

COPO SPECS & STATS P/N 20129562: 2014/2015 Features

2014/2015 FEATURES	350 Naturally Aspirated	396 Naturally Aspirated	427 Naturally Aspirated	350 Supercharged
NHRA HORSEPOWER RATINGS	350	390	430	530
RECOMMENDED MAX ENGINE RPM	8000	8000	8000	8000
TRANSMISSION: Automatic	ATI Racing Products TH400 SFI-approved ATI "Super Case" Helical low gear – – – 4340 input shaft with aluminum forward drum Aluminum direct drum with 34 element sprag Extreme-duty clutches and steels Blueprinted high-flow pump Deep aluminum pan Reverse-manual valve body Fluid overflow catch can	ATI Racing Products TH400 SFI-approved ATI "Super Case" Helical low gear – – – 4340 input shaft with aluminum forward drum Aluminum direct drum with 34 element sprag Extreme-duty clutches and steels Blueprinted high-flow pump Deep aluminum pan Reverse-manual valve body Fluid overflow catch can	ATI Racing Products TH400 SFI-approved ATI "Super Case" Helical low gear – – – 4340 input shaft with aluminum forward drum Aluminum direct drum with 34 element sprag Extreme-duty clutches and steels Blueprinted high-flow pump Deep aluminum pan Reverse-manual valve body Fluid overflow catch can	ATI Racing Products TH400 SFI-approved ATI "Super Case" Helical low gear Vasco intermediate shaft Heavy duty steel forward clutch drum Heavy duty center support Vasco input shaft with aluminum forward drum Severe-duty aluminum direct drum Extreme-duty clutches and steels - increased clutch capacity Blueprinted high-flow pump Deep aluminum pan Reverse-manual valve body Fluid overflow catch can
Gear ratios:				
1st	2.48	2.48	2.48	2.48
2nd	1.48	1.48	1.48	1.48
3rd	1.00	1.00	1.00	1.00
TRANSMISSION: Manual	G-Force "G101A" 4-speed	G-Force "G101A" 4-speed	G-Force "G101A" 4-speed	N/A
Gear ratios:				
1st	3.17	3.17	3.17	N/A
2nd	1.87	1.87	1.87	N/A
3rd	1.33	1.33	1.33	N/A
4th	1.00	1.00	1.00	N/A
Clutch	Hyatt Racing Services/Mcleod adjustable 10.5"	Hyatt Racing Services/Mcleod adjustable 10.5"	Hyatt Racing Services/Mcleod adjustable 10.5"	N/A
Flywheel - Manual only	Mcleod SFI-Approved Aluminum	Mcleod SFI-Approved Aluminum	Mcleod SFI-Approved Aluminum	N/A
TORQUE CONVERTER (AUTOMATIC ONLY)	ATI Racing Products "Treemaster MRT" Series 8" diameter housing Furnace brazed impeller and turbine fins Precision pump drive tube Heavy duty needle bearings Investment cast cover	ATI Racing Products "Treemaster MRT" Series 8" diameter housing Furnace brazed impeller and turbine fins Precision pump drive tube Heavy duty needle bearings Investment cast cover	ATI Racing Products "Treemaster MRT" Series 8" diameter housing Furnace brazed impeller and turbine fins Precision pump drive tube Heavy duty needle bearings Investment cast cover	ATI Racing Products "Treemaster MRT" Series 8" diameter housing Furnace brazed impeller and turbine fins Precision pump drive tube Heavy duty needle bearings Investment cast cover
Flex Plate - Automatic only	Steel ATI "Super Plate" - SFI-approved	Steel ATI "Super Plate" - SFI-approved	Steel ATI "Super Plate" - SFI-approved	Steel ATI "Super Plate" - SFI-approved
SHIFTER: Automatic	Hurst "Quarterstick" — 3-speed automatic Reverse pattern Built-in neutral safety switch	Hurst "Quarterstick" — 3-speed automatic Reverse pattern Built-in neutral safety switch	Hurst "Quarterstick" — 3-speed automatic Reverse pattern Built-in neutral safety switch	Hurst "Quarterstick" — 3-speed automatic Reverse pattern –
SHIFTER: Manual	Long V-Gate	Long V-Gate	Long V-Gate	–
ENGINE				
Block	Chevrolet Performance LS7 aluminum	Chevrolet Performance LS3 aluminum	Chevrolet Performance LS7 aluminum	Chevrolet Performance LSX cast-iron with steel main caps
Bore, Stroke	4.125" x 3.270"	4.065" x 3.825"	4.125" x 4.00"	4.065" x 3.370"
Static Compression Ratio	10.6:1 nominal	10.4:1 nominal	13.0:1 nominal	10.9:1 nominal
Crankshaft	Callies 4340 "Dragonslayer"	Callies 5140 "Compstar"	Callies 5140 "Compstar"	Callies 4340 "Dragonslayer" — double-keyed stout
Rods	Callies 4340 H-beam "Ultra Rods"	Callies 4340 H-beam "Ultra Rods"	Callies 4340 H-beam "Compstar"	Callies 4340 H-beam "Ultra Rods"
Length	6.350"	6.200"	6.100"	6.350"
Pin Bore Diameter	.927"	.927"	.927"	.927"
Bearings	Clevite "H-Series" heat-treated tri-metal rod and main bearings	Clevite "H-Series" heat-treated tri-metal rod and main bearings	Clevite "H-Series" heat-treated tri-metal rod and main bearings	Clevite "H-Series" heat-treated tri-metal rod and main bearings
Pistons	Mahle forged 2618 alloy Dome Graphal coating Friction-coated skirts	Mahle forged 4032 alloy Flat Top Graphal coating Friction-coated skirts	Mahle forged 2618 alloy Dome Graphal coating Friction-coated skirts	Mahle forged 2618 alloy Dome Graphal coating Friction-coated skirts
Piston Rings	Mahle .043" x .043" x 3 mm Ductile iron top with radius molybdenum face Plain cast-iron tapered 2nd Chrome-plated oil rails with low-tension expander	Mahle 1.5" x 1.5" x 3 mm Ductile iron top with radius molybdenum face Plain cast-iron tapered 2nd Chrome-plated oil rails with low-tension expander	Mahle .043" x .043" x 3 mm Ductile iron top with radius molybdenum face Plain cast-iron tapered 2nd Chrome-plated oil rails with low-tension expander	Mahle .043" x .043" x 3 mm Ductile iron top with radius molybdenum face Plain cast-iron tapered 2nd Chrome-plated oil rails with low-tension expander
Camshaft	Chevrolet Performance steel billet hydraulic roller	Chevrolet Performance steel billet hydraulic roller	Chevrolet Performance steel billet hydraulic roller	Comp Cams steel billet hydraulic roller
Duration	226° IN / 236° EX @ .050" lift	233° IN / 276° EX @ .050" lift	233° IN / 276° EX @ .050" lift	242° IN / 257° EX @ .050" lift
Theoretical valve lift	.525" IN / .525" EX	.595" IN / .595" EX	.630" IN / .630" EX	.630" IN / .630" EX
VALVETRAIN				
Tappets	Chevrolet Performance "Ceramic Ball" high-rpm hydraulic roller	Chevrolet Performance "Ceramic Ball" high-rpm hydraulic roller	Chevrolet Performance "Ceramic Ball" high-rpm hydraulic roller	Chevrolet Performance "Ceramic Ball" high-rpm hydraulic roller
Pushrods	3/8" diameter Trend Performance chrome moly	3/8" diameter Trend Performance chrome moly	3/8" diameter LS7	3/8" diameter Chevrolet Performance LS7
Rocker Arms	1.7:1 ratio LS9 with roller trunions	1.7:1 ratio LS9 with roller trunions	1.8:1 ratio LS7 with roller trunions	1.8:1 ratio LS7 with roller trunions
Valve Springs	Performance Springs Incorporated (PSI) "Max Life" beehive	Performance Springs Incorporated (PSI) "Max Life" beehive	Performance Springs Incorporated (PSI) "Max Life" beehive	Performance Springs Incorporated (PSI) "Max Life" beehive
Spring Seats	Chevrolet Performance Hardened steel	Chevrolet Performance Hardened steel	Chevrolet Performance Hardened steel	Chevrolet Performance Hardened steel
Retainers	Chevrolet Performance Lightweight steel	Chevrolet Performance Lightweight steel	Chevrolet Performance Lightweight steel	Chevrolet Performance Lightweight steel
Cylinder Heads	Aluminum based on LS3	Aluminum based on LS3	Fully CNC'ed aluminum based on LS7	Fully CNC'ed aluminum based on LSX LS7
Nominal Intake Port Volume	265 cc	265 cc	280 cc	280 cc
Nominal Exhaust Port Volume	88 cc	88 cc	95 cc	95 cc
Nominal Combustion Chamber Volume	68 cc	68 cc	70 cc	70 cc
Intake Valves	Hollow stem steel	Hollow stem steel	Del West titanium	Del West titanium
Head Diameter, Stem Diameter	2.165" x 8 mm	2.165" x 8 mm	2.205" x 8 mm	2.205" x 8 mm
Exhaust Valves	Lightweight sodium-filled exhaust valves	Lightweight sodium-filled	Lightweight sodium-filled	Lightweight sodium-filled
Head Diameter, Stem Diameter	1.590" x 8 mm	1.590" x 8 mm	1.615" x 8 mm	1.615" x 8 mm
Head Gaskets	Chevrolet Performance LS7 multi-layer steel head gaskets	Chevrolet Performance LS9 multi-layer steel head gaskets	Fel-Pro Performance multi-layer steel with raised cylinder sealing bead	Cosmetic multi-layer steel with raised cylinder sealing bead
Oil Pump	Internal wet sump	Internal wet sump	Internal wet sump	Internal wet sump
Oil Pan	Deep-sump cast aluminum	Deep-sump cast aluminum	Fabricated Aluminum	Fabricated Aluminum
Capacity	6 quarts	6 quarts	7 quarts	7 quarts
Damper	ATI Performance Products "Super Damper" - SFI approved	ATI Performance Products "Super Damper" - SFI approved	ATI Performance Products "Super Damper" - SFI approved	ATI Performance Products "Super Damper" w/10-rib shell – SFI-approved
Water Pump	Meziere Billet electric water pump	Meziere Billet electric water pump	Meziere Billet electric water pump	Chevrolet Performance LS3
Intake Manifold/Induction	Chevrolet Performance/Holley "Hi Ram"	Chevrolet Performance/Holley "Hi Ram"	Chevrolet Performance/Holley "Hi Ram"	Whipple Industries 2.9L twin-screw supercharger
Throttle Body	Whipple Industries - Billet Aluminum	Whipple Industries - Billet Aluminum	Whipple Industries - Billet Aluminum	Whipple Industries - Billet Aluminum
Blade Size	90mm	90mm	90mm	109mm
HEADERS	American Racing Headers 2" x 30" primary with merge collectors 304 Stainless Steel	American Racing Headers 2" x 30" primary with merge collectors 304 Stainless Steel	American Racing Headers 2" x 30" primary with merge collectors 304 Stainless Steel	American Racing Headers 2" x 30" primary with merge collectors 304 Stainless Steel
FUEL SYSTEM	Aeromotive "Eliminator" fuel pump — free flow rating = 800 lb/hr Aeromotive "A1000" pressure regulator with manifold pressure compensation capability Aeromotive 10-micron high-flow filter Lightweight black nylon braided-8 AN hoses Black anodized aluminum-8 AN hose ends and fittings High-impedance fuel injectors Fuel Pressure: 70 psi base	Aeromotive "Eliminator" fuel pump — free flow rating = 800 lb/hr Aeromotive "A1000" pressure regulator with manifold pressure compensation capability Aeromotive 10-micron high-flow filter Lightweight black nylon braided-8 AN hoses Black anodized aluminum-8 AN hose ends and fittings High-impedance fuel injectors Fuel Pressure: 70 psi base	Aeromotive "Eliminator" fuel pump — free flow rating = 800 lb/hr Aeromotive "A1000" pressure regulator with manifold pressure compensation capability Aeromotive 10-micron high-flow filter Lightweight black nylon braided-8 AN hoses Black anodized aluminum-8 AN hose ends and fittings High-impedance fuel injectors Fuel Pressure: 70 psi base	Aeromotive "Eliminator" fuel pump — free flow rating = 800 lb/hr Aeromotive "A1000" pressure regulator with manifold pressure compensation capability Aeromotive 10-micron high-flow filter Lightweight black nylon braided-8 AN hoses Black anodized aluminum-8 AN hose ends and fittings High-impedance fuel injectors Fuel Pressure: 60 psi base (boost compensation used for supercharged engines)
Flow Rate	43 lb/hr @ 58 psi with EV6/USCAR connector	43 lb/hr @ 58 psi with EV6/USCAR connector	58 lb/hr @ 58 psi with EV6/USCAR connector	80 lb/hr @ 43.5 psi with EV1 connector
Gears & Axles	Strange Engineering 9" aluminum center section Lightweight steel spool Strange Engineering 9310 alloy Strange Engineering 35-spline axles	Strange Engineering 9" aluminum center section Lightweight steel spool Strange Engineering 9310 alloy Strange Engineering 35-spline axles	Strange Engineering 9" aluminum center section Lightweight steel spool Strange Engineering 9310 alloy Strange Engineering 35-spline axles	Strange Engineering 9" aluminum center section Lightweight steel spool Strange Engineering 9310 alloy Strange Engineering 35-spline axles
Differential Gearing	Automatic: 4.86:1 Manual: 5.43:1	Automatic: 4.57:1 Manual: 5.29:1	Automatic: 4.57:1 Manual: 5.00:1	Automatic: 4.10:1 Manual: N/A
Drive Shaft	Manual: 4" OD x .065" wall steel tube Automatic: 4" OD x .125" wall 6061-T6 aluminum tube Chromoly end caps Billet steel slip yoke Heavy-duty 1350 universal joints	Manual: 4" OD x .065" wall steel tube Automatic: 4" OD x .125" wall 6061-T6 aluminum tube Chromoly end caps Billet steel slip yoke Heavy-duty 1350 universal joints	Manual: 4" OD x .065" wall steel tube Automatic: 4" OD x .125" wall 6061-T6 aluminum tube Chromoly end caps Billet steel slip yoke Heavy-duty 1350 universal joints	Manual: 4" OD x .065" wall steel tube Automatic: 4" OD x .125" wall 6061-T6 aluminum tube Chromoly end caps Billet steel slip yoke Heavy-duty 1350 universal joints
Hood	Base Fiberglass COPO	Base Fiberglass COPO	Base Fiberglass COPO	Carbon Fiber
Parachute	–	–	–	Yes
Wheelie Bar	Optional	Optional	Optional	Optional

2014 Features standard for 350, 396, 427 Naturally Aspirated and 350 Supercharged

ENGINE CONTROLS & IGNITION	Holley "HP" electronic fuel injection processor • Speed density operation • Wide-band O2 sensor included Cable-actuated throttle Production LS7 ignition coils Production LS7 secondary wires GM sensors
ELECTRICAL	Dash-installed control switches: • Starter • Ignition • Fuel pump • Water pump • Cooling fan • Intercooler Pump - 350 Supercharged equipped cars only • Lights
GAUGES	Autometer with gold "Bowtie" logo on dials • 5" 10K RPM tach with shift light • Electronic water temp with 2.0625" face and 100°-260°F range • Electronic trans temp with 2.0625" face and 100°-260°F range - Automatic transmission equipped cars only • Electronic brake pressure 2.0625" face and 0 - 1600 psi range - Manual transmission equipped cars only • Electronic oil pressure with 2.0625" face and 0-100 psi range • Electronic fuel pressure with 2.0625" face and 0-100 psi range • Voltmeter with 2.0625" face and 8-18v range
SAFETY	RJS Safety Equipment 3" driver restraints RJS Safety Equipment window net
CHASSIS	Chromoly cage – NHRA certified to 8.50 ET Sub-frames tied together Front engine cradle modified to accept additional oil pan clearance Rear sub-frame modified to accept unique COPO NHRA Stock Eliminator suspension
REAR SUSPENSION	4-bar with adjustable top links Adjustable Panhard link Double-adjustable Strange Engineering coil over shocks Anti-roll bar
FRONT SUSPENSION	Adjustable Strange Engineering coil over struts Sway bar removed
STEERING	Production steering gear modified for manual (non-assist) operation
BRAKES	Lightweight vented rotors Billet 4-piston lightweight calipers Lightweight tandem master cylinder OEM pedal modified to mount master cylinder All components provided by Strange Engineering
WHEELS	Bogart Racing light-weight with unique COPO logo Weld light weight with unique COPO logo
TIRES	Rear – Auto trans: 9.0 / 30.0R - 15 94.0" Radial Rear – Manual trans: 9.0 / 30.0 - 15 94.0" Bias Ply Front – 4.5 / 28.0 - 15 Drag only