

# NEW EURO CARGO

TECHNICAL DESCRIPTION  
EURO 3 M.Y. 2016



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ML I50E24VWS-E3 - Chassis Cab 4x4

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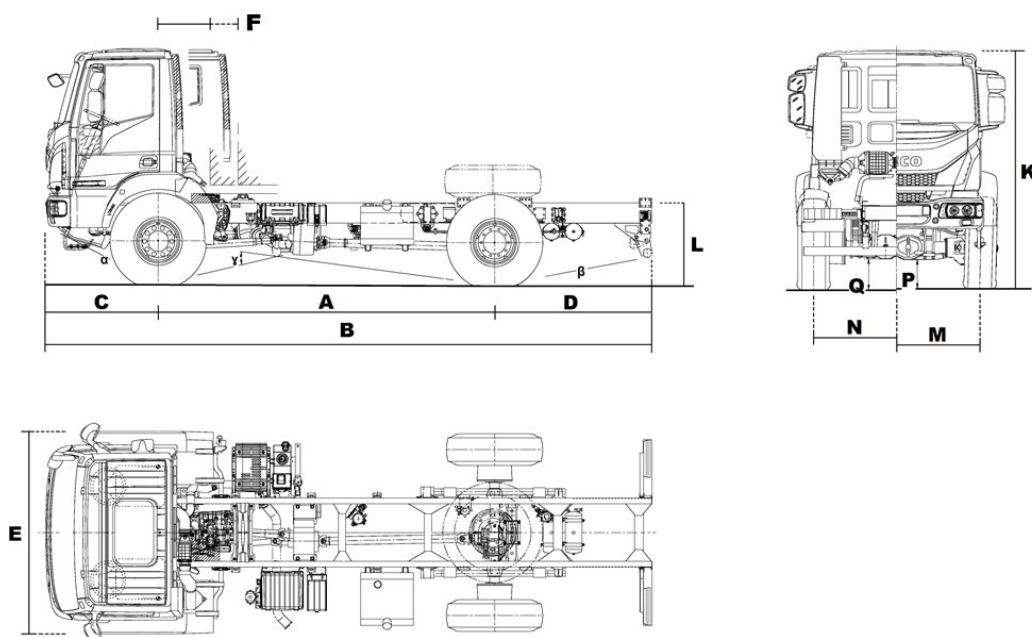
**IVECO**

Your partner for sustainable transport

**LIST OF LINKED VCB**

<b>VCB code</b>	<b>Gearbox</b>	<b>Wheelbase</b>	<b>Cabin</b>	<b>Drive</b>
V7LEC1C6	6S 800 TO	3240	MLC-NM SX	LH
V7LEC1CF	6S 800 TO	3240	MLC-NM DX	RH
V7LEC1E6	6S 1005 TO+PTO	3240	MLC-NM SX	LH
V7LEC2C6	6S 800 TO	3690	MLC-NM SX	LH
V7LEC2CF	6S 800 TO	3690	MLC-NM DX	RH
V7LEC2CH	6S 800 TO	3690	MLL-NM DX	RH
V7LEC2CK	6S 800 TO	3690	MLL-NM SX	LH
V7LEC2E6	6S 1005 TO+PTO	3690	MLC-NM SX	LH
V7LEC2EK	6S 1005 TO+PTO	3690	MLL-NM SX	LH
V7LEC3C6	6S 800 TO	3915	MLC-NM SX	LH
V7LEC3CF	6S 800 TO	3915	MLC-NM DX	RH
V7LEC3CH	6S 800 TO	3915	MLL-NM DX	RH
V7LEC3CK	6S 800 TO	3915	MLL-NM SX	LH
V7LEC3E6	6S 1005 TO+PTO	3915	MLC-NM SX	LH
V7LEC3EK	6S 1005 TO+PTO	3915	MLL-NM SX	LH
V7LEC4C6	6S 800 TO	4150	MLC-NM SX	LH
V7LEC4CF	6S 800 TO	4150	MLC-NM DX	RH
V7LEC4CH	6S 800 TO	4150	MLL-NM DX	RH
V7LEC4CK	6S 800 TO	4150	MLL-NM SX	LH
V7LEC4E6	6S 1005 TO+PTO	4150	MLC-NM SX	LH
V7LEC4EK	6S 1005 TO+PTO	4150	MLL-NM SX	LH

## DIMENSIONS & WEIGHTS



### DIMENSIONS (mm)

Wheelbase (A)	3240 MLC	3690 MLC	3915 MLC	4150 MLC	3690 MLL	3915 MLL	4150 MLL
Max length (B)	5991	6441	6666	7478	6441	6666	7478
Max width over wings (cab) (E)	2490	2490	2490	2490	2490	2490	2490
Overall width (rear tyres) (E2)	2435	2435	2435	2435	2435	2435	2435
Front axle to back of cab - including filter (F)	640	640	640	640	985	985	985
Frame height at end of frame, unladen (L)	1343	1338	1334	1345	1339	1334	1346
Frame height at front axle, unladen	1176	1175	1174	1174	1171	1171	1170
Frame height at rear axle, unladen	1294	1294	1293	1291	1294	1293	1290
Front overhang (C)	1387	1387	1387	1387	1387	1387	1387
Rear overhang (D)	1358	1358	1358	1935	1358	1358	1935
Minimum ground clearance (front) (P)	392	392	392	392	392	392	392
Minimum ground clearance (rear) (Q)	392	392	392	392	392	392	392
Overall height to top of cab, unladen (K)	3074	3073	3073	3072	3069	3069	3069
Turning diameter kerb to kerb	13380	15960	15700	16520	15960	15700	16500
Turning diameter wall to wall	14400	14920	16720	17540	14900	16720	17540
Front track (M)	2055	2055	2055	2055	2055	2055	2055
Rear track (N)	2045	2045	2045	2045	2045	2045	2045
Approach angle $\alpha$ (°)	31	32	32	32	32	32	32
Departure angle $\beta$ (°)	16	16	16	11	16	16	11
Departure angle $\beta^*$ (°)	14	14	14	10	14	14	10
Ramp angle $\gamma$ (°)	32	29	28	27	29	28	27
Side members thickness	6	6	6	6	6	6	6
Side members max height	252	252	252	252	252	252	252
Side members flange width	70	70	70	70	70	70	70
Frame width at rear	852	852	852	852	852	852	852

## WEIGHTS (KG)

Wheelbase	3240 MLC	3690 MLC	3915 MLC	4150 MLC	3690 MLL	3915 MLL	4150 MLL
Total vehicle kerb weight	5730	5755	5805	5900	5885	5935	6030
Kerbweight on Front Axle	3795	3835	3840	3860	3945	3950	3970
Kerbweight on Rear Axle	1935	1920	1965	2040	1940	1985	2060
G.V.W. (EC)	15000	15000	15000	15000	15000	15000	15000
G.V.W. (Design)	15000	15000	15000	15000	15000	15000	15000
Plated weight on front axle (EC)	5700	5700	5700	5700	5700	5700	5700
Plated weight on front axle (Design)	5700	5700	5700	5700	5700	5700	5700
Plated weight on rear axle(s) (EC)	10000	10000	10000	10000	10000	10000	10000
Plated weight on rear axle(s) (Design)	10000	10000	10000	10000	10000	10000	10000
Max body & payload (Design)	9270	9245	9195	9100	9115	9065	8970

### Notes:

Weights are standard configuration and include: chassis cab, driver ( 75 Kg.), full fuel tank, Ad blue tank, oils, tools kit and spare wheel (if present).  
The values of GVW / GCW can vary according to the markets and the homologations.  
The height of the side member includes the thickness as well.

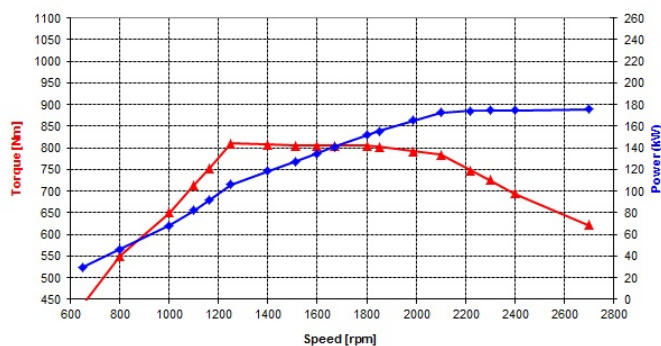
Wheelbase	MLC Type	Drawing	Wheelbase	MLL Type	Drawing
3240	Left hand drive	5802272934	3690	Left hand drive	5802272935
3690	Left hand drive	5802272935	3915	Left hand drive	5802272936
3915	Left hand drive	5802272936	4150	Left hand drive	5802272937
4150	Left hand drive	5802272937			

## MODEL COMPONENTS

### ENGINE

Manufacturer	IVECO
Commercial name	TECTOR
Position	FRONT
Cycle	DIESEL
Aspiration type	TC+AFTERCOOLER
Injection type	DIRECT
4 Stroke / 2 Stroke cycle	4
No. of cylinders	6
Cylinders layout	IN-LINE
Valves per cylinder	4
Bore mm	102
Stroke mm	120
Total displacement cm <sup>3</sup>	5880
Weight (without oil / water) Kg	510
Oil capacity (l)	11.8
Type of fuel	DIESEL OIL
Injection system	HIGH PRESSURE / COMMON RAIL
Injection governor type	ELECTRONIC INTEGRATED WITH ECU
Cold starting type	THERMOSTARTER
Emissions control	EURO3
Speed limiter (Km/h)	90
Cruise control	All Speeds
Engine brake power (kW)	150
Engine brake (rpm)	3200
Cooling system	water
Fan type	viscstatic
Air intake	WITH SNORKEL
Snorkel position	Behind the cab, left side
Filter type	Dry - Heated
Air filter position	Behind the cabin

176 kW rating



#### 240 E3 - Motore Tector6 - 5,9 l - 176Kw

Maximum power: 176 kW (240 HP) @ 2700 rpm

Maximum torque: null Kgm (810 Nm) @ 1250 rpm

## MODEL COMPONENTS

### DRIVELINE

#### GEARBOX

Gearbox model	Gearbox Type	Installation	Box material	Total ratio speed	Dry weight Kg	Max input torque Nm	No. of forward gears	No. of reverse gears	No. of synchro gears
<b>6S 1005 TO+PTO</b>		ENGINE FLANGED	ALUMINIUM	8.65	136	1050	6	1	
<b>6S 800 TO</b>	SYNCRONIZED	ENGINE FLANGED	ALUMINIUM ALLOY	8.44	124	850	6	1	6

#### GEAR RATIOS

Gearbox model	1st	2nd	3rd	4th	5th	6th	rev. 1st											
<b>6S 1005 TO+PTO</b>	6.75	3.6	2.12	1.39	1	0.78	6.06											
<b>6S 800 TO</b>	6.58	3.6	2.12	1.39	1	0.78	6.06											

#### CLUTCH

Gearbox model	Type	Adjustment	Outer diameter mm	Outer diameter (inches)	Release control
<b>6S 1005 TO+PTO</b>	SINGLE DRY PLATE		395	15.5"	HYDRAULIC
<b>6S 800 TO</b>	SINGLE DRY PLATE	AUTOMATIC	395	15.5"	MECH./HYDRAULIC

#### REAR AXLE RATIO

Option code	02015 *	02026	06013	06035	06039	06041
Ratio	6.95	5.72	5.326	6.34	7.73	8.28

\*: Standard axle ratio

#### TYRES & WHEELS

Code	Tyres	Front	Rear	Load index	Rolling circumference m
20115	Optional	395/85R20	395/85R20	168/	3.6
20168	Optional	14,00R20	14,00R20		3.826

#### AXLES

Position	Description
Front	5956 - Iveco driving axle
Rear	451146/1 - Iveco H.R. rear axle

#### 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 %

<b>Tyre: 20115 - PNEUMATICI 395/85R20 OFF ROAD TL</b>	<b>Efficiency: 0.85</b>	<b>Off road slow</b>
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Gearbox model 6S 1005 TO+PTO										
Axle Ratio	Gear Ratio 1°	Gear Ratio 6°	Speed km/h 1°	Speed km/h 6°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							15000		18500	
							1°	6°	1°	6°
<b>5.326</b>	6.75	0.78	8.36	72.34	1539	1731	68.03	5.75	51.06	4.53
<b>5.72</b>	6.75	0.78	7.78	67.36	1652	1859	75.91	6.26	56.05	4.94
<b>6.34</b>	6.75	0.78	7.02	60.77	1831	2060	90.48	7.05	64.61	5.58
<b>6.95</b>	6.75	0.78	6.41	55.44	2008	2259	100.00	7.83	74.14	6.21
<b>7.73</b>	6.75	0.78	5.76	49.84	2233	2512	100.00	8.82	88.61	7.01
<b>8.28</b>	6.75	0.78	5.38	46.53	2392	2691	100.00	9.52	100.00	7.57

## MODEL COMPONENTS

**Tyre: 20115 - PNEUMATICI 395/85R20 OFF ROAD TL Efficiency: 0.85 On road fast**

### Gearbox model 6S 1005 TO+PTO

Axle Ratio	Gear Ratio 1°	Gear Ratio 6°	Speed km/h 1°	Speed km/h 6°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							15000		18500	
							1°	6°	1°	6°
5.326	6.75	0.78	16.38	141.76	1539	1731	29.57	2.12	23.48	1.59
5.72	6.75	0.78	15.25	132.00	1652	1859	32.03	2.44	25.38	1.85
6.34	6.75	0.78	13.76	119.09	1831	2060	36.02	2.92	28.43	2.24
6.95	6.75	0.78	12.55	108.64	2008	2259	40.10	3.37	31.50	2.60
7.73	6.75	0.78	11.29	97.68	2233	2512	45.58	3.92	35.55	3.05
8.28	6.75	0.78	10.54	91.19	2392	2691	49.66	4.30	38.50	3.36

**Tyre: 20115 - PNEUMATICI 395/85R20 OFF ROAD TL Efficiency: 0.90 Off road slow**

### Gearbox model 6S 800 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 6°	Speed km/h 1°	Speed km/h 6°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							15000		18500	
							1°	6°	1°	6°
5.326	6.58	0.78	8.58	72.34	1539	1731	71.35	6.14	53.19	4.84
5.72	6.58	0.78	7.98	67.36	1652	1859	79.91	6.68	58.49	5.28
6.34	6.58	0.78	7.20	60.77	1831	2060	96.05	7.52	67.65	5.96
6.95	6.58	0.78	6.57	55.44	2008	2259	100.00	8.34	77.98	6.62
7.73	6.58	0.78	5.91	49.84	2233	2512	100.00	9.39	93.95	7.47
8.28	6.58	0.78	5.52	46.53	2392	2691	100.00	10.13	100.00	8.06

**Tyre: 20115 - PNEUMATICI 395/85R20 OFF ROAD TL Efficiency: 0.90 On road fast**

### Gearbox model 6S 800 TO

Axle Ratio	Gear Ratio 1°	Gear Ratio 6°	Speed km/h 1°	Speed km/h 6°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							15000		18500	
							1°	6°	1°	6°
5.326	6.58	0.78	16.80	141.76	1539	1731	30.63	2.32	24.30	1.75
5.72	6.58	0.78	15.65	132.00	1652	1859	33.20	2.66	26.28	2.02
6.34	6.58	0.78	14.12	119.09	1831	2060	37.37	3.16	29.45	2.43
6.95	6.58	0.78	12.88	108.64	2008	2259	41.64	3.63	32.65	2.81
7.73	6.58	0.78	11.58	97.68	2233	2512	47.40	4.21	36.87	3.28
8.28	6.58	0.78	10.81	91.19	2392	2691	51.71	4.61	39.96	3.61

**Tyre: 20168 - PNEUMATICI 14.00R20 164/ TUBELESS Efficiency: 0.85 Off road slow**

### Gearbox model 6S 1005 TO+PTO

Axle Ratio	Gear Ratio 1°	Gear Ratio 6°	Speed km/h 1°	Speed km/h 6°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							15000		18500	
							1°	6°	1°	6°
5.326	6.75	0.78	8.85	76.62	1452	1634	62.27	5.16	47.20	4.01
5.72	6.75	0.78	8.24	71.35	1560	1755	69.08	5.65	51.68	4.40
6.34	6.75	0.78	7.44	64.37	1729	1945	81.32	6.40	59.27	5.01
6.95	6.75	0.78	6.79	58.72	1895	2132	96.00	7.13	67.56	5.61
7.73	6.75	0.78	6.10	52.79	2108	2371	100.00	8.07	79.78	6.36
8.28	6.75	0.78	5.70	49.29	2258	2540	100.00	8.73	89.92	6.89

**Tyre: 20168 - PNEUMATICI 14.00R20 164/ TUBELESS Efficiency: 0.85 On road fast**

### Gearbox model 6S 1005 TO+PTO

Axle Ratio	Gear Ratio 1°	Gear Ratio 6°	Speed km/h 1°	Speed km/h 6°	RPM at 80 km/h	RPM at 90 km/h	A		B	
							15000		18500	
							1°	6°	1°	6°
5.326	6.75	0.78	17.35	150.15	1452	1634	27.51	1.67	21.84	1.18
5.72	6.75	0.78	16.16	139.81	1560	1755	29.80	1.99	23.62	1.44
6.34	6.75	0.78	14.58	126.14	1729	1945	33.48	2.45	26.45	1.82
6.95	6.75	0.78	13.30	115.07	1895	2132	37.24	2.89	29.31	2.17
7.73	6.75	0.78	11.95	103.46	2108	2371	42.24	3.42	33.05	2.60
8.28	6.75	0.78	11.16	96.58	2258	2540	45.94	3.78	35.77	2.90

## MODEL COMPONENTS

### SUSPENSIONS

#### Front parabolic suspension :

No. of leaves: 3

#### Rear parabolic suspension :

No. of leaves: 2+2

## ML DAY CAB MY2015

### CAB EXTERIOR

#### Day cab and \*sleeper cab :

Forward control cab.

Illuminated steps.

New front grid, new front bumper, new badging.

Pressed steel construction with SMC for vulnerable parts.

External sun visor as option.

Integrated sun visors filter as option (the integrated sun visors filter has been developed as alternative to the external sun visor in order to guarantee to the driver the same protection from the sun with a lower impact on CX factor and consequent reduced fuel consumption).

New handle with an improved ergonomics.

New side deflectors improving air flow keeping door handle clean.

Rear view mirrors:

Euro V range : standard : "mirror 2003/97/CE " (compliant with UNIECE 46)

Euro III range : standard : "tubular arms mirror" (compliant with 88/321/EC)

Cab height:

From ML110EL.. up to ML120EL..: 1 step

from ML120E.. up to ML180E.. and 4x4 models: 2 steps

Fully suspended cab (helical springs and dampers). Reinforced cab suspensions on 4x4 and ML150E..H /ML170E..H models.

Manual or servo assisted tilt to 60 degrees.

Sound and thermal insulation, bumper with integrated headlamps (standard in **plastic** for 4x2 - standard in **steel** for 4x4), spray suppression, 2-speed windscreen with intermittent function. Hood can be raised for daily checks.

Led Day Running Lights (available as option on all the models, except for 4x4 - ML150E..H - ML170E..H and chassis-cowl models).

Xenon head lamps (available as option on all the models).

### CAB INTERIOR

#### New standard contains:

New dashboard mold colour.

New light control switch.

New automatic and automated gearbox controls.

New central tunnel module with cup holders, 12 V plug, and ashtray cup.

New door panel (RHD only).

New seats trim.

New instrument Cluster.

Highline Cluster.

New steering wheel.

Two USB plugs.

New clima control switches.

New cards/coins holders.

**Furthermore:** overhead lockers with doors. Glove box. Four speed fan. All gauges monitored using international symbols. Column mounted control stalks. Overhead console for radio and CB. Digital monochrome display, radio preparation (cabling, speaker and aerial), D/N/R buttons for automatic & automated gearbox with manual override on steering column stalk. Dashboard gear lever for manual box. Body builder plug. Adjustable steering wheel. Electric windows. Smocking kit.

#### Available options:



## MODEL COMPONENTS

Arm rest (for air suspended seats only).  
High comfort driver seat.  
Three way adjustable driver seat, dual fixed passenger seat.  
Air compressor plug.  
Immobiliser.  
Central locking with remote control.  
Additional cab heater.

### Furthermore:

#### Day Cab standard contains:

Rear wall rail with hooks for clothes. Windowless rear wall with document net.

#### Available options for Day Cab:

New mobile office with integrated led light (2 seats configuration). Rear windows.

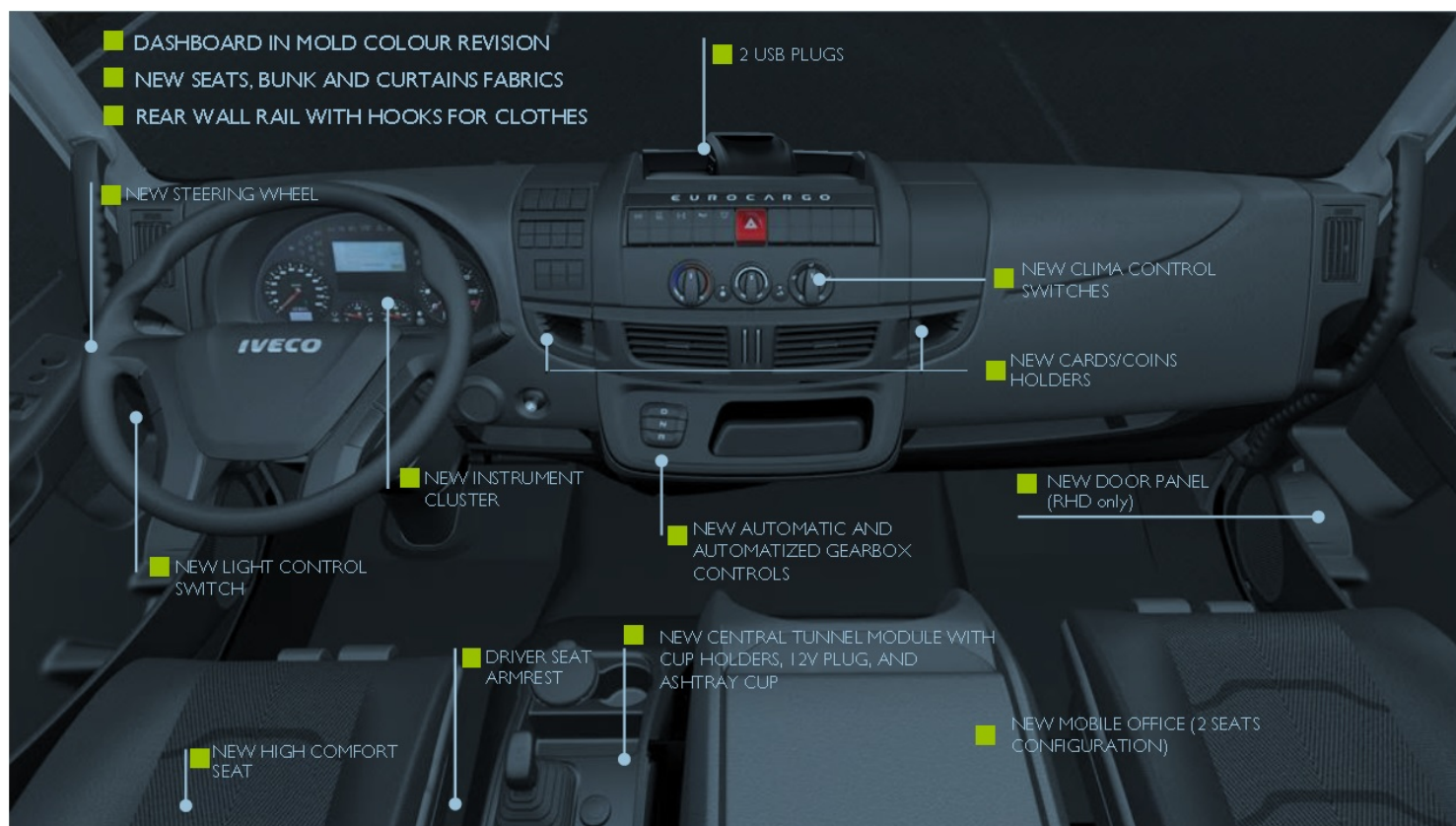
#### Sleeper Cab standard contains:

Courtesy and map reading lights. Bunk.

#### Available options for Sleeper Cab:

High roof. Additional bunk.

**\*Please be aware that the Sleeper cab is not available on road sweeper models**



## BATTERY

### Electrics

Voltage V	24
Starter power kW	4.4
No. of batteries	2
Batteries capacity V/Ah	12 / 143

## MODEL COMPONENTS

### TRANSFER BOX TCI100

#### Type

Model	TCI100
OFF ROAD Low Ratio	1.94
ON ROAD Normal Ratio	0.99

### MISCELLANEOUS

#### Fuelling :

Fuel tank 115 litres, plastic for wheelbase : 3240-3690-3915 mm.

Fuel tank 180 litres , steel for wheelbase : 4150 mm.

#### Drum Brakes :

Diameter : front 381 x 178 mm width.

Friction area x wheel : 1402 cm<sup>2</sup>

rear 381 x 178 mm width.

Friction area x wheel :1402 cm<sup>2</sup>

#### Braking system :

Type : Full air.

Two independent circuits.

Service brake : ABS + EBL

Parking : Spring parking brake on rear axle.

Emergency : Combined with parking brake.

Air reservoirs : 2 x 15 litres, steel

Exhaust brake : Standard.

Air compressor : 360 cc single cylinder.

Air drier : Air processing Unit (APU).



**IVECO**

Your partner for sustainable transport