



**PT3001 / L**

## **1 POWERED TROLLEY TYPE PT3001/L**

### **1.1 TECHNICAL DATA**

Trolley drawing no.:	SP0602042
Rotation Balance/Overturning Moment:	3:1 in working position
Platform Lengths:	2 meters
Platform Safe Working Load	240kg. (2 persons + materials)
Forward Reach:	2000 mm
Transverse Wheel Centres (Rubber Tired):	1800 mm
Front Wheel centres (Rubber Tired):	1600 mm
Traverse Speed:	10m/min.
Jib luffing speed:	3m/min. jib head
Power Supply to Roof Trolley: to platform:	380/440V 3-phase +N+E as required
Control Voltages:	24V

### **1.2 MACHINE FINISHES**

#### **ROOF TROLLEY**

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

#### **PLATFORM**

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

### **1.3 WHEEL ASSEMBLIES**

The trolley is supported upon 4 wheel assemblies (A, B, C and D). All wheels are hard rubber tyred and operate upon a reinforced concrete bearing surface (or similar) cast on top of the roof finishes.

Wheel assemblies "A" and "B" are placed just inside the parapet and are mounted in a bearing assembly, which allow the units to pivot to facilitate cornering. At each wheel assembly 4 guide rollers are mounted that grasp on the concrete mounted L-profile and follow the complete contour of the building. Power to traverse the roof trolley along the roof is provided at this wheel unit by means of a motorized unit directly driving through the axle.

Wheel Assemblies "C" and "D" are pivoting hard rubber tyred and are mounted in a balanced structure that allows certain unevenness in the concrete so that always both traction wheels have enough traction.

## **1.4 BASE FRAME ASSEMBLY**

This assembly is of robust design and fabricated from heavy-duty steel box sections with all balance weight to give the necessary counter balance ratio being incorporated at the rear of the welded assembly. Bearing housings are incorporated in the frame for the wheel units. Attachment points for the jib assembly are provided.

## **1.5 JIB ASSEMBLY**

This assembly is of robust design and is fabricated from heavy-duty steel. The suspension boom is supplied to accommodate platform lengths of 2 or 3 metres with attachment points provided for four wire suspensions. By means of the hydraulic cylinder the jib assy can be luffed from the maximum working position to the minimum working position or to bring the platform on the roof.

## **1.6 LUFFING ASSEMBLY**

Jib luffing is achieved by means of a heavy duty, single acting hydraulic cylinder in conjunction with an electrically operated power pack consisting of hydraulic tank, filter, pressure relief valve, motorised pump unit and solenoid operated directional control valves. The system's working pressure is between 1200 and 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 trolley base frame.

## **1.7 SUPPLY CABLE REELING DRUM**

The roof trolley is fitted with a spring loaded reeling drum 25 meters capacity to automatically reel in/out the electrical power supply cable between the roof power sockets and the roof trolley.

## **1.8 ELECTRICAL EQUIPMENT**

### **ROOF TROLLEY**

The standard power supply to the trolley is three phase plus earth + neutral. Other electrical supplies are possible, depending on site conditions.

On/off control of the power supply is by means of a key operated switch mounted on the trolley to prevent unauthorised 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, the central control of the PI platform.

All push buttons require continuous finger pressure to operate the functions and an “emergency stop” button is provided at the control position.

The main electrical control panel is housed in a waterproof compartment on the side of the upper base frame. 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 inside the platform.

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

### **1.9 CONTROL STATION**

Push button stations are continuous pressure type complete with emergency stop buttons. One station is fitted on the trolley base frame for roof operation and the other is incorporated in the platform central control. These stations are isolated from each other by means of a key operated selector switch mounted on the trolley base frame.

From the central control provided on the platform the operator can have control over the hoisting/lowering of the platform.

### **1.10 ELECTRICAL POWER SOCKETS ON ROOF LEVEL**

These should be weatherproofed, 30 Amp. Construction must be designed, supplied and installed by others at positions specified by SKY MAN to give the required power supply. It is recommended that the customer makes allowance in this roof circuitry for the fitting of a suitable phase reversal protective device together with a suitable earth leakage protection unit.

Adjacent to each power socket, the customer should provide a suitable stainless steel/galvanized eyebolt for anchoring the trolley power supply cable and it is the customer's responsibility to provide the mating electrical plug for attachment to the trolley power supply cable.

### **1.11 TROLLEY RUNNING SURFACE ON ROOF**

A reinforced concrete bearing surface cast on top of the roof finishes is recommended. This surface should be smooth and flat and must be designed and specified by the architect to support the imposed wheel loadings.

