

**SOLVING**

## Assembly line for wheel loaders VOLVO WHEEL LOADERS, ARVIKA

**A I R F I L M T E C H N O L O G Y**



### Operation

- Transport of vehicles between assembly stations
- Assembly of front and rear parts of the loaders
- When floating on an air film, the load can be positioned precisely, allowing assembly of the centre bolt

### Construction

- Heavy steel frames
- Slide mounted air bearings for ease of maintenance
- Built-in drive units, rotate 90°
- Automatic pressure regulation independent of load, weight and centre of gravity

S O L V I N G



# Assembly line for wheel loaders

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The Solving team of designers are continually developing ergonomic and economic solutions to material handlings on air. With the customer's handling and logistics programme in mind, their main objectives are to:

- minimise installation requirements**
- reduce capital expenditure**
- reduce the environmental impact**

## Volvo Wheel Loaders, Arvika plant

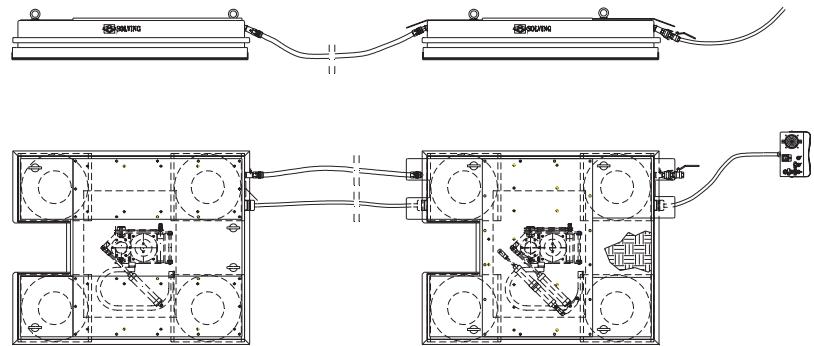
Part of Volvo Construction Equipment

Products: Wheel loaders  
Capacity: 2400 vehicles/year  
Employees: 650

### AIR FILM TRANSPORTER PTR 25

#### Technical data

Capacity: 25 tonne  
Length: 1870 mm  
Width: 1530 mm  
Height: 330 mm  
Control: Pneumatic remote control  
Air bearings: ME21S-3.5  
Drive units: SPD 1,5 XYT  
Pressure regulation: Automatic



#### Objective

One objective when considering reconstruction and investment in assembly lines is to shorten the production time of each vehicle and to increase the production capacity by including more assembly stations and allowing individual assembly times. Ergonomics and working conditions also have to be considered.

#### Flexibility

When investing in the transport system, Solving's flexible solution provided a simple workshop layout allowing changes to be carried out at a later date, if required, at minimal cost. Other important factors were simplicity and comfort, i.e. high reliability and precise controllability.

#### Result

The use of reliable standard components in the air bearing transporter resulted in minimal maintenance and easy accessibility of component parts.

The advantages of air film technology are:

- no floor damage or wear
- better working conditions
- low running costs resulting in a higher quality end product.



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