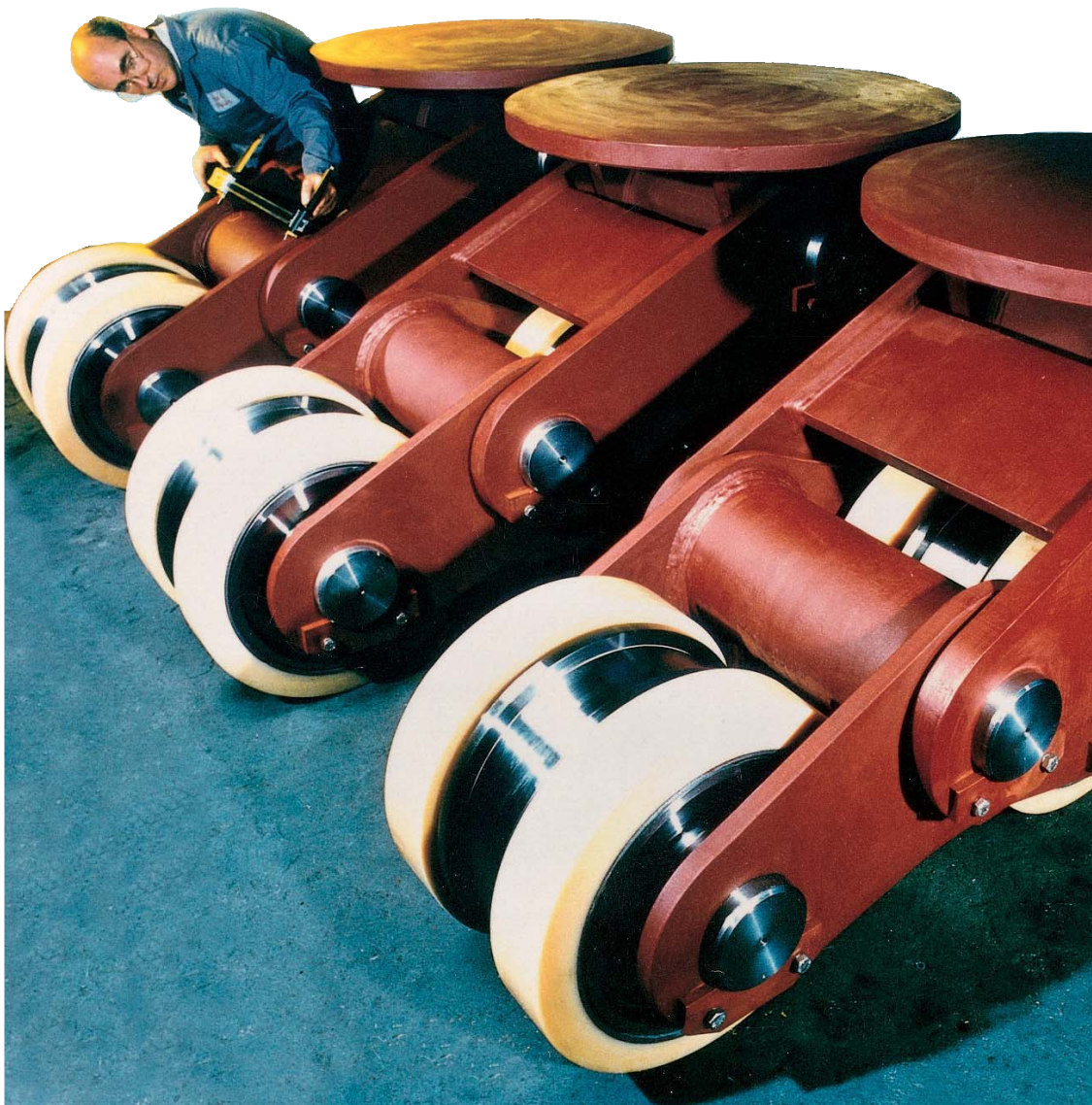


APPLICATIONS AND EXAMPLES



# Applications and Examples



Brauer Ltd manufactured according to the design specification of J Murphy and Sons Limited, Gas pipe tunnel trollies for the gas ring main improvement to the west of London from Harefield to Southall for the National Grid.

The gas pipe is required to be push/pulled into position and statically supported whilst empty (565kg/m), until the tunnel annulus is filled, the trollies must also support the pipe when filled with water to support hydro testing (1735kg/m)

The 4 sections of the tunnel have lengths of 974m, 756m, 505m and 207m respectively and the total improvement section is 27 kilometres



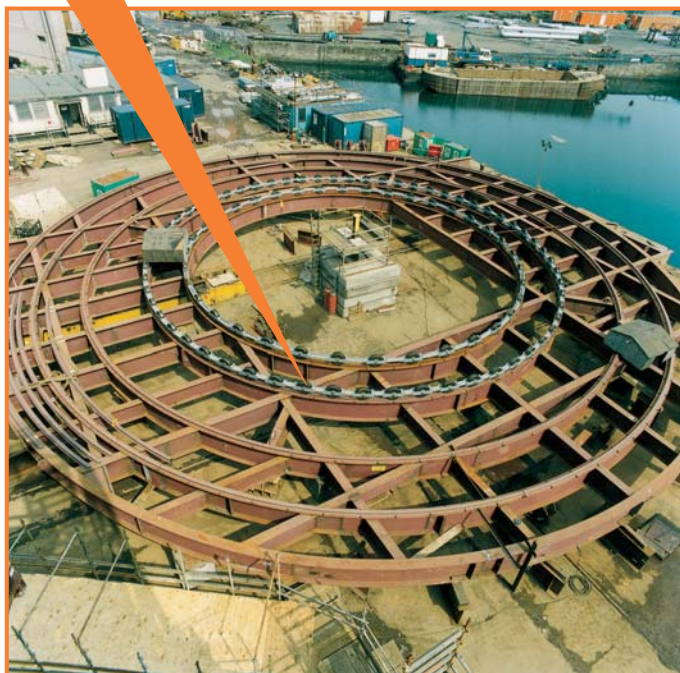
The bored tunnel of concrete section was 2.2m diameter and the gas pipe within this tunnel was 1.2m diameter leaving very limited space between the two, so the gas pipe supporting trollies had to be small enough to enter this gap between the pipe and the tunnels walls but have very high loading capacity to take the gas pipe as it was pulled/pushed into the outer tunnel. The rail system for the trollies was laid on a bed of silicon sand.

Brauer Ltd provided a total solution of 88 low height / high load capacity trollies which ranged from 10,000Kg each to 22,000Kg each.

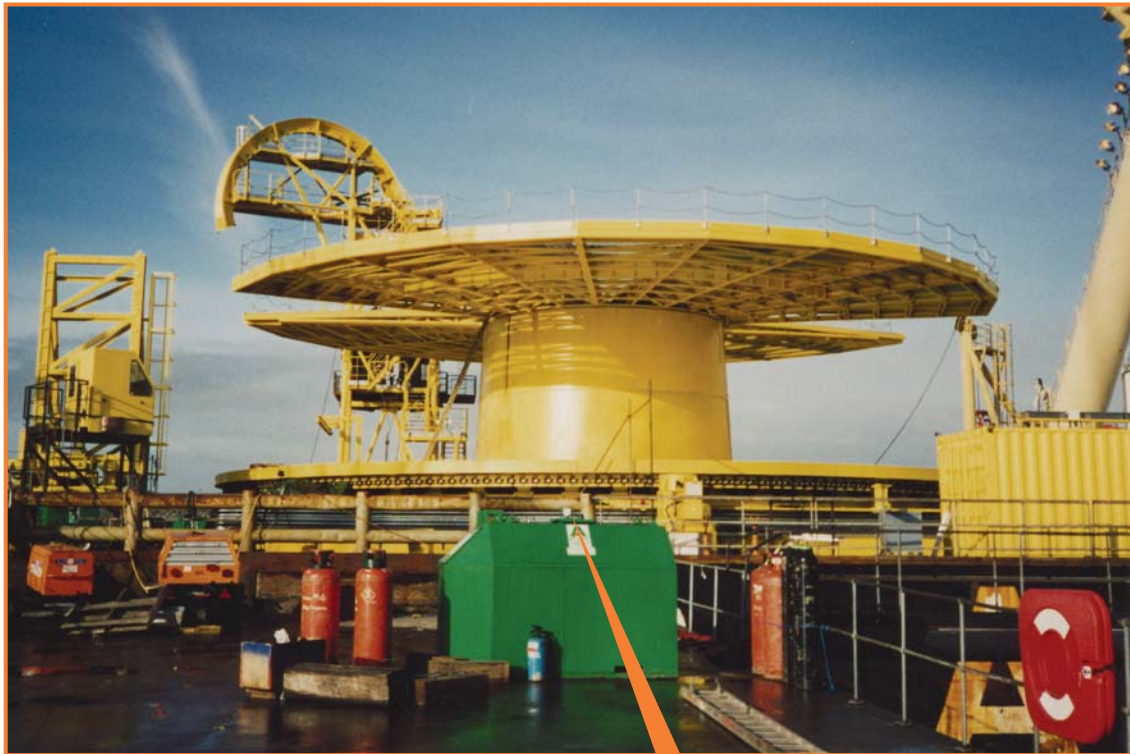




7600 tonne, 32 meter diameter, pipe laying turntable running on 330 steel double flange rail wheels fitted with self-lubricating bushes and stainless steel shafts.  
Tread diameter 450mm.  
Tread width 112mm wide with crown profile to assist tracking.  
Tread and inner flange flame hardened to ensure a service wear life in excess of seven years.



# Applications and Examples



Ship mounted cable and pipe carousels used in the offshore wind farm, renewable energy and energy supply industries loaded capacities between 2,500 tonnes to 15,000 tonnes



This ship mounted pipe laying turntable which is running on three rings of tapered tread steel wheels mounted in a fixed frame. The wheels and frame are finished in marine specification paint. Total weight when loaded is 600 tonnes with each wheel and bracket capable of carrying 50 tonnes.

APPLICATIONS AND EXAMPLES



A ship lift and transfer dock system for removing ships from the sea and then transferring ships around the dock for repair and maintenance to take place. Three sizes of wheels are used throughout the dock.

**Rated Load**

SDF 450/95/TBM75FH + AXLE	25500 Kg
SDF 350/85/TBM75FH + AXLE	19500 Kg
SDF 250/80/TBM50FH + AXLE	13000 Kg

FH = Flame Hardened

The SDF 250 and 350 being primarily used on the ship lift trolley with the SDF 450 mainly on the transfer system. The wheels have been simplified and redesigned to ensure longer life, easier installation and lower maintenance.



# Applications and Examples

**BRAUER**<sup>®</sup>



Multi-pivoting, dual purpose castor with directional swivel top plate. Fitted with 4 steel double flange rail wheels, 450mm tread diameter and 90mm tread width and 8 anti-hydrolysis polyurethane tyred wheels, 505mm tread diameter and 150mm tread width. All axles are ground stainless steel running in self lubricating nylon bushes.

#### Load Rating

- a) When mounted on rail and running on the double flange wheels – 160 tonne per castor assembly.
- b) When running on polyurethane tyred wheels – 76.8 tonne per castor assembly.

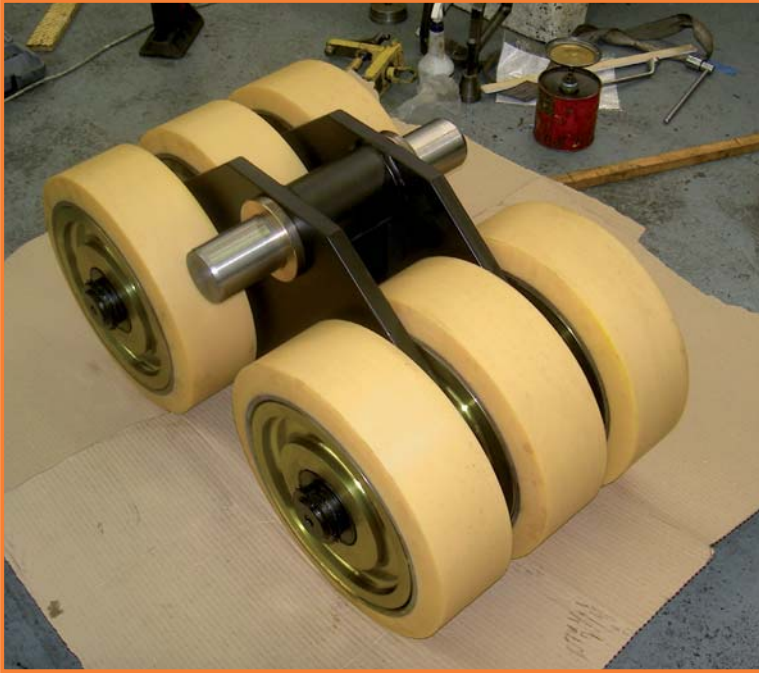


Wheel and axle assemblies used in a rotating drum application. Given the extreme conditions and high loadings involved the wheels and axles have been specifically designed to the customers requirements that demand flat tread wheels with axles that are capable of taking a load in excess of 75 tonnes.

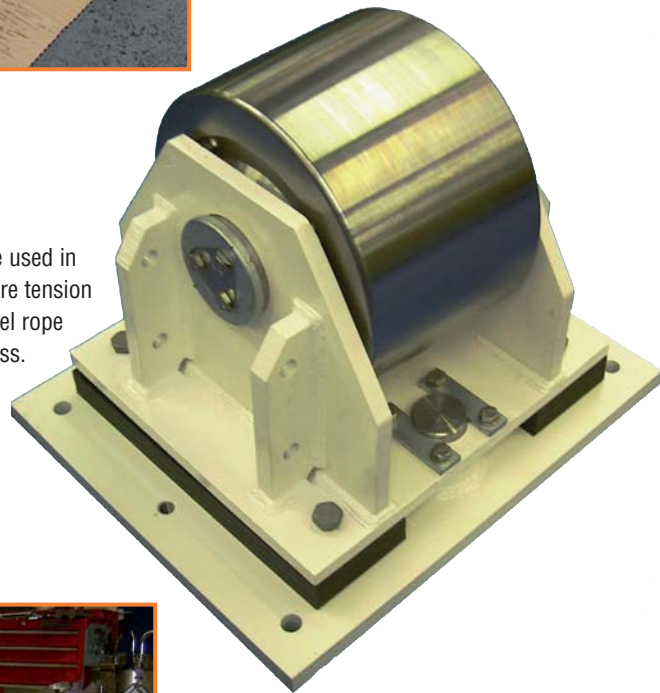
The wheels shown are SFT600/250/KM150 with an axle Ø150mm reducing to 100mm for the bearing housing.



APPLICATIONS AND EXAMPLES



These special 28tonne and 42tonne pivot castors were designed to be used on 115 tonne capacity electro-mechanically controlled Portal Stands

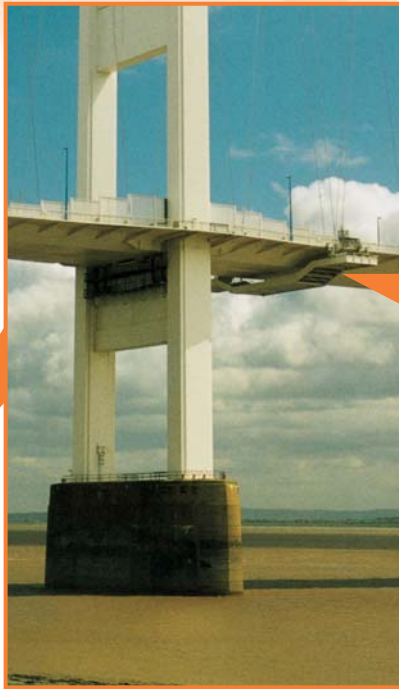


The portal stands are used in the support of the wire tension cable as part of a steel rope manufacturing process.



The machines to carry out this process were manufactured in England and then exported to the Steel Wire Rope and Tension Cable Manufacturing company in Scandinavia.

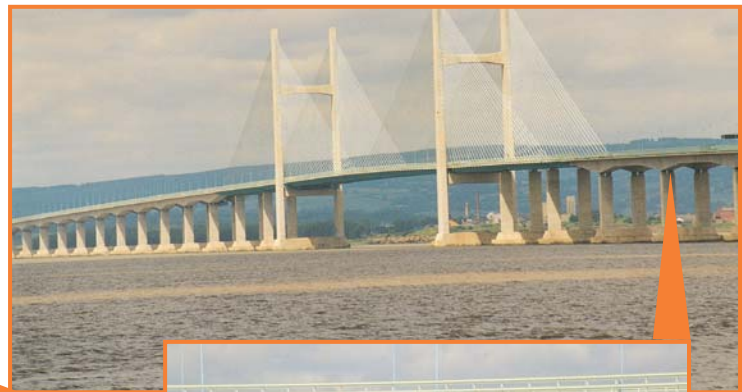
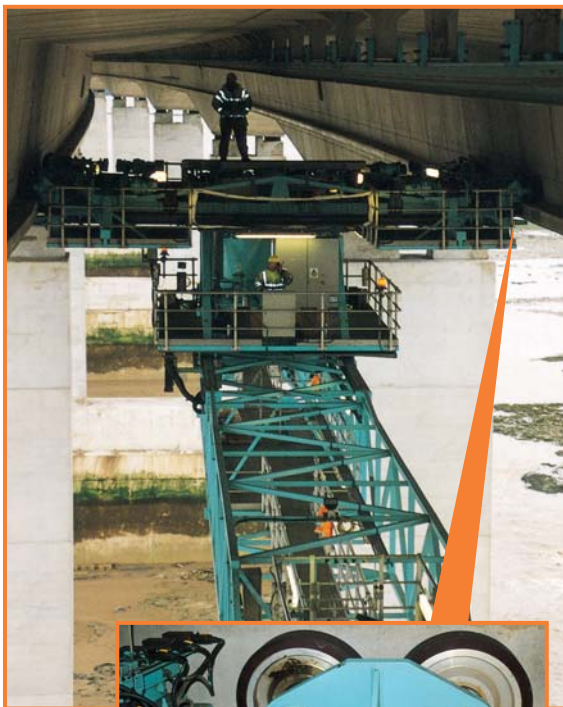
# Applications and Examples



*Access Gantry on Severn Bridge*



Polyurethane tyred drive wheel. Tread diameter 500mm. Tread width 100mm. Maximum radial load capacity 50KN. Tyre 95-98 Shore 'A' hardness directly bonded to aluminium grade BS1471-6082 - T6 centre to significantly reduce the weight for ease of handling. Aluminium anodised to prevent corrosion. Stainless steel hub bored and keywayed with interface between stainless steel hub and aluminium centre coated to prevent electrolytic action.



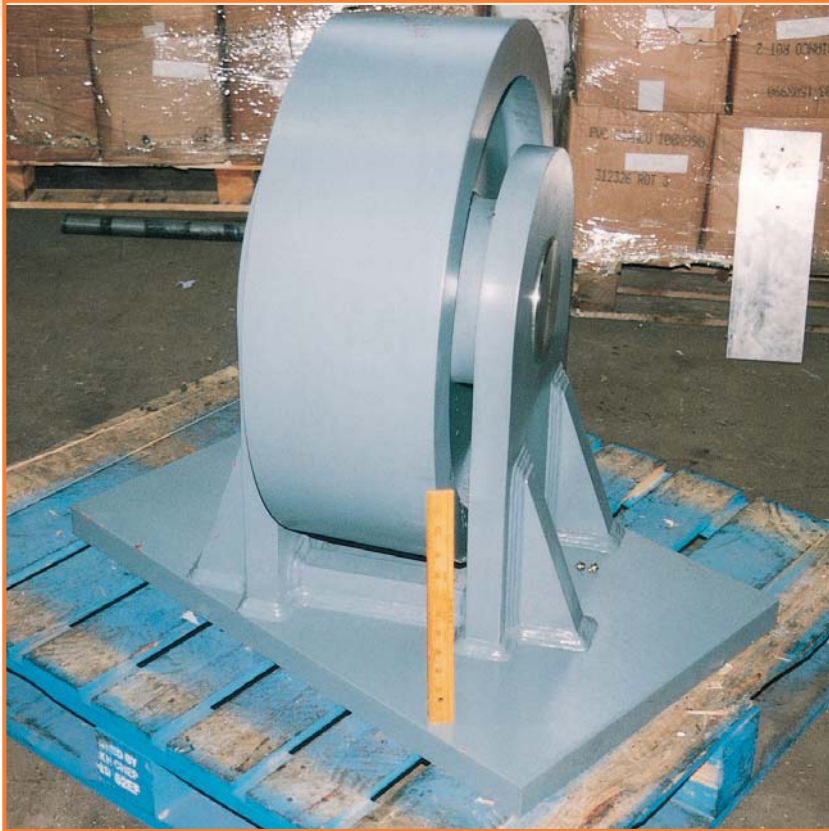
*Access Gantry on Second Severn Bridge*



Polyurethane tyred wheel fitted with spherical roller bearings. Tread diameter 500mm. Tread width 100mm. Maximum radial load capacity 50KN. Tyre 95-98 Shore 'A' hardness directly bonded to aluminium grade BS1471-6082-T6 centre to significantly reduce the weight for ease of handling. Aluminium anodised to prevent corrosion.

APPLICATIONS AND EXAMPLES





Swing bridge on Caledonian Canal at Fort Augustus

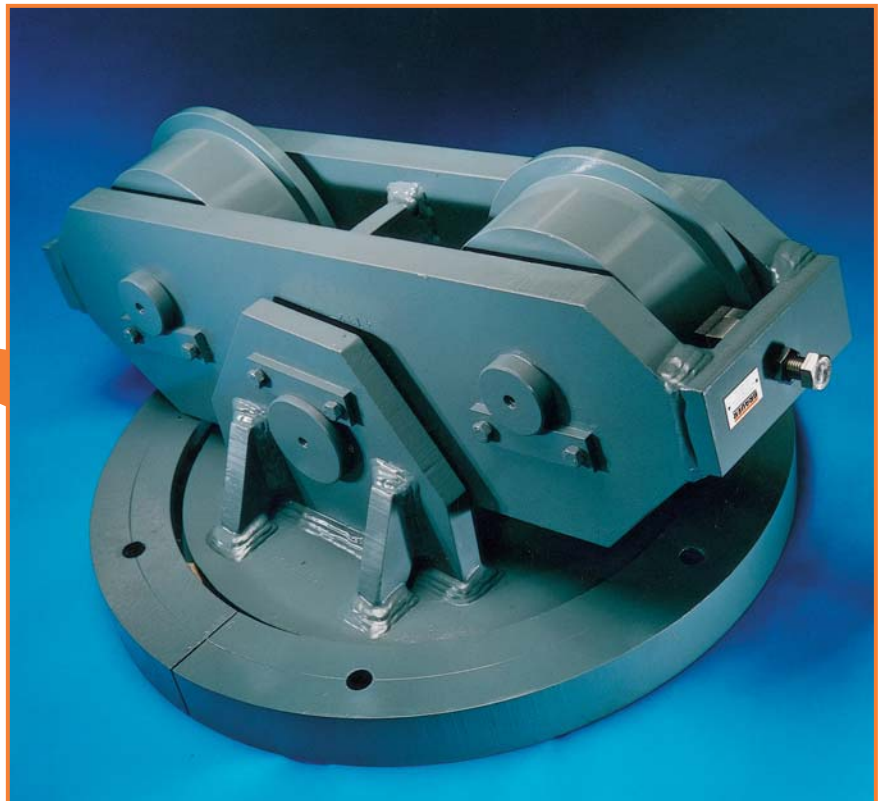


Fixed castor fitted with 686mm diameter EN24T steel wheel with composite PTFE bush running on ground stainless steel axle. Castor loading capacity 200 tonne.

APPLICATIONS AND EXAMPLES



Pivoting castor with swivel head fitted with two EN24T single flange rail wheels complete with wheel brakes.  
Tread diameter 280mm.  
Tread width 87.5mm.  
Tread flame hardened.  
Maximum load rating per castor 45000Kg.



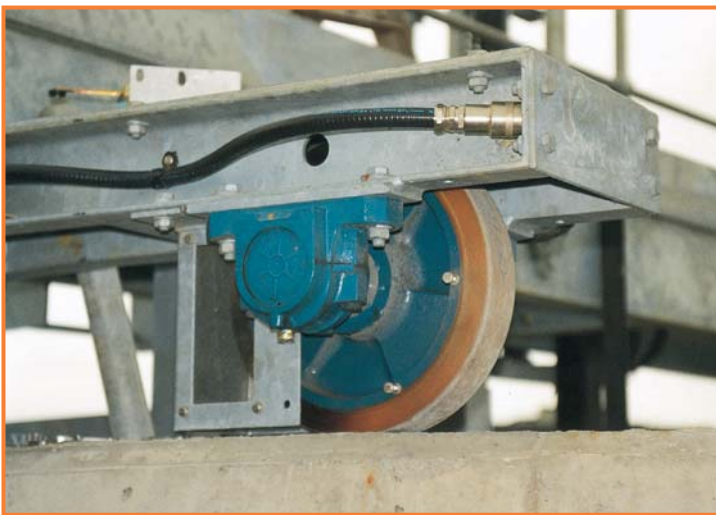
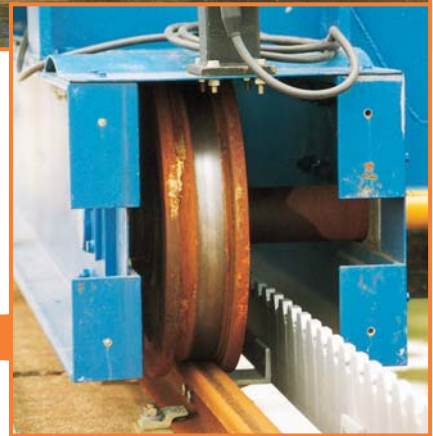
# Applications and Examples

**BRAUER**<sup>®</sup>



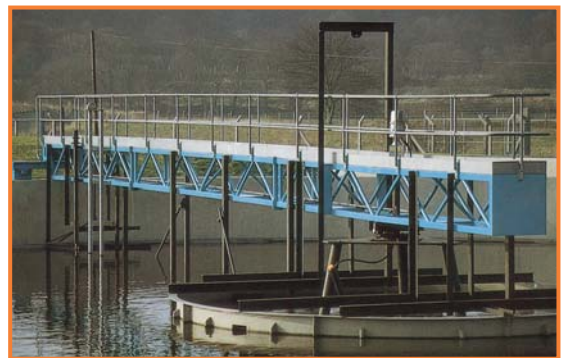
*Bridge scraper for rectangular settlement tank*

Steel double flange rail wheels SDF 450/80



*Half Bridge scraper for rotary settlement tank*

Both drive and trailing wheels standard polyurethane tyred wheels H300/75 bored and keywayed.



APPLICATIONS AND EXAMPLES



Wheels and axles supplied for the maintenance of dryer transfer cars for brick manufacturing plant. Brauer supplied complete wheel and axle assemblies that comprised Steel Double Flanged and Steel Flat Tread Wheels.

In addition to the application shown Brauer have been instrumental in the replacement of wheels and ongoing maintenance of several other key areas of the plant. The solutions provided have helped to solve certain irritating problems and removed unnecessary downtime on the production line resulting in considerable savings to the company.



APPLICATIONS AND EXAMPLES

*Aggregate Screening Machine*

Drum supported on four twin wheel axle assemblies each consisting of two polyurethane 'Press-on-Band' tyred wheels PH460/75 fitted to a modified BA75 axle assembly



Drum supported on four pivoting castors each fitted with two polyurethane tyred wheels H200/60.





Wheel options of Cast Iron, Steel or Aluminium  
Vulkollan superior polyurethane is used as the standard tyre material. Tyres can be produced with crown/dome treads to suit specific applications. Bore options available for all standard wheels fitted with precision bearings. Operating temperature range -20C° to +60C°. Hardness of tyre of 92 ±3° shore 'A'.

