

Fitting a full size Intercooler to a 200Tdi (review)

After fitting the 200Tdi engine as replacement for the 2.5 Diesel Turbo it was getting time to replace the old intercooler unit. Corroded and leaking it was of no use anymore. For replacing it you can use a standard one which does fit straight into the radiator frame or an upgraded one which will improve the power of your vehicle. I opted to try out the full size one (see picture) from Allisport (www.allisport.com)



Removing the old unit:

Removing the old unit is easy, remove the hoses and undo the bolts of the top panel and take off the cover. Remove the plastic fan cowl or loosen it a little bit. It will be easier if you remove it but then you will have to fit it back again. It is also wise to remove the front panel and the top panel with the bonnet lock and the two bars supporting it. I did not remove the bull bar but it will make fitment much easier if you do remove it.

Now you can carefully pull out the old unit (see picture). The radiator on the left has been re-cored before, you can see it looks like new!



Fitting the new Intercooler:

After removing the old unit you can start fitting the new one. The instructions supplied are basic but clear enough. You will have to cut off the bottom edge of the front panel, the little edge which fold inwards to the radiator. These do also hold the two plastic nut for the radiator grille. The new intercooler has some small brackets which do fit to the chassis supports previously used by the two supporting bars. You can use these and refit the two rubber bushes from the old intercooler. Better is to replace the bushes anyway (part number 572312). The intercooler can now be dropped into it's place.



As you can see it will be a tight fit in front of the radiator and there is not much space left for the front panel and plastic grille.

Fitting back the top and front panel:

After dropping in the intercooler you can fit back the top panel with the bonnet lock and the front panel. You will have to drill some holes which take the bolts for the top supports and it might not fit properly. If needed you will have to bend the support strips a little bit to make them fit properly. Be careful and do not bend them when fitted to the intercooler already because you might damage the intercooler.



It is difficult to see because of the bull bar but the two top supports are at the left and right corner (see picture above). Making these fit properly did cost me most time of the job.



Here you can see the front panel in place with the removed edge. Make sure it is not sharp because it might otherwise damage the intercooler core. The front panel on my vehicle is a bit bent and butchered but if you've got a straight one it will look better (see picture above).

Fitting back the radiator cowl:

The instructions do say that you might have to modificate the cowl a bit because there might be not enough clearance for the two intercooler pipes going inwards. On my vehicle I did have to remove a lot of plastic to make it fit properly (see picture below).



For both pipes (top and bottom) I did have to cut out the plastic.

Fitting the new hoses:

Together with the new intercooler I decided to replace the old an greasy rubber hoses with new blue silicon ones (see picture).



I should have received two straight ones and two bend ones but the kit above is for the standard 200Tdi intercooler. The 2nd straight hose I did need to fit the full size intercooler was send to me later by Andrew from Allisport FOC.

They look nice and shiny and should help to keep the turbo pressure inside the pipes! The air intake hose need replacement to, right now they have been taped with black 'Duck Tape' which is actually very good for repairing the leaks & cracks in these hoses. However do not use it for repairing leaks in the intercooler hoses.



Fitting back front plastic panel (finished):

After fitting back the panels and the new hoses the job is finished. There is not much clearance between the X9 winch control box but there was not much when I started anyway. If you do not have a bull bar fitted I suggest to reinforce the plastic grille or create some other kind of extra protection for the intercooler. Its very close to the front now and can become easily damaged.



Does it work?

After fitting the intercooler (and spending the money) the question will be does it work (power improvement) and does it affect the cooling of the engine. The unit is blocking the radiator core a bit so I was a bit concerned.

For a start I went to France and must say the heavy 127 Quadtec did perform quite well, better than some weeks before on another tour to France. As written in the instructions I did tune the turbo waste gate a little bit (however much less than advised) and cruising down South was quite nice. Doing 70mph easily with rooftop tent fitted on top of the cab. You can tune the fuel pump also but I decided to leave it like it was. Mainly because increasing power too much might damaged my 'old' engine/turbo with 95.000 miles on the clock.

Comprehensive info on tuning the Tdi engine (turbo and pump) can be found here: [Land Rover Enthusiast Forum \(tech. archive\)](http://www.lrenthusiastforum.com/ubbthreads/showthreaded.php?Cat=&Board=LR_technical&Number=91564&page=&view=&sb=&o=)
http://www.lrenthusiastforum.com/ubbthreads/showthreaded.php?Cat=&Board=LR_technical&Number=91564&page=&view=&sb=&o=

Or on this website: www.dodgeram.org

Temperature/cooling:

Going up hill went fine and the vehicle did not get much warmer than normally. Only one mountain, the Cold du Galibier, did get the temperature gauge close to the red. It could be because I was driving with low revs in 2nd gear and after switching back to 1st the temperature dropped to normal.



With doing 9% uphill the heavy Quadtec started to overheat a little bit in 2nd gear. Maybe not very strange anyway! So all together I'm positive, the unit does improve power and it does not overheat under normal conditions. After fitting the intercooler and returning from the trip to France I did decide to fit my 'old' Kenlowe HD fan to the back of the radiator. By doing so the airflow right behind the radiator core would be improved and hopefully this will improve the cooling and fuel economy.