

# 1980 Medium & Heavy Duty Gas

## CHRYSLER CORP.

GENERAL SPECIFICATIONS						
Engine	Net HP At RPM	Torque (Ft. Lbs. at RPM)	Compr. Ratio	Bore	Stroke	Displ. Cu. Ins.
318"-3	140@4000	250@2000	7.80:1	3.910"	3.310"	318.31"
360"-3	160@4000	260@2400	8.40:1	4.000"	3.580"	360.10"
413"-3	175@3200	325@2000	7.54:1	4.180"	3.750"	413.40"

VALVES							
Engine & Valve	Head Diam.	Face Angle	Seat Angle	Seat Width	Stem Diameter	Stem Clearance	Valve Lift
318"-3							
Int.	1.806-1.816"	45°	45°	.080-.105"	.3720-.3730"	.017" Max.	.373"
Exh.	1.512-1.522"	45°	45°	.090-.100"	.3710-.3720"	.017" Max.	.400"
360"-3							
Int.	1.875-1.885"	45°	45°	.065-.085"	.3720-.3730"	.017" Max.	.410"
Exh.	1.595-1.605"	43°	43°	.040-.060"	.3710-.3720"	.017" Max.	.400"
413"							
Int.	1.875-1.885"	45°	45°	.063-.094"	.3720-.3730"	.0010-.0020"	.360"
Exh.	1.495-1.505"	45°	45°	.094-.109"	.4330-.4340"	.0030-.0050"	.360"

VALVE SPRINGS			
Engine	Free Length	PRESSURE (LBS.)	
		Valve Closed	Valve Open
318"-3			
Int.	2.000"	78-88 <i>α</i> 1.687"	170-184 <i>α</i> 1.313"
Exh.	1.813"	78-88 <i>α</i> 1.687"	170-184 <i>α</i> 1.313"
360"-3			
Int.	2.000"	78-88 <i>α</i> 1.687"	170-184 <i>α</i> 1.313"
Exh.	2.000"	78-88 <i>α</i> 1.687"	170-184 <i>α</i> 1.313"
413"			
Int.	2.313"	75-85 <i>α</i> 1.859"	173-187 <i>α</i> 1.469"
Exh.	2.125"	80-90 <i>α</i> 1.750"	168-182 <i>α</i> 1.328"

CAMSHAFT			
Engine	Journal Diam.	Clearance	Lobe Lift
318"-3 & 360"-3	.....	.005" Max.	.....
No. 1	1.9980-1.9990"		
No. 2	1.9820-1.9830"		
No. 3	1.9670-1.9680"		
No. 4	1.9510-1.9520"		
No. 5	1.5605-1.5615"		
413"	.....	.001-.003"	.....
No. 1	2.0000"		
No. 2	1.9840"		
No. 3	1.9690"		
No. 4	1.9530"		
No. 5	1.7500"		

CRANKSHAFT MAIN & CONNECTING ROD BEARINGS							
Engine	MAIN BEARINGS				CONNECTING ROD BEARINGS		
	Journal Diam.	Clearance	Thrust Bearing	Crankshaft End Play	Journal Diam.	Clearance	Side Play
318"-3	2.4995-2.5005"	.0005-.0015"	No. 3	.002-.007"	2.1235-2.1245"	.0010-.0020"	.006-.014"
360"-3	2.8095-2.8105"	.0005-.0015"	No. 3	.002-.007"	2.1240-2.1250"	.0005-.0025"	.006-.014"
413"	2.7495-2.7505"	.0015-.0025"	No. 3	.002-.009"	2.3740-2.3750"	.0010-.0020"	.009-.017"

## CHRYSLER CORP. (Cont.)

PISTONS, PINS, RINGS						
Engine	PISTONS	PINS		RINGS		
	Clearance	Piston Fit	Rod Fit	Rings	End Gap	Side Clearance
318"-3	.0005-.0015"	.00045-.00075"	.0007-.0014"	1&2 3	.010-.020" .015-.055"	.0015-.0030" .0005-.0050"
360"-3	.0005-.0015"	.00025-.00075"	.0007-.0017"	1&2 3	.010-.020" .015-.055"	.0015-.0030" .0005-.0050"
413"	.0003-.0013"	.00045-.00075"	.0007-.0014"	1&2 3	.013-.023" .013-.025"	.0010-.0025" .0010-.0025"

### OIL PUMP SPECIFICATIONS

#### 318" & 360"

Pump Cover Wear	.0015" Max.
Clearance Over Rotors	.004" Max.
Outer Rotor Diameter	2.469" Min.
Inner & Outer Rotor Thickness	.649" Min.
Outer Rotor-to-Pump Body	.014" Max.
Relief Valve Spring	16.2-17.2 lbs. @ 1.344"

#### 413"

Pump Cover Wear	.0015" Max.
Outer Rotor Thickness	.943" Min.
Inner Rotor Thickness	.942" Min.
Outer Rotor Diameter	2.469" Min.
Outer Rotor-to-Pump Body	.014" Max.
Clearance Over Rotors	.004" Max.
Tip Clearance Between Rotors	.010" Max.
Relief Valve Spring	22.3-23.3 lbs. @ 1.549"

### TIGHTENING SPECIFICATIONS

#### 318" & 360"

Application	Ft. Lbs.
Cylinder Head Bolts ①	95
Main Bearing Cap Bolts	85
Connecting Rod Cap Nuts	45
Vibration Damper-to-Crankshaft Bolt	100
Flywheel Bolts	55

① — See cylinder head tightening sequence.

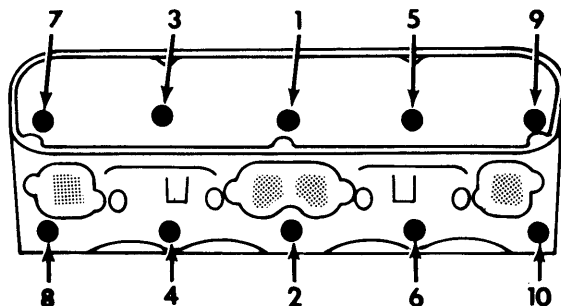
#### 413"

Application	Ft. Lbs.
Cylinder Head Bolts ①	70
Main Bearing Cap Bolts	85
Connecting Rod Cap Nuts	45
Vibration Damper-to-Crankshaft Bolt	135
Flywheel Bolts	5

① — See cylinder head tightening sequence.

### CYLINDER HEAD TIGHTENING SEQUENCE

#### 318" & 360"



#### 413"

