

Engine Description

Displacement	429"
Compression ratio	9.3:1
Cylinder case	GM LSX
P/N	19213964
Crankshaft	Callies 4340 4.0" stroke
P/N	APO31N-CS
Connecting rods	Callies 6.125" H beam rods w/ARP 2000 7/16" bolts
P/N	CSC6125DS2A2AH
Pistons	Diamond forged pistons w/tool steel wrist pins
P/N	6755
Rings	Total Seal 1.5mm stainless top, 1.5mm napier 2nd, 3mm oil rings
P/N	08-0008
Main brgs	Clevite H series
P/N	MS2199HX
Rod brgs	Clevite H series
P/N	CB663HN
Cam brgs	Dura Bond one piece
P/N	GM-9
Main cap fasteners	ARP studs
P/N	234-5608
Camshaft	Cam Motion custom
P/N	
Timing set	N Motion double
P/N	7245
Oil pump	Melling HP/HV
P/N	10296

Clearances

Piston to bore		.005"
Main brg. clearance		.0028"
Rod brg. clearance		.0025"
Ring end gap	top	.024"
	2nd	.024"
Rod side clearance		.020"
Crank endplay		.004"
Deck height		9.230"
Quench distance		.045" w/.050"
Piston to valve	int.	.100" ±
	exh.	.100" ±
Cam Specs:		
Duration @ .050"		228 236
Lift.	int.	.630"
	exh.	.635"
Lobe separation		114
Intake center line		110
Valve lash	hot	n/a

Engine Description (Continued)

Cylinder head fasteners	ARP 2000 Pro Series 12pt
P/N	234-4319
Head gaskets	Cometic MLS 4.155" x .051" x 6 bolt
P/N	
Lifters	Morel Hyd. Roller
P/N	
Push rods	TFS-21408050
P/N	
Rocker arms	Crower shaft mount adjustable 1.8 1.8 ratio
P/N	
Intake manifold	
P/N	
Throttle body	
P/N	
Injectors	
P/N	
Covers	
Front	GM LS2 w/cam sensor
P/N	12600325
Rear	GM LSX
P/N	19166179
Valley	GM LS2
P/N	12570471
Oil pan	
P/N	
Balancer	
P/N	
Misc.	

Balance Card

Rod rot.	459
Rod rot.	459
Piston/pin	598.5
Rings	43
Locks	4
Rmc	86
Oil	5
Rod rec.	174
Total bob weight (g)	1828.5

Casting	ET LS7
Intake valves	tip 2.125"
P/N	
Exhaust valves	REV stainless 1.600
P/N	
Springs	PAC dual
P/N	
Installed height	1.860"
Coil bind	1.100"
Seat Pressure (lbs)	155
Open Pressure (lbs)	450
lbs	
P/N	
Retainers	Titanium
P/N	
Locators	Machined steel
P/N	
Keepers	Machined steel
P/N	
Valve seals	Viton
P/N	
Combustion chamber volume	65cc
Misc. Info	

Suggested Engine Break-in Procedure