

Body repair instructions are intended for qualified workers who work conscientiously and accept full responsibility for their work.

The instructions are therefore limited to information and factory-approved repair procedures as well as associated tips and data to make work easier.

*Caution!*

Bearing body parts, engine supports, pillars etc. with sharp-edged buckling which cannot be returned to their original shape "by means of cold straightening" must be replaced.

The described body repair jobs refer to complete or partial replacement of parts with original BMW parts or sections of parts. Necessary straightening and dent removing work must be adapted to the concerned damaged condition. Relevant welded and spot-welded seams must be inspected and repaired when necessary.

The quantity and location of welded spots, inert-gas-welded seams and brazed connections can be taken from the cut-out part. Use inert-gas-plug spot welding for spot-welded connections which are not easily accessible.

Most pictures were taken on an unfinished body shell. Remove or mask all vehicle components in the repair area which could be damaged by heat, flying sparks and dust,

refer to instructions in MG 33.

In spite of continuous control over welding in standard production, there could be isolated cases of faulty welding. Such welding will be subsequently repaired by inert-gas spot welding or 15 mm inert-gas-welded seams on flange end in inaccessible zones. Consequently repaired welding seams on the body do not necessarily indicate repairs carried out by a third party.

Example:

Left-hand engine carrier is resistance-spot welded - right-hand engine carrier is repaired with inert gas welding.

*Caution!*

Steering gear must be checked and, if necessary, replaced after an accident or driving conditions similar to an accident,

refer to SI 32 01 88 (828).

All welded seams sealed off with body sealing compound in original state must be sealed off again thoroughly immediately after repairing. Damaged anti-drumming compound must be replaced.

New sheet-metal parts or cavities, seams, cracks and folds formed by new sheet metal parts must be sealed immediately with a body-sealing compound.

Disconnect negative lead at battery or at body support point,

refer to General Information MG 12.

Protect electric wires against damage and excessive heat.

*Caution!*

Disconnecting the vehicle battery will cancel the fault memories of control units.

Consequently always interrogate fault memories prior to disconnecting car's battery and have the faults printed by the printer of the BMW Service Tester. Investigate stored faults.

Ignition must always be switched off before disconnecting or connecting control-unit connectors.

Removal and installation of components, relays, fuse, etc. could cause the storage of faults in fault memories of control units capable of self-diagnosis. For this reason, fault memories must always be interrogated after working on the electrical system.

Stored faults must be investigated and cancelled.

On vehicles with airbag systems, follow relevant instructions, refer to MG 32 and MG 72.

Conform with fire and accident prevention regulations!

When welding while control units are installed, observe the following instructions:

- Disconnect battery ground wire(s) and cover up negative terminal,
- If welding is performed near the battery/batteries, remove it/them (flying sparks, combustion of explosive gas),
- Position return flow clamp of welding unit as close as possible to the welding point and establish a good conducting link to the body (i.e. not on rubber mount or similar item), max. distance approx. 1 m,
- Never use a ground pin at which wires have been secured as a ground point for a welding tool (if this is the only point available, first remove all wires and protect thread with a nut).
- Otherwise, especially for inert gas welding, watch for heat development (decision required on case-by-case basis).

Vehicle with GPS Navigation System:

After welding work, recalibrate magnetic field sensor, refer to Functional Description in DIS.