

# INTRODUCTION

Welcome to Midwest Motorcycle Supply's Engine Reference Guide.

In an effort to make servicing your V-Twin® engine easier, the staff at Midwest Motorcycle Supply have put together what we believe to be the most comprehensive list of replacement parts for the heart of your motorcycle. We hope that this reference guide serves as more than just a book, we envision this guide as more of a tool that can be used for years to come. Starting with the Evolution® family of engines this reference guide, through time, will expand to include Shovelhead®, Panhead® & other older Vintage V-Twin® engines.

We would also like to take this time to thank all supporters of Midwest® & Ultima® products. It is because of you that we have grown to be one of the world's leading providers of high quality aftermarket motorcycle parts & accessories. Thank You & Ride Safe!!!

Every attempt has been made to insure proper fitment of our parts for the applications listed in this guide. It is the end users responsibility to exercise good judgement in the part selection, installation & maintenance of their motor when installing parts referred to in this reference guide. Midwest MC Supply has no control over the judgement of others & assumes no responsibility or liability of any nature for the failure of others to use good judgement.

Midwest Motorcycle Supply, Est. in 1971, is one of the world's leading manufacturers and distributors for aftermarket parts and accessories for American made motorcycles. As a manufacturer we have the capability to produce many of the products you are currently purchasing from other distributors . . . at a fraction of the cost! See examples of our product line at ***www.ultimaproducts.com*** We are committed to keeping up to date on industry research and technical data, as well as legislation and sales demographics & statistics for the benefit of our Dealers.

Ultima Company LLC is not a representative of any other motorcycle engine manufacturer and the parts we sell are not necessarily recommended by any other motorcycle engine manufacturer.

All words used in this catalog denoting any motorcycle engine manufacturer, engine models or part numbers are intended for use as reference only.

Although our replacement engines and engine parts are not original factory equipment for some manufacturers, our intention is to provide an exceptional quality replacement part that will outperform the original equipment of many OEM manufacturers.

Harley-Davidson® Parts: Harley® and Harley-Davidson® and other model names of Harley® motorcycles are used as a reference only. Some H-D® part numbers are also used as reference only. We are not an authorized Harley® dealer and in no way do we have, or intend to imply any kind of business relationship with Harley-Davidson Motor Company®. Our intention is to provide products that can be used on a Harley-Davidson® motorcycle.

Names and words that are registered trademarks of Harley-Davidson® Inc. Milwaukee, WI, such as Evolution®, Harley-Davidson®, Harley®, H-D®, HD®, and Softail® are not intended to imply that they are Harley-Davidson® original equipment by their use in connection with Harley-Davidson® factory part numbers.

All other trademarks, registered trademarks and brand names used in this catalog are the property of their respective holders.

Ultima is not a representative of any other motor or motorcycle manufacturer. All words used in this “Midwest Reference Guide” are intended for use as reference only.

Although our motor replacement parts are not original equipment for some motor manufacturers, our intention is to provide an exceptional quality replacement part that meets, exceeds & outperforms the original equipment of many manufacturers. Names & words used in this “Midwest Reference Guide” that are registered trademarks of S&S® Cycle, Merch Performance® & Rev Tech® are not intended to imply that they are S&S® Cycle, Merch Performance® or Rev Tech® original equipment.

#### WARNING

Serious injury, death and property damage can result from the improper use, control, alteration, or maintenance of motorcycles. The dealer and dealers customers must exercise good judgement in the use, control, alteration, part selection and installation, and maintenance of motorcycles. Ultima® has no control over the judgement of others and assumes no responsibility or liability of any nature for the failure of others to use good judgement.



# HARLEY DAVIDSON® 80 C.I.

#	PART#	DESCRIPTION	OEM#	QTY	#	PART#	DESCRIPTION	OEM#	QTY
1	91-880	Ultima® lifter	18523-86	each		98-590	Pinion gear 77-89 Green	24045-78	each
2	78-374	Front tappet block gasket 84-99 Cometic	18634-48C	pkg 10		98-591	Pinion gear 77-89 Black	24046-78	each
	78-373	Rear tappet block gasket 84-99 Cometic	18633-48D	pkg 10	48	98-302	Nut, pinion gear 54-89	24023-54	each
3	91-613	Tappet block set, chrome w/hardware 84-99		set		98-458	Nut, pinion gear 90-92	24022-90	each
	91-614	Tappet block set, black w/hardware 84-99		set	49	98-358	Gear, oil pump driven 73-95 24T	26345-73	each
4	91-853	Lower pushrod washer	6737	each	50	98-512	Gear, breather std.	25313-77A	each
5	78-674	Pushrod O-ring, bottom	11145	each		98-494	Gear, breather +.030"	25313-77A	each
6	78-673	Pushrod O-ring, middle	11132	each	51	98-80	Shim, breather gear .110" 79-99	25313-77A	each
7	78-675	Pushrod O-ring, upper	11157	each		98-81	Shim, breather gear .115" 79-99	25321-79	each
8	91-775	Pushrod cover assembly chrome		each		98-82	Shim, breather gear .120" 79-99	25322-79	each
9	91-666	Rocker arm shaft	17611-83	each		98-83	Shim, breather gear .125" 79-99	25323-79	each
10	91-699	Rocker arm set		set	52	95-340	Bushing, cam	25581-70	each
11	91-795	Pushrod set, adjustable		set	53	95-341	Bushing, Pinion 73-92	25582-73	each
12	40-616	Head bolt, long	16478-85	each		95-454	Bushing, Pinion 93-99	25582-93	each
13	40-617	Head bolt, short	16480-92	each	54	95-222	Oil seal	83162-51	each
14	93-456	Piston rings. 80" std. bore		pair	55	88-53	Cam cover 73-92 w/hdwre & gasket chrome	25258-80B	each
	93-476	Piston rings. 80" +.005		pair		88-70	Cam cover 93-99 w/hdwre & gasket chrome	25266-93A	each
	93-457	Piston rings. 80" +.010		pair	56	41-131	Chrome allen cam cover bolt kit 93-99		kit
	93-458	Piston rings. 80" +.020		pair	57	53-528	Ignition rotor (gold) 84-99	32402-83	each
	93-459	Piston rings. 80" +.030		pair	58	53-529	Ignition rotor screw	2611C	each
15	93-794	Pistons, forged 80" std. bore w/pins & clips		set	59	91-352	Ignition timing/sensor screw	32606-82	each
	93-795	Pistons, forged 80" +.005" w/pins & clips		set	60	78-422	Point cover gasket 84-99	32591-80	pkg 10
	93-796	Pistons, forged 80" +.010" w/pins & clips		set	61	89-304	Point cover domed, chrome 70-99	32524-83	each
	93-797	Pistons, forged 80" +.020" w/pins & clips		set		89-114	Point cover Ultima® domed, chrome 70-99 w/hdwre & gasket	32524-83	each
	93-798	Pistons, forged 80" +.030" w/pins & clips		set	62	41-772	Oil pump bolt kit. Allen head 78-91		kit
16	91-543	Spring kit, Manley, stock to .650" lift.		kit		41-787	Oil pump bolt kit. Allen head 92-99		kit
17	91-770	Valve seal for B.T. 84-99	18001-83B	each	63	21-123	Spigot tube 84-99	63533-41	each
18	91-388	Valve guide 84-99 int. or exh. Std.	18112-92	each	64	21-185	Spigot elbow 84-99		each
	91-389	Valve guide 84-99 int. or exh. +.001"	18130-83C	each	65	98-622	Pressure plug 84-99	45830-48	each
	91-390	Valve guide 84-99 int. or exh. +.002"	18131-83C	each	66	98-325	Retaining ring 84-99	26348-36	each
	91-391	Valve guide 84-99 int. or exh. +.003"	18133-83A	each	67	98-615	Feed, drive gear 14T 84-99	26328-74	each
	91-392	Valve guide 84-99 int. or exh. +.004"		each	68	98-616	Feed, idler gear 14T 84-99	26326-62A	each
19	66-242	Exhaust stud	16715-83	each	69	95-221	Oil seal 84-99	26227-58	each
20	91-680	Valve seat, intake (2.007" O.D. 1.625" I.D. .437" tall)		each	70	78-397	Gasket, oil pump cover 84-91 paper Cometic	26276-80A	pkg 10
	91-682	Valve seat, intake (2.016" O.D. 1.625" I.D. .453" tall)		each		78-398	Gasket, oil pump cover 92-99 paper Cometic	26276-92	pkg 10
	91-681	Valve seat, intake (2.007" O.D. 1.625" I.D. .453" tall)		each	71	78-395	Gasket, oil pump base 84-91 paper Cometic	26273-80B	pkg 10
21	91-674	Valve seat, exhaust (1.7545" O.D. 1.375" I.D. .437" tall)		each		78-396	Gasket, oil pump base 92-99 paper Cometic	26273-92	pkg 10
	91-676	Valve seat, exhaust (1.819" O.D. 1.625" I.D. .453" tall)		each	72	98-618	Idler pin 84-99	26327-68	each
22	91-649	Intake valve head dia. 1.850" stock, stem dia. .310" stock.	18074-83	each	73	98-614	Return, idler gear 14T 84-99	26317-68A	each
23	91-648	Exhaust valve head dia. 1.615" stock, stem dia. .3095" stock.	18082-3	each	74	98-613	Return, drive gear 14T 84-99	26315-68A	each
24	78-246	Head & base gasket set, stock bore .030" Cometic		pair	75	98-334	Drive shaft 84-99	26346-70	each
	78-247	Head & base gasket set, stock bore .040" Cometic		pair	76	98-272	Woodruff key	26348-15	each
25	93-676	Cylinder, 80ci front or rear, 84-99 cast/natural finish	16510-83A	each	77	98-329	Retaining ring 84-99	11002	each
26	41-112	Head bolt washer kit 84-91	16482-85	kit	78	98-623	Plunger 84-99	26400-82	each
27	40-510	Stainless Rocker cover screw kit 84-99		kit	79	98-619	Plunger spring 84-99	26207-83	each
28	78-444	Fiber washer 84-99	63858-49	pkg 10	80	41-888	Oil pump cap	26263-80	each
	78-548	Copper washer 84-99		pkg 10	81	95-828	O-ring 84-99	11105	each
29	89-351	Rocker cover 84-92 chrome	17528-84A	each	82	89-238	Oil pump cover, 68-91 chrome		each
30	78-364	84-91 Upper rocker cover gasket, rubber Cometic	17356-84A	pkg 5	83	98-516	Oil pump, Ultima® 84-91 std. vol polished w/hdwre & gskts		each
	78-365	92-99 Upper rocker cover gasket, rubber Cometic	17356-92	pkg 5		98-518	Oil pump, Ultima® 84-91 High output polished w/hdwre & gskts		each
31	78-366	84-99 Inner rocker cover gasket, rubber Cometic	17358-84A	pkg 10		98-519	Oil pump, Ultima® 84-91 High output wrinkle blk w/hdwre & gskts		each
32	89-374	Rocker box middle spacer 84-92	17510-84	each		98-515	Oil pump, Ultima® 92-99 std. vol. polished w/hdwre & gskts		each
33	78-362	84-91 Lower rocker cover gasket, rubber Cometic	17355-84A	pkg 5		98-517	Oil pump, Ultima® 92-99 High output polished w/hdwre & gskts		each
	78-363	92-99 Lower rocker cover gasket, rubber Cometic	17355-92	pkg 5		98-520	Oil pump, Ultima® 92-99 High output wrinkle blk w/hdwre & gskts		each
34	89-416	Rocker box bolt kit		kit	84	95-115	Wristpin bushing, std. size	24334-36	each
35	89-375	Bottom rocker carrier 84-92	17530-84B	each		95-389	Wristpin bushing, +.002"		each
36	78-321	2 piece gasket set with silicone bead 84-99		set	85	98-573	Con. Rods 7.440" Unfinished .7918" small end 1.6256" big end		set
37	78-205	Umbrella valve 93-99	26856-89	each	86	98-571	Rod set w/crank pin, nuts, bearings, bearing cages, .792" pin bore		set
38	89-373	84-92 Rkr box assy. Ft or Rr 3 piece OEM style w/gaskets		each	87	98-422	Crankpin nut 3/4-20	24016-80	each
	89-450	93-99 Rkr box assy. Ft or Rr 3 piece OEM style w/gaskets/hdwre		each	88	98-537	Crankpin 1.250" w/nuts & key 81-99		kit
	89-516	93-99 Rkr box assy. Ultima 2 piece solid top, Includes hdwre/gskts		set	89	95-259	Rod roller bearing set 74 & ltr		kit
	89-496	93-99 Rkr box assy. 2 piece w/hole in center, Includes hdwre/gskts		set	90	98-475	Crankpin key	23985-18	kit
39	95-173	Cam bearing	9058	each	91	98-339	Sprocket shaft 81 & ltr		each
40	98-372	Washer, cam thrust	25550-57	each	92	94-137	Woodruff key	11218	each
41	98-375	Cam shim .055" 84-99	25551-36	each	93	98-650	Flywheels machined, unbalanced 4.250 stroke 5 piece		pair
	98-376	Cam shim .060" 84-99	25552-36	each	94	98-539	Sprocket shaft nut 1-1/8-16	24017-80	each
	98-377	Cam shim .065" 84-99	25553-36	each	95	98-422	Pinion shaft nut	24016-80	each
	98-378	Cam shim .070" 84-99	25554-36	each	96	98-475	Woodruff key	11218	each
	98-379	Cam shim .075" 84-99	25555-36	each	97	98-546	Pinion shaft 81-99 long nose		each
	98-380	Cam shim .080" 84-99	25556-36	each	98	98-552	Crank assembly 4.250 stroke 84-99		assy.
42	114-46	Camshaft, bolt in, Andrews EV13 84-99		each	99	95-805	Oil seal	12026	each
	114-52	Camshaft, bolt in, Andrews EV27 84-99		each	100	98-360	Sprocket shaft spacer 71-99	24002-70	each
43	78-378	Gasket, cam cover 84-92 Cometic		pkg 5	101	95-320	Bearing & race set	90028	set
	78-379	Gasket, cam cover 93-99 Cometic		pkg 5	102	41-882	Motor case bolt/stud kit 79-95 chrome		kit
44	98-359	Gear, oil pump drive 54-89	26349-73	each		41-142	Motor case bolt/stud kit 96-99 chrome		kit
45	98-89	Pinion gear spacer 54-89	24703-54B	each	103	98-490	Allen timing plug 70-99 chrome		each
46	98-305	Woodruff key 54-89	23985-54	each	104	93-618	Cylinder studs 85 & later	16837-85B	set
	98-532	T-key, pinion gear 90-99	11219	pkg 10	105	98-540	Dowel .250"x.500"		each
47	98-585	Pinion gear 77-89 Orange	24040-78	each	106	17-65	Oil pressure switch tall	26561-84	each
	98-586	Pinion gear 77-89 White	24041-78	each		17-61	Oil pressure switch short	26552-72	each
	98-587	Pinion gear 77-89 Yellow	24042-78	each	107	98-538	Screen plug	26263-80	each
	98-588	Pinion gear 77-89 Red	24043-78	each	108	95-703	O-ring 84-99	11105	pkg 10
	98-589	Pinion gear 77-89 Blue	24044-78	each	109	98-511	Spring, crankcase 70-99	24982-70	each

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#	PART#	DESCRIPTION	OEM#	QTY
110	98-510	Screen, crankcase	24981-70	each
111	21-123	Spigot tube	63533-41	each
112	95-602	Pinion bearing 87-99 White	24626-87	each
	95-603	Pinion bearing 87-99 Green	24628-87	each
	95-604	Pinion bearing 87-99 Red	24641-87	each
	95-605	Pinion bearing 87-99 Blue	24643-87	each
	98-531	Pinion bearing retaining ring	11177	each
114	300-453	Bushing, oil pump 36 & ltr	24641-36	each
115	95-310	Bearing race 58-92 std. size	24599-58	each
	95-430	Bearing race 58-92 +.002"	24600-58A	each
	95-429	Bearing race 93-99 std. size	24599-58B	each
116	206-54	Engine case kit 84-91 3.500" bore natural		assy.
	206-55	Engine case kit 84-91 3.500" bore black		assy.
	206-56	Engine case kit 92-99 3.500" bore natural		assy.
	206-57	Engine case kit 92-99 3.500" bore black		assy.
117	98-620	Check ball spring	26262-80	each
118	98-617	Check ball	8873	each

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