

HEAVY HAUL SOLUTIONS

INTERMODAL WAGONS

Our Innovation. Your Advantage.



SOLUTIONS BASED INTERMODAL WAGON DESIGNS



Bradken's Intermodal designs provide unique solutions for individual customer needs and cargos. With our premium freight rail bogies and our ability to provide drawgear to suit every purpose, Bradken is ideally positioned to accommodate all intermodal wagon design requirements to suit your business and freight logistic needs.



Our Business

Bradken designs and manufactures a variety of Iron Ore, Coal, Bulk and Intermodal freight wagons as well as freight bogies and drawgear componentry capable of withstanding the harshest climates and most demanding operating conditions in the world.

The design capability at the core of Bradken's operations enables the company to answer the toughest of performance criteria demanded by our diverse customer base. Bradken's skilled product development teams, together with worldwide technology partners, enable development and delivery of products and services which set new benchmarks for excellence, while offering significant advantages to customers.

With the capacity to design and manufacture wagon bodies, bogie and drawgear castings, and supported by a global network of suppliers, Bradken can provide a single source of supply.

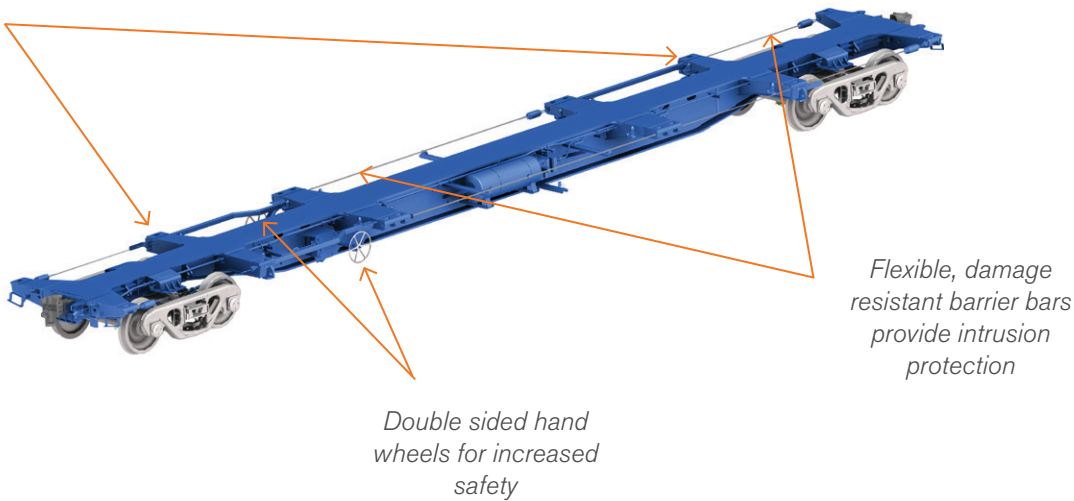
At Bradken, our aim is to be the freight wagon supplier of choice to all operators in the global rail industry. Whatever your criteria, be it lightweight, increased capacity, stable ride or reduced track wear, Bradken's customisable designs can meet every expectation.

INTERMODAL WAGON DESIGN

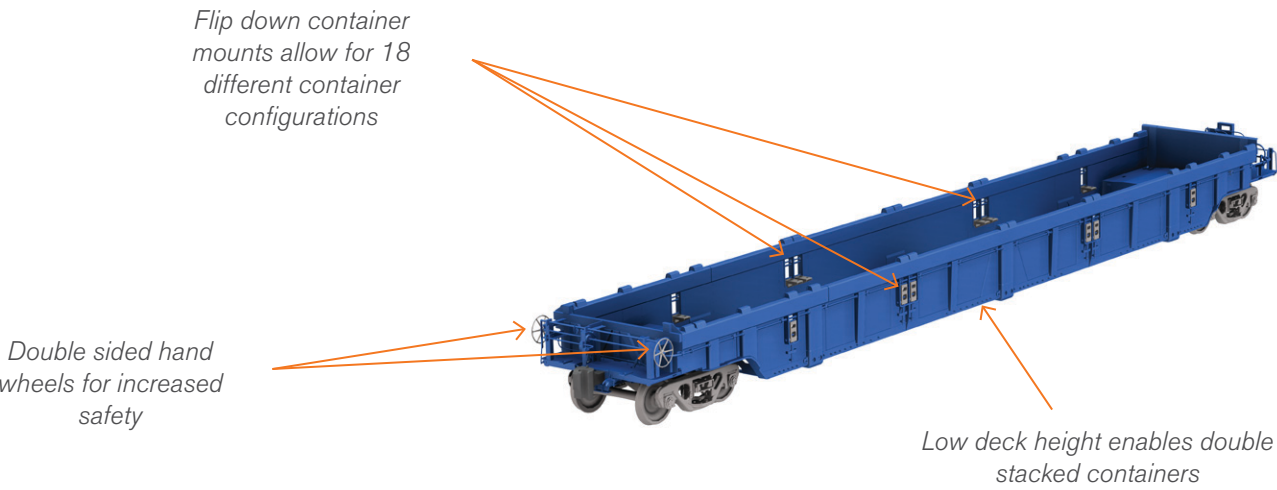
Bradken's wagon designs are based on functional solutions adapted to specific user requirements and are characterised by reliability, efficiency, durability and cost effectiveness. Our investment in new generation technology and focus on product development reinforces Bradken's commitment to providing customers with specific, world competitive solutions to their individual needs.

Flat Wagon

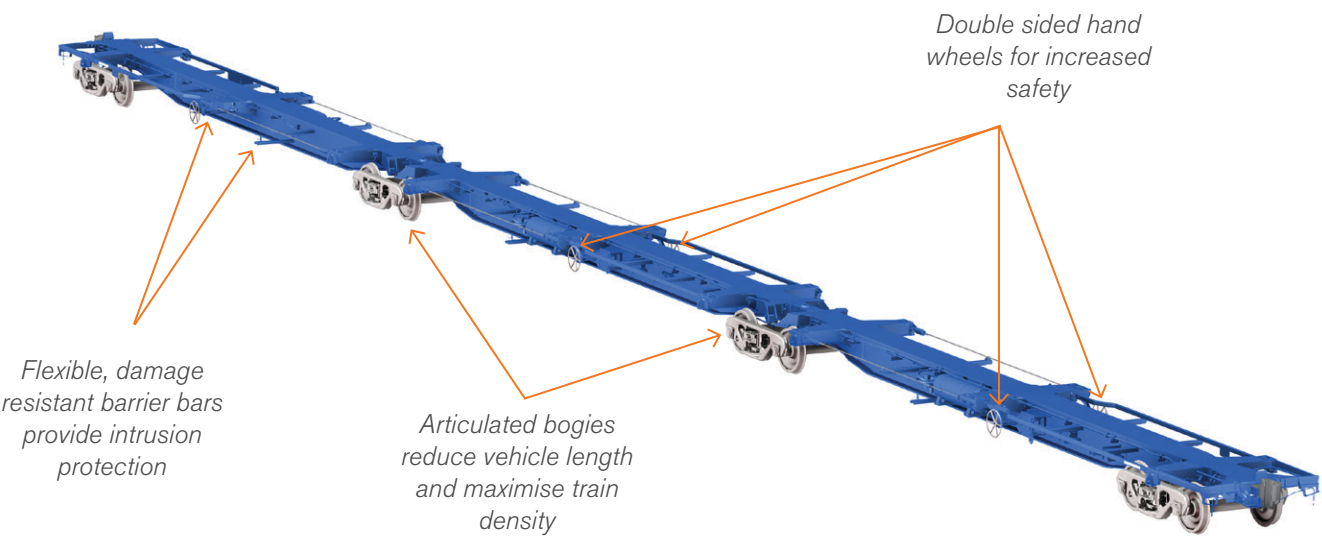
3-SLOT wagon plus additional transoms for centre mounted 40ft container



Well Wagon



Articulated Wagon



Payload

- Flat Wagon** - 71.5 tonne
- Well Wagon** - 78.0 tonne
- Articulated Wagon:**
 - 5PACK - 207 tonne
 - 3PACK - 129 tonne



Service Life

Bradken intermodal wagons are designed to provide 6,000,000 km of reliable service.

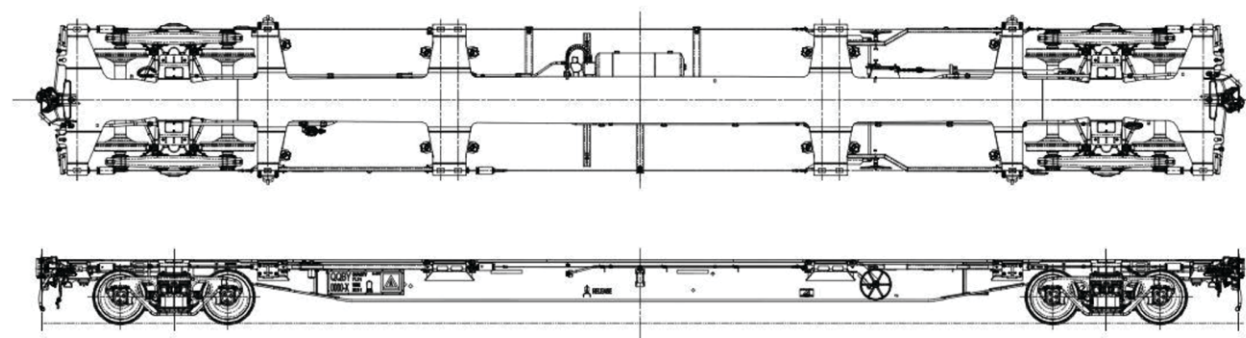


Design Life

Advanced analysis techniques used to provide a structural design life.

INTERMODAL FLAT WAGON

60' 3-SLOT INTERMODAL FLAT WAGON



60' 3-SLOT INTERMODAL FLAT WAGON	
General Data (approx)	
Wagon Type	Intermodal - Skeletal
Gauge	Standard - 1,435mm
Configuration	Single Wagon
Container Loading	3 x 20', 1 x 40' & 1 x 20', Centre mounted 40' or 48', or 53' or 60'
Length over strikers	18,567mm
Length over couplers	19,265mm
Deck Height	1,020mm
Bogie (Truck) centres	15,000mm
Width, Extreme	2,700mm
Centre Plate	356mm Huck Bolted
Tare	20.5t
Gross Mass	92t
Payload capacity	71.5t
Designer/Builder	Bradken

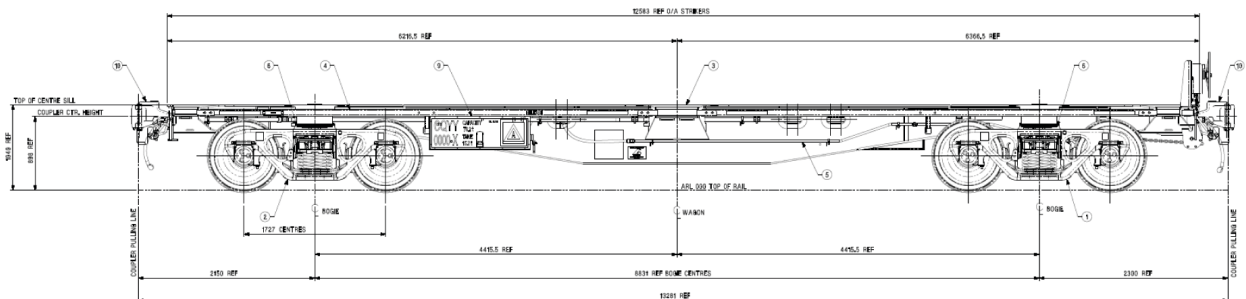
DRAWGEAR EQUIPMENT	
Draftgear	Miner Crown SE
Coupler Type	Bradken Heavy Duty Offset
Coupler Length	680mm (pin to pulling line)
Coupler Pulling Height	874mm (above rail)

BOGIES	
Bogie Type	Bradken 3 Piece
Axle Load	23t
Load Springs	D5 Outer x 7, D5 inner x 4
Wedge Springs	RC320, RC325
Wheel Diameter	840mm
Journal Centres	1,982mm
Wheelbase	1,727mm
Journal Bearings	6 X 11" E class
Bearing Adapter	E Class Standard Adapter
Side Bearers	Stucki CSB-5000XT
Ride Control	Constant dampening friction wedges

BRAKE EQUIPMENT	
Brake Cylinder:	WABTEC TMX
Mounting:	Bogie mounted
Brake Control:	KB WF5
Load Comp:	Bendix KY1038/3
Grade Control:	Fixed Exhaust Choke
Slack Adjuster:	Bogie mounted
Park Brake:	Conventional (operable from both sides)
Brake Block:	High Friction
Brake % Tare:	24.1
Brake % Gross:	13.4
Brake % Park:	13.1

INTERMODAL FLAT WAGON

40' 2-SLOT INTERMODAL FLAT WAGON



40' 2-SLOT INTERMODAL FLAT WAGON	
General Data (approx)	
Wagon Type	Intermodal - Skeletal
Gauge	Standard - 1,435mm
Configuration	Single Wagon
Container Loading	2 x 20', 1 x 40'
Length over strikers	
Length over couplers	13,281mm
Deck Height	1,040mm
Bogie (Truck) centres	8,831mm
Width, Extreme	2,420mm
Centre Plate	353mm
Tare	16.6t
Gross Mass	92t
Payload capacity	76.4t
Designer/Builder	Bradken

DRAWGEAR EQUIPMENT	
Draftgear	Miner TF880
Coupler Type	Bradken Heavy Duty Offset
Coupler Length	680mm (pin to pulling line)
Coupler Pulling Height	898mm (above rail)

BOGIES	
Bogie Type	Bradken 3 Piece
Axle Load	23t
Load Springs	D7 Outer x 7, D7 inner x 3
Wedge Springs	RC244, RC243
Wheel Diameter	840mm
Journal Centres	1,982mm
Wheelbase	1,727mm
Journal Bearings	6 X 11" E class
Bearing Adapter	E Class Standard Adapter
Side Bearers	Miner TCC IV 30LT
Ride Control	Constant dampening friction wedges

BRAKE EQUIPMENT	
Brake Cylinder:	WABTEC TMX
Mounting:	Bogie mounted
Brake Control:	KB WF5
Load Comp:	EL 60-40%
Grade Control:	Fixed Exhaust Choke
Slack Adjuster:	Bogie mounted
Park Brake:	Conventional (operable from both sides)
Brake Block:	High Friction
Brake % Tare:	27.6
Brake % Gross:	14.9
Brake % Park:	23.0



CUSTOM DESIGN OPTIONS AVAILABLE

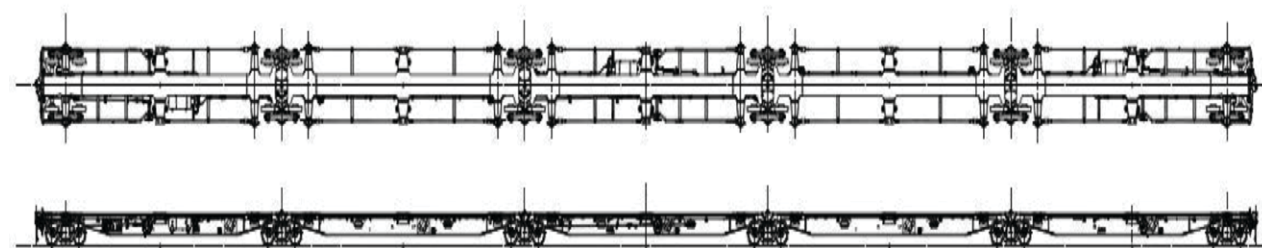


CUSTOM DESIGN OPTIONS AVAILABLE



INTERMODAL ARTICULATED WAGON

5PACK 2-SLOT INTERMODAL ARTICULATED FLAT WAGON



5 PACK 2-SLOT INTERMODAL ARTICULATED FLAT WAGON	
General Data (approx)	
Wagon Type	Intermodal - Skeletal
Gauge	Standard - 1,435mm
Configuration	5 PACK
Container Loading	2 x 20', 1 x 40 to 48' or 1 x 20'
Length over strikers (5 PACK)	76,642mm
Length over couplers (5 PACK)	77,338mm
Deck Height	1,040mm
Bogie (Truck) centres	13,698mm (end wagons) 15,410mm (middle wagons)
Width, Extreme	2,700mm
Centre Plate	356mm Huck Bolted
Gross Mass (5 PACK)	276t
Tare (5 PACK)	68.7t
Payload Capacity (5 PACK)	207.3t
Designer/Builder	Bradken

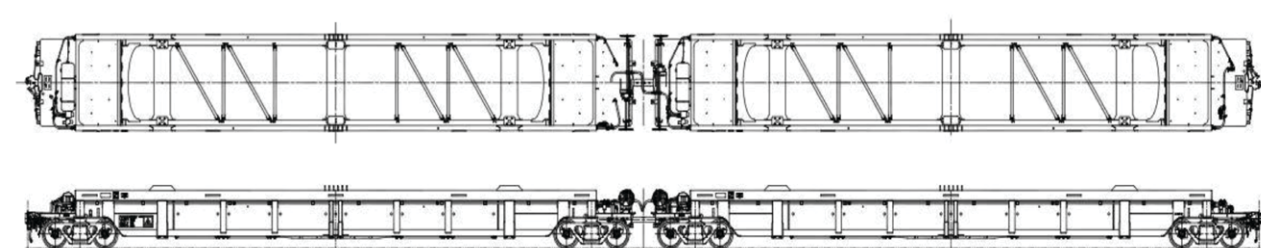
DRAWGEAR EQUIPMENT	
Draftgear	Miner Crown SE
Coupler Type	Bradken Heavy Duty Offset
Coupler Length	680mm (pin to pulling line)
Coupler Pulling Height	891mm (above rail)
Articulated Connectors	ASF 3799D-1 & 3798D

BOGIES	
Bogie Type	Bradken 3 Piece
Axle Load	23t
Load Springs	D5 Outer x 7, D5 inner x 3 (headstock) D5 Outer x 7, D5 inner x 6 (artic)
Wedge Springs	RC320, RC325
Wheel Diameter	840mm
Journal Centres	1,982mm
Wheelbase	1,727mm
Journal Bearings	6 X 11" E class
Bearing Adapter	E Class Standard Adapter
Side Bearers	Stucki CSB-4000XT (headstock) Stucki CCB-3000XT (artic)
Ride Control	Constant dampening friction wedges

BRAKE EQUIPMENT	
Brake Cylinder:	WABTEC TMX
Mounting:	Bogie mounted
Brake Control:	KB WF5
Load Comp:	Bendix KY1038/3
Grade Control:	Fixed Exhaust Choke
Slack Adjuster:	Bogie mounted
Park Brake:	Conventional (operable from both sides)
Brake Block:	High Friction
Brake % Tare Av:	27.0 (max 33.5)
Brake % Gross Av:	14.1 (max 14.9)
Brake % Park Av:	24.2

INTERMODAL WELL WAGON

2-SLOT INTERMODAL WELL WAGON



2-SLOT INTERMODAL WELL WAGON	
General Data (approx)	
Wagon Type	Intermodal - Well
Gauge	Standard - 1,435mm
Configuration	2 PACK
Container Loading	2 X 20', or 1 X 40', or 1 X 48' Container in Well, Plus 2 X 20', or 1 X 40', or 1 X 48', or 1 X 53' Container Stacked.
Length over strikers (2 PACK)	41,817mm
Length over couplers (2 PACK)	42,518mm
Floor Height	385mm
Bogie (Truck) Centres	17,666mm
Width, Extreme	2,870mm
Centre Plate	356mm Huck Bolted
Tare (2 PACK)	44.5t
Gross Mass (2 PACK)	184t
Payload capacity (2 PACK)	139.5t
Designer/Builder	Bradken

DRAWGEAR EQUIPMENT	
Draftgear	Miner Crown SE Quickdraw Ultra-Lite
Coupler Type	Bradken Heavy Duty Offset
Coupler Length	680mm (pin to pulling line)
Coupler Pulling Height	874mm (above rail)
Drawbar Type	Bradken Solid
Drawbar Length	1,334mm (pin to pin)

BOGIES	
Bogie Type	Bradken 3 Piece
Axle Load	23 tonne
Load Springs	D5 Outer x 7, D5 inner x 4
Wedge Springs	RC320, RC325
Wheel Diameter	840mm
Journal Centres	1,981mm
Wheelbase	1,727mm
Journal Bearings	6 X 11" E class
Bearing Adapter	E Class Standard Adapter
Side Bearers	Stucki CSB-6000XT
Ride Control	Constant dampening friction wedges

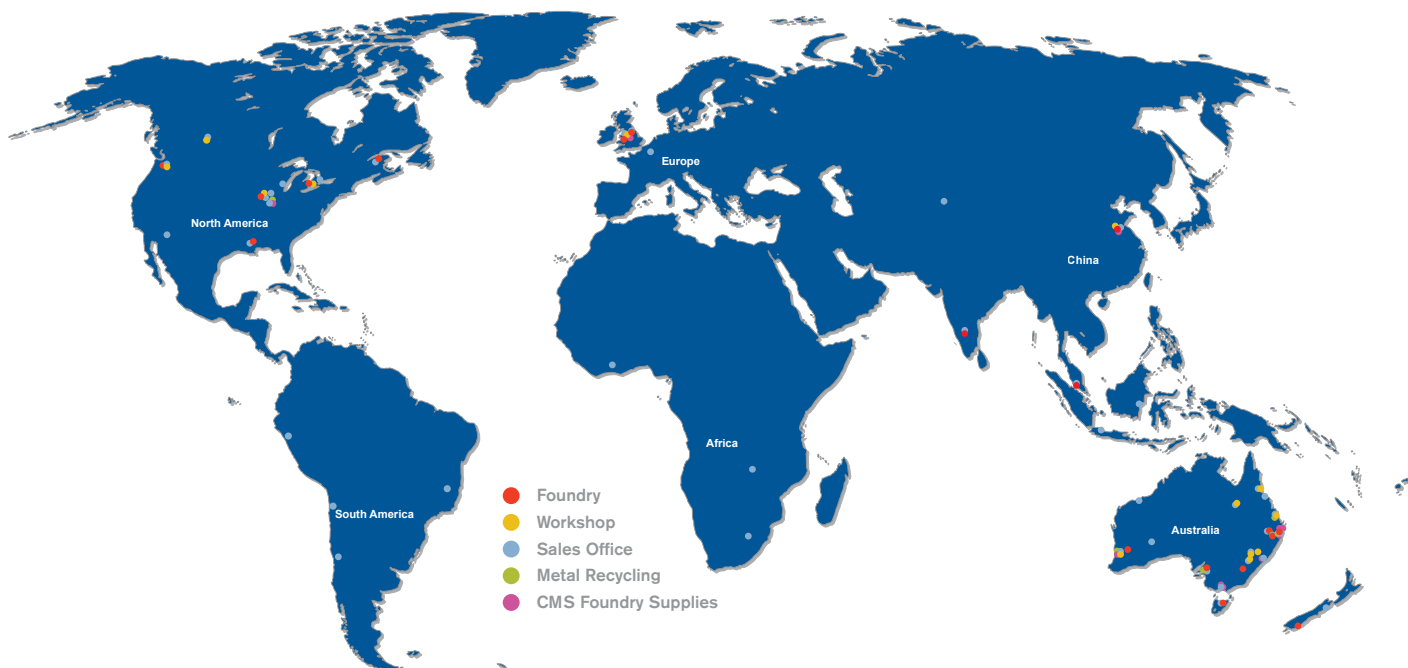
BRAKE EQUIPMENT	
Brake Cylinder	WABTEC TMX
Mounting	Bogie mounted
Brake Control	KB WF5
Load Comp	Bendix KY1038/3
Grade Control	Fixed Exhaust Choke
Slack Adjuster	Bogie mounted
Park Brake	Conventional (operable from both sides)
Brake Block	High Friction
Brake % Tare	19.5
Brake % Gross	13.8
Brake % Park	12.5



CUSTOM DESIGN OPTIONS AVAILABLE



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