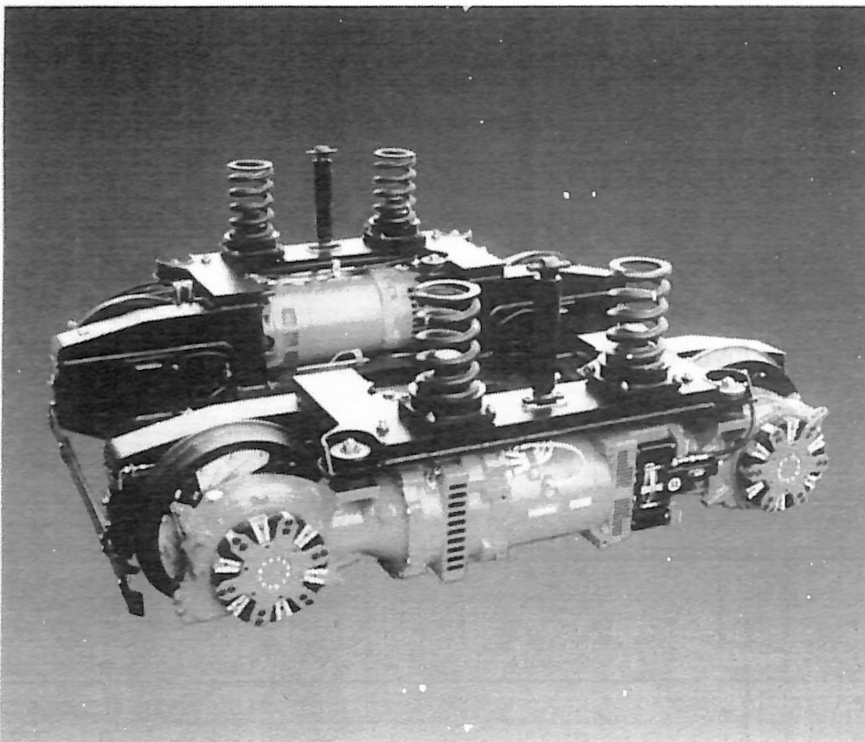


Motor Bogies for Low-Floor Tramcars SF 30 -TF and SF 30 - MTF

Technical Information



The motor bogie SF 30 TF for low floor tramcars is used to achieve a floor height of 320 (360) mm above top of rail, throughout the car without the need for any steps within the vehicle. With regard to its vertical axis, the bogie has a torsion-resistant connection to the carbody by means of two longitudinal guides, in order to achieve optimum gangway width between the wheel guards. It is therefore always used on short carbody units, to which other carbody components can be connected on one or both sides by means of suspended articulations.

The bogie is equipped with completely suspended traction drive units with separately ventilated three-phase asynchronous motors in which the wheels, arranged in line, are speed-coupled by means of the motor gearing unit. This design gives the bogie excellent axle

guidance characteristics such as self-centering and low tendency to lateral oscillation.

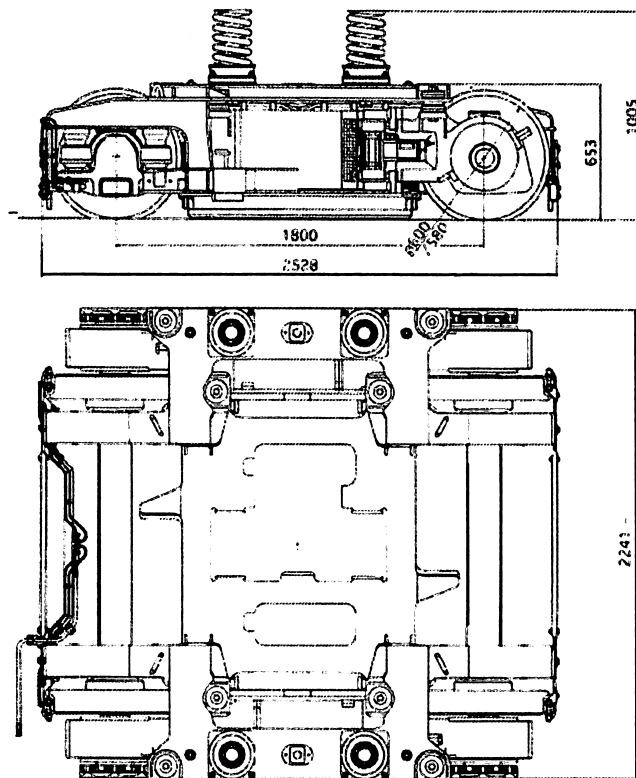
The traction drive units equipped with spring-loaded brakes, are arranged at the side, so that all major traction and brake components can easily be reached. As a result all maintenance work can usually be performed without the need for a pit. The complete traction drive units can even be removed and installed without the need to lift the vehicle and without removing the bogies.

The torque transmission from the traction motor and from the front and rear wheel disc brake fitted on the motor shaft is effected by low-noise bevel gear and two cardanic-acting rubber tapered couplings which are arranged at different levels. The cardan shaft fitted in between can be separated for

assembly purposes. Primary suspension features rotationally symmetrical rubber-metal springs with good self-damping characteristics, ensuring longitudinally and laterally flexible wheel-set guidance.

Secondary suspension features steel helical springs, combined with additional rubber springs, giving progressive spring characteristics for good ride quality in all load conditions. Vertical and lateral movement is damped hydraulically.

Each bogie wheel is equipped with an earthing contact which is accessible from the vehicle side (pit).



Bogie	SF30-TA (Standard gauge)	SF 30 - MTF (Meter gauge)
Track gauge	1435-1456 mm	1000 mm
Wheelbase	1800 mm	1800 mm
Wheel diameter new/worn	600/520 mm	600/520 mm
Minimum radius of curvature	15m	15m
Maximum speed	80 km/h	80 km/h
Maximum wheel load	4 x 5 to	4 x 5 to
Weight	4,5 to	4.5 to
Max. static bogie load	15,5 to	15,5 to
Continuous output	2x100kW	2 x 100 kW
Max. tractive effort of motor boarie	35 kN	35 kN
Max. braking effort at axle	4 x 13 kN	4 x 13 kN
Special equipment	2 magnetic track brakes with application force of 70 kN each; sanding equipment, wheel-flange lubrication system, wheel noise dampers	2 magnetic track brakes with application force of 60 kN each; sanding equipment, wheel-flange lubrication system, wheel noise dampers

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