



**BHARAT HEAVY ELECTRICAL LIMITED**

**Heavy Equipment Repair Plant, Tarna, Shivpur, Varanasi-221003, Uttar Pradesh, India**

**CONTACT PERSON'S NAME/DESIGN./PHONE NO./E-MAIL (FROM PURCHASE DEPTT.)**

Enquiry No. : \_\_\_\_\_

Due Date : \_\_\_\_\_

Supplier Qtn. No.: \_\_\_\_\_

Date : \_\_\_\_\_

**SPECIFICATION CUM COMPLIANCE CERTIFICATE OF " FORKLIFT (DIESEL ENGINE OPERATED) 5T CAPACITY "**

NOTE:-

1. Vendor must submit complete information against clause No.11 i.e. Qualifying Conditions). The offer meeting this clause would only be processed.
2. The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.
3. The offer and all documents enclosed with offer should be in English language only.

<b>NAME &amp; ADDRESS OF THE SUPPLIER :</b>					
<b>TELEPHONE NOS.:</b>					
<b>FAX NOS.:</b>					
<b>E-MAIL ADDRESS :</b>					
<b>SCOPE: SUPPLY &amp; COMMISSIONING OF "FORKLIFT (DIESEL ENGINE OPERATED) 5T CAPACITY" COMPLYING WITH SPECIFICATIONS AS BELOW</b>					
<b>SNO</b>	<b>DESCRIPTION FOR BHEL REQUIREMENT</b>	<b>SPECIFIED / TO BE CONFIRMED BY</b>	<b>OFFERED</b>	<b>DEVIATIONS</b>	<b>REMARKS</b>
<b>1.0 PURPOSE</b>					
1.1	<b>Purpose:</b> A Forklift Diesel Engine operted 5 Ton capacity is required for shifting of input materials from Main Stores to Production Block for machining & inter Bay shifting/ stacking of finished/unfinished materials.	Vendor to confirm			
1.2	<b>Work Enviornment:</b> The Forklift 5 Ton capacity shall be suitable for outdoor duty continuous use in three shifts in a day in dusty and humid enviornment. The maximum ambient temperature goes up to 50 degree centigrade.	Vendor to confirm			
<b>2.0 SPECIFICATION:</b>					
2.1	<b>CONFIGURATION:</b> Precision aligned monocoque construction with integral fuel & hydraulic tanks, powered by a suitable Diesel Engine (in conjunction with a gearbox and battery) and provided with controls, hydraulic steering etc. Driver's overhead guard is to be provided for safety.	Vendor to confirm			

<b>2.2</b>	<b>Capacity</b>			
2.2.1	Capacity: 5000 Kg at 600mm Load center.	Vendor to confirm		
<b>2.3</b>	<b>MAST</b>			
2.3.1	Mast should be such that it should have greater safety, ease of view.	Vendor to confirm		
2.3.2	Type of Mast: Two stage clear view Full Free Lift or High Visible Two stage mast.	Vendor to confirm		
2.3.3	Overall Mast Height (fork Lowered) : 2500 to 4000 mm	Vendor to specify		
2.3.4	Maximum Fork Height : 3500 to 4600 mm	Vendor to specify		
2.3.5	Mast Height (fork raised) : 4300 to 5500 mm	Vendor to specify		
2.3.6	Tilt angle (Forward/Reverse) :	Vendor to specify		
<b>2.4</b>	<b>MAJOR DIMENSIONS</b>			
2.4.1	Length to Face of forks :	Vendor to specify		
2.4.2	Overall width :	Vendor to specify		
2.4.3	Turning Radius : Approx. 3000 mm	Vendor to specify		
2.4.4	Canopy Height : 2000 to 3000 mm	Vendor to specify		
<b>2.5</b>	<b>FORKS</b>			
2.5.1	Length x Width x Thickness : 1220x150x60mm (Approx)	Vendor to specify		
2.5.2	Maximum Fork Spread : 1500 mm length	Vendor to specify		
<b>2.6</b>	<b>TRANSMISSION SYSTEM</b>			
2.6.1	Automatic Transmission consists of two (twin) speeds, forward & reverse, hydrodynamics transmission equipped with neutral start switch.	Vendor to confirm		
<b>2.7</b>	<b>STEERING</b>			
2.7.1	Hydrostatic power steering.	Vendor to confirm		
<b>2.8</b>	<b>HYDRAULIC SYSTEM</b>			
2.8.1	Gear type, hydraulic pump driven by engine for lift, forward & backward tilt, power steering & auxiliary functions like lifting & lowering. Hydraulic system consists of strainers, filters & relief valves for protection of critical components.	Vendor to confirm		
2.8.2	Hydraulic Tank Capacity:	Vendor to Specify		
<b>2.9</b>	<b>SPEEDS</b>			
2.9.1	Travelling Speed : 15-20 Km/h	Vendor to Specify		
2.9.2	Lifting Speed (Laden) : 0.2 -0.5 m/sec	Vendor to Specify		
2.9.3	Lowering Speed (Laden) : 0.3-0.5 m/sec	Vendor to Specify		
2.9.4	Gradeability (Laden) : 15% minimum	Vendor to Specify		
<b>2.10</b>	<b>ENGINE:</b>			

2.10.1	4 Stroke Diesel Engine with 12V electrical System conforming to BS III Norms suitable for 5 Ton Capacity Forklift TATA, KIRLOSKAR, SIMPSONS, ASHOK LEYLAND make only.	Vendor to Specify & confirm			
2.10.2	Type of Cooling: Radiator type cooled	Vendor to confirm			
2.10.3	Type of Filter (air): Dry type air cleaner	Vendor to confirm			
<b>2.11</b>	<b>ELECTRICAL SYSTEM</b>				
2.11.1	12 Volts, forklift should be along with Head & tail Lights, Signal Lights, Hours Meters, Oil & water temp gauges , Low battery indication light. A starting switch is to be provided for start & stop. Rear view mirror & horn is also to be supplied with the forklift. An interlock is to be provided for when fork lift is parked in Forward / Reverse Gear, it should not start when switching on the forklift.	Vendor to confirm			
<b>2.12</b>	<b>BATTERY</b>				
2.12.1	BIDDER has to specify power rating of the Battery. Battery shall be of EXIDE/AMRON/TATA GREEN make only.	Vendor to Specify			
2.12.3	Battery shall be accommodated in the forklift suitably for easy maintenance, charging & replacement.	Vendor to confirm			
2.12.4	Supplier shall supply the battery in charged condition.	Vendor to confirm			
2.12.5	Battery Charging system: In built system should be there to charge the Battery automatically during running of forklift.	Vendor to confirm			
<b>2.13</b>	<b>BRAKE SYSTEM</b>				
2.13.1	For safe and smooth operation of the Forklift suitable brake system should be supplied by the party. Party has to specify the type of brake as specified below:				
2.13.1.1	Service Brake: Hydraulic Brake or Pneumatic assisted Hydraulic Brake	Vendor to Specify			
2.13.1.2	Parking Brake:	Vendor to Specify			
<b>2.14</b>	<b>TYRES</b>				
2.14.1	Solid. Front – 4 Nos/ Rear – 2 Nos.	Vendor to confirm			
<b>2.15</b>	<b>FUEL TANK</b>				
2.15.1	Fuel Tank Capacity :	Vendor to Specify			
<b>2.16</b>	<b>COLOUR</b>				
2.16.1	Colour of forklift	Vendor to Specify			
<b>2.17</b>	<b>STANDARD ACCESSORIES</b>				

2.17.1	Forklift should be supplied along with following standard accessories: Pair of forks. • Set of Lights (2-Front / 2-Rear) • Signal Lights (2- Front/2-Rear) • Load Back Rest • Reverse Alarm • Tow Coupler • Tool Kit • All types of first fill of oil ( except Diesel)	• Vendor to confirm			
<b>3.0</b>	<b>SAFETY PROTECTIONS</b>				
3.1	The following safety protections shall be compulsorily provided:	Vendor to confirm			
3.2	Hydraulic system consists of strainers, filters & relief valves for protection of critical components.	Vendor to confirm			
3.3	An interlock is to be provided for when fork lift is parked in Forward / Reverse Gear, it should not start when switching on the forklift.	Vendor to confirm			
3.4	Driver's overhead guard.	Vendor to confirm			
3.5	Hooter.	Vendor to confirm			
<b>4.0</b>	<b>O &amp; M MANUALS</b>				
4.1	Forklift shall be provided with :	Vendor to confirm			
4.2	One Copy of Operation & Maintenance Manual.	Vendor to confirm			
4.3	Spare Parts Manual.				
<b>5.0</b>	<b>INSTALLATION &amp; COMMISSIONING</b>				
5.1	Supplier to take full responsibility for carrying out the installation, commissioning, start up, testing of Forklift capacity 5 T and it's operation at HERP, Varanasi.	Vendor to confirm			
<b>6.0</b>	<b>FORKLIFT ACCEPTANCE : (Tests/Activities should be performed by the vendor)</b>				
<b>6.1</b>	<b>Following Tests/Activities should be carried out at supplier's works on the Forklift before dispatch and further at BHEL works while commissioning :</b>				
6.1.1	100% Load Test and No Load Test.	Vendor to confirm			
6.1.2	Engine test reports / certificates may be attached as per BIS or any Govt approved body by Engine Manufacturer and must shown to the BHEL's representative during Pre dispatch inspection at Party's site.	Vendor to confirm			
6.1.3	Dimensional checks includes 1: Fork Length 2: Max Fork spread, 3) Overall width 4) Free Lift, 5) Max fork Height 6) Ground Clearance 7)Wheel Base 8)Tyre Details 9) Mass of Forklift.	Vendor to confirm			

6.1.4	<b>Performance Test :</b> The Vehicle will be tested for 01 hrs during which following tests will be carried out. 1: Speed Test: with / without rated load at specified speed (-+5%) 2: Turning radius will be checked in both directions (-+5%) 3: Lifting & lowering speed against specification (+-10%) 4. Gradient & Brake Test.	Vendor to confirm			
<b>7.0</b>	<b>TRAINING</b>				
7.1	Party has to provide training for operation, general checks and maintenance of forklift at BHEL works after commissioning for a period of minimum one day free of cost.	Vendor to confirm			
<b>8.0</b>	<b>PACKING:</b>				
8.1	Suitable & rigid packing for all items of complete Forklift 5T and all Accessories and other supplied items to avoid any damage/loss in transit. All small loose items shall be suitably packed in boxes.	Vendor to confirm			
<b>9.0</b>	<b>WARANTEE:</b>				
9.1	Warantee regarding workmanship, material used, design and performance should be provided by the party for a period of 12 months or 2000 working hour from the date of successful commissioning, which ever is earlier.	Vendor to accept & confirm			
9.2	Vendor has to specify the various maintenance checks for the offered Fork Lift. Maintenance checks with in warranty period shall be done by vendor free of charge at BHEL Site. Charges (if any) may be included in the lump sum offer. Consumables like filters; oil etc will be in the scope of BHEL. Vendor has to offer Forklift for which , bidder have to confirm spares parts & service support for minimum further 10 years.	Vendor to specify			
<b>10.0</b>	<b>GENERAL : The vendor should submit the following information:</b>				
10.1	Forklift Model :	Vendor to specify			
10.2	Total capacity (Ton):	Vendor to specify			
10.3	Dimension of Forklift (Length, Width, Height).	Vendor to specify			
10.4	Painting of Forklift.	Vendor to specify			
10.5	Total weight of the Forklift.	Vendor to specify			
10.7	Vendor to submit, along with offer, the reference list of customers where similar Forklift 5 Ton or higher capacity have been supplied mentioning the customer, Forklift Model, major specifications of the supplied Forklift, Year of Supply etc.	Vendor to specify			
10.8	Detailed catalogues, sketch/ photographs of the Forklift and accessories/ attachments should be submitted along with the offer.	Vendor to specify			
<b>11.0</b>	<b>QUALIFYING CONDITIONS :</b>				

11.1	Only those vendors(OEM), who have supplied and commissioned at least one Forklift 5 Ton or higher Capacity, in the past five years (On the Date of Opening of tender) and such Forklift is working satisfactorily for more than one year, after commissioning (On the Date of Opening of tender) should quote. The following information should be submitted by the vendor about the companies where similar Forklift have been supplied. This is required from all the vendors for qualification of their offer.	Vendor to accept & confirm			
11.1.1	1. Name of the customer / company along with Purchase Order no. and Purchase Order date where referred Forklift is installed.	Vendor to inform			
11.1.2	2. Complete postal address of the customer.	Vendor to inform			
11.1.3	3. Month & Year of commissioning.	Vendor to inform			
11.1.4	4.Parameters of Forklift supplied ( parameters specified in para 1 of clause 2.0 for Forklift to be mentioned here by indentor) and application for which the Forklift is supplied.	Vendor to inform			
11.1.5	5. Name and designation of the contact person of the customer.	Vendor to inform			
11.1.6	6. Phone, FAX no. and email address of the contact person of the customer.	Vendor to inform			
11.1.7	7. Performance certificate from the customers regarding satisfactory performance of Forklift supplied to them (Original Certificate or Through E-mail directly from the customer). The original performance certificate may be returned after verification by BHEL, if required.	Vendor to submit			
11.1.8	8.BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	Vendor to accept & confirm			
<b>12.0</b>	<b>REVERSE AUCTION:</b> Final price of the supply of Forklift including its agreed accessories, installation and commissioning charges & training etc. shall be finalised through the process of Reverse Auction. Party has to submit their acceptance to participate in reverse auction otherwise their offer may not be considered for processing.	Vendor to accept & confirm			