Supplementary Material

Table 4. Notations and values of freight cars properties used in the train-track-bridge model

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Box | Tank | Flat | Hopper | Covered Hopper | Gondola | Unit |
|  | car body mass |  |  |  |  |  |  | kg |
|  | car body mass inertia |  |  |  |  |  |  | kg.m2 |
|  | secondary suspension damping |  |  |  |  |  |  | kN.s/m |
|  | secondary suspension stiffness |  |  |  |  |  |  | kN/m |
|  | bogie mass |  |  |  |  |  |  | kg |
|  | bogie mass inertia |  |  |  |  |  |  | kg.m2 |
|  | primary suspension damping |  |  |  |  |  |  | kN.s/m |
|  | primary suspension stiffness |  |  |  |  |  |  | kN/m |
|  | wheel mass |  |  |  |  |  |  | kg |
|  | Axle spacing within one bogie |  |  |  |  |  |  | m |
|  | Axle spacing within different bogies |  |  |  |  |  |  | m |