

VEHICLE TITLE**FS ETR500 COACH****MASSES & INERTIAS**

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|-------------------------------|-------------------------|
| Number of bogies | 2 |
| Number of axles (per bogie) | 2 |
| Body mass | 34.23 Mg |
| Body roll inertia | 54.63 Mgm ² |
| Body pitch inertia | 1821.0 Mgm ² |
| Body yaw inertia | 1760.0 Mgm ² |
| Bogie mass | 2.76 Mg |
| Bogie roll inertia | 2.034 Mgm ² |
| Bogie pitch inertia | 2.504 Mgm ² |
| Bogie yaw inertia | 4.071 Mgm ² |
| Wheelset mass | 1.58 Mg |
| Wheelset roll and yaw inertia | 0.753 Mgm ² |

DIMENSIONS

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| Semi pivot spacing | 9.5 m |
| Semi wheelbase | 1.5 m |
| Wheel radius | 0.44 m |
| Body centre of gravity height above rail level | 1.5 m |
| Bogie centre of gravity height above rail level | 0.68 m |

PRIMARY SUSPENSION

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|--|-------------|
| Lateral stiffness (per axle) | 4.35 MN/m |
| Vertical stiffness (per axle) | 1.61 MN/m |
| Yaw stiffness (per axle) | 14.0 MNm/r |
| Lateral damper rate (per axle) | - MNs/m |
| Vertical damper rate (per axle) | 0.015 MNs/m |
| Vertical friction breakout (per axle) | - KN |
| Height above rail level of lateral springs | 0.44 m |
| Lateral semi spacing of vertical springs | 0.96 m |
| Height above rail level of lateral dampers | - m |
| Lateral semi spacing of vertical dampers | 0.96 m |
| Lateral semi spacing of vertical friction | - m |