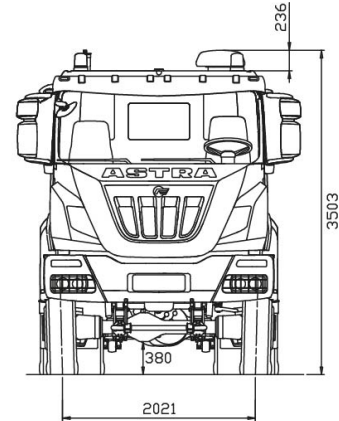
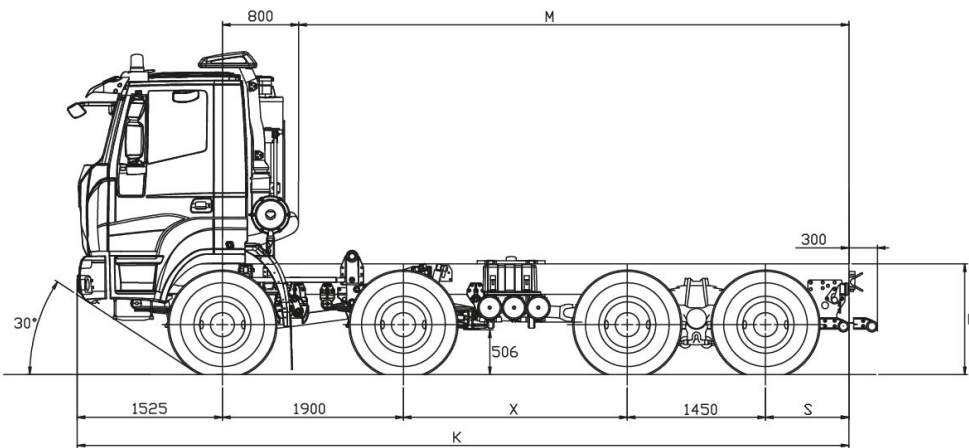



**chassis-cab 8x6**  
**HD86.48**

**DIMENSIONS (MM)**

| X    | K     | M max(*) | S    | H        |        | TURNING DIAMETER<br>(wall to wall) |
|------|-------|----------|------|----------|--------|------------------------------------|
|      |       |          |      | unloaded | loaded |                                    |
| 2350 | 8425  | 6100     | 1200 | 1249     | 1189   | 19800                              |
| 2600 | 8675  | 6350     | 1200 | 1249     | 1189   | 20600                              |
| 2850 | 8925  | 6600     | 1200 | 1249     | 1189   | 21400                              |
| 3100 | 9175  | 6850     | 1200 | 1249     | 1189   | 22200                              |
| 3350 | 9425  | 7100     | 1200 | 1249     | 1189   | 23000                              |
| 3600 | 9975  | 7650     | 1500 | 1249     | 1189   | 23800                              |
| 4100 | 10475 | 8150     | 1500 | 1249     | 1189   | 25400                              |

(\*) M max.: indicative value to be confirmed by bodybuilder.  
 (Tyres 13R22.5)

**WEIGHTS (KG)**

| X    | Distribution net weight(*) |            |            | Max technical weight   |            |                      |                          |
|------|----------------------------|------------|------------|------------------------|------------|----------------------|--------------------------|
|      | Front axles                | Rear axles | Net Weight | Front axles            | Rear axles | Gross Vehicle Weight | Gross Combination Weight |
| 2350 | 6990                       | 4205       | 11195      | 16000<br>18000 (1) (2) | 32000 (2)  | 50000 (2)            | 104000                   |
| 2600 | 6985                       | 4240       | 11225      |                        |            |                      |                          |
| 2850 | 6970                       | 4270       | 11240      |                        |            |                      |                          |
| 3100 | 6975                       | 4310       | 11285      |                        |            |                      |                          |
| 3350 | 6970                       | 4335       | 11305      |                        |            |                      |                          |
| 3600 | 6955                       | 4400       | 11355      |                        |            |                      |                          |
| 4100 | 6965                       | 4445       | 11410      |                        |            |                      |                          |

(\*) Net weight including driver with tanks filled to at least 90%, equipped with standard equipment according to the manufacturer's specifications and, if fitted, the mass of the bodywork, spare wheels and tool box.

(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 70 Km/h depending on pneus type and brand.

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



## 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

| Gearbox model        | Rear axle ratio | Speed [kph] calculated at maximum power rpm |       |      |      |       |       |       |       |       |       |       |       |       |       |       |        |          |          |
|----------------------|-----------------|---|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------|----------|
|                      |                 | Gears / Gear ratios                         |       |      |      |       |       |       |       |       |       |       |       |       |       |       |        |          |          |
|                      |                 | 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 Kg.m.). 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.