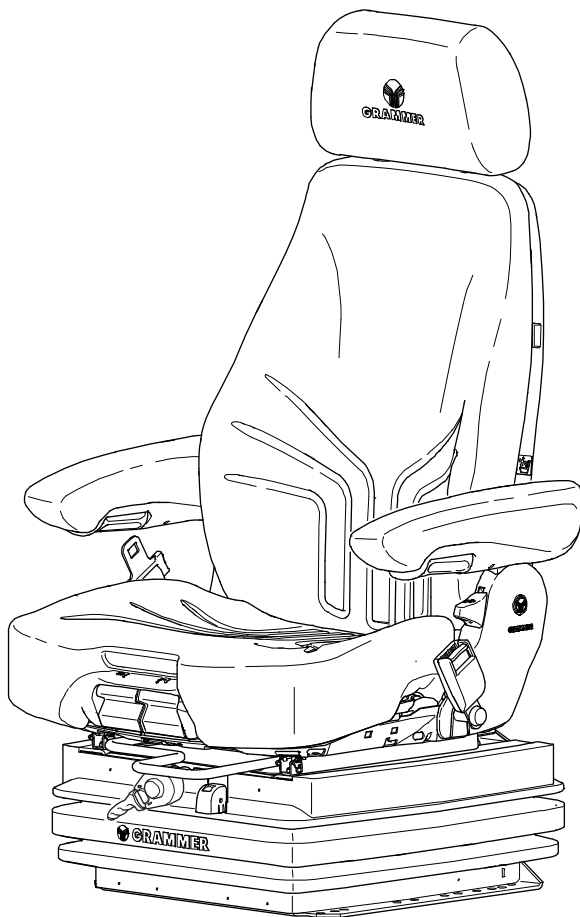


MSG87



GRAMMER AG: *Seating comfort for high demands!*

*You have acquired a **GRAMMER** seat. Congratulations!*

Take your seat please, and enjoy the ultimate in seating comfort and safety. You will be enjoying a driver's seat characterized by user-friendliness and a high degree of adaptability.

With your new driver's seat you are not only preserving your health; you are improving your performance and efficiency as well.

*Have a good trip, with best wishes from
your **GRAMMER** Team*

Imprint

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Amberg, 11/2014



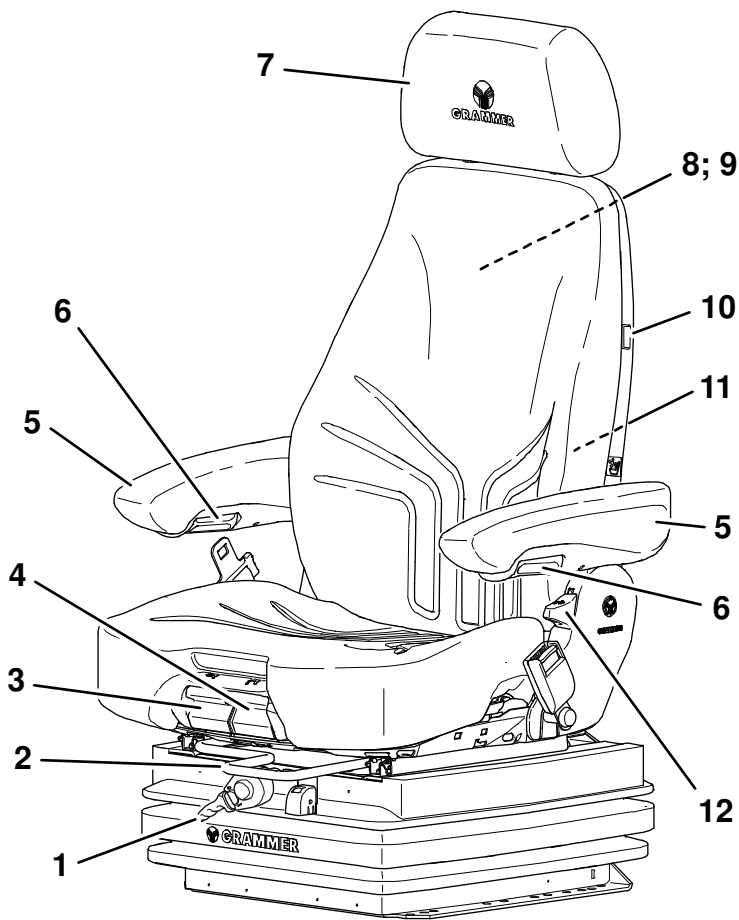


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* if fitted ** depending on model

General instructions

- The operating instructions must be read in full before use.
- The operating instructions must be kept in the vehicle and always be at hand.
- The driver's seat may only be fitted, serviced and repaired by specialist personnel. The respective national regulations and the vehicle manufacturer's fitting instructions must be observed.
The national fitting regulations can be obtained from **GRAMMER** AG or from agencies of the company, or from the vehicle manufacturer.
- Wearing parts such as rollers, absorbers and the fixation must be checked from time to time.
- A correctly functioning and individually adjusted driver's seat is essential to your health. Take adequate care of your seat and have it serviced regularly to ensure that it functions correctly.



The functional checks are to be carried out at least as regularly as vehicle services (see maintenance plan for vehicle).

- These operating instructions should always be kept with the driver's seat. If the seat is passed on to a third party, it must be accompanied by the relevant operating instructions.
- Subject to modifications due to technical progress and to the resulting deviations from the series seat.



Safety instructions

- Driver's seats that have been adjusted incorrectly have a smaller moving area. To prevent personal injury, the weight adjustment must be adjusted to the individual weight of the driver **prior to every commissioning** of the vehicle and **whenever another driver uses the seat**.
- To prevent injury, **no objects** should be placed **within the moving area** of the driver's seat.
- **Before using** the driver's seat remove eventually existing **packaging materials** from seat-and backrest cushions.
- To eliminate any risk of accident, the settings must be checked to ensure they are correctly engaged **before the vehicle is driven**.
- Adjustments must **not be made while driving**. Only touch the lever for setting the fore/aft adjustment at the indented grip provided for that purpose.
– RISK OF CRUSHING –
- When the **backrest cushion has been removed**, the backrest frame must be supported, for example held in place, before the backrest adjuster is operated. If you fail to do so, there is **danger** that the backrest frame may jerk forward and **cause injury**.

Safety instructions

- **Any changes to the series standard** of the seat (for example fitting parts which are not original **GRAMMER** parts) may impair the safety standard to which it has been tested. **Functions may be impaired**, threatening your **safety**. For this reason, **any change in design** of the seat must be approved by **GRAMMER AG**.
- During the removal and installation of the driver's seat, the corresponding instructions by the specific vehicle manufacturer must be strictly observed!
- Do not hold onto the covers for lifting the driver's seats. Disregard **increases the risk of injury due to loosening or breaking** the covers.
- Before you remove the driver's seat, disconnect all plug-in connections between the seat and the vehicle supply network. When you replace the plug-in connectors, make sure they are tight (dust, water).
- Seatbelts are fitted or can be refitted to the driver's seat. Seatbelts may **only be refitted on the approval of the vehicle manufacturer**, as they increase the load in the seat mounting area.
Seatbelts must be refitted in accordance with specific national regulations and guidelines, and must be approved by **GRAMMER AG**.
- Seatbelts must be fastened **before driving**.
The **seatbelts must be replaced** after an accident.
Where seatbelts are fitted to the driver's seat, the **seat and seat mounting** must be checked **additionally** by specialist personnel after an accident has occurred.
- Fasteners must be checked regularly **for tightness**. If the seat wobbles, there may be loose bolts or other faults.
- If you find that the seat does not function correctly (for example a defective suspension of the driver's seat; improper curvature of the lumbar support, etc.) or is damaged (e.g. damaged bellows etc.) **contact a specialist workshop immediately** to arrange for repairs to be carried out.
If you fail to do so, your health may be affected and the **risk of accident is increased**.
- Before the vehicle is used, switches that might be in the seating area (for shutting down mechanical equipment when the driver leaves his/her seat) must be checked for **proper function**.
If malfunctions are detected the vehicle must not be driven.
– **INCREASED RISK OF ACCIDENT** –
- **Loads must not be placed on driver's seats** with a built-in switch, except for the driver's weight during normal use, as the vehicle may otherwise start to move by itself.
– **INCREASED RISK OF ACCIDENT** –
If you take off the weight from the seat while driving, this will cause the vehicle to stop.
- Do not indent the bellows while there is load on the driver's seat.
– **RISK OF CRUSHING** –
- Make sure that the **interior of the driver's seat** remains **free of foreign particles or liquids**.

Safety instructions

- The driver's seat is **not watertight** and must be protected against splashes of water!
- Any conversion or refitting work on a **GRAMMER AG** driver's seat must be performed exclusively **in authorized workshops, by trained or suitably qualified personnel** and in adherence with the applicable operating, maintenance and installation instructions as well as in compliance with all relevant national regulations.
- **Improper installation and assembly** bear the risk of **bodily injury** or **property damage** and the proper function of the driver's seat or mounted parts can no longer be guaranteed.
- **Before driving**, check whether all selected seat adjustments allow **safe operation** of the vehicle.
- If a **seat heater is fitted**, the seat and backrest cushions must not be exposed to excessive amounts of liquid. Minimal quantities of liquids (e.g. sweat, spilled drinks, cleaning agents, etc.) are harmless as long as the cushions can **dry immediately**. In any case, the upholstery must not be soaked through.

WARNING: Prolonged contact with liquids reduces the service life of the seat heater and can cause a short-circuit (fire hazard).

- If **heavy objects** are placed on the seating area or if **pointed objects** pierce the cushions, the **seat heater may be destroyed**.

WARNING: Except for the driver's weight during normal use, do not place heavy or pointed objects on the seating area.

Connecting data

- If you need to connect cables to the vehicle supply network, strictly observe the following instructions:

Before you connect an **electrical consumer** fitted in the driver's seat (e.g. the seat heater or the seat ventilation), you must obtain the relevant electrical data for the respective vehicle with reference to voltage, protection and the kind of connections from the manufacturer, from **GRAMMER AG** or the company's agencies.
For safety reasons, the installation and connection to the vehicle supply network must be carried out by authorized specialist personnel only.

The seat connections must be protected independently of other vehicle components.

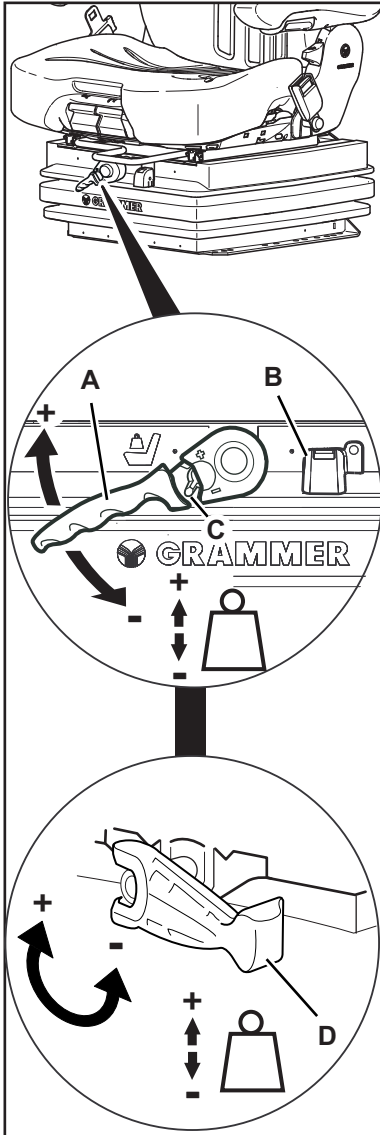
DC	Seat heater
12V	10A
24V	4A

For building an electric connection, select an electric circuit by means of which the electric consumers of the driver's seat are separated from the live network when **the ignition is switched off**.

Warranty and liability

- **GRAMMER AG** does not extend any guarantee or accept any liability for damage resulting from incorrect assembly, use or repair of the driver's seats.
- Further details on the claims admitted by **GRAMMER AG** are stated in your contractual documents (see invoice or delivery note). Claims against **GRAMMER AG** other than the claims described there are excluded.

Seat functions and operation



Weight and height adjustment

With socket wrench (A) * **:

The seat has to be adjusted for the driver's weight and height by tilting the handle (+) up or down (-) with the driver not sitting on the seat.

The rotational direction is reversed by toggling the ratchet with the switch (C).

The driver's weight and the seat height are adjusted correctly when the green marking is completely visible in the indicator window for weight and height (B).

The height can be adjusted individually as long as the green marking is visible.

With spanner (D)* **:

The seat has to be adjusted for the driver's weight and height by turning the handle clockwise (+) or counterclockwise (-) with the driver not sitting on the seat.

The driver's weight and the seat height are adjusted correctly when the green marking is completely visible in the indicator window for weight and height (B).

The height can be adjusted individually as long as the green marking is visible.

🔧 To prevent damage to the health and material, the setting for the driver's weight must be checked and adjusted individually before the vehicle is driven.

WARNING:

For seat models without weight and height indication (B), the driver's weight and height is adjusted correctly when the vehicle pedals are within easy reach and the upper or lower height limit stop is not permanently hit.

* if fitted ** depending on model

Seat functions and operation

Fore/aft adjustment

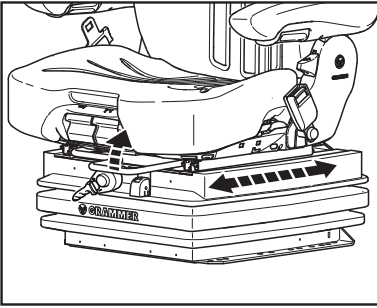
The fore/aft adjustment is released by lifting the locking lever.



Warning! Risk of accident!
Do not operate the locking lever while driving.

☞ After the adjustment, the locking lever must latch into the desired position with an audible click. It should not be possible to move the driver's seat into another position when it is locked.

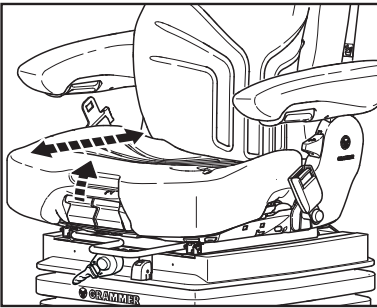
☞ Do not lift the locking lever with your leg or calf.



Seat depth adjustment

The depth of the seat pan can be individually adjusted.

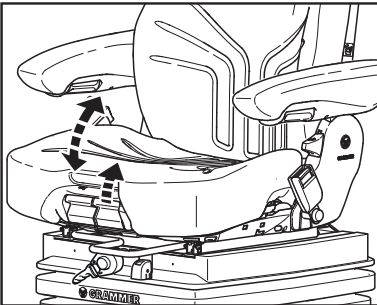
To adjust the depth of the seat cushion, pull the right handle upwards. By moving the seat pan backwards or forwards the desired seating position can be reached.



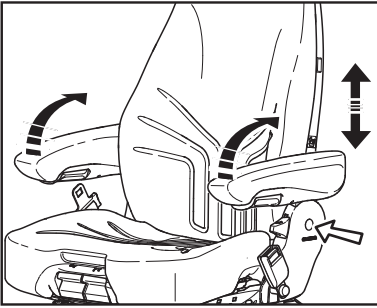
Seat pan angle adjustment

The angle of the seat pan can be individually adjusted.

To adjust the angle of the seat pan, pull the left handle upwards. By exerting pressure on or off the front or rear part of the seat pan it can be moved to the desired angle position.



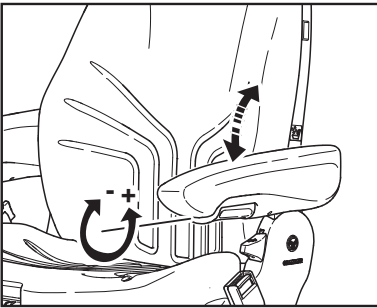
Seat functions and operation



Armrests

The armrests can be folded up if required and the height can be individually adjusted.

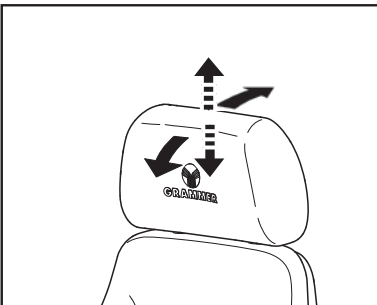
To adjust the armrest for height, separate the round cap (see arrow) from the cover and loosen the hexagon nut (size 13mm) behind it. Adjust the armrests to the desired position (5 steps) and tighten the nut again (**25Nm**). Replace the cap onto the nut.



Armrest adjustment

The inclination of the armrest can be modified by turning the adjustment knob.

When turning the knob to the outside (+), the front part of the armrest will be lifted; when turning the knob to the inside (-), it will be lowered.



Headrest

The headrest can be individually adjusted for height by pulling it upward over the various increments up the end stop.

By pushing forwards or rearwards the angle of the headrest can be adjusted individually.

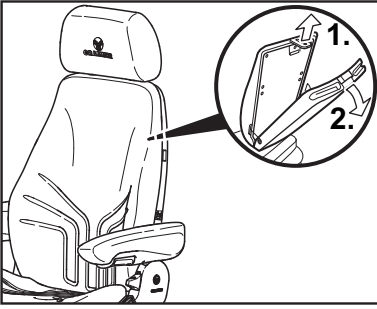
To remove the headrest, pull it over the end stop.

Seat functions and operation

Storage box * **

The storage box is placed on the rear side of the backrest.

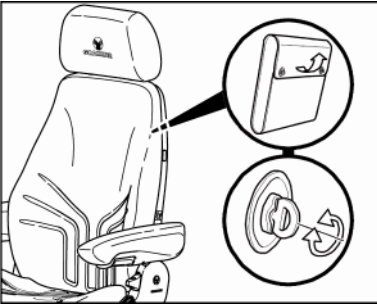
To open the storage box, first pull the fixing lug upwards (1.) and then unfold the cover of the storage box (2.).



Document box * **

The document box is placed on the rear side of the backrest.

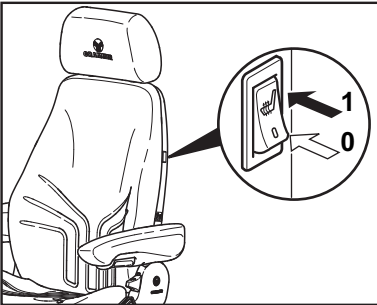
To open the document box, first twist the turn lock closures 90° to the left or the right and then fold the cover of the document box upwards.



Seat heater * **

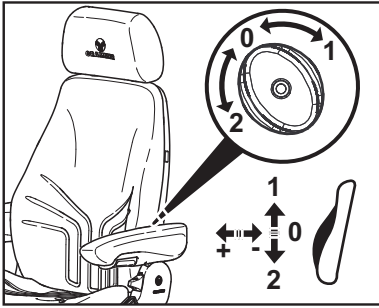
The seat heater can be turned on/off by pressing the switch.

0 = seat heater OFF
1 = seat heater ON



* if fitted ** depending on model

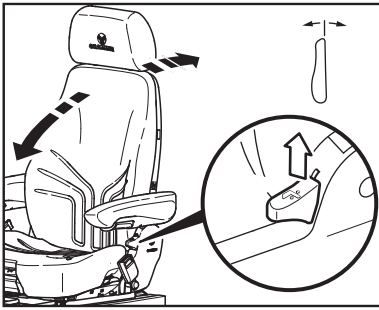
Seat functions and operation



Lumbar support

By turning the adjustment knob to the left (2) or right (1), both the height and curvature of the backrest cushion can be individually adjusted.


This increases both the seating comfort and the performance of the driver.



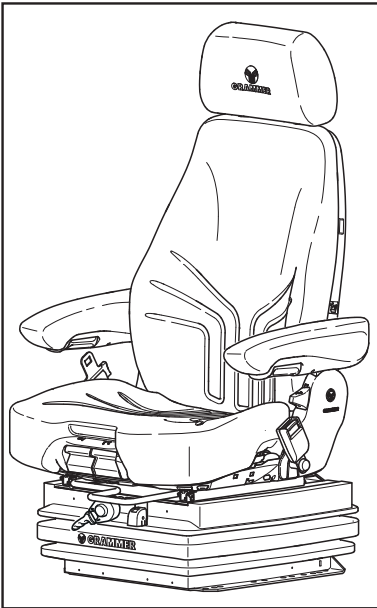
Backrest adjustment

Pull up the locking lever to release the backrest catch. When releasing the backrest, do not load the backrest by pressing against it.

By exerting pressure on or off the front or rear part of the seat pan it can be moved to the desired position. Release the locking lever to lock the backrest.

 It should not be possible to move the backrest into another position after it has been locked.

Maintenance



Dirt can impair the function of the seat, so make sure you keep your seat clean!

Upholstery does not need to be removed from the seat frame for cleaning.



Caution: take care with the backrest - it may jerk forward and cause injury!

When cleaning the backrest cushion, the backrest must be held in place when operating the backrest lever.

WARNING: Do not clean the seat with a pressure washer!

During cleaning, the upholstery must not be soaked through.

Use standard commercially available **upholstery or plastics cleaning agent. Test first for compatibility** on a small, concealed area.

