



SHOVELHEAD

Unmatched
PERFORMANCE
& DURABILITY



Serving Harley-Davidson dealers and motorcycle shops since 1983

www.jprecision.com



MACHINING SERVICES FOR SHOVELHEAD Engines

January 2026 /2026-2027

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	1184.50
			Add parts call us	520.00

HEAD WORK OPTIONS

			Dealer Price	Retail Price
650	Intake manifold porting (Carburator)		call us	62.00
254	MACHINE 2 heads for compression release valves (maching only)		call us	107.50
		Add parts:	call us	96.90
607	PISTON valve pockets machined for valve clearance (2 pistons)		call us	79.50

CYLINDER HEADS

			Dealer Price	Retail Price
OVERALL REBUILD 2 HEADS				
Includes	- Head gasket faces resurfaced	- Soda blast combustion chambers & ports		
	- Valves centerless grinded	- CNC seat job		
	- Set-up spring pressure & reassembly	- Ultrasonic washed		
		- Not included: 4 new AV&V valve guides and valve seals		
		Add parts:	call us	90.50
203	Overall rebuild 2 heads		call us	424.50
222	Overall rebuild 2 heads + Glass bead		call us	507.50

ESTHETIC

103	DISASSEMBLE & degrease 2 heads		call us	50.50
105	SODA BLAST carbon out of 2 heads		call us	50.50
107	GLASS BEAD 2 previously painted heads		call us	156.00
108	GLASS BEAD 2 unpainted heads		call us	113.50
113	GLASS BEAD 2 unpainted heads outside only		call us	97.50
109	SAND BLAST, 2 painted heads (ready to paint)		call us	73.00
110	SAND BLAST & paint 2 heads		call us	181.50
111	SAND BLAST, paint & highlight 2 heads		call us	220.50
114	HIGHLIGHT fins (2 heads)		call us	74.50
115	WELD & rebuild cooling fins		call us	45 & up
116	ULTRASONIC cleaning of 2 heads (ready for assembly)		call us	58.50

VALVE SEATS

204	CNC 3 ANGLE seat job (2 heads)		call us	125.00
205	CNC HP seat job (2 heads)		call us	148.00
239	REMOVE & INSTALL 4 valve seats (valve seats not included)		call us	280.50
210	MACHINE & install 1 valve seat (valve seat not included)		call us	112.00
211	MACHINE & install 4 valve seats (valve seats not included)		call us	280.50
213	WELD & repair valve seat receiver hole (valve seat not included)		call us	120 & up
		Add parts: (each valve seat)	call us	14.90

VALVE GUIDES

218	REMOVE, install & fit 1 valve guide (labor only)		call us	37.50
219	REMOVE, install & fit 4 valve guides (labor only)		call us	74.50
223	WELD & REPAIR valve guide receiver hole to std (labor only)		call us	197.50& up
224	BORE CLEAN damaged valve guide receiver hole		call us	107.00
226	CUT valve guide seal section		call us	36.00

Prices may change without notice • Phone: 450-647-6650
Visit us online at www.jpprecision.com



CYLINDER HEADS (con't)

Dealer Price Retail Price

VALVES

231	CLEAN carbon out of 1 valve	call us	13.00
228	RECONDITION 1 valve	call us	13.00
229	RECONDITION 4 valves	call us	39.50
227	CLEAN & RECONDITION 4 valves	call us	78.00

RESURFACING

236	RESURFACE 2 heads + bolt inserts machined deeper	call us	105.50
240	RESURFACE & counter bore (2 heads)	call us	121.50

SPARK PLUGS

245	INSTALL 1 spark plug helicoil	call us	50.50
248	WELD & repair 1 spark plug hole (helicoil included)	call us	141 & up
250	DUAL PLUG modification (2 heads)	call us	248.00
253	DUAL PLUG modification & welding for long plug (2 heads)	call us	291 & up
259	CONVERT early short plug to long plug & helicoil (2 heads)	call us	292.50

MISCELLANEOUS

265	WELD & REPAIR 1 intake flange lip	call us	59 & up
266	WELD & REPAIR exhaust bolt hole + helicoil	call us	77 & up
267	INSTALL 1 Helicoil for rocker box stud	call us	40.50
268	INSTALL 1 Helicoil on exhaust flange	call us	40.50
269	WELD & REPAIR 1 exhaust flange	call us	146 & up
264	MACHINE spring seat faces on early Shovels to install late style lower collars (2 heads)	call us	51.00
262	WELD and REPAIR damaged combustion chamber	call us	45.00 & up
261	MODIFY early lower collars for valve seals installation	call us	37.50

CYLINDERS

Dealer Price Retail Price

ESTHETIC

122	SAND BLAST 2 cylinders (ready to paint)	call us	73.00
123	SAND BLAST & PAINT 2 cylinders black (paint included)	call us	181.50

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	107.00
312	BORE, HONE & fit 2 cylinders with stress plates	call us	176.50
313	SAME for 3 5/8" bore	call us	193.00

MISCELLANEOUS

318	REFACE 2 cylinder lower decks	call us	73.00
322	REFACE 2 cylinder upper decks + flange	call us	98.00



MACHINING SERVICES FOR SHOVELHEAD Engines

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 (complete job, labor only)	call us	801.50
418	RECONDITION, glass bead & fit 2 connecting rods	call us	163.50
426	MACHINE 1 S&S flywheel for thrust washer	call us	73.00
420	REPLACE Rod races (Labor only)	call us	73.00

ENGINE CASES

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

MISCELLANEOUS

510	BORE case for Big bore cylinders (case must be assembled & torque, unnecessary to remove cylinder studs)	call us	350.00
512	RESURFACE engine case deck (cylinder studs must be removed)	call us	141.00
514	REMOVE cylinder studs (helicoils extra if required)	call us	49.00
513	WELD & repair left case primary O ring lip (studs must be removed)	call us	219.00
516	WELD & repair timing plug hole (helicoil included)	call us	121.50
515	HELICOIL timing plug hole	call us	60.00
518	OVERSIZE bore, breather gear hole .030"	call us	96.00
519	SLEEVE breather gear hole (welding extra if required)	call us	306.00
521	REMOVE & reinstall new case pinion bearing race + HONE & FIT (race not included)	call us	173.50
523	HONE & FIT pinion bearing race	call us	94.00
524	SLEEVE cam bearing hole	call us	259.00
526	MACHINE left case for oversize bearing race insert	call us	759.50
527	MACHINE engine case supports	call us	139.50
529	CONVERT SHOVEL case to EVO style (includes 8 long helicoils)	call us	440.50
530	Replace & Fit cam bushing (labor only)	call us	66.50
531	Replace & Fit pinion bushing (labor only)	call us	50.50
532	Replace TIMKEN cups + "C" clip	call us	50.50

MISCELLANEOUS

		Dealer Price	Retail Price
606	REFACE & polish 4 rocker arms	call us	104.00
609	REBUSH & align hone 4 rocker arms (labor only)	call us	112.00
610	HONE & fit 4 oversize tappets	call us	107.00
611	REPLACE, HONE & FIT transmission main shaft bushing (labor only)	call us	109.50