

Be careful not to install wear discs between the fifth wheel top plate and the semi-trailer rubbing (skid) plate

Several transporters are reverting to the use of a plastic type wear disc that is fitted between the fifth wheel top plate and the rubbing plate of the semi-trailer to reduce the amount of wear on both the fifth wheel top plate and the semi-trailer rubbing plate and/or to eliminate the need for greasing the fifth wheel top plate.

This is an extremely dangerous practice and is to be avoided at all costs as it could have serious or even catastrophic consequences. To mention only a few potential dangers: -



- In most instances this wear disc is fixed to the kingpin and covers the rubbing plate of the semi-trailer. This makes it impossible to visually determine damage to the semi-trailer rubbing plate during routine maintenance inspections, unless the wear disc is physically removed from the semi-trailer rubbing plate. A damaged semi-trailer rubbing plate that goes unchecked could damage the fifth wheel beyond repair and could even collapse altogether, resulting in the semi-trailer detaching from the fifth wheel.
- The wear disc interferes with the gap between the upper and lower shoulders of the kingpin and the lockjaw of the fifth wheel. This could result in a miss-coupling and, as the semi-trailer is not securely coupled to the fifth wheel, the trailer could drop off from the fifth wheel at any time during travel. Should the kingpin height be increased to accommodate for the thickness of the wear disc it will result in an increased bending moment on the kingpin, increasing the forces and stresses acting in on the kingpin. The kingpin will also no longer conform to S.A.B.S. specifications.
- As the wear disc is only secured to the kingpin, the outer circumference of the wear disc hangs loose and could get rolled up between the semi-trailer rubbing plate and the fifth wheel top plate during the coupling process, resulting in a miss-coupling with the same disastrous consequences as mentioned in the previous point.
- In side tipper applications the bending moment caused by the upwards moment of the kingpin during the tipping cycle is increased as there is no play between the bottom shoulder of the kingpin and the underside of the lockjaw. This could result in the bottom shoulder of the kingpin shearing off where it is in contact with the lockjaw and/or the fifth wheel top plate cracking through the centre and ultimately failing completely.

A much safer alternative to the fitting of a separate wear disc will be to use a JOST JSK37CW low maintenance fifth wheel with a Lube-Tronic automatic lubricator fitted to the fifth wheel (this option is only suited to on-road applications and not for side tipping applications). This fifth wheel is fitted with “built in” plastic liners which is bolted onto the fifth wheel top plate and visual inspections of the semi-trailer rubbing plate, once the semi-trailer is uncoupled from the wheel, is still possible.



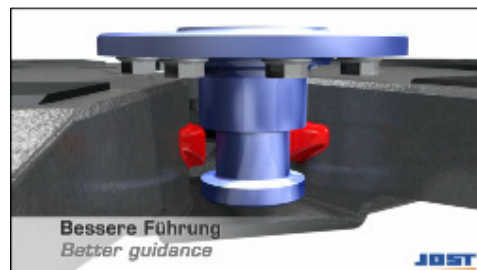
These plastic liners do not require greasing, only a thin layer of oil which is spread over the Teflon liners to prevent the semi-trailer rubbing plate from “biting” into the liners and to facilitate ease of steering. This results in a much cleaner operation.

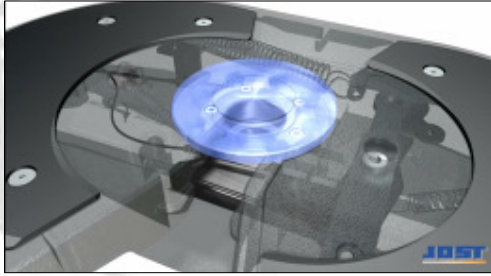
The plastic liners, once worn down, can easily be replaced (without having to remove the fifth wheel top plate from the pedestals) at a fraction of the cost of a new fifth wheel and will not damage the semi-trailer rubbing plate. Once the liners are replaced, the fifth wheel is restored back to its original condition. Needless to say, wear checks on the high wearing components (lockjaw, wearing ring and kingpin) must still be conducted at regular intervals.



The wearing ring of the JSK37CW low maintenance fifth wheel is also equipped with a plastic insert which can be replaced once worn down. This plastic insert in the wearing ring protects the top shoulder of the kingpin, reducing wear.

The height of the JSK37CW fifth wheel is specifically designed to suit the standard height of a 2” kingpin.





Eliminating the possibility that a miss-coupling could occur as a result of interference in the gap between the lockjaw and the top and bottom shoulders of the kingpin.

The Lube-Tronic lubricator, once activated, will provide a sufficient amount of grease to the lockjaw to ensure that wear between the lockjaw and the kingpin is minimised and will keep the lockjaw lubricated for up to three years.

It should be noted that coupling procedures to be followed are different when using the JSK37CW fifth wheel.



Please feel free to contact us or one of our distributors for assistance in this regard.

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