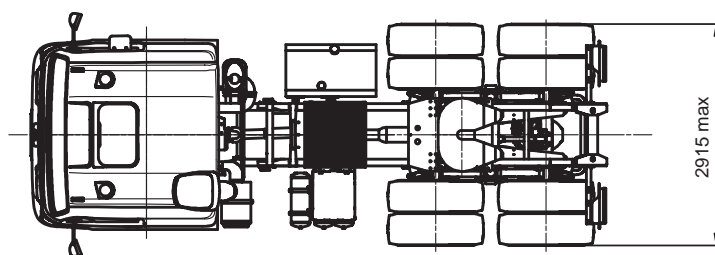
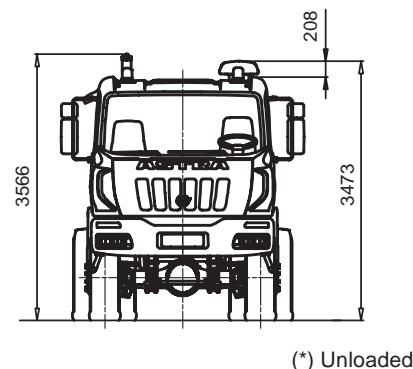
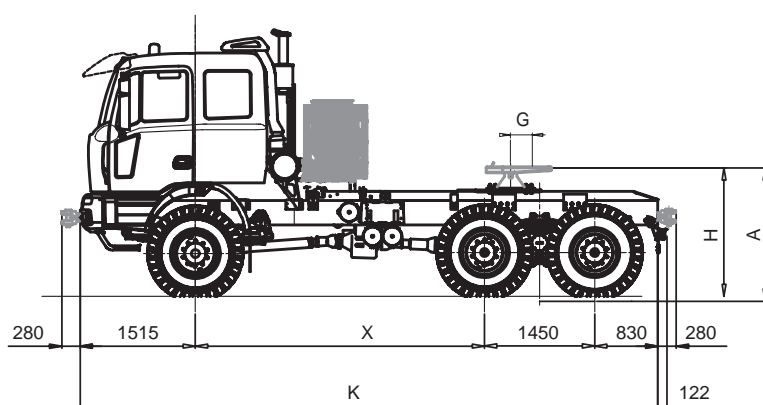


# Heavy - Heavy Duty



# G.C.W. over 250t

## Tractor 6x6 66.48 / 66.54



### ON REQUEST

- RHD VERSION (opt. code 962)
- LONG CAB VERSION (opt. code 200; opt. code 272)



wheelbase > 3800 mm  
+250Kg on front axle

**TYRES 14.00R20**


### DIMENSIONS (mm) short cab

X	K	G(1)	H		A (2)		E(1)	F(1)	TURNING DIAMETER
			unloaded	loaded	unloaded	loaded	front radius	rear radius	
3800	7565	450	1338	1258	1668	1588	2650	2355	22410
4100	7865						2950		23680

(1) Max. load on first axle 10,000 kg: values to be confirmed in combination with semitrailer.

(2) With swivelling fifth wheel + 100 mm.



### WEIGHT (kg)

Distribution net weight (*)				Max. technical weight			
X	1 <sup>st</sup> axle	2 <sup>nd</sup> +3 <sup>rd</sup> axle	net weight	1 <sup>st</sup> axle	2 <sup>nd</sup> + 3 <sup>rd</sup> axle	Fifth Wheel	Gross Combination Weight(**)
3800	6380	6330	12710	10000	40000	37250	over 250 t
4100	6550	6200	12750				

(\*) Weight including oil, fuel, spare wheel, driver Kg. 75

(\*\*) Data to be checked with Technical Department according to the configuration and the mission of the vehicle



## ENGINES

CURSOR 13 turbo intercooler euro 3 diesel injection/cycle with electronic unit injection pumps. 6 in-line cylinders. Single block head, four valves per cylinder, light alloy pistons. Total displacement: 12.882 cm<sup>3</sup>. Bore for stroke: 135 x 150 mm. Water cooling. Viscostatic cooling fan. Dry air filter with safety cartridge. Vertical muffler.

	66.48T	66.54T*
Model	FPT Cursor F3B	FPT Cursor F3B
Max. power (EEC)	353 kW (480 HP)	397 kW (540 HP)
Corresponding rpm	1.900	1.900
Max. torque (EEC)	2.200 Nm (224 kgm)	2.350 Nm (240 kgm)
Corresponding rpm	1.000-1.440	1.000-1.690
Turbine	VGT variable geometry	

\*Requires additional engine radiator, for extremely hot climate (>42°C).



## GEARBOX

Manual gear **ZF 16 S 2520 TO** with servoshift, 16 synchronised forward speeds + 2 reverse

**On request:**

- Automatic gearbox **Allison HD 4700** with closed loop adaptive shifts, 7 forward speeds + 1 reverse (wheelbase >4100mm). Torque converter TC-561. Stall torque ratio 1.58. Cab-mounted shift selector lever.
- Astronic **ZF 16AS2601 OD**.
- Transmatic **ZF 16S221 with WSK 440** torque converter (only for wheelbase 4100).

		Speed [kph]at maximum power rpm - Tyres 14.00R20																	
		Gears																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	RM	RM
ZF 16 S 2520 TO	Gear ratios	13,80	11,54	9,49	7,93	6,53	5,46	4,57	3,82	3,02	2,53	2,08	1,74	1,43	1,20	1,00	0,84	12,92	10,80
	Rear axle ratio with transfer 1:1.0	4,7	5,7	6,9	8,3	10,0	12,0	14,3	17,2	21,7	25,9	31,5	37,7	45,8	54,6	65,5	78,0	5,1	6,1

**On request: Automatic gearbox Allison HD 4700** with closed loop adaptive shifts, 7 forward speeds +1 reverse (wheelbase >4000mm). Torque converter TC-561. Stall torque ratio 1.58. Cab-mounted shift selector lever.

		Allison HD 4700							
		Gears							
		1	2	3	4	5	6	7	RM
Gear ratios		7,63:1	3,51:1	1,91:1	1,43:1	1,00:1	0,74:1	0,64:1	-480:1



## P.T.O.

**On request:**

Gearbox P.T.O.	ZF16S2520TO Ratio	Max. torque Nm.	Application
ZF NH/1b	0,91/1,09:1	1000	For tipping unit pumps, pumps for cranes, ecc..
ZF NH/1c	0,91/1,09:1	1000	For tipping unit pumps, unit pumps for concrete, pumps for cranes, ecc..
ZF NH/4c	1,17/1,40:1	430	For tipping unit pumps, ecc..



## P.T.O. CHELSEA only for automatic gearbox Allison HD4700 (on request)

Gearbox P.T.O.	HD 4700 Ratio	Max. torque Nm.	Application
859 XGF JP-5	1,08:1	780	For higher performance, 30t windlass..
277 XGF JP-D5XY	1,47:1	407	For standard application, tipping unit pumps, cranes, ecc..



## CLUTCH

Single dry plate, diameter 17".  
Pull type engagement with diaphragm spring.  
Hydro-pneumatic power steering engagement control, with driven disk wear recovery slave cylinder.



## TRANSFER ZF STEYR VG 2700

Mechanical with two ratios. It consists of a series of helical spur gears, mounted on three shafts, engaged with each other. Differential lockable by pneumatic control.

Transmission ratio: 0:913 - 1,407  
Front torque distribution ratio: 1,0  
Rear torque distribution ratio: 2,6



## SUSPENSIONS

### FRONT

Parabolic springs with bushings, **5 leaves 24x90 mm**.  
Hydraulic shock absorbers and standard stabilizer bar.

### REAR

Parabolic springs, swivelling on central pin: **5 leaves 40x100 mm**. Supplemented by torque bars and stiffening brackets.  
**Stabilizer bar on rear axles.**



## AXLES

### FRONT

Driving and steering type for **max technical weight 10.000 kg**, with double reduction, central with pinion-crown wheel, side by means of epicycloidal assembly in wheel hubs.

#### On request:

Differential lockable by pneumatic control from driver's seat.

### REAR

Two driving axles in tandem for **max technical weight 40.000 kg**.

Double reduction: central with bevelled pair, final in the wheel hubs by means of epicycloidal assembly. 2<sup>nd</sup> axle with distributor for torque distribution between the two axles. Differential lockable by pneumatic control from driver's seat. Tandem assembled to the chassis by reaction rods with silentblock. Rear-axle ratio 1:7,29



## CHASSIS

In steel with high elasticity limit consisting of two flat parallel side members (width 820 mm.) with C section (320x90x10 mm), jointed by nailed R.B.M. (Rail Bending Moment) cross members: 202.020 Nm (20.593 Kgm). Front bumpers in steel with headlamp protection grids, front manoeuvring hook, rear underrun bar, steel fuel tank capacity 300 litres. Fifth wheel helper frame, spot and side alighting step, toolbox, side winch for spare wheel.

#### On request:

Rapid attachment for compressed air for tyres'inflation.  
Rear manoeuvring hook.  
Front bumper climbing step.  
Fixed 3 1/2" fifth wheel.  
Swivelling 3 1/2" fifth wheel.  
Fixed fifth wheel JSK 50.



## STEERING

Hydraulic power steering ZF 8099 with variable ratio 1:22.2/1:26.2, with auxiliary cylinder. Hydraulic pump flanged to engine. Steering linkage with self lubricating floating joints. Emergency steering pump:  
- On gearbox with mechanical gearbox;  
- On transfer-box with automatic gearbox.  
Mechanically adjustable steering wheel for height and angle.



## TYRES

**FRONT:** 14.00R20 Pirelli P S 22 Single tubeless  
**REAR:** 14.00R20 Pirelli P S22 Twin tubeless

Spare wheel on the chassis.

Other tyres available on request, subject to the approval of Astra technical department.



## PNEUMATIC SYSTEM

Two-cylinder 630 cc compressor, APU (Air Processing Unit) that includes: regulation valve set at 10.3 bar, drier, 4-way safety valve, pressure reduction valve for parking circuit and services. 3 air tanks, capacity 30 litres + 2 with 20 litres. ABS system and EBL (Electronic Brake Limiter).



## BRAKES

Front "simplex", rear "duo-duplex" self-adjusting wedge type brakes with automatic play take-up. Anti-block system ABS.  
**Service brake:** Pedal controlled air brake, acting on all wheels.

**Solo vehicles**, two independent circuits, one for 1<sup>st</sup> axle, one for 2<sup>nd</sup> and 3<sup>rd</sup> axle.

**Towing vehicles**, three independent circuits, one for 1<sup>st</sup> axle, one for 2<sup>nd</sup> and 3<sup>rd</sup> axle and another for the trailer.

**Emergency brake:** integrated in service brake.

**Parking brake:** Manual spring-type mechanical with pneumatic control acting on 2<sup>nd</sup> and 3<sup>rd</sup> axle wheels.

**IVECO BRAKE TURBO engine brake:**  
braking power 255 kW (347 cv)

#### On request:

Hydraulic intarder.  
1<sup>st</sup> axle immobiliser system.  
OFF/ROAD button for excluding ABS



## ELECTRICAL SYSTEM

Voltage: 24 V  
Alternator generator 90 A - 28 V (2520 W).  
**Accumulators: 2 in series, 170 Ah.**  
Starter 24 V 5,5 kW.

Mechanically controlled electrical circuit breaker.

Anti-block system ABS with 4-conduits and 4-electric valves-electronic system.

1 electrical joint 7-pole(ISO 7638) for trailer ABS(if applicable).

1 electrical joints 15-pole(ISO 12089-4091) for trailer lighting (if applicable).

Electrical provision for outfitters.

Provision for diagnostics.

Provision for radio/cb (without speakers)

Glow plug for cold start.

#### On request:

220 Ah accumulators;  
170 Ah tropicalised accumulators;  
Reverse alarm;  
Electrically controlled main current circuit breaker.





## CAB

White cab with hydraulic tipping. Built in moulding fiberglass with tubular steel armature. Tested on the most demanding off road routes.

Cab suspension with guiding arms, 4 helicoidal springs, double action shock absorbers, anti-roll bar and end-of-stroke pads. Collapsible first step. Beacon lights on cab roof. Internal panels completely washable and fireproof. 4-speed ventilation and heating system with air recirculation system. Electric power windows on driver and passenger doors. Driver seat with pneumatic suspension and seat belt. Fixed passenger seat with seat belts. Athermic windows. Steering wheel adjustable in hight and slope with mechanical control.

### On request:

Additional central seat;  
Air conditioning;  
Anti-fog lights;  
Cab rear window;  
Car radio RDS, CD;  
Car radio RDS, CD, MP3, Blue Tooth technology;  
Centralized closing of the doors with remote control;  
Compressed air quick coupling for cab cleaning;  
External sun visor.  
Heated and electric powered rear view mirrors;  
Long cab version with driver and passenger seat and 2 beds;  
Metallic colour cab;  
Non-metallic colour cab;  
Roof hatch.



## SERVICE DATA(I)

Engine oil sump and filters .....	28
Gearbox oil .....	11
Power steering oil .....	18
Cab tipping oil .....	1
Transferer oil .....	10
Front axle with final red. oil .....	22,5
Intermediate axle with final red. oil .....	21,5
Rear axle with final red. oil .....	22,5
Diesel .....	300



## INSTRUMENTATION

Dashboard and ergonomic instrument board contain the function buttons and the identification commands.

**Indicator lights:** engine oil low pressure, alternator charging low, main beam lights, side lights, engine warm-up, rear fog light, hazard lights, tractor turn indicators, trailer turn indicators (if applicable), rotating lights, cab lifted, axles differential locked, differential lock, front brakes air pressure low, rear brakes air pressure low, trailer brakes air pressure low (if applicable), parking brake engaged, splitter (reduction on), slow speeds (1-4/9-12), power take-off on (if applicable) air filters clogged, power steering oil level low, rear view mirrors heated (if applicable), ABS, trailer ABS (if applicable), main steering circuit failure, steering auxiliary circuit failure.

### ASTRA Veicoli Industriali

Via Caorsana, 79  
29122 Piacenza (Italy)  
Tel. ++39-523/5431  
Fax ++39-523/59.17.73  
www.astraspa.com

### DEALER

Characteristics and equipment are subject to changes without prior notice.



Technical data and general specifications - validity to be checked according to each individual country.