

Technical data: TRACTOMAS TR 8x8 D75

As per drawing N°36929-1



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I. PRESENTATION :

Designed and manufactured by NICOLAS, specially designed for abnormal transports.

Our Tractomas have already proved successful in extreme load (1000T) and work conditions: altitude, temperatures and humidity in China, Libya and South Africa.

Gross Weight Combination : 300T on 8% slopes at 4,5km/h, 535 T on 5% slopes and 1000T on 0 to 2% slopes.

Max speed when loaded: 50km/h

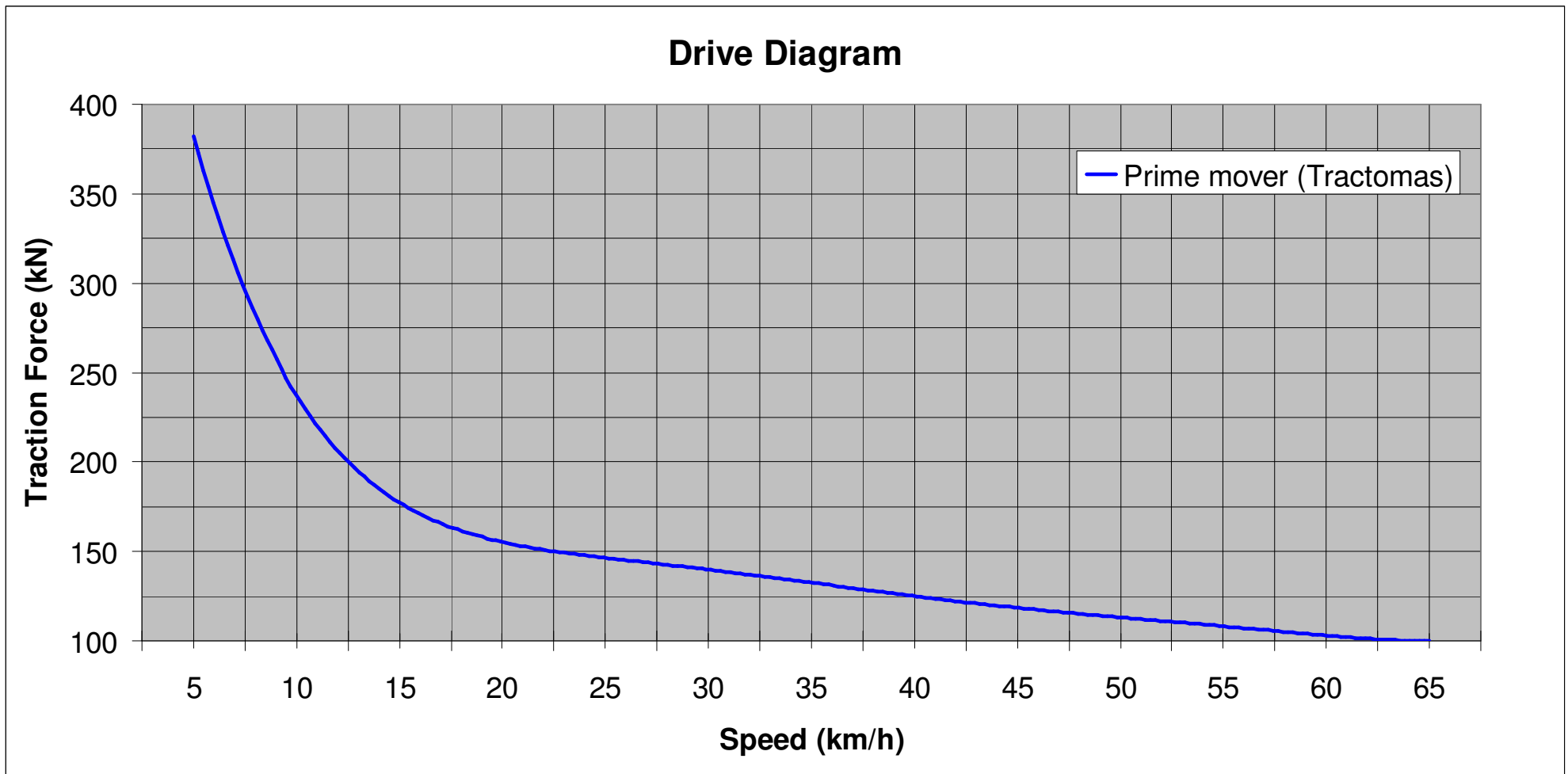
Max speed when empty: 65km/h

Min external temperature: up to -20°C

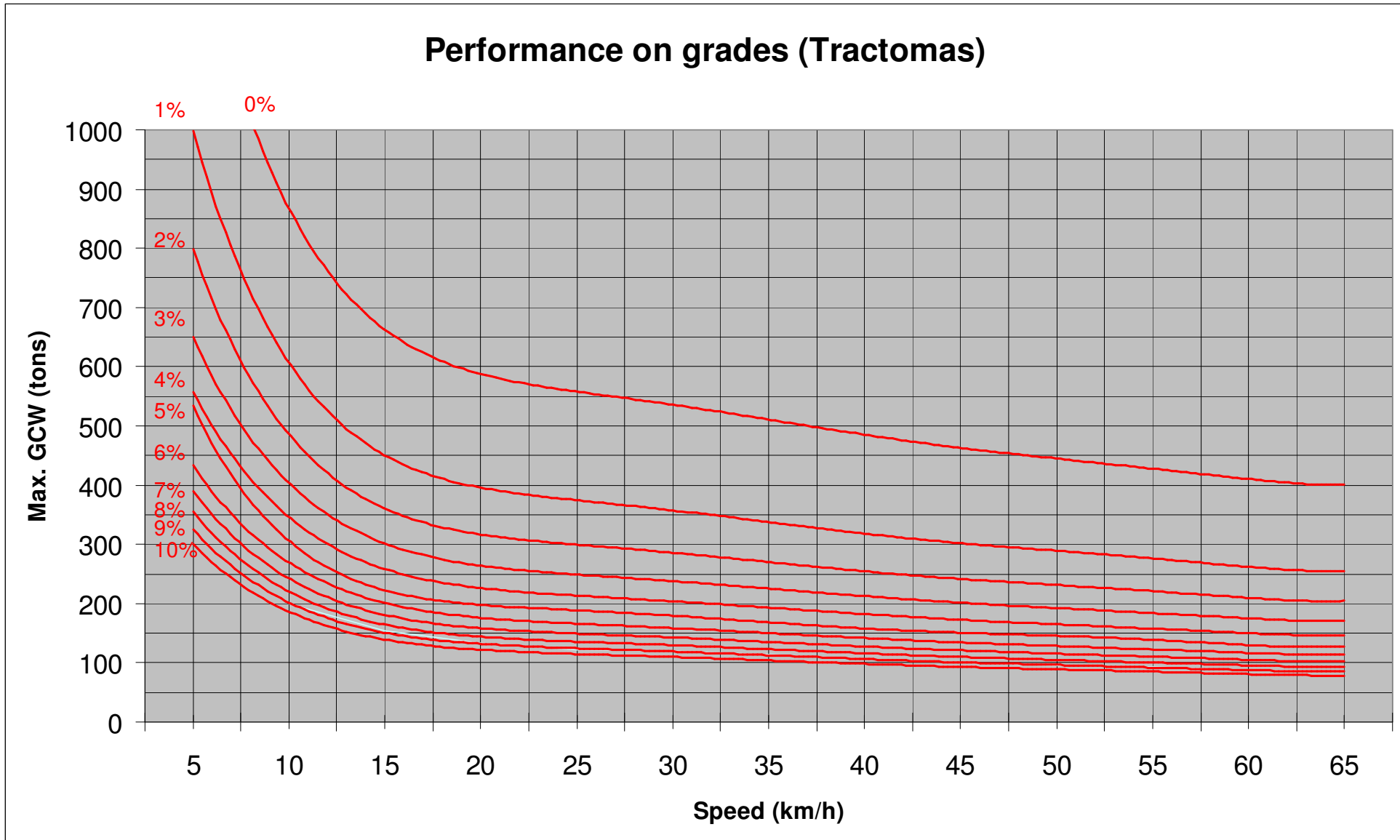
Max external temperature: up to 50°C

II. PERFORMANCES:

1. DRIVE DIAGRAM OF THE TRACTOMAS.



2. PERFORMANCE ON GRADES :

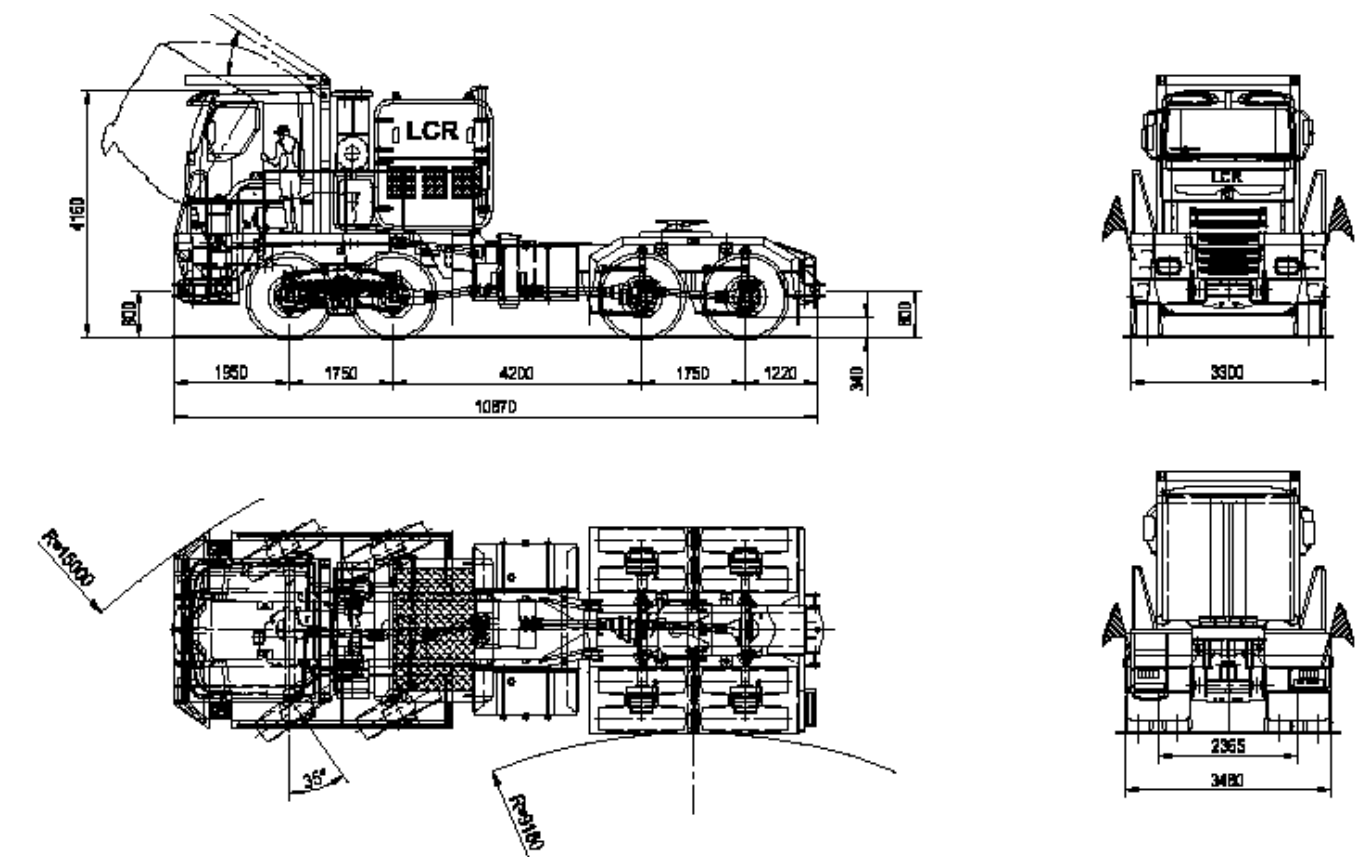


III. TECHNICAL DESCRIPTION (drawing n°) :

1. CHASSIS :

Made of two arc-welded boxes beams of high yield strength, built to take pulling and pushing stresses in single or multiple applications and fitted with front and rear coupling yokes of 1000 tonnes each. The chassis is designed to be equipped alternatively with either a heavy-duty double oscillation 5th wheel or ballast container box.

2. DIMENSIONS



3. CABIN :

Pressurized cabin RENAULT Kérax type.
FOPS structure on the top in order protect the cabin from falling objects.
Air conditioned.
Control of the tilting of the bins.

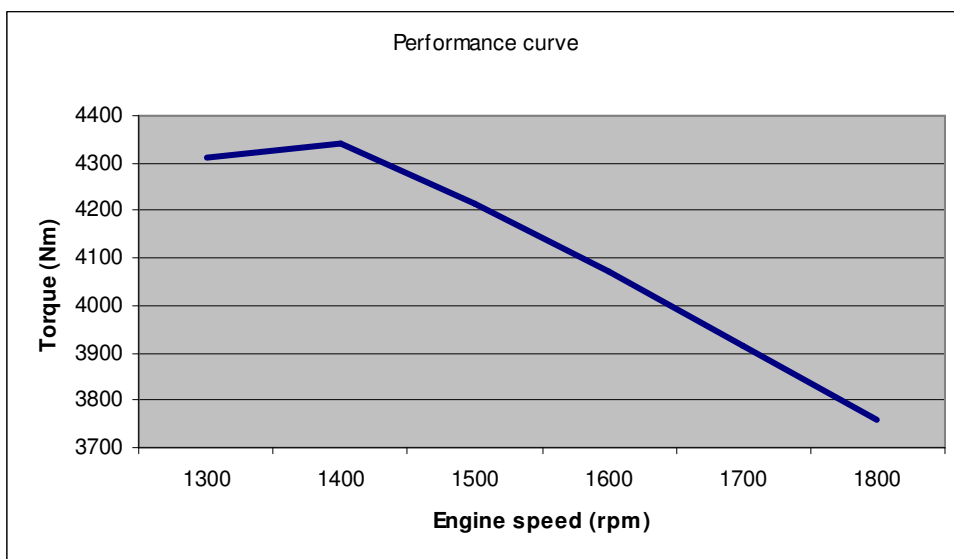
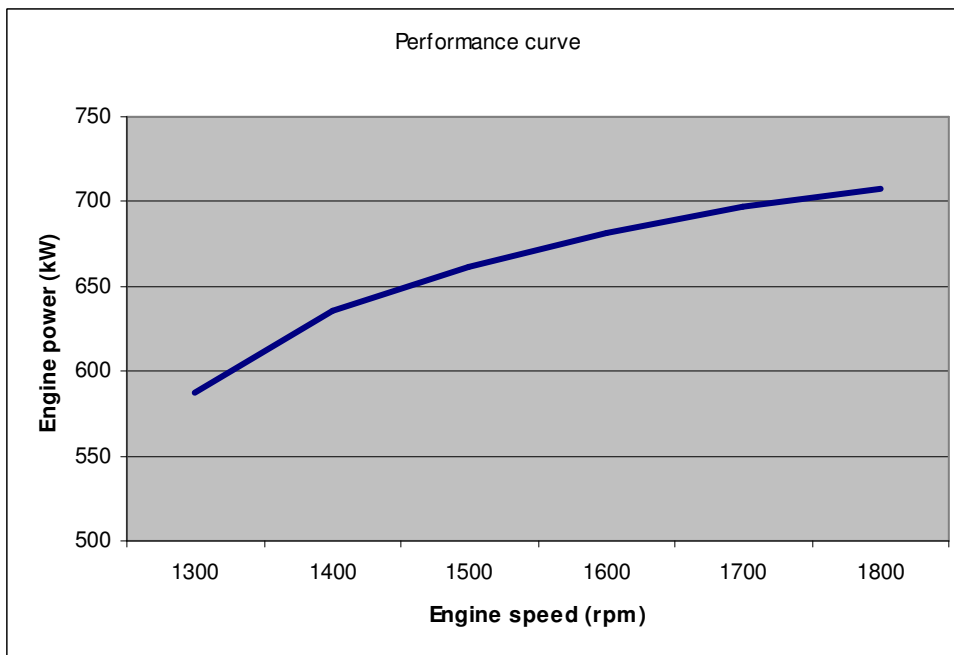
4. KINEMATICAL CHAIN :

a. Engine

Brand: CATERPILAR

Type: C27 ACERT

- Turbo charged V12-4-Stroke-Cycle Diesel Engine
- Bore x Stroke: 137.2mm x 152.4mm
- Displacement: 27.03 litres
- Maxi power rating: 663 kW / 900 hp at 2100 rpm
- Lube oil system: 139 litres
- Cooling system: 67 litres
- Oils temperature exchanger
- Air compressor



b. Automatic transmission

b-1) Torque converter

Brand: ALLISON

Type: TC 880

- Directly fitted to the engine flange.
- Automatic operating lock-up clutch, effective in all gear.
- Approximate torque increase: 2.20.
- Air/Oil cooling of the converter transmission.

b-2) Gear box

Brand: ALLISON

Type: M 8610

Automatic gear box : 6 speeds forward, 1 speed reverse.

Mechanical Ratio :

1st speed forward	4.24	1st speed reverse	5.75
2nd speed forward	2.32		
3rd speed forward	1.69		
4th speed forward	1.31		
5th speed forward	1.00		
6th speed forward	0.73		

c. Transfer box

Brand : ZF

Type : ZF VG2700

- Direct attached Drop box, with manual locking system between front and rear axles.
- 2 speeds differential front/rear axle.

d. Power take-off (PTO)

- Drives a secondary hydraulic pump to control steering, allowing towing of the tractor.

e. Electronic driving control unit

Brand: ALLISON

Type: CEC2 - Electronic Gear Selector.

- Computerised system, including onboard diagnostic control and detection. (Protects against wrong gear level, controls engine start-up, gearbox neutral position, gear sequences and etc...)

f. Transmission

- By joint shafts

g. Axles

Two front driving steering axles.

- Brand: KESSLER
- Ground capacity: 12,5 tonnes
- Reduction by bevel reducer and planetary gear system in the hubs
- Total ratio: 12.66
- Type of brake depending of the driving conditions

Two rear driving axles.

- Brand: KESSLER
- Ground capacity: 25 tonnes
- Reduction by bevel reducer and planetary gear system in the hubs
- Total ratio: 12.66
- Type of brake depending of the driving conditions

5. AXLES ASSEMBLY :

a. Suspension

- Front: Semi-elliptic spring leaves with cantilever type mounting and reaction bars.
Double effect shock absorbers.
- Rear: Hydraulic type mounting and reaction bars.

b. Wheel and tyres

- Brand: MICHELIN or GOOD YEAR
- Dimensions: 1400 R 25 XVC for Michelin and 385/95 R 25 GP-2B for Good year
- Inflate pressure: 8 bars.
- Disc wheel
- Spare wheel: One complete wheel including handling device for front or rear mounting.

6. BRAKING SYSTEM :

- Pneumatic system
- ISO hose couplers

a. Service brake

- Two independent circuits.
- Number of braked axles: 4 (All axles).

b. Secondary brake

- Second emergency air circuit, applies in case of air pressure loss or failure in the circuit.
- Number of braked axles: 2. (Rear axles)

c. Parking brake

- Number of braked axles: 2 (Rear axles).
- Tractor parking brake controls the trailer brakes.

7. SPECIAL EQUIPMENTS :

- Automatic fire suppression system with control in cab
- Cameras (with TV screen) aiming each side of the convoy

8. DOCUMENTATION :

- Driving manual.
 - Use and repair manual.
 - Spare parts catalogue.
- All in English.