

# IVECO T-WAY

## TECHNICAL DESCRIPTION T-WAY EU 3



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ADI90T43W H - Chassis Cab 4x4

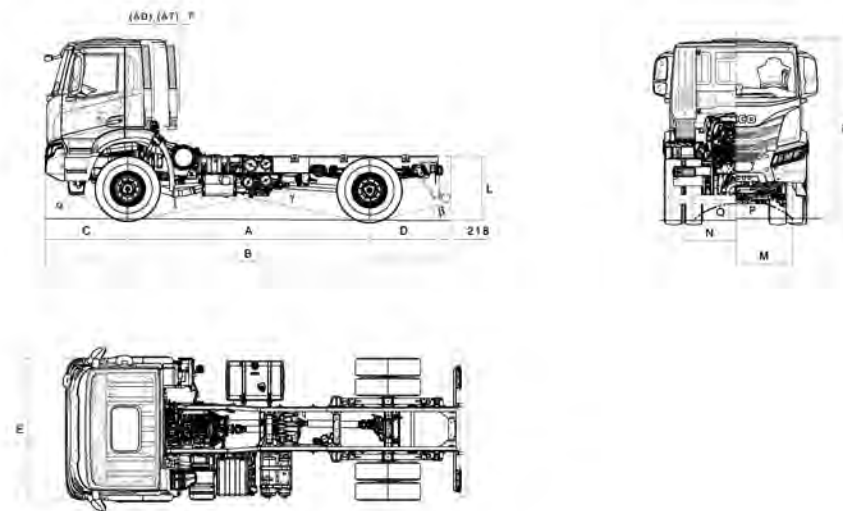
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**IVECO**

**LIST OF LINKED VCB**

<b>VCB code</b>	<b>Gearbox</b>	<b>Wheelbase</b>	<b>Cabin</b>	<b>Drive</b>
SXFCE3B3	I6S 2220 TO	3800	AD-SX	LH
SXFCE3D3	I6TX 2240 TO	3800	AD-SX	LH
SXFCE4B3	I6S 2220 TO	4200	AD-SX	LH
SXFCE4D3	I6TX 2240 TO	4200	AD-SX	LH
SXFCE5B3	I6S 2220 TO	4500	AD-SX	LH
SXFCE5D3	I6TX 2240 TO	4500	AD-SX	LH

## DIMENSIONS & WEIGHTS



### DIMENSIONS (mm)

<b>Wheelbase (A)</b>	<b>3800</b>	<b>4200</b>	<b>4500</b>
Max length (B)	6672	7077	7932
Max width over wings (cab) (E)	2550	2550	2550
Front axle to back of cab - including filter (F)	580	580	580
Frame height at end of frame, unladen (L)	1207	1207	1211
Frame height at front axle, unladen	1158	1156	1156
Frame height at rear axle, unladen	1195	1196	1195
Front overhang (C)	1440	1440	1440
Rear overhang (D)	1195	1195	1780
Minimum ground clearance (front) (P)	371	371	371
Minimum ground clearance (rear) (Q)	311	311	311
Overall height to top of cab, unladen (K)	3230	3228	3228
Turning diameter kerb to kerb	17200	18400	19300
Turning diameter wall to wall	18800	20000	20900
Front track (M)	1981	1981	1981
Rear track (N)	1827	1827	1827
Approach angle $\alpha$ (°)	33	33	33
Departure angle $\beta$ (°)	16	16	11
Ramp angle $\gamma$ (°)	26	23	22
Side members thickness	7,7	7,7	7,7
Side members max height	304,4	304,4	304,4
Side members flange width	80	80	80
Frame width at rear	771,4	771,4	771,4

WEIGHTS (KG)

Wheelbase	3800	4200	4500
Total vehicle kerb weight	7828	7854	7946
Kerbweight on Front Axle	5341	5418	5427
Kerbweight on Rear Axle	2487	2436	2519
G.V.W. (EC)	18000	18000	18000
G.V.W. (Design)	20000	20000	20000
Plated weight on front axle (EC)	8000	8000	8000
Plated weight on front axle (Design)	8000	8000	8000
Plated weight on rear axle(s) (EC)	11500	11500	11500
Plated weight on rear axle(s) (Design)	13000	13000	13000
Max body & payload (Design)	12172	12146	12054

**Notes :**

Weights are to standard configuration and include: chassis cab (or tractor), driver (75 kg), full fuel and Adblue tanks, tools kit and spare wheel (if present). The values of the plated weights / GVW can vary according to the markets and local homologations.

Wheelbase	Type	Drawing
3800	Left hand drive	5803030907
4200	Left hand drive	5803030908
4500	Left hand drive	5803030909

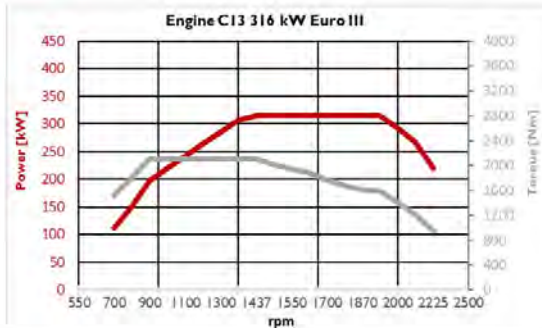
## MODEL COMPONENTS

### ENGINE

Identification Code	F3HGE611
Manufacturer	FPT Industrial
Commercial name	Cursor 13
Cycle	DIESEL
Injection type	DIRECT
4 Stroke / 2 Stroke cycle	4
No. of cylinders	6
Cylinders layout	IN-LINE
Bore mm	135
Stroke mm	150
Total displacement cm <sup>3</sup>	12.882
Exhaust gas treatment	syencer
Weight (without oil / water) Kg	1230
Injection system	Common rail
Cold starting type	THERMOSTARTER
Emissions control	EURO III
Cooling system	water



#### ENGINE EMISSION EURO III opt. 06044



#### 430 C13 - Cursor 13 - 430 CV - WG

Maximum power: 316 kW (430 HP) @ 1900 rpm

Maximum torque: 214 Kgm (2100 Nm) @ 1100 rpm

The central electronic system controls the following functions: Engine preheating, fuel preheating, turbo, injection control, engine brake, control of engine speed and torque, data exchange OBD with ScanTool, engine diagnostic (onandoff-board), control of blink-code and failure indicator light on dashboard, control of engine idling speed and max. engine speed, data exchange with VCM (vehiclecontrol module), supervision of emission values.

### DRIVELINE

#### GEARBOX

Gearbox model	Gearbox Type	Installation	Box material	Dry weight Kg	Clutch type	Max input torque Nm	No. of forward gears	No. of reverse gears	Shifting
16S 2220 TO	SYNCRONIZED	ENGINE FLANGED	ALUMINIUM ALLOY	304.5 - (w/o retarder)	Dry clutch	2200	16	2	HH-Coupling control
16TX 2240 TO	AUTOMATED	ENGINE FLANGED	ALUMINIUM	290 - (w/o retarder)		2200	16	2	

#### GEAR RATIOS

Gearbox model	1	2	3rd	4	5	6	7	8	9	10	11	12	13	14	15	16 <sup>a</sup>	M.A. 1	M.A. 2		
16S 2220 TO	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	1.00	.84	12.92	10.8		
16TX 2240 TO	14.68	12.05	9.92	8.14	6.78	5.56	4.57	3.75	3.22	2.64	2.17	1.78	1.49	1.22	1.00	0.82	14.14	11.61		

#### CLUTCH

Gearbox model	Type	Outer diameter mm	Outer diameter (inches)			
16S 2220 TO	Single dry plate	430	17			
16TX 2240 TO	Single dry plate	430	17			

## MODEL COMPONENTS

### TYRES & WHEELS

Code	Tyres	Front	Rear	Load index	Rolling circumference m
20081	Standard	13R22,5	13R22,5	156/150	3.428
20115	Optional	395/85R20	395/85R20	168/	3.6
20885	Optional	385/65R22,5	315/80R22,5	164/	3.28
20168	Optional	14,00R20	14,00R20		3.826
20795	Optional	315/80R22,5	315/80R22,5	156/150	3.28
20497	Optional	12,00R20	12,00R20	154/149	3.42
20780	Optional	14,00R20	14,00R20	160/157	3.826
20846	Optional	315/80R22,5	315/80R22,5	156/150	3.28
20080	Optional	13R22,5	13R22,5	156/150	3.428
20216	Optional	12,00R20	12,00R20	154/149	3.42

### REAR AXLE RATIO

Option code	05003	06017	06019 *	06021	06034	06036
Ratio	6.09	4.23	4.67	5.01	5.56	6.57

\*: Standard axle ratio

### PERFORMANCE

\* Max Speed. Calculated speed on the basis of engine rpm and axle ratios. Real speed limits must take into account the speed index of the tyres: K = 110 km / h L = 120 km / h M = 130 km / h

\*\* Theoretically calculated values, arising from the engine torque without considering the road-friction values and the stability limits of the vehicles. When calculating with more than one tyres or more than one axle ratio, availability of each combination must be checked.

Speed and gradeability values are rounded.

**A** = Total Weights (solo vehicle) Kg - Max Gradeability %

**B** = Total Weights (vehicle+trailer) Kg - Max Gradeability %

**Tyre: 20081 - 13R22.5 TYRES - Regional / Works** Efficiency: 0.91 Off road slow

#### Gearbox model I6S 2220 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 16°	Speed km/h 1°	Speed km/h 16°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							18000		40000	
							1°	16°	1°	16°
4.23	13.8	0.84	4.18	68.74	1396	1571	100.00	10.53	100.00	4.33
4.67	13.8	0.84	3.79	62.26	1542	1734	100.00	11.78	100.00	4.88
5.01	13.8	0.84	3.53	58.04	1654	1861	100.00	12.74	100.00	5.31
5.56	13.8	0.84	3.18	52.30	1835	2065	100.00	14.29	100.00	5.99
6.09	13.8	0.84	2.91	47.75	2010	2262	100.00	15.79	100.00	6.65
6.57	13.8	0.84	2.69	44.26	2169	2440	100.00	17.15	100.00	7.24

#### Gearbox model I6TX 2240 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 16°	Speed km/h 1°	Speed km/h 16°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							18000		40000	
							1°	16°	1°	16°
4.23	14.68	0.82	3.93	70.42	1363	1533	100.00	10.24	100.00	4.20
4.67	14.68	0.82	3.56	63.78	1505	1693	100.00	11.46	100.00	4.74
5.01	14.68	0.82	3.32	59.45	1614	1816	100.00	12.40	100.00	5.16
5.56	14.68	0.82	2.99	53.57	1792	2016	100.00	13.92	100.00	5.83
6.09	14.68	0.82	2.73	48.91	1962	2208	100.00	15.38	100.00	6.47
6.57	14.68	0.82	2.53	45.34	2117	2382	100.00	16.71	100.00	7.05

**Tyre: 20081 - 13R22.5 TYRES - Regional / Works** Efficiency: 0.91 On road fast

#### Gearbox model I6S 2220 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 16°	Speed km/h 1°	Speed km/h 16°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							18000		40000	
							1°	16°	1°	16°
4.23	13.8	0.84	6.69	109.98	1396	1571	100.00	5.86	60.79	2.25
4.67	13.8	0.84	6.06	99.62	1542	1734	100.00	6.71	70.13	2.63
5.01	13.8	0.84	5.65	92.86	1654	1861	100.00	7.34	78.30	2.91
5.56	13.8	0.84	5.09	83.67	1835	2065	100.00	8.36	94.02	3.36
6.09	13.8	0.84	4.65	76.39	2010	2262	100.00	9.32	100.00	3.79
6.57	13.8	0.84	4.31	70.81	2169	2440	100.00	10.17	100.00	4.17

## MODEL COMPONENTS

### Gearbox model I6TX 2240 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 16°	Speed km/h 1°	Speed km/h 16°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							18000		40000	
							1°	16°	1°	16°
4.23	14.68	0.82	6.29	112.67	1363	1533	100.00	5.66	66.37	2.16
4.67	14.68	0.82	5.70	102.05	1505	1693	100.00	6.49	77.24	2.53
5.01	14.68	0.82	5.31	95.12	1614	1816	100.00	7.12	86.98	2.81
5.56	14.68	0.82	4.79	85.72	1792	2016	100.00	8.12	100.00	3.26
6.09	14.68	0.82	4.37	78.26	1962	2208	100.00	9.05	100.00	3.68
6.57	14.68	0.82	4.05	72.54	2117	2382	100.00	9.90	100.00	4.05

### FRONT BUMPER

Steel front bumper

### DISC BRAKES

**DUO DUPLEX drum brake**  
Electronic braking system (EBS)

**Front axle**  
Drum brakes 410 mm (410 x 180)  
Friction area: 2884 cm<sup>2</sup>

**Tandem**  
Drum brakes 410 mm (410 x 200)  
Friction area: 3220 cm<sup>2</sup>

### SUSPENSIONS

**Front parabolic suspension STD**  
Standard capacity: 8.000 kg. (options for 8.500 kg and 9.000 kg.)

**Rear semi elliptic parabolic suspension STD**  
Capacity: 13.000 kg.

### AXLES

Position	Description
Front	5985/2D - Drive a. H.R. (Drum br. D.D.)
Rear	451391/2D - Rear axle H.R. (Drum brake 2D)

### TRANSFER BOX

#### Type

Model	TC 2200
OFF ROAD Low Ratio	1.6
ON ROAD Normal Ratio	1

### BATTERY

#### Electrics

Voltage V	24
Alternator power V/A	28 / 90
Starter power kW	5.5
No. of batteries	2
Batteries capacity V/Ah	12 / 170

### 390L FUEL TANK

#### Fuelling

Capacity (l.)	390
Material	Aluminium

## MODEL COMPONENTS

### MISCELLANEOUS

#### THE AVAILABILITY OF THE FOLLOWING OPTIONS DEPENDS ON VERSIONS AND MARKETS :

##### SAFETY :

**TPMS (on cluster): Tyre Pressure Monitoring System** is an electronic system which monitors the air pressure inside a tyre and provides information on faults in real time to the driver. In addition to improving vehicle safety, **TPMS** helps the driver plan tyre maintenance and contributes to reducing fuel consumption.

##### **ESP: Electronic Stability Program (ESP).**

The **ESP** system acts in skidding phase, by adjusting the engine power and braking on individual wheels with different intensities so as to stabilise the position of the vehicle. It is effective both in case of sudden deviations from the trajectory and in correcting situations of oversteer or understeer, which may occur in case of incorrectly approaching a bend.

##### **LDWS: Lane Departure Warning System**

**(LDWS).** The Lane Departure Warning System beeps when the vehicle strays from the lines that mark the driving lane without the indicators being activated. The system is very effective in preventing accidents due to distraction or sleepiness.

##### FUEL CONSUMPTION OPTIMIZATION:

**ECOSWITCH:** Designed to reduce fuel consumption, **ECOSWITCH** is an important aid for the driver. It activates the "iEco program" in order to optimise gear shifting strategy and performance according to actual vehicle weight, assuring the best productivity under any operating condition.

**ECO ROLL:** On all type of incline (also on moderate one), the eco-roll function serves to open the driveline and retain the kinetic energy of the vehicle for longer or to slightly increase it by reducing the engine-drag torque that affects the impellers. If the vehicle subsequently slows down, the engine must increase the injected fuel quantity at a later point. Driver actions during an active rolling function such as accelerator pedal, brake actuation, changing to manual, or speed range selector actuation lead to the termination of the rolling function and the closing of the driveline. Depending upon the speed range, the last gear before the rolling phase can be engaged or a new gear can be calculated and engaged when the rolling function is terminated.

**ECO ROLL** works in the range (50km/h ; 92km/h) and is independent from Cruise Control setting.

##### **GPS-PREDICTIVE DRIVING** (OPT Code 78878)

GPS-predictive driving is the driving strategy implemented in TraXon with predictive functionality to determine the optimal gear early for any driving situation, according to the electronic horizon information acquired via GPS by a provider and made available on the CAN bus. The electronic horizon acquires the current location of the vehicle via GPS and determines the route from topographical street maps (uphill gradient, curves, max permissible speed). GPS-predictive driving is used to improve the gear shifting and Eco-rolling strategy.

##### DRIVEABILITY :

**ROCKING MODE** (OPT Code 78507) TRAXON provides a Rocking function to have the clutch reating directly to accelerator pedal movements for rocking the vehicle out of a depression in the terrain in low grip conditions. When the Rocking mode is activated, it is possible to disengage the clutch immediately by releasing the accelerator pedal, roll back the vehicle and engage the clutch immediately again by depressing the accelerator pedal. The HMI provided for the Rocking mode includes: a dedicated switch to let the driver activate / deactivate the Rocking mode. A specific indication on the Instrument Cluster to inform when the Rocking function is active ("ROCK" indication in the transmission modes area).

**OFF-ROAD MODE** is an high mobility function with which the gearshifting logic allows higher rpms before shifting to faster gears, thus providing higher engine power and torque.

**CREEPING MODE** is an high mobility function with which the vehicle moves forward at minimum speed, simply by releasing the service brake pedal, useful for precise maneuvering operations at low speed (active via Quick Menu).





**IVECO**

ADI90T43W H