

## SPECIFICATION RT57-03-08-06

### LIFT-ON SKIP LOADER, NON-EXTENDABLE ARMS FOR 7TON PAYLOAD TRUCK

A lift-on skip loader, of robust construction, fitted with two identical lifting arms are used to lift, lower and tip the skip container, with a PTO driven hydraulic system, complying to the following is required:

#### 1. POWER TAKE-OFF

The power take-off must be suitable to drive the hydraulic system that provide for all the hydraulic controls and operational requirements.

Particulars of offer: \_\_\_\_\_

The power take-off should automatically disengage before the vehicle moves off. Any similar protection for the PTO may also be offered.

Particulars of offer: \_\_\_\_\_

A clear audible and light must be fitted to warn the driver when the PTO is engaged.

Particulars of offer: \_\_\_\_\_

#### 2. 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.

Particulars of offer: \_\_\_\_\_

#### 3. MUDGUARDS:

Sturdy, firmly braced mudguards must be fitted behind and in front of the rear wheels.

Particulars of offer: \_\_\_\_\_

#### 4. 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.

Particulars of offer: \_\_\_\_\_

### **SKIP LOADER BODY**

All components shall be integrated into the main body.

#### 1. FLOOR:

The floor shall be manufactured from heavy duty steel plate of not less than 5mm thickness and shall be suitably reinforced to ensure that a flat floor surface is attained and fitted with Wear strips and Bin Guide on the floor.

The main load bearing points must be integrated into the main body construction i.e. boom cylinder attachment points, lifting arm pivot and jack leg housings.

Deck Wear Strips: \_\_\_\_\_

\_\_\_\_\_

Bin Guides: \_\_\_\_\_

\_\_\_\_\_

#### 2. HIGH WEAR COMPONENTS

Wearing components need to be manufactured out of durable material, in order to decrease maintenance on the systems.

Particulars of offer: \_\_\_\_\_

### 3. TIPPING HOOKS

Two (2) or three (3) tipping hooks must be fitted at the rear. These hooks must be able to assist in the tipping operation of the bins. The bin will tip when the arms are moved backwards allowing the contents of the skip bin to be emptied behind the skip loader

Particulars of offer: \_\_\_\_\_

## **HYDRAULIC SYSTEM**

### 1. CYLINDERS

The lift arm cylinders must be fitted with a dual over centre safety valve that prevents uncontrolled stroking of the cylinders under load and will also lock the cylinder in the event of sudden pressure loss:

Particulars of offer: \_\_\_\_\_

### 2. CONTROLS

The operation of the lifting arms should be controlled from inside the cab of the truck. These controls should be able to be manually overridden by control valves if required. Alarm and warning lights should be provided as warning tools for the operator.

Cab controls: (Yes/No)

Control valves present: (Yes/No)

Control Valve Manual Override: (Yes/No)

Control warning tools: (Yes/No)

Particulars of offer: \_\_\_\_\_

## **LOADING DETAILS**

### **Lifting Arm**

Two identical lifting arms are used to lift, lower and tip the skip container. The lifting arms were designed to handle the specified loads during normal operation. Each lifting arm is attached to the torque tube assembly by two pins and can easily be detached by removing these two pins.

### **Torque Tube Assembly**

To ensure that the lifting arms always move simultaneously irrespective of the load, they are connected to each other via the torque tube assembly. The torque tube assembly is connected to the main body with a bearing and a pivot pin at each side allowing the arms to move forward and backwards as the torque tube rotates around the pivot joints. The arm pockets containing the lifting arms are welded to the torque tube and are also attached to the lifting arm cylinder rods.

### **Lifting Chain Assembly**

A set of lifting chains are connected to the end of each extension arm and each chain is fitted with a key plate with holes to fit the bin trunnions. Each chain is tested and certified to a prescribed load. Stowage hooks for the chains are provided on the lifting arms when they are not connected to a bin.

## 1. LIFTING CAPACITY

Maximum lifting capacity: \_\_\_\_\_ kg

## 2. LIFTING ARM PARAMETERS

The Lifting arms must be fitted with lifting lug swivel pins.

Swivel Pin Diameter \_\_\_\_\_ mm

Distance between lifting lugs \_\_\_\_\_ mm

Distance between arms \_\_\_\_\_ mm

Lifting Arm length \_\_\_\_\_ mm

Traveling Height \_\_\_\_\_ mm

Off-loading Height \_\_\_\_\_ mm

## **SAFETY/STABILITY**

### 1. JACK LEG

Two jack legs are located at the back of the Skiploader truck and can be extended backwards at an angle towards the ground. Each jack leg is actuated by a double acting cylinder which causes the jack leg to slide in and out the jack leg housing when operated. The jack legs offer extra stability to the vehicle and should always be extended when a load is lifted. Each jack leg cylinder is fitted with a pilot operated check valve for safety and each jack leg is fitted with a heavy duty roller to lower the friction on the ground when they are extended.

### 2. SAFETY MECHANISMS

Safety mechanisms should be implemented into the functioning of the truck so as to prevent accidents such as the container falling off the truck or the truck tipping over during on/off loading.

Safety Mechanisms included

\_\_\_\_\_

\_\_\_\_\_

## **SKIP BIN**

Manufactured from 4.5mm mild steel.

500mm high extensions from 3mm mild steel (9m<sup>3</sup>)

All corners are folded for strength.

Additional internal corner gussets added for further strength.

Lifting Lug from not less than 40mm Solid Round Bar.

Standard Stitch Welded Interior and exterior unless otherwise specified

The bin must have a flat base to fit on the loader body.

Space must be made available for the tipping hooks in order to assist in tipping operation.

Can be manufactured with or without Drainage Holes, as per end-user's request.

Primed and spray-painted to match the departments colour spec.

Particulars of offer: \_\_\_\_\_

## **PARTICULARS OF OFFER**

A detailed sketch or full drawing of the body and containers offered, showing all leading dimensions, must be submitted with tender.

Particulars of offer: \_\_\_\_\_