

## 1992 TT Stealth with 6G74 swap FOR SALE!:

Last updated 10/20/05

## UPDATE I have over 1000 miles on this swap and it is FOR SALE! for \$14,000:

I have put over 1000 miles on the engine running up to 13 psi of boost on 93 octaine gas. So far I have had no detonation problems. The Finished installation looks stock!





## Why I did this conversion:

The answer is that I personally believe a 6G74 has more potential than the 6G72 engine. The deck height on the 6G74 engine is 18mm higher than the 6G72 engine so it can be stroked to over 4.1L. More cubic inches means more potential power on pump gas which will hopefully make this an awesome street engine.

For more in depth study of the engine specifications and stroker math! [6G74 Details](#)

For more side by side parts comparisons! [6G74 Part Comparison Pictures](#)

This swap only requires a few parts to be modified see details here! [6G74 Parts Modified](#)

More pictures [More 6G74 Pictures!](#)

## PROs and CONs of swapping to 6G74:

### PROS

Higher deck height means it can be stroked to over 4.1L

More cubic inches means more low end torque

More cubic inches means that less boost is required to get same power level as 6G72, more power on pump gas!

If you try to you can make the engine look stock to anyone but a expert on 3000GT and Stealths.

a 4.0L twin turbo engine is basically a 2.0L engine for each turbo. There are a huge amount of DSM turbo optimized for a 2.0L engine. More options are always good.

### CONS

Engine swaps are not emissions legal, although it would be easy to hide to most people

Bigger stroke means higher pistons acceleration which could limit RPMs

Wider engine means many accessories don't fit w/o modification, like alternator and P/S pump.

Higher engine means there is no room for strut tower bar, and engine may hit some hoods

Heavier engine and more weight on front will mess up the cars cornering balance

With stock pistons higher compression ratio (10:1 vs. 8:1) means that lower boost will be needed to prevent detonation

6G74 Block does not have oil squirters to cool pistons so lower boost may be needed to prevent detonation

## What 6G74 Engine should you buy?:

You must be very careful selecting the engine. I bought mine from Eric Japan Engines in Chicago (773) 463-8108

All of the 6G74 Engines will bolt to the transmission but the accessories vary a LOT.

Avoid SOHC Diamante and Montero motors, they need a LOT of modifications to work

94-96 DOHC 3.5L Montero motors are a decent choice but they have cast cranks and accessories still need a lot of modifications

The BEST engine is a JSPEC 6G74 engine from a Front wheel drive Mitsubishi Debonaire, Pajaro, or Kia Grandure

(mitsubishi made engine)

I would suggest that a JSPEC FWD 6G74 engine is the ONLY engine to consider, This web page is dedicated to this engine. The Engine I recieved had a forged crank in it! That alone makes this the only engine worth considering

## 6G72 Parts fit directly on 6G74 Engine:

The parts that are directly interchangeable, or that must be reused from old 6G72 engine are:

Crank shaft pulley is physically the same size but the center wieght is a little different, us the 6G74 pulley if possible  
Radiator fill tube on top of thermostat housing.

The plate that goes between the engine and transmission needs to be re-used from 6G72 engine.

Oil filter mounting bracket from 6G72TT engine is needed if an oil cooler is used, all TT engines use oil cooler.

The Stock 6G74 Engine oil filter bracket shown below



The 6G72TT 3L oil filter bracket bolts right to the 6G74 3.5L block



Flywheel from 6G72 engine needs to be re-used

Throttle Body from 6G72 engine needs to be re-used.

It looks like either upper intake manifold will work.

6G72 Engine mouting brackets have to be re-used

A 6G72 93+ oil pump is a direct fit!

A 6G72 93+ Water pump is a direct fit!

A 6G72 93+ oil pan will bolt to block but doesn't quit fit.

A 6G72 Radiator Fill neck is needed, Note The Turbo housing has a extra water fitting for turbo coolant line.

## 6G74 parts you MUST get from JSPEC engine:

Make sure you Jspec engine has the following parts or you are going to have a VERY difficult time getting them:

Lower intake manifold on 6G74 is wider than a 6G72, Note 6g72 Upper intake manifold will bolt to 6G74 lower intake plenum

Below is 6G74 3.5L block with correct lower intake manifold



Below is 6G74 3.5L block with smaller 3.0L 6G72 lower intake manifold



The 6G72 Lower pleum doesn't fit at all.

Lower Timing belt cover

Upper timing belt covers

Water Valley crossover tube that goes from drivers to passenger side of engine

They are different because the tube support bolts to the head, which is in a different location.

The tubes are so close in shape that I am sure a 6G72 part could be made to work with a litte effort.



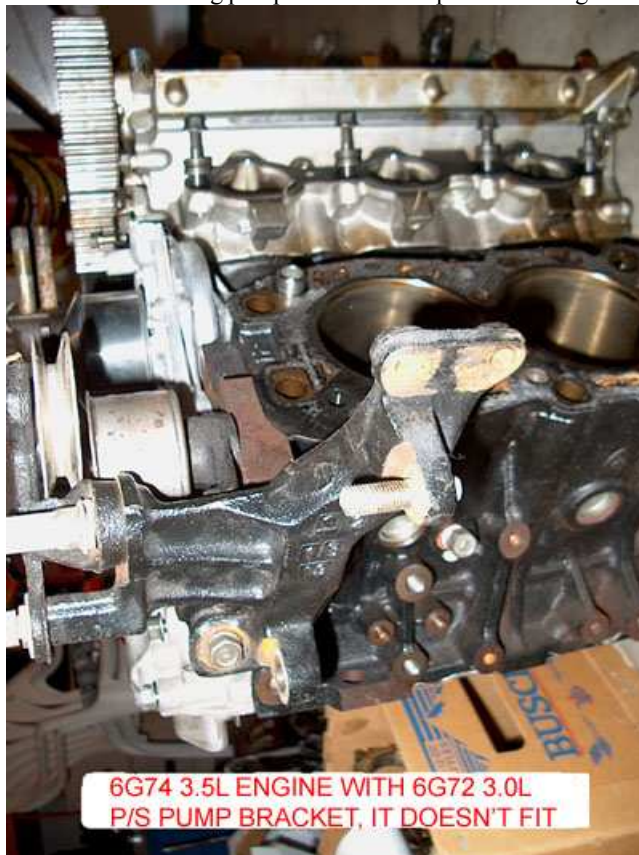
Water Housing that goes from front to rear head on passenger side of engine

The 6G74 heads are farther apart so that the 6G72TT 3.0L water housing does not fit .

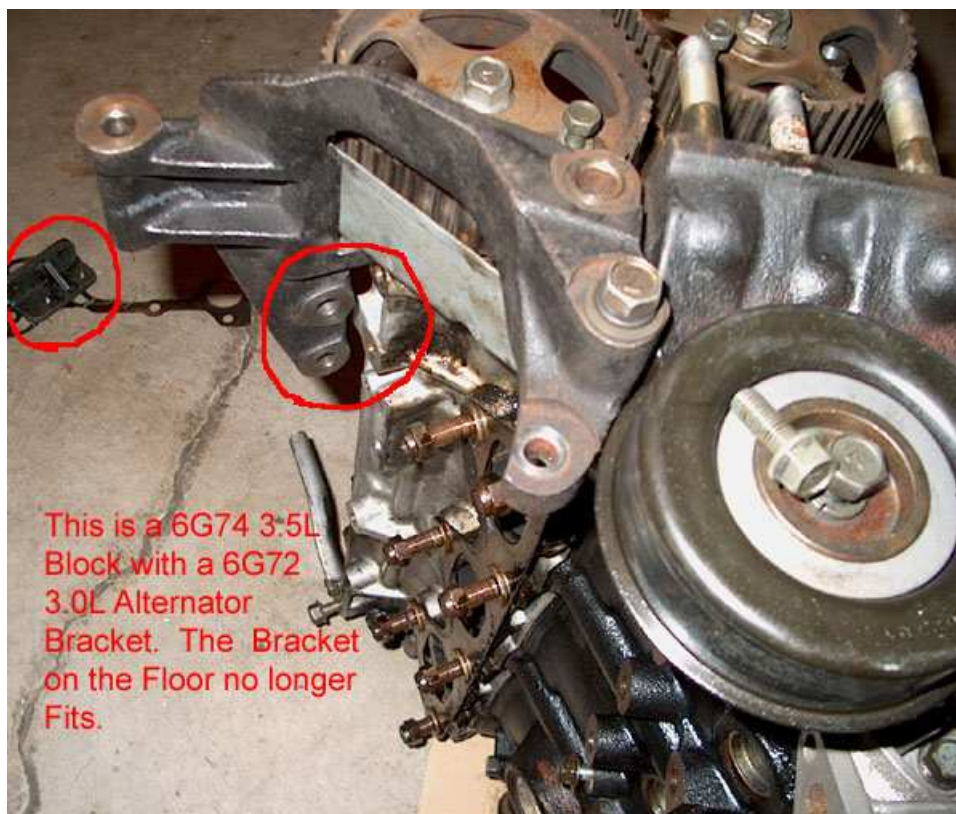
The 6G74 water housing bolts up but if you have a turbo car it must be modified supply and return water fittings added for turbos



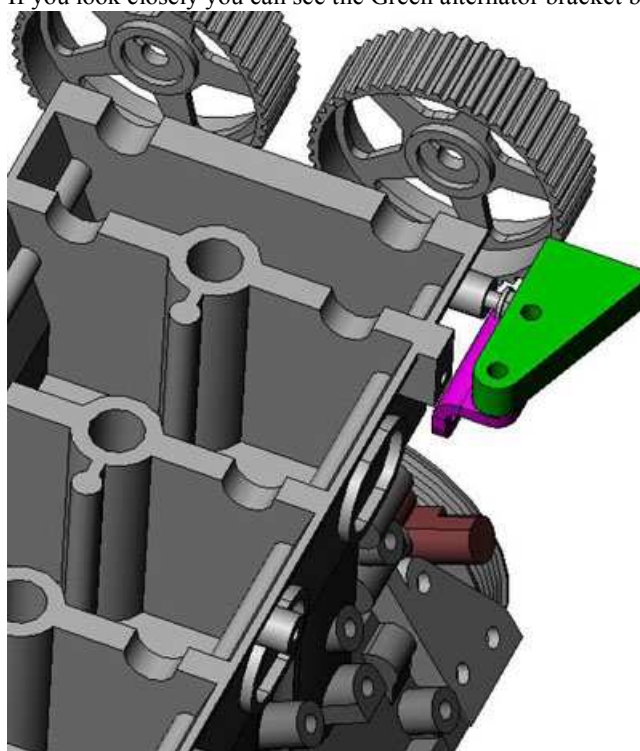
6G72 Power steering pump bracket AND power steering belt tensioner pulley, The 6G72 parts just don't fit.



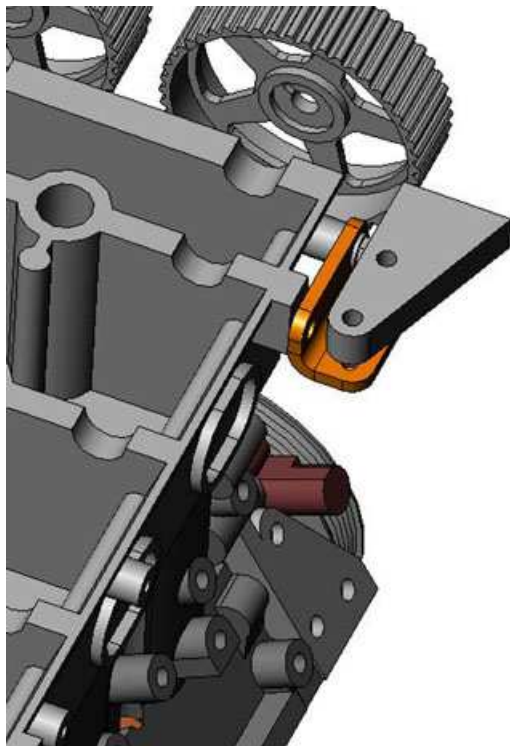
6G72 Alternator Mounting bracket: The best way to do this swap is to use the 6G74 Bracket I figured out that the 6g72 bracket can be used but only if is cut down and an adpater bracket made.



This is a computer model I made of 6G74 engine. I only modeled part of the alternator bracket (thats green). This first picture shows the stock adapter bracket location (thats purple) for a 6G72 engine. If you look closely you can see the Green alternator bracket blocks the mounting holes in the 6G74 head location



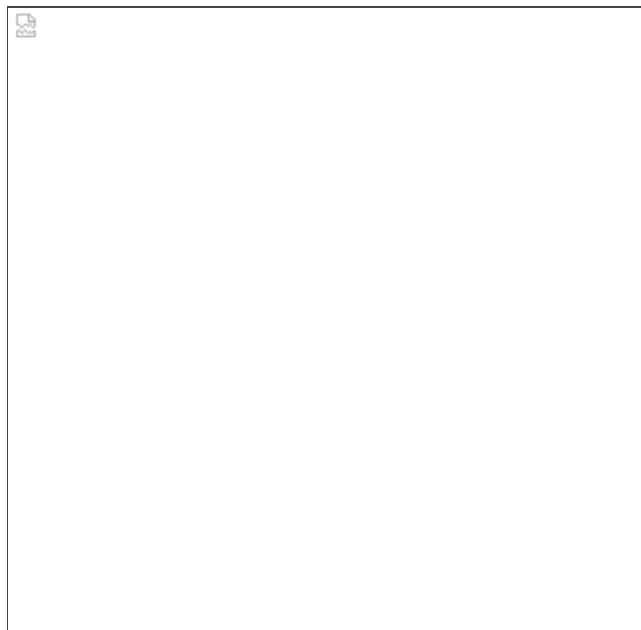
This second picture shows the new bracket I designed in orange. The green bracket is just far enough from the heads for room for a mounting bolt. The new bracket mounts extra low and what is not shown is some flat spacers I will use between the alternator bracket and my new bracket, SIMPLE!

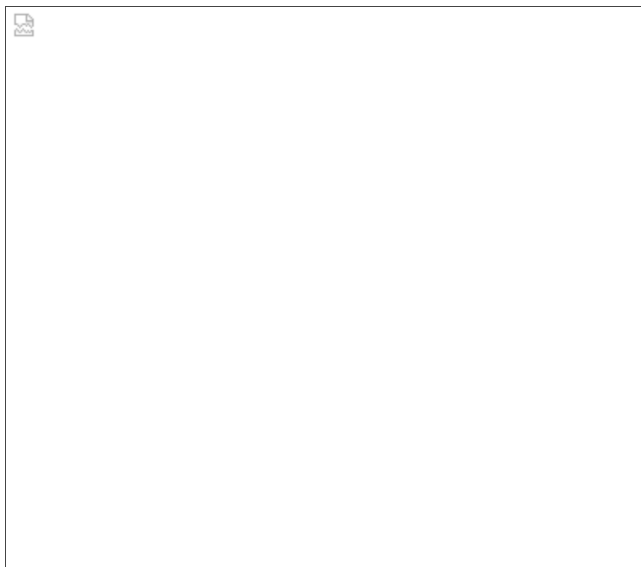


### Parts you MUST modify:

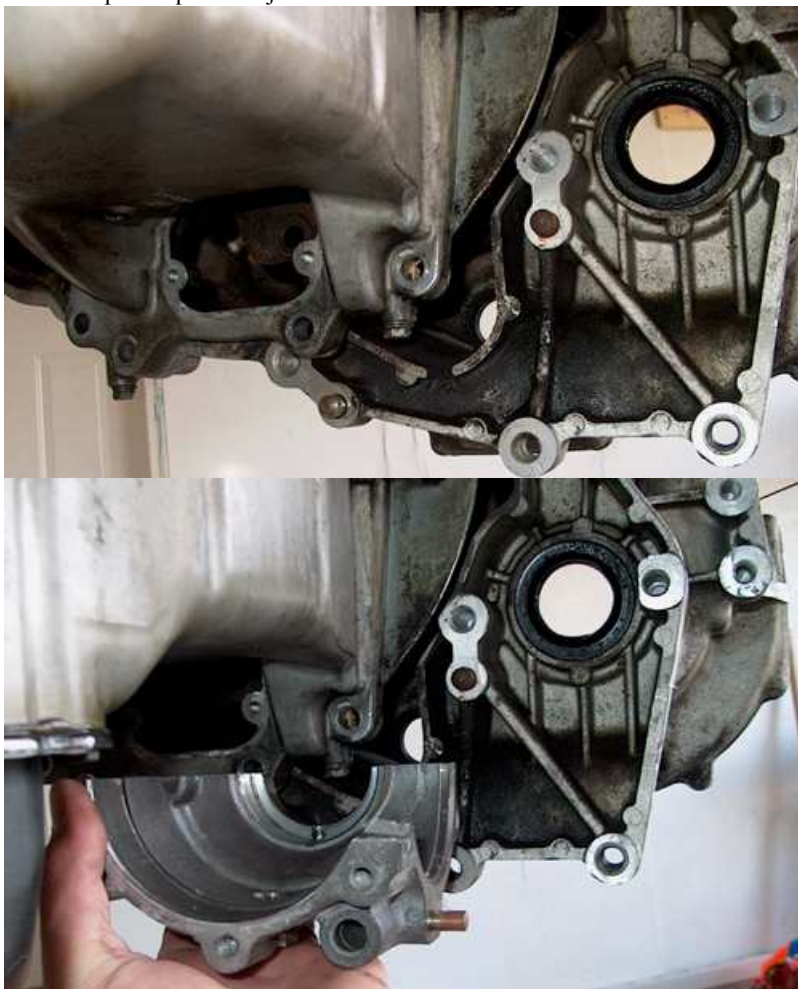
6G74 Water crossover tube must be tapped for coolant lines to go to turbos. I had 3 aluminum pipe thread bungs welded on.

The 4th water fitting is in the 6G72TT radiator cap housing.

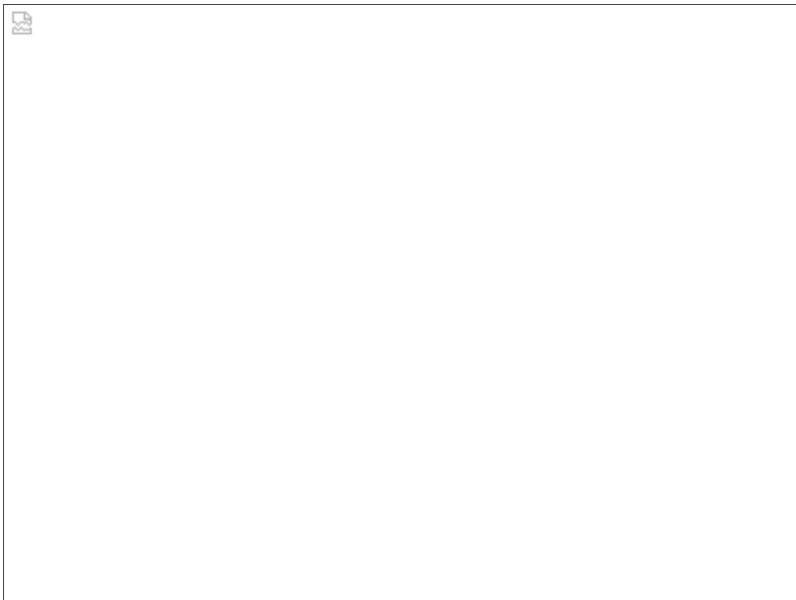




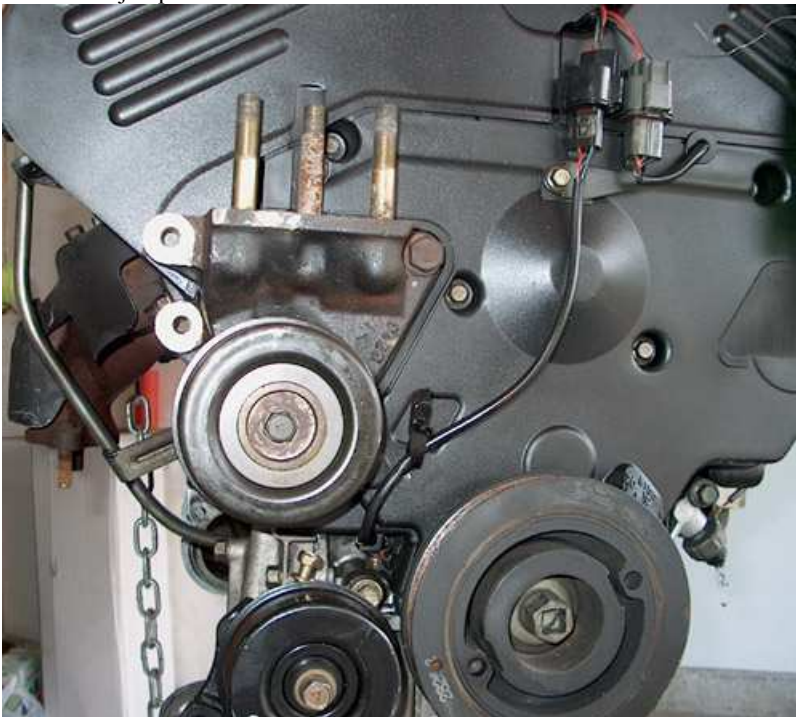
6G74 Oil pan requires major modifications to make clearance for AWD transference.





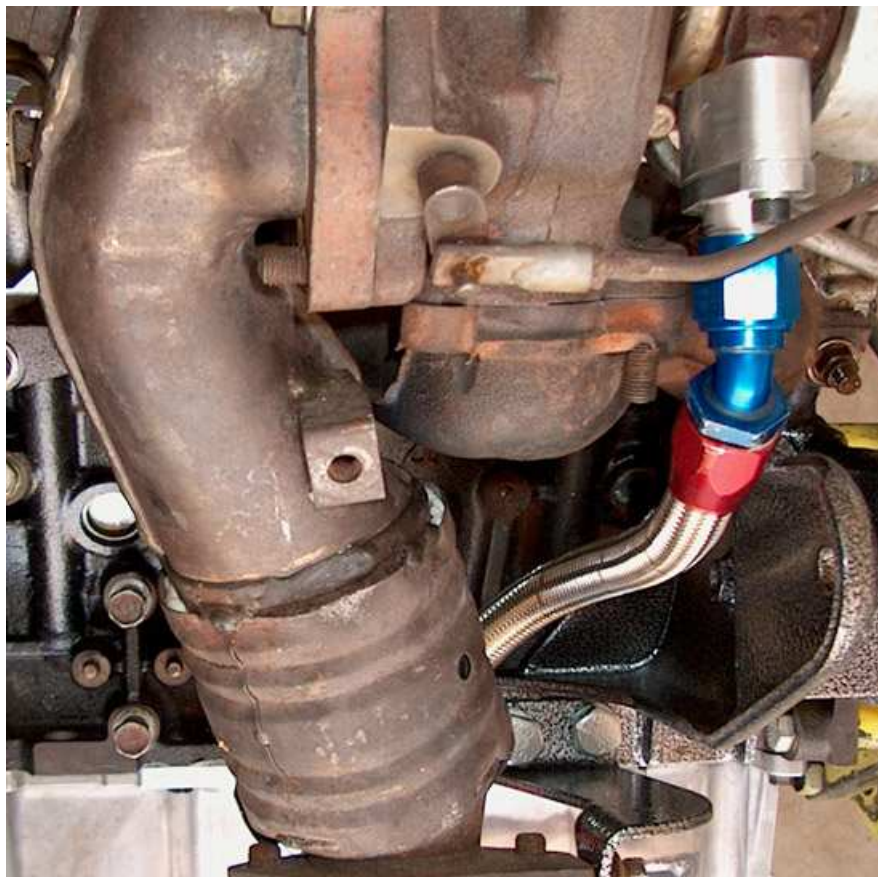


6G74 is set up for 4-bolt main style Crank angle and Cam angle sensors, 91 & 92 cars will need to install a cam driven sensor or a jumper harness.

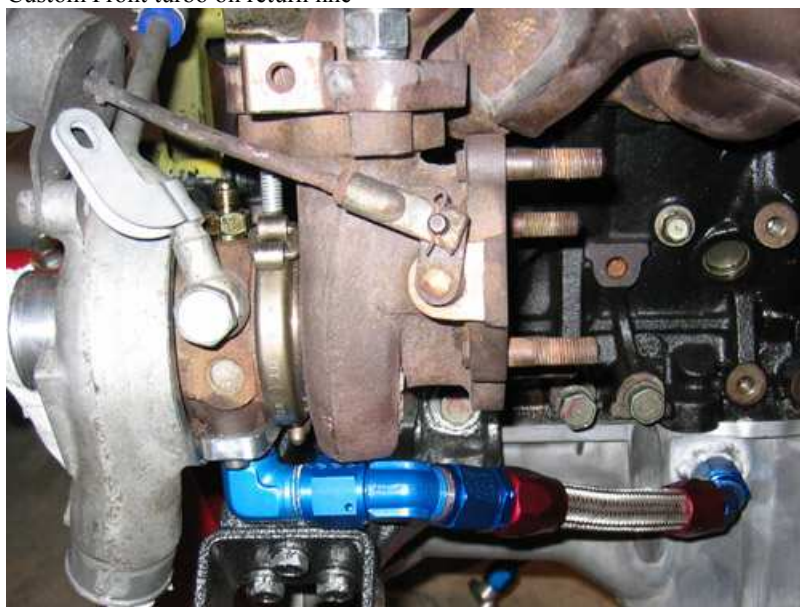


With a turbo Conversion the 6G72 3.0L Turbo oil supply and retrun lines must be lengthend. They are 20mm too short on 3.5L

I Made custom steel briaded lines, these were VERY expensive and time consuming.  
Custom Rear turbo oil return line



Custom Front turbo oil return line



If I had to do this again I would  
Just cut stock oil return lines and clamp a 4" piece of #12 braided hose to extend to oil returns.

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