

SPECIFICATION RT57-03-11-01

10 TON PAYLOAD MIXER TRUCK, 6,0m³ CAPACITY

A 10 Ton payload Mixer, 6,0m³ capacity body of robust construction, fitted with a PTO driven hydrostatic system, complying to the following is required:

MIXER

The mixer truck shall be legal on the road, laden with 4,5m³ of concrete.

1. DIMENSIONS:

Tenderers must offer the best body length to suit their chassis without chassis alterations, taking correct mass distribution, appearance and additional equipment at the rear into account.

Supply actual dimensions of body (LxWxH) _____mm x _____mm x _____mm

Particulars of offer: _____

2. MIXER:

The mixers shall be suitable for receiving dry batches and mixing them completely in the shortest possible time.

Discharge time for dry concrete shall be as short as possible.

For calculation purposes, the density of the concrete should be taken as 2,612kg/m³.

The maximum nominal size of aggregate will be 76mm and the slump of the concrete will be 50mm.

3. HYDRAULIC SYSTEM

The hydraulic pump, connected to the engine driven power take-off, must be pneumatically controlled from inside the cab.

A large red warning light must be fitted to the dash panel, in clear view of the driver, to indicate engagement of the power take-off.

The mixing drum shall be hydraulically driven at varying speeds from 0 to 15 rpm and in either direction of rotation.

The drive to the drum shall incorporate a safety device to ensure that the drum is brought to a standstill before reverse rotation can be applied.

Particulars of offer: _____

4. WATER TANK:

An aluminium water tank of not less than 150ℓ capacity shall be provided.

The water tank shall be pressurised with the vehicle compressor, for the use to cleaning the truck mixer after pouring is completed or for adding water to the mix.

A high pressure hose (approximately 400 kPa) and jet spray shall be provided to deliver the washing water under pressure.

Particulars of offer: _____

5. DISCHARGE SHUTE:

A swivelling discharge chute (150° minimum swivel) attached to the truck and capable of extending to not less than 2,5m from the centre line of the truck, either side, shall be fitted.

The chute shall be mounted in such a way that it is possible to swing it away for access to the drum.

The concrete shall slide down the discharge chute unassisted (the slump is 50 mm) and the chute angle to the vertical shall not be more than 45°.

The chute, when fully extended, shall terminate 0,5m above ground level.

Particulars of offer: _____

6. HOPPER:

A wide mouthed charging hopper shall be fitted.

The hopper shall be of sufficient size to accept aggregate of a maximum size of 76mm.

The hopper shall be fabricated in 3mm plate including a 3mm replaceable liner.

The total height of the hopper shall not exceed 3,7m.

Particulars of offer: _____

7. DRUM:

The geometric drum volume shall not be less than 10 m³.

The mixed volume of concrete to be transported is 6,0m³. (4,5m³ on the road)

The drum angle should be approximately 14° and it shall be possible to discharge the concrete, free from segregation, when the truck is reversed up a 1 in 5 gradient.

The drum, rear cone, centre section and front cone shall be 5 mm thick.

The front dished end shall be not less than 6mm thick.

Two, wear resistant 5mm thick, blade spirals shall be provided.

The number of blade turns in the drum shall not be less than 2,75 in order to achieve a good drawing in, discharging and mixing action.

The drum shall be provided with two bolted on access doors (manholes) on the front cone.

The drum should revolve on rollers or roller bearings and provision shall be made to constrain the drum against chassis bounce (retaining straps).

Particulars of offer: _____

10. MUDGUARDS:

Sturdy, firmly braced steel mudguards, full size, must be fitted over the rear wheels with mud flaps behind the wheels.

Particulars of offer: _____

11. REAR PANEL:

A recessed rear panel manufactured from mild steel of not less than 2mm over the full width of the body to house a chevron, number plate and rear light assemblies is required.

The underrun protection, in accordance with SANS 1055:2007 specification, could be incorporated in the rear panel.

Particulars of offer: _____

12. SUB-FRAME:

A strong and rigid sub-frame or an interacting sub-frame to reduce chassis frame twist with heavy loads is required.

The sub-frame, 152mm x 76mm x 8mm, must be manufactured from Pressed-up Domex Steel.

The distance between the body adaptation brackets should not exceed 900 mm.

Particulars of offer: _____

13. FINISH:

All metal shall be thoroughly cleaned and primed and painted with two coats of prime and good quality automotive enamel to match the departments colour spec.

Fixtures welded shall be seal welded all round to obviate any crevices.

Drum and accessories shall be free from:

- welding slag and cavities in weld
- burrs caused by screwing, tapping, punching, drilling and machining
- paint or other coating that is not removable by alkaline cleaning or acid pickling

Particulars of offer: _____

14. PARTICULARS OF OFFER:

A fully dimensioned drawing and description of the mixers offered shall be submitted with the bid. Method of drum drive and type of bearings fitted shall be stated

Particulars of offer: _____