Examples of Repair Tools

ltem-	Work	Tools, equipment used	
Protective equipment	Operator protection	1. Protective goggles 2. Cap 3. Ear plugs 4. Shield for eyes 5. Overalls with long sleeves 6. Dust-proof mask 7. Protective apron 8. Welding gloves 9. Foot protectors 10. Safety shoes 11. Work gloves 12. Spatter guard	
	Vehicle body protection	Heat-resistant protective cover	
		12	
Processing tools	Edge preparation	DISC GRINDER, DISC SANDER. Air: BELT SANDER Electric: SANDPAPER, FILES	

(cont'd)

Aluminum Alloy Repair

Examples of Repair Tools (cont'd)

Item	Work	Tools, equip	oment used
Processing tools	Plug hole drilling	DRILLING BLADE, DRILL, SPOT CUTTER	
		ROTARY	PUNCH
	e e e e e e e e e e e e e e e e e e e	CUTTER	
Sanding tools	Cleaning	STAINLESS STEEL WIRE BRUSH	SANDPAPER
	·		
		DISC SANDER	BELT SANDER
		5	
	Finishing	Disc grinder, Disc sander, Belt sander, Sandpaper.	
Fixing tools	Base metal fixing	VISE-GRIPS	
	_	SCREW CLAMP	SQUILL VISES
Shaping tools	Skin panel shaping	HAMMERS	DOLLIES/CHISELS
		V All	

NOTE: Use a stainless steel wire brush and sanding tools reserved especially for aluminum alloys. Do not use the same tools for steel sheet.

Grain size for sanding/processing tools and jobs performed.

Tool	Disc paper grain size	Job	
Disc grinder	A36P (grindstone for grinder)	 Roughing of weld reinforcement areas. Roughing of V-shaped edge preparation. 	
Disc sander	#80~#120 (sanding disc)	 Roughing of paint film. Sanding of aluminum alloy surface (oxide film) Finishing of weld reinforcement areas. Finishing of V-shaped edge preparation. 	
Belt sander	#80 or above	Sanding of narrow areas.	
Stainless steel wire brush		Sanding of aluminum alloy surface (oxide film)	

NOTE:

- Use a low-speed disc grinder or disc sander.
- · If a low-speed air-powered disc grinder is not available, attach an air control valve to reduce grinder speed.
- · A double-action sander may also be used.

Cleaning-oxide film removal:

Clean the welding locations throughly (both front and back surfaces).

- Use a wax and grease remover to clean off any dirt, oil or grease.
- Use a disc sander and stainless steel wire brush to remove paint and oxide films. Use a #80 sanding disc.

NOTE: Do not allow the sanding disc of the disc sander to become clogged. If the disc sander is pressed excessively hard, it will overheat due to friction and the aluminum alloy will tend to peel off, clogging the disc. The alloy surface will be scraped and scored if a clogged disc is used.