation	-do-	-do-	-do-	-do-	Supplier's Test Certificate	1	-	2	-
		Ultra Sonic Test	As Specified in AA 10723 Rev. 08	100%	AA0850118 Rev. 01	Category II	U.T. report	1	-	2	1) 100% UT to be done by vendor 2) 15% UT to be witness by TPIA on sample basis	
		Chemical Composition	Chemical test	1 sample / Heat	AA 10723 Rev. 08	AA 10723 Rev. 08	Supplier's Test Certificate	1	-	2	-	
		Visual Examination	Visual	100%	-do-	Bars shall be free from surface defects, bends & twists	Supplier's Dimensional Report	1	-	2	-	
		Dimension & Tolerance	Measurement	100%	-do-	AA 10723 Rev. 08	-do-	1. Heat No. 2. P.O. No. 3. Spec No. 4. Size 5. Supplier's Name	1	-	2	Identification & marking shall be done on face of each bar & TPIA hard stamp to be done on both face of each bar.
		4	Dispatch	Identification Marking	Hard Stamping	100%	-do-	-do-	-do-	1	-	2
5	Document submission duly certified by TPIA	1) Mill test certificate (Mechanical & Chemical) 2) Supplier Test certificate (Mechanical & Chemical) 3) Dimensional Inspection report. 4) Heat Treatment chart 5) U.T. Report										

Note : Final Testing of Material will be done at BHEL Bhopal works before clearance of SRV.

1 = Manufacturer / Trader
2 = BHEL / BHEL's TPIA

Attestation
By: **MAHENDRA SHARMA** (Q.A. Engg.)
For: **MAHENDRA SHARMA** (Q.A. Engg.)
Witness: **MAHENDRA SHARMA** (Q.A. Engg.)

H.T.E.

16/05/18
Shivendra Kumar / Shivendra Kumar
Sr. Manager / H.T.E. DIVISION
Bhopal / BHEL, Bhopal

W.T.M.

16/05/18
MAHENDRA SONI
Sr. Manager (Production) W.T.M. Division
Bhopal / BHEL, Bhopal