

INSTALLATION INSTRUCTIONS

Part No: 157-4301

Application: LAND ROVER 3.9-4.6L, 10 BOLT HEADS

NOTES

Inspect all hardware prior to installation. Look for obvious defects or shipping damages. Please call 800-826-3045 with any questions or issues.

The engine block and cylinder head decks must be flat and have the proper surface finish for the head gasket used or gasket failure may result.

To ensure proper thread engagement and accurate torque readings, clean all threads in the block to remove remnant sealer, lubricant and debris. Chase if necessary.

Before final assembly, a mockup of the engine and or components to check the fit and clearance near and around the fasteners is recommended.

TOOLS NEEDED

5/8" socket
3/16" Allen wrench

FINAL ASSEMBLY

1. **Clean the spot faces on the cylinder head.**

Brake cleaner is recommended to clean the spot faces where the washer seats.

2. **Install the head gasket and cylinder head.**

3. **Screw the studs into the block hand tight, do not apply torque.**

The hex broach in the end of the stud is designed to assist with installing/removing the studs from the block, not for applying torque.

4. **Use a clean, dry rag to remove all oil from both sides of each washer.**

The cylinder head and washer mating surfaces must be free of oil/grease/lubricant. Failure to keep these surfaces dry may result in inconsistent clamp loads.

5. **Place the washers over the studs and on to the dry, clean spot faces of the cylinder head.**

The stamped side of the washer goes down against the cylinder head. This stamped surface grips the cylinder head preventing the washer from spinning while the nut is being torqued. The result is accurate and consistent clamp load.

6. **Apply ARP Ultra-Torque**

Lubricate the stud threads and bottom of the nuts with ARP Ultra-Torque Fastener Assembly Lubricant. Then install the nuts onto the studs and tighten hand tight.



TORQUE PROCEDURE

7. Following the manufacturers recommended torque sequence, torque the nuts per steps 1-3

- 1- Tighten nuts 1 through 10 to 30 ft-lbs
- 2- Tighten nuts 1 through 10 to 60 ft-lbs
- 3- Tighten nuts 1 through 10 to 100 ft-lbs

