

ABSTRACT

SOUNDPROOF WHEEL FOR RAILWAY VEHICLE

This soundproof wheel includes a soundproofing device (3) which is mounted to an inner peripheral surface (6) of a rim section (5) of the wheel. The soundproofing device (3) is provided with: a fixing ring (10) which is fitted in and fixed to a groove (8) formed in the inner peripheral surface (6); a first elastic body section (11A) which is stuck to an outer peripheral surface (10a) of the fixing ring (10), is disposed within the groove (8), and has a plurality of first elastic body pieces; an additional mass section (12) which is stuck to a side of the first elastic body section (11A) opposite to the fixing ring (10), is disposed within the groove (8), and has a plurality of additional mass pieces; and a second elastic body section (11B) which is stuck to a side of the additional mass section (12) opposite to the first elastic body section (11A), is disposed within the groove (8), and has a plurality of second elastic body pieces. The soundproofing device (3) includes a plurality of dynamic vibration absorbers. Each of the dynamic vibration absorbers has first and second elastic body pieces and an additional mass piece. This soundproof wheel allows for significant reduction in wheel vibration noise and is highly durable.

FIG. 1B