



Larger Trucks – a Blessing for the Environment!

The Swedish national goal is to reduce emissions of greenhouse gases from transport vehicles by 40% year 2020.

During the same period, the number of transports will increase greatly, while the expansion of infrastructure will be very slow and expensive. One way to solve this “impossible” equation is to use existing infrastructure more efficiently. Railroad usage is already near the maximum limit on many sections, so in order to achieve major emission reductions; truck transports must be made more energy efficient.

More Ton-km per Vehicle and Lower Costs

So-called High Capacity Transports (HCT) provide lower CO₂ emissions combined with greater industrial efficiency and higher industry competitiveness. HCT transports mean bigger trucks that transport larger loads on existing roads, with less fuel consumed per ton-km. In an HCT project run by Swedish forestry research organization Skogforsk, Volvo trucks up to 90 tons, 32 meters long are being tested. They have a capacity of four stacks of lumber while conventional lumber trucks can manage only three. The goal is to reduce CO₂ emissions per ton-km, increase productivity of both vehicle and driver, and reduce road congestion – all without increased road wear or decreased safety.

So far, the results have been excellent. CO₂ emissions and fuel consumption have been reduced by approximately 20%. This is significant, as transport vehicles constitute a large portion of carbon dioxide emissions from the forestry industry. Road wear is reduced when the weight is distributed over several wheel axles and traffic safety has not been affected measurably. Longer passing distances for fellow road users will probably be compensated for by a lower number of trucks on the road.

JLT Computer in the Cab – Plenty of New Technology also in the Vehicle and Trailer

The trailer and dolly are constructed of light-weight and high high durability steel, all wheels are equipped with EBS brakes, an electronic system brakes all wheel axles simultaneously,

the crane scale weighs lumber during work, and a new type of towing hook is used. Another new function is IT support that facilitates loading and driving, for optimal traction. Pneumatic cushioning in the vehicle enables redistribution of the load over the axles.

Traction Control is Vital in Long Trucks

Bennesveds Åkeri AB, a haulage contractor in Älgult Sweden, has a 74 ton vehicle for lumber haulage for Sveaskog. In the driver's cabin there is a JLT computer with Windows Embedded Standard installed. The vehicle computer is connected to the data bus system in the truck and is continuously monitoring the conditions that relate to traction and how the truck is driven.

The driver gets information and warnings about weights etc. on up to 11 wheel-axles, all tire pressures and, when needed, instructions about reloading. Everything is continuously logged and computed in reports as feedback to vehicle developers and truckers. Driving data can also be used to optimize driving on recurring routes, further reducing costs for fuel and wear.



Many Winners and Benefits, and No Losers

The environment is spared. CO2 emissions decrease, as well as the trucker's fuel costs. Bennesveds' experience with its large vehicle is that truckers get higher earnings per driver and vehicle, particularly with longer transports. Truck driver shortages are reduced when fewer vehicles are used. Drivers get advanced assistance with loading and driving, and have an improved work environment in a technologically advanced and exciting truck. Roads fare better when the axle pressure is reduced and braking is optimized. Fellow road users do get longer passing distances, however this will likely be compensated for by a lower number of trucks to pass. And fewer overloaded trucks, combined with improved traction, contribute to safer traffic.

Professional IT in the Cab – Also Helps the Economy

Efficiency can be increased greatly when a truck cab is equipped with a rugged vehicle PC. It can be used for order management, transport and route planning, map data, safety functions, vehicle and driver follow-up, run time reporting, driver education/Eco Driving, and other factors that increase revenue and decrease operational expenses. In HCT-cars, vehicle computers are also used to inform and instruct the driver about optimal handling of the vehicle.

Transportation coordination has many benefits. The correct vehicle, with suitable equipment in the right place at the right time, increases the number of ton-km of useful transports. Elimination of incorrect routes saves fuel and revenues increase when more paid transport work is performed. Direct and correct reporting from the drivers increases invoicing quality. Route optimizing in combination with fast delivery of driving orders, with coordinates for shipment addresses, will minimize driving distances.

A PC that You Can Always Depend On!

A truck computer must be able to handle conditions which would destroy a standard computer in a few hours. JLT's rugged computers are built to withstand arctic cold, desert heat, sand, dust, rain, and other fluids, heavy vibrations and impacts. If a restart should be needed, both operating systems and all vital applications must start up quickly and correctly.

Drivers and truckers must be able to rely on their computer being fully functional at all times. JLT's computers are therefore enclosed in an aluminum case, and contain components that are intended for industrial use. All connectors and openings are sealed against particles and protected against EMC radiation. This means that they can be used for everyday tasks for which IT support does not seem possible or economically justifiable.

Reduces total cost of ownership and improves users' productivity

Model: JLT 1214P



Because it Works!™

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