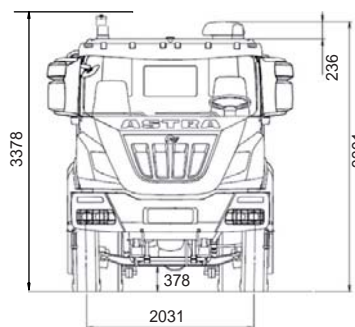
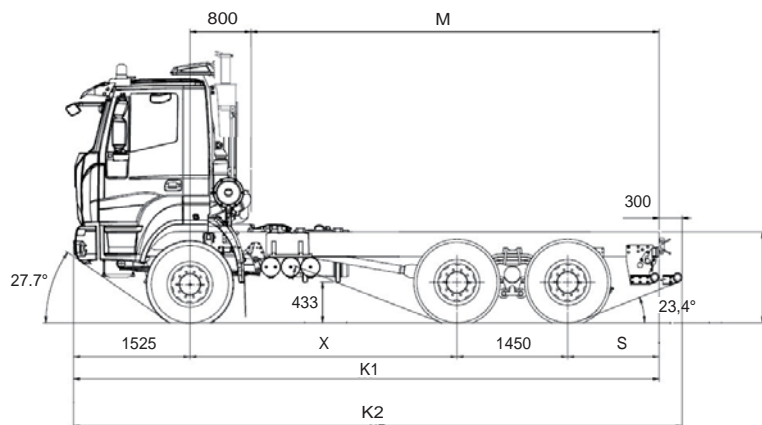


chassis 6x4 64.38 / 64.42 / 64.44 / 64.48 / 64.54



ON REQUEST

- RHD VERSION (opt. code 962)
- LONG CAB VERSION (opt. code 200; opt. code 272)

wheelbase > 3800 mm



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

X	K1	M max (*)	S	H		TURNING DIAMETER (wall to wall)
				unloaded	loaded	
3200	7375	5050	1200	1193	1129	15900
3500	7675	5350	1200			16800
3800	7975	5650	1200			17800
4100	8275	5950	1200			18700
4100	8975	6650	1900			18700
4500	8675	6350	1200			20000
4750	9625	7300	1900			20700

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



WEIGHT (kg)

X	Distribution net weight (*)			Max. technical weight			
	1st axle	2 nd +3 rd axle	Net weight	1st axle	2 nd +3 rd axle	Gross Vehicle weight	Gross Combination weight
3200	4857	4733	9590	8000 8500(1) 9000(1)	32000	40000 (2)	104000
3500	4890	4730	9620				
3800	4929	4741	9670				
4100	4952	4743	9695				
4500	4985	4745	9730				
4750	4965	4845	9810				

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

(1) With tyres 1st axle 385/65R22,5160J or 365/85R20164G. Other tyres available, subject to the Astra technical office approval.

(2) HD9 64.48 and HD9 64.54 only at max speed 50 km/h. Michelin/Pirelli tyres. Higher speeds/loads are allowed with load/speed reductions subject to the 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 cm³. Bore for stroke: 135 x 150 mm. 6 in-line cylinders. Water cooling. Viscostatic cooling fan. Dry air filter with safety cartridge. Vertical muffler

	64.38	64.42	64.44	64.48	64.54*
Model	IVECO F3B	IVECO F3B	IVECO F3B	IVECO F3B	IVECO F3B
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	1.900				
Max. torque (EEC)	1.800 Nm (183 kgm)	1.900 Nm (194 kgm)	2.100 Nm (214 kgm)	2.200 Nm (224 kgm)	2.350 Nm (240 kgm)
Corresponding rpm	1.000-1.440				1.000-1.690
Turbine	WG Waste Gate			VGT variable geometry	

*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 64.38/HD9 64.42 / HD9 64.44

ZF16S2520TO: HD9 64.48/HD9 64.54

On request:

ZF16S2320TD: HD9 64.38/HD9 64.42/ HD9 64.44/ HD9 64.48

ZF ASTRONIC 16AS2601OD: HD9 64.44/ HD9 64.48/ HD9 64.54

		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	Gear ratios	16.41	13.80	11.28	9.49	7.76	6.53	5.43	4.57	3.59	3.02	2.47	2.08	1.70	1.43	1.19	1.00	15.36	12.92	
	Rear axle ratio	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*	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		
ZF16S2320TD	Gear ratios	16.41	13.80	11.28	9.49	7.76	6.53	5.43	4.57	3.59	3.02	2.47	2.08	1.70	1.43	1.19	1.00	15.36	12.92	
	Rear axle ratio	3,793	6,3	7,5	9,1	10,9	13,3	15,8	19	22,5	28,7	34,1	41,7	49,5	60,6	72*	86,6*	103*	6,7	8
		4,229	5,6	6,7	8,2	9,7	11,9	14,2	17	20,2	25,7	30,6	37,4	44,4	54,4	64,6	77,7*	92,4*	6	7,2
		5,009	4,8	5,7	6,9	8,2	10,1	11,9	14,4	17,1	21,7	25,8	31,6	37,5	45,9	54,6	65,6	78*	5,1	6
		5,558	4,3	5,1	6,2	7,4	9,1	10,8	12,9	15,4	19,6	23,3	28,5	33,8	41,4	49,2	59,1	70,3*	4,6	5,4
		6,095	3,9	4,6	5,7	6,8	8,3	9,8	11,8	14	17,9	21,2	26	30,8	37,7	44,8	53,9	64,1	4,2	5
6,588	3,6	4,3	5,3	6,3	7,6	9,1	10,9	13	16,5	19,6	24	28,5	34,9	41,5	49,8	59,3	3,9	4,6		

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



P.T.O.

On request:

Gearbox	ZF16S2220TO ZF16S2520TO	Max. torque Nm.	Application
P.T.O.	Ratio		
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..
ZFN221/10bpl+N353/1c	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 (only for 380, 420 and 440 HP).

ZF NMV 221 Power take-off (ratio 0,98:1) max available torque 2000 Nm for concrete pumps (only for 380, 420 and 440 HP).

Power take off at flywheel (ratio 1,29:1) max available torque 900 Nm for concrete mixers.



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"



AXLES

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

REAR
 Two tandem drive axles. Double reduction: central with crown wheel and pinion and final in wheel hubs by means of epicyclical group 2nd axle with torque distributor to the two rear axles.
 Lockable differentials by pneumatic control from driver seat.
 Tandem assembled to the chassis by reaction rods with silentblock.

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
 1st axle, parabolic springs, n° 4 leaves 24x90 mm, with shock absorbers and stabilizer bar.

On request:
 Reinforced conventional springs, n° 10 leaves 15x90 mm.
 Reinforced parabolic springs, n° 5 leaves 24x90 mm.

REAR
 Parabolic springs, swivelling on central pin: n° 4 leaves 40x100 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 25x100mm.



CHASSIS

Special steel with high elasticity limit, two flat and parallel side members width 820 mm., C section 320x90x10mm, cross members riveted to the frame.
 Steel front bumpers with headlamp protection grids, front manoeuvring hook, rear underrun bar, steel fuel tank capacity 300 litres.

On request:
 Extra long underrun bar for concrete mixer.
 Front bumper climbing step.
 Rapid attachment for compressed air for tyres' inflation.
 Rear underrun bar in set back position.
 Rear manoeuvring hook.
 Rear automatic towing hook.
 Rubber mudguards on 2nd and 3rd axle.
 Side windlass for spare wheel



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 (Électronic Brake Limiter)



STEERING

ZF 8098 quadrilateral power steering on front axle wheels with variable ratio 1:22.2/1:26.2.
 Steering rods with self-lubricating joints.
 Height and inclination mechanical adjustable steering 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 00 R 20 156/150G	S	D
315/80 R 22,5 156/150K		
385/65 R 22,5 160J	S	
315/80 R 22,5 156/150K		D

S single
D double
 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 9.276 cm².
 ABS system.

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.

Towing vehicles, three independent circuits, one for 1st axle, one for 2nd and 3rd axle and another for the trailer.

Emergency brake: Incorporated in service brake.

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

IVECO BRAKE TURBO engine brake:
 HD9 380/420 HP braking power 200 kW (272 HP)
 HD9 440/480/540 HP braking power 255 kW (347 HP)

On request:
 Hydraulic interarder (HD9 64.38 and HD9 64.42 excluded).
 1st axle immobiliser system.
 OFF/ROAD button for excluding ABS for speed < 15 kph.

HD9 380/420 cv - Front and rear "simplex" self-adjusting brakes system.
 No ABS system.
 No hydraulic interarder.



ELECTRICAL SYSTEM

Voltage: 24 V
 Alternator generator 90 A - 28 V (2520 W).
 Accumulators: 2 in series, 160 Ah.
 Starter motor 24 V 5,5 kW.
 Mechanically controlled electrical circuit breaker.
 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).
 Electrical provision for bodybuilders.
 Provision for diagnostics.
 Provision for radio/cb (without speakers)
 Glow plug for cold start.

On request:
 170 Ah accumulators;
 160 Ah tropicalised accumulators;
 170 Ah tropicalised accumulators;
 Reverse alarm.





SERVICE DATA(I)

Engine oil sump and filters	28
Gearbox oil ZF16S2220TO/ZF16S2520TO:	13
Power steering oil	8,5
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



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. 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:

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 for wheelbase >3800mm 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 country.