# 4 OZ. Extreme Pressure Lube #3 The assembly lubricant preferred by top engine builders Can be used as a rod bolt lubricant

Part No.	Quantity	Description
40177	1	Extreme Pressure Lube #3



#### **Manley Lube**

Provides superior lubrication for rod bolt assembly

Part No.	Quantity	Description
40171	1/2 oz.	Manley Rod Bolt Assembly Lube
40172	1 oz.	Manley Rod Bolt Assembly Lube



### 2 oz. Moly Lube

Molybdenum disulfide is excellent as a break in coating for camshafts, lifters, pushrod ends and rocker balls.

Part No.	Quantity	Description	
40199	1	Moly lube	



### **Ultra-Torque® Fastener Assembly Lube**

▶ Can be used for torqueing engine fasteners

Part No.	Quantity	Description
40170	1/2 oz.	Fastener Assembly Lube



- ▶ Long valves, milled heads, cut blocks, small base circle camshafts all move rocker geometry far from optimum
   ▶ Correct length pushrods keep rockers centered on the valve tip and reduce stem and guide wear
   ▶ Checker tells the engine builder instantly what length pushrod is required

Part No.	Quantity	Description
42137	1	Small Block Chevys w/ 3/8" studs
42132	1	Small Block Chevys w/ 7/16" studs
42133	1	Big Block Chevys ( intakes and exhausts )



Detailing valve springs is crucial to preserving retainer life
 ID chamfering of springs provides clearance and distributes stress along flat surface of retainer step rather than the corner radii

Part No.	Quantity	Description
40174	1	Chamfering tool w/ 4 abrasive cones
40175	12 pcs.	Replacement abrasive cones
40176	25 pcs.	Replacement abrasive cones



- Sturdy black oxide tools for changing valve springs
   Rated for 350 lbs. maximum open spring pressure

Part No.	Quantity	Description
41870	1	Compressor tool for all Chryslers and Fords with rocker shafts





#### **Short Sleeve T-Shirts**

Made with a 60% cotton/40% polyester blend, the Manley logo is shown vertically on the front with a piston/connecting rod design on the back that is made up of the Manley logo.

Size	Black Part No.	Gray Part No.	
Small	00005	00035	
Medium	00004	00034	
Large	00003	00033	
X Large	00002	00032	
XX Large	00001	00031	







**Black T-Shirt Back** 

## **Black Ladies Fit Tops**

Same 60% cotton/40% polyester blend and printed design as our t-shirts except in a comfortable ladies fit top.

Size	Part No.	
Small	00065	
Medium	00064	
Large	00063	
X Large	00062	
XX Large	00061	



**Ladies Fit Front** 



**Ladies Fit Back** 

## Black Pullover Hoodies Pullover style made with a 50% cotton/50% polyester blend with a

full front pocket.

Size	Hoodie Part No.	
Small	00205	
Medium	00204	
Large	00203	
X Large	00202	
XX Large	00201	



**Hoodie Front** 



**Hoodie Back Design** 

Available in two sizes; S-M and L-XL, these black 98% cotton hats feature the Manley logo embroidered in black and gray on the front left.

	,	
Size	Part No.	
S-M	00010	
L-XL	00012	



### **Embroidered Mechanics Apron**

- Attractive black cotton/polyester with embroidered Manley logo in red and white
- ▶ Large twin front pockets

_	•	
Size	Part No.	
Fits All	42014	



### **Vinyl Printed Banners**

#### **Smaller Size White, Red and Black Design**

Made from durable 13-oz. vinyl material with 10 grommets around the border for easy hanging

Size	Part No.	
52" x 19"	80000	



#### **Larger Size White, Red and Black Design**

Made from durable 13-oz. vinyl material with 10 grommets around the border for easy hanging

Size	Part No.	
96" x 30"	00008TS	



#### **Larger Size White and Red Design**

► Made from durable 13-oz. vinyl material with 8 grommets around the border for easy hanging

Size	Part No.	
72" x 36"	00013	



# Premium Quality Polyester Lanyard

Printed with the MANLEY® Powers the Winners logo on both sides and a Lobster Claw Lanyard Attachment

Size	Part No.	
5/8" x 36"	LAN-BLACK	





#### Did You Know...

... in 1929 you could purchase a Manley 25 ton hydraulic press for \$115.00 or a 2 1/2 ton hydraulic jack for \$48.00. Both products were invented by Robert E. Manley then operating the Manley Manufacturing Company of Bridgeport, Connecticut.

... in 1931 the Eastern Valve Company of Hanover, Pennsylvania was purchased by Robert E. Manley, moved to York, Pennsylvania and renamed the Manley Products Corporation.

... in 1934 you could purchase Manley replacement Model T engine valves for \$8.00 - per 100 pieces.

... in 1940 the price of Model T valves had actually dropped to \$7.55 per 100 pieces. Depression!

... in 1950 Model T valves were sold for about \$16.00 per 100 pieces. Post war inflation!

... in 1966 Manley Performance Products, Inc. was founded by Henry D. Manley III. Forged pistons were sold for \$50.72 per set.

... in 1968 the Manley line included stainless valves, camshafts, lifters, vanadium valve springs, push rods and timing chain kits.

... in 1969 the race cars of Don Garlits, Bo Laws, and Joe Mondello appeared on the cover of the Manley Performance catalog.

... in 1971 Bill Jenkins' Grumpy's Toy made the first of ten appearances on the cover of the Manley Performance catalog.

... in 1983 Manley introduced its line of aluminum connecting rods. The jobber price was \$394.56 per set.

 $\dots$  in 1986, Manley's 20th year, "H" beam steel connecting rods were introduced at \$788.00 per set jobber price.

... in 1988 Manley Performance moved the factory from 13 Race Street in Bloomfield, NJ, to its present location in Lakewood, NJ.

... in 1997 Manley Performance introduced its Platinum Series of pistons.

 $\dots$  in 1998 an expansion of the factory doubled the manufacturing floor-space.

... in 2000 The Manley Performance "Gen II" custom stainless steel valve program is born and revolutionizes the custom valve market.

... in 2001 Manley Performance celebrated its 35th year of serving the racing and performance industry. Thank you to all our customers and especially the racers who trusted our products!

... in 2002 Manley entered the high performance passenger car market as an OEM supplier of connecting rods for the 2003 / 2004 Ford SVT Mustang Cobra.

... in 2004 Manley continued its presence in the OEM market as a connecting rod supplier for the Ford GT. In addition, Manley also sold the first set of their popular "Turbo Tuff®" connecting rods for the Mitsubishi 4G63 engine. The first of many to come!

 $\dots$  in 2005 Manley adds Platinum Series Mitsubishi pistons to the line.

... in 2006 Manley introduces "Turbo Tuff" connecting rods for the Subaru WRX/STi. Manley also celebrates its 40th anniversary in the performance aftermarket.



... in 2008 Manley significantly expands it's Platinum Series piston line for Chevy LS engine applications to compliment their connecting rod, valve and valve train offerings for this market segment.

... in 2010 Manley introduces a line of superior crankshafts and rotating assemblies for traditional SB, BB, and LS Series Chevrolets, Chrysler Hemis and Sport Compacts.

... in 2011, our 45th year in business, Manley develops a host of new products for the Ford 5.0L "Coyote" and 6.2L "Raptor" engines, adds Mitsubishi EVO X crankshafts and introduces connecting rods for diesel applications.

... in 2012, Manley DOUBLES their sport compact H-Beam offerings, develops unique, "drop-in" pistons for the venerable Nissan GT-R and expands the line of Chevy LS Crankshafts.

... in 2013, a second expansion of the factory increases the manufacturing floor space by over 40%.

... in 2015, the Manley West expansion is completed; doubling the size of our distribution facility in Orange, CA.

... in 2016, Manley celebrates its Golden Anniversary...... 50 years of manufacturing excellence and quality service for the performance aftermarket



# PERFORM! NCE BY THE NUMB

**Manley presents some handy charts and** formulas to guide you in building engines.

#### ENGINE DISPLACEMENT

Calculating Cubic Inches

Multiply bore x bore x stroke x number of cylinders x .7854 Example: 4.030 x 4.030 x 3.480 x 8 x .7854 = 355.1 cubic inches

**Converting Cubic Inches to Liters** 

Multiply the cubic inches by .01639 Example:  $427 \times .01639 = 6.997$  liters

Converting Cubic Centimeters (cc's) To Cubic Inches

Multiply the cubic centimeters by .06102 Example: 1500cc x .06102 = 91.53 cubic inches

**FUFL FLOW**Converting Cubic Centimeters Per Minute To Pounds Per Hour

Divide the cc/min. by 10.5

Example:  $400 \div 10.5 = 38$  lbs. per hour

**Converting Pound Per Hour Into Gallons Per Hour** 

Divide the lbs./hr. bv 6

Example: 300lbs./hr ÷ 6 = 50 GPH

**Converting Cubic Centimeters Per Minute To Gallons Per Hour** 

Multiply the cc/min. by .015873 Example:  $400 \times .015873 = 11.17 \text{ GPH}$ 

AIR FLOW

CFM- Carburetor Air FLow Requirement (4 Stroke Engine)

Multiply CID x RPM x VE and Divide by 3456

CID is displacement. RPM is engine speed, VE is volumetric efficiency (1)

Example: 427 x 6000 x 1 ÷ 3456 = 741 CFM

(note: racing engines use VE of 1, street engines use a VE of .85)

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PHONE: 732.905.3366

FAX: 732.905.3010

## CONVERSIONS

	METR	ic cor	IVERSION CHA	I <i>RT</i>
QUANTITY	Y METRIC UNIT	SYMBOL	APPROXIMATE CONV	ERSION FACTOR(S)
Length	millimeter	mm	1mm = 0.039	1 in = 25.4mm
	killometer	km	1 km = 0.62 mile	1 mile = 1.61 km
Mass	gram	g	1 g = 0.035 oz.	1 oz = 28.4 g
	kilogram	kg	1 kg = 2.2 lb	1 lb = 0.45 kg
Area	square milmeter	mm²	1 mm <sup>2</sup> = 0.002 in <sup>2</sup>	1 in = 645 mm <sup>2</sup>
	square cenimeter	cm <sup>2</sup>	1 cm <sup>2</sup> = 0.15 in <sup>2</sup>	1 in = 6.45 cm <sup>2</sup>
Volume	cubic centimeter	cm³	1 cm³ = 0.06 in³	1 in = 16.4 cm <sup>3</sup>
Volume	Liter		1 L = 0.22 gal.	1 gal = 4.55 L
(Liquids)	cubic inch	in <sup>3</sup>	1 in <sup>3</sup> = .01639 liter	1 liter = 61.2545 in <sup>3</sup>
Flow	liter/sec	l/s	1 <i>l/s</i> = 0.22 gal/sec	1 gal = 4.55 <i>l/s</i>
Force	Newton meter	Nm	1 Nm = 8.85 lb in	1 lb in = 0.11 Nm
			1 Nm = 0.74 lb ft	1 lb ft = 1.36 Nm
Pressure	kilopascal	kPa	1 kPa = 0.15 lb/in	1 lb/in = 6.89 kPa
Vacuum	kilopascal	kPa	1 kPa = 0.30 in Hg	1 in/Hg = 3.39 kPa
Spring Rate	newton/millimet	er N/mm	1 N/mm = 5.7 lb in	1 lb in = 0.10 N/mm
Temperatu	re °C (Celsius)	°C	°C - 5/9 (°F - 32)	°F = 9/5 °C + 32



## NOTES

FAX: 732.905.3010

MANLEY

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PHONE: 732.905.3366





VALVES
SPRING/RETAINER MIS
VALVE LOCKS
PISTONS
CONNECTING RODS
CENANKSHAFTS

ACURA - AUDI - BMW - DODGE - FORD - HONDA LAMBORGHINI - MAZDA - MITSUBISHI NISSAN - SUBARU - TOYOTA - VW

VALVE FUDES
VALVE FUDES
VALVE LOCKS
TOP COLVARS
LOWER COLVARS
VALVE SPRINGS
VALVE TRAIN
COMPONENT KATS

SPORTSTER - PAN HEAD - SHOVEL HEAD EVO - TWIN CAM - BUELL XB9



Visit www.manleyperformance.com for more info

#### Decimal Conversion Chart

<u>1</u> 64				.0156
64	<u>1</u> -			0312
<u>3</u> 64	. JZ			.0468
04		<u>1</u> 16		.0625
<u>5</u> 64				.0781
	<u>3</u> -			.0937
<u>7</u> 64				.1093
		<u>1</u> -		125
<u>9</u> 64				.1406
	<u>5</u> 32			1562
<u>11</u> 64				.1718
		3 16		1875
<u>13</u> 64				2031
10	<u>7</u> 32			·.2187
<u>15</u> 64			1	2343
17			1/4	250
<u>17</u> 64	q			2656
19	<u>9</u> 32			2812
<u>19</u> 64		<u>5</u> 16		.2968
<u>21</u> 64		16		.3125
64	<u>11</u>			3281 3437
	32			.3 <del>4</del> 37

<u>23</u> 64					.359	3
			3 −		.375	•
<u>25</u> 64					.390	16
	<u>13</u> 32 -				.406	2
<u>27</u> 64					.421	8
04		<u>7</u> 16			.437	'5
<u>29</u> 64		10			.453	
04	<u>15</u> 32				.468	
<u>31</u> 64	32				.484	
64				$\frac{1}{2}$ —	.500	
<u>33</u> 64				2	.515	
64	<u>17</u> 32				.531	
35	32					
<u>35</u> 64		a			.546	
27		<u>9</u> 16			.562	
<u>37</u> 64	10				.578	
20	<u>19</u> 32				.593	
<u>39</u> 64					.609	3
41			<u>5</u> -		.625	
<u>41</u> 64					.640	6
	<u>21</u> 32				.656	2
<u>43</u> 64					.671	8
		11 16			.687	5

20mm = 0.78740"

<u>45</u> 64					.7031
	<u>23</u> 32				.7187
<u>47</u> 64					.7343
				<u>3</u> –	.750
<u>49</u> 64					.7656
	<u>25</u> 32				.7812
<u>51</u> 64					.7968
		13 16			.8125
<u>53</u> 64					.8281
	<u>27</u> 32				.8437
<u>55</u> 64					.8593
٠.			<u> 7</u> 8		.875
<u>57</u> 64					.8906
0-1	<u>29</u> 32				.9062
<u>59</u> 64	- 32				.9218
04		15 16			.9375
<u>61</u> 64		10			.9531
04	<u>31</u> 32				.9687
<u>63</u> 64	- 32				.9843
04			1.		1.000
			_		

#### Metric Conversion Chart

0.1mm		0.00394''	1mm
<b>0.2mm</b>	=	0.00787"	2mm
0.3mm	=	0.01181"	3mm
<b>0.4mm</b>	=	0.01575"	4mm
0.5mm	=	0.01969"	5mm
0.6mm	=	0.02362"	6mm
<b>0.7mm</b>	=	0.02756"	7mm
0.8mm	=	0.03150"	8mm
0.9mm	=	0.03543"	9mm
			10mm

```
= 0.03937"
               30mm = 1.18110"
= 0.07874"
               40mm = 1.57480"
               50mm = 1.<u>96850"</u>
= 0.11811"
= 0.15748"
               60mm = 2.36220"
= 0.19685"
               70mm = 2.75590"
= 0.23622"
               80mm = 3.14960"
= 0.27559"
               90mm = 3.54330"
= 0.31496"
              100mm = 3.93700"
= 0.35433"
= 0.39370"
```

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