



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

An ISO 9001
Company

ENQUIRY	Phone: +91 431 257 79 38 Fax : +91 431 252 00 31 Email : tvenkat@bheltry.co.in Web : www.bhel.com
NOTICE INVITING TENDER	

TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
Tender to be submitted in two Parts	2631300085	22.07.2013	23.08.2013

You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both **delayed offer** and **late offers** will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of **tender opening**.

Item	Description	Quantity
10	Hydraulic Jack with Electrically Operated Power Pack for Pipe end ovality correction as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	3.00 Nos.

Important points to be taken care during submission of offer

1. Material shall be delivered to
Indigenous Vendors:
FOR, BHEL, Stores
Power Plant Piping Unit
Thirumayam, Pudukkottai Dist.
2. Delivery required **3 months** from the date of purchase order.
3. EMD for this Tender will be (INR) : **60,000.00**
4. Checklist No: **TMM/IMP/02, TMM/IND/02A** to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
5. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media.

BHEL's General guidelines / instructions (refer **MM / CE / GENL / 001-EMD**) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference "2631300085".

Tenders should reach us before 14:00 hours on the due date Tenders will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present	Yours faithfully, For BHARAT HEAVY ELECTRICALS LIMITED Sr. Manager / Capital Equipment / MM
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QUALIFYING CRITERIA FOR THE SUPPLY OF HYDRAULIC JACK with ELECTRICAL POWERPACK

The BIDDER / OEM has to compulsorily meet the following requirements to get qualified for submitting an offer for the Hydraulic Power-pack and Jack Units:

S.No.	PARTICULARS	VENDOR's RESPONSE
1.0	The BIDDER shall have a minimum of TEN Years of Experience of in the Field of Design, Manufacture & Supply of Hydraulic Power pack & Jack Units. In case of trader the company profile of OEM has to be submitted.	
2.0	Details on International or Indian Standards or Codes followed in the Design & Manufacture of Hydraulic Powerpack and Double Acting Jacks.	
3.0	Details of Quality Assurance System followed for the Jack & power packs including test certificates are required.	
4.0	ENERPAC / HI-FORCE / HAWE-GERMANY / LARZEP / POWER TEAM makes only acceptable, for all the above Power packs & Jacks. Any offers with other makes will not be considered for evaluation.	
5.0	Reference List of Customers (including contact addresses) with the specification of Hydraulic Power-pack and Jack Units supplied to them (as per the above Clause No.1.0), to be furnished for cross reference by BHEL. In case of any false data or information furnished might lead to disqualification of the Technical Offer. [Details on earlier supply to BHEL Trichy / Thirumayam – if any, may also be submitted]	
6.0	Performance Certificate from CUSTOMERS (minimum TWO Customers) with details of CONTACT PERSON, for whom Hydraulic Power-pack and Jack Units of Capacity 400 Tons and above have been supplied, in the FORMAT given under ANNEXURE-A	
7.0	The BIDDER / OEM shall submit the offer in TWO PARTS - Technical & Commercial Price Bid. The Technical Offer shall be in line with the BHEL Technical Specifications.	
8.0	The Technical Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the Bidder, against each clause of the specifications.	
9.0	A just 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	

10.0	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of Product Catalogue.	
11.0	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation	
12.0	The expected delivery period is THREE months from the date of issue of Purchase Order by BHEL. Delayed delivery will draw the Penalty Clause.	

PERFORMANCE CERTIFICATE – [SAMPLE FORMAT]

(On Customer's Letter Head with Additional Sheet – if necessary)

1. Supplier of the Equipment :
2. Make & Model of the Equipment :
3. Month & Year of Supply :
4. Application for which the Equipment is used :
5.
 - a. Equipment Serial Number :
 - b. Power-Pack Operating Pressure :
 - c. Hydraulic Oil Carrying Capacity of Power-pack :
 - d. Shut Height of the Hydraulic Jack(s) :
 - e. Capacity of Jack Unit(s) in Tons :
6. Performance of the Equipment : Satisfactory /
Good /
Average /
Not Satisfactory
7. Feed- back on 'After Sales Service' by the Supplier :
8. Remarks / Reasons for Recommendations to BHEL :

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate

PART – B

TECHNICAL SPECIFICATIONS FOR HYDRAULIC JACK WITH ELECTRICALLY OPERATED POWER PACK

A. APPLICATION / PURPOSE:

The hydraulic jack and the electrically operated hydraulic power pack, in combination, are to be used in a heavy steel fabrication shop for ovality correction of heavy duty pipe ends. The power pack and the jack shall have all necessary safety features incorporated in the construction of the equipment. The power pack and the jack connected through the hose are exposed to a dusty and rough shop floor environment. The ambient working temperature goes upto 50°C.

B. SCOPE of SUPPLY :

- a. Electrically Operated Hydraulic Powerpack with all Accessories
[as per Specification Clause No. C.1.0 to C.14.h] - 3 Nos.
- b. Hydraulic Jack Unit of capacity 400 ton
[as per Specification Clause No. D.1.0 to D.23.0] - 3 Nos.
- c. Hydraulic Jack Unit of capacity 250 ton
[as per Specification Clause No. E.1.0 to E.23.0] - 3 Nos
- d. Set of Electrical & Mechanical Spares required for the Powerpack
[as per Specification Clause No. F.1.0 and F.2.0] - 2 Sets
- e. Documentation as per Specification Clause No. G.5.0 - 3 Sets

MAKE: ENERPAC / HI-FORCE / HAWE-GERMANY / LARZEP / POWER TEAM makes only acceptable, for all the above Power packs & Jacks. Any offers with other makes will not be considered for evaluation.

C. ELECTRICALLY OPERATED HYDRAULIC POWER PACK (PUMP UNIT):

S.No.	BHEL SPECIFICATIONS		BIDDER'S OFFER
C.1.0	Operating Power	Electrically operated Hydraulic Pump.	
C.2.0	Pump Application	The offered pump shall be suitable for operation with double acting hydraulic jack of around 400 Ton capacity also.	
C.3.0	Electrical Power Input	220±10% V, 50±3% Hz, Single Phase AC Supply. The power of the electric motor shall be specified.	
C.4.0	Maximum Operating Pressure	700 bar	

S.No.	BHEL SPECIFICATIONS		BIDDER'S OFFER
C.5.0	Hydraulic Oil Delivery	8 - 12 litres/min. in 1st stage (at low pressure) and Min 0.8 litres/min. in 2nd stage (at 700 bar pressure)	
C.6.0	Tank Capacity	Not less than 20 litres of Oil	
C.7.0	Approximate Weight of Power-pack Unit	Vendor to specify	
C.8.0	Auto – Tripping Facility	Automatic tripping of electric motor in case of overloading. The motor should be controlled by a suitable starter having ON & OFF push buttons and over load tripping provision.	
C.9.0	Continuous Duty	In-built design features (fan cooling) for fast heat dissipation for continuous duty operation.	
C.10.0	Hyd. Oil Specification	The SAE specification/number for the hydraulic oil to be used in the power pack should be furnished by the bidder.	
C.11.0	Noise Level at 1 metre	The noise level of the pump shall not exceed 85 dBA, during power-pack operation.	
C.12.0	Pump Starting	Possible to start the pump under full load condition	
C.13.0	Lifting Handles & Castor wheel	Suitable lifting handles and Castor wheels shall be provided for power pack for portability.	
C.14.0	ACCESSORIES FOR POWER PACK		
C.14.a	Remote Control Unit (connected to power pack)	24 V operated remote control unit with 10 metres long control cable with protective sheathing.	
C.14.b	Hydraulic Hose: (suitable for an operating pressure of 700 bar)	5 metres long Hydraulic Hose with quick release couplings (QRC) at both ends. The burst pressure of the hose shall be two times the operating pressure. Test Certificate to be provided with the supply of Power-pack.	
C.14.c	Power Cable	A 10 metre long power input cable (3-wire) with protecting sheathing and suitable end connectors shall be supplied with the power pack.	
C.14.d	Oil Level Sight Glass	To indicate the level of hydraulic oil in tank	

S.No.	BHEL SPECIFICATIONS		BIDDER'S OFFER
C.14.e	Oil Pressure Gauge	Glycerine filled, with not less than 100 mm face diameter mounted to indicate the hydraulic pressure in kg/cm ² and hydraulic force in Tons. Pressure range: 0-1000 bar.	
C.14.f	Direction Control Valve (power pack mounted)	Electrically Solenoid operated Directional Control Valve (4 way / 3 position) with Load Holding feature.	
C.14.g	Over-load Protection	To be equipped (with factory set) internal safety relief valve for over-load protection.	
C.14.h	Pressure Relief Valve	To set the maximum operating pressure from outside without opening the power pack	

D. DOUBLE- ACTING HIGH TONNAGE HYDRAULIC JACK (CYLINDER) OF 400 TON CAPACITY

S.No.	BHEL SPECIFICATIONS		BIDDER'S OFFER
D.1.0	Type	Double acting	
D.2.0	Capacity @ 700 bar	380 Ton (minimum)	
D.3.0	Shut height	500 mm (maximum)	
D.4.0	Stroke	150 mm (± 5 mm)	
D.5.0	Cylinder outside diameter	380 mm (maximum)	
D.6.0	Piston rod diameter	Vendor to specify	
D.7.0	The jack components shall be made of high strength materials like high tensile steel and shall be specified.		
D.8.0	The plunger shall be hard chrome plated for highest resistance.		
D.9.0	Wiper shall be provided to the plunger for reducing contamination and extending longer life.		
D.10.0	Wear rings for longer service life and high absorption of transverse forces.		
D.11.0	Suitable for use in all directions without any oil leakage		
D.12.0	The plunger shall be protected against pressing out of the housing at full pressure		

S.No.	BHEL SPECIFICATIONS	BIDDER's OFFER
D.13.0	Suitable to be connected to the electrically operated power pack as specified under Clause C.	
D.14.0	Provision of a safety valve for prevention from accidental over pressurising	
D.15.0	Plungers are to be provided with internal thread to mount saddles	
D.16.0	The saddles offered shall be hardened to prevent plunger from mush-rooming	
D.17.0	Saddles with plain flat top, plain hole and taped hole shall be offered, to suit the plunger cylinders of offered jacks	
D.18.0	Jacks are to be equipped with a high-flow QRC couplers at the advance connection and with a built-in safety valve, at the retract connection.	
D.19.0	The quick release coupling (QRC) are to be provided with steel dust cap connected to the couplers by means of a metal chain	
D.20.0	The jacks shall be provided with lifting handles for portability	
D.21.0	The jack shall be provided with baked enamel finish paint for increased corrosion resistance.	
D.22.0	Weight of the jack to be specified	
D.23.0	The offered power pack, jacks, hoses, gauges, other Hydraulic elements and couplers shall have the same end connections and the sizes to be specified	

E. DOUBLE- ACTING HIGH TONNAGE HYDRAULIC JACK (CYLINDER) OF 250 TON CAPACITY

S.No.	BHEL SPECIFICATIONS		BIDDER's OFFER
E.1.0	Type	Double acting	
E.2.0	Capacity @ 700 bar	250 Ton (minimum)	
E.3.0	Shut height	350 mm (maximum)	
E.4.0	Stroke	150 mm (± 5 mm)	
E.5.0	Cylinder outside diameter	275 mm (± 10 mm)	
E.6.0	Piston rod diameter	Vendor to specify	

S.No.	BHEL SPECIFICATIONS	BIDDER's OFFER
E.7.0	The jack components shall be made of high strength materials like high tensile steel and shall be specified.	
E.8.0	The plunger shall be hard chrome plated for highest resistance.	
E.9.0	Wiper shall be provided to the plunger for reducing contamination and extending longer life.	
E.10.0	Wear rings for longer service life and high absorption of transverse forces.	
E.11.0	Suitable for use in all directions without any oil leakage	
E.12.0	The plunger shall be protected against pressing out of the housing at full pressure	
E.13.0	Suitable to be connected to the electrically operated power pack as specified under Clause C.	
E.14.0	Provision of a safety valve for prevention from accidental over pressurising	
E.15.0	Plungers are to be provided with internal thread to mount saddles	
E.16.0	The saddles offered shall be hardened to prevent plunger from mush-rooming	
E.17.0	Saddles with plain flat top, plain hole and taped hole shall be offered, to suit the plunger cylinders of offered jacks	
E.18.0	Jacks are to be equipped with a high-flow QRC couplers at the advance connection and with a built-in safety valve, at the retract connection.	
E.19.0	The quick release coupling (QRC) are to be provided with steel dust cap connected to the couplers by means of a metal chain	
E.20.0	The jacks shall be provided with lifting handles for portability	
E.21.0	The jack shall be provided with baked enamel finish paint for increased corrosion resistance.	
E.22.0	Weight of the jack to be specified	
E.23.0	The offered power pack, jacks, hoses, gauges, other Hydraulic elements and couplers shall have the same end connections and the sizes to be specified	

F. SPARES

S.No.	BHEL SPECIFICATIONS	BIDDER's OFFER
F.1.0	List of Mechanical / Electrical Spares required for two years operation – recommended by the OEM	
F.2.0	Spares to be quoted (@unit rate) compulsorily : a) 5 metre long hydraulic hose with end couplings- 2Nos b) Pressure Gauge - 1No c) Solenoid Operated Direction Control Valve - 1No d) Adjustable Relief Valve - 1No e) Hydraulic Jack Cylinder Seal Kit for Jack Cylinder as per Clause D - 1Set. f) Hydraulic Jack Cylinder Seal Kit for Jack Cylinder as per Clause E - 1Set. g) Pump Seal Kit - 1Set. h) Electric Motor in Pump Unit - 1No.	

G. GENERAL POINTS

S.No.	BHEL SPECIFICATIONS	BIDDER's OFFER
G.1.0	Technical catalogue	Detailed Technical Catalogue (in ORIGINAL) for the offered equipment to be given with the offer.
G.2.0	Inspection	The equipment shall be offered for BHEL inspection prior to despatch
G.3.0	Commissioning	The equipment shall be commissioned by the supplier's representative at BHEL works
G.4.0	Performance Guarantee	The equipment performance shall be guaranteed for a minimum period of twelve months from the date of commissioning or eighteen months from the date of supply whichever is earlier.
G.5.0	O & M Manuals	Three copies of the detailed O & M manuals containing drawings, part numbers for seal kit, Hydraulic, electrical components and exploded view of the cylinder and pumps in English Language shall be given for each SET OF PUMP AND JACK.

