Threshold pressures

Towing Vehicle 0.4 bar
Semi-trailer 1.2 bar
Threshold pressure difference +0.8

Laps completed during road trails 5 (900km) fully laden

End result
Tractor No degradation in performance
Probable severe steer axle lining wear
Probable severe drive axle lining wear
No glazing

Trailer No degradation in performance
Probable low lining wear
Probable glazing if trials continued

List of Figures

Figure H1 Brake temperature changes during road trials
Figure H2 Brake temperature changes during before and after road trial snub tests
Figure H3 Pressure and deceleration frequencies during road trials
Figure H4 Mean Fully Developed Deceleration and fifth wheel forces
ANNEX H1: Road trials

Brake temperature changes during road trial. Sample one (1st run), eighth set-up

Brake temperature changes during road trial. Sample two (3rd run), eighth set-up

Brake temperature changes during road trial. Sample three (5th run), eighth set-up
ANNEX H2: Snub tests

1 bar snub test (before road runs)

1 bar snub test (after road runs)

2 bar snub test (before road runs)

2 bar snub test (after road runs)

4.5 bar snub test (before road runs)

4.5 bar snub test (after road runs)
ANNEX H3: Brake demand

Average vehicle deceleration (g) eighth set-up

Average overall vehicle deceleration = 0.063 g
95th percentile = 0.119 g

Average coupling head pressure (bar)

Average overall coupling head pressure = 1.19 bar
95th Percentile = 1.72 bar
ANNEX H4: Mean Fully Developed Deceleration

Setup 8

Coupling Head Pressure (bar)

Average MFDD (g)

Before
After

Fifth wheel forces: eighth setup

Forces (kN)

Elapsed Time (hh:mm)

Longitudinal
Vertical
Turning