

A-FORM		BHARAT HEAVY ELECTRICALS LIMITED - BHOPAL										A-FORM NO : A202V13					
FORM NO BP-0021		MM DEPARTMENT										REV NO : 0					
DEPARTMENT : 202		ESTIMATE SHEET FOR ISSUE OF MATERIAL/COMPONENTS FROM BHEL										A-FORM DATE 18-SEP-22					
PROJECT : RAHUGHAT HEP (CHECKLIST										DATE 18-SEP-22					
INDENT NO : 220220073		WORK ORDER NO : 39227X20305										PAGE : 1 / 1					
INDENT DATE : 18092022		MATERIAL ISSUE DIV : 202															
DETAILS OF FINISHED GOODS																	
A-SLNO		PO IT NO		PI IT NO		QUANTITY REQUIRED		UNIT		SHOP NO		DEST CD		COST CD		H.CELL	
DESCRIPTION OF SUB-ASSEMBLY/ITEM & WEIGHT/VOLUME/AREA																	
FREE ISSUE MATERIAL PER UNIT OF FINISHED GOODS																	
MACHINING OF PELTON RUNNER		1		0		1		3.000		NO		202		202		202	
HT4392278026		1.0000		NO		11003699.000		3.00		NO		WIP		33011097.000		1.0000	
MACHINING OF FORGED DISC (DRG. NO. 12040720804 REV. 00) PELTON RUNNER AS PER DRG. NO. 12040720803 REV. 00 R/M WT.=14651 KG F/M WT.=4990 KG.																	
REMARKS NOT APPLICABLE.																	
TOTAL NO OF CANCEL ITEM 0																	
AFORM TOTAL 33011097.000																	

1 MATERIAL TO BE ISSUED ON :-		FREE ISSUE BASIS		SIGNATURE OF INDENTOR		SIGNATURE OF ASC EXECUTIVE	
2. TRANSPORT TO BE PROVIDED BY :-		SUPPLIER		NAME		NAME	
3. EXCISE DUTY ON ISSUE MATL. TO BE BORNE BY :-		SUPPLIER		DESIGNATION		DESIGNATION	
4. SCRAP TO BE RETURNED :-		NO		TELEPHONE		TELEPHONE	
5. INVARIABLY ISSUE WT. TO BE RECORDED ON SMIV/PMIV							

Technical Pre-Qualification Requirements for Machining of PELTON RUNNER,

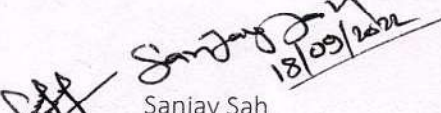
PI NO.-

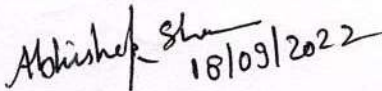
Date:-

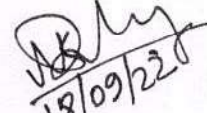
Required machining of 3 no. Stainless steel (ASTM-A 473 M type S41500) Pelton Runner as per drawing 12040720803 rev. 00 (OD 2268 mm, weight 4990 kg) from forged Disc (Drawing no. 12040720804 rev. 00, weight-14651kg, OD 2280 mm) & as per Annexure-A.

Following are the minimum eligibility requirements for machining of Pelton Runner for considering vendors.

- (1) Availability of 5-axis CNC machine / 3-axis CNC machine, machine make with spec & photo are required. Vender shall ensure that capacity of the machine is sufficient to accommodate the forged disc.
- (2) Vendor should have experience in the machining of at least 1 Pelton Runner (OD 1000 mm or more) and they have to submit the purchase order. The purchase order completion should be of within 10 years. The cut-off date will be the tender opening date (techno-commercial). However, in case of partial completion of PO, a lot completion certificate is required.
- (3) Availability of Crane facility for the lifting of job 15 ton or more considering factor of safety.
- (4) Availability of surface finishes measuring equipment, the machine makes with spec & photo are required.
- (5) Vendor should be ready to accept a secrecy clause of maintaining strict confidentiality of the model/profile/data/information related to this purchase order. For this a declaration is to be furnished by the vendor on the company letterhead signed by a competent authority


Sanjay Sah
Manager / WTM
PRAMOD KUMAR
MANAGER / WTM


Abhishek Sharma
Manager / WTM


Navneet Dubey
Manager / HTE


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DGM / WTM

ANNEXURE-A

PI NO.-

Date:-

PROJECT :- RAHUGHAT HYDROELECTRIC PROJECT (2X20 MW)

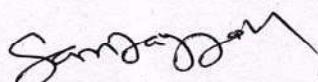
DESCRIPTION: - MACHINING OF 3 NOS. PELTON RUNNER AS PER DRAWING NO. 12040720803 (Rev. 00), FROM FORGED STAINLESS STEEL DISC (DRAWING NO. 12040720804 Rev. 00)

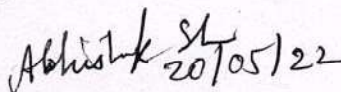
SCOPE OF WORK


- (1) Raw material for Pelton Runner will be issued from BHEL Bhopal after submitting Bank guarantee by the Vendor.
- (2) The material of the forged disc is ASTM A473.M Type S41500.
- (3) BHEL will furnish a 3D Model for bucket profile and hub details after PO placement.
- (4) BHEL will furnish inspection sheets of Pelton runner after PO placement.
- (5) Pelton runner Having 20 nos. buckets will be machined from single disc forging with the help of a 5-axis CNC machine. However, vendors are free to machine these Pelton runners on 3- axis CNC machine, but the final dimension should be as per the drawing.
- (6) Runner forging shall be supplied with fully finished machined ground and polished buckets and Rough machined coupling faces and central bore as shown in section A-A of drawing no. 12040720803 (Rev 00).
- (7) Vendor will supply two sets of templates (as per inspection sheets). One set of templates will be dispatch with the first runner & the other set with the last runner.
- (8) Before the start of runner machining, vendor to ensure the latest revision of drawing is confirmed from BHEL Bhopal.
- (9) In case of any doubt during machining, vendor to consult BHEL Bhopal.
- (10) Delivery required in 120 days per Runner after issue of material.

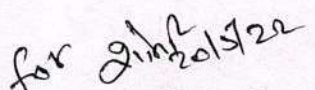
COMMON POINTS

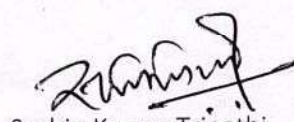
- (1) QA plan applicable
- (2) Required tools and fixtures will be arranged by the vendor.
- (3) Any checking gauge / measuring gauge will be arranged by the vendor.
- (4) Inspection will be done at vendor's work by BHEL/Customer before dispatch.
- (5) Transportation to & fro from BHEL Bhopal works will be in the vendor's scope.
- (6) Scrap (approx. 9661 kg per Runner, RM wt. approx. 14651 kg, FM wt. approx. 4990 kg) charges will be deducted as per BHEL practice.


Sanjay Sah
Manager / WTM


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