VEHICLE TITLE **FS E444 LOCOMOTIVE**

MASSES & INERTIAS

Number of bogies	2
Number of axles (per bogie)	2
Body mass	64.6 Mg
Body roll inertia	53.366 Mgm^2
Body pitch inertia	1643.0 Mgm^2
Body yaw inertia	1630.0 Mgm^2
Bogie mass	4.0 Mg
Bogie roll inertia	3.115 Mgm^2
Bogie pitch inertia	5.843 Mgm^2
Bogie yaw inertia	8.107 Mgm^2
Wheelset mass	2.1 Mg
Wheelset roll and yaw inertia	1.164 Mgm^2

DIMENSIONS

Semi pivot spacing	4.5 m
Semi wheelbase	1.3 m
Wheel radius	0.55 m
Body centre of gravity height above rail level	1.65 m
Bogie centre of gravity height above rail level	0.64 m

PRIMARY SUSPENSION

Lateral stiffness (per axle)	12.0 MN/m
Vertical stiffness (per axle)	4.0 MN/m
Yaw stiffness (per axle)	15.4 MNm/r
Lateral damper rate (per axle)	- MNs/m
Vertical damper rate (per axle)	0.03 MNs/m
Vertical friction breakout (per axle)	- KN
Height above rail level of lateral springs	0.55 m
Lateral semi spacing of vertical springs	1.03 m
Height above rail level of lateral dampers	- m
Lateral semi spacing of vertical dampers	1.2 m
Lateral semi spacing of vertical friction	- m