







Many people ask us advice on buying a WRX, particularly after having a drive or ride in one of ours or seeing us at a Motorsport Event.

This is a guide we put together on what to look for and to hopefully avoid some of the pitfalls.

## **Disclaimer**

This document is a guide only. It is not an exhaustive set of checks, tests or an inspection on every component of a vehicle. We are in no way responsible for any loss or damage financial or otherwise whether direct or indirect from using this guide.

### Introduction

Most are familiar with the classic WRX shape known as the GC8. The dark blue GC8

rally cars with gold wheels made Colin McRae a household name and helped the WRX to worldwide cult status. WRX's were first manufactured in 1992 and went on sale outside Japan in 1993 and into Australia in 1994. Since its beginnings, the WRX had been in continuous production for 20 years by 2012.



1994 Subaru WRX Rally Car

The car had several face lifts and re-designs during the first 20 years, however the essential specs of a 2L or 2.5L turbo charged, AWD, 4 door car did not change. Subaru has also produced a few 2 door versions of the WRX along the way too.

# Searching for the Right Car

There are many different models of WRX on the roads these days and all have their nuances. It is advisable to make yourself familiar with the specific model you are thinking of purchasing.

There are however some general items to look for when buying a used WRX so let's get started.

First things first, the WRX is a performance car. Bear this in mind when you are looking at a WRX. Don't be fooled by the shiny paint work, big exhaust and the fact it's a WRX. You want street cred, not a money pit of worthless junk. Be level headed when you are looking. Check the average prices and kilometres for cars in the model you are interested in. If the car you are interested in is a lot cheaper than the average, make a note, there may be a reason why.

**Top Tip**: On average, a car travels around 20,000km a year. To give you rough figures, work out the age of the car versus the km per year and see how that matches up with the km of cars advertised.

Performance cars are usually performance driven and can have hidden scars and ailments. Passing up on buying a car maybe a disappointment in the short term, however your bank balance could look a whole lot better in the long run.

OK so you've found the car of your dreams or motorsport ambitions. In this day and age you most likely found the car online and not from thumbing through the

classified ads in a newspaper. Online allows you to view photos and at least see some of the details of the car. Time to call, Yes call the seller. While emailing, texting or updating your status on facebook may be your preferred method of communication, it will not suffice when making an important purchase of a car.

Make a list of questions to ask the seller over the phone and make sure you get the correct answers.

- How many kilometres has the car done?
- What condition is the car in?
- Has the car been regularly serviced and if so, can you produce receipts or a log book?
- Has the car had any modifications done to it?
- Has the car been involved in an accident?
- How long has the seller owned the car and what is the reason for sale?

Asking these simple questions (and the relevant answers) could save you a wasted trip to look at a pile of junk or worse still, a whole world of pain down the track. Listen carefully to the answers and the tone of the seller. Hesitation to answer certain questions or uncertainty may be a sign the seller is hiding something on the car. True enough a seller can still lie during a phone call, there's no guarantee. At least if the description seems a bit suspicious on the phone, you can pass on it and look at other viable options or perform more research.

Buying from a dealership is not always a guarantee. Larger dealerships and Subaru dealers may have performed checks on the car before putting the car on the lot. With early model WRX's getting older, some end up in smaller dealerships that may not have the same resources. Regardless it is still wise to follow this guide for your own peace of mind.

#### Preparing to go and look at the car

The ideal thing to do when going to look at a car is to ask for the car to be stone cold. Once the mechanicals of a car are warm, a multitude of sins can become hidden that you may find out are expensive repairs down the track. Also day light makes it much easier to have a good look at everything too. Waiting until someone gets home from work in the evening makes it more difficult to pick up issues. Take a bright torch with you to help with looking in the darker areas too. If you have a small mirror, it may be handy to shine light or see in difficult spots too. If you have access to a small magnet, take that with you too. Just make sure the magnet is wrapped in a thin plastic so as not to damage paint work. Take a small note pad with you as well. It may help if you find a few things to ask about or else it may help you remember if you look at more than one car.

#### Looking at the car

OK, so you've got the answers over the phone and now you're looking at the car. Before you get too involved with the car, look at the owner. Was the car advertised as one careful lady owner? If the car has 18" wheels, is lowered, has a huge stereo in it and performance stickers or other "Fast & Furious bling" on it, be suspicious. Being registered and insured in Mum's name, doesn't mean Mum has been driving it or maintaining it.

Many WRX's have lived a hard life and particularly with the earlier models, had modifications. Depending on the type of mods (and how it has been driven), the

wear on mechanicals may be far greater than expected for the km the car has travelled.

Again: Keep a level head whilst looking at the car. If something does not feel right about the car let it go. It is better to have walked away and saved your cash rather than impulse buying someone else's (expensive) problems. **Do Not** Start the engine.

### **Body**

We always look at the body and structure of the car first. Do you want a car that has been in a crash when there are so many out there in good shape? Check behind the bumpers, inside of doors and behind door and boot trims. This will



Evidence of a re-sprayed panel. The outside colour is green and the inside is red.

give you a clue if a panel has been replaced or the car has been re-sprayed. Often accident damage is repaired by replacing panels and only the outside of the panel is painted to match the colour of the car. Finding red paint behind a front bumper or guard (fender) of a blue car is a clue the car may have been involved in a frontal accident. The same goes for the boot, doors and rear bumper. Small accidents like dented doors or boot lids and broken bumpers are not major as long as the main structure (shell) of the car has not suffered major damage.

Look for other kinks or ripples in panels and structural areas (such as the front rails under

the bonnet) that may have been straightened after an accident. Comparing one side of the car with the other can act as a guide to how something should look. Check for any evidence of welding. Welding is a sure sign the car has been repaired after an accident.

Have a good look over the paint work. Older cars are no doubt going to have the odd scuff, scratch or car park dent. Look for any paint that is cracking. This may be an indication the car has been repaired previously and had body filler (bog) added.

**Top Tip:** If you brought a magnet, check suspect areas with the magnet. If the magnet does not stick to the body or the attraction is weak, it could be a sign of bog. NB: Some models of WRX had aluminium bonnets. A magnet will not stick to aluminium.

If you do find signs of bog, thoroughly check the surrounding areas. A small amount of bog in a door, boot or bonnet is not a major problem so long as the main shell adjacent has had no major repairs. If you find bog in a panel and the main shell is crinkled or appears to have had repairs, its best to walk away.

Keep your eye out for rust too. WRX's are not generally prone to rust, however over time seals can degrade and water getting in will lead to the inevitable. Check around windscreen and boot seals, check around sun roof seals too if one has been fitted.



Evidence of Bog in a body panel



Evidence of a (poor) welding repair adjacent to a bogged up area. This car has had sill damage.

Have a good look under the car. This is where the torch comes in handy. Not only are you looking for any leaks, you are also looking for any signs of rust or under body damage. Grazes in the underseal or dents in the floor may mean the car has been scraped or banged over kerbs or other objects. Check the fuel tank for signs of damage too. Damage under the car could indicate the car has been run into something and then a careful check of suspension components is required to see if anything may be bent or damaged. Lift the false boot floor and have a look where the spare wheel resides. Any crumpled areas around the spare wheel bay indicate a rear

end accident. Also if the boot seal is leaking, water will find its way to this area and may cause rust in the bottom of the spare wheel well.

### **Mechanicals**

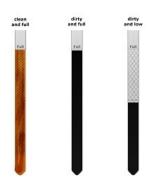
The body work seems to check out OK so its time to look at the mechanicals. Subaru have cleverly designed most of their cars to have interchangeable components. In other words, engines, gearboxes diffs, hubs, brakes and even panels and bumpers (on certain models) can be interchanged. This system has many advantages, however a few pitfalls as well. It is possible that different model parts have been interchanged on the car you are looking at. This is particularly common practice on the GC and early GD WRX's. A well done conversion of a later model engine and 6 speed manual into a WRX can definitely add value. A wrong gearbox and rear diff combination on the other hand can be problematic and expensive to rectify. If you know or suspect the car has been modified or later model parts fitted, ask to see the receipts and ask who performed the mods. Receipts from a reputable business are a good sign and you can always ring the business and ask questions. Home jobs need to be treated with more caution. Whilst some people have the expertise to do a good job at home, many do not. We have seen some horror conversion work.

**Top Tip:** If the car has had mods, particularly a different engine or transmission, make sure you ascertain exactly what year and model the parts came from and how many km the parts have done. Why is this important? When you have the car serviced or repaired your mechanic will need to know what parts to order. It is no good ordering an oil filter and plugs for 1995 WRX body when the engine is 2005. Also if the parts have less km than the odometer, the servicing interval may be different and major parts like the Cam belt may need replacing. Ask questions and error on the side of caution. If the story does not seem right or you cannot verify the source of the parts, tread carefully or walk away.

Now comes the advantage of looking at the car cold.

Before turning the key, check that the engine number in the car matches the rego papers. If it doesn't, ask why. The owner may have had the engine replaced.

Check the colour of the oil and ask when the last time the car was serviced. Black treacle on the dipstick indicates poor servicing. The oil should be clean and up to the correct mark on the stick. Ask the owner if they know what type of oil is used in the engine. A good performance or synthetic oil is a good sign. If the car has been regularly serviced, the log book should indicate as such or else the owner should be able to tell you where the car is serviced.



**Top Tip:** If you can identify where the car has been serviced, give the place a call and have a chat. Dealerships and larger mechanical businesses keep a database, smaller workshops are likely to know the car. If the owner has serviced the car themselves, be cautious. Changing the oil and filter is not major job, however there is a lot more to servicing a car than just the oil and filter. Have all the other regular checks been completed and other parts and filters been replaced as required?

**Note:** The car should be on level ground and the engine cold before checking oil and/or coolant.

Low oil level is not good and a high oil level that has a smell of fuel is also an indication of problems.

Are there any visible oil leaks around the engine? Pay particular attention to the cam covers on the heads and also at the front and rear of the engine. Oil leaking between the engine and gearbox is going to at least require a gearbox removal to replace the seal.

How many km has the car done? Cam belts are designed to last 100,000km in a WRX. Under 100,000km, the car will most likely have the factory cam belt which is fine. Over 100,000km is there a sticker on the engine indicating when the cam belt was last replaced? Do your best to verify cam belt replacement. If you are not 100% sure on when the belt was done, factor an immediate cam belt replacement into your price and schedule. A broken



Cam cover oil leak, looking up from under the engine.

cam belt can result in severe and very expensive engine damage.

Has the car been sitting for a significant period of time? 6-12 months of sitting in the weather could mean the injectors require removal and cleaning to provide reliability, more on this later.

Have a good visual inspection of the turbo. It may be difficult if the heat shields are still bolted on. Look around and under the turbo to check for any traces of oil or coolant. Any oil or coolant leaks on the turbo need immediate attention and worst case scenario could be pointing toward a turbo replacement.

**Note:** Only open the cooling system cap if the engine is cold. Coolant could be red or green. Is the coolant clean in the header tank and the expansion bottle? Is the coolant level in the header tank low?

Look at all the hoses under the bonnet. A weeping hose may have a green or red stain



A severe coolant stain from a leak around a hose.

around it. Any hose that looks like it is cracked or starting to perish needs replacement. WRX header tanks can develop leaks too. Have a look around the header tank for signs of weeping coolant.

Check under the oil filler cap for any traces of a milky substance. Any traces of a milky substance in the oil, coolant or on the radiator

or oil filler caps should ring alarm bells. Whilst cold, also check the power steering fluid and gearbox dip stick. Are they clean and up to the correct marks? Burnt smelling or black looking oil is a bad sign. You may find the gearbox is filled with performance oil which is not a bad thing. Don't be too surprised to find light blue oil showing on the gearbox dip stick.



Milky substance under oil filler cap indicating probable engine troubles

Now it is time to fire up the engine. Turn off the stereo, stop talking and clear your mind to listen carefully. The next minute or so is going to need your concentration and full listening ability.

Turn the key until the ignition lights come on, don't crank the engine. Can you hear the fuel pump priming? The pump will come on for a few seconds and then cut out until the engine is started. A loud whining could indicate a worn out fuel pump, we'll come back to this point later too.

Do not touch the accelerator. Crank the engine, watch the oil light and listen intently. You only get one shot at this.

Did the engine knock or rattle when it came to life? Did the oil light stay on for more than one or two seconds? Did you hear any other strange noises? Any of these symptoms may indicate larger engine problems.

Take the radiator cap off the engine and allow the engine to idle for 5-10 minutes as it warms up. **Do not** rev the engine with the radiator cap off. You are looking to see if any bubbles or froth develops in the neck of the header tank to the radiator. Constant

bubbling or a lot of water being pumped out of the engine may indicate a blown head gasket.



Constant bubbles from the header tank and/or pushing out water may indicate a blown head gasket.

Whilst the engine is idling and you have your head under the bonnet, listen for any strange noises. Knocking, rattles and loud whining noises are not a good start. Go around to the back of the car and listen to the exhaust. Does the car idle smoothly without miss fire? It may not be that easy to pick with a loud exhaust and the typical Subaru burble. Is the tip of the exhaust oily or is there any smoke from the exhaust? Blue/grey smoke is

not a good sign, however do not confuse steam from a cold start up with blowing smoke. Don't be too concerned about the exhaust itself being black, this is quite

normal however a lot of black smoke from the exhaust may need further investigation.

Those who know what coolant smells like (slightly sweet) may be able to pick a coolant scent in exhaust gas. If you can smell coolant or burning oil from the exhaust, there is definitely something that needs further investigation.

#### All seems OK so far?

Next task is sit inside the car again and listen to the transmission. The earlier 5 speed gearboxes were a known weak point in WRX's and the issue wasn't completely resolved until the much stronger 6 speed arrived in later model WRX's. A looked after 5 speed will be fine, however a gearbox that has seen much hard driving or some big launches off the line may be a hand grenade in waiting. Can you hear any driveline noise at all during idle? If you hear a noise, does putting your foot on the clutch stop the noise?

Push the clutch in and engage all gears including reverse without moving the car. Does the car go into all gears easily? Sometimes you may need to put the car into neutral, lift you foot off the clutch and then depress the clutch again to be able to engage all the forward gears. NB: Reverse may be a bit noisy and may grind slightly when engaging due to the way Subaru designed the reverse gears.

Turn the steering from full lock left to full lock right. Does the steering turn easily? Can you hear any loud whining from the engine bay, does the power steering belt slip making a screeching sound, is the steering notchy or can you hear any clicks or creaking from the steering system? Note: When the car is stationary and idling, you will get some noise and a slight whine from the power steering system when turning the wheels. Excessive or strange noises, jerky steering movement or loud whining is what you are checking for.

If everything seems ok, turn the engine off and re-fit the radiator cap.

Time for another good look under the car. This time you are looking at the suspension and drive shafts. The first thing to check is the rubber boots that protect the CV joints and steering rack. WRX's have 8 x CV boots, 2 on each drive shaft for each wheel. It is not uncommon for the outer (closest to the wheel) front CV boots to split. Tell tale signs are grease around the front suspension parts, the back of the



Split CV boot

wheels and of course a split rubber CV boot. Inner CV boots (closest to the gearbox) do split as



Split Steering rack boot and red oil indicating a faulty steering rack.

well. Sometimes a fine grease spray can be seen inside the engine bay. If any of the boots are split and you can see a lot of dirt stuck to the grease, or very little grease left in the CV, chances are the boot has been split for a while and a new CV joint may be required. The same inspections should apply to the steering rack too. Split steering rack boots will let the dirt in and any traces of a red coloured oil around the steering rack could also

indicate power steering problems.

Check the rear CV boots too. It is not so common for split rear boots, however it does happen. Whilst at the back of the car, look at the rear diff, see if you can see any evidence of oil leaks.

Check all the suspension bushes for wear or splitting. Rubber bushes wear out after a while and need replacing. Worn suspension components & bushes can adversely affect handling and greatly accelerate tyre wear too.

Have a look to see if there are any grazes or marks on the lowest suspension components. Again such marks or dents could indicate an altercation with a kerb or speed bump etc.



Worn out rubber suspension bushes

**Top Tip:** Have a look at the wheels. Many WRX's have had the factory wheels replaced. Heavy scratches, grazes or dented rims may be an indication of kerb damage. If you suspect kerb damage, give the suspension a thorough look over. Look at the tyres too. Is one edge worn more than another? Is one tyre worn more or is the inside or outside tread worn unevenly? This could be a clue that something in the suspension needs attention.

### **Brakes**

So we've looked at most of the items that make the car go, now lets turn to the stopping.

WRX's have decent brakes from the factory and rightly so. The cars go quick and you'd like to have the confidence that when you push the centre pedal, the car will pull up straight.

Check the level and colour of the brake fluid in the reservoir under the bonnet. Dark or burnt fluid is a sign the fluid is old and has possibly been over heated from



Heavily scored brake rotor. The rotors & pads will need replacing.

frequent heavy braking.

Have a look at both the front and rear brake rotors. On most models of WRX, the rotors are visible without removing the wheels. If the rotors are heavily scored and/or cracked on the front or rear, factor in needing to replace the rotors and brake pads. The car may have been driven hard and seen some "track time". You may be able to see the condition of the outside brake pads with a bright torch which will give some indication of how much wear is left before a new set of brake pads is required. If the rotors are well worn, you'll be up for a set of brake pads

anyway, even if there is plenty left on the pads. Don't forget to check that the hand brake holds the car too.

#### **Electrics**

Next check the electrics. See that all the lights, horn, wipers and washers operate correctly. Also check all the power windows to ensure they move up and down smoothly. Check the central locking on all the doors (if fitted). Turn on the Air Conditioning and make sure the system runs cold. You should be able to hear the A/C compressor click under the bonnet and the engine should speed up slightly at

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idle. If the A/C does not function properly or does not get cold, ask questions. Even an A/C re-gas will set you back a couple of hundred dollars. Make sure that air blows from all the vents correctly when selected on the heater controls. Check the heater works too. If an aftermarket sound system is fitted, check carefully. Many home installs have terrible wiring hidden behind the trims and dash.

#### **Interior**

What condition is the interior in? Do all the seat belts operate correctly? Make sure the belts are not frayed or damaged. Check the carpets for heavy stains or wear, particularly in the driver's foot well under the pedals. Have a good look at the carpets on both the driver and passenger side foot wells around the transmission tunnel. You are looking for evidence of water or coolant stains. Occasionally WRX's have heater core failures which leak coolant inside the car. Replacing a heater core is a big job and requires the complete dash to be removed.

Check the roof lining and around the sun roof if fitted. Have a good look at the seats and make sure the front seats move smoothly on the runners. Finding evidence of cigarettes in the ash tray is a sign a smoker has owned the car. Check for cigarette burns in the interior. Pet hair could mean that the owner has had the family dog in the car too. Check the Speedo too. Does the speedo stop at 180 km/h? Japanese cars were fitted with 180km/h speedos and the car you are looking at may have had the factory speedo changed for a lower km Japanese model (which is also illegal) to mask the amount of km the car has trayelled.

#### **Test Drive**

Now the part you have been waiting for. The test drive.

The car should drive smoothly at low speeds and all gears should engage easily. Loud whining or any sort of grumbling in the drive train needs further investigation. Crunching when shifting up or down gears or any gears that are difficult to select indicates problems. The clutch pedal should be fairly firm and not spongy. Before opening the throttle in low gears, select a high gear such as 4th whilst moving at a lower speed (30-40km/h) and then put your foot down. If you listen closely you should hear the faint whistle of the turbo spooling up and the car will gradually pick up speed. It may not be easy to hear over the exhaust. The clutch should not slip either. At normal road speeds the car should accelerate smoothly. If you have the chance and a high enough speed limit on a nearby road, drop down to 20 or 30km/h in 2<sup>nd</sup> gear and then crack the throttle open and accelerate up to the speed limit using a few gears. The power should come on smoothly and acceleration should be rapid once you are above 3000 RPM. You are listening for any noises in the driveline or strange behaviours such as mis-firing or excessive hesitation under turbo boost. Some WRX's have been known to show problems under boost and there can be many causes. The fix can sometimes be straight forward, however diagnosis can be time consuming and costly if you have to pay someone else to do the work. Noises or loud whining from the driveline may result in an expensive fix down the track.

When you brake, the car should pull up straight. Squealing, grinding, pulling to one side or a shuddering brake pedal\* may indicate brake problems. \*If you brake too heavily in a WRX fitted with ABS, the system will produce a pulsating pedal when the ABS is activated.

Turn some sharp corners or complete tight circles at **slow** speed and listen carefully. Clicking noises are a clue that a CV joint is its way out and will need replacing.

Stop the car and reverse up an incline. Shuddering in reverse is a possible sign the clutch is on its way out.

Does the car drive in a straight line when you take your hands off the wheel momentarily? Does the car wander or tend to pull to one side?

There could be a multitude of reasons for this behaviour. It may be as simple as a wheel alignment or something more serious.

When you go over small bumps do you hear a hiss or clunking noises from any corner of the car? It is usually easier to hear a hiss in rear suspension than the front. If you hear a hiss, further investigation is required. It could mean that a shock absorber is on its way out or has been damaged by being bounced off a kerb.

If the car behaves strangely during a test drive or you hear strange noises during the test drive, when you park the car up, go back and have another look/listen.

### **Modifications**

Many WRX's have been modified in some form or another. There are some of the more common mods to be aware of that may encourage unwanted attention from the boys in blue. **Note:** *Some or all of these mods could affect legality and the all important insurance. If in doubt, check with your insurer before buying a car.* 

- Loud exhausts- Yes the right exhaust will improve engine performance, however too loud and you may have to deal with a work order and a vehicle inspection.
- Aftermarket atmospheric blow off valve (BOV)- They do sound good, however a BOV that vents to atmosphere is illegal and can cause problems with standard engine management. The factory (or an aftermarket) plumb back BOV is the best bet.
- Pod style air filter- Used correctly, pod style air filters are very good and can provide a performance boost for cars. Oil type pod filters do have a couple of problems. First, over oiling a pod filter (common) causes the engine to suck some of the air filter oil through the Air Flow Meter (AFM). The AFM is a crucial piece of electronic equipment involved in the engine management and must function correctly for the engine to run properly. It is common for a WRX AFM to fail which can cause all types of miss firing and fuelling problems. Second issue is that most pod filters are illegal. A look under the bonnet by the boys in blue could result in a work order.
- Clear or stove burner tail lights- Many of these tail lights have been bought from overseas or off the internet and do not comply with Australian Design Rules. Another work order attractant.
- Excessive lowering- If the car is deemed too low, you could be issued with a
  work order. If lowering has not been performed correctly it can adversely
  affect other suspension components such as shock
  absorbers.
- Coil over suspension- In the early days of Japanese imports, many importers removed coil over suspension from cars they had brought into the country and sold the suspension separately throughout Australia. There were several brands available with probably Cusco and Tein leading the pack. These days it is easy enough to walk into most performance suspension shops and buy a brand new

Coil over suspension

set of coil overs off the shelf or off the internet. Usually coil over suspension can be identified by looking for a narrow spring and a thread on the strut which allows height adjustment. The best bet is to not have the car too low to the ground (as per the above point). Coil over suspension often has a multitude of other settings as well. Inspect carefully if fitted. Ask about where the suspension was sourced and who fitted it.

• Front mount intercooler. There are several trains of thought on front mount intercoolers. Yes cars like the Skyline and Evo's have their intercoolers at the front. Subaru cleverly mounted their intercooler on top of the engine and

added a bonnet scoop to force air through it. This was done for several reasons, not least of which was the shorter length of pipe from the turbo to the engine. The longer the pipes from turbo to engine, the more turbo lag you will have. Think of a short garden hose verses a long garden hose. When you turn the tap on, which one will take less time for



**Front Mount Intercooler** 

the water to come out? Same deal with a turbo. When you open the throttle, you have

to wait for the turbo to push air much further and through a serious of extra bends to reach the engine. Also the added pipes and hoses provide more places for air (boost) leaks. The WRX was not really designed for a front mount intercooler. That means that custom brackets and some drilling/cutting is required to fit a front mount intercooler. How do you know this has been performed correctly? Front mount intercoolers are much more susceptible to damage at the front of the car. A slight nudge on a kerb in a car park or a wayward stick or small rock on the road could easily hole a front mount intercooler. When fitting a front mount intercooler, some opt to chop out part of the front bar to provide clearance or better air flow. This can be illegal and could affect correct air bag operation (if air bags are fitted).

- Different gearbox. With the early WRX's having a weak gear box, it was common for blown transmissions when the cars were driven hard or launched off the line heavily. We have seen a few WRX's where a gearbox has been replaced and then the driveline has strange noises, a burning smell or handling problems. Often these problems are caused by a mis-match of gearbox and rear diff. Japanese import transmissions have different gearing to Australian transmissions and it is not a case of "one size fits all". All Subaru Transmissions have a code sticker on the gearbox near the starter motor. By searching the net for a list of codes, you can cross check the type, ratios and car the transmission was fitted to from factory. It is vital that the gearbox matches the rear diff otherwise expensive drive train damage can occur. A common mod these days is to fit a later model 6 speed to a 5 speed WRX. For the right person, this is a pretty straight forward job and once the 6 speed is fitted, it is pretty much set and forget. Check with the owner if they have had a 6 speed fitted or do they have a receipt or paperwork. Changing from a manual 5 to a 6 speed does not require a vehicle licensing inspection as the mods are all bolt on. Again the correct rear diff needs to be matched to a six speed as well.
- Carbon fibre bonnet. There was at one time a fad to replace the factory WRX bonnet with a much lighter weight carbon fibre bonnet. The problem is that

carbon fibre bonnets are illegal and can affect crumple zones for frontal accidents.

# **Fuel System & Fuel Pump**

Depending how many km or how old the WRX is, the fuel pump may need attention. When we build a Subaru for competition, the first thing we do is change the fuel pump. Fuel pressure is critical to a Turbo Subaru engine and the factory fuel pumps wear out after a while. There are a few good after market fuel pumps on the market, we use Warlbro. An after market pump may be noisier than a factory pump. Check with the owner to see if they know if the fuel pump has been replaced. If the car is more than 6 years old or has more than 100,000km on the clock, factor in a fuel pump replacement for peace of mind. If the car has been sitting without being started for a long time, the fuel injectors may be partially blocked from crystallised fuel. The Subaru engines need good fuel pressure all the time. Weak fuel pressure from a failing fuel pump or restricted fuel system could result in piston damage and an expensive repair bill. A fuel pump and/or injector clean and new fuel filter is much cheaper than an engine.

#### Legit?

The last task before talking money is to check the car is legitimate. Check the VIN number matches the rego papers. A quick internet search will also tell you how to decode the Subaru VIN and if the VIN is a match to the type of car you are looking at. If the car is not at the address on the rego papers, ask to see some ID that confirms the person selling the car is the owner. Check the year of the car on the rego papers versus what it was advertised as. With many models of WRX, it is easy to bolt on later model panels and parts to make the car look like a later model. Also contact REVS or your state transport authority for a check. This will help provide peace of mind that the car does not have finance owing on it and has not been written off and re-birthed or stolen. These are important steps and should not be over looked.

#### **Further checks**

You've looked over the car yourself and there are a couple of minor queries or else you're fairly confident and just want to be sure. There are however several checks that have not been covered in this guide that require additional tools or equipment such as compression testing the engine, inspecting the turbo or checking the rear diff oil. This is where you can decide whether to have a 3<sup>rd</sup> party examine the car. It is an optional step and will of course cost you extra money. If everything has been OK so far, an inspection by a qualified authority may be the final "tick in the box" so to speak before making an offer.

### How much to pay?

**Know your budget.** Make sure you include in your budget the cost for any repair work or servicing, the price of the car, the stamp duty (transfer fees) and insurance.

With both private sales and car dealers, there is usually some room to move on the sale price. Whilst it is not true of all sellers, some people have paid too much for a lemon or else find out that repairs are expensive and want to unload the car for more than it is worth. Doing your homework could avoid a money trap. If the owner has listed aftermarket, performance or later model parts have been fitted, ask to see receipts or do your best to verify the parts are actually in the car and have been fitted properly by someone who knows what they are doing.

The price should also factor in the amount of kilometres and overall condition of the car. If you find issues with the car that require work (and you can afford or perform yourself), you could use the repairs as a bargaining tool to reduce the price. You may need to contact your mechanic to find out what work or repairs will cost.

The negotiation and final purchase is up to you.