New Grease Replacement System for Midterm Lubrication for Traction Motor Bearings

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To eliminate the disassembly maintenance for traction motors of railway vehicles, it is required to extend the grease service life of bearings, which has the shortest period to be replaced or refilled among the traction motor components. Intermediate grease refilling is effective to extend the service life, however, it is difficult to obtain the best performance due to unstable effect of refilling. To solve this problem, a new device was designed which enables replacing the deteriorated grease with same amount of the less deteriorated one inside the grease pocket. In this report, the authors performed the on-track test of the experimental models of traction motors with this device and discussed the influence of grease stiffening with long term usage.