

Rover SD1 Twin Plenum Vitesse D330 ENH - Tales of Caution Number 1 - 3Q'93

I became hooked on SD1's when my Rover Addict son (Carl) passed on an X registered Vdp in 1990. Following an 18 month liaison I gave it up in favor of a Rover 820Si company car but then immediately retired in '92 so I found my self without any serious wheels and we started searching for a suitable replacement. Carl reckoned I needed a fully loaded Vdp Efi or Vitesse Twin Plenum, C or D plated in good nick. Eventually, in June '93 I found the car I was looking for but had I joined the Rover SD1 Club sooner it would have been easier to locate a suitable car. Anyway, I did find D330 ENH locally being sold by the owner of a garage, it being his personal car, and spent 4 weeks negotiating £1000 off the asking price plus a full service, new tires and an MOT. First registered on 1/1/87, the VIN (345811) seemed very late and according to National Heritage was the 20 th last Rover SD1 ever made.

The car was basically good, well looked after, recently re-sprayed and little visible rust. Once home, I commenced a thorough inspection and test of every sub-critical working part, joint, switch, wire, connection, hinge, lock, bulb, etc, listing and correcting each problem and where necessary locating the replacement part needed. This prompted a tour of local breakers to find various parts. My search ranged from the simplest, such as trim buttons of the correct color to bits such as parcel shelf straps, brake pad wear cable, rear seat hinges, rocker switch bezels and bulbs, connectors, clips, headlamp wash pump/relay, and many other parts. It also yielded un-needed parts which are always worth buying for a few extra shillings when you are on a roll, such as spare switches, washer pumps, bulbs, trim, etc.

Although in good condition the lists of work was quite comprehensive totaling over 70 jobs during the first 6 month period of ownership and represent simply, either straight repairs or genuine preventative maintenance such as internal lubrication of tired window mechanisms or door locks.

Being totally unfamiliar with the car from a maintenance stand-point this exercise of upgrading was a very good learning process, for example, the headlamp wash system was kaput which meant tracing back through the wiring to find the components, some of them very well hidden indeed. Both the pup and the relay were broken and a spare relay was generously sent at no cost to me by Leonora Sellers following a discussion about the problem at a Club meeting at Kedleston. When refitting the relay I re-mounted it cover-side upwards so the water can't get into it again! A replacement pump was more elusive but a Series II Granada yielded a similar item which would do the job until the genuine item was found on a written off Rover 820Si. For the record, to get at the pump/bottle you have to remove most of the superficial front of the car including belly pan, spoiler and bumper; but the great advantage is that it exposes an area not normally seeing the light of day which could then be inspected and repairs effected. For example, one horn repaired and both horns re-tuned plus the whole front sub-frame area cleaned and re-painted.

The R/H headlamp was full of moisture (as indicated by the judges at Kedleston) but upon removal of this non-repairable item the only visible fault was a deteriorated seal along the lower front edge. Not to be beaten, I removed the headlamp and the whole unit was warmed up until the sealant was soft enough to pry off the glass so the interior could be cleaned up and resealed with clear silicon, since when it has remained bone dry. Now, a tad of moisture in the L/H headlamp unit indicates a similar job needed there too.

By far the most difficult problem to date has been with the Efi. The trip computer showed an occasional intermittent excessive instant fuel consumption (22 - 25 mpg cruising, 35 - 45 on over-run) coupled with a rough- running engine similar to a carburetor car being choked. Weeks of reading-up on Efi plus measuring the checkable components such as thermo-time switch, temp sensors, throttle switch etc, all led nowhere, but following some telephone conversations with the trade folks at M.R.A., J.E.M., and DAK, they gave me a wide range of suggestions and a common trail - "check out the wiring loom and connectors". I set about this lengthy task without any enthusiasm, cleaning every connector, measuring for O/C or S/C, tightening connectors, replacing the odd male or female part, checking for brittle or intermittent wires, etc; each change being followed by endless cruises along the local A1 at Biggleswade to monitor the effect (Folks! Is it a bore?). Eventually it seemed that the connector to the resistor pack was a source of error so I put a long cable tie, nice and tight, around the whole unit and the connector and the intermittent problem disappeared with the trip computer showing 32 - 37 mpg at legal cruising speed and 70 - 100 on over-run. Or does it? Very infrequently I get a suspicion of the problem returned so I stop the motor, wriggle the suspect connector and it goes away again. Yes! I know there is no logic to it and I simply cannot see why it should affect a cure. Recently I had my suspicions that it may even be a trip computer readout problem (as opposed to an Efi problem) but until I get more clues I stopped looking any deeper in case it goes permanently mad and me with it.

To keep the rust at bay in the future, I Waxoyled the whole car as advised by several members of the owners club. It was a long job, but thoroughly rewarding. Finding the access holes is quite good fun with the bonus is that it enhanced my awareness of the car body and increased the inspection level quite considerably, uncovering the odd problem never normally exposed. Also it gave the opportunity to clean and neatly re-tape the inner door PVC liners and the various body access holes.

Another big undertaking was to replace the ageing exhaust with a stainless steel system. Not knowing what to do (or how) I asked around the trade until Mike Raynor at MRA convinced me that his twin pipe, twin box system would fit the bill and would have no detrimental effect on the Efi (More later). With the old system removed the bunches of bananas were offered up to the block and surprisingly cleared all the air-con, plumbing and steering components to fit snugly into place just begging to be torqued-up. The rest of the system was assembled from the rear, as Mike advised, and it all slid together reasonably well but I simply could not get it all to wriggle far enough forward. After two bad weeks of getting nowhere, with the rear box sitting at an odd angle and a regular thump on the body every time the car hit a bump, Carl came up with the perfect solution! Brute force! We loosened all the system bolts and clamps, including the manifold bolts

and positioned the car on axle stands strategically three feet from my garage wall, then with him putting both feet on the rear box whilst sitting knees bent on the drive with his back to the wall and me underneath shaking the pipes violently, he heaved into the rear box and the whole system shot forward about 4 centimeters and aligned itself beautifully all along the car with all the right clearances en-route.

Regarding any effect on the Efi, after a few weeks I had the suspicion that the engine was running weak with the plug color showing out on the white side of "straw" and I figured that this might be due to the reduced back pressure of the larger exhaust. At the same time the resonance from the 3" diameter tail pipe between 1200 and 1800 rpm was audibly unbearable to the occupants. To cure the latter I fitted a restrictor in the tail pipe gradually reducing the opening until the resonance disappeared and the car became drivable again in normal town traffic. I am still on the trail of the weak mixture symptoms/cures but my latest clue comes from Keith Birch at SD1 Developments who advised me to check/reset the throttle switch residual setting to 320 (ps: it was at 280mv) and to modify the idle mixture setting a tad richer. At the time of writing, the experiments are continuing.

One problem I had to overcome on the stainless exhaust was to modify the air-con compressor stay originally bolted to the L/H cast iron manifold. I obtained a couple of exhaust clips of the right diameter/shape and rigged a stay retaining bolt and spacer on the 2nd pipe of the L/H set of bananas ensuring that there was no strain on the arrangement when it was torqued-up.

Fitting the new exhaust system led to the correction of another problem caused sometime in the car's history when the chassis had either been grounded by a previous owner or someone had suffered a jacking accident. Either way, the underside of the car was dented and the mid-section cross-member distorted, resulting in restricted clearance for the twin exhaust pipes en-route to the first box. The cross-member was removed, straightened, cleaned and re-painted along with all the fuel pump mounting parts. At the same time new fuel pump mounting grommets were fitted to replace the perished items found in situ! The gearbox snubber was also in very poor perished condition so I replaced it at the same time and set up the correct clearances as per the workshop manual.

Talking of the gearbox; there is a most annoying oil-leak where the gear selector shaft goes into the top of the rear housing, a fault which I have to live with for the time being! Knowing nothing about gearboxes I have no idea where to start but from the assembly drawings it seems that to replace a tiny little "O" ring the whole box has to come out! To prevent a daily oil drip from marking my brand new block-paving drive I have wrapped a length of absorbent rag around and below the box, near the snubber, to soak up any drips and have made a diary note to top-up the box lubricant every couple of months.

Another real beauty of a fault was the throttle not fully opening because the accelerator pedal was grounding on the carpet at about 80% open. After removal I modified the angle of throw so that pedal grounding coincided with fully open throttle

discs. Not surprisingly, it made quite a difference to the acceleration I get when putting the hammer down. "Lighting up the Tires" is now an understatement on this "Group A" version of the car! So much so, one wonders if Rover deliberately adjusted the throttle pedal to ground on the carpet to restrict urban performance! Hmmnn?

By the way, when tracking down a "low coolant" indicator fault I discovered that there is only one correct way of connecting the two wires to the sensors on the (metal) expansion tank! This, despite the tank being insulated from the car body by its rubber mounting band.

This reminds me of another wild goose chase following routine replacement of the Nivomats. Obtained new from MRA at the same time as I purchased the exhaust system, Mike Raynor gave me a pair of new rear springs! I had noted that the "new" springs were about 0.65" longer and had different color coding painted on them. Assuming that the original springs must have shortened with use I pressed on, completed the job, and finished up driving the car around for a couple of months listening to the rear cross-member knocking on the body and trying everything I could think of to make the noise go away. In the end I replaced the original springs and solved the problem. I later found out that the springs were for the Italian version of the Vitesse and not compatible with my Nivomats.

Finally, at this time, I still have a number of unsolved faults for which the parts or know how are not yet available. Windscreen wipers grabbing/juddering, Brake pad wear indicator not functioning, Flasher/hazard relay not heavy duty for caravan use, Gearbox oil leak as described, Leaky front air intake hose repaired with cling film and duct tape, and Rear axle backlash.

I would be delighted to hear from any members who have experienced similar situations to those I have described, or from anyone who may have new solutions to try on my unsolved problems. In the meantime I wait the spring/summer season so that I can fully assess the rust problems which do exist and get them professionally treated.

Ramon

Website: <http://www.vintagemodelairplane.com>

Blog: <http://uk.blog.360.yahoo.com/maureen9235>