

Subaru Sambar EN07 Head Bolt Torque Procedure

The commonly available English Service Manual for the Subaru Sambar has some significant errors when it comes to torquing down the head bolts. It states that the torque is a single step, and has the wrong tightening pattern shown. This is the correct procedure:

- 1) Apply Engine Oil or Assembly Lubricant to the threads and washers of all 10 head bolts.
- 2) Using the order shown in the diagram below, torque all head bolts to $3.0 \pm 0.3 \text{ kg/m}$ ($30.0 \pm 3 \text{ N/m}$ or $21.5 \pm 2 \text{ ft/lbs}$)
- 3) Loosen all bolts in reverse order, but do not remove.
- 4) Re-torque all bolts, in the order shown in the diagram below, to $2.0 \pm 0.05 \text{ kg/m}$ ($19.5 \pm 0.5 \text{ N/m}$ or $14.5 \pm 0.3 \text{ ft/lbs}$)
- 5) Additionally tighten all bolts, in the order shown in the diagram below, by 90 degrees ($1/4$ turn)

The end result will be approximately 4.7 kg/m ($\sim 46 \text{ N/m}$ or 34 ft/lbs), significantly higher than the 3.0 kg/m ($\sim 30 \text{ N/m}$ or 21.5 ft/lbs) indicated in the manual by James Danko.

