

Engine Fitting.txt

Jeff Meehan

Joined: 01 Jun 2004

Posts: 27

Location: Cheshire

Posted: Thu May 05, 2005 8:47 pm Post subject: Fitting engine into frame

I have just got back my frame after powder coating (tastefully black) and wondered if there is any optimum way of fitting the engine which will help to preserve the pristine finish on the frame. I have tried several methods before having the frame done but I could never work out a way where it seemed easy or correct.

Has anyone figured out a sequence where this can be accomplished single handed in the very close confines of a crowded workshop? Any advice really appreciated.

'Cheers'

Jeff Meehan

Back to top

Roger Moss

Joined: 31 May 2004

Posts: 242

Location: Leicester UK

Posted: Fri May 06, 2005 12:45 pm Post subject: Fitting engine

Hi Jeff

I am sure that we all have different ways.

I use three cheap scissor jacks

Put a couple of long 5/8 bolts into the front engine bolt holes in frame not protruding inside but only outside

one jack each side about 6" out from the frame

Lift up bike until front wheel about 8" from ground

(I do this either on a hydraulic workbench or on an old low sideboard type bit of furniture as I have back injuries and can not work stooped down for long, so I have arranged the bike to be on an elevated surface)

Stand engine on rear lower engine bolt bosses with cylinder standing vertical and axis in line with bike.

Slide from front between frame tubes.

When behind front lugs, rotate engine so that it is across frame but still standing upright.

Lower bike with jacks until front wheel is about 2" above deck.

Engine can start to tip forward towards correct attitude as you lower and fit a wood block of about 3" under the engine as it tips.

Fit hoses and clips as you lower and feed them on as you lower

I try now to get the third scissor jack under the engine bottom deck at a point where the front radius meets the flat bottom.

You can put a sheet of plywood or card in front of the engine to prevent it scratching the frame

After you get the front hoses in, these will steady the top and you can now adjust the frame on the two jacks and the engine on one central jack until you are about in position.

(All this is best done with the gearbox and undertray out, or the undertray pivoted down on its back bolts so as to give "fighting room")

Position to fit rear top engine bolt

You can now drop the frame so that the front wheel is on the deck.

Engine Fitting.txt

Adjust engine until in about correct position.

Re position two scissor jacks under frame clear of front bolt holes.

Fit front bolt

Re position jacks under front engine bolt nuts.

Swing up undertray

Fit lower rear engine bolt.

Notes

This is from memory as after some years you do things so automatically that it is sometimes difficult to remember it step by step.

Please, if you have the engine out, do put in two hack saw slots in the case bottom deck about 1 3/4" long about 3/8" in from each inner face of the bottom rear bolt lug, running towards the front of the engine and ending in a 3/16" dia drilled hole to stop a crack developing.

Although the case is designed to clamp on to the undertray, it can not do so, as it has the bottom deck acting as a strut preventing this.

This is why you see broken rear bottom engine lugs and badly fretted faces. The slots allow the rear bottom lugs of the case to flex a little and thus clamp on the undertray correctly.

Please note that it might be that your case and undertray is already badly worn on these faces, in this case fit shim washers to take up most of this wear space before you clamp up.

Finally

Best Of Luck!