

FAUN Goliath

Technical Data
Heavy-Duty Truck Tractor
Model No. 2164.75/8 x 8



Heavy-Duty Truck Tractor GOLIATH

Model no. 2164.75/8x8



Wheels and tyres

12 ea. disc wheels, tyres 14.00-R 24 and 1 spare wheel with holder.



Steering

ZF semi-block steering with 2 working cylinders, primary pump and secondary pump.



Frame

Consisting of pressed segments in U-profile design, cross members bolted or riveted to the longitudinal girders.



Towing device

Towing eyes at front.
Towing device at front and rear for 2 drawbar heights.



Cab

Steel structure, with two doors, torsion-free suspended on rubber elements. Seating capacity for 3 persons.
Suspended driver's seat, adaptable to driver's weight, including hydraulic shock absorbers, with height- and lengthwise adjustment, adjustable back rest inclination. Seating facilities with back rest for 2 assistants. Full-sight safety windshield panes, windshield washing equipment, engine-fed warm air heating.



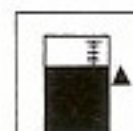
Lighting equipment and instruments

Main searchlights, Halogen foglights, bordering lights on roof of cab, Stop- and tail lights, flashing trafficator, reversing light.

Tachograph, rev. counter, gauges and instruments for control and inspection, horn, engine inspection lamp, hazard warning lamps.

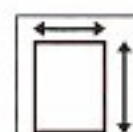
Radio interference suppression as per § 55 a of the German Road Traffic Regulations and VDE instructions 0879, section 1.

Electrical connection 24 Volts in the trailer coupling area.



Fuel tank

450 lit.



Dimensions

Overall length	approx. 10 600 mm
Overall width	approx. 3 000 mm
Height, under load, at cab	approx. 3 570 mm

Wheelbase	approx. 5 270 mm
Turning circle diameter	approx. 25 m



Weights

Chassis with cab	approx. 17 000 kg
Front axle load	approx. 10 200 kg
Rear axle load	approx. 6 800 kg

Techn. admissible total weight	50 500 kg
Techn. admissible front axle load	19 000 kg
Techn. admissible rear axle load	31 500 kg

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Engine

Cummins four-stroke Diesel engine, type KT 19-450,
6 cylinders
Total displacement 18 900 cm³
Power output according to DIN 70020
(SAE J 1349 net): 336 kW (456 HP) at 2100 rpm
Max. torque 1828 Nm at 1500 rpm
for ambient temperatures ranging between -18°C and
+38°C and altitudes up to 3600 m above sea level.*)
Fuel consumption according
to DIN 70020: 213 g/kWh at max. torque.
Forced-feed circulating lubrication.



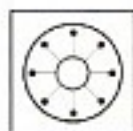
Cooling

Water cooling (without radiator blind).



Electrical system

Operating tension	24 Volt
three-phase generator	28 Volt, 50 Amp.
2 batteries	12 Volt/170 Ah each
Starter with sliding gear armature	7.0 kW



Torque converter

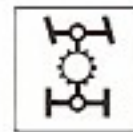
Hydrodynamic torque converter make ALLISON, type
TC-680, lock-up clutch, mechanical power transfer.



Gearbox

Powershift gearbox make ALLISON, type CL(B)T 5962,
6 forward speeds and 1 reverse speed with electronic
control (ATEC).

1st speed	4.00
2nd speed	2.69
3rd speed	2.01
4th speed	1.35
5th speed	1.00
6th speed	0.67
rev. speed	5.12



Transfer case

Mech. 3-shaft gear assembly, reduction ratio: on road 1.00,
off road 1.71 with torque distribution and differential lock.



1st and 2nd front axle

Driven steering planetary axles, total reduction ratio 12.764
each, angle of lock of 1st front axle max. 43°.
With longitudinal differential lock between the front axles.



1st and 2nd rear axle

Driven rigid planetary axles, total reduction ratio 12.764 each.
With longitudinal differential lock between the rear axles.



Suspension

Front axle: Semi-elliptic leaf springs in floating arrange-
ment, longitudinal guides for thrust trans-
mission, telescoping shock absorbers.

Rear axles: Semi-elliptic leaf springs in floating arrange-
ment, longitudinal guides for thrust trans-
mission.



Braking system

Service brake:
Two-circuits air brake effective on all wheels. Two-cylinder air
compressor, pressure governor with tyre inflating connector
socket, two-circuit brake valve, low pressure warning lamp,
overload protection, connection for two-line assembly in the
trailer coupling area.

Auxiliary and parking brake:
Operation of the wheel brakes at the rear axles by spring
actuated brake cylinders.

Continued operation brake:
Hydrodynamic retarder brake.

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Speeds, gradabilities and tractive effort:

Based on a rolling resistance coefficient of 0.015 and static friction coefficient of 0.7
axle reduction ratio $i=12.764$, transfer case reduction ratio $i=1.71/1.00$.

Gearbox step	Speeds in km/h at			Gradabilities in (%) at a total train weight of				Tractive effort in N
	max. engine r.p.m.	70% converter range	max. engine torque	100 t	200 t	250 t	300 t	
Off-Road								
1st gear	6.0	2.1	4.3	41.9	18.9	14.7	12.0	393786***
				30.6	14.0	10.9	8.8	301634**
				19.5	8.9	6.8	5.4	202632*
2nd gear	8.9	3.2	6.4	26.4	12.1	9.3	7.5	264723***
				19.5	8.9	6.8	5.4	202771**
				12.5	5.5	4.1	3.1	136210*
3rd gear	11.9	4.2	8.5	19.0	8.6	6.6	5.2	197878***
				14.1	6.2	4.7	3.7	151566**
				8.9	3.7	2.7	2.0	101802*
4th gear	17.8	6.3	12.7	12.1	5.3	3.9	3.0	132903***
				8.9	3.7	2.7	2.0	101789**
				5.5	2.0	1.3	0.8	68338*
5th gear	24.0	8.5	17.1	8.6	3.5	2.5	1.8	98447***
				6.2	2.3	1.6	1.1	75386**
				3.7	1.1	0.6	0.2	50565*
6th gear	35.8	12.7	25.6	5.2	1.9	1.2	0.7	65959***
				3.6	1.1	0.6	0.2	50472**
				1.9	0.2	0.0	0.0	33731*
rev. gear	4.7	1.7	3.3	57.6	24.9	19.4	15.8	504046***
				40.9	18.5	14.4	11.7	386093**
				25.8	11.8	9.1	7.3	259373*
On-Road								
1st gear	10.3	3.6	7.3	22.5	10.3	7.9	6.3	230284***
				16.7	7.5	5.7	4.5	176391**
				10.6	4.5	3.3	2.5	118484*
2nd gear	15.3	5.4	10.9	14.4	6.4	4.8	3.8	154809***
				10.6	4.5	3.3	2.5	118572**
				6.6	2.6	1.7	1.2	79625*
3rd gear	20.4	7.2	14.6	10.4	4.4	3.2	2.4	115718***
				7.6	3.0	2.1	1.5	88622**
				4.6	1.5	0.9	0.5	59479*
4th gear	30.4	10.8	21.7	6.4	2.5	1.7	1.1	77721***
				4.6	1.5	0.9	0.5	59496**
				2.6	0.5	0.1	0.0	39843*
5th gear	41.0	14.6	29.3	4.4	1.4	0.8	0.5	57571***
				3.0	0.7	0.3	0.0	44030**
				1.5	0.0	0.0	0.0	29349*
6th gear	61.2	21.7	43.7	2.4	0.5	0.1	0.0	38573***
				1.5	0.0	0.0	0.0	29394**
				0.5	0.0	0.0	0.0	19233*
rev. gear	8.0	2.8	5.7	29.8	13.6	10.6	8.5	294764***
				22.0	10.1	7.7	6.2	225783**
				14.1	6.2	4.7	3.7	151672*

***=at stall point

**=at 70% torque converter range

*=at lock-up

Optionals against additional price:

1. Large 4-doors driver's cab; at front – suspended driver's seat and seat bench for 2 persons. At rear – two suspended single seats.
2. Ballast box in steel execution with tarpaulin. In the rear part separate compartment with lockable cover for tools.
3. Separate WEBASTO heating.
4. Mechanical rope winch with 21 t drawbar pull on the first layer, pull to the front and to the rear. The winch is installed between the driver's cab and the ballast box.
5. Two additional rear view mirrors, vibration free, instead of the width indicators on the corners of the front bumper.
6. Tachograph with km- and mileage-indication.
7. Two work lights at the rear of the driver's cab.
8. Second fuel tank 450 l.
9. Two rotating beacons on top of the driver's cab.
10. Air compressor; 2 cylinders ea. 300 cm³.
11. Two additional bordering lights.

FAUN
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the O&K-group



Subject to Modification!

FAUN **Goliath**

**The energy pact:
Goliath... its power is performance**



ember of a winning team



GOLIATH – mighty me

...for the heaviest jobs

The transport of semi heavy to heavy loads is a routine task for Goliath 8x8 All-Wheel-Drive. On the construction site, on- and off-road Goliath pulls as truck tractor/semi-trailer combination a gross combination weight of up to 200 tons and up to 350 tons as a combination of truck-tractor and full trailer. Heavy indivisible loads are no problem for Goliath.

Engine

The 12-cylinder Deutz diesel engine with charge air cooling (type BF12L513C) is powerful, reliable and economical. The air-cooled direct-injector develops strong 525 HP (386 kW). The proven modular system allows the exchange of individual cylinders. The engine cooling is controlled thermostatically.

Transmission

The fully synchronised gearbox (type ZF 16S-190) in combination with a torque converter assisted dry clutch (WSK 400) guarantees a smooth start on steep gradients and uneven terrain. This also allows the driver to shift less and therefore concentrate more on the road. By operating the kick-down without actuating the clutch and shifting gears more tractive effort is achieved.

Axles

The FAUN axles provide Goliath with absolute safety in all operations. For special operations the precisely tuned planetary gears produce a high-torque in the hubs. The torque is divided to two-fourths to the front axles and to two-fourths to the rear axles. Transversal differential locks for all axles are available if required.

Tires

Tires with the size 12.00 – 24 are standard for Goliath.

Suspension

Goliath has outstanding performance characteristics thanks to the semi-elliptic spring piles with additional shock absorbers.

Driver's cab

The comfortable and spacious steel cab for three persons offers extraordinary ease and comfort for the driver. Clearly arranged instruments and a pneumatically suspended driver's seat with automatic body weight adjustment make driving a pleasure.

Available optionals:

- Large size cab for 7 persons, in executions with two to four doors, back seat bench convertible into 2 sleeping bunks
- Air-condition
- Sun protection roof.



Steering

The semi-block hydraulic steering guarantees safety, easy operation and good tracking. The pressure is supplied by an engine-driven pump. A secondary pump guarantees manoeuvrability in case of failure of the main pump.

Frame

Goliath's frame is made of high tensile steel. The connection of the longitudinal and cross beams with nuts and bolts gives the frame a distortional elasticity. Thanks to this attribute Goliath is able to adapt to any terrain. Straight longitudinal

beams absorb extreme tractive forces which could arise in push-pull combinations as well as in tandem and /or multiple-units operations.

Brakes

Three brake systems; service-, parking-, and engine brake give Goliath the greatest possible safety. The dual circuits braking system of the service brake acts on all wheels. The air pressure spring accumulator brake cylinders prevent an unintentional release of the parking brake. The engine brake achieves an effective brake deceleration especially on slopes. It operates without wear as continuous brake.

Available optionals:

- Load sensitive brake which regulates the braking force at the rear wheels depending on the loading condition.

FAUN offer a wide range of optionals and special equipment for all vehicles to provide optimum suitability for each vehicle and its specialised operation purpose:

- Fully automatic or powershift gearboxes
- Mechanically or hydraulically operated rope winches, single or twin winches
- Trailer couplings for various tractive efforts
- Different tire sizes
- Additional lights
- Fuel tanks of different sizes
- Drinking water tanks
- and much more.

The **Goliath-terrain** has been specially designed for off-road transports. The tire size 16.00 - 25 is standard.



GOLIATH



The specifications in this catalogue are approximate. The illustrations may show optional equipment. We reserve the right to make alterations in constructions and extent of delivery.

FAUN...

the winning team



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