



THE VOLVO CLUB OF B.C.

MAY 2006

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Annual membership fee \$20, To join: Call or write to the address above
or view our Website www.volvoclubofbc.com



V.C.B.C. is the B.C. Chapter of Volvo Sports America 1800 Register

To join VSA write to, PO Box 352 Fairless Hills, PA 19030-0352 Email: mkbk@erols.com,
Annual membership fee US\$32 or \$45 Canadian funds Website www.vsa.org

UPCOMING VOLVO EVENTS (also see our Website www.volvoclubofbc.com)

MAY, 2006 * CAR SHOW CANCELLED THIS YEAR ONLY*** DON DOCKSTEADER ANNUAL GARAGE SALE AND CLASSIC VOLVO DISPLAY:** car show is cancelled due to the sky train construction on Cambie St., The garage sale will continue Monday to Friday May 8 to 12 and May 15 to 19, 2006 For details call, Al Walker at 604-325-1000

MAY 27 & 28, 2006 HISTORIC MOTOR RACES, Mission Raceway Park, Organized by the Vintage Racing Club of BC. At least 3 VCBC club members will be racing their vintage Volvos, a PV444, PV544 and 122S, For more info see www.vcrbc.ca.

MAY 20, 2006 (Saturday) IPD GARAGE SALE , Portland Oregon, see their website at www.ipdusa.com

JUNE 10, 2006 (Sunday) VCBC VANCOUVER ISLAND SHOW AND SHINE. 1790 Cultra, Sannichton, Come join the VCBC Island Chapter for fun and a pot luck BBQ. All welcome - even mainlanders! Contact Bob 250-658-0126 or lpscuthill@shaw.ca

JUNE 17 & 18, 2006, VOLVO CLUB SPRING DRIVE: Saturday, Vancouver to Lilloet via Duffy Lake Road, Sunday, Lilloet to Vancouver via Fraser Canyon. Make your own reservations at the Mile 0 Motel in Lilloet, by calling 250-256-7511 (mention the Volvo Club to get the club room rate of \$62 single, \$65 double). Meet Saturday Morning at the United Church parking lot north of the Upper Levels Highway at Taylor Way in North Vancouver. We will leave at 10:30 am. For information call **Gregg Morris @ 604-469-1216**.

JULY 15, 2006 (Saturday), VOLVO CLUB OF BC, PARTS SWAP MEET, at Don Docksteader's Cambie St. location. 10:00 to 2:00. We haven't had one of these for awhile so come and buy or sell Volvo parts, literature, accessories, wheels, tires, etc. Info call **Mike Handfield 604-582-2837**

JULY 22, 2006, (Saturday) Vancouver Island Summer Fun Run/Mystery Tour rendezvous at the CanWest Mall, Langford at 10 am, Destination tha. Contact Bob 250-658-0126 or lpscuthill@shaw.ca

SEPTEMBER 24, 2006, (Sunday) V.C.B.C. 15TH ANNUAL CATES PARK PICNIC Darcy Bullock 604-538-7402

REPORT OF PAST EVENTS

ISLAND FALL COLOURS RUN TO MAPLE BAY

Sunday October 20, 2005

Bob Cuthill, Island Director VCBC

Before I start this latest tale, I must make an addition to the list of attendees at the June Mystery Tour. I don't know how, but even with the list in front of me, I failed to include Gary Pargee in his 94 850 Wagon.

Now, on to the latest Island event. Well, it finally happened. After four years of dry weather for our Island events, we finally had one with some rain!

Sunday, 30 October 2005 dawned overcast and wet. The thought raced through my mind that this year my 61 P1800 might be the only car on the fall colours run to Maple Bay. Don and Mary Lou Johnston, old Volvo friends we had met at the VSA 1991 meet in Solvang

California, had driven up from Tacoma way and spent the weekend with us, hoping to enjoy some of the fine Victoria weather we always brag so much about. So more out of curiosity Lucy and I bundled up our paraphernalia for the trip and, with Don and Mary Lou in tow in their 740T wagon, headed off to the soggy CanWest Mall parking lot. Imagine my surprise when we rounded the corner and saw a couple of Volvos already sitting where we usually rendezvous. Must be just a couple of early shoppers. But no, as we approached we recognized the cars and the brave souls huddled under an umbrella or two (you'll usually find a couple in most Victoria cars - just in case). And then some more Volvos appeared out of the mist and joined us. The next thing you know, there are thirteen cars lined up for the start! Among them was brother Olof

Malmberg in his recently finished immaculate red 544. He had braved the early BC ferry schedule and arrived on the scene almost like Santa with a load of goodies (read Volvo parts) purchased by local Volvophiles. With this many cars and people I can't list everyone who was there so I'll have to limit myself mainly to the newcomers.

In the midst of the various groups of umbrellas I noticed two umbrellas over the open engine bay of Olof's new toy. Ever the ready mechanic, it seems Peter Landsman had been called upon to offer technical advice on the carburetion of the slightly rough running B16 red block Volvo engine. Peering under the umbrellas and over the shoulders of the assembled throng, I could see Peter, sleeves rolled up, gently turning the brass mixture setting hex nuts under the SU carbs. I jokingly



Mystery Tour 2005 - On The Starting Grid

called out “ Hey fellas, this is a fun run not a tech session!” Having got their attention, I announced it was now time for the drivers and navigators meeting, which, due to the weather, would be held inside the nearest mall entrance. Some people have a hard enough time reading printed instructions and I didn’t want to complicate matters by issuing them soggy paper with water making the ink run.

They all listened attentively and didn’t ask too many hard questions. Soon it was back outside to the cars in the rain. It was hardly a Le Mans start, but we did sprint briskly through the rain back to our cars, discussed the first few instructions with our navigators, and started easing out of the parking lot onto Jacklin Rd northbound. Everybody made the first few turns OK and the rain seemed to be easing off the further north we went up the Malahat Highway. But just as I was turning off for Shawnigan Lake my cell phone started to ring. Sean Drabbit in the white 1800ES said his instruction page didn’t look right. To make a long story short, Sean had only gotten page two! I guess my printer grabbed two pages at once and the front of Sean’s route instructions got missed. The easiest thing to do now was to let him scoot on ahead direct to the finish line rather than backtrack and try to catch up with us.

It was a bit slow going around the west side of Shawnigan Lake. There were about 200 people out road running in the rain for some worthy cause. Oh well, we weren’t in any real hurry were we? Even after the recent wind

there were still lots of colourful vistas to take in. And the closer we got to Maple Bay the more the rain eased off. And before you knew it, the waters of Maple Bay were just ahead and around the corner was the Brigantine Inn. There were a few strange (non-Volvo) cars in the parking lot as well as a number of familiar ones. There to greet us were locals Bryan and Aude Volstad and Henning and Monica Kristensen. Down from Nanaimo were Bill and Blanche Paitson and all the way down



TECHNICAL SESSION AT VOLVO OF NORTH. VANCOUVER

from Qualicum Beach were Nigel and Linda Smith. All in all about 17 cars and no duplicates. But by far the most unique had to be Nigel’s “345”. Must admit - I’d never seen a Volvo quite like it. And neither had a lot of other folks. If you thought the gathering around Olof’s bright red 544 was something, you should have seen the crowd around the 345. The power train on this little buggy is

really unique. Nigel spent some time describing the inner workings but at the end a lot of us were still shaking our heads.

Well, it wasn’t raining at Maple Bay, but it was nice to get inside and get seated so we could order lunch. I think they were ready for us - two large white boards with the specials all listed. Lunch was great, service was great, great to talk with so many friends both old and new. Time flew by and before you realized it our noon meal had stretched out to almost two thirty. Gradually the crowd and the parking lot thinned out and soon we were on the road again. The trip home was an uneventful run straight south down the highway. Every once in a while we’d comment about remembering a certain intersection where we had crossed the highway a few hours before. It was good to get home and put our feet up in front of the fireplace with a glass of wine. We all agreed, it had been another great Volvo day on the Island, even in spite of the rain. ♣

NOVEMBER 23, 2005 (Wednesday) VCBC TECHNICAL SESSION

Cam Finnigan

Every winter, the Volvo Club of BC holds a technical session covering some aspect of maintenance, restoration or repair of Volvo cars. These events are normally hosted by a local Volvo servicer and are typically well attended, normally drawing 30 or more Club members, and are always interesting. The topic typically features work that can be completed by an individual with moderate enthusiasm and technical skill. A complete list of past technical sessions can be found by going to www.volvoclubofbc.com/technical and following the links. The technical session of Winter 2005, held November, was hosted by Volvo of North Vancouver. Master technician Ian Peterkin took us through the steps of replacing the timing belt on a overhead cam red block engine. As always, the event was well attended and informative. The task is normally completed with little difficulty, however, Ian proved by demonstration at least one of the complications that can creep up, hampering the progress.

In this issue, we have decided to take a slightly different approach to presenting the summary of this technical session. Rather than presenting a complete step-by-step summary of the job in the newsletter, we have elected to save paper and print an introductory preface. For those of you who are interested in a complete transcription of the night’s events, including many related hints and tips, we invite you to visit the technical section of the Volvo Club of BC website at the above URL. You can also find the article by simply using your favourite search engine and typing in the following search words: “vcbc 2005 technical”.

The subject car was a 1980 GT owned by John Cripp's son. This engine configuration is fairly representative of the typical red-block engine: one accessory belt drives the alternator and water pump and another drives the power steering. On a Volvo 740, the alternator and power steering (and air conditioning) may be located slightly differently and the fan shroud is different, but the core parts of the front of the engine are identical.

Most of the work can usually be executed with common tools. However, there are some instances, when things go wrong, that special tools or expertise may be needed. Almost immediately Ian demonstrated what can foul your plans. The four M-6 nuts that secure the pulley and fan to the front of the water pump can often corrode, making the very difficult to remove. Add the fact that their location disallows the use of a socket or common box-

end wrench and you can end up with a really difficult problem to solve. Ian made handy use of an oxy-acetylene torch to crack the bad boys loose. I had to ask the question, "Is there just one nut that is bad?" Ian's reply was, "No. There is just one nut that is good." After a bit of messing around and a few groups breaking off for some unrelated Volvo discussion, we were back under way and steaming ahead at full speed. Most of the balance of the work went without further hitch. (Details on the website.) ♣

VOLVO CLUB WINTER SUPPER

January 25, 2006

The staff at the Old Spaghetti Factory in New Westminster, were happy to see us again this year. Dave McAree, organizer of this event, thought we might exceed the seating capacity of our favourite alcove in the Restaurant, however we just fit.

The restaurant has nice atmosphere and it makes this supper a very enjoyable and informal social event. Of course the generous servings of Spaghetti and Spumoni don't hurt either. It was an evening of non-stop conversations. The Club provided background entertainment in the form of digital slide shows dedicated to the PV Series. This was in honour of the PV Fest held this past summer in Bellingham Washington. Steve and Celia Hutchens, who hosted the PV Fest, drove up from Bellingham with Don and Julia Voegel to join us for supper.

Chris Ainscough donated to the club a CD of pictures from a variety of past VCBC events, and that provided some relief from the overdose of PV pictures. Everyone had a good time and we will be doing it again next year. ♣

EDITORIALS AND LETTERS

NEWSLETTERS: read this

Starting with the September 2006 newsletter, you will have the choice of receiving your newsletter digitally (from our internet site) or by surface mail as it is now. Distribution of the newsletter digitally has a couple of benefits. The benefit to you is the ability to print it your newsletter in colour. The benefit to the club is a saving of printing and mailing costs.

With this newsletter every member will receive a return envelope and a form asking them to choose between the digital or paper newsletter. If you don't return the form you will continue to receive the newsletter by surface mail as before. (If your membership is about to expire you will also receive a membership renewal form that you can return in the same envelope)

To help you make your choice, we have set up a demonstration on our website to show you how receiving the newsletter digitally will work. Just follow the steps and see if you like it.

1. Go to the Volvo Club of BC website www.volvoclubofbc.com
2. On the left hand margin of the home page see "SAMPLE NEWSLETTER", View Newsletter Sample newsletter. Click on "View Sample Newsletter".
3. That will provide a sign-in box. Enter **vcbcguest** as the user name and **amazon122** as the password. Click **OK**
4. There will be two newsletters to choose from. January 2006.pdf and May 2006.pdf Click on either one and the newsletter should open on the screen. (If it does not open you may not have a pdf reader, click on the "get Acrobat Reader" button on the same page and the pdf reader will be automatically installed on your computer. Now click on the



5. newsletter address and it should open.) To print the newsletter, press the print icon or go to **File** and select **Print**. Assuming you have a colour printer, the newsletter will be printed with the pictures in colour.

If you choose to get the newsletter digitally the official user name and password will be printed on your new membership card. Newsletters are prepared for May, September and January of each year. Go to the Volvo Club of BC website on those months and the new newsletter (as well as past newsletters) will be available. The username and password will be changed annually at the time of membership renewal. ♣

ITS MEMBERSHIP RENEWAL TIME.

If your membership is about to expire you will receive a renewal notice and a return envelope with this newsletter. The membership fee is \$20. Feel free to renew for more than one year if you want.

Your renewal notice has a new box to check to indicate whether or not you want a new copy of the membership list. These are costly to produce and to mail, so we will only mail it if the box is selected.

This is the only renewal notice you will receive. ♣

DON DOCKSTEADERS GARAGE SALE. This year due to the construction of the Skytrain Canada Line along Cambie Rd. The Don Dockstader Garage Sale will take on a different format. There will not be a one-day event with Volvo Club Car Show. This year they will have an extended sale that will last

from May 1 to May 14 with the same special prices on cars and parts as at past Garage Sales. Call Docksteader Motors at 604-325-1000 for details.

Seeing as the Classic Volvo Show at the Docksteader Garage Sale is cancelled this year why not take a trip to Victoria and join Bob Cuthill and the Vancouver Island Club



Members for their show and shine on Saturday June 10, 2006. I know they would be happy to see some of the mainlanders. Give Bob a call at 250-658-0126 and he will tell you all about it. ♣

VOLVO REPAIR SHOPS

requests for names of Volvo Repair shops in the lower mainland. Please let me know if you have a service source that you are happy with. It can be an individual, a Volvo-only garage or a shop that does Volvos and other makes. The important thing is that they provide competent service. Please call Gregg at 604-469-1216 or email grmorris@moody.bc.ca with your recommendations. ♣

VOLVO FACTORY ARCHIVIST

Volvo factory archivist is Ms. Ulla Bergwall at email address ulla.bergwall@volvo.com. Mike Dudek owner of some exceptional vintage Volvos in California found that Ms. Bergwall was able to confirm that the engine he had in an early 1800 was the original engine c/w serial number. Perhaps she can do this for all models.

OLD VOLVOS AND THE ROAD TRIP

Rhys Kent

There is something satisfying about setting forth on a road trip in an older vehicle, especially when it's a Volvo. Maybe it is because the sense of adventure is heightened. After all, in a warranted new car full of perfectly conditioned air, equipped with a 1-800 free help line, a road trip just doesn't feel the same as coaxing an old Volvo down the

same road, windows wide open, with a nervous eye to the gauges and an ear to the drive train.

My first road trip in a Volvo was taken in my very first car, a 1966 122S two door. Of course the trip was in 1976, so the car was a scant ten years old, but even then it seemed ancient. I left Victoria to travel to Kamloops to visit some buddies that summer, and I must have left on the hottest day of the year. Through the Fraser Canyon the engine refused to stay cool, so on the downhill sections I would close the heater valve, and then open it as the gauge wound up to redline on the uphill. The sudden inrush of relatively cool water sent the gauge down quickly, and I crested most of the hills with little problem except for some localized overheating of my legs. Imagine sending a couple of liters of cold water into the cylinder head of some lesser engines – I think you would hear the snap as it cracked. But that B18 didn't care. It even returned 36 miles per gallon. That temperature gauge was accurate. I didn't use the car until the next day, and after having sat all morning in the Kamloops sun, 110 degrees in the shade, the gauge was reading – off the peg noticeably – when I got in to start it. No choke needed, not even on those

I often get



RHYS KENT AND HIS 242DL

SU's.

I drove from White Rock to Edmonton in a 1979 242GT, which I had purchased new. Mind you I did the trip in 1980 so the car wasn't old then, but if I still owned it, it would be now. I averaged about 125kph for the trip, and made 36 mpg with that car too. On the return trip I took a detour to Kitimat. That took an extra two days. I was using Mobil's first synthetic oil in that car (while still covered by the one year warranty – remember them?). That first synthetic was a 5W-20. No one had heard of an oil as thin as 5W, when British car owners thought 20W-50 was barely sufficient. The engine happily burned almost two litres of

that 5W-20 at \$4.99 a litre when gas was 32 cents a litre! Now gasoline and synthetic oil are nearly the same price! I remember being eyeballed by the attendant in a rickety old gas station in Tete Jaune. He seemed not to like the stripes and the general appearance of the silver "furrin car". He reminded me of the blacksmith in the film "Deliverance", especially when he grunted "What the hell kind of car is this?" I pointed at the rear windshield, which had the "Assembled in Halifax" sticker on it. "Volvo" I said, "built in Canada". He must have known Halifax was in Canada because he grinned and displayed his tooth.

The next car was a beautiful yellow 1972 142S four speed, and that car did Port Hardy and back in a day, and a couple of trips to the Okanagan. It cruised at 60 mph at 3000 RPM, so the mileage was not outstanding – maybe 26 mpg. But it would pull 6000 rpm in fourth as I had lowered it and it seemed to be almost slippery through the air. I carried no tools at all in that one. It never let me down.

I took my 1982 242 GLT with the 5.0 HO Mustang engine to Prince George in 1996. I wrote about that car a few years ago in this newsletter. It was great fun, but it gave me pause. What if something goes wrong on the road? Where do I take it? The nearest Ford dealer – Williams Lake – or to an import shop? I never had to make that decision. It ran perfectly and gave 29 mpg. Northbound into Quesnel I pulled out to pass a line of traffic, about nine cars. As I did so a kid in a late model Firebird followed me into the passing lane. I ran away from him while passing

the others, hitting something past 180 kph. As I tucked back into my lane and slowed a bit he came up alongside on my left, wide eyed and staring at me and the Volvo. Then he gave me quick thumbs up, shook his head, and took off again. He must have been thinking, "Man what you got in that thing!"

Now I drive some other brands, the kind with great AC, silent, smooth, with heater fans that never fail, and fuel pumps that never quit. Last July I had to go to Kamloops to meet a buddy who drives for KalTrans. The deal was that I would have to park my car in a tractor-trailer storage yard for over a week,

unattended, while my buddy and I drove the semi through the three western provinces delivering tires. The yard was next to industrial sand blasting outfit on one side, and the railway tracks on the other, bordered by the river. The parking lot was loose sand and tumbleweeds. I was not going to take my "fancy" car. I took a car I knew would endure that parking lot, be there when I returned, and take me safely home. I took my Volvo. The one I have now is a 1980 242DL. Straight four speed, no overdrive. Breaker points. A single SU carb. Manual steering. It is the Pontiac Strato-Chief of Volvos. I think the radio has tubes.

The DL was the oldest car on the ferry last July. The guy in the BMW next to me actually looked down his nose at the car. The ferry workers shook their heads. I forgave them all. The 242 is a faded chocolate brown, but it also

has a few patches of forest green epoxy primer I applied thinking some day I might paint it. The effect of these colours makes the car look like the camouflage on a Lancaster bomber, only more weathered.

I stopped for gas in Hope, and while filling the tank I smelled a hot brake. I looked around at the other customers thinking, "Who's been riding the brakes?" Then I reached down, still filling the tank, and poked a finger through the wheel to touch the caliper. Yikes. I have a tight right rear caliper. Oh well, the rain will cool the disc, and being a Volvo it won't matter anyways. The caliper loosened itself up around Merrit I think.

Unfortunately the differential in this DL must have been a drag racing option. The old B21A turns 3400 RPM to do 100kph. The traffic on the Coquihalla seems to do about 140kph. My poor arithmetic told me that I

would have to turn about 9700 RPM or so to stay with them. I elected to observe a 3700 RPM maximum. My real mistake was installing a factory tach in the car after I bought it. Some things are better left unknown.

I got to the yard in Kamloops four and a half hours after driving off the ferry. The brown bomber never missed a beat, and burned no oil at all. Eight days later it fired up on the second turn. I brushed the sand blasting dust from the windshield, and left Kamloops at ten to three. At five to seven the ticket agent at the ferry said, "Lane 41, they're waiting for you" and I drove down the lane, directly onto the ferry, and stepped out, the last car on the sailing. The oldest car on the boat once again, and another road trip in an old Volvo in the log book. The slick in the new Chrysler 300 next to me didn't know what he was missing. ♣

SOMETHING DIFFERENT

The following article is by Phil Singher. You will probably remember other articles by Phil in this newsletter. I particularly like his witty writing style. He gives good advice and makes it funny. Phil lives on Whidbey Island and builds very nice Volvo B18 and B20 engines from stock to very high performance. If you need an engine builder you can trust, send him an email at editor@vclassics.com.

Living with CMS

Part of an article from the May/June 2005

VCOA newsletter

Phil Singher

I'm no purist. It's your car, and you can do what you want to it. Still, some of the modifications I see on older Volvos make me cringe. What leads otherwise rational people to change what Volvo hath wrought in ways that make no sense at all? I have a pretty good idea, because I'm a recovering Compulsive Modifier Syndrome (CMS) sufferer myself – someone who wants to make changes just because they can, not because it improves the car.

The very root of the problem is a failure to acknowledge that Volvo engineers knew what

lack power, get poor gas mileage, deafen passengers, require excessive effort to steer, or suffer from a wide range of other ailments. In the great majority of cases, the owner has no interest in fixing what's wrong, but instead wants to modify the car around the problem. "My 1800 overheats--how do I put on a six-bladed fan from a 240?" Sometimes the owner even knows what the problem is: "My distributor is shot and I get terrible performance--can I get more power by putting on an exhaust header?"

Does the first owner really think Volvo designed the 1800 with an inadequate cooling system? Does the second one believe that ignition that behaves itself isn't fundamental to good performance? No doubt buying and modifying are more fun than thinking, but neither owner is likely to get good results from that approach.

Once that mindset is established, the owner is wide open to contracting CMS, which often progresses to its acute stage, full-blown Catalog Fever. Of course catalogs, on-line stores, and eBay have perfectly legitimate uses and can be great resources. It's only those severely afflicted with CMS that can't help but buy everything that can possibly be bolted onto their cars, just because the word "upgrade" appears somewhere on the page. The person or company that wants your money must know more about engineering cars than Volvo did—they wouldn't print it if it were not true, right?

One of the most reliable indicators of CMS is the inability to resist buying a Weber downdraft conversion. This is often brought on by the widespread--and very contagious---myth that SU carbs never really run right and require fiddling with at least semi-weekly. That couldn't be because they're worn out, set up wrong, or mistuned, could it? So instead of spending \$300 having the SUs professionally rebuilt to new condition with the correct needles for your particular motor, it seems to make more sense to spend \$500 on modifying

the car with a Weber conversion. Never mind that this is replacing two 44 mm barrels and a fairly efficient manifold with a little bitty carb that has one 32 mm and one 36 mm barrel (choked down considerably smaller internally, no less) and a long, circuitous manifold. MGs use SU carbs and Ferraris use Webers. Ferraris are faster than MGs, so a Weber must be better for performance, no? (I have yet to come across a Ferrari with a Weber 32/36 DGV on it, but maybe I don't get around enough.)

Of course, that Weber is going to automatically come loaded with the correct chokes, jets, auxiliary venturis, and emulsion tubes for your particular motor, because you're buying it from a reputable company that's been selling them forever. Their shipping guy is a psychic, knows all the peculiarities of your car, and will set all this up for you. If somehow he slips up and your motor behaves like it's running on mentholated guano instead of gasoline you can always order the Fine Tuning Kit that contains less than half the components needed to really optimize the carb for your motor, exhaust system, altitude and driving conditions.

Many CMS sufferers never bother with that anyway. If it runs rough, it's because high performance stuff tends to do that. Top Fuel dragsters hardly idle at all, actually. It's not a problem; it's a feature.

Okay, back to reality. Note that I'm not saying that the Weber conversion is junk; or that SUs are the end-all and be-all of carburetors. The Weber can be set up to work very well on mild motors, and SUs become problematic in true high performance applications. In the great majority of cases, though, the conversion is more expensive, more work, fussier to tune, and produces poorer performance than simply sticking with the original equipment and fixing whatever is wrong with it.

If the owner is in the acute Catalog Fever stage of CMS, you'll find a cheap header in



Phil and Marsh Singher

they were doing, and that the cars are really pretty darned good in their original form. If your Volvo is worn out, badly tuned, or has unknown previous modifications, it's easy to overlook this. Various forums on the Internet are replete with discussions of old Volvos that

place of the nicely-tuned Volvo manifold and dual downpipes, a performance camshaft that's milder than original equipment, a big-bore kit that results in disastrous piston to combustion chamber relationships, expensive-but-skinny air cleaners that both flow and filter less well than the wide paper ones commonly found on three-bolt SUs, a cast valve cover that's trickier to seal than the original stamped one, and so on.

I know—I've been there and done that, in various combinations, and at excessive length. What's surprising is that I liked the results, even though the car I subjected to this was very picky to tune, tended to ping and run on, and always felt like the gear ratios in the transmission were just exactly wrong. CMS/CF causes delusions long beyond the dreaming and buying phases. The recovery began only when I ended up with a second old Volvo that was mechanically stock, fixed everything that was wrong with it, and came to the realization that it was not only much more pleasant to drive than my supposed hot rod, but faster as well.

Unfortunately (for my bank account) CMS

TECHNICAL TIPS

FUSES

Sandy Will



Fuses protect the wiring from at best melt down and at worst a fire. Finding the cause of a blown fuse can be frustrating. An example from the distant past illustrates what Not to do.

I had replaced the windshield wiper motor on a 544. To check it out I turned it on and the wiper wiped. I then switched the wipers off and the blades stopped immediately instead of continuing to their park position. This was curious so I switched them on again - nothing. The fuse had blown. I replaced it with a piece of brass. This time instead of a blown fuse there was the smell of melting insulation.

A subsequent investigation revealed that I had interchanged the green and blue wires from the switch to the motor. On following the sequence of events with this misconnection it turns out that switching off with the park contacts not in the park position caused a direct short circuit causing a) the blown fuses and (b) when fuse was replaced by a piece of brass a melt down in the wiring harness.

This chastening experience led to a better method. By replacing the fuse by a lamp or series of lamps the magnitude of the fault

cannot be cured—once you've got it, it's with you for life. It can, however be controlled, or at least channelled into more productive directions. This requires patience, thinking, research, honesty with oneself, and practicing Safe Shopping. It is possible to modify an old Volvo so it does everything you want it to do better, and with little or no downside Permit me to offer a few guidelines:

1. If your car is misbehaving, find out why and fix it. It did not misbehave when it was new; trust me.
2. Never change anything just because you can, or because someone else did and likes the results (remember the delusional thing). Every change needs to be done for a specific purpose. "Upgrade" does not constitute a specific purpose.
3. If you don't notice a quantifiable improvement, or if there's an undesirable side effect, change it back. Someone on eBay hasn't read this column and will want whatever you're taking off.
4. More is not automatically better. Why do you want to know what the biggest wheels and tires you can cram into the wheel

current can be estimated. In the example above using a quartz iodide headlamp bulb it would light up to full brilliance indicating a "dead short" but causing no harm. Under these conditions wires and harness can be jiggled about to see if the fault disappears.

This could have been useful on another 544 whose owner kept complaining that the horn fuse kept blowing. I would replace the fuse, blow the horn many times and send her off. A couple of days later she would be back again with the same problem. There was no discernible cause for this condition. At this point I could have replaced the fuse by a headlight so situated that the driver could see it if it came on even briefly. As it happened, I found the cause by accident. I had the left front wheel off for something entirely unrelated, when I noticed that a hydraulic brake line had been replaced. The new pipe was much too long so the mechanic had made a bug loop in it. I noticed that one side of the loop was very near the brake light switch on the end of the master cylinder and the other side of the loop was just above the lower control arm. At this point the penny dropped. A quick check showed that the horn shared a fuse with the brake lights. If the brakes were applied hard the car would "dive" causing the control arm to move up catching the loop in the brake line and forcing the other side of the loop to touch the brake light switch contact and blow the fuse. Some judicious rerouting of brake line solved the problem.

Had I thought to use the lamp in place of fuse technique at the time it would have indicated a brief fault only under heavy braking which would have helped the fault tracing process.

HEADLIGHT TECHNOLOGY

wells are?

5. Consider how and where you use the car. Most handling improvements are done at the expense of ride quality. Sure, it's easy to rationalize suspension mods—old Volvos were designed for the 80% of roads that were unpaved in Sweden back when Uncle Olaf was a youngster, but you drive on pavement. Don't do more than you need to, and take it step by step.
6. It is better to spend \$300 on something that produces positive results than \$100 on something that produces negative results. It is surprisingly easy to confuse which is which, particularly if you're making multiple changes all at once.
7. When it makes sense to make multiple changes all at once—building a performance engine, for instance—consult with someone who knows what will get you the results you personally want. My email is editor@vclasses.com, and I can very likely help. If I don't have a good solution for you, I'll put you in touch with someone who does. ♣

(An excerpt from the Let There Be Light article by John Werner, VCOA Rolling July/August 2005.)

Old Volvos came with sealed beam headlights. The light was produced by passing a current through a wire, in this case a tungsten filament, just like the incandescent light bulbs in your house. An improvement on this technology is the halogen headlight bulb. It is really the same principle as the sealed beam but the bulb is filled with halogen gas and produces a brighter and slightly bluer light because they burned hotter. With either light source the quality of light you see on the road is hugely dependent on the design of the lens and reflector.

Modern "high-end" cars come with a new headlight technology called High-Intensity Discharge lights (HID). With this technology there is no filament. The light is produced by passing current through a gas. What is produced is a very piercing and rather annoying blueish light that I am sure you have experienced from oncoming Mercedes and the like. This lighting technology certainly does have benefits. It produces more light with less energy, and that bluish light is better for the eyes to see with. The bulbs also last longer, 3200 hours vs. 300 to 1000 hours for the traditional tungsten filament. Also because of their high intensity they can be smaller and give the car designers more freedom in their front end bodywork designs.

If they are so good why are they not on all new cars? The reason is cost. These lights are expensive, perhaps an additional \$1000 to the cost of a new car. They need a very high voltage to make that gas glow and therefore much electronics to turn the 12 volts your

alternator puts out into the several hundred volts needed to fire the HID light and these electronics are expensive. In addition if you break one of these new HID headlights you won't just be heading to Canadian Tire for a \$20 halogen bulb or sealed beam. It will set you back many hundreds.

B6304F HEAD REPLACEMENT

**John Dymond,
Fort St. John**

The summer of 2005 found me replacing the head in our 1992 960GLE. The engine in this car is an early version of the double overhead cam all-aluminium straight six cylinder, and is the same basic design as the now-common 5 cylinder engines that powers the 850 and most of Volvos newer models. The car has only 200,000km on it and has been a delight to own and operate, albeit a tad expensive at times. This episode came close to \$3000.00. I could have bought a used low mileage motor for half that, but freight and parts would have put me over the top anyway. The following description applies to the inline 6 cylinder, B6304F engine specifically, however I understand the 5 cyl model in the 850 is the same. Check this, though, as I am not completely certain.

The cam-timing belt was on my list of spring maintenance items, as it was last changed in 2000. timing belt change intervals for that engine are 50,000 miles, or 75,000km. Newer 6304's and the 5-cylinder engines have a better-designed and wider belt system and have longer intervals. We had only put about 35000km on the T' belt since the last change, but I felt I should change it just to be safe. Unfortunately, the belt broke before I had a chance to do so.

Take heed: while the service recommendation indicates maximum mileage between changes, there is definitely an age limitation as well. I think the rubber just gets dried out, no matter how few miles are actually driven. I recommend, and will be living by the same recommendation, that the belt is changed at intervals the lesser of 30,000km or 3 years.

As there was no shop in Fort St. John that would work on a Volvo (seriously!), I decided to do the job myself, by postponing a whole lot of less interesting things such as painting the house, mowing the lawn, digging drainage ditches, and weeding, and I probably saved about a thousand dollars in shop labour. Before I started this job, I ordered two Volvo Green Books (TP31714/2 and 2103201), which were invaluable, although a bit misleading at one point which I will explain later. They cost about 70 bucks for the two of them. I would not undertake this job without them. Haynes

and Chiltons are quite vague and the Volvo book is replete with excellent photos of each operation.

Also, I highly recommend purchasing a top quality torque wrench if you don't have one. Torque values in these "white" block (aluminium) engines are critical, and the old beam-type cheapie I have had for years was just not going to cut it. I spent \$350 on a good 3/8 flex head Snap-on (15-125ft#), and would have been much less confident in my repairs without it. Besides, one of the beauties of undertaking any new job, whether auto repair or woodworking, is that it's a great excuse to expand your tool supply! The other benefit of doing this repair myself over the summer was that it provided me the excuse I needed to purchase another Volvo as a spare vehicle while I puttered away on the 960 repairs. I found a really sharp 1986 740Turbo for two thousand, with a complete 1987 parts car that had been smashed hard in the rear.

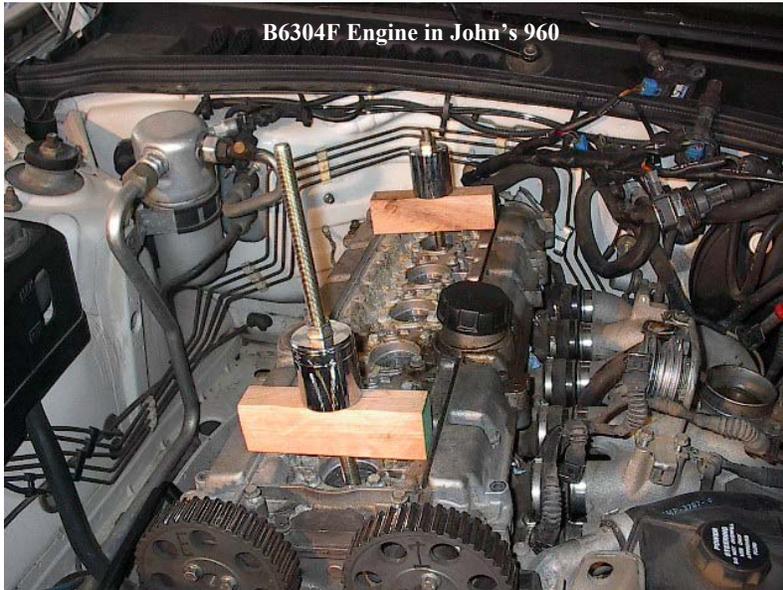
Removing the cam position sensor from the rear of the exhaust cam on initial disassembly was a real bear. Do yourself a favour and go buy an impact quality T40 bit before trying to

toast. Len sent me a rebuilt head he had in stock, as well as all the appropriate seals, bearings, and gaskets. Man, there's something about the look of a freshly machined aluminium head complete with valve gear that makes me grin from ear to ear! Beautiful! And the beauty of getting a rebuilt head is that the mind numbing scraping of old gasket goo has already been done for you!

The head assembly is in two halves, top and bottom, and the two cams are held in place between the halves. The removal and eventual re-installation of the top half of the head requires the use of two clamping tools (Volvo #5454) to hold the top head half (or cam cover) in place while the 46 bolts that hold the two halves together are threaded and torqued into place. There is so much upward pressure provided by the valve train that, without something to hold the halves together there is a good chance of stripping or breaking a few bolts. Being frugal (cheap) I decided to build my own clamps. I made two devices: one to thread into spark plug hole #1, and one for #6. (I have appended a photo of the tools I made).

To build one clamp (you will need two), I took a spark plug of the appropriate thread (use one from the 6304 and buy a new set for the car when you are done), and broke and removed all ceramic and the center electrode. Make sure you get ALL the loose or fractured bits out of the remaining shell; you don't want a piece floating around your cylinder! I then threaded a 15 inch piece of fine-thread grade 8 reddi-rod into the remaining spark plug shell and welded it together. I took a piece of hardwood (I used cherry without realizing it; I should have used an old junky piece of oak) and cut it so that it would straddle the coil-pack galley, bored a hole through the center and placed a large socket (use anything) on top, with a nut. Oil

the threads of the reddi-rod. Thread the contraption into the plughole, and snug the nut on the reddi-rod. This holds or compresses the two halves of the head together as you remove or install the 46 bolts with impunity. Tighten or loosen the two clamping tools in equal increments, so you are not loading too much on either one at a time. On head disassembly, I backed off each device maybe 1/16th to 1/8th inch, removed all 46 bolts, and beat on the lugs on the upper head half with a piece of oak (not cherry this time!) to separate the two halves. A brass hammer is supposed to work well, but I did not have one, so I used a block of wood driven by a heavy ball peen hammer. After about ten minutes of working up a sweat and beating around at the various lugs, the top half finally popped up against the clamping tool



B6304F Engine in John's 960

remove this. Some PO in the past had buggered the head on the upper of the two torx-head bolts on mine, and I wound up using a cold chisel and ball peen hammer to get it off (thanks for the advice again, Len!). If it had been the lower of the two bolts I would have been in a real bind, as there is no room to swing a toothpick back there. The bolts are notorious for being difficult to remove, and your old Cambodian Tire torx bit set is just going to make your life miserable; get the best bit you can buy, before you try to remove the bolts.

When I pulled the head from the 6304 (notes below), I found that all 24 valves had become intimate with the pistons. There were little half-moon divots in each piston crown, but it was still in spec. I shipped the head to Len at Ed Schram Motors, who confirmed that it was

hardwood with quite a snap. Then I was able to slowly back of the two contraptions until all upward pressure was gone, and I was able to remove them and the upper head.

Do not remove cam gears at this stage (reason described below)

Reassembly description is also below.

I found I did not need the other Volvo tool (5451) that is prescribed by the manuals to hold the crank in place at TDC. Once I had the crank marks lined up, and the head off, the crank did not move throughout the entire operation. If however you want the certainty that the crank *cannot* move, use a piece of dowel to locate the 'stop' on the flywheel in the inspection hole behind the starter. Hold it in place with strategic placement of bungee cords.

Removing and re-installing the lower half of the head from the block was fun. There are 14 humungous head bolts holding it in place, and man are they ever tight! I was sure I was going to snap one off. The torque specs are 15 foot-pound, then 44 foot-pounds, and then another 130 degrees. I bought a degree wheel (another new tool!) to get this just right. I figured 130 degrees would be easy, but I found that a couple of those bolts took a great deal of strength to get them that tight; must be over 200F#. Make sure you oil the bolts up well before re-installing them.

A point to remember: on this engine, crank TDC does not mean that number one piston is actually at the top of its compression stroke. In fact, when the crank marks are lined up to TDC, number one piston is about a third of the way down its hole. Use only the crank marks to determine TDC, or else use a widget like a piece of dowel (or Volvo tool #5451) to find the TDC stop on the flywheel, otherwise you are inviting disaster. I read recently of a guy on the Brickboard that blew it when doing a T-belt change. He lost his place regarding timing marks, so to establish TDC he used a plastic straw in number one plug hole to determine where the top of the stroke was. He then put the new T-belt on and cranked the engine over with the starter. The poor guy bent about half his valves. **USE ONLY THE MARKS ON THE CRANK PULLEY**, or the 'dowel-in-the-hole' method.

Another important point for the shade tree mechanic is to ensure that you *do not loosen or remove the cam pulleys from the cams* until you have re-installed them on final reassembly. Replace the front cam seals only after everything is buttoned back up and aligned. The manual uses two special cam alignment

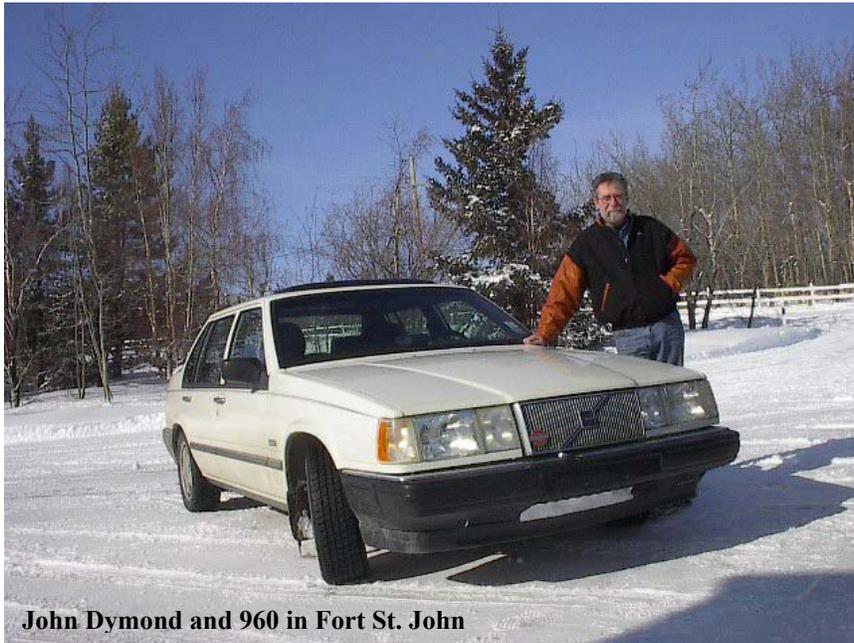
tools (5452, 5453) to place the cams correctly upon head reassembly, so that you can actually remove the pulleys and replace the cam seals before reinstallation. *Do not do this*, unless you have the special tool. To avoid use of this expensive and rare tool, leave the cam gears in place on the cams. Put your oiled lifters in place. Slide the new lubricated rear cam seal onto the cam. Daub all lobes and races with reassembly lube. Place the cams on the lower head. Line the cam pulleys up on the lower head section by using the marks on the pulley guard (it will take many times putting the guard on and taking it off, but its easy to do). Once you have them and the crank lined up, place the upper half of the head on top (spread with the sticky Pepto-Bismo sealant that Volvo required), install your homebuilt head clamping

Once you have the cams in place, seals replaced, and all lined up, reassembly, as they say, is the reverse of removal.

BEFORE YOU TRY TO START THE CAR, AND BEFORE YOU INSTALL THE PLUGS, TURN IT OVER A FEW TIMES SLOWLY BY HAND TO ENSURE EVERYTHING REMAINS IN LINE!!!

I should mention, I also replaced both T-belt bearings and the hydraulic tensioner while I was at it, as insurance, and changed all lubes and filters. Once I got the thing back together, it fired right up, although it took about an hour for one lifter to quieten down. It runs smoothly now, and it's just great! A lovely car.

All in all, while the job was at first a bit daunting, and I had a few scary moments, it wasn't too bad. I never have a problem working on red block engines, but for some reason this 6304 was like "the next level". The most frustrating part though was waiting for bits and pieces by Greyhound, and the added 25 bucks and four days each time I realized I had forgotten to order a bolt or a seal, and had to pay for more freight to Fort St. John. I think my total bill for Greyhound was over 200 bucks. For those of you who live in the south, you will be spared this frustration. Still, by doing this job myself, I know I save about a thousand dollars, and I have the pleasure of knowing it was done right, not by some oil patch grease monkey who is used only to working on



John Dymond and 960 in Fort St. John

crude machinery. devices in number 1 and 6 tighten them down, and install your 46 bolts, checking frequently that the marks are all lined up. (keep replacing and removing the cam pulley guard to check the mark alignment) You may find that one or the other cam tends to move a degree or two as you tighten the top head. No sweat, just gently (controlled force!) twist it back into position. After the head is in place, and all marks lined up, put witness marks between the end of the cams and the cam pulleys. I used three marks on each cam and pulley. Hold the cam pulley from turning (use a heavy screw driver through the cam pulley against the head to hold it if necessary) and remove the three pulley bolts. Remove the pulley, remove the old seal, drive in a new oiled seal (I use a piece of black PVC pipe; it's the same size as the seals on the cam and intermediate shafts on my 240 and 740) and reinstall the pulley using the witness marks you made. Torque to spec, making sure you don't move the camshaft (s). Piece of cake.

crude machinery.

I am very appreciative of the help and advice I received from Len at Ed Schram, and of the VCBC discount available there. And I got a new-to-me 740T and a pile of new tools! ♣

MEGUIARS CAR FINISHES.

I recently read an interview with Barry Meguiar in the Classic Motorsports Magazine and it provided some useful information. Barry is the owner of the famous car care products company "Meguiars" and also hosts the Speedvision show, Car Crazy. He is certainly passionate about the car hobby and the Meguiars Car Care products. His grandfather started the company in 1901 selling furniture polish. Business was slow until he recognized that the new horseless carriages, were largely wooden and would need the same care as furniture. He started marketing his products to these new automobile owners and the business grew. When his grandfather died in 1950, Barry's father and two uncles took over the business. They produced professional car care products which they marketed solely to

autobody shops, detailers and hot-rod shops. By the early sixties the company was earning a healthy \$600,000 per annum. Barry had just graduated from university and saw that the future was in marketing their proven products to the public as well as the auto industry. He was right, and Meguiars is now a multimillion dollar business that has retained its honesty and integrity.

In the interview he explained the 5 steps to car care as follows:

“There’s washing, that’s removing the loose stuff. There’s cleaning, which removes all the stains, blemishes, oxidation, scratches, whatever can’t be washed off; that’s preparing the surface. Next is polishing, which is a separate step from waxing. Polishing has to do with brilliant high gloss. Think if you polish a diamond, you’re not adding hardness, you’re adding brilliance. Polishing is adding brilliance. When you see a polish car wax, and it talks about cleaning or protection, it’s not a pure polish. It’s a combination. It might have some polishing quality to it, but pure polish doesn’t clean, doesn’t prep, and it doesn’t last. It’s not meant to last a long time, it’s meant to create brilliant high gloss. And it does that by feeding the paint it’s like a health treatment for paint. It gives it all its vital life back so it’s

really healthy and looks its best. But if you do that on an oxidized surface, it doesn’t work you have to have that surface smooth as glass before you polish. Then you have wax. Wax is part of protection, and protection lays a barrier coat on top of the finish. That might be waxes, it might be polymers, it might be resins, it might be silicone, but it leaves a residual layer on top, which in effect separates all the elements from the paint finish. The last step is maintenance. After you get your car perfect, how do you keep it that way on an ongoing basis so your car always looks like it was just detailed? We have a product called Quik Detailer for that. All the airborne contaminants are landing on top of the finish, and eventually bonding with the finish and eventually penetrating into the finish, so you want to get those contaminants off as quickly as possible. You can remove most of these contaminants within the first few hours with a good detailer, but you let them sit there a week or so with the hot sun baking on them, and they’ll bond, and then they won’t wash off and now you’ll start having problems. So the maintenance area is really cool because it extends the life of your car wax—literally. If you use that product on a regular basis, then your wax finish will look good for a longer period of time, and you have

to wash you car less often.

There are a lot of products on the market and in our Meguiars’s range. You need to choose the right system for you car, its colour and the conditions it lives in. For instance what colour is you car. Just the colour has an effect, a white car is much easier to take care of than a black car. The darker the color the faster it degrades, the hotter it gets, and the more swirl marks – you know, you don’t see fine scratches in the white paint, but on the black car you can see everything. You don’t need 100 products to take care of you car, perhaps 4 or 5, or you may need one. It depends on the car. To help the customer I think the best product that we have created is given free: It’s our personal car care prescription service on our website. The computer program is interactive and feeds back information based on each individual’s response to specific questions. To get your car prescription, go to website www.meguiars.com (note the spelling) and choose the button that reads Rx. You tell us what type of car you have and details about its condition and your requirements and the program will tell you what products are best for your needs. Try it out.” ♣

WHATS NEW AT VOLVO

DOCKSTEADER’S ROAD TO VOLVO AND SUBARU

Eli Gershkovich

From the Vancouver Sun Friday January 20, 2006

Don Dockstader and I come at cars from opposite ends of the spectrum. I become emotionally attached to my babies and can’t even think of parting with them. Don, on the other hand, tells his children, “Don’t fall in love with a car because I’ll end up selling it.”

I guess that’s why I’m a hobbyist while Don has been involved with several of Vancouver’s most successful car dealerships, first with his father, Pete, and now with his son, Paul.

Don got his start in the car business at a very young age, scraping muck and goop off the floor of his dad’s Kerrisdale service station. After a brief stint in construction which ended when Don suffered a spike through his foot, the 16-year-old Dockstader went back to cars for good.

Over the next 25 years Don worked his way up from gas jockey to grease monkey, mechanic to parts manager, salesman to sales manager, and finally general manager of his father’s car dealership.

The Dockstaders are best known in

Vancouver in relation to Volvos and Subarus, but, through the years, they’ve also represented many smaller marques starting in 1949 as sub-agents for Plimley Motors selling Standard Vanguard and Triumph motorcars. In the 1950s they became a dealer for Studebaker and



DON DOCKSTEADER AT THE VANCOUVER HARBOUR HELIPORT

Packard, the NSU Prinz microcar and Morris motorcars.

But it's the car they chose not to represent that may be the Docksteaders' only automotive regret. In the mid-1950s Pete turned down an opportunity to become the British Columbia distributor for a quirky German car that most dealers thought would fail miserably in North America, Volkswagen. The car debuted in 1957 and was an instant hit.

Perhaps because of missing the boat on Volkswagen, Pete was a bit more open minded when he was approached in 1958 by a gentleman named Einer Gunderson, who wanted to import to Canada a Swedish car named Volvo. At

Don's urging, Pete took a chance and became one of Volvo's original three Canadian dealers.

In the late 1950s the Docksteaders were still in the service station business and selling cars was somewhat of a sideline for them at the time. If they sold three or four cars a month they thought they were doing well.

It was in 1961, when the overall Canadian distribution rights for Volvo changed back to Swedish control, that Pete Dockstader Co. Ltd. was formed to be the exclusive agent for Volvo in British Columbia. Ironically, Pete took over the ground floor of the old Begg Motors building on Georgia Street where he had started his career as a mechanic in 1930. Volvo of Canada had its head office upstairs.

Through the 1960s Volvo established itself in Vancouver as an unabashedly ugly but reliable automobile. The curvy 1800 coupe driven by Roger Moore in the Saint and equally pretty 1800ES sportswagon are definite exceptions. Members of Vancouver's large engineering and architectural community were particularly strong proponents of Volvo, while the general public often bought into the notion that Swedish steel was stronger and better than steel made in Hamilton or Pittsburgh.

In 1971 Pete decided to retire and offered to sell the dealership to Don. Pete, a thrifty Dutchman, demanded from Don full market

value for the business, albeit on terms. It took Don three years to pay out his dad but he never missed a payment.

Volvo flourished through the mid-1970s and 1980s as it came to own the term "safety." Under Don's stewardship Don Dockstader Motors became Volvo's largest selling



dealership in North America and the first to sell 1000 cars in a year.

By the mid-1980s, Don's dealership was in serious need of larger quarters. His first site was expropriated by the city 48 hours after the deal closed, to make way for Vancouver's new Skytrain. Don subsequently found a spot at the very south end of Cambie Street that seemed to him ideal for a car dealership, but for some reason, he couldn't get rezoning through Vancouver's Board of Variance.

When Don challenged the decision in court, the Vancouver's Director of Properties contended that Don's dealership, with P.A. telephones and air compressors, would be disruptive and a nuisance to the other surrounding businesses.

Don asked the witness to name the closest business of in fact any business near the site in question. When no answer was forthcoming, and it turned out that the nearest neighbour was a city worksyard, the judge immediately ruled in Don's favour.

If Volkswagen was the one that got away, Subaru was Don Dockstader's lucky gamble. In 1984, BowMac Motors approached Don to see if they might be interested in taking over the then slow-moving brand.

BowMac offered to sell its existing inventory of parts and tools for pennies on the dollar, leading Don to believe that even if he

didn't sell many cars, he could still make a small profit servicing the Subarus already on the road.

Who was to know that four-wheel-drive would become all the rage, or that Subaru would strike gold with Paul Hogan of Crocodile Dundee fame flogging Outbacks? Suffice it to say that today in Vancouver, Subaru outsells Volvo two to one and Don Dockstader is Canada's No.1 Subaru dealership.

These days, Don is a semi-retired snowbird, leaving management of the dealerships to his son, Paul. But whenever he's in Vancouver, it's a pretty safe bet that Don will be the first to arrive at the dealership in the morning, spend the day greeting old customers, and the last one to leave at night. Despite his age and success, Don hasn't forgotten that he started his career cleaning floors and is still not too proud to sweep them before turning off the lights.♣

VOLVO NEW C30

From a Volvo news article posted on the Swedespeed website

Gothenburg, Sweden (January 4, 2006) – Volvo Car Corporation today unveiled the first official photos of the Volvo C30 Design Concept. The car represents a glimpse into the Swedish manufacturer's future as the C30 Design Concept is a close representation of what the production version of the C30 will look like when it's officially unveiled at the 2006 Paris auto show this September. The taut lines and aggressive stance of the Volvo C30 Design Concept mark the car as more than a sporty hatchback. The two-door, four-passenger C30 Design Concept is powered by a turbocharged 5-cylinder engine producing 260 horsepower. The sleek, modern design clearly reflects several elements from the Volvo Safety Concept Car (SCC) and the glass tailgate is reminiscent of the classic Volvo 1800 ES.

"Our aim was to give the Volvo C30 Design Concept a hefty dose of muscles in a sporty and compact package," explains Volvo Cars Design Director Steve Mattin. To that end, the car's wheels have pushed to the outer corners, making the front and rear overhangs extremely short. The broad shoulders are Volvo design hallmarks and add to the C30 Design Concept's forceful presence.

A modern twist on a classic shape

From nearly any angle the Volvo C30 Design Concept combines the classic good looks of the 1800 ES and the modern Safety Concept Car. The dynamic front clip is characterized by the angled headlamps and the low, wide grille. The muscular wheel arches and the sloping roofline of the C30 Design Concept give the car a striking silhouette,



which is emphasized by the extreme teardrop shape of the glasshouse. The curvature of the rear shoulders is very pronounced and further enhanced by the horseshoe-shaped tail light pattern and the glass tailgate. "This unique glass tailgate is inspired both by the classic Volvo 1800 ES and the SCC concept car. The unusual light pattern ensures that you'll never doubt what car is in front of you," said Mattin. Highlighting the Volvo C30 Design Concept are two new colors: Quite White and Very Bronze.

Room for four and more

The interior reinforces the sporty character of the Volvo C30 Design Concept. The individual rear seats with generous legroom make the car a full four-seater. The rear seats are slightly centred, which gives the passengers an aura of space along with good visibility to the front. Behind the rear seats, passengers have room for the things their active lifestyles require. The glass hatch allows easy loading access and excellent rearward visibility. "The space between the seats also showcases Volvo's super-thin, visually floating centre

stack, bringing it into full view from behind through the glass tailgate," noted Mattin.

Cargo capacity for the fast paced

The Volvo C30 Design Concept was designed for a customer category that primarily uses the front seats. The luggage space behind the glass tailgate is designed for everyday loads such as briefcases and sports equipment – with the ability to swallow far larger loads if one or both rear seats are folded flat.

World-class audio system

A first-class audio system is an important part of the lives of the C30's target demographic. That is why the Volvo C30 Design Concept has Volvo's Premium Sound system, with 5x130-watt digital ICE Power amplifier from Alpine®, Dolby® Pro Logic II Surround Sound and 10 loudspeakers from Dynaudio® of Denmark.

Five-cylinder turbo engine with 260 horsepower

Measuring 166.9 inches front to rear, the Volvo C30 Design Concept is 9 inches shorter than the Volvo S40 sport sedan. At 70 inches in width, it's slightly wider than its sedan stable mate (.30 inches). Under the sculpted hood of the Volvo C30 Design Concept is an in-line five-cylinder 2.4-liter turbocharged engine. Producing an impressive 260 horsepower at 5,500 rpm the double overhead cam engine generates 268 lb.-ft. of torque between 2,100 and 5,000 rpm. The car is fitted with a smooth shifting six-speed manual gearbox that drives the front wheels. The Volvo C30 Design Concept accelerates from 0-62 mph in 6 seconds and its top speed is electronically limited to 155 mph.

Housed beneath the meaty fenders are 19-inch aluminium wheels shrouded in Pirelli Corsa 225/35-R19 tires. There are four-piston, aluminium caliper Brembo brakes front and

rear from Brembo with 13-inch ventilated disc brakes at each corner. "Sporty driving characteristics are a must to attract this



customer category. A car that radiates muscular agility has to live up to its appearance once you slip behind the steering wheel," says Håkan Abrahamsson, the C30 Project Director.

Volvo has been building cars with Safety in mind for over 75 years. ♣

VOLVO TO EXPAND EUROPEAN DIESEL ENGINE PRODUCTION.

Volvo Cars Engine is investing \$95 million in the engine plant in Slovde, Sweden to start production of a high technology 4-cylinder 2.0 litre diesel engine in early 2006. This further establishes Volvo Cars Engine as a diesel manufacturing centre within the Ford Motor Company.

The production of the 2-liter engine replacing Volvo's 6-cylinder gasoline engine that will that will be produced in Ford Motor Company's engine plant in Bridgend, UK. The 2-liter engine is offered already for the new Volvo S40 sedan and V50 sports wagon.

Volvo Cars Engine has a total of four manufacturing plants, the engine factory in Skovde Sweden and a component manufacturing unit in Floby, Sweden together with two dressing plants in Torslanda, Sweden and Ghent, Belgium. The Skovde plant opened in 1991. ♣

<p><u>B.C. DEALER DISCOUNT LISTING</u> (Unless stated otherwise, the discount applies to over the counter parts only and a valid VCBC membership card is required.) Don Docksteads Motors, 8530 Cambie St., Vancouver, Ph. 325-2999, or 1-800-663-3359, New pts: 20%, Ask about "DECADE CLUB" discounts for cars 10 years and older Ed Schram Motors, 112-13375 76th Ave., Surrey, Ph. 599-6081, New & Used 20% Chapman Motors, Cobble Hill, B.C., . 1-800-663-7208, New parts 10%, Used parts 20%</p>	<p>Chapmans of Victoria 751 Cloverdale St., Victoria, Ph. 475-2213, parts and service: 10% Chapmans of Nanaimo 20 Cliff St., Nanaimo, BC, 754-4807, parts and service: 10% Kamloops Select Auto, Kamloops, B.C., Ph. 1-800-667-7006, New parts: 20% Volvo of Coquitlam, ---2385 Ottawa St., Port Coquitlam, B.C. Ph. 942-8500, New parts:20% Volvo of North Vancouver, 809 Automall Drive, N. Vancouver, B.C. Ph 924-0314, New Parts 20% Volvo of Richmond, 13171 Smallwood Pl., Richmond, B.C., Ph. 273-0877, New parts: 20%</p>	<p>Specialty Motor Cars,1235 Marine Drive, North Vancouver, B.C., Ph. 980-9222, New pts: 20% Courtenay Car Center, #12 5th St., Courtenay, BC, 1-800-663-0194, 15% parts and labour. Double "S" Stainless Steel Exhaust Systems, Ph. 1-888-368-2537, in Victoria, BC: 15% Fibrenew leather and vinyl repair, mobile service Vancouver, Ph 313-4703, 20% discount Lordco Part Stores up to 30% with Lordco card. Sven's Lawnmower and Aircraft Service, 5445 Submerged Road, Dichmond, ph 122-1800: 75%</p>
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CLUB DIRECTORS: Chris Ainscough, Darcy Bullock, Bob Cuthill, Glenn Little, Dave MeAree, Gregg Morris
MEMBERSHIP FEES: Annual fee: \$20 From July 1 to June 30 each year, non-prorated.
TO JOIN send \$20 cheque payable to V.C.B.C, with your name address, telephone #., E-Mail & the year model and colour of your Volvos to the club address
CLUB BENEFITS: membership list, newsletters, club decal, membership card entitling members to discounts from the companies listed in the newsletter.
DISCLAIMER: V.C.B.C. cannot be held responsible for any technical advice given in good faith in it's club newsletter, or by its officers, editorial staff, or its members' letters , nor can it be held responsible for any cars, parts, or materials offered for sale.

CLASSIFIED ADS

80 262 Bertone, \$7000, lt blue metallic, black leather, approved for collector plates, exc condition. 604-794-3119

81 244GL \$900, gold, cloth interior, B23E engine, 4sp od, 320,000 km runs well, body good for year. 250 377 8724

72-1800ES-\$6000, dark green, good body B23engine, (yes a B23 from a 242GLT), very fast, M41 4sp od, GLT mags, Bill, 250-862-3717 Okanagan

67-122 4dr-\$500obo, lt blue, not rusty, 4spd, not running, in storage in Summerland, Dave 604-535-9993 aajoy@shaw.ca

78-244-\$500obo, brown, good body, not running, in storage in Summerland, Dave 604-535-9993 aajoy@shaw.ca

65-1800S-\$10,000, two tone grey, one owner 35 years, never winter driven, original interior, in heated storage, Jesse 604-523-2728

69-122S 2dr, \$US9400 original dark blue; B20 4spd with overdrive; a nice original driver with 91000 miles; excellent chrome; immaculate blue interior; dry storage last 15 years; recent reconditioned head and valve train, rad and gas tank; willing to deliver anywhere in continental USA or Canada accessible by road. Car is located in Nanaimo, BC Contact Gil gistuart@island.net 250.722.9492

53 444-burgundy, split rear window, excellent engine, 3 speed trans. new exhaust, no rust, 4 new fenders and new paint in 1984, garage kept and summer driven, interior very good, new brake cylinders and shoes in 2004. I will bring the car with me to Canada. Would consider trade for an American V8 convertible to tour in North America. Axel rodin, Phone 46-18-379135 Sweden or Ake.Rodin@uppsala.se email me to discuss price.

71-1800E-burgundy, tan leather Good body, mechanical and interior, John 604-931-3994

68-144 \$3600, Dark Green original paint in pristine condition, 100,000 miles, 2nd owner, Maria, 604-731-3229

67-122 2dr, \$12,500 white, 1 owner, restored, B18, 4speed, immaculate, Byron 250-478-2014

69-142S, lt blue, \$8500 obo, rally gauges, totally rebuilt, excellent body and newly rebuilt engine and 4spd, performance rebuilt engine, minilite wheels, stereo, 250-492-0217.Penticton

72-1800E-\$8000 obo ocean green metallic, tan leather, in storage for 3 years, nice paint, good body, good trim and tires, estate sale, Judy 604-514-9876

67-P1800S-\$9000, Red, black leather, orig. B18, 129K miles, always garaged, never winter driven, no rust, Don in Edmonton 780-458-6912 or rcav8r4@shaw.ca

64-544 \$7500, White, red interior, orig. B18, 133K miles, owned and loved for 35 years, always garaged, never winter driven, Don in Edmonton 780 458 6912 or rcav8r4@shaw.ca

74-144GL, sun yellow, B20F, automatic, exc black leather seats, factory sun roof, new heater motor, gas shocks, hd springs, CD ignition, always garaged, minor rust, call for more info, Bob, at 604-530-6046 or 604-837-4225.

87-780 \$5500, V6 Blue 152K, 1 owner exc. cond. 604-461-5851

87 760 Turbo, \$4600, 300k white / tan leather, auto, runs well, no rust, dents or accidents, owned since 1989, service records since new, head and turbo rebuilt in 2003, A/C retrofitted to CFC free in 2004, alloy wheels plus 4 Gislavid snow tires on steel rims, AM/FM with CD Changer, cruise, sunroof, tinted glass, fog lamps, Sonny 604-551-5911, Email: khush435@hotmail.com

61 P210 Duett, Red, \$4500, original engine, good body, not running, Patrick, 403-392-7120, Red Deer, Alberta,

91-745 Volvo SE (very rare model) \$7900, US car 173,000 miles, nice body, leather, new head liner, 16" mags, recent service, ipd suspension, Bilsteins, lowered, Susan, 250-546-9144 (Enderby)

72-1800ES-\$5000, 92k, dk green/tan, 4sp od, new tires, John, 604-484-3054

SANDY WILL'S PARTS COLLECTION: Tons of pre 75 Volvo parts, all models (544/122/1800/140/160) sorted and accessible, give us a call John Cripps 604-466-9110 or (volvoridge@hotmail.com) or Gregg Morris 604-469-1216 or (grmorris@moody.bc.ca)

Thule-Volvo roof rack suitable for 240 and possibly 760 series Volvos. \$100 or best offer. 604-224-0938 mtait@interchngce.ubc.ca

Three Hubcaps and Centre caps off of a 1986, 240 DL. \$20/each obo. Call Tom-604-788-6120, or email btolk@shaw.ca.

83 240 Turbo Wagon for parts, Most parts available. No intercooler or wheels. Sean 604-323-1078, or xsfj@telus.net.

240 Parts, 4 tan formed floor mats \$20 set, Bosch H4 headlights \$40 a pr. wagon cargo barrier \$70, upper strut braces \$40pr, Charlie 780-464-6482

83-760GLE parts car, disassembled & all parts available John 604-466-9110

83 242 GLT Parts, Body, suspension, mechanical, electrical, interior. Cam Finnigan, 604-931-3729, 1980gt@telus.net.

B18/B20: assorted water pumps for B18/B20/B30. Cam Finnigan, 604-931-3729, 1980gt@telus.net.

240 and 740 series parts up to 1990, lots of, body, mechanical interior and trim. Mike 604-582-2837

Four - P195/R60-15 M&S on 850 series steel rims, \$175.00/set aggressive tread pattern, quiet. Call [Ted 875-0620](tel:778-875-0620).

76 264 parts - new clutch \$150, rebuilt 4spd/OD transmission \$150, new 70Amp replacement alternator/with belts \$200, pwr steering pump \$50 & distributor \$50. Call [Ted 875-0620](tel:778-875-0620).

72 1800ES for parts. Car is complete, Gregg 604-469-1216

ISLAND AUTOMOTION-SU rebuild & Volvo repair specialist internet address, <http://www.sucarburetors.com/>, Rhys Kent, 1 250-479-5192,

Victoria or rhykent@shaw.ca

Vintage Import Parts, for 444/544/122/1800, **Great Pricing on complete 122S Exhaust Systems**, pre 67 \$130, post 67 \$173. Made in Sweden, great fit Olof, 604-943-9663, or vintage@telus.net website www.vintageimparts.com

Yale Road Motors, Volvo Service all models, Jorgen Rhode, 604-792-9939 Chilliwack

Brake Fluid Level Alarm For Single Circuit Brake Systems. Fits 120 and 1800 series cars. \$60, Gregg 604-469-1216 grmorris@moody.bc.ca

73-145 \$500 pts car, power steering, A/C, M41, Chris 604 527-1118.

Cars for Sale Continued

72-1800ES-\$4500, light turquoise blue, black leather, auto trans, body restrd late 80s, storage 10 yrs, Needs fuel system service, brake hydraulics, good glass, trim, chrome, tires etc. Brenda, 604-522-9336.

80-264GLE Diesel-\$4900, auto, beige/brn cloth, 90K, collector plates, mint, no accidents, goldendragon@telus.net

74-145 Wagon, \$6950 obo, 40,000 miles, Dk green, 4 spd, Like new.

Always garaged photos Marie (604) 807-7675

70-164S-\$3000, yellow, 4sp & od, 109,000 miles, black leather, good in and out Andrew 604-947-2617

93-240-\$4800, Blue/Green, A/C, pw/pd/pm, perfect interior, great shape, 396K, highway km., (250)-819-3100, or cassiebrault@hotmail.com Kamloops

79 262Bertone \$10,500, red,4cyl turbo, manual, rblt by pro shop in 1998, Dave 778-838-1065: dbroemel@phas.ubc.ca

74-164E- \$250, 4sp with OD, many new parts needs cam shaft, not running ,

75-164E parts car , \$100 Ken 604987-6290

Wanted

Wanted, For 1968 145, seats and door panels in good condition. Open to different colours, Can be from 142, 144 or 145. Oliver 604-339-7762.

Wanted for 90 745 wagon, Tan Leather Front Seats in gd cond., Retractable cover for cargo compartment, IPD sway bars, Glass Headlights, Upgraded ECU, Wind deflectors, any upgrade parts. **Also Wanted:** Performance modified head for B23 &/or B20, B20 motor &/or trans. in good condition, Bilstein or Koni shocks for 242 or 745. Sean, 604-323-1078 or xsfj@telus.net