

# IVECO S-WAY NP

## TECHNICAL DESCRIPTION



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AS440S46T/P CNG - ARTIC 4x2

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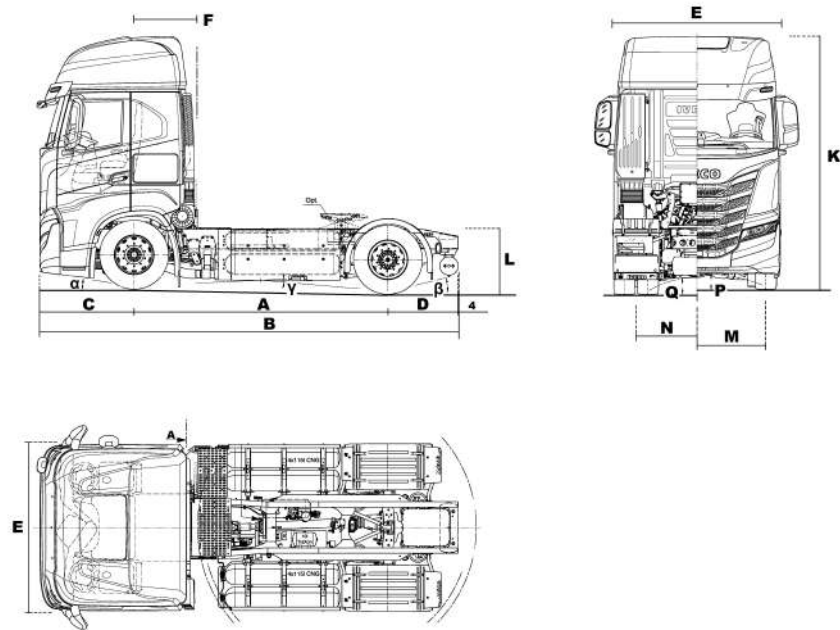
3 Feb 2022

**LIST OF LINKED VCB**

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<b>VCB code</b>	<b>Gearbox</b>	<b>Wheelbase</b>	<b>Cabin</b>	<b>Drive</b>
CA4AA3DI	I2TX 2010 TO	3800	AS-SX	LH

## DIMENSIONS & WEIGHTS



### DIMENSIONS (mm)

Wheelbase (A)	3800
Max length (B)	6252
Max width over wings (cab) (E)	2550
Front axle to back of cab - including filter (F)	940
Frame height at end of frame, unladen (L)	969
Frame height at front axle, unladen	935
Frame height at rear axle, unladen	961
Front overhang (C)	1410
Rear overhang (D)	1048
Minimum ground clearance (front) (P)	212
Minimum ground clearance (rear) (Q)	208
Overall height to top of cab, unladen (K)	3814
Turning diameter kerb to kerb	15400
Turning diameter wall to wall	17000
Front track (M)	2045
Rear track (N)	1820
Approach angle $\alpha$ (°)	11
Departure angle $\beta$ (°)	18
Ramp angle $\gamma$ (°)	10
Side members thickness	6,7
Side members max height	302,4
Side members flange width	80
Frame width at rear	769,4

## WEIGHTS (KG)

<b>Wheelbase</b>	<b>3800</b>
Total vehicle kerb weight	7835
Kerbweight on Front Axle	5315
Kerbweight on Rear Axle	2520
G.V.W. (EC)	18000
G.V.W. (Design)	20000
Plated weight on front axle (EC)	7500
Plated weight on front axle (Design)	7500
Plated weight on rear axle(s) (EC)	11500
Plated weight on rear axle(s) (Design)	13000
Max body & payload (Design)	12165
Total vehicle kerb weight Opt.72082+72085	7835
Kerbweight - F.A.	5315
Kerbweight - R.A.	2520
Max body & Payload	10165

### Notes :

Weights are to standard configuration and includes: chassis cab (or tractor), driver (75 kg), full fuel tank, tools kit and spare wheel (if present).

The height of the side member includes the thickness as well. The kerbweight values are referred to :

**Opt. 72082+72085** (4x115 litres CNG - SX / 4x115 litres CNG - DX )

Wheelbase	Type	Drawing
3800	Left hand drive	5802566070

## MODEL COMPONENTS

### ENGINE

Identification Code	F3HFE601A
Manufacturer	FPT Industrial
Commercial name	Cursor 13
Cycle	OTTO
Injection type	MULTIPOINT (MPI)
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>	12900
Compression ratio	12:1
Exhaust gas treatment	Three-way catalyst
Weight (without oil / water) Kg	1240
Injection system	Multipoint - (MPI)
Emissions control	EURO VI E
Speed limiter (Km/h)	90
Cooling system	water



#### Notes :

#### Hi-e SCR after-treatment :

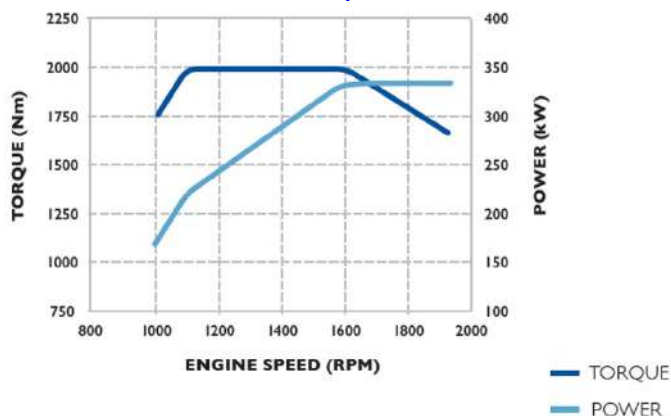
**DOC** ( Diesel Oxidation Catalyst ): promotes oxidation of several exhaust gas components by oxygen. The oxidation of NO to NO<sub>2</sub> plays an important role on the performance of ATS system.

**DPF** ( Diesel Particulate Filter ): introduced in order to cut down PM and PN ( Particulate numbers) before SCR catalyst , increasing the ATS system efficiency.

**SCR** (Selective catalytic Reduction): required to reduce NO<sub>x</sub> through the injection of AdBlue. Urea hydrolysis and gas distribution on the SCR catalyst assure full exhaust gas flow treatment.

**CUC** ( Clean Up Catalyst): integrated in the SCR, is required to eliminate residual ammonia (NH<sub>3</sub>) for legislation implications.

#### ENGINE EMISSION EURO VI E opt. 05313



#### 460C13G - 460 E6 GAS F3HFE601A - WG

Maximum power: 338 kW (460 HP) @ 1900 rpm

Maximum torque: 204 Kgm (2000 Nm) @ 1100 rpm

**Notes :** Engine Brake Torque (Nm) : - 752 at 3000 rpm. The engine complies with the EURO VI emission regulations.

#### ELECTRONIC COMMON RAIL :

Peak nozzle pressures up to 2200 bar and higher flexibility in fuel. Multiple injection capability more precise metering and timing control for all injection events. Optimized combustion process for high reduction of PM (particulate) into the engine. Better performance also at low rpm, with benefits in term of torque.

## MODEL COMPONENTS

### 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
12TX 2010 TO	AUTOMATED	ENGINE FLANGED	ALUMINIUM	253 - (w/o retarder)	Automated dry clutch ConAct	2000	12	2	Electro-pneumatically shifted

#### GEAR RATIOS

Gearbox model	1ste	2de	3ème	4 <sup>a</sup>	5de	6de	7	8	9ème	10ème	11	12 <sup>a</sup>	M.A. I	2 <sup>a</sup> ret					
12TX 2010 TO	12.92	9.98	7.67	5.94	4.57	3.53	2.83	2.19	1.68	1.30	1.00	0.77	12.03	9.29					

#### CLUTCH

Gearbox model	Type	Outer diameter mm	Outer diameter (inches)		
12TX 2010 TO	Single dry plate	430	17		

#### Notes:

HI-TRONIX Gearbox: with opt. 78515, additional two ratios are available for the reverse gears: 2.64 and 2.04 for **TO** versions.

#### ELECTRO-PNEUMATIC CLUTCH ACTUATION UNIT - " ConAct " :

The **ConAct** (Concentric Clutch Actuator) is a concentric electro-pneumatic release cylinder for push-type clutches. A travel sensor reports the clutch's actual position to the control unit.

#### REAR AXLE RATIO

Option code	00734 *	00737	06054
Ratio	3.36	4.11	3.7

\*: Standard axle ratio

#### TYRES & WHEELS

Code	Tyres	Front	Rear	Load index	Rolling circumference m
20294	Standard	315/70R22,5	315/70R22,5	156/150	3.09
20852	Optional	385/55R22,5	315/70R22,5	158/	3.09
20146	Optional	315/80R22,5	315/80R22,5	156/150	3.28
20795	Optional	315/80R22,5	315/80R22,5	156/150	3.28
20650	Optional	385/55R22,5	315/70R22,5	158/	3.09
20231	Optional	315/80R22,5	315/80R22,5	156/150	3.28
20594	Optional	315/70R22,5	315/70R22,5	156/150	3.09
20519	Optional	295/80R22,5	295/80R22,5	154/148	3.184
20504	Optional	315/70R22,5	315/70R22,5	156/150	3.09
20867	Optional	385/65R22,5	315/80R22,5	160/157	3.28
20900	Optional	385/55R22,5	315/70R22,5	158/	3.09
20503	Optional	295/80R22,5	295/80R22,5	154/148	3.184
20866	Optional	385/65R22,5	315/80R22,5	160/157	3.28

#### AXLES

Position	Description	Steering Axle
Front	5890/D ON - Axle drop: 142 mm	○
Rear	MS 17X - Arvin Meritor - Single reduction Disc Brakes - Maximum technical load 13.000 Kg	

Only for 4 axles vehicles (8x2x6 version): 2x5890/D ON on front axle

## MODEL COMPONENTS

### 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: 20294 - 315/70R22.5 TYRES - Long Distance**      **Efficiency: 0.93**      **No transfer box**

#### Gearbox model I2TX 2010 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 12°	Speed km/h 1°	Speed km/h 12°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							18000		40000	
							1°	12°	1°	12°
3.36	12.92	0.77	8.12	136.29	1114	1253	100.00	4.03	45.00	1.43
3.7	12.92	0.77	7.38	123.76	1226	1380	100.00	4.73	50.76	1.74
4.11	12.92	0.77	6.64	111.42	1362	1532	100.00	5.54	58.28	2.10

### SUSPENSIONS

#### Front parabolic suspensions :

Number of leaves: 1

#### Rear air suspensions :

4 Bellows. Stroke : Upper / Lower 140 mm / - 61 mm

### DISC BRAKES

**FRONT AXLE - Ventilated disc** : Diameter 432 (mm) / Braking surface : 784 (cm<sup>2</sup>)

**REAR AXLE - Ventilated disc** : Diameter 432 (mm) / Braking surface : 784 (cm<sup>2</sup>)

### 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 / 220



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**IVECO**

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