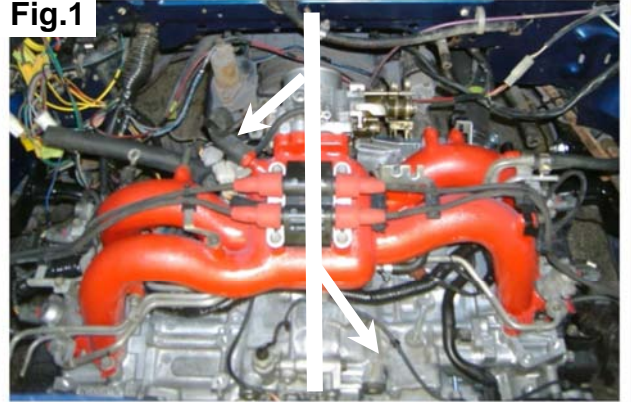


Engine and Carrier Bar

1. Install Subaru engine to transmission by raising the engine into the bay with your engine hoist. This can also be done with a floor jack. Line up engine to transmission carefully and slowly work the engine and transmission together. Take your time and be patient, you may have to make minor adjustments to your hoist system for them to go together. Make sure flywheel and transmission bell housing are parallel. Tighten bell housing bolts. Use double nut (provided) in place of a nylock behind the clutch slave bracket. This will make it easier to tighten. Keep the engine supported from above (Fig. 1) after installation so you have room underneath to fit the carrier bar and adjust the engine as needed using an engine hoist.

Fig.1



2. Lay out the carrier bar and brackets and install the rubber bushings (provided) into the bar (Fig. 2). Have the bolts and nylock nuts ready to install.

Fig. 2



3. Loosely mount the left and right side carrier brackets included with the kit, in the 2 existing slotted holes on underside of Vanagon frame near the coil spring (Fig. 3). This is the forward part of the bracket. Flat plate goes on top and bolts get run through the bottom plate, frame, and finally the top plate. The holes can be found by the coil spring on each side. Hardware is included. Install bolts upwards with the exception of the one below the power steering lines; face this one downwards to avoid interference with the power steering lines.

Fig. 3



Engine and Carrier Bar (cont.)

Fig.4

4. Loosely install the carrier bar to side brackets using the top holes in the bracket for the 2 wheel drive Vanagons and the bottom holes for syncro Vanagons (Fig. 4).
5. Have engine lifted well beyond the final mounting height while installing the carrier bar.
6. Clamp side brackets to frame with vice grips or clamp. Note: The bracket ends up being very close to the outside edge of the frame so be sure to push it in against the frame as much as possible (Fig. 5). Use a hammer and a center punch to mark the exact center of the hole. Drill a pilot hole completely through with a smaller size bit then the hole calls for. Proceed with drilling final size holes with a 3/8+metal drill bit to accept the 3 remaining bolts of the 5 that attach each side bracket to the frame. (Place drill bit through existing hole in side bracket to be certain the holes are drilled in the correct position). With front bolts slightly loose and clamps in place, slowly lower motor and observe proximity to mounting plates on carrier bar. Position bar slightly forward over mounting slots, this will compensate for sag in motor mounts. Taking time to center the holes will assure that your alignment for your bolts is accurate. Install 3 remaining nuts and bolts in side carrier brackets and top plates.
7. Tighten all bolts in bushings and side brackets upon completion of the installation of carrier bar. Double check that the five nuts and bolts on each side bracket are tight, along with the carrier bar nuts and bolts, before proceeding (Fig. 6).

