

Alpa Coach built



The motorhome for travelling couples. With generous space, a huge panoramic seating group and comfortable single beds in the alcove, this motorhome is ideally suited for comfortable travelling as a couple. And even in freezing temperatures, because the heated double floor with frost-protected water installation makes it absolutely winterproof.

Technical info

Overall length, approx.	730 - 855 cm
Overall width, approx.	232 cm
Overall height, approx.	327 cm
Headroom in living area, approx.	209 cm

Maximum values partly not possible for all models or only in connection with certain options.

Upholstery

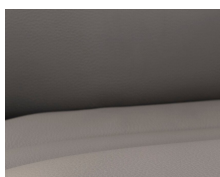


+ Upholstery Samir



+ Upholstery Melia

○

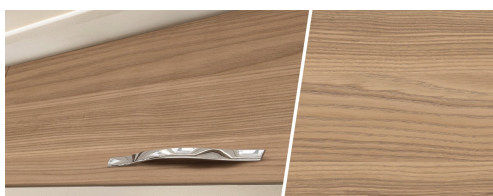


+ Real leather upholstery Collin ○



+ Real leather individual ○

Wood décor



+ Wood décor Ashton

○ optionally available

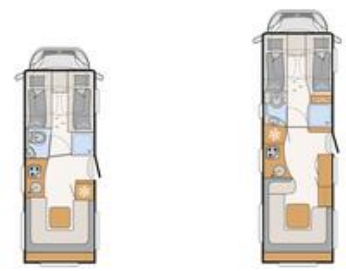
Plus factors

- + 180 hp (136 kW) Multijet engine, 8-speed torque converter automatic transmission, automatic climate control, LED daytime running lights, multifunction leather steering wheel and state-of-the-art driving assistance systems
- + Ideal driving characteristics: Premium low platform chassis with 145 mm lowering and up to 4.8 t or 5.4 t permissible total mass
- + Absolute winter resistance due to heated raised floor with installation laid frost-protected
- + Lifetime Plus superstructure technology with absolutely rot-proof and durable wall construction
- + Huge panoramic round seating area with plenty of space to eat and linger
- + Comfortable lengthwise single beds with 195 x 80 cm and 205 x 80 cm lying area in the alcove incl. large access steps
- + 10-year tightness guarantee!



Alpa Coach built

Technical info



Alpa Coach built		A 6820-2	A 7820-2
Standard chassis		Fiat Ducato Maxi AL-KO Low Platform	Fiat Ducato Maxi AL-KO Low Platform 3-axle
Standard engine		180 Multijet 3 Power	180 Multijet 3 Power
kW (bhp)		132 (180)	132 (180)
Emission standards		Euro VI-E	Euro VI-E
Overall length, approx.	cm	730	855
Overall width, approx.	cm	232	232
Overall height, approx.	cm	327 ¹⁾	327 ¹⁾
Headroom in living area, approx.	cm	209	209
Towable load braked/unbraked	kg	1750 / 750	1800 / 750
Wheelbase, approx.	mm	4070	4600
Bed dimension alcove, L x W, approx.	cm	205 x 80 / 195 x 80 / 210 x 155	205 x 80 / 195 x 80 / 210 x 155
Bed dimension: Rear bed, L x W, approx.	cm	210 x 170	210 x 150
Sleeping berths standard / max.		4	4
Mass in running order (+/-5%)*	kg	3577 (3398 to 3756)*	4069 (3866 to 4272)*
Manufacturer-specified mass for optional equipment*	kg	877	572
Technically permissible maximum laden mass*	kg	4800	5000
Permitted number of seats (including driver)*		4	4
Refrigerator volume (thereof freezer), approx.	l	153 (29)	177 (35)
Waste water tank, approx.	l	137	137
Fresh water tank capacity, total/ Fresh water tank capacity at driving filling	l	140 / 20	140 / 20
Measurement storage opening left (W x H)	cm	95 x 105	105 x 105
Measurement storage opening right (W x H)	cm	95 x 105	105 x 105
Clear dimensions of rear garage door/flap (W x H)	cm	105 x 60 ○	105 x 60 ○

○ Optional equipment — Not possible ● Standard equipment ◆ Mandatory △ Not known at the time of publication



* INFO

The specified mass in running order is a default value defined in the type-approval procedure. Due to manufacturing tolerances, the actual weighed mass in running order may deviate from the value stated above. Deviations of up to ± 5 % of the mass in running order are legally permissible and possible. The permissible range in kilograms is given in brackets after the mass in running order. The manufacturer-specified mass for optional equipment is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. The limitation of optional equipment is intended to ensure that the minimum pay-mass, i.e. the legally prescribed free mass for baggage and retrofitted accessories, is actually available for the vehicle load capacity of the vehicles delivered by Dethleffs. The real weight of your vehicle ex works can only be determined when it is

weighed at the end of the line. If, in exceptional cases, the weighing shows that the actual load capacity falls below the minimum pay-mass despite limiting the optional equipment due to a permissible weight deviation, we will check together with your trade partner and you whether we should, for example, increase the load capacity of the vehicle, reduce the number of seats or remove optional equipment before delivering the vehicle. The technically permissible maximum laden mass of the vehicle and the technically permissible maximum mass on the axle must not be exceeded. Detailed information & explanations on the subject of weight and the configuration of the vehicle can be found in the section Legal information. For a more detailed description of all mandatory technical dependencies, please refer to the explanations on the footnotes.

Standard equipment

A 6820-2

A 7820-2

Fiat chassis		
Alloy wheel FIAT 16", black (for 3-axle)	—	●
Fiat Ducato Maxi ALKO low platform (4,800 kg incl. air suspension rear axle, reinforced springs, aluminium rims) Multijet 180 (2.2 l / 132 kW / 180 hp) Heavy Duty, 8-speed torque converter automatic transmission	●	—
Fiat Ducato Maxi ALKO low platform 3-axle (5,000 kg) Multijet 180 (2.2 l / 132 kW / 180 hp) Heavy Duty, 8-speed torque converter automatic transmission	—	●
Right-hand drive chassis	●	●
Weight upgrade		
Single folding seats rear right and left incl. Isofix	●	—
Fiat chassis features		
ABS (anti-lock braking system) / EBD (electronic brakeforce distribution)	●	●
Anti-theft device	●	●
Automatic Brake Assist after a collision	●	●
Automatic cab air conditioning, digital speedometer with 7" instrument cluster and wireless phone charger in the centre console	●	●
Bench with 3-point seatbelts for seats facing away from driving direction incl. bed convert for seating lounge (1944)	—	●
Cab blackout blinds	●	●
Captain seats for driver and front passenger, swivel function	●	●
Chassis in right-hand drive version	●	●
Crosswind Assist	●	●
Cruise control	●	●
Cup holder in the centre of the dashboard	●	●
DAB+ radio antenna integrated into right exterior mirror	●	●
Dashboard with aluminium application	●	●
Daytime running lights integrated into headlights	●	●
Diesel tank 90 litre incl. 19L AdBlue tank	●	●
Driver and passenger airbags	●	●
Driver and passenger detection	●	●
ESP incl. ASR, Traction Plus, Hill Holder and Hill Descent Control	●	●
Electrically adjustable and heated exterior mirrors incl. blind spot mirror and integrated turn indicator	●	●
Exterior colour chassis white	●	●
Fog lights incl. cornering light	●	●
Front-wheel drive	●	●
Full LED low beam	●	●
Height and tilt adjustment and double armrests for driver and passenger seat	●	●
Leather steering wheel and gear knob with leather sleeve	●	●
Padded double armrests, fabric cover	●	●
Painted front bumper in body colour incl. black skid plate	●	●
Preparation for radio system incl. loudspeakers in the driver's cabin	●	●
Rear corner steadies (2 pieces)	●	●
Right-hand drive with exhaust on the left side	●	●
Steering wheel with control elements	●	●
Trailer Stability Assist	●	●
Tyre inflation kit and towing eye	●	●
Tyres M+S Camping (with snowflake)	●	●
Exterior features		
70 cm wide living room door with window and blackout, electric closing aid and gas pressure damper as hold-open device	●	●
Central locking for the driver's cab, habitation and garage door	●	●
Dethleffs Exclusive rear light carrier with ShapeLine LED taillights and 3rd brake light integrated in rear spoiler	●	●
Double floor storage, some of which can be loaded across almost the entire vehicle width	●	●
Double-glazed flush-fitting windows with blackout & mosquito protection	●	●
Floor thickness: 43 mm, side wall thickness: 34mm and roof thickness: 35 mm	●	●
Flyscreen habitation door	●	●
GRP roof	●	●
Habitation access with comfortable coupe entrance	●	●

Standard equipment

	A 6820-2	A 7820-2
Habitation access with comfortable, wide, electric step	●	●
Lifetime Plus construction technology: rot-free superstructure with no wood inserts, XPS insulation with GRP cladding on the underslung and roof	●	●
Opening window in overcab right	●	●
Panoramic skylight 75x105 cm above U-shaped seating	—	●
Rear garage: two garage door with one-hand operation, rear lowering (250 kg), heated, lashing rails, LED lights across the entire width, 230 V socket, GRP anti-slip flooring and fleece cove	●	●
Side panels and rear panel in smooth aluminium sheets	●	●
Sky Roof (2 x panoramic skylight 70x50cm crossways) over the seating lounge in the rear	●	—
Sky roof (second panoramic skylight 75x105cm lengthwise over the seating lounge in the rear) incl. roof lining and lamp	—	●
Exterior design		
Exterior body painted in white	●	●
Interior design		
Upholstery Samir	●	●
Wood décor Ashton	●	●
Textile equipment		
Carpet, loose	—	●
Carpet, loose	●	—
Rear beds with ergonomic wooden slatted frames and 150 mm thick 7-zone premium mattresses made of climate-regulating material	●	●
Furniture layouts		
AirPlus overhead locker rear ventilation to avoid condensation	●	●
Bed convert for seating lounge transverse	●	—
Bed convert for seating lounge transverse	—	●
Full body mirror	●	●
Overhead locker doors with soft-close function	●	●
Overhead lockers in the rear area	●	●
U-shaped seating in the lounge with free-standing, rigid table base and surrounding seating and backrest cushions with flexible headrest	—	●
U-shaped seating with free-standing, rigid table base and surrounding seating and backrest cushions with flexible headrest	●	—
Wardrobe floor-to-ceiling with convenient linen drawers in upper area	—	●
Kitchen		
Extractor fan (extracted air) with draught stopper	●	●
Fridge (153 l), can be opened on both sides, with integrated oven	●	—
Fridge (177 l), can be opened on both sides, with integrated oven	—	●
Gourmet kitchen: three-ring hob, large drawers with soft-close function, cutting board, apothecary drawers, waste bin and central locking	●	●
Kitchen overhead locker with illuminated roof lining	●	●
MultiFlex rail system incl. hooks (further accessories via Dethleffs Original Accessories)	●	●
Bathroom		
Equipped with cabinets, storage compartments, hooks, large mirrors and a height-adjustable shower head	●	●
Large bathroom with separate shower and toilet with locking door to the lounge	●	●
Shower grate	●	●
Shower panel and bathroom accessories in black	●	●
Multimedia		
Flat-screen TV bracket	●	●
Pre-wiring for satellite system	●	●
Pre-wiring for second rear view camera	●	●
Preparation for radio system incl. sound package in the driver's cabin	●	●
Rear view camera (single camera)	●	●
Heating		
Heating in the seating unit for optimum heat distribution, built-in	●	●
Hot-water heating with boiler, automatic drain valve and shut-off valve for the sleeping area and digital control panel	●	●
Air Conditioning		
Pre-wiring for roof A/C	●	●

Standard equipment

A 6820-2

A 7820-2

Electrical installation

Automatic switch-on/disconnect for starter battery, leisure battery and refrigerator	●	●
Awning light 12 V	●	●
EBL with separate FI protection switch	●	●
LED lighting throughout the vehicle	●	●
Leisure battery AGM, 95 Ah	●	●
Light Moments: Illuminated wardrobe	●	●
Light Moments: Indirect ambient lighting above the overhead lockers	●	●
Light Moments: Indirect lighting in the bathroom with illuminated shower panel	●	●
Light Moments: Indirect wall surface ambient lighting	●	●
Light Moments: Pedestal lighting in the kitchen	●	●
Luxus on-board control panel	●	●
Number of sockets 1x 12V, 6x 230V, 2x USB	●	—
Number of sockets 1x 12V, 7x 230V, 2x USB	—	●
Pre-wiring for solar	●	●
Spotlights in the roof lining above the habitation door	●	●

Water supply

Fresh water and waste water tanks installed in double floor (insulated area)	●	●
Pressurized water pump system	●	●
Switch for water pump	●	●

Gas supply

Automatic gas cylinder switchover incl. crash sensor and EisEx	●	●
Storage space for 2 gas bottles with a filling weight of 11 kg each, with simplified access	●	●

Safety

Smoke detector	●	●
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PACKAGES ALPA COACH BUILT

Package	GT Package ALPA A (13827)	GT Package Silver ALPA A (13828)
Styling Package (overcab design elements)	x	x
Panorama skylight 70 x 50 cm in the overcab	x	x
Exterior design GT (rear light moulding with black diffuser, skidplate "red")	x	x
High characteristic Dethleffs Exklusiv rear light carrier with ShapeLine LED taillights and 3rd brake light	x	x
Side panels in metallic titanium silver		x
Additional weight (kg)*	23.3	23.3

Package	Dual Battery System Package 2 (7489)	Dual Battery System Package 1 (7488)
Victron PowerAssist and PowerControl	x	x
Electric block EBL 102	x	x
Victron control panel above the habitation door	x	x
Victron Energy MultiPlus charging/inverter combination 3000W/120A	x	
336 Ah lithium battery	x	
Victron Energy MultiPlus charging/inverter combination 1600W/70A		x
168 Ah lithium battery		x
Additional weight (kg)*	113	63



* INFO

The factory installation of optional equipment increases the actual mass of the vehicle and reduces the pay-mass. The additional weight indicated for packages and optional equipment shows the additional weight compared to the standard equipment of the respective model or layout. The total weight of the selected optional equipment must not exceed the manufacturer-specified mass for

optional equipment shown in the model overviews. This is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. Detailed information and explanations on the subject of weight can be found in the Legal information section.

Package	95 Years Package A 6820-2 (15630)	95 Years Package A7820-2 (15630)
Styling Package (overcab design elements)	x	x
Panorama skylight 70 x 50 cm in the overcab	x	x
Exterior design GT (rear light moulding with black diffuser, skidplate "red")	x	x
High characteristic Dethleffs Exklusiv rear light carrier with ShapeLine LED taillights and 3rd brake light	x	x
Victron PowerAssist and PowerControl	x	x
Electric block EBL 102	x	x
Victron control panel above the habitation door	x	x
Victron Energy MultiPlus charging/inverter combination 1600W/70A	x	x
168 Ah lithium battery	x	x
Automatic satellite system 85 Twin with 32' TV (incl. bracket) incl. soundboard	x	x
Heat exchanger for hot-water heating	x	x
Dethleffs Naviceiver incl. DAB+, truck navigation, wireless Apple CarPlay and Android Auto	x	x
Omnistor cassette awning 5.0 m (electric)	x	
Omnistor cassette awning 6.0 m (electric)		x
Weight upgrade to 5,400 kg		x
Additional weight (kg)*	162.45	195.95

△ Not known at the time of publication



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optional equipment shown in the model overviews. This is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. Detailed information and explanations on the subject of weight can be found in the Legal information section.

Optional equipment*

	Included in package	Additional weight (kg)*	Code	A 6820-2	A 7820-2
Weight upgrade					
Weight upgrade to 5,400 kg	—	3.5	7497	—	○
Fiat chassis features					
Hydraulic lifting jacks with automatic levelling and weighing function	—	70	9663	○	○
Tow bar (observe when operating trailers with a maximum authorised load)	—	30	273	○	○
Exterior features					
Double floor in rear garage	—	13	1890	—	○
Double floor in rear garage	—	12	1890	○	—
Omnistor cassette awning 5.0 m (electric)	—	40	428	○	—
Omnistor cassette awning 5.0 m (manual)	—	40	697	○	—
Omnistor cassette awning 6.0 m (electric)	—	70	519	—	○
Omnistor cassette awning 6.0 m (manual)	—	64	560	—	○
Opening window in overcab left	—	5	622	○	○
Roof vent with fan	—	1.5	7507	○	○
Storage access in the rear	—	9	1732	○	○
Exterior design					
Side panels in metallic titanium silver	—	0	511	○	○
Interior design					
Real leather individual ¹⁸⁾	—	0	9785	○	○
Real leather upholstery Collin	—	0	11952	○	○
Upholstery Melia	—	0	11950	○	○
Bathroom					
Ceramic toilet ¹⁹⁾	—	9.1	7243	○	—
Macerator toilet with waste-holding tank	—	44	1625	○	○
Toilet ventilation via the roof ¹⁹⁾	—	0.8	1681	○	○
Multimedia					
5G WLAN router incl. 4x4 roof antenna	—	1.5	14899	○	○
5G Wi-Fi router incl. 4x4 roof antenna with 22' flat screen incl. flat screen bracket	—	7	15169	○	○
5G Wi-Fi router incl. 4x4 roof antenna with 32" TV (incl. bracket) incl. soundboard	—	10.5	15171	○	○
Additional 22' flat screen incl. flat screen bracket	—	5.5	15178	○	○
Automatic satellite system 85 Twin with 22' flat screen incl. flat screen bracket	—	21.5	15166	○	○
Automatic satellite system 85 Twin with 32' TV (incl. bracket) incl. soundboard	—	25	15170	○	○
Dethleffs Naviceiver incl. DAB+, truck navigation, wireless Apple CarPlay and Android Auto	—	3.65	9582	○	○
Second rear view camera in rear moulding	—	1	11541	○	○
Top View 360° HD camera ^{20) 21)}	—	4.5	7173	○	○
Heating					
Electrically heated overcab bed	—	16.5	1740	○	○
Heat exchanger for hot-water heating	—	7.5	565	○	○
Hot-water carpet for the driver's cab	—	3.5	6709	○	○
Air Conditioning					
Roof A/C	—	38.5	609	○	○



* INFO

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explanations on the subject of weight can be found in the Legal information section. An increase of load capacity increases the manufacturer-specified mass for optional equipment. The increase results from the higher pay-mass due to the alternative chassis. The increased tare weight of the alternative chassis and, in particular, the weight for any mandatory heavier engine variants (e.g. 180 hp) must be deducted from this. For a more detailed description of all mandatory technical dependencies, please refer to the explanations on the footnotes.

Optional equipment^{**}

	Included in package	Additional weight (kg)*	Code	A 6820-2	A 7820-2
Electrical installation					
Solar power system 100 watt	—	12.6	922	○	○
Water supply					
Outdoor shower (cold water)	—	0.5	793	○	○
Gas supply					
Outdoor gas socket gas pressure 30 mbar	—	1.3	878	○	○
Safety					
2 kg fire extinguisher	—	4	1878	○	○
Alarm system (for door with central locking)	—	0.5	322	○	○
Safe	—	10.5	323	○	○
Packages					
95 Years Package A 6820-2	—	162.45	15630	○	—
95 Years Package A7820-2	—	195.95	15630	—	○
Dual Battery System Package 1	—	63	7488	○	○
Dual Battery System Package 2	—	113	7489	○	○
GT Package ALPA A	—	23.3	13827	○	○
GT Package Silver ALPA A	—	23.3	13828	○	○

○ Optional equipment — Not possible ● Standard equipment ◆ Mandatory △ Not known at the time of publication



* INFO

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explanations on the subject of weight can be found in the Legal information section. An increase of load capacity increases the manufacturer-specified mass for optional equipment. The increase results from the higher pay-mass due to the alternative chassis. The increased tare weight of the alternative chassis and, in particular, the weight for any mandatory heavier engine variants (e.g. 180 hp) must be deducted from this. For a more detailed description of all mandatory technical dependencies, please refer to the explanations on the footnotes.

IMPORTANT INFORMATION REGARDING THE SELECTION OF YOUR MOTORHOME

The weight specifications and tests for **motorhomes** are uniformly regulated throughout the EU in EU Implementing Regulation No. 2021/535 (until June 2022: EU Implementing Regulation No. 1230/2012). We have summarised and explained the key terms and legal requirements from this **regulation** for you below. Our **dealers** and the Dethleffs configurator on our website offer you additional assistance in configuring your vehicle.

1. Technically permissible maximum laden mass

The **technically permissible maximum laden mass** of the vehicle (e.g. 3,500 kg) is a mass specification set by the manufacturer which the vehicle must not exceed. Information on the **technically permissible maximum laden mass** of the model you have chosen can be found in the technical data. If the vehicle exceeds the **technically permissible maximum laden mass** in everyday driving, this constitutes an administrative offence which may result in a fine.

2. Mass in running order

In simple terms, the **mass in running order** is the basic vehicle with **standard equipment** plus a legally fixed standard weight of 75 kg for the driver. This essentially includes the following items:

- the unladen weight of the vehicle together with the bodywork, including operating fluids such as greases, oils and coolants;
- the **standard equipment**, i.e. all equipment items that are included as standard in the factory-fitted scope of delivery;
- the fresh water tank filled to 100 % in driving mode (driving fill according to manufacturer's specifications;) and an aluminium gas cylinder filled to 100 %;
- the **fuel tank**, which is 90 % full, including fuel;
- the driver, whose weight – regardless of the actual weight – is generally specified as 75 kg in accordance with EU law.

Information on the **mass in running order** can be found for each model in our sales documents. It is important to note that the value for **mass in running order** given in the sales documents is a default value determined in the **type-approval procedure** and verified by the authorities. It is legally permissible and possible for the **mass in running order** of the vehicle delivered to you to deviate from the nominal value stated in the sales documents. The legally permissible **tolerance** is $\pm 5\%$. In this way, the EU legislator accounts for the fact that certain fluctuations in the **mass in running order** occur due to variations in the weight of supplied parts as well as due to processes and weather conditions.

These weight deviations can be illustrated by means of an example calculation:

- **Mass in running order** acc. to sales documents: 2,850 kg
- Legally permissible **tolerance** of $\pm 5\%$: 142.50 kg
- Legally permissible range of **mass in running order**: 2,707.50 kg to 2,992.50 kg

The specific range of permissible weight deviations can be found for each model in the technical data. Dethleffs makes great efforts to reduce weight variations to the minimum that is unavoidable for production reasons. **Deviations** at the upper and lower end of the range are therefore very rare; however, they cannot be completely ruled out technically, even

with all optimisations. The real weight of the vehicle and compliance with the permissible **tolerance** is therefore checked by Dethleffs by weighing each vehicle at the **end of the line**.

3. Mass of the passengers

The **mass of the passengers** is set a standard value of 75 kg for each seat provided by the manufacturer, regardless of the actual weight of the passengers. The **mass of the driver** is already included in the **mass in running order** (see no. 2 above) and is therefore not included again. In the case of a **motorhome** with four **permitted seats**, the **mass of the passengers** is therefore $3 \cdot 75 \text{ kg} = 225 \text{ kg}$.

4. Optional equipment and actual mass of the vehicle

Optional equipment (also: additional equipment) includes, according to the legal definition, all optional equipment parts not included in the **standard equipment** which are fitted to the vehicle under the responsibility of the manufacturer – i.e. ex works – and can be ordered by the customer (e.g. awning, bicycle or motorbike carrier, satellite system, solar system, oven, etc.). Information on the individual or package weights of the **optional equipment** that can be ordered can be found in our sales documents. **Optional equipment** in this sense does not include other **accessories** that are retrofitted by the **dealer** or you personally after the vehicle has been delivered ex works.

The **mass of the vehicle in running order** (see no. 2 above) and the mass of the **optional equipment** fitted to a specific vehicle at the factory are together referred to as the **actual mass**. You will find the corresponding information for your vehicle after handover under item 13.2 of the Certificate of Conformity (CoC). Please note that this specification also represents a standardised value. Since the **mass in running order** – as an element of the **actual mass** – is subject to a legally permissible **tolerance** of $\pm 5\%$ (see no. 2), the **actual mass** may also deviate accordingly from the stated nominal value.

5. Pay-mass and minimum pay-mass

The installation of optional equipment is also subject to technical and legal limits: Only so much optional equipment can be ordered and fitted at the factory that sufficient free weight remains for baggage and other accessories ("pay-mass") without exceeding the technically permissible maximum laden mass. The pay-mass is calculated by subtracting the mass in running order (nominal value according to sales documents, see no. 2 above), mass of the optional equipment and the mass of the passengers (see no. 3 above) from the technically permissible maximum laden mass (see no. 1 above). The EU regulations stipulate a fixed minimum pay-mass for motorhomes, which must remain as a minimum for baggage or other non-factory-fitted accessories. This minimum pay-mass is calculated as follows:

Minimum pay-mass in kg $\geq 10 \cdot (n + L)$

Where: "n" is the maximum number of passengers plus the driver and "L" is the overall length of the vehicle in metres.

For a motorhome with a length of 6 m and 4 approved seats, the minimum pay-mass is therefore e.g. $10 \text{ kg} \cdot (4 + 6) = 100 \text{ kg}$.

To ensure that the **minimum pay-mass** is maintained, there is a maximum combination of **optional equipment** that can be ordered for each vehicle model. In the above example with a **minimum pay-mass** of 100 kg, the total mass of **optional equipment** for a vehicle with four **permitted seats** and a **mass in running order** of 2,850 kg should not exceed 325 kg:

3,500 kg	technically permissible maximum laden mass
- 2,850 kg	mass in running order
- 3*75 kg	mass of the passengers
- 100 kg	minimum pay-mass
= 325 kg	maximum permissible mass of optional equipment

It is important to note that this calculation is based on the default value for **mass in running order** as defined in the **type-approval procedure**, without taking into account the permissible weight deviations for **mass in running order** (see no. 2 above). If the maximum permissible value for the **optional equipment** of (in the example) 325 kg is almost or completely exhausted, an upward weight deviation can therefore result in the **minimum pay-mass** of 100 kg being met mathematically using the default value for the **mass in running order**, although in fact there is no corresponding **load capacity**. Here, too, an example calculation for a vehicle with four seats, whose real weighed **mass in running order** is 2 % above the nominal value:

3.500 kg	technically permissible maximum laden mass
- 2.907 kg	real weighed mass in running order (+ 2 % compared to the stated value of 2,850 kg)
- 3*75 kg	mass of the passengers
- 325 kg	optional equipment (maximum permissible value)
= 43 kg	actual load capacity (< minimum pay-mass of 100 kg)

In order to avoid such a situation, Dethleffs further reduces the maximum permissible weight of the total **optional equipment** that can be ordered on a model-specific basis. The limitation of **optional equipment** is intended to ensure that the **minimum pay-mass**, i.e. the legally prescribed free mass for **baggage** and retrofitted **accessories**, is actually available for the **vehicle load capacity** of the vehicles delivered by Dethleffs. Since the weight of a specific vehicle can only be determined when it is weighed at the **end of the line**, in very rare cases a situation may arise in which the **minimum pay-mass** at the **end of the line** is not guaranteed, despite this limitation of **optional equipment**. In order to guarantee the **minimum pay-mass** even in these cases, Dethleffs will check together with your **trade partner** and you before delivery of the vehicle whether, for example, the vehicle is loaded up, seats are reduced or **optional equipment** is removed.

6. Effects of tolerances of the mass in running order on the pay-mass

Regardless of the **minimum pay-mass**, you should note that unavoidable production-related fluctuations in the **mass in running order** – both upwards and downwards – have a mirror-image effect on the remaining **load capacity**: If you order our example vehicle (see no. 3. above), for example, with **optional equipment** with a total weight of 150 kg, the calculated **pay-mass** based on the default value for the **mass in running order** is 275 kg. The **load capacity** actually available may deviate from this value due to **tolerances** and may be higher or lower. If the **mass in running or-**

der of your vehicle is, for example, permissibly 2 % higher than stated in the sales documents, the **load capacity** is reduced from 275 kg to 218 kg:

3.500 kg	technically permissible maximum laden mass
2.907 kg	real weighed mass in running order (+ 2 % compared to the stated value of 2,850 kg)
3*75 kg	mass of the passengers
150 kg	optional equipment ordered for the specific vehicle
= 218 kg	sactual load capacity

As a precaution to ensure that the calculated **pay-mass** is actually given, you should therefore take the possible and permissible **tolerances** for the **mass in running order** into account when configuring your vehicle. We also recommend that you weigh the laden **motorhome** on a non-automatic scale before each journey and, taking the individual weight of the **passengers** into account, determine whether the **technically permissible maximum laden mass** and the **technically permissible maximum mass on the axle** are observed.