

TECHNICAL ANNEXURE A FOR INDENT NO 820180024

SL NO.	SPECIFICATIONS	SPECIFIED/CONFIRMED BY	OFFERED	REMARKS
1	DETAILS OF MATERIAL/WORKMANSHIP :-	Vender to confirm		
	1. The Steel Wire Ropes shall have a construction of R.H.LAY 6X36 (14/7+7/7/1) with FIBRE CORE & Shall conform to IS:2266:2000 & IS:6594:2001.	Vender to confirm		
	2. The steel wire ropes shall be manufactured from ungalvanised steel wire having Tensile Strenght Designation 1770 N/mm ² (180 kgf/mm ²), conforming to IS:1835:1976 The fibre core of the wire shall comply with requirement of IS:1804:2004.	Vender to confirm		
	3. The rope for sling should meet the safe working load specified in the drawing.	Vender to confirm		
	4. Splicing Shall be as per IS 5245:1969 Mechanically spliced/Hand Spliced .	Vender to confirm		
	5. FACTOR OF SAFETY = BREAKING STRENGTH/SAFE WORKING LOAD >= 6	Vender to confirm		
	6. Marking - A metal label ring indicating drawing no. and sale working load, diameter, length, & date of manufacturing shall be securely attached with the steel wire rope sling	Vender to confirm		
	7. Freedom From Defects - The completed rope shall be free from loose wires and strands or other irregularities, it shall be evenly laid and shall remain in condition when properly unwound from it reel or coil.	Vender to confirm		
	8. The eye ends of the slings shall suit the ramshorn hooks capacity of which are mentioned In drawing.	Vender to confirm		
	9. for endless slings minimum 2 ferrules to be provided.	Vender to confirm		
2	INSPECTION AND TESTING :-	Vender to confirm		
	1. Inspection shall be carried by BHEL Health & Safety Department (HSE) / Third Party / BHEL's Customer, as specified in purchase order, minimum 2 week advance notice is to be given by the vendor.	Vender to confirm		
	2. Rope Size and length shall be verified at vendor's works.	Vender to confirm		
	3. The vendor shall test 100% wire rope slings for 2X safe working load as Specified in drawing.	Vender to confirm		
	4. Breaking load test shall be carried out by any of the methods specified in IS: 2266:2002 & IS:5245:1969 (PART II) or IS:6594:2001.	Vender to confirm		
	NOTE - THE BREAKING STRENGTH OF THE WIRE ROPE SHALL NOT BE LESS THAN THE MINIMUM BREAKING LOAD SPCIFIED IN THE DRAWING.	Vender to confirm		
3	PACKING & PROTECTION :-	Vender to confirm		
	The Rope Shall Be Protected Suitably to avoid corrosion & damage in transit.	Vender to confirm		
4	DEVIATION :-	Vender to confirm		
	For any deviation with respect to specified requirements prior approval must be obtained from BHEL.	Vender to confirm		
5	REJECTION AND REPLACEMENT :-	Vender to confirm		
	In the event of Slings proving defective, such slings shall be rejected, not withstanding any previous certification of satisfactory testing and/or insoection.	Vender to confirm		
	The vendor shall undertake to replace the rejected slings at his own cost and the rejected sling will be sent back to the manufacturer /supplier after fulfilling the commercial terms and conditions.	Vender to confirm		
6	CHECK LIST :-			
	1. The Steel Wire Rope Slings Shall be Per clause no.2	YES	NO	
	2. 100% Steel wire rope slings shall be tested as per clause no.3	YES	NO	
	3. There shall be no deviation form HT 00225.	YES	NO	
	4. For endless slings minimum 2 ferrules shall be provided	YES	NO	
	5. Deviation, if any	YES	NO	

प्रकाश अड्डे / PRAKASHADME
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रतनलाल भाभर / RATANLAL BHABHAR
वरिष्ठ उप महाप्रबंधक / Sr. Deputy
वाष्प टरबाइन विनिर्माण विभाग / S T M Division
बी.एच.ई.एल., भोपाल / BHEL, BHOPAL

2/k



BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL

STEAM TURBINE MANUFACTURING DIVISION

PQR FOR PI NO-820180024

Tenderer 1.Name & Address of the Tenderer -BHEL BHOPAL,DEPT-STM 2.Name & Designetion of contact person - PRAKASH ADME (SR.ENGINEER) 3.Contact No.,Auto no -9584434159 -07552502635 4.E- Mail ID - prakashadme@bhel.in		Manufacturer/Authorised Agent 1.Name & Address of the Tenderer 2.Name & Designetion of contact person 3.Contact No.- 4.E- Mail ID		
SL NO	DESCRIPTION FOR BHEL REQUIRMENT	SPECIFIED/ CONFIRM	OFFERED	REMARKS
1	SCOPE OF SUPPLY			
1.1	Supply of Steel Wire Rope.	Vendor to confirm		
2	QUALIFYING REQUIREMENT			
2.1	Only OEM or their Authorized distributor / Dealer has to be quoted and in this regard. Vendors other than OEM are need to be furnished an Authorization certificate ensuring BHEL for their guarantee support and warrantee services (For a period of 12 months from the date of receiving of material at our works) as and when required by BHEL on prompt basis	Vendor to submit & confirm		
2.2	Supply of Steel Wire Rope Sling should be supplied by the vendor or their principal (through any authorised vendor) or by OEM. To verify theRust remover(Rust Penetrator),following documents shall be furnished by vendor or their principal - A)Provide Purchase order copies of Rust remover(Rust Penetrator) suppllied in of last tw years effective from date of opening tender . B)Despatch document OR Customer letter(i,e Performance Report/Performance Feedback from Customer,Appriciation letter) OR Inspection Certificate OR Performance will be verified by BHEL at its Discretion(for low value Item) C) Customer detail (Mail Id and phone no), else offer is technically disqualified after notice to the vendor.	Vendor to submit & confirm		
2.3	Detail printed catalogue containing technical details, Model/Part No of the Steel Wire Rope Sling should be submitted along with the offer failing which offer is treated as technically incomplete and liable to be rejected after information to the bidder.	Vendor to submit & confirm		
2.4	BHEL reserves the right to verify information provided by vendor. In case the information provided by vendor is found to be false/incorrect, suitable punitive action may be taken in case of BHEL resistered supplier as per BHEL norms, Depending upon the gravity, The competent authority may decide to put a supplier under hold/ban for any other adequate and sufficient reason.	Vendor to Note		

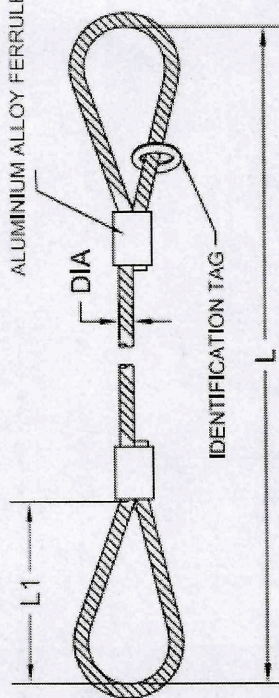
Prepared By:-Prakash Adme
Sr Engineer (STM)

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Approved By :-R.L Bhabhar
Sr.DGM(STM)

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बी.एच.ई.एल., भोपाल / BHEL, BHOPAL

ALUMINIUM ALLOY FERRULES



ITEM NO.	DIA (MM) AS PER IS-2266	LENGTH (Meter) "L"	LOOP SIZE (MM) " L-1 "	SWL (TONE)	PROOF LOAD TESTING (2 X SWL)
# 1	26mm	13.5	min380 - 420max	5.0	10.00
# 2	18mm	13.5	min370 - 400max	2.5	05.00
# 3	18mm	7.5	min370 - 400max	2.5	05.00
# 4	13mm	9.0	min350 - 380max	1.5	03.00
# 5	13mm	7.5	min350 - 380max	1.5	03.00
# 6	9mm	9.0	min300 - 320max	0.7	01.40
# 7	9mm	7.5	min300 - 320max	0.7	01.40
# 8	32mm	13.5	min470 - 510max	9.0	18.00
# 9	32mm	5.0	min470 - 510max	9.0	18.00
#10	32mm	10.0	min470 - 510max	9.0	18.00
#11	32mm	16.0	min470 - 510max	9.0	18.00
#12	36mm	13.0	min500 - 540max	11.0	22.00
#13	42mm	13.0	min550 - 600max	14.0	28.00
#14	44mm	13.0	min600-650max	17.0	34.00
#15	48mm	13.0	min 700 - 750max	20.0	40.00
#16	52mm	12.0	min 720- 750max	23.0	46.00
#17	36mm	3.0	min 500 - 540max	11.0	22.00
#18	36mm	4.0	min 500- 540max	11.0	22.00

1.-SPECIFICATIONS/STANDARD OF STEEL WIRE ROPE:

- 1.1 UNGALVANISED STEEL WIRE ROPE OF CONSTRUCTION 6 X 36 (14+7+7-1)(CF) WITH FIBER CORE AND SHALL CONFORM TO IS-2266 .
- 1.2 FIBER CORE RIGHT HAND ORDINARY LAY, SHALL BE COMPLY WITH THE REQUIREMENTS OF IS-1804.
- 1.3 TENSILE STRENGTH AS 1770 N/mm Sq. (180 KGf/mm Sq.) CONFORMING TO IS-1835.
- 1.4 DIAMETER AND LENGTH OF EACH SLING SHALL BE AS MENTIONED IN THE TABLE GIVEN IN THE DRAWING AND SHALL COMPLY TO IS- 2266
- 1.6 THE EYE LOOP SHALL BE TERMINATED BY MECHANISED SPlicing AS PER IS-5245(PART-II). HAND SPlicing NOT ACCEPTABLE.
2. TOLERANCE IN LENGTH-"L" IS +/- 1% OF "L".
3. IDENTIFICATION TAG:- A STEEL WASHER(Normally used with fasteners) PUNCHED WITH SLING DETAILS e.i. SIZE OF SLING, SL.NO., MONTH & YEAR OF MFG & SAFE WORKING LOAD AND TO BE INSERTED IN LOOP AS SHOWN IN DRAWING OR SLING. DETAILS CAN ALSO BE PUNCHED IN LARGER SIZE FERULES.
(eg. FOR #1- 26 X 13.5 Mr., (Mfg.Company's short Name)- 9999, (Other side of washer) 09/2009, SWL-05 T).
4. TESTING:-
 - 4.1 TESTING OF WIRE ROPE SHALL BE DONE AS PER IS- 2266.
 - 4.2 TESTING SHALL BE WITNESSED BY BH&L SAFETY INSPECTORS.
 - 4.3 BREAKING LOAD TEST:- WIRE ROPE SHALL BE TESTED FOR MINIMUM BREAKING LOAD AS PER IS-2266. CERTIFICATE TO BE SUBMITTED.
 - 4.4 PROOF LOAD TEST:- THE SUPPLIER SHALL TEST THE WIRE ROAP SLING FOR TWICE THE SAFE WORKING LOAD AS PER IS-5245 (PART-II).
 - 4.5 TESTING CERTIFICATE:- THREE COPIES OF TEST CERTIFICATE AS SPECIFIED IN APPENDIX 'C' OF IS-6594 SHALL BE SUPPLIED.
 - 4.5 GREASE / OIL SHOULD NOT BE APPLIED ON THE ROPE/SLINGS UNTIL INSPECTED BY BH&L ENGINEERS.
5. PACKING:- SLINGS SHALL BE PACKED AS PER IS-6594.

NOTE:- WHEREVER STANDARDS ARE MENTIONED, THE LATEST VERSION OF THE SAME ARE TO BE REFERRED.

STEEL WIRE ROPE SLING

Rev.03	Date:01.06.2015	Rev.04	Date:20.12.2018	STEAM TURBINE MANUFACTURING DIV. BLOCK- 6, BHEL BHOPAL	SCALE NTS	DRG.NO:- STM/78/46 REV-04
ITEM NO. 9 TO 16 ADDED.		ITEM NO. 17 & 18 ADDED.				
Rev.02	Date:14.11.2009	Rev.01	Date:15.10.2007			
TECHNICAL SPECIFICATIONS AND MEASUREMENT TABLE IMPROVED. DELETED "SHT" WORD FROM DRAWING NO.						
Item No-03,04,05,06, 07 & 08 added. 1 Specification points added.						

377 / PRAKASHADME

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वर्ग - सी. डी. विभाग / SEM Division

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~~रतनलाल बिहारी / RATAN LAL BHABHAR~~

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