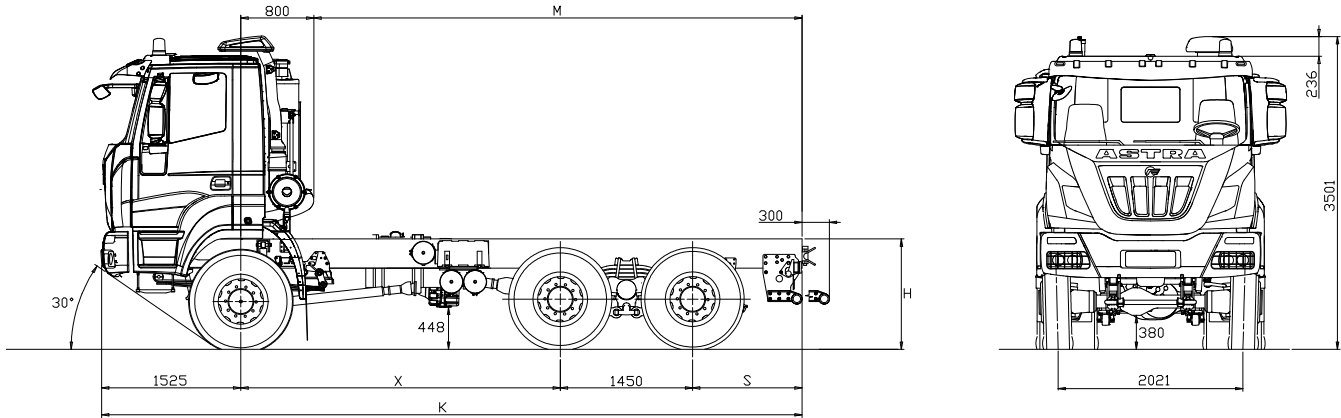



**chassis 6x6**
**66.38 / 66.42 / 66.44 / 66.48 / 66.54**

**DIMENSIONS (mm)**

X	K	M max (*)	S	S ON REQUEST	H		TURNING DIAMETER (wall to wall)
					unloaded	loaded	
3500	7675	5350	1200	-	1250	1189	17400
3800	7975	5650	1200	1800			18300
4100	8275	5950	1200	1500/1900			19300
4500	8675	6350	1200	1900/2600			20600
4750	9625	7300	1900	-			21200
5100	9975	7650	1900	-			22400

(\*) 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> +3 <sup>rd</sup> axle	Net weight	1 <sup>st</sup> axle	2 <sup>nd</sup> +3 <sup>rd</sup> axle	Gross Vehicle weight	Gross Combination weight
3500	5365	4938	10303	8000 8500 (1) 9000 (1) (2) 10000 (3)	32000 (2)	40000 (2)	121500
3800	5409	4929	10338				
4100	5447	4919	10366				
4500	5503	4921	10424				
4750	5554	4950	10504				
5100	5655	4890	10545				

(\*) Weight including oil, fuel, spare wheel, driver Kg.75, 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 70 Km/h depending on pneus type and brand.

(3) With Kessler front axle and 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.  
Other tyres available, subject to Astra technical office approval.

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





## 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. Viscostatic cooling fan. Dry air filter with safety cartridge. Vertical muffler.

	66.38	66.42	66.44	66.48	66.54*
Model	Cursor 13	Cursor 13	Cursor 13	Cursor 13	Cursor 13
Max. power (EEC)	280 kW (380 HP)	309 kW (420 HP)	324 kW (440 HP)	353 kW (480 HP)	397 kW (540 HP)
Corresponding rpm	1900 rpm				
Max. torque (EEC)	1800 Nm (183 kgm)	1900 Nm (194 kgm)	2100 Nm (214 kgm)	2200 Nm (224 kgm)	2350 Nm (240 kgm)
Corresponding rpm	1000-1440 rpm				1000-1690 rpm
Turbine	WG Waste Gate			Variable Geometry Turbine	

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



## GEARBOX

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

**ZF16S2220TO:** HD9 66.48 / HD9 66.54

**ZF16S2520TO:**HD9 66.48 / HD9 66.54

**On request:**

**ZF16S2320TD:** HD9 66.38 / HD9 66.42 / HD9 66.44 / HD9 66.48

**ZF ASTRONIC 16AS2630TO:** HD9 66.44 / HD9 66.48 / HD9 66.54

**ALLISON HD4700:** HD9 66.44 / HD9 66.48 / HD9 66.54 (wheelbase>4100mm)

**ZF WSK440 + 16S251:** HD9 66.54

		Speed [kph] calculated at maximum power rpm																		
		Gears																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	RM	RM	
ZF 16S2220TO - ZF 16S2520TO	<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	
	Rear axle ratio with transfer 1:1.0	3.793	7.5	8.9	10.9	13.0	15.8	18.9	22.5	27.0	34.1	40.7	49.5	59.2	72.0	85.9	103.0*	122.7*	8.0	9.5
		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
	<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	
	Rear axle ratio with transfer 1:1.6	3.793	4.7	5.6	6.8	8.1	9.9	11.8	14.1	16.9	21.3	25.5	31.0	37.0	45.0	53.7	64.4	76.7	5.0	6.0
		4.229	4.2	5.0	6.1	7.3	8.8	10.6	12.6	15.1	19.1	22.8	27.8	33.2	40.4	48.1	57.8	69.0	4.5	5.4
		5.009	3.5	4.2	5.1	6.1	7.5	8.9	10.7	12.8	16.1	19.3	23.4	28.0	34.1	40.6	48.8	58.0	3.8	4.5
		5.558	3.2	3.8	4.6	5.5	6.7	8.0	9.6	11.5	14.6	17.4	21.1	25.3	30.7	36.6	43.9	52.3	3.4	4.1
6.095		2.9	3.5	4.2	5.1	6.1	7.3	8.8	10.5	13.3	15.8	19.3	23.0	28.0	33.4	40.1	47.7	3.1	3.7	
6.588		2.7	3.2	3.9	4.7	5.7	6.8	8.1	9.7	12.3	14.7	17.8	21.3	25.9	30.9	37.1	44.1	2.9	3.4	

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



## P.T.O.

**On request:**

Gearbox	ZF16S2220TO - ZF16S2520TO	Max. torque	Application
P.T.O.	Ratio	Nm	
ZF NH/1b	0,91/1,09:1	1000	For tipping unit pumps, pumps for cranes, etc..
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...
ZF N221/10B-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.

**ZF NMV 221 Power take-off** (ratio 0,98:1) max available torque 2000 Nm for concrete pumps.

**Multipower power take-off** (ratio 1,29:1) max available torque 900 Nm for concrete mixers.

**Parker Chelsea 870 XAF power take-off** (ratio 1,67:1) max available torque 908 Nm for Allison gearbox.

**Parker Chelsea 870 XBF power take-off** (ratio 1,56:1) max available torque 854 Nm for Allison gearbox.

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



## 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 propeller shafts, engaged with each other. Lockable differential by pneumatic control from driver seat.

	380 / 420 / 440 / 480 HP	540 HP
Model	IVECO TC2200	STEYR VG2700
Transmission ratio	1:1 - 1:1,6	1:0,913 - 1:1,407
Front/rear torque distribution ratio	1:2,2	1:2,6



## AXLES

### FRONT

1<sup>st</sup> axle, driving and steering, in cast iron with double reduction, central by bevelled pair, lateral by epicyclic group in wheel hubs.

#### On request:

Lockable differential by pneumatic control from driver seat. Kessler front axle:

Version	Max technical weight on 1 <sup>st</sup> axle (ton)	Available axle ratio
HD9 K	8	5,01 - 5,47 - 5,96 - 6,28
	9 (with reinforced suspension)	
	10 (with reinforced suspension and steering system)	

### 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 silentblocks.

#### On request:

Rear-axle ratio 1:3.793  
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

1<sup>st</sup> axle, parabolic springs, n° 4 leaves 24x90 mm, with hydraulic shock absorbers.

Standard stabilizer bar.

#### On request:

Reinforced parabolic springs, n° 5 leaves 24x90 mm (mandatory with 9t version).

### REAR

Parabolic springs, swivelling on central pin: n° 4 leaves 40x100 mm.

#### On request:

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

Stabiliser 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 manoeuvring hook, rear underrun bar, steel fuel tank capacity 300 litres.

#### On request:

Rapid pneumatic connection for tyre inflation.

Rear underrun bar in set back position.

Extra long underrun bar for concrete mixer.

Rear manoeuvring hook.

Rear automatic towing hook.

Rubber mudguards on 2nd and 3rd axle.

Side winch for spare wheel.



## 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
12.00R20 156/150G	S	D
315/80R22.5 156/150K		
385/65R22.5 160J (*)	S	
315/80R22.5 156/150K		D
325/95R24 162/160K (*) (**)	S	D
12.00R24 160/156G (*)		
16.00R20 173G (*) (**)	S	S
16.00R20 173G (*) (**)	S	
24R20.5 176F		S
24R20.5 176F (*) (**)	S	S
14.00R20 164G (*) (**)	S	S
14.00R20 164/160G (*) (**)	S	D
395/85R20 168G (*) (**)	S	
525/65R20,5 173F		S
395/85R20 168G (*) (**)	S	S

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

(\*\*) Mandatory with 10 ton front axle load.

**S** single

**D** double

Other tyres available, subject to the 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 litres + 2 with 20 litres. 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 9.276 cm<sup>2</sup>.

ABS + EBL system.

**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; 1<sup>st</sup> category wheels antilock system.

**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; 1<sup>st</sup> category wheels antilock system.

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

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

**IVECO BRAKE TURBO engine brake:**

HD9 380/420 HP braking power 255 kW (342 HP).

HD9 440/480/540 HP braking power 300 kW (402 HP).

**On request:**

Hydraulic intarder (HD9 64.38 and HD9 64.42 excluded).

1<sup>st</sup> axle immobiliser system.

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

**HD9 380/420 cv** - Front and rear "simplex" self-adjusting brake system.  
No ABS system.  
No hydraulic intarder.



## STEERING

ZF 8098 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 mechanical adjustable steering wheel.



## SERVICE DATA(I)

Engine oil sump and filters .....	28 (+2,5)
Gearbox oil .....	14,5
Power steering oil .....	8,5
Cab tipping oil .....	1
Clutch circuit oil .....	0,5
Integral PTO oil .....	3
Transferer oil 66.38-66.42-66.44-66.48.....	6,5
Transferer oil 66.54 .....	13
Front axle with final red. oil .....	6,5
Intermediate axle with final red. oil .....	27
Rear axle with final red. oil .....	16
Cooling system water .....	33
Diesel .....	300



## 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 1st and 3rd 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:**

225 Ah accumulators;

Reverse alarm.



## CAB

Standard white short cab (AD/HD) 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.

**On request:**

RHD.

Air conditioning with anti-pollen filter.

Cab rear window.

Car radio RDS, CD.

Car radio RDS, CD, MP3 Bluetooth technology.

External sun visor.

Extra colour cab: to be specified in the order.

Heated and electric powered rear view mirrors.

Long cab (AT/HT) for wheelbase > 3500 mm with interior equipment (seats and beds) on request.

Remote controlled and centralized closing of doors.

Roof hatch.

Rotating lights on top of the cab.

White engine hood with central mask in IC575 colour.



## 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.

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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