

# IVECO T-WAY

## TECHNICAL DESCRIPTION T-WAY EU 3



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AD4I0T47W H - Chassis Cab 8x8

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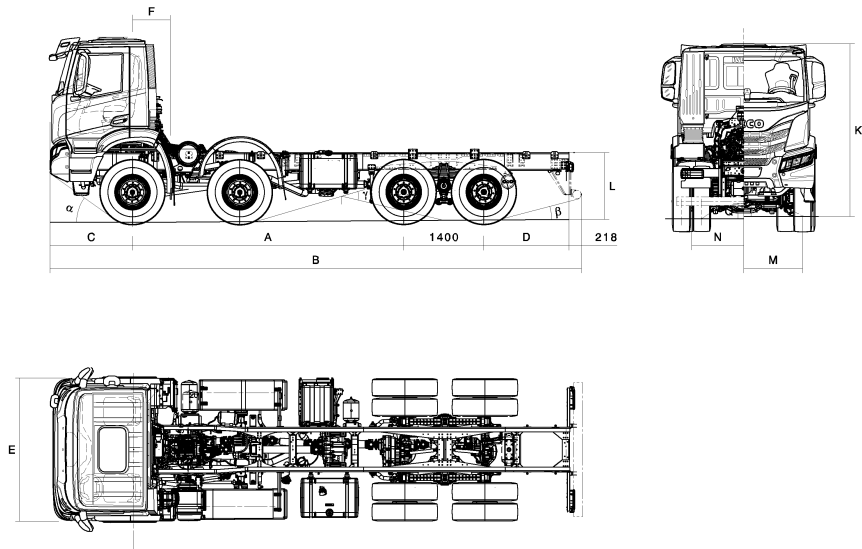
# IVECO

## LIST OF LINKED VCB

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VCB code	Gearbox	Wheelbase	Cabin	Drive
S4GIE6B3	I6S 2520 TO	4750	AD-SX	LH
S4GIE6D3	I6TX 2240 TO	4750	AD-SX	LH
S4GIE7B3	I6S 2520 TO	5020	AD-SX	LH
S4GIE7D3	I6TX 2240 TO	5020	AD-SX	LH

## DIMENSIONS & WEIGHTS



### DIMENSIONS (mm)

Wheelbase (A)                      4750 1400 5020 1400

Max length (B)	9282	9552
Max width over wings (cab) (E)	2550	2550
Front axle to back of cab - including filter (F)	560	560
Frame height at end of frame, unladen (L)	1218	1219
Frame height at front axle, unladen	1309	1309
Frame height at rear axle, unladen	1244	1244
Front overhang (C)	1440	1440
Rear overhang (D)	1485	1485
Minimum ground clearance (front) (P)	371	371
Minimum ground clearance (rear) (Q)	311	311
Overall height to top of cab, unladen (K)	3326	3326
Turning diameter kerb to kerb	20100	20900
Turning diameter wall to wall	21700	22500
Front track (M)	1981	1981
Rear track (N)	1831	1827
Approach angle $\alpha$ (°)	35	35
Departure angle $\beta$ (°)	14	14
Ramp angle $\gamma$ (°)	30	29
Side members thickness	10	10
Side members max height	309	309
Side members flange width	80	80
Frame width at rear	776	776

## WEIGHTS (KG)

Wheelbase	4750 1400	5020 1400
Total vehicle kerb weight	12163	12198
Kerbweight on Front Axles	7942	7935
Kerbweight on Rear Axles	4221	4263
G.V.W. (EC)	32000	32000
G.V.W. (Design)	41000	41000
Plated weight on front axle (EC)	16000	16000
Plated weight on front axle (Design)	16000	16000
Plated weight on rear axle(s) (EC)	19000	19000
Plated weight on rear axle(s) (Design)	26000	26000
Max body & payload (Design)	28837	28802

### Notes :

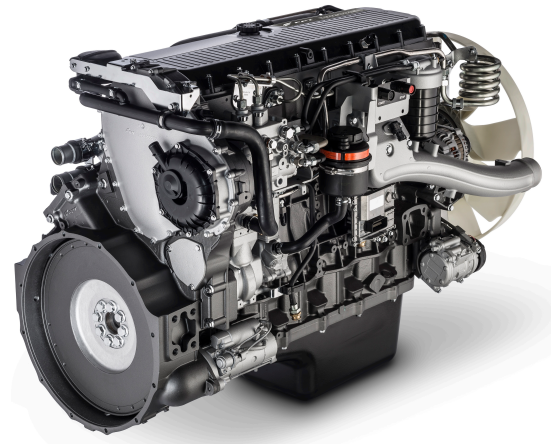
Weights are to standard configuration and include: chassis cab (or tractor), driver (75 kg), full fuel and Adblue tanks, tools kit and spare wheel (if present).  
The values of the plated weights / GVW can vary according to the markets and local homologations.

Wheelbase	Type	Drawing
4750 1400	Left hand drive	5803039172
5020 1400	Left hand drive	5803039173

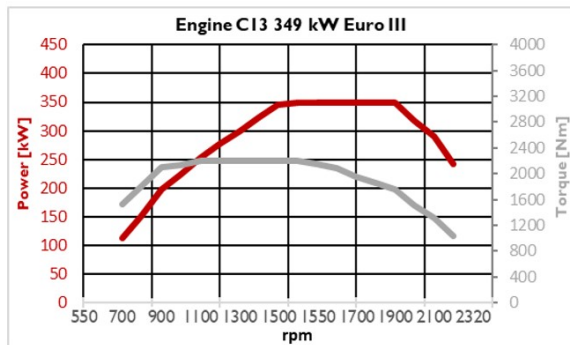
## MODEL COMPONENTS

### 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



#### 470 C13 - Cursor 13 - 470 CV - WG

Maximum power: 349 kW (475 HP) @ 1900 rpm

Maximum torque: 224 Kgm (2200 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 2520 TO	SYNCRONIZED	ENGINE FLANGED	ALUMINIUM ALLOY	306 - (w/o retarder)	Dry clutch	2500	16	2	Manual shifting Single - H
16TX 2240 TO	AUTOMATED	ENGINE FLANGED	ALUMINIUM	290 - (w/o retarder)		2200	16	2	

#### GEAR RATIOS

Gearbox model	1st	2 <sup>a</sup>	3rd	4th	5 <sup>a</sup>	6	7 <sup>a</sup>	8	9	10	11 <sup>a</sup>	12.	13de	14	15th	16 <sup>a</sup>	R1	M.A. 2		
16S 2520 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	.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 2520 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
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

### REAR AXLE RATIO

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

\*: 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: 20080 - TYRES 13R22.5 - 156/- OFF ROAD - G/J Efficiency: 0.91 Off road slow**

#### Gearbox model 16S 2520 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	
							32000		40000	
							1°	16°	1°	16°
4.23	13.8	0.84	4.18	68.74	1396	1571	100.00	5.90	100.00	4.58
4.67	13.8	0.84	3.79	62.26	1542	1734	100.00	6.62	100.00	5.15
5.01	13.8	0.84	3.53	58.04	1654	1861	100.00	7.18	100.00	5.60
5.56	13.8	0.84	3.18	52.30	1835	2065	100.00	8.08	100.00	6.31
6.09	13.8	0.84	2.91	47.75	2010	2262	100.00	8.94	100.00	7.00

#### Gearbox model 16TX 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	
							32000		40000	
							1°	16°	1°	16°
4.23	14.68	0.82	3.93	70.42	1363	1533	100.00	5.73	100.00	4.44
4.67	14.68	0.82	3.56	63.78	1505	1693	100.00	6.44	100.00	5.01
5.01	14.68	0.82	3.32	59.45	1614	1816	100.00	6.99	100.00	5.44
5.56	14.68	0.82	2.99	53.57	1792	2016	100.00	7.86	100.00	6.14
6.09	14.68	0.82	2.73	48.91	1962	2208	100.00	8.71	100.00	6.81

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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	
							32000		40000	
							1°	16°	1°	16°
4.23	13.8	0.84	6.69	109.98	1396	1571	93.35	3.18	64.92	2.40
4.67	13.8	0.84	6.06	99.62	1542	1734	100.00	3.67	75.37	2.80
5.01	13.8	0.84	5.65	92.86	1654	1861	100.00	4.04	84.68	3.09
5.56	13.8	0.84	5.09	83.67	1835	2065	100.00	4.63	100.00	3.57
6.09	13.8	0.84	4.65	76.39	2010	2262	100.00	5.19	100.00	4.01

#### Gearbox model 16TX 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	
							32000		40000	
							1°	16°	1°	16°
4.23	14.68	0.82	6.29	112.67	1363	1533	100.00	3.06	71.14	2.31
4.67	14.68	0.82	5.70	102.05	1505	1693	100.00	3.55	83.45	2.70
5.01	14.68	0.82	5.31	95.12	1614	1816	100.00	3.91	94.77	2.99

## MODEL COMPONENTS

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5.56	14.68	0.82	4.79	85.72	1792	2016	100.00	4.49	100.00	3.45
6.09	14.68	0.82	4.37	78.26	1962	2208	100.00	5.04	100.00	3.89

**Tyre: 2008I - 13R22.5 TYRES - Regional / Works**

**Efficiency: 0.91**

**Off road slow**

### Gearbox model 16S 2520 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	
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5.01	13.8	0.84	3.53	58.04	1654	1861	100.00	7.18	100.00	5.60
5.56	13.8	0.84	3.18	52.30	1835	2065	100.00	8.08	100.00	6.31
6.09	13.8	0.84	2.91	47.75	2010	2262	100.00	8.94	100.00	7.00

### Gearbox model 16TX 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	
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4.23	14.68	0.82	3.93	70.42	1363	1533	100.00	5.73	100.00	4.44
4.67	14.68	0.82	3.56	63.78	1505	1693	100.00	6.44	100.00	5.01
5.01	14.68	0.82	3.32	59.45	1614	1816	100.00	6.99	100.00	5.44
5.56	14.68	0.82	2.99	53.57	1792	2016	100.00	7.86	100.00	6.14
6.09	14.68	0.82	2.73	48.91	1962	2208	100.00	8.71	100.00	6.81

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**On road fast**

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5.01	13.8	0.84	5.65	92.86	1654	1861	100.00	4.04	84.68	3.09
5.56	13.8	0.84	5.09	83.67	1835	2065	100.00	4.63	100.00	3.57
6.09	13.8	0.84	4.65	76.39	2010	2262	100.00	5.19	100.00	4.01

### Gearbox model 16TX 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	
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4.67	14.68	0.82	5.70	102.05	1505	1693	100.00	3.55	83.45	2.70
5.01	14.68	0.82	5.31	95.12	1614	1816	100.00	3.91	94.77	2.99
5.56	14.68	0.82	4.79	85.72	1792	2016	100.00	4.49	100.00	3.45
6.09	14.68	0.82	4.37	78.26	1962	2208	100.00	5.04	100.00	3.89

## 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>

## MODEL COMPONENTS

### 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: 26.000 kg.

### AXLES

Position	Description
Front	5985/2D - Drive a. H.R. (Drum br. D.D.)
Rear	453291/2D - Tandem 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**