


**DIMENSIONS (mm)**

X	K	M max (*)	S	S ON REQUEST	H		TURNING DIAMETER wall to wall
					unloaded	loaded	
2350	8425	6100	1200	875/1500	1191	1129	19100
2850	8925	6600					20700
3100	9175	6850					21500
4100	10475	8150	1500	-			24600

(\*) M max.: indicative value to be confirmed by bodybuilder

(Tyres 13R22.5)


**WEIGHT (kg)**

X	Distribution net weight (*)				Max technical weight				
	1 <sup>st</sup> axle	2 <sup>nd</sup> axle	3 <sup>rd</sup> + 4 <sup>th</sup> axle	NET WEIGHT	1 <sup>st</sup> +2 <sup>nd</sup> axle		3 <sup>rd</sup> +4 <sup>th</sup> axle	Gross Vehicle Weight	Gross Combination Weight
2350	4039	3220	4387	11646	16000	18000 (1) (2)	32000 (2)	50000 (2)	121.500
2850	4112	3278	4314	11704					
3100	4137	3298	4321	11756					
4100	4240	3379	4274	11894					

(\*) Weight including oil, fuel, spare wheel, driver 75 Kg, with 13R22.5 tyres.

(1) With tyres on front axles 385/65R22.5 or 325/95R24 and reinforced springs (OPT).

(2) With tyres 325/95R24 or max speed limited to 70Km/h depending on pneus type and brand.

Higher speeds are allowed with load reductions subject to Astra technical office approval.

Other tyres available, subject to Astra technical office approval.



## ENGINES

CURSOR 13 turbo intercooler electronic common rail with Hi-eSCR system. 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.

	84.50	84.56
Model	CURSOR 13	CURSOR 13
Max. power (EEC)	368 kW (500 HP)	412 kW (560 HP)
Corresponding rpm	1.900 rpm	
Max. torque (EEC)	2.300 Nm (235 kgm)	2.500 Nm (255 kgm)
Corresponding rpm	1.000 rpm	
Turbine	Electronic Variable Geometry Turbocharger with exhaust flap	



## GEARBOX

Manual **ZF 16S2520TO** gearbox, Ecosplit 4 technology with servoshift, 16 synchronised forward speeds + 2 reverse.

**On request:**

Automated **ZF AS-Tronic 16AS2630TO**.

		Speed [kph] at maximum power rpm																		
		Gears																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	RM1	RM2	
<b>ZF16S2530TO</b>	<b>Gear ratios</b>	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	
	<b>Rear axle ratio</b>	4.229	6.7	8.0	9.7	11.7	14.2	16.9	20.2	24.2	30.6	36.5	44.4	53.1	64.6	77.0	92.4	110.0	7.2	8.6
		5.009	5.7	6.8	8.2	9.8	11.9	14.3	17.1	20.4	25.8	30.8	37.5	44.8	54.6	65.0	78.0	92.9	6.0	7.2
		5.558	5.1	6.1	7.4	8.9	10.8	12.9	15.4	18.4	23.3	27.8	33.8	40.4	49.2	58.6	70.3	83.7	5.4	6.5
		6.095	4.6	5.6	6.8	8.1	9.8	11.7	14.0	16.8	21.2	25.3	30.8	36.8	44.8	53.4	64.1	76.3	5.0	5.9
		6.588	4.3	5.1	6.3	7.5	9.1	10.9	13.0	15.5	19.6	23.4	28.5	34.1	41.5	49.4	59.3	70.6	4.6	5.5

Max speed 90 km/h. Other speeds available, subject to the Astra technical office approval.



## P.T.O.

**On request:**

Gearbox	ZF 16S2520TO	Mx. Torque	Application
P.T.O.	Ratio	Nm	
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..
ZFN221/10+PL+NL/1c	1,75/2,09:1+0,91/1,09:1	560+600	Double PTO for concrete pumps

**ZF NMV 221 Power take-off** (ratio 1,55:1) max available torque 1300 Nm for concrete pumps.

**Power take-off Multipower** (ratio 1,29:1) max available torque 900 Nm for concrete mixers (without intarder).



## 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.



## AXLES

### FRONT

Steering axle, hot moulding in high tensile steel. Wheel stud protection.

### REAR

Two drive axles in tandem. Double reduction: central with beveled pair, final in the wheel hubs by means of epicycloidal assembly. Torque distribution between the axles by means of a distributor fitted on the intermediate axle. Differential lockable from driver seat. Tandem assembled to the chassis by reaction rods with silentblock.

#### On request:

Rear-axle ratio 1:4,229

Rear-axle ratio 1:5,009

Rear-axle ratio 1:5,558

Rear-axle ratio 1:6,095

Rear-axle ratio 1:6,588



## SUSPENSIONS

### FRONT

Parabolic springs, n° 3 leaves 26x90 mm, hydraulic shock absorbers. Standard stabilizer bar on 1<sup>st</sup> axle.

#### On request:

Stabilizer bar on 2<sup>nd</sup> axle.

Reinforced parabolic springs, n° 4 leaves 26x90 mm (mandatory with 9t version).

### REAR

Parabolic springs, swiveling on central pin: n° 4 leaves 40x100mm, torque bars and stiffening brackets.

Standard stabilizer bar on 4th axle.

#### On request:

Stabilizer bar on 3<sup>rd</sup> axle.

Extra-reinforced conventional springs, n° 10 leaves 25x100 mm.



## CHASSIS

Special steel with high tensile strength limit, two flat and parallel side members (width 820 mm.), C section (320x90x10mm), cross members bolted to the frame. R.B.M. (Rail Bending Moment): 202.020 Nm (20.593 Kgm.).

Steel front bumpers with headlamp protection grids, front maneuvering hook, rear underrun bar, rubber mud-guard 2<sup>nd</sup> axle, steel fuel tank capacity 300 litres.

#### On request:

Rapid pneumatic connection for tyres inflation.

Rear underrun bar in set back position.

Extra-long underrun bar for concrete mixer.

Rear maneuvering hook.

Rear automatic towing hook.

Rubber mudguards on 3<sup>rd</sup> and 4<sup>th</sup> axle.



## TYRES

**FRONT:** 13R22,5 156/150 G Single tubeless

**REAR:** 13R22,5 156/150 G Twin tubeless

Spare wheel on the chassis.

### Other Possible combinations:

TYRES	ASSEMBLY	
	FRONT	REAR
12.00 R20 156/150G	S	D
315/80 R22,5 156/150K		
385/65 R22.5 160J (*)	S	
315/80 R22,5 156/150K		D
325/95 R24 162/160K (*)	S	D

S single

D double

(\*) Mandatory with 9 ton front axle load.

Other tyres available, subject to Astra technical office approval.



## 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 liters + 2 with 20 liters. ABS system and EBL (Electronic Brake Limiter).



## BRAKES

Front and rear "duo-duplex" self-adjusting wedge type brakes with automatic play take-up.

Total net braking surface 12.368 cm<sup>2</sup>. ABS + EBL.

**Service brake:** Pedal controlled air brake, acting on all wheels.

**Solo vehicles,** two independent circuits, one for 1<sup>st</sup> and 2<sup>nd</sup> axle, one for 3<sup>rd</sup> and 4<sup>th</sup> axle; 1<sup>st</sup> category wheels anti-lock system.

**Towing vehicles,** three independent circuits, one for 1<sup>st</sup> and 2<sup>nd</sup> axle, one for 3<sup>rd</sup> and 4<sup>th</sup> axle and another for the trailer; 1<sup>st</sup> category wheels anti-lock system.

**Emergency brake:** Incorporated in service brake.

**Parking brake:** Manual spring-type mechanical with pneumatic control acting on 3<sup>rd</sup> and 4<sup>th</sup> axle wheels.

**IVECO SUPER ENGINE BRAKE engine brake:**

HD9 500/560 HP braking power 463 kW (621 HP).

#### On request:

Hydraulic intarder.

OFF/ROAD button for excluding ABS for speed < 15 kph.



## STEERING

ZF 8099 quadrilateral power steering on front axle wheels with variable ratio 1:22.2/1:26.2 with auxiliary cylinder.

Circuit with main hydraulic pump on engine and emergency pump on gearbox. Steering rods with self-lubricating joints.

Height and inclination pneumatic adjustable steering column.



## SERVICE DATA (l)

Engine oil sump (and filters) .....	28 (+ 2,5)
Gearbox oil .....	14,5
Power steering oil.....	18
Cab tipping oil .....	1
Clutch circuit oil.....	0,5
Integral PTO oil.....	3
Intermediate axle with final red. oil.....	27
Rear axle with final red. oil .....	16
Cooling system water.....	33
Diesel.....	300
AD Blue .....	50



## ELECTRICAL SYSTEM

Voltage: 24 V  
 Alternator generator 90 A - 28 V (2520 W).  
 Accumulators: 2 in series, 170 Ah.  
 Starter motor 24 V 5,5 kW.  
 Mechanically controlled electrical circuit breaker.  
 Anti-block system ABS with 4-conduits and 4-electric valves electronic system.  
 Phonic wheels and sensors on 1<sup>st</sup> and 3<sup>rd</sup> axle.  
 1 electrical joint 7-pole(ISO 7638) for trailer ABS(if applicable).  
 1 electrical joint 15-pole(ISO 12089-4091) for trailer lighting (if applicable).  
 Offset trim lights  
 Electrical provision for outfitters.  
 Provision for diagnostics.  
 Provision for radio/cb (without speakers)  
 Glow plug for cold start.  
**On request:**  
 Reverse alarm;  
 Electric main current cut-off switch.



## CAB

White cab built in galvanized pressed steel with hydraulic tilting up to 60°. Cab suspension with 4 helicoidal springs with coaxial shock absorbers and integrated dampers, anti-roll bar and end-of-stroke pads. Tinted electric door windows. Internal panels completely washable and fireproof. Rapid pneumatic connection for cab cleaning. 4-speed ventilation and heating system with air recirculation system. Air suspended 3-way adjustable driver seat with seat belts. Mechanical passenger seat with seat belts.

**On request:**  
 Air conditioning with anti-pollen filter  
 Cab rear window.  
 Car radio RDS, CD with steering wheel controls  
 Car radio RDS, CD, MP3 Bluetooth technology.  
 External sun visor.  
 Heated and electric powered rear view mirrors.  
 Remote controlled and centralized closing of doors.  
 Roof hatch.  
 Rotating lights on top of the cab.



## 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), tractor ABS, trailer ABS (if applicable), main steering circuit failure, steering auxiliary circuit failure, low urea level.

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### DEALER

Characteristics and equipment are subject to changes without prior notice.

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