

GESSFORD MACHINE INC
COBRA ENGINE QUOTE

Date: 2009 Customer: Sean Sawyer - Revved Auto Concepts Unique Current FE
Job #: Verbal Engine Type: 427 Aluminum Block Built to 511 Engine Year: New

QT	DESCRIPTION	PRICE	TOTAL
	Updating 4/15/09 For #1 of 2 engines Updated 4/18/09 George, 4/20/09 - Final 4/21/09 (Updated 8/6/09)		
	Block Labor Options		
1	1 Receive & Clean New Aluminum Shelby 427 Block CSX 1029	-	-
8	8 Bore Block 4.375 For Arias Piston (Size specified) Piston Clearance Per Arias Using BHJ Deck Plate (Super Charged)	-	- Bore 4.375"
1	1 Align Bore Block 85# Torque W/moly lube, Cross Bolts At 20# Torque & 0 Then 36# Torque W/ ARP Lube (replace Shelby bolts W/ARP Cross Bolts) 0 Blocks we offer are purchased .002" under on the mains-we finish to our size	-	-
0	Crank Labor Options	-	-
1	1 Clean New Crankshafts Scat Billet 4.250 Stroke	-	- Stroke 4.250"
1	1 Check & Polish Crankshaft after balance work completed	-	-
0	Connecting Rod Labor Options & Required Operations	-	-
8	8 Install new Pistons On Connecting Rods (Floaters)	-	-
8	8 Clean New Oliver Rods And Torque To Specs	-	-
8	8 Side Clearance rods to .990 as required	-	-
8	8 Check Big End (Light Dust Out) And Pin Fit On New Oliver Rod Sets	-	-
	Other Labor	-	-
	Head Labor Options	-	-
2	2 Pressure Check Aluminum Heads (ok)	-	-
2	2 Pressure Check Aluminum Heads (After Port work if specified)	-	-
8	8 Machine Edelbrock 76CC (427 6008) Heads For Big Valves As Follows 0 Intakes From 2.09" To 2.190" And Exhaust 1.655 to 1.700" & fit guides	-	-
8	8 Final Grind Valves & Seat Race Angle 2008/2009 Performance 0 Intake: 20/30/45 Deg. And Exhaust: 30/45 Deg. (Or As Required)	-	-
2	2 Update Edelbrock Oil Drain Backs and Other Gessford Mods	-	-
2	2 Final Clean Heads & Parts For Assembly	-	-
2	2 Assemble Heads at 1.900" For 174# Per Cam Spec card And Spring -- 0 >>>>>>Or as specified for Customer Cam Selection<<<<<<<<	-	-
2	2 BLOCK OFF Block To Head Rocker Oiling Drilled Plug	-	-
1	1 Pressure Check Aluminum Intake Manifold	-	-
1	1 Pressure Check Aluminum Intake Manifold After Port Work if specified	-	-
0	These Operations Are After Dummy Checking Engine Assembly And Prior To Final Engine Assembly	-	-
	Dummy Engine Assembly To Check All Clearances As Follows: Mandatory Operations. Prior to Engine Balancing & Building For All Engine The obtain exact size for Velasco to Grind New Crank.....	-	-
1	1 Install Crankshaft Main Bearings In Housing Bore At Correct Torque _____ Of 85# Using Bolt/Stud Lube moly, To Obtain Size To Grind Crankshaft Mains STD For Clearance Of .0025"	-	-
8	8 Install Connecting Rod Bearings In Rods At Correct Torque W/Oliver Lube And Obtain Size To Grind Crankshaft To For Clearance Of .0023" If New Rods Or Reconditioned Check The Tang Cut In The Rods For --- Correct bearing Fit In The Cap And In The Rod - (Correct If Required)	-	-

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1	1	Install Pistons And Check Piston To Valve Clearances Intake .100 ---- Exhaust .120, With Camshaft Degreed At 108 Intake C/L Per Cam Card Intake Clearance: .200 Exhaust Clearance: .200 As Measured Intake Clearance: _____ Exhaust Clearance: _____ (Final Clearance)	-	-
1	1	Check Exhaust Valve Clearance To Cylinder Bore For Minimum Of .060" --- At Full Lift + .050" (Outside Diameter Of Exhaust Valve To Bore) This Is Done With Head Installed And Test Springs With Camshaft Degreed (Above Check Is Done While Checking For Valve To Piston Clearances)	-	-
8	8	Verify Piston Protrusion Or Piston Recession To Deck Is Consistent At -.005	-	-
1	1	Install Heads and Rocker Arms To Check For Correct Push Rod Length --- 0 Std Length For Comp Solid & Roller 9.157" (Actual Req'd: 8.800) (Crane Push Rod Measures Ball To Cup Face, Comp Ball to Cup Depth) Precalculate Bob Weight for Velasco to build crankshaft(incl in price)	-	-
1	1	Balance Engine Rotating Assy Complete (Bob Weight 2274) Assemble Engine Complete (As Listed) (Nov - Jan Only)	-	-
1	1	Assemble FE Engine providing all Specifications/Clearances/Torque's 1/07 This Assembly Includes Pulleys to Clutch And Ready For The Test Stand Bell Housing Dialed In, Camshaft Degreed, Valves Set, Brass Gear Installed Belts Installed, Water Pump & Pulleys etc., Distributor & Wire Made Up	-	-
1	1	Optional Adder If Special Engine Circumstances (Shelby Alum Block) Included labor for CSX hood fit for 1x4 Single Plane Upgrade Install Engine On Test Stand (As Listed)	-	-
1	1	Install Customer Engine On Test Stand This Includes Installing Starter And Other Parts Required To Test Engine. Our Gauges, Hoses, Fuel Lines, Test Stand Radiator Hoses (Final Hose Connections will Be Required When You Install In Chassis)	-	-
		Test Run Engine And Perform Required Operations (As Listed)	-	-
1	1	Test Run Engine, Run Timing, Tune Carb, Re Adjust Valves 1500-2000 RPM's 1 hour minimum prior to dyno work Includes Removing Engine From Stand Includes Checking Oil Filter Internal Condition	-	-
1	1	Special Built Engine Crate/Stand For Shipments Are Available 6654S JBA Try-Y Headers (Maybe) 1.750" Tube need port size on flange	-	-
		Motor Specifications: By Neil Groff	-	-
		Connect Rod Brg Clearances: 1-.0025 2-.0025 3-.0024,4-.0024 5-.0024 6-.0024 7-.0024 8-.0025 Connecting Rod Side Clearance: 1/5-.025",2/6-.025",3/7-.025",4/8-.026" Main Brg Clearances: 1-.0018, 2-.0018, 3-.002, 4-.0018,5-.002" Cam Bearing Clearances: 1-0035, 2-.003, 3-.0035, 4-.002, 5-.0025" Cam brgs installed By Shelby Ftry Crankshaft End Play .005", Camshaft End Play: .006" Cam degreed to 108 Degree Int/C/Line Ring End Gap: Top .026" 2nd .026" Oil .025"	-	-
		Additional Customer Labor for Engine Build by Neil Groff	-	-
1	1	Disassemble M57HV Oil Pump, includes Pressure Relief Valve, Polish Oil Pump Intake Port & Exhaust Port, Port Match to Mounting Surface of Block, Clean and Reassemble Pump	-	-
1	1	Port Match Shelby Block to Oil Pump Exhaust Port	-	-
1	1	Machine Base Plate of Jesel System for Head Stud & Stud Nut Clearances	-	-
1	1	Shorten Shelby Head Studs to Clear Jesel Base Plate as Required	-	-
		Total Labor Required As Listed Above	-	-

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	Part List Options/Requirements	-	
1	1 Clevite MS1010HX Performance Main Brg Set s	-	- Clevite Brgs
8	4 Clevite CB743HXN Performance Rod Bearings in Caps (halves)	-	-
8	4 Clevite CB743HN Performance Rod Bearings in Rods (halves)	-	-
1	0 Use Shelby Cam Bearing installed in Block	-	-
1	0 260-1035 Base Felpro Gasket Rebuild Set	-	-
1	1 Felpro RACE remainder set 2720	-	-
1	1 Felpro VS13049C Valve Cover Gasket Set	-	-
		-	-
1	1 OS11701C Pan gasket for windage tray (Aviaid)	-	-
1	1 Intake Gasket SCE 234101 Intake Gaskets	-	-
2	2 1020 Felpro Head Gaskets (Aluminum FE Heads)	-	- Felpro Gaskets
1	0 SCE 034186 Pro-Copper Flat Large Shelby Header Exhaust Gasket (FE) Alternate SCE 4034 & 4134 or as required for Head configuration	-	-
1	1 Ford FE Cam Plug	-	-
1	1 Assy Mats.. Including RTV Silicon, Sealer & assy Lubes(Assy Only)	-	-
1	1 ProGear Double Roller Extreme Duty Timing Set	-	-
1	1 154-7902 ARP HD Performance Oil Pump Shaft	-	-
1	1 M57HV Hi-Vol Oil Pump Melling Pump	-	-
	Pistons As Required For Compression Ratio And Application	-	- Minus
8	8 Arias Special Order W/Pins/Retainers/Fitted Job# 1.320 CD -62CC D Cup	-	- 62CC Piston
	Includes: .990 Pins, (32) SpiroLocks 990043S	-	- 1.320 CD
	Custom Blower Specified Piston 8:1 Comp	-	-
	Ring Set As Required For Application	-	-
1	1 Hastings Rings 2M5528060 4.380 For Supercharged Engines	-	-
	Roller Rocker Systems	-	-
1	1 Jesel Rocker System KPS-2504410 J2K 1.76 Ratio	-	-
	Camshaft & Lifter Options	-	-
1	1 Comp Hyd Roller Camshaft Package as required 33-000-9 FB3357B/3358B HR 112.0 Deg LSA at .050 248/254 .577/.586 .303/.309 @ .006 112 LSA (serial# P 1227-08) Int C/L 108.0 Valve Lift .587/.596 Lobe Lift .334/.339	-	-
		-	-
1	1 Comp Hyd Roller Lifter Kit 8934-16	-	- Comp Cams
1	1 Upgrade to Beehive Springs 26095-16 174# @ 1.900"	-	-
1	1 upgrade to 785-16 Titanium Retainers	-	-
1	1 4711-16 Comp Spring Cups	-	-
1	1 612-16 Comp 10 Degree super locks	-	-
1	1 QualCast Positive Stem seals	-	-
1	1 Comp 4757 Spring Shim Kit	-	-
16	16 Smith Bros Push Rods NH58BGB 8.800 .030 Restricted 5/16 x .083 4130HT .030 Oil Restricted 8.800" long B5732SD - 5/32 R Ball .030 Oil Rest. B5732SB - 5/32 R Ball	-	-
1	1 Engine Oil Supplement for Break-In 1052367 (1/3 in Filter & 2/3 in Oil)	-	-
		-	-
2	2 22470 Moroso Performance Oil Filters (one For Assembly Test Run + One)	-	-
1	1 Innovators West Alum.Viscous Dampner Serial # A532452	-	- Innovators West
1	1 Innovators West Short Seal Tube Alum	-	- Viscous Dampner
1	1 Timken 88187 Speedi-Sleeve for Sleeve Seal above	-	-
1	1 ARP 150-2501 Dampner Bolt 5/8" 189# W/ARP Lube	-	-
2	2 S/B rear Crank Gear & Sleeve keys,Velasco, Pankl, Scat Racing Keyways	-	-
1	0 Stock Ford FE Crankshaft Long Key	-	-
1	1 1/4 x 1/4 x 3/4" Long Dampner Key	-	-
1	1 690-032 Brass Pilot Bushing (Rear FE's For Manual Trans)	-	-
		-	-

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		Transmission/Bell Housing/Clutch	-	-
1	0	TKO II HD Road Race Tremek 5 Speed Transmission	-	-
1	0	Short Shaft Option Installed	-	-
3	0	12345349 GM Tranny Fluid For TKO	-	-
1	0	Lakewood 15210 Bell Housing FE SFI 2000 Approved(used ours to run motor)	-	-
1	0	Lakewood 15961(.007),15964(.014),15961(.021)Alignment Dowels (.500 Dial)	-	-
1	0	McLeod Pressure Plate Dpgm 360821	-	-
1	0	McLeod Hydraulic Throw Out Brg for TKO and Std	-	-
1	0	McLeod Hydraulic T/O Spacer as required	-	-
1	0	McLeod 260873R Kevlar Perf Disc for TKO 600	-	-
1	0	Pressure Plate Bolt set 5/16 for McLeod and Std Ford	-	-
		Flywheel/Flexplate	-	-
1	0	McLeod Lt Wt Steel Flywheel Internal Bal SFI Approved 463215	-	-
		Flywheel Bolts - see parts below	-	-
		Motor Mounts ETC.	-	-
2	0	Set Of FE Motor MountsBy Shelby or Cobra Mfgr.	-	-
			-	-
		Other Options	-	-
1	1	Shelby Oil Block Plate for Remote Oil Cooler/Filter	-	-
1	0	Aviaid 55410 Oil Pan 9Qt W/P-Up & Windage Tray - Street & Race	-	-
1	1	Aviaid Windage Tray as required for Customers pan	-	-
1	0	Hi Torque FE Starter (Gear Reduction) CVR ProTorque Maximum 5048M 5049M is FE 390/427/428 5048M is FE Shelby Block Applications	-	-
1	0	MSD 5101 Billet Alternator 105 AMP	-	-
1	0	MSD 5168 2G One Wire Kit	-	-
1	0	Alternator Ford 55 AMP per Kris @ Shelby 67 Mustang Vintage	-	-
1	0	Polished Alternator Housing Kit adder	-	-
1	0	Polished Alum. Alt Bkt W/Bolt/Spacer and Incls Our Chrome Adjusting Arm	-	-
1	0	FMS M-12044-A2 Chrome Coil Bracket	-	-
			-	-
1	1	Shelby FE Water Pump (Aluminum)	-	-
1	1	Jason to Send Concept Systems Pulley Kit P/S-A/C-W/P-Alternator	-	-
		Cylinder Head Valve Train Components	-	-
			-	-

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8	8	Ferrea Intake Valves 2.190 3/8" 5.450" .330 Tip 6000 Series	-	-
8	8	Ferrea Exhaust Valves 1.700 3/8" 5.435" .330 Tip 6000 Series	-	-
1	1	Ford OEM Cam Plate Retainer (Gessford Custom Thrust Plate)	-	-
		Fuel Log & Fittings	-	-
1	0	Gessford Fuel System	-	-
1	1	Unknown Based on Unique's Provided Vortech/ProSystem Components	-	-
1	0		-	-
1	1	MRG 1516 Fuel Pump Block Off Plate	-	-
2	2	ARP 613-0750 Block Off plates for above plate	-	-
1	0		-	-
1	0		-	-
2	0		-	-
			-	-
		Valve Covers & Breathers	-	-
1	1	Set Of Basic Shelby Black Valve Covers per Jason	-	-
0	0	Customer to provide Press-In Breathers for Shelby Covers requested	-	-
1	0	Set Special Welded Alum Tall Valve Covers with "NAME" Machined on covers	-	-
1	0	Polish Valve Covers	-	-
1	0	Breather Package for Valve Covers & Twist on Oil Fill w/Logo as reqd	-	-
2	0	KN Breathers 62-1513	-	-
2	0	KN Black Socks For above Breathers 22-8007PK	-	-
			-	-
1	0	Breather Package for Valve Covers and Twist Oil Fill W/Snake Oil Machined	-	-
		Ignition Components	-	-
1	1	MSD ___ 6BT Ignition Box By Jason	-	-
1	1	MSD ___ HVC Blue Coil By Jason	-	-
1	0		-	-
1	0	MSD8594 Pro Billet Distributor	-	-
1	0	MSD 85 ___ Brass Dist Gear as reqd for Roller Cams	-	-
1	1	MSD 8010 Billet Dist Hold Down Kit W/our ARP Bolt	-	-
2	0	MSD 8843 Wire Separator Kits (Black) 9 MM Kits	-	-
10	8	AGSP 32C Motorcraft Spark Plugs	-	-
1	0	Red MSD Perf Wire Set 45 Deg Boot	-	-
		Fasteners For Engine Assembly	-	-
			-	-
1	1	255-1002 ARP Cam Bolt (see New Cam Plate Above)190PSI PRO Series	-	-
1	1	Plus Cam Bolt ARP Washer 200-8539 3/16"	-	-
1	1	Gessford Special washer for Cam Bolts	-	-
2	2	P7AP.1.00-1C ARP Cam Plate Bolts	-	-
2	2	Plus Cam Plate ARP Washers 200-8539 3/16"	-	-
2	2	ARP 612-1000 12pt Valve Cover Bolts	-	-
1	1	ARP 613-1500 for Shelby Water Pump Mounting 4 of 5 in Pack	-	-
1	1	ARP 612-0750 4 of 5 in pack for Timing Cover Mounts	-	-
1	1	ARP 613-0750 4 of 5 in pack for Timing Cover Mounts	-	-
1	1	ARP 613-3000 for Intake manifold 2 pf 5 in Pack	-	-
1	1	ARP 613-1750 for Inake manifold 8 total required 1.75 x pack price)	-	-
			-	-
1	1	ARP 612-1750 12pt Oil Adpt Plate 1 of 5 in pack	-	-
1	1	ARP 612-1500 1of5 for Block Adapter Plate	-	-
1	1	ARP 613-1250 2of5 for Block Adapter Plate	-	-
1	0		-	-
1	0	MRG 59 Carb Stud Set (4 Packs) Sgl 1X4 (Longer # Later)	-	-
1	1	6318 MRG Pan Stud Kit	-	-
1	1	ARP 100-2801 FE Flywheel Bolt Set	-	-

