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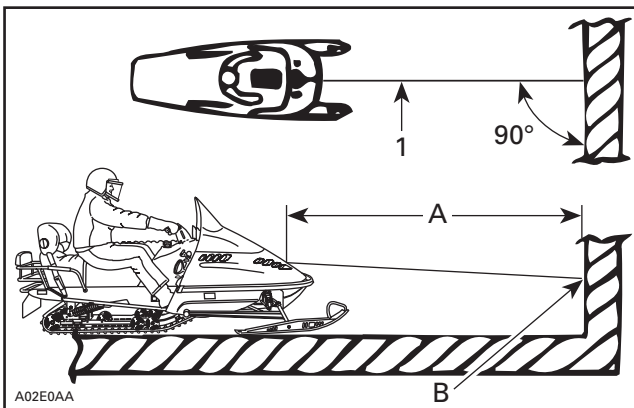
BODY

INSTALLATION AND ADJUSTMENT

HEADLAMP BEAM AIMING

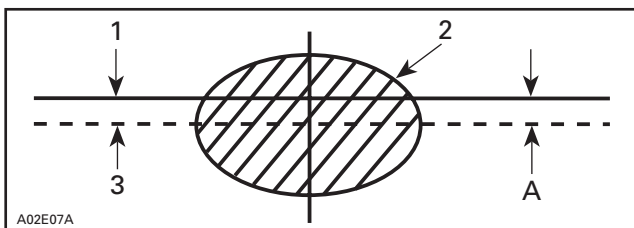
Beam aiming is correct when center of high beam is 25 mm (1 in) below the headlamp horizontal center line, scribed on a test surface, 381 cm (12 ft 6 in) away.

Measure headlamp center distance from ground. Scribe a line at this height on test surface (wall or screen). Light beam center should be 25 mm (1 in) below scribed line.



TYPICAL

1. Headlamp center line
- A. 381 cm (12 ft 6 in)
- B. 25 mm (1 in) below center line



1. Headlamp horizontal
2. Light beam (high beam) (projected on the wall)
3. Light beam center
- A. 25 mm (1 in)

Required Conditions

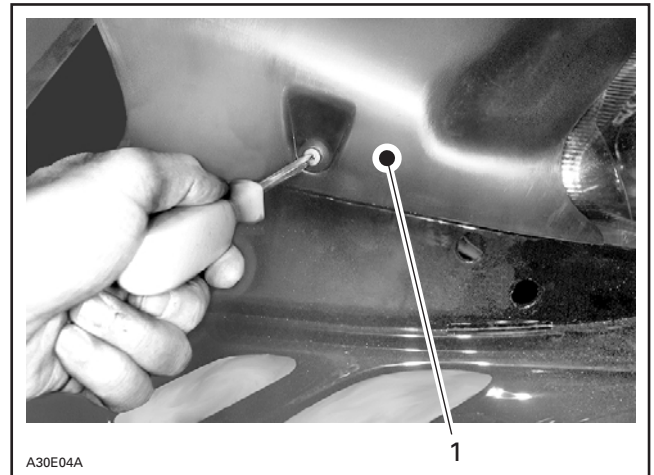
Place the vehicle on a flat surface perpendicular to test surface (wall or screen) and 381 cm (12 ft 6 in) away from it.

Rider or equivalent weight must be on the vehicle.
Select high beam.

BULB REPLACEMENT

Headlamp

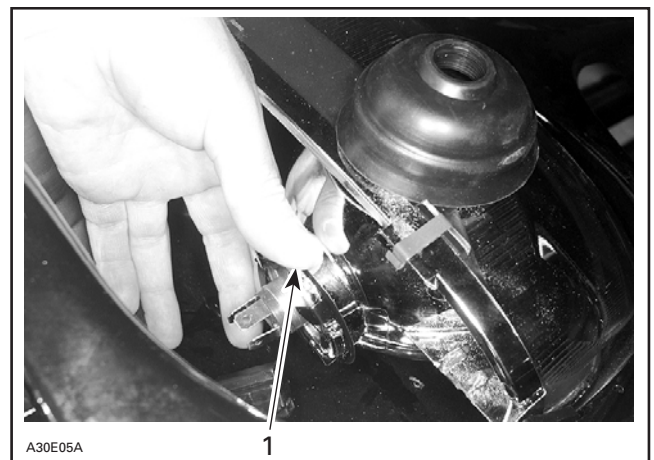
If any headlight bulb is burnt, remove windshield, air filter then, air deflector.



1. Air deflector

Unplug burnt bulb connector. Remove the rubber boot.

Unfasten bulb retainer ring. Detach the bulb and replace. Properly reinstall parts including air filter.



1. Locking ring

CAUTION: Never touch glass portion of an halogen bulb with bare fingers, as it shortens its operating life. If by mistake glass is touched, clean it with isopropyl alcohol which will not leave a film on the bulb.

Section 09 BODY/FRAME

Subsection 02 (BODY)

Taillight

If the taillight bulb is burnt, expose the bulb by removing red plastic lens. To remove, unscrew the 2 retaining screws. Verify all lights after replacement.

DECAL

To remove a decal; heat old decal with a heat gun and peel off slowly.

Using isopropyl alcohol, clean the surface and dry thoroughly.

Apply liquid soap to new decal and carefully position the decal. Using a sponge or a squeegee, remove the air bubbles and surplus water working from the center toward the edges. Allow to air dry.

CAUTION: Do not apply isopropyl alcohol or solvent directly on decals. Use only in a well ventilated area.

WINDSHIELD INSTALLATION

Remove protective film.

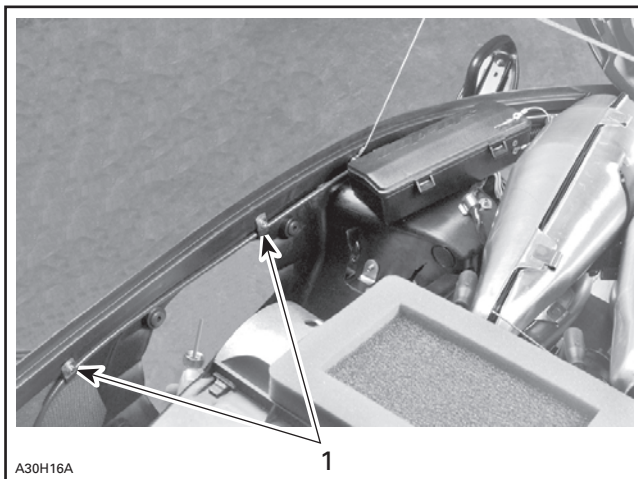
Position the windshield on the hood then push it down until the tabs are fully inserted into the hood slots. Lock the windshield tabs in position.

HOOD

All Models Except Grand Touring SE

Unfasten speedometer cable from angle drive.

Remove clips holding speedometer cable to bottom pan.

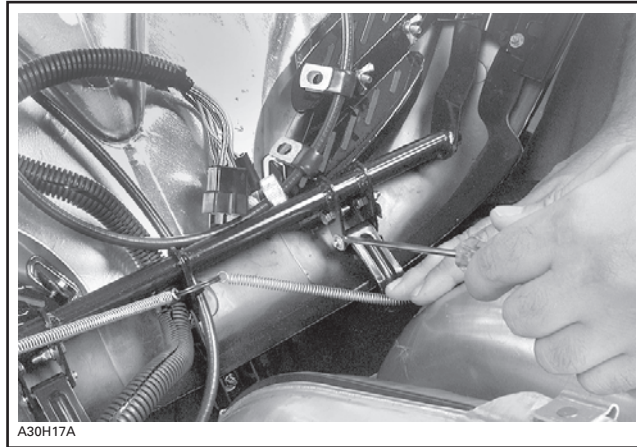


A30H16A

1. Clips

All Models

Remove hinge pin push nuts.



A30H17A

Unplug wiring harnesses then retaining cables.

Remove hinge pins, cables, spring and hood.

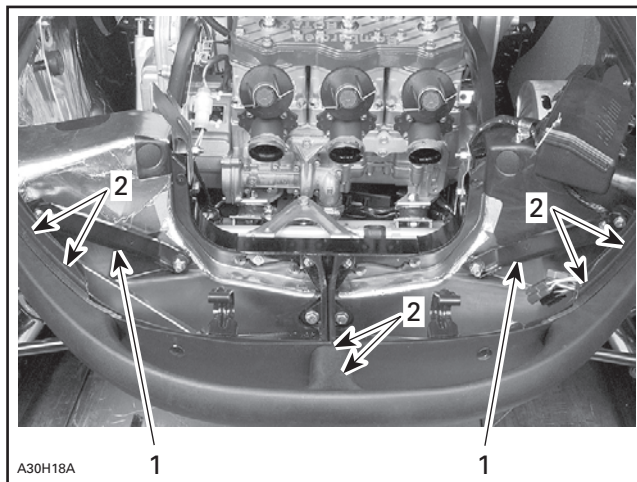
HALF BOTTOM PAN

Remove hood.

Remove tuned pipes and tail pipes. Remove muffler when RH side half bottom pan has to be removed.

Unbolt suspension tower bracket on appropriate side.

Remove 4 screws, 1 nut and 1 rivet retaining front bumper.



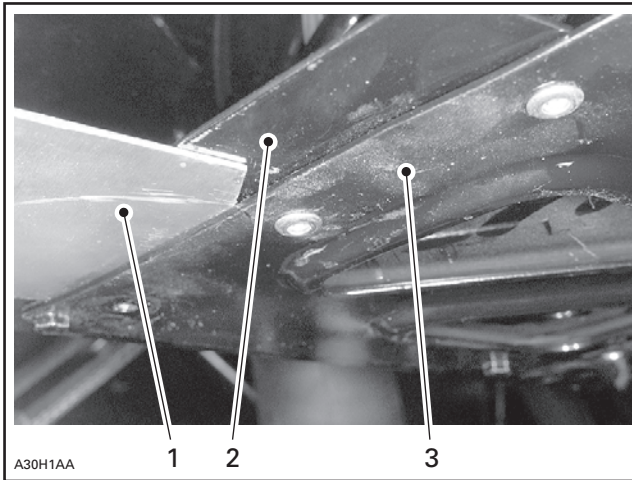
A30H18A

1. Suspension tower bracket
2. Bottom pan screws, nut and rivet

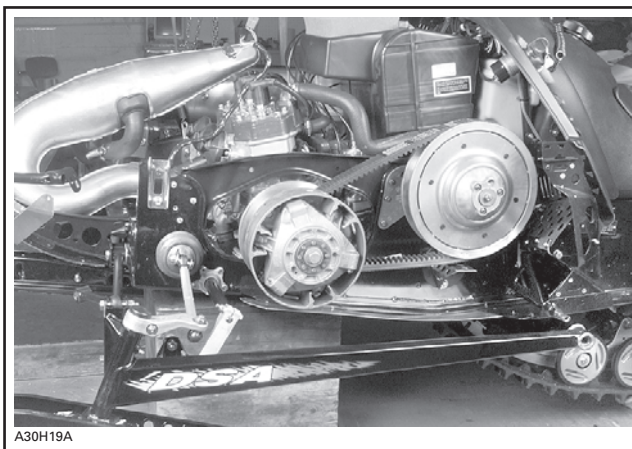
Unfasten swing arm at rear pivot.

Drill all rivets retaining half bottom pan to be removed.

At installation, insert bottom pan protector between tunnel and footrest.

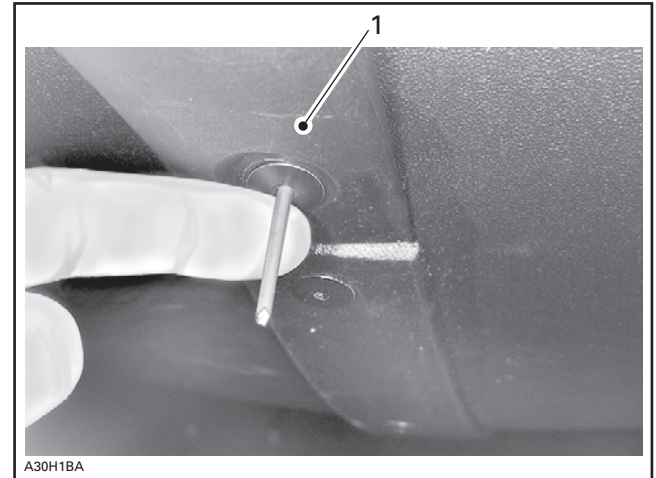


1. Bottom pan protector
2. Footrest
3. Tunnel



VEHICLE READY TO RECEIVE LH SIDE HALF BOTTOM PAN

When riveting bottom pan, do not install front rivet. That rivet is installed with the bumper.



FRONT — SEEN FROM UNDERNEATH

1. Bumper

GUARD

Disassembly and Assembly

NOTE: For additional information (ex.: exploded view) refer to the correspondent parts catalog.

⚠ WARNING

Engine should be running only with guard well secured in place.

Inspection

Check guard mounting bosses, clips and retainers for wear.

WIRING HARNESS

⚠ WARNING

Ensure all terminals are properly crimped on the wires and that all connector housings are properly fastened. Keep wires away from any rotating, moving, heating and vibrating parts. Use proper fastening devices as required.

Section 09 BODY/FRAME

Subsection 02 (BODY)

CABLES

WARNING

Before installation, ensure that all cables are in perfect condition. Properly install the cable ends and secure them in place. Pay attention to route them properly, away from any rotating, moving, heating, or vibrating parts.

PIPING

WARNING

Always ensure that the fuel, vent, primer, impulse, injection oil and rotary valve oil lines are properly fixed to their connectors, that they are not perforated or kinked and that they are properly routed away from any rotating, moving, heating or vibrating parts. Also check for leaks. Replace if required.

NOTE: Refer to proper *Parts Catalog* to find suitable clip part numbers.

PLASTIC MAINTENANCE AND REPAIR

MAINTENANCE

Clean the vehicle thoroughly, removing all dirt and grease accumulation.

To clean use a soft clean cloth and either soapy water or isopropyl alcohol.

To remove grease, oil or glue use isopropyl alcohol.

CAUTION: Do not apply isopropyl alcohol or acetone directly on decals.

CAUTION: The following products must not be used to clean or wax any of the plastic components used on the vehicles:

- gasoline
- brake fluid
- kerosene
- diesel fuel
- lighter fluid
- varsol
- naphtha
- acetone
- strong detergents

- abrasive cleaners
- waxes containing an abrasive or a cleaning agent in their formula.

Apply wax on glossy finish only. Protect the vehicle with a cover to prevent dust accumulation during storage.

CAUTION: If for some reason the snowmobile has to be stored outside it is preferable to cover it with an opaque tarpaulin. This will prevent the sun rays from affecting the plastic components and the vehicle finish.

REPAIR

WARNING

Polycarbonate windshields must never be repaired by welding or otherwise.

WARNING

Material should be repaired and repainted in a well-ventilated area only.

NOTE: When working on a Thermo Plastic Olefin (TPO) surface, never use a grinder or a high revolution tool such as an air or electric buffer. Use of such tools could overheat material and liberate agents in it thus causing a bad adhesion.

REPAIR PROCEDURE FOR HOOD (MADE OF TPO)

Small Scratches

- Sand and scuff area.
- Feather out edges.
- Paint with a matching acrylic auto touch-up paint.

Deep Scratches

Preparation

- Sand and scuff area.
- Make a V groove using a knife or a rough round file.
- Clean surface with isopropyl alcohol or Crest® AS-X or BS-X Super Solv. Allow to dry thoroughly.
- Apply a light coat of Crest AF-S Flex Stik Adhesion Promoter. Allow 10 minutes to dry.
- Apply Crest Formula 21 CF-PR Universal Plastic Repair directly to the repair area. Allow 30 minutes cure time before sanding.

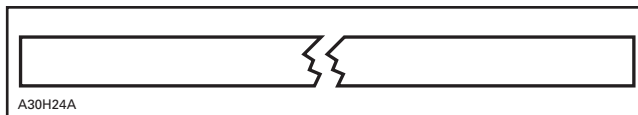
Finishing

- Carefully hand or machine sand with 80 grit paper.
- Cover with TP-E epoxy mixed in equal quantities. Never use polyester fillers over formula 21.
- After 30 minutes, sand with fine 220 or 320 grit paper. Wipe or blow-off area.
- Prep for paint. Apply Crest AF-S Flex Stik to aid in paint adhesion.
- Prime and paint, following manufacturer's recommendations or use Crest Prima Flex and one of Crest's Flexible Bumper Coats AF1-18.

Large Crack

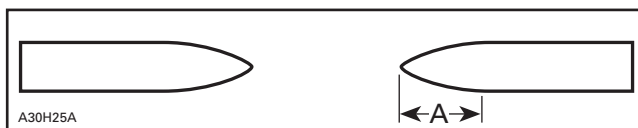
Preparation

- Clean repair area with Crest AS-X or BS-X Super Solv. Allow to dry thoroughly.



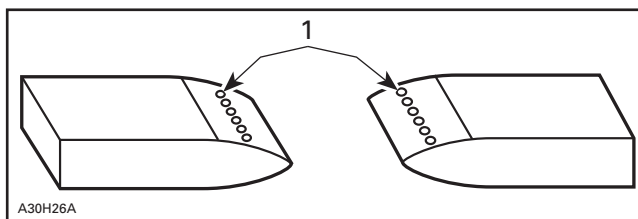
CROSS SECTION OF TORN HOOD

- Restore shape of plastic with heat gun, avoid overheating, let cool.
- Enlarge area to be repaired, bevel, soften edges on both sides. Avoid smearing or melting the plastic.



A. 10 mm (3/8 in)

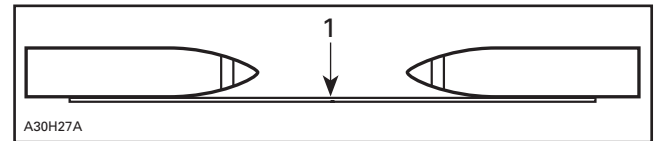
- Drill 3 mm (1/8 in) diameter holes, 10 mm (3/8 in) apart, around beveled edge of repair area.



1. Holes

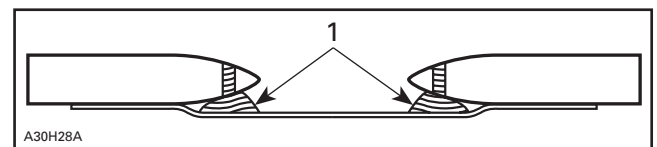
- Scuff the repair area with coarse sandpaper. Clean scuffed area with a clean, dry rag or clean, oil-free compressed air.

- Apply a light coat of Crest AF-S Flex Stik Adhesion Promoter. Allow 10 minutes to dry.
- Install 50 mm (2 in) paper tape Crest no. RPT on rear of repair.

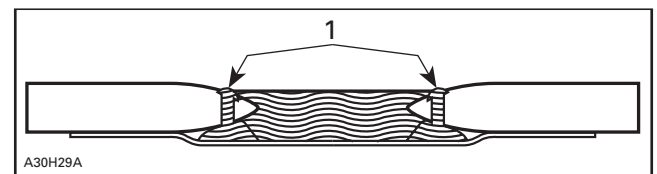


1. Paper tape

- Apply Crest Formula 21 CF-PR Universal Plastic Repair directly to the repair area (to just beyond pinning holes). Allow 30 minutes cure time before sanding.



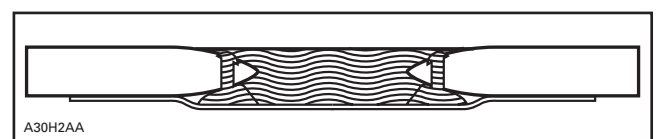
1. Fill area between tape and pinning holes



1. Fill just above pinning holes to form structural base

Finishing

- Carefully hand or machine sand with 80 grit paper.
- Cover with TP-E epoxy mixed in equal quantities. Never use polyester fillers over formula 21.
- After 30 minutes, sand with fine 220 or 320 grit paper. Wipe or blow-off area.
- Prep for paint. Apply Crest AF-S Flex Stik to aid in paint adhesion.
- Prime and paint, following manufacturer's recommendations or use Crest Prima Flex and one of Crest's Flexible Bumper Coats AF1-18.



NOTE: Painting must be done in a dust free area such as a paint booth.

Section 09 BODY/FRAME

Subsection 02 (BODY)

Crest products are available from following locations:

CREST MAIN OFFICE AND MANUFACTURING PLANT	
CREST INDUSTRIES, INC. 3841 13 th Street Wyandotte, Michigan 48192	Phone: 734-283-4100 Toll Free: 1-800-822-4100 Fax: 1-800-344-4461 Fax: 734-283-4461 E-Mail: info@crestauto.com www.crestauto.com

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CREST PRODUCTS, INC. <i>Shipping Address:</i> 125 Production Drive Yorktown, Virginia 23693 Phone: 757-599-6572 Virginia: 1-800-572-5025 Outstate: 1-800-368-5033 Fax: 757-599-6630 <i>Mailing Address:</i> P.O. Box 2018 Grafton, Virginia 23692	CREST MIDWEST REGIONAL BRANCH WAREHOUSES CREST INDUSTRIES, INC. P.O. Box 635 Mountain Home, Arkansas 72653 Phone: 501-491-5583 Toll Free: 1-800-733-2737	WHEEL-IN AUTOMOTIVE SUPPLY <i>Shipping Address:</i> No. 1, 3911A Brandon St. S.E. Calgary, Alberta, T2G 4A7 Phone: 403-287-0775 <i>Mailing Address:</i> P.O. Box 40036 929-42 nd Avenue S.E. Calgary, Alberta, T2G 5G5
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	REM-CO DISTRIBUTING, INC. 5625 S. Adams Tacoma, Washington 98409 Phone: 253-474-5414 Toll Free: 1-800-735-7224 Fax: 253-474-7339	

FRAME

FRAME CLEANING

NOTE: For aluminum frames use only aluminum cleaner and follow instructions on container. (Dursol cleaner or equivalent).

Clean frame and tunnel with appropriate cleaners and rinse with high pressure hose.

Touch up all metal spots where paint has been scratched off. Spray all bare metal parts of vehicle with metal protector.

Seat Cleaning

For all models, it is recommend to clean the seat with a solution of **warm soapy water**, using a soft clean cloth.

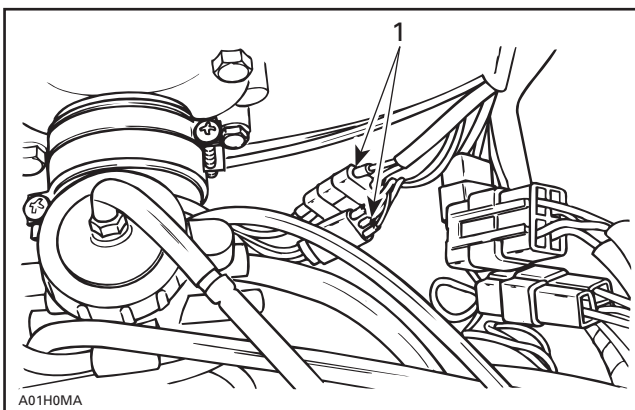
CAUTION: Avoid use of harsh detergents such as strong soaps, degreasing solvents, abrasive cleaners, paint thinners, etc. that may cause damage to the seat cover.

FRAME WELDING

Aluminum Frame
(refer to specialized welding shop)

- argon-oxygen/acetylene welding
- rod: ER-4043 (3/32 in).

CAUTION: Before performing electrical welding anywhere on the vehicle, unplug MPEM. On models equipped with a battery, also unplug the negative cable. This will protect the electronic box and battery against damage caused by flowing current when welding.



TYPICAL

1. Unplug before electrical welding

CAUTION: If welding is to be done near plastic material, it is recommended to either remove the part from the area or to protect it with aluminum foil to prevent damage.

FRAME COMPONENT REPLACEMENT

Drilling Procedure

When drilling self-piercing rivets, use Supertanium™ drill bit (P/N 529 031 800), available in a 5 mm (3/16 in) size and shipped in packs of 2.

For proper drilling instructions and to prevent premature wear, follow the procedure below.

Always use a variable speed electric drill.

Partially drill rivet end — not the rivet head.

Maintain a slow to medium speed at all times when drilling. The proper speed is attained when a constant chip is ejected.

NOTE: To increase bit life, use Bombardier synthetic chaincase oil (P/N 413 803 300) as a cutting oil.

CAUTION: High speed drilling will cause excessive heat which may destroy the cutting edge of the bit, therefore avoid using pneumatic drills.



Remove part riveted.

Punch out rivet head from drilled end.

If rivet is only accessible from head; ground rivet head completely and punch out remaining part of rivet.

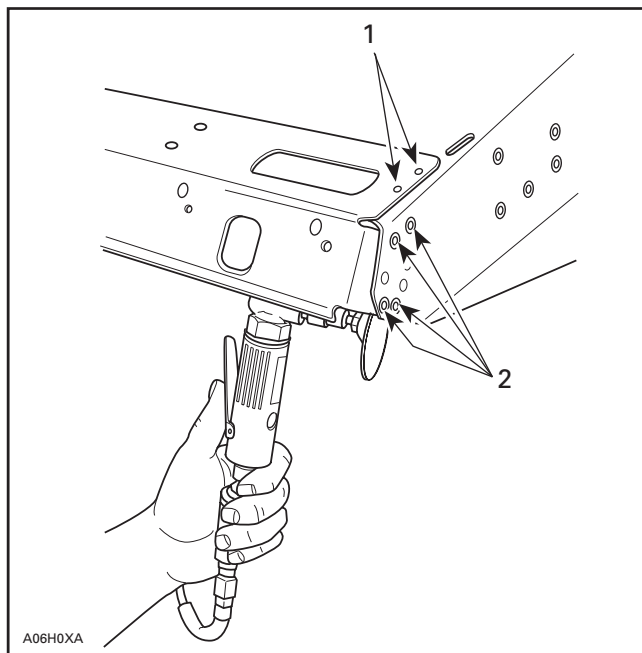
Section 09 BODY/FRAME

Subsection 03 (FRAME)

Grinding Procedure

Rear Cap

Grind rivet heads from top of rear cap and underneath for side retaining rivets.



1. Rivets heads ground
2. Rivets to be ground from underneath

To remove rivet, strike with a punch from rivet head side.

Make a chamfer from underneath on all 4 corner holes.