



SHOVELHEAD

Unmatched
PERFORMANCE
& DURABILITY



Serving Harley-Davidson dealers and motorcycle shops since 1983

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MACHINING SERVICES FOR SHOVELHEAD Engines

January 2024 /2024-2025

PORTING

Dealer Price Retail Price

667	STAGE IIB	(Stock casting & aftermarket heads) The Ultimate upgrade for your Shovelheads. We redesigned and raised the intake port by welding to increase velocity, allowing for a crisper throttle response and more power. Not included: Valve guides, valve seals, valve spring kit, valves.	Call us	1150.00
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HEAD WORK OPTIONS

Dealer Price Retail Price

650	Intake manifold porting (Carburetor)	Call us	59.72
256	MACHINE 2 heads for compression release valves (includes 1 set of AV&V compression release valves)	Call us	235.72
607	PISTON valve pockets machined for valve clearance (2 pistons)	Call us	77.00

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
- Not included: 4 new AV&V valve guides and valve seals

203	Overall rebuild 2 heads	Call us	411.72
222	Overall rebuild 2 heads + Glass bead	Call us	492.28

ESTHETIC

103	DISASSEMBLE & degrease 2 heads	Call us	48.72
105	SODA BLAST carbon out of 2 heads	Call us	48.72
107	GLASS BEAD 2 previously painted heads	Call us	151.14
108	GLASS BEAD 2 unpainted heads	Call us	110.00
113	GLASS BEAD 2 unpainted heads outside only	Call us	94.53
109	SAND BLAST, 2 painted heads (ready to paint)	Call us	70.72
110	SAND BLAST & paint 2 heads	Call us	176.00
111	SAND BLAST, paint & highlight 2 heads	Call us	213.72
114	HIGHLIGHT fins (2 heads)	Call us	72.28
115	WELD & rebuild cooling fins	Call us	45 & up
116	ULTRASONIC cleaning of 2 heads (ready for assembly)	Call us	56.57

VALVE SEATS

204	CNC 3 ANGLE seat job (2 heads)	Call us	121.00
205	CNC HP seat job (2 heads)	Call us	143.50
239	REMOVE & INSTALL 4 valve seats (valve seats not included)	Call us	271.85
210	MACHINE & install 1 valve seat (valve seat not included)	Call us	108.43
211	MACHINE & install 4 valve seats (valve seats not included)	Call us	271.85
213	WELD & repair valve seat receiver hole (valve seat not included)	Call us	115 & up

VALVE GUIDES

218	REMOVE, install & fit 1 valve guide (labor only)	Call us	36.15
219	REMOVE, install & fit 4 valve guides (labor only)	Call us	72.28
223	WELD & REPAIR valve guide receiver hole to std (includes 1 new valve guide & valve seat)	Call us	195.00& up
224	BORE CLEAN damaged valve guide receiver hole	Call us	103.72
226	CUT valve guide seal section	Call us	34.57

CYLINDER HEADS (con't)

Dealer Price Retail Price

VALVES

231	CLEAN carbon out of 1 valve	Call us	12.57
228	RECONDITION 1 valve	Call us	12.57
229	RECONDITION 4 valves	Call us	38.00
227	CLEAN & RECONDITION 4 valves	Call us	75.50

RESURFACING

236	RESURFACE 2 heads + bolt inserts machined deeper	Call us	102.15
240	RESURFACE & counter bore (2 heads)	Call us	117.85

SPARK PLUGS

245	INSTALL 1 spark plug helicoil	Call us	48.72
248	WELD & repair 1 spark plug hole (helicoil included)	Call us	136.00 & up
250	DUAL PLUG modification (2 heads)	Call us	240.43
253	DUAL PLUG modification & welding for long plug (2 heads)	Call us	285.00 & up
259	CONVERT early short plug to long plug & helicoil (2 heads)	Call us	282.85

MISCELLANEOUS

265	WELD & REPAIR 1 intake flange lip	Call us	56.00 & up
266	WELD & REPAIR exhaust bolt hole + helicoil	Call us	75.00 & up
267	INSTALL 1 Helicoil for rocker box stud	Call us	39.28
268	INSTALL 1 Helicoil on exhaust flange	Call us	39.28
269	WELD & REPAIR 1 exhaust flange	Call us	145.00 & up
264	MACHINE spring seat faces on early Shovels to install late style lower collars (2 heads)	Call us	49.50
262	WELD and REPAIR damaged combustion chamber	Call us	45.00 & up
261	MODIFY early lower collars for valve seals installation	Call us	36.15

CYLINDERS

Dealer Price Retail Price

ESTHETIC

122	SAND BLAST 2 cylinders (ready to paint)	Call us	70.72
123	SAND BLAST & PAINT 2 cylinders black (paint included)	Call us	176.00

BORING & HONING

Note: For EVO cylinders that are sent with base gaskets still adhered (late H-D gaskets are very difficult to remove), we will remove the gaskets by machining the lower deck. This operation also trues the cylinder lower deck.

307	HONE & FIT only, 2 cylinders with stress plates	Call us	103.72
312	BORE, HONE & fit 2 cylinders with stress plates	Call us	171.28
313	SAME for 3 5/8" bore	Call us	187.00

MISCELLANEOUS

318	REFACE 2 cylinder lower decks	Call us	70.72
322	REFACE 2 cylinder upper decks + flange	Call us	95.00

CRANKS

		Dealer Price	Retail Price
415	RECONDITION, assemble & true 1 crank & connecting rods (complete job, labor only) Rod races replacement	Call us	580.00
		add 31.00	
416	SAME as previous + Dynamic balancing	Call us	777.87
418	RECONDITION, glass bead & fit 2 connecting rods	Call us	158.72
426	MACHINE 1 S&S flywheel for thrust washer	Call us	70.72
420	REPLACE Rod races (Labor only)	Call us	70.72

ENGINE CASES

		Dealer Price	Retail Price
ESTHETIC			
130	GLASS BEAD unpainted engine case (oil galleries masked)	Call us	103.72
131	GLASS BEAD painted engine case (oil galleries masked)	Call us	141.43
133	SAND BLAST engine case ready to paint (oil galleries masked)	Call us	77.00
134	MASK & PAINT engine case	Call us	141.43
135	OIL GALLERY spot weld removal & installation of 1/8 NPT plug (allows better oil gallery clean up)	Call us	66.00

MISCELLANEOUS

510	BORE case for Big bore cylinders (case must be assembled & torque, unnecessary to remove cylinder studs)	Call us	253.00
512	RESURFACE engine case deck (cylinder studs must be removed)	Call us	136.72
514	REMOVE cylinder studs (helicoils extra if required)	Call us	47.15
513	WELD & repair left case primary O ring lip (studs must be removed)	Call us	212.15
516	WELD & repair timing plug hole (helicoil included)	Call us	117.85
515	HELICOIL timing plug hole	Call us	58.15
518	OVERSIZE bore, breather gear hole .030"	Call us	92.72
519	SLEEVE breather gear hole (welding extra if required)	Call us	297.00
521	REMOVE & reinstall new case pinion bearing race + HONE & FIT (race not included)	Call us	168.15
523	HONE & FIT pinion bearing race	Call us	91.15
524	SLEEVE cam bearing hole	Call us	251.43
526	MACHINE left case for oversize bearing race insert	Call us	737.00
527	MACHINE engine case supports	Call us	135.15
529	CONVERT SHOVEL case to EVO style (includes 8 long helicoils)	Call us	427.43
530	Replace & Fit cam bushing (labor only)	Call us	64.43
531	Replace & Fit pinion bushing (labor only)	Call us	48.72
532	Replace TIMKEN cups + "C" clip	Call us	48.72

MISCELLANEOUS

		Dealer Price	Retail Price
606	REFACE & polish 4 rocker arms	Call us	100.90
609	REBUSH & align hone 4 rocker arms (labor only)	Call us	108.43
610	HONE & fit 4 oversize tappets	Call us	103.72
611	REPLACE, HONE & FIT transmission main shaft bushing (labor only)	Call us	106.07