

GL1100 Swingarm to GL1000 Retrofit

It is possible to fit a GL1100 swingarm with final drive into a GL1000 frame. It takes some skill and mechanical knowledge to do this modification. Why this conversion, you ask? Lower RPMs at the cruise speeds, ability to mount a wider tire, upgraded brake system, 1100 air suspension and longer wheelbase. Or you just like to fit the 11 spoke cast wheels in your GL1000.

Final Drive Specs:

- GL1000 - 3.44/1 ratio and
- GL1100 - 3.09/1 and 3.10/1 depending on what year.

Parts List:

- GL1000 swingarm pivots
- GL1000 pivot nut (in frame)
- GL1000 rear master brake cylinder
- GL1000 drive shaft
- GL1100 drive shaft
- GL1100 drive shaft joint
- GL1100 swingarm
- GL1100 drive shaft boot
- GL1100 final drive
- GL1100 brake caliper
- GL1100 shocks (plus air hoses & valve if applicable)
- GL1100 wheel & axle
- All bolts, nuts, clips and O-rings needed to re-assemble the GL1100 swingarm

GL1100 Swingarm Modification:

The shocks on a GL1000 are about 20mm further apart than the GL1100 (270mm from side-to-side on the GL1100, 290mm on the GL1000). The mounts must be relocated on the swingarm 10mm each side.

On the left side of the swingarm you need to remove the fork from the swingarm (carefully as not to damage it too much). Next re-weld the fork in place 10mm to the left of the bike. (Figure 1)

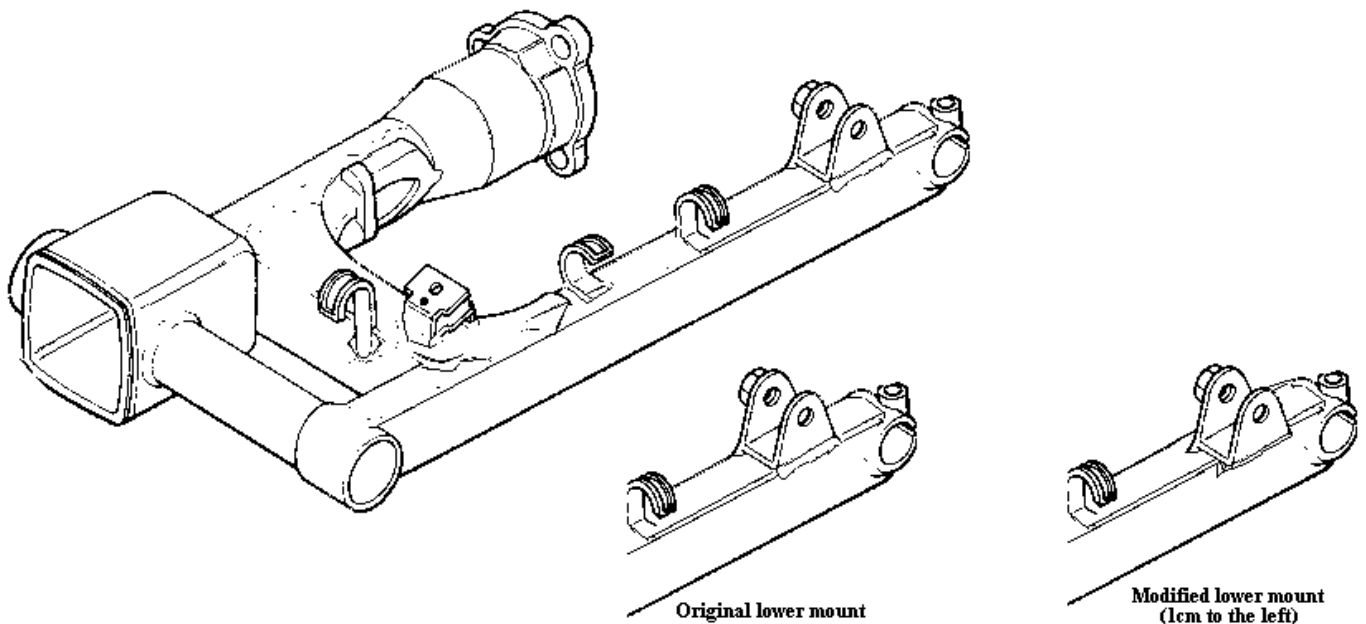


Figure 1

On the right side, attached to the driveshaft housing, a new 10mm longer lower shock mount needs to be fabricated (Figure 2). The size of the thread are measured at the machine shop. I don't know exactly what they are.

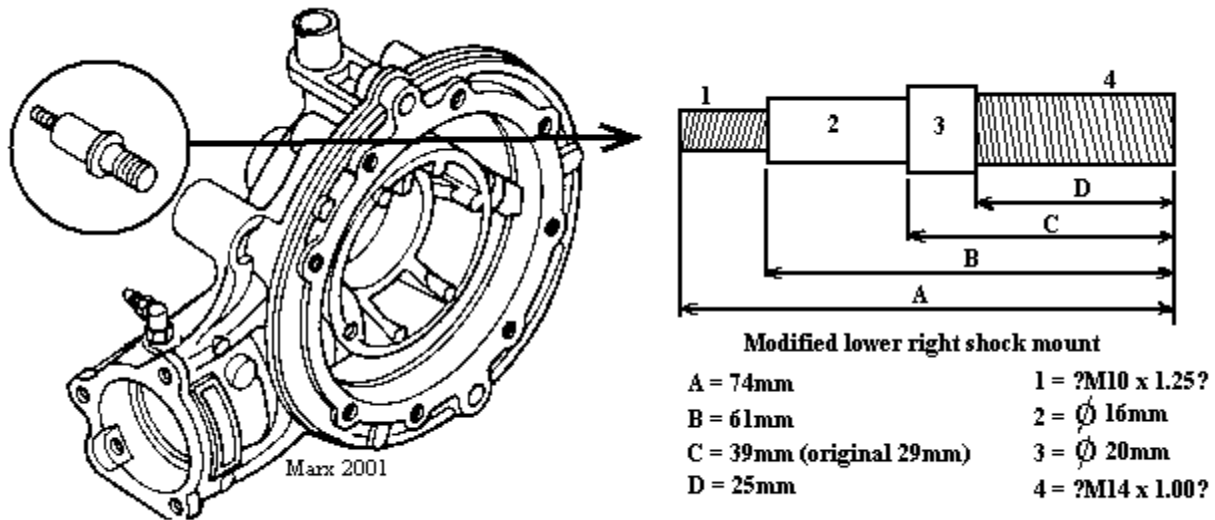


Figure 2

Driveshaft modification: You need to attach the GL1000 U-joint onto the GL1100 driveshaft. If you don't do this the shaft will be misaligned with the engine output shaft. This is because the GL1100 U-joint is about 25mm longer than the GL1000 U-joint (Figure 3).

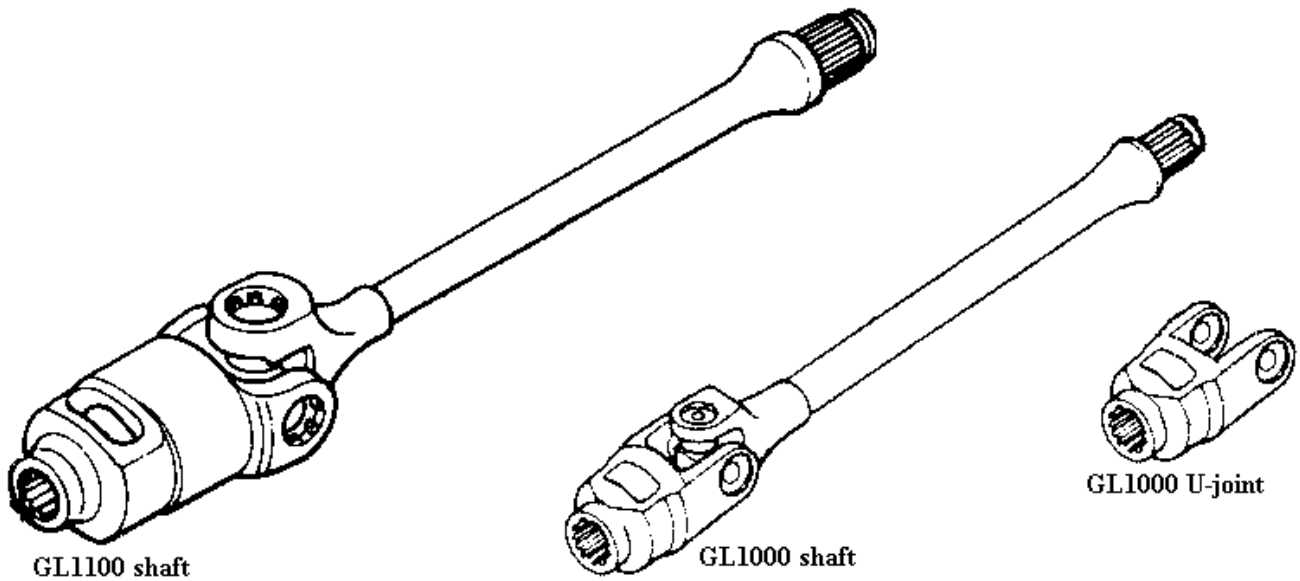


Figure 3

Swingarm Pivot Bolt Modification:

The GL1000 pivot bolt and frame insert need to be modified to accommodate a dust seal for the GL1100 swingarm (Figure 4). This needs to be done for both sides. For the dust seal in the swingarm purchase seals 21x40x5 or 20x40x5 (original was 26x40x5).

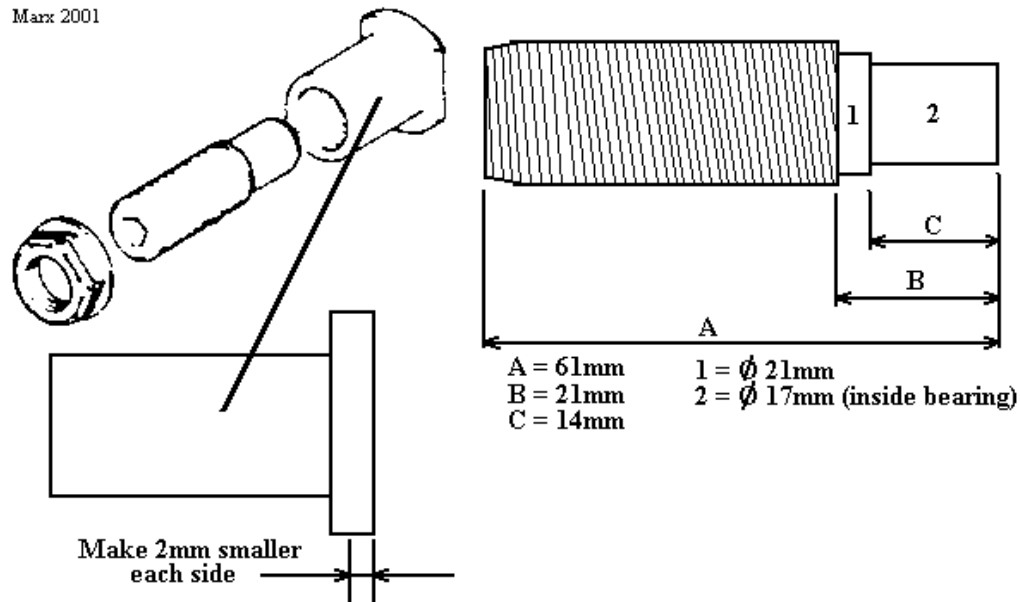


Figure 4

Option: Weld one lock nut to the pivot bolt. The taper bearings can then be adjusted from one side like the GL1100.

Frame Modification:

Grind the extensions from the frame where the pivot nut is held in place. You need to take 2mm from each side of the frame (Figure 5).

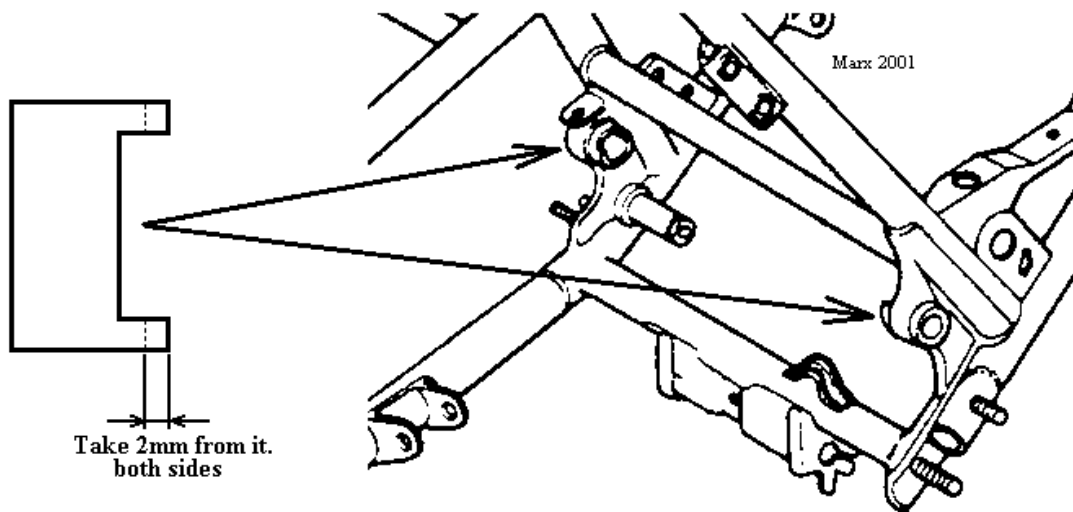


Figure 5

When you have made all the modifications you can install the GL1100 swingarm in the GL1000 frame. Don't forget to install the drive shaft first before installing the swingarm. Of course you installed new bearings in the swingarm and the new dust seals. While you are at it, inspect the bearings in the GL1100 wheels. When the swingarm is in the frame, install in the pivot bolts and torque them to the GL1100 spec. Right side first at 100Nm. Left side at 18Nm. Install the GL1100 shocks. Carefully route the air hoses and find a place to fit the air valve. Connect the GL1100 brake caliper to the GL1000 master cylinder and install the caliper, wheel and axle. Fasten everything and check for loose nuts, bolts and connections.

I calculated the speed difference between the 1000 and 1100 final drive at about 7Mph (12Kmh) faster travelling at 3000 RPMs.