



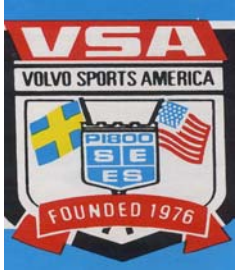
# THE VOLVO CLUB OF B.C.

## JANUARY 2009

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Annual membership fee \$20, To join: Call or write to the address above  
or view our Website [www.volvoclubofbc.com](http://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:  
[membership@vsa.org](mailto:membership@vsa.org) Annual membership fee US\$35 Website [www.vsa.org](http://www.vsa.org)

## UPCOMING VOLVO EVENTS (also see our website [www.volvoclubofbc.com](http://www.volvoclubofbc.com))

**January 21, 2009 (Wednesday) VOLVO CLUB WINTER SUPPER**, The supper 7:00 pm at the New Westminster Spaghetti Factory at 50 - 8<sup>th</sup> St., just up from the Sky Train Station. call **Dave McAree 604-530-6097**

**February 15, 2009 "THE 3RD ANNUAL SWEDISH CRUISE-IN"**. Hosted by the Puget Sound Volvo Sports America Chapter Sunday 11:00 AM to 3:00 PM, at the 1930 original Pacific Northwest XXX Root Beer Drive-In ,98 NE Gilman Boulevard, Issaquah, WA. 98027, website: [www.triplexrootbeer.com](http://www.triplexrootbeer.com), contact Gary Ramstad, **206-365-6913** at [ramslfp@hotmail.com](mailto:ramslfp@hotmail.com). for more info see club website [www.psvsa.org](http://www.psvsa.org)

**May 9, 2009 (Saturday) VOLVO OF NORTH VANCOUVER HOSTS A SPRING SALE AND CLASSIC VOLVO DISPLAY: 10am to 2pm**, Shine up your Volvo & bring it to the display. Arrive before 9:30 and be eligible for the early bird prize. People's choice and Runner-up trophies and dash plaques will be awarded. This is our 3<sup>rd</sup> year with the Pattison Volvo Group. Lets help them make it a great success. There will be lots of coffee and donuts and a barbeque for lunch. Located in the North Vancouver Automall at the south end of Fell St. info call **Darcy 604-538-7402** or **Gregg Morris 604-469-1216** [grmorris@moody.bc.ca](mailto:grmorris@moody.bc.ca) , Volvo of North Vancouver 604-986--9889

**June 20-21, 2009 SPRING DRIVE** , Destination to be confirmed in the May Newsletter.

**September 27, 2008 -CATES PARK PICNIC AND VCBC AGM**, Last Sunday in September info Darcy Bullock 604-538-7402

## REPORT OF PAST EVENTS

### 2008 OSOYOOS FALL TOUR

Alias: The non-event

Chris Ainscough

(Background by Gregg Morris - In 2008 the Puget Sound Chapter of the Volvo Club of America planned to host a weekend Volvo meet in Seattle in mid August. We (VCBC) did not want to do anything that would dilute the interest in their event, so we decided not to proceed with a Volvos in Osoyoos event for September 2008. Unfortunately VCOA did not get enough registrations to make their event viable and they had to cancel. It was far too late to re-institute a formal Volvos in Osoyoos event with banquet, wine tour bus, and car show etc. Instead I just put the word out to people who had attended past Osoyoos events that Rose and I were planning to be at the Poplars Motel in Osoyoos on the weekend of September 12, 2008 and if anyone wanted to join us they would be more than welcome. It was not a Volvo Club of BC event and it was totally informal



but it turned out to be a lot of fun. I believe there were 20 rooms rented by the time the dust settled. Chris Ainscough has written the article below about our weekend. We will probably do the same thing this year so if you are interested in joining us give me a call or email and I will keep you informed. )

What a great wine tour we had this past September 13 to 15. People began trickling into the parking lot of the Poplars Motel late Thursday afternoon and reconnected with old friends. That evening we headed to the Diamond Steak and Seafood Restaurant for a great Greek meal where we lingered over coffee and dessert. Most people said a quick good night and hit the rack for a restful sleep.

Friday morning gave us a beautiful, clear day and at the crack of 10:00AM our entourage wound it's way slowly out of town and north towards Oliver. Within 10 minutes Gregg had us off Highway 97 and on a quiet, winding rural road with wineries and grape vineyards as our only witnesses.

We stopped at Quita Ferreira, Noble Ridge and Wild Goose Wineries before heading up the east side of Skaha Lake to have a wonderful picnic lunch at a park at the north end of the lake in Penticton. After lunch we headed west for a back road tour that skirted Apex Alpine and that road was pure fun. An



hour later we emerged on Highway 3A then ducked back off the highway again at Twin Lakes Road. That took us via Green Lake Road to the See you Later Ranch (ex Hawthorn) winery.

By the time we got back to the Poplars Motel, a gale was blowing so we moved a few cars out of the carport and arranged some picnic tables out of the wind and lit the barbeques. Typically most of us shuffled off to bed by 10:00PM. Better to be rested and safe after all than hung over and sorry. You don't want someone recalling your Volvo for Life Travel Mug now do you?

Saturday morning saw us queuing at the US border before meeting at the "Used-to-be-Oroville-Chevron-now-the-slowest-

independent-self-serve-gas-station-in-America"

and wooded mountainsides.

where we were taught a lesson in patience and customer service. Taking a right on Central Avenue took us west on a spectacular drive on the beautiful winding Loomis-Oroville road along the Similkameen River. We stopped briefly at Palmer Lake, where Eric Hettema and his dad jumped in the lake for a swim, while the rest of us headed for Loomis and beyond. There was virtually no traffic and, several members peeled off at Volvo-relative breakneck speeds, punishing their Swedish tractors on the descent into the Tonasket. This is where the left rear wheel of Gordon Brown's ES became nutless, but thankfully Gordon didn't, because by that time we were in a slow speed pack. The wheel came off and lodged up in the wheel arch. Luckily there was no mechanical damage other than a flat spot ground into the rotor. The group scoured the highway like Bower birds and amazingly found all 5 wheel nuts. Twenty minutes later, the ever gracious "Finger Tight Brown" climbed back behind the wheel and we were down the road. We all were thankful that this didn't happen the day before on the Apex Alpine stretch. Sometimes it's good to go slow. After a quick tour of the Tonasket main street with its beautiful little brick buildings we wound our way up into the high ranch and farm country of Havillah for some spectacular valley views



We made a unique parade, nineteen Volvos and a Vette. Steve Yabroff's brand new "top of the hill" Vette was second in line after Gregg's ES and had more horsepower than all the Volvos combined. When we hit a 5 mile stretch of gravel, the ES disappeared into the distance and the rest of us lingered behind the creeping Vette whose engine seemed to have dropped to the power of a AAA battery. After 5 miles of this funereal pace Ben Huntley quipped, "How do you slow down a new corvette?" The answer through us into fits of laughter....Put a gravel road in front of it."

By lunchtime we were waiting, and waiting and waiting, in the cute little old log tavern in the tiny village of Chesaw. Last year the cook on her own, had us fed, watered and outathere in no time, but this year the owner was "helping" the cook and everything ground to a halt. The lunch service was so slow that many high tailed it to Midway before they fainted of hunger. Fortunately it was still light when the rest finally left Chesaw and headed to the Rock Creek Fall Fair.

The Rock Creek Fair is a refreshing break from the asphalt bound PNE experience. It took you in. There was grass underfoot and the cowboys were real, with dirty trucks that had never been on Kingsway. There was a small rodeo happening with festival seating and in the barns sheep and cattle were tethered to

gracious "Finger Tight Brown" climbed back behind the wheel and we were down the road. We all were thankful that this didn't happen the day before on the Apex Alpine stretch. Sometimes it's good to go slow. After a quick tour of the Tonasket main street with its beautiful little brick buildings we wound our way up into the high ranch and farm country of Havillah for some spectacular valley views





At about 9:00 a.m. cars started to arrive, including Chris Ainscough, fresh from Tim Hortons and carrying Coffee and Donuts, and Dave and Louise McAree who helped set up the club table. By noon there were cars lining both sides of the lot and people milling about, checking out the cars, exchanging advice, and generally enjoying the sunny day.

posts. No fences or gates separated you from the real thing. Handicraft goods were being hawked along side of farm equipment and machinery displays. In one corner there was a working display of antique steam engines powering belt driven machinery that begged for your arm, outside of the beer garden. Thank goodness for sobriety, sticks and flagging.

After a couple of hours we pulled out of the free, dusty parking lot and made our way back to Osoyoos where a pot luck was underway, mixed in with a few curbside repairs to Gregg's ES and endless trivia chatter about the good the bad and the ugly of Volvodom. People trickled in and out of the carport all night and wandered off to bed early again. Sunday morning, some people launched early while others went for breakfast. It was all very good. Thanks Gregg, that was the best event you never organized.

**V.C.B.C. 17TH ANNUAL CATES PARK  
September 28, 2008  
Gregg Morris**

The weather forecasters were calling for sunny weather for the last Sunday in September. That was good news if they were right, but I was still nervous after last year's deluge. Fortunately they guessed right and it was indeed a beautiful day for our 17<sup>th</sup> annual Cates Park Picnic. Bob Cuthill from Victoria had delivered the 145 Express to Dave McAree and I, a couple of weeks before Cates Park and I used it to haul the gear to the meet. It's a good thing it has lots of hauling capacity. By the time I had loaded our boxes of club clothes, raffle prizes, table, chairs, banner, signs, photo albums, membership gear, and stationary, it was stuffed. We clattered our way into the Park at about 8:30 in the morning to fend off people wanting to park in our "event" parking lot. Try and convince people that this big, totally empty parking lot will shortly be filled with all manner of Volkos, and they should park their Chev's elsewhere. It isn't easy, but fortunately this year most people were cooperative.

The award for the most impressive entrance definitely went to Fred Debour and his 4 children (Tom, Laura, Ingrid and Niels). They made a grand entrance in their 1989 Volvo F12 cab-over 12 litre diesel, 400 hp, 14 speed truck. The air horns were blasting, the kids were waving, and Fred was wearing his best Swedish Barbarian Horned Helmet. "Arh!Arj!Ar!" sport.

Last year when it poured rain, the majority of cars in attendance were 240 series and newer. This year thanks to the weather there were lots of older cars and a nice selection of models. Some that stood out to me were a 245 that rumbled in on V8 power, and an 81 245 with a rust free body, turbocharged B230 engine and all kinds of other performance equipment. There was a whole row of very nice 1800 series with examples of carburetted "S" models and fuel injected "E" coupes and ES wagons. Ric Doel's 70 1800E was fresh from an excellent restoration and looked great in its Ferarri Red.

Marvin Stephins 1800E is an anomaly. To look at it from the outside it looks rough with its faded paint, but then you notice it is totally and completely, spotlessly, clean and the engine is running uncannily quiet and smoothly for a B20E (thanks to a Scandia engine rebuild). When Marv opens the hood the engine bay is concours perfect and the interior has a beautiful set of leather seats and tastefully installed sound system with about the same horsepower as the engine. One of these days the body will catch up to the rest of the car and it will be the nicest 1800E in captivity.

Peter Valkenburg's 123GT was restored a little better than new thanks to some subtle safety and performance upgrades. The 123 had

a vacation at Badry Collision last fall, (at unit 8 - 2794 Aberdeen, in Coquitlam, near Coquitlam Center, ph. 604-464-5225.) where Don Badry applied one of his typically excellent paint jobs. After that, Peter spent the winter polishing everything in sight and had the car assembled and collector plated by spring.

The round fender cars tend to get the most attention and usually win the "People's Choice Awards", but for my money the nicest car in the park was Dave McAree's one owner, Ocean green 73 142S, If you can find a flaw, I will be surprised. It certainly got my vote. One of these days I am going to write a



"Forgotten Classic" article on the 140 series.

Another interesting car was a 5 speed 940 turbo wagon owned by Brett Adams. See the member profile on Brett and he car.

Around noon our club "chefs in residence" Dave Vansickle and Bert Sherlock set up a barbeque and prepared "steak cylvnrique a la baguette" for the assembled masses. They set out a donation can and after the last burp had settled, they had collected \$200 for the Leukaemia unit at Vancouver General Hospital. Thanks very much to Bert and Dave for their spirit and their generosity.

As usual our club table was a busy place. There was a steady stream of people joining the club, renewing memberships or supplementing their wardrobe with classy club clothes. There were also lots of technical questions which we answered as best we could. If we didn't know the answer, we could find someone who did, and they were no more than walking distance away. That is the beauty of the Cates Park picnic. There are so many Volvo-knowledgeable people in attendance that you can find accurate answers to most questions.

After lunch Bert called the troops to attention and I bored the captive audience with our Annual General Meeting. We summarized the club's history, and recognized the contribution made by the club directors and volunteers. We described last year's club

events and announced the events for 2008/9. Treasurer Dave McAree presented the financial statement which indicated a healthy bank balance. Copies of the financial statement were available at the event and can still be obtained by Calling Dave McAree at 604-530-6097.

With the AGM responsibilities out of the way we could get to the good stuff. Glenn Little had spent a successful day selling raffle tickets and we enlisted the Bullock boys, Austin and Cooper, and two of Fred's children Niels and Laura DeBoer to draw tickets for our collection of donated prizes. Thanks to the following people and companies that donated gifts. Teresa Switzer, Landsman Motors, DVS Autobody, Ed Schram Motors, Scandia Motors, The Pattison Group of Volvo Dealerships, Don Docksteater Motors, and Stanley/Proto Tools, and our own Volvo Club.



After the raffles were over we awarded the Peoples Choice award to Austin and Cooper Bullock for their Dad's gold 1972 1800E, and Peoples Choice Runner up to Rob Wanner and his 1968 1800S. We did not have a long distance award, but if we had it would have been won by Lloyd Dronen who travelled all the way from Bergen, Norway to attend. Well, he may have had other reasons for the trip too, but this was right up there.

A special thanks to Dick Libby along with Rick and Walt Tartar who drove up from the Seattle area to attend the picnic. Dick is a well known Folk Artist from Shoreline, Washington and he made a beautiful copper-over-wood wind vane in the shape of a salmon and presented it to me from the Washington Chapter of the Volvo Club of America. I very much appreciate their kind gift. Quite appropriate for me, after 33 years as a Fisheries Engineer.

As the day ended we stuffed everything back into the Express and clattered our way back Port Moody. Dave McAree loaded up our non-perishable food donations for the Langley food bank. The day was fun and

successful and even after 17 years it does not get old. ♣

**VCBC TECHNICAL SESSION**

**November 26, 2008**

**Gregg Morris**

Volvo of North Vancouver hosted our technical session for the 4<sup>th</sup> consecutive year. Ian Peterkin, taught the sessions for the first 3 years and last year he was assisted by Volvo Master Technician Tony Do. In 2008 Ian was promoted to Parts and Service Manager at Volvo of North Vancouver and now is up to his neck in paperwork, rather than mechanical work, so Tony volunteered to give the session. Tony graduated from the BCIT Automotive Service Technician Program as a coop student in 2001. At that time Volvo of North Vancouver was looking for a technician and the BCIT Coop Department arranged for Tony to

be interviewed by Mike Thompson and Tony was hired.

Tony is now a master technician. I asked him how you move through the Volvo technician ranks and he explained. When you start with the company you are on a 3 month trial period or probation. In Tony's case the next step was a 2 year apprenticeship he earned the "Certified Technician" designation recognized

Technician program. The first step is Volvo Quality technician and that takes 1 year, and 4 instructor lead training courses and 4 open book exams. The next step is a Volvo Certified Technician which takes another year, 4 more courses and 4 exams. After that comes the Volvo Master Technician qualification for which you have to have worked at Volvo for at least 3 years and take 3 courses and pass another 4 tests. The final level is Volvo Expert Technician requiring a minimum of 5 years with Volvo, 4 instructor lead courses, 4 on-line courses and a thesis of a subject chosen by the company. Tony will reach the Expert level later this year. No wonder he knows what he is talking about.

All these certifications are Volvo-wide and are transferable between any Volvo dealership. Depending on the size of the dealership and the number of technicians working in Service, Volvo stipulates the mix of technician qualifications. For instance in a medium sized shop of perhaps 8 technicians, there must be at least 1 Master, 2 Certified and 2 Quality technicians on strength.

Volvo obviously takes the quality of their service very seriously and trains their service technicians very well. To promote continued excellence, Technicians with Master or Expert certification can enter regional competitions. For instance there were 72 technicians competing in the BC/Alberta regional competition and the top 4 techs advanced to the North American finals. Tony was in the top 4 this year and went to the Nationals in Phoenix. The winners from the Nationals go to Sweden to compete with Techs from all over the world.

Back to our tech session. Tony suggested the subject of Automatic Transmissions for this year's event and he prepared an excellent handout that summarized the History of the various automatic transmissions used in Volvos from the 240 series to date, and gave some

basic mechanical principles of automatic transmissions.

There were 20 of us in the shop and Tony invited us to ask him questions, but warned that he is not familiar with some of the older transmissions.

When I asked how old is old, he smiled and said he would not talk about transmissions that are older than he is. Fair enough.

Tony proved to be excellent teacher. He fielded every



by the North American automotive industry. After that the he was eligible to enter the Volvo

question he was asked with accurate and candid answers. We all came away with an appreciation of the pros and cons of the various

transmissions as well as some valuable preventive maintenance and repair advice.

To learn what we learned see the article in the Technical Tips section of this newsletter.♣

## EDITORIALS AND LETTERS

### Island Update

**Bob Cuthill, Island Director, VCBC**

The latest news from Vancouver Island is the November 2008 move of Dancia Motors in Duncan. Rich Cote, owner and operator of Dancia Motors has moved the shop to a new location on the south side of Duncan. The new shop is much more easily seen while traveling the highway on the south side of Duncan. The new address is 5273 Trans Canada Highway which is just north of the farmers market. Northbound from Victoria, just past the turnoff for the farmers market, take the service road exit for easy access. If you are coming from the north, turn left at the lights at Allenby Road to get access to the frontage road on the east side of the TCH. I had the opportunity to visit Rich, and fellow mechanic Byron Wallace recently and the new shop is impressive. A lot of recent renovations and upgrades provide a bright and roomy workspace with a pleasant waiting area just inside the entrance. Rich's second hoist arrived the day of my visit, so in

third owner. Of course it has always been well kept, but I must admit that it's a bit worn-out now. Maybe that's because I'm not a mechanic myself, because I use it as my one and only, daily car, and because I took it with me to the Spanish and later the French Pyrenees...

Anyway, I thought I'd send you some pictures.

Good luck with your very special car!

### **Hello Leuntje,**

It was nice to get your message and to see the pictures of your Express. Our Express is the only one I have seen in person and I have not seen even a picture of another one in blue. The 145 Express was not marketed in North America so the example we own is extremely rare here. I think there are only 2 in Canada. Our car is currently owned by 3 of the directors of the Volvo Club of British Columbia and we share the use and maintenance of the car.

How the Express got to Vancouver is an interesting story. Apparently in 1971, the owner of Clarke Simpkins Motors (a Volvo Dealership at that time) was talking to a representative of Volvo Canada and mentioned that a 145 Express would make an interesting parts delivery truck for the dealership. The Volvo Rep must have thought it a good idea because a "Volvo Blue" Express was soon delivered to the Clarke Simpkins dealership in Vancouver.

Clarke Simpkins eventually sold it to another Volvo Dealership in Richmond called Ben Jacobson Motors. Ben Jacobson and his son tragically died in a plane crash and their Volvo Dealership became Richmond

Imports. In about 1978 Richmond Imports stopped selling Volvos and their parts inventory, including the Express, was purchased

by Ed SchramMotors, a large Volvo-only wrecking yard in Surrey. According to Brian Schram, of Ed Schram Motors, the Express served as a delivery vehicle, mobile bill board, and Len Lee's part time commuter vehicle. I can remember seeing it at one time sitting forlornly beside the wrecking yard building half full of old parts. In around 1995 the Express was treated to vacation at the Ed Schram Motors body shop and had some rust repair and a new coat of Volvo Blue paint. During the body work Brian discovered that this was the 4th paint job and although it was originally Volvo Blue it had been painted red at some point in its life.

In 1998 Brian brought the Express to our Club's Cates Park Picnic and told me that the car was really not being used much anymore and that he would like to sell it to an enthusiast who would finish the restoration and use it as the specialty vehicle it is. At that time I said it would be neat if our Volvo Club could own it, put some collector plates on it and use it as the "club vehicle" to carry our stuff to the events.

In 2001 Brian finally sold the car to former Club director, Mike Handfield who in turn sold it to 4 of the current club Directors, Gregg Morris, Dave McAree, Bob Cuthill and Glenn Little. Glenn subsequently relinquished his share. Gregg's dad, Bud Morris did a lot of detailing to the car and by 2002 it was Collector Plated. It has been used sparingly in the past 6 years, splitting its time between Volvo Club Events in Vancouver and Vancouver Island. It takes a while to get used to the limited visibility caused by the panel-van sides, but once you do, it is a very useful vehicle. Besides club events it tows a utility trailer, serves as a motor home at the vintage car races and in December this year it was used in the new Halle Berry movie "Frankie and Alice" currently filming in Vancouver.

Good luck with your express as well.

Cheers,  
Gregg

### **OLOF NEEDS CORES**

You all are all probably familiar with Olof Malmberg and his company Vintage Imparts ([www.vintageimparts.com](http://www.vintageimparts.com)). Vintage Imparts provides parts for our vintage Volvos. Olof has found a source for the front and rear brake drums found on the PV, 120 and 1800 series and 3 piston brake callipers found on the 122S and 1800S but he needs worn out cores to send back when he buys the new parts. Please save any worn out drums, either front or rear. It doesn't matter if they are broken, they are still good for a core. The same goes for the 3 piston brake calipers. Save the old ones for



CATES PARK 2008

addition to working on cars, the boys are going to be busy completing this last item in setting up at their new location.

Good luck to Dancia Motors in their new Duncan location.

### **EXPRESS EMAIL**

**I received the following email in December from Leuntje Aarnoutse of Spain.**

**Hello Gregg,**

I just discovered a very nice picture on your Volvo Club website of a bright blue Volvo 145 Express. It looks exactly like mine, and to be honest I have never seen this model (Express) on European roads, let alone in the same colour!

I own mine since 25 years. It was imported in March 1971 from Sweden into Holland by a Volvo garage owner in Bussum (NL). He owned it for 20 years and then sold it to another Volvo garage owner in Berkel en Rodenrijs (NL) – who sold it to me. So I'm the



SPANISH EXPRESS

Olof. Olof can be reached at 604-943-9663 or email [vinage@telus.net](mailto:vinage@telus.net).

**CLUB STUFF**

**VCBC Newsletter,**

Over half our members now receive their newsletters digitally from our website. They are able to print the newsletter and enjoy the pictures in colour and they have access to all the back newsletters. This really helps the club finances as our largest expense has always been printing and mailing of the newsletter. All that you digital folk have to remember, is to look on the website [www.volvoclubofbc.com](http://www.volvoclubofbc.com) in

**WHATS NEW (OR OLD) AT VOLVO**

**CONSUMER REPORTS, 2008 CAR RELIABILITY SURVEY**

The Consumer Reports magazine released the results of its 2008 Car Reliability Survey in the December edition and Volvo was the best-performing European luxury brand! Volvo ranked higher than Porsche, BMW, Audi, Saab and Mercedes-Benz. The survey is comprised of Consumer Reports subscribers' experience with 1.4 million vehicles. Respondents reported any serious problems they had with their vehicles in 17 trouble spots during the previous 12 months, which allows the magazine to provide predicted-reliability ratings for new cars. Only those models that had 100 or more responses were included in the study.

The Volvo C30 made the list of most reliable cars in the sporty cars, coupes and convertibles category. The magazine recognized Volvo for continuing its upward march in the rankings. According to the report, of the nine Volvos for which the magazine had sufficient data, only the XC70 rated below average in reliability. In addition, this year Volvo has four models that earned a place on Consumer Reports Recommended List: C30, C70, S80 and XC90.

**PEOPLE JUST WANT FORD TO GO**

**John Revill**

**Automotive News  
September 2008**

(Thanks very much to Bill Paitson of Nanaimo who has kindly forwarded some recent articles from the Automotive News magazine that give us a better idea what's going on with Volvo.)

Gothenburg, Sweden—Across the road from Volvo Cars' Torslanda factory is a shopping center called Volvo City. Like the Swedish automaker that is one of this country's most famous brands, the battered sign on the center has seen better times.

Sales are down and losses and layoffs are mounting at Volvo, which was bought by Ford in 1999. The company had a pretax loss of 156 million dollars in the first quarter of 2008 and laid off thousands of people and rumours of impending sale of the company refuse to go away.

Many workers in Volvo's hometown of Gothenburg want Ford to go. They hope that move would allow another carmaker with fewer

**January, May and September** for the latest newsletter issue. The Username and Password are on your membership card, (and will be changed annually on July 1). Of course the surface mailed version of the newsletter will always be available.

Please write articles for the newsletter or just send me Volvo related news from any source. It all helps to keep the newsletter interesting. Members can place free classifieds ads in the newsletter and website.

**VCBC Website** [www.volvoclubofbc.com](http://www.volvoclubofbc.com)

financial problems to buy Volvo and invest in the company's future. "Ford has not been a good owner," said Vera Coutinho, who works in bumper assembly. "I think another owner would be better."

Another worker, Simon Kidane, said the mood in the factory is depressed. "People just want Ford to go," he said. "Ford is not making that much money, and neither is Volvo. Ford needs the money, so everyone expects Ford to sell."

**Heart of Swedish industry**

Volvo is important to Sweden in many ways.

Anders Kallstrom, chief executive of the West of Sweden Chamber of Commerce and Industry, said Volvo provides a large number of jobs not just in the Gothenburg region but also elsewhere in the country. Besides the 17,600 workers directly employed at Volvo in Sweden, thousands of others work at suppliers or other companies that depend on Volvo. According to Volvo, every one of its employees creates about 3.5 jobs outside the company, which means about 60,000 jobs, elsewhere in Sweden.

But Kallstrom also cites other reasons Volvo matters. "Volvo's values are almost Swedish values, and it is probably the most famous Swedish brand name," he said. "People are very proud that Volvo cars are made in Gothenburg." Kallstrom joins the chorus of Swedes who express disappointment with Ford's ownership of Volvo. Many people thought Ford would be a good owner at first, he said, but that view has changed. Ford has their own big problems in the US and they cannot support Volvo's development in the way we had hoped. Everyone thinks Ford is going to sell Volvo. They say they won't, but people don't believe them. Nobody knows for sure what Ford's intentions are, but Volvo worker Coutinho said: "What is most important is that Volvo must stay in Sweden; it must stay Swedish." Jobs are the main concern, but people also worry about the country's future and, in particular, the future of Sweden's strong automotive cluster.

**Helpless feeling**

"Volvo is very important for the region— not just for jobs but the skills and cooperation between the universities, industry and government on research and development,"

Cam Finnigan continues to do a great job on our website. Take a look at it for notification of events, up to date classified ads, selected newsletter & technical articles, membership information, links to other Volvo related websites, picture galleries, and ever growing selections of Volvo related information. The effectiveness of our free classified ads section is getting better and better as our website becomes well known to Google. ♣

said Malin Noren, head of the Automotive Sweden lobbying group. "This sharing of skills and training is unique and must be preserved."

Among the Volvo workers, there is a feeling of helplessness caused by recent job losses, which were higher than expected.

Many workers hope that heavy-truck maker AB Volvo which used to be one company along with the carmaker, will come to the rescue. But a lack of synergies makes such a merger unlikely.

Unconfirmed rumors also have linked Volvo with France's Renault, several Chinese cormakers and an unidentified Russian company. Most Swedes agree that Volvo must retain its Swedishness to survive. "Volvo is very much based on Swedish culture, and that would make it almost impossible to move it to China or somewhere else," said Kallstrom of the west of Sweden Camber.

**Stronger Owner Needed**

Stephan Lovgren, an automotive correspondent for the Gothenburg Post newspaper, thinks Ford will sell Volvo as soon as it finds a buyer. Lovgren said that when Ford bought Volvo, the Swedish company needed a strong owner with sufficient resources.

"Volvo still needs that, and it's not getting it from Ford," he said.

"The feeling in Gothenburg and in the company is that Volvo would be better under another owner."

But a lot will depend on the identity of a prospective owner. And that uncertainty leads to concern. "Today I am very worried about the future," said Olle Ludvigsson, president of the IF Metall Union at Volvo. Ludvigsson, whose daughter Jessica is an assembly line worker, said Ford's efforts as an owner have been hampered by its own financial problems. Said the union official: "Ford has done what it could, but you need an owner in a better financial situation"

**UNCERTAINTY SURROUNDS VOLVO'S PRODUCT PLAN**

**Automotive News**

**Mark Rehtin,**

**October 2008**

Not long ago, Volvo was the darling of Ford Motor Co.'s luxury brands. But as the euro soared against the dollar, profits

evaporated and the product plan has suffered. What's more, rumours that Volvo is for sale have added to the uncertainty. Dealers are struggling to sell an aging lineup. Volvo's volume model, the S60 sedan, is about 10 years old, and the redesign is two years away. The XC90 crossover is about 6 years old. The S40 sedan and V50 wagon, which have fallen short of sales targets, were launched about four years ago.

With profits down, so is investment in hybrid development. Initially, Volvo had looked to use a variant of the Ford Escape hybrid drivetrain. But now the Swedish brand is concentrating on using turbochargers in smaller-displacement engines. Volvo's V-8 offerings might be pulled from the line-up to make room for turbo-sixes.

**C30:** The compact three-door hatchback has a cult following, but it is a small cult. The C30 is powered by a turbo-five engine, but Volvo has no desire to bring in the more fuel-efficient, normally aspirated four-banger that is available in Europe. Volvo is losing money on every C30 it sells here, so why compound the problem? No major changes are expected for the C30.

**V30:** A five-door version of the C30 is likely to arrive in Europe in 2010. The strong euro and weak dollar make export to America unlikely. There are even reports that Volvo is

considering spiking the car to concentrate on higher-profit models.

**S40:** The small sedan probably won't be replaced after the 2011 model year although Volvo is re-evaluating that decision.

**V50:** With sales of the compact wagon slow, Volvo hasn't decided whether the next generation will be sold here.

For the redesigned V50, Volvo could adapt the Maxda-3 platform or shrink the next-generation EUCD platform that will be used for the brand's larger cars. The redesign is expected in 2011. The V50 would become more of a hatchback and assume the role of both the current S40 and V50.

**XC50:** While the redesigned V50 is uncertain for the USA the upcoming XC50 is a likely candidate. The vehicle, essentially a "butched-up" version of the V50, goes into production in 2011. Following the recipe for the V70 and XC70 Volvo will raise the vehicle's height and add cladding to give the XC50 a more substantial presence.

**S60:** The redesigned S60 arrives here in late 2010. Volvo will launch a slightly smaller sedan to create a wider gap between the S60 and the flagship S80. The current S60 is nearly the same size as the S80. The new S60 will be based on a stretched version of the parent Ford's Converged C1 platform, which shares much of its architecture with the EUCD platform. So there will be a high degree of parts

commonality with other Volvo models. A sedan concept that shows the car's styling direction will debut at the Detroit auto show in January 2009.

**XC60:** The five-seat crossover – derived from the EUCD platform that also spawns the S80 sedan and Land rover LR2 – will arrive here in April 2009. The XC60 will be larger than the LR2. Volvo wants to make a sporty statement, targeting such vehicles as the BMW X3 and Acura RDX. The crossover will be equipped with Volvo's city Safety system, which automatically applies the brakes if it detects that a front-impact collision is imminent. Initial plans call for the XC60 to offer two inline 6-engines: a 235 hp and a 265-hp turbocharged version.

**C70:** The hardtop convertible receives a reskin in 2009

**V70 & XC70 & S80:** No major changes planned

**XC90:** A reskin is scheduled for 2009. Volvo has delayed the XC90's re-engineering until 2011. Expect it to remain on the existing P2 platform to reduce cost, rather than migrate to a new platform.

**V90:** A flagship wagon based on the VCC concept was under consideration. But the weak dollar and poor sales for the Mercedes R class have quashed any chance of it happening. ♣

## TECHNICAL TIPS

### TIRE AGE AND SAFETY

From an ABC news investigative report  
Sent to us by club member Bob Shultz

Contrary to popular belief, you can't judge a tire by its cover. Researchers and most experts agree that along with tread depth and proper tire maintenance, tire age is also crucial to your safety on the road. Aged tires have a higher potential for dramatic tread separation.

According to experts like Sean Kane, who runs a private auto safety research firm, tires older

than six years get increasingly more dangerous regardless of how long they've actually been on the road. ABC News' "20/20" sent producers undercover, rigged with hidden cameras, to tire retailers all over the US. They found tires as old as 12 years being sold as "new". Next time you buy tires check their date of manufacture. Here is how you do it.

The picture explains the various codes in the Department of Transportation's serial number for tires. A cryptic code of four numbers at the

end of the 12-digit DOT serial number can tell the consumer which week and year a tire was manufactured. The tire shown was made in the 42<sup>nd</sup> week of 2002. Tires made in the 1990s have three numbers at the end of the DOT

code, A number such as 414 would indicate a tire made in the 41<sup>st</sup> week of 1994. Just for practice check the tires you currently own. ♣

### BEING SEEN

Gregg Morris

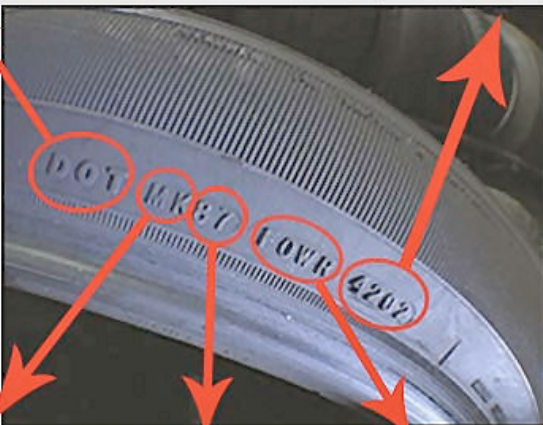
Winter in Vancouver is typically wet, dark and foggy. Driving is treacherous, particularly night driving. How do you give yourself a safety edge when driving in these conditions? One way is to be a super-attentive driver, and hopefully we all try to be that. In addition you want to make yourself more visible in traffic. Keeping your headlights on all the time is a good start, but nowadays everybody does that, and it just isn't enough to jog the more stunned drivers out of their stupor.

I am sure you have been in heavy traffic on a rainy night and in your rear view mirror some vehicle quite a ways behind you grabs your attention. Why did that particular car or truck get your attention rather than a closer vehicle? Probably, it had extra lights and those lights were in non-routine locations. For instance, a big pickup truck with high headlights and big low mounted driving lights. Even if the lights annoyed you, they at least got your attention. That's what we want to accomplish.

In my family we are often driving older Volvos and they do not have the big tail lights and head lights of modern cars. For these cars visibility is especially important. My solution is to add lights and make them jarring in some way. Take a look at the picture associated with

DOT: Tire meets DOT safety standards.

4202: Week & year tire was made -- 42nd week of the year 2002



MK: DOT's tire plant code

87: Tire size code

FOWR: Manufacturer symbol identifying tire brand

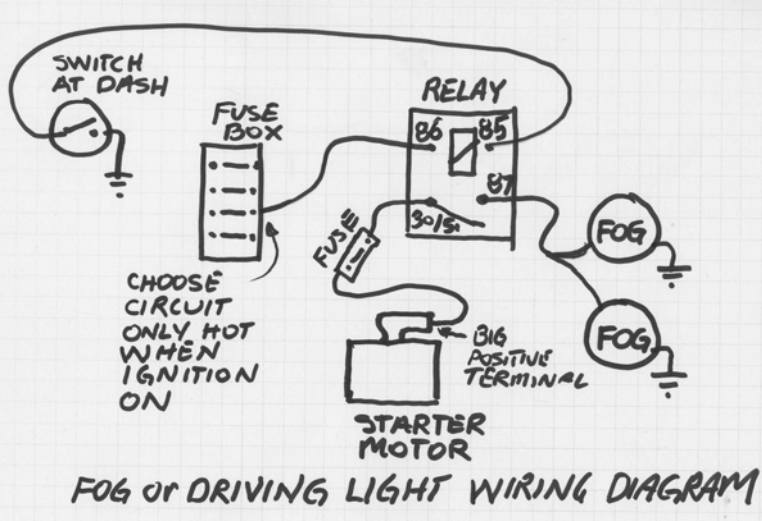
this article. The 240 already has large head lights and with the driving lights set low you tend to notice them. The 120 wagon has round headlights but the amber fog lights set

stands out in traffic and is therefore safer. (Now Charlie Teetzel owns the car and the lights are still on.)

How you install and wire these lights is important.



The 240 driving lights and fog lights were Volvo options and are operated with a lighted switch on the dash. The same with the rear fog light. The lights and wiring were already there. On the 120 series the lighting is do-it-yourself. I wire the



driving/fog lights so they are turned on with an under-dash mounted switch and they automatically turn off when the ignition is turned off. I use a Bosch relay to control the lights. Using a relay provides two benefits. It allows the lights to operate only when the car's ignition is on. That way you cannot forget to turn the lights off and flatten the battery. The second benefit is that the relay sends current

inside the grill are rectangular. Besides the colour, the shape being different from the headlights helps them to be noticed. The 123 has a clear driving light and an amber fog light set inside the grill. That odd combination makes them noticeable. I am not particularly concerned how effective they are as fog lights, I just want them get the attention of an inattentive driver. All these lights are adjusted so they do not glare at oncoming cars at night. We also leave the same lights on in daylight in traffic for the same reason. They get noticed. My friend Sandy Will had a set of rectangular amber fog lights mounted on his front bumper of his 120 wagon and they were always on. Sandy's car is a dark grey blue, not the most visible colour, but with those lights are on the car

directly to the lights, without it having to go through the switch. That saves the voltage drop of a long wiring run, because the relay can



be situated near the front of the engine bay and therefore near the lights. Bosch relays have spade connections that are numbered to a standard code. The relay you want is called a "normally open" relay and has 4 terminals numbered 85, 86, 87 and 30/51. Take a look at the wiring diagram included with this article. (The wiring diagram was produced using a sophisticated CAD program that allows a digital rendering to look just like a hand drawn sketch.) The relays I use come from a fuel injected 1800E, ES or 142E or 164E. I am sure other cars have similar relays or they can be purchased from an auto parts store.

You see that the 85 terminal of the relay gets power from a circuit of the fuse box. You choose a circuit that is only live when the ignition is on. (e.g. the heater motor circuit). Terminal 86 goes to the dash mounted switch. When that switch is turned on it takes power from 85 through a coil in the relay, that becomes magnetized. The magnet "pulls" the contacts closed between terminal 30/51 terminal 87. Terminal 30/51 gets power directly from the big positive terminal on the starter motor via an inline fuse and sends the power to terminal 87 and directly to the fog lights. When the ignition is turned off, terminal 85 loses power and that demagnetizes the coil and that releases the contact between 30/51 and 87 which turns off the power to the fog lights.

The rear visibility of these cars is another problem, particularly with the older cars. The 92 240 has what they call a rear fog light. It's a single red light set in the driver's side tail light assembly above the brake lights. It is bright like a brake light but is illuminated all the time. It gets your attention because it is a single bright light and it is in an odd location. I plan to do much the same thing with the 120 series. I already have an LED 3<sup>rd</sup> brake light in the rear window to assist with brake light visibility. Now I plan to mount a single red halogen or multiple LED light on the rear bumper that I can turn on in poor visibility conditions.

**VCBC 2009 TECH SESSION**  
**VOLVO AUTOMATIC TRANSMISSIONS**

**Presented by Tony Do of Volvo of North Vancouver**

**Gregg Morris (Note this article has been prepared using Tony's handout and my notes from the tech session. If you notice any errors they are due to my interpretation not Tony's presentation.)**

**1975 – 1995 Volvo 240, 260, 740, 760, 940**

Depending on what model and year it may be equipped with a BW55, AW55, AW70 or AW71. BW was made by Borg-Warner and AW by Aisin-Warner. The BW55 and AW55 are 3 speed transmissions and the AW70&71 are 3speed and overdrive. A common problem with the AW70 and 71 transmissions is that the tail-shaft bushing wears and/or the tail-shaft seal leaks. It is recommended that both be

replaced in the event that either the bushing or seal fail. A minor vibration may be felt when the rear of the vehicle is weighed down. The vibration is due to the 2 piece drive shaft straightening out and pushing against the center support bearing mount. Fixes include shimming the center support bearing mount, balancing the drive shaft and replacing any worn or seized U-joints.

#### 1993-1997 Volvo 850 and 1998 S70, V70, C70

These are equipped with the AW50-42 which is electronically controlled. They came with a Sport/Economy/Winter switch. Sport mode would delay the shift point to utilize the high end power of the engine and Economy mode would shorten the shift point to have the engine run at lower RPM to save fuel. Winter mode starts the transmission in 3rd gear to reduce torque to prevent the wheels from spinning in snow conditions.

Early 850s had problems with their AW50-42 transmissions. Remember this was Volvos first foray into front wheel drive. In 1995 they made a lot of internal improvements which reduced failures. A common problem was failure of the gear position sensor which causes the transmission trouble light to flash and there will be a trouble code. The cause was a combination of water intrusion and heat and the fix is replacement of the sensor.

A problem specific to the 1997 850 Turbo AWD wagon, is a difference of 2 mm or more of tread wear between the front and rear tires can overheat the viscous coupling leading to noise or loss of rear wheel drive.

#### 1991-1998 Volvo 960/S90/V90

These have AW30-43 (1991) or the AW30-40 (1992 -1998) electronically controlled transmissions. Common problem was the Park-Neutral-Position (PNP) switch failing and causing the transmission to run in limp mode or even prevent the engine from starting if it does not recognize that it is in park. The transmission trouble light will flash and there will be a code in the fault tracing system. The solution is to replace the switch.

#### 2001-2009 All Volvo Models

These are all equipped with the AW55-50, electronically controlled, adaptable and programmable transmission. The 2001 to 2005 transmissions are 5-speeds. The AW40-50 version is a 6-speed installed in most models from 2006.

The only exception is the first generation S80 and the 2003 XC90 T6 which used the General Motors 4T65. The GM transmission is a bit weak and although it wasn't too bad in the S80 it was much more of a problem in the 2003 XC90 T6. A common, and terminal fault, was losing all forward gears. Metal shavings and debris can be found in the in the oil pan and in that case the transmission must be replaced along with the cooler lines and the radiator.

Although all the models used the AW55-50 transmission there are detail structural

differences between the various Volvo models, but the function and faults are similar. These transmissions were continuously developed through the years so there are detail changes and improvements from year to year. They are generally great transmissions but they are being asked to handle a lot more power than Volvo transmissions used to and consequently have more wear issues than transmissions in the old 200/700/900 series cars.

The AW55-50s are electronic, adaptable and programmable. The adaptable part means the transmission modifies how it operates depending on how the driver drives. The programmable part means the computer that controls the transmission can be reprogrammed to change the operation of the transmission. This is very helpful.

Volvo has developed software downloads that can adjust for wear in the transmission. For instance delaying a solenoid by one millisecond can improve shift quality. Between 100,000 and 160,000 km most transmissions will develop some driveability symptoms and

about 75% of the time a software download will cure the problem. The 6 speed AW40-50 transmission fitted from 2006 have not displayed any problems and Tony has not had to do a software upgrade on any of them yet.

The results of the software download are impressive, but you have to be careful when doing a download. You must not disturb the car's thought processes while its brain is being upgraded. For instance if an electronic module were activated by something as simple as opening a door during a download it can cause all electronic functions in the car to quit and even fry the central \$1000 computer.

As a rule of thumb if problems are intermittent there is a good chance it is a software problem. If problem is continual it may be mechanical.

#### Here are some examples of transmission problems:

- hesitation ,slipping, clunks ,
- A harsh 2-3 upshift and 4-3 downshift. On early transmissions this sometimes was a dislodged washer in the B4 servo cover.
- Delay from Park to reverse or Park to drive. Valve body failure, replace with a new updated one for \$1600.
- Losing all gears. Probably terminal.
- Flare is a slow shift where engine rpm rises before gear engages.
- Missed shifts. For example the transmission shifts from 2 to 4 then immediately back to 3. This can be software or even the adaptability feature.

**What happens if a transmission fails completely?** Tony says Volvo does not authorize their technicians to do complete transmission rebuilds and they do not provide parts for this purpose. If a software download (\$30 or \$80) and fluid flush (\$180) or a

component replacement does not cure the transmission then your choices include:

- having the dealership install a Volvo replacement transmission (which will be a factory rebuild \$7000), or
- having your transmission rebuilt at an aftermarket transmission shop (\$3000+) or
- Installation of a used transmission (this works, but the transmission must be the same year of manufacture or newer than the one you are replacing.) For example the XC 70 transmission has gone through 6 generations with minor modifications between 2001 and 2006 so the transmission from a 2004 may not work in a 2006. The Dealer Parts departments can help to identify the various generations.

**AWD** used viscous coupling for 2001 and 2002. From 2003 it used the Haldex electronic AWD system can experience solenoid failures and computer failures. Haldex AWD system pressure temp sensor failure causes binding on turns like a 4x4.

**Geartronic** equipped cars (i.e. the ones you can sequentially shift): From 2001 to 2004 the shift was considered a bit slow, but from 2005 on it is very fast shifting.

**Dipstick:** While we were discussing the V70 transmissions Dave McAree asked where you find the dipstick, and Chris Ainscough helpfully suggested the driver's seat. Tony came to Dave's rescue and said the dipstick is very hard to find. Since 2001, not including S80, the dipstick is located down near the lower rad hose. It is hard to get to and when you do it is usually hot. From 2005 dip sticks have been deleted in favour of overflow plugs like we are familiar with in the side of M40, 41, 46 etc.

#### Preventive Maintenance.

Have your garage keep track of you transmission function and get the available downloads.

Have regular transmission fluid flush and changes. Mountainous countryside like you find in BC is tough on transmissions and the fluid. Tony suggests transmission flushes at twice as often as recommended in the manuals.

All 1999 and newer transmissions, (except the GM transmission in the S80 and 2003 XC90 T6) uses synthetic transmission fluid. The Volvo fluid costs \$30 per liter and it takes 12 litres (\$360) to do a flush. Volvo of N. Van has a BG transmission flush machine that uses synthetic fluid and they do a complete flush for \$180. It is a good fluid and obviously a good deal.

(Club member John Cripps (Mechanical Engineer) sends this comment on the cost of synthetic brake fluid. "Gregg, once my heart beat settled down after hearing the cost of Volvo's ATF at about \$30 per liter for 1999 and later Volvo- Aisin Warner auto transmissions I did a little digging on the internet. Check IPD's website - the cost is

about 7 to \$8/US qt and the oil is made by Mobil for Volvo. Is it a pure synthetic? Likely not. The line between mineral oil and synthetic can be blurry with blends being available today. In the absence of any mention of synthetics, I call it a mineral based oil. The bottom line is what fluid the transmission manufacturer (Aisin) specifies, not the car maker - these transmission are used in a variety of different cars. Check Aisin's website.")

**First Generation S40 and V40:** transmissions seem to be bullet proof and Tony has yet to see a problem with one.

**Manual Transmissions:** Tony said manual transmissions generally do not give problems except for clutches. Again the huge power can be a problem, particularly when the owner doesn't know to use a clutch properly. He saw one R car owner fry his clutch in 20,000 km. Manual transmission fluid change interval is 150K or when the fluid starts getting dirty.

## MEMBER PROFILE AND TECH ARTICLE

### BRETT ADAMS

#### Gregg Morris

It is always nice to see young people join the Club. I met Brett Adams at the Cates Park Picnic. He had a very nice 93 940 turbo wagon and what really caught my attention was the manual transmission. (As far as I know all the North America 940 series cars were automatics.) I was interested to know how a young guy like Brett liked old Volvos, when most guys his age are roaring around in Honda Civics.

Apparently Brett had missed out on a VW Scirocco and was searching through Craig's List for a car in his price range. He came across an advertisement for a 1989 244 that looked sincere, was in his price range and was close to where he lived. He did some on-line research and learned from an internet forum that the 240 was a good quality reliable car and he bought it. He intended only to keep it for 6 months until something "cooler" came along. After 2 weeks of driving the car he found he really liked it, and more internet research confirmed that they are particularly good cars and he decided to keep it and do some upgrades.

When you are a young single guy what are the first upgrades you do? You buy a killer stereo, nice 17" wheels and tires and get a good

**Differentials:** Have proven to be bulletproof.



### ALTERNATORS AND HOLIDAYS

\*\*\*Caution\*\*\*

#### Gregg Morris

In the September newsletter I provided the following technical tip:

"I saw a very handy tech tip in a recent issue of the Classic and Sports Car magazine. If you suspect that your alternator may not be charging, start the car up and pull off one of the main battery wires - the ground wire is best. If the alternator is working properly the engine will continue to run. If it's not, the engine will stop. I tried this test and it does work. I know the alternator in my 544 is good, so I started it up the car and pulled off the negative terminal of the battery and the car kept running. Then I pulled off the field wire from the alternator and the car quit."

I received the following warning from Bob Follz of the Bronz, NY. "Regarding your tip about testing the alternator. While disconnecting the battery while the engine is running will show you if the alternator is working you can fry the electronics in the newer cars. I'm talking big bucks here so I'd send out a warning to all your members about this.♣"

alarm system so your new toys stay in the car. The sound system turned out so well his friends started calling the car the rolling concert hall. Brett started spending time on the Volvo

Stuart came in looking for car audio and when Brett asked him the standard question Stuart said he drove an old Volvo. That was a bit of a surprise as Brett thought he was probably



thought he was the only young guy in captivity that drove them. That struck up a conversation and eventually a friendship. For some reason Brett needed to borrow Stuarts 92 945 Turbo wagon for a day and that was a bit of a revelation after a year of driving a 240. The power was addicting, the car looked good, it had a sunroof, and handled well and Stuart wasn't able to pry it away from him for 3 days. That started a 1 year search for the "right" 940. He put the word out to his buddies on Turbo Bricks to look out

for a very nice late (92 or newer) 940 turbo wagon or even a really nice turbo sedan. He wanted a later car so the engine had the oil squirters for the pistons. That combats the piston slap that plagues earlier B230FT engines.

In early August 2008 he just missed a nice black 92 Turbo Wagon with performance wheels in North Vancouver and he was disappointed. Then, 3 days later Cameron Louvre of IPD fame called to say he had found

performance website Turbo Bricks and that led to collecting performance related parts. He found some European headlights, IPD bars, Koni Shocks and struts etc.

The next fateful step in his Volvo ownership was meeting Stuart Kilpatrick. Stuart is also a young fellow that has a weakness for old and not so old Volvos. Brett was working selling car stereos at Future Shop and their standard marketing instruction is to ask potential customers what kind of car they drive and then compliment them on the car.

the right car in Portland Oregon. Cameron had gone to look at an engine that was for sale in Portland and found that the vendor also had a bright red 93 940 Turbo wagon that he planned to sell. What made this car special was the transmission. The owner had invested over \$5000 some years ago installing a very rare, M90 5 speed manual transmission that only came on European 900 series cars. Cameron explained to Brett just how unique and desirable this conversion was. None of the 900 series that were sold in North America (or Australia according to Greg Sievert) came with a manual transmission. Added to its rarity, the M90 is also recognized as an excellent, strong transmission. Brett was hooked.

That started a 2 week negotiation with the owner during which time Brett asked lots of questions and did much research. He also sold his 240. He and the vendor met in Seattle for a pre-purchase inspection. The inspection went well and a pocketful of American money changed hands. After the mandatory 72 hour lien check required by the American Border Brett imported his new toy. During the 2 weeks of negotiation Brett had agonized over the practicality of the purchase. However, once he finally got the car he really liked it, and after 7000 km in his first 3 months of ownership he likes it even more. Brett says this is a keeper and he is already planning the cars future. First it will get what Brett calls a Grade "0" service. That will bring it up to excellent stock condition. Next he will add performance. The wheels tires and suspension will get an upgrade and at some point the engine will get a performance rebuild to the 300 hp range. That should keep him amused for a while.

Brett sent this brief message after I had written the article. "That turbobricks link on the M90 transmission is EXCELLENT. Totally fully detailed, and I have to say it's been a great resource. Heh, it's pretty funny. I don't choose Volvos, they always choose me. And the right car always pops up right after I've missed out on another. I have had pretty good luck, and it seems to rub off on my friends (a mint 850 turbo sedan is sitting outside in my driveway for a friend, right now, and it was \$2400 - local two owner car) They're funny cars. Despite how much you try and avoid it, you'll never own just ONE Volvo... I test drove everything trying to avoid a 940 - you name the European wagon and I test drove it. And I still ended up with a Volvo. They're really great cars and I don't foresee myself selling this one anytime soon, even despite getting offers from people every month to sell it."

**M90**

I was intrigued by the M90 transmission in Brett's car and looked into it some more. Apparently these M90 5 speeds were available on the European 940 and 960 series cars from 1995 to 1998. All our 900 series cars were automatics and I had no idea there even was a 5 speed made for the car. It was also news to me that Europe got the 940 series cars for 3 years longer than we did. The last of our 940 series cars came in 1995 and only the 960/V90 survived until 1998.

The late 240 and 740 series did come with a 5 speed transmission, the M47, but it was a bit weak and was only used in non-turbocharged models. The Turbos had the old M46 4speed and overdrive combination.

The M90 is apparently an extremely strong transmission capable of up to 400 hp and according to Brett it has a very nice feel as well. It is much nicer than the relatively sloppy



linkage of the M46. Brett provided a link to the Turbobricks website <http://forums.turbobricks.com/showthread.php?t=94325>, that provides an excellent summary of the M90 background, specifications,



compatibilities, and very detailed conversion instructions. Here is a bit of what Turbobricks had to say.

**What is the M90 gearbox:**

First of all: The M90 gearbox came in all manual 900-series cars from early 1995-1998. The M90 gearbox is the best and latest model of manual gearbox for our RWD 900-series

cars. It is the successor of the M46 (4sp+OD) and M47(weak 5 speed), and the M90 was used because of both durability and comfort demands. Some say that it was actually introduced in the 900-series because the M56 (manual gearbox in the 850, introduced in mid 1994) was so good and successful. The M90 RWD gearbox and the M56 FWD gearbox are considered to be brother and sister because they are built on the same gearbox platform and have many parts in common.

The M90 comes in both a redblock (cast iron block B230 etc) and whiteblock (aluminium engines of the 850 and 960) version. The redblock versions include M90L, M90H and M90L2. The whiteblock versions include M90H, M90H2 and M90L2. The redblock and whiteblock designed M90 gearboxes are not interchangeable. The bellhousing is not removable. You can however interchange the internal parts (axles, gears etc.) between the whiteblock and redblock versions.

Since this is a redblock-centered forum, the info in here will mostly be redblock specific. Most of the info here will also apply to whiteblocks though, and if there are any special circumstances and quirks regarding whiteblocks and M90's they will be mentioned as well.

**The M90 in performance applications:**

When I say "performance applications" I do not mean racing or using massive amounts of power. What I mean here is the everyday use in our modded 200/700/900-series cars. The M90 is a vast improvement over the old M46/M47. It shifts smoothly and makes less noise. It is also a real 3-axle gearbox. No overdrive crap. The M90 gearboxes can take a lot of torque and HP.

The gearboxes are not equally durable though. The first versions from early '95 of the M90 can leak from the input and output seals if they are not taken care of and driven on a regular basis. They can also leak if they have many

miles on them. The forks, syncros and stop-rings are much better than on the M46/M47 but the 3rd gear stop-ring and syncro is a little bit sensitive compared to the rest of the gears. High revs and quick shifts in combination can destroy it.

The most common versions from '96-'97 are more durable than the early versions and are not so prone to leaking. This may

also be due to the fact that they are a little bit newer and has not gone so many miles yet. The most durable M90 in stock form is the M90L2 which only came in late '97 and early '98 (or both M90L2 and M90H2 from '97-'98 for whiteblocks).

If you want to learn about sourcing and installing one of these transmissions take a look at the Turbobricks website. ♣

<b>B.C. DEALER DISCOUNT LISTING</b>		
<p>(Unless stated otherwise, the discount applies to over the counter parts only and a valid VCBC membership card is required.)</p> <p><b>Don Dockstead Motors</b>, 8530 Cambie St, Van, 604-325-2999, or 1-800-663-3359, New pts: 20%,</p> <p><b>Ed Schram Motors</b>, 112-13375 76th Ave., Surrey, Ph. 604-599-6081, New &amp; Used 20%</p> <p><b>Chapman Motors</b>, Cobble Hill, B.C., . 1-800-663-7208, New parts 10%, Used parts 20%</p>	<p><b>Chapmans of Victoria</b> 751 Cloverdale St., Victoria, Ph. 250-475-2213, parts and service: 10%</p> <p><b>Chapmans of Nanaimo</b> 20 Cliff St., Nanaimo, BC, 250-754-4807, parts and service: 10%</p> <p><b>Kamloops Select Auto</b>, Kamloops, B.C., Ph. 1-800-667-7006, New parts: 20%</p> <p><b>Volvo of Coquitlam</b>, ---2385 Ottawa St., Port Coquitlam, B.C. Ph.604- 942-8500, New parts:20%</p> <p><b>Volvo of North Vancouver</b>, 809 Automall Drive, N. Vancouver, B.C. Ph 924-0314, New Parts 20%</p>	<p><b>Volvo of Surrey</b>, North Surrey Automall, 15383 Guilford Drive, 604-588-6088 New Parts 20%</p> <p><b>Volvo of Victoria</b>, 2735 Douglas St., Victoria, BC, ph 250-250-382-6122 New parts: 20%</p> <p><b>Courtenay Car Center</b>, #12 5<sup>th</sup> St., Courtenay, BC, 1-800-663-0194, 15% parts and labour.</p> <p><b>Fibrenew</b> leather and vinyl repair, mobile service Vancouver, Ph 313-4703, 20% discount</p> <p><b>Lordco Part Stores</b> up to 30% with Lordco card.</p>

**CLUB DIRECTORS:** Chris Ainscough, Darcy Bullock, Bob Cuthill, Glenn Little, Dave McAree, 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 noted on page 1 of the newsletter. Membership application form is printable from club website, [www.volvoclubofbc.com](http://www.volvoclubofbc.com)  
**CLUB BENEFITS:** membership list, newsletters, club decal, membership card entitling members to savings from companies on our discount list.  
**CLUB CLOTHES:** T shirts \$15, golf shirts \$25, Sweat Shirts \$30, Hoodies \$32, Jean Shirts \$32, White Shirts \$32, Ball Caps \$15  
**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

**68-1800S-\$5000**, Dark Green/tan leather, in storage for about 6 years, good B20, nice leather seats and Recaro Recliners, good almost rust free body, needs paint and dash caps, have all service records, Russ Lougheed, 360-766-7600 [lougheed@cnw.com](mailto:lougheed@cnw.com) , (Bow Washington)

**70-145S-\$3500**, blue/green, original paint, accident and rust free Victoria car, all servicing and repairs done by Volvo dealer, Volvo 'short block' in 1988 and rebt. head 1995. SU carbs, 2000-2007 - New control arm bushings, tie rods, 'U' joints, complete brakes, including master cylinder, rear callpers, front rotors, rear axle seals and bearings. Timing gear, fuel pump and new Handkook tires. Roger, 250-758 5939 Nanaimo. (see pictures on the vcbc website) [miglenda@telus.net](mailto:miglenda@telus.net)

**71-142S-\$1995**, yellow, original owner, only 45,000 miles!, 4 speed, very good condition in all ways, Mike Soltice, 250-384-3099, Victoria, BC. Pictures available.

**72-142S-\$2000**, 89,000 miles, Dk Blue, exc. blue cloth interior, 4sp, B20B engine, good body with minor rust, 2<sup>nd</sup> owner, service records, recent repairs: brake hoses, front rotors, callipers, pads, idler arm bushing, alternator, battery, pertronix electronic ignition, recent plugs and wires, K&N air filter. [mdchevy@hotmail.com](mailto:mdchevy@hotmail.com)

**72-1800E.\$6000**, Dk Green. Collector plates, Runs beautifully all summer. Storage October through March. Service record last 15 years. Reason for sale: Wife says owner now too old for such toys. 250 374 7425, Kamloops. [jdowniel@shaw.ca](mailto:jdowniel@shaw.ca).

**73-1800ES-\$5000** obo, orange, Body pretty good (needs rocker panels), interior very good, runs very well. Extra parts include original wheels, computer and most glass. Gord at 403-230-0697, [stradin@shaw.ca](mailto:stradin@shaw.ca)

**75-164E-\$3300**, bronze metallic, good condition with collector plates. Automatic, Air, Sunroof, 96,000 miles. Body is solid but needs restoring touches in some small areas. Power train is excellent as well as the interior (cloth seats) New tires, alternator and muffler. Bob 604-530-0130.

**86-760GLE V8 PROJECT-**, 302 Ford engine installed, but not yet running. , call to discuss details and price, Bob 604-530-6046

**91-245-\$2500**, grey met, 290K,exc interior, well maintained, aircared, 604-675-0001, [volvo5sale@gmail.com](mailto:volvo5sale@gmail.com)

**ISLAND AUTOMOTION- SU rebuild & Volvo repair specialist internet address**, <http://www.sucarburetors.com/>, Rhys Kent, 1 250-479-5192, Victoria or [rhyskent@shaw.ca](mailto:rhyskent@shaw.ca)

**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 Gregg Morris 604-469-1216 or [grmorris@moody.bc.ca](mailto:grmorris@moody.bc.ca) or John Cripps 604-466-9110 or [volvoridge@hotmail.com](mailto:volvoridge@hotmail.com)

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

**Volvo custom black rubber floor mats** front and rear, fit 2001 and on S70, S60 or S80, \$75 for the set, Dave 604-530-6097

**4 @ 740 Turbo 5 spoke mags with mounted Michelin Winter Alpins, \$400** for the set. Brian Cox, 604-929-7761

**Wrecking 1972-142-** lots of parts Oliver 339-7762 or [oliverzentner@shaw.ca](mailto:oliverzentner@shaw.ca)

**74 164 E Parts** for sale, lair\_86@yahoo.com Langley

**240 Parts**, 4 tan formed floor mats \$20 set, Bosch H4 headlights \$40 a pr. wagon cargo barrier \$70, upper strut braces \$40pr , Charlie 1-604-892-3801

**73 1800ES for parts.**, Gregg 604-469-1216 [grmorris@moody.bc.ca](mailto:grmorris@moody.bc.ca)

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

**83 242 GLT Parts**, Body, suspension, mechanical, electrical, interior. Cam Finnigan, 604-931-3729, [1980gt@telus.net](mailto:1980gt@telus.net).

**B18/B20:** assorted water pumps for B18/B20/B30. Cam Finnigan, 604-931-3729, [1980gt@telus.net](mailto:1980gt@telus.net).

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

**4 new Michelin 205/45-ZR17 mtd on 7 spoke 850/S70 alloys + one spare rim, \$2250** obo [Ted 875-0620](mailto:Ted 875-0620).

**Good Selection of used Volvo parts for cheap.** Send requests to , [volvolady@yahoo.com](mailto:volvolady@yahoo.com) , 604-807-7675

**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](mailto:Ted 875-0620).

**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](mailto:vintage@telus.net) website [www.vintageimportparts.com](http://www.vintageimportparts.com)

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

**Wanted Parts for 68-122S, vintage race car.** (Greta) 1. M40 or M41 close ratio complete gearbox or close ratio gear set for my vintage 122s race car. The ratios required are the Volvo optional 2.62; 1.67; 1.24; and 1.0 to 1. , 2. 4.88 ratio differential gear set , Jim at 604 795 0618 or e mail [lathamconsult@telus.net](mailto:lathamconsult@telus.net)