

ZIM.102.332.TORQUE

This innovative and quality manufactured tool takes a somewhat difficult job and turns it into a simple and safe one. It has the ability to serve two unique purposes. One is the removal and tightening of an axle nut, and the other is the removal and tightening of a flywheel gland nut.

This tool can be used on all VW & Porsche engines that use a 36mm gland nut, and all Porsche 356 drum brake cars that use a 36mm axle nut.

To use this tool on an axle nut, you must first lift the vehicle and secure it safely so that it can not fall and injure you. Remove the wheel from the side you are working on first. Remove the cotter pin out of the axle end.

Take the tool parts out of the box. We will assign numbers to the tools for clarification purposes and they are as follows:

The large "C" shaped forging with the gear teeth on the outside of the arc is unit # 1

The large arm part that has the 36mm socket forged into one end and a 12.5mm hole in the other is unit # 2. Note: due to an offset this part has a shallow side and a deep side. This will be important later. Read on.

The gear/shaft assembly with 14 wide (1&1/4") teeth is unit # 3.

The gear/shaft assembly with 12 narrow (3/4") teeth is unit # 4.

Install unit # 1 on the brake drum by aligning two holes and secure with the lug bolts or nuts. Snug is fine here.

Take unit # 2 (arm) and slip in unit # 3 (gear/shaft) into unit # 1 at the small, 12.5mm hole end, starting with shaft end first from the shallow side of # 2. Secure this gear/shaft by use of the washer and cotter pin provided in the box. *In other words the gear goes in from the back or shallow side of the offset and the deep side of the offset will be facing out away from the drum.* Now insert 36mm socket end of # 2 over the axle nut while aligning the small gear/shaft end onto the geared part of unit # 1 bolted to the drum. Arrange it in such away on the teeth, so that it can travel along the teeth as you rotate the small

gear/shaft. Note: As you tighten, or loosen the nut, you will need to keep moving the unit to keep it on the teeth properly. Do not allow it to slip off the end of the toothed unit # 1.

Using an eleven (11) mm socket on a breaker bar or torque wrench, start to tighten, or loosen the small geared shaft. The tool will multiply the small input that you put in X 9 and make your work easy for you. Just be sure to keep rearranging the tool to stay within the toothed arc of the gear teeth. You will need to lock the drum from turning either by use of the parking brake, someone in the car with their foot on the brake, or by means of a bar attached to two of the lugs or bolts and against the floor to keep the drum from turning as you put pressure on the nut. We DO NOT EVER recommend using an impact tool on the device.

To use the device on a flywheel gland nut the same basic principle explained above is utilized with the exception that: Turn unit # 2 around and use the deep side towards the flywheel and gland nut, and you must select either of the two gear/shaft units depending on which flywheel teeth that you have. If it is a 6 volt flywheel, use the 12 toothed narrower gear/shaft # 4. If it is a 12 volt flywheel, use the wider, 14 toothed gear/shaft # 3. The unit # 1 part on the tool is not used on a flywheel set up. Use a flywheel lock to secure the flywheel from turning.

Listed below is a chart converting input torque to actual multiplied final torque:

Input torque in ft lbs	Actual multiplied final torque in ft lbs
25	225
30	270
35	315
40	360
45	405

As you can see it takes the input torque X 9 to equal actual torque.

Porsche officially recommends the following torque values:

All up through 1600 Normal engines Porsche officially calls for 35-37.5mkp, which is 253-271 ft lbs of torque. See below for more engines.

Starting with the 1600 S-90 engines and including the 1600SC as well as all 912 engines, Porsche officially calls for 45-50 mkp which is 325-361 ft lbs of torque.

If you are using one of our Heavy Duty gland nuts, use at least 350-370 ft lbs. Always use "Red" Loctite sparingly to help secure gland nut.

The axle nut torque is 55mkp which is 402 ft lbs. Lets just say 380-400 is fine.

