DID YOU KNOW..

by : **BOB STEIN**

March/April 1991

SUN VISORS. There are FIVE different types of sun visors used on the 1800s! FIVE! I couldn't believe it, but in trying to supply an A coupe visor to use as a pattern for Bob Cuthill (from Prince Edward Island, Canada), we found the following:

Type 1: 1961-63. A coupe. Perforated material. No support at the ends in the roof.

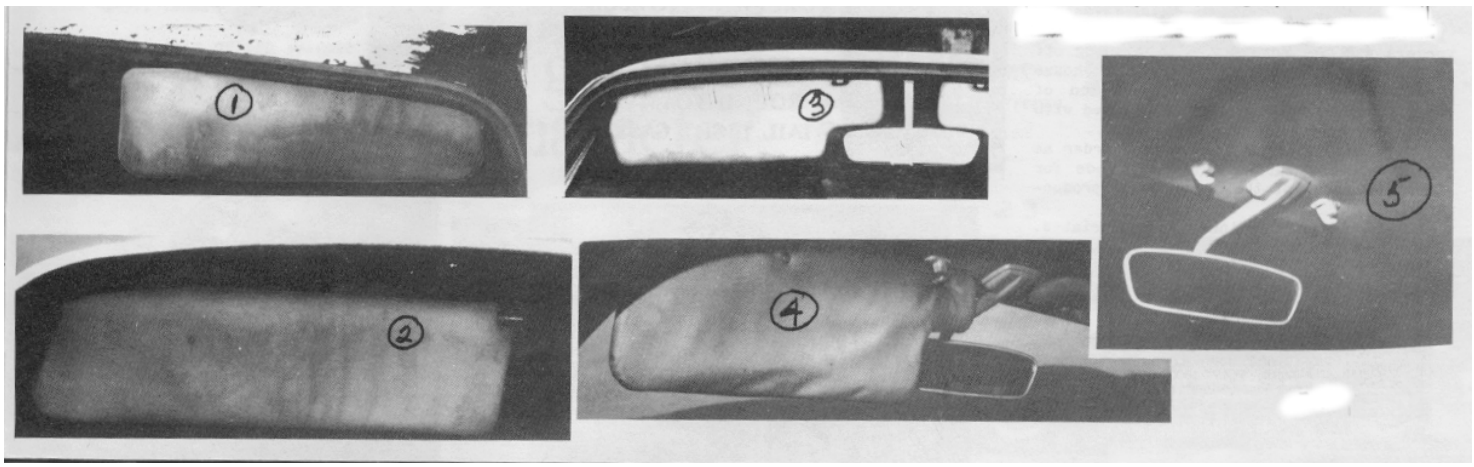
Type 2: 1964(?) only. Solid material, woven look. Same shape as A coupe. This visor would interchange with type 1.

Type 3. 1965-69 S coupes. Smooth material. End rods to mount in doubleended rubber bracket on roof for support. Different shape from earlier types.

Type 4: 1970-72 E coupes. Smooth material. No rod at ends. Oblong hole out for roof support clip about 2" from the end at upper edge. One clip for each visor.

Type 5: 1972-73 ES. Same features as E coupes, but shorter and wider shape. Holes for support clips placed differently.

To further confuse things, there are about 5 (I think) different types of mounting arms, some chromed and some rubber covered; some bases chromed and some painted; and even different mounting positions on the roof. Trivia buffs will probably be pleased if I can supply photos of all of this. I'11 try to get it together but must confess I'm not quite thrilled at the prospect.



May/June 1991

S COUPES LIGHT SWITCHES.
The push-pull parts of these switches rarely give trouble. These control the parking lights and the headlights, but the rheostat that controls the dash lights is somewhat less than a perfect execution o. a great piece of engineering. (How's that for an understatement?) I'm sure that these switches have been sworn at in many languages. The lights flicker, go out, won't come on, won't dim, or won't brighten. If these were designed to aggravate, they would win highest awards.

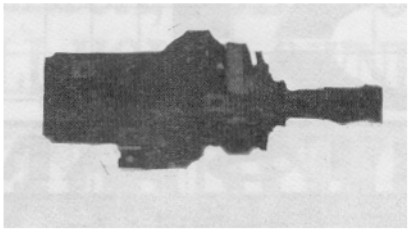
To check and attempt to repair, try the following:

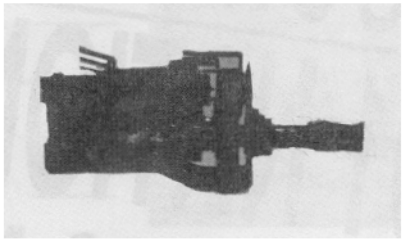
1. Remove the switch. Carefully remove the knob by pushing the detent pin on the side and pulling the knob straight off. There is a piece on the resistance wire coiled behind the porcelain plate with a brush contact that rotates.

2. Check the resistance wire visually for breaks. If it appears OK, use an ohmmeter or continuity tester to make sure.

3. If the wire is OK, clean the coil and contacts with tuner cleaner. You could use paper to clean the brush contact. Check again with an ohmmeter or tester.

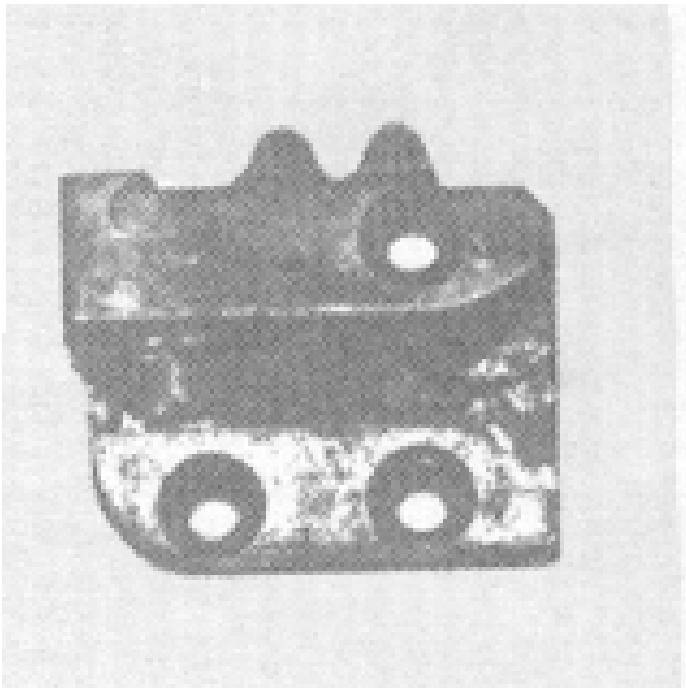
4. If the wire is broken or if you can't get things clean enough to work, bypass the rheostat by bridging the two terminals. This way your dash lights will always be on full brightness when your other lights are on. If you miss the flickering, you can always blink your eyes now and then to make yourself comfortable. (Heh, heh!)

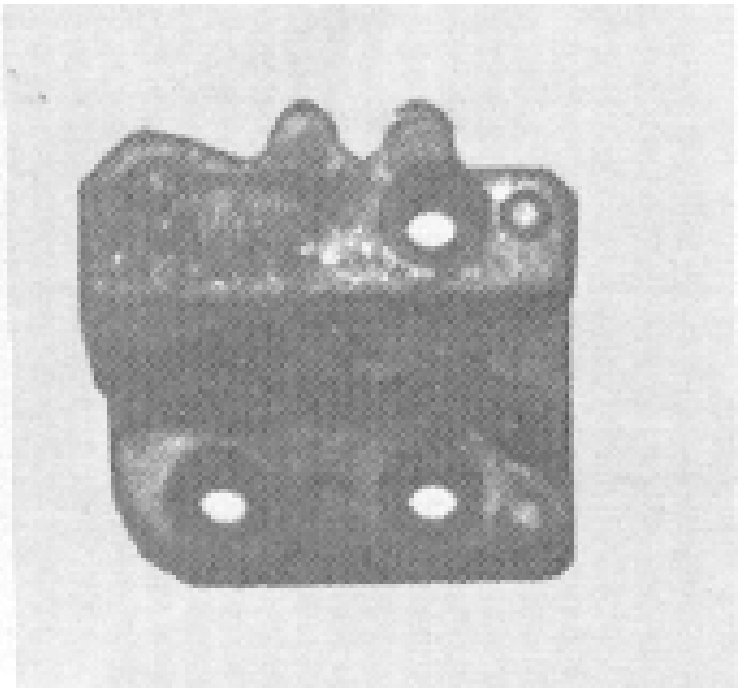




July/August 1991

STRIKE PLATES are not all the sane. They will mount on the door post, but the door will not close if you use the wrong one. The photos illustrate the difference





LEFT& RIGHT ES VISORS are identical! Surprise! They follow the roof curve and take a set after a while, but they start out the same. (Note, the parts manual lists a left and a right.) right.)

SEAT ADJUST MENTS beyond the normal, may be altered as follows after removing the cushion:
• Left-Right. There are two positions possible to better align yourself with the pedals and the steering wheel.
• Front-Back. On E & ES models there are forward and backward positions on the tracks. These can increase the extreme range in one direction or the other.
• Height-Tilt. There are 3/8" spacers to raise the seat. Additional washers or spacers may be used to raise the seat, or removed to lower it.

NOTE: Whatever you do with the height, DO shim the tracks so that the centers are supported, otherwise they can bend or break. They are not available from Volvo. Also if you remove the seat and tracks, clean and lubricate them to prolong their life. These are items that rarely get attention, and are in a ditty, often wet area. They often corrode or rust, and may be quite dirty and clogged.

The S-type tracks have ball bearings and are better constructed than the E & ES types. They will not interchange, but can be made to fit by drilling the seat frames.

TIP: As I write this, I am remind of the hundreds of times my left pant leg got caught on the seat track adjustment knob on E's & ES's. The solution, of course, is to swap right and left tracks so that the adjustment now is on the inside of the right track

September/October 1991

TIMING GEARS ...You get a knock in your engine, it might be a rod bearing, but it's not quite the right pitch and it doesn't behave quite like a rod ...it's deeper in pitch than a lifter, it can come and go. It can beat high speed only. It can be at idle and at low speed only. It is usually quieter under load. These noises almost always indicate a bid timing gear in a B18 or 1320. Rod bearings do go bad, but timing gears go about 1020 times more often. Note: In most cases, the engine will run 5-10,000 miles making these noises, while a rod bearing will usually be fatal in a few hundred miles, maybe less.

To Inspect & Replace

1. Remove radiator and grill.
2. Remove crank pulley. An impact wrench is usually needed, and you may have to put a wrench on the drive shaft in order to loosen this bolt (so the crank won't turn).
3. Remove timing gear case cover. Note: there are two oil pan bolts that hold the cover from below. Don't forget to remove them.
4. Turn the crank by replacing the crank bolt to line up the marks on the gears.
5. Remove the cam gear retaining nut. If you have a socket this size, and an impact wrench, use it! Otherwise, a cold chisel and hammer can be used to loosen this nut, and to tighten it when reassembling.
6. Carefully, gently pry the gear off the camshaft. (It is almost impossible not to break some of the teeth. Using a puller of some kind wouldn't be dumb, but I never have done it.)
7. Examine fiber gear for cracks near the steel hub. Examine teeth for wear.
8. No matter how good the gear looks, REPLACE IT! I've seen them look absolutely perfect and still be faulty enough to make noise.
9. Gently tap a new fiber gear on, with the marks lined up. Be careful not to drive camshaft back. If it moves, pull forward.

10. It is almost never necessary to replace the steel crank gear! The fiber teeth on the cam gear can't possibly wear the hard, steel teeth appreciably. Purists, fusspots, and Volvo marketing of gear "sets" notwithstanding, I have never replaced the steel crank gear, and have never had any difficulties.
11. Replace large nut. You can use a hammer and chisel to snug it up. Note: This is a good time to replace the oil seal, but it is not necessary.
12. Use a new gasket and other gasket "gunk" as necessary.
13. Allow case and oil seal to center on the shaft.
14. Snug the nuts and reassemble other parts.

November/December 1991

Coupe Tail Lights, when pitted, can be turned over. The lower side is usually in better shape than the upper. One side has a mounting hold at 4 o'clock and the other has a hole at 8 o'clock. This means one hole will have to be drilled in each mounting plate.

Light Sockets often corrode and malfunction. One good solution is to pack the socket with white lithium grease (or other grease). A 1/4" or so of grease is messy when you have to change a bulb, but can exclude corrosion and preserve your sockets and eliminate bad contacts.

E O/D Switch Replacement. In order to replace, the steering wheel MUST be removed. First, remove horn. Then remove 1-1/16" nut; then pull wheel with puller. If you don't have a puller or don't want to bother):

a. Leave nut on to just cover threads.
b. Use a little knee pressure under the wheel.
c. Sharply rap nut and the wheel will come off.
(Note: sometimes the wheel will come off with a just a tug and a little wiggling.)

Exhaust Systems. Midas Shops can fit exhaust systems to 1800's. This is NOT an endorsement, just information.

Tire Bead Leaks. Lubricate the bead with brake fluid, oil or grease. (I usually use grease.) All seem to work. None have ever done any damage for me.

Tubeless Tire Valves on old wheels that have been sitting outdoors for long time can be quite brittle. Be gentle when putting air or "flat fix" in. They'll usually hold for awhile (like towing home) but will crack if you handle them roughly.

Loosening "stuck" or "frozen" sheet metal screws.

1. Try to tighten first (so as not to strip the other side of the screw head).
2. If the screw won't loosen, rap the screw driven into the screw head to break any rust. Try to tighten, then loosen. (Remember a stuck screw (or bolt or stud) is not always stuck in both directions.) A hand impact tool will sometimes help, but the bits are usually too large for the screw head. You can, of course, drill the screw head away. One last trick - If you can get any kind of bite on the side of the screw head with a cold chisel, rap it sideways. This almost always will loosen the screw.

January/February 1992

Brake Problems ...Losing Brake Fluid

1. Often a rear cylinder (to '69). Fluid will show on the backing plate and tire. Rebuild wheel cylinder.

2. Might be a caliper- rebuild both (front or rear) for even braking.

3. Could be a hole in a brake line. These are steel lines, subject to corrosion, and getting older. Look for wet spots and replace sections as necessary. I've had success splicing in a small section, but hesitate to recommend this.

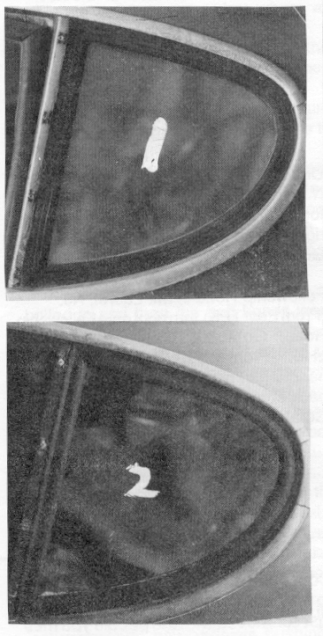
4. The brake servo (vacuum booster) on coupes to'69. If no leaks as above, check the servo. If you disconnect the vacuum line to the manifold and it's wet, you have a bad servo. Confirm this by opening the vacuum tank (if it can be opened). If it leaks, the servo is at fault.
CHOICES –
1. Rebuild it, if you can locate a kit. These kits are/were expensive and my experience has been that about half of the rebuilds do not function properly, and don't last any reasonable length of time.
2. Replace the servo. IPD and Volvo both offer replacements that are not identical to the originals. I am told that mounting these units is difficult and that they are expensive! Still, this is probably a good, safe option.
3. Bypass the servo. Disconnect the brake line from the master cylinder. Disconnect output line from the servo and connect to the master cylinder. Bleed brakes, front first, which bypasses servo. You'll need good leg muscles, but the car will stop (eventually). And...

If you want better brakes (to '67) and want to leave the servo out, change the rear cylinders. Volvo used three sizes of rear cylinders, all girling. All will fit. They have pistons of 3/4", 7/8" and 1 ". Older 122 wagons had 1", older 122 sedans had 7/8" (to'66, not servo equipped); 1800s and later 122 wagons had 3/4". Find a pair larger than yours and install. Your 1800 will then stop at least as good as a 122 sedan so forget the servo.

The early servos can be replaced with the later ATE type used on the E&ES, along with the later master cylinder. I'll take some credit for encouraging Bill Arey and Bob Foltz to perfect the conversion. However, none of us can get too involved in recommending this for reasons of liability. I like it. If you are interested, please call and I will describe it to you.

TIPS –
1. A good tool for adjusting S coupe rear brakes is a 1/4" sq. drive socket used backwards. Fit an allen wrench (1'4") to the hex side of a 1 /4" socket. The sq. drive end will fit the sq. head of the adjusting screw perfectly.
2. Use a socket on the bleeder screw to loosen it so as not to disfigure it.
3. If you break a rear bleeder screw off, you can still bleed the brakes! It's a two man job, as follows: hold the pistons on the cylinder. Allow one piston to come out past the cylinder just enough to let the air out. Push it back in and repeat until it is air free.
It's tricky, but easier than replacing the bleeder screw or the cylinder, especially if you run out of time or another cylinder isn't handy.

March/April 1992



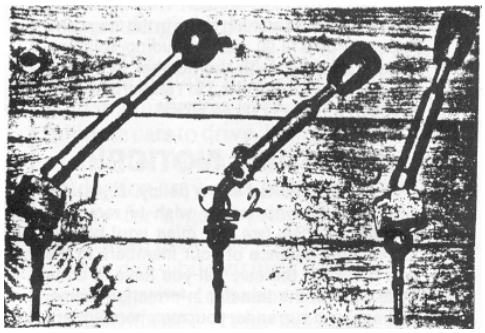
QUARTER GLASS GASKETS. There were two styles of quarter glass gaskets. One was plain, used on "A" coupes to around serial #6000. The late style had two grooves in the outer face.

There were also three types of front windshield gasket. My best belief is that all will interchange and so will the moldings regardless of what the dealers say. All windshields will fit all year cars, too. Only the later two types of gasket are available. Oddly, there was only one style of rear windshield gasket.

What won't fit is the later style front signal light gasket on the "A" coupes (to ch. #6000) because the housing was different. The center bulb was in the exact center on the earlier cars, rather than above it, as on the later cars. The early style in N/A anywhere that I know of.

May/June 1992

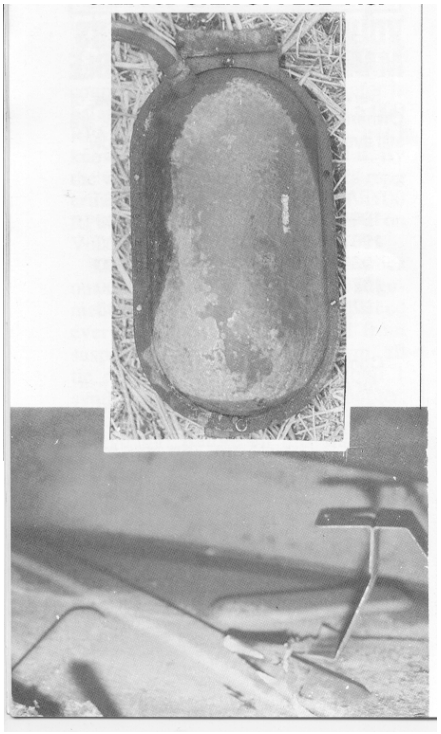
GEAR SHIFT LEVERS.



The E & ES levers are identical, but some 73s have different knobs. Since shafts are identical, the knobs will interchange (#1 photo, show with an "E" knob). For those of you who are not quite happy with this lever, there are alternatives. #2 Photo shows a shorter lever with the same angle of bend. It should clear the console and give a shorter throw. It will be quicker. #3 shows the short lever with a different angle. It might be nice for someone with longer arms, but it will probably be a little close to the dash in first and third. Do not neglect the possibility of bending the shaft to get the fit you want. Also, you could shorten the original shaft at the top and add more threads for the knob. I don't know where the other levers came from, but I assume they are from 140s or 164s with extension shifters.

WINDOW REGULATORS, '72-73 From'6171 all regulators ("elevators" were a common style with stamped gears and arms, with rollers to engage the track on the window glass mounting piece. '73ESs have a unique tubular type regulator which I won't bother to describe. On this type there is a different mounting plate for the glass, it attaches with two bolts (metric) to the regulator. Even more importantly, the mounting holes in the doors are different for each of the two styles of regulators. To date I thought all '72 ESs had the later style regulators also. Now I find that some 72ESs have the earlier type! Some '72 coupes have the later type. That translates into:
GEAR TYPE EARLY, '61-71, some '72 coupes, some '72 ESs.
TUBULAR TYPE LATE - some '72ESs (of course, due to the roof line, the glass is differently shaped on coupes and wagons, both the main glass and the vent windows.)
Another problem is that the parts books don't mention the later type at all, nor show it. Also, don't know which style you have unless you remove the interior door panel, and the late style is not available.
I recently noticed that the geared type regulator takes 2-1/2 revolutions of the crank handle to lower or raise the window. The later, tubular style takes 4-1/2 revolutions. Since I now expect almost all'72 and'73 owners to rush out to raise or lower their windows, may I wish you "HAPPY CRANKING "!

July/August 1992



EARLY COUPE TRIVIA:
VACUUM CANNISTER.

Hung out of sight behind the left fender splash plate (to chassis #7,000, I'm told) hides a vacuum reservoir. This is supposed to provide a reserve for the girling brake booster, presumably during periods of reduced engine vacuum and in case the engine stops. I guess it wasn't a vital part since it doesn't appear on later cars which use the same brake booster.

I must confess I never knew it existed until Jay Johnson asked for one. I scratched my head, said I had to have one on one of my 6-8 coupes, and promised to look for it. Sure enough, after wrestling with a rusty splash plate, there it was! The photos show the canister and the mounting brackets welded to the inner fender.

Jay tells me it was on some English cars that used the same type of brake booster, so it seems likely that Volvo just copied these systems until someone at Volvo or girling re-examined things.

September/October 1992

DOOR STOPS

These little buggers usually fail due to the springs weakening. (They haven't been available new for years!) The springs can be spread open, slightly, pried with a screwdriver or cold chisel. This will give them several additional years of life.

If the bumper pad is worn (they disintegrate), a piece of tire sidewall can be cut to fit.

The hard part is removing the stop from the car. On some cars, the stop will push through the hinge and there is enough room to remove it. On others - due to shims and hinge positioning-the hinges must be loosened or the door removed.

1. Bend the sides of the hollow rivet in at the bottom. If you're careful, it can be reused. Otherwise, use a cold chisel and cut it off at the bottom. It can be replaced with a bolt and nut or a new rivet.
2. Remove rivet from the top.
3. Push the door stop through the hinge to remove it. If necessary, you will have to loosen or remove the hinges. Sometimes the ears on the door post will tear away from the post. A simple solution is to weld or brace a suitable flat washer to the post to mount the door stop.

November/December 1992

DRIP MOULDINGS.

These moldings along the drip edge of the roof were brass on earlier coupes, up to around 1964, I think. Later coupes use aluminum parts. Some discriminating restorers are upset by the difference in appearance of the bright chrome compared to the duller aluminum. Of course, the earlier type has long been available. If you attempt to remove either style, be careful! The parts will curl or kink if you try to peel them off. Recommendations:
1. Use a putty knife - about 1 " wide.
2. Back it up with a strip of wood about ¼ to 3/8" thick at the roof. A screwdriver might work to back up the putty knife, but I like wood or plastic (a toothbrush handle?).
3. Pry the molding off at theTOP ONLY, just enough to clear the top edge - only 1 /16-1 /8", so as not to distort the part.
4. PEEL DOWN with your fingers so that the lower edge is released. I guess the brass molding can be re-plated.
5. I haven't done it yet, but I imagine it would be replaced with finger pressure. Hook the bottom edge, then gently snap the upper edge over the top edge of the gutter.

ZINC PLATING (Galvanizing). This is very thin plating on steel parts is a rust-preventative that probably quadruples the life of the parts. (Several new car manufacturers use galvanized parts-I like it too!) 1800 frames and rocker panels rust from the inside. Galvanized replacements are the BEST replacements available. Common sense dictates the following:
1. Weld outdoors, or in an open shop. Put a fan behind you, if you like.
2. Use a MIG welder. An ARC is OK. DO NOT GAS WELD galvanized parts.
   You will burn too much of the zinc off the parts.
3. Take note - there is no zinc on the edges of the parts.
4. If you are a worrier, grind or polish the zinc off the parts 1/4" or so back from your seams before welding.
   Amateur welders can suffer discomfort from unaccustomed equipment - helmets, goggles, etc. and flux fumes.
I sell many galvanized parts to pro welders and body shops. They never complain about galvanized parts. Knowledgeable people appreciate their superiority over "black" parts that have begun to rust before they are installed. 'Paint fumes and sanding dust are quite toxic. Do we then use rollers to paint our cars?