MSG65





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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 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

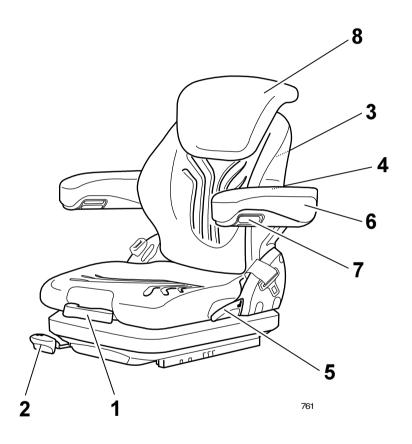
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Amberg, 02/2004





Operating Instructions

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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.
- 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 serving engineering progress and deviations compared to the standard type seat arising therefrom.



Safety instructions

- Driver's seats that have been adjusted incorrectly have a smaller moving area.
 In order to prevent any personal injury, the seat must be adjusted for the driver's weight before use and before every change of driver.
- To prevent injury, no objects should be placed within the moving area of the driver's seat.
- Before commissioning of the driver's seat, possible packaging material has to be removed from the seat cushion and the backrest upholstery.
- 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 handle for setting the fore/aft adjustment at the indented grip provided for that purpose (do not put your whole hand around it).
 - RISK OF CRUSHING -
- After removal of the backrest upholstery, 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 a 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 AG 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. If you do so anyway, there is an increased risk of injury due to loosening or breaking 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 retrofitted to the driver's seat. Seatbelts may only be fitted
 on the approval of the vehicle manufacturer, as they increase the load in the seat
 mounting area.
 - Seatbelts must be fitted 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 tight seat. If the seat wobbles, there may be loose bolts or other faults.
- If you notice that the seat does not function correctly (for example a defective suspension
 of the driver's seat; improper curvature of the lumbar support or damaged bellows),
 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 increased.
- Before the vehicle is used, switches that might be in the seat (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 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 and 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 quaranteed.
- The driver's seat is free of maintenance. Worn parts such as rollers, shock absorbers
 and the fixation must be checked from time to time.
- Before driving, you must check if all seat settings selected guarantee a safe operation
 of the vehicle.

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.

Seat heater	
12V DC	10A
24V DC	7,5A
48V DC	5A

Seat switch - Current carrying capacity		
12V DC	10mA (min.)	

Notes concerning seat switch: Minimum and maximum current carrying capacity for purely resistive load.

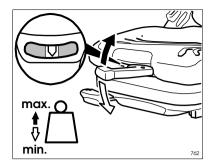
In case of inductive or capacitive load, the manufacturer must install a protective circuit breaker for the consumers in the vehicle. If there are any uncertainties, please ask the vehicle manufacturer before making connections.

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**.

Guarantee and liability

- GRAMMER AG does not disclaim any guarantee or liability for damage resulting from incorrect assembly, use or repair of the seats.
- Further details on the guarantee granted by GRAMMER AG are stated in your contractual documents (see invoice or delivery note). Guarantee claims against GRAMMER AG beyond the guarantee obligations described there are excluded.







Seat functions and operation

Weight adjustment

The seat is adjusted for the driver's weight with the driver sitting on the seat. Fold out the weight adjustment lever completely, hold it at the front and move it upwards or downwards (10 movements from minimum to maximum).

Before every new movement, bring the lever back to the starting position (audible locking sound). The driver's weight has been set correctly, when the arrow is in the middle of the viewing window.

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

When the minimum/maximum has been reached, you can notice an empty movement in the handle.

When you have set the weight, fold the lever completely into the locking.

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.

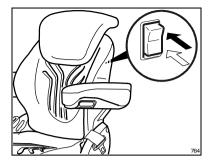
WARNING! Risk of crushing!
Only touch the lever at the
indented grip, do not reach back
under the lever.

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.



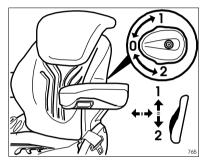
Seat functions and operation



Seat heater * **

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

- 1 = seat heater OFF
- 2 = seat heater ON

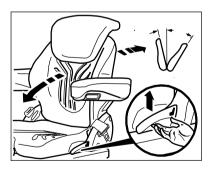


Lumbar support

The lumbar support increases both the seating comfort and the performance of the driver.

By turning the adjustment knob upwards, the curvature in the upper part of the backrest cushion can be adjusted. By turning the knob downwards, the curvature in the lower part of the backrest cushion can be adjusted.

- 0 = No curvature
- 1 = Max. curvature at the top
- 2 = Max. curvature at the bottom.

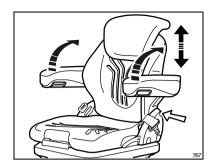


Backrest adjustment

Pull up the locking lever to release the backrest catch. When releasing the backrest catch, do not apply load to 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.



Seat functions and operation

Armrests * **

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

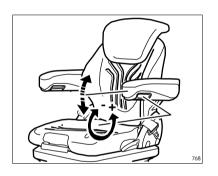
To adjust the armrests for height, separate the round cap (see arrow) from the cover, loosen the hexagon nut (size 13 mm) behind it and adjust the armrests to the desired position (5-steps) and tighten the nut again (25Nm). Replace the cap onto the nut.



WARNING:

If the belt roller is fitted, do not install the armrest in the lowest position as otherwise the belt roller might not function correctly.

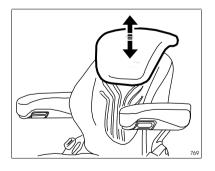
Carry out a functional test of the belt roller.



Armrest adjustment *

The inclination of the armrests 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 inside (-) it will be lowered.



Backrest extension * **

The backrest extension can be individually adjusted by pulling it upwards or pushing it downwards over the various locking increments up the end stop.

To remove the backrest extension, pull it upwards over the end stop.





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.

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

When cleaning the upholstery, make sure the upholstery is not soaked.

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