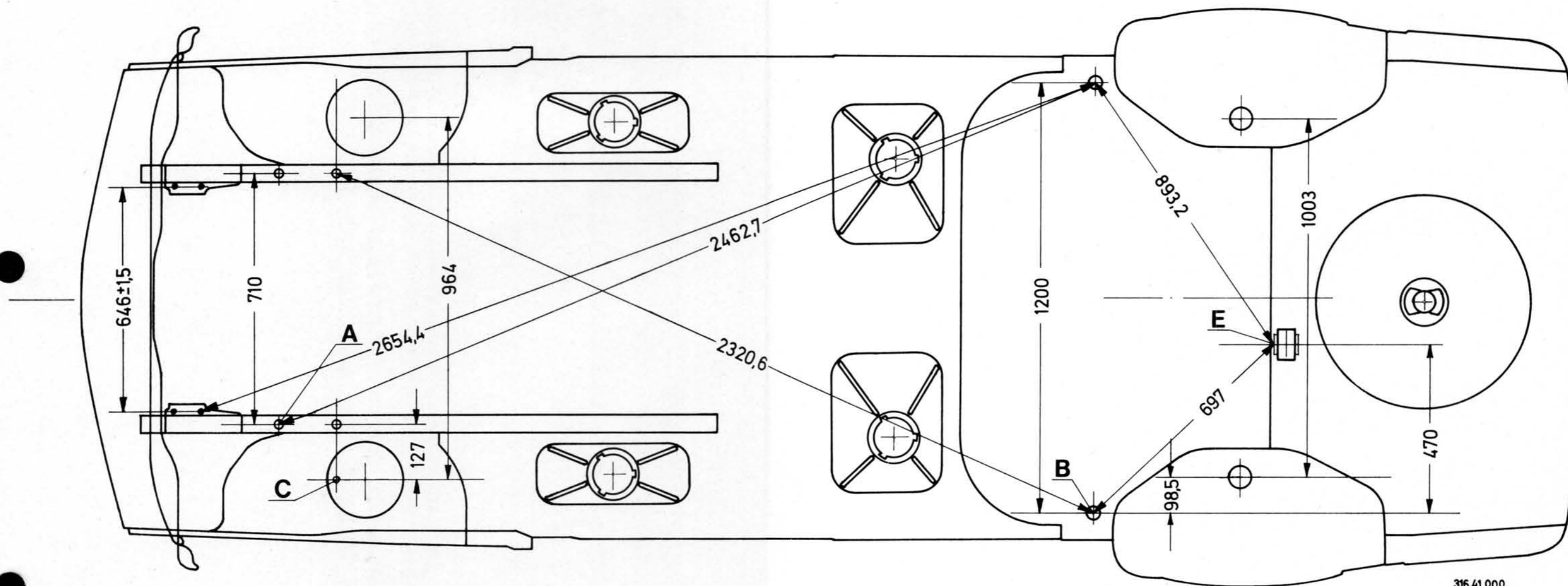
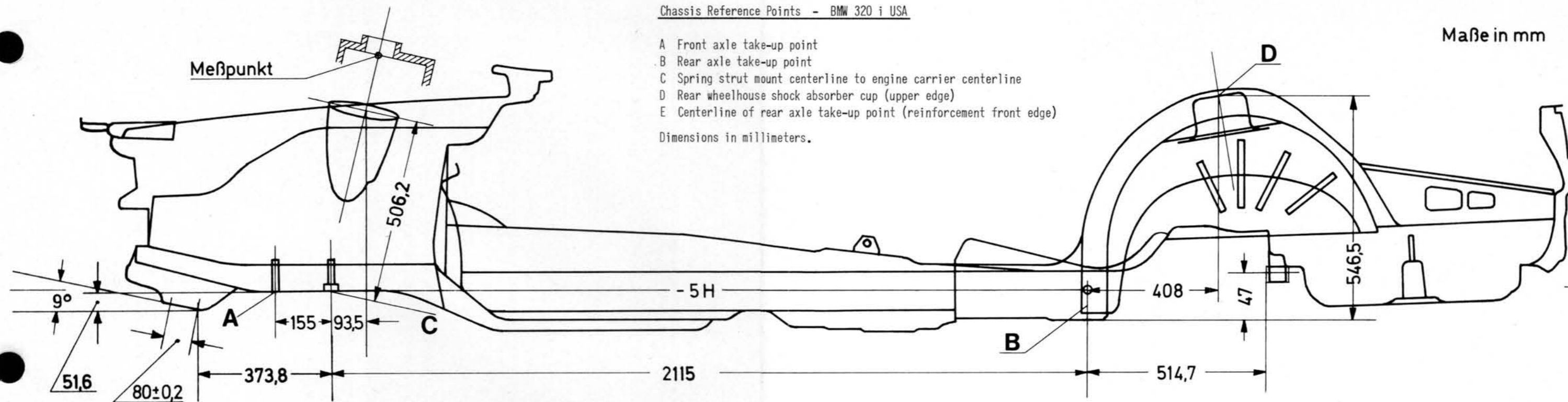


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SPECIFICATIONSBody

	320 i	320 i A
<u>Model</u>		
Overall length	mm (in.)	4508 (177.480)
Overall width	mm (in.)	1610 (63.386)
Overall height (without load)	mm (in.)	1380 (54.331)
<u>Trunk</u>		
Volume	ltr. (cu. ft.)	approx. 460 (16)



41 00 151 REPLACING ENTIRE FRONT END

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove engine hood, both side panels, both front doors, front trim lower section, engine with transmission and front axle, exhaust system, instrument panel trim, steering column, both front seats, battery, fuel and front brake lines, pedal base assembly, windshield washer tank with hose, speedometer shaft, right glove compartment, heater cover plate and rubber seal, engine hood lock release with holder, inner and outer entrance rail cover strips, door edge guards and seals, both inside carpets, rubber mat on inside of fire wall, both rain moldings, both wiper arms, wiper motor with linkage, both spray jets, engine hood lock with cable, distributor box with harness, fire wall noise insulation, both door contact switches and horn.

Fold back carpets in passenger compartment.

Check front and rear axle alignment optically and adjust.

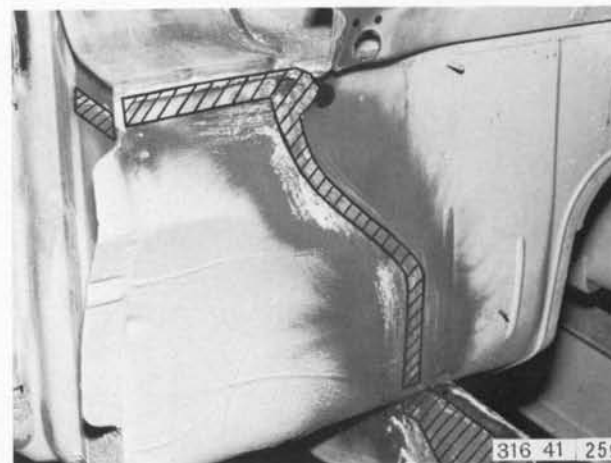
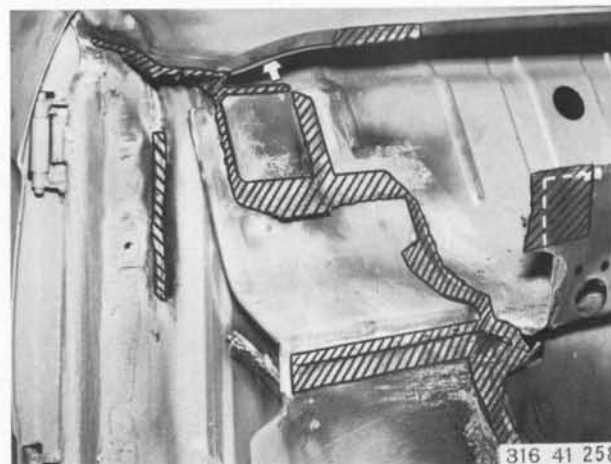
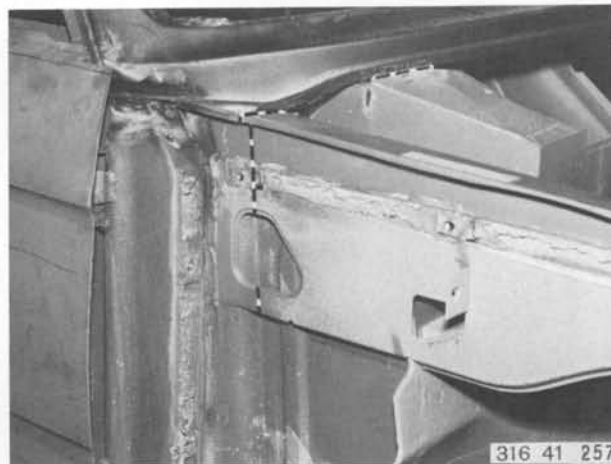
Cover interior of car to protect against flying sparks.

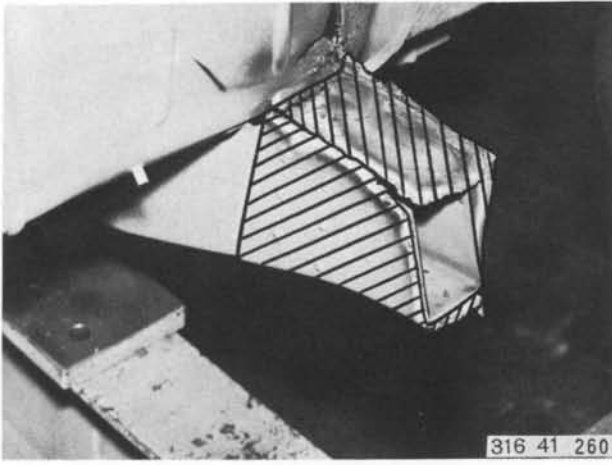
Cut through front end along line.

Cut through front end along line.

Remove scrap metal.

Remove scrap metal.





Remove scrap metal.



Align mating surfaces and grind bright on both sides.

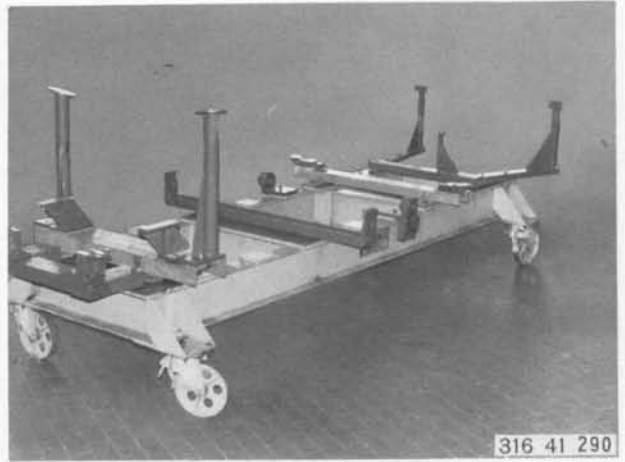


Align mating surfaces and grind bright on both sides.
Coat with zinc powder paint.



Grind mating surfaces of new front end bright on both sides.

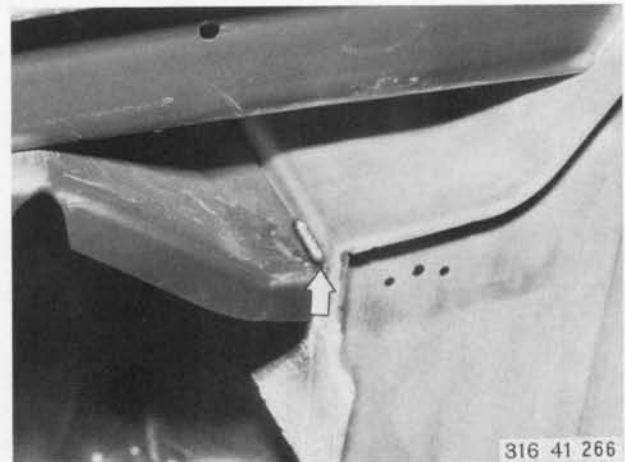
Install car on straightening bench.



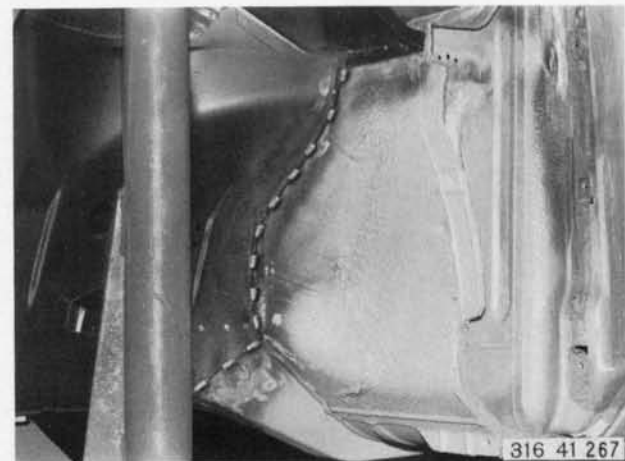
Guide front end onto body and attach fixtures for spring struts, front axle support and stabilizer.



Tack weld front end to fire wall.



Weld wheelhouse to engine carrier and fire wall with shielded arc welder.

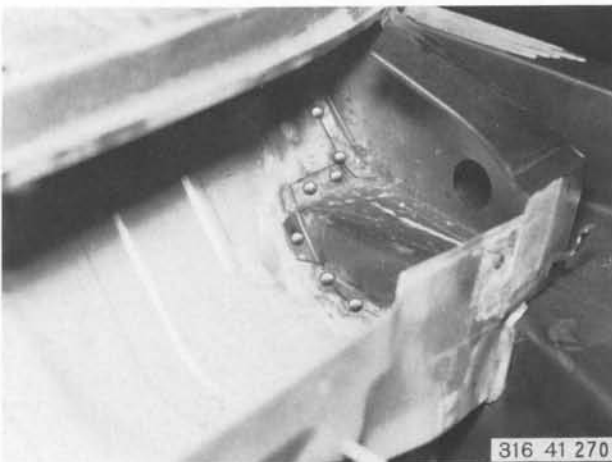




Shield arc weld wheelhouse to fire wall from inside through and through.



Shield arc weld front end to fire wall.

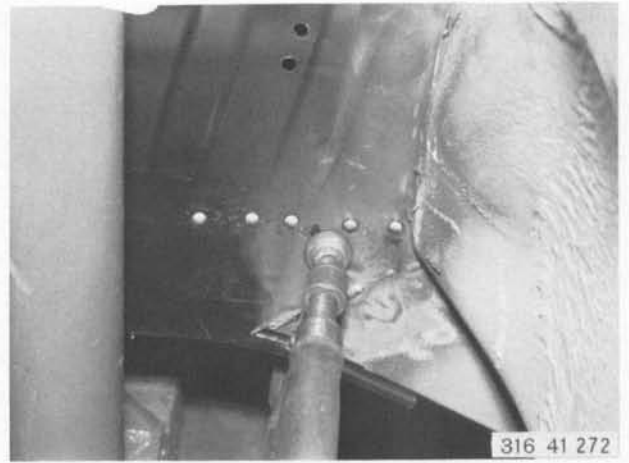


Shield arc weld front end to fire wall.

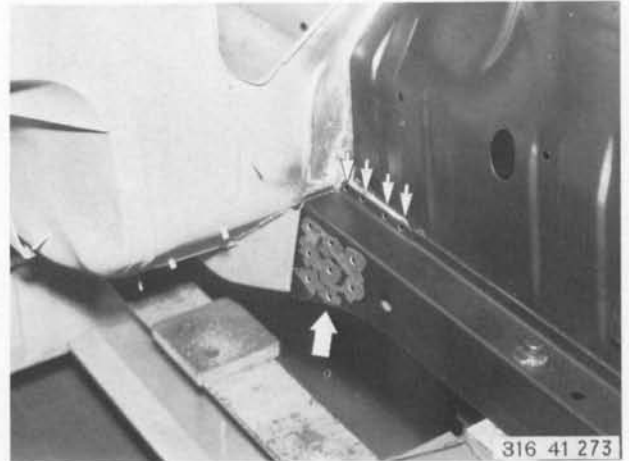


Gas weld (autogenous) land.

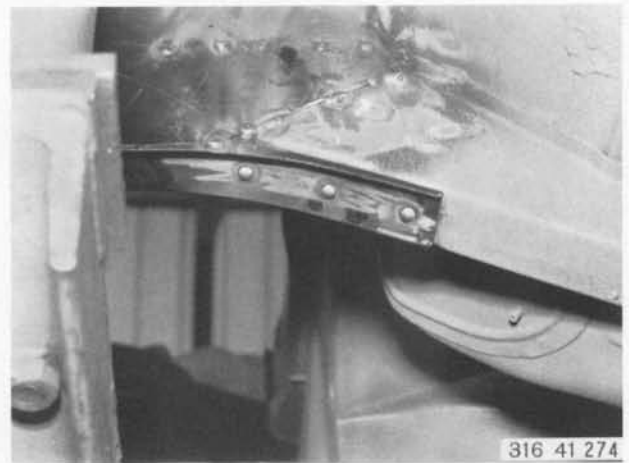
Plug weld wheelhouse to engine carrier with shielded arc welder.



Plug weld engine carrier.
Plug weld wheelhouse to engine carrier with shielded arc welder.

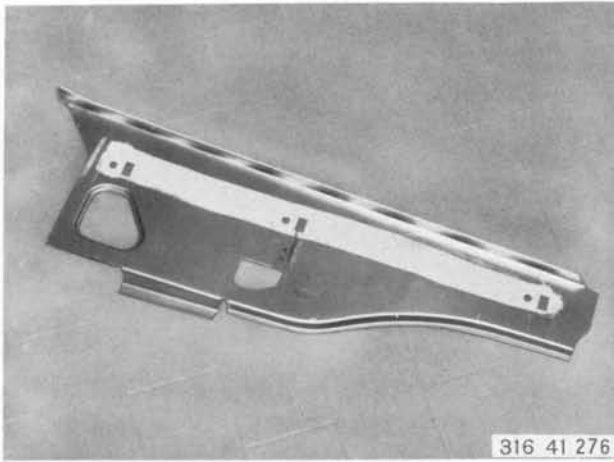


Plug weld engine carrier from below with shielded arc welder.

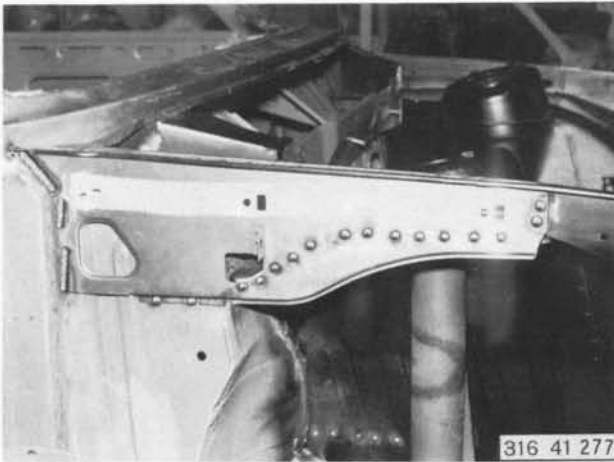


Spot weld front end to apron and fire wall.

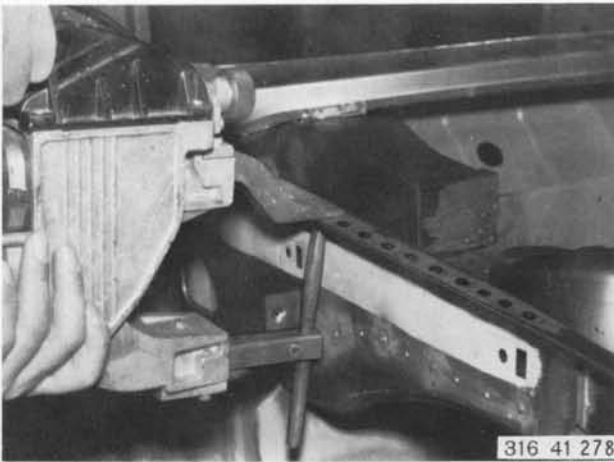




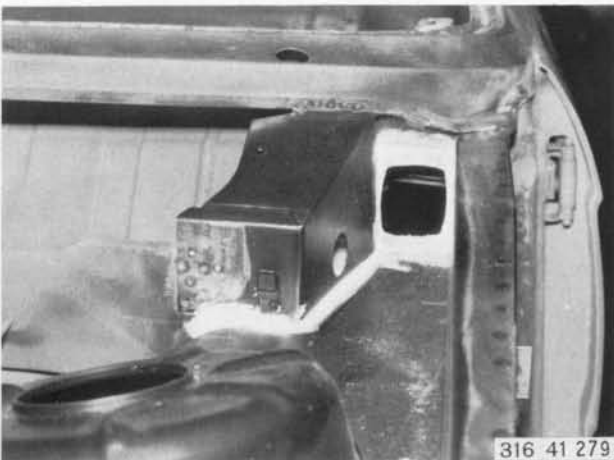
Grind mating surfaces of connector plate bright on both sides and coat with zinc powder paint. Coat bearing surface for side panel with zinc powder paint.



Spot weld connector plate with shielded arc welder.

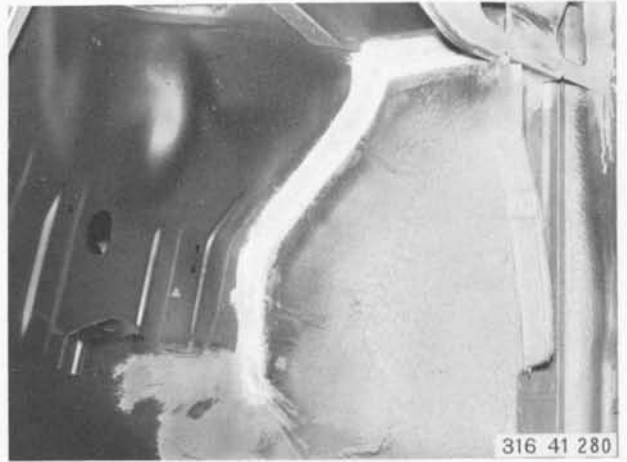


Spot weld connector plate to upper edge of wheelhouse.

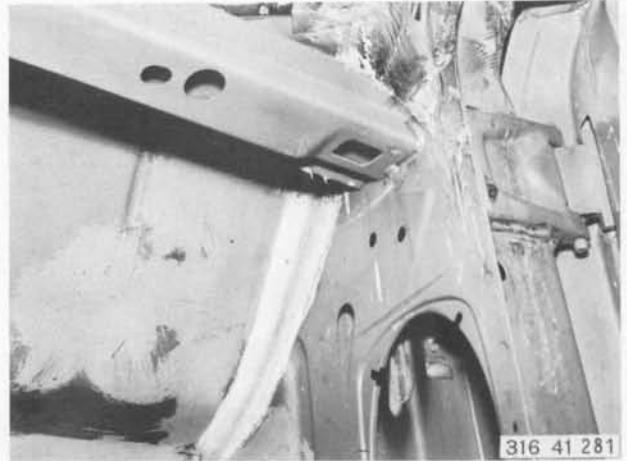


Coat mating surfaces with a joint sealing compound.

Coat wheelhouse/fire wall mating surfaces with joint sealing compound.



Coat mating surfaces with joint sealing compound.



Spray both wheelhouses and all mating surfaces with Body Plast.



41 11 011 REPLACING FRONT RIGHT ENGINE CARRIER (WITH WHEELHOUSE)

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove engine hood, right side panel, right doors, front trim lower section, engine with transmission and front axle, exhaust system, instrument panel trim, right front seat, battery, fuel and front brake lines, windshield washer tank with hose, right glove compartment, heater guard and rubber seal, outer and inner entrance rail cover plates, door edge guards and seals, both inside carpets, rubber mat on inside of fire wall, right rain molding, both wiper arms, engine hood lock and cable, fire wall noise insulation, right door contact switch and horn.

Fold back carpets in passenger compartment.

Check front and rear axle alignment optically and adjust.

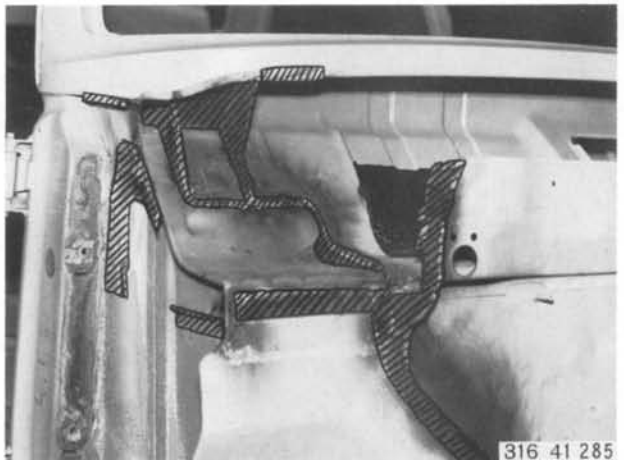
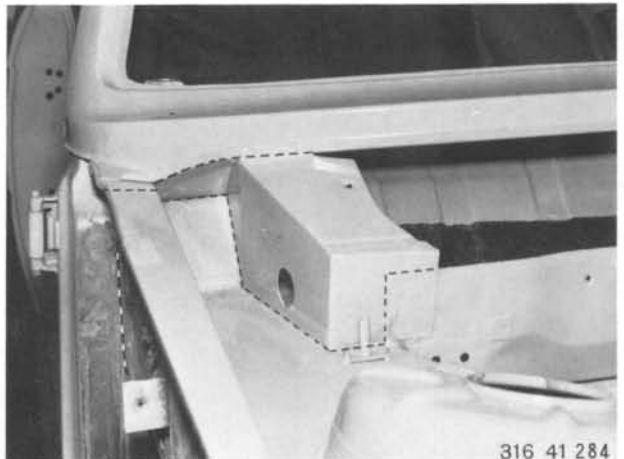
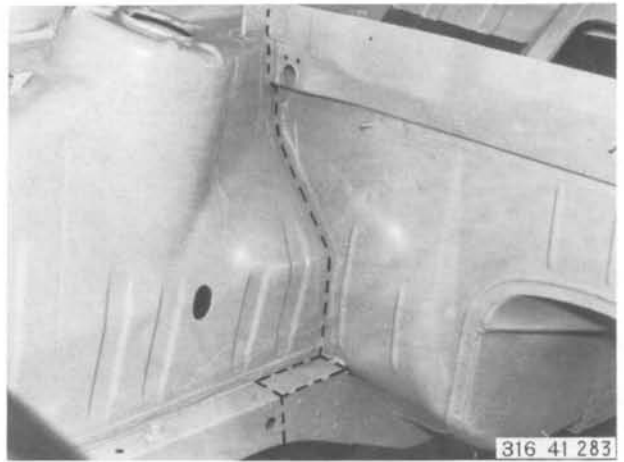
Remove front trim with front panel - 41 33 001.

Cut through wheelhouse and engine carrier along line.

Cut through wheelhouse and engine carrier along line.

Remove scrap metal.

Remove scrap metal.

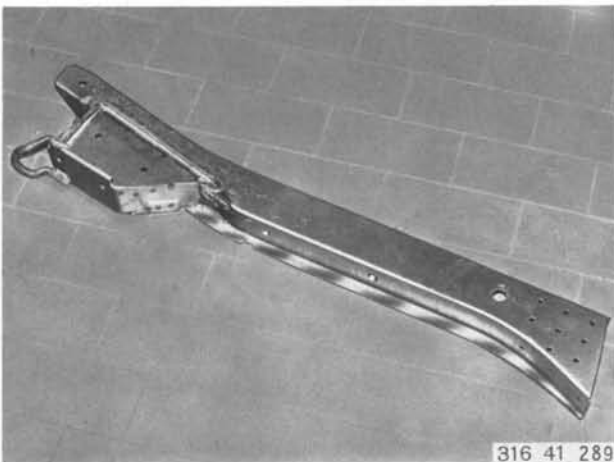




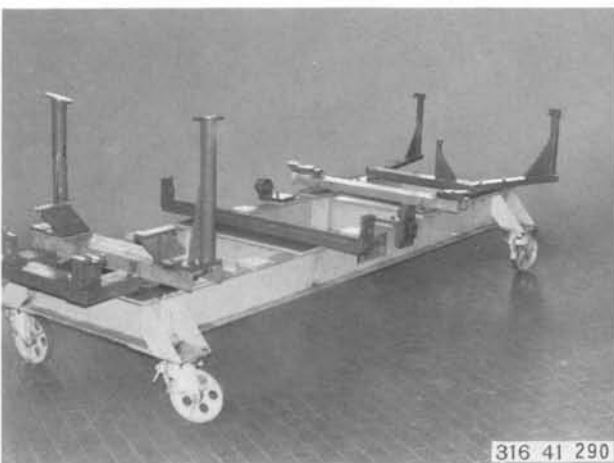
Align mating surfaces and grind bright on both sides.
Drill holes for plug welding.



Drill holes for plug welding.

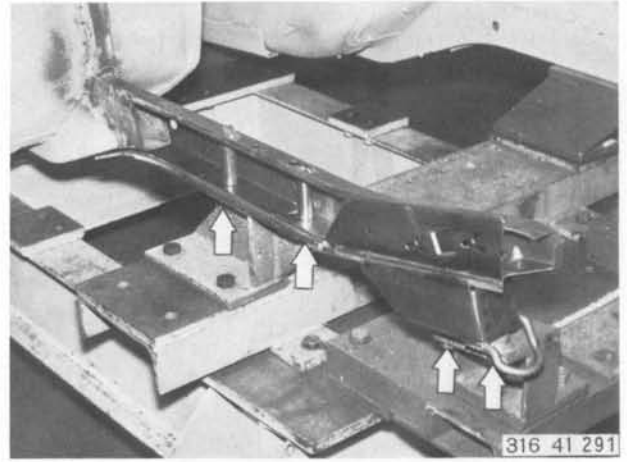


Grind mating surfaces of new engine carrier bright
on both sides.

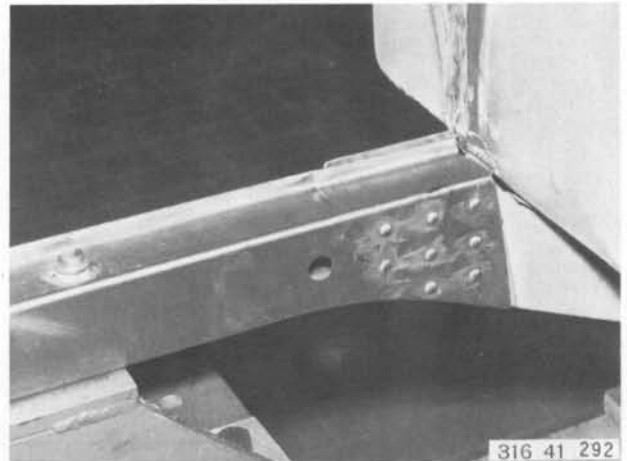


Install car on straightening bench.

Guide in engine carrier and attach fixtures for front axle and stabilizer take-up points.



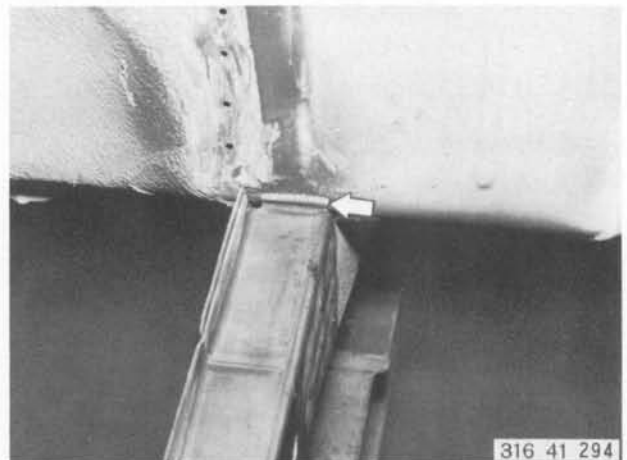
Plug weld engine carrier with shielded arc welder.

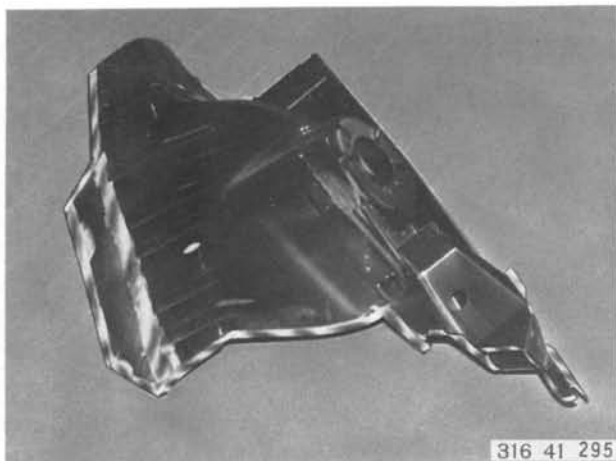


Plug weld engine carrier from below with shielded arc welder.



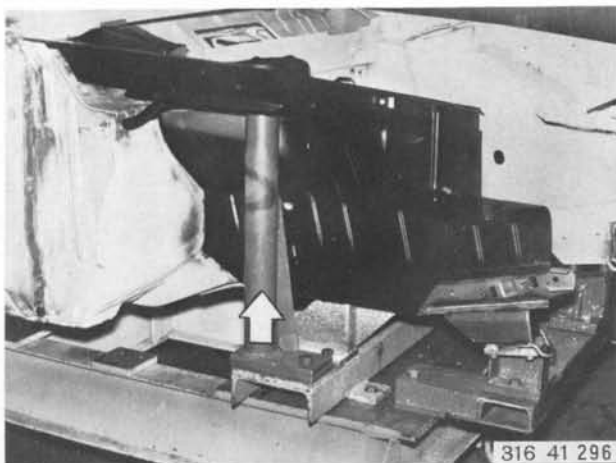
Weld engine carrier to fire wall with shielded arc welder.





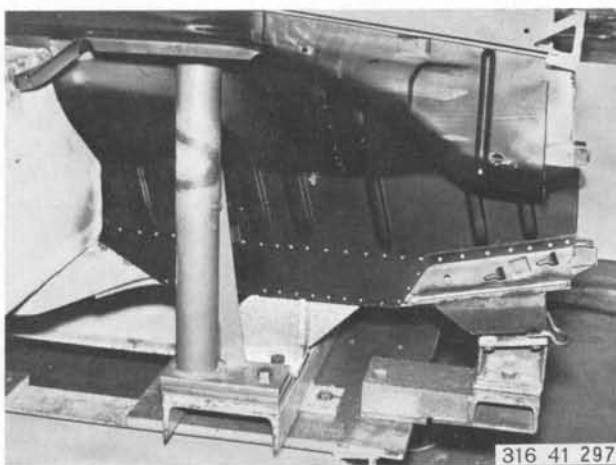
316 41 295

Grind mating surfaces of new wheelhouse bright on both sides.



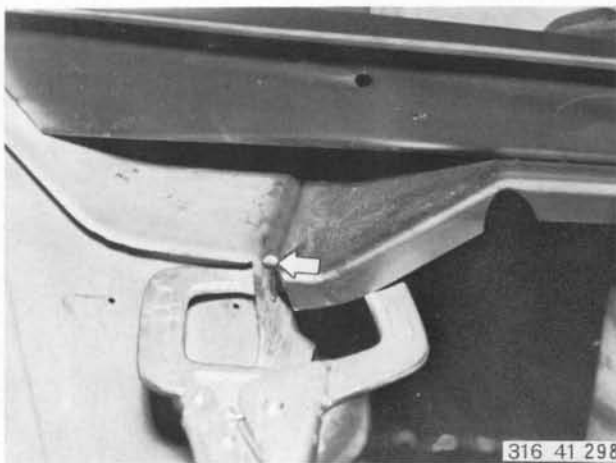
316 41 296

Guide in wheelhouse and attach fixture for spring strut take-up point.



316 41 297

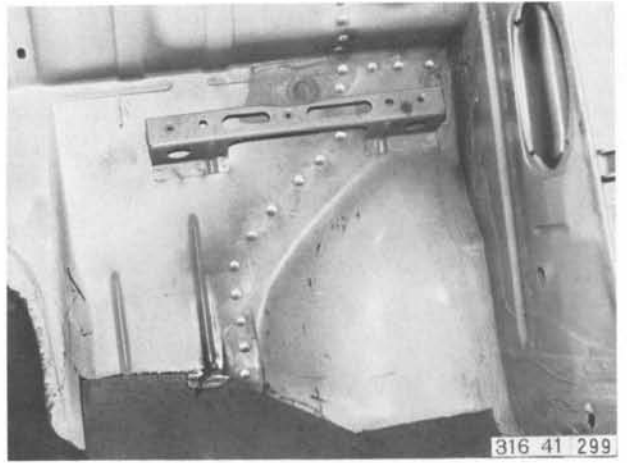
Drill holes for plug welding.



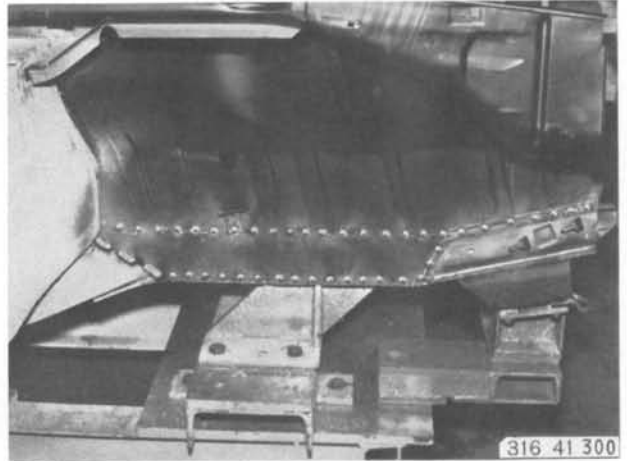
316 41 298

Tack weld wheelhouse to fire wall.

Plug weld wheelhouse to fire wall on inside with shielded arc welder.



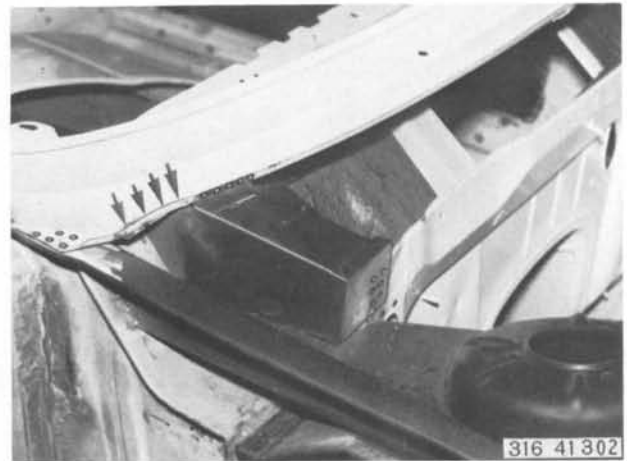
Plug weld wheelhouse to engine carrier with shielded arc welder.

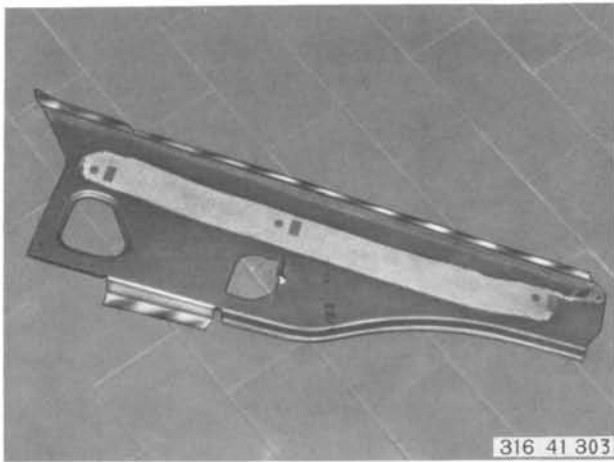


Weld wheelhouse to fire wall with shielded arc welder.

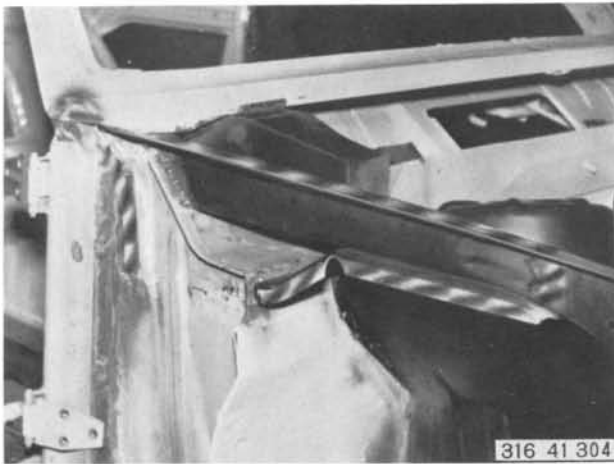


Spot weld wheelhouse to apron and heater separating wall.





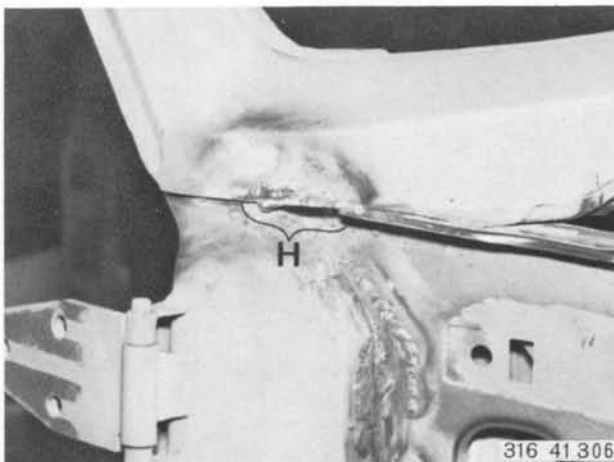
Grind mating surfaces of connector plate bright on both sides.



Grind mating surfaces on wheelhouse for connector plate bright on both sides.

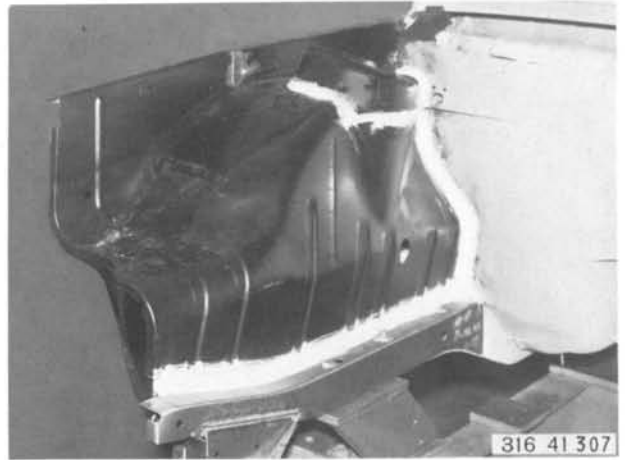


Weld connector plate with shielded arc welder and spot welder.



Braze connector plate in apron (H) area.

Grind down all welded surfaces.
Coat joints with joint sealing compound.



Coat joints with joint sealing compound.



Spray wheelhouse with Body Plast.

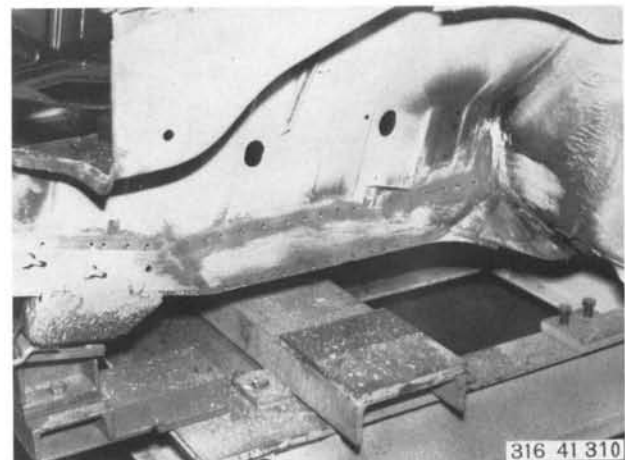


41 11 031 REPLACING FRONT LEFT ENGINE CARRIER
(WITHOUT WHEELHOUSE)

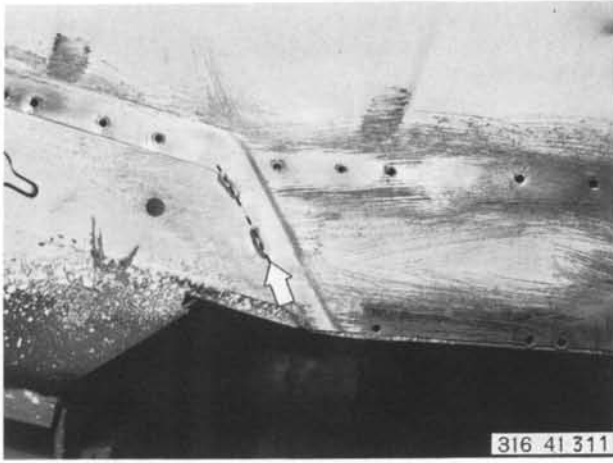
Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove engine hood, left side panel, left doors, front trim lower section, engine with transmission and front axle, exhaust, battery, fuel and front brake lines, pedal base, speedometer shaft, both inside carpets, inside fire wall rubber mat, engine hood lock and cable, fire wall noise insulation and horn. Fold back carpets in passenger compartment. Check front and rear axle alignment optically and adjust.

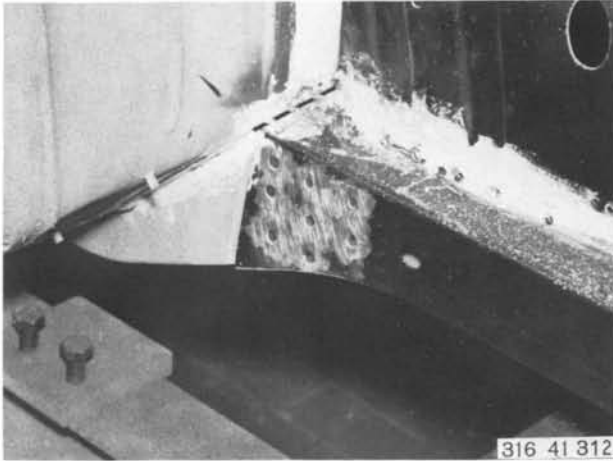
Remove front trim with front panel - 41 33 001.



Drill out wheelhouse/engine carrier welds.



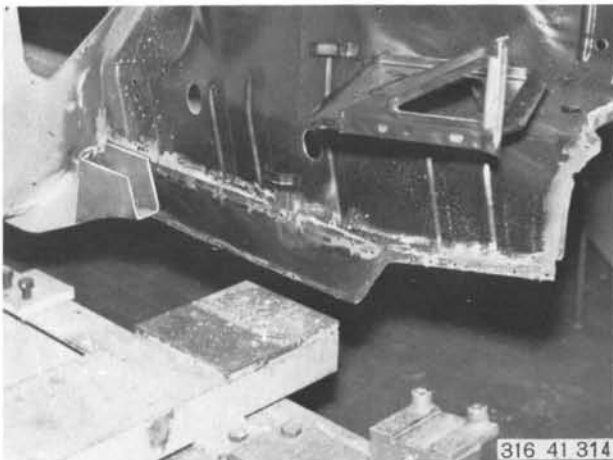
Grind off wheelhouse/engine carrier welded seams.



Grind off engine carrier front/rear section plug welding and cut through engine carrier/fire wall welded seam.

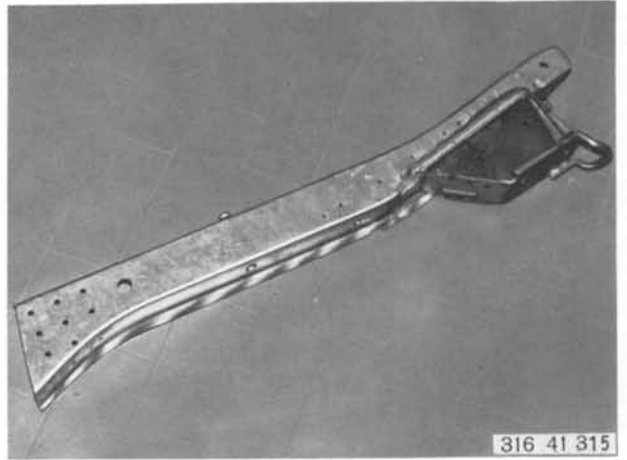


Grind off engine carrier plug welding from below and remove engine carrier.

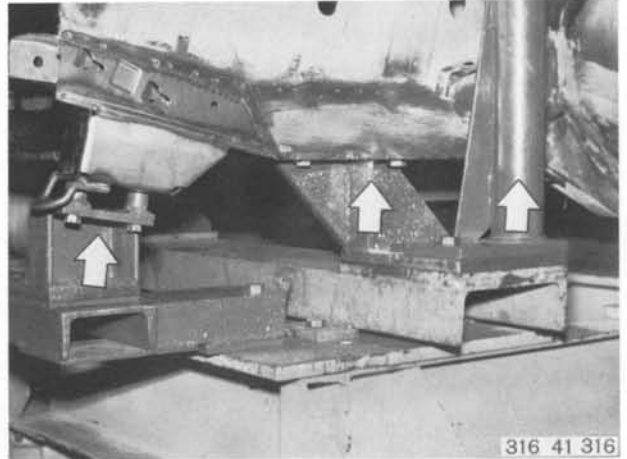


Remove scrap metal.
Align and grind mating surfaces bright.

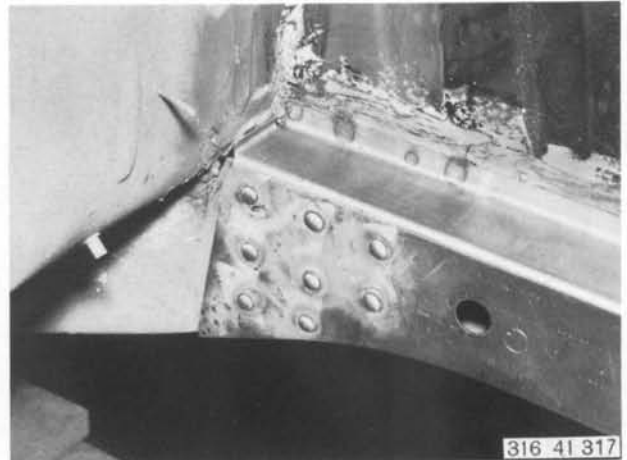
Grind mating surfaces of new engine carrier bright.



Install car on straightening bench.
Install fixtures for front axle, stabilizer and
spring strut take-up points and bolt to engine
carrier.

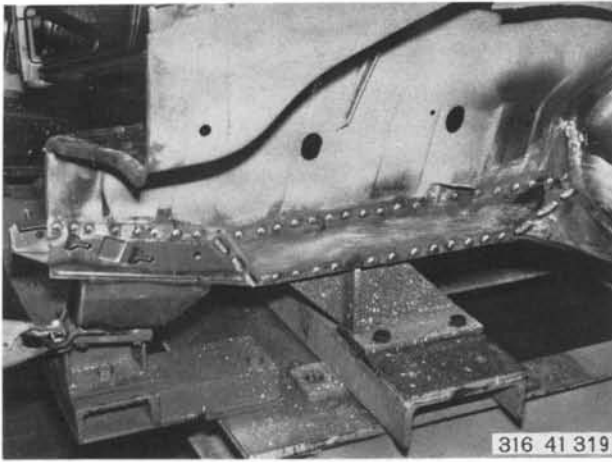


Plug weld engine carrier to engine carrier rear
section with shielded arc welder.



Plug weld engine carrier from below with shielded
arc welder.





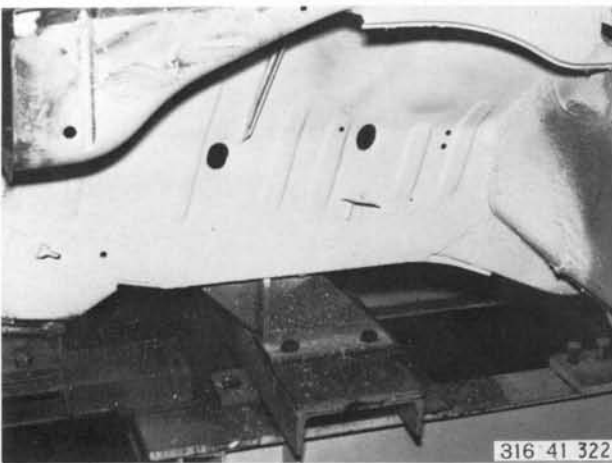
Plug weld wheelhouse to engine carrier with shielded arc welder.



Weld engine carrier to fire wall with shielded arc welder.



Grind down all welded seams and coat with zinc powder paint.
Coat joints with joint sealing compound.



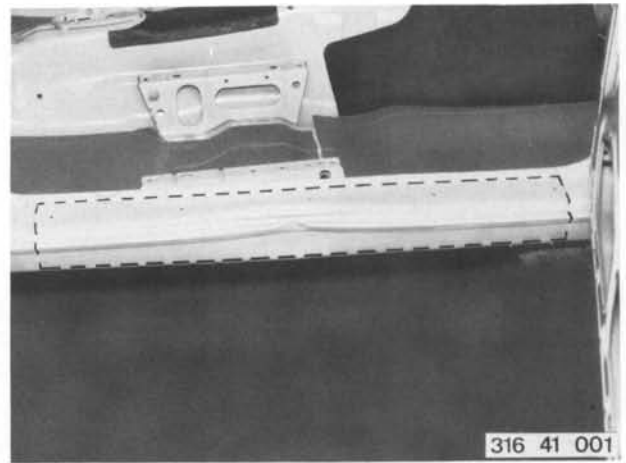
Spray wheelhouse in area of engine carrier with Body Plast.

41 11 121 REPLACING SIDE MEMBER COVER

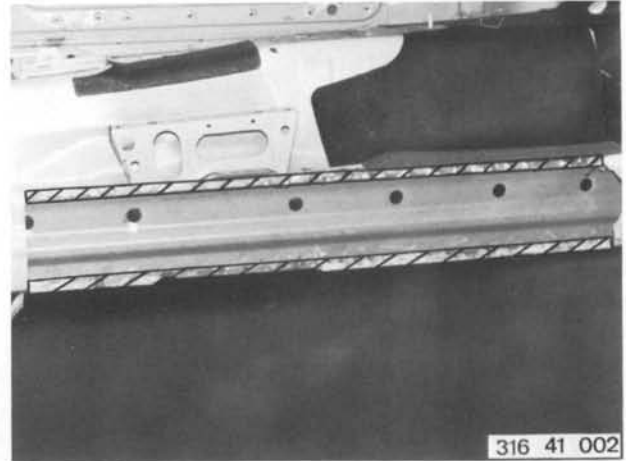
Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove front seat, inside entrance rail, entrance rail cover plate, edge guard with rubber inlet, seat belt at entrance and seat catch button. Detach carpet at entrance, seat console and door pillar.

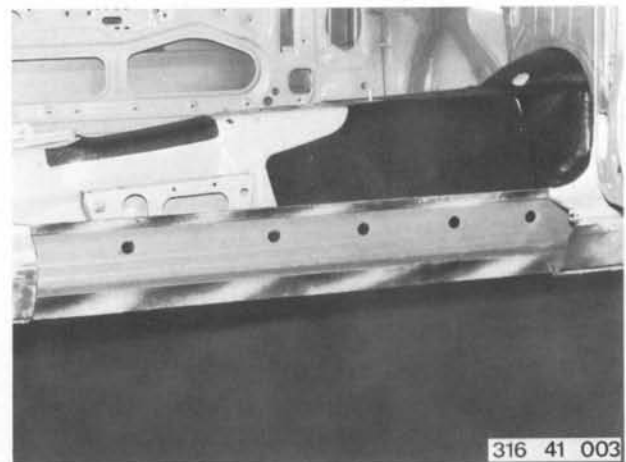
Cut through cover along line.



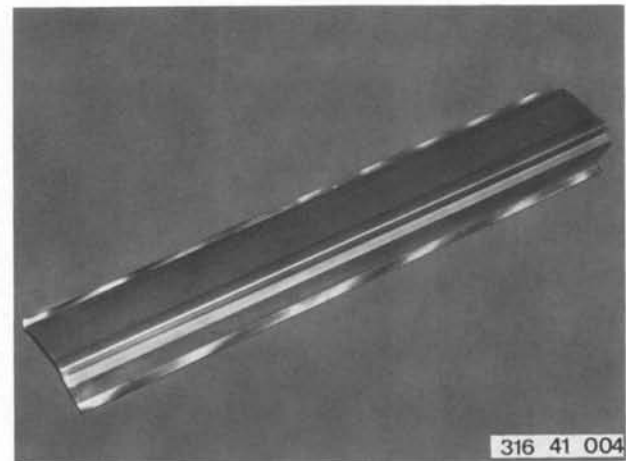
Remove scrap metal.

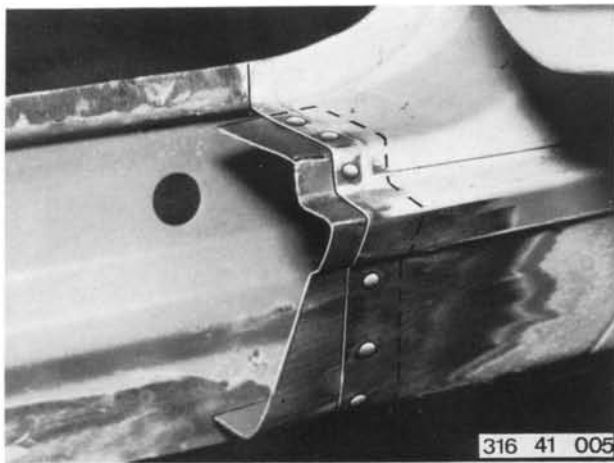


Align and grind mating surfaces bright on both sides.



Cut off and fit new cover.
Grind mating surfaces bright on both sides.

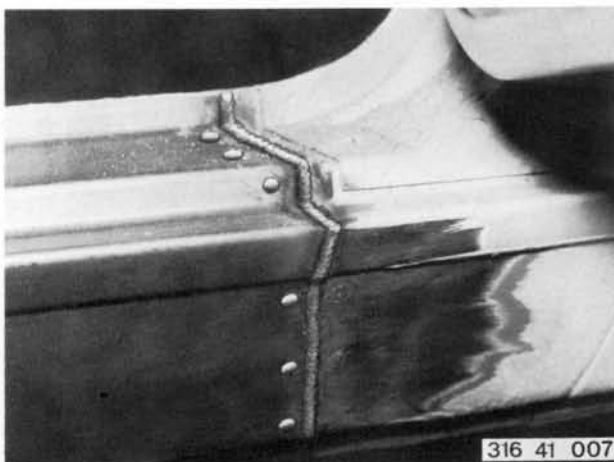




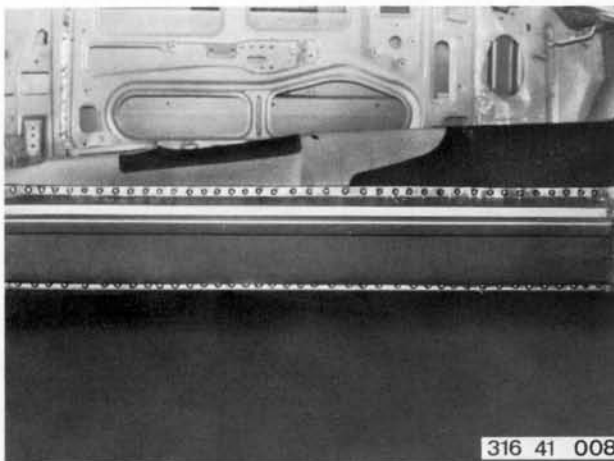
Cut two strips (about 60 mm / 2 1/2" wide) from rest of new cover for reinforcement.
Spot weld metal strips with shielded arc welder.



Coat mating surfaces with zinc powder paint.

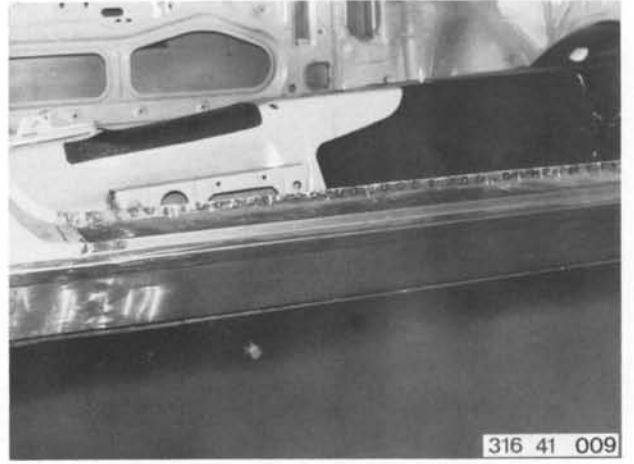


Spot weld cover to reinforcement plate.
Weld cover.



Spot weld cover.

Grind welding seams.



41 14 021 REPLACING FRONT LEFT WHEELHOUSE

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove engine hood, left side panel, left doors, front trim lower section, engine with transmission and front axle, exhaust, instrument panel trim, steering column, left front seat, battery, fuel and front brake lines, pedal base assembly, speedometer shaft, heater cover plate and rubber seal, engine hood lock release and holder, outer and inner left entrance rail cover plates, left door edge guards and seals, both inside carpets, inner fire wall rubber mat, accelerator pedal, left rain molding, both wiper arms, wiper motor with linkage, both spray jets, engine hood lock and cable, distributor box and harness, fire wall noise insulation, left door contact switch and horn.

Fold back carpets in passenger compartment.

Check front and rear axle alignment optically and adjust.

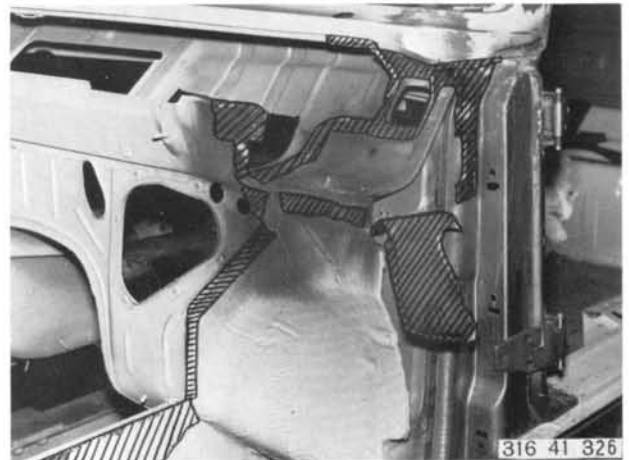
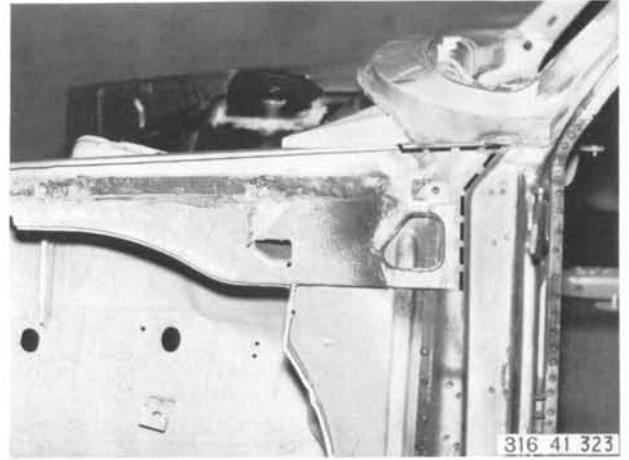
Remove front trim with front wall - 41 33 001.

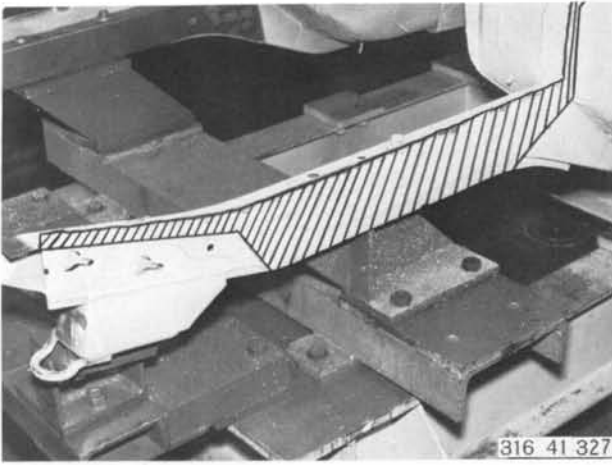
Cut through wheelhouse along line.

Cut through wheelhouse along line.

Cut through wheelhouse along line.

Remove scrap metal.

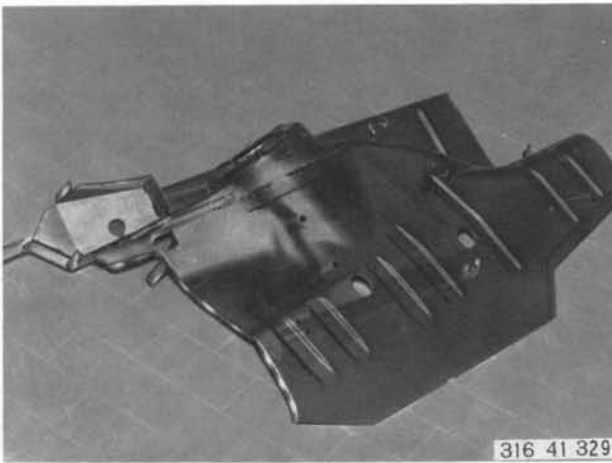




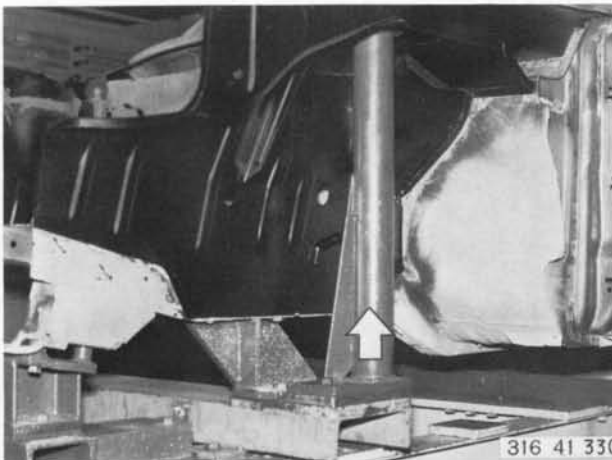
Remove scrap metal.



Align and grind mating surfaces bright.
Drill holes in fire wall for plug welding.



Grind mating surfaces of new wheelhouse bright on
both sides.

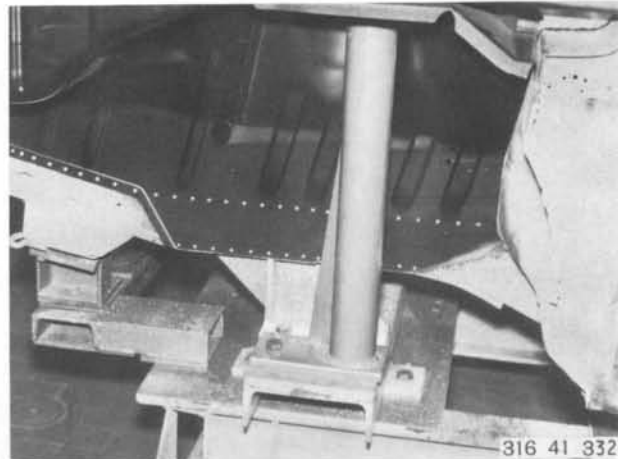


Place car on straightening bench.
Install spring strut take-up point fixture.

Tack weld wheelhouse to fire wall with shielded arc welder.



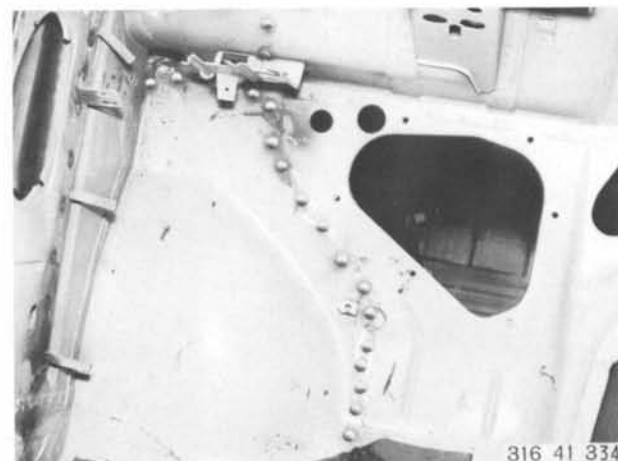
Drill holes in wheelhouse (engine carrier area) for plug welding.

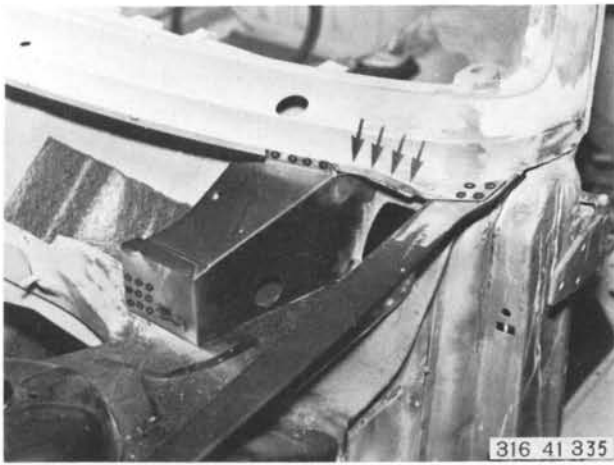


Plug weld wheelhouse to engine carrier with shielded arc welder.



Plug weld wheelhouse to fire wall on inside with shielded arc welder.

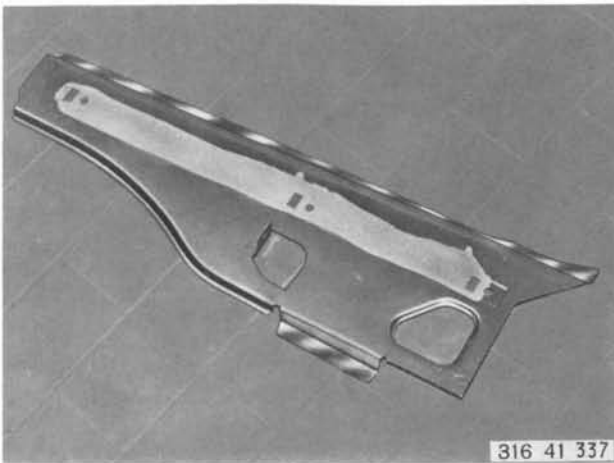




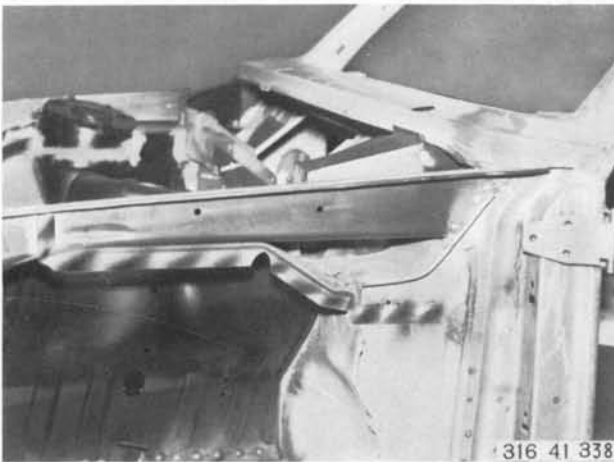
Spot weld wheelhouse to heater separating wall and apron.



Weld heater separating wall to wheelhouse with shielded arc welder.

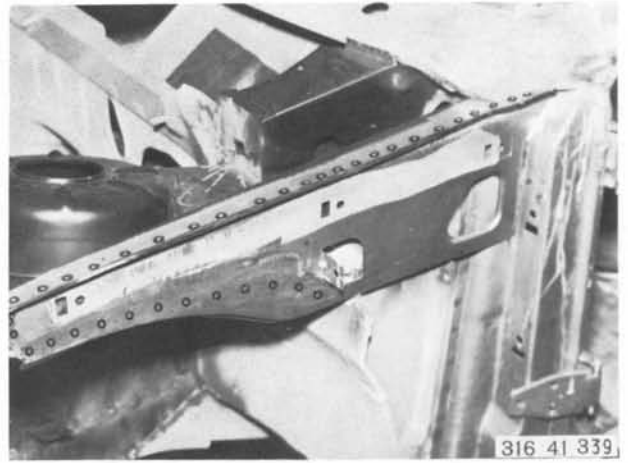


Grind mating surfaces on connector plate bright on both sides.

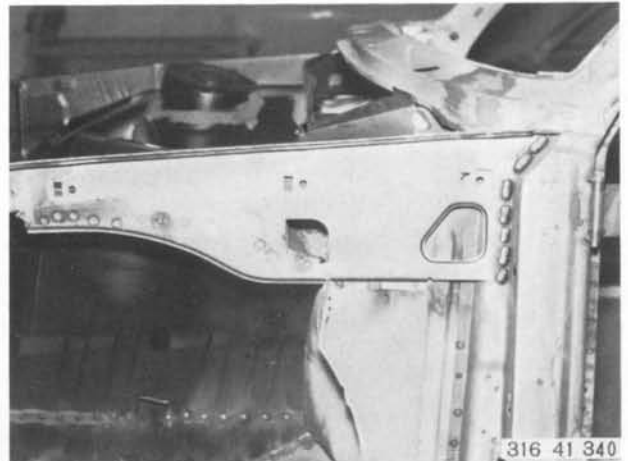


Grind mating surfaces on wheelhouse for connector plate bright.

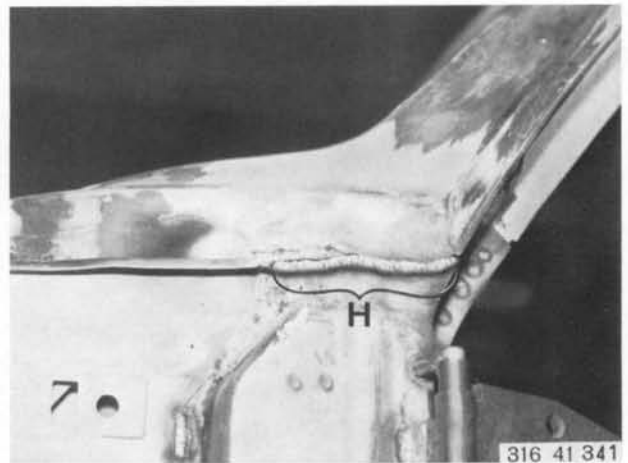
Spot weld connector plate.



Weld connector plate with shielded arc welder.



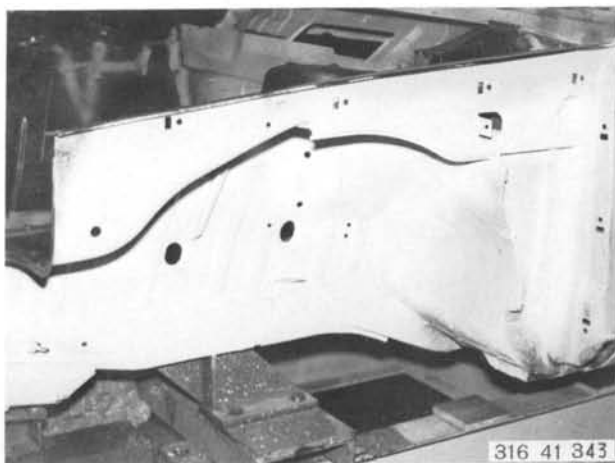
Braze connector plate to apron in area (H).



Grind all welded seams and coat with zinc powder paint.
Coat joints with joint sealing compound.



Spray wheelhouse with Body Plast.



41 14 181 REPLACING ENTIRE WHEELHOUSE AND REAR
RIGHT SIDE PANEL

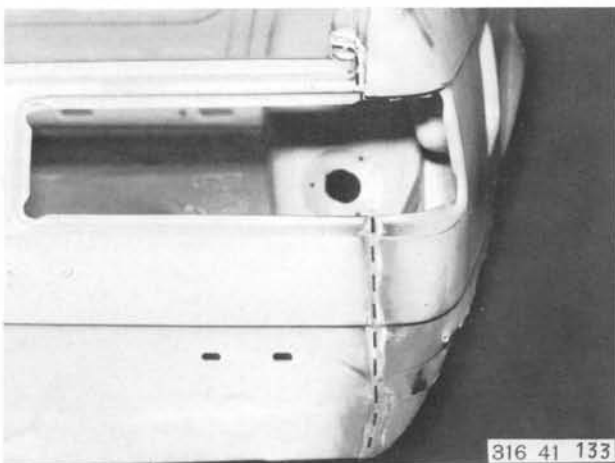
Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove rear seat cushion and backrest, hatrack, right seat belt, right side trim, entrance rail cover plate, edge guards and rubber seals, B pillar trim, carpet on entrance and seat frame, side window frame, rear window, side panel rubber guard strip, right tail lights, vent line, bumper, fuel filler neck, fuel filler neck flap, harness as required, trunk lid seal, headliner as required, C pillar foam rubber liner, inner grip, right rain molding strip, rear axle support, fuel tank, final muffler and top coil spring strut.

Cut through side panel along line.



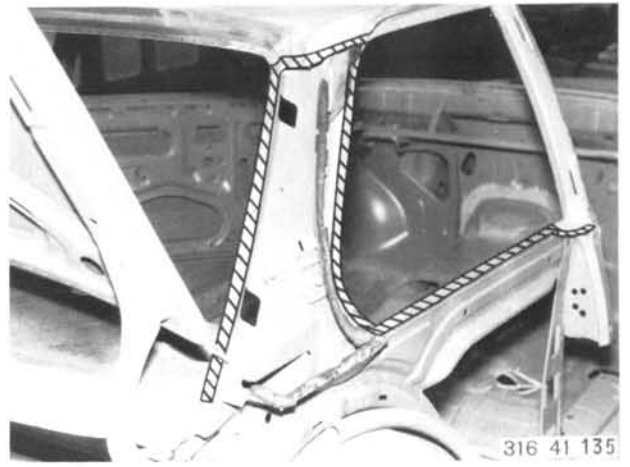
Cut through side panel along line.



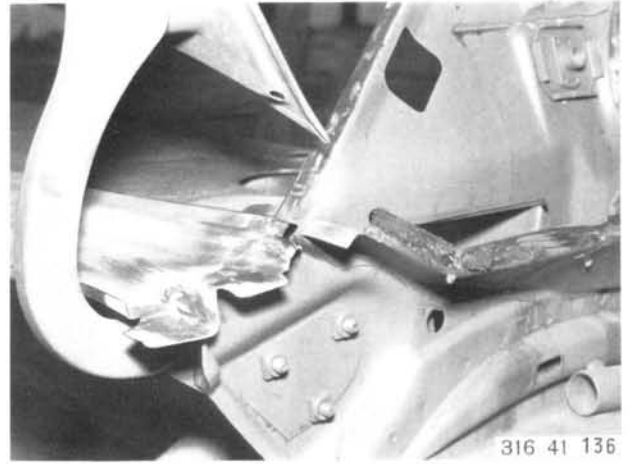
Cut through side panel in B pillar area.



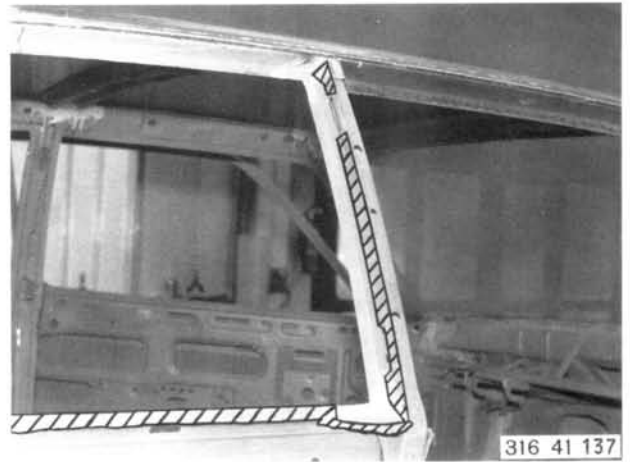
Remove scrap metal.



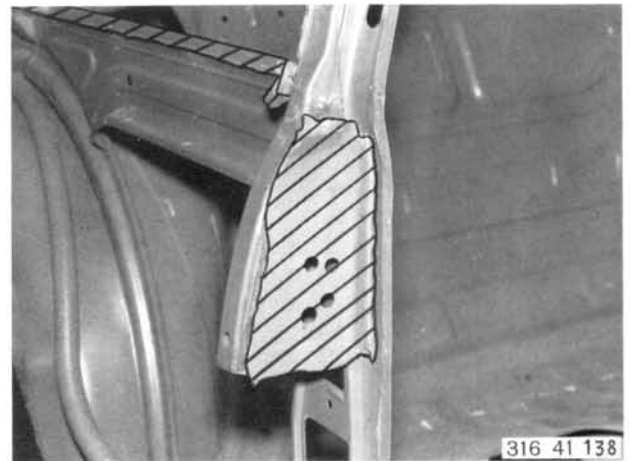
Remove scrap metal.

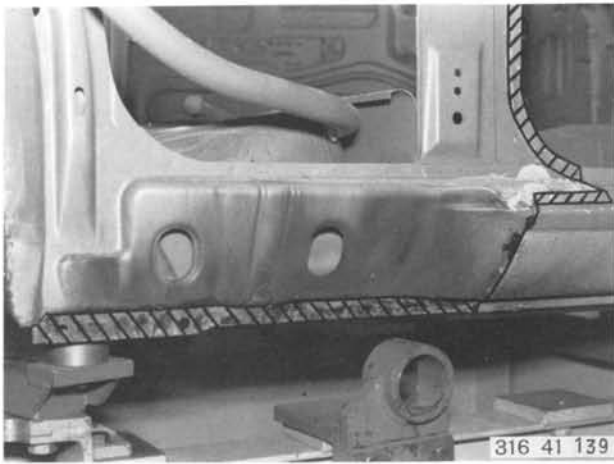


Remove scrap metal.



Remove scrap metal.

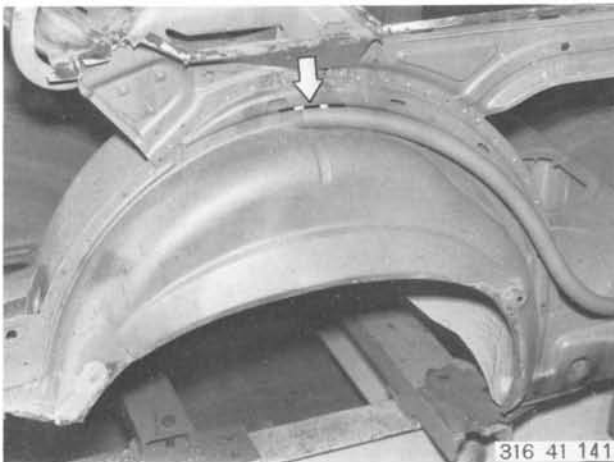




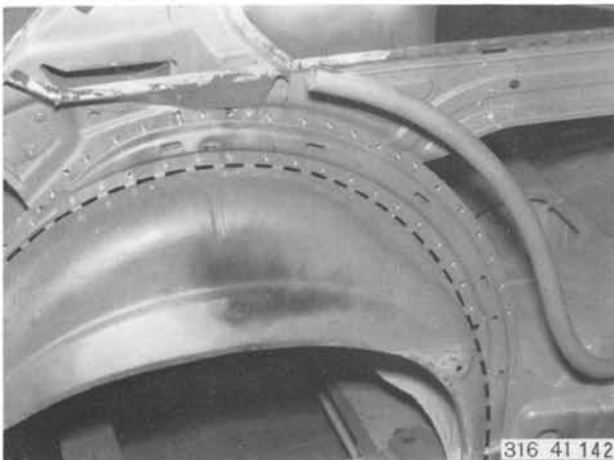
Remove scrap metal.



Remove scrap metal.

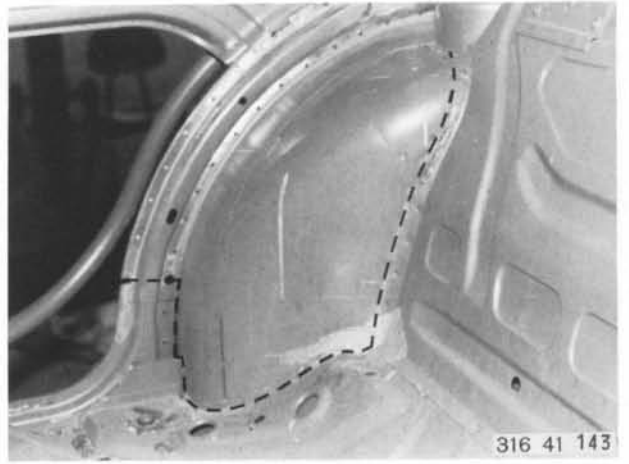


Cut through tank vent pipe welding seam and bend up pipe.

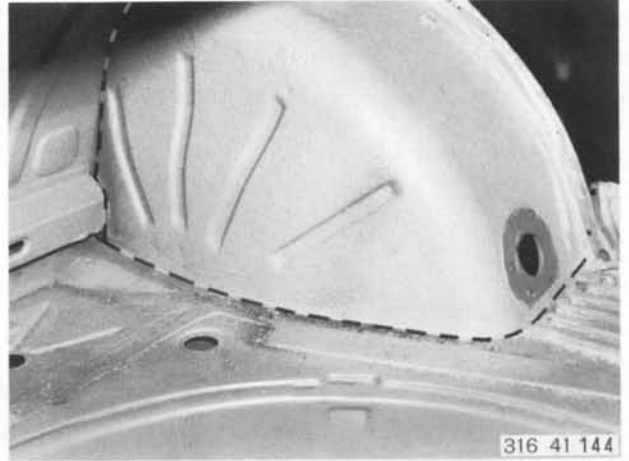


Drill out wheelhouse outer section spot welds and cut through wheelhouse outer section along line.

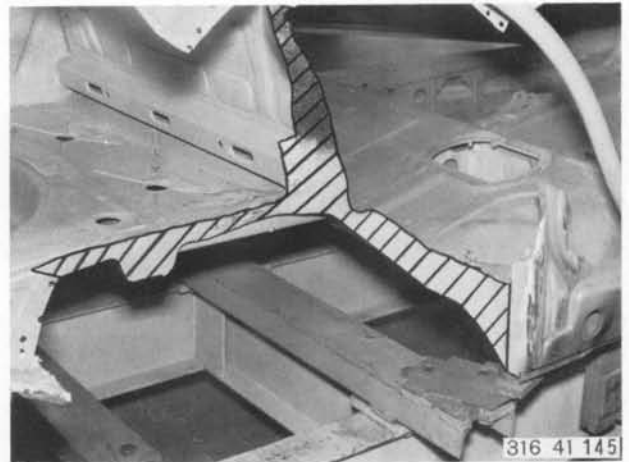
Cut through wheelhouse inner section along line.



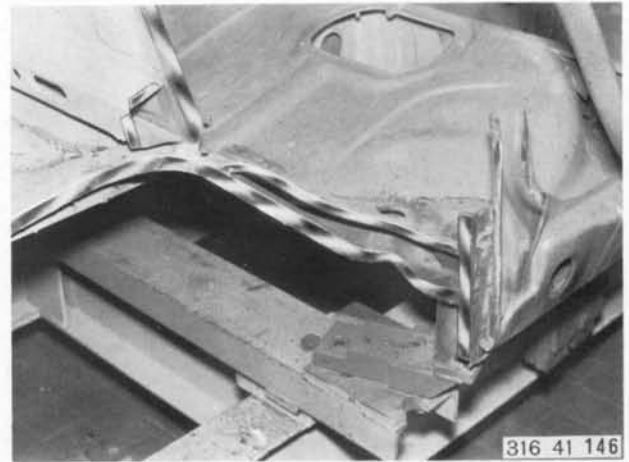
Cut through wheelhouse inner section along line.



Remove scrap metal.



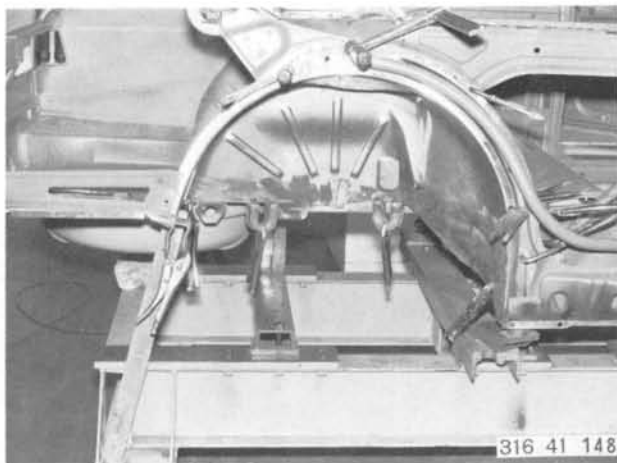
Align and grind mating surfaces bright on both sides.



Align and grind mating surfaces bright on both sides.



Grind mating surfaces of new wheelhouse inner section bright on both sides and coat with zinc powder paint. Hold wheelhouse inner section in position with body pliers and check distances for spring strut take-up point.



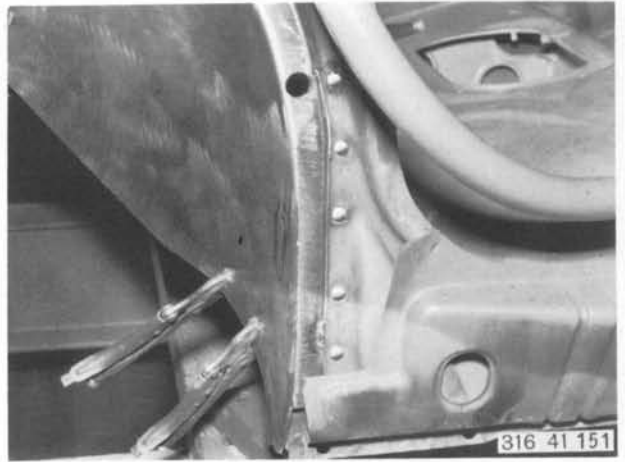
Tack weld wheelhouse inner section.



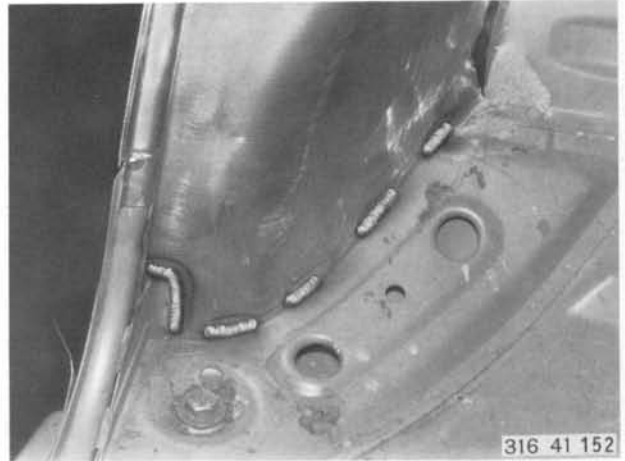
Tack weld wheelhouse inner section.



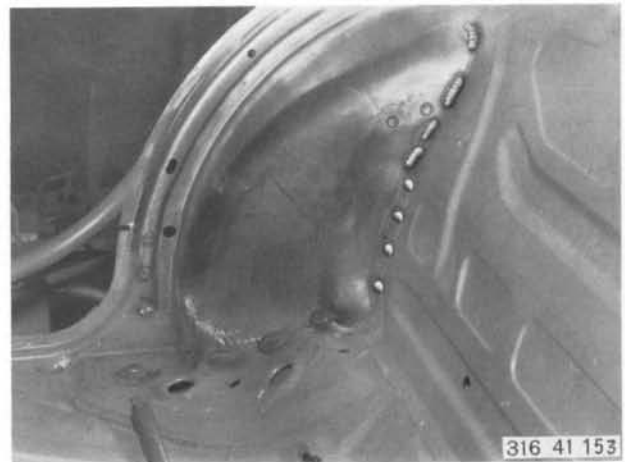
Plug weld wheelhouse inner section to side member with shielded arc welder.



Weld wheelhouse inner section to rear axle reinforcement with shielded arc welder.



Weld wheelhouse inner section to trunk floor separating wall with shielded arc welder.

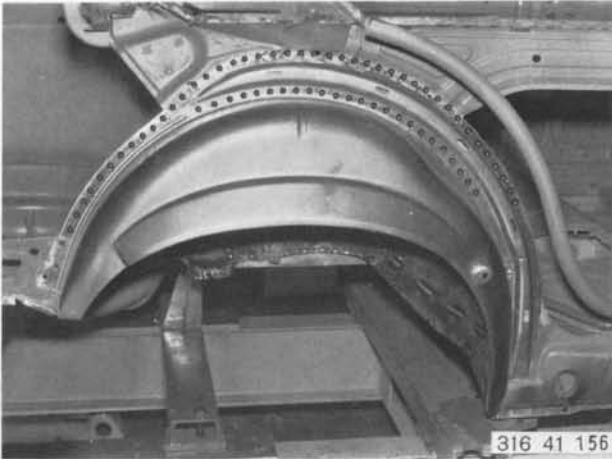


Spot weld wheelhouse inner section to trunk floor. Apply shielded arc welding in area (A) from behind.

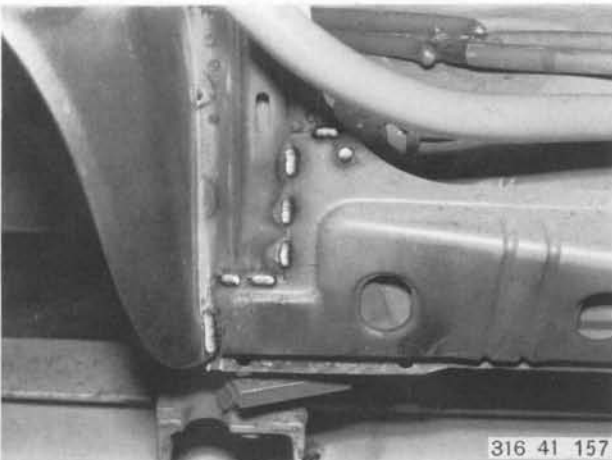




Grind mating surfaces of new wheelhouse outer section bright on both sides and coat with zinc powder paint.



Fit and spot weld wheelhouse outer section.



Weld wheelhouse outer section to side member with shielded arc welder.



Weld inner and outer wheelhouse sections with each other, using a shielded arc welder.

Weld inner and outer wheelhouse sections with each other and spot weld to trunk floor.



Weld tank vent pipe with shielded arc welder.

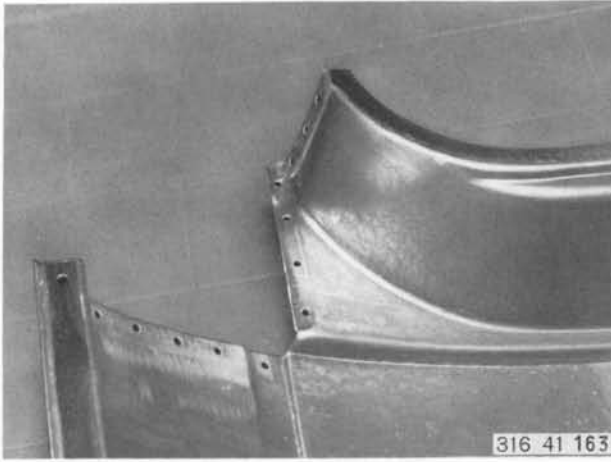


Cut off top of new side panel and fit.

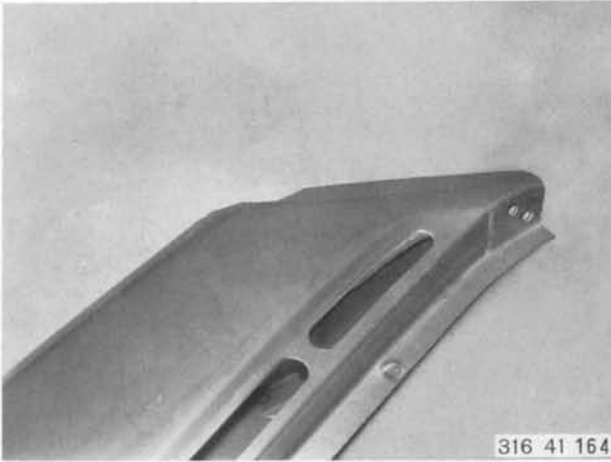


Drill holes in new side panel in area of B pillar for plug welding.

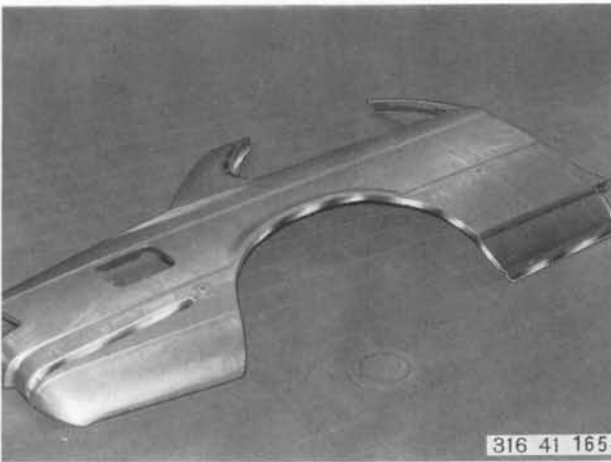




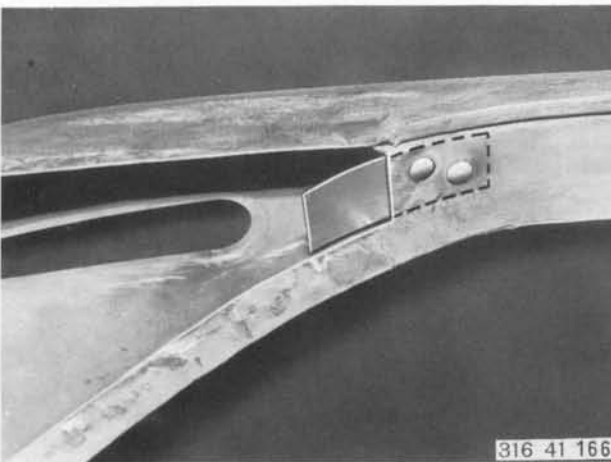
Drill holes in new side panel in area of entrance for plug welding.



Drill holes in new side panel in area of C pillar for plug welding.



Grind mating surfaces of new side panel bright on both sides and coat with zinc powder paint.



Weld reinforcement plate to body in area of C pillar with shielded arc welder.

Hold new side panel in position with body pliers and tack weld at several spots.



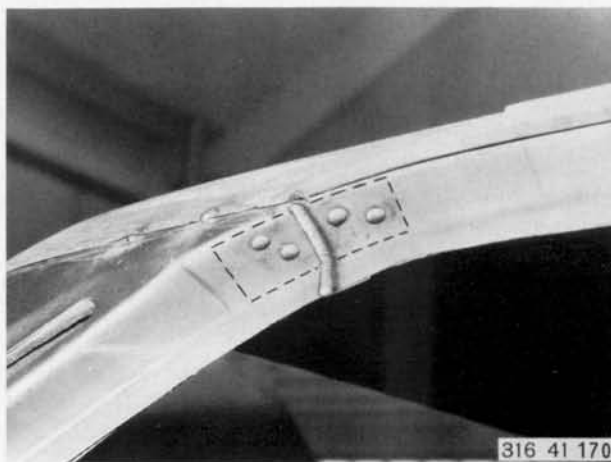
Check door gap (B), align side panel if necessary.

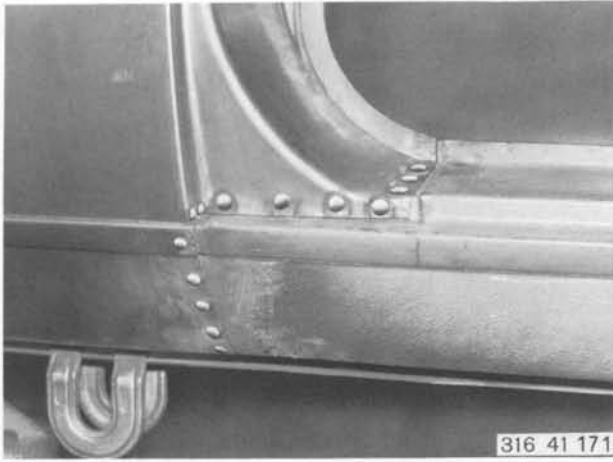


Check gap (C) between side panel and trunk lid, correct side panel location if necessary.



Weld side panel in area of C pillar (shielded arc welding for reinforcement).





Plug weld side panel in area of entrance with shielded arc welder.



Spot weld side panel in area of side window and door opening.

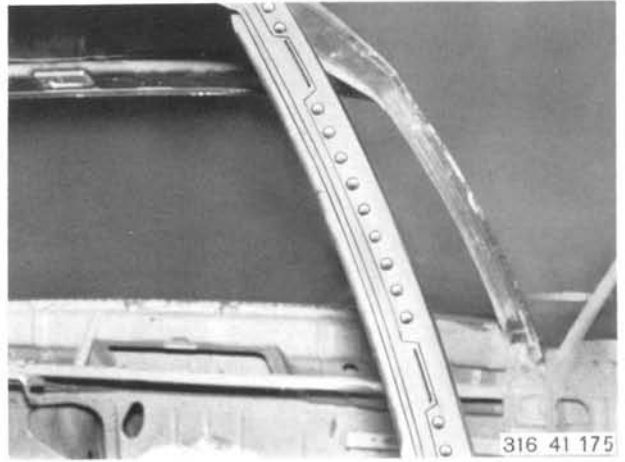


Spot weld side panel to wheelhouse.

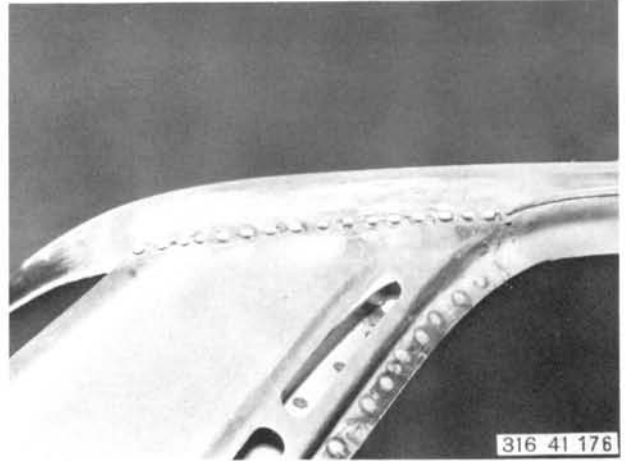


Spot weld side panel to rear window opening.

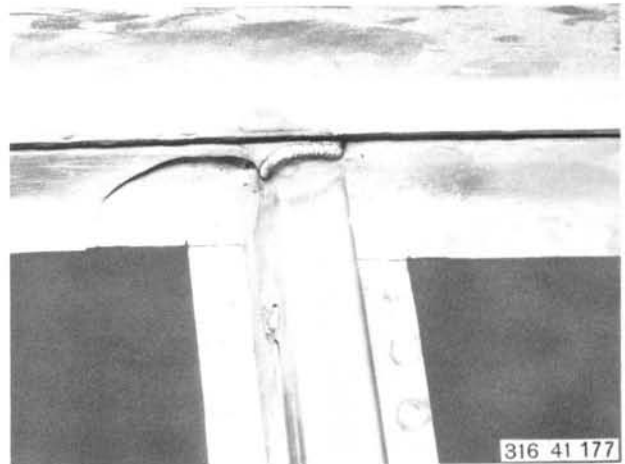
Plug weld side panel in area of B pillar with shielded arc welder.



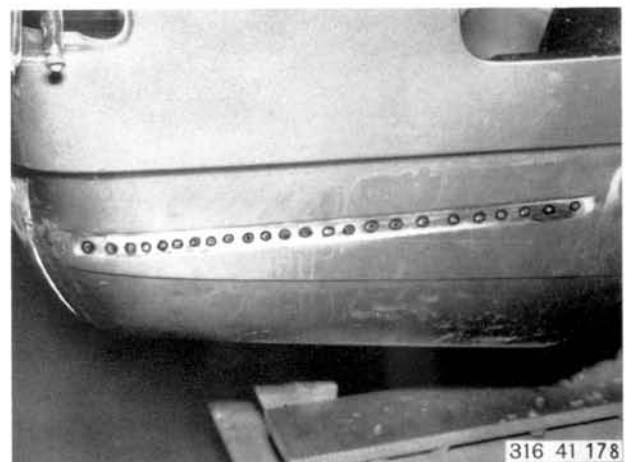
Weld side panel to roof with shielded arc welder.

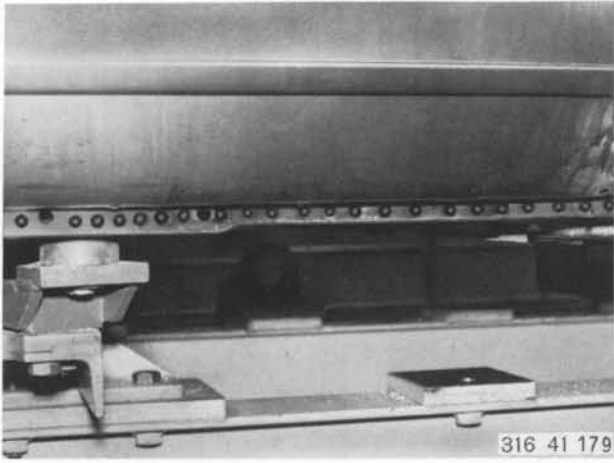


Weld side panel in area of B pillar with shielded arc welder.

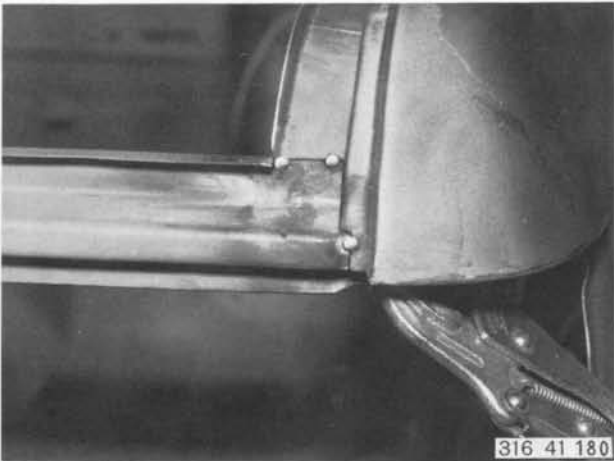


Spot weld side panel to trunk floor.

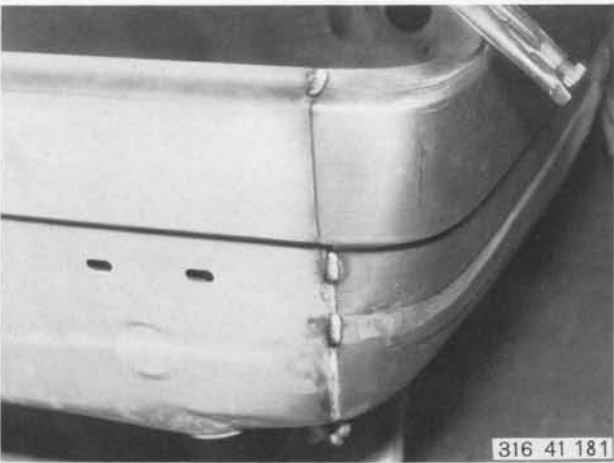




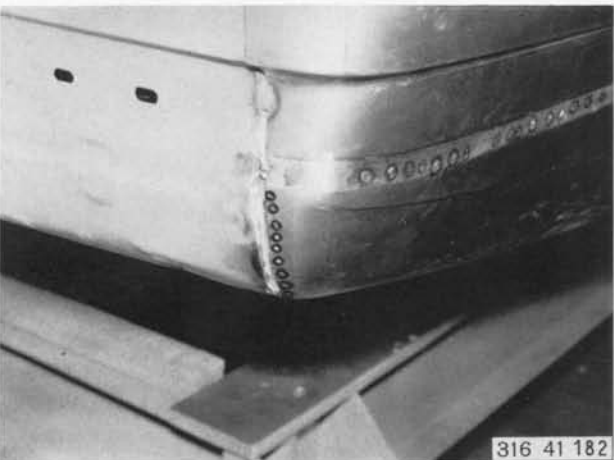
Spot weld side panel to side member.



Tack weld side panel to tail panel with shielded arc welder.



Tack weld side panel to tail panel with shielded arc welder.

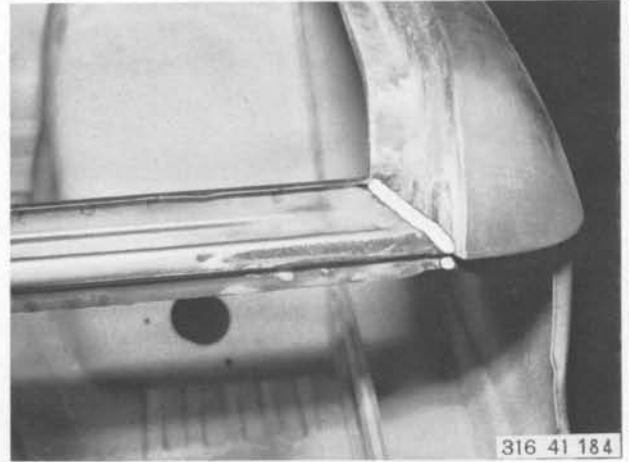


Spot weld side panel to tail panel.

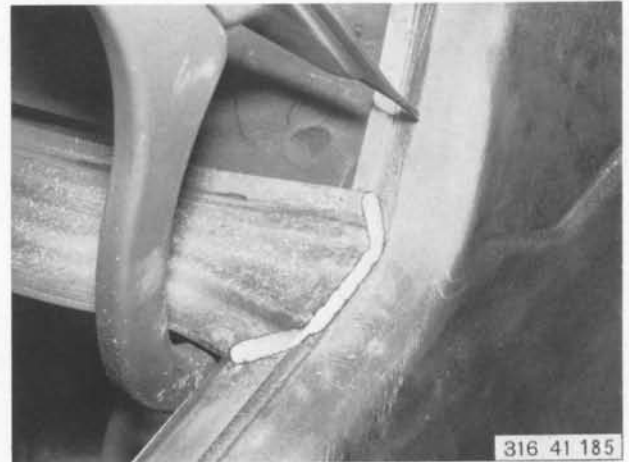
Weld side panel to tail panel (gas weld land auto-
genously).



Braze side panel to tail panel.

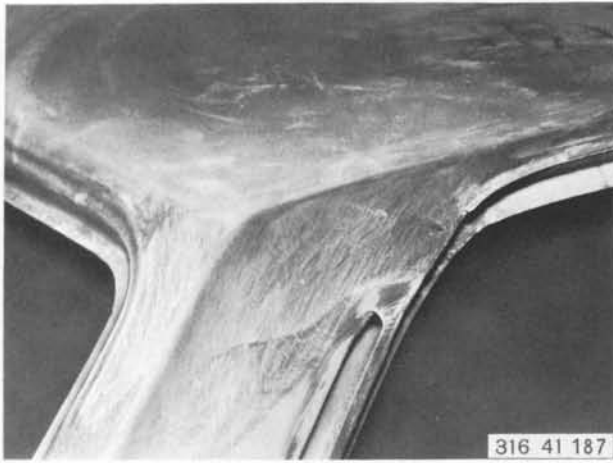


Braze side panel to apron.



Weld trunk separating wall to wheelhouse with shield-
ed arc welder.





Tin side panel/roof panel joint and grind smooth.



Grind all welded, spot-welded and brazed seams, clean and coat with zinc powder paint.



Coat wheelhouse/trunk floor joint with joint sealing compound.

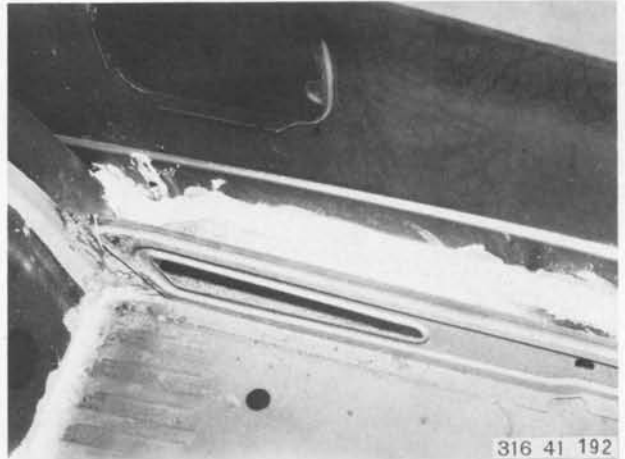


Coat wheelhouse/trunk separating wall joint with joint sealing compound.

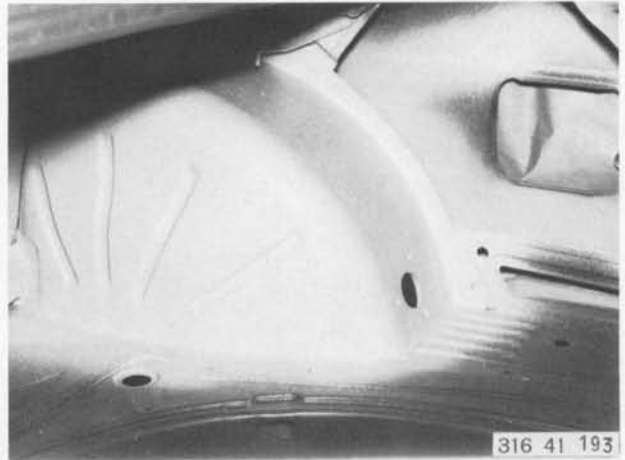
Coat joint between wheelhouse sections with joint sealing compound.



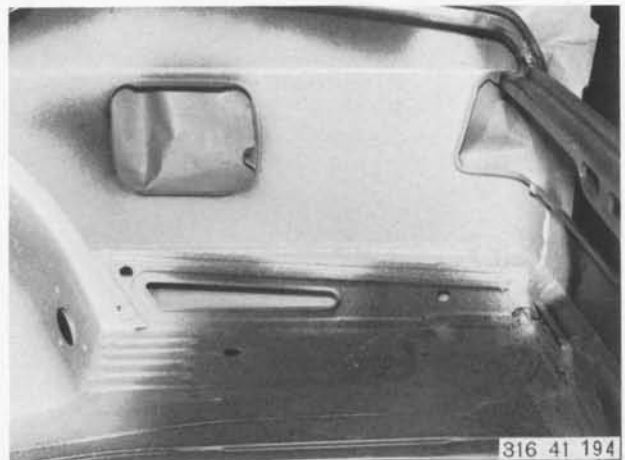
Coat side panel/trunk floor joint with joint sealing compound.



Spray wheelhouse with Body Plast.

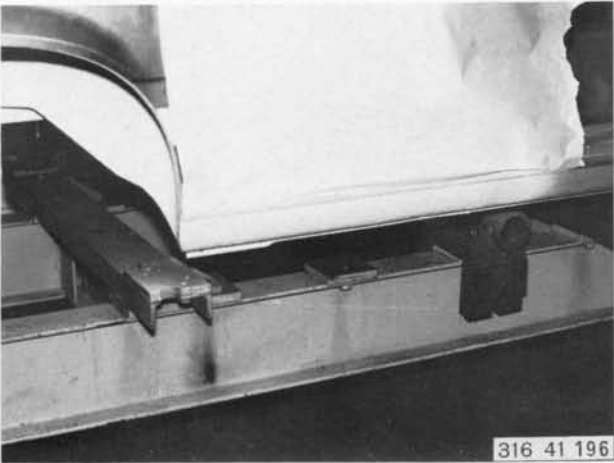


Spray side panel with Body Plast.





Spray inside of wheelhouse with Body Plast.



Spray side panel with Body Plast.



Spray side panel with Body Plast.

41 21 501 REPLACING FRONT LEFT DOOR PILLAR

- Front Side Panel Removed -

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove front seat, front door, instrument panel trim, rear engine hood seal, interior lamp contact switch, engine hood lock release and holder, inner and outer entrance rail cover plates, door edge guards and seals, side carpet in passenger compartment, roof pillar trim, roof pillar trim foam rubber, rain molding strip, battery minus cable, fuse box and harness.

Detach part of rubber insulation mat on fire wall.

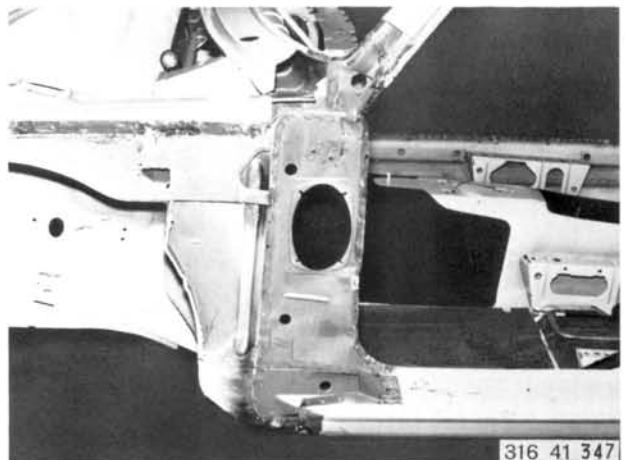
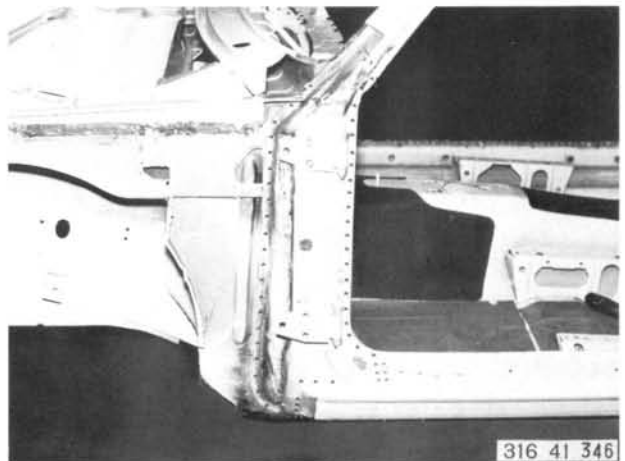
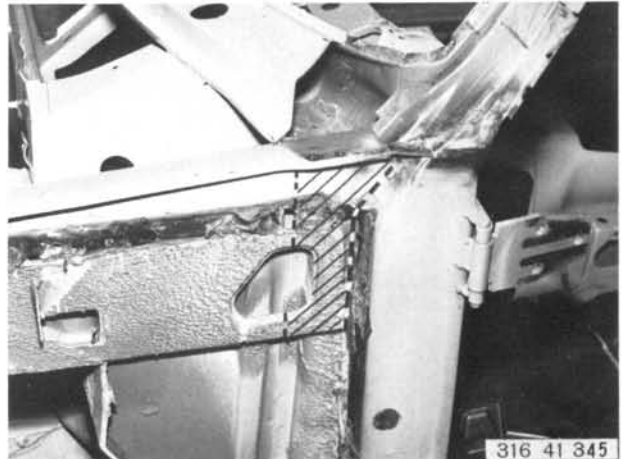
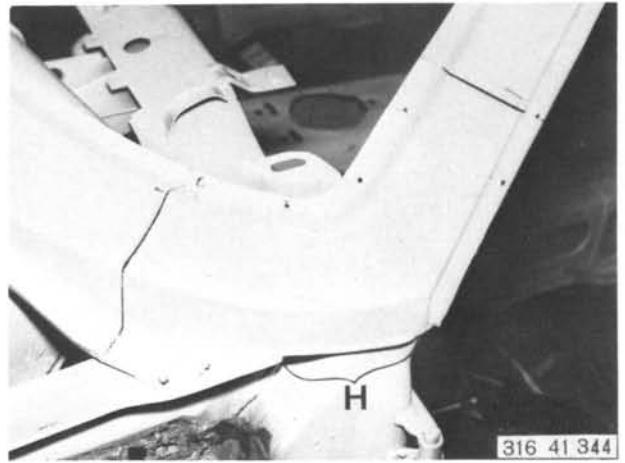
Part of the apron will have to be removed to replace an entire door pillar. To avoid having to cut a new apron, it is recommended to remove old apron section carefully.

Drill out spot welding. Removing brazing in area (H) with a welding torch. Remove apron section.

Cut through connector plate along line and remove scrap metal.

Drill out door pillar spot welding and remove door pillar.

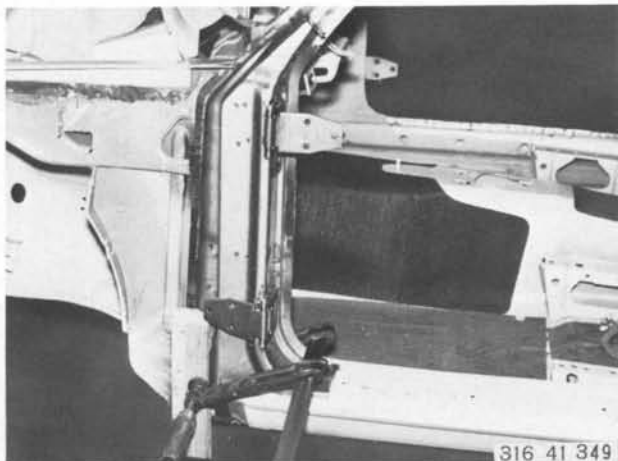
Remove scrap metal.
Align mating surfaces.



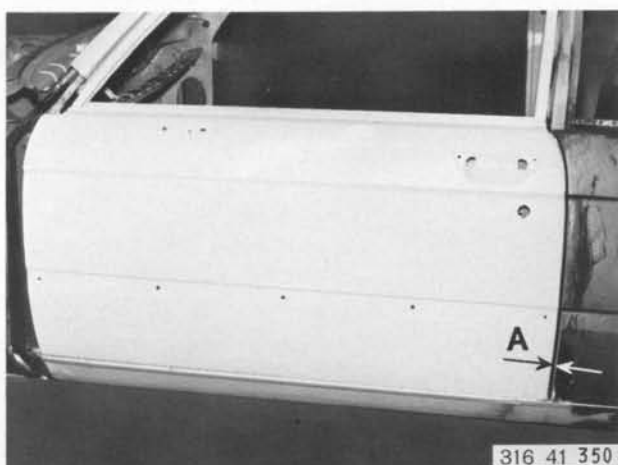
Grind mating surfaces of new door pillar bright.



Fit and tack weld door pillar.



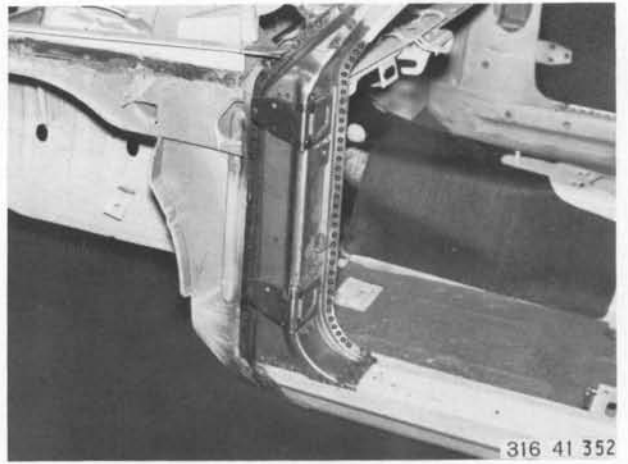
Fit door and check door gap (A), correct position of door if necessary.



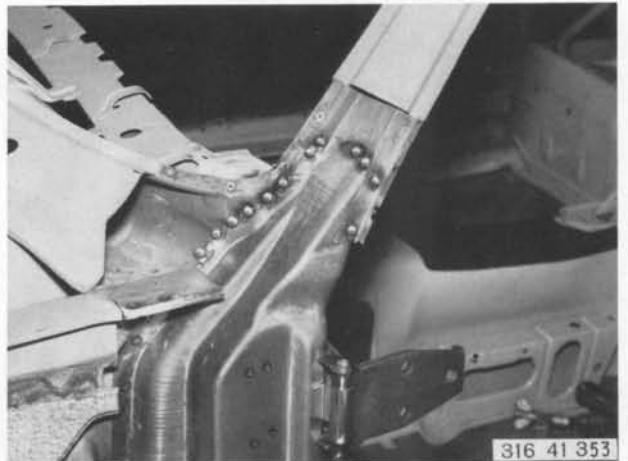
Plug weld door pillar to front edge from inside with shielded arc welder.



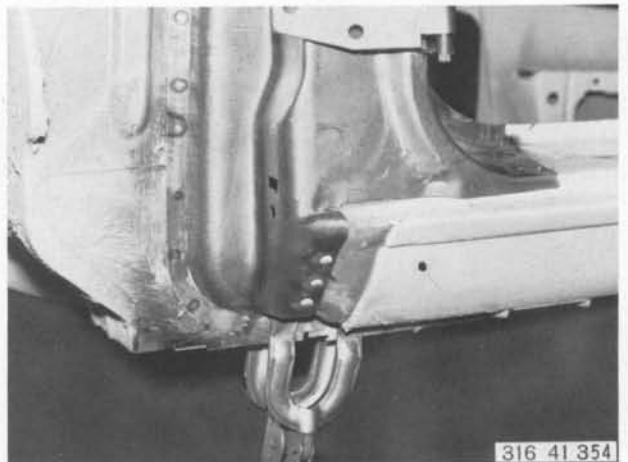
Spot weld door pillar to rear edge with spot welder.



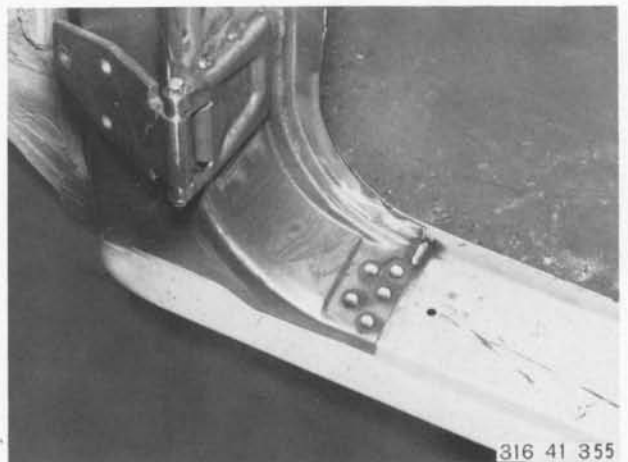
Weld door pillar in apron area with shielded arc welder.

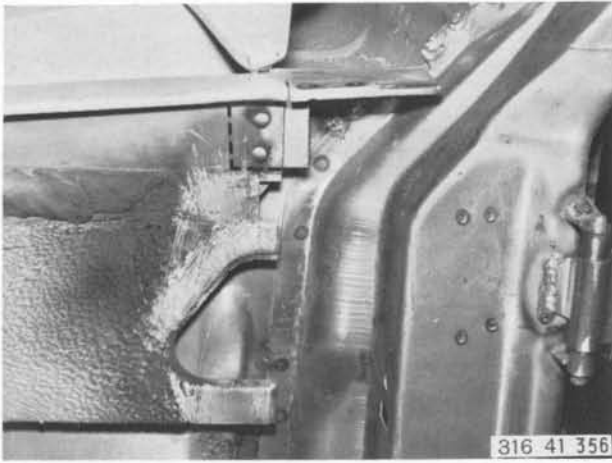


Weld door pillar to side member cover with shielded arc welder.

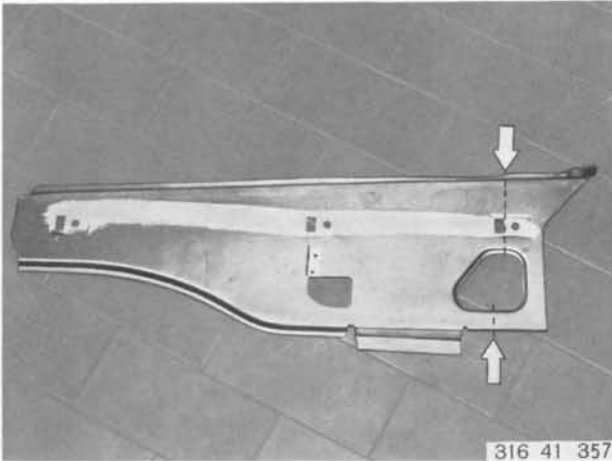


Weld door pillar to side member cover with shielded arc welder.





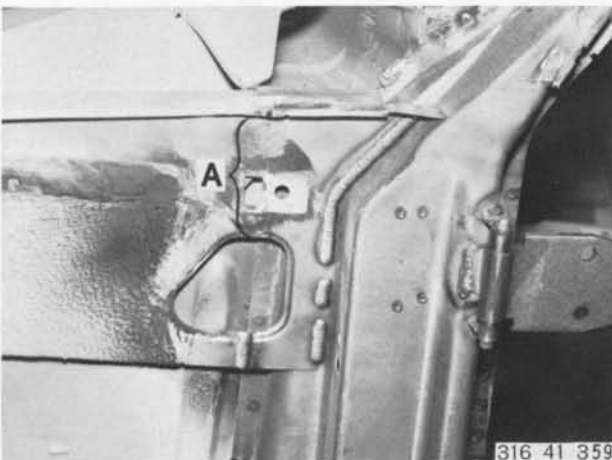
Make up reinforcement plate for connector plate and plug weld it to remaining section of connector plate with shielded arc welder.



Cut an appropriate piece from new connector plate. Overlap bottom of connector plate slightly.

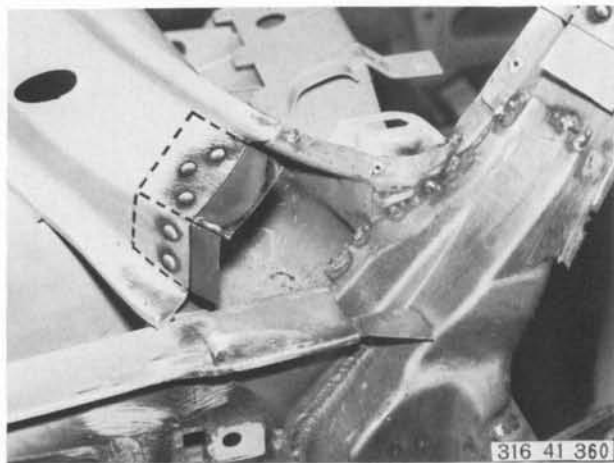


Fit and tack weld connector plate; plug weld in area of reinforcement with shielded arc welder.



Weld connector plate section with shielded arc welder. Grind down welding seam in area of side panel bearing surface (A).

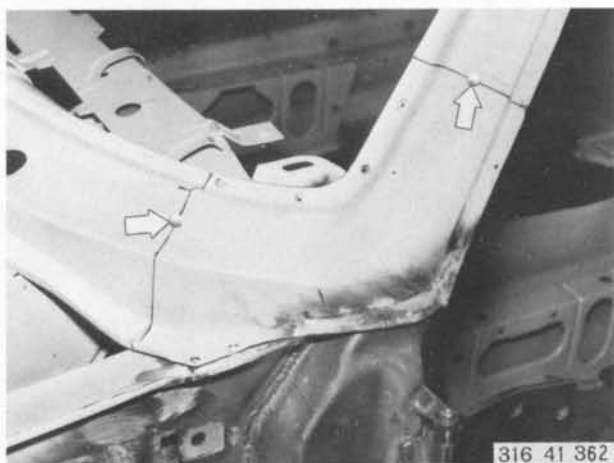
Make up reinforcement plates for apron section and plug weld them to apron with shielded arc welder.



Straighten removed section of apron and drill holes for plug welding with shielded arc welder.



Fit and tack weld apron section.



Weld apron section with shielded arc welder and braze in area (H).





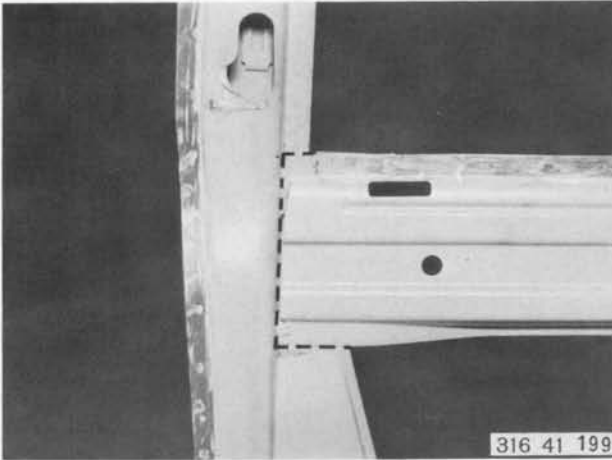
Tin and grind down apron section joints.



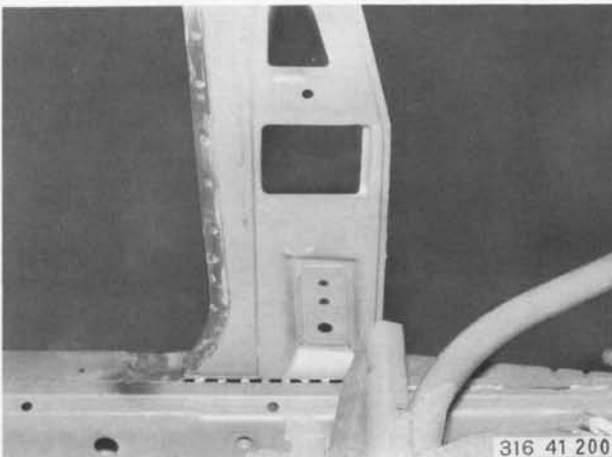
41 21 551 REPLACING RIGHT DOOR PILLAR
- Side Panel Removed -

Remove front seat.

Cut through top of door pillar.

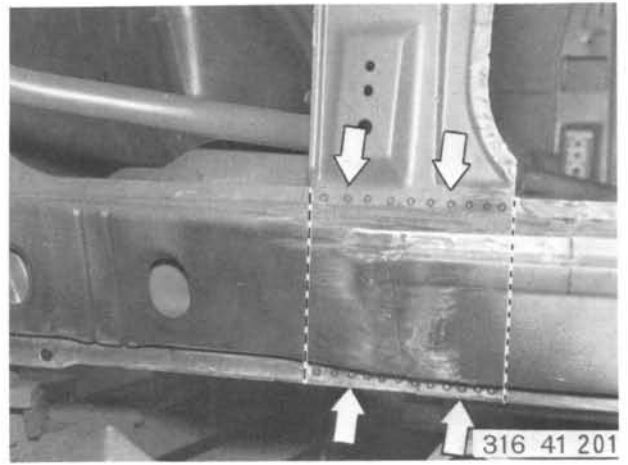


Cut through door pillar at longitudinal strut.

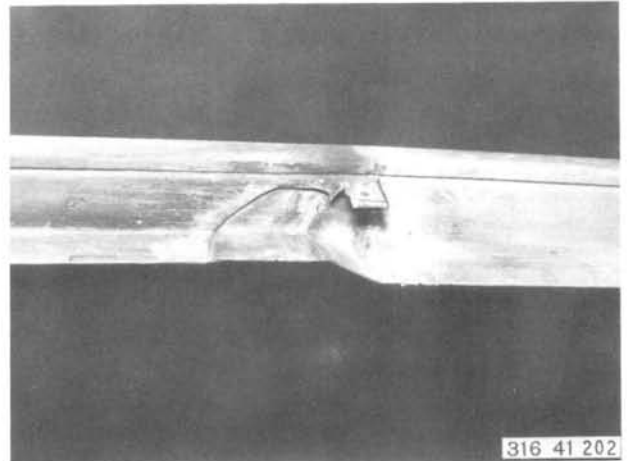


Grind off welding seam at bottom of door pillar.

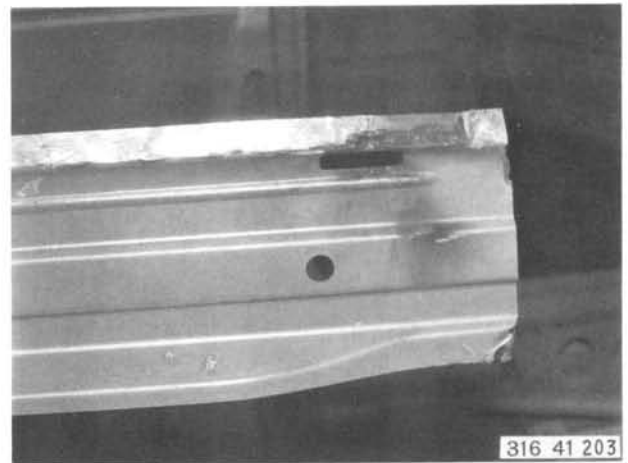
Drill out spot welding at bottom and detach door pillar at side member.



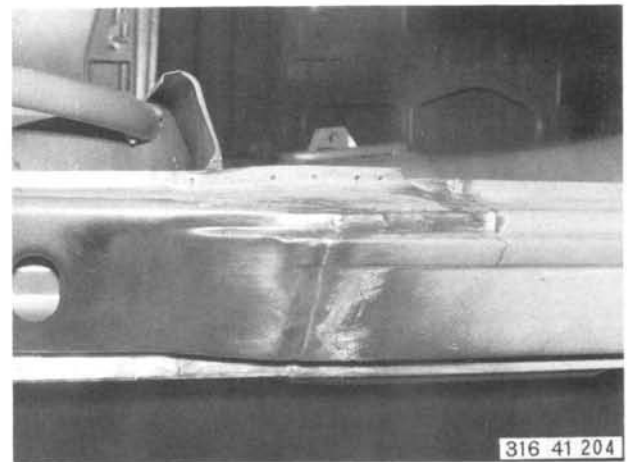
Remove scrap metal at top.
Align mating surfaces.

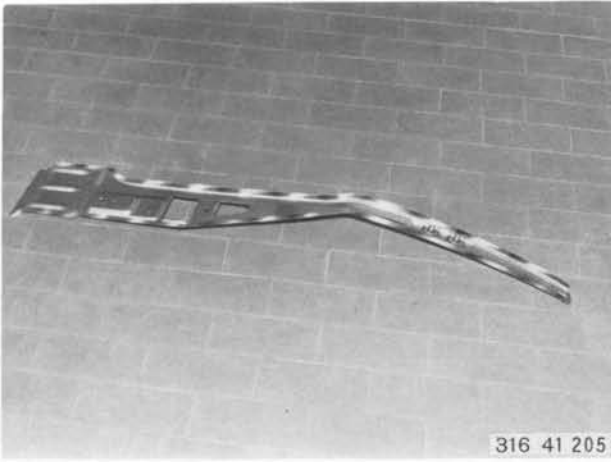


Remove scrap metal at longitudinal strut and align mating surfaces.

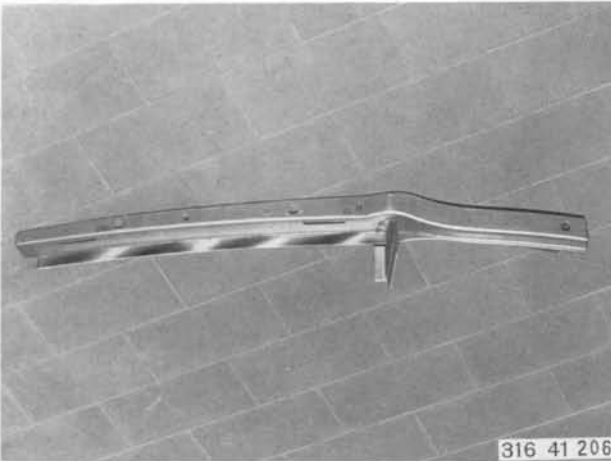


Remove scrap metal at side member and align mating surfaces.

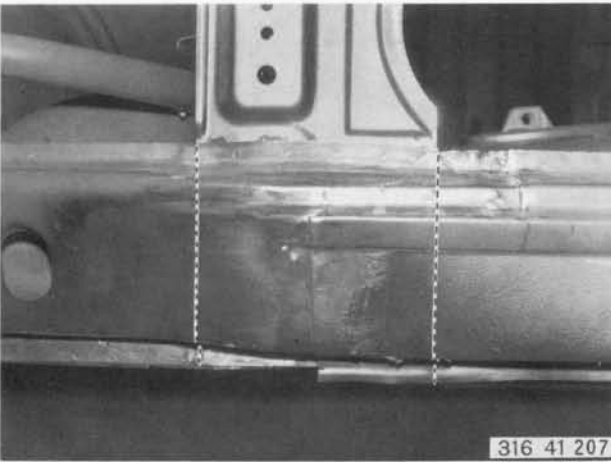




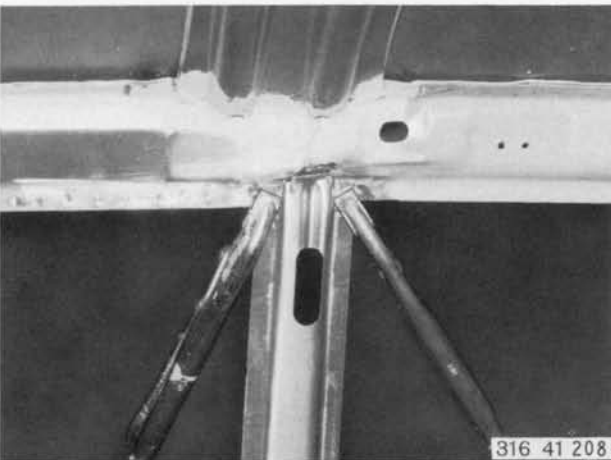
Grind mating surfaces of door pillar connector plate bright on both sides.



Grind mating surfaces of new door pillar bright.

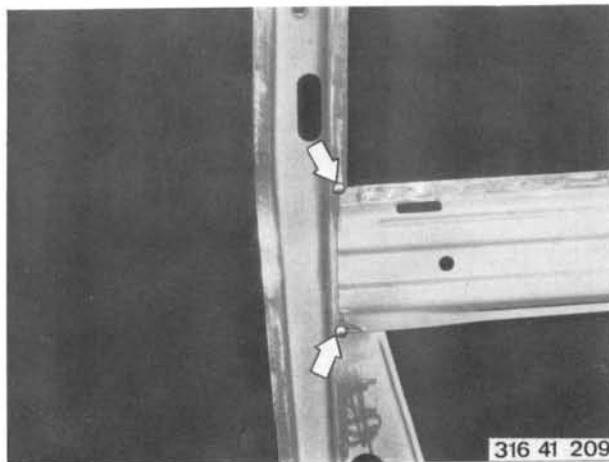


Guide door pillar connector plate into side member.



Align top of connector plate and hold tight with body pliers.

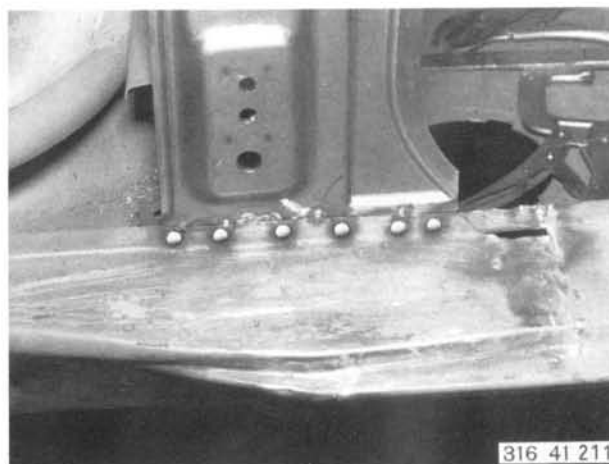
Tack weld longitudinal strut to connector plate.



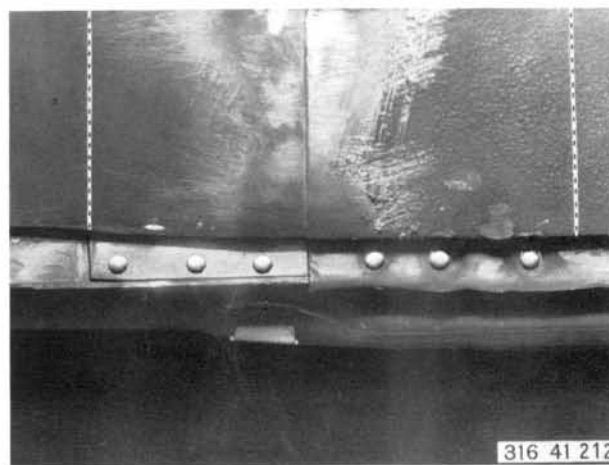
Fit door pillar to connector plate and hold tight with body pliers.

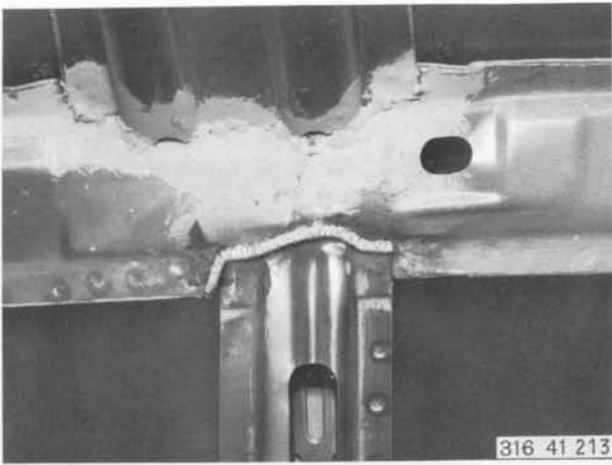


Plug weld bottom of connector plate in area of side member with shielded arc welder.

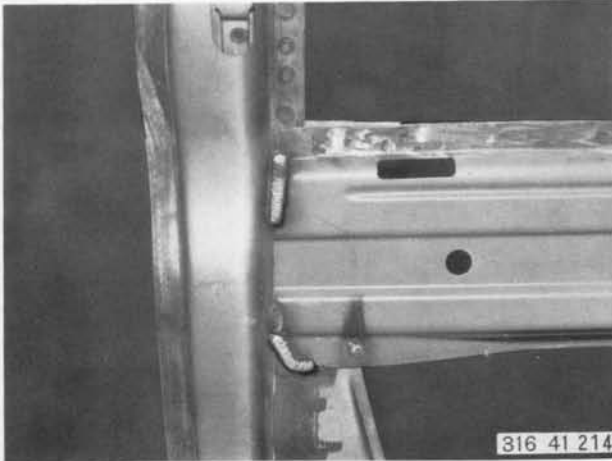


Plug weld bottom of connector plate in area of side member with shielded arc welder.

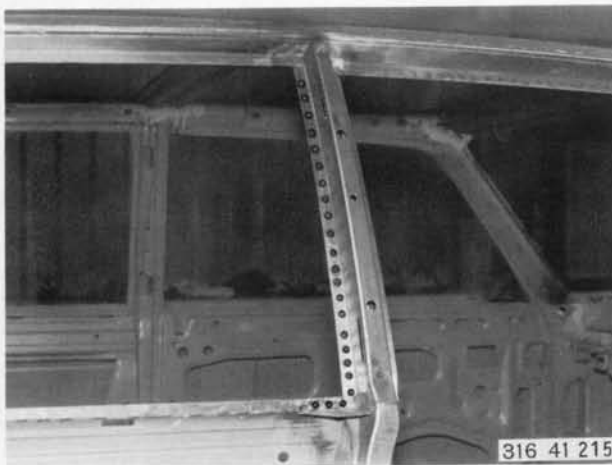




Weld top of connector plate with shielded arc welder.



Weld connector plate to longitudinal strut with shielded arc welder.



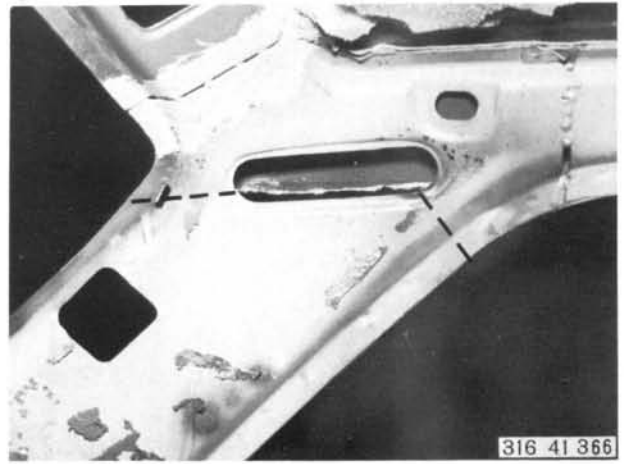
Spot weld door pillar to connector plate.
Grind all welding seams smooth.



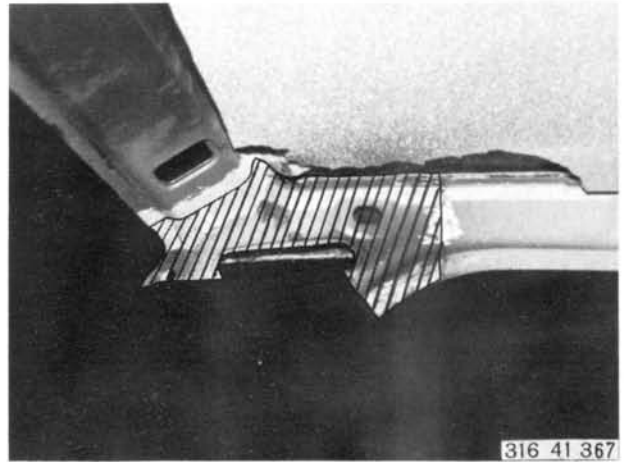
41 21 635 REPLACING UPPER PILLAR SECTION FOR REAR
LEFT SIDE PANEL
- Rear Side Panel Removed -

Drill out spot welding on wheelhouse.

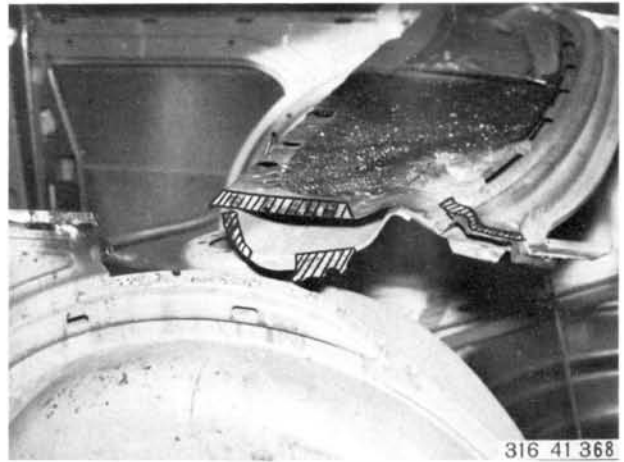
Cut through top of pillar.



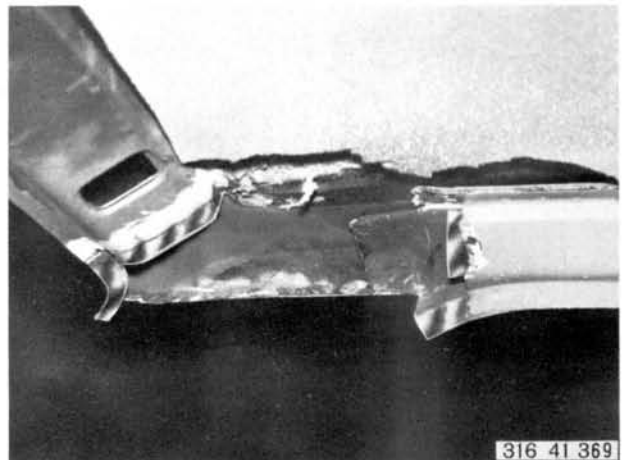
Remove scrap metal.



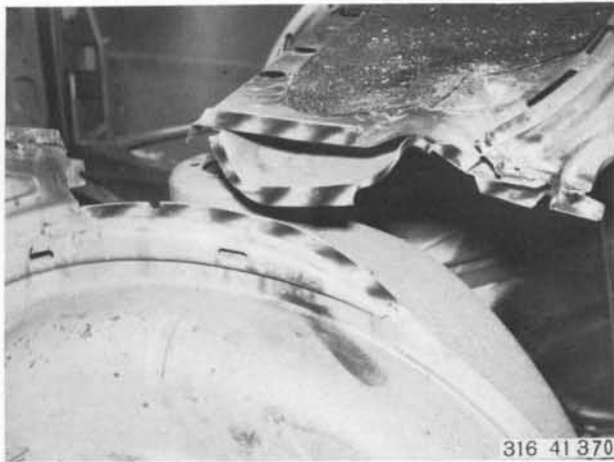
Remove scrap metal.



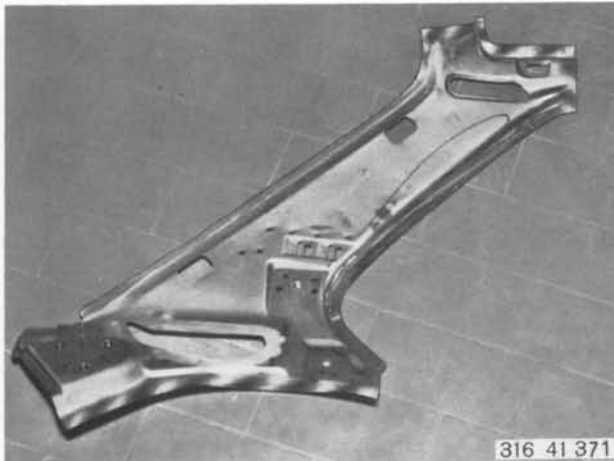
Align and grind top mating surfaces bright.



6.76



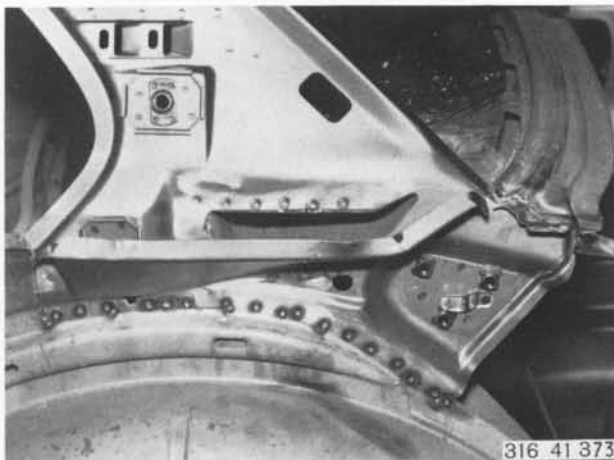
Align and grind bottom mating surfaces bright.



Grind mating surfaces of new pillar section bright.

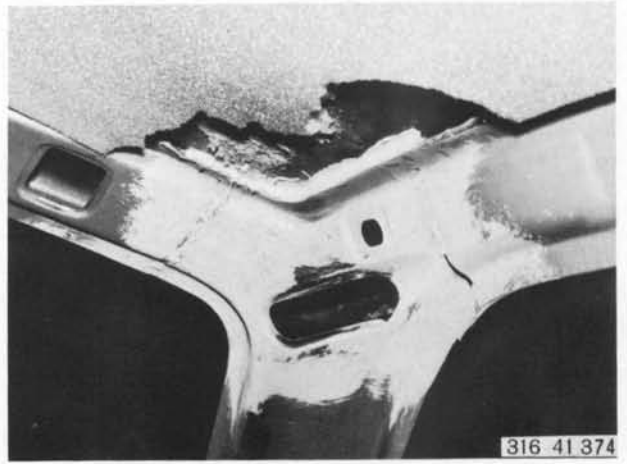


Fit pillar section and tack weld top.



Spot weld pillar section to wheelhouse.

Coat pillar section/roof panel joint with joint sealing compound.



41 31 001 REPLACING OUTER ROOF PANEL

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

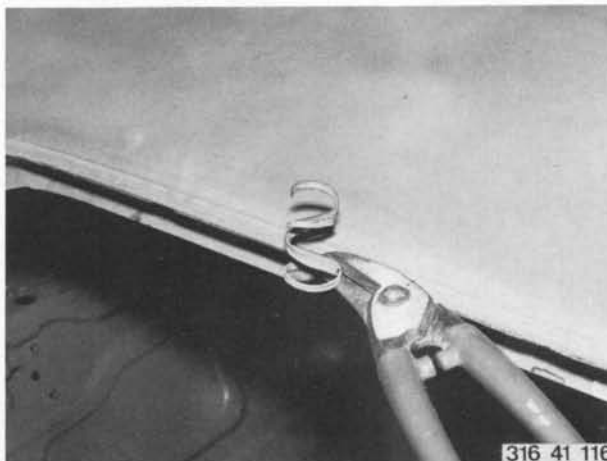
Remove battery minus cable, windshield, rear window, both rear side windows, front seats, rear seat cushion and backrest, hatrack, seat belts, rear side trim, sun visors and holders, grips, ceiling light, left and right edge guards, headliner at A, B and C pillars, both B pillar covers, side window frame, hoopsticks with headliner, both rain molding strips and air extraction plates on C pillars.

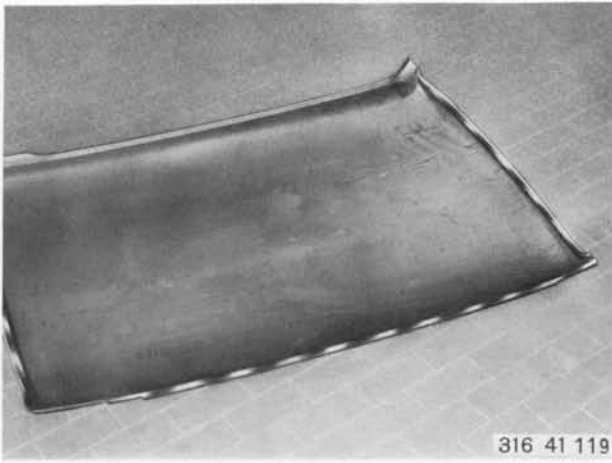
Remove tin or brazing at mating surfaces in rear roof corners.

Cut off rain moldings with metal cutters.

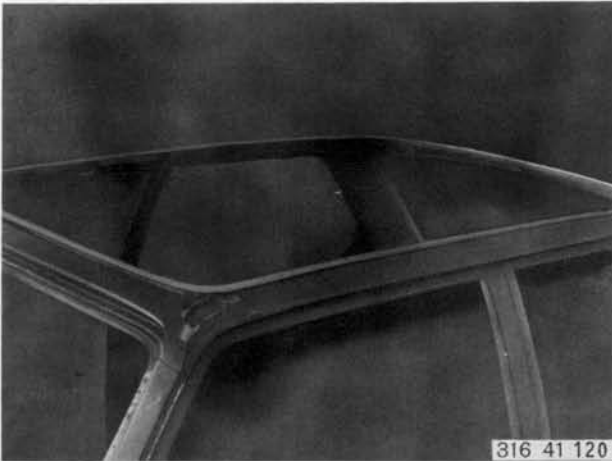
Cut through outer roof panel along line with cutting wheel.

Remove scrap metal and swollen rubber at mating surfaces. Align mating surfaces for outer roof panel and grind both sides bright. To avoid difficulties when fitting new outer roof panel, it is recommended to cut out roof hoopstick even if it is not damaged.





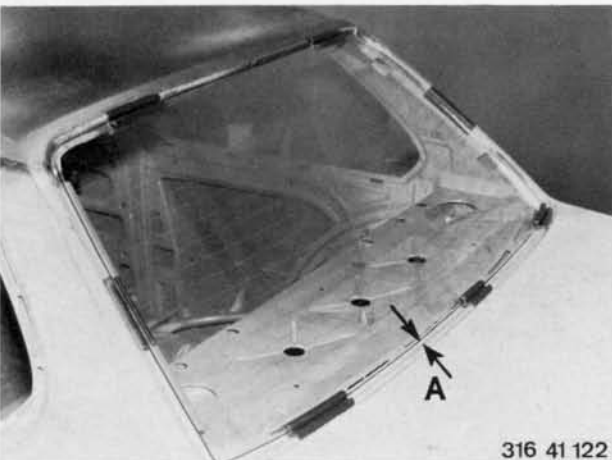
Grind mating surfaces of new outer roof panel bright on both sides.



Install swollen rubber or Terostat tape on roof frame.
Coat mating surfaces of outer roof panel with zinc powder paint.

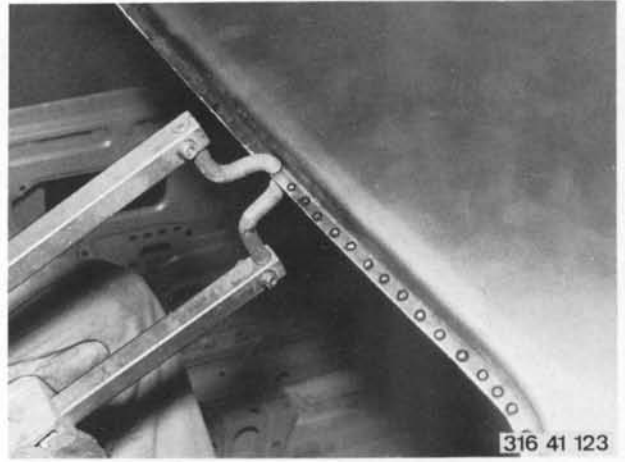


Hold outer roof panel in position with body pliers.
Perhaps tack weld in window opening at one point.

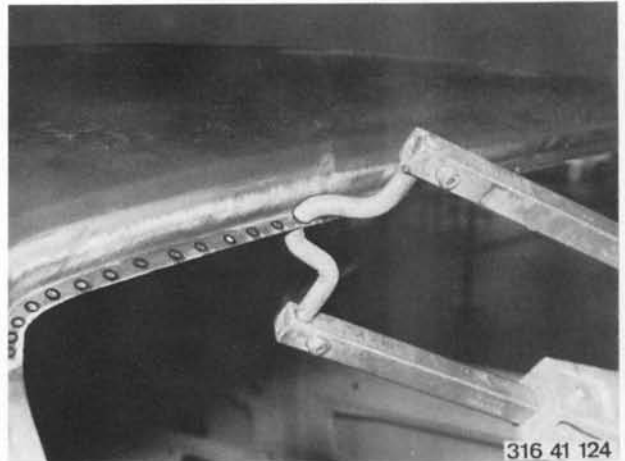


Fit windshield and rear window.
Insert glass panes in window openings with several pieces of a rubber frame.
Distance (A) between glass and frame is 9 mm (.354").
Remove glass panes.

Tack weld outer roof panel at all four corners.
Spot weld outer roof panel to windshield opening.



Spot weld outer roof panel at rear window opening.



Spot weld side of outer roof panel at rain molding.



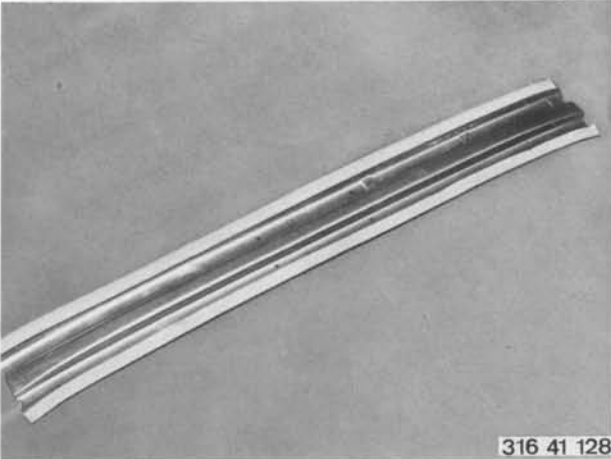
Braze front of outer roof panel to apron.



Braze rear corners of outer roof panel.



Line center roof hoopstick at roof mating surfaces with rubber or Terostat tape.



Press roof hoopstick against outer roof panel lightly and weld with shielded arc welder.



Align and grind both rain moldings.
Tin and grind mating surfaces at front corners of outer roof panel.



Tin and grind mating surfaces at rear corners of outer roof panel.

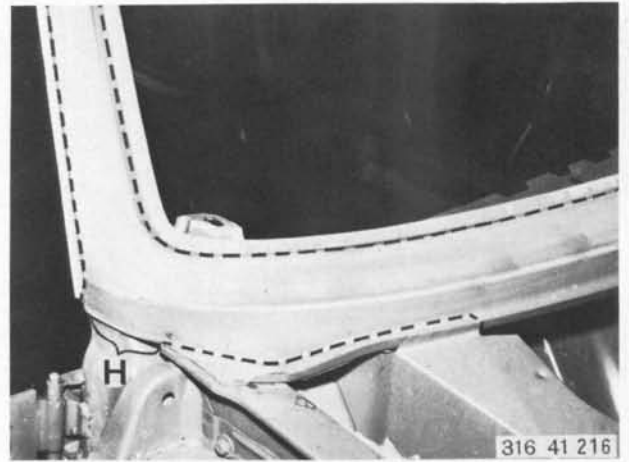


41 32 501 REPLACING APRON TRIM

- Outer Roof Panel Removed -

Remove instrument panel trim, both doors and both windshield wiper shaft holders.

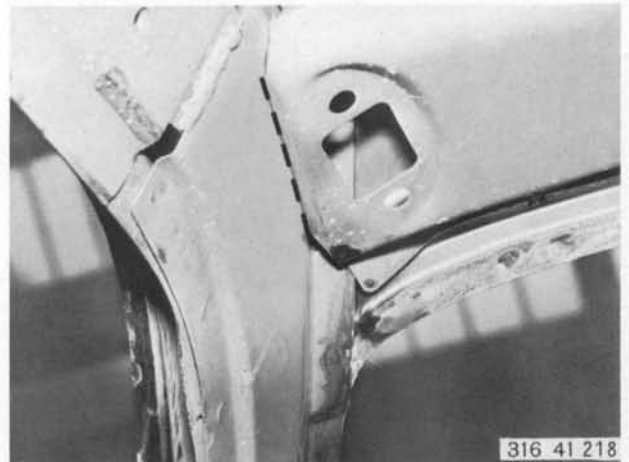
Cut through apron along line and remove brazing (H) with welding torch.



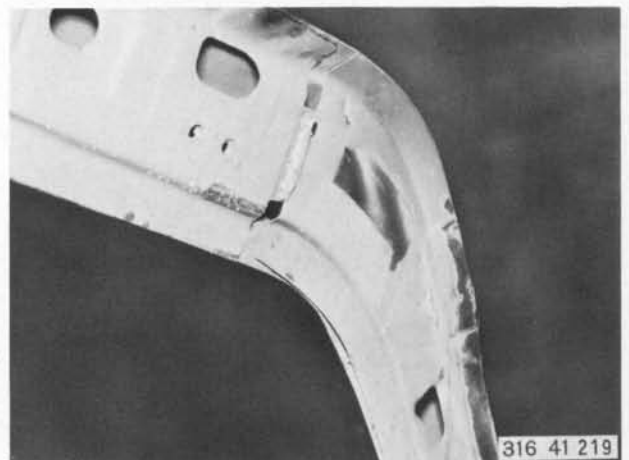
Cut through apron along line.

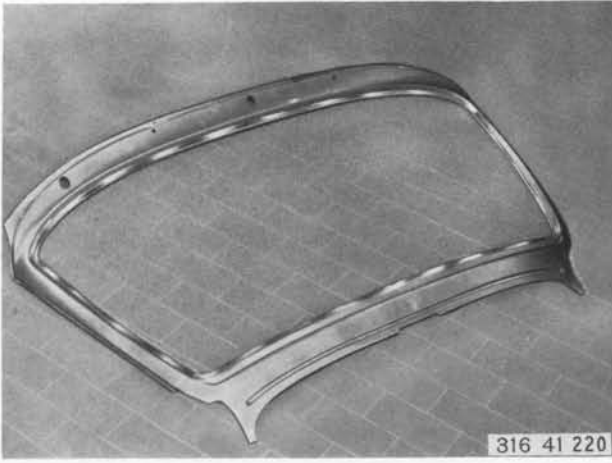


Cut through roof hoopstick.

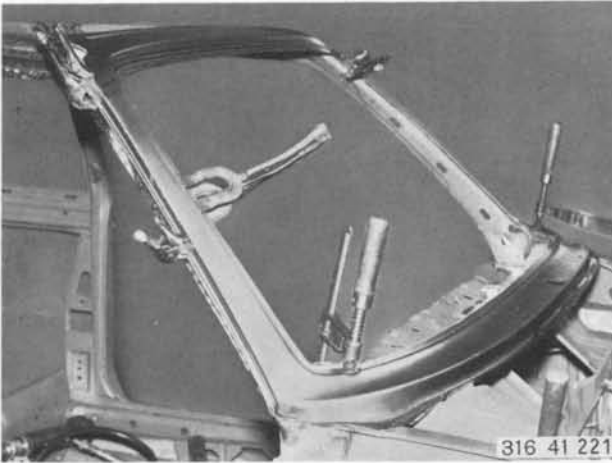


Remove scrap metal.
Align mating surfaces and grind both sides bright.

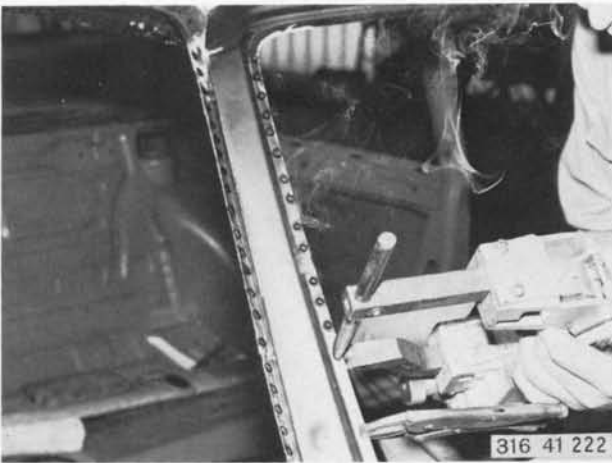




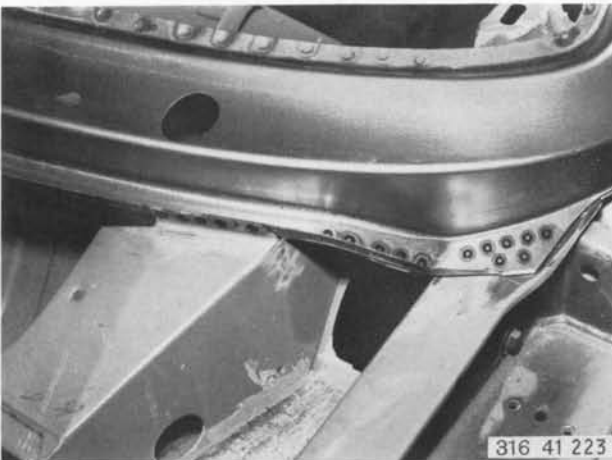
Grind mating surfaces of new apron bright on both sides and coat with zinc powder paint.



Fit apron and hold tight with body pliers or clamps.

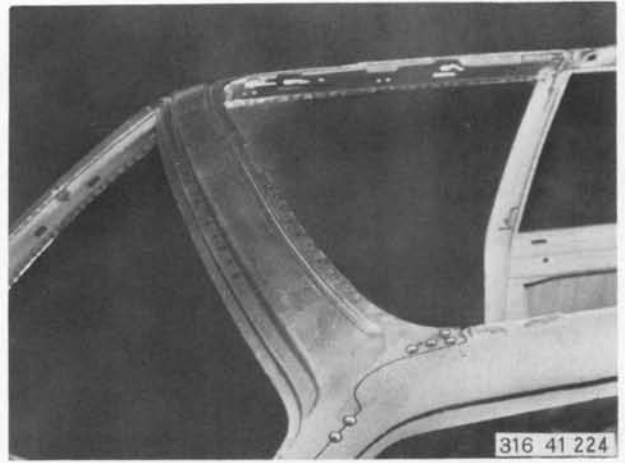


Spot weld apron to window opening and rain molding.

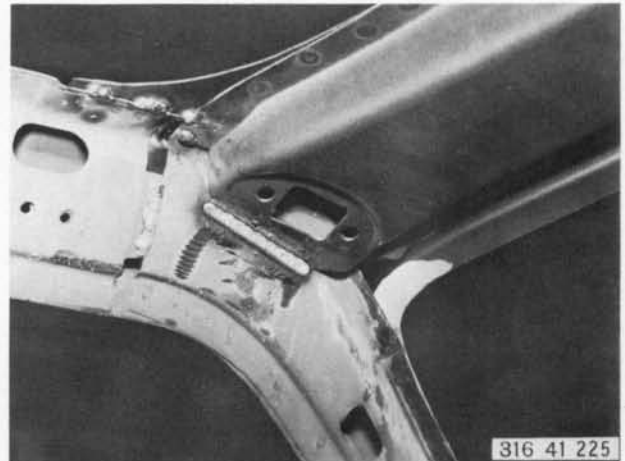


Spot weld apron to wheelhouse.

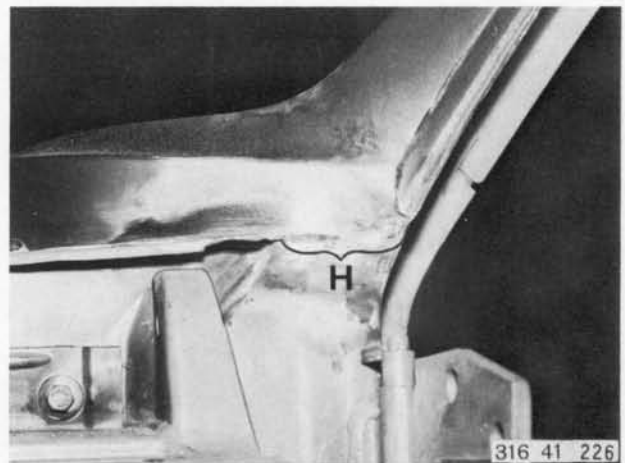
Weld apron to roof frame with shielded arc welder.



Weld roof hoopstick to frame/roof section with shielded arc welder.

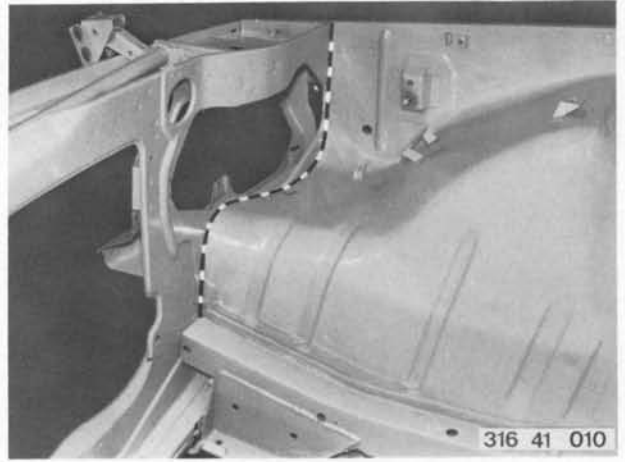


Braze apron in area (H).
Align mating surfaces and grind down welding seams.
Install outer roof panel.

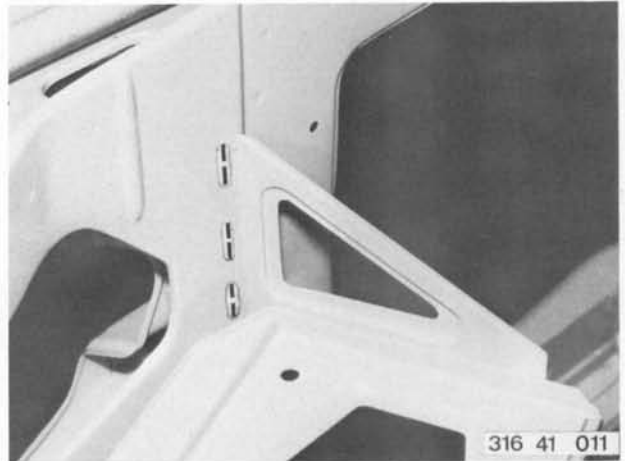


41 33 001 REPLACING FRONT TRIM WITH FRONT PANEL

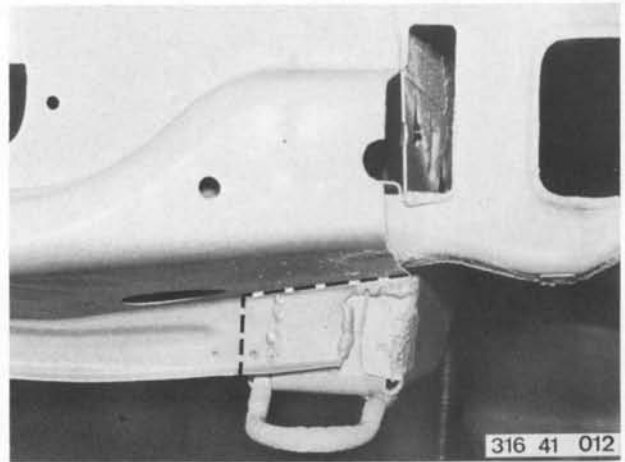
Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.
Remove engine hood - 41 61 000.
Remove radiator - 17 11 000.
Remove front trim lower section - 41 33 081.
Remove bumper with brackets, horns, all front trim parts, headlights, turn signals, battery, engine hood lock, engine hood joints and hinges, and both side panels.
Cut through front trim along line.



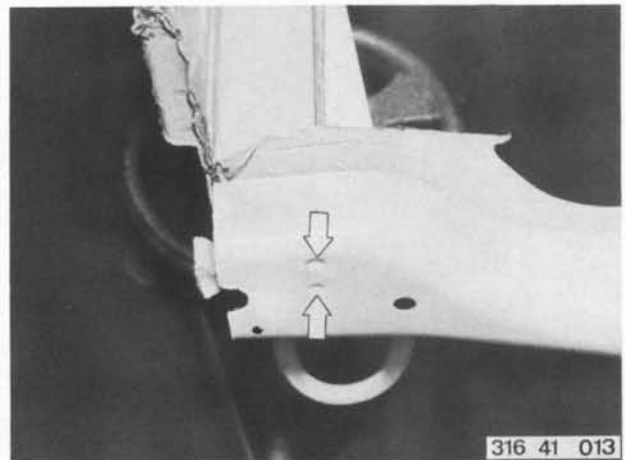
Cut through battery console at front panel.

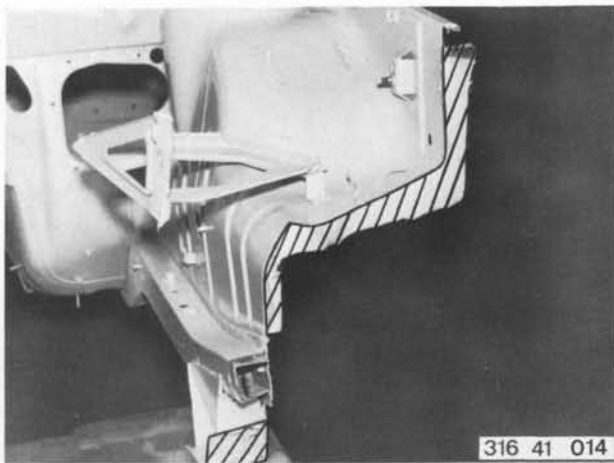


Cut through front panel at engine carrier.

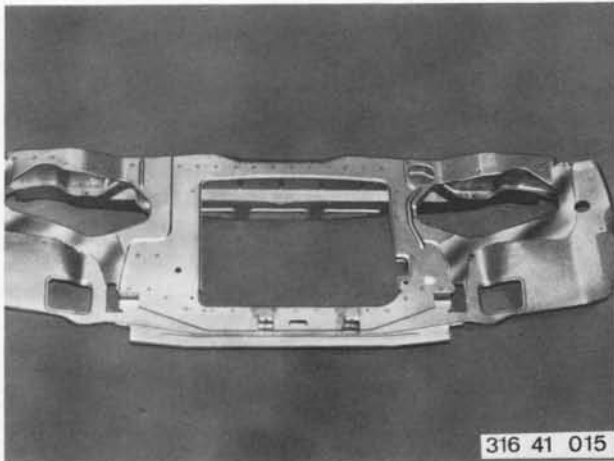


Grind off spot welding on cross member.





Remove scrap metal.
Align mating surfaces and grind both sides bright.



Grind mating surfaces of new front panel bright on both sides.

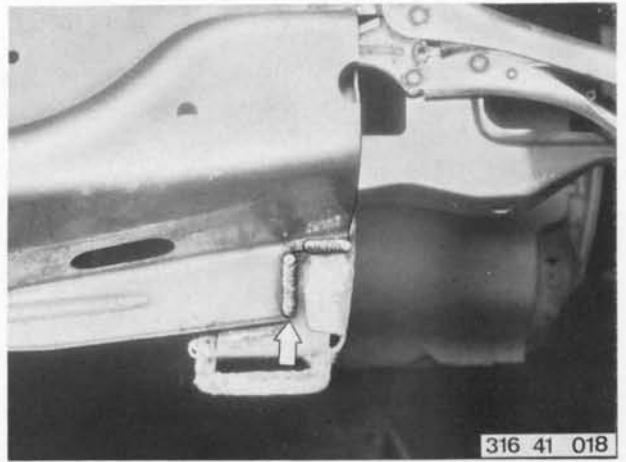


Coat mating surfaces with zinc powder paint.

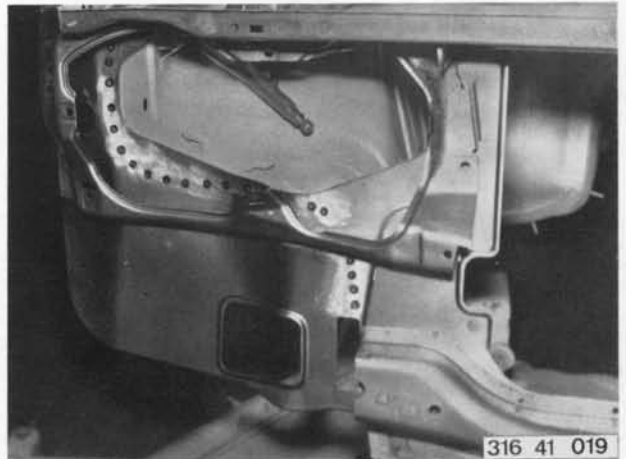


Fit front trim and hold in position with body pliers.

Weld front panel to engine carrier with shielded arc welder.



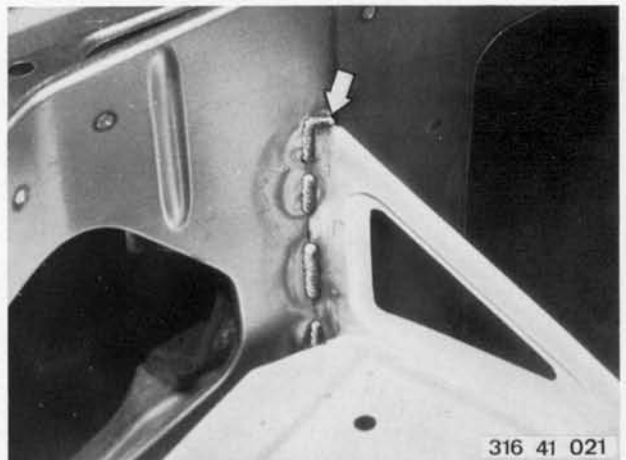
Spot weld front trim to wheelhouses.

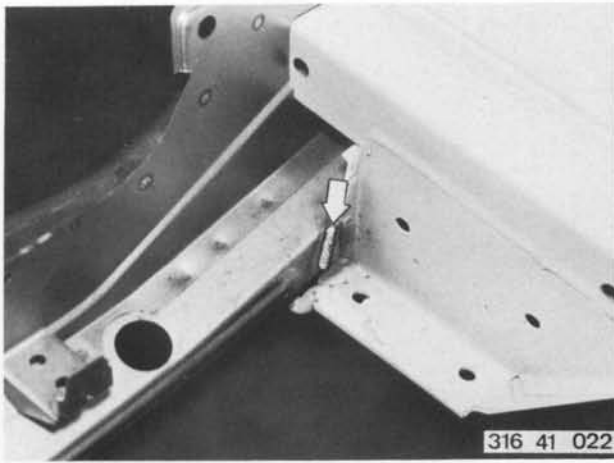


Spot weld front trim to wheelhouses.

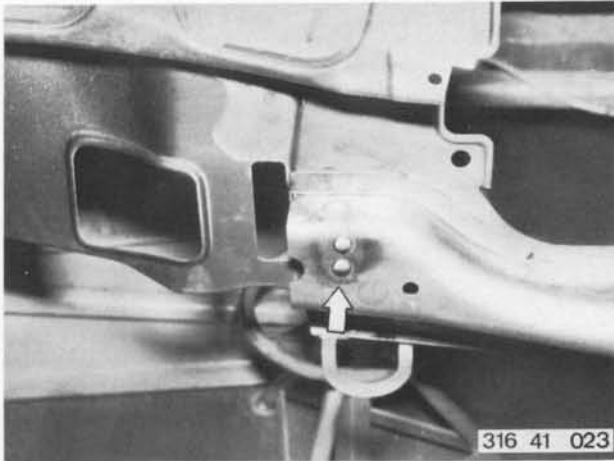


Weld battery console to front trim with shielded arc welder.

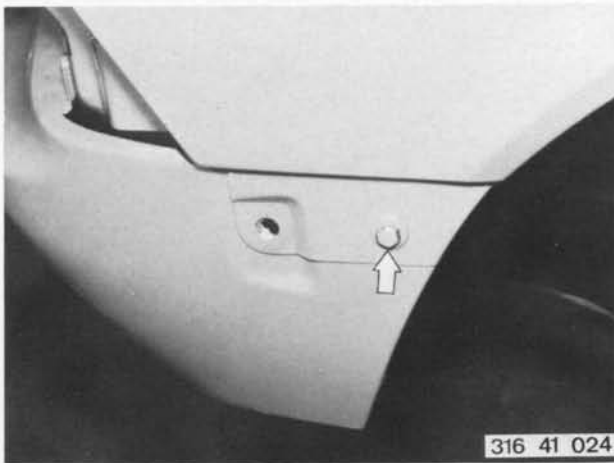




Weld front trim to engine carrier with shielded arc welder.

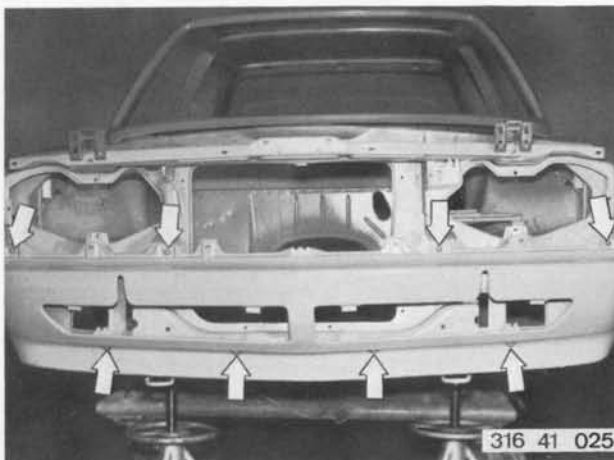


Spot weld front trim to engine carrier with shielded arc welder.



41 33 081 REPLACING FRONT TRIM LOWER SECTION

Remove metal screws from side panel.



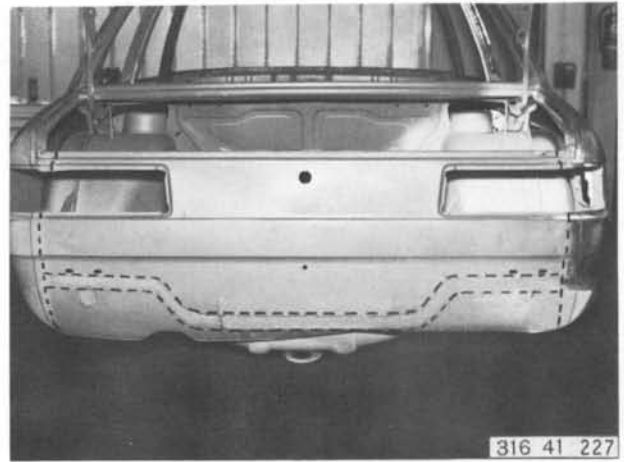
Unscrew metal screws.
Remove front trim lower section.

41 34 121 REPLACING TAIL PANEL AND ENTIRE TRUNK FLOOR

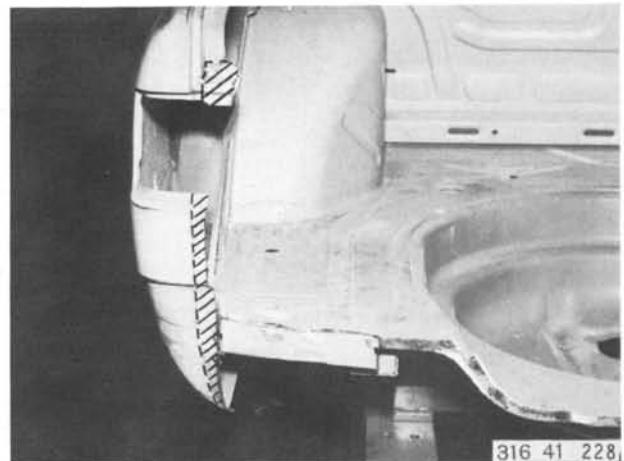
Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove both tail lights, bumper, harness, spare wheel cover, tools, jack, trunk lid seal, trunk lid lock, trunk lid lock cylinder, vent line, both rear wheels, final muffler and final drive.

Cut through tail panel along line.



Remove scrap metal.

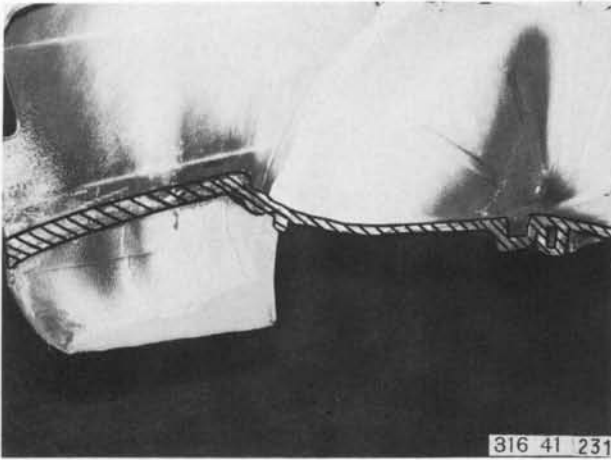


Remove scrap metal.

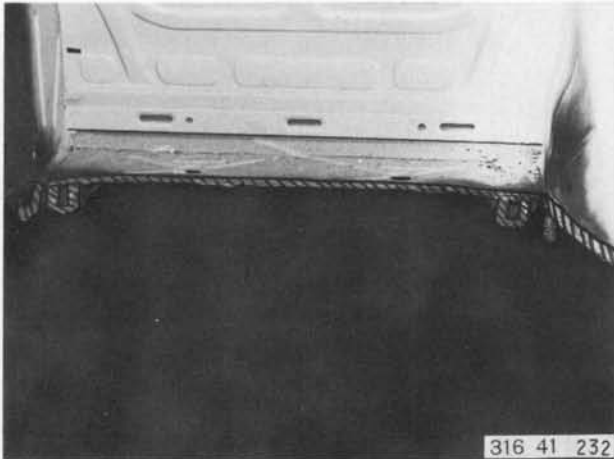


Cut through trunk floor along line.

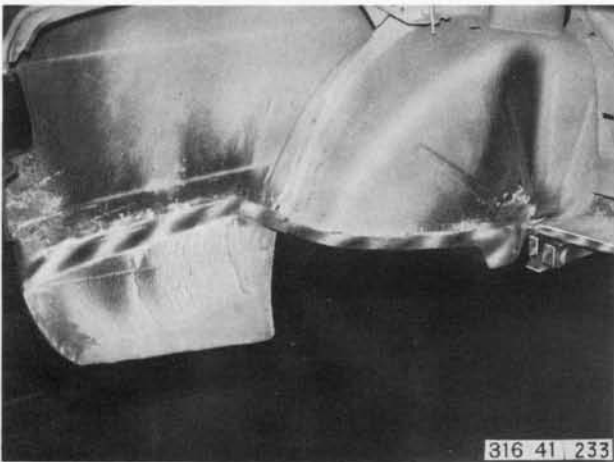




Remove scrap metal.



Remove scrap metal.



Align mating surfaces and grind both sides bright.



Grind mating surfaces of new trunk floor bright on both sides and coat with zinc powder paint.

Install car on straightening bench and tack weld trunk floor according to self-aligning support fixture.

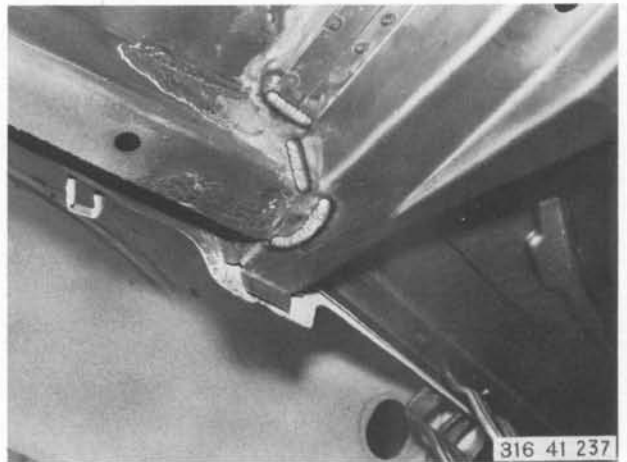
Plug weld trunk floor with shielded arc welder.



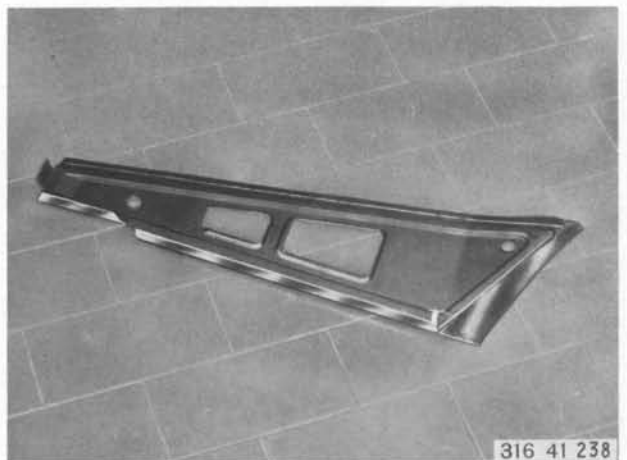
Weld cross member to right side member with shielded arc welder.

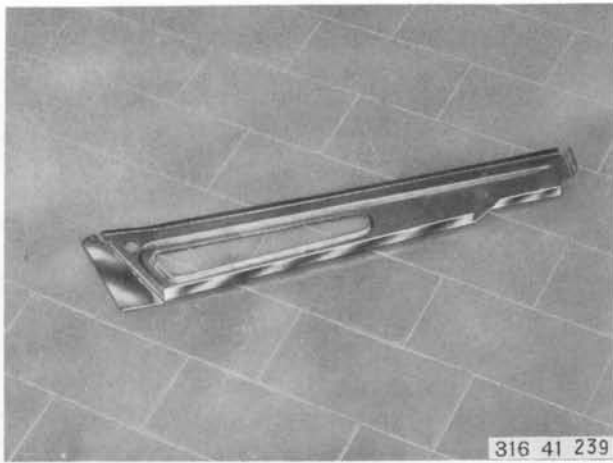


Weld cross member to left side member with shielded arc welder.

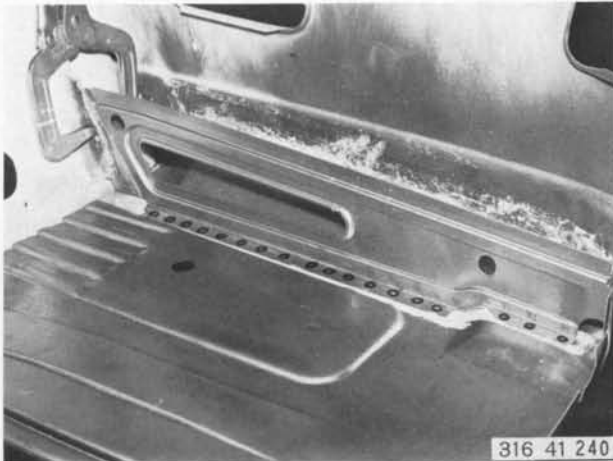


Grind mating surfaces of new left separating wall bright on both sides and coat with zinc powder paint.





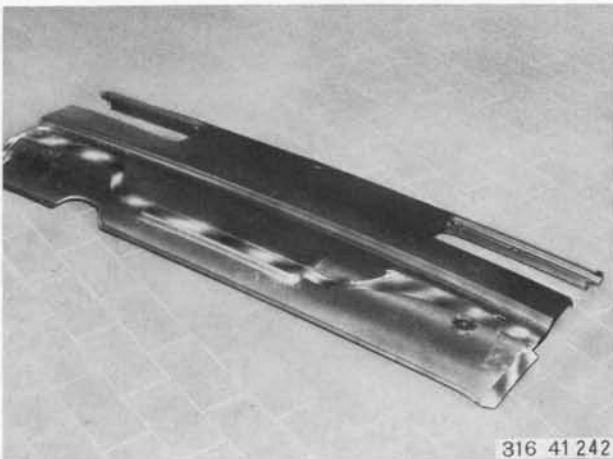
Grind mating surfaces of new right separating wall bright on both sides and coat with zinc powder paint.



Spot weld right separating wall to trunk floor.

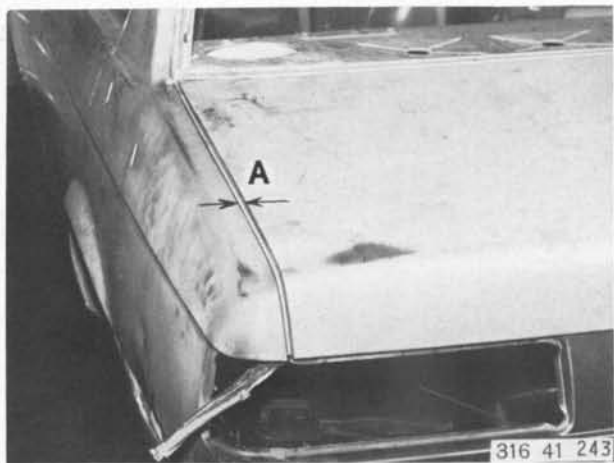


Spot weld left separating wall to trunk floor.

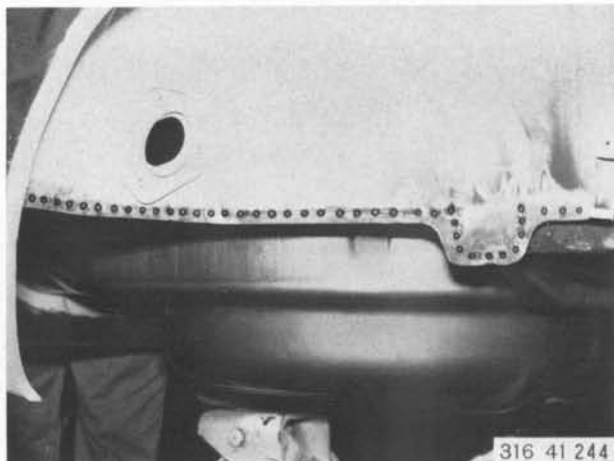


Grind mating surfaces of new tail panel bright on both sides and coat with zinc powder paint.

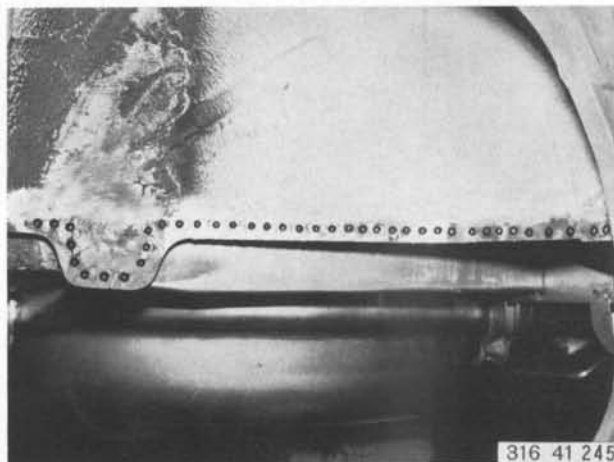
Fit and tack weld tail panel.
Close trunk lid to check whether gap (A) is equal on
left and right-hand sides.



Spot weld trunk floor to right wheelhouse.

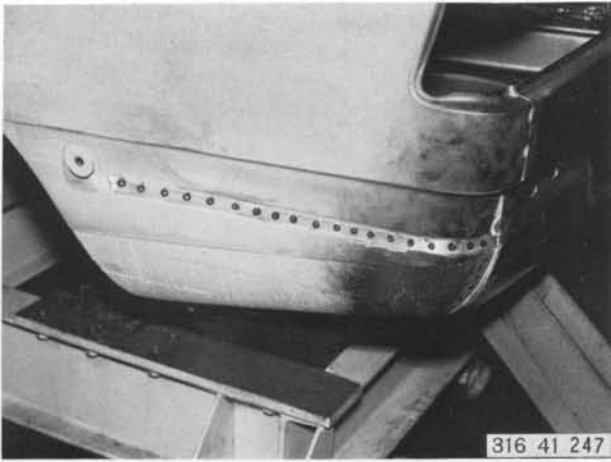


Spot weld trunk floor to left wheelhouse.



Spot weld trunk floor to right side panel.





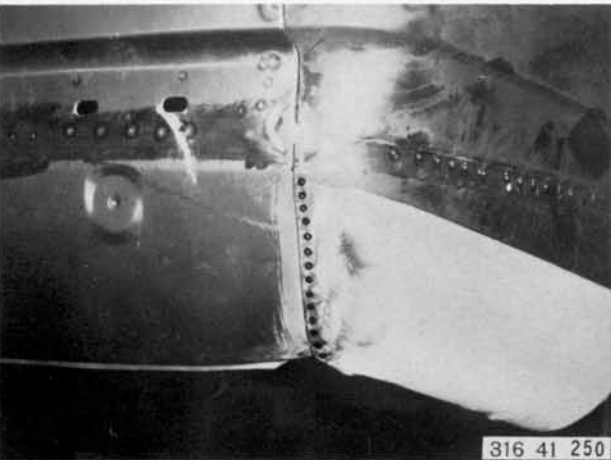
Spot weld trunk floor to left side panel.



Spot weld tail panel to trunk floor and separating walls.

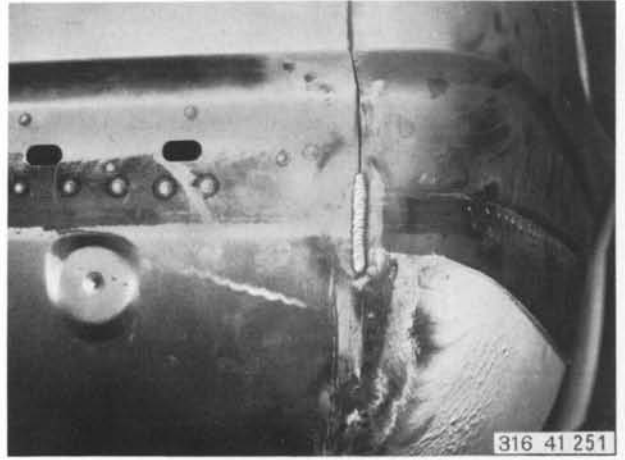


Weld left and right separating walls to wheelhouse with shielded arc welder.



Spot weld tail panel to side panels.

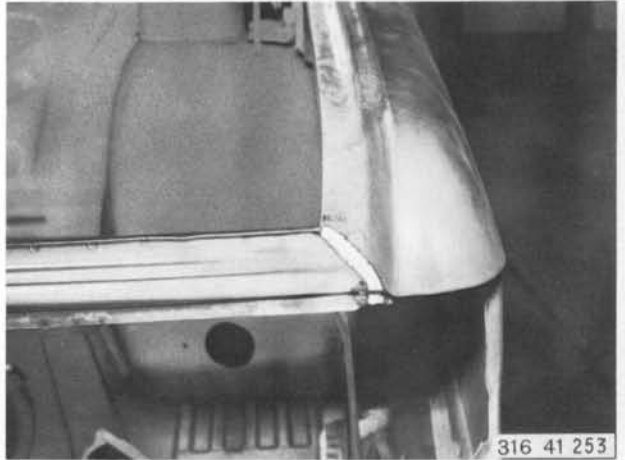
Gas weld (autogenous) tail panel to side panel.



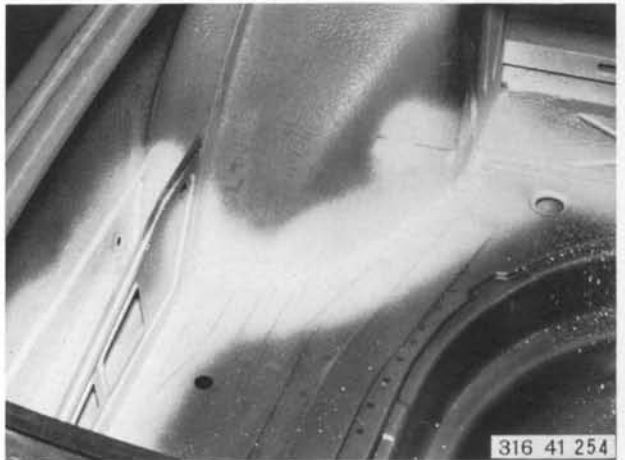
Weld tail panel to side panel (gas weld land).



Braze tail panel to side panel.



Coat side panel/trunk floor with joint sealing compound and spray with Body Plast.



Coat trunk floor/tail panel joint with joint sealing compound and spray with Body Plast.



41 35 000 REMOVING AND INSTALLING OR REPLACING
FRONT SIDE PANEL

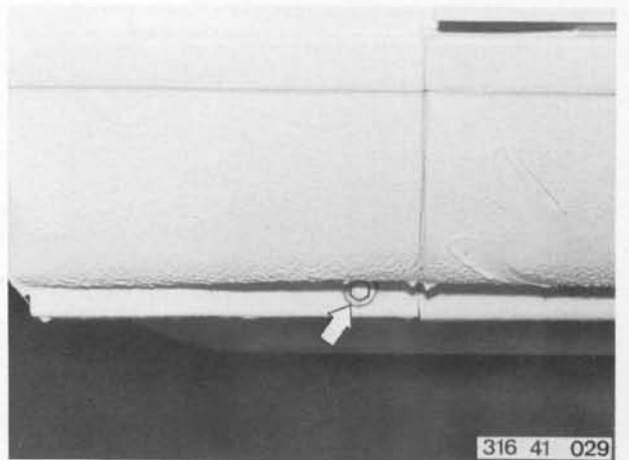
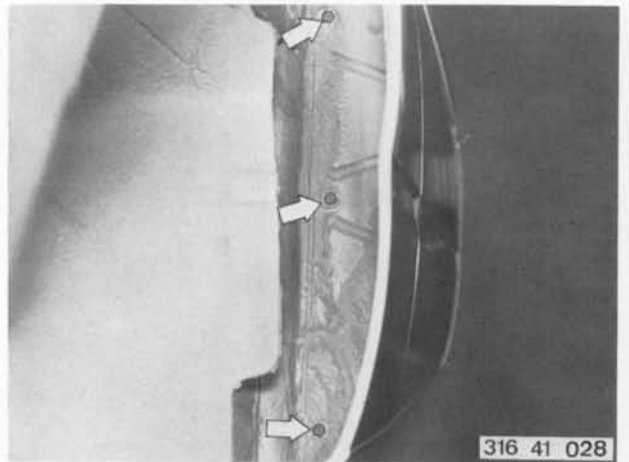
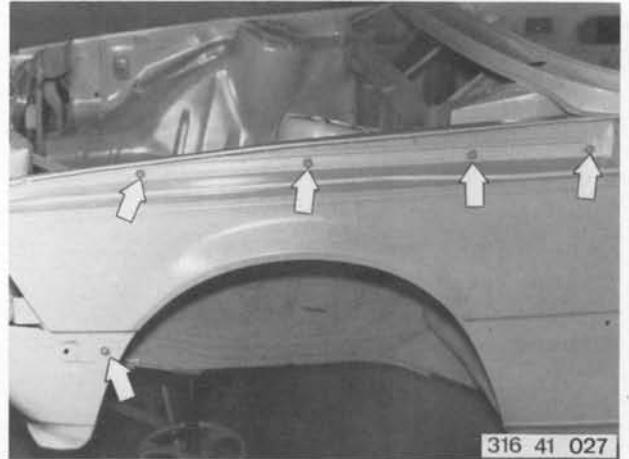
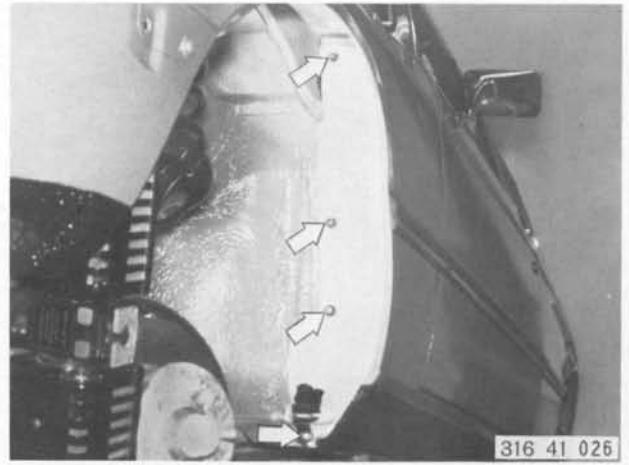
Remove upper grill, turn signal and bumper.

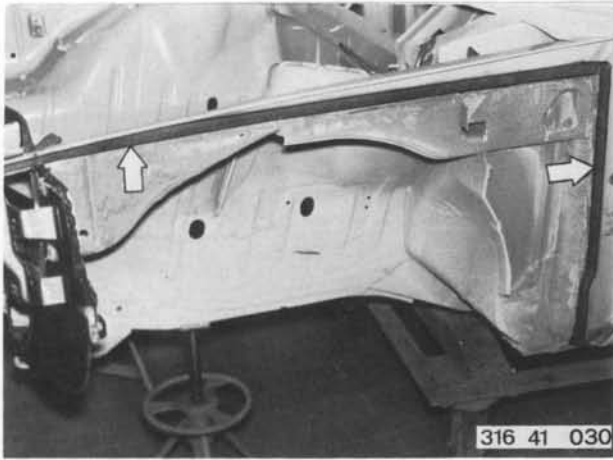
Remove fire wall panel.

Unscrew metal screws.

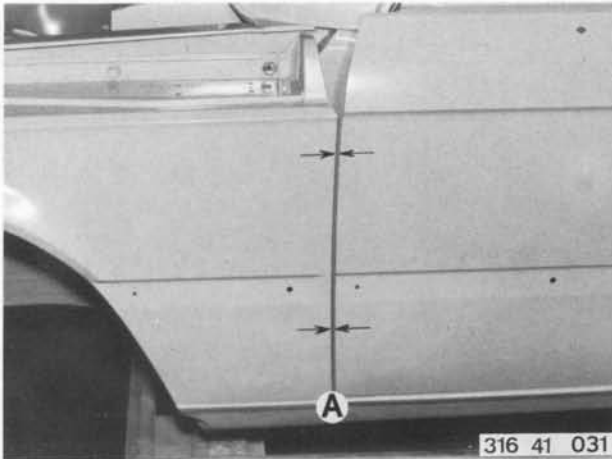
Unscrew metal screws on inside of side panel.

Unscrew metal screws on entrance.

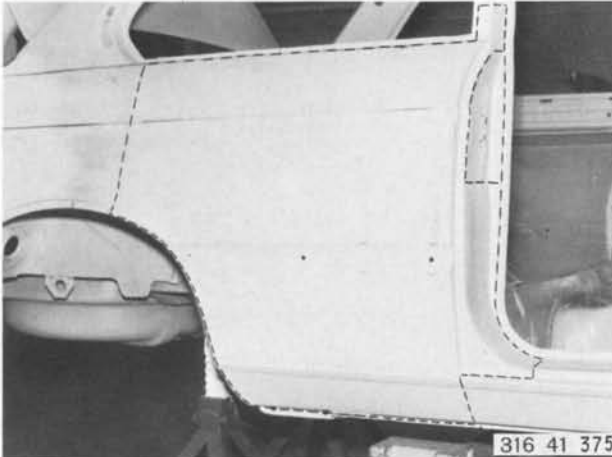




Installation Note! Use Terostat tape.



Installation Note! Align side panel and make sure that door gap (A) is even before tightening metal screws.
Align engine hood.



41 35 294 REPLACING REAR RIGHT SIDE PANEL (B PILLAR/
WHEELHOUSE PARTIAL REPLACEMENT)

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts.

Remove rear seat cushion and backrest, automatic seat belts, side trim, side window with frame, B pillar trim, side panel rubber guard strip, edge guard with rubber seal, bracket/thrust rod and striker.

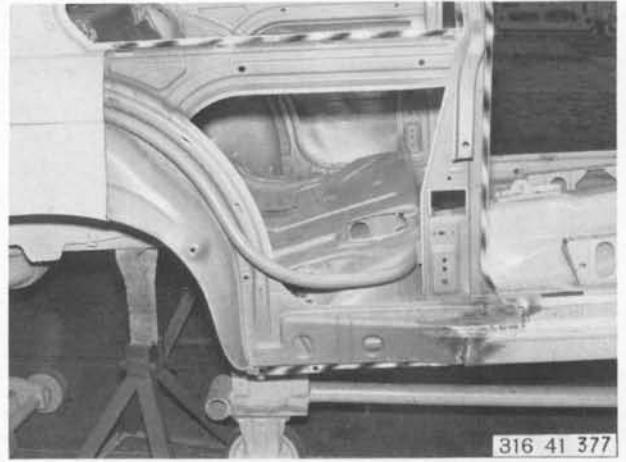
Detach carpet at entrance to extent required.

Cut through side panel along line.

Remove scrap metal.



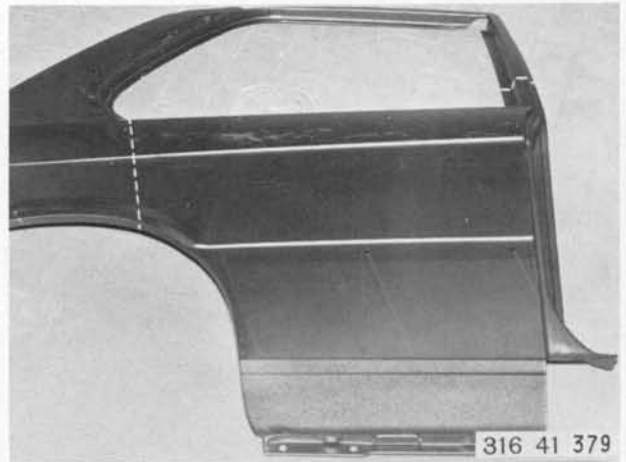
Align mating surfaces and grind both sides bright.



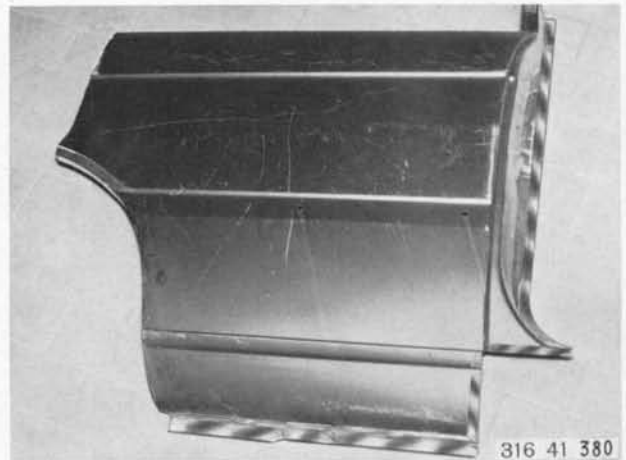
Shoulder mating edge for partial replacement with shoulder pliers.

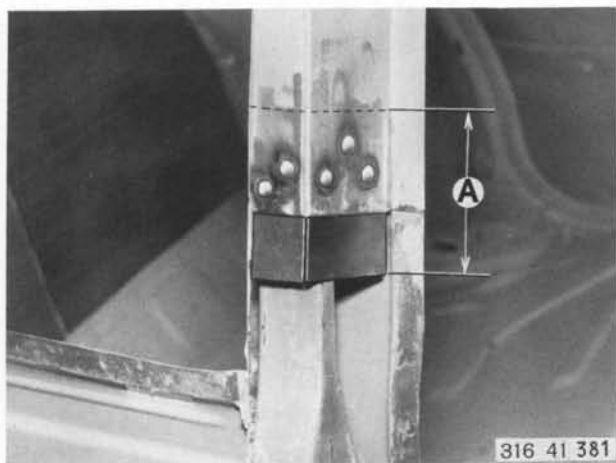


Cut off matching piece from a new side panel.



Fit partial replacement section, grind mating surfaces bright on both sides and coat with zinc powder paint.

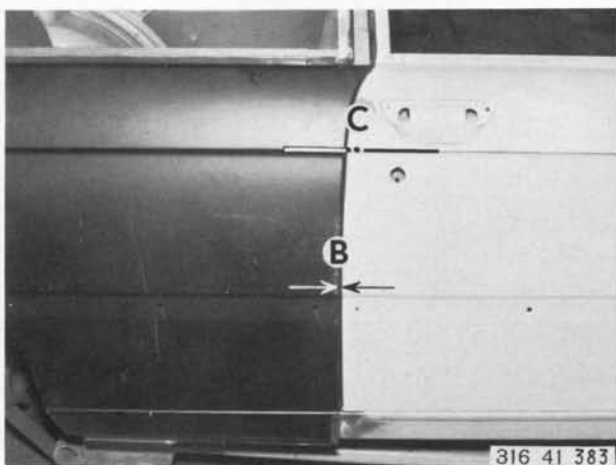




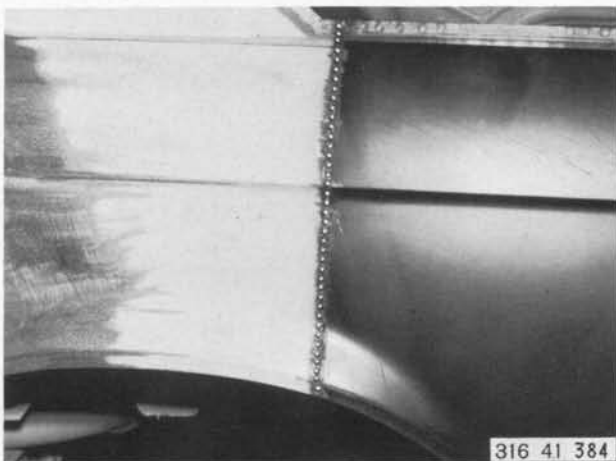
Make up reinforcement plate for B pillar and plug weld with shielded arc welder.
Distance A = 60 mm (2.362").



Drill holes for plug welding with shielded arc welder.



Tack weld partial replacement section.
Check door gap (B) and make sure that bead (C) aligns.



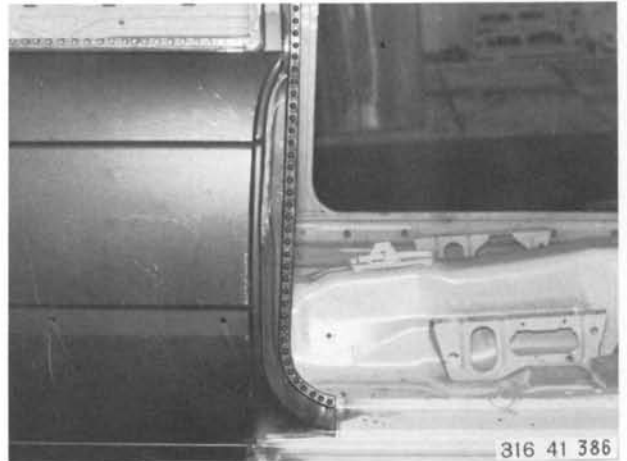
Weld partial replacement section to remaining part of side panel.

Caution! Don't use too much heat on side panel to prevent distortion.

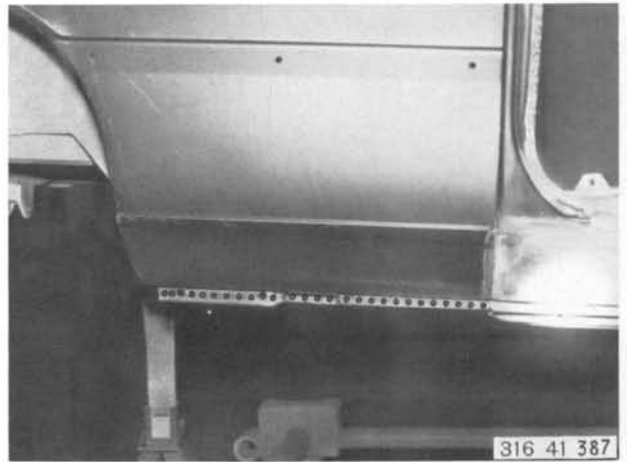
Spot weld side panel to window opening.



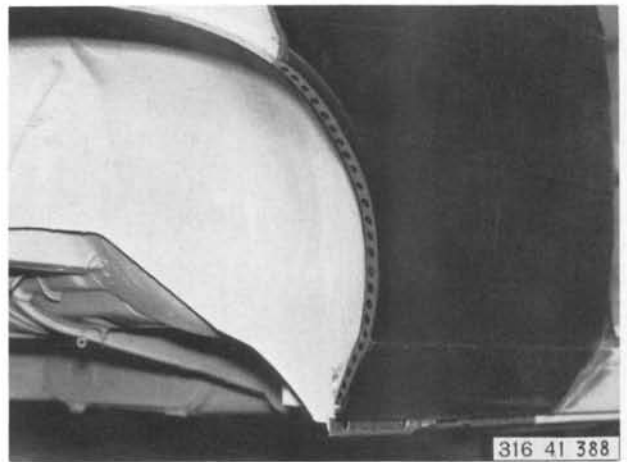
Spot weld side panel at door opening.

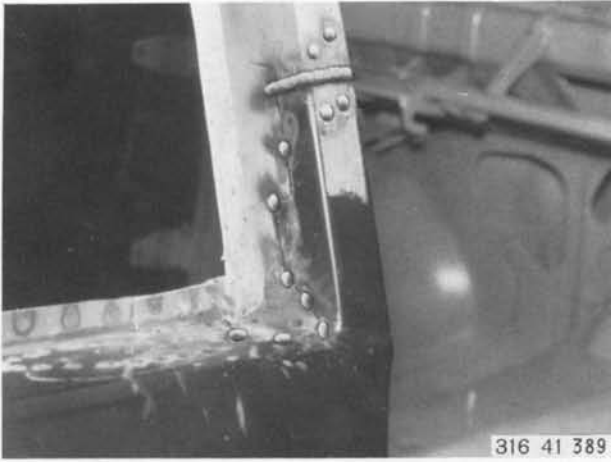


Spot weld side panel to side member.

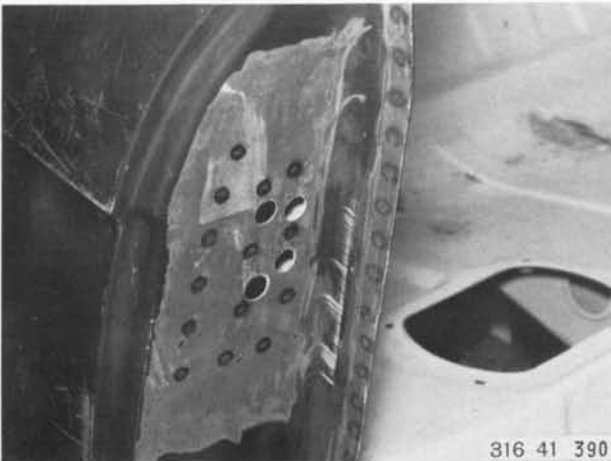


Spot weld side panel to wheelhouse.

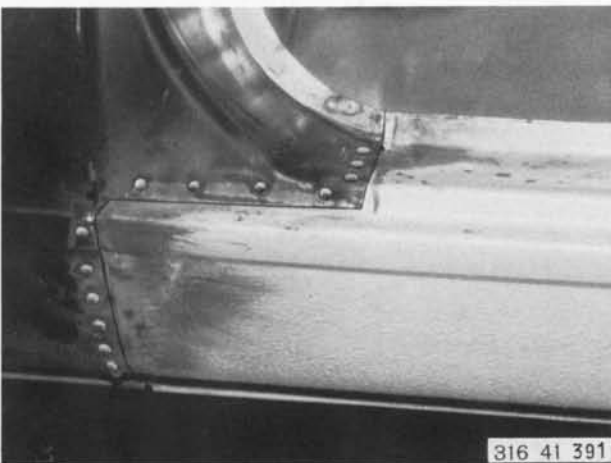




Weld B pillar with shielded arc welder.



Spot weld side panel to B pillar.

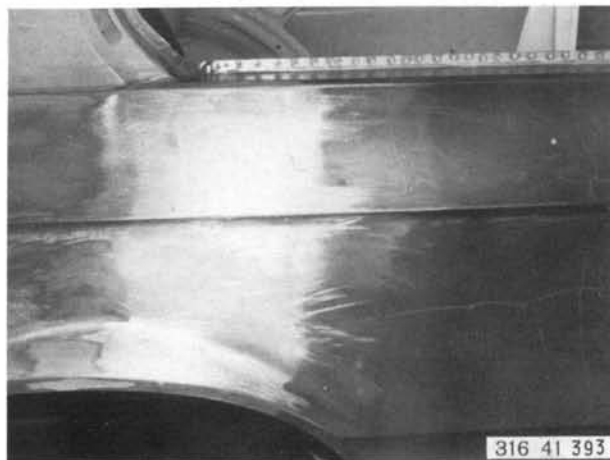


Drill holes for plug welding entrance.
Plug weld side panel in area of entrance with
shielded arc welder.

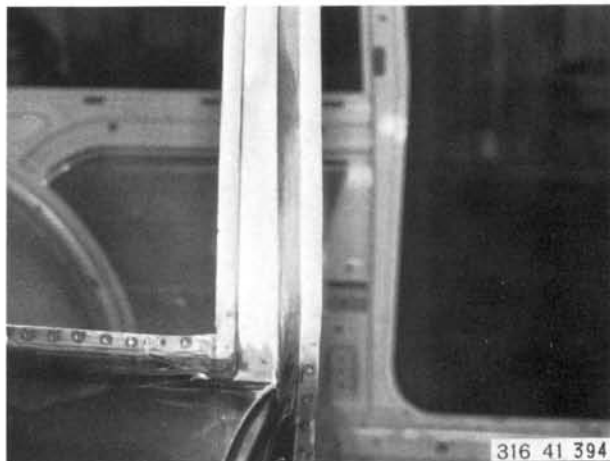


Braze side panel in area of entrance.

Grind all welding seams.
Tin partial replacement section/remaining side panel joint.



Tin B pillar joint.



Coat side panel joints with joint sealing compound (inside) and spray with Body Plast (inside and entrance).

41 35 311 REPLACING REAR LEFT SIDE PANEL (PARTIAL REPLACEMENT) AND TAIL PANEL

Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts. Remove trunk lid, rear window, rear seat cushion and backrest, hatrack, automatic seat belts, side trim, wide window with frame, B pillar trim, side panel rubber guard strip, both tail lights, bumper, trunk lid lock with cylinder, trunk lid seal, spare wheel cover, jack, tools, edge guard with rubber seal, bracket/thrust strut and license plate.

Detach carpet at entrance, headliner at C pillar and harness to extent required.

If necessary, remove vent line, fuel filler neck and fuel filler neck flap.

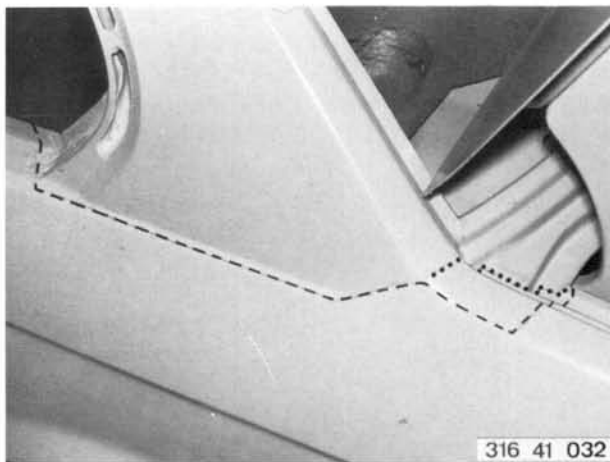
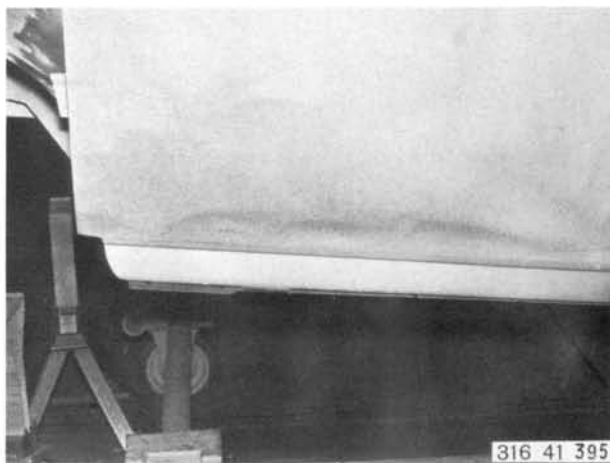
Detach final muffler.

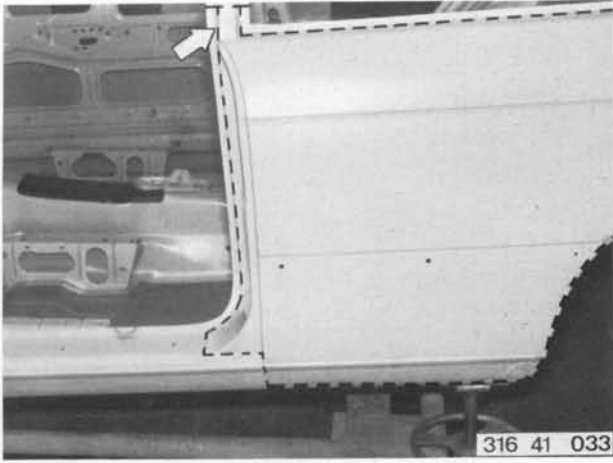
Cut through side panel along line.

Caution! Make cut with cutting wheel and steel saw, so that rubber above cutting line will not be destroyed by heat.

Possible repair cut A - - - - -

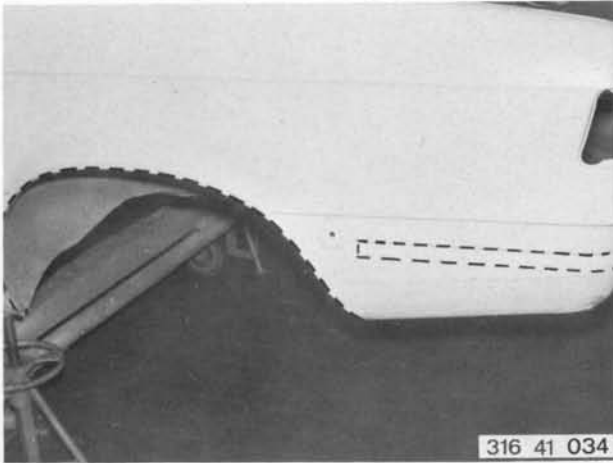
Possible repair cut B



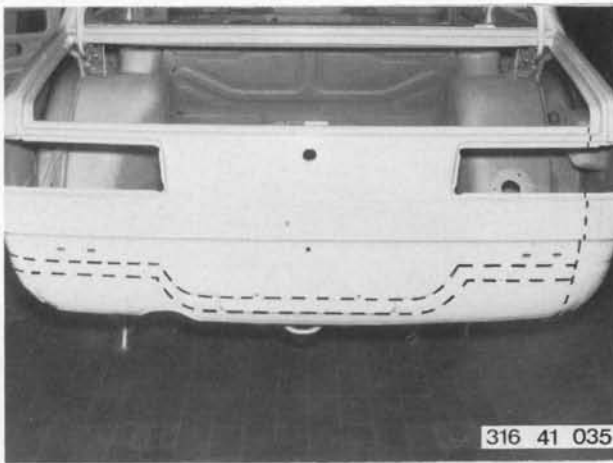


Cut through side panel along line.

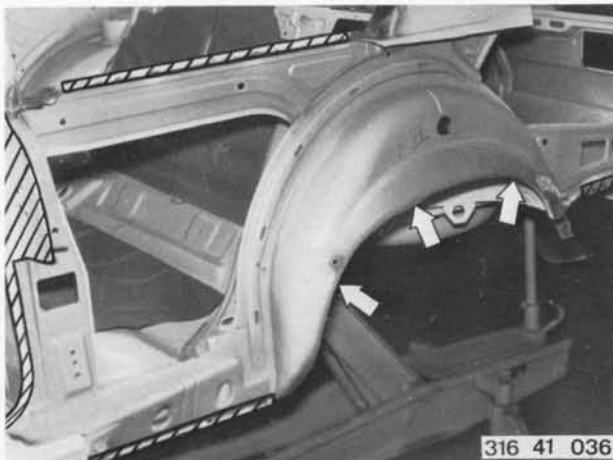
Caution! Only cut through outer panel on B pillar.



Cut through side panel along line.



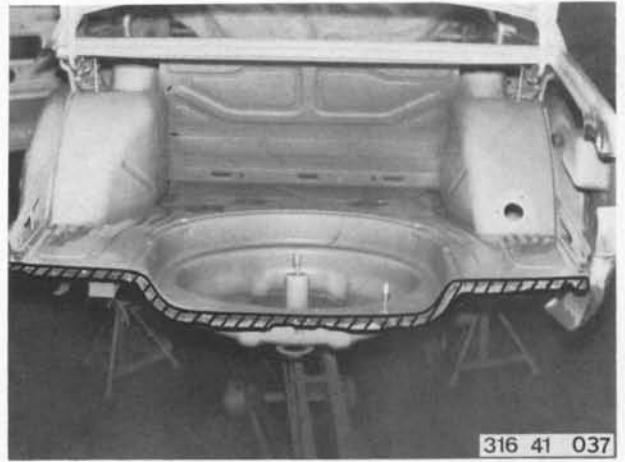
Cut through tail panel along line.



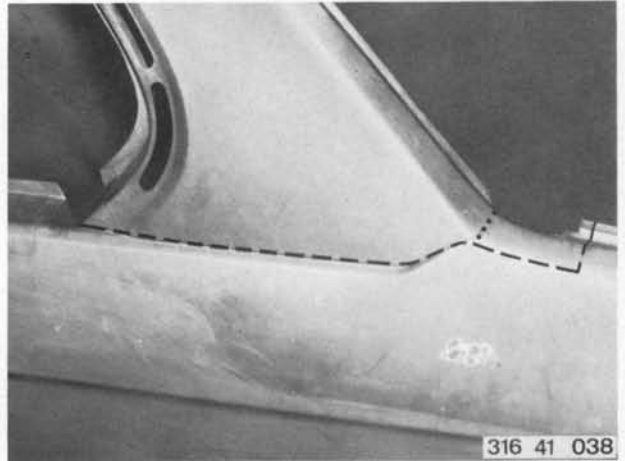
Remove scrap metal.

Align mating surfaces and grind both sides bright.

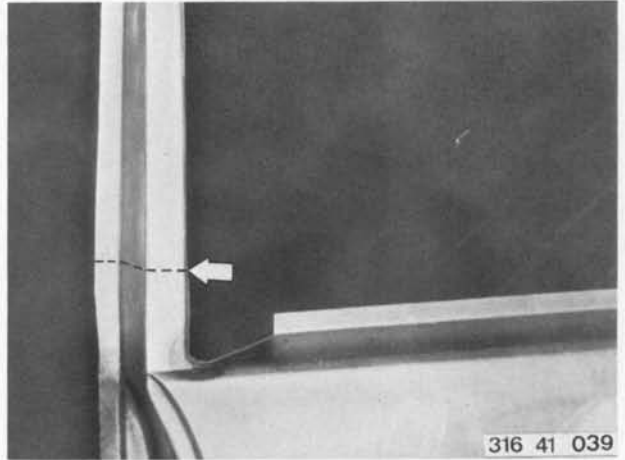
Remove scrap metal.
Align mating surfaces and grind both sides bright.



Cut out new side panel along line.
Possible repair cut A - - - - -
Possible repair cut B

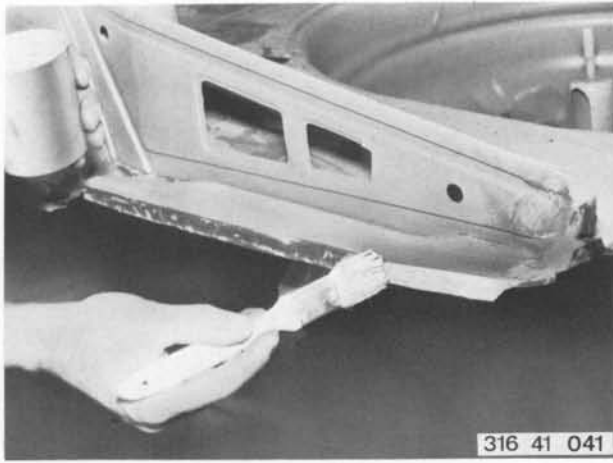


Cut off new side panel along line.

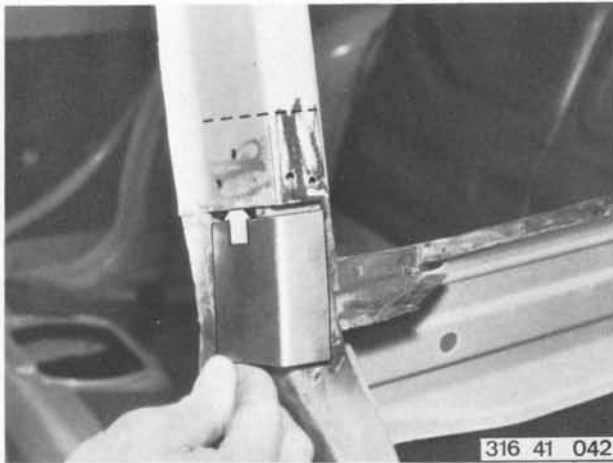


Grind mating surfaces of new side panel bright on both sides.

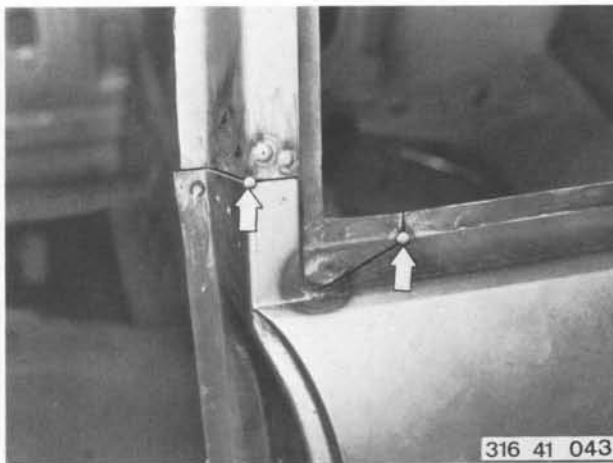




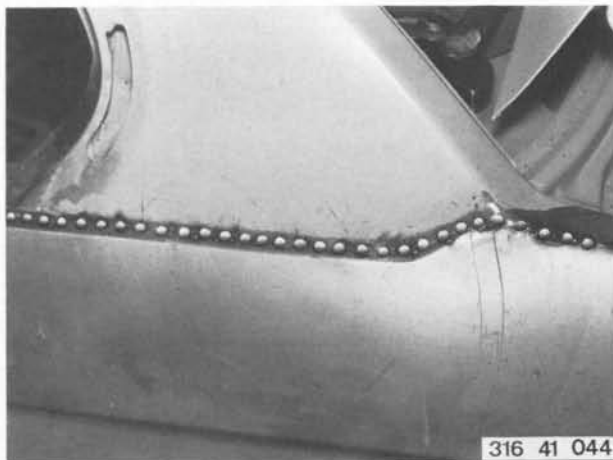
Coat mating surfaces with zinc powder paint.



Fit side panel.
Slide an approx. 60 mm (2.362") long reinforcement plate into B pillar and plug weld with shielded arc welder.

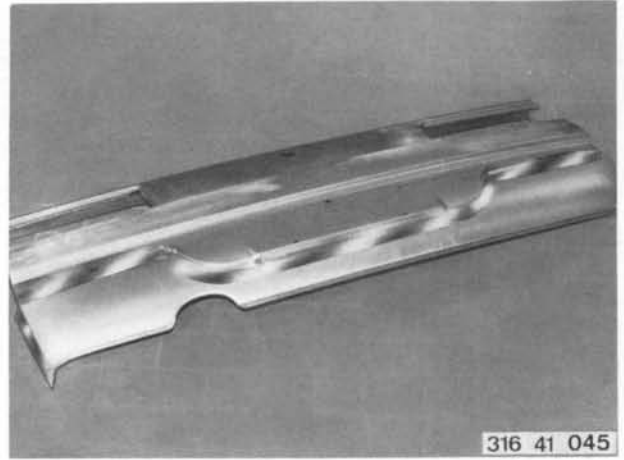


Tack weld side panel.
Check door gap.

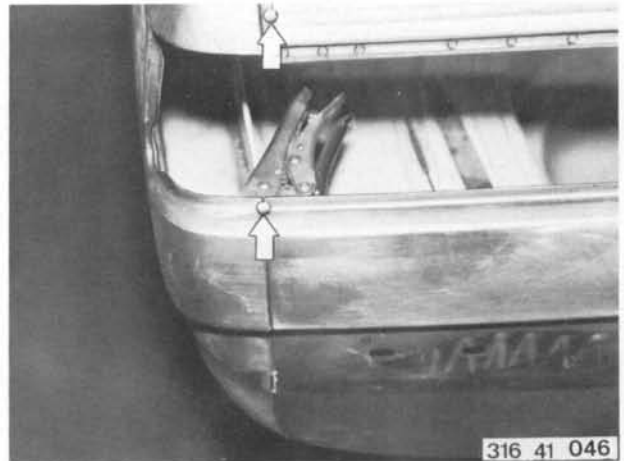


Tack weld side panel.

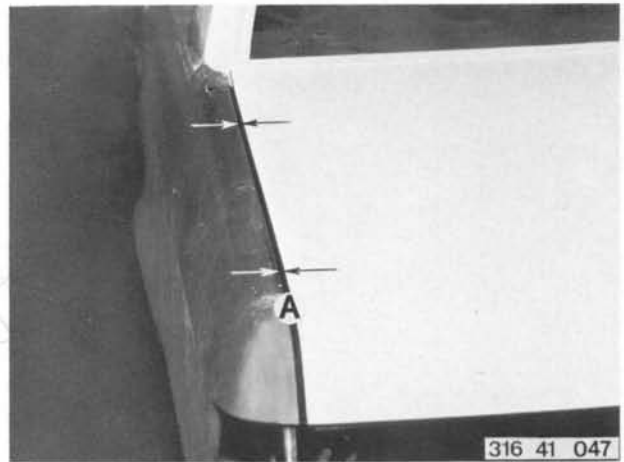
Grind mating surfaces of new tail panel bright on both sides.



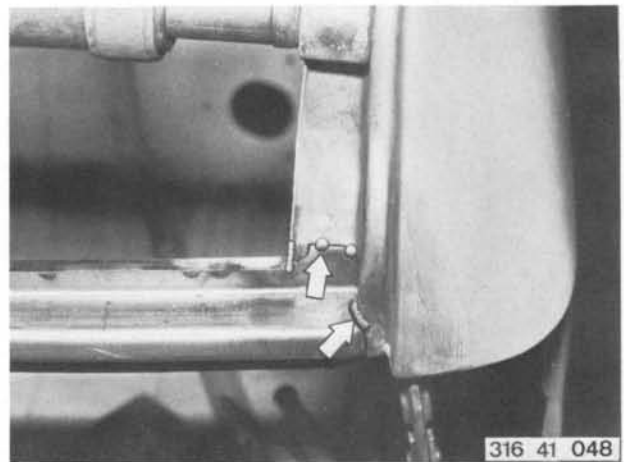
Fit and tack weld tail panel.

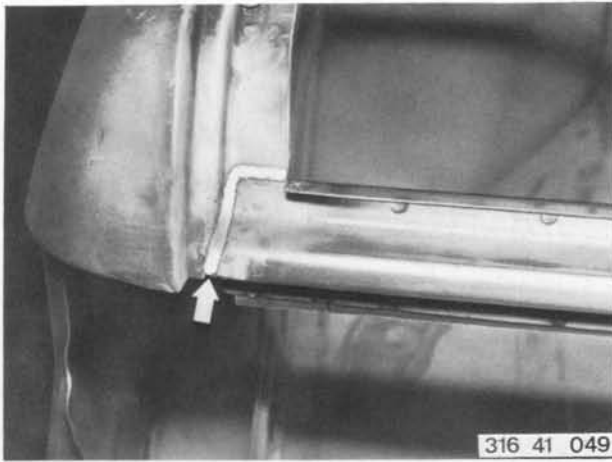


Check trunk lid gap (A).

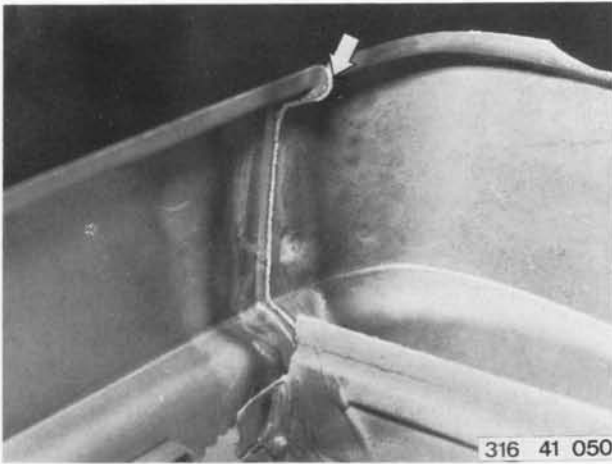


Tack weld tail panel to side panel.

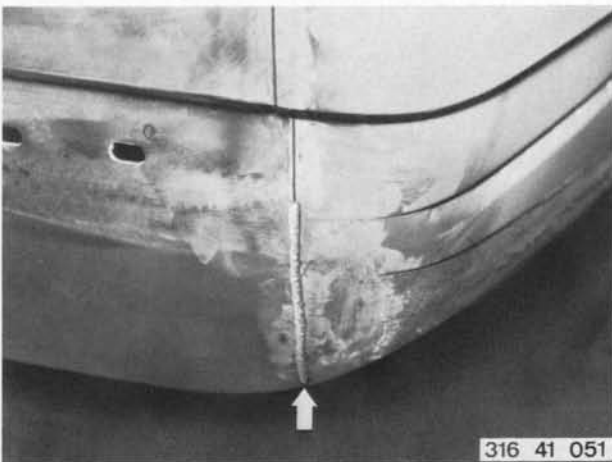




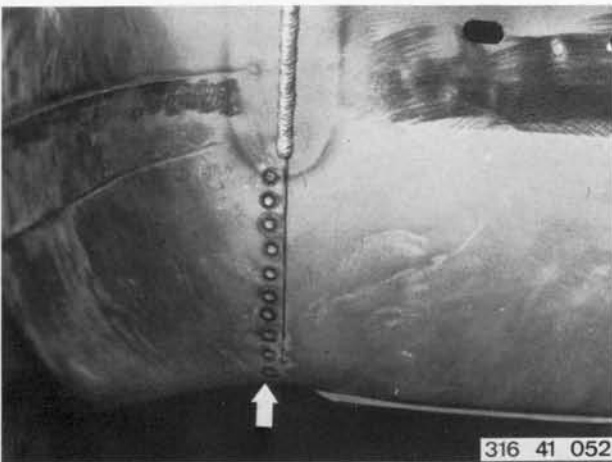
Braze tail panel to side panel.



Gas weld (autogenous) edge of tail panel to side panel.

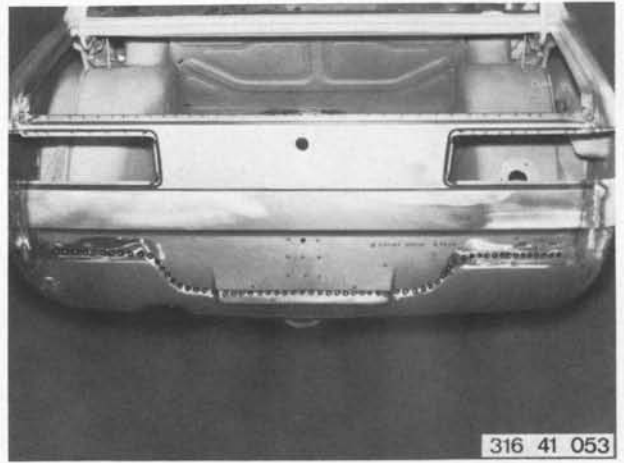


Weld side panel to tail panel with shielded arc welder.



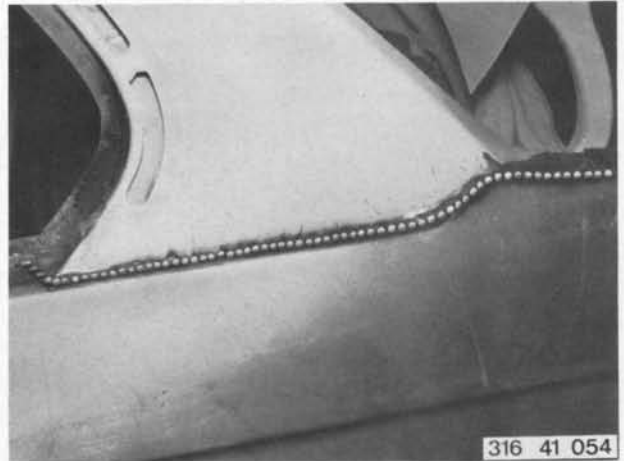
Spot weld side panel to tail panel.

Spot weld tail panel to trunk floor.

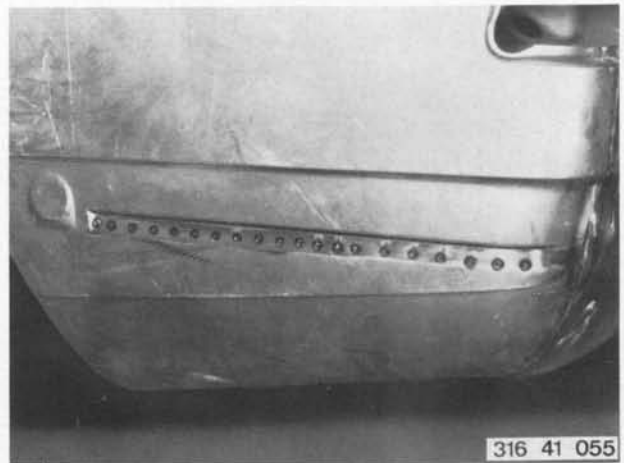


Weld side panel to C pillar with shielded arc welder.

Caution! When welding keep excessive heat away from C pillar to prevent melting the rubber near the welding seam.

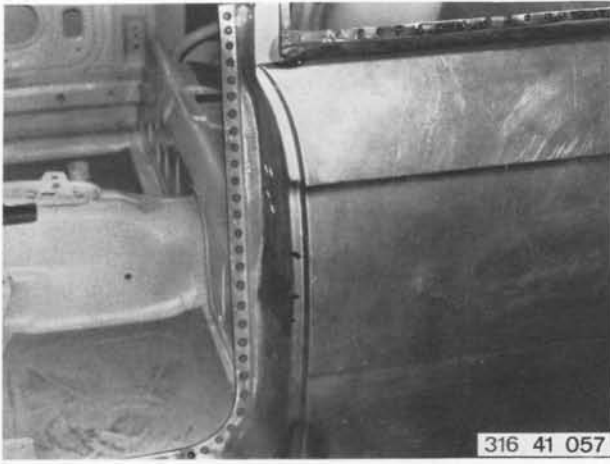


Spot weld side panel to trunk floor.

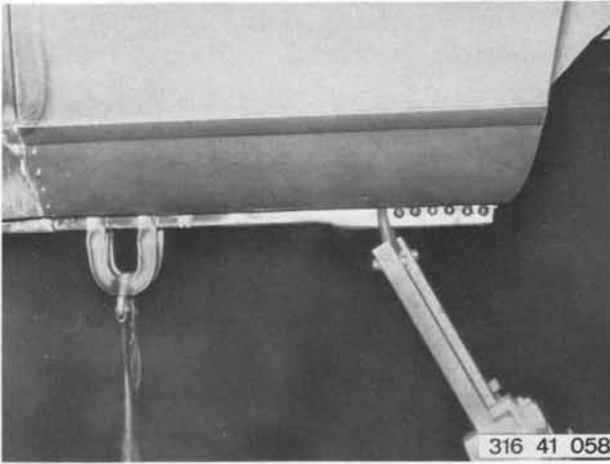


Spot weld side panel to window opening.

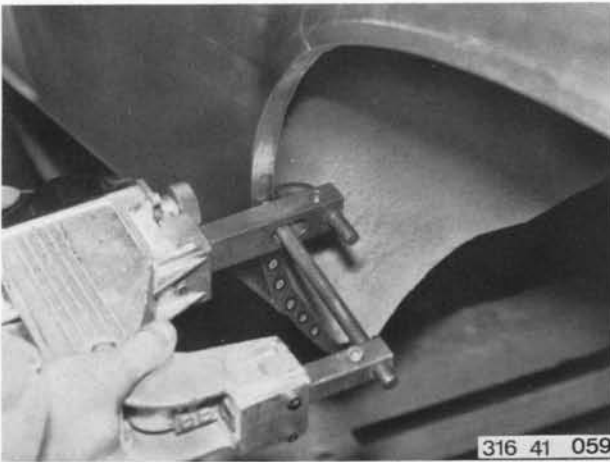




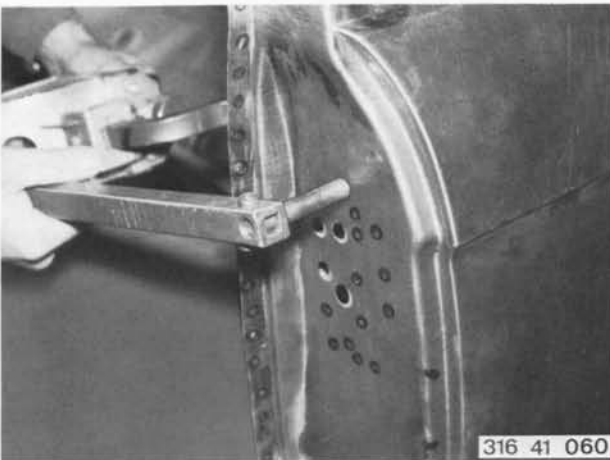
Spot weld side panel to door opening.



Spot weld side panel at entrance.

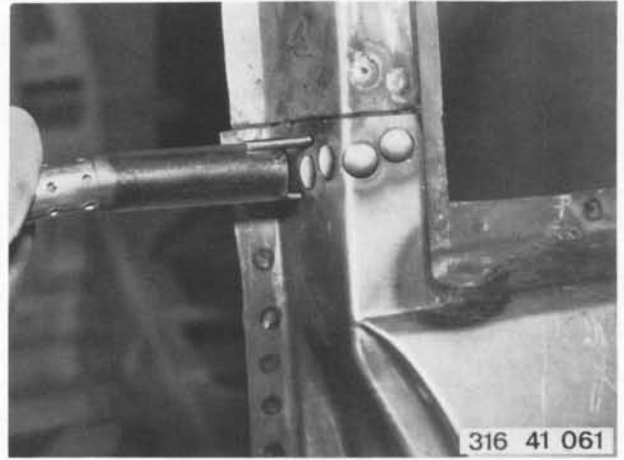


Spot weld side panel to wheelhouse.

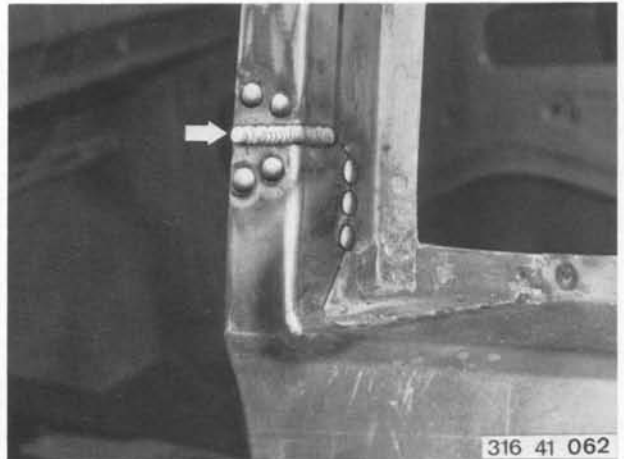


Spot weld side panel to pillar reinforcement in area of striker.

Spot weld pillar reinforcement with shielded arc welder.



Weld side panel to B pillar with shielded arc welder.



Spot weld side panel at entrance with shielded arc welder.



Braze side panel in area of entrance.

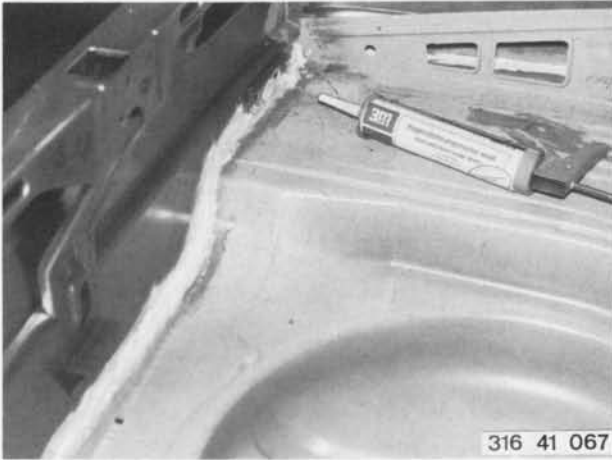




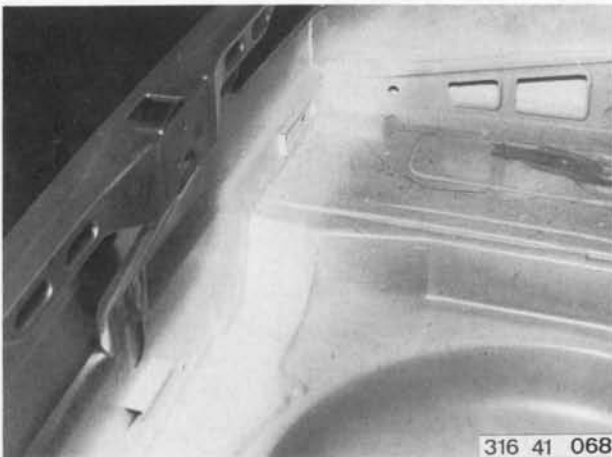
Braze side panel in area of side window.



Grind all welding seams.
Tin and grind B pillar.



Coat tail panel/side panel joint at trunk floor with
joint sealing compound.



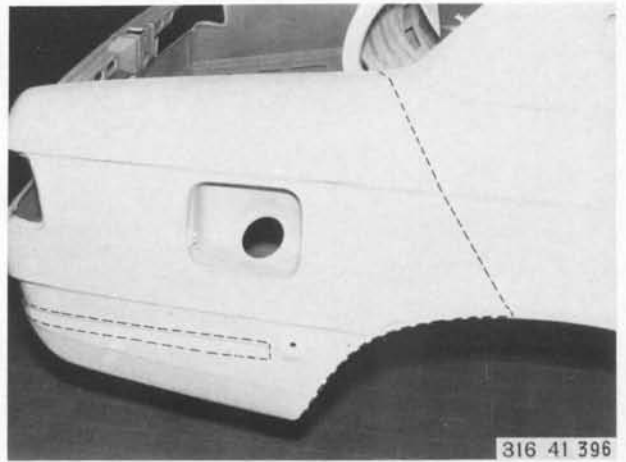
Spray side panel and tail panel with Body Plast.

41 35 341 REPLACING REAR RIGHT SIDE PANEL (PARTIAL
REPLACEMENT UP TO WHEELHOUSE) AND TAIL
PANEL

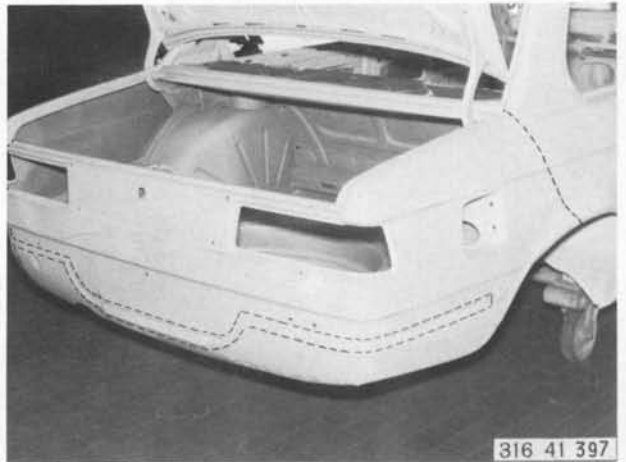
Almost all photographs were made on an unpainted body shell. Cover or remove all flammable parts. Remove both tail lights, bumper, harness at tail panel, cover, spare wheel, tools, jack, trunk lid seal, trunk lid lock and cylinder, vent line, rear wheel, fuel filler neck, fuel filler neck flap and license plate.

Detach final muffler.

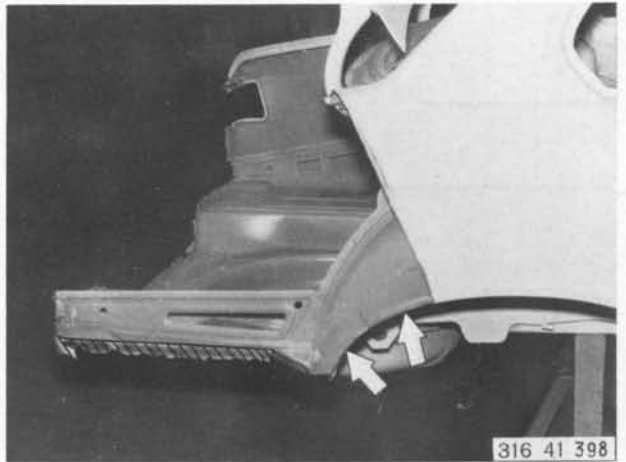
Cut through side panel along line.



Cut through tail panel along line.

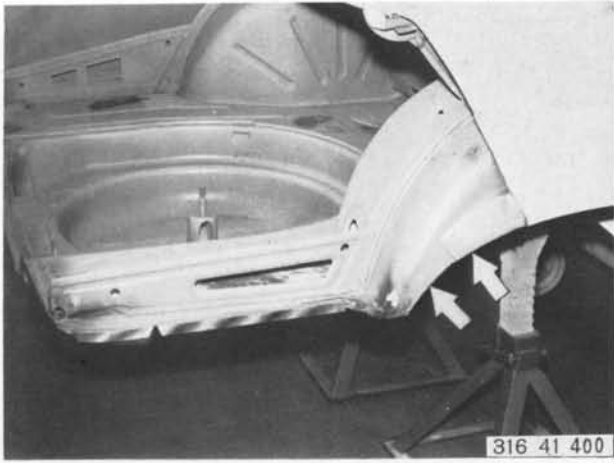


Remove scrap metal.

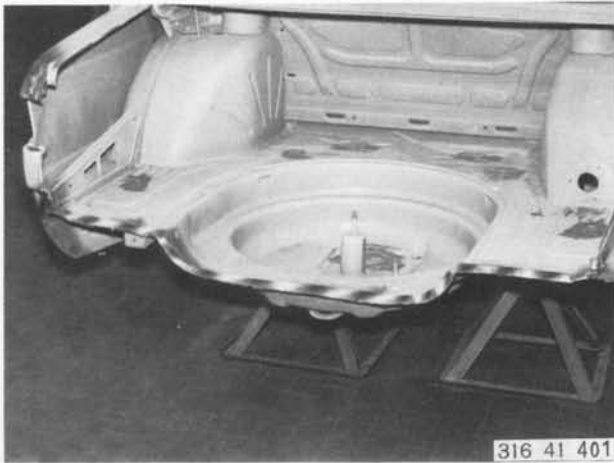


Remove scrap metal.

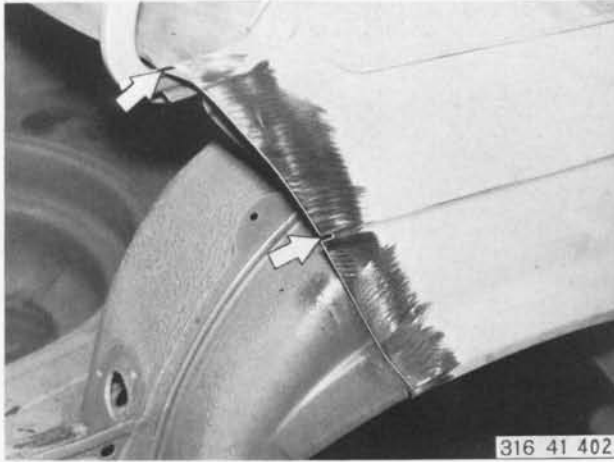




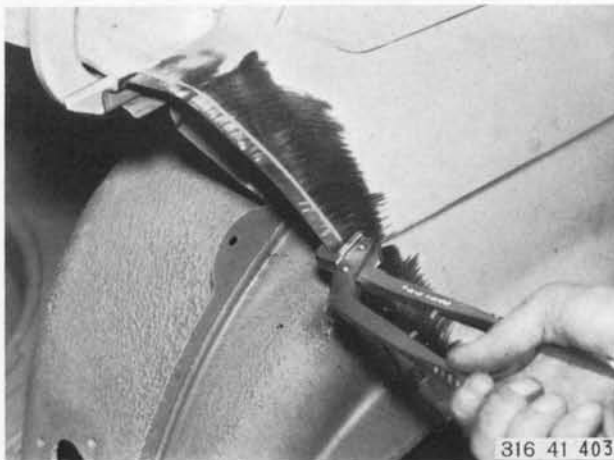
Align and grind mating surfaces bright.



Align and grind mating surfaces bright on both sides.



Remove PVC on inside of side panel section along cutting line and cut edges.

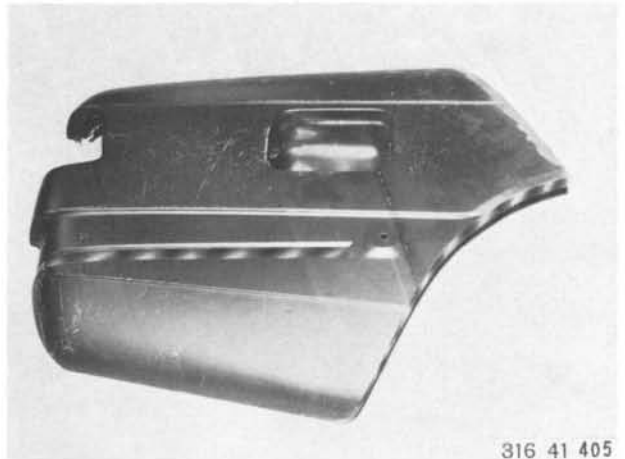


Shoulder edge of remaining side panel with shoulder pliers.

Cut out a matching piece from a new side panel.

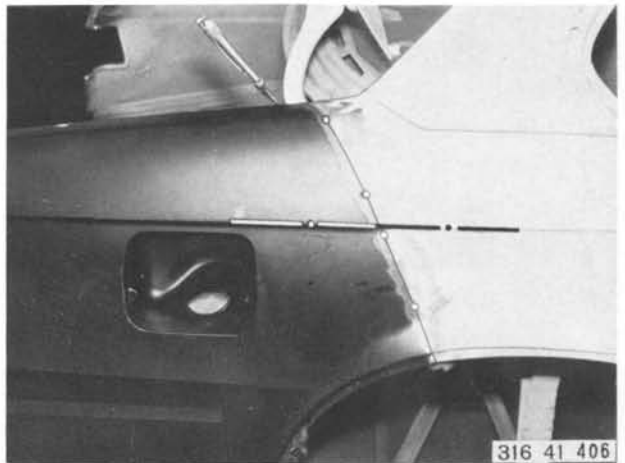


Grind mating surfaces of partial replacement section bright and coat with zinc powder paint.

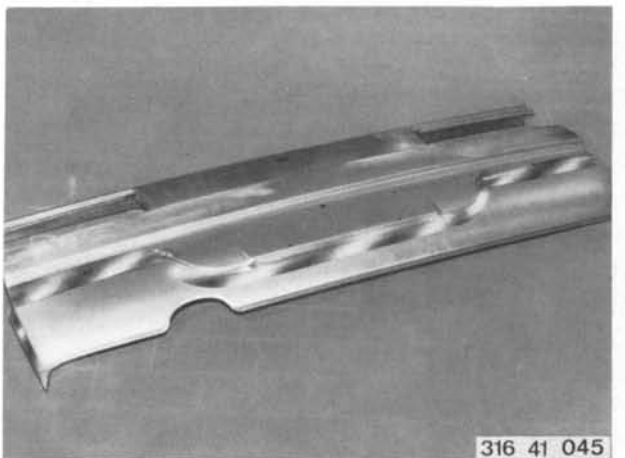


Fit and tack weld side panel partial replacement section.

Fitting Aid! Embossed edge of side panel and trunk lid.

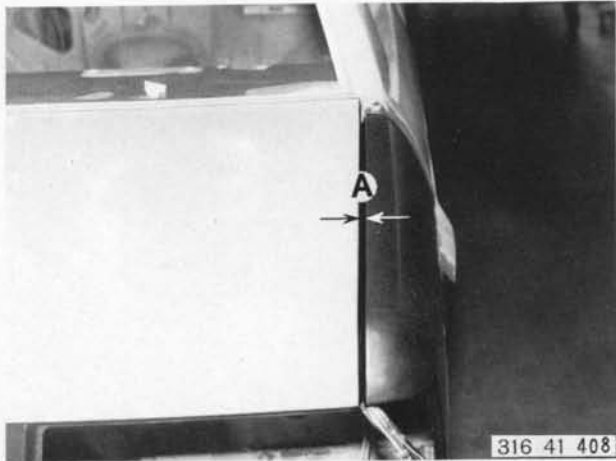


Grind mating surfaces of new tail panel bright on both sides.

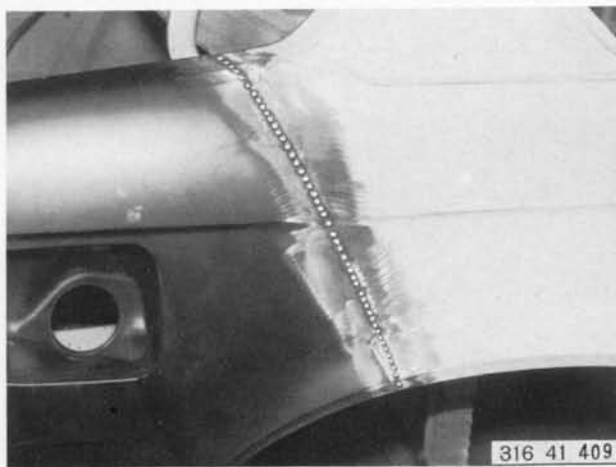




Grind mating surfaces of new tail panel bright on both sides and coat with zinc powder paint.



Fit and tack weld tail panel.



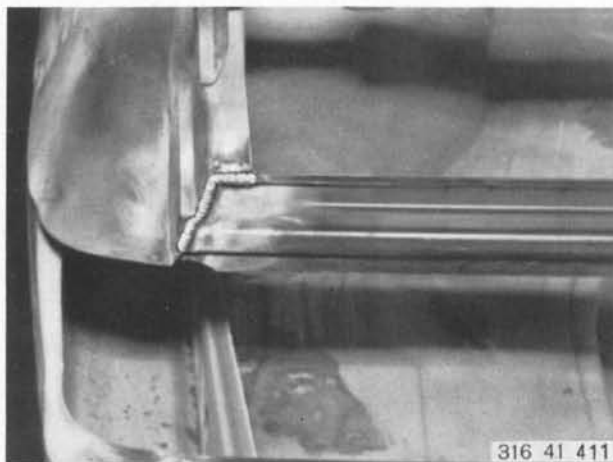
Check trunk lid gap (A).



Spot weld side panel with shielded arc welder.

Caution! Keep excessive heat away from side panel to prevent distortion.

Spot weld tail panel.



Braze tail panel to side panel.



Gas weld (autogenous) lands from inside and separating walls to trunk floor with shielded arc welder.



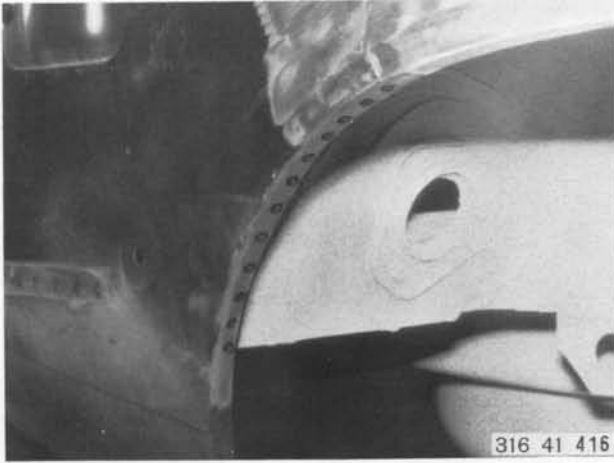
Spot weld tail panel to side panel.



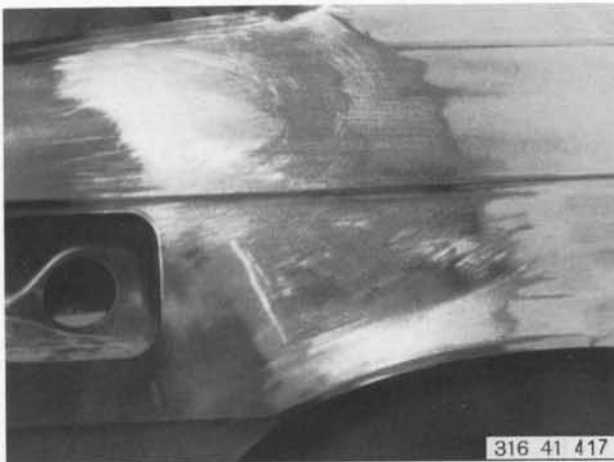
Spot weld side panel in wheel opening.



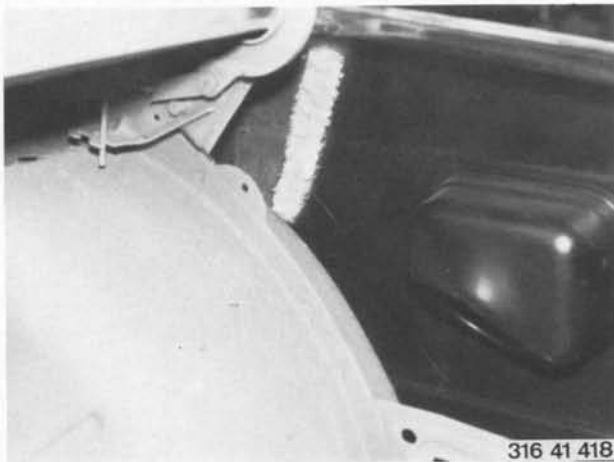
Grind all welding seams and tin over side panel joints.



Coat joints with joint sealing compound.

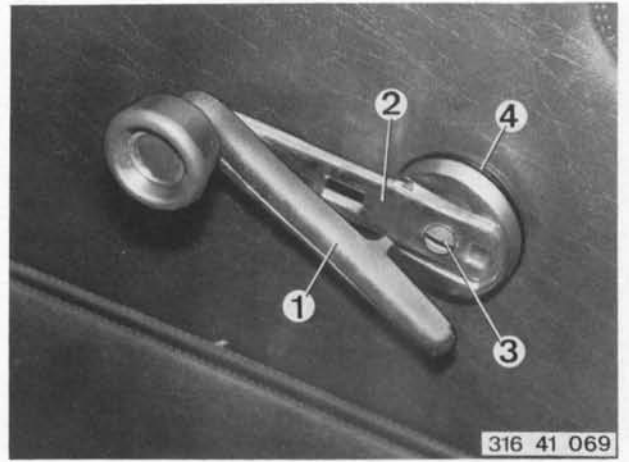


Spray side panel and tail panel with Body Plast.

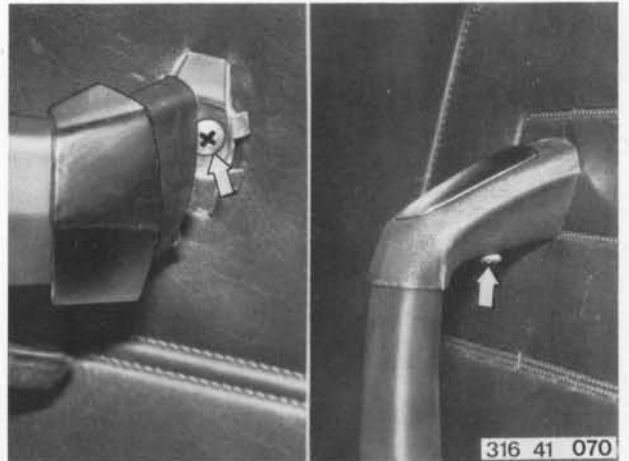


41 51 101 REPLACING LEFT OR RIGHT FRONT DOOR

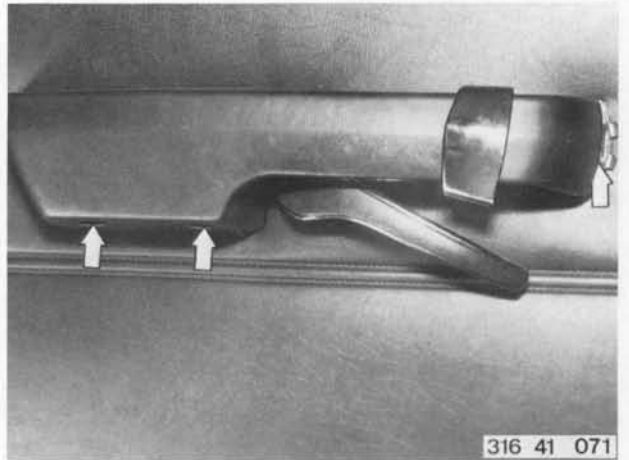
Remove cover (1) on window control (2).
Loosen mounting screw (3).
Remove window control (2) with escutcheon (4).



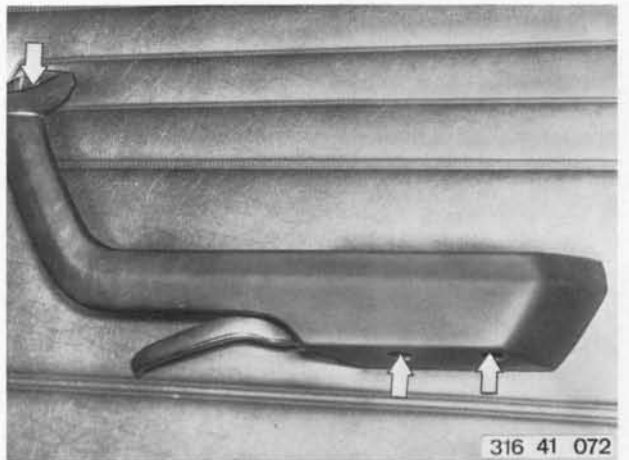
Left side:
Slide back cover.
Right side:
Unscrew cover.

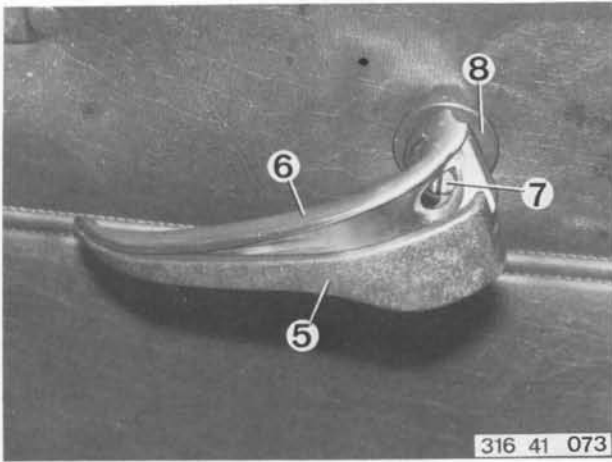


Left side:
Remove armrest.



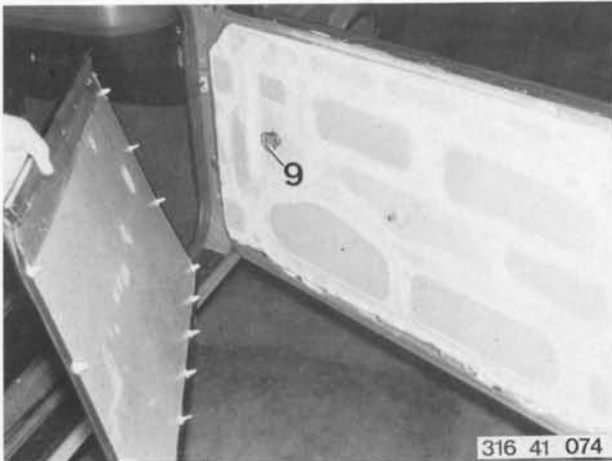
Right side:
Remove armrest.





Take off cover (5) for door opener (6).
Loosen mounting screw (7).
Remove door opener (6) with escutcheon (8).

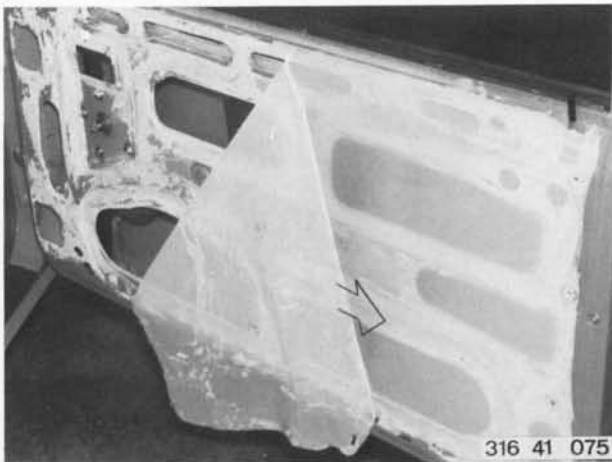
Installation Note! Note position of door opener.



Lift off door trim clips and take off door trim by lifting.

Caution! Large coil spring (9) faces trim.

Installation Note! Replace damaged door trim clips and sockets. Transfer sockets to new door.



Pull off Acella plastic sheet.

Installation Note! Attach Acella sheet with Teroson 2012 adhesive. Replace torn Acella sheet.



Unscrew window control mechanism mounting screws.

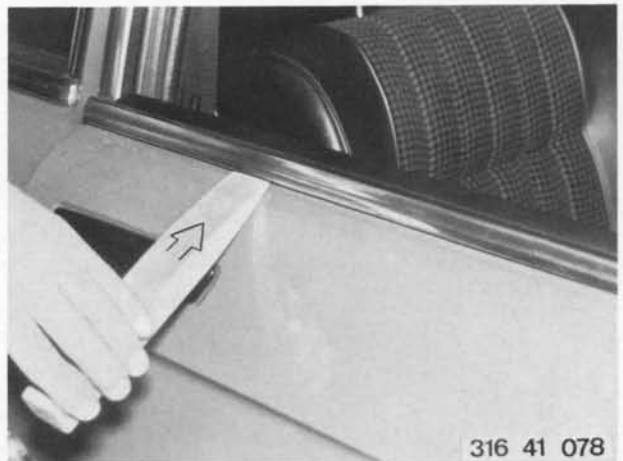
Position winding mechanism with window control so that it can be taken out of guide.

Remove window control mechanism downward.

Installation Note! Lubricate guide.



Knock off cover strip upward with a wooden wedge or similar item.

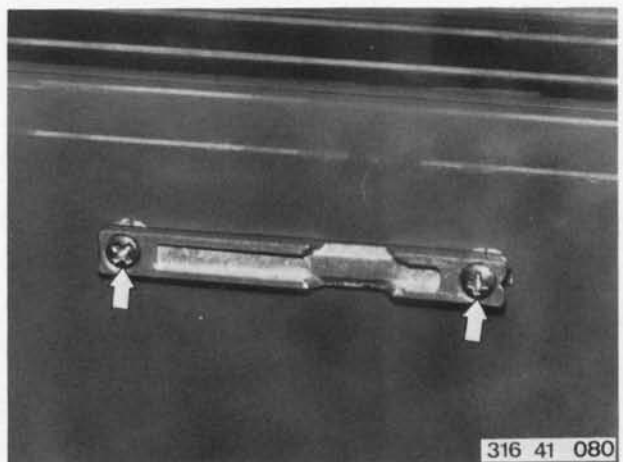


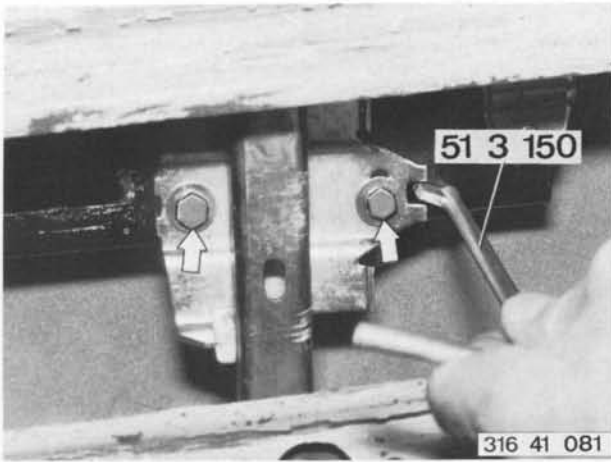
Left side:

Loosen exterior mirror mounting screw. Remove mirror and seal.



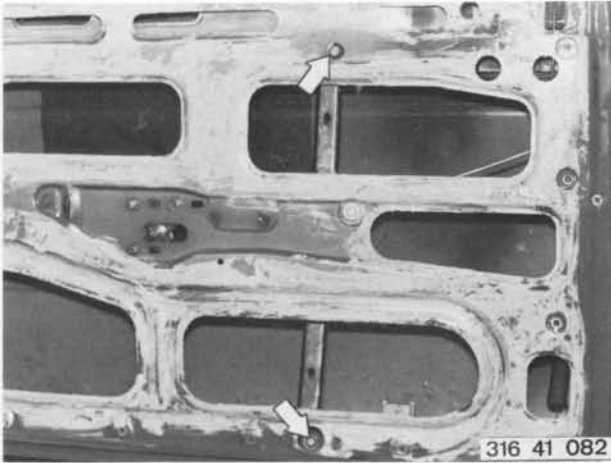
Unscrew mirror base at door.



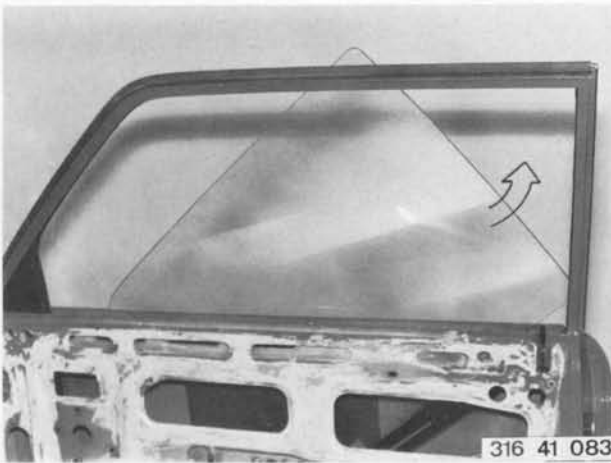


Unscrew holder mounting screws at door window.
Remove holder.

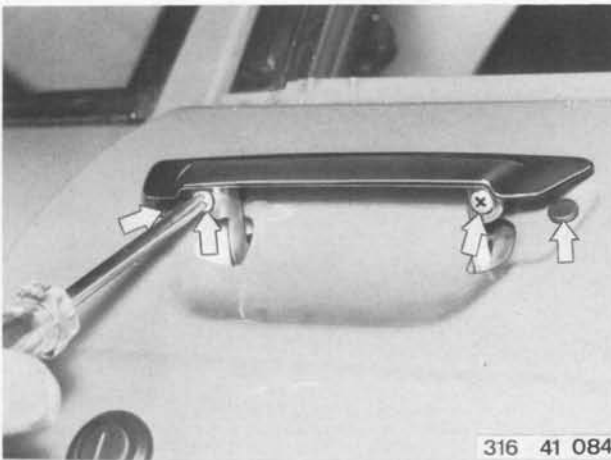
Installation Note! Eliminate any side door window play with Special Tool 51 3 150. Turn this tool clockwise and tighten mounting screws.
Lubricate guides.



Remove window rail mounting screws.
Remove window rail.

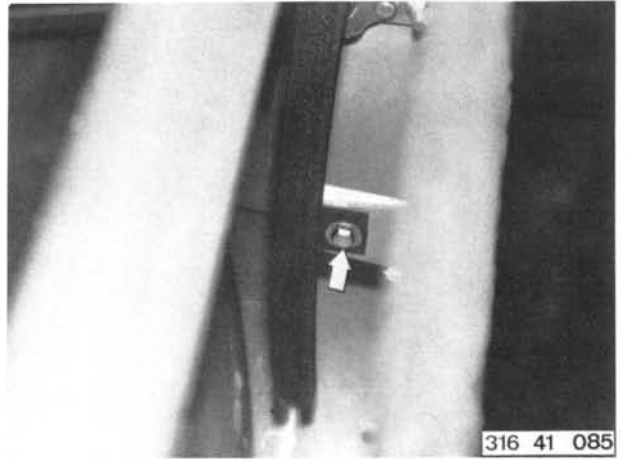


Tilt window and pull up to remove from door.

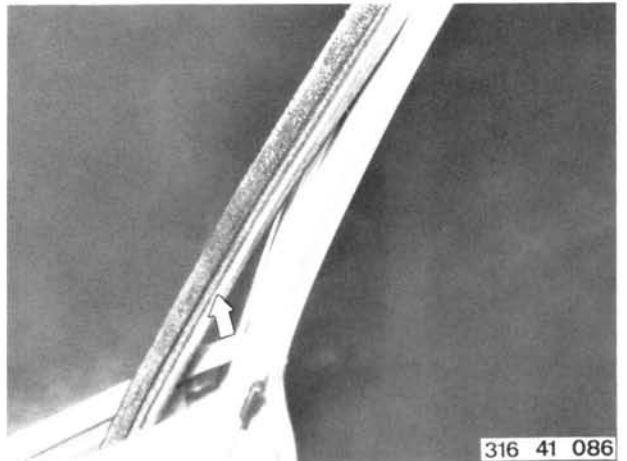


Remove outside door handle.
Remove rubber guard.

Unscrew rear window guide rail mounting screw.
Remove window guide rail with window guide.



Installation Note! Smooth edge of window guide
faces in.

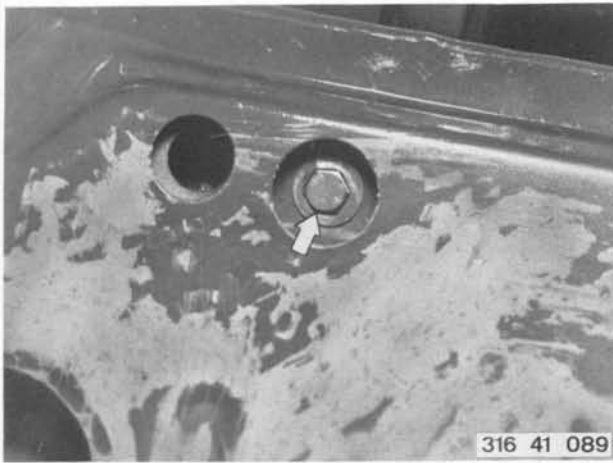


Unscrew lower mounting screw of front window guide
rail.



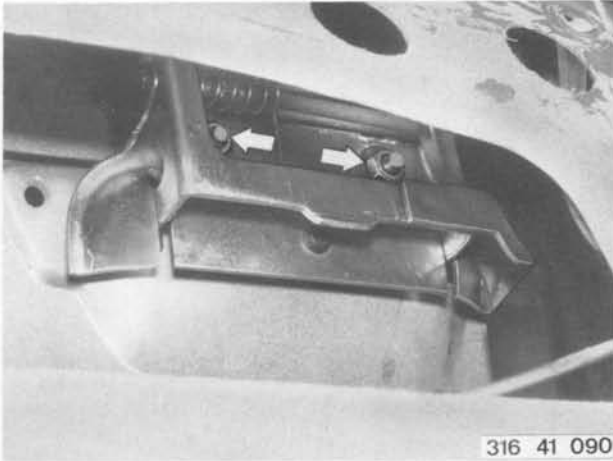
Unscrew upper metal screw.





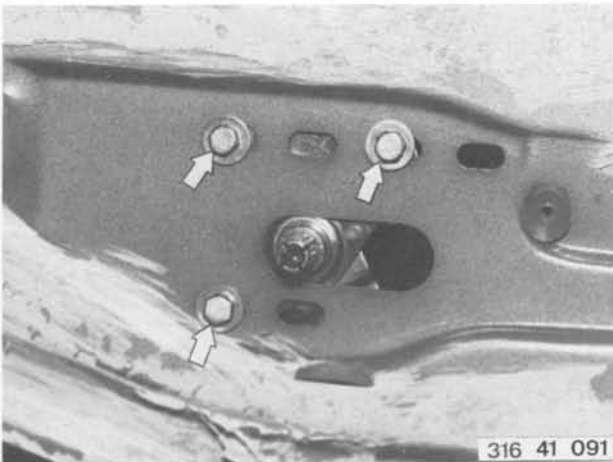
Unscrew upper mounting screw on window guide rails.
Remove window guide with window guide rail.

Installation Note! Smooth edge of window guide faces in.



Remove door lock operating mechanism.

Installation Note! Install and align outside door handle before securing door lock operating mechanism.

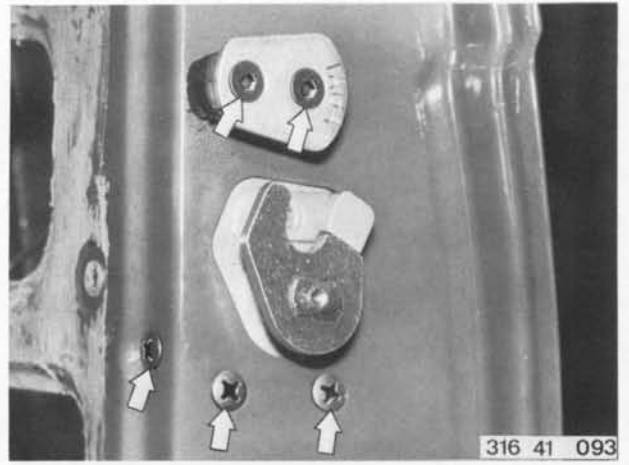


Unscrew door lock remote control mounting screws.

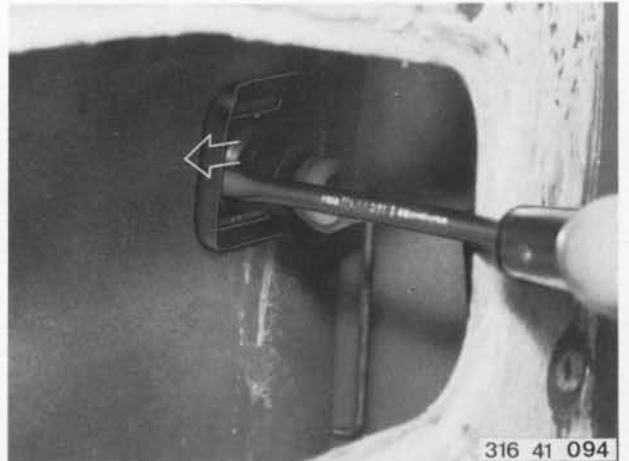


Lift out operating rod between door lock and lock cylinder.

Close rotary catch.
Remove door lock.
Take out door lock with door lock remote control.

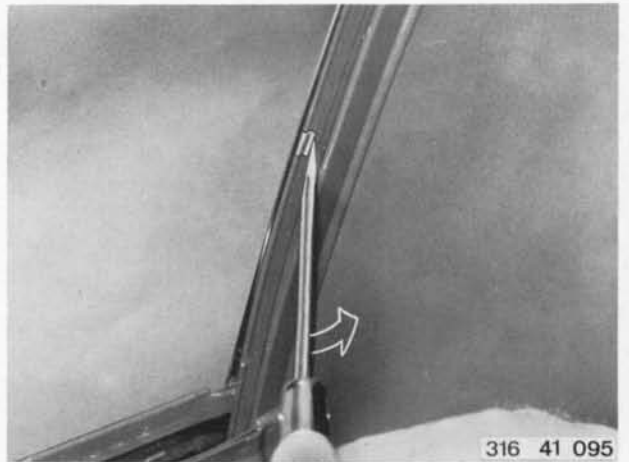


Take lock off of lock cylinder.
Remove lock cylinder outward.

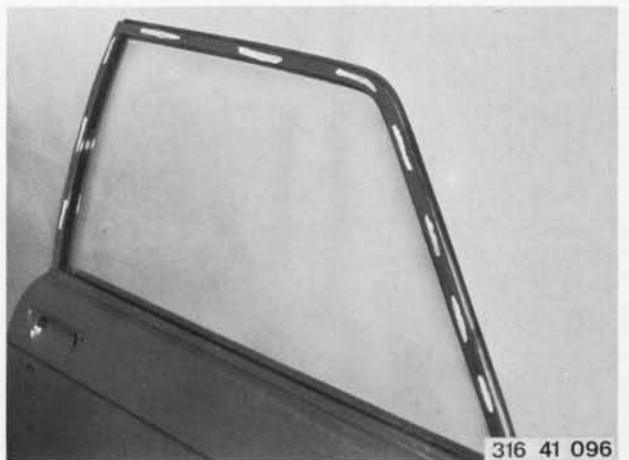


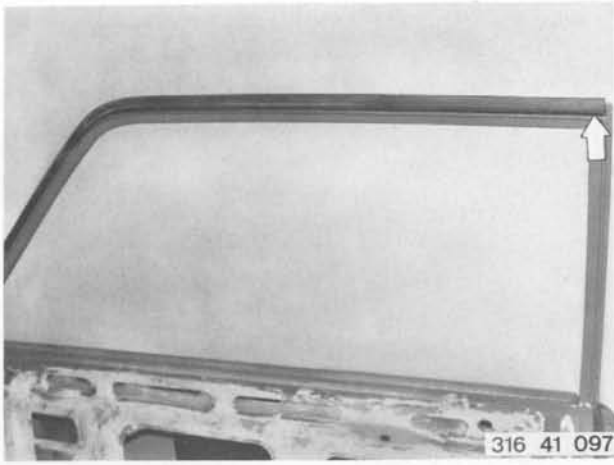
Detach ornamental frame.

Caution! Only lift out clips with a screwdriver.
Remove ornamental frame.



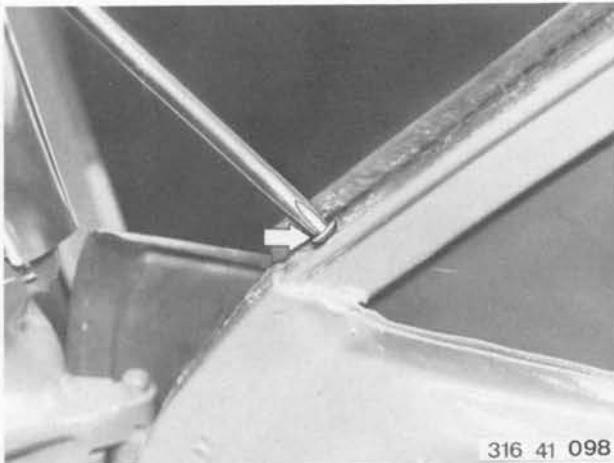
Installation Note! To prevent rattling noise from ornamental frame, place Terostat cord underneath at several points.



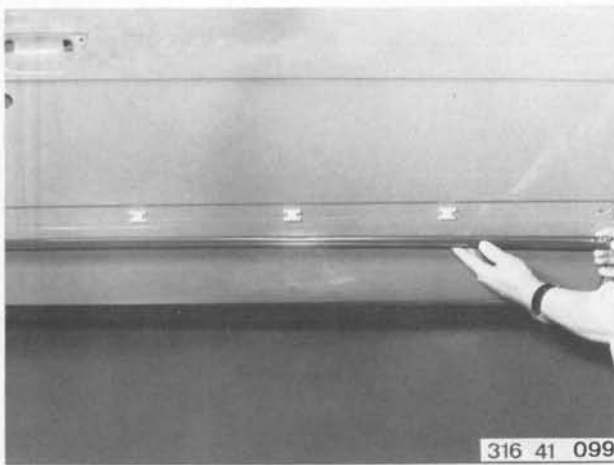


Detach door seal.

Installation Note! Replace porous or torn seals.
Install seals with Teroson 2444 anthracite adhesive.

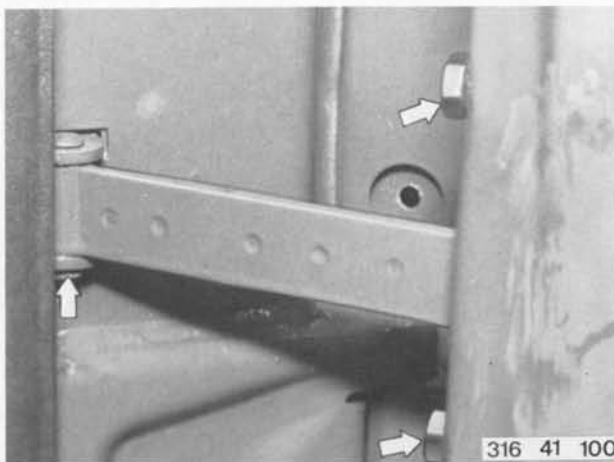


Detach compensator.



Unscrew nuts on both ends of rubber guard strip.
Press off rubber guard strip.

Installation Note! Replace clips.



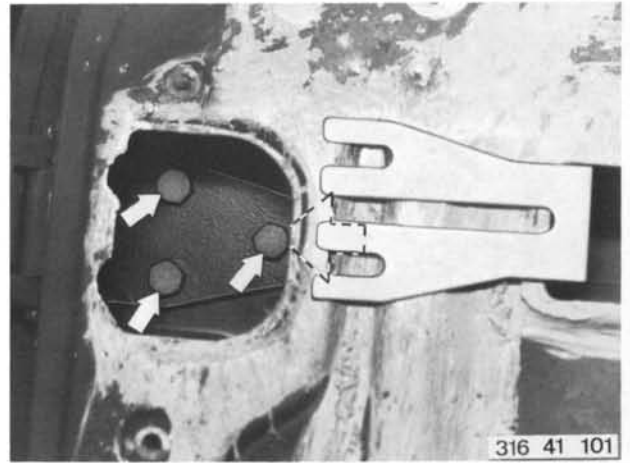
Drill into door retainer pin from below and remove.

Installation Note! Rivet door retainer pin.

Unscrew door retainer mounting screws.
Remove door retainer.

Transfer or replace all metal nuts, plastic nuts and clips.
Unscrew door hinge screws.

Installation Note! Use washers to adjust door to be in same plane as side panel.

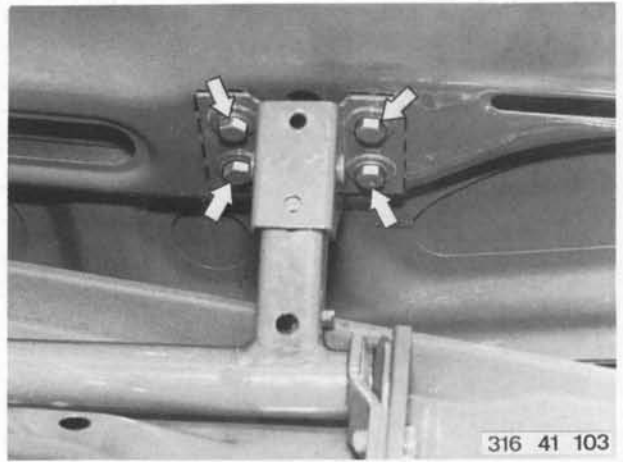


Adjust door at hinges and door lock that door gap (A) is equal both front and rear.
Outer door panel surface must be in same plane as side panel.
Align door in height according to embossed edge.

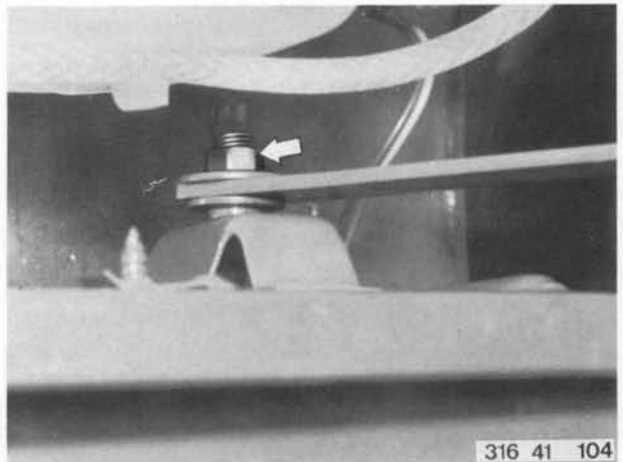


41 61 000 REMOVING AND INSTALLING ENGINE HOOD

Mark position of hinges.
Remove three bolts.
Loosen fourth bolt.

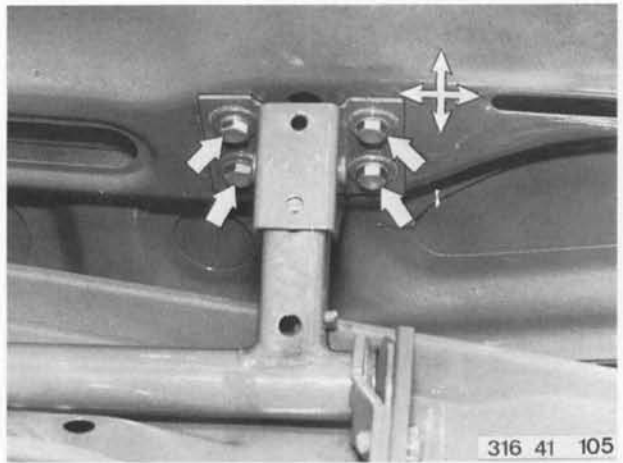


Detach support arms.
Remove fourth bolt.
Remove engine hood.

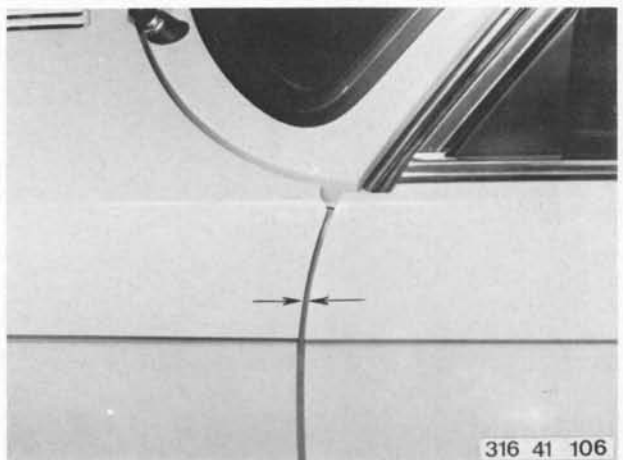


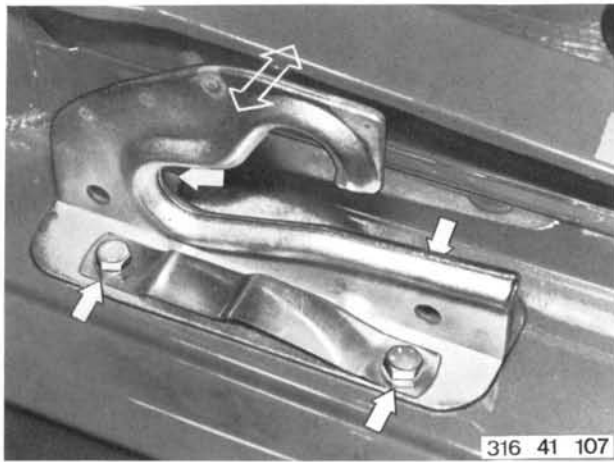
41 61 014 ALIGNING ENGINE HOOD

Loosen mounting screws of both hinges.
Hood can be moved transverse with box nuts or forward and backward in slots of hinges.

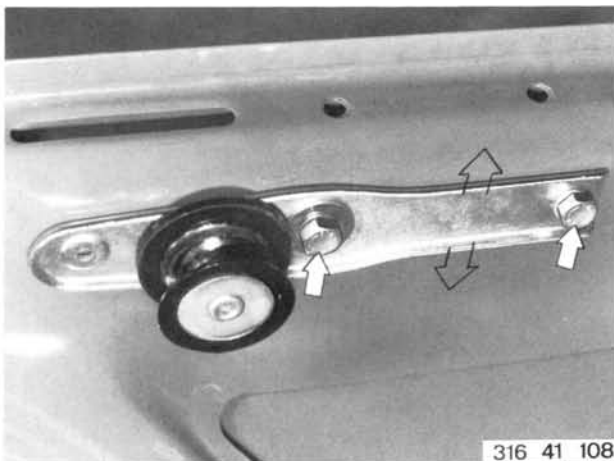


Adjust until engine hood/front door gap is uniform.

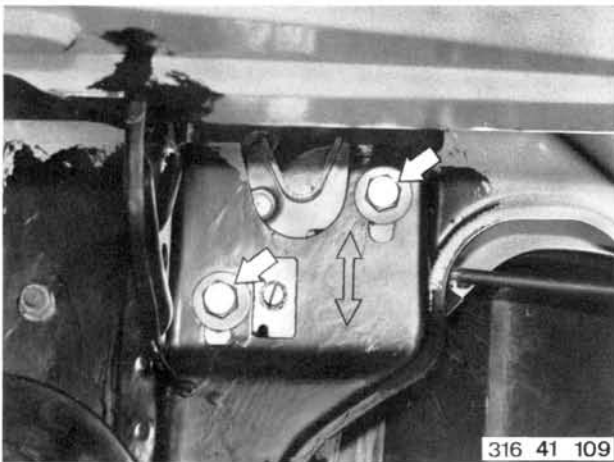




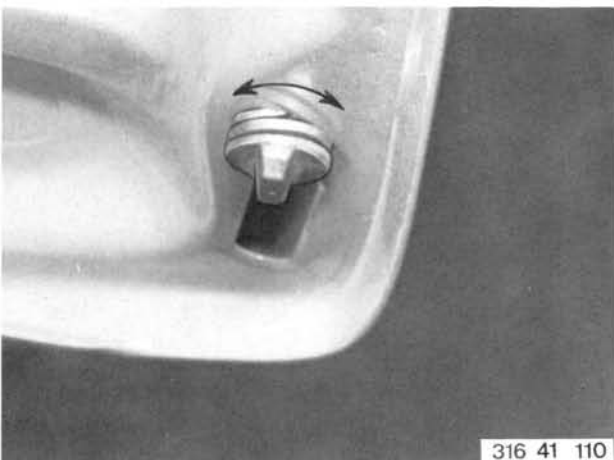
Move catch transverse to adjust transition between engine hood and outer door panel.
Ideal position: Outer front door panel about 1 mm (0.040") deeper than engine hood panel surface.



Move guide roller to adjust engine hood to height of door.



Move engine hood lock to adjust gap between front side panel and engine hood.



Turn stop pad until hood rests firmly on both sides.

41 62 000 REMOVING AND INSTALLING TRUNK LID

Mark location of hinges.
Unscrew mounting bolts.
Remove trunk lid.

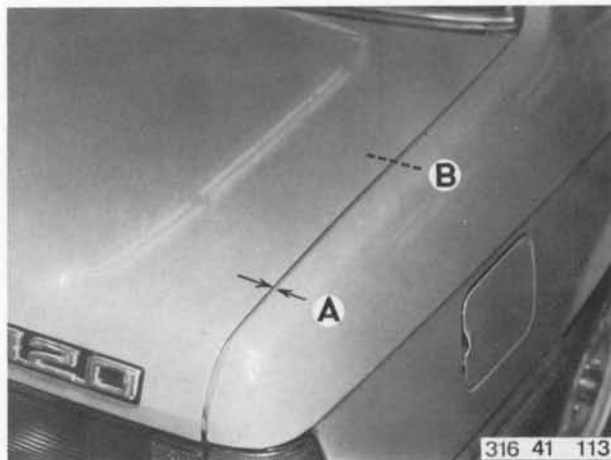


41 62 014 ALIGNING TRUNK LID

Loosen hinge bolts and adjust trunk lid.



Adjust trunk lid gap (A) and trunk lid/side panel transition (B).



Adjust upper trunk lid lock section - 51 24 134.
Adjust rubber pad that trunk lid rests firmly when closed.

