Swing damper torque and vehicle angles

Car carrier vehicle
Ball coupling device:
S = 1000 kg
Dc = 154 kN
V = 125 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:

\[ M/z = 2870 \text{Nm} \]
Coupling device with friction discs
S = 1000 kg
Dc = 122 kN
V = 93 kN

Friction torque:
\[ M/z = 3540 \text{ Nm} \]

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

<table>
<thead>
<tr>
<th>Device angles</th>
<th>Vehicle angle limits</th>
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<tbody>
<tr>
<td>Horizontal angle / vertical</td>
<td>+/- 90°</td>
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<tr>
<td>Vertical angle / transverse</td>
<td>+/- 8°</td>
</tr>
<tr>
<td>axial angle / longitudinal</td>
<td>+/- 3°</td>
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