

1967 289 C.I.D. MUSTANG COMPETITION ENGINE SPECIFICATIONS

Piston to bore .0058 - .0065
Top of block to top of piston .015 - .028"
Connecting rod, vertical clearance .0018 - .0022
Side clearance, Total 2 rods .014 - .028
Main bearings vertical clearance .002 - .0024
End clearance .006 - .009
Head volume in C.C.'s 58 - 62
Compression ratio 10.5 - 10.8:1

Carburetors (2) Holley No. 2804-2805
Primary Venturi 1 1/4
Secondary Venturi 1 5/16
Throttle Bore 1 11/16
Nominal Flow @
1 1/2 in. hg. 2 x 600 CFM
Primary Jets #67-70 #64-66
Secondary Jet Plates #13-16
Float Bowls Side Pivot, with Half Moon Floats.

Note: High numbered jets are high flow, low numbered jets are low flow. (This does not apply to jet plates)

Valve spring pressures - 120 - 130 @ 1.740"

Valve clearance - int. .016" - ex. .018" (hot) #156 camshaft.

Spark plugs - Autolite BF601
Ignition timing - 10° - 12° initial 36° - 38° total
Initial timing to be checked or reset, static.

Point clearance - .016 - .018
Dwell - 25° each point, 33° total

Recommended oil - S.A.E. 40 non-detergent
Castrol R-40

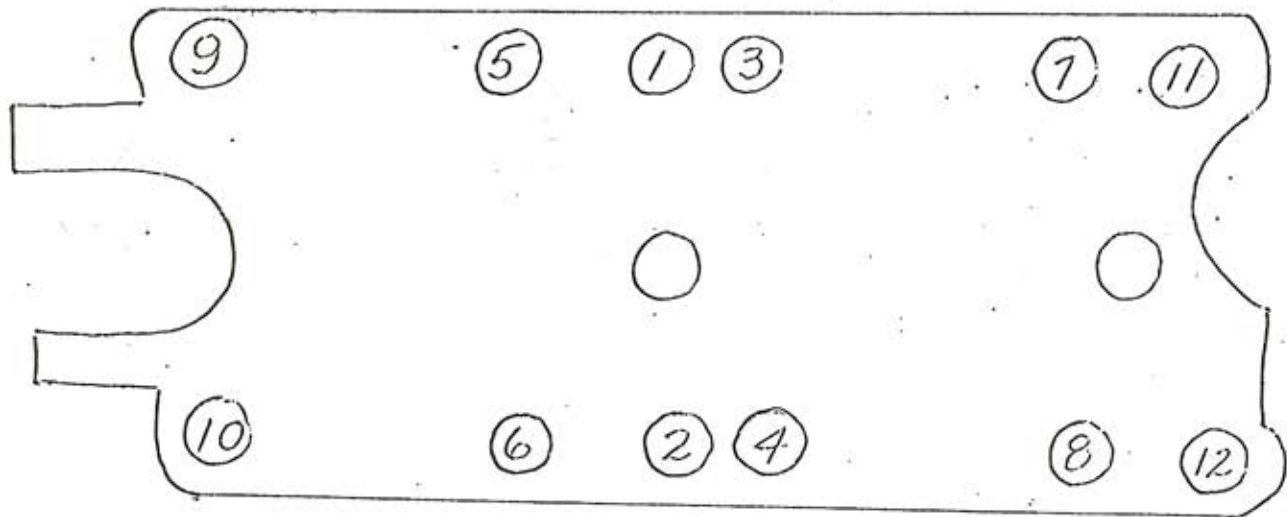
GENERAL TORQUING SPECIFICATIONS

| <u>THREAD SIZE</u> | <u>TORQUE FT. LBS.</u> | <u>THREAD SIZE</u> | <u>TORQUE FT. LBS.</u> |
|--------------------|------------------------|--------------------|------------------------|
| 1/4 - 20 | 7 - 9 | 7/16 - 14 | 45 - 50 |
| 1/4 - 28 | 6 - 9 | 7/16 - 20 | 50 - 60 |
| 1/4" Pipe | 23 - 28 | | |
| 5/16 - 18 | 12 - 15 | 1/2 - 13 | 60 - 70 |
| 5/16 - 24 | 15 - 18 | 1/2 - 20 | 70 - 80 |
| 3/8 - 16 | 23 - 28 | 9/16 - 18 | 85 - 95 |
| 3/8 - 24 | 30 - 35 | 5/8 - 18 | 120 - 145 |

TORQUING SPECIFICATIONS

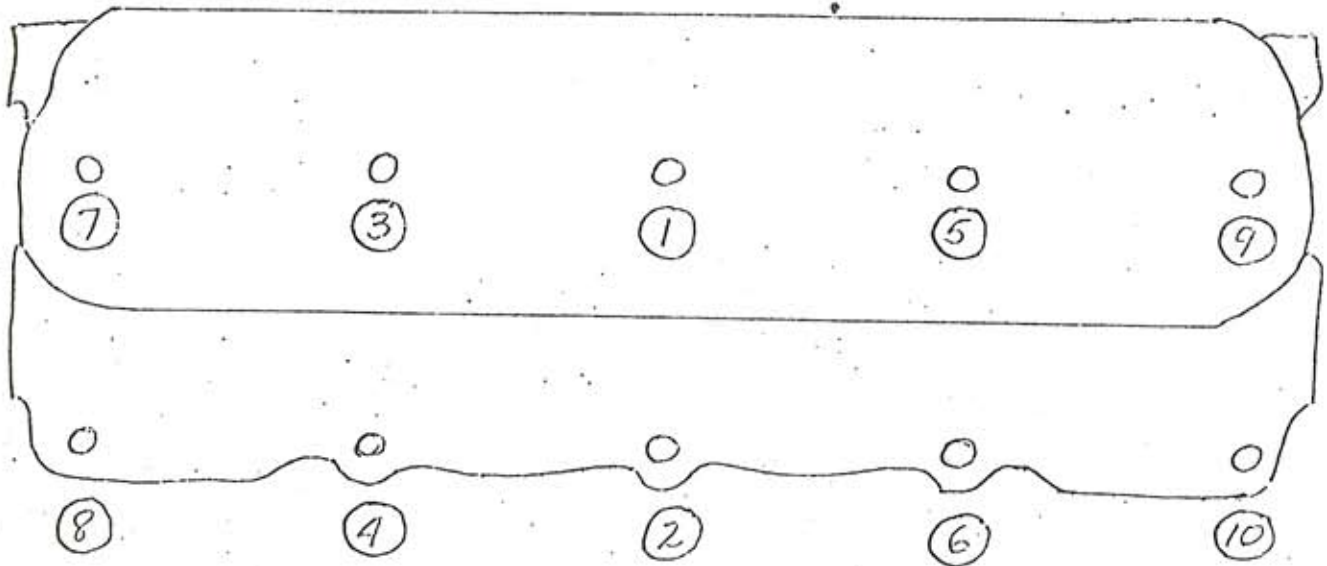
| <u>OPERATION</u> | <u>THREAD SIZE</u> | <u>INSTALLATION TORQUE</u> |
|---|---------------------------------------|------------------------------|
| Bolt - rocker arm cover to cylinder head | 1/4 - 20 | 3 - 5 ft. lbs. |
| Bolt - oil pan | | |
| Bolt - pressure plate to flywheel | 5/16 - 18 | 12 - 20 ft. lb |
| Bolt - cam sprocket to camshaft | 3/8 - 16 | 30 - 35 ft. lb |
| Nut - rocker arm adjusting | | |
| Bolt - flywheel to crankshaft | 7/16 - 20 | 75 - 85 ft. lbs |
| Bolt - main bearing cap | 7/16 - 14 | 70 ft. lbs. |
| Plug - oil pan drain | 1/2 - 20 | 15 - 20 ft. lbs |
| Bolt - crankshaft damper to crankshaft | 5/8 - 18 | 120-140 ft. lbs |
| Spark plug | 18MM | 12 - 25 ft. lbs |
| Oil filter cartridge | Tighten 1/2 turn after Gasket contact | |
| Insert - oil filter mounting - to block | 1-1/16-12 | 60-100 ³ ft. lbs. |
| Bolt - exhaust manifold to cylinder head | 3/8 - 16 | 13 - 18 ft. lbs |
| Nut - carburetor mounting | 5/16 - 24 | 12 - 15 ft. lbs |
| Bolt - distributor hold down | 5/16 - 18 | 12 - 15 ft. lbs |
| Bolt - generator mounting bracket to cyl. head | 3/8 - 16 | 30 - 35 ft. lbs |
| Bolt - front cover | 5/16 - 18 | 12 - 15 ft. lbs |
| Bolt - oil filler tube bracket to generator bracket (hand start run-down with impact wrench) | 1/4 - 20 | 6 - 9 ft. lbs. |
| Nut - connecting rod | | |
| Hand torque 40 - 45 lbs. | 3/8 - 24 | 42 - 45 ft. lbs ref. |

INTAKE MANIFOLD TORQUING PROCEDURE



- Use guide pins in holes 10, 11, and 12, pins - .366 - .367 dia.
- Torque bolts in pairs 1 & 2, 3 & 4, 5 & 6, 7 & 8, to 9 - 11 ft. lbs.
- Remove guide pins and torque bolts 9 & 10, 11 & 12, as above.
- Hand torque bolts in pictured sequence to 15 - 18 ft. lbs.

289 C.I.D. COBRA ENGINE



Bolt Torque Procedure: Using Oiled Threads

Tighten cylinder head bolts in the numerical sequence shown torquing of all cylinder bolts in the above sequence to be progressively increased in four steps.

1st Step - Torque to 20 ft. lb.

2nd Step - Torque to 40 - 45 ft. lb.

3rd Step - Torque to 50 - 60 ft. lb.

4th Step - Torque to 75 ft. lb.