Tips and tricks for a successful Powerglide

Setup

- Before install of transmission be sure that mounting surfaces on block, transmission, flexplate and converter are straight and free of burr and paint.
- Fill converter with a minimum of 1 L transmission fluid and grease converter or crankshaft pilot also grease output shaft or inside yoke.
- If you didn´t buy a dipstick with transmission, be sure full mark is just above pan rail of transmission. Wrong oil level and mislabelled dipsticks is a transmission killer, be sure that doesn´t happen to you.
- If you don´t already have an overflow can it´s highly recommended to put one on. An overheated transmission can blow out trans fluid on the track in front of your rear tires.
- Install the transmission into the vehicle and bolt it to the block with a minimum of grade 5 bolts.
- The engine dowels need to extend in to the transmission bell housing at least 3/8" for proper alignment and support.
- The use of a solid transmission mount is not recommended, if needed a polyurethane transmission mount can be used to eliminate unnecessary stress to the transmission case due to chassis flex.
- The converter should pull out of the transmission pump 2,5 mm minimum to 3,5 mm maximum when fastening to the flexplate. Make sure the converter pilot is greased and properly engaged into crankshaft pilot.
- Attach converter with minimum grade 8 bolts and hardened washers.
- Fill at least half of expected amount of fluid, start engine and fill the transmission to the full mark on dip stick.
- Rule of thumb is on a PowerGlide with deep pan is about 1 L fluid to each inch converter size. 8” converter = about 8 L , 9” converter = about 9 L and so on....

Transmission fluid

- Transmission fluid is a debated area and always will be. We have used a lot of different fluid in our racing program. With that experience together with what we find on customers transmissions we highly recommend racing synthetic or semi synthetic fluid in most applications. It has excellent lubricity and antifoaming, last longer and has very high heat threshold, it´s simply made for racing.
- It´s recommended to check oil pressure regularly. Normal pressure @ 2000 rpm is from ~ 200 psi for low torque applications up ~ 260 psi for high torque applications.
- Before racing get the transmission up to at least 60 degrees C. This allows the assembly lube to melt around the needle bearings and proper lube to enter for maximum protection. A mild load in gear will allow the temperature to come up fast.

Running the transmission

- Shift pattern is PRN21.
- On most valvebodies to engage reverse place the shift lever in reverse position and press the transmission brake button.
- The burnout can start in low and shift to high, but in all cases, it is best for any transmission to start and finish in high gear if possible. Do not let the tires hook while at hard throttle, this will cause damage to transmission. Lift before the tires start to hook.

Adjustment

- Make sure the shifter adjustment is PERFECT. Check especially low and high gear positions. The linkage only has to be out 1 mm, and this can cause a failure. Cheap and worn shifters/cables cause a lot of problems be sure that doesn't happens to you.
- Band adjustment: Tighten adjustment screw 72 inch pound (8,5 Nm) and back out 3,75-4 turns. Check band adjustment regular, on new band every 5 run to it stabilizes then every 20 run. On high HP (2000+) every run to it stabilizes then every 5 run.
- Transbrake solenoids will draw 6-12 amps and long activated time could cause malfunction. For constant reaction times use a high quality transbrake button and ground solenoid to chassis.

/Your friends at StigO Transmissions