Manufacturer-Related Product Qualification

for railway rolling stock components

Certificate registration no.: 1982021

Manufacturer

Josef Brechmann GmbH & Co.KG
Hauptstraße 37/39
33758 Schloß Holte-Stukenbrock
Germany

Scope of qualification

Product groups (PG)/Product (see annex 1)	**Manufacturing steps**	**Material group (WG)**
PG 11: general components	Casting EN 1559, Heat treatment: external	WG G3 GJS EN 1564 WG G4 GJS EN 1563 WG G5 GJL EN 1561

Manufacturer's mark used

Basis of qualification:

- Evaluation of manufacturing plant and the production processes: June 27th+28th 2018
- Manufacturer declaration from March 24th 2021
- Product testing: ☒ internal / ☒ external
- Audit report no.: HPQ-FE.EF42-20-021-0258 from March 24th 2021

Remarks to the scope of qualification and general restrictions:

- In acc. with annex 2 to the certificate

Period of validity: **April 2024**

Deutsche Bahn AG
Qualitätssicherung Beschaffung Schienenfahrzeuge und Schienenfahrzeugteile
Produktqualifikationen FE.EF 42(1)

Berlin, March 31st 2021

Klaus Bismark
Digital unterschrieben von Klaus Bismark

Christian Pohlmann
Digital unterschrieben von Christian Pohlmann

Annex 1 – Product groups

No. LgP	component	remark
	product group 1 – windscreens	
340	End wall window, windscreen (inc. heating system)	
	product group 2 – wheelset components	
450	Wheelset (complete)	
452	Monobloc wheel	
454	Wheel body	
455	Wheel tyre	
461	Axle with/without a central bore	
462	Axle with central bore / boring/drilling	
463	Molybdenum-coated wheelset / molybdenum coating	
	product group 3 – axle box bearings	
468	Roller bearing for axlebox	
469	Roller bearing components: inner ring, outer ring	
	product group 4 – axle box housings	
466	Axle box housing, axle bearing housing	
	product group 5 - springs	
390/419	Coil springs	
395/423	Laminated suspension spring (complete)/spring leaf (individual)	
	product group 6 – brake discs and hubs	
1597-1	Friction rings and segments for brake discs	Raw part, unmachined
1597-2	Hub	
	product group 7 - housings	
268	Coupler head/coupling head/coupling head housing/catcher	
800	Gearbox housing	
820	Traction motor housing	
843	Hollow drive shaft, hollow axle	
846	Hollow shaft casing	
850	Gearbox housing	
947	Brake shaft, Hollow brake shaft	
	product group 8 – draw hooks	
300	Coupling hook	
	product group 10 – draw bars	
308	Drawbar, forked drawbar	
	product group 11 – general components	
171	Bracket/bearer/suspension system (power trans-mission between the running gear/truck and the vehicle body)	Vehicle body shell/body shell/vehicle body/structure, Welded-on parts, vehicle body fittings and structures
285	Central articulated joint, car body articulated joint	Buffing and draw gear, coupler
293	Components such as sleeves, plungers and buffer heads	Side/self-contained buffers, complete, crash buffers
295	Impact protection element (steel, reversible, e.g. annular springs, friction springs)	Buffing gear, Impact protection elements
372	Solebar, truck side member	Chassis/running gear/truck (complete), load-bearing structures
373	Crossbeam	
376	Suspension rod	Load bearing structure of the secondary suspension stage
377	Truck bolster/beam	
378	Spring bracket, hollow shaft	
397	Spring suspension, spring bearing, spring guide	
400	Spring hanger	
401	Spring bolt	
414	Wheelset bracket	
426	Beam, pneumatic spring bracket	Pneumatic spring system (complete)
444	Yaw damper bracket, rotation damper bracket	Rotation stabilization system, yaw stabilization system
447	Torsion shaft, torsion bar	Suspension, damping, wheel(set) mounting, Friction torque inhibitor elements
467	Casing sleeves	Axle box complete (axle roller bearing, wheelset roller bearing)
484	Push-pull bar, link rod	Running gear-vehicle body connection, Articulation, tensile force articulation, lengthwise articulation
485	Coupling element/coupling rod	
486	Tensile force articulation system housing	
488	Truck stop block	
492	Truck pivot, central casting pins	Truck pivot, central casting, slewing rim
497	Central casting upper/lower	
498	Slewing rim	
501	Torsion bar (including level), torsion shaft	Anti-roll system
502	Drawbar for torsion bar	
503	Roll bar bearing	
509	Pendulum for torque support	Drehmomentstütze
531	Brake suspension system (e.g. from brake beam inter alia)	HPQ for components with a supporting/counter-bearing role, Brackets, suspension systems (Running gear – fittings/auxiliary function)
532	Damper mounting brackets	
544	Tilting crossbeam including suspension	Tilt system
545	Suspension rod, tilting pendulum	
546	Ball-and-socket joint, articulated joint	
547	Truck bolster	
548	Pendulum carrier, pendulum connection	
707	Supporting frame, supporting structure for generator, stator casing	Main generator system (traction generator)
821	Bearing shield: driven and non-driven end	Drive, traction motor, gearbox
836	Traction motor and drive suspension system pendulum	Traction motor suspension/drive suspension system (complete)
872	Connecting rod, coupling rod	Rod drive, chain drive
874	Torque dampers	
954	Brake guide	Brake actuating elements- Brake caliper unit
955	Brake caliper/brake caliper lever	
956	Bracket	
957	Housing	
958	Main suspension/mounting (pins, suspension bracket inter alia)	
961	Main suspension/mounting (pins, suspension lug, etc.)	Brake caliper unit
962	Lever	
963	Housing	
967	Brake drum	
978-2	Brake tie bar, brake flange, brake beam	
998	Integral beam	Eddy-current magnet (complete)
999	Tragarm	
1000	Track holder complete, retaining bracket	
1001	Brake support, braking force support, complete	
1005	Clamp, bracket	Eddy-current magnet - Suspension/lowering system (complete)
1008	Support frame	Electromagnetic rail brake (complete)
1009	Trackholder (complete)	
1010	Trackholder head	
1012	Pull bow, thrust bow	
1013	Driver, driver stem, driver stop	
1014	Suspension stand	
	product group 12 – general components with special testing	
402	Spring shackle	
978-1	Brake triangles	
969	Brake blocks	
304	Coupling pins, looped coupling links, coupling links, coupling nuts, coupling screws	Screw coupling
311	Coupling bolt	Drawbar, forked drawbar

Remarks to the scope of qualification:

- none

General restrictions to Manufacturer-Related Product Qualification:

- This qualification does not cover products which require a separate manufacturer-related product qualification by the applicable Deutsche Bahn standards.
- The certification in according to EN 15085-2 and DB AG directive 951 is necessary for welding of rail vehicle parts.
- Exclusively subcontractors qualified by the Deutsche Bahn AG can be authorized to carry out the heat treatment.

The following services are subject to charge:

- re-issuing the certificate because of a change of ownership, a change of the company name or a change in the scope of this qualification
- additional certificates in English (three copies per set)

Information duties:

- The issue of a manufacturer related product qualification (HPQ) is always based on the state determined at the time of the audit. All essential changes of processes or manufacturing systems/equipment that are planned or carried out subsequently must always be notified by the manufacturer to DB AG in advance. DB AG shall decide necessary actions in individual cases.
- A violation of the information obligation may lead to the withdrawal of HPQ.
- The qualification may be withdrawn, if quality problems arise that cast doubt on the current status of this qualification or if a manufacturer disregards important conditions of this qualification.