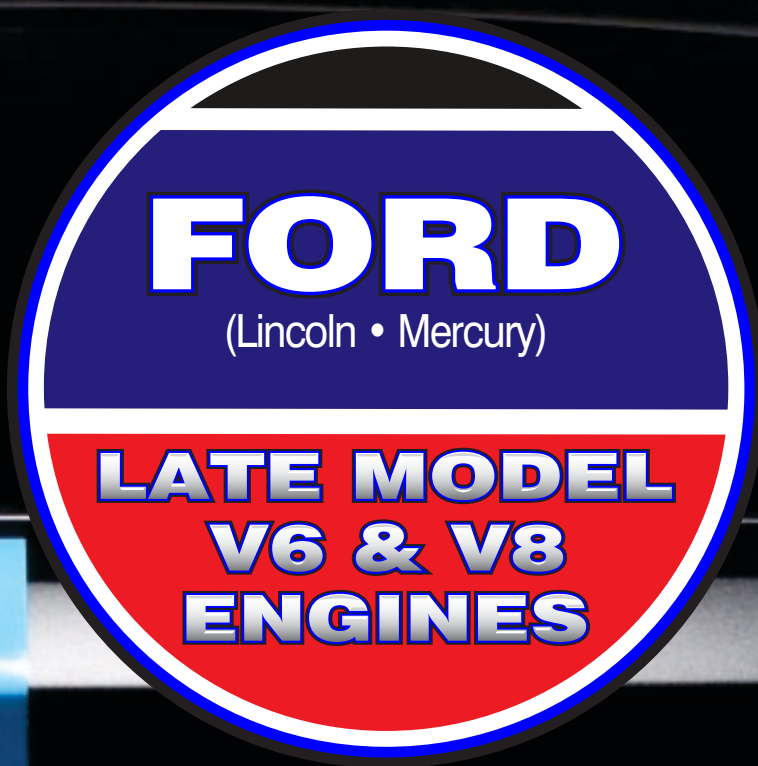


# MELLING<sup>TM</sup>

## PERFORMANCE



***2023 PARTS GUIDE***



Melling Engine Parts got its start soon after World War II. In 1946, automakers devoted themselves to producing new vehicles. At that time, they were not concerned with providing service parts for older cars that were in desperate need of repair. George Melling Sr. and his son Ben operated a tool shop in Jackson, Michigan and they recognized the opportunity to provide high quality automotive aftermarket parts. George and Ben then focused on oil pumps manufactured with an attention to quality. Their first product that year was the M-10 for the 1937 6 cylinder Chevrolet. It sold well and they knew they needed to expand and make oil pumps for other engines.

By 1952 the line consisted of 20 oil pumps and 15 repair kits when the first high-volume oil pump was introduced making it a banner year for Melling Engine Parts. The high-volume oil pump was a Melling “brainchild” revolutionizing the automotive oil pump aftermarket. That same year Melling expanded its business horizons beyond oil pumps when it became the first nationally recognized aftermarket supplier to distribute new replacement camshafts. 70 years later Melling is still recognized as an industry leader in camshafts.

Today, after 75 years we are still family-owned and directed by the fourth generation of the Melling family. Melling has expanded its product offerings to thousands of aftermarket engine parts spanning 27 different product lines with a coverage of over 1 million applications. Being an original equipment supplier of engine parts to the automakers keeps us current on the latest product design and manufacturing technologies. Melling’s commitment to quality is verified by its ISO/TS 16949 quality certification.

The company has traveled a long road and paving the way has always been the Melling customer. Listening to the feedback from our customers has been one of the keys to our success. Success brought about by utilizing that information to provide innovative and economical solutions to the issues engine builders encounter.

The resulting product improvements have become vital when building a high performance Ford engine for the track or a rebuilt engine for your daily driver. The following pages of this catalog focuses just on our high performance offerings for late model Ford applications. Please refer to the Melling website for additional application information and tech videos covering a wide range of topics including installation instructions.

Thank you for the 75 years of loyalty you have given us. We are humbled by it and will continue to build on our tradition of supplying dependable performance engine parts.





## MELLING FORD PERFORMANCE VALVE SPRINGS

Spring Number	Spring Type	Application	O.D.	I.D.	Installed Load & Height		Open Load & Height		Spring Rate	Coil Bind
			Inch	Inch	lbs.	Inch	lbs.	Inch		
<b>466554</b>	Beehive	Mod Engines	1.061/.999	.698/.636	100 @	1.640	265 @	1.080	295	1.040
<b>466574</b>	Beehive	7.3 Godzilla Intake	1.245/1.095	.845/.695	80 @	2.362	346 @	1.662	380	1.606
<b>466584</b>	Beehive	7.3 Godzilla Exhaust	1.245/1.095	.845/.695	100 @	2.362	310 @	1.662	300	1.565
<b>466664</b>	Beehive	3.5 Ecoboost	.953/.827	.670/.544	90 @	1.437	196 @	.987	236	.930

\*Refer to Melling Catalog for Application Information



466554



466574



466584



466664

Street to circle track, OEM to drag race performance, Melling Performance valve springs cover the market and your requirements. Standard, mid-range, heavy-duty and race ready applications are available from Melling Performance in a variety of wire sizes, materials and spring pressures. Melling Performance spring designs include beehive and dual springs.

## MELLING FORD PERFORMANCE ROCKER ARMS

Rocker Arm Number	Description
<b>498504</b>	Recommended upgrade for all years 4.6L/5.4L, 2V and 4V engines. Four grams lighter, stiffer movement with better engagement on the lash adjuster. Lightest and strongest Modular finger follower available for Modular 4.6L/5.4L, 4V and 2V engines. Stamped steel, high performance, self aligning roller rocker.

\*Refer to Melling Catalog for Application Information

Melling Performance Ford rocker arms are built from only the highest quality materials and manufacturing processes available. Melling Performance Ford rocker arms feature an improved OE design ensuring worry free performance and long dependable rocker arm life.



## MELLING FORD PERFORMANCE 7.3L GODZILLA ENGINE LIFTER SETS

Lifter Set Number	Application	Description
<b>292110R</b>	Drop in / Hydraulic	Premium drop in design lifter. Designed to be used with factory lifter trays
<b>29ST2126LSR</b>	Tie bar / Hydraulic / Short Travel	Premium short travel axle oiling lifter designed for high horsepower and high RPM engines
<b>292126LSR</b>	Tie Bar / Hydraulic	Premium tie bar axle oiling

\*Refer to Melling Catalog for Application Information

Melling Performance Ford lifter sets are built from only the highest quality materials and manufacturing processes available. Melling Performance Ford lifters are precision engineered for worry free performance and long dependable lifter life under harsh conditions.



292110R



29ST2126LSR

The above information is intended to be a convenient reference guide for Ford modular engines. Please consult the appropriate application listings in the Melling Performance catalog for accurate fitment information



## FORD PERFORMANCE ENGINE PLUGS

Plug Kit Number	Application	Description	Contains
<b>MPE-281BR</b>	5.4L 3/4 Valve	Brass Block/Head Kit	(12) Expansion Plugs, (2) Pipe Plugs
<b>MPE-281R</b>	5.4L 3/4 Valve	Steel Block/ Head Kit	(12) Expansion Plugs, (2) Pipe Plugs
<b>MPH-1R</b>	5.4L 3/4 Valve, 4.6L 2/3 Valve	Steel Cylinder Head Kit	(4) Expansion Plugs, (5) Pipe Plugs
<b>MPE-280BR</b>	4.6L 2/3 Valve	Brass Block/Head Kit	(12) Expansion Plugs, (2) Pipe Plugs
<b>MPE-280R</b>	4.6L 2/3 Valve	Steel Block/ Head Kit	(12) Expansion Plugs, (2) Pipe Plugs

\*Refer to Melling Catalog for Application Information

Melling Performance Ford engine block / cylinder head plug kits. Whether purchased individually, or as an entire engine kit, you can rest assured knowing that the components in these kits are manufactured using only the highest quality materials, ensuring a positive seal every time.



MPE-281BR



MPE-280R



### Heavy Duty Timing Chain Tensioner



### FORD PERFORMANCE TIMING COMPONENTS

Timing Set Number	Description
<b>BT5109HP</b>	<b>Primary Tensioner</b> <ul style="list-style-type: none"> <li>• Heavy duty cast iron design for improved durability in high RPM applications.</li> <li>• For 2011-19 Coyote engines</li> </ul>

### Heavy Duty Billet Steel Crankshaft Sprocket



### FORD PERFORMANCE TIMING COMPONENTS

Timing Set Number	Description
<b>S1318HP</b>	<ul style="list-style-type: none"> <li>• 5.0/5.2 high strength billet steel crankshaft sprocket</li> <li>• 5X stronger than the factory powdered metal sprocket</li> <li>• Compliments the 10396-BR billet rotor oil pump</li> <li>• .250" Seamless double roller timing chain</li> <li>• For 2015-17 5.0L Mustang GT, 2015-18 5.2L Mustang GT 350 &amp; 2015-18 F150 5.0L</li> </ul>



Displ.	Year	VIN	Melling Part #	Description	Make	Models
5.0L	2011-19	F	BT5109HP	Primary Tensioner; Heavy Duty	Ford	F-150
5.0L	2018-19	5	BT5109HP	Primary Tensioner; Heavy Duty	Ford	F-150
5.0L	2011-19	F	BT5109HP	Primary Tensioner; Heavy Duty	Ford	Mustang
5.0L	2012-13	U	BT5109HP	Primary Tensioner; Heavy Duty	Ford	Mustang
5.0L	2019	0	BT5109HP	Primary Tensioner; Heavy Duty	Ford	Mustang
5.0L	2015-17	F	S1318HP	Crankshaft Sprocket; Heavy Duty	Ford	F-150
5.0L	2018	5	S1318HP	Crankshaft Sprocket; Heavy Duty	Ford	F-150
5.0L	2015-17	F	S1318HP	Crankshaft Sprocket; Heavy Duty	Ford	Mustang
5.0L	2016-18	Z	S1318HP	Crankshaft Sprocket; Heavy Duty	Ford	Mustang

Melling Performance timing components are an efficient and economical way to provide the exact components needed for your performance engine rebuild. Melling Performance timing components are manufactured from the highest quality materials.





## FORD PERFORMANCE MODULAR ENGINE OIL PUMPS

Oil Pump Number	Description	Manf. Volume	Manf. Pressure	Optional Pressure 1	Optional Pressure 2
<b>10176</b>	Standard volume, Standard pressure. Billet steel rotors. Hard coat anodized	Standard	60 PSI	N/A	N/A
<b>10176HV</b>	High volume, high pressure. Billet steel rotors. Hard coat anodized	+8%	80 PSI	(Purple) 60 PSI	N/A
<b>10227</b>	Standard volume, Standard pressure. Billet steel rotors. Hard coat anodized	Standard	80 PSI	N/A	N/A
<b>10340</b>	Standard volume, high pressure. Hard coat anodized	Standard	80 PSI	(Brown) 60 PSI	N/A
<b>10340-BR</b>	Standard volume, high pressure. Billet steel rotors. Hard coat anodized	Standard	80 PSI	(Brown) 60 PSI	N/A
<b>10341</b>	High volume, high pressure. Hard coat anodized	+20%	80 PSI	(Brown) 60 PSI	N/A
<b>10390HV</b>	High volume, high pressure. Hard coat anodized	+20%	100 PSI	(Brown) 85 PSI	N/A
<b>10396</b>	Standard volume, high pressure. Hard coat anodized	Standard	110 PSI	(Red) 95 PSI	N/A
<b>10396-BR</b>	Standard volume, high pressure. Billet steel rotors. Hard coat anodized	Standard	110 PSI	(Red) 95 PSI	N/A
<b>10397-BR</b>	Standard volume, high pressure. Billet steel rotors. Hard coat anodized	Standard	95 PSI	85 PSI	N/A

\*Refer to Melling Catalog for Application Information

\*Oil pump pressure can vary due to engine clearances and modifications

\*Pressure/spring color

Melling Performance oil pumps provide dependable performance in every application under the toughest RPM conditions. Melling Performance oil pumps are CNC machined and hardcoat anodized. The cast iron covers are CNC machined and phosphate coated for improved pump performance and durability. The relief valves feature a threaded plug with optional pressure relief springs included. The oil pump pickup tube o-rings are also supplied. Every Melling Performance oil pump is individually tested for pressure and flow ensuring superior performance every time.



### Oil pump features:

- Exclusive chrome-moly billet steel rotors\*\*
- Hard coat anodized aluminum housing
- Phosphate coated cast iron cover
- Threaded pressure relief nut\*\*
- Includes O-ring for oil pickup tube assembly
- Lower pressure spring included\*\*
- Higher volume oil pump\*\*

(\*\* Where noted above)



Oil Pump Number	Oil Pump Screen Information
<b>10176</b>	13/16" Bolt on
<b>10176HV</b>	13/16" Bolt on
<b>10227</b>	15/16" Bolt on
<b>10340</b>	15/16" Bolt on
<b>10340-BR</b>	15/16" Bolt on
<b>10341</b>	15/16" Bolt on
<b>10390HV</b>	15/16" Bolt on
<b>10396</b>	1.00" Bolt on
<b>10396-BR</b>	1.00" Bolt on
<b>10397-BR</b>	15/16" Bolt on



The above information is intended to be a convenient reference guide for Ford modular engines. Please consult the appropriate application listings in the Melling Performance catalog for accurate fitment information



## FORD PERFORMANCE MODULAR ENGINE OIL PUMPS (Continued)

### OE - Stock - HP Oil Pump Interchange

Ford OE	Stock Oil Pumps	Performance Oil Pumps	Oil Pump Features
5L3Z-6600-AA	M176	10176	Standard Volume, Standard Pressure
N/A	M176HV	10176HV	High Volume (+8%), High Pressure, Chrome-Moly Billet Steel Rotors
F80Z-6600-AA	M227	10227	Standard Volume, Standard Pressure, Chrome-Moly Billet Steel Rotors
9L3Z-6600-A	M340	10340	Standard Volume, High Pressure (+20 psi)
9L3Z-6600-A	M340	10340-BR	Standard Volume, High Pressure (+20 psi), Chrome-Moly Billet Steel Rotors
N/A	M340HV	10341	High Volume (+20%), High Pressure
9R3Z-6600-A	M360	10340	Standard Volume, Standard Pressure
9R3Z-6600-A	M360	10340-BR	Standard Volume, Standard Pressure, Chrome-Moly Billet Steel Rotors
DR3Z-6600-A	M360	10340	Standard Volume, Standard Pressure
DR3Z-6600-A	M360	10340-BR	Standard Volume, Standard Pressure, Chrome-Moly Billet Steel Rotors
N/A	M360HV	10341	High Volume (+20%), Standard Pressure
BL3Z-6600-A	M395	10396	Standard Volume, Standard Pressure
BR3Z-6600-A	M396	10396-BR	Standard Volume, Standard Pressure, Chrome-Moly Billet Steel Rotors
AL3Z-6600-AB	M397	10397-BR	Standard Volume, High Pressure (+10 psi), Chrome-Moly Billet Steel Rotors

### 3.5L - 6.8L Applications

Liter	Year	VIN	Performance Oil Pumps		Models
3.5L	2011-19	8	10390HV	DOHC	Edge, Explorer, F150, Flex, Police Interceptor, Taurus
3.5L	2007-14	C	10390HV	DOHC	Edge, Flex, Fusion, MKX, MKZ
3.5L	2015-22	G	10390HV	DOHC	F150, Transit 150, Transit 250, Transit 350, Transit 350HD
3.5L	2017-19	T	10390HV	DOHC	Expedition, Explorer, F150, Flex, Police Interceptor, Taurus, MKS, MKT, MKZ, Navigator
3.5L	2008-12	W	10390HV	DOHC	Taurus, Taurus X, Sable
3.7L	2009-13	B	10390HV	DOHC	Mazda 6
3.7L	2011-20	K	10390HV	DOHC	Edge, Police Interceptor, Continental, MKS, MKT, MKX, MKZ
3.7L	2011-19	M	10390HV	DOHC	F150, Mustang, Transit 150, Transit 250, Transit 350, Transit 350HD
3.7L	2009-18	R	10390HV	DOHC	Police Interceptor, MKS, MKT, MKX
4.6L	1996-03	6	10176, 10176HV	SOHC	Crown Vic, E150, Expedition, F150-250, Grand Marquis
4.6L	1996-05	9	10176, 10176HV	SOHC	Crown Vic
4.6L	1993-11	V	10176, 10176HV	SOHC	Crown Vic, Grand Marquis, Mark VIII, Town Car
4.6L	1991-14	W	10176, 10176HV	SOHC	Cougar, Crown Vic, E150-250, Expedition, Explorer, F150-250, Grand Marquis, Mountaineer, T-Bird, Town Car
4.6L	1996-04	X	10176, 10176HV	SOHC	Mustang
4.6L	2003-05	H	10227	DOHC	Aviator
4.6L	2003-04	R	10227	DOHC	Mustang
4.6L	1996-01	V	10227	DOHC	Mustang, Continental, Mark VIII
4.6L	2003-04	Y	10227	DOHC	Mustang
4.6L	2005-10	8	10340, 10340-BR, 10341	SOHC	Explorer, Explorer Sport Trac, F150, Mountaineer
4.6L	2005-10	H	10340, 10340-BR, 10341	SOHC	Mustang, Lobo
5.0L	2011-17	F	10396, 10396-BR	DOHC	F150, Mustang
5.0L	2012-13	U	10396, 10396-BR	DOHC	Mustang
5.4L	2004-14	5	10340, 10340-BR, 10341	SOHC	Expedition, F150, F150SD, F250SD, Mark LT, Navigator
5.4L	2006-10	V	10340, 10340-BR, 10341	SOHC	F150
5.4L	2004	L	10340, 10340-BR, 10341	SOHC	F250SD, F350SD, F450SD
5.4L	2004	M	10340, 10340-BR, 10341	SOHC	F150 Heritage
5.4L	2004	Z	10340, 10340-BR, 10341	SOHC	F150 Heritage
5.4L	2005-12	S	10340, 10340-BR, 10341	DOHC	GT, Mustang, Shelby GT 500
6.2L	2010-15	6	10397-BR	SOHC	F150, F250SD, F350SD
6.8L	1997-19	S	10176, 10176HV	SOHC	E350, E450, E550, Econoline SD, Excursion, F250SD, F350SD, F450SD, F550SD, F53
6.8L	2005-19	Y	10176, 10176HV	SOHC	F250SD, F350SD, F450SD, F550SD, F53, F59



## ENGINE OIL PUMP PRIMING TANK

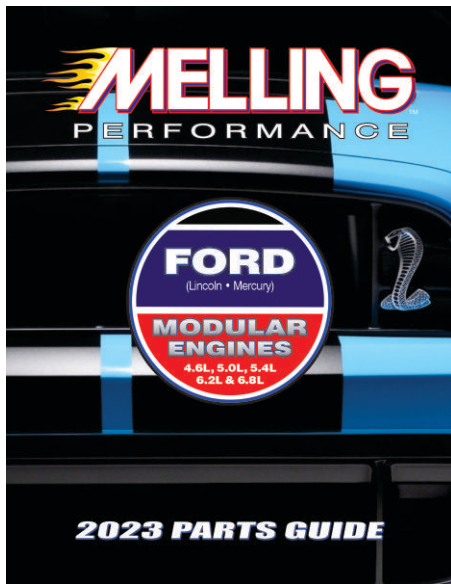
Part Number	Priming Tank Features
<b>MPL-201</b>	<ul style="list-style-type: none"> <li>• Eliminates dry starts after engine repairs</li> <li>• Can be used on all internal combustion engines</li> <li>• Large capacity 2 gallon stainless steel tank</li> <li>• Includes 3 adaptor fittings: 1/8 x 1/8 NPT • 1/4 x 1/8 NPT • 1.5 x 1/8 NPT</li> <li>• 75 lb. safety blow off valve</li> <li>• Built in handles for easy transport</li> <li>• 8 ft. chemical resistant hose with wand</li> </ul>

The Melling Engine Oil Priming Tank was developed as a way for engine builders to safely pre-prime the engine with oil prior to initial engine startup. The priming tank, when filled with clean oil and air pressure will supply pressurized oil into all of the critical areas of the new engine quickly and safely.



# www.melling.com

- Check out digital versions of our condensed catalogs focusing on the GM LS, Ford Modular, and Chrysler Hemi V8 applications.
- In addition you can also download catalogs focusing on performance valve springs, heavy duty valve springs and water pumps.
- Don't forget to check out the Melling tech video library covering a wide range of topics including detailed installation instructions.







## **POWERING PERFORMANCE ENGINES FOR OVER 75 YEARS**

Since 1946 when George Melling Sr. and his son Ben started Melling Tool Company in Jackson, Michigan, the Melling brand has been recognized as a leader in supplying quality parts to the engine building industry.

More than 75 years later, demand for Melling products is stronger than ever and widely preferred by professionals in markets around the world. From those first products shipped three generations ago to our now extensive portfolio of world class automotive solutions, Melling has given customers multiple reasons to prefer one brand and one standard of quality and performance

Melling Performance offers these quality product lines:

- Oil Pumps - Cast Iron, Aluminum and Billet Aluminum
- Oil Pump Pick-up Screens and Pick Up Tube Support Brackets
- Camshafts
- Timing Chain Speed Sets
- Valve Train Kits and Components
- Cylinder Sleeves
- Speciality Items and Installation Tools

On behalf of Melling Performance, thank you for your continued support for over 75 years.

Melling Engine Parts are manufactured with key advantages. Each part is backed by resources, technologies and people who are the very best in the world at designing, manufacturing and building exceptional products. Melling Performance parts deliver "An Advantage by Design".