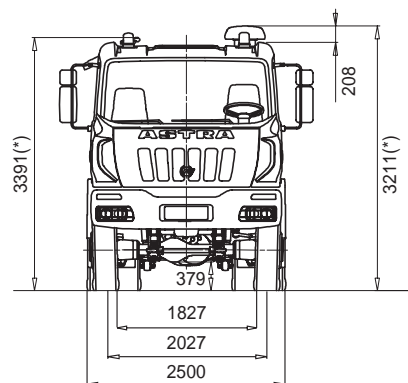
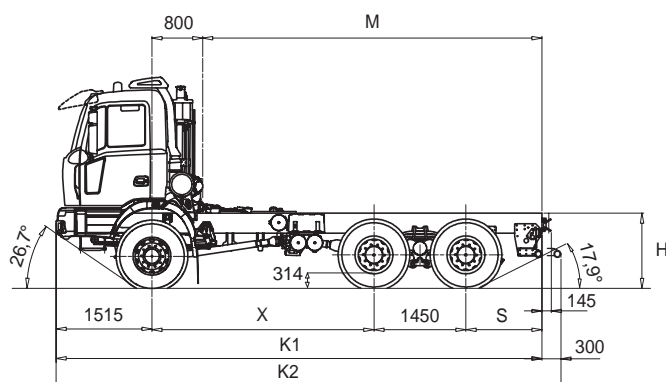


HD€5

chassis 6x6

66.41 / 66.44 / 66.48 / 66.52 / 66.56



(*) Unloaded



DIMENSIONS (mm) (Tyres 13R22,5 156/150G)

wheelbases	X	K1	K2	M	S	S ON REQUEST	H		TURNING DIAMETER
							UNLOADED	LOADED	
B	3500	7665	7965	5350	1200		1252	1189	17450
C	3800	7965	8265	5650	1200				18250
D	4100	8265	8565	5950	1200	1500-1900			19350
E	4500	8665	8965	6350	1200	1900-2600			20450



WEIGHT (kg)

wheelbases	Distribution net weight (*)			Max. technical weight				
	1 st axle	2 nd +3 rd axle	net weight	1 st axle		2 nd +3 rd axle	Gross Vehicle weight	Gross Combination weight
B	5760	5160	10920	8000 8500 (1)	9000 (1)	32000	41000 (2)	104000
C	5817	5130	10947					
D	5847	5138	10985					
E	5903	5138	11041					

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

(1) With tyres 1st axle 385/65R22,5 160 J, reinforced springs (OPT). Other tyres available, subject to the Astra technical office approval.

(2) Only for HD8 66.48, HD8 66.52 and HD8 66.56 at max speed 50 Kph. Michelin/Pirelli tyres. Higher speed are allowed with load reductions subject to the Astra Technical office approval.



ENGINES

CURSOR 13 turbo intercooler 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 cm³. Bore for stroke: 135 x 150 mm. Water cooling. Viscostatic cooling fan. Dry air filter with safety cartridge. Vertical muffler. Emissions according to **€5** regulation norms SCR (Selective Catalytic Reduction) system composed of catalytic muffler, AdBlue-tank, injection and control system.

	66.41	66.44	66.48	66.52	66.56
Model	IVECO F3B E3681D	IVECO F3B E3681G	IVECO F3B E3681F	IVECO F3B E3681E	IVECO F3B E3681A
Max. power (EEC)	302 kW (410 HP)	324 kW (440 HP)	353 kW (480 HP)	382 kW (520 HP)	412 kW (560 HP)
Corresponding rpm	1.900 rpm	1.900 rpm	1.900 rpm	1.900 rpm	1.900 rpm
Max. torque (EEC)	1.900 Nm (194 kgm)	2.200 Nm (224 kgm)	2.300 Nm (234 kgm)	2.400 Nm (245 kgm)	2.500 Nm (255 kgm)
Corresponding rpm	1.000-1.440 rpm	1.000-1.440 rpm	1.000-1.440 rpm	1.000-1.440 rpm	1.000-1.690 rpm
Turbine	WG Waste Gate	VGT variable geometry			



GEARBOX

Manual gear ZF 16 S 2220 TO for HD8 66.41 / HD8 66.44 and ZF 16 S 2520 TO for HD8 66.48 / HD8 66.52 / HD8 66.56 with servoshift, 16 synchronised forward speeds + 2 reverse

			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 16 S2220TO - ZF 16 S 2520TO	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	1:4,229	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
		1:5,009	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
		1:5,558	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
		1:6,095	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
		1:6,588	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
	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 1:1.6	1:4,229	4,2	5,0	6,1	7,3	8,9	10,6	12,6	15,1	19,1	22,8	27,8	33,2	40,4	48,1	57,5	68,7	4,5	5,4
		1:5,009	3,6	4,3	5,1	6,1	7,4	8,9	10,7	12,8	16,1	19,3	23,4	28,0	34,1	40,6	48,8	58,1	3,8	4,5
		1:5,558	3,2	3,8	4,6	5,6	6,8	8,1	9,6	11,5	14,6	17,4	21,1	25,3	30,8	36,6	43,9	52,3	3,4	4,1
		1:6,095	2,9	3,5	4,3	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
		1:6,588	2,7	3,2	3,9	4,7	5,7	6,8	8,1	9,7	12,3	14,6	17,8	21,3	25,9	30,9	37,1	44,1	2,9	3,4



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, 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..



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

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: 1:1 - 1:1,6
Front/rear torque distribution ratio: 1:4,0



AXLES

FRONT

Steering cast iron type; with dual 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 drive axles in tandem. Double reduction: central with bevelled pair, final in the wheel hubs by means of epicycloidal assembly. 2nd axle with distributor which distributes the torque between the two axles. Differential lockable by pneumatic control from driver's 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 with bushings, 4 leaves 24x90 mm, cord 1800 mm, with hydraulic shock absorbers. Standard stabilizer bar.

On request:

Semi elliptical reinforced springs. 10 leaves 15x90 mm, cord 1800 mm. Extra-reinforced conventional springs, n° 5 leaves 24x90 mm, chord 1800 mm.

REAR

Parabolic springs, swivelling on central pin: 4 leaves 40x100 mm, chord 1450 mm, supplemented by torque bars and stiffening brackets.

On request:

stabilizer bar on 2nd axle.

stabilizer bar on 3rd axle.

Extra-reinforced conventional springs, n° 10 leaves 25x100 mm, chord 1450 mm. Mandatory for heavy duty use.



STEERING

Hydraulic power steering ZF 8098 with variable ratio 1:22.2/1:26.2.

Hydraulic pump with gears flanged to engine. Steering linkage with self lubricating floating joints. Steering column adjustable in height and angle.



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).



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
315/80 R 22,5 156/150K 12 00 R 20 156/150G	S	D
385/65 R 22,5 160J*	S	
315/80 R 22,5 156/150K		D
365/85 R 20 164G*	S	S
395/85 R 20 168G*	S	S
525/65 R 20,5 173F		S

S single

D double

(*) Mandatory with 9 ton front axle load.



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.

On request:

Rapid attachment for compressed air for tyres'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 windlass for spare wheel.



BRAKES

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

Total net braking surface 9.276 cm². ABS.

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

Solo vehicles, two independent circuits, one for 1st axle, one for 2nd and 3rd axle; 1st category wheels anti-lock system.

Towing vehicles, three independent circuits, one for 1st axle, one for 2nd and 3rd axle and another for the trailer; 1st category wheels anti-lock system.

Emergency brake: Incorporated in service brake.

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

IVECO BRAKE TURBO engine brake:

HD8 410 braking power 200 kW (272 cv)

HD8 440/480/520/560 braking power 255 kW (347 cv)

On request:

Hydraulic intarder (66.44 / 66.48 / 66.52 / 66.56).

1st axle immobiliser system.

OFF/ROAD button for excluding AB



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 2nd axle.
 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).
 Headlamp geometry corrector .
 Electrical provision for outfitters.
 Provision for diagnostics.
 Provision for radio/cb (without speakers)
 Glow plug for cold start.
On request:
 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, spiral springs, double action shock absorbers, anti-roll bar and end-of-stroke pads. Internal panels completely washable and fireproof. 4-speed ventilation and heating system with air recirculation system. Collapsible first step. Electric power windows on driver and passenger doors. Beacon lights on cab roof. Driver seat with pneumatic suspension and seat belt. Passenger seat with mechanical suspension with seat belts. Tinted athermic windows. Steering wheel adjustable in hight and slope with pneumatic control.
On request:
 Car radio RDS, CD;
 Car radio RDS, CD on the steering wheel controls;
 Car radio RDS, CD, MP3, Blue Tooth technology;
 Compressed air quick coupling for cab cleaning;
 Roof hatch;
 Air conditioning;
 Centralized closing of the doors with remote control;
 Metallic colour cab;
 Non-metallic colour cab;
 Heated and electric powered rear view mirrors;
 Cab rear window;
 External sun visor.



SERVICE DATA(I)

Engine oil sump and filters	28
Gearbox oil: ZF 16S2220TO/ZF 16S2520TO	11
Power steering oil	8,5
Power steering oil	1
Cab tipping oil	0,5
Transferer oil 66.41-66.44-66.48	6,5
Transferer oil 66.52-66.56	10
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
AD Blue	45



INSTRUMENTATION

Trip Computer multifunction display. Multiplex electronic system for fundamental information for the driver: average speed, consumption and general information about the main components for ideal use of the vehicle.
 It also allows to carry out the daily controls on the vehicle at any moment, thus optimizing the time and energies needed for production's purposes. 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 ureas' 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 country.