



# NEW PRODUCT

July 11, 2024



## Manufacturing Valvetrain For 80-Years & 2-Generations

HARLEY-DAVIDSON



20-23400



20-23450

# KPMI® ROCKER SHIM CONV. SYSTEM - DUAL SPRING

- Innovative design adds a Ø9.5mm hardened steel shim between the valve tip and rocker arm
- The Ø9.5mm shim increases allowable rocker wipe area for maximum valve lift
- Up to 0.675" valve lift compatibility
- Offered with either Titanium or H.T. Steel retainers
- Includes Heavy Duty 9° H.T. Steel Keepers, Ø9.5mm Steel Shim, and Red Viton® Seals

The KPMI® Rocker Shim Conversion Spring Kit for the Milwaukee-8 utilizes a dual spring system and a lightweight retainer that houses a standard Ø9.5mm hardened steel shim. The rocker arm rides directly on the shim surface and the 9.5mm diameter significantly increases the allowable rocker wipe area. This increase in wipe area provides the ability to utilize larger lift cams, that previously were unable to run on a 6mm valve stem.

The system is intended to be adjustable and allows for at least 0.060" of spring shims, tailoring the pressures and lift capacity to meet the engine builder's needs. Additionally, the rocker shim thickness can be varied to adjust effective stem protrusion.

When larger camshafts are used, and valvetrain acceleration values increase, KPMI® strongly recommends running titanium valves for maximum performance.

**AVAILABLE NOW**

Applications	Harley-Davidson®
Years	2017-2024
Models	Milwaukee-Eight™ (& CVO's*)

**\*2023-2024 CVO's check valve lift to determine compatibility with KPMI® spring kits**

Valve Spring Kit • Rocker Shim Conversion System						
KPMI P/N	Type		Max Valve Lift	Installed Height	Seat Pressure	Open Pressure
20-23400	Intake	Exhaust	.675" Max	1.600"	86#	317#
			.660"	1.585"	91#	317#
			.645"	1.570"	96#	317#
			.630"	1.555"	101#	317#
			.615"	1.540"	107#	317#
Kit Includes	8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	8	Red Viton® Seals	8	H. T. Steel Keeper (9°)	8	H. T. Steel Adj. Shim
Retail				\$661.11		
KPMI P/N	Type		Max Valve Lift	Installed Height	Seat Pressure	Open Pressure
20-23450	Intake	Exhaust	.675" Max	1.600"	86#	317#
			.660"	1.585"	91#	317#
			.645"	1.570"	96#	317#
			.630"	1.555"	101#	317#
			.615"	1.540"	107#	317#
Kit Includes	8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	8	Red Viton® Seals	8	H. T. Steel Keeper (9°)	8	H. T. Steel Adj. Shim
Retail				\$546.73		

**IMPORTANT NOTES:**

**Modification Necessary:** To maximize shim contact in the retainer, KPMI recommends "tipping" (shortening the valve tip). See KPMI installation instructions for more info.

**Stem Protrusion:** There is anticipated to be a rough 0.100" increase in effective stem protrusion with the use of the shim.

**Valve Guide Compatibility:** This system must be run with KPMI's newer style M8 valve guides, which are shortened for 0.675" valve lift. See KPMI installation instructions for more info.

**VISIT US AT [WWW.KPMI.US](http://WWW.KPMI.US)**



# NEW PRODUCT

July 11, 2024



## Manufacturing Valvetrain For 80-Years & 2-Generations



20-23300



20-23350

# KPMI® VALVE SPRING KITS

- Lightweight Racing Dual Spring Kits for 0.630" lift
- Retainers designed for optimum rocker cover clearance
- Offered with either Titanium or H.T. Steel retainers
- Includes Heavy Duty 9° H.T. Steel Keepers and Red Viton® Seals

The new KPMI® Lightweight Racing Spring Kits for the Milwaukee-8, utilize a lightweight retainer, a heavy duty 9° keeper and a dual spring system with increased pressures and rates. These factors are designed to maximize valvetrain control when paired with top performance applications running larger valves, high lift cams and increased RPM's.

**AVAILABLE NOW**

Applications	Harley-Davidson®
Years	2017-2024
Models	Milwaukee-Eight™ (& CVO's*)

**\*2023-2024 CVO's check valve lift to determine compatibility with KPMI® spring kits**

Valve Spring Kit • Lightweight Racing						
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-23800	Intake	.630"	1.555"	101#	317#	.630"
	Exhaust					
Kit Includes	8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	8	Red Viton® Seals	8	H. T. Steel Keeper (9°)		
Retail			\$634.37			
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-23850	Intake	.630"	1.555"	101#	317#	.630"
	Exhaust					
Kit Includes	8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	8	Red Viton® Seals	8	H. T. Steel Keeper (9°)		
Retail			\$528.57			
<b>IMPORTANT NOTES:</b>						
<b>Shortened Guides:</b> the system <b>must</b> be run with KPMI's new shortened Milwaukee-8 valves guides, or with modified stock guides (see installation instructions for more details)						

Contact a KPMI® Sales Representative Today!  
**650-557-2046, Ext. 802**

**ORDER 650-557-2046**

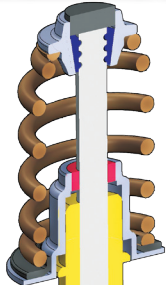


# NEW PRODUCT

July 11, 2024



## Manufacturing Valvetrain For 80-Years & 2-Generations



20-23900



20-23950

# KPMI® ROCKER SHIM CONV. SYSTEM - BEEHIVE SPRING

- Innovative design adds a Ø9.5mm hardened steel shim between the valve tip and rocker arm
- The Ø9.5mm shim increases allowable rocker wipe area for maximum valve lift
- Up to 0.625" valve lift compatibility
- Offered with either Titanium or H.T. Steel retainers
- Includes Heavy Duty 9° H.T. Steel Keepers, Ø9.5mm Steel Shim, Red Viton® Seals and a HT Steel Basewasher

The KPMI® Rocker Shim Conversion Spring Kit for the Milwaukee-8 utilizes the proven KPMI 0.625" beehive spring and a lightweight retainer that houses a standard Ø9.5mm hardened steel shim. The rocker arm rides directly on the shim surface and the 9.5mm diameter significantly increases the allowable rocker wipe area. This increase in wipe area provides the ability to utilize larger lift cams, that previously were unable to run on a 6mm valve stem. Additionally, the rocker shim thickness can be varied to adjust effective stem protrusion.

When larger camshafts are used, and valvetrain acceleration values increase, KPMI® strongly recommends running titanium valves for maximum performance.

**AVAILABLE NOW**

Applications	Harley-Davidson®
Years	2017-2024
Models	Milwaukee-Eight™ (& CVO's*)

**\*2023-2024 CVO's check valve lift to determine compatibility with KPMI® spring kits**

### Beehive Valve Spring Kit • Rocker Shim Conversion System

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-23900	Intake	.625"	1.500"	85#	280#	.625"
	Exhaust					
Kit Includes	8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	8	Red Viton® Seals	8	H. T. Steel Keeper (9°)	8	H. T. Steel Adj. Shim
Retail			\$519.32			
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-23950	Intake	.625"	1.500"	85#	280#	.625"
	Exhaust					
Kit Includes	8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers
	8	Red Viton® Seals	8	H. T. Steel Keeper (9°)	8	H. T. Steel Adj. Shim
Retail			\$471.02			

#### IMPORTANT NOTES:

**Modification Necessary:** To maximize shim contact in the retainer, KPMI recommends "tipping" (shortening the valve tip). See KPMI installation instructions for more info.

**Stem Protrusion:** There is anticipated to be a rough 0.100" increase in effective stem protrusion with the use of the shim.