

## **14 ROOF TROLLEY TYPE RA 3006**

### **14.1 TECHNICAL DATA**

Trolley reference	RA 3006
Trolley drawing	P2750000 rev. B and A 0299001
Platform length	2 meters
Platform Safe Working Load	230 kg/2 persons
Max. Forward Reach	12000 mm
Transverse Wheel Centres	1500 mm
Front Wheel Centres	1500 mm
Hoist Speed	9 m/min
Traverse Speed	12 m/min
Jib Luffing Speed	3m/min.Jib Head
Slewing Speed	3m/min.Jib Head
Power Supply to Roof Trolley: to platform:	380/440V 3-phase +N+E single or 3-phase
Control Voltages:	24V

### **14.2 MACHINE FINISHES**

#### **Roof Trolley**

Steel fabrication, shot blasted and baked powder coated in any available RAL colour.

#### **Platform**

Screened aluminium welded frame with suspension stirrups fabricated from steel, metalised baked powder coated.

### **14.3 WHEEL ASSEMBLIES**

The roof trolley is supported upon 4 wheel assemblies (A, B, C and D).

Wheel assemblies 'A' and 'B' operate upon the galvanized track nearest to the parapet and are fitted with bearing assemblies, which allow the units to pivot to facilitate cornering.

Wheel assemblies C and D operate upon the inner galvanized rail and each wheel can pivot about its own vertical axes. Wheels C and D are each fitted on a pivoting arm to facilitate cornering and to allow for any discrepancies in the transverse rail centres.

Wheels 'E' and 'F' are tired in stainless steel and operate on each galvanized rail to keep the wheel assemblies in the correct alignment relative to the track.

## **14.4 DONKEY TRAVERSE ASSEMBLY**

Power to traverse the roof car is provided by this assembly. This unit consists of a hard rubber tired wheel mounted in a bracket complete with bearings. Power is provided by means of a hydraulic motor directly driving the wheel. By means of pivoting uplift wheel units, the tired wheel is clamped onto the track sufficient to give the necessary traction required.

## **14.5 BASE FRAME ASSEMBLY**

This assembly is of robust design and fabricated from heavy duty steel box section. Bearing housings are incorporated in the frame for the wheel units together with attachment points for the slewing assembly.

## **14.6 MAIN SLEWING ASSEMBLY**

This assembly comprises a precision manufactured slewing bearing attached to the upper turret, and the lower base frame. This unit provides 360° powered rotation by means of hydraulic geared motor transmission controlled by push buttons from either control station.

## **14.7 UPPER TURRET ASSEMBLY**

This assembly is of robust design and fabricated from steel plates. Attachment points for the hydraulic cylinders. Jib assembly pantograph the bars and slewing motor are provided. Also incorporated in this unit is the hydraulic tank with compartments for the hydraulic valves and electrical controls.

## **14.8 JIB ASSEMBLY**

This assembly is fabricated from heavy-duty steel box sections and is made in two parts to simplify transportation. Attachment points for the hydraulic cylinders and the pantograph assembly are provided. By means of the hydraulic cylinders the jib can be luffed from the maximum working position to the minimum working position as shown on the drawing.

## **14.9 PANTOGRAPH ASSEMBLY**

The pantograph assembly is fabricated in steel and is pivoted to the top of the jib and also attached to the upper turret by means of the pantograph tie rods. Whatever the inclination of the jib, the pantograph assembly always remain horizontal.

## **14.10 SUSPENSION BEAM ASSEMBLY**

This unit is fabricated in steel and incorporates a slewing bearing, which facilitates rotation of the platform relating to the building face. The slewing action is power operated by means of a motorized worm gearbox and gearing  $\pm 180^\circ$  of rotation is possible.

## **14.11 LUFFING ASSEMBLY**

Jib luffing is achieved by means of a heavy duty, double acting hydraulic cylinder in conjunction with an electrically operated power pack consisting of hydraulic tank, filter, pressure relief valve, motorized pump unit and solenoid operated directional control valves. The system working pressure is between 1200/1500 p.s.i. As an added safety precaution, an Anti-Pipe Burst valve is fitted to the base of the hydraulic cylinder, which lowers the Jib Assembly at a controlled rate in the event of a hydraulic pipe failure. The hydraulic power pack is incorporated within the upper turret fabrication.

## **14.12 ELECTRICAL EQUIPMENT**

### **Roof Trolley**

The standard power supply to the Trolley is three phase plus Earth + neutral. Other electrical supplies are possible depending upon site conditions.

The electrical supply cable from the roof socket outlet to the Trolley is automatically reeled in/out by means of a spring-loaded reeling drum (20 meters capacity) fitted on the rear of the Trolley Base Frame.

On/off control of the power supply is by means of a key operated switch mounted on the Trolley to prevent unauthorized use of the unit.

A further key operated selector switch is provided to give control of the traversing operations to either the push button control station mounted on the Trolley, or alternatively, to the push button Pendant Control suspended from the Jib Head. All push buttons require continuous finger pressure to operate the functions and "emergency stop" push buttons are provided at all control positions.

The main electrical control panel is housed in a weatherproof compartment (key secured) on the rear of the upper turret and protection. In addition, an earth leakage protection unit is provided within the panel.

## Platform

Power to the platform is via an Electric Power Supply cable attached to the roof trolley jib head.

This cable is normally stored inside a storage compartment fitted on the platform.

Raising and lowering of the platform is achieved by manual operation of the push buttons on the platform Central Control unit.



