

Swing damper torque and vehicle angles
Car carrier vehicle

Ball coupling device:

$S=1000\text{ kg}$

$D_c = 154\text{ kN}$

$V= 125\text{ kN}$

Outer stabilizer ring for yaw oscillation damping

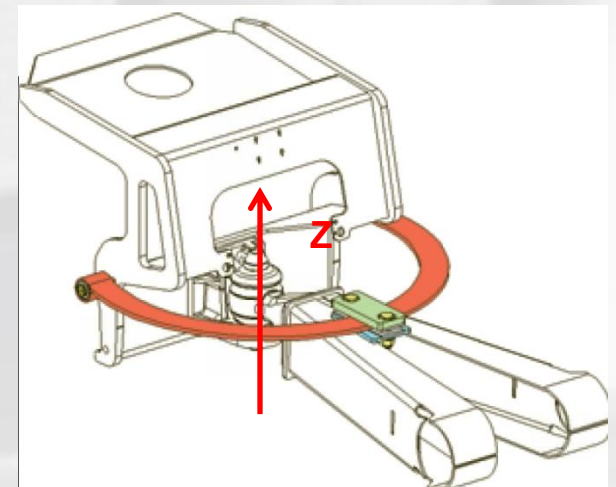
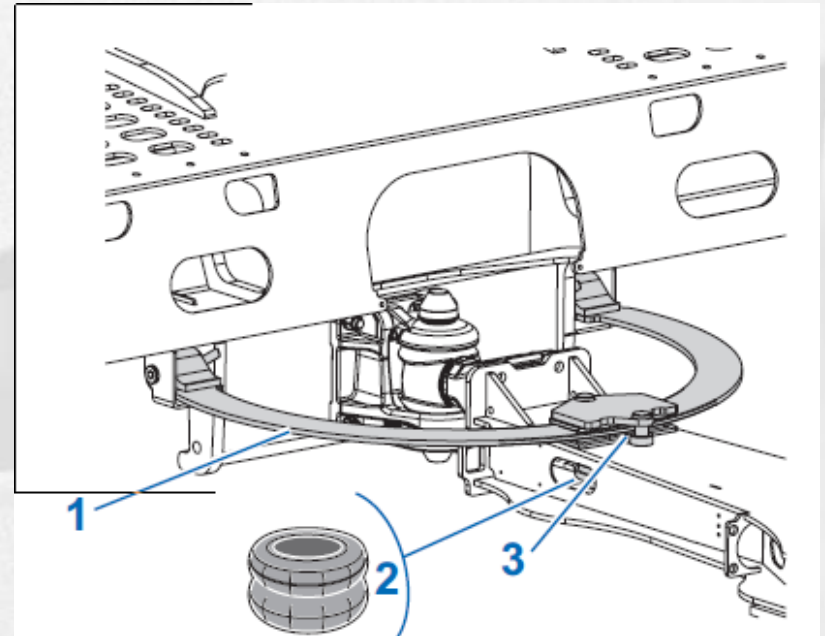
1 - metallic ring with bush mounting to the truck bodywork

2 - pneumatic load

3 - friction pads

Pneumatic load is constant and the yaw friction torque is:

$M/z = 2\ 870\text{ Nm}$



**Coupling device
with friction discs**

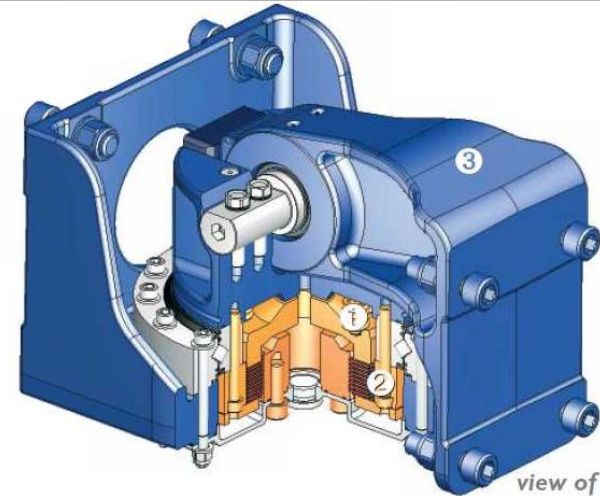
$S=1000\text{kg}$

$D_c= 122\text{ kN}$

$V= 93\text{ kN}$



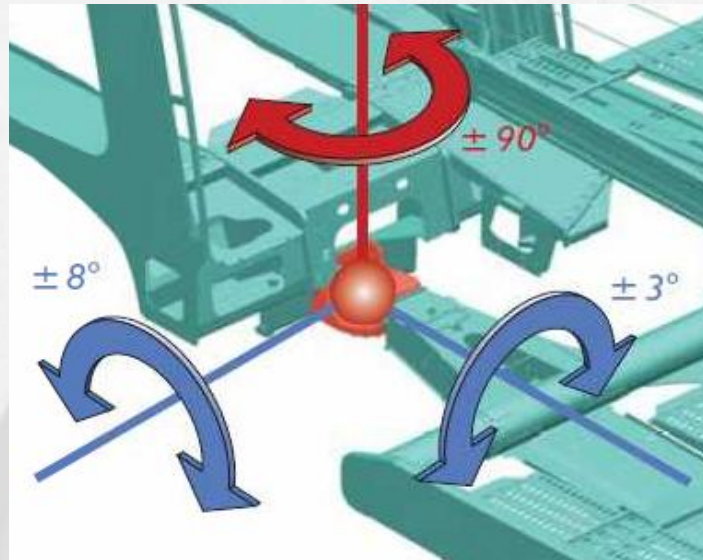
view from outside



view of the mechanism

**Friction torque:
 $M/z = 3\ 540\ \text{Nm}$**

These new characteristics demonstrate improved handling performances of the equipment. The system is composed of the superimposition of discs (1) compressed by strong springs. The damping (2) action is achieved by the lubricated friction of the discs. The whole system is protected in the casted housing (3).



Articulation angles

	Device angles	Vehicle angle limits
Horizontal angle / vertical	+/- 90°	+/- 90°
Vertical angle / transverse	+/- 8°	+/- 5°
axial angle / longitudinal	+/- 3°	+/- 3°