VEHICLE MODEL PARAMETER LISTS

VEHICLE TITLE BR CLASS 56 LOCOMOTIVE

MASSES & INERTIAS

Number of bogies	2
Number of axles (per bogie)	3
Body mass	81.2 Mg
Body roll inertia	107.0 Mgm^2
Body pitch inertia	1400.0 Mgm^2
Body yaw inertia	1400.0 Mgm^2
Bogie mass	5.6 Mg
Bogie roll inertia	5.0 Mgm^2
Bogie pitch inertia	21.6 Mgm^2
Bogie yaw inertia	21.6 Mgm^2
Wheelset mass	2.2 Mg
Wheelset roll and yaw inertia	2.7 Mgm^2

DIMENSIONS

Semi pivot spacing	5.19 m
Semi wheelbase	2.09 m
Wheel radius	0.57 m
Body centre of gravity height above rail level	1.85 m
Bogie centre of gravity height above rail level	0.86 m

PRIMARY SUSPENSION

Lateral stiffness (per axle)	0.1 MN/m
Vertical stiffness (per axle)	2.63 MN/m
Yaw stiffness (per axle)	29.0 MNm/r
Lateral damper rate (per axle)	- MNs/m
Vertical damper rate (per axle)	0.05 MNs/m
Vertical friction breakout (per axle)	- KN
Height above rail level of lateral springs	0.67 m
Lateral semi spacing of vertical springs	1.035 m
Height above rail level of lateral dampers	- m
Lateral semi spacing of vertical dampers	1.035 m
Lateral semi spacing of vertical friction	- m