

EE20 Engine Info



Subaru EE 20 engine, early Euro 4 emissions standard, open-type DPF

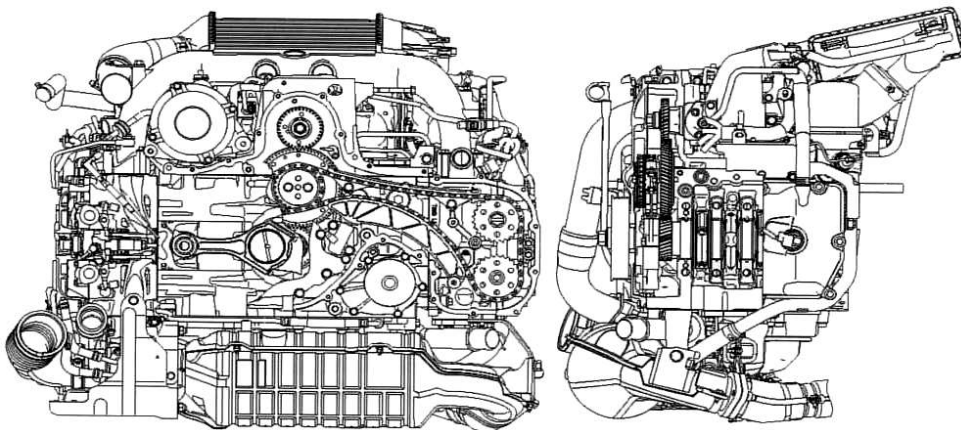
Engine management including many parts/assemblies and are [DENSO Corporation](#).

SPECIFICATIONS

- Under construction, do not hesitate to report errors or data!
- Car specifications for current models are available at: <http://www.subaru-global.com>

Topic / Emission Standard	Euro 6	Euro 5	Euro 4
Designation	EE20		
Displacement	1998 cm ³		
Max power	110 kW (150 PS, 148 hp) @ 3600 rpm Forester, XV: 108 kW (147 PS, 145 hp) In some countries for tax reasons reduced power options are available i.e. 81 kW (109 PS), 300 Nm		
Max torque	350 Nm (35.7 kgf·m, 258 lbf·ft) @ 1600-2800 rpm	350 Nm (35.7 kgf·m, 258 lbf·ft) @ 1800-2400 rpm	
Valve train	DOHC , 4 valves per cylinder timing chain (2x, Euro 6: 3x including fuel pump chain)		
Bore × stroke	86.0 × 86.0 mm		
Compression ratio	15.2	16.0	16.3
Fuel injection system	DENSO common rail direct fuel injection Euro 6 addition: pressure relief valve, controlled by ECU		
DENSO common rail system generation	G4	G3	G2
High Pressure Pump	DENSO HP3 (2 plungers, trochoid feed pump, SCV , fuel temperature sensor)		
Pump drive	chain	helical gear	

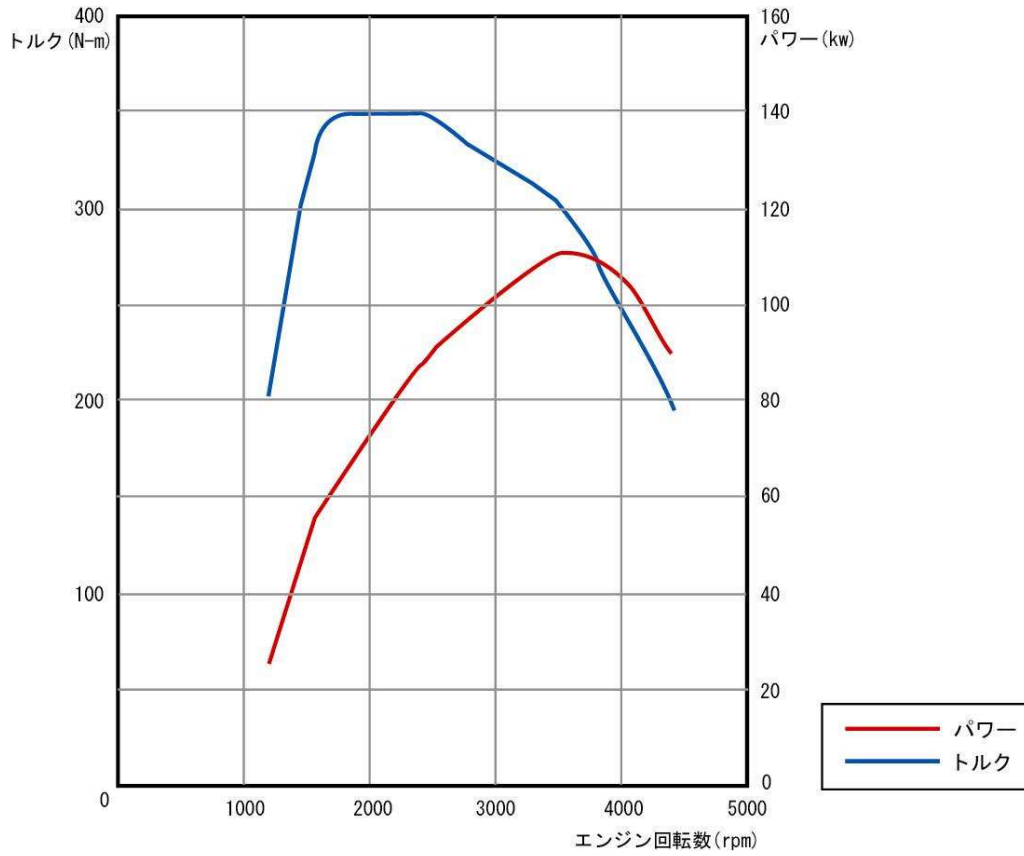
Topic / Emission Standard	Euro 6	Euro 5	Euro 4
Common rail pressure (@ idle / max)	30 MPa (300 bar, 4,350 psi) / 200 MPa (2,000 bar, 29,000 psi)	30 MPa (300 bar, 4,350 psi) / 180 MPa (1,800 bar, 26,100 psi)	25 MPa (250 bar, 3,630 psi) / 180 MPa (1,800 bar, 26,100 psi)
Injectors	solenoid-type, 8 holes, each injector has its calibration code ; for replacement E4/5 models require taking out engine		
Injector hole diameter	?	0.121 mm	0.133 mm
Glow plugs	?, dedicated glow control unit, monitoring each plug	ceramic type	metallic type
High Pressure Exhaust Gas Recirculation (EGR)	without HP EGR cooler	HP EGR cooler (water) Euro 5: enlarged	
Low Pressure Exhaust Gas Recirculation (EGR)	DPF → exhaust main pipe till exhaust pressure control valve → LP EGR cooler (water) → LP EGR valve → turbo inlet	Euro 4/5: not available	
Intake manifold	resin material (black plastic), 1.5 kg lighter		(bright) aluminum casting
Turbocharger type	VGT (Variable Geometry Turbocharger) (variable nozzle/vanes, vacuum actuator, vane position sensor except for Euro 4 models)		
Turbocharger details	Honeywell	Mitsubishi or IHI (newer models)	IHI RHV4 VF50, max 190,000 rpm, no vane position feedback
Catalytic converter	oxidation catalyst, inside DPF casing		
Diesel Particulate Filter (DPF)	<ul style="list-style-type: none"> silicon carbide honeycomb closed-type, managed: active regeneration initiated by engine (fuel post injections – causing oil dilution) First generation (= MY2008/2009 Legacy/Outback only): open-type, unmanaged (no sensors etc.) 		
Air/fuel ratio (A/F, lambda) sensor	downstream DPF	not available	
Cylinder block	aluminum alloy		
Engine oil capacity	5.9 litre	?	5.5 litre
Coolant capacity	8.3 litre	?	8.6 litre



Subaru EE 20 engine drawing, early Euro 4 emissions standard, open-type DPF

POWER GRAPHS

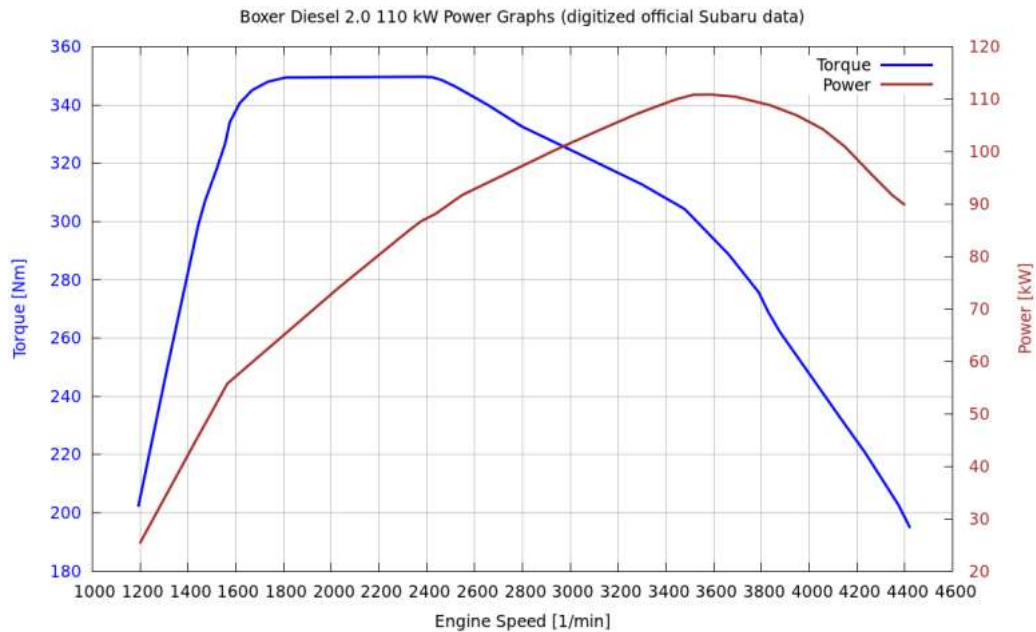
Euro 4, from official Subaru press information:



Digitized above curves, own replot:

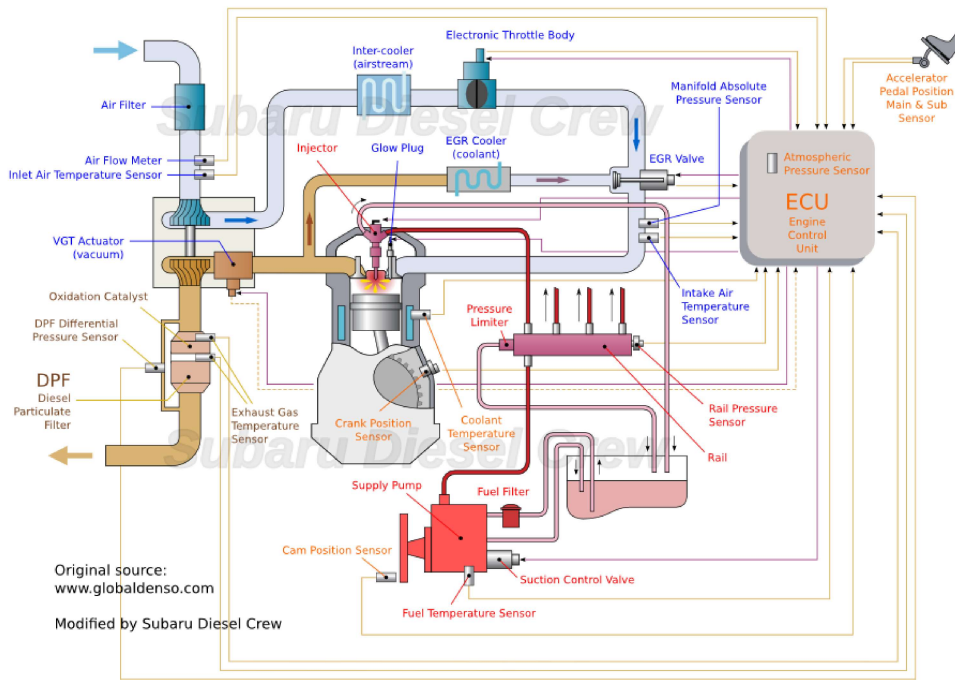
View as [SVG](#) vector graphics (best quality, modern web browser needed): [PowerGraph\(Subaru\).svg](#)

Raster screenshot in case you cannot view SVG:



SCHEMATICS

Euro 4/5 engine management schematic, based on generic DENSO diesel management.

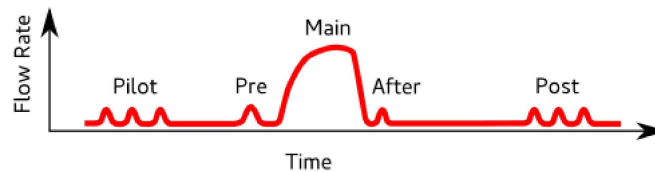


Euro 6: more complicated, schematic under construction...

INJECTIONS, INJECTION PATTERNS

Apparently all models support up to 3 pilot and post injections per stroke. Not all 9 possible partial injections are being used at the same time, mostly just 2 (pre + main) or 3 (pilot + pre + main). The ECU software decides based on current running conditions (start, warmup, power demand, active regeneration etc.). The ECU itself contains high voltage circuit for driving the injectors. As the ECU is not actively cooled, the number of injections at higher engine speeds are limited.

Nine Time Multiple injections



LINKS TO ARTICLES / PHOTOS

- [FHI Details World's First Horizontally Opposed Diesel for Passenger Cars \(TechOn! 2008-02\)](#)
- [Subaru Boxer Diesel – A True Engineering Revolution \(BoxerDiesel.com\)](#)
- [www.reaa.ru Forum Thread with lots of pics](#)
- [Geneva Motor Show – Subarus Boxer Diesel \(Autoblog.com\)](#)
- Euro 5 vs. Euro 4 engine details: [Next-generation Boxer Diesel \(Engine Technology International 2010\) PDF article](#)
- Includes some infos about Euro 5 vs. Euro 4 changes: <https://web.archive.org/web/20121123032526/http://europeanmotornews.com/2010/10/27/2011-subaru-outback/>
- Euro 6: http://www.jarvissubaru.com.au/news/Forester-Diesel-adds-smooth-auto-option_440/
- DENSO Diesel Engine Management: <https://www.denso.com/global/en/products-and-services/oem/diesel-engine-management-system/>
- Subaru Australia – Benefits of a diesel engine: <https://www.subaru.com.au/car-advice/benefits-of-a-diesel-engine>
Quote: "... diesel engine vehicle requires a driving style and method of use that is only suitable for longer distances and higher loads!"
- Why The Boxer Engine? <https://www.subaru.com.au/car-advice/why-the-boxer-engine>

LINKS TO PHOTOS

- [Boxer Diesel Engine \(Exhibit, 2304 x 3072\)](#)

64 RESPONSES TO "EE20 ENGINE INFO"**mukesh** | [2011-05-29 at 21:40](#) | [Reply](#)

hi i want to put ee20 in a small aircraft zenith ch801 stol can you tell me the total dry weight of the engine and weather it is a suitable engine in aircraft use thanks mukesh

**subdiesel** | [2011-05-30 at 07:11](#) | [Reply](#)

No, sorry, and no experience with that kind of work. Have you tried contacting FHI yet?

**Bela Kaltenecker** | [2014-11-22 at 13:29](#) | [Reply](#)

Hi:
Been a while but I just found your post. Did you ever complete the EE20 conversion?
I am thinking about doing the same

**Shane** | [2011-08-26 at 12:14](#) | [Reply](#)

Do you have the height, length and width dimensions of the total engine?

**subdiesel** | [2011-08-28 at 09:05](#) | [Reply](#)

Some dimensions listed in this Subaru press PDF document:
http://www.media.subaru-global.com/eng/whats_new/08_03_07_02e.pdf

**Johann Roodt** | [2012-03-12 at 15:02](#) | [Reply](#)

can anyone tell me more about the subaru engines used in aircraft applications? i have read that subaru have actually made them, and they are not converts from auto engines...i have heard there is a 2.0 L and a 2.5 I TURBO...and above all...the WEIGHT of these?



Thanks

J.R south africa

Martin Hamel | [2014-02-17 at 05:19](#) | [Reply](#)

Check this link out!!

<http://www.jodel.com/index.asp?p=subaru2&>

**Dennis Dent** | [2014-03-15 at 19:48](#) | [Reply](#)

have you found any six cylinder aircraft diesel engines.



Pingback: [\(09+\) What drives the Diesel engine tachometer? - Subaru Forester Owners Forum](#)

Jason Carpp | [2012-07-31 at 16:27](#) | [Reply](#)

I've been reading up on the Subaru Boxer diesel engine, and was more than impressed with how well it sells in other countries. Now, why the hell doesn't Subaru just sell it here in the United States? Never mind what the marketing people say what the market is ready for. What the hell do they know about what real Subaru drivers and owners want in their cars? Do they ask people "what engine do you want to power your car?" or "how would you feel about a boxer style diesel engine under the hood of your Subaru Outback, or Legacy, Forester, or Tribeca?" No, they don't. They assume that the American people don't want a diesel engine powering their cars. Well, there may be some who, no matter what you tell them about the advantages of diesel, will never be caught dead with a diesel powering their cars. But there are also people who are willing to have a more open mind and would give it a go before making a decision. If given a chance to choose between a 2 litre boxer gas engine or a 2 litre boxer diesel engine, I believe it'd be a close 50/50 who would choose the two engines.

**transmission fluid check** | [2012-08-08 at 22:48](#) | [Reply](#)

It's really a cool and helpful piece of info. I am happy that you simply shared this helpful info with us. Please stay us informed like this. Thanks for sharing.

[tuning subaru](#) | 2012-08-16 at 00:01 | Reply

Hey there, You have performed an excellent job. I'll certainly digg it and in my view suggest to my friends. I am sure they will be benefited from this site.

Pingback: [Need some advice: Subaru Forester Possibilities - Fuel Economy, Hypermiling, EcoModding News and Forum - EcoModder.com](#)

Szilárd Kiss | 2013-03-02 at 19:47 | Reply

Any new infos regarding the 2012 engine?
Thx

nicola | 2013-12-23 at 14:42 | Reply

Hey can anyone tell me where is the position in the engine of the common rail electrical outlet in order to fit box chip tuning, I am hownner subaru forester diesel 147 hp. Can anyone send me detailed pictures.
Many thanks.

Jason | 2014-06-10 at 04:23 | Reply

It's unforgivable that the Subaru Boxer Diesel has never been offered here in North America. I mean really! Can you imagine what such an engine could be used for? With its 2 litre displacement, I can see the engine powering a VW Vanagon that was originally powered by the VW Wasserboxer engine. How about a Corvair with a boxer diesel engine? Maybe a Corvair Ultra Van. Who knows? Hopefully in my lifetime it'll make it to the US market.

Toddlearound | 2018-03-20 at 07:43 | Reply

Try <https://www.boxeer.com/collections/engine/products/subaru-diesel-ee20-euro-5?variant=25936212422>
You can buy one here in the US. They are an amazing engine.

[Subaru Impreza Outback Manual](#) | 2014-10-22 at 10:32 | Reply

EE20 is a weapon if tuned right. Few guys down here in Aus have some pretty sweet setups.

Jason | 2014-10-22 at 19:05 | Reply

What I'd like to see is the EE20 Boxer Diesel here in the USA. We would also need specialists who know how the engine works, and how to maintain the engine to keep it operating reliably.

IP. Man | 2016-02-25 at 16:33 | Reply

Hello, I owne an 2011 Subaru Forester with EE20 Engine (Euro5) with broken crank shaft. Got a chance to buy a complete (everything attached) 2013 EE20 Engine (Euro6). Will this engine fit in my car? Cheers

Keith Walker | 2016-03-30 at 00:50 | Reply

I have a Euro 6 engine. Let me know what data I can pull off of the engine.
I am searching for the wiring harnesses, and all ECU's.

[subdiesel](#) | 2016-04-04 at 05:57 | Reply

Hi, not sure what you're after, can't really help out with hardware.

Keith Walker | 2016-04-05 at 01:37 | Reply

If you need Euro 6 engine data such as part numbers of components – I can help.
Regarding parts, I am searching for reputable online vendors who can ship to the USA.

SubForester4to5 | 2016-04-26 at 16:28 | Reply

Hi there. I have a 2009 Forester EURO4 – broken crankshaft. Purchased a EE20 2013 EURO5. But DENSO diesel system is totally different. I godt CPU and wires – but it seems almost impossible to have that EURO5 fitted in to my car. Any experience out there in what order I shall manage this shift...??

eric | 2018-06-24 at 09:32 | Reply

Did you ever get the engine fitted and working? Would be interesting to know as I had the same issue.

I.P | 2018-06-24 at 10:30 |

Sorry eric, I'm a different Guy but with the same problem. My Experience is, it would not fit. The entire common rail system and injectors have a different design, Turbo also, wiring and socket are different too. After two years off standby (because wrong decision) Subaru rebuilds my old engine for the same price I bought this Ebay-engine. Maybe with a willing Subaru Mechanic, this new engine will work in your old car because he has barrier-free access to the ECU program and settings. As I remember, My Subaru Mechanic told me they were able to fit this new Injection system onto an older engine but it is not easy.

I hope I'll find a broken 13-14 Outback to fit the spare engine in or somebody will buy it. cheers IP:man



SubForester 6to4 | [2018-06-24 at 16:42](#) | [Reply](#)

Hi

Not yet. I found out that the EURO5 purchased is an EURO& – and this give other problems. I solved it by purchasing a complete Forester 2009 EURO4 (without tax) and then shit engine – this other Forester once had a broken crank and of a new EE20 block – therefor this car was usefull for me.

But – I still have the EURO6 engine and I am thinking about change connectors/wirring at the engine injectors – so that I end up with an EURO& originally fitting the EURO4 wirring..

eric | [2018-06-25 at 16:10](#) | [Reply](#)

Thanks for the replies on this. I heard that the injectors and turbo would need to be swapped from the euro4 engine to the euro5 engine to make it work but I have not come across anyone that has done this 😊 Dont know what to do now..... 😊 I was thinking that maybe the EJ20Z engine is the same as the ee20z and then that might work or fit but again.. I can find no info on that engine (the EJ20Z) All I know is its a diesel.

Kutavyz | [2016-05-06 at 17:48](#) | [Reply](#)

Hi!

I've got a doubt, maybe a hard one. I've got the Forester MY16 with EE20 EuroIV engine.Theoretically, it have a low pressure and high pressure EGR system. I can't find if the low pressure EGR is after or before the DPF. I think this is useful, because if it's after the DPF i do not have to worry about soot acumulation in that valve. (?)

I think I think I've misunderstood this kind of system. Is there two EGR valves, one for LP and another for HP, or only one, but after the DPF?

Thank you so much, and sorry about my english...

subdiesel | [2016-05-07 at 06:22](#) | [Reply](#)

Hi! Yes, Euro 6 has high (like EGR in Euro 4/5) and low pressure EGR valves. Also an "exhaust pressure control valve". In total, they added two additional valves, all controlled by ECU of course. ~~Currently not sure whether LP EGR valve is after DPF.~~ Will try to decipher more details and post some updates soon...

Update: Yes, *exhaust pressure control valve* is after DPF, somewhere behind the engine to the rear, attached to main exhaust pipe. There, via T-fitting additional EGR piping goes to front right, close to turbo, where *LP EGR valve* is located. All those exhaust related valves as well as throttle have usual 5-pin-connectors (power, ground, position sensor, motor+, motor-).

Kutavyz | [2016-05-25 at 00:02](#) | [Reply](#)

Hi!

Thank you so much for taking care of my answer!

I've just seen your update. So, as I've understood, the only valve after DPF is the "exhaust pressure control valve". The other two are both before the DPF and they are prone to get dirty with soot. Am I correct?

I'm a little worried about it because the CVT is almost always at low rpm (1600-1800) and as far as I know, at low rpm, engines produce more soot. Is this correct?

PS: If it's any help, I've watched that with the A/C on, the EGR valve remains closed (0.0° on Torque app). I'll keep watching it.

subdiesel | [2016-05-28 at 16:28](#) | [Reply](#)

Hi!

On Euro 6 unfiltered soot is only routed through high pressure EGR loop – exhaust manifold, piping, HP EGR valve and intake manifold.

Being fed after DPF are: exhaust pressure control valve, (low pressure) EGR cooler, LP EGR valve, turbo compressor, intercooler, throttle and finally intake manifold.

Subaru diesel (Euro 4 and probably newer) stock maps tend to produce lots of soot at low rpm when accelerating – turbo needs time to spool up in order to deliver manifold air pressure. Can't see exhaust smoke with DPF attached. Low rpm and low power demand is fine – also extends distance between regens from my experience.

Haven't got Euro 6 log data yet.

Keith Walker | [2016-05-28 at 20:47](#) | [Reply](#)

My EE20 which is Euro 6 is a Honeywell turbo, so you can update the chart accordingly. Let me know if you need any details.

subdiesel | [2016-05-29 at 06:06](#) | [Reply](#)

Thanks! Will get back to you.

state50xriss | [2016-09-14 at 02:52](#) | [Reply](#)

have the crankshaft problems been addressed in the euro 6

mat | [2016-10-26 at 17:18](#) | [Reply](#)

I am Looking for vacuum pump for subaru EE20 , Does someone knows where I can buy one?

Bruno | [2016-12-26 at 16:00](#) | [Reply](#)



Looking for a little clarity on this engine, I am looking to buy a 2010 Forester (boxer diesel), is it true the entire engine needs to come out in order to replace a fuel injector?



Thanks for the help!

[subdiesel](#) | 2016-12-27 at 08:48 | [Reply](#)

AFAIK yes, for all Euro 4/5 models the engine has to be removed. Euro 6 not anymore I think.



Bruno | 2016-12-27 at 18:26 |

That's a big, expensive job. I live in France... Is there any way I could find a tutorial or how to on this? I have plenty of the tools needed for the job but no procedure and the ECU and calibrations would be an issue.



Thanks again!

[subdiesel](#) | 2016-12-28 at 06:23 |

Service manual will help.

Official access: [Subaru Technical Information System \(STIS\)](#)

Some models available here, i.e. Impreza Euro 5 incl. diesel:

<http://www.jdmfsm.info/Auto/Japan/Subaru/Impreza/2011/Impreza%202011/index.html>

For example: Visual Contents -> MECHANICAL(H4DOTC DIESEL) -> Engine Assembly -> Removal



Kim | 2016-12-30 at 10:12 | [Reply](#)

Hi. I have an -10 outback ee20 with broken crankshaft, can any one tell me witch years of motors that will fit in my car?
Kim



SubForester4to5 | 2016-12-31 at 13:28 | [Reply](#)

Pay the biggest attention to the EURO number (EURO4,5,6 etc) I did the failure, listening to a so called professional seller from ebay – uk seller. He just told me EE20 is and EE20 – so he sold me a brand new EE20 – 24 miles EURO 6. No matter how much I struggle I will never have this up and running in my Forrester EE20 EURO4.

So I have an brand new EE20 24 miles on the shelf.) EE20 Turbo Diesel Engine for 2013-2014 Subaru Legacy Outback & Forester, Turbo Diesel.

This is a Genuine Subaru part and in Excellent As New Condition.

It has ONLY DONE 24 MILES (Yes 24 Miles) since new and was removed from a 2013 Model Showroom Displayed Subaru Legacy Outback, Turbo Diesel and it fits all the Turbo Diesel Subaru models, i.e. Legacy Outback, Forester, & Impreza.



[shapebuster](#) | 2017-02-04 at 18:28 | [Reply](#)

Hello, I'm writing from Portugal. I am thinking about buying a 2nd hand Subaru Outback, of 2010 but before the face-lift. The car as 120.000km always maintained in Subaru Portugal.

Is there a big risk of getting into trouble by buying it. How much more km will I get?

Thanks in advance



Darko | 2017-02-08 at 20:12 | [Reply](#)

reading about cleaning MAF on Subaru, somebody suggest every year at least one cleaning, got any knowledge about it.

Best regards

SID



Hiram Cisneros | 2017-02-17 at 23:52 | [Reply](#)

Hello, I have an 09 impreza EE20 turbo diesel 2.0 from Poland. What coolant do you recommend for this car?



zach | 2017-04-08 at 07:10 | [Reply](#)

What EE20 boxer diesel does the 2014 Japanese forester or outback run is it Euro 4, 5, 6?



[subdiesel](#) | 2017-04-08 at 09:47 | [Reply](#)

I don't think there are JDM (Japanese domestic market) versions, Japan is not a diesel country after all.

I have this ROM for example:

2014 Forester Turbo Diesel 2.0 6MT EDM 108 kW / 147 PS

CID JF6A003A

ROMDate 2014-08-05

ROMID 9244D87007

CVN 6193E3D2 DBD1F80E

PAK 22611BC490-1

It is Euro 5 for sure, 1.5 MB size.

AFAIK, last Euro 4 models were MY2010, MY2015 and newer are Euro 6.

By the way, CVT transmission for diesel first available with: Outback MY2013, Forester MY2015.



Jack Dhaliwal | 2017-06-17 at 13:51 | [Reply](#)

Hi there, can you please recommend a tool that I can use to perform DPF force regen on my 2017 diesel forester. Your help is much appreciated.

Regards,

Jack D



[subdiesel](#) | [2017-06-19 at 04:29](#) | [Reply](#)

Not really, I am not aware of available 3rd party software, little info in forums it seems. OEM Subaru Select Monitor at dealerships is first choice if possible.

I thought about creating tools myself, selling enough to cover R&D expenses is the problem...

Juri Lyubarski | [2017-07-23 at 09:58](#) | [Reply](#)

Hi. Motor EE20 worse motor I have not seen in 30 years of working in the service. Throughout Europe many, many machines for sale with motor failure. And how many were replaced under warranty? What other owners of the failed release? They need their money to pay for the mistakes of the plant. Common failure is the fracture of the crankshaft

Bogdan | [2017-08-02 at 20:22](#) | [Reply](#)

Hi there. unfortunately I have to admin Juri is right. I had MY09 Forester and sold as I was afraid of the broken crank shaft issue. Now reading lots of forums I found out that later models (>2011) still have this problem, but not that much as the first generation. I was looking now for a 2012-2013 Forester but now I have doubts. The local dealer says the euro 5 models has no longer this problem, but I do not trust anymore. Even with this I am still a Suby fan but I found myself in the point that I have to choose something else (really difficult).
Cheers!

Fred | [2018-01-03 at 17:21](#) | [Reply](#)

Hi Bogdan,

I have been told the EE20 Euro4 is now fitted with a stronger casing & better design which doesn't affect the crank anymore. I do own a 2012 EE20 Euro4 Outback. After 310.000 km still going strong. BR Fred

Fred | [2018-01-03 at 17:33](#) |

Euro5, sorry, 2012 Euro5 EE20 Engine

Eric | [2017-12-10 at 12:44](#) | [Reply](#)

Hi. I had a question maybe you can answer. I have a 2008 legacy and yesterday it started to knock, so I am assuming that its dead. So.. I was thinking about replacing the ee20 e4 with an ee20 e5. Will this work or is there much modifications to do on it? Any info is greatly appreciated 😊 Cheers

[subdiesel](#) | [2017-12-12 at 07:00](#) | [Reply](#)

Hi, replacing Euro 4 engine with Euro 5 is normal procedure anyway through official Subaru dealerships, no EU4 short/long block spare parts in stock. Plenty of car owners have already made this conversion.

You'll keep EU4 specific parts like ECU, injectors, turbo. Recommended: thorough testing of injectors and replacement if necessary.

Eric | [2017-12-12 at 15:37](#) |

Thanks for your help 😊 If I was to replace the crankshaft in my old Euro4 with a Euro5 one would that be as good as replacing the engine? assuming everything else is ok? If so, would you know the part numbers of whatever I need to replace to make it good again?

[subdiesel](#) | [2017-12-14 at 09:12](#) |

I am not competent in mechanical parts, sorry! AFAIK crankshaft itself is not the problem, just the result. You will need careful inspection of block, crank bearings etc. There are threads on various forum sites that might help.

Dridescu | [2018-01-11 at 08:51](#) | [Reply](#)

Hi I am new here and in Subaru engines. My EE20Z engine car is having two major problems.

- 1- The Turbo is not spooling (no power at all) even pressing the accelerator to the max. Turbo is fine according to the mechanic. The engine is fine. What could be the problem or problems? please please help me.
- 2- the steering is heavy (almost impossible to turn). What could be the problem?

No mechanic in my area seems to know (Because Subaru is not popular here in Algeria and Toyota used to repair them but any longer)

I am hoping a kind soul out there could help me. thanks

[subdiesel](#) | [2018-01-18 at 16:06](#) | [Reply](#)

Hi! Sorry for the delay. Obviously your issues don't seem to be a common problem. Impossible to judge without further details I am afraid.

The electrical power steering control unit as well as the ECU can be diagnosed through OEM SSM3/4 dealership software (DTCs, parameter IDs etc.).

ECU could be in limp mode, again, in need of trouble codes, these can be read via cheap generic OBD device and app. Any mechanic should have such device at least.

What model, especially model year, is your car? Euro 4/5/6?

Dridescu | [2018-01-19 at 06:08](#) |

Thank you so much for helping. Model is 2008 and it's Euro 4. I have an Autel OBD scanner but I do not know what to look for.



Eric | [2018-01-11 at 17:46](#) | [Reply](#)

The DENSO Commonrail Diesel high pressure pump... does anyone know how to put that back in? is there any special way to fit it does it need to be set up a certain way? Thanks



Jacob Foorester | [2018-03-19 at 14:41](#) | [Reply](#)

Cheat an EE20 EURO6 to think it is an EE20 EURO4



Hello

I have by wrong advice bought an EE20 EURO6 (Diesel). This does not fit into my Forrester EE20 EURO because of other wiring ECU etc. etc

Anybody in here have thoughts about my plan that simply is to unmount everything from my new EURO6 except injectors off course but anything else, replacing alu-manifold, wiring, turbo in other words refit EURO6 with all surrounding elements from my broken EURO4.

I know the difference btw. DENSO common rail system is G4(EURO6) and G2(EURO4). But I wont tell the G4 intectors about that !

I will have an diesel specialist to set the G4 injectors to common rail pressure 25 MPa instead of 30 MPa.

My plan is to have the EURO6 EE20 fitted as an EURO4. I have to keep the original ECU.

Any valuable input are welcome and I promise to keep your updated if I fail or succeed 😊

eric | [2018-06-24 at 09:37](#) | [Reply](#)

Hi Again the crankshaft went on my EE20 euro4 2008 boxer diesel. I have a chance to buy an EJ20Z 2.0 Diesel Engine from a 2011 forester. Would this just swap over ? I assume it would as its just the J that is different no? Any insight would be great. Thanks



Andy Austin | [2018-08-13 at 08:31](#) | [Reply](#)

Hi there really need help with a very weird problem that I can not find any information on.

I have a 2009 Legacy with a nearly dead EE20z Euro 4 engine, I read and understand that the later Euro 5 Short blocks can be used to do a short engine swop provided all euro 4 fueling components are transferred over most people who have successfully done this repair appear to have used a short block with subaru part No of 10103AC270, I have come across a Euro 5 short block designated for a 2010 Forester with a subaru part No of 10103AC210 now the guy selling this is saying this will not be suitable to use in a Euro 4 Legacy as it has a water pipe casting missing from the bottom of the block that all Euro 4 variants require he cant be any more specific than this, he only found out himself due to someone else purchasing one of these from him and then finding out that this water pipe was blanked or just not in the casting and he apparently has tried to drill and tap this out but has since come back to the seller asking if he could get him a short block with this water pipe, so all a bit confusing can any one shed any light on the differences of this 10103AC210 short block compared with either the old original Euro 4 fitted to the 2008 first gen cars or the Euro 5 10103AC270 short block that seems to have this pipe???



Regards Andy

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