

MELLING™

PERFORMANCE

FORD
(Lincoln • Mercury)

**LATE MODEL
V6 & V8
ENGINES**





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. 80 years later Melling is still recognized as an industry leader in camshafts.

Today, after 80 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 Hemi 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 Hemi 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 80 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		
46113	Beehive	4.6L 2V "Drop-in" Use W/Stock Retainer & Seat	1.061	0.636	80 @ 1.640		185 @ 1.090		191	1.020
466554	Beehive	4.6L 2V "Drop-in" Use W/Stock Retainer & Seat	1.061/.999	.698/.636	100 @ 1.640		265 @ 1.080		295	1.040
466574	Beehive	7.3L Godzilla Intake .700 Lift "Drop-in"	1.245/1.095	.845/.695	80 @ 2.362		346 @ 1.662		380	1.606
466584	Beehive	7.3L Godzilla Exhaust .700 Lift "Drop-in"	1.245/1.095	.845/.695	100 @ 2.362		310 @ 1.662		300	1.565
466664	Beehive	3.5L Ecoboost	.953/.827	.670/.544	90 @ 1.437		196 @ .987		236	.930

*Refer to Melling Catalog for Application Information



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
498504	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
292110R	Drop in / Hydraulic	Premium drop in design lifter. Designed to be used with factory lifter trays



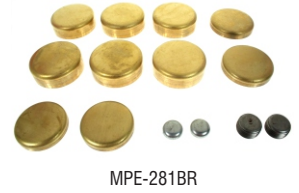
292110R

*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.

MELLING FORD PERFORMANCE ENGINE PLUGS

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



MPE-281BR



MPE-280R

*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.

MELLING GODZILLA PUSH ROD LENGTH CHECKING TOOL

Push Rod Number	Max Length	Min Length	Max Diameter
MPLC100	12.000"/305.00mm	6.000"/152.50mm	0.375"/9.53mm



Melling Performance now offers a pushrod length checking tool for measuring and adjusting the length of pushrods. The MPLC100 allows for the testing of different push rod lengths ensuring the correct length is selected for the engine's specifications. This is particularly important for engines without adjustable valve trains. The pushrod length is critical for a healthy and long-lasting valve train.

MELLING FORD PERFORMANCE CAMSHAFTS

Camshaft Number	Application	Description
24307	5.0L (302) & 5.8L (351W)	Class III; Hydraulic Roller Camshaft
24407	5.0L (302) & 5.8L (351W)	Class IV; Hydraulic Roller Camshaft

*Refer to Melling Catalog for Application Information



24307



24407



24307	
Advertised Duration Int:	275°
Advertised Duration Exh:	279°
Duration @ .050" Int:	221°
Duration @ .050" Exh:	225°
Valve Lift Int:	0.500"
Valve Lift Exh:	0.510"
Lobe Lift Int:	0.312"
Lobe Lift Exh:	0.319"
Billet Steel	

Lower Engine Vacuum than Stock; Rough Idle W/Mid to High RPM Torque & HP

24407	
Advertised Duration Int	286°
Advertised Duration Exh	294°
Duration @ .050" Int	224°
Duration @ .050" Exh	232°
Valve Lift Int	0.542"
Valve Lift Exh	0.563"
Lobe Lift Int	0.339"
Lobe Lift Exh	0.352"
Billet Steel	

Vacuum too low to operate power accessories; Rough Idle W/Mid to High RPM Torque & HP

Heavy Duty Timing Chain Tensioner



FORD PERFORMANCE TIMING COMPONENTS

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

HD Billet Steel Crankshaft Sprocket



FORD PERFORMANCE TIMING COMPONENTS

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



FORD PERFORMANCE TIMING COMPONENTS (Continued)

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

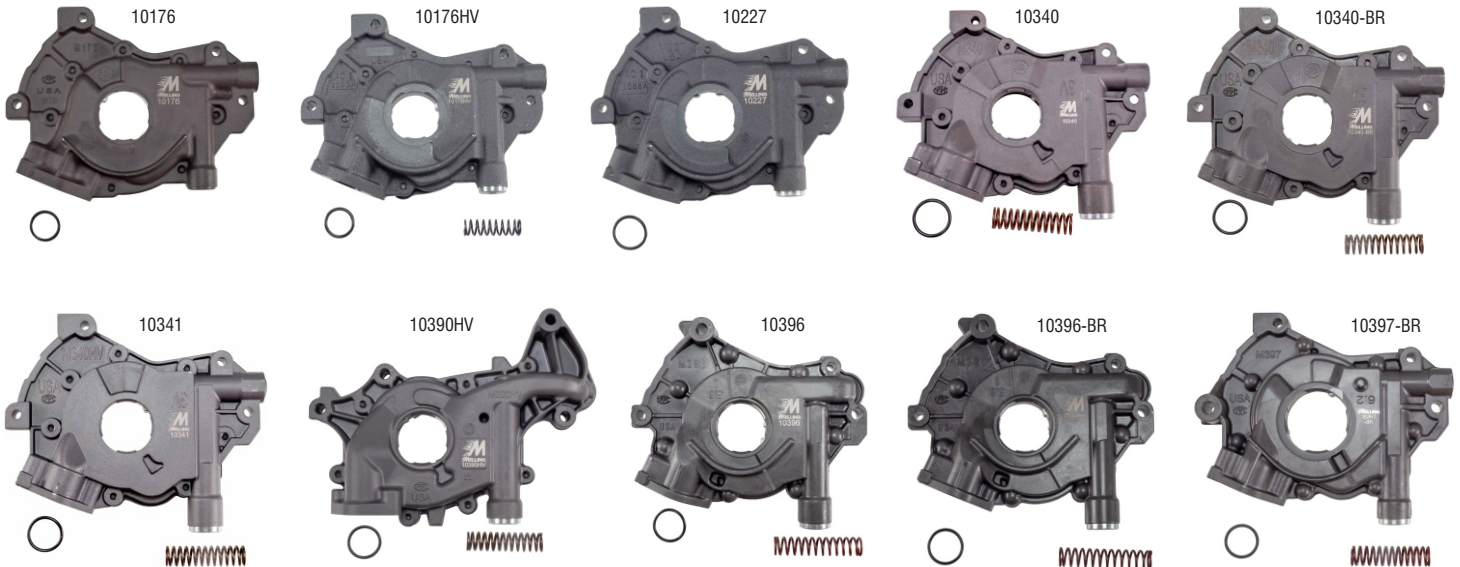
Oil Pump Number	Description	Manf. Volume	Manf. Pressure	Optional Pressure 1	Oil Pump Screen Information
10176	Standard volume, Standard pressure. Billet steel rotors. Hard coat anodized	Standard	60 PSI	N/A	13/16" Bolt on
10176HV	High volume, high pressure. Billet steel rotors. Hard coat anodized	+8%	80 PSI	(Purple) 60 PSI	13/16" Bolt on
10227	Standard volume, Standard pressure. Billet steel rotors. Hard coat anodized	Standard	80 PSI	N/A	15/16" Bolt on
10340	Standard volume, high pressure. Hard coat anodized	Standard	80 PSI	(Brown) 60 PSI	15/16" Bolt on
10340-BR	Standard volume, high pressure. Billet steel rotors. Hard coat anodized	Standard	80 PSI	(Brown) 60 PSI	15/16" Bolt on
10341	High volume, high pressure. Hard coat anodized	+20%	80 PSI	(Brown) 60 PSI	15/16" Bolt on
10390HV	High volume, high pressure. Hard coat anodized	+20%	100 PSI	(Brown) 85 PSI	15/16" Bolt on
10396	Standard volume, high pressure. Hard coat anodized	Standard	110 PSI	(Red) 95 PSI	1.00" Bolt on
10396-BR	Standard volume, high pressure. Billet steel rotors. Hard coat anodized	Standard	110 PSI	(Red) 95 PSI	1.00" Bolt on
10397-BR	Standard volume, high pressure. Billet steel rotors. Hard coat anodized	Standard	95 PSI	85 PSI	15/16" Bolt on

*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. All 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 for specific oil pumps. The oil pump pickup tube o-rings are also supplied where required. 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)



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

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



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 start up. 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, SBC / BBC engines and water pumps.
- Don't forget to check out the Melling tech video library covering a wide range of topics including detailed installation instructions. All this and more at www.melling.com





POWERING PERFORMANCE ENGINES FOR 80 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 80 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
- Specialty Items and Installation Tools

On behalf of Melling Performance, thank you for your continued support. support for over 80 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".

