

BHARAT HEAVY ELECTRICAL LIMITED, JHANSI

Specification No.	10570 (R4)
Item No.	MH-1/40/6299 & 6300
Location	FABRICATION
Quantity	TWO NUMBERS

SCOPE :

**SUPPLY & COMMISSIONING OF 3 T DIESEL OPERATED FORK LIFT TRUCK. COMPLYING AS PER SPECIFICATION BELOW**

**NOTE :**

1. VENDOR must submit complete information against clause No. 8.0 (Qualifying condition). The offer meeting this clause would only be processed.

2. The "offered" Column and where applicable, the "Deviations" Column of this format shall be filled in by the Vender and submitted along with the offer. Technical details also submitted with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specification / requirements shall be treated as non-compliance.

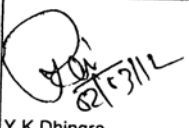
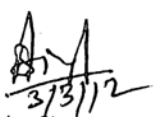
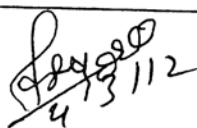
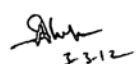
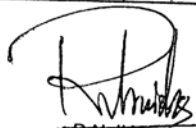

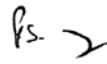
2. The offer and all documents enclosed with offer should be in English language only.

**SPECIFICATION CUM COMPLIANCE CERTIFICATE OF 3 T FORK LIFT TRUCK**

S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION
<b>1.0 PURPOSE</b>				
1.1	3 MT Diesel operated fork lift truck is required for transporting of material from outside / inside of the store / shop floor	VENDER TO CONFIRM		
<b>2.0 WORK PIECE MATERIAL</b>				
<b>2.1 PRIME MOVER</b>				
2.1.1	Prime mover should be fuel efficient Diesel engine.	VENDER TO CONFIRM		
2.1.1	Forklifter is to be fitted with direct injection system, 3/4 cylinder, 4 stroke diesel engine.	VENDER TO CONFIRM		
2.1.2	Gear type oil pump to be provided for lubrication	VENDER TO CONFIRM		
2.1.3	Water pump and radiator to be provided for cooling.	VENDER TO CONFIRM		
2.1.4	Arrangement for cooling of Lub oil to be provided for maintaining oil viscosity, oil temperature of the engine.	VENDER TO CONFIRM		
2.1.5	Exhaust should be vertical	VENDER TO CONFIRM		
2.1.6	Engine should be complete with fly wheel, starter, battery, electric self starter, alternator	VENDER TO CONFIRM		
2.1.7	Engine should be neutral start	VENDER TO CONFIRM		
2.1.8	Details of fuel tank to be submitted	VENDER TO SPECIFY		
<b>2.2 STEERING</b>				
2.2.1	The forklift is provided with feather touch hydraulic steering system	VENDER TO CONFIRM		
<b>2.3 TRANSMISSION</b>				
2.3.1	The fork lifter is provided two speed forward and backward automatic torque flow transmission system (Auto torque converter)	VENDER TO CONFIRM		
<b>2.4 MAST</b>				
2.4.1	Forklift should be fitted with hydraulically operated telescopic wide view mast for smooth lift, lowering, tilt and other auxiliary functions.	VENDER TO CONFIRM		
2.4.2	A relief valve to be provided in the hydraulic circuit for protection against excessive pressure due to excessive loading.	VENDER TO CONFIRM		
<b>2.5 BRAKES</b>				
2.5.1	The fork lifter should be fitted with heavy duty, self adjustable and self energizing hydraulically type foot operated service brakes.	VENDER TO CONFIRM		
2.5.2	Hand operated parking brakes to be provided	VENDER TO CONFIRM		
<b>2.6 ELECTRICALS</b>				
2.6.1	The battery should be suitable rating for starting of engine. Battery should be exide make only. Battery Voltage and rating should be submitted with offer	VENDER TO SPECIFY		

2.6.2	Self starter to be provided	VENDER TO CONFIRM		
2.6.3	An alternator should be provided for charging the battery.	VENDER TO CONFIRM		
2.6.4	Forklifter should be fitted with head & tail lights.	VENDER TO CONFIRM		
2.6.5	Electric horn to be fitted with the fork lifter.	VENDER TO CONFIRM		
2.6.6	Forklifter should be fitted with a warning horn. This warning horn should be operated at the time of backward operation of the forklifter. (Reversing alarm)	VENDER TO CONFIRM		
<b>2.7</b>	<b>GAUGES</b>			
2.7.1	Desh board should be mounted in the front at a convenient place for clear view and fitted with water temp. gauge, engine oil pressure gauge, Battery charging indicator, fuel gauge, parking brake On indicator, Direction indicator, control switches etc.	VENDER TO CONFIRM		
<b>2.8</b>	<b>DRIVER /OPERATOR SEAT</b>			
2.8.1	The operator's seat should be ergonomically designed for best comforts , fully tested and sturdy overhead guard with provision for clear view upwards when stacking.	VENDER TO CONFIRM		
2.8.2	Comfortable, adjustable cushion seat with back rest to be provided.	VENDER TO CONFIRM		
2.8.3	Ample leg space to be provided in the cabin	VENDER TO CONFIRM		
2.8.4	An overhead guard to be provided	VENDER TO CONFIRM		
<b>2.9</b>	<b>TYRES</b>			
2.9.1	The front and rear wheels to be fitted with Heavy duty non- skid cushion rubber type.	VENDER TO CONFIRM		
2.9.2	No of tyres in front /back : 2/2 No	VENDER TO CONFIRM		
<b>2.10</b>	<b>CONSTRUCTION</b>			
2.10.1	The frame of forklifter should be rugged in construction and designed for maximum strength for assigned duty.	VENDER TO CONFIRM		
2.10.2	The fork attachment should be of welded steel construction with quick adjustment facility.	VENDER TO CONFIRM		
2.10.3	The fork attachment should be supplied complete with load back rest.	VENDER TO CONFIRM		
<b>2.11</b>	List of standard accessories to be submitted with offer	VENDER TO SPECIFY		
<b>2.12</b>	List of optional Accessories with item wise prices to be submitted.	VENDER TO SPECIFY		
<b>3.0</b>	<b>SPECIFICATION:</b>			
<b>3.1</b>	Capacity when used with for attachment at 500 mm load center : 3000 KG	VENDER TO CONFIRM		
<b>3.2</b>	Capacity when used with for attachment at 900 mm load center : 1500 KG	VENDER TO CONFIRM		
<b>3.3</b>	Power type : Diesel Engine	VENDER TO CONFIRM		
<b>3.4</b>	Engine make - Simpsons/Parkins/Kirloskar/Tata	VENDER TO SPECIFY		
<b>3.5</b>	BHP of engine	VENDER TO SPECIFY		
<b>3.6</b>	3/4 cylinder, 4 Stroke Engine	VENDOR TO CONFIRM		
<b>3.7</b>	Gear type oil hydraulic pump for lubrication	VENDER TO CONFIRM		
<b>3.8</b>	Radiator for cooling	VENDER TO CONFIRM		
<b>3.9</b>	Non- skid heavy duty cushion rubber type tyre	VENDER TO CONFIRM		
<b>3.10</b>	Hyd. System for lowering/hoisting/tilting	VENDER TO CONFIRM		
<b>3.11</b>	Power steering	VENDER TO CONFIRM		
<b>3.12</b>	Transmission : 2 speed Auto torque converter	VENDER TO CONFIRM		
<b>3.13</b>	Over head guard	VENDER TO CONFIRM		
<b>3.14</b>	Overall height with mast lowered : 2800 mm	VENDER TO CONFIRM		
<b>3.15</b>	Minimum telescopic fork height : 3600 mm(min)	VENDER TO CONFIRM		

3.16	Minimum overall height raised		VENDER TO SPECIFY		
3.17	Clearance under mast : 105 mm(±10%)		VENDER TO CONFIRM		
3.18	Ground clearance under wheel base : 210 mm ( ± 10% )		VENDER TO CONFIRM		
3.19	Length of forks : 1000 mm(Min)		VENDER TO SPECIFY		
3.20	No. of forks : Two		VENDER TO CONFIRM		
3.21	Width of forks : 100 mm(Min)		VENDER TO SPECIFY		
3.22	Center distance of fork adjustable between : 300-950 mm		VENDER TO CONFIRM		
3.23	Wheel base : 1600mm(±5%)(min)		VENDER TO CONFIRM		
3.24	Minimum outside turning radius : 2500 mm		VENDER TO CONFIRM		
3.25	Tilt - Forward - 5 degree & Backward - 10 degree		VENDER TO CONFIRM		
3.26	Maximum speed of truck in Forward / reverse at full load : 18 KM /Hr		VENDER TO CONFIRM		
3.27	Max Lifting/Lowering speed at full load : 450 mm+/- 100mm per sec. (adjustable with lever)		VENDER TO CONFIRM		
3.28	Minimum gradient at full load/No Load : 20%		VENDER TO CONFIRM		
4.0	<b>INSPECTION / TESTING</b>				
4.1	The equipment shall be tested/ inspected by BHEL engineer at suppliers works as per test chart in accordance to IS for all accessories & performance before dispatch.		VENDER TO CONFIRM		
5.0	<b>MISCELLANEOUS</b>				
5.1	The forklift to be supplied complete with tool kit, canopy and all other standard accessories needed for successful operation.		VENDER TO CONFIRM		
5.2	The offer should be complete with dimensional details outline general arrangement drawing with complete details of engine, power transmission, hydraulic system with circuit diagram and write up explaining special features.		VENDER TO CONFIRM		
5.3	Recommended spares for 2 years normal working to be quoted with item wise prices.		VENDER TO CONFIRM		
5.4	Optional equipment to be quoted for environmental protection.		VENDER TO CONFIRM		
5.5	Four copies of test, operation , maintenance manual & spare part list to be supplied with the forklifter.		VENDER TO CONFIRM		
5.6	Not withstanding anything, the details in this specification, if any thing else is required for its functioning, the same shall be specifically brought out & indicated.		VENDER TO CONFIRM		
5.7	The equipment should be commissioned by the supplier at BHEL, Jhansi		VENDER TO CONFIRM		
6.0	<b>GUARANTEE</b>				
6.1	The equipment is to be guaranteed in respect of material, construction and operation and against any manufacturing defect for a period of 24 months from the date of commissioning. Any parts of units found defective have to be replaced free of cost.		VENDER TO CONFIRM		
7.0	<b>ENVIRONMENTAL PERFORMANCE OF THE LIFTER :</b>				
7.1	Air and noise pollution as per section 4 (i) of the noise and air pollution(regulation and control) rules 2000 as amended time to time(latest amendment Jan. 2010)		VENDER TO CONFIRM		
8.0	<b>QUALIFYING CONDITION</b>				
8.1	Only those vendor who have supplied at least 05 Nos. Diesel fork lifter of similar capacity or more capacity in the past ten year and such forklifters presently working satisfactorily for more then one year after commissioning(from the date of opening of tender) should quote. The following information is to be submitted by the Vendor about the companies where similar forklifters have been supplied. This is required from all the vendors for qualification of their offer.		VENDER TO CONFIRM		
	1 . Name of the customer / company where similar forklifter is installed. (copy of purchase order to be furnished)		VENDER TO CONFIRM		
	2 . Complete postal address of the customer.		VENDER TO CONFIRM		

3. Year of suppling / commissioning.	VENDER TO CONFIRM		
4. Application for which forklifter is supplied.	VENDER TO CONFIRM		
5. Name and designation of the contact person of the customer.	VENDER TO CONFIRM		
6. Phone. FAX, no andE-mail address of the contact person of the customer.	VENDER TO CONFIRM		
7. Performance certificate from the customer regarding satisfactory performance of forklifter.	VENDER TO CONFIRM		
9.0 BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.	VENDER TO CONFIRM		
 Y.K.Dhingra Sr. Engineer (WEX)	 Arjun Singh Manager(WEX)	 V.S.Chauhan Sr. Manager(FBM)	 A.K.Shivpuri Sr. Mgr(WEX)
 R.N.JHA AGM(FAB)			 S.J.Chakraborty Sr.DGM(WEX)
 CHAIRMAN			