



1.6L Vauxhall 16V

Issue Date 01/07/09

TORQUE WRENCH SETTINGS

Specifications subject to change without prior notice

MAIN CAP BOLTS (Standard & SBD Cap Head type)

GRAPHITE GREASE UNDER HEAD, OIL THREADS

STAGE 1---37 LB/FT

STAGE 2---45 DEG

STAGE 3---15 DEG

BIG END BOLTS

STANDARD TYPE GM ROD BOLTS

STAGE 1---18 LB/FT (*GRAPHITE GREASE UNDER HEAD, OIL THREADS*)

STAGE 2---30 DEG

Heavy duty rod bolts - See separate instruction sheets

RB2K

RB2K-F

RB4

RB5

RB6

NOTE: - *When assembling the bolts, as of 2002, the manufacturers recommend only using ARP assembly lubricant as supplied, under the heads and on the threads and torque up to. These are lower torque settings than would have been used with normal oil. We cannot be held responsible for rod bolt stretch when an uncalibrated torque wrench has been used.*

OIL PUMP BOLTS

4 LB/FT (*243 LOCTITE*)

CRANK BOLT

GRAPHITE GREASE UNDER HEAD & WASHER, OIL THREAD

STAGE 1---70 LB/FT

STAGE 2---30 DEG

STAGE 3---15 DEG

CAM CAPS

6 LB/FT

CAM PULLEY BOLT

48 LB/FT (243 LOCTITE)

CAM VERNIER PULLEY BOLTS

14LB /FT

IDLER PULLEY BOLTS

18 LB/FT (243 LOCTITE)

CAM BELT AUTO TENSIONER BOLT

15 LB/FT

SUMP BOLTS

243 LOCTITE

STEEL SUMP---4 LB/FT

ALLOY SUMP--6 LB/FT

DRY SUMP-----10 NM

STD FLYWHEEL BOLTS

Graphite grease under bolt heads, 243 LOCTITE on threads

STAGE 1---26 LB/FT

STAGE 2---30 DEG

STAGE 3---15 DEG

ARP FLYWHEEL BOLTS

Graphite grease under bolt heads, 243 LOCTITE on threads

STAGE 1---26 LB/FT (35NM)

STAGE 2---55 LB/FT (75NM)

CYLINDER HEAD BOLTS for standard gaskets

GRAPHITE GREASE UNDER HEADS & WASHERS, OIL THREADS

SEE SEPARATE SHEET FOR TIGHTNING SEQUENCE

STAGE 1---18 LB/FT 25NM

STAGE 2---90 DEG

STAGE 3---90 DEG

STAGE 4---90 DEG

STAGE 5---45 DEG

HEAD STUDS (BLT-H3-STUD-KIT) for Cometic gaskets only

Due to the difference in quality of both Genuine and pattern standard head bolts, these are not suitable, therefore we can only recommend the use of the ARP HEAD STUD KIT when using a Cometic gasket. The torque settings and instructions below must be followed:

IF COOLING MODS HAVE BEEN DONE THEN THE COMETIC GASKET MUST BE DIMPLED

ALWAYS wash the fasteners with cleaning solvent prior to installation. They come coated with a 'protective' coating, this is **NOT** a lubricant.

METHOD

Supplied ARP lubricant must be used on all threads and underneath face of nut and washer.

BEFORE CYLINDER HEAD IS INSTALLED: -

1. Ensure threads in block & on stud are completely clean
2. Apply lubricant to stud threads & screw stud into block finger tight only.

STAGE 1---25 LB/FT

STAGE 2---Back off ½ turn

STAGE 3---25 LB/FT

STAGE 4---60 LB/FT

STAGE 5---Back off ¼ turn

STAGE 6---60 LB/FT

ONCE CYLINDER HEAD IS INSTALLED, FIT NUTS & WASHERS - THIS MUST ALWAYS BE IN THE SEQUENCE SHOWN ON THE NEXT PAGE:

1.6L 16V HEAD BOLT TIGHTENING SEQUENCE

9	5	1	3	7
10	6	2	4	8

1.6L 16V HEAD BOLT REMOVAL SEQUENCE

1	3	9	5	7
2	4	10	6	8



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