
FAG Journal Roller Bearings TAROL for the American Flyer



Examples of Application Engineering

Publ. No. WL 07 508 EA



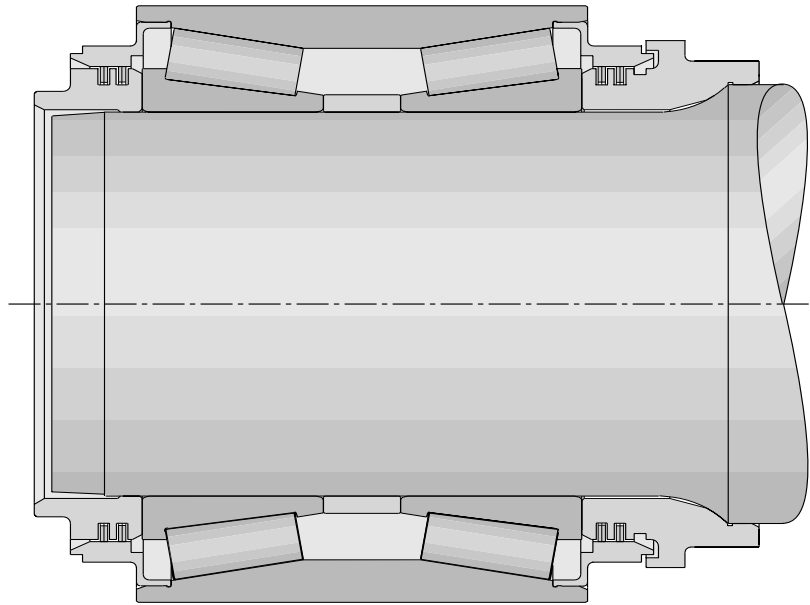
American Flyer: New development by the consortium of Bombardier Transportation (Canada) and ALSTOM (France)

American Flyer - that is the name of the new American high-speed trains which are designed to close the gap in the high-speed sector still existing in comparison with Europe (TGV, ICE) and Japan (Shinkansen). The trains, operated by AMTRAK, are scheduled to provide regular rail

service in the Northeast Corridor (NEC) linking Boston, New York and Washington starting at the end of 1999. To make the rail line fit for high-speed service, extensive upgrading and modernization was required. Apart from 18 electric trainsets

(power car-coaches with tilting system-power car), 15 electric locomotives have been ordered for classical trains.

FAG supply all the journal roller bearings, traction motor bearings and transmission bearings for the power cars and locomotives.



FAG journal roller bearing TAROL with non-rubbing seals

Vehicle data

Maximum operating speed:

Trainset $v_{\max} = 240 \text{ km/h}$

Electric locomotive $v_{\max} = 220 \text{ km/h}$

Axle loads:

Power car 23 t

Electric locomotive 25 t

Maintenance interval

(incl. bearing inspection): 800,000 km

Transmission

The forces to be accommodated via the transmission shafts are taken up by oil-lubricated cylindrical roller bearings of types NU and NUP.

The radial clearance of the bearings is specially adapted to the application.

Traction motor

At the ventilation end of the traction motor shaft a grease-lubricated cylindrical roller bearing of type NJ with an angle ring is mounted.

Journal roller bearings

- journal roller bearings TAROL (tapered roller bearings) ready-to-mount in inch dimensions
- biggest journal roller bearings in high speed rail service
- non-rubbing seals (lamellar rings)
- NFL design (No Field Lubrication)
- bearing components 100% subjected to nondestructive testing (safety parts)
- high speed index ($n \cdot d_m$) for journal roller bearings (due to the required bearing size)
- bearings must prove their suitability on test rigs at FAG before being accepted for field use.

FAG OEM und Handel AG

Rail Vehicles

Postfach 1260 · D-97 419 Schweinfurt

Phone: (0 97 21) 91 23 66

Fax: (0 97 21) 91 37 88