1968-73 429", 460" V8 ENGINES

GENERAL SPECIFICATIONS

Year	Displ. Cu. Ins.	Carburetor	HP at RPM	Torque (Ft. Lbs. at RPM)	Compr. Ratio	Bore	Stroke
1968-70	429"	2-Bbl.	320 @ 4400	460 @ 2200	10.5-1	4.36"	3.59"
		4-Bbl.	360 @ 4600	476 @ 2800	11.0-1	4.36"	3.59"
		4-Bbl. Cobra Jet	370 @ 5400	450 @ 3400	11.3-1	4.36"	3.59"
		Super Cobra Jet 4-Bbl.	375 @ 5600	450 @ 3400	11.3-1	4.36"	3.59"
		BOSS	375 @ 5200	450 @ 3400	10.5-1	4.36"	3.59"
	460"	4-Bbl.	365 @ 4600	500 @ 2800	10.5-1	4.36"	3.85"
1971	429"	2-Bbl.	320 @ 4400	460 @ 2200	10.5-1	4.36"	3.59"
		4-Bbl.	360 @ 4600	480 @ 2800	11.0-1	4.36"	3.59"
		4-Bbl. Cobra Jet	370 @ 5400	450 @ 3400	11.3-1	4.36"	3.59"
		Super Cobra Jet & Police	375 @ 5600	450 @ 3400	11.3-1	4.36"	3.59"
	460"	4-Bbl.	365 @ 4600	500 @ 2800	10.5-1	4.36"	3.85"
1972	429"	4-Bbl.	208 @ 4400	322 @ 2800	8.5-1	4.36"	3.59"
		4-Bbl. Police	.....	.....	8.6-1	4.36"	.....
	460"	4-Bbl.	224 @ 4400	357 @ 2800	8.5-1	4.36"	3.85"
1973	429"	.....	.....	.....	.....	4.36"	3.59"
	460"	.....	.....	.....	.....	4.36"	3.85"

►*NET HORSEPOWER & TORQUE NOTE: Horsepower and Torque figures given for 1972 are NET. NET Horsepower and Torque represent power at the flywheel when the engine is installed in vehicle, with wide open throttle and all systems operating such as, air cleaner, exhaust system, water pump, generator, oil pump and air conditioning.*

ENGINE IDENTIFICATION

Engine may be identified by fifth digit of Vehicle Warranty Plate identification number, attached to rear face of left front door. **1970-72** Vehicle identification number also appears on a tab attached to instrument panel and visible from outside of car. Engine code designations are as follows:

1968-69

Engine	Code Letter
429" 2-Bbl.	K
4-Bbl.	N
460" 4-Bbl.	A

1970

Engine	Code Letter
429" 2-Bbl.	K
4-Bbl.	N
4-Bbl. Cobra Jet	C
4-Bbl. Boss	Z
4-Bbl. Super Cobra Jet	J
460" 4-Bbl.	A

1971

Engine	Code Letter
429" 2-Bbl.	K
4-Bbl.	N
4-Bbl. Police	P
4-Bbl. Cobra Jet	C
4-Bbl. Cobra Jet Ram Air	J
4-Bbl. Super Cobra Jet	CY, CV
460" 4-Bbl.	A

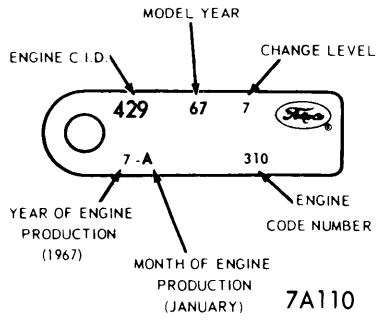
1972

Engine	Code Letter
429" 4-Bbl.	N
4-Bbl. Police	P
460" 4-Bbl.	A

1973

Engine	Code Letter
429" 4-Bbl.	N
460" 4-Bbl.	A
460" 4-Bbl. Police	C

Engine Identification Tag – Attached to engine, identifies engine for year model and CID. See *illustration*.



ENGINE IDENTIFICATION TAG

1968-73 429", 460" V8 ENGINES (Cont.)

ENGINE REMOVAL

See Engine Removal at end of ENGINE Section.

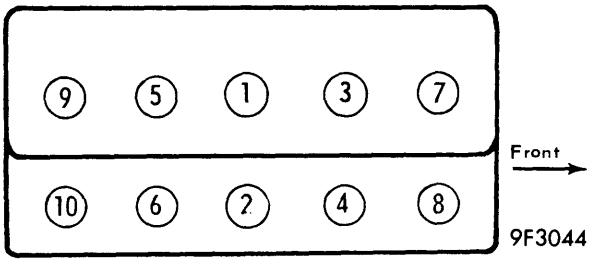
OIL PAN REMOVAL

See Oil Pan Removal at end of ENGINE Section.

CYLINDER HEAD INSTALLATION

Tighten cylinder head bolts progressively in sequence shown in diagram. Torque bolts 3 times around as follows:

Engine	Step 1	Step 2	Step 3
429", 460"	75	105	140



CYLINDER HEAD TIGHTENING SEQUENCE

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Cylinder Head	①
Intake Manifold	25-30
Exhaust Manifold	28-33
Oil Pan	②9-11
Main Bearing Caps	95-105
Connecting Rod Caps	40-45
Vibration Damper	70-90
Camshaft Sprocket	40-45
Flywheel	75-85
Rocker Arm Stud-to-Cylinder Head	
1968-70	65-75
1971	75-85
1972-73	18-25
Rocker Arm Cover	5-6
Engine Front Cover	
1968-71	12-15
1972-73	15-20
Water Pump	12-15
Oil Pump-to-Block	20-25
Oil Filter Adapter	
1968-71 & 1972 Police	60-100
1972-73	20-30

① – See "Cylinder Head Installation".
② – 1/4" x 20 bolts, 7-9.

ENGINE NOTES

►*UNDERSIZE CRANKSHAFT CAUTION* – Some .010" undersize crankshafts were used in production on 1968-69 460 CID engines. Engines can be identified by letter "M" and/or "P" (main or rod journal) stamped on right front of cylinder block near the engine date code stamp. Backs of the bearings are stamped ".010 U.S.". Check for engine stamping or bearing marks before ordering or procuring new rod or main bearings.

►*NEW REAR MAIN OIL SEAL* – A new type split-lip rear main oil seal is now available for 1968-69 429 and 460 CID engines. New seal can be installed without removal of crankshaft from engine and does not require any special tools for installation. Order part No. C9AZ-6701-A. *CAUTION – Before installing new type oil seal it is mandatory that* **oil seal pin** *be removed from rear main bearing cap and discarded.*

►*FRONT MAIN BEARING KNOCK* – Some 429 and 460 CID engines built in late 1968, and 1969 may have a pronounced knock at approximately 800-1200 RPM under slight engine load, or at vehicle speeds up to approximately 25 MPH. The intensity of the knock may sometimes be decreased by lessening the accessory drive belt tension. Knock may not be audible until engine temperatures are stabilized, and may then progressively increase.

It is recommended that engines exhibiting this knock be select fitted with new main bearings that will provide an operating clearance of .0005-.0015". It is permissable to use half of a .002" U.S. bearing in combination with a standard size or .001" U.S. insert. When a combination of inserts is used the undersize bearing half should be installed into the upper, or rod, position. *CAUTION – Do not file or lap bearing caps, or use shims behind bearing inserts.*

►*PUSH ROD CAUTION:* 429" Cobra Jet and Super Cobra Jet are equipped with, and require a special hardened push rod. These hardened push rods are identified by a purple band, one inch from each end. They may be further identified by a file test for hardness in the center portion. A hardened push rod should not mark, or show only a slight scratch. Non-hardened push rods are easily marked. *Under no circumstances are standard push rods to be used in these engines.*

►*1969-71 429" & 460" ENGINE COOLANT LEAKS:* If coolant leaks after replacement of water pump or engine front cover, it may be due to improper installation of water pump gasket. Gaskets **without tabs** must be installed between water pump housing and water pump cover. Gaskets installed **with tabs** must be installed between water pump cover and engine front cover.

►*1969-71 ALL ENGINES NEW VALVE GUIDE REPAIR BUSHINGS:* New cylinder head valve guide repair bushings are available for vehicles exhibiting excessive valve guide wear to the extent that over sized valves cannot be used.

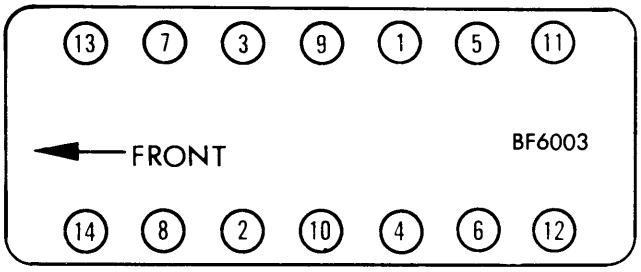
►*1969-70 VALVE STEM TIP WEAR:* If valve stem tip wear is indicated, a new lighter load valve spring should be installed when the valve is replaced. The color code for the new valve spring is gold.

►*429" COBRA JET:* Later 1970 production engines are equipped with new positive stop valve rocker arm studs to provide fixed method of adjusting hydraulic tappets. When installing new type stud, screw stud into head until shoulder on stud contacts cylinder head, then torque 75-85 Ft. Lbs. Use .060" O.S. or .060" O.S. push rod if standard push rod does not provide proper hydraulic tappet clearance.

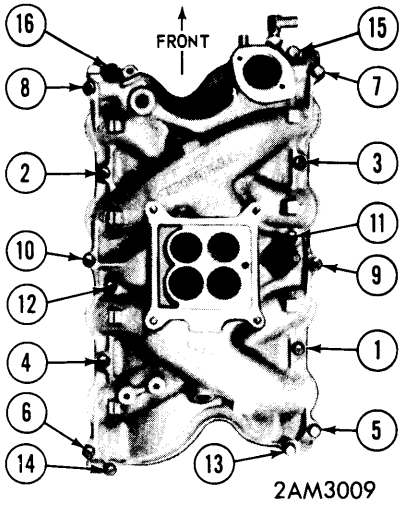
1968-73 429", 460" V8 ENGINES (Cont.)

INTAKE MANIFOLD INSTALLATION

Torque bolts to specified torque in sequence shown in illustration.



INTAKE MANIFOLD TIGHTENING SEQUENCE



429" BOSS, INTAKE MANIFOLD TIGHTENING SEQUENCE

PISTONS, PINS, RINGS						
	PISTONS	PINS		RINGS		
Engine	Clearance	Piston Fit	Rod Fit	Rings	End Gap	Side Clearance
429" & 460" 1968-70	.0014-.0022"	.0001-.0003"	Press Fit	1 & 2 3	.010-.020" .010-.035"	.002-.004" Snug
1971-73	.0014-.0022"	.0002-.0004"	Press Fit	1 & 2 3	.010-.020" .015-.055"	.002-.004" Snug
429" BOSS 1970	.003-.0038"	.0003-.0005"	.0008"	1 & 2 3	.010-.020" .010-.035"	.002-.004" Snug
429" Police, Cobra Jet & Super Cobra Jet 1970	.003-.0038"	.0001-.0003"	Press Fit	1 & 2 3	.010-.020" .010-.035"	.002-.004" Snug
1971-73	.0042-.005"	.0001-.0003"	Press Fit	1 & 2 3	.010-.020" .010-.035"	.002-.004" Snug
460" PI 1973	.0034-.0042"	.0004-.0006"	Press Fit	1 & 2 3	.010-.020" .015-.055"	.002-.004" Snug

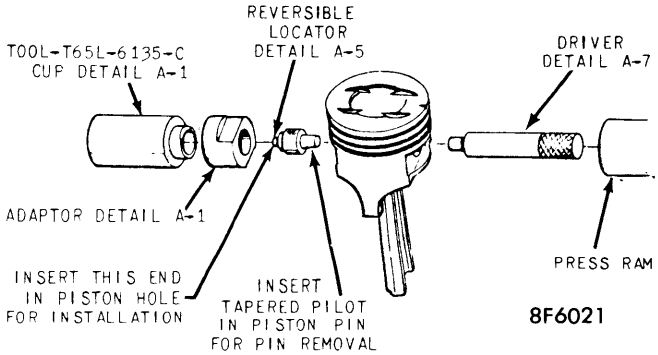
FITTING PISTONS

Measure piston at centerline of piston pin bore 90° to pin bore axis. Measure cylinder bore at right angles to centerline of crankshaft, below ring travel. Piston clearance should be as shown in table.

PISTON PIN REPLACEMENT

Pins are press fit in connecting rod. Use Tool T65L-6135-C and arbor press as shown in illustration.

Installation – Press pin through piston and rod until end of pin is 1/16-1/8" below chamfer of pin bore in piston.



PISTON PIN REMOVAL & INSTALLATION

1968-73 429", 460" V8 ENGINES (Cont.)

CRANKSHAFT MAIN & CONNECTING ROD BEARINGS							
	MAIN BEARINGS				CONNECTING ROD BEARINGS		
Engine	Journal Diam.	Clearance	Thrust Bearing	Crankshaft Endplay	Journal Diam.	Clearance	①Sideplay
429", 460"							
1968-71	2.9994-3.0002"	.0005-.0015"	No. 3	.004-.008"	2.4992-2.50"	.0008-.0015"	.010-.020"
1972	2.9994-3.0002"	.001-.002"	No. 3	.004-.008"	2.4992-2.50"	.0008-.0015"	.010-.020"
1973	2.9994-3.0002"	.0012-.0015"②	No. 3	.004-.008"	2.4992-2.50"	.0008-.0015"	.010-.020"
429" BOSS							
1970	2.9994-3.0002"	.001-.0025"	No. 3	.004-.008"	2.4992-2.50"	.0015-.0025"	.010-.020"
429" CJ,SCJ,P							
1970	2.9994-3.0002"	.0005-.0015"	No. 3	.004-.008"	2.4992-2.50"	.001-.0015"	.010-.020"
1971-72	2.9994-3.0002"	.001-.0015"	No. 3	.004-.008"	2.4992-2.50"	.001-.0015"	.010-.020"
460" PI							
1973	2.9994-3.0002"	.0009-.0015"	No. 3	.004-.008"	2.4992-2.50"	.0008-.0015"	.010-.020"

① – Total two rods.
② – No. 1 bearing .0004-.0015"

MAIN BEARINGS

Installation – Be sure that all bearing caps are installed in their original location. Coat rear mating surface of rear main bearing cap with oil resistant sealer. *NOTE – Do not use sealer forward of oil slinger groove.*

If bearing clearance using standard size bearing inserts is excessive, a .001" or .002" undersize bearing half may be used in combination with a standard size bearing half. If .002" undersize bearing is used on more than one journal, they may be positioned in the cylinder block rather than in the bearing cap. If standard and .002" undersize combination do not bring clearance to within specified limits, the crankshaft will have to be refinished and undersize bearings installed.

THRUST BEARING ALIGNMENT

Install all bearing caps except thurst bearing cap and torque to specifications. Install thrust bearing cap with bolts finger tight. Pry crankshaft to front of engine, then pry thrust cap to rear of engine. While holding crankshaft forward, tighten thrust bearing cap bolts to specifications. Check crankshaft endplay.

REAR MAIN BEARING OIL SEAL

Split lip-type oil seal may be installed (upper and lower halves) without removing crankshaft from engine. After removing oil pan and oil pump proceed as follows:

1) Loosen all main bearing cap bolts, allow crankshaft to drop not more than 1/32". Remove rear main bearing cap, remove oil seal from cap, clean oil seal groove.

2) Remove upper seal half from cylinder block.

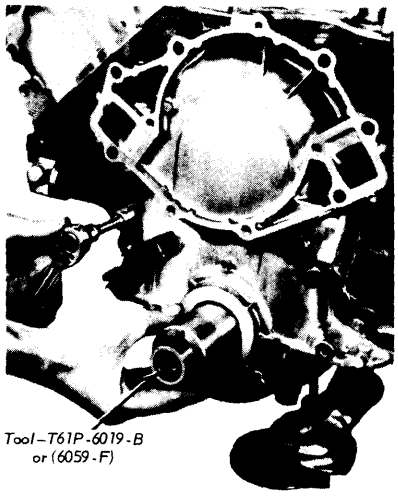
3) Dip upper and lower halves of new seal in engine oil. *Remove oil seal retainer pin from bearing cap and discard.* Install upper seal half in cylinder block so that 3/8" protrudes below parting surface.

4) Tighten remaining bearing caps to specification. Install lower half of seal in rear main cap so that 3/8" protrudes above parting surface. Apply light coat of oil resistant sealer to rear of top mating surface of bearing cap. Torque cap to specification, install oil pump and oil pan.

ENGINE FRONT COVER

Removal – Drain cooling system and crankcase. Remove fan and shroud, radiator, power steering pump, fuel pump, water pump pulley and drive belts and crankshaft damper. Cut oil pan seal flush with block face prior to separating front cover from block. Remove cover and water pump as an assembly.

9F3050



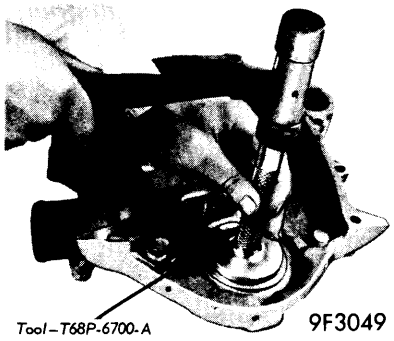
ALIGNING FRONT COVER

1968-73 429", 460" V8 ENGINES (Cont.)

Installation – Coat exposed surface of oil pan with sealer and fit required section of new seal on pan. Use sealer on corners. Position cover on front of block using aligning Tool T61P-6019-B. Replace and torque pan bolts before front cover bolts. Reverse removal procedure to complete installation.

FRONT COVER OIL SEAL

Drive out old seal with pin punch. Clean seal recess. Coat new seal with grease. Install with Tool 6700-A. *Be sure seal spring remains in proper position.*



FRONT OIL SEAL INSTALLATION

VALVES

Engine & Valve		Head Diam.	Face Angle	Seat Angle	Seat Width	Stem Diameter	Stem Clearance	Valve Lift
429", 460"								
1968-69	Int.	2.07"	44°	45°	.060-.080"	.3416-.3423"	.001-.003"	.443"
	Exh.	1.64"	44°	45°	.060-.080"	.3416-.3423"	.001-.003"	.486"
1970	Int.	2.08"	44°	45°	.060-.080"	.3416-.3423"	.001-.0027"	.443"
	Exh.	1.65"	44°	45°	.060-.080"	.3416-.3423"	.001-.0027"	.486"
1971-72	Int.	2.08"	45°	45°	.060-.080"	.3416-.3423"	.001-.0027"	.443"
	Exh.	1.65"	45°	45°	.060-.080"	.3416-.3423"	.001-.0027"	.486"①
429" BOSS								
1970	Int.	2.28"	29°	30°	.060-.080"	.3711-.3718"	.001-.0024"	.478"
	Exh.	1.90"	44°	45°	.085-.100"	.3701-.3708"	.002-.0034"	.505"
429"CJ,SCJ,P								
1970	Int.	2.245"	29°	30°	.060-.080"	.3416-.3423"	.001-.0024"	.515"
	Exh.	1.725"	44°	45°	.070-.090"	.3416-.3418"	.002-.0034"	.515"②
1971-72	Int.	2.245"	29°	30°	.060-.080"	.3416-.3423"	.001-.0027"	.515"③
	Exh.	1.725"	44°	45°	.070-.090"	.3416-.3423"	.001-.0027"	.515"④
460" PI								
1973	Int.	2.245"	29°	30°	.060-.080"	.342"	.001-.0027"	.4809"
	Exh.	1.725"	44°	45°	.070-.090"	.342"	.001-.0027"	.5017"

① – 460" Calif. 1972 .424".
② – 429" SCJ .500" Intake & Exhaust.
③ – 429" CJ & P 1971 .500" Intake & Exhaust.
④ – 429" P 1972 .482" Intake, .501" Exhaust.

VALVE ARRANGEMENT

I-E-I-E-I-E-I-E (Right bank, front to rear). E-I-E-I-E-I-E-I (left bank, front to rear).

VALVE SPRING INSTALLED HEIGHT

Installed height of valve spring must not exceed specifications listed in table below. Measure height from surface of cylinder head spring pad to underside of spring retainer. If height greater than specified, install spacer on head under spring to bring height within limits. *CAUTION – If more than 2 spacers are used, an overload on springs and camshaft will result.*

Valve Spring Height

Engine	Installed Height
429", 460"	1 51/64-1 53/64"

VALVE SPRINGS

Engine	Free Length	PRESSURE (LBS.) Valve Closed	PRESSURE (LBS.) Valve Open
429",460"			
1968-70	2.03"	76-84@1.81"	240-266@1.33"
1971-72	2.068"	76-84@1.81"	217-241@1.33"
1973	.....	71-79@1.78"	161-177@1.39"
429" BOSS			
1970	2.03"	88-96@1.82"	300-330@1.32"
429" CJ, SCJ, P			
1970	2.079"	85-93@1.82"	294-318@1.36"
1971-72	2.03"	88-96@1.82"	300-330@1.32"
460" PI			
1973	.....	88-96@1.82"	300-330@1.32"

1968-73 429", 460" V8 ENGINES (Cont.)

VALVE SPRING INSTALLATION

Spring ends must be square within 1/16". Install springs with closed coil end down toward cylinder head. If damper spring used, end of damper spring coil must be 135° counterclockwise from coil end of valve spring.

VALVE GUIDE SERVICING

To ream guides for installation of valves with oversize stems, use reamers in sequence and reface valve seat after valve guide is reamed. Reamers are furnished .003" oversize with standard diameter pilot; .015" oversize reamer with .003" oversize pilot; and .030" oversize reamer with .015" oversize pilot.

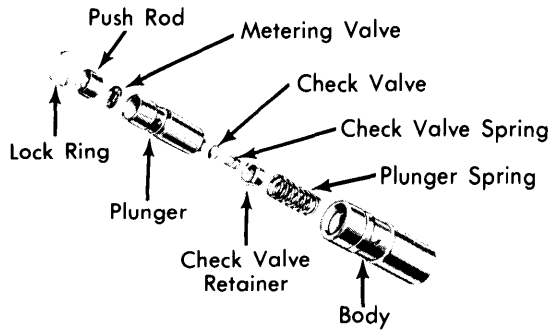
VALVE STEM SEALS

Cup or umbrella type seals used on all valves. Install seals with cup side down over valve guide.

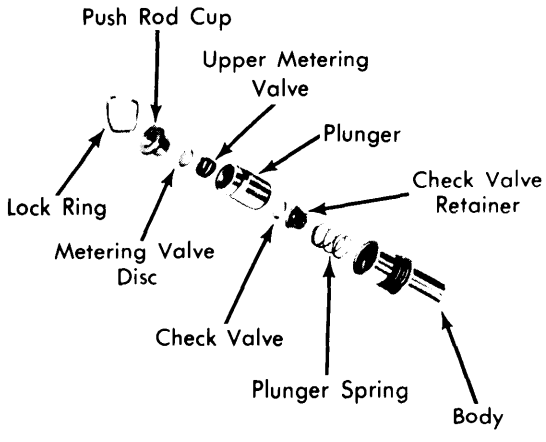
HYDRAULIC LIFTERS

Lifters used may be either Type I or Type II. Complete assemblies of either Type may be interchanged with the other. Internal parts of lifter are matched sets. Do not intermix parts. *Keep assemblies intact before and after cleaning.* If new lifter is to be installed check for free fit in bore in which it is to be installed.

Leak-down Test – Allowable leak-down rate (using tester) is 5-50 seconds under 50 lb. load.



TYPE I



TYPE II 8F3048

HYDRAULIC VALVE LIFTERS

ADJUSTING VALVE CLEARANCE

1968-69

Positive stop rocker arm stud eliminates the necessity of adjusting valve lash. To obtain correct valve lash it is necessary that all valve components be in good condition, and installed and torqued correctly. This condition may be obtained by the following procedure:

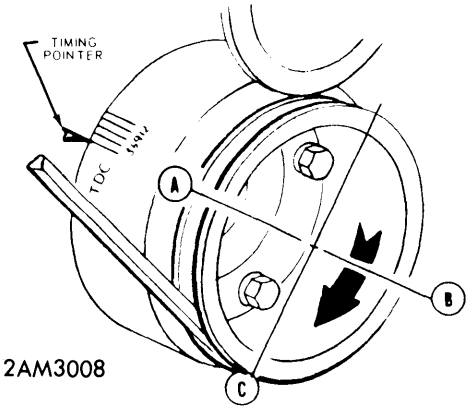
1) Position #1 piston at TDC on compression stroke using TDC timing mark and pointer on crankshaft damper as reference point "A".

2) Make three chalk marks on damper circumference so that damper is marked at increments of 90° from point "A". This gives four reference points on the damper with points "B", "C" and "D" in counterclockwise sequence from point "A".

3) With damper at "A" back stud nut off two turns on intake and exhaust valves of #1 cylinder. Then torque stud nuts to specification.

4) Rotate crankshaft clockwise in successive ¼ turn increments stopping at points "B", "C", "D" and performing stud nut operation described in 3). Check all stud nuts as follows (two complete turns of crankshaft required):

First Turn	Second Turn
At **A** check #1 cylinder	At **A** check #6 cylinder
At **B** check #3 cylinder	At **B** check #5 cylinder
At **C** check #7 cylinder	At **C** check #4 cylinder
At **D** check #2 cylinder	At **D** check #8 cylinder



1968-69
POSITIONS FOR CHECKING VALVE CLEARANCE

1970-73

Repeated valve seat and face reconditioning operations will decrease valve clearance to the point that if a correction is not made, the valve lifters will cease to function. To correct changes a .060" shorter or a .060" longer replacement push rod is available. When adjusting valve clearance, valve lifter must be completely collapsed. Using a suitable tool (T71P-6513-A) slowly depress valve lifter until plunger is bottomed. Hold lifter down and adjust to specifications. The procedure for checking valve clearance is as follows:

1) Rotate crankshaft until No. 1 piston is at TDC (point "A") after compression stroke as indicated by timing mark on crankshaft damper and pointer (see illustration). Make a chalk mark on damper 180° (point "B") from TDC mark. Make chalk mark on damper 90° (point "C") counterclockwise from TDC mark.

1968-73 429", 460" V8 ENGINES (Cont.)

2) With damper at position "A", check the following valves:

Intake No. 1-7-8. Exhaust No. 1-5-4.

3) Rotate crankshaft 180° (1/2 turn) clockwise from position "A" so that position "B" is opposite pointer. Check the following valves:

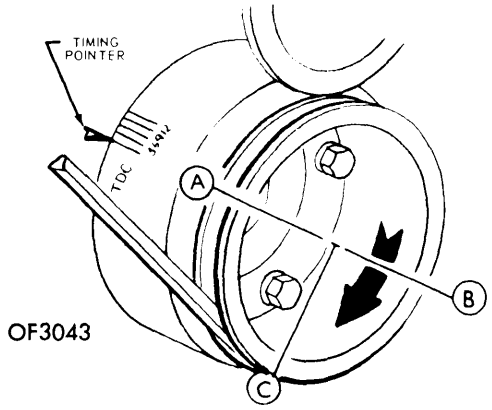
Intake No 5-4. Exhaust No. 2-6.

4) Rotate crankshaft 270° (3/4 turn) clockwise from position "B" so that position "C" is opposite pointer. Check the following valves:

Intake No. 2-3-6. Exhaust No. 3-7-8.

Hydraulic Valve Lifter Clearance

Engine	Clearance
1970 429" & 460"	.075-.175"
1971 429" & 460"	.105-.205"
1972-73 429"	.075-.175"
1972-73 460"	.105-.205"



1970-73
POSITIONS FOR CHECKING VALVE CLEARANCE

1970-71 Mechanical Tappets

Adjust to "Hot" specifications after engine has ran approximately 15 minutes. Set valves with a step type feeler gauge (go no-go).

Mechanical Tappet Clearance

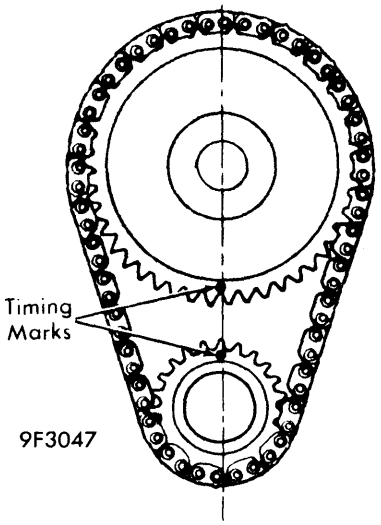
Engine	Clearance
1970 429"	(Hot) .025"
1971 429" Cobra Jet	(Hot) .019"
1971 429" Boss	(Cold) .013"

ROCKER ARM ASSEMBLY

Rocker arms mounted on individual studs threaded into cylinder head. To install, stud threads should be lightly oiled. Thread to stop and torque to specifications.

CHECKING VALVE TIMING

Install a quadrant on crankshaft damper. Remove right rocker arm assembly. Install Dial Indicator Tool 6565 and Indiactor Adapter Tool 6565-AB on cylinder head using holding Fixture Tool 4201-C. Pushrod must be in lifter socket and actuating point of indicator in same plane as pushrod movement. Make sure timing pointer is not bent. Turn engine slowly until lifter is on heal of camshaft lobe. Set indicator on zero and turn engine slowly until indicator registers cam lobe lift as shown in "Camshaft" table below. Compare crankshaft degrees indicated on quadrant with "Valve Timing" table below. Rotate engine to check valve closing specifications in same manner. If reading not correct, check for bent pointer, worn timing chain or sprocket before replacing camshaft.



TIMING MARKS

CAM LOBE LIFT

Engine & Year	LIFT Intake	LIFT Exhaust
429"		
1968-73	.253"	.278"
BOSS 1970	.289"	.289"
Cobra Jet 1970-71	.289"	.289"
Super Cobra Jet 1970	.289"	.289"
1971	.298"	.298"
Police 1971	.289"	.289"
1972	.278"	.290"
460"		
1968-73	.253"	.278"
Calif. 1972	.253"	.245"

CHECKING CAM LOBE LIFT

Check with dial indicator to specifications listed in "Camshaft" table.

CAMSHAFT ENDPLAY

Thrust is to rear. Taken by thrust face of camshaft sprocket riding against front surface of cylinder block.

CAMSHAFT REMOVAL

Remove grille, radiator, engine front cover, intake manifold and carburetor, rocker arm covers and timing chain and sprockets. Back off rocker arm stud nuts, remove push rods and valve lifters. Remove camshaft.

1968-73 429", 460" V8 ENGINES (Cont.)

CAMSHAFT BEARING REPLACEMENT

Remove camshaft, flywheel, rear cover plate, crankshaft. Remove camshaft rear bearing bore plug by drilling ½" hole in center of plug. Pull plug with appropriate tool (T59L-100-B and T58L-1010A). Remove bearings using proper size expanding collet and back-up nut assembled on expanding mandrel. Use same procedure to install bearings. Oil holes in bearings and cylinder block must be aligned. Front bearing should be installed .040-.060" from face of cylinder block. Coat new rear bore plug with sealer and install.

ENGINE OILING

Crankcase Capacity – 4 qts. (5 with filter change). 6 qts. (7 with filter change) Cobra Jet, Police and Boss engines.

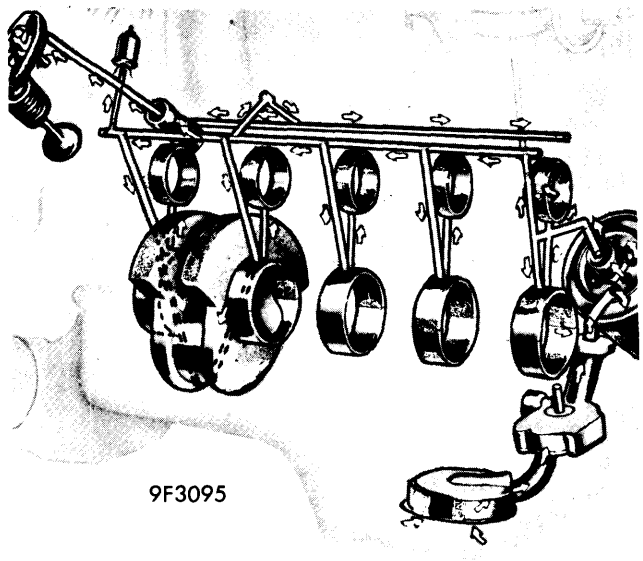
Oil Filter – 1965-72 models change filter every 6,000 miles. 1973 models change filter every 4,000 miles.

Normal Oil Pressure – 35-60 lbs. at 2000 RPM (engine hot).

Pressure Regulator Valve – In pump body. Not adjustable.

OILING SYSTEM

Crankshaft & Camshaft Bearings – Lubricated through vertical passages from main oil gallery, which is fed directly from oil filter.



ENGINE OILING SYSTEM

Rocker Arms, Pushrods & Valves – Oil at normal operating pressures is fed through hydraulic valve lifters to hollow pushrods, to rocker arms and upper valve train components.

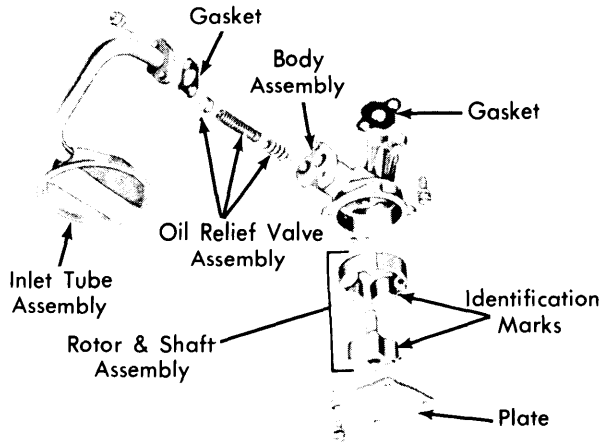
Timing Chain & Sprockets – Lubricated by drainage from No. 1 camshaft bearing.

OIL PUMP

Rotor type mounted inside oil pan, left corner of block. Driven by distributor through an intermediate shaft. *Following specifications apply:*

Oil Pump Specifications

Outer Race-to-Housing Clearance	.006-.013"
Rotor Endplay	.0011-.0041"
Shaft-to-Housing Clearance	.0015-.0029"
Relief Valve-to-Bore Clearance	.0015-.0029"
Relief Valve Spring Pressure	20.6-22.6 lbs. @ 2.49"
Cover Plate Attaching Screw Torque	90-100 inch-lbs.



OIL PUMP (TYPICAL)