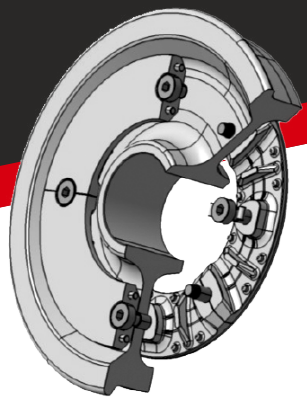
DATA SHEET

Wabtec CORPORATION

4 SEGMENTS WHEEL MOUNTED **BRAKE DISC**

Easy maintenance disc range for all market segments



REPLACE YOUR DISC WITHOUT DISMOUNTING THE WHEEL

Full material range, including High Grade Cast Iron (HGCI) offering higher thermal load than grey cast iron for a fraction of the steel cost.

A **full range** of wheel mounted discs, usual and custom sizes, in 4 segments for easy installation & maintenance, 8 holes pattern.

Two materials available: High-grade cast-iron & steel for optimal CAPEX & OPEX upon project specification.

The **isostatic fixing** between the different segments allows a relative movement from each segment, the disc is more resilient to cracking or coning, longer disc lifespan

Innovative fixing design: Direct fixation on the segment for reduced maintenance cost; centering directly on the screw for minimal part number and simplified maintenance. Minimizes pad wear and dust emission.

CFD optimized ventilation layout to reduce drag & increase thermal exchange. Up to -15% disc temperature reduction on same route profile vs traditional, with positive impact on disc & pad wear.

The 4 segment discs allows very easy installation, each segment weighs less than 15 kg for easy handling. The segments allow easy dismounting and total decorrelation between disc & wheel maintenance.

Most regional applications (B2, C1 & C2 categories per EN 14535-3) are eligible to use High Grade cast iron , allowing CAPEX & OPEX reduction.

KEY CUSTOMER BENEFITS

Easy maintenance: Each segment weighs less than 15 kg for easy handling. Same disc is used in original equipment and service.

Lighter: More than 10% weight saving vs monobloc design for better energy efficiency and vehicle payload.

Decorrelate the wheel & disc maintenance: 4 segment disc allows easy disc disassembly and replacement upon condition, without any specific tool.

Reduced TCO: Extended disc lifespan thanks to Segment technology (reduced thermal stress vs monobloc).

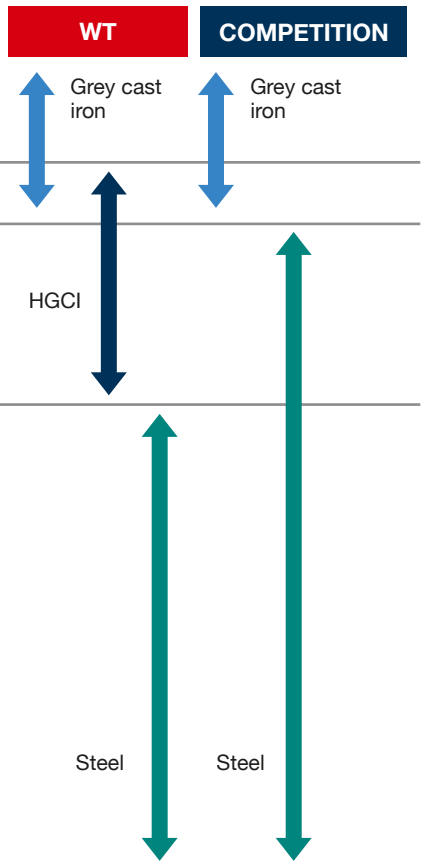
Reduced energy consumption: Optimized fin design reduces drag up to -50%.

Lowest initial cost: High grade cast iron reduced acquisition cost vs steel.

Reduced pad wear: Our unique patented fixing bolt concept prevents friction material wear and dust emission.

EN 14535 - UIC 541

	Speed [kph]	Mass [T]	Energy [MJ]
A	120	11,25	**6,3**
B1	160	8	**7,9**
B2	160	10	**9,9**
C0	200	6,7	**10,3**
C1	200	8	**12,3**
C2	200	10	**15,4**
C3	200	12	**18,5**
D1	250	6,5	**15,7**
D2	250	10,5	**25,3**
E1	300	8	**27,8**
F1	350	5	**23,6**
F2	350	6	**28,4**
F3	350	7	**33,1**
G1	400	6	**37,0**



B2 applications: Grey cast iron (GCI) or High grade cast iron (HGCI) can be used, in both cases with organic friction. HGCI is slightly higher CAPEX, but benefits lower OPEX and then lower TCO. HGCI also provides better resistance to thermal load, reduced sensitivity to surface cracks.

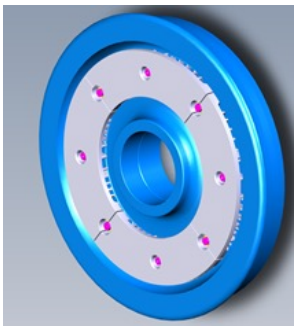
C0 to C2 applications: HGCI can be offered at lower CAPEX than steel disc. Sintered friction & disc will wear similar at same energy, therefore OPEX is also reduced thanks to lower disc replacement cost.

Most XMU applications are B2 to C2, therefore greatly benefit HGCI performance & economical model (CAPEX & OPEX)

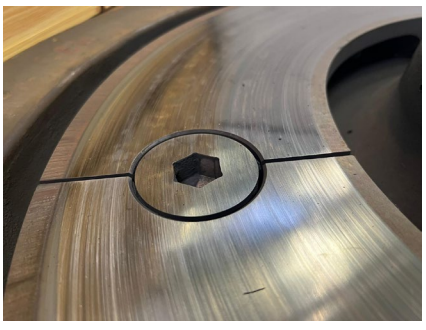
PRODUCT SPECIFICATIONS

680 mm diameter	Weight (kg)	Maximum Speed (hm/h)	Typical class application
High grade cast iron	97/106(1)	200	B2, C1, C2
Steel	105/114(1)	250	D1

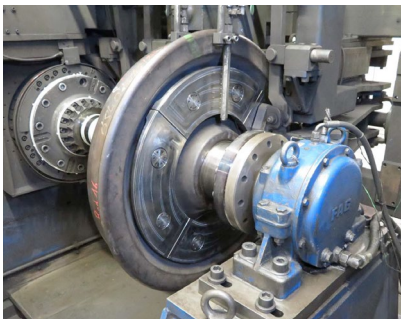
(1) Upon thickness



Steel disc on wheel



Steel disc fixing bolt



High grade cast iron disc on test bench

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