

On the right tracks

Hydrovane Transit has assisted railway construction equipment and machinery specialist, for ROBEL, in the design and installation of an Air System Module (ASM), for its latest track vehicle product.

Due to its high performance, the rail maintenance vehicle, known as 54.22, not only meets all of the requirements of a construction vehicle, but can also carry out certain tasks usually performed by shunting locomotives.

Benefits-at-a-glance

- High flow rate due to speed controlled hydrostatic drive, even at idling speed of the diesel engine
- Smooth running characteristics
- Compact design
- Clear construction, simple installation
- High efficiency and performance at a lower cost
- Air is provided for the entire brake and work pneumatic systems



Application Details

Unlike many other design solutions, which often include a main compressor connected directly to the diesel engine, Hydrovane was able to position its compressor underneath the vehicle's loading area, in the vicinity of the pneumatic installations, enabling air to be provided for the entire brake and work pneumatic systems.

The high flow rate of the Hydrovane unit prevented the requirement for a second compressor.

Andreas Pfingstl, Design Engineer, ROBEL explains: "The decision to choose Hydrovane was based on the compressor's high flow rate, which meant that only one unit was required. The clear design and resulting simple installation made Hydrovane an obvious choice of supplier."

The generated air pressure flows into the main air container, through two chamber air-drying devices and a superfine oil filter. The compressor shuts down when an air pressure of 10 bar has been reached, helping to improve efficiency.

A variable displacement pump supplies the hydraulic engine that powers the compressor. The hydrostatic drive enables a maximum flow rate even when the train is idling.

Hydrovane Transit has supplied 25 ASMs to ROBEL to date and plans to continue working in partnership to meet the company's compressed air requirements in new product development.

Customer

ROBEL
Bahnbaumaschinen
GmbH

Location

Freilassing, Germany

Application

54.22 rail maintenance
vehicle

Product

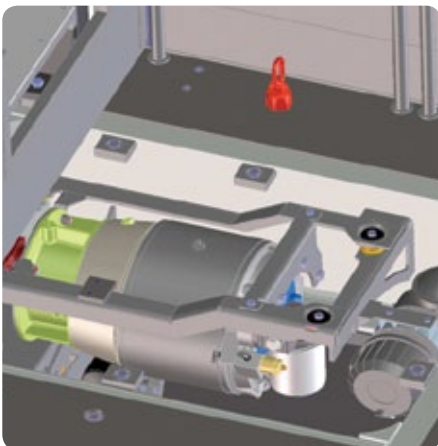
Horizontal 11kW
compressor delivering
1200 litres/minute

Customer Benefit

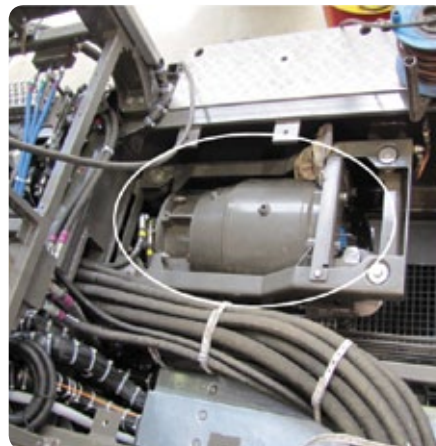
High performance at a
lower cost



“ The decision to choose Hydrovane was based on the compressor’s high flow rate, which meant that only one unit was required. The clear design and resulting simple installation made Hydrovane an obvious choice of supplier. ” *Andreas Pflingstl, Design Engineer, ROBEL*



Original concept CAD drawing by ROBEL



Air System Module (ASM) installed on 54.22

About the 54.22 Rail Maintenance Vehicle

The 54.22 can be equipped with a wide variety of equipment including cranes and lifting platforms, solutions for the maintenance of catenary installations and specialist equipment for work in winter and summer.

For example, it can be equipped with a snowplough in the winter and a mulcher or bridge inspection device in the summer, therefore allowing it to be used for the construction of new tracks, as well as the maintenance of existing ones.