

My version of a Pinto modified sump

I had seen many types of modified sump on the Internet, most had chopped about $1\frac{1}{2}$ " off the bottom and replaced the lost capacity by welding a little box on the right hand side. I was not too keen on this mainly due to getting the engine in and out, I am always a bit clumsy at this, I keep bashing the engine on whatever gets in the way and another bit sticking out of the side would be a prime target for a bashing. Also I could not see how the clutch cable would not be compromised with this addition.

Firstly, remove the sump from your engine, mine looked like it had completed the Paris/Dakar rally and then been left on the seabed for a couple of years.



The next thing is to mark up and remove the top (now upside-down) of the sump. Removing anything more than the lowest point of the bell housing is a waste, so I measured $5\frac{1}{2}$ " from the block mounting flange and marked it with a chalk marker. I clamped it in the vice with wood either side of the flange to protect it, and hack sawed off the top.



I then welded in sides to the sump using 16g steel and cut the front edge to $4\frac{3}{4}$ " and then cut back to the main retaining pan of the sump.



Note the 3 cut outs in the remains of the original sump profile to act as a baffle.
As seen from the other side.



The inside before I fitted the inner baffle



I drilled holes in the original upper pan to aid drainage (probably won't make any difference). The inner baffle was made up from 18g steel, and was made by using the lower section as a template, cutting a hole in it to allow the pickup gauze to go through and welding it in 1" above the base. This will stop the oil surging up the sides under heavy cornering, the original Ford baffles were retained for heavy breaking and acceleration.

A shot with the top (bottom!) welded in place, from the right and the left.



And of the sump in place



And just before the engine/box were fitted.



The oil pick obviously must also be modified. Heat the strainer gauze carrier with a blowlamp until cherry red, and twist off with a pair of pliers. It is braised on and comes off really neatly using this method. Cut the supply pipe so the strainer when refitted will be about $\frac{1}{2}$ " from the sump bottom when fitted, this (on my sump was right at the beginning of the first bend in the pipe, so the pipe surround had to be tweaked so the strainer sat level. I then welded the strainer back onto the pipe without any pinholes, as this would allow the pump to suck air instead of oil, which is never a good idea!

I am unsure of the capacity of the new sump, but I am sure that it will be more than the original, not a bad thing, for cooling and to ensure that the pick up will always be covered.

Any problems or queries, email me at mark@crofthooper.fsnet.co.uk

Good Building

Mark