

JOST JSK38C-1-2 Recommended applications.

When specifying equipment for your new truck and trailer purchase you need to take not only the static forces but also dynamic forces imposed by the trailer into account.

JSK38C-1-2 Specifications

Imposed load 36 tons
GCM 65 Tons
D-Value 152kN
38 inches support across the top plate
Height 190mm
Material SG Iron and Cast Steel
available dependent on your application requirements.



Where would we need a fifth wheel with these attributes in South Africa's transport industry?



Side tipper trailers



Tri-axle liquid bulk tankers



Auger bulker tankers

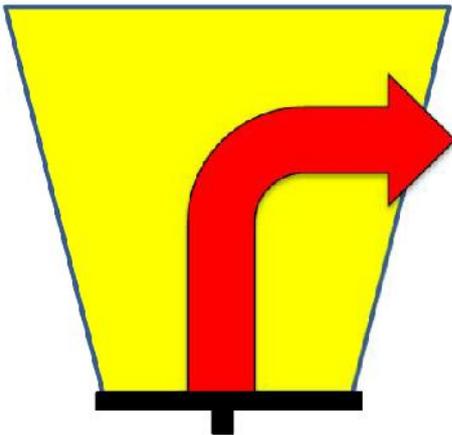


Dry-bulk tanker trailers

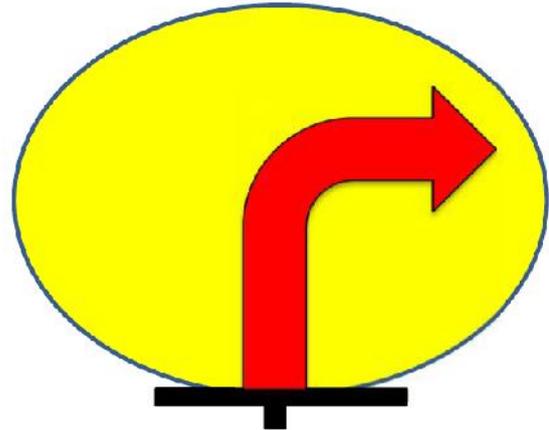
The question is:

Why recommend the JSK38C-1-2 fifth wheel for these applications?

Both these trailers have a high centre of gravity which enables a large lever and large forces impacting on the skid plate and also load shifts over the fifth wheel top plate.



Side Tipper side forces



Tanker trailer side forces

Tri-axle tankers and side tippers have one thing in common. Side load! Side tippers when they tip and tankers due to the dynamic nature of their loads moving inside the tank tends to move the weight of the trailer to concentrate the load on just one pedestal of the fifth wheel. In the case of any standard 2" fifth wheel the maximum imposed load per pedestal is 10 tons, in the case of the JOST JSK38C-1 fifth wheel modified to 2" JSK38C-1-2 the maximum imposed load per pedestal is 18 tons which means that the fifth wheel can support the load of the trailer on one pedestal alone without causing any damage to the pedestal rubbers ensuring that no vibration is transferred to the tanker to limit metal fatigue and thus the chances of cracks forming. The drivetrain of the towing vehicle will also benefit from the increased shock absorbing capabilities of the JSK38C-1-2 fifth wheel.

The JSK 38C-1-2 fifth wheel is also available in two types of materials from JOST in South Africa. We have the cast steel version made in SA for very contaminated environments to limit wear on the fifth wheel top plate. For less contaminated environments we can also supply the JSK38C-1-2 in an SG iron version which will give better protection to the skid plate. In both cases the limiting factor is using the correct lubrication, clean the fifth wheel and skid plate every 5000km and grease with EP2Graphite lubrication.

Having the correct fifth wheel for the application is one thing, but getting the most out of that fifth wheel is up to the condition of the skid plate and its ability to support the load and deal with the forces imposed on the skid plate without deforming. A skid plate that does not make 100% even load contact with the fifth wheel top plate will create high pressure areas that will lead to lubrication being removed prematurely in those high load areas leading to increased friction and abnormal wear on the skid plate and fifth wheel which will lead to premature replacement.



Max gap allowed new 1,5mm used 2mm. This skid plate will cause serious damage to any fifth wheel

JOST recommends for side tippers and tri-axe tankers the correct skid plate thickness to be 12mm WR50C material fitted with a KZ1012 for poor roads and heavy applications and a skid plate thickness to be 10mm WR50C material fitted with a KZ1010 flange type kingpin for good road conditions and fair operating conditions. Installed and supported as per JOST recommended installation instructions and government legislation:

Government Gazette no: 32916 5 Feb 2010. Compulsory specification of motor vehicles type O3 and O4 point no 3.6 Requirements for couplings on semi-trailers.