THE BRICK

For Rear Wheel Drive Volvos 1975-1997

March 2010

Editor: Cameron Daline
Designer: Bryan Cottrell

IN THIS ISSUE:

Customer Feature	pg 1
Wanted: Volvo Stories	pg 3
What Makes Your Volvo Tick	pg 5
Ignition System Care	pg 6
Workshop and Owners Manuals	pg 12

Volvo + Turbo = "Vurbo"

By: Ben Weaver - ipd Customer

My 1981 242 and I have a long history. About 7 years ago I was attending my first year of autocross with the Chuckanut Sports Car Club in Bellingham, WA. At the time I was driving my 1985 745ti, which had largely affirmed my love for Volvos... I quickly hit it off with the owner of a lowered 242, and our similar interest sparked a lasting friendship. I helped the owner make some modifications, and when my 740 was taken out of commission, we decided to start co-driving the 242. This was the point where I found the handling prowess of the 242 was superb, and it stuck to the ground like nothing I had ever encountered once paired with my large Bridgestone Pole Position Tires. We had a great time. The only real issue the car had was a lack of power (it had a very tired b21ft), and a real traction problem in tight corners due to the open differential...

Fast forward from 2004 to 2007, I had ventured away from Volvo's temporarily, and had just sold my BMW track car and moved to Seattle. I got a call from the owner of the 242, it was in dire straights, and was due to head to the crusher. Partial disassembled for receiving a fresh motor, it had sat largely neglected in a marine air environment. Without much thought, I borrowed a dolly and the 242 along with a truck load of parts was soon resting peacefully in another friend's shop.

Enthusiasm was high at this point, and it was easy to quickly invest a significant

Continued on page 2

Continued from page 1

amount on this 'free' car. The build of this car we were hoping to have completed by the 2007 ipd garage sale, this was however not in the cards. I quickly learned that this project was going to be much more work than I had ever anticipated... Only recently having brought the car to a drivable state, I am optimistic that the joy of driving this car will have been worth it. Hey, life is about the journey right? 2010 IPD Garage Sale, or bust!

Modifications to the car were mainly planned for weight reduction and a target of 250 wheel horsepower... This should be a great combination for HPDE events and Autocross, while not stressing the drive line too much. Needless to say, some parts of this project got somewhat out of hand once started... Due to the time invested, it will be tempting to turn the boost up a little more when I get to the dyno to see what this setup is capable of. Future plans are to get the car tuned, painted, and enjoy driving it! The modifications have made it a little less comfortable for driving on a regular basis, it is definitely going to be a weekend warrior. I would like to eventually pick up an E-code headlights and a Group A wing... I will likely be going to a more extreme wheel and tire setup.

I would like to thank ipd for publishing this article; for always having the best customer service, and always being a great source of information. Also thanks go to RSI, cravingboost.com, my best friend Jordan Crump. Turbobricks has been an invaluable resource and addiction. Most of all, I would like to thank my Dad. Without his help this project simply would not have been possible, from help with machining as well as providing advice, and a helping hand (and for originally getting me interested in Volvos).

Here are the current specs: 1981 242 Turbo

Engine

- Freshened B21ft, honed, new bearings, balanced rotating assembly and decked
- 531 casting head, 3 angle valve grind, iPd Turbo Cam, shaved, cometic head gasket
- RSI Adjustable Cam Gear
- Ported 90+ Exhaust Manifold
- B230 Intake Manifold (soon to be upgraded)
- 100 lbs/hr Injectors
- Turbonetics T3/T4 Stage 4 turbo
- Cxracing intercooler, piping, greddy copy blowoff valve
- Megasquirt & Spark Fuel and Spark
- Innovative LC1 Wideband
- cravingboost.com custom spark plug wires for GM coil packs
- 6AN fuel lines, Aeroquip Adjustable FPR, walbro 255 pump, RCI fuel cell
- Custom 3" Downpipe, wrapped, 3" Magnaflow Cat, Side exit exhaust

Drivetrain

- Clutchnet 6 Puck Clutch w/ 200% Pressure Plate
- Getrag 265 transmission from BMW E30 M3
- 1 piece driveshaft with custom u-joint adapter
- Detroit Trutrac Limited Slip Differential

Suspension/Brakes

- Custom Short Strut Coilovers
- Bilstein Short Struts from RSI
- Short Bilstein rear shocks from RSI, RSI rear adjustable spring seats
- IPD 25mm front sway bar (no rear sway) w/Eurosport Endlinks
- IPD adjustable pan hard rod
- IPD strut tower brace/Lower Chassis Brace/GT Braces
- Noltec Camber Plates
- ATE Slotted rear rotors w/ rebuilt calipers
- RX7 front brake conversion from DVS (Thanks Ash!)
- IPD stainless braided brake lines

Interior

- Removed sound deadening, heater, stock wiring etc.
- Painless Chassis Wiring Harness
- VDO Vision gauges
- Kirk Roll Bar
- Corbeau FX1 seats
- Vintage MOMO steering wheel
- Relocated Optima Battery behind passenger seat

Exterior

- 850R Front Bumper
- Asev 16x7.5 wheels w/ Bridgestone Pole Position (Street)
- Multi-x 15x7 w/ Toyo Proxes RA1 (Track)
- Hella 7" pencil beams for headlights
- Flathood conversion
- While not a show car, the paint has a lot of room for improvement.

Cold Snap, Listen Up!

By Rob Arnold

What is it with cold snaps and cars that won't start? Case in point, here in Oregon we had quite the cold snap recently (12 degrees F no less). So much so that neither my 850 nor my 242 would start. Now I suspected the 242 had a weak battery so I anticipated this might happen but the 850 was a well maintained, cared for vehicle. Why suddenly the no start? Maybe if I had my projects cleared out of the garage so the daily driver cars could stay warm this winter this might not have happened. At least that's my wife's point of view!

After reverting back to my tech school training I recalled the somewhat unorthodox advice my instructor used to give about these particular situations "close your eyes and crank the engine." The point was to use my ears and listen before jumping under the hood on a search for the offending component.

First, listen for the starter to turn the engine over. This one is pretty basic and most folks know when that happens. Second, listen for the fuel pump(s) to run. The latter of the two is what raised an eyebrow during my 'eyes closed' diagnostics. Turns out the fuel pump was indeed not running, hence the sudden no start. After checking for power back at the pump with a test light I found that the pump wasn't receiving power, which surprised me as I've seen plenty of fuel pumps fail but few if any fuel pump relays, which outside of a fuse is the likely culprit. Checked the fuse, which was fine, so it looks like I need a fuel pump relay. Thank goodness for my project 850 in the garage that I could swap parts from. Now who's happy to have the garage full of my project cars, huh Mrs. Arnold?

So after one fuel pump relay installation, the car started and ran and all was happy in the Arnold household... with the exception of one 2 door 240 Volvo that needed a jump-start. Where's my gloves... man it's cold out here…

What's your Volvo story? Send your story to bryan@ipdusa.com and it may be included in an upcoming publication!

Wanted: Your Volvo Story

We began featuring customers in newsletters more than usual lately and we've had great responses from our readers because of it. We'd like to continue to provide the Volvo community with interesting reader content so we are pleading, yes, even begging for articles. If you have a souped up 240 wagon that you want the world to know about or even if you're in the middle of your 900 series project and want to show off your progress, let us know and we'd love to feature you and your ride. If you own a 700 series and have a great trick or tech tip you've discovered, send it on over and we'll share it with our readers.

If one of the items on your bucket list is to be published in one of ipd's famous newsletters, here's your chance. Don't deny it, you know it's there; if it's not, add it now and send in your story so you can check it off your list. Even if you think it's not print worthy, that's okay, let us be the judge of that because we still want to hear your story. Tell us about how you caught the Volvo bug, the remedies you've tried to get rid of it and what finally put you over the edge to finally just give up and let the bug take it's hold.

Some pictures of you and your Volvo would be great to include along with how your experience with ipd went. It would be great to also include any ipd upgrades you've added and how our customer service staff treated you.

We look forward to hearing your story and the opportunity to share it with other sick Volvo lovers who have caught the same bug.

Send submissions to bryan@ipdusa.com

ipdusa.com

If you haven't visited our web site in a while, you simply must stop by and check out all the new content. We have a huge blog based section that features all kinds of things that any Volvo owner would find interesting. From the latest in Volvo Club news, news from Volvo Car Corporation, ipd's latest products, ipd employee and customer projects, the list goes on. We have also been adding tons of new parts and accessories to the site along with a whole bunch of new videos covering special events, product features and installation tips. If you are a Volvo lover you absolutely must check out ipdusa.com.

We also wanted to remind you that in March 2007, after a close examination of the Volvo aftermarket parts market, we decided to reduce prices on all Volvo products that are commonly available on the Web.

We aggressively negotiate with our suppliers and are sourcing products from different suppliers to offer competative pricing. Much of ipd's pricing is now based on a cost plus basis. We are continually examining our competitor's websites and comparing where we are in the market. This means our prices can fluctuate with the market, but will ensure that you always get the best price we can offer. Unfortunately, this also means that prices printed in our catalogs and other literature may not always be as current as our website. We continually strive to provide outstanding customer service to each and every customer, whether you come to us via the internet, phone, fax, or our front counter. We can't provide this level of customer service without higher operating costs than our competitors. We may not always be the lowest priced supplier out there, but we will provide quality products and our trademark service at a very competitive price.

Tune up Time? Do it Right!

The first step to a well-balanced relationship between car and driver is a tune-up kit from ipd. Utilizing original equipment Bosch components where applicable for the best in quality and value, our tune-up kits offer the ideal platform for efficient performance. For those considering a complete service makeover, our 60,000-mile extended service kits offer the necessary components for a complete service of the engine and drivetrain on your Volvo. All of the parts in our kits are OEM quality for the best in performance and fitment. For more information on ipd tune-up kits, their applications, or additional maintenance advice, give us a call.

Bosch Tune-up Kits

Includes distributor cap, rotor and spark plugs.

240 series	B21F	1976-83	**MAIK108**	$18.60
240 series	B230F	1985-93	**MAIK114**	$19.10
240 series (white cap)	B21MPG, B23F	1981-84	**MAIK115**	$23.28
240 series turbo, GLT	B21FT	1981-85	**MAIK119**	$18.10
240 series	B23F	1983-84	**MAIK116**	$21.95
740, 940 series	B230F (cam driven)	1985-95	**MAIK117****	$67.75
700, 900 series	B230FT (cam driven)	1985-95	**MAIK118**	$67.75
700 series	B23FT	1984	**MAIK120**	$21.45

Bosch Extended Service Kits (60,000 mile service)

Includes rotor, cap, spark plugs, air filter, fuel filter, oil filter, ignition wire kit, timing belt, flame trap, differential gasket, oil drain plug, injector seals, and fuel filter seals on models where needed.

240 series	B21	1981-82	**MAIK108X**	$107.31
240 series	B230	1985-92	**MAIK114X***	$109.21
240 series	B21FT	1981-85	**MAIK119X**	$114.84
240 series	B23F, B230	1983-84	**MAIK116X**	$112.06
700, 940 series	B230	1985-92	**MAIK117X**** (cam drvn dist)	$144.13
700, 940 series	B230FT	1985-92	**MAIK118X** (cam drvn dist)	$144.85
700, 940 series	B230	1993-95	**MAIK217X** (cam drvn dist)	$156.75

NOTE: Two distributor shaft sizes were used on 1985 240 non turbo models. you'll have to measure the shaft OD or the rotor ID to ensure you get the correct rotor.

If you measure 3/8" / .400" use tune up kit number MAIK114(X) (rotor #04170). For 9/16" / .565 use kit number MAIK116(X) (rotor # 04138).

****Rex-Regina cars will require a different coil wire (#MA6842734).***

Bosch Style Coil

Rex Style Coil

Cam Driven Distributor

Side Driven Distributor

FREE ipd patch with any purchase of $50 or more.

Don't forget about our magnetic spark plug sockets that are designed to make spark plug removal easier. No more dropping spark plugs!
#MAT1017 $14.95 ea

What Makes Your Volvo Tick (and How to Keep it Ticking)

By ipd staff

Spark, Fuel and Compression

Most poor running problems can be quickly identified once you understand how the 3 key ingredients of combustion (spark, fuel and compression) affect the engine when out of sync. The brief explanations in this article will hopefully help you to better understand the mechanical marvel under the hood of your car and how to troubleshoot it when there is a problem. In simple terms, a gasoline engine needs 3 things to run. Spark, fuel and compression all properly timed.

Too much air creates a "lean" condition and too much fuel creates a "rich" condition. For a more thorough explanation of air fuel mixtures I recommend the book "Bosch Fuel Injection & Engine Management" published by Robert Bentley (ipd #9L0019). The book provides in-depth explanations of air fuel mixture, oxygen sensor (Lambda) systems, ignition & valve timing, injection systems and how changes in these systems effect combustion & performance. Again, if you find the information in this article interesting, I can't recommend the Bentley book enough. It really cleared up a lot of "mysteries" for me.

Spark

The ignition system in most cars is quite complicated, so we will only cover confirmation of spark. The simplest and safest method is to keep a new spark plug in your toolbox and simply connect it into the end of the spark plug wire, make sure it is properly grounded and check for spark while cranking the engine. Do this for each cylinder and note the color, consistency, and intensity of each test. Refer to your workshop manual for clarification. If you find a no spark or weak spark condition, swap the wires to see if the problem is in the wire. If the problem persists with the substituted wire, then the problem will most likely require professional diagnosis. If you have a good workshop manual, you can perform further ignition system tests, but more sophisticated tools and techniques are required, usually beyond the scope of the average do-it-yourselfer.

Fuel System

Next on the list is the fuel system. You'll need a good service manual for your year and model as well as specialized tools to perform fuel pressure and volume tests. If you feel uncertain about your ability to perform these tests after reading your manual, I would recommend having them done by your local Volvo specialist for safety reasons. Check the spray patterns of the injectors according to your manual. Problems with electric injectors (LH-jet) are infrequent compared to the early continuous (K-jet) style. A common problem is dirty injectors which cause poor spray patterns, rough idle, reduced fuel economy and reduced power. Once you've determined that the fuel system is functioning normally and that there are no significant air leaks, you can move on to checking the condition of the engine with a compression and leak down test.

Vacuum & Air Leaks

The most common drivability problems are usually caused by air leaks in the intake system which affect vacuum. Symptoms are high or inconsistent idle, popping back through the intake when accelerating, stalling when shifting the car from park to drive and knocking or pinging when accelerating. The most common culprits are cracked or worn hoses connected to the intake, dried up or missing injector seals and loose connections to the intake manifold. Visually inspect the hoses and use a spray bottle with water to check for leaks around the injectors. The water will temporarily seal the leak and the idle should drop. Another good tool for troubleshooting air leaks is a 3-foot length of rubber hose that you can use to listen for leaks. Hold one end of the hose to your ear while you scout around the engine compartment with the other end. When you hear rushing air or whistling, you've located the leak.

Compression & Leak Down Tests

A compression test will give you a good idea of overall engine condition. If a compression test indicates a problem (low compression), then you'll need to perform the more involved leak down test using a leak down tester to pinpoint the cause. By filling the sealed engine cylinder (with the piston at top dead center) with a known pressure of air, the amount of air that leaks out due to a worn valve or worn rings can be expressed as a percentage of leakage. For example if you pressurized the #1 cylinder to 100 psi and it held 90 psi, you would say that the cylinder had 10% leakage. The leak down tester makes this an easy task. The tool screws into the spark plug hole and when connected to an air compressor it will quickly allow you to pinpoint the problem. If you hear air escaping out through the exhaust pipe, you've probably got a burnt exhaust valve, if you hear air escaping out through the intake manifold or air box, then the intake valve seat is suspect. If you hear air escaping out through the oil filler cap or block breather then the problem is with the rings or piston. When checking leak down, 10% is acceptable. Beyond 10%, you'll want to check for consistency from cylinder to cylinder, as a difference of 5% between cylinders could cause a significant imbalance and rough running. If the compression is within 30% of the factory specs, you can usually continue to operate the engine although the performance will be reduced. Beyond 30% wear, the engine will usually begin to smoke and have a difficult time passing smog tests, not to mention the lack of power. For most do-it-yourselfers, a compression gauge will be all that is needed, as leak down testing is best left for the experienced mechanic.

The Technology Behind ipd Plug Wires

By Rob Arnold

Spark plug wires may not be as exciting as turbochargers, downpipes, or air intake systems but they are just as critical to proper engine operation and performance. Believe it or not spark plug wire technology has actually progressed, albeit slowly, over the years with little to no fan fare. So in an effort to give spark plug wires their 15 minutes of fame, let's take a look back at how they've evolved over the years and what those changes have done.

In the early days of automotive engines, spark plug wires had to simply provide a conduit for the spark energy to reach the spark plug. With such a rudimentary job the wires themselves were quite rudimentary in their design; typically no more than a solid copper wire that connected the spark plug to its respective terminal on the distributor cap. It wasn't long until insulating material was added to aid in combating misfires as the ignition components wore, but this basic design was around for a number of years and worked quite well for its time.

Fast forward to the early adoption of electronics to the automobile, namely radios. It became apparent that the high energy from the coil that transmitted through the solid plug wires created significant radio frequency interference. Manufacturers responded with a myriad of solutions, the most successful was limiting the spark energy through added resistance. This was done in a few ways, primarily through resistor type spark plugs and through a design change in plug wires. The change in plugs wires was from the previously used solid core wires to a carbon impregnated fiber wound wire surrounded by a rubber coating. This resulted in an increase of resistance in the plug wire which resulted in reduction in spark energy and aided in reducing the amount of RF that was transmitted to the radio. This became even more important as fuel injection systems came to market.

Fuel injection systems rely on a number of electrical signals fed to the ECU so that it can then inject the correct amount of fuel given the current needs of the engine. Many of the sensors used in fuel injection systems work on a lower signal range than the vehicles normal operating voltage of around 13 volts. Typically they will provide a 0-2 volt signal for the more critical signals like crank position or in some cases cam/distributor position. These signals are more prone to stray electrical energy and are therefore designed to use shielded ground wires that help capture and direct any stray RF in the engine bay. The ignition system is the primary cause of RF in the engine bay and as such, the design of spark plug wires must yet again be revisited. This time around, engineers found that if the carbon impregnated fiber was wound in a helix fashion it would make the wires act as pseudo inductors 'holding' the spark energy in a magnetic field rather than broadcast it like a radio antenna. This was helpful not just to the lower voltage signals found in the fuel injection system but also in the ABS systems that were becoming more and more prevalent.

Unfortunately, by and large, all the design changes to spark plug wires over the years haven't contributed to increased spark energy but rather reduced it. This is undesirable from both a performance and efficiency standpoint, however the aftermarket has seen this and responded in kind. The sharp increase of available materials for plug wire construction has helped tremendously where we now see spiral wound wires with silicone jackets more common place and helping to bring back some of that lost performance and energy. ipd's wires are no exception, with the same spiral wound technology and advanced material use, we are able to bring to market wire kits that offer original equipment fitment with greater energy transfer, all the while keeping unwanted stray RF energy at bay. Our 8mm silicone jacket helps reduce the likelihood of misfire meaning better transmission of spark energy to the spark plugs and increased performance and efficiency. If you're looking for the best for your Volvo or maybe it's simply tune up time and you want a higher performance wire kit, we've got the answer for you!

Spark Plug Wires by ipd

Our custom spark plug wires are made with a high quality 8mm silicone jacket and feature a spiral wound core for maximum electrical efficiency. Each wire set is custom designed for each application covering over 40 years of Volvo models. Engineered to meet and surpass OEM quality, our wire sets include factory style metal end connectors (where applicable). Each wire set includes spark plug and coil wires as well as dielectric grease used on the plug boots for easy removal at tune-up time.

240 series	1976-93	spark plug wires by ipd	**MA3E240**	$69.95	***SALE $62.95***
700, 900 series	Bosch	spark plug wires by ipd - cam driven	**MA3E7900B**	$69.95	***SALE $62.95***
700, 900 series	Regina	spark plug wires by ipd - cam driven	**MA3E7900R**	$59.95	***SALE $53.95***

OE Spark Plug Wires by Bosch and Bougicord

A properly tuned ignition system is one of the most important factors of any engine. It will keep your engine running smoothly, economically and will deliver the most power. The increased heat under the hood may lead to premature degradation of the ignition wires. These wires are made by the original equipment supplier to Volvo so you are assured of the best quality in replacement wires.

Kit w/90° #1 wire for A/C. Complete kit with Bakelite ends - **Bosch**				
240 series	1975	B20	**MA3E0909**	$31.26
240	4 cylinder models 1976-1993	B21/B23/B230 Engines	**MA3E0921B**	$38.62
Kit (2 coil wires - both short and long wires included) Metal jacketed ends - **Bougicord**				
240 series	1976-93	B21, B21FT, B23, B230	**MA3E0921**	$55.11
Complete kit (cam driven distributor) Rubber ends - **Bougicord**				
700, 940* series	1985-95	B230, B230FT	**MA3E0925**	$41.42
(REX-1) for coil mounted on driver's side Rubber ends - **Bougicord**				
700, 940* series	1989-95	B230	**MA3E0926**	$38.31

Ignition System Care

By Rob Arnold

Caring for your ignition system typically involves just replacing worn components. But to get the greatest life span from these components a little care should be exercised. Spark plug wires are generally composed of an inner core that carries the spark energy and an outer sheath typically made of silicone. Although silicone is mostly impervious to gas and oil, if exposed long enough they can begin to break down and get a mushy consistency. This will develop into an engine misfire at worst or poor mileage at best. Another crucial part of the plug wire is the boot that prevents the spark energy from jumping around the spark plug to ground. High heat levels, grease, and oil can all cause boots to fit poorly allowing for plug arcing. Be sure that plug wire boot ends are clean and do not wiggle on the end of the plug. If you do find oil or gas contamination, resist cleaning the wires or boots with a solvent based cleaner, instead use a clean dry cloth and wipe the residue from them. Caring for your plug wires is one sure way to maximize your maintenance dollars.

Now let's talk about those spark plugs. There are a number of plug gapping tools available on the market today and while most spark plugs come pre-gapped is a good idea to at least check them before installation. From manufacturer to consumer a spark plugs trip is a long one, and throughout its journey it is subject to some abuse. Since gapping is checked in the thousandths of an inch (i.e. 0.028) a small impact makes a big change. In addition, one spark plug part number may fit multiple engine configurations to which each may have a different gap. Checking gap is easy enough but which type of tool is the easiest and most useful? We have found that the bucket of gap tools on the counter of the local parts house to be the worst in general. These half dollar shaped units are often inaccurate due to the inherent sloping edge used to measure the gap with. A better design is the graduated wire style. This gap tool has multiple wire diameters that are common gap specifications. By using this tool you can be sure that the gap across distance of the plug electrode is consistent whereas the style previously mentioned has a certain inaccuracy because the sloping edge only contacts the far edge of the plug ground strap. Wire gap tools also include a ground strap adjustment wrench. This allows minute adjustment without having to 'smack' the plug against the concrete. Although these tools typically sell for around $4-$5, a far cry from the $0.25 units at the parts house, it's a far better value

NGK and Bosch Spark Plugs

The first suspect in a poor-performing engine always seems to be the plugs.

On overhead cam engines one should expect about 30k miles but, as these are getting older, they are wearing out sooner too. Contaminants such as oil and incorrect fuel mix will shorten the life of a plug dramatically.

We have been using and selling NGK spark plugs since the seventies because they're the leaders in copper core technology. Copper is a great conductor of electricity and heat, so copper spark plugs perform well under all extremes and have a large conductor tip for maximum spark area.

4 cylinder non-turbo	1976-93	**MABP6ES**	NGK spark plug	$1.95 ea
4 cylinder non-turbo	1976-93	**MABPR6ES**	NGK resistor spark plug	$1.95 ea
turbo 4 cylinder all	1981-93	**MABP7ES**	NGK spark plug	$1.95 ea
turbo 4 cylinder all	1981-93	**MABPR7ES**	NGK resistor spark plug	$1.95 ea
960 series, S90	1993-98	**MAFR7DC**	Bosch resistor spark plug	$1.95 ea

FREE ipd patch with any purchase of $50 or more.

Spark Plug Thread Repair Kit

If you have a 1976-1995 4-cylinder Volvo with marginal or damaged spark plug hole threads, you can now make a quick, professional repair in minutes without removing the cylinder head. Kit includes everything needed to permanently repair 2 spark plug holes. Works on all B21, B23 and B230 engines. Remember that you can reduce the chances of this happening by using a small amount of anti-seize compound on the spark plug threads every time the plugs are replaced. Kit contains 1 specialized reamer tap, 2 thread inserts and locking compound.

1976-95 Volvo 4 cyl	**MAT3414**	$39.00
2-pack of extra thread inserts	**MA34142**	$5.51

Annual ipd Garage Sale

May 15, 2010 is when the 27th Annual ipd Garage Sale, Swap Meet and Car Show will take place. We look forward to this event each year and we're excited to have games, prizes, giveaways, sale pricing on most of our stock and much more. Doors will open to the ipd sales desk from 9:00am until 1:00pm and the swap meet and car show has been extended to run until 3:00pm. We hope to see you here for this great event.

Garage Sale is 9:00am to 3:00pm Saturday May 15, 2010

For information on displaying your Volvo or to reserve a swap meet spot call 800-444-6473 or e-mail our show coordinator Cameron Daline at cdaline@ipdusa.com

Pay Attention to Your Air Filter

By ipd staff

Too bad your engine can't talk. If it could it might be screaming at you to replace its air filter. Can't remember the last time you looked at it? Then maybe you should. If you have a power boat that never gets close to land or an airplane that never lands you may get away with not having an air filter. Other than that you need one. A large part of the longevity and performance of an engine is the seal between the piston rings and the cylinder walls in the block. Any dust or contaminants drawn into the cylinders grinds away on this sealing surface like airborne sandpaper. When this sealing surface is damaged there is no alternative to repairing it other than an overhaul. Suddenly the cost of an air filter doesn't sound like so much.

Think of it this way: if you drive your 740 for about 12 minutes at 60 miles per hour, the engine has consumed the total quantity of air contained in an average size house. Now imagine how much dust there is in the average house! The air filter is the only thing standing in the way of all that junk. The other down side of a plugged up air filter is a reduction in fuel mileage and performance. It really does make a difference.

Air filters should be inspected every 10K miles or so. Look to see if there is a noticeable quantity of dirt, oil and junk accumulated on the surface. Normally a standard style air filter is good for about 40K miles. If you are often on unpaved roads you may have to replace it more often. ipd carries a large collection of OEM style replacement filters that are inexpensive and do a great job. An alternative to this style of filter is the performance filters from K&N. These filters offer less restriction than and a standard filter and can improve performance. But the best thing about these filters is that they can be cleaned and reused almost indefinitely. This is a simple job using the K&N air filter service kit, which contains special filter cleaner and special oil.

Regardless of which style you use don't neglect your air filter. It's a lot cheaper than an overhaul and a lot easier to do. Your engine will thank you.

K&N Air Filters

This filter has an international reputation for effective service under the most grueling conditions. Patented design utilizes surgical cotton in multi-layers, oiled and sandwiched between wire mesh. K&N filters not only clean the air, but also straighten the air flow. Your engine is provided with a less turbulent air stream than other popular filtering mediums (like paper and foam.) Under normal conditions cleaning and reoiling is not required until 50,000 miles (without loss of efficiency!) K&N filters come pre-oiled and ready for installation.

240 series non-turbo, 1976-93	**MA2C2538**	$54.22	***SALE $48.80***
240 series turbo, 1981-85	**MA2C9032**	$78.40	***SALE $70.56***
700, 940 series non-turbo	**MA332526**	$55.56	***SALE $50.01***
700, 940 series turbo	**MA2C2043**	$82.02	***SALE $73.82***
960, 90 series	**MA332755**	$59.94	***SALE $53.95***
Filter care kit (oil and cleaner)	**MA2C9950**	$13.52	***SALE $12.17***

FREE ipd patch with any purchase of $50 or more.

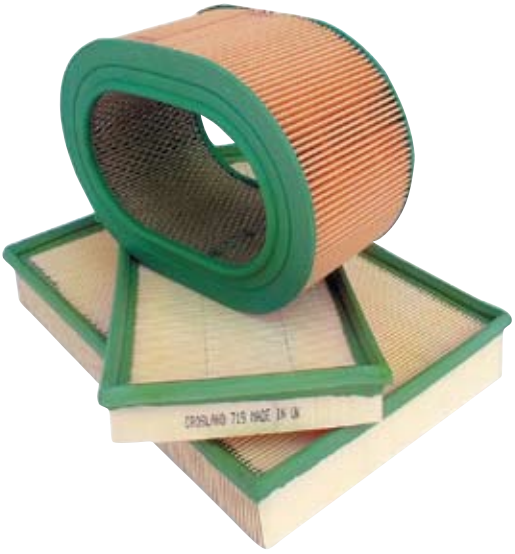
Stock Replacement Air Filters

While there is no replacement for the K&N filters listed above, there is a substitute. Try one of our quality paper elements, just like the one that your Volvo came with. Easy to install and maintain — just discard and replace with a new one when needed. Check air filter every 10,000 miles. Replace it every 30,000 miles or more often in dirty or dusty conditions.

Original Paper Style Air Filters

240 series	B20F	1975	(K Jet.)	**MA460886V**	$27.40
240 series	B21F, B23F, B230F	1976-93	rectangular (K & LH Jet)	**MA463505E**	$6.53
240 series	B21F, B23F, B230F	1976-93	rectangular (K & LH Jet)	**MA463505M**	$10.02
240 series turbo	B21FT	1981-85	oval	**MA1276825**	$17.84
700, 940 series	B230F, B234F, B280	1985-95	rectangular 11.25" x 8.25"	**MA1336397E**	$8.44
700, 940 series	B230F, B234F, B280	1985-95	rectangular 11.25" x 8.25"	**MA1336397M**	$12.64
700, 900 series turbo	B23FT, B230FT, D24T	1983-95	rectangular 13.25" x 9.5"	**MA1257546**	$9.96
200,700 series	B21,B23,B230	1982-89	housing thermostat	**MA1266826**	$7.98
960, 90 series		1992-98	air filter	**MA1336397E**	$8.44
960, 90 series		1992-98	air filter	**MA1336397M**	$12.62

Part #'s ending with an "E" denotes that this is an economy version of this part. Part #'s ending with an "M" denotes Mahn or Mahle brands. Part #'s ending with a "V" denotes Volvo brand.



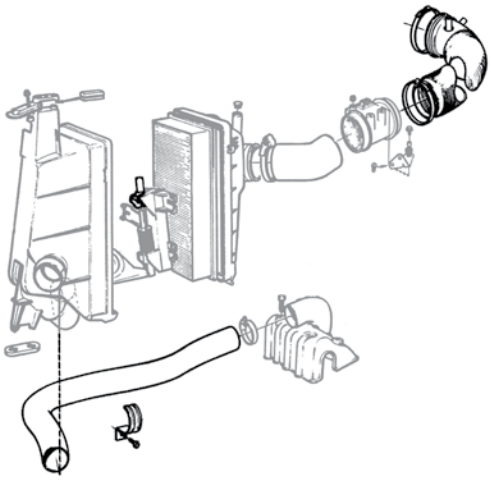
Intake System Maintenance

By ipd staff

The intake system is often overlooked but vitally important to the health and longevity of your car. It functions both to filter the air as well as to supply the correct or preferable air for different running conditions. Obviously the filter is critical whether it is an OE paper style or a high performance unit like the K&N. Filters, particularly paper filters, decrease efficiency dramatically with small amounts of contamination.

The air intake hose is supplying clean measured air to the engine. If the hose is compromised it both allows dirty air into the engine and allows air that your fuel control system has not measured and compensated for. The pre-heat hose allows the car to use warm air when it is cold outside by drawing heat from the exhaust system. Most smog inspection stations consider the preheat hose to be part of the emissions system and a hole is cause for rejection. The air box thermostat valve regulates which air source the car is using. The biggest problem with the valve is that failure generally causes the flapper to rest in the hot air position which is both inefficient and causes undue stress on the air mass meter.

Check both hoses for holes and points where vibration and chafing have worn through. It is easiest to inspect the intake hose when it is removed and flexed to look between the ridges of the tube. With the car warm or parked indoors (room temperature or above) open the air box and remove the filter. The flapper should be over in the cold air position but these suffer a high rate of failure. You might be amazed at how much better your car will run on the right air.



Fuel Filters

How long has it been since the fuel filter on your Volvo was changed? If you're not sure, it would be a good idea to replace it at your next oil change or tune-up to prevent loss of performance or related problems. Under normal conditions, it's safe to replace the fuel filter at 30,000 miles or 2-year intervals. When changing the filter, it is very important to use safe handling procedures and be prepared for fuel spillage. Consult the appropriate workshop manual for specifics. To ensure a leak-free installation, always install new copper sealing washers (included with most of our filters). Also keep in mind that any foreign debris in the output side of the filter or fuel line could cause serious problems in the fuel system. It is very important to measure your fuel filter on 1975-80 240 series. It's the only way to be sure to get the correct one.

200 series	1975-78		2 1/8" X 4 1/8"**	**MA71007**	$14.18
200 series	some 1978-80		2 1/8" X 4 1/8"	**MA71007**	$10.00
200 series	1975-80		K Jet. 2 1/8" x 4 1/8" long	**MA71020**	$10.08
200 series	1975-80		K Jet. 3 x 4" long	**MA71036**	$19.04
200, 700, 900 series	1981-97	All gas	K & LH Jet. 3 1/8" x 4 7/8" long	**MA71039**	$11.70
200, 700, 900 series	1977-95	All	in-tank prepump filter sock	**MA1276565**	$9.03
Fuel Line	This line is commonly broken while replacing the fuel filter.*			**MA1312297**	$24.64

Not applicable to Regina cars.
****This filter is a smaller filter but the fittings work.***

Fuel Pump Relays

A common failure causing a no-start situation is the fuel pump relay. The relay overheats over time, loosening solder joints internally and causing intermittent contact. It sometimes melts the circuit board. After you check for spark, consider the fuel pump relay as a possible problem area.

240, 260 series	B21, B21FT, B27 & B28	1978-85	fuel pump relay K-Jet only	**MA1348600** (1)	$36.89 ea
240, 260 series	B21, B21FT, B27 & B28	1978-85	fuel pump relay K-Jet only	**MA1348600E** (1)	$20.46 ea
240 series	B21, B23	1982-84	fuel pump relay LH-jet (2 req.)	**MA1348657** (2)	$15.50 ea
240, 740, 940 series		1985-95	fuel pump relay	**MA3523608** (3)	$42.42 ea
240, 740, 940 series		1985-95	fuel pump relay	**MA3523608E** (3)	$14.88 ea
760, 760 series turbo		1988-90	fuel pump relay	**MA1362914**	$42.00 ea
700, 900 series			auxiliary suppression relay	**MA1323592**	$19.52 ea
940 series turbo		1991	fuel pump relay	**MA1362914**	$42.00 ea
960 series		1992-93	fuel pump relay	**MA1362914**	$42.00 ea

1 - Not for 1983-84 with LH-jet

2 - Two relays on B23 (1983-84) LH-jet, one for main system and one for fuel pump.

3 - Not for 1988 and later 760 turbos or V6 models or 1991 SE models.

Fuel Tank Bung Nut Tool

Accessing the pre-pump and fuel gauge sender assembly on 240 and 260 models can be a tough job if you don't have the right tools. The difficulty lies in safely removing the large "bung nut" where all the lines and wiring go into the top of the tank. Believe it or not, that's the official name for that style of nut. It's a large ring with tabs that stick up at 60-degree intervals. The problem with using a drift or punch and a hammer is that the top of the fuel tank is only 4" below the floor of the car and the access opening is so small that you can't get much of an angle to properly engage the tabs. This causes the tabs to bend over, making it hard to reinstall. And if you ever need to open it again, it's so mutilated that it's even more difficult, if not impossible, to remove. Our bung nut tool has interlocking tabs that positively engage the bung nut tabs, allowing the bung nut to be removed with a 1/4 turn of the wrench. The right tool makes this job go much smoother and prevents the bung nut from being damaged. No cussing, no damage and, more important, no sparks from hammering steel on steel; hence, no unexpected, loud, violent explosions. Please note that any time the fuel tank sender assembly is opened, the rubber seal ring should be replaced for safety reasons.

240, 260 series	1978-93	fuel tank bung nut tool	**MAT5169**	$24.00
240, 260 series	1978-93	rubber seal ring	**MA949276**	$4.58

FREE ipd patch with any purchase of $50 or more.

Main Fuel Pumps

A fuel pump either works or it doesn't. Be sure to fault-check the wires and the relay before replacing it. A repair to the power source is far less expensive than a misdiagnosed fuel pump. These pumps are the same original Bosch pumps that will last as long as the original.

200 series	All	1975-77	**MA1228599**	rubber mnt (isolator) for main pump (2 used)	$1.72 ea
200, 700, 900 series	All	1978-95	**MA1346175**	rubber mount for fuel pump tray (3 used)	$3.03 ea
240, 260 series	B21F, B27F, B28F	1980-83	**MA61949**	main pump, K Jetronic	$107.14 ea
240 series	B21FT	1981-85	**MA61949**	main pump, K Jet. w/ turbo	$107.14 ea
240 series	B23F, B230F	1982-93	**MA61468**	main pump, LH Jetronic non-turbo	$145.61 ea
700, 900 series non-turbo	B23F, B230F	1985-97	**MA61468**	main pump LH non-turbo	$145.61 ea
700, 900 series turbo	B230FT	1985-97	**MA61425**	main pump LH with turbo	$154.39 ea
700, 900 series	B230 Regina	1989-91	**MA3507736**	in-tank main pump (ignition coil is square)	$152.77 ea

Prepump Upgrade for 240

Prepump failure is common in the early 240 series cars. They work well for the most part and, even when they fail and are replaced with a new one, they usually run like new. It's the K-jet cars (1978-84) that are most likely to benefit from a pre-pump upgrade. It seems that these 240s may have a main fuel pump noise and lack of full power even with a new original style in-tank prepump. In these cases, Volvo has a bulletin outlining the replacement of the original pre-pump with a later version that has a higher delivery capacity (#3517845 available in our kit).

This is not a direct replacement pump. Modifications are required to the pick-up tube. The pick-up tube must be shortened by 30mm, because the pump is that much longer. And a clamp is required to secure the pump to the pick-up tube. Instructions are included.

Prepump Upgrade for 240 Series (1979-1993)

Prepump conversion kit includes: A, B, C, D, E, and instructions	**MA7845K**	$79.36

In-Tank Prepumps

If your Volvo runs but runs poorly (as if it is starving for fuel) a common problem area is the prepump (in-tank fuel pump). Another common symptom is that the car will run fine on a full tank, but below half-a-tank it stumbles and bucks, and the main pump will usually be quite noisy.

200 series	B20, B21, B21FT, B23, B27	1978-83	**MA1276330**	$51.56 ea
200 series	B23, B230	1984-93	**MA1389721**	$56.03 ea
740, 760 series	All	1983-85	**MA1389721**	$56.03 ea
700 series	All	1986-87	**MA3517845**	$61.70 ea
700, 900 series	B230FT	1986-95	**MA3517845**	$61.70 ea
940 series	B230F, B234F	1991-94	**MA1389721**	$56.03 ea
Filter	All models	1978-95	**MA1276565**	$9.03 ea
200 series Fuel tank sender seal ring		1975-93	**MA949276**	$4.58 ea
In-tank prepump hose		1978-95	**MAH1016**	$0.62 ea
Prepump hose clamps		All	**MA21017**	$0.98 ea

Mann® Oil Filters

To our knowledge, this is simply the best filter you can buy for the money. This filter manufactured by Mann® grabbed the number one slot in an oil filter test by the Volvo Club of America. Mann is the original supplier of oil filters to Volvo. Fits all 1962-98 Volvos except for diesels or V6.

1975-98, All models	Mann oil filter	**MA3517857**	$4.95 ea
Case of 10	Mann oil filter	**MA3517**	$39.50 case
4 cylinder all	copper oil pan drain plug seal ring	**MA18818***	$0.30 ea
960, 90 series	aluminum oil pan drain plug seal ring	**MA977751***	$0.25 ea

Not for V-6 or diesel

Oil Soak Mat

This patented, leak resistant mat looks like a black rug, yet it has the ability to absorb and retain hundreds of hazardous and non-hazardous liquids such as oil, gasoline, diesel fuel, hydraulic fluid, transmission fluid, anti-freeze, water, and more.

Absorbs up to one gallon of liquid. The leak resistant back will not allow the absorbed liquids to soak through to the floor underneath. Under normal use this mat can't be ripped, yet it can be custom cut with an ordinary pair of scissors or utility knife. Plus, this mat can be recycled. The oil soak mat measures 3 ft. x 5 ft.

Oil soak mat	**MAR2**	$19.90	***SALE $17.91***

Oil Filter Grabbers

This tool works great for most Volvo engine compartments. It's especially nice for the Turbo engine where access is very tight. With slotted adjustment for large and small oil filters and a 20° off-set, you can get at those filters with limited access and still have a good grip and the leverage needed to spin them off. Not for plastic cartridge style filters.

Oil filter grabbers	**MAT1011**	$19.95	***SALE $17.96***

Magnetic Oil Drain Plug

Prevent abrasive particles from recirculating through your oil pump and back into the pressurized system with our magnetic drain plug. This plug catches and holds metal particles as they drain into the oil pan.You'll be able to spot deteriorating engine conditions easily. Plug includes a seal ring.

4 cylinder all	drain plug w/seal	**MA2A9550***	$4.95	***SALE $4.46***
960, 90 series	drain plug w/seal	**MA2A9851**	$7.95	***SALE $7.16***
4 cylinder all	additional copper seal ring	**MA18818***	$0.50	
960, 90 series	additional aluminum seal ring	**MA977751***	$0.45	

Not for V6 or diesel.

Oil Filter Magnet

Capture every microspeck of metal that causes engine wear. Debris that your oil filter alone might not be able to screen.

Made of a strong, flexible silicone this oil resistant magnet withstands temperatures up to 500°F. Simply attach it to the outside of your oil filter and let it do the work.

The super strong rare earth magnet begins working immediately to power clean your oil. Your oil and your engine will continue to get cleaner month after month through normal driving and proper maintenance. The permanent rare earth magnet will never wear out, so you'll enjoy a lifetime of protection that goes far beyond conventional mechanical filtration.

Oil filter magnet	**MA2000A**	$12.00	***SALE $10.80***

Oxygen Sensor Removal Tools

Replacing the oxygen sensor on your Volvo can be a real pain. Since it is installed directly in the head pipe or exhaust manifold, it will usually be severely rusted or corroded in place. The main sensor wires come right out of the center of the sensor, so it is not possible to use a standard socket over the sensor. Our oxygen sensor tool has slots machined in it that allow you to slide it over the wires and onto the sensor for secure removal and installation. Our new high leverage long handle oxygen sensor wrench has a flex-head joint and a bent handle which gives you several different positions to attack that hard to reach sensor.

Oxygen Sensor Wrench **MAT1023** $22.95

Lambda Oxygen Sensors Reduce Emissions

An oxygen sensor allows your engine to run as smoothly as possible, because it measures the exhaust gases and relays information to the fuel system control unit. With this information, the control unit can fine-tune the fuel mixture for optimum fuel economy and power. A dead oxygen sensor can also lead to significant idle and performance problems.

All models (universal fit)	single wire	1977-84	**MA11027**	$27.15
All models (universal fit)	3-wire	1985-93	**MA15725**	$76.09
240 series w/single wire	B21F, B23F	1982-84	**MA11037**	$50.41
240 series	B21FT	1981-85	**MA11028**	$55.44
240 series	B230F	1988-93	**MA13034**	$141.87
200, 700 series	B230F	1985-87	**MA13957**	$75.60
700 series	B230FT	1985-89	**MA13957**	$75.60
700, 900 series	B230F, B234F	1988-93	**MA13034**	$141.87
260, 760 series	V6	1980-86	**MA11037**	$50.41
700, 940 series turbo	B230FT	1990-93	**MA13957**	$75.60
940 series non-turbo	B230	1994-95	**MA13378**	$127.23

Workshop and Owners Manuals

By ipd staff

If you do service and maintenance work on your Volvo or have ever considered it, a good set of workshop manuals is a must. Manuals help you troubleshoot problems, provide information to help you decide if mechanical repairs are within your abilities and will alert you to the need for special tools.

The best mechanics in the world rely on manuals for information and consider them to be one of their most valuable tools. We have found that sometimes it can take several manuals to fully understand a procedure. When a procedure is unclear in one manual, often consulting another you'll find that a different photo or another writer will clear things up. Sometimes you have to consult several manuals for clarification and when all else fails, call someone who has already done the job and can quickly provide the missing insight needed. It may seem frustrating to have to use two or three different manuals, but if you are serious about maintaining your car on your own, they are invaluable.

Here at the office we have close to 100 factory and aftermarket service and workshop manuals that we use for training and to help customers now and then. If you're unsure of what manual is best for your Volvo and skill level or maybe you're trying to locate a specific manual, give us a call and we'll help you select a manual that will best suit your needs.

Don't forget about your Owners Manual! Another overlooked resource is the owners manual that Volvo provides with the car when it is sold new. This is the small booklet probably hiding at the bottom of your glove box. If you don't have one, you can download them or view them on line for free at Volvos website. Go to the "Community" page and then select "Your Volvo" and you'll be abel to look up the Owners manuls, Service Interval charts, A handy VIN decoder etc for most models.

The owners manual is chock full of good information. They don't get too technical, but you can learn quite a bit about your Volvo from them. Next time you're stuck sitting in your Volvo, dig it out of the glove box and flip through it. You would be amazed at the wealth of information provided in this little booklet specifically about your model. Types of fluid and capacities, light bulb sizes and how to replace them, maintenance intervals, basic trouble shooting, minor adjustments, driving tips and proper use of your Volvo are some of the topics covered.

Educate yourself with the appropriate manuals and you'll save money on repairs even if you don't do the work yourself. You'll get better service since you will be able to clearly explain problems and have a fuller understanding of suggested repairs. If you are unsure of what manuals might be best suited for you, give us a call. We'll gladly spend a few minutes with you and suggest manuals that best match your needs and experience.

The Bentley Service Manual

The Bentley is our number one resource for helping customers with 200 series. In our customer service department, you'll find a well-worn copy on everyone's desk. I've had one for eight years and I still find stuff in it that makes me say, "Wow, so that's how you do that!" If you have a 240 of any vintage, you need this book. - Scott

Bentley is an official factory service manual publisher for Saab, Audi and Volkswagen and acknowledges Volvo Cars North America for the extensive use of original Volvo technical illustrations, which is a huge contributor to the quality and ease of use of this service manual.

The manual is written in a very personable manner at a level that most owners can understand. It begins with a very informative chapter titled "Fundamentals for the Do-it-yourself Owner," which covers how to use the manual, general advice for the beginner, how to buy parts, tools (very informative), and emergency situations, and then moves on to an invaluable maintenance program. After this introduction, the text moves on to a traditional layout similar to the factory Volvo workshop manuals, covering the engine, electrical system, power transmission, brakes, suspension and steering, shocks, springs, and wheels and body. Each one of these headings is expanded upon in an individual section with a thorough explanation of the system and related components including step-by-step troubleshooting.

Bentley Service Manual for 240 1983-93 and 1981-85 turbo models **MA9L0293** $39.95

Bosch Fuel Injection and Engine Management

One of our favorite books when it comes to understanding fuel injection on Volvo models manufactured from 1970 to 1998. Packed with original Bosch diagrams and photos, this reference guide is considered required reading for anyone who is interested in understanding and working on the complex injection systems used in Volvo cars. Includes comprehensive coverage of theory and operation, troubleshooting, diagnosis, and test procedures with specifications and a large section on performance issues. Close to 200 pages.

Bosch fuel injection manual **MA9L0019** $30.01

Volvo Problem Solving Book

Written by two long-time Volvo mechanics, this common-sense troubleshooting resource can save hours of frustration and thousands of dollars. A complete troubleshooting guide packed with common recurring failures, proper repair procedures, helpful short cuts, and money-saving tips.

Volvo Problem Solver **MA9L0100** $69.95 ea

Haynes Repair & Service Manuals

Whether you need tune-up information, torque specs or step-by-step guidance through a complex repair, it's here in these "must have" reference works for the home mechanic. Haynes® manuals have excellent photo sequences for assembling complex parts. They're a good value in our book!

240 series	1976-93	**MA9L0270**	$19.96	***SALE $17.97***
700 series	1983-88	**MA9L1550**	$19.96	***SALE $17.97***
740 series	1982-91 UK version	**MA9L1258**	$27.96	***SALE $25.17***
940 series	1990-95 UK version	**MA9L3249**	$27.96	***SALE $25.17***

Chilton Manuals

This shop manual for Volvo owners covers all models from 1970 to 1989 (1800, 140, 160, 240, 260, and 700 series.)

If you have a small fleet of Volvos and don't have manuals for them, this could be the guide for you. Also covers 200 and 700 series diesels and 1989, 700 series, overlooked by the major repair manual publishers. One inch thick and full of useful information.

All models	1970-89	**MA9L8786**	$23.96	***SALE $21.56***
200, 700, 900 series	1990-93	**MA9L8428**	$23.96	***SALE $21.56***

ipd Anti-Sway Bar Kits

If you know ipd, you know that we began pioneering anti-sway bar set-ups for Volvos more than 40 years ago.

Cars continue to evolve, and handling characteristics that were once available only on high-end exotics are now commonplace. We originally developed our anti-sway bars to enhance handling performance (which they do). However, these are the same sway bars many Volvo drivers install as safety improvements. They'll give your Volvo handling characteristics that put it in a handling class well above where it is now and get it well on its way to handling with the same panache as much sportier machinery while retaining its Volvo identity.

You won't believe the improvement and you'll wish you'd bought a set sooner. If you don't believe us, ask anyone who's tried them! Satisfaction Guaranteed, period. They really are that good. THE suspension performance part for any Volvo. Anti-Sway Bars have been ipd's best seller for over 40 years and represent the most significant return on investment of any product we sell. It's often remarked by customers and employees alike that "If you only buy one thing ever from ipd, it should be Anti-Sway Bars for your Volvo."

Anti-Sway Bars will drastically reduce the amount of body roll your car experiences around corners and increase ride comfort to boot.

6K5028

All this translates into much more precise handling and control over your Swede with absolutely zero trade-off in ride quality. All ipd safety anti-sway bar packages are built using the finest materials available, including, high memory 4140 cold-rolled chro-moly steel, lifetime warrantied polyurethane bushings and grommets and premium grade hardware. Detailed step-by-step instructions are included.

6K5012

6K5025

240 sedans	1977-93	25mm front, 22 mm rear	**MA6K5012**	$328.00
245 wagons	1979-93	25mm front, 22 mm rear	**MA6K5012**	$328.00
240 GT, Turbo & lowered	All	25mm front, 25 mm rear	**MA6K5014**	$348.00
700 sedans w/4 cylinder non-Turbo	1983-86	25mm front, 25 mm rear	**MA6K5025**	$328.00
700 sedans w/6 cylinder, non-Turbo	1983-87	25mm front, 25 mm rear	**MA6K5025**	$328.00
700 sedans w/ 4 cyl.	1987-93 (turbo '83-91)	25mm front, 25 mm rear	**MA6K5023**	$328.00
700 wagons	1983-87	25mm front, 25 mm rear	**MA6K5028**	$368.00
700 wagons w/ 4 cyl. & Turbo	1988-92	25mm front, 25 mm rear	**MA6K5024**	$368.00
940 sedans w/ 4 cyl. (not for SE models)	1991-95	25mm front, 25 mm rear	**MA6K5023**	$328.00
940 wagons w/ 4 cyl.	1991-95	25mm front, 25 mm rear	**MA6K5024**	$368.00
960 wagons	1992-94	25mm front, 25 mm rear	**MA6K5028**	$368.00

From: Matt in Albany, OR

This upgrade is the best thing you can do for your brick! These especially aided in my lowered 242 turbo. If your car is lowered, i would HIGHLY recommend getting the 25mm(1in) sway bars and Bilstein struts. There was a night and day difference in handling and much more confidence. GET UM!!!!

From: Jered from Redding, CA

Holly cow! I absolutely love my ipd swaybars, on every volvo i ever own ipd bars will be the first upgrade. Dont ask yourself if you should, do yourself a favor and just buy them!!!!

6K0105 Reviewed by Greg from Southern California

Great upgrade for handling. body roll is almost gone and help with better control. The change in the height does give it a little more of a "sporty" look and is noticeably lower. Thanks again iPd!

240 Series Sport Springs by ipd

Over the last several years we've been hearing from our 240 customers that our TME sport springs, or lowering coils as they're sometimes called, still left the car a little higher and a tad softer than what they were after. Many customers even cut our sport springs to achieve the stance they wanted. With specific applications for sedans and wagons we've designed the front springs to be 3/8" lower in the front than the TME springs and changed the spring rate to about 5% stiffer than the TME springs. The result is a drop of about 1.75" in the front and 1.25" in the rear, giving your 240 a more aggressive stance. The lowered center of gravity and increased spring rate work together to tighten your ride, improve handling and reduce body lean in the corners. Combine our springs with a set of our ipd Anti-Sway Bars and your suspension is ready to handle whatever the pavement throws your way!

200 series sedan	1975-93	**MA6K0105**	$248.00 (set of 4)	***SALE $223.20***
200 series wagon	1975-93	**MA6K0106**	$248.00 (set of 4)	***SALE $223.20***
700 series sedan	1983-95	**MA6K0108**	$248.00 (set of 4)	***SALE $223.20***
700 series wagon	1983-95	**MA6K0109**	$248.00 (set of 4)	***SALE $223.20***
940 series sedan	1991-95	**MA6K0108**	$248.00 (set of 4)	***SALE $223.20***
940 series wagon	1991-95	**MA6K0109**	$248.00 (set of 4)	***SALE $223.20***

****Cars with Nivomat require shock update***

Pegasus Wheels

ipd began manufacturing new wheels for our Volvo customers. These replicas of the factory Volvo Pegasus are available in 17" in a RWD offset. This means direct fit, bolt on wheels. The best part is the price! 17" wheels for $148.00 ea. Get your set today.

Fits 200,700,900 series

Hyper-black finish	**MAIPDPEG177520**	$148.00 ea
Black matte finish	**MAIPDPEG177520B**	$148.00 ea

More Wheels Coming May 2010

IPDPEG177520 Reviewed by Sean from Ft. Campbell, KY

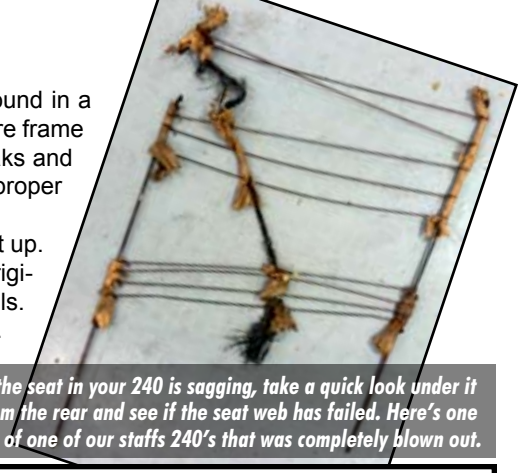
Just received the Pegasus 17's matte black finish. The wheels went on today, and wow they look amazing, makes the car stand out from the rest of the crowd. Very well made and a great price. Thank you IPD for all that you do... I will continue to be an avid IPD purchaser and Volvo lover for life! Thank you for all you do there at IPD...

240 Seat Webbing Grid, Springs and Tool

When 240's were new, they were known for having some of the most comfortable seat ever found in a car. One of the key components in the 240 front seat is the bottom seat web support frame. This wire frame provides compliant support to the lower cushion. Over time, the wire fatigues and eventually breaks and you'll find yourself sagging in the seat and the seat gets uncomfortable as you no longer have proper positioning to take advantage of the adjustable lumbar system.

The seat webbing was discontinued by Volvo in 2007 and no aftermarket manufacturers picked it up. We are now having them manufactured in a modern material that is a direct replacement for the original. We have also sourced the tension springs as those often end up missing once the webbing fails. The tension springs are quite strong and you'll need a good set of Vice grips to use to install them.

Seat webbing	240 series 1975-1993	**MA85.0002**	$19.95ea
Short springs (4 required per seat)	240 series 1975-1993	**MA1264010**	$3.95 ea
Long springs (4 required per seat)	240 series 1975-1993	**MA1204564**	$3.95 ea



If the seat in your 240 is sagging, take a quick look under it from the rear and see if the seat web has failed. Here's one out of one of our staffs 240's that was completely blown out.

Available April 2010

ipd

P.O. Box 20339
Portland, Oregon 97294

CODE: MA

Annual ipd Garage Sale

May 15, 2010 is when the 27th Annual ipd Garage Sale, Swap Meet and Car Show will take place. We look forward to this event each year and we're excited to have games, prizes, giveaways, sale pricing on most of our stock and much more. Doors will open to the ipd sales desk from 9:00am until 1:00pm and the swap meet and car show has been extended to run until 3:00pm. We hope to see you here for this great event.

Garage Sale is 9:00am to 3:00pm Saturday May 15, 2010

For information on displaying your Volvo or to reserve a swap meet spot call 800-444-6473 or e-mail our show coordinator Cameron Daline at cdaline@ipdusa.com

Over the past 26 years that we have put this event on we have had about 3 years with "perfect" weather. Last year was one of those years and probably had a lot to do with the great turn out we had. Over 70 show quality Volvos squeezed into our parking lot and another 100 or more lined the streets and parking lots for several blocks around our shop. The models were pretty evenly spread with great stock and modified examples ranging from 1960's 544 models all the way up to the latest R models. We hope you can mark your calendar and join us for another great event.

To see video and photos of last years ipd garage sale, follow the link below.

http://www.ipdusa.com/Garage-Sale-2009-Recap/blog-91