Page 1 Taking it out, the gearbox that is: ©dodge50.co.uk

ZF 5 speed fitted to dodge 50 series 1985-93 with non turbo engine By Greg.

start by disconnecting battery

To Remove the gearstick start by undoing the cross head screws holding the rubber gearstick gator to the floor, then by pushing down and turning the locking domed cap the gearstick will come upwards out of the hole it is in, when withdrawing the gearstick watch out for the two plastic spacer lugs that are fitted to the two metal guide pins that stick out sideways under the dome cap (take them off and keep safe)

remove exhaust cos that has to be got out of the way

remove clutch slave cylinder and tie out of the way, you don't need to undo red pipe!!

you do not need to remove the starter motor

undo propshaft from gearbox, you shouldn't have to undo the two bolts holding the center bearing just tie the prop end against the chassis out of the way.

remove two wires from reverse switch at rear of gearbox and remove speedo cable and tie out of way

support the rear of the engine (big block of wood under sump with jack is ok) i usually use a trolly jack and wood block or sometimes just a thick ratchet strap and ratchet to hold the engine up as the two main gear box mountings are essentially the rear engine mountings

Now you will need a 24mm spanner and a 24mm socket (am sure thats the right size) and you will need to undo the two big bolts that are eitherside of the gearbox, dont worry nothing will fall off when you do, you wont be able to pull the two bolts out you just need the nuts undone all the way but left on two turns.

go around the bell housing undoing all the nuts BUT then do a top and a bottom one up again, not to tight though.

you now need to support the gearbox, i have always dropped a strap down through the gear stick hole and slung it around the gearbox and the other end up back through the hole on to a bar that is supported by two short axle stands or the bar set across the seats if a van or cab but put wood on the seats first for better support, take the strain a bit with strap (i use a hand pully between bar and gearstick hole to tighten / lower strap)

If you are using a pit and have access to a gearbox support jack from underneath thats even better Continued Page 2

Now you need to undo the 3 bolts on each side of the gearbox mounting bracket which are on the inside of the chassis channel, they are fiddly to get to, one can be got from inside the cab on each side, sometimes two are accessable, should be 19mm bolts (sometimes 18mm though) which should be encapsulated so only a spanner or socket is needed, i use ratchet spanners after cracking them off with a t bar and socket, or a cut off spanner with metal tube as extension bar.

once they are all undone and taken out you need to give it a smack with a club hammer to dislodge it, it won't fall because the to 24mm nuts you undid earlier should still be on a couple of turns, once you have some movement (don't worry gearbox will not fall out if strapped up / supported as above) you need to remove the two 24mm nuts and wrestle the gearbox mounting out from the chassis rails, carefull it is awkward and a bit heavy.

now comes the get it out moment, as soon as you are ready you will need to remove the two remaining bell housing nuts (one top and one bottom) and the gearbox is now ready to pull backwards and lower, you have to make sure the gearbox input shaft is totally withdrawn before lowering, when using the strap method of supporting the gearbox it can be a bit of a bastard to get the right amount of 'holding gearbox in' and enough slack to pull it back enough to withdraw the input shaft, so some help is best, someone up top and someone under (though i usually do them by myself, i have done enough to know what to do)

Remember they are very heavy, as you withdraw the gearbox you will most likely need to lower the rear of the engine slightly so the bell housing clears the cab floor, this is one of the adjust an inch at a time jobs. Once clear you can lower it out

I suggest you get under the vehicle and spray wd40 or similar onto prop shaft nuts, bell housing nuts, gearbox crossmember bolts in chassis rails, everything thats gonna be undone.

Tools to use: Off the top of my head. Exhaust downpipe nuts should be 15mm but anything could have been fitted,

soak them very well before removing!!

Propshaft 16mm spanner & 17mm as they usually have different nuts and bolt head sizes

Cross member 24mm spanner / sockets and 19mm spanner (might be 18mm though)

bell housing usually 17mm but sometimes 16mm socket / spanner (the exhaust bracket attached to the bell housing can be fiddly

clutch slave cylinder 17mm socket

Club hammer

other bits, well a good supply of different spanners / sockets, socket extension bars, leaver bar,

thats about if for removal.

Continued

Page 3 link to simple instructions here <u>http://www.dodge50.co.uk/Workshop-</u> <u>manual/f220p1.html</u>

NOTE! you can remove the gearbox without taking the curved cross member off so it comes off with the gearbox, the reason i don't is there is not enough room to get the gearbox out from under the vehicle when doing it on ground level, if you want to lower it with it inplace, just don't undo the two 24mm nuts and bolts which hold the gearbox to the crossmember.

here is a link to pics i took when replacing the same gearbox on my bus https://www.facebook.com/gregexrental.wells/media_set?set=a.272259885224.183543.574210224

the crossmember looks like this <u>https://www.facebook.com/photo.php?</u> <u>fbid=272273570224</u>