

I just removed my engine, by myself ...here's what I did...

Remove the oil filter and oil filter mount, rectifier, stop light switch, right and left floor boards (it makes access to the engine easier and gets them out of the way), rear engine mounts, drive pulley cover and the pulley, pulley case (bolts are behind the pulley). If your coils are protruding lower than the backbone of the frame. Remove the coils. Remove both side covers, pull the battery and battery box, remove the fuse box and that plastic thing that the wires, stator relay, fuse box, etc. are all hooked to. Remove the signal relay and fuel pump relay from the right side, remove their mounting bracket, remove the line from the rear valve cover to the oil tank, remove carb and intake manifold. Get throttle cables out of the way. Disconnect all wiring from the engine and get it out of the way. Remove the shift rod and small lever from the shift shaft. Remove the "fill spout" off the oil tank. NOW...THIS IS UP TO YOU, You can remove the middle driven gear (transfer case) and its box/oil tank OR you can remove the top of the tank only. I have a "center stand" for my bike and placed it under the swing arm pivot. If you don't have a center stand they are easy enough to make. There are directions for it on Mr. Tidy's web page. With a floor jack and a block of wood, the length of my engine and the width of the frame (between the frame rails), under the crank case, just supporting the weight of the engine. Then I removed all the engine bolts and the top, front two, and rear two engine mounts. With the middle driven gear still attached and depending upon whether the bolt heads are facing the right or left side this engine mount may not be able to be removed prior to engine removal. But if you take the nuts off the mount will pull off as you push the engine out. Anyway, I placed my bike lift (Sears, Harbor Freight, Costco, Sams Club, etc.) outside of the frame on the right side of the bike. A piece of wood laying across the arms of the lift, makes a "table" of it. I raised the lift so the top of the wood was about 1/4" higher than the frame. Then I jacked the engine up (put some towels over the valve covers to help prevent scratching) so that it cleared the frame and I pushed it out toward the bike lift. I made sure the lift was even with the bottom of the engine, and I slowly worked the engine off the floor jack and onto the lift. You NEED to have someone there to help (no, not your wife or girl friend unless she can dead lift about 150 lbs. This engine is HEAVY and with the middle driven gear on, it's even heavier.

If you don't have a manual you should get one, it'll save you 100s in rechroming/replacement costs.

If you want to make the job easier on your back and easier for the engine to clear the frame rails, remove the transfer case first. If the top end is going to be coming apart anyway, remove the heads and cylinders before extracting the engine from the frame. That'll also eliminate potential frame or chrome damage between the rockerboxes and frame. The starter motor comes off very easily with the removal of two bolts, so taking it off will help lighten the load.