

SPECIFICATION

ITEM Diesel Pallet (Platform) truck
M. S. NO. 43114138 Dated: 20.06.12

1.0	Description	Diesel operated pallet truck with trolleys Cap. 2 tonne
2.0	Scope	This covers the design, manufacture, supply, commissioning, proving test and maintenance of "Diesel Operated Pallet Truck With One Trolley"
3.0	CAPABILITIES	
3.1	Diesel operated pallet truck	<ol style="list-style-type: none"> 1. for transportation of material of different sizes and shapes loaded on trailing coupled trolley loads weighing up to 2 Tonne. 2. to transport the trailing load efficiently over rough surfaces 3. High order of manoeuvrability so as to be able to operate in very narrow aisles and to negotiate very sharp turns. 4. Heavy duty, working round the clock. 5. Auto starting
3.1	Trolley	<p>Trolley shall be capable of</p> <ol style="list-style-type: none"> 1. for carrying loads of different sizes and shapes loaded weighing up to 2 Tonne from place to place attached with pallet truck. 2. Easy coupling and uncoupling with the pallet truck. 3. Movements through narrow aisles and to negotiate very sharp turns. 4. Heavy duty, working round the clock even on rough terrain.
4.0	Standards	Pallet truck and trolley shall conform to latest Indian Standards Specifications.
5.0	TECHNICAL SPECIFICATIONS	
5.1	DIESEL OPERATED PALLET TRUCK	
5.1.1	Capacity	The pallet truck to be supplied shall be diesel operated type, capable of hauling trailing load consisting of materials of different sizes and shapes loaded on trolley coupled and weighing up to 2 Tonne.
5.1.2	Size and manoeuvrability	The pallet truck shall be of compact design so as to be capable of operating in very narrow aisles and negotiating very sharp turns. The pallet truck shall also be of rugged and sturdy design to be capable of heavy duty working round the clock.
5.1.3	Chassis	The chassis frame shall be of robust construction. It shall be constructed from rolled steel sections and heavy steel plates adequately braced and gusseted. The front section shall be of one piece construction cold rolled to form a round frame. The chassis shall be so designed to have very low centre gravity for stability of the pallet truck while hauling the desired load.
5.1.4	Steering and drive	For easy manoeuvrability, the steering shall be scooter type. A gear box of reputed make having three front and one reverse speeds and a heavy duty clutch shall be provided. The complete power pack shall be fitted on the turn-table of compact design capable of revolving through 360 degree. The speed reduction from the engine to the front driving wheel shall be through a reliable system.
5.1.5	Towing	A towing bracket of ample proportions shall be provided on the pallet truck with facility to attach trolley.

(45)

5.1.6	Brakes	5.1.7	Tyres and wheel
5.1.8	Suspension	5.1.9	Lubrication
5.1.10	Seat	5.1.11	Controls
5.1.12	Gear Box	5.1.13	Diesel Engine
5.1.14	Cowling	5.2	TROLLEY
5.2.1	Trolley	5.2.2	Towing brackets and Control turn-table
5.2.3	Frame	5.2.4	Maneuverability
6.0	LEADING DIMENSIONS	7.0	INFORMATION TO BE FURNISHED BY THE TENDERER

The pallet trucks and trolley shall be designed according to the leading dimensions given in Schedule-I

At the time of submission of the tender offer, the tenderer shall furnish the following information:

a) Technical details of the pallet truck regarding over all dimensions, capacity, construction features and maneuverability etc. along with necessary drawings

b) Technical details of the diesel engine as per proforma given in Schedule-II

c) General details of the tugger and trolley in the proforma given in Schedule-II

d) Technical details of the trolley like overall dimensions, towing arrangements, electrical equipments, construction feature etc. along with necessary drawings

e) Any other information which in the opinion of the tenderer is important for the consideration by the purchaser.

Brake shall be internal expanding double shoe type operated by foot paddle.

All wheels shall be having Nylon pneumatic tyres of suitable size and mounted on bearings of adequate loading capacity and of reputed make.

Suitable suspension shall be provided to absorb shocks and greater riding comfort to the operator. The springs used for suspension shall be of best quality and reputed make

The bearings shall be pre-packed with grease and self lubricating bushes shall be used to the maximum extent to reduce routine maintenance. Grease nipples and other lubrication points shall be provided at easily accessible locations.

Cushion seat with back rest shall be provided for the operator.

All controls shall be located at such a place, they can be easily accessed by the operator

The gear box of reputed make having three front and one reverse speeds and a heavy duty clutch shall be provided. Spare part for its maintenance shall also be easily available in the market.

The diesel engine shall be of suitable horse power for hauling the specified load at specified speeds and of a reputed make. It shall also have the facility for auto start.

The complete power pack shall be enclosed in a sheet metal cowling with provision of ventilation for air cooling of engine. The cowling shall be designed to facilitate accessibility at all points of maintenance.

The trolley shall be four wheeler type, 2000 kgs. Capacity designed to the following specifications:

Platform Size 1500 x 1000 mm with chequered steel platform of suitable thickness.

Platform height 375 mm approximate from ground

Front and rear 4 Nos. Nylon pneumatic tyres on rims of suitable size

The trolley shall be provided with a towing bracket of ample proportion at front to facilitate coupling with pallet truck.

Further, front wheels shall be mounted on a control turn-table and the whole unit shall be capable of turning with the towing arm provided for the purpose of attaching. It shall facilitate coupling of the trolley with pallet truck.

The frame of the trolley shall be robustly constructed from rolled steel sections adequately braced and gusseted to be capable of withstanding specified loads with adequate safety margins.

The trolley even when coupled shall be capable of working through pathways involving sharp turns and uneven rough surfaces

13

8.0	PAINTING	All surfaces shall be painted and shall be thoroughly cleared of loose mill scales, rust, foreign matter etc. All the surfaces shall be subjected to anti-corrosive treatment before applying two coats of primer like red oxide/ Zinc Chromate and two coats of synthetic enamel paint yellow and black.
9.0	MAINTAINABILITY	The design of equipment shall ensure that all important equipments like hydraulic equipments etc. are to be so positioned as to ensure easy accessibility for normal maintenance and removal for repairs etc. Grease nipple/ oil cups shall be provided to ensure positive lubrication at required locations.
10.0	SPARE PARTS	The tenderer shall quote separately item-wise for spare parts recommended for two years normal maintenance. The list shall also include battery.
11.0	ACCESSORIES	
11.1		List of standard accessories which will be supplied free of extra cost with "Diesel Operated Pallet Truck with trolley" shall be furnished. The list shall also include the following:
		1. Spark arrester for exhaust 2. Exhaust gas purifier 3. Heavy duty air cleaner 4. One set of battery 5. Charge reading indicator
11.2		List of optional accessories which may be useful to improve the working/ efficiency of Diesel Operated Pallet Truck with Trolley duly indicating price of each shall be furnished.
12.0	SPECIAL FEATURES	
		The tenderer shall separately explain the special features, if any, of the equipment offered by him.
13.0	DEVIATIONS	The tenderer shall clearly state if the offer does not conform to any of the technical or design specifications. In such case, he shall also indicate the details of the alternative offered by him, if any, duly indicating advantages or otherwise of the alternative thus suggested. Any other information which in the opinion of the supplier is important for consideration of the purchaser.
14.0	COMMISSIONING AND PROVING OUT	
14.1		The tenderer shall arrange erection, commissioning and testing of the equipment at site i.e. at C&W depot, Kota and after successful commissioning, shall demonstrate the performance of the equipment to the railway officials at consignee's premises. The tenderer or his representative will be required to inspect the consignment at the consignee's premises before unpacking is done and carry out a check of the receipt of components to avoid subsequent complaints regarding short shipment or transit damage.
		Adequate number of personnel will be deployed by the tenderer so that installation and commissioning delays are eliminated.
14.2		The contractor will be required to commission the equipment within thirty days from the date of intimation by the consignee.
15.0	TRAINING	
15.1		Technical experts of the contractor during commissioning of equipments will fully and adequately train operation/ maintenance staff nominated by the consignee at the consignee's premises at Kota.

12

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 Mech. Engineer
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 Kotla W.C.R.

SERVICING AND WAREHOUSING FACILITIES

The tenderer will clearly spell out in the offer the facilities available with him or his agent for providing adequate after sales service in India during warranty period. The tenderer shall also indicate the service organizations located at various places in India and the availability of trained staff, maintenance spares etc at different centers in India and abroad. The agent in India will be essential and bidder shall certify in the offer that such personnel with the supplier's agent in India will be made available for maintenance of these machines shall be made available to the consignee from warehouses in India for a period of two years from the date of commissioning of the machine at ultimate destination. After the warranty period, the manufacturer or his agent shall agree to provide spare parts required by the purchaser for a period of fifteen years from the date of delivery of the machine at the ultimate destination to safeguard against obsolescence.

TECHNICAL LITERATURE

One copy of the printed literature showing features of various machines and its elements shall be enclosed with each copy of the bid. The successful tenderer shall also have to furnish for each machine Four Copies of spare parts catalogue giving the part list number of each component with exploded views and assembly drawings of major assembly, maintenance manual, trouble shooting guide, operational manual of the machine and all electrical circuit diagrams to the consignee. The bidders shall provide a list of literature they will supply along with the machine. The technical literature shall be supplied in English Language.

REFERENCE

The tenderer shall provide satisfactory evidence acceptable to the purchaser to show that he is a licensed manufacturer and has adequate plant and manufacturing capacity and has a "Quality Assurance Programme". He shall furnish a statement giving a list of supplies made by him or similar machines in the last five years along with the purchaser's name and addresses, order number, date and quantity supplied and their performance certificates and whether the supplies were made within the delivery period. The tenderer must have supplied at least three similar machines in the last five years or else his offer may not be considered. In the absence of the above information, the offer of the tenderer is liable to be rejected.

COLOUR SCHEME

The tenderer will indicate three suitable colour schemes for the equipments in his tender offer. The purchaser will approve one of these colour schemes at the time of issue of purchase order.

(14)