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## MACHINING SERVICES FOR EVOLUTION BIG TWIN Engines (1984-1999)

January 2026– 2026/2027

### HEAD: PORTING

			Dealer Price	Retail Price
Piston to valve clearance must be checked with all performance head work. Cast piston usually require more clearance. Don't forget to send them to us with the heads				
659	STAGE II	(From 80" to 96"): Upgraded intake and exhaust port design and CNC ported. Labor only	call us	642.50
				For parts add: 470.00
660	STAGE IIB	Same as Stage II, except for the intake port which is redesigned and raised by welding to increase velocity; allowing for a crisper throttle response. Labor only		930.50
				For parts add: 504.00
661	STAGE IIIB	Same as stage IIB plus we install 1.940" intake valves & oversize seats and increase the intake port area, resulting in peak horsepower increase. Labor only		1039.50
				For parts add: 530.00
662	STAGE IVB	Ultimate modification for 3 3/4" & up bore engines. We install 1.990" intake & 1.585" exhaust valves and enlarge the ports accordingly. Not included: valve guides, valve seals, High Performance BEEHIVE Spring kit, 1.990" intake valves and 1.585" exhaust valves,		1094.50
				555.00

### HEAD: WORK OPTIONS

			Dealer Price	Retail Price
650	Intake manifold porting (Carburator)		call us	62.00
254	MACHINE (2) head for compression release valves (machining only)			107.50
				For parts add: 96.90
607	PISTON valve pockets machined for valve clearance (2 pistons)			79.50
613	Check and adjust cc on Twin Cam / EVO / Sportster			76.50



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### CYLINDER HEADS

Dealer Price Retail Price

#### OVERALL REBUILD 2 HEADS

- Includes**
- Head gasket faces resurfaced
  - Valves centerless grinded
  - Set-up spring pressure & reassembly
  - Soda blast combustion chambers & ports
  - CNC seat job
  - Ultrasonic washed

**Add Parts:** -4 new AV&V valve guides and valve seals **95.00**

200	Overall rebuild (2) heads - labor only	call us	424.50
201	Overall rebuild (2) heads + High Flow seat job Overall - labor only		536.00
202	rebuild (2) heads without guides replacement - labor only		379.50

#### HEAD: ESTHETIC

Dealer Price Retail Price

103	DISASSEMBLE & degrease (2) heads	call us	50.50
105	SODA BLAST carbon out of (2) heads		50.50
107	GLASS BEAD (2) previously painted heads		156.00
108	GLASS BEAD (2) unpainted heads		113.50
109	SAND BLAST, (2) painted head (ready to paint)		73.00
110	SAND BLAST & paint (2) heads		181.50
111	SAND BLAST, paint & highlight (2) heads		220.50
114	HILITE fins (2 heads)		74.50
115	WELD & rebuild cooling fins		45 & UP
116	ULTRASONIC cleaning of (2) heads (ready for assembly)		58.50

#### HEAD: VALVE SEATS

Dealer Price Retail Price

204	CNC 3 ANGLE seat job (2 heads)	call us	125.00
205	CNC HP seat job (2 heads)		148.00
210	MACHINE & install (1) valve seat (valve seat not included)		112.00
211	MACHINE & install (4) valve seats (valve seats not included)		280.50
213	WELD & repair valve seat receiver hole (valve seat not included)		115.00&UP

**Add parts: valve seat (ea) 15.00**

#### HEAD: VALVE GUIDES

Dealer Price Retail Price

218	REMOVE, install & fit (1) valve guide (labor only)	call us	37.50
219	REMOVE, install & fit (4) valve guides (labor only)		74.50
223	WELD & REPAIR valve guide receiver hole to std (labor only)		198 & UP
224	BORE CLEAN damaged valve guide receiver hole		107.00

**Add parts: valve guide (ea) 20.00**



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		<b>HEAD: VALVES</b>	<b>Dealer Price</b>	<b>Retail Price</b>
231	CLEAN carbon out of (1) valve		call us	13.00
228	RECONDITION (1) valve			13.00
229	RECONDITION (4) valves			39.50
227	CLEAN & RECONDITION (4) valves			78.00

		<b>HEAD: RESURFACING</b>	<b>Dealer Price</b>	<b>Retail Price</b>
234	RESURFACE (2) heads .005" or less		call us	87.50
235	RESURFACE (2) heads .006" & up			102.00
242	ANGLE MACHINE (2) combustion chambers & resurface gasket faces			186.50

		<b>HEAD: SPARK PLUGS</b>	<b>Dealer Price</b>	<b>Retail Price</b>
245	INSTALL 1 spark plug helicoil		call us	50.50
247	WELD & repair cracked spark plug hole (helicoil included) (2 heads)			223.50
251	MACHINE (2) heads dual plug modification			222.00
260	Remove broken exhaust bolt + install Helicoil			113.50

		<b>CYLINDERS: BORING &amp; HONING</b>	<b>Dealer Price</b>	<b>Retail Price</b>
307	HONE & FIT only, (2) cylinders with stress plates		call us	107.00
312	BORE, HONE & fit (2) cylinders with stress plates			176.50
313	BORE, HONE & fit (2) cylinders with stress plates for 3 5/8" bore			193.00
314	BORE, HONE & fit (2) cylinders with stress plates for 3 13/16" bore & up			210.50

		<b>CYLINDERS: ESTHETIC</b>	<b>Dealer Price</b>	<b>Retail Price</b>
120	GLASS BEAD (2) cylinders		call us	113.50
121	GLASS BEAD (2) previously painted cylinders			149.00
122	SAND BLAST (2) cylinders (ready to paint)			73.00
123	SAND BLAST & PAINT (2) cylinders black (paint included)			181.50
125	HILITE cooling fins on (2) cylinders			81.00
126	SAND BLAST, PAINT & HIGHLIGHT (2) cylinders			263.00
127	HILITE cooling fins & Paint on (2) cylinders			173.50

		<b>CYLINDERS: MISCELLANEOUS</b>	<b>Dealer Price</b>	<b>Retail Price</b>
318	REFACE (2) cylinders - lower decks		call us	73.00
319	REFACE (2) cylinders - upper decks			89.50
320	REFACE (2) S&S cylinders - upper decks w/2 steps			115.00

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## MACHINING SERVICES FOR EVOLUTION BIG TWIN Engines (1984-1999)

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### CRANKS

		Dealer Price	Retail Price
415	RECONDITION, assemble & true (1) crank & connecting rods (complete job, labor only)	call us	597.50
416	SAME as previous + Dynamic balancing		801.50
418	RECONDITION, glass bead & fit (2) connecting rods		163.50
423	SLEEVE damaged pinion shaft end (bushing section)		219.00
426	MACHINE (1) S&S flywheel for thrust washer		73.00
425	CHANGE & precision grind new inner race sleeve on pinion shaft (EVO late model) Race not included		146.00
420	REPLACE rod races (labor only)		73.00
421	STRAIGHTEN pinion shaft		49.00

### ENGINE CASES

		Dealer Price	Retail Price
510	BORE case for big bore cylinders (case must be assembled & torqued, unnecessary to remove cylinder studs)	call us	350.00
512	RESURFACE engine case deck (cylinder studs must be removed)		141.00
513	WELD & repair left case primary O ring lip (studs must be removed)		219.00
515	HELICOIL timing plug hole		60.00
518	OVERSIZE bore, breather gear hole .030"		96.00
519	SLEEVE breather gear hole (welding extra if required)		306.00
521	REMOVE & reinstall new case pinion bearing race + HONE & FIT (race not included)		173.50
523	HONE & FIT pinion bearing race		94.00
524	SLEEVE cam bearing hole		259.00
526	MACHINE left case for oversize bearing race insert		759.50
527	MACHINE engine case supports		139.50
528	CONVERT EVO case to Shovel style (includes 8 long helicoils)		479.50
530	Replace & Fit Cam bushing (labor only)		66.50
531	Replace & Fit pinion bushing (labor only)		50.50
532	Replace TIMKEN cups + "C" clip		50.50

### ENGINE CASE : ESTHETIC

		Dealer Price	Retail Price
130	GLASS BEAD unpainted engine case (oil galleries masked)	call us	107.00
131	GLASS BEAD painted engine case (oil galleries masked)		146.00
133	SAND BLAST engine case (oil galleries masked) ready to paint		79.50
135	OIL GALLERY spot weld removal & installation of 1/8 NPT plug (allows better oil gallery clean up)		68.00
134	MASK & PAINT engine case		146.00
136	ULTRASONIC cleaning engine cases		76.50

### ENGINE CASE : MISCELLANEOUS

		Dealer Price	Retail Price
606	REFACE & polish (4) rocker arms	call us	104.00
609	REBUSH & align hone 4 rocker arms (labor only)		112.00
610	HONE & fit (4) oversize tappets		107.00