





## ENGINES

CURSOR 13 turbo intercooler euro 3 diesel injection/cycle with electronic unit injection pumps. 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. 6 in-line cylinders. Water cooling. Dry air filter with safety cartridge. Vertical muffler.

Max.power(EEC)	354 KW (480 HP) @ 1900 rpm
Max.torque(EEC)	2200 Nm (224 kgm) @ 1000 - 1440 rpm
Turbine	VGT



## GEARBOX

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

**On request: ZF 16S2320TD - ZF ASTRONIC 16AS2630TO - ALLISON HD4700:** only for wheelbase>4100mm

		Speed [kph] calculated at maximum power rpm																	
		Gears / Gear ratios																	
Gearbox model	Rear axle ratio	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	rev. 1st	rev. 2nd
<b>16AS 2630 TO</b>		14.12	11.68	9.54	7.89	6.52	5.39	4.57	3.78	3.09	2.56	2.09	1.73	1.43	1.18	1	.83	13.07	10.81
<b>Off road slow</b>	<b>5.01</b>	3.43	4.15	5.08	6.15	7.44	9.00	10.61	12.83	15.69	18.94	23.20	28.03	33.91	41.10	48.50	58.43	3.71	4.49
<b>On road fast</b>	<b>5.01</b>	5.50	6.64	8.13	9.83	11.90	14.40	16.98	20.53	25.11	30.31	37.13	44.85	54.26	65.76	77.59	93.49*	5.94	7.18
<b>16S 2520 TO</b>		13.8	11.54	9.49	7.93	6.53	5.46	4.57	3.82	3.02	2.53	2.08	1.74	1.43	1.2	1	.84	12.92	10.8
<b>Off road slow</b>	<b>5.01</b>	3.51	4.20	5.11	6.12	7.43	8.88	10.61	12.70	16.06	19.17	23.32	27.87	33.91	40.41	48.50	57.73	3.75	4.49
<b>On road fast</b>	<b>5.01</b>	5.62	6.72	8.18	9.78	11.88	14.21	16.98	20.31	25.69	30.67	37.30	44.59	54.26	64.66	77.59	92.37*	6.01	7.18

(\*) Max limited speed 90 km/h. Other speeds available, subject to the Astra technical office approval.



## CLUTCH

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

**On request:** Ceramic clutch 17".



## TRANSFER BOX

Mechanical with two ratios. Helical spur gears, mounted on three shafts, engaged with each other. Lockable differential by pneumatic control from driver seat. Air-oil cooler. Transmission ratio 1:1 - 1:1,16. Front/rear torque distribution ratio 1:2,2.



## AXLES

### FRONT

1st axle driving and steering, with double reduction: central by bevel gear, final by planetary gear in wheel hubs. 2nd axle in high tensile pressed steel, steering, not driving.

**On request:** Cross-axle differential lock.

Reinforced front axle: max technical weight 8 ton or 9 ton (with reinforced suspension). Available axle ratio: 5,01 - 5,47 - 5,96 - 6,28.

### REAR

Two driving axles in tandem, with double reduction: central with bevel gear, final by planetary gear in wheel hubs, interaxle and cross-axle differential lock. Tandem linked to the chassis by reaction rods with silentblocks.

**On request:**

Available rear-axle ratios: 1:3,793; 1:4,229 - 1:5,009 - 1:5,558 - 1:6,095 - 1:6,588.



## SUSPENSIONS

### FRONT

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

**On request:**

Stabilizer bar on 2nd 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 3rd 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 2nd axle, steel fuel tank capacity 300 litres.

Characteristics and equipment are subject to changes without prior notice  
Technical data and general specifications - validity to be checked according to each individual configuration



## 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:

315/80R22.5 156/150K

385/65R22.5 160J (\*) + 315/80R22.5 156/150K

325/95R24 162/160K (\*)

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

Other tyres available, subject to the Astra technical office approval.



## BRAKES

Front and rear "duo-duplex" self-adjusting wedge type brakes with automatic play take-up. Total net braking surface 12.058 cm<sup>2</sup>. ABS + EBL system.

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

**Solo vehicles:** two independent circuits, one for 1st and 2nd axle, one for 3rd and 4th axle. **Towing vehicles:** three independent circuits, one for 1st and 2nd axle, one for 3rd and 4th axle and another for the trailer.

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

**Parking brake:** Mechanical spring-type with pneumatic control acting on 3rd and 4th axle wheels.

IVECO TURBO BRAKE engine brake: braking power 300 kW (402 HP)

**On request:**

Hydraulic interarder.



## ELECTRICAL SYSTEM

Voltage: 24 V

Alternator generator 90 A - 28 V (2520 W).

Accumulators: 2 in series, 180 Ah.

Starter motor 24 V 5,5 kW.

Mechanically controlled electrical circuit breaker.



## CAB

Standard white short 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. Mechanical rear view mirrors, wide angle mirrors and front view mirror. Internal panels completely washable and fireproof. Compressed air quick coupling 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.