



**SCHOPF
F396C**

Aircraft Towing Tractor

TECHNICAL DATA & CONFIGURATION

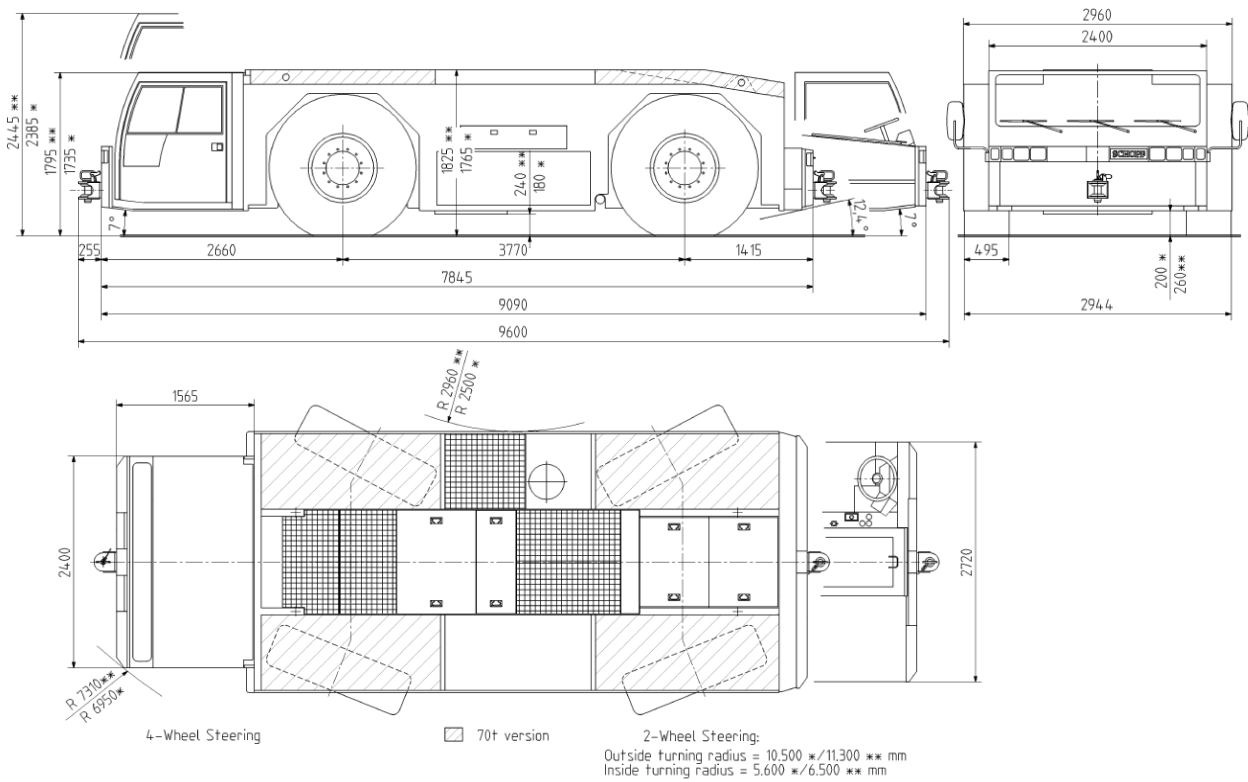
TECHNICAL DATA

▪ Operating weights	45,000 / 50,000 / 55,000 / 60,000 / 70,000 kg	
▪ Tyres, front + rear	16.00 x 25	18.00 x 25 (70,000 kg)
▪ Length without tow hitches		
○ "short" version (front cabin only) -		
▪ standard cab	7,845 mm	
▪ <i>dual facing cab</i>	8,090 mm	
○ "long" version (front cabin + rear driver's stand / cab)	9.090 mm	
▪ Height		
○ cabin lowered		
▪ standard cab	1,735 mm	1,795 mm
▪ <i>dual facing cab</i>	2,050 mm	2,110 mm
○ cabin raised		
▪ standard cab	2,385 mm	2,445 mm
▪ <i>dual facing cab</i>	3,000 mm	3,060 mm
▪ Width	2,960 mm	
▪ Ground clearance	200 mm	260 mm
▪ Axle base	3,770 mm	
▪ Wheel track, front + rear	2,449 mm	
▪ Turning radius - inside (4-wheel steering)	2,500 mm	2,960 mm
▪ Turning radius - outside (4-wheel steering)	6,950 mm	7,310 mm
▪ Drawbar pull installed	420 kN / 94,420 lbs	

The max. transferable drawbar pull depends on the tractor weight and friction coefficient.



DRAWINGS



* F396E or F396C with 60t or less and 16.00R25 tyres
 ** F396C or F396P with 70t and 18.00R25 tyres

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STANDARD ENGINE

Make:	Deutz
Type:	TCD 2015 V06, Diesel, turbo-charged, 6 cylinders, V-type, integrated electronic engine management system (EMR)
Cooling:	by water, 2-speed cooling fan (noise reduction)
Exhaust emission:	acc. to 2004/26/EU, STEP III A / EPA III
Output:	300 kW (408 HP) at 2,100 rpm acc. to ISO 14396
Max. torque:	2,000 Nm at 1,300 rpm
Bore / stroke:	132 / 145 mm
Displacement:	11,900 cm ³

TRANSMISSION

Make:	ZF
Type:	WG 310, ERGOPOWER series, fully automatic full-power-shift transmission with integrated torque converter, manual and automatic gear-shifting mode, electro-hydraulic, 6 gears forward / 3 reverse
Gear shift:	

The transmission characteristics are especially adapted to the requirements of aircraft towing tractors: jerk-free gear shifting due to modulation. Under full load the transmission can be shifted either automatically or manually (both jerk-free). At the starting point (1st gear engaged) the maximum drawbar pull is achieved.

Converter and transmission are fed from one common oil system.

STEERING

Steering is done electro-hydraulically. Four steering modes can be selected electrically through a push button:

- front-wheel steering
- rear-wheel steering
- 4-wheel steering
- crab steering

An electrically driven "emergency steering pump", connected to the steering circuit, allows temporary steering for salvage purposes.

BRAKING SYSTEM

The tractor is equipped with a fully hydraulic 3-circuit safety disk brake system, consisting of a 2-circuit service brake and 1-circuit failsafe parking brake. Emergency parking-brake release is done either by means of the emergency steering pump or mechanically; upon request a hydraulic hand pump (option) can be installed.

HYDRAULIC SYSTEM

Brakes, steering system, cabin-lift and jacks (option) are operated hydraulically. The hydraulic system is fed by a pump combination being flange-mounted to the transmission.

AXLES AND WHEELS

Front and rear axles, make Kessler, LT 91 (disc-type brake) are driven by the full-power-shift transmission through joint shafts and reduction gears. Both axles are designed as driven steering axles with planetary drives in the wheel hubs.

Tyres:

- up to 60,000 kg total weight: 16.00 x 25 tyres
- up to 70,000 kg total weight: 18.00 x 25 tyres only

ELECTRIC SYSTEM

- Operating voltage 24 V
- Alternator capacity 28 V, 80 A (2,240 W)
- Battery capacity 2 x 12 V / 200 Ah

LIGHTNING SYSTEM

Standard equipment:

- 2 headlights, low and high beam
- 2 reversing lights
- 2 brake lights
- 2 directional indicator lights (front + rear)
- 1 ea tow-hitch light front + rear
- 1 yellow rotating beacon, detachable

Optional equipment:

- spot lights (others upon request)

TRAVELLING SPEEDS

Forward

▪ 1 st gear	0 - 4	km/h	0 - 4,3 km/h
▪ 2 nd gear	0 - 6	km/h	0 - 6,5 km/h
▪ 3 rd gear	0 - 9	km/h	0 - 9,8 km/h
▪ 4 th gear	0 - 14	km/h	0 - 15,3 km/h
▪ 5 th gear	0 - 20	km/h	0 - 21,8 km/h
▪ 6 th gear	0 - 30	km/h	0 - 32,8 km/h

Reverse

▪ 1 st gear	0 - 4	km/h	0 - 4,3 km/h
▪ 2 nd gear	0 - 9	km/h	0 - 9,8 km/h
▪ 3 rd gear	0 - 20	km/h	0 - 21,8 km/h

EQUIPMENT INCLUDED

OPERATOR CABIN

The standard elevating, full-width front cabin is of all-steel construction. The lockable doors are equipped with sliding windows. In standard there are two adjustable suspension seats for driver and one co-driver.

For additional safety and comfort the cabin is equipped as follows:

- 3 intermittent windscreen wipers
- windscreen washer
- 1 rear screen wiper (behind driver)
- cabin / windscreen ventilation
- adjustable steering column
- seats with safety belts
- 1 inside and 2 outside rear-view mirrors
- cabin lights
- front tow-hitch mirror

STANDARD TOW HITCH

In standard a single-stage pin-type tow hitch, pin with 3" (75 mm) Ø, for connecting a tow bar is mounted to each of the massive bumpers front and rear. Others are available upon request.

OPTIONS

BALLASTING KITS

Incl. all necessary parts:

- from 45,000 kg to 50,000 kg total weight
- from 45,000 kg to 55,000 kg total weight
- from 45,000 kg to 60,000 kg total weight
- from 45,000 kg to 70,000 kg total weight

FURTHER OPTIONS

- elevating cabin with turntable seat (dual-facing and dual-control)
- 1 SCHOPF tow hitch, cushioned
 - single-stage pin-type tow hitch, front or rear
 - 3" (75 mm) pin, fixed with chain, length of tractor approx.+ 600 mm / hitch
- additional tow hitch for Russian aircraft, front + rear
 - 800 mm above-ground, 3" (75 mm) pin, fixed with chain, length +20 cm / hitch
- rear platform either for rear drivers station or GPU
- 1 tow-hitch mirror, rear
- cabin heating (water circulation system)
- cabin / front + rear screen ventilation
- auxiliary heater Webasto Thermo 90 Diesel, with timer
- air-conditioning system integrated in cabin
- sunroof lift-and-slide, manually operated
- tropical roof (double-panel roof) for heat reflection
- heated front screen
- heated rear screen (behind driver)
- 1 cabin-roof ventilator
- 1 flashing beacon, detachable (instead of yellow rotating beacon)
- 1 cabin roof antenna sensor
- 1 cabin roof light barrier
- 2 heated outside rear-view mirrors
- protection grids for lights, front + rear
- working light (on cabin roof)
- 4 integrated hydraulic jacks
- 1 spare wheel 16.00 x 25 or 18.00 x 25, complete
- crab steering (=4th steering mode)
- 1 hand-held fire extinguisher, 12 kg
- 1 torque wrench for regular wheel-nut control
- manual jack, 30 tons lifting capacity
- 1 set of pressure gauges (40, 250, 400 bar)
- power windows on both sides
- seat with safety belt
- cabin lights
- adjustable steering column
- windscreen washer front and rear
- 2 each intermittent windscreen wipers front and rear
- rear view video camera
- and more...

Tolerance of mentioned data \pm 3%

Technical modifications reserved.