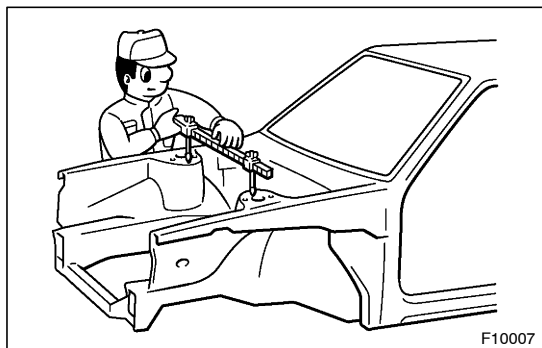


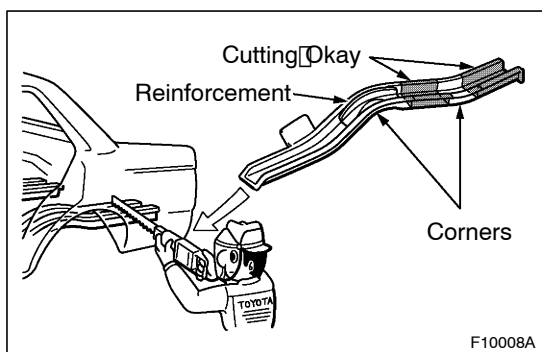
# PROPER AND EFFICIENT WORK PROCEDURES



## 1. REMOVAL

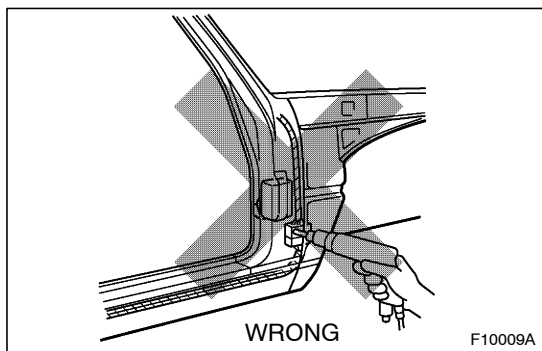
### (a) PRE-REMOVAL MEASURING

- (1) Before removal or cutting operations, take measurements in accordance with the dimension diagram. Always use a puller to straighten a damaged body or frame.



### (b) CUTTING AREA

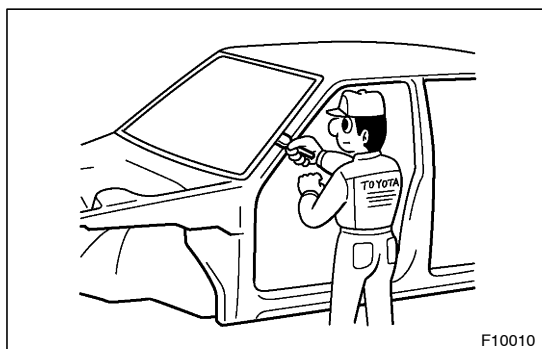
- (1) Always cut in a straight line and avoid reinforced area.



### (c) PRECAUTIONS FOR DRILLING OR CUTTING

- (1) Check behind any area to be drilled or cut to insure that there are no hoses, wires, etc., that may be damaged.

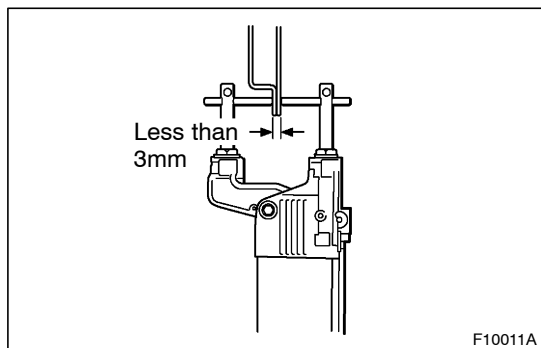
*HINT: See "Handling Precautions on Related Components" on [page N-15](#).*



### (d) REMOVAL OF ADJACENT COMPONENTS

- (1) When removing adjacent components, apply protective tape to the surrounding body and your tools to prevent damage.

*HINT: See "Handling Precautions on Related Components" on [page N-15](#).*

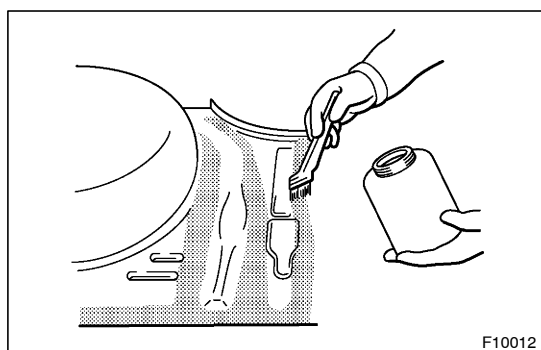


## 2. PREPARATION FOR INSTALLATION

### (a) SPOT WELD POINTS

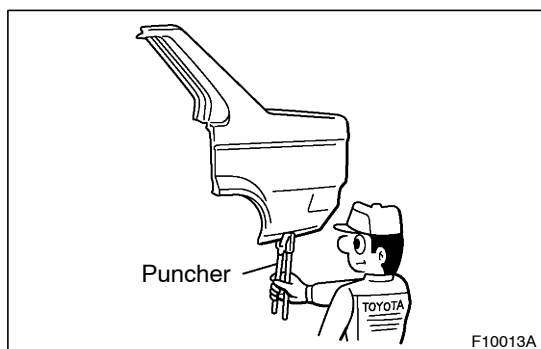
- (1) When welding panels with a combined thickness of over 3 mm (0.12 in.), use a MIG (Metal Inert Gas) welder for plug welding.

HINT: Spot welding will not provide sufficient durability for panels over 3 mm (0.12 in.) thick.



### (b) APPLICATION OF WELD-THROUGH PRIMER (SPOT SEALER)

- (1) Remove the paint from the portion of the new parts and body to be welded, and apply weld-through primer.



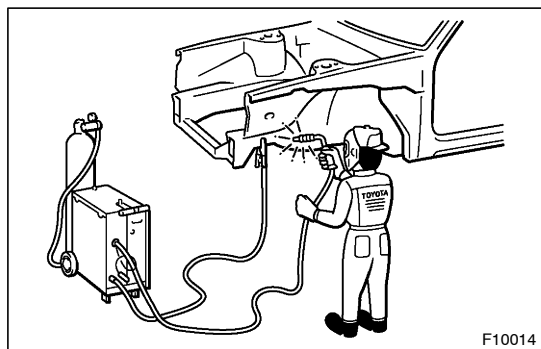
### (c) MAKING HOLES FOR PLUG WELDING

- (1) For areas where a spot welder cannot be used, use a puncher or drill to make holes for plug welding.

#### REFERENCE:

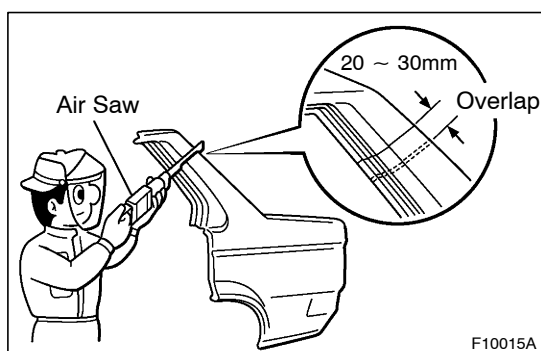
mm (in.)

| Thickness of welded portion | Size of plug hole      |
|-----------------------------|------------------------|
| 1.0 (0.04) under            | 5 (0.20) $\phi$ over   |
| 1.0 (0.04) – 1.6 (0.06)     | 6.5 (0.26) $\phi$ over |
| 1.7 (0.07) – 2.3 (0.09)     | 8 (0.31) $\phi$ over   |
| 2.4 (0.09) over             | 10 (0.39) $\phi$ over  |



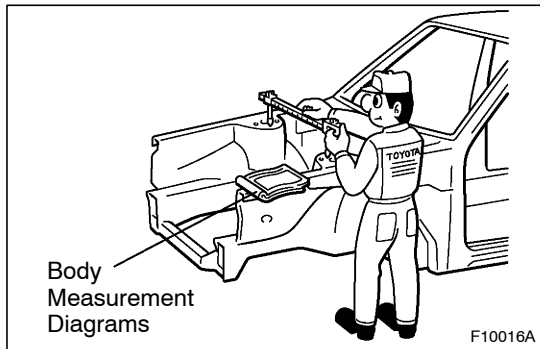
### (d) SAFETY PRECAUTIONS FOR ELECTRICAL COMPONENTS

- (1) When welding, there is a danger that electrical components will be damaged by the electrical current flowing through the body.
- (2) Before starting work, disconnect the negative terminal of the battery and ground the welder near the welding location of the body.



### (e) ROUGH CUTTING OF JOINTS

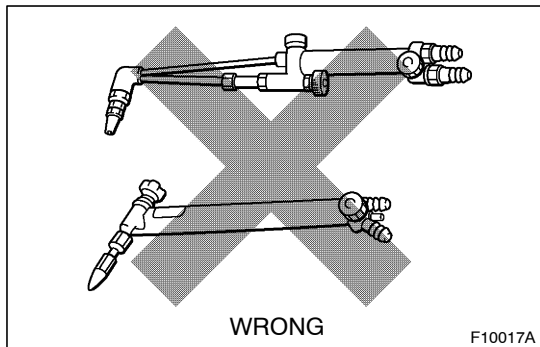
- (1) For joint areas, rough cut the new parts, leaving 20 – 30 mm (0.79 – 1.18 in.) overlap.



### 3. INSTALLATION

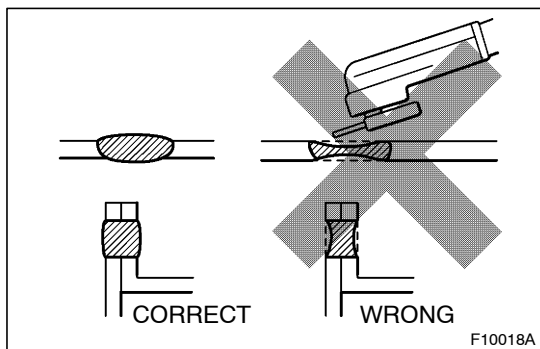
#### (a) PRE-WELDING MEASUREMENTS

- (1) Always take measurements before installing under-body or engine components to insure correct assembly. After installation, confirm proper fit.



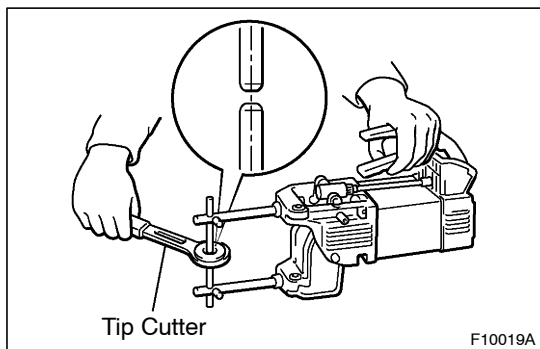
#### (b) WELDING PRECAUTIONS

- (1) The number of welding spots should be as follows.  
Spot weld: 1.3 X No. of manufacturer's spots.  
Plug weld: More than No. of manufacturer's plugs.
- (2) Plug welding should be done with a MIG (Metal Inert Gas) welder. Do not gas weld or braze panels at areas other than specified.



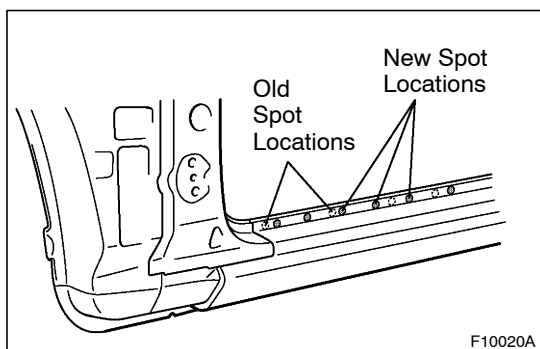
#### (c) POST-WELDING REFINISHING

- (1) Always check the welded spots to insure they are secure.
- (2) When smoothing out the weld spots with a disc grinder, be careful not to grind off too much as this would weaken the weld.



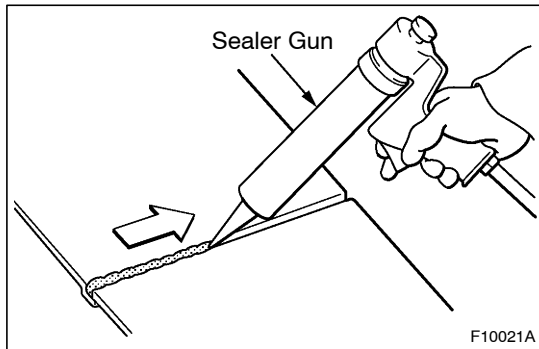
#### (d) SPOT WELD LOCATIONS

- (1) Try to avoid welding over previous spots.



#### (e) SPOT WELDING PRECAUTIONS

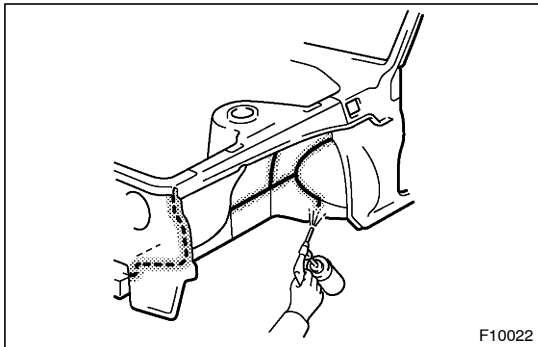
- (1) The shape of the welding tip point has an effect on the strength of the weld.
- (2) Always insure that the seams and welding tip are free of paint.



#### 4. ANTI-RUST TREATMENT

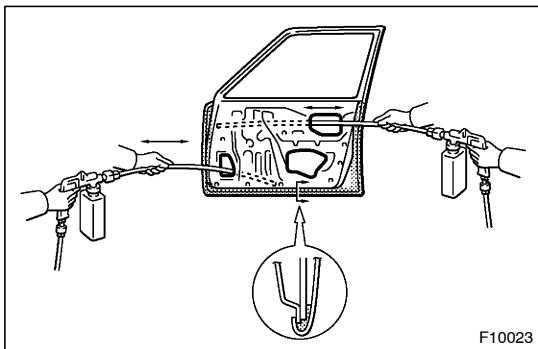
##### (a) BODY SEALER APPLICATION

- (1) For water-proofing and anti-corrosion measures, always apply the body sealer to the body panel seams and hems of the doors, hoods, etc.



##### (b) UNDERCOAT APPLICATION

- (1) To prevent corrosion and protect the body from damage by flying stones, always apply sufficient undercoat to the bottom surface of the under body and inside of the wheel housings.



#### 5. ANTI-RUST TREATMENT AFTER PAINTING PROCESS

##### (a) ANTI-RUST AGENT (WAX) APPLICATION

- (1) To preserve impossible to paint areas from corrosion, always apply sufficient anti-rust agent (wax) to the inside of the hemming areas of the doors and hoods, and around the hinges, or the welded surfaces inside the boxed cross-section structure of the side member, body pillar, etc.

## 6. ANTI-RUST TREATMENT BY PAINTING

### REFERENCE:

Painting prevents corrosion and protect the sheet metal from damage. In this section, anti-chipping paint only for anti-corrosion purpose is described.

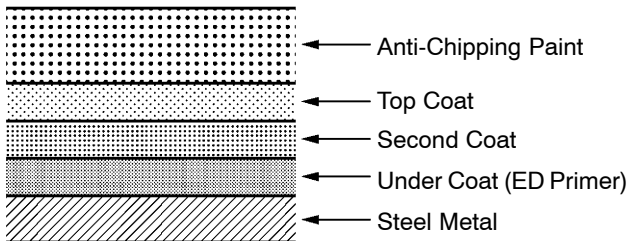
#### (a) ANTI-CHIPPING PAINT

- (1) To prevent corrosion and protect the body from damage by flying stones, etc., apply anti-chipping paint to the rocker panel, wheel arch areas, balance panel, etc.

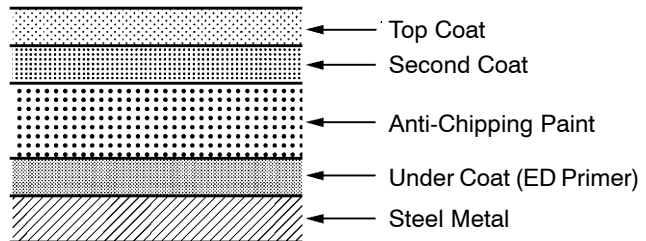
#### *HINT:*

*Depending on the model or the application area, there are cases where the application of anti-chipping paint is necessary before the second coat or after the top coat.*

- Apply the anti-chipping paint after the top coat.



- Apply the anti-chipping paint before the second coat.



F10024A