Body Repairs - General Information - Complete Panel Replacement/Partial Replacement

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Description and Operation

NOTE: Basic and advanced training is offered for the following contents. For an overview of all training courses offered, please refer to the Ford Service Organisation's training course brochure.
Repairs always mean intervention in the body shell structure and thus also intervention in the vehicle's passive security system.

NOTE: From an economic perspective, the possibility of a partial replacement (sectional repair) must be considered when assessing an accident-damaged vehicle.

Partial Replacement

Item	Description
1	Join area
2	Original welding

Decision criteria

The following are always crucial for the decision:

- How economical the repair is.
- Retention of the original join.

In addition, Ford must have given its approval for a sectional replacement solution in the damaged area. For those partial replacements approved by the factory and described in the model-specific body workshop literature/technician's information, some spare parts (service parts) specially prepared for partial replacements are offered through the spare parts sales department.

Sectional replacement (sectional repair) means the replacement of a section of the body shell structure. Sectional repairs fulfill their purpose above all if the replacement of a complete part is too time-consuming and thus not economical. Approved sectional repairs are clearly defined in the model-specific body literature. These requirements must be complied with.

Separating points at non-load-bearing parts (e.g. outer panels of vehicle body) can be freely chosen as appropriate to the damage symptom/service part. Pay attention to any restraint systems, cables, hoses, etc. beneath the panels. Separating points should not be placed near NVH elements (must be at least 40 mm away). Exceptions as outlined in the vehicle-specific workshop literature.

Depending on the damaged areas, further facts are to be taken into account when deciding for or against partial replacement:

- Severance cuts should be as short as possible.
- The effort for follow-on work on the connections must not be too great.
- It must be possible to reproduce the optical path of visible edges on door openings.
- Inner reinforcement panels must not limit the straightening work.
- Inner reinforcement profiles in the pillar areas must allow for separation.
- The Ford regulations for partial replacements on structural frame sections must be taken into account.
- The large surface welding seams at the connections must be restored.

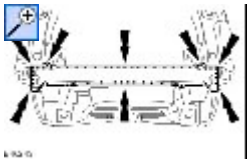
Advantages of a partial replacement

A partial replacement repair offers many advantages for a professional repair of accident damage:

- Repairs can be made both in the outer panel area (e.g. side frame) and in the inner areas (e.g. structural member, trunk floor).
- The repair can be limited to the actual damaged area.
- Reduction of repair costs, as aggregates and other components can usually remain in the vehicle.

Complete replacement

In a complete replacement, the original connections are largely reused.



A complete replacement is advantageous if the damaged body part can be detached from its original connections and a completely new part can be fitted without creating additional joints (e.g. liftgate).

A complete replacement is necessary if there is no sectional replacement solution.