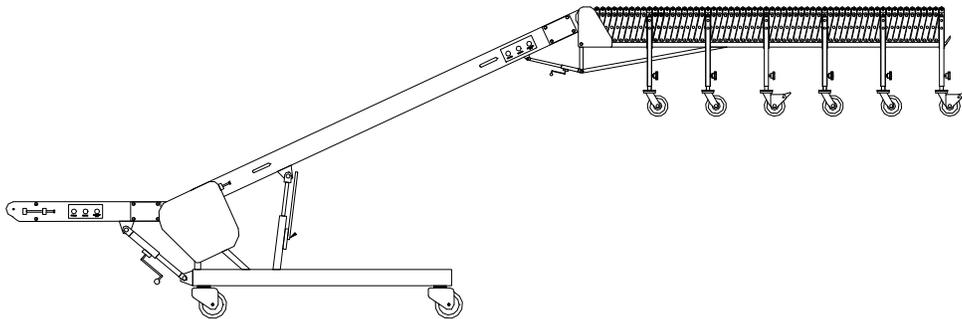




Best Diversified Products Ltd.

**Mobile Vehicle Loader/Unloader
with
Powerflex Tongue**

Product Manual



**Best Diversified Products, Limited.
Brunel Road,
Earlstrees Industrial Estate,
Corby, Northants. NN17 4JW
Tel: +44(0) 1536 206969
Fax: +44(0) 1536 206805
www.bestconveyors.co.uk**

Model:VL3-600-240VLT

Serial Number:J23950

MOBILE VEHICLE LOADER/UNLOADER WITH POWERFLEX TONGUE

OPERATION AND MAINTENANCE MANUAL



Model: VL3-600-240VLT SERIAL NUMBER: J23950

CONTENTS

Operating Instructions:.....1

Maintenance Instructions:

- **Routine inspection.....2**
- **Belt wear & tear.....3**
- **Belt tension.....4**
- **Belt tracking.....5**

Safety Hints:.....6

Drawings:

- **Belt tracking guide.....7**
- **General arrangement.....8
& parts identification**
- **Wiring diagrams.....9,10,11**
- **Parts list.....12**

Conformity Declaration:.....13

OPERATING INSTRUCTIONS

Identification of Controls:

An operating push-button station comprising of a forward, reverse and emergency stop function is positioned on either side of the infeed boom and on the crossbar on the Powerflex, at the loading/unloading end.

Height adjustment of the main boom is by means of manual hand operated ram with pump.

Height adjustment of the infeed boom is by means of a screw jack located below the infeed boom.

To adjust the booms:

- a) Make sure the area is clear and the conveyor is safe to adjust ensuring the Powerflex is closed and fully secured.
- b) Select the boom to be adjusted. Either pump the handle on the hydraulic pump for the main boom or adjust the jack on the infeed boom to the required height.
- c) Once the main boom has been raised to the correct level, the Powerflex tongue should be adjusted to be horizontal by the screw handle located under the Powerflex.

Refer to drawings for parts identification.

NOTE

EMERGENCY STOP BUTTONS OPERATE NO MATTER WHICH WAY THE CONVEYOR IS BEING RUN.

MAINTENANCE INSTRUCTIONS / ROUTINE INSPECTION.

Regular Check List:

A regular inspection should be made of the belt to check:-

- a) For any unusual signs of wear or tear.**
- b) That the belt is correctly tensioned.**
- c) That the belt continues to travel reasonably centrally i.e:"it tracks well".**
- d) After each 500 hours working time or every three months it is recommended that the drive cover be removed and both the drive and link chains be cleaned and re-greased.
At this time the sprockets should be inspected for tooth wear indicating mal-alignment and re-set as required.**
- e) Minor bearing squeaks may be cured with a drop of good quality light machine oil.
More serious bearing noise can be caused by over tensioned belts or drive chains. This will certainly reduce bearing life if not cured.**
- f) Periodic checks should be made to ensure all fixing bolts remain tight. This is particularly relevant to the mounting bolts on the castors which are prone to harsh treatment and vibration in normal use.**
- g) Periodically check hydraulic parts for any sign of leaks or wear to pipes etc.**
- h) Regularly check hydraulic oil level in the tank as shown on page 9. Only check oil level when both booms are in the lowest position.**

POWER SHOULD BE DISCONNECTED BEFORE REMOVING ANY COVERS/GUARDS AND ONLY RE-CONNECTED WHEN THE COVERS HAVE BEEN REPLACED.

Belt Wear and Tear

Side fraying of the belt is usually associated with the belt rubbing on the side frame as a result of the belt not travelling centrally on the bed. This should be corrected immediately by following the belt tracking procedure detailed later in these instructions.

Cross tears in belt particularly around the area of the joint are almost certainly due to over-tensioning of the belt and this must be immediately corrected following the procedure for belt tensioning given later in these instructions.

The underside of the belt should also be periodically checked, longitudinal gouge marks may be due to grit or material having lodged on the slider bed, which should be kept as clean as possible. Overall severe wear on the reverse face of the belt can be caused by pulley slip indicating a slack belt, which requires increased tension.

Avoid any grease or oil coming into contact with the belt, wash with strong soap or detergent solution and dry thoroughly. Do not use bleach or cleaner containing bleaching agents.

Belt Tension

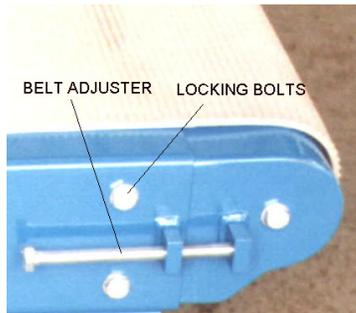
It is important that the belt be kept reasonably tensioned without being over-tight. An under tensioned belt will cause unnecessary belt wear or pulley slip which in severe cases will cause the belt to slow down or even stop, particularly under heavy loads. All belts over a period of operation will stretch and will require tensioning.

The tensioning of both belts is achieved by adjusting the end idler drum using the tension adjusters. These are located on the side of the skid bed on the small boom and on the underside of the skid bed on the large boom.

It is important to make sure that the two adjusting screws are turned an equal amount of turns otherwise this will affect the tracking of the belt.

NOTE

It is advisable to stop the conveyor before attempting to tension the belt.



Belt tracking

Refer to belt tracking sketch on page 7.

Both boom belts can be tracked by moving the tracking rollers supporting the return belt.

These rollers are mounted within slots in the conveyor beds and can be adjusted to track the belt when treated like a steering wheel.

Each tracking roller is secured by two 12mm bolts. These bolts need to be loosened whilst the belt is being tracked. It is essential that these bolts be re-tightened after the tracking procedure to ensure that the rollers do not move causing the belt to go off track once more.

Start the belt and view in the direction of travel.

If the belt is travelling in direction X and is wandering over to the right-hand side then tracking roller B should be adjusted in the direction marked 2.

If the belt is travelling in direction X and is wandering over to the left side then tracking roller B should be adjusted in the direction marked 1.

If the belt is travelling in direction Y and is wandering over to the right side then tracking roller A should be adjusted in direction marked 2.

If the belt is travelling in direction Y and is wandering over to the left side then tracking roller A should be adjusted in the direction marked 1.

NOTE

When carrying out the tracking procedure the belt must be running to be able to judge the amount of roller adjustment necessary.

CAUTION:

ADJUSTMENT MADE TO THE TRACKING ROLLERS MUST BE GRADUAL

Patience is needed when tracking a belt and only small adjustment should be made to the rollers each time.

A small movement of the roller can result in a major change in the belt travel. Always allow the belt to travel completely around the conveyor a few times between roller adjustments.

HELPFUL SAFETY HINTS

When loader is not in use always:-

- **Apply the footbrakes to all castors.**
- **Ensure that the electrical power is disconnected.**
- **Ensure the tongue is fully retracted & supported by its chassis.**

When moving the loader always:-

- **Ensure that the electrical power is disconnected.**
- **Fully release all brakes.**
- **Use the handles provided.**
- **Take care when moving the unit over any uneven surface and never attempt to push the unit onto a pavement or up and down slopes.**
- **Never walk below booms of the conveyor.**

When loader is in use always:-

- **Apply all footbrakes.**
- **Keep clear of the moving belt.**
- **NEVER ATTEMPT TO RIDE ON THE BELT**
- **NEVER ATTEMPT TO WALK BELOW BOOMS OF CONVEYOR**
- **Do not lean over the moving belt.**
Whilst every effort has been taken in the design of the equipment to minimise pinch points and finger traps, leaning over a moving belt can present the risk of clothing or long hair being caught.
- **Load goods centrally on the belt.**
- **Avoid overloading the belt.**
- **Do not convey goods which are obviously too large and bulky and are likely to fall off.**

BELT TRAVEL DIRECTION X

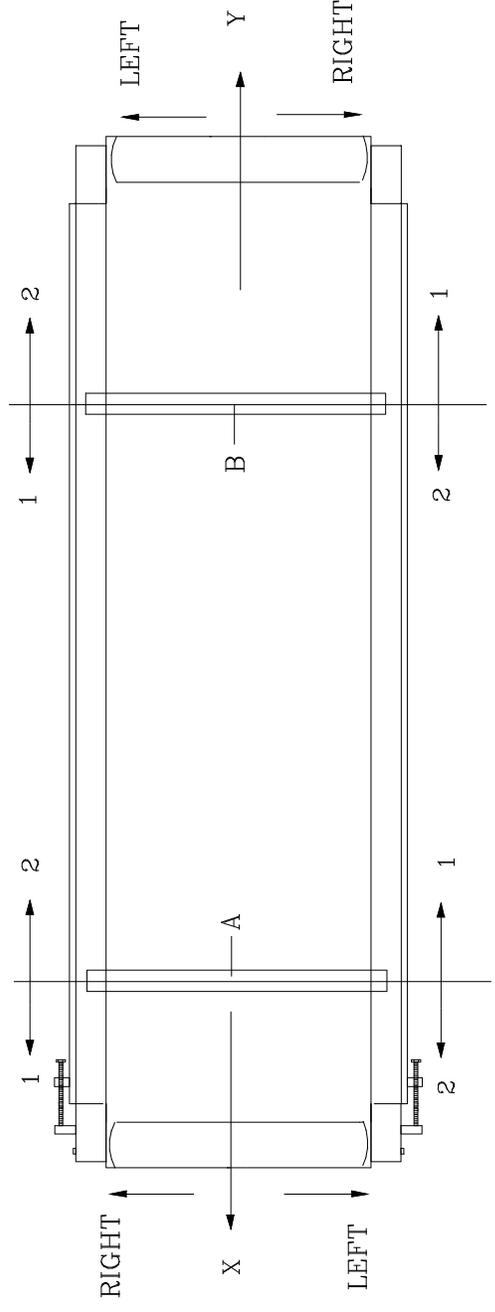
TO TRACK BELT RIGHT MOVE ROLLERS A&B DIRECTION 2
TO TRACK BELT LEFT MOVE ROLLERS A&B DIRECTION 1

BELT TRAVEL DIRECTION Y

TO TRACK BELT RIGHT MOVE ROLLERS A&B DIRECTION 1
TO TRACK BELT LEFT MOVE ROLLERS A&B DIRECTION 2

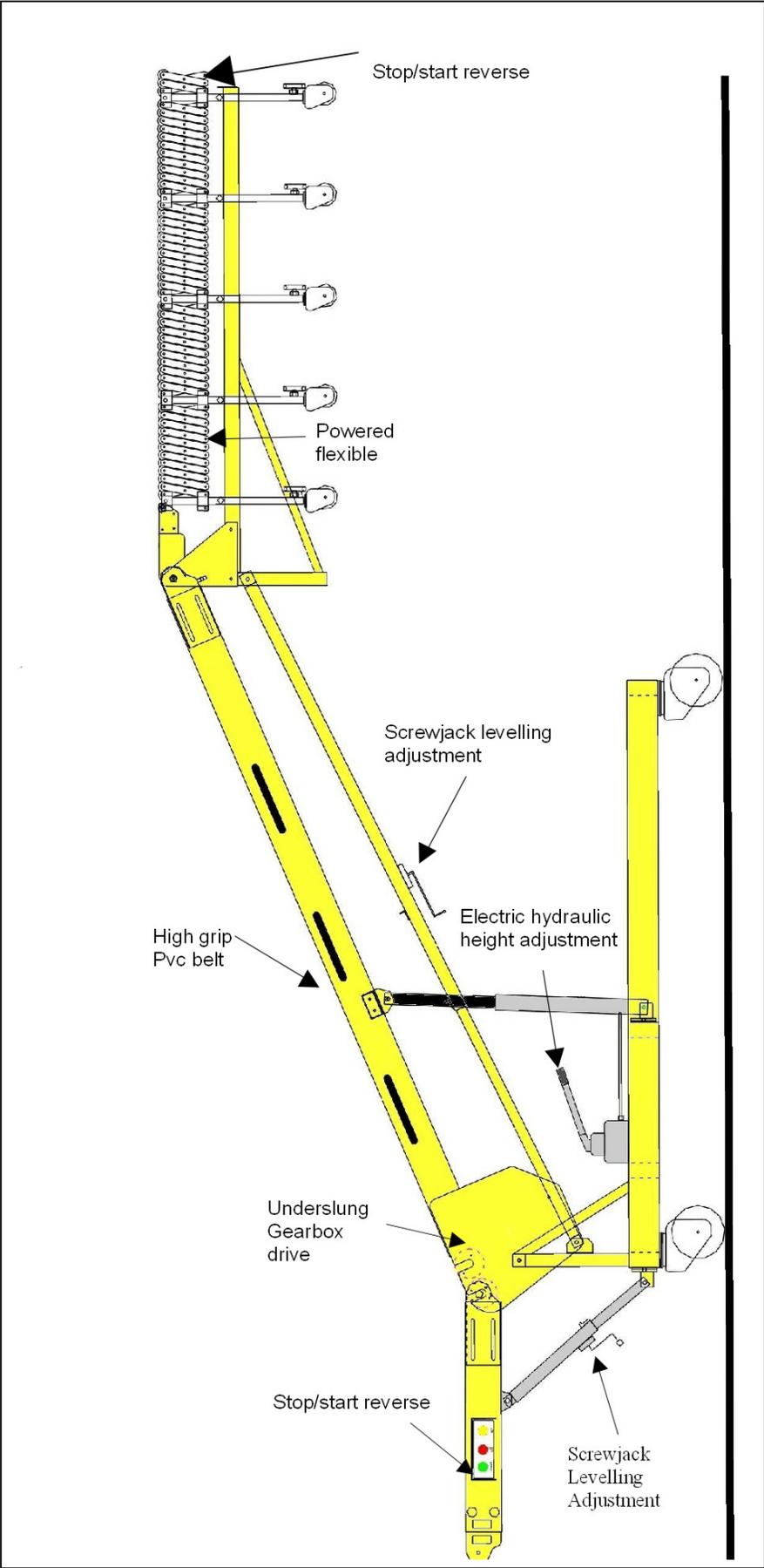


SIDE ELEVATION



TOP PLAN VIEW

BELT TRACKING.



OCON TWIN-BOOM VEHICLE LOADER

Model reference VL3-600-240VLT

Serial number

MAIN BOOM Description	Reference	Quantity
Twin ply PVC grip top belt with fastener	VL600-BELT.MB	1
Tail-end roller	VL600-PPR110	1
Drive roller	VL600-SR110.D	1
Tracking roller	VL600-SR50.T	2
Support roller	VL600-PR50	1
INFEED BOOM		
Description		
Twin ply PVC grip top belt with fastener	VL600-BELT.IB	1
Tail end roller	VL600-PPR110	1
Slave drive roller	VL600-SR100.SL	1
Tracking roller	VL600-SR50.T	2
DRIVE		
Description		
Motor gearbox	VL600-G072-20-240VLT	1
Bearings (Set)	VL600-LFTC25A	1
Drive Chain	VL600-DC.05SIM	1
Slave chain	VL600-SL.1/2P	1
Drive sprockets	VL600-SPK.17T	4
PNEUMATICS		
Ram	VL600-HYD.C1000	2
Reservoir/pump/motor	VL600-CP.SA.LR	1
CHASSIS		
Castors	VL600-150.SWB	4

DECLARATION OF CONFORMITY

Equipment:

**Mobile Vehicle Loader
Type VL3-600-240VLT
Serial Number J23950
Date manufactured: December 2006**

Designed Application:

For the loading and unloading of packaged and cartoned goods into and out of vehicles.

Maximum designed load capability 50kgs per metre.

Technical Description:

**Twin boom mobile conveyor 600mm wide belts.
Main boom with MANUAL hydraulic height adjustment.
Infeed boom with MANUAL hydraulic height adjustment.
Electrical supply 240 Volts, Single Phase.
Max rating: 10Amps.
Equipment weight: 550kg (Approx)**

Manufacturer:

**Owens Conveyor Company
Westgate House, Westgate,
Walsall, West Midlands.
WS9 8EX. England**

**The equipment is supplied in accordance with
"The Supply of Machinery (Safety) Regulations 1992 (S.I.1992/3073)" together
with reference to
"prEN 619:1991-Continuous Handling Equipment and Systems for Mechanical
Handling of Unit Loads."**



Signed on behalf of Owens Conveyor Company.....

**B.OWENS
Partner**

