

# LANG

**TOOLS**  
Professional Tools For *4 Generations*™



PRODUCT CATALOG

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## COMPRESSION TESTING

### TU-30A\* COMPRESSION TESTER SET

- Tests compression on all domestic and foreign cars and light trucks with gasoline engines, including mini engines
- M68 gauge has a dual scale dial with ranges from 0-300 PSI and 0-21 bar; includes durable boot for protection
- M14 hose adapter short thread, M14 long thread hose adapter, M10 solid adapter, M12/M16 Ford hose adapter, 8" extension tube and repair parts kit
- 24" extension hose



### TU-310\* "HANDS FREE" MOTORCYCLE COMPRESSION TESTER

- Metal clip can be attached to the gauge; the gauge can then be clipped to the frame, or handle bars allowing hands free testing
- Includes M10, M12, M14 and M18 long reach adapters to test most engines; extra long 16" hose for gauge to reach handle bars
- Also tests domestic and imported small cars and trucks with gasoline engines
- M68 gauge has a dual scale dial with ranges from 0-300 PSI and 0-21 bar
- Includes storage case



### TU-20-2\* JIFFEE COMPRESSION TESTER WITH GAUGE BOOT

- M68 gauge has a dual scale dial with ranges from 0-300 PSI and 0-21 bar
- Set includes: Straight adapter with rubber cone, 45° angle adapter with rubber cone, 4" solid extension, and 7-1/2" flex extension
- Includes storage case



## COMPRESSION TESTING

### TU-3\* UNIVERSAL COMPRESSION TESTER

- Tests compression on domestic and foreign cars and trucks with gasoline engines
- Adapters included: M14 x M18 short solid adapter, M14 x M18 long flex adapter, and M14 long reach adapter
- Screw-in adapters with o-rings provide professional accuracy
- Long flex 12" hose
- Side release valve allows quick re-testing of cylinder without removing adapter
- M68 gauge has a dual scale dial 300 PSI and 21 bar
- Includes storage case



### TU-7\* FLEX DRIVE COMPRESSION TESTER

- Tests domestic and foreign cars and trucks with gasoline engines
- M14 x M18 adapter attached to end of 12" hose
- Separate M14 long reach adapter that can be screwed onto end of hose adapter by hand
- Side release valve allows multiple re-testing without removing tester
- M68 gauge has dual scale dial with ranges from 0-300 PSI and 0-21 bar



### TU-21\* SMALL ENGINE COMPRESSION TESTER

- Will test all small engines with M14 or M18 threads
- Valve core at bottom ensures accurate readings
- M43 gauge has a dual scale dial with ranges from 0-200 PSI and 0-14 bar



## CYLINDER LEAKAGE TESTERS WITH 2 GAUGES

- Measures the ability of an engine cylinder to hold compressed air using shop air; supplements a compression tester
- Precision regulator, M14 standard reach adapter on a 26" hose assembly, M14 long reach solid adapter
- M68 special gauge has one multicolored band for measuring low, moderate and high leakage, and a scale range from 0-100%

### CLT-2\* 100 PSI/7 BAR GAUGES

- Includes storage case



### CLT-4\* 35 PSI/2.4 BAR GAUGES

- Includes storage case





## COMPRESSION TESTING

### TU-17\* WHISTLE FOR CYLINDER LEAKAGE TESTER

- Whistles on compression stroke and stops whistling at top dead center
- Quick Coupler connects directly to the cylinder hose from Star Product's CLT-2 (Rectangular body)
- Also used to re-install distributors correctly



### 901\* AIR HOLD FITTING SET

- Use to apply air pressure to keep valves closed while replacing seal/spring
- Includes M14 x M18 adapters threaded for 1/4" NPT



### TU-17-1\* WHISTLE FOR CYLINDER LEAKAGE TESTER

- Whistles on compression stroke and stops whistling at top dead center
- Quick Coupler connects directly to the cylinder hose from Lang Tools CLT-2 and CLT-4 (Round body), as well as 74498 diesel adapter
- Also used to re-install distributors correctly



### 73102\* M10 X 1.00 MALE BY M14 X 1.25 FEMALE SOLID ADAPTER

- For testing compression on small engines such as: snowmobiles, motorcycles, outboard motors and more
- Male thread is M10 x 1.00, female is M14 x 1.25
- Use with any compression tester with a M14 fitting



### 41755\* COMPRESSION SCHRADER VALVE CORE REPLACEMENT (5-PACK)

- For use with compression gauge sets and adapters
- Does not have a spring



### 73103\* M12 X 1.25 MALE BY M14 X 1.25 FEMALE SOLID ADAPTER

- For testing compression on small engines such as: snowmobiles, motorcycles, outboard motors and more
- Male thread is M12 x 1.25, female is M14 x 1.25
- Use with any compression tester with a M14 fitting



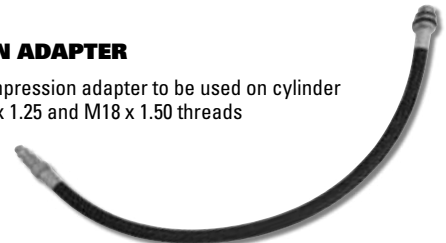
### 73111\* M12 & M16 COMPRESSION FORD ADAPTER

- For testing compression on Ford Triton engines with M12 and M16 threads
- For 3 valve engines only (2004-2014)
- 10" hose



### 73109\* COMPRESSION ADAPTER

- Combination compression adapter to be used on cylinder heads with M14 x 1.25 and M18 x 1.50 threads
- 16" hose



### 73106\* MINI GAS ENGINE ADAPTER M14 X M18

- For small displacement engines such as jet skis, string trimmers, small motorcycles, chain saws and more
- Can be used with TU-3, TU-30 or TU-310 only
- 6" hose



### 74498\* DIESEL ADAPTER FOR CYLINDER LEAKAGE TESTER

- Connects CLT-2 or CLT-4 to diesel adapters
- Measure diesel engine cylinder ability to hold compressed shop air



### 73110\* M14 COMPRESSION ADAPTER EXTENSION

- 8" long M14 x 1.25 compression test adapter provides easier access for compression testing where spark plug holes are recessed
- Rigid straight tubing is easier to thread into a recessed spark plug hole than a threaded adapter on the end of a test hose



### TU-18\* WHISTLE - GENERIC

- Whistles on the compression stroke and stops whistling at approximately top dead center
- Whistle is attached to hose with M14 x M18 spark plug threads
- Very useful to locate approximate Top Dead Center for cylinder leak testing
- 24" hose



## ENGINE OIL PRESSURE TESTING

### TU-16A\* QUICK CHANGE AUTOMATIC TRANSMISSION TO ENGINE OIL PRESSURE TESTER

- Checks engine oil pressure and automatic transmission pressure on cars, trucks, motorcycles, etc., both domestic and imports
- Set includes 22 color-coded standard and metric fittings
- M68 gauge has dual scale with ranges from 0-100 PSI and 0-7 bar
- M91 gauge has dual scale dial with ranges from 0-400 PSI and 0-28 bar
- 6-ft. hose with quick coupler for easy gauge changing and 1/8 NPT connection
- Includes storage case



### TU-12\* ENGINE OIL PRESSURE TESTER

- More accurate than dashboard oil pressure gauges. A must for cars with dash indicator light only
- M68 gauge has a dual scale dial with ranges from 0-100 PSI and 0-7 bar
- The hook on gauge enables the technician to hang up gauge and hose assembly to free his hands
- 24" hose with 1/8 NPT connection
- 2 fittings: 1/4 NPT and 3/8 NPT
- Includes storage case



### TU-11A\* DELUXE AUTO TRANSMISSION & ENGINE OIL PRESSURE TESTER

- Tests most domestic and imported cars and light trucks
- Lower scale is expanded to allow easier reading and therefore, more accurate reading at low pressure
- With 6 feet of nitrile (oil proof) hose to make testing easier with 1/8NPT connection
- M91 gauge has a dual scale dial with ranges from 0-400 PSI and 0-28 kg/cm<sup>2</sup>
- 11 standard and metric fittings
- Includes storage case



### TU-4A\* AUTOMATIC TRANSMISSION & ENGINE OIL PRESSURE TESTER

- Checks oil pressure in automatic transmissions and gasoline engines
- Tests most domestic and imported cars and light trucks
- More accurate than dashboard oil pressure gauges. Especially helpful on cars with dash indicator light only
- With 6 feet of nitrile (oil proof) hose to make testing easier with 1/8NPT connection
- M68 gauge has a dual scale dial with ranges from 0-300 PSI and 0-21 bar
- 11 standard and metric fittings
- Includes storage case



### 70408\* METRIC OIL AND TRANSMISSION ADAPTERS

- M12 x 1.50 Metric adapter
- M14 x 1.50 Metric adapter
- M18 x 1.50 Metric adapter



\* ⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## FUEL INJECTION PRESSURE TESTING

### TU-550\* MASTER GLOBAL FUEL INJECTION TEST KIT

- Covers all major domestic and foreign platforms 1988 to present (does not include CIS/TBI)
- M91 test gauge (includes boot for protection) assembly disconnects from test hose and valve assembly for easier storage and improved gauge protection
- Fuel line tee can accommodate 3/8" hose sizes in addition to the 1/4" and 5/16" previously accommodated hose sizes



### TU-469\* FUEL INJECTION PRESSURE TESTER WITH SCHRADER ADAPTERS

- Enables testing on all cars with standard or small Schrader valves
- M91 gauge (with hook for hands-free use) has a dual scale dial with ranges from 0-100 PSI and 0-7 bar
- Quick Coupler connection at end of gauge hose (other QC adapters can be purchased as needed)
- Includes storage case



### TU-443\* DELUXE FUEL INJECTION PRESSURE TEST SET

- M91 gauge has a dual scale dial with ranges from 0-100 PSI and 0-7 bar
- Set has a relief valve and 6-ft. of tubing to relieve the pressure and the fuel safely. Also allows checking for sufficient fuel flow
- The 4-ft. hook on gauge enables the technician to hang up gauge and hose assembly to free his hands
- 29 adapters (see page 13)
- Quick coupler connection at the end of the gauge hose





## FUEL INJECTION PRESSURE TESTING

### TU-470B\* FUEL INJECTION CLEANER - 2 GAUGES

- Two gauges enable a technician to check the vehicle fuel pressure with the bottom gauge, and then easily set cleaning pressure with the top gauge by referring to vehicle fuel pressure on the bottom gauge
- Cleans carbon from intake valves, fuel passages, and cylinders with a professional carbon cleaning solution, which will restore the original spray pattern more effectively, giving improved performance, fuel economy, and emission tests
- Both gauges are M68 and have dual scale dials with ranges from 0-100 PSI and 0-7 bar



### TU-113C\* FUEL INJECTION TESTER - U.S. AND IMPORTS

- M68 gauge has a dual scale dial with ranges from 0-100 PSI and 0-7 bar
- Standard Schrader (GM)
- Small Schrader (Ford)
- M6 x 1.00 adapter (Honda)
- Tee manifold



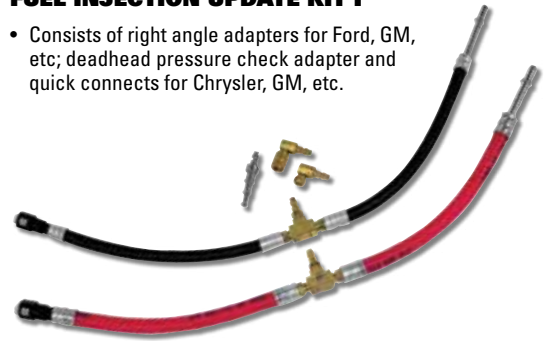
### TU-475\* INTAKE SYSTEM CLEANER/SPRAY NOZZLE

- Cleans throttle bodies and intake's on most modern fuel injected vehicles
- Used in conjunction with TU-470B fuel injector cleaner
- Helps restore drive-ability of vehicle
- Has 180 degree nozzle adjustability for a better cleaning solution



### 74489\* FUEL INJECTION UPDATE KIT I

- Consists of right angle adapters for Ford, GM, etc; deadhead pressure check adapter and quick connects for Chrysler, GM, etc.



### TU-26\* GM TBI FUEL INJECTION THRU FILTER TEST SET WITH MANIFOLD

- For testing fuel pressure at the fuel filter on GM TBI systems
- Selecting the same adapter as the fuel filter, the adapter can then be screwed onto manifold by hand. Manifold connects to fuel lines in place of fuel filter
- Can be used with all Lang Tools Fuel Injection Testers and Cleaners, or others with a standard GM Schrader adapter
- 7 adapters plus manifold



### 74476\* 6-FT. ROAD TESTER HOSE

- 6' extension hose works with any Lang fuel injection testers with quick connects



\* ⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

**33062**  
HOSE 3/16" ID  
X 6-FT.



**34021**  
1/4" I.D. X 6"  
FUEL HOSE



**35031**  
5/16" I.D. X 6"  
FUEL HOSE



**36032**  
3/8" I.D. X 6"  
FUEL HOSE



**41303\***  
3/16" HOSE  
BARB X QC  
BODY



**41310\***  
3/16 HOSE  
BARB X QC  
PLUG



**41327\***  
OTC QUICK  
COUPLER  
BODY



**41576\***  
BENT TUBE  
WITH 3/8"  
INVERTED  
FLARE NUT



**43110**  
O-RING  
(5-PACK)



**43141**  
O-RING M14  
(5-PACK)



**60236\***  
M16 X 1.50  
FEMALE BY  
3/8" TUBE END



**60238\***  
M14 X 1.50  
FEMALE BY  
3/8" TUBE END



**60239\***  
J-BODY  
ADAPTER



**60410\***  
M8 X 1.00  
FEMALE BY  
M12 X 1.50  
MALE



**60440\***  
M10 X 1.00  
FEMALE BY  
M12 X 1.50  
MALE



**60772\***  
OTC QUICK  
COUPLER  
PLUG



**61333\***  
6MM ADAPTER  
EXTENSION  
FOR KIA &  
HYUNDAI



**71301\***  
STANDARD  
SCHRADER  
HOSE  
ASSEMBLY



**71302\***  
SMALL PARTS  
KIT



**71303\***  
SMALL  
SCHRADER  
HOSE  
ASSEMBLY



**71304\***  
M6 X 1.00  
(HONDA) HOSE  
ASSEMBLY



**71305\***  
VOLVO  
ADAPTER,  
14MM LH  
JETRONIC



**71306\***  
M11 O-RING  
ADAPTER



**71308\***  
M14 X 1.50  
INVERTED  
FLARE MALE  
AND FEMALE  
CONNECTIONS



## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

**71313\***  
**FORD EFI**  
**SPRING LOCK**  
**ADAPTER**  
**WITH QUICK**  
**COUPLER PLUG**



**71314\***  
**FORD CFI**  
**ADAPTER,**  
**5/16" QUICK**  
**DISCONNECTS**



**71315\***  
**SPRING LOCK**  
**ADAPTER**  
**WITH SMALL**  
**SCHRADER**



**71316\***  
**ADAPTER,**  
**5/16" QUICK**  
**DISCONNECTS**  
**WITH SMALL**  
**SCHRADER**



**71317\***  
**MANIFOLD**  
**WITH QUICK**  
**COUPLER PLUG**



**71318\***  
**STANDARD**  
**SCHRADER**  
**HOSE**  
**ASSEMBLY**  
**WITH QUICK**  
**COUPLER PLUG**



**71319\***  
**SMALL**  
**SCHRADER**  
**HOSE**  
**ASSEMBLY**  
**WITH QUICK**  
**COUPLER PLUG**



**71321\***  
**M16 O-RING**  
**ADAPTER**



**71327\***  
**FUEL**  
**INJECTION KIT**



**71328\***  
**1/4" HOSE**  
**BARB WITH**  
**QUICK**  
**COUPLER PLUG**



**71329\***  
**HOSE**  
**ASSEMBLY**  
**(AUDI, VW,**  
**VOLVO)**



**71330\***  
**HOSE**  
**ASSEMBLY**  
**(TOYOTA, GEO)**



**71403\***  
**ADAPTER KIT**



**71404\***  
**ADAPTER M8 X**  
**1.00 MALE BY**  
**M12 X 1.50**  
**MALE WITH**  
**O-RING**



**71405\***  
**ADAPTER**  
**M10 X 1.00**  
**MALE BY**  
**M12 X 1.50**  
**MALE WITH**  
**O-RING**



**71406\***  
**ADAPTER M8 X**  
**1.00 MALE BY**  
**M12 X 1.50**  
**MALE WITH**  
**O-RING**  
**(3" OVERALL)**



**71408\***  
**CONNECTING**  
**HOSE AND**  
**VALVE**  
**ASSEMBLY FOR**  
**BOSCH CIS**



**71409\***  
**CIS & BANJO**  
**BOLD ADAPTER**  
**SET**



**72305\***  
**BENT TUBING**  
**WITH 3/8"**  
**INVERTED**  
**FLARE NUT BY**  
**M16 X 1.50**  
**NUT, 3/8"**  
**O-RING FLARE**



**72306\***  
**ADAPTER**  
**M16 X 1.50**  
**THREAD WITH**  
**3/8" O-RING**  
**FLARE BY 3/8"**  
**TUBE FITTING**



**72308\***  
**CONNECTING**  
**HOSE FOR GM**  
**TBI 3/8"**  
**INVERTED**  
**FLARE ENDS**  
**WITH QUICK**  
**COUPLER PLUG**



**72309\***  
**ADAPTER**  
**M14 X 1.50**  
**THREAD WITH**  
**3/8" O-RING**  
**FLARE BY 3/8"**  
**TUBE FITTING**



**72315\***  
**MANIFOLD**  
**WITH**  
**SCHRADER**



**72316\***  
**ADAPTER**  
**ASSEMBLY**





## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

**72317\***  
ADAPTER  
ASSEMBLY



**72318\***  
ADAPTER  
ASSEMBLY



**72319\***  
ADAPTER  
ASSEMBLY



**72320\***  
ADAPTER  
ASSEMBLY



**72322\***  
ADAPTER SET  
CONSISTING  
OF: 60236,  
72305, &  
72306



**72323\***  
ADAPTER KIT



**74424\***  
M91/100 PSI  
GAUGE



**74425\***  
RELEASE  
VALVE TUBING



**74426\***  
M12 X 1.00  
HONDA PULSE  
DAMPENER  
ADAPTER



**74431\***  
BANJO BOLT  
M6 X 1.00  
WITH O-RING



**74432\***  
BANJO BOLT  
M8 X 1.00  
WITH  
NYLOTRON  
WASHER



**74433\***  
BANJO BOLT  
M10 X 1.00  
WITH  
NYLOTRON  
WASHER



**74434\***  
BANJO BOLT  
M12 X 1.25  
WITH  
NYLOTRON  
WASHER



**74435\***  
BANJO BOLT  
M12 X 1.50  
WITH  
NYLOTRON  
WASHER



**74437\***  
REPAIR PARTS  
KIT



**74438\***  
M91/100 PSI  
GAUGE HOSE  
AND RELIEF  
VALVE



**74440\***  
M68/100 PSI  
GAUGE AND  
HOSE



**74442\***  
M68/60 PSI  
GAUGE AND  
HOSE



**74444\***  
BOSCH CIS  
UPGRADE KIT



**74445\***  
UPGRADE KIT (EXCEPT CIS/TBI)



**74446\***  
RELIEF VALVE  
AND TUBING  
ASSEMBLY



**74454\***  
OTC  
CONVERSION,  
USE ADAPTERS  
WITH OTC  
CANISTER



**74455\***  
TUBING KIT  
3/8" TUBE WITH  
INVERTED  
FLARE NUTS &  
HOSE CLAMPS



## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

**74459\***  
QUICK COUPLER  
SOCKET BY MALE  
STANDARD  
SCHRADER



**74469\***  
CONVERSION  
ADAPTER FOR OTC  
ADAPTERS



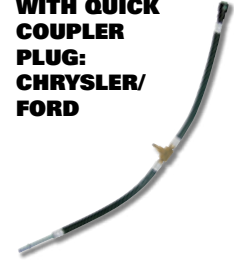
**74471\***  
M14 X 1.50 BANJO  
BOLT (FOR CIS)



**74476\***  
6-FT. ROAD  
TESTER HOSE



**74484\***  
5/16" QUICK  
DISCONNECT  
HOSE ASSEMBLY  
WITH QUICK  
COUPLER  
PLUG:  
CHRYSLER/  
FORD



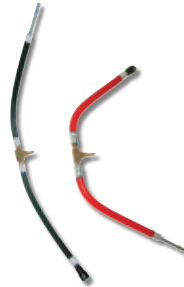
**74485\***  
3/8" QUICK  
DISCONNECT  
HOSE ASSEMBLY  
WITH QUICK  
COUPLER PLUG: GM



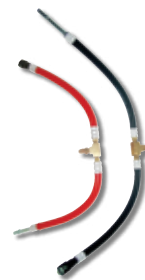
**74486\***  
GSI CONVERSION,  
USE GSI  
ADAPTERS WITH  
STAR CANISTER



**74487\***  
HOSE ASSEMBLY:  
74484 & 74485



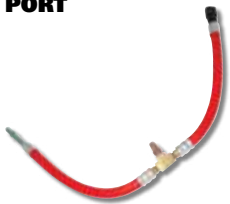
**74488\***  
HOSE ASSEMBLY:  
74492 & 74493



**74492\***  
5/16" QUICK  
DISCONNECT  
HOSE ASSEMBLY  
WITH STANDARD  
SCHRADER TEST  
PORT



**74493\***  
3/8" QUICK  
DISCONNECT  
HOSE ASSEMBLY  
WITH STANDARD  
SCHRADER TEST  
PORT



**74494\***  
GM TUBING KIT



**74495\***  
GM ADAPTER KIT



**74499\***  
1/4" QUICK  
DISCONNECT HOSE  
WITH STANDARD  
SCHRADER



**74571\***  
GAUGE & HOSE  
ASSEMBLY



**74701\***  
GAUGE &  
HARDWARE  
ASSEMBLY



**74851\***  
DEADHEAD  
ALUMINUM  
ADAPTER



**74852\***  
SCHRADER GM  
RIGHT ANGLE  
ADAPTER



**74853\***  
SMALL SCHRADER  
RIGHT ANGLE  
ADAPTER



**74854\***  
FUEL INJECTION  
UPDATE KIT



## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

| Part Number    | Description   | TU-26 | TU-113 | TU-443 | TU-446 | TU-447 | TU-448 | TU-457 | TU-469 | TU-480A | TU-485A | TU-550 | 74476 | 74489 | TU-443-2 | TU-443-3 | TU-540-1 | TU-540-2 |
|----------------|---|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|-------|-------|----------|----------|----------|----------|
| <b>33062</b> * | Hose 3/16" ID x 6-ft.                                 |       |        |        |        |        |        |        |        |         |         |        | •     |       |          |          |          |          |
| <b>34021</b>   | Hose 1/4" ID x 6"                                     |       |        |        |        |        |        |        |        |         | •       |        |       |       |          |          |          |          |
| <b>35031</b>   | Hose 5/16" ID x 6"                                    |       |        |        |        |        |        |        |        |         | •       |        |       |       |          |          |          |          |
| <b>36032</b>   | Hose 3/8" ID x 6"                                     |       |        |        | •      |        |        |        |        |         |         |        |       |       |          |          |          | •        |
| <b>41303</b> * | 3/16" hose barb x quick coupler body                  |       |        |        |        |        |        |        |        |         |         |        | •     |       |          |          |          |          |
| <b>41310</b> * | 3/16" hose barb x quick coupler plug                  |       |        |        |        |        |        |        |        |         |         |        | •     |       |          |          |          |          |
| <b>41327</b> * | Female quick coupler plug, conversion adapter for OTC |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>41576</b> * | Bent tube with 3/8" inverted flare nut                |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| <b>43110</b>   | O-ring 5/16" x 7/16"                                  |       |        |        |        |        |        |        |        |         |         |        |       |       | •        | •        |          |          |
| <b>43141</b>   | O-ring M14 .424" ID x .103"                           |       |        |        |        |        |        |        |        |         |         |        |       |       | •        | •        |          |          |
| <b>52003</b>   | Red Plastic Case                                      |       |        |        |        |        |        |        |        |         |         | •      |       |       |          |          |          |          |
| <b>52101</b>   | Gray Plastic Case                                     | •     | •      |        |        |        |        |        |        |         | •       |        |       |       |          |          |          |          |
| <b>52105</b>   | Gray Plastic Case                                     |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| <b>52107</b>   | Gray Plastic Case                                     |       |        |        | •      | •      | •      |        |        |         |         |        |       |       |          |          |          |          |
| <b>52110</b>   | Gray Plastic Case                                     |       |        |        |        |        |        |        | •      |         |         |        |       |       |          |          |          |          |
| <b>60236</b> * | M14 x 1.50 female by 3/8" tube end                    |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          | •        |
| <b>60238</b> * | M16 x 1.50 female by 3/8" tube end                    |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          | •        |
| <b>60239</b> * | Union 3/8" inverted flare by M16 x 1.50               |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          | •        |
| <b>60410</b> * | M8 x 1.00 female by M12 x 1.50 male                   |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| <b>60440</b> * | M10 x 1.00 female by M12 x 1.50 male                  |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| <b>60507</b>   | 21-oz bottle Lang branded                             |       |        |        |        |        |        |        |        |         | •       |        |       |       |          |          |          |          |
| <b>60772</b> * | Male quick coupler plug, conversion adapter for OTC   |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>61333</b> * | 6mm adapter extensions for Kia and Hyundai            |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>71301</b> * | Standard Schrader hose assembly                       |       | •      |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>71302</b> * | Small parts kit                                       |       | •      |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>71303</b> * | Small Schrader hose assembly                          |       | •      |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>71304</b> * | M6 x 1.00 (Honda) hose assembly                       |       | •      |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>71305</b> * | Volvo adapter, 14mm LH Jetronic                       |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |

Chart continues on next page.



## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

| Part Number | Description   | TU-26 | TU-113 | TU-443 | TU-446 | TU-447 | TU-448 | TU-457 | TU-469 | TU-480A | TU-485A | TU-550 | 74476 | 74489 | TU-443-2 | TU-443-3 | TU-540-1 | TU-540-2 |
|-------------|---|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|-------|-------|----------|----------|----------|----------|
| 71306*      | 11mm o-ring adapter for popular Nissan and Infiniti   |       |        |        |        |        |        |        |        |         |         | •      |       |       | •        | •        | •        |          |
| 71308*      | Adapter for Geo Storm and Isuzu I-Tec systems, M14 x 1.50 3/8" inverted flare male and female connections |       |        | •      |        |        | •      |        |        | •       |         |        |       |       |          |          |          |          |
| 71313*      | Ford EFI spring lock adapter with quick coupler plug  |       |        | •      |        |        | •      |        |        | •       | •       | •      |       |       |          |          |          |          |
| 71314*      | Ford CFI adapter, 5/16" quick disconnects   |       |        | •      |        |        | •      |        |        | •       | •       |        |       |       |          |          |          |          |
| 71315*      | Ford EFI spring lock adapter with small Schrader test port  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| 71316*      | Ford CFI adapter, 5/16" quick disconnects with small Schrader test port                                   |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| 71317*      | Manifold with quick coupler plug for 5/16" and 1/4" ID hose   |       |        | •      |        |        |        |        |        | •       | •       | •      |       |       |          |          |          |          |
| 71318*      | Standard Schrader hose assembly with quick coupler plug   |       |        | •      |        |        | •      |        | •      | •       | •       | •      |       |       |          |          |          |          |
| 71319*      | Small Schrader hose assembly with quick coupler plug  |       |        | •      |        |        | •      |        | •      | •       | •       | •      |       |       |          |          |          |          |
| 71321*      | 16mm o-ring adapter for popular Hyundai and Mitsubishi  |       |        |        |        |        |        |        |        |         |         | •      |       |       | •        | •        |          |          |
| 71327*      | Kit contains: 34021, 35031, 71317, 71328, 74431, 74432, 74433, 74434 and 74435                            |       |        |        |        |        | •      |        |        |         |         |        |       |       |          |          |          |          |
| 71328*      | 1/4" hose barb with quick coupler plug  |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| 71329*      | Hose assembly (Audi, VW, Volvo)   |       |        |        |        |        |        |        |        |         |         | •      |       |       |          |          | •        |          |
| 71330*      | Hose assembly (Toyota, Geo)   |       |        |        |        |        |        |        |        |         |         | •      |       |       |          |          | •        |          |
| 71403*      | Adapter Kit   |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          | •        |
| 71404*      | Adapter M8 x 1.00 male by M12 x 1.50 male with o-ring   |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| 71405*      | Adapter M10 x 1.00 male by M12 x 1.50 male with o-ring  |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| 71406*      | Adapter M8 x 1.00 male by M12 x 1.50 male with o-ring (3" overall)  |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |
| 71408*      | Connecting hose and valve assembly for Bosch CIS  |       |        | •      |        | •      |        |        |        | •       |         |        |       |       |          |          |          | •        |
| 71409*      | CIS and banjo bolt adapter set consists of: 60410, 60440, 71404, 71405, 71406, 74432, 74433, 74435        |       |        |        |        | •      |        |        |        |         |         |        |       |       |          |          |          |          |
| 72305*      | Bent tubing with 3/8" inverted flare nut by M16 x 1.50 nut, 3/8" o-ring flare                             |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          |          |

Chart continues on next page.

## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

| Part Number   | Description   | TU-26 | TU-113 | TU-443 | TU-446 | TU-447 | TU-448 | TU-457 | TU-469 | TU-480A | TU-485A | TU-550 | 74476 | 74489 | TU-443-2 | TU-443-3 | TU-540-1 | TU-540-2 |
|---------------|---|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|-------|-------|----------|----------|----------|----------|
| <b>72306*</b> | Adapter M16 x 1.50 thread with 3/8" o-ring flare by 3/8" tube fitting       |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          | •        |
| <b>72308*</b> | Connecting hose for GM TBI 3/8" inverted flare ends with quick coupler plug |       |        | •      | •      |        |        |        |        | •       |         |        |       |       |          |          |          | •        |
| <b>72309*</b> | Adapter M14 x 1.50 thread with 3/8" o-ring flare by 3/8" tube fitting       |       |        | •      |        |        |        |        |        | •       |         |        |       |       |          |          |          | •        |
| <b>72315*</b> | Manifold with standard Schrader   | •     |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>72316*</b> | 3/8" male stem adapter GM/TBI   | •     |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>72317*</b> | 3/8" flare adapter GM/TBI   | •     |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>72318*</b> | M16 x 1.50 GM TBI adapter   | •     |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>72319*</b> | M16 x 1.50 female by 3/8" quick coupler plug                                | •     |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>72320*</b> | M16 x 1.50 long stem quick coupler GM/TBI                                   | •     |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>72321</b>  | Cut hose, 3 pieces. Consists of: 34201,35031 and 36032                      |       |        | •      |        |        |        |        |        | •       |         | •      |       |       |          |          |          |          |
| <b>72322*</b> | Consists of 60236, 72305 and 72306  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74423*</b> | Repair parts kit  |       |        |        |        |        |        |        |        |         |         | •      |       |       |          |          |          |          |
| <b>74424*</b> | Gauge assembly  |       |        |        |        |        |        |        |        |         |         | •      |       |       |          |          |          |          |
| <b>74425*</b> | Hose assembly   |       |        |        |        |        |        |        |        |         |         | •      |       |       |          |          |          |          |
| <b>74426*</b> | M12 x 1.00 Honda pulse dampener adapter                                     |       |        |        |        |        |        |        |        |         |         | •      |       |       | •        | •        | •        |          |
| <b>74431*</b> | Banjo bolt M6 x 1.00 with o-ring  |       |        | •      |        |        |        |        |        | •       | •       | •      |       |       |          |          | •        |          |
| <b>74432*</b> | Banjo bolt M8 x 1.00 with nylotron washer                                   |       |        | •      |        |        |        |        |        | •       | •       | •      |       |       |          |          |          |          |
| <b>74433*</b> | Banjo bolt M10 x 1.00 with nylotron washer                                  |       |        | •      |        |        |        |        |        | •       | •       | •      |       |       |          |          | •        |          |
| <b>74434*</b> | Banjo bolt M12 x 1.25 with nylotron washer                                  |       |        | •      |        |        |        |        |        | •       | •       | •      |       |       |          |          | •        |          |
| <b>74435*</b> | Banjo bolt M12 x 1.50 with nylotron washer                                  |       |        | •      |        |        |        |        |        | •       | •       | •      |       |       |          |          |          |          |
| <b>74437*</b> | Repair parts kit  |       |        | •      | •      | •      | •      |        |        | •       | •       |        |       |       |          |          |          | •        |
| <b>74438*</b> | 100 PSI gauge, hose and relief valve  |       |        | •      |        |        |        |        | •      | •       |         |        |       |       |          |          |          |          |
| <b>74440*</b> | 100 PSI gauge and hose  |       |        |        |        | •      | •      |        |        |         |         |        |       |       |          |          |          |          |
| <b>74442*</b> | 60 PSI gauge and hose   |       |        |        | •      |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74444*</b> | Bosch CIS kit: 71408 and 71409  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74445*</b> | Upgrade kit (except CIS/TBI): 71308, 71313, 71314, 71318, 71319 and 71327   |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74446*</b> | Relief valve and tubing assembly  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |

Chart continues on next page.

## FUEL INJECTION ADAPTERS & REPLACEMENT PARTS

| Part Number   | Description   | TU-26 | TU-113 | TU-443 | TU-446 | TU-447 | TU-448 | TU-457 | TU-469 | TU-480A | TU-485A | TU-550 | 74476 | 74489 | TU-443-2 | TU-443-3 | TU-540-1 | TU-540-2 |
|---------------|---|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|-------|-------|----------|----------|----------|----------|
| <b>74454*</b> | OTC-style conversion adapter, use Lang adapters with OTC canister                 |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74455*</b> | Straight tubing, nut and clamp parts kit  |       |        | •      | •      |        |        |        |        | •       |         | •      |       |       |          |          |          | •        |
| <b>74459*</b> | Quick coupler socket by male standard Schrader                                    |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74469*</b> | Conversion adapter OTC  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74471*</b> | M14 x 1.50 banjo bolt (for CIS)   |       |        |        |        |        |        |        |        |         |         | •      |       |       | •        | •        |          |          |
| <b>74476*</b> | Road tester hose  |       |        |        |        |        |        |        |        |         |         |        | •     |       |          |          |          |          |
| <b>74484*</b> | 5/16" quick disconnect hose assembly with quick coupler plug: Chrysler, Ford      |       |        |        |        |        |        |        |        |         | •       | •      |       | •     | •        |          |          |          |
| <b>74485*</b> | 3/8" quick disconnect hose assembly with quick coupler plug: GM                   |       |        |        |        |        |        |        |        |         | •       | •      |       | •     | •        |          |          |          |
| <b>74486*</b> | GSI conversion adapter, use GSI adapters with Lang gauges and canister            |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74487*</b> | Hose assembly: 74484 and 74485  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74488*</b> | Hose assembly: 74492 and 74493  |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74492*</b> | 5/16" quick disconnect hose assembly with standard Schrader test port             |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74493*</b> | 3/8" quick disconnect hose assembly with standard Schrader test port              |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74494*</b> | GM tubing kit, consists of adapters: 41576 and 72305                              |       |        |        | •      |        |        |        |        |         |         |        |       |       |          |          |          | •        |
| <b>74495*</b> | GM adapter kit, consists of adapters: 60236, 60238, 60239, 72306, 72309 and 74434 |       |        |        | •      |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74499*</b> | 1/4" quick disconnect hose assembly with quick coupler plug                       |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74571*</b> | Gauge and hose assembly   |       |        |        |        |        |        | •      |        |         |         |        |       |       |          |          |          |          |
| <b>74701*</b> | Gauge and hardware assembly   |       |        |        |        |        |        |        |        |         | •       |        |       |       |          |          |          |          |
| <b>74851*</b> | Deadhead Aluminum Adapter   |       |        |        |        |        |        |        |        |         |         |        |       |       |          |          |          |          |
| <b>74852*</b> | Standard Schrader right angle adapter with quick coupler plug                     |       |        |        |        |        |        |        |        |         |         | •      |       | •     |          |          |          |          |
| <b>74853*</b> | Small Schrader right angle adapter with quick coupler plug                        |       |        |        |        |        |        |        |        |         |         | •      |       | •     |          |          |          |          |
| <b>74854*</b> | Fuel injection update kit, consists of adapters: 74851, 74852 and 74853           |       |        |        |        |        |        |        |        |         | •       |        |       |       | •        |          | •        |          |



## MISCELLANEOUS TEST EQUIPMENT

### TU-24A\* THREE-WAY EXHAUST BACK PRESSURE KIT

- This Three-Way tester allows quicker and more accurate testing of exhaust blockages in catalytic converters, mufflers, etc
- M68 special gauge has two multi-colored bands for measuring at Idle and 2500 RPM. The scale ranges are in PSI and bar. Boot included on gauge for extra protection
- Hose is 6-ft., enough length for the technician to test from the driver's seat
- Can test in THREE different places: Oxygen Sensor, Exhaust Pipes, and Air Injection System
- Includes storage case



### TU-1\* DELUXE VACUUM & FUEL PUMP TESTER

- Comes complete with 2 feet of high quality hose, plus 3 fittings to test all domestic and foreign cars and trucks with gasoline engines
- M91 compound gauge has a multicolor dual scale dial with ranges from 0-10 PSI / 0-0.7 kg/cm<sup>2</sup> pressure; and 0-28 inHg / 0-70 cmHg vacuum
- Hook on gauge enables the technician to hang up gauge and hose assembly to free his hands
- Assists in diagnosing a variety of problems: fuel pump pressure; leaky, burnt, or sticky valves; leaky intake manifold; restricted exhaust systems; turbo pressures; worn piston rings; incorrect timing; heating and air conditioning controls; wind shield wipers; power brakes; emission control devices
- Includes storage case



### TU-29\* BASIC EXHAUST BACK PRESSURE KIT

- Enables technician to test exhaust back pressure through oxygen sensor
- Oxygen Sensor adapter includes M12 and M18 thread
- The special M68 gauge has two multi-colored bands - idle and 2500 RPM, with pressures shown in PSI and bar; includes boot for protection
- Hose is 6-ft., enough length for the technician to test from the driver's seat
- Includes storage case



### TU-25\* STANDARD VACUUM & FUEL PUMP TESTER

- Assists in diagnosing a variety of problems on domestic and imported vehicles: fuel pump pressure; leaky, burnt, or sticky valves; leaky intake manifold; restricted exhaust systems; turbo pressures; worn piston rings; incorrect timing; heating and air conditioning controls; wind shield wipers; power brakes; emission control devices
- M91 compound gauge has a multicolor dual scale dial with ranges from 0-10 PSI / 0-0.7 kg/cm<sup>2</sup> pressure; and 0-30 inHg / 0-1.0 bar vacuum
- Complete with hose, fittings, instructions, and specifications



### TU-22A\* POWER STEERING & RACK TESTER

- Takes the guesswork out of power steering analysis quickly and accurately by detecting defective power steering pumps; gears, and kinked or clogged lines
- Includes most adapters to test domestic cars and light trucks, and some imports
- M68 gauge has a dual scale dial with ranges from 0-2000 PSI and 0-140 bar
- Includes storage case



## COMPRESSION TEST SETS

- Includes **TU-15** gauge with easy to read red and black dial
- Tester has a handy deflator for releasing air and re-testing
- A 16-1/2" wire reinforced hydraulic hose has a **Quick Coupler** on a swivel for ease of connection

### **TU-15-70\*** DIESEL COMPRESSION TEST SET WITH TESTER AND ADAPTERS

- Test heavy-duty trucks and equipment
- 14 adapters (see chart on page 19)



### **TU-15-55\*** DIESEL COMPRESSION TEST SET - LIGHT DUTY TRUCK

- 12 adapters (see chart on page 19)



### **TU-15-51\*** DIESEL COMPRESSION TEST SET

- 7 adapters (see chart on page 19)



### **TU-15-52B\*** DIESEL COMPRESSION TEST SET - LIGHT CARS/TRUCKS

- 7 adapters (see chart on page 19)



### **TU-15-53\*** DIESEL COMPRESSION TEST SET

- 7 adapters (see chart on page 19)



### **TU-15\*** DIESEL COMPRESSION TESTER

- Deflator button for repeat testing
- Swivel-end Quick Coupler
- M63 gauge has a dual scale dial 1000 PSI, 70 bar in red and black dial
- Includes storage case



## COMPRESSION TEST SETS

| DIESEL COMPRESSION TEST SET ADAPTERS |                            |       |          |           |          |          |          |
|--------------------------------------|----------------------------|-------|----------|-----------|----------|----------|----------|
| Part Number                          | Description                | TU-15 | TU-15-51 | TU-15-52B | TU-15-53 | TU-15-55 | TU-15-70 |
| <b>TU-15*</b>                        | Gauge, hose, quick connect | •     | •        | •         | •        | •        | •        |
| <b>52110</b>                         | Case                       | •     |          |           |          |          |          |
| <b>52102</b>                         | Case                       |       | •        | •         | •        |          |          |
| <b>52011</b>                         | Case                       |       |          |           |          |          | •        |
| <b>52126</b>                         | Case                       |       |          |           |          | •        |          |
| <b>56244</b>                         | Adapter Chart              |       | •        | •         | •        |          | •        |
| <b>42553</b>                         | Instructions               |       | •        | •         | •        | •        | •        |
| <b>TU-15-1A*</b>                     | Glow Plug                  |       | •        |           | •        | •        |          |
| <b>TU-15-2A*</b>                     | Glow Plug                  |       | •        |           | •        | •        |          |
| <b>TU-15-3A*</b>                     | Glow Plug                  |       | •        | •         | •        | •        |          |
| <b>TU-15-4A*</b>                     | Injector                   |       | •        | •         | •        |          | •        |
| <b>TU-15-5*</b>                      | Glow Plug                  |       | •        | •         | •        |          |          |
| <b>TU-15-6*</b>                      | Glow Plug                  |       | •        | •         | •        |          |          |
| <b>TU-15-8*</b>                      | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-9*</b>                      | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-11A*</b>                    | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-12A*</b>                    | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-13A*</b>                    | Motometer                  |       |          | •         |          |          |          |
| <b>TU-15-14*</b>                     | Glow Plug                  |       | •        | •         | •        | •        | •        |
| <b>TU-15-17*</b>                     | Injector                   |       |          |           | •        | •        | •        |
| <b>TU-15-18A*</b>                    | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-19*</b>                     | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-20*</b>                     | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-21*</b>                     | Injector                   |       |          |           |          |          | •        |
| <b>TU-15-22A*</b>                    | Glow Plug                  |       |          |           | •        | •        |          |
| <b>TU-15-23*</b>                     | Glow Plug                  |       |          | •         |          | •        | •        |
| <b>TU-15-24*</b>                     | Glow Plug                  |       |          |           |          | •        |          |
| <b>TU15-26*</b>                      | Injector                   |       |          |           |          | •        |          |
| <b>TU-15-28*</b>                     | Extension                  |       |          |           |          |          | •        |
| <b>TU-15-29*</b>                     | Extension                  |       |          |           |          |          | •        |
| <b>TU-15-35*</b>                     | Glow Plug                  |       |          |           |          | •        |          |
| <b>TU-15-38*</b>                     | Glow Plug                  |       |          |           |          | •        |          |
| <b>TU-15-80*</b>                     | Glow Plug                  |       |          |           |          | •        |          |

## DIESEL COMPRESSION TEST ADAPTERS

**TU-15-1A\***  
M10 X 1.00 GLOW PLUG



**TU-15-2A\***  
M10 X 1.00 GLOW PLUG



**TU-15-3A\***  
M10 X 1.25 GLOW PLUG



**TU-15-4A\***  
M24 X 2.00 INJECTOR



**TU-15-5\***  
M12 X 1.25, M18 X 1.50  
GLOW PLUG



**TU-15-6\***  
M12 X 1.25, M18 X 1.50  
GLOW PLUG



**TU-15-8\***  
7/8" INJECTOR



**TU-15-9\***  
1" INJECTOR



**TU-15-11A\***  
M21 INJECTOR



**TU-15-12A\***  
M24 INJECTOR DETROIT DIESEL



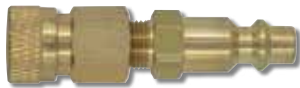
**TU-15-13A\***  
MOTOMETER



**TU-15-14\***  
M10 X 1.25 GLOW PLUG



**TU-15-15\***  
SNAP-ON/OTC



**TU-15-17\***  
M24 X 1.50 INJECTOR



**TU-15-18A\***  
M17 INJECTOR



**TU-15-19\***  
M17 INJECTOR



**TU-15-20\***  
3/8" INJECTOR



**TU-15-21\***  
9/16" INJECTOR



**TU-15-22A\***  
M10 X 1.00 GLOW PLUG -  
FORD/NAVISTAR



**TU-15-23\***  
M12 X 1.25 GLOW PLUG



**TU-15-24\***  
M14 X 1.25 GLOW PLUG





## DIESEL COMPRESSION TEST ADAPTERS

**TU-15-25\***  
INTERNATIONAL DT466,  
DT530



**TU-15-26\***  
CUMMINS ISB



**TU-15-27\***  
CUMMINS ISC



**TU-15-28\***  
CUMMINS NTC/NTS



**TU-15-29\***  
CUMMINS N14



**TU-15-30\***  
TESTER 7" EXTENSION



**TU-15-31\***  
TEST 90 DEGREE  
ADAPTER



**TU-15-32\***  
45 DEGREE ADAPTER



**TU-15-33\***  
DETROIT DIESEL  
50 & 60



**TU-15-34\***  
M20 X 1.50



**TU-15-35\***  
M8 X 1.00



**TU-15-36\***  
MACK E6 & E7



**TU-15-37\***  
MBE-900 AND MBE-4000



**TU-15-38\***  
6.6L DURAMAX  
M10 X 1.25



**TU-15-39\***  
M22 X 1.50  
MERCEDES BENZ



**TU-15-40\***  
PERKINS 4.108 ENGINES



**TU-15-41\***  
PERKINS AND  
CATERPILLAR



**TU-15-42\***  
CATERPILLAR 3116



**TU-15-43\***  
CATERPILLAR 3126 AND  
3126B



**TU-15-44\***  
CATERPILLAR 3126B  
AND 3126E



## DIESEL COMPRESSION TEST ADAPTERS

**TU-15-45\***  
CATERPILLAR 3176



**TU-15-46\***  
CATERPILLAR 3196



**TU-15-47\***  
CATERPILLAR 3304



**TU-15-48\***  
CATERPILLAR



**TU-15-49\***  
CATERPILLAR 3406E



**TU-15-75\***  
CUMMINS ISB



**TU-15-76\***  
CATERPILLAR  
3408E/3412E



**TU-15-77\***  
CATERPILLAR 3500  
SERIES



**TU-15-78\***  
CUMMINS ISX



**TU-15-79\***  
INTERNATIONAL  
MAXXFORCE



**TU-15-80\***  
GLOW PLUG FORD 6.7L  
M8 X 1.00



**TU-15-81\***  
CATERPILLAR C7 & C9



**TU-15-82\***  
DETROIT DIESEL SERIES  
60 N3 INJECTOR



**TU-15-83\***  
INTERNATIONAL  
MAXXFORCE 7



**TU-15-84\***  
CATERPILLAR C7



**TU-15-85\***  
VM MOTORI 3.0 L



**TU-15-86\***  
VOLVO E3.1



**TU-15-87\***  
INTERNATIONAL  
MAXXFORCE 13



**TU-15-88\***  
CHEVY/GMC 2500-3500  
DURAMAX 2.8L



**TU-15-89\***  
NISSAN TITAN  
CUMMINS 5.0L ISV



## DIESEL COMPRESSION TEST ADAPTERS

| APPLICATION CHART FOR DIESEL COMPRESSION TEST ADAPTERS |   |                |                  |                                     |
|--|---|----------------|------------------|-------------------------------------|
| Application  | Engine  | Type           | Thread           | Adapter                             |
| Allis Chalmers   | 6000, 7000, 10000, 11000                                | Injector M21   | -                | <b>TU-15-11A*</b>                   |
| Audi   | Early Models, see VW for TDI                            | Injector       | M24 x 2.00       | <b>TU-15-4A*</b>                    |
|  | 4000, 4000 Quattro 1.6L (1982-83)                       | Glow Plug      | M12 x 1.25       | <b>TU-15-6*</b>                     |
|  | 5000 Quattro 2.0L (1979-85)                             | Glow Plug      | M12 x 1.25       | <b>TU-15-23*</b>                    |
| Bedford  | 200, 220, 300, 330, 466                                 | Injector M21   | -                | <b>TU-15-11A*</b>                   |
| BMW  | 2.4L MFI Turbo (1983-1991) M21-inline 6                 | Glow Plug      | M12 x 1.25       | <b>TU-15-23*</b><br><b>TU-15-6*</b> |
| Caterpillar  | 330, 379B, D398, 3304, 3306                             | Injector       | -                | <b>TU-15-47*</b>                    |
|  | D336, 1674, 1676, 3406, 3408, 3412 3406B                | Injector 9/16" | 7/8"-14          | <b>TU-15-21*</b>                    |
|  | 110, 3208   | Injector 3/8"  | -                | <b>TU-15-20*</b>                    |
|  | 3022, 3023, 3024, 3034                                  | Glow Plug      | M10 x 1.25       | <b>TU-15-14*</b>                    |
|  | 3064, 3066 (Mitsubishi)                                 | Injector       | -                | <b>TU-15-19*</b>                    |
|  | 3046, 3054, 3056, 3064, 3066                            | Injector       | M24 x 1.50       | <b>TU-15-41*</b>                    |
|  | 3114, 3116, 3126  | Injector       | -                | <b>TU-15-42*</b>                    |
|  | 3126  | Injector       | -                | <b>TU-15-43*</b>                    |
|  | 3126B, 3126E  | Injector       | -                | <b>TU-15-44*</b>                    |
|  | C7, C9 (2003-2007)                                      | Injector       | -                | <b>TU-15-81*</b>                    |
|  | C7 (2007-2014)  | Injector       | -                | <b>TU-15-84*</b>                    |
|  | 3176  | Injector       | -                | <b>TU-15-45*</b>                    |
|  | 3176B, 3176C, 3196, C10, C12                            | Injector       | -                | <b>TU-15-46*</b>                    |
|  | 3204, Late Model 3208, 3304B, 3306C, 3406B, 3406C, 3412 | Injector       | -                | <b>TU-15-48*</b>                    |
|  | 3406E,C11, C13, C15, C16, C18, C27                      | Injector       | -                | <b>TU-15-49*</b>                    |
|  | 3408E, 3412E  | Injector       | -                | <b>TU-15-76*</b>                    |
| 3500 Series  | Injector  | -              | <b>TU-15-77*</b> |                                     |
| Chevrolet/GMC  | 4.3L V6, 4.3L V8, 5.7L V8 (1978-85)                     | Glow Plug      | M10 x 1.00       | <b>TU-15-1A*</b>                    |
|  | Chevette/Isuzu 1.8L (1981-1986)                         | Glow Plug      | M10 x 1.25       | <b>TU-15-3A*</b>                    |
|  | 6.2L & 6.5L V8 True Diesel (1982-2002)                  | Glow Plug      | M10 x 1.00       | <b>TU-15-2A*</b>                    |
|  | Duramax 6.6L Turbo Diesel (2001-2005)                   | Glow Plug      | M10 x 1.25       | <b>TU-15-3A*</b>                    |
|  | Duramax 6.6L Turbo Diesel (2005-Present)                | Glow Plug      | M10 x 1.25       | <b>TU-15-38*</b>                    |
|  | Duramax 1.6L & 2.8L (2016-present)                      | Injector       | -                | <b>TU-15-88*</b>                    |
| Chevrolet/GMC Truck                                    | W series, 4HE1 4.8L turbo (1993-2009) (Isuzu NPR)       | Glow Plug      | M12 x 1.25       | <b>TU-15-23*</b>                    |

Chart continues on next page.

## DIESEL COMPRESSION TEST ADAPTERS

| APPLICATION CHART FOR DIESEL COMPRESSION TEST ADAPTERS |  |               |                  |                                     |
|--|--|---------------|------------------|-------------------------------------|
| Application  | Engine   | Type          | Thread           | Adapter                             |
| Cummins  | V-185, V-210, V-225, V-555, VT-255, VT-555   | Injector 7/8" | -                | <b>TU-15-8*</b>                     |
|  | NH, V6, V8, V12, All 5-1/2" Bore NH, and 903 V8 Cylinder PTB                               | Injector 1"   | -                | <b>TU-15-9*</b>                     |
|  | N14  | Extension     | -                | <b>TU-15-29*</b>                    |
|  | NTA, NTC, NTS, M11, ISM, L10, STC  | Extension     | -                | <b>TU-15-28*</b>                    |
|  | B Series 3.3L  | Injector M17  | -                | <b>TU-15-19*</b>                    |
|  | B Series 2.9L, 3.9L, 5.9L, 4.5L (1984-1998)  | Injector      | M24 x 1.50       | <b>TU-15-17*</b>                    |
|  | ISB 5.9L (1998-2002)   | Injector      | -                | <b>TU-15-26*</b>                    |
|  | ISB 5.9L, 6.7L COMMON RAIL (2003-present)  | Injector      | -                | <b>TU-15-75*</b>                    |
|  | C Series 8.3L (1985-1998)  | Injector M17  | -                | <b>TU-15-18A*</b>                   |
|  | ISC, ISL COMMON RAIL (1998-present)  | Injector      | -                | <b>TU-15-27*</b>                    |
|  | ISV 5.0L (2016-2019 Nissan Titan XD)   | Injector      | -                | <b>TU-15-89*</b>                    |
| ISX (2001-2010)  | Injector   | -             | <b>TU-15-78*</b> |                                     |
| Detroit Diesel   | 53, 71, 92, 110, 149, V53, V71 8.2L  | Injection M24 | -                | <b>TU-15-12A*</b>                   |
|  | Series 40 7.6L & 8.7L (1998-2003)  | Injector      | -                | <b>TU-15-25*</b>                    |
|  | Series 60 and 50 (1998-2003)   | Injector      | -                | <b>TU-15-33*</b>                    |
|  | Series 60 N3 injector (2004-present)   | Injector      | -                | <b>TU-15-82*</b>                    |
| Deutz  | Most models  | Glow Plug     | M12 x 1.25       | <b>TU-15-6*</b><br><b>TU-15-23*</b> |
|  | Some models  | Injector M17  | -                | <b>TU-15-18A*</b>                   |
| Dodge/Cummins  | 5.9L B-Series (1989-98)  | Injector      | M24 x 1.50       | <b>TU-15-17*</b>                    |
|  | 5.9L ISB (1998-2002)   | Injector      | -                | <b>TU-15-26*</b>                    |
|  | ISB 5.9L, 6.7L COMMON RAIL (2003-present)  | Injector      | -                | <b>TU-15-75*</b>                    |
| Fiat Allis   | 8035-02-300, 8035-02-301, 8035-02-302, 8045-02, 8045-03                                    | Injector M21  | -                | <b>TU-15-11A*</b>                   |
| Ford-New Holland                                       | 6.6L, 7.8L, Bosch (1985-1994) "Brazilian"  | Injector M21  | -                | <b>TU-15-11A*</b>                   |
| Ford/Mazda   | 2.0L (1984-1987); 2.2L (1983-84) Escort, Lynx, Ranger, Tempo, Topaz                        | Glow Plug     | M10 x 1.25       | <b>TU-15-14*</b>                    |
| Ford/Mitsubishi  | Ranger 2.3L (1985-1987)  | Glow Plug     | M10 x 1.25       | <b>TU-15-14*</b>                    |
| Ford/Navistar  | 6.9L & 7.3L IDI (1982-1994)  | Glow Plug     | M10 x 1.00       | <b>TU-15-1A*</b>                    |
|  | 7.3L DIT, Direct Injection Turbo, Power Stroke (1994-2004)                                 | Glow Plug     | M10 x 1.00       | <b>TU-15-22A*</b>                   |
|  | 4.5L Power Stroke (2006-2009), 6.0L Power Stroke(2003-2008), 6.4L Power Stroke (2008-2010) | Glow Plug     | M14 x 1.25       | <b>TU-15-24*</b>                    |
| Ford   | 6.7L Power Stroke (2011-present) F-250   | Glow Plug     | M8 x 1.00        | <b>TU-15-80*</b>                    |
|  | 3.2L Power Stroke (2015-present) Transit   | Glow Plug     | M10 x 1.00       | <b>TU-15-22A*</b>                   |
|  | 3.0L Power Stroke (2018-present) F-150   | Glow Plug     | M8 x 1.00        | <b>TU-15-80*</b>                    |
|  | 2.0L/2.5L Power Stroke (2019-present) Transit Connect                                      | Glow Plug     | M8 x 1.00        | <b>TU-15-80*</b>                    |
| Hatz   | Some Models  | Injector M17  | -                | <b>TU-15-19*</b>                    |
| Hino   | Medium   | Glow Plug     | M12 x 1.25       | <b>TU-15-23*</b>                    |
| Hummer H1  | Optimizer 6500 V8 Turbo & 6.2L V8 (1992-2004)  | Glow Plug     | M10 x 1.00       | <b>TU-15-2A*</b>                    |
| Hummer H1-Alfa   | 6.6L Duramax (2005-06)   | Glow Plug     | M10 x 1.25       | <b>TU-15-38*</b>                    |

Chart continues on next page.



## DIESEL COMPRESSION TEST ADAPTERS

| APPLICATION CHART FOR DIESEL COMPRESSION TEST ADAPTERS |  |               |             |  |
|--|--|---------------|-------------|--|
| Application  | Engine   | Type          | Thread      | Adapter  |
| International Harvester                                | D/DT361, D/DT407, D/DT429, DV462, DV/DVT550, DT/DVT573                             | Injector M21  | -           | <b>TU-15-11A*</b>                                      |
|  | 6.9L IDI(1983-1987), 7.3L IDI(1986-1994)   | Glow Plug     | M10 x 1.00  | <b>TU-15-1A*</b>                                       |
| International Navistar                                 | DT 360, DT408, DT466, 312, 360, 414, 436, 446 C.I.D. (1984-1997)                   | Injector M17  | -           | <b>TU-15-19*</b>                                       |
|  | 7.3L T444E (1994-2007)   | Glow Plug     | M10 x 1.00  | <b>TU-15-22A*</b>                                      |
|  | 4.5L VT275, 6.0L VT365E, 6.4L Maxxforce7   | Glow Plug     | M14 x 1.25  | <b>TU-15-24*</b>                                       |
|  | Maxxforce 7 (2007-2014)  | Injector      | -           | <b>TU-15-83*</b>                                       |
|  | 7.6L DT466E, 8.7E DT530E, DT570 (1994-2004)  | Injector      | -           | <b>TU-15-25*</b>                                       |
|  | International MaxxForce DT, 9,10 (2004-2015) G2 injector                           | Injector      | -           | <b>TU-15-79*</b>                                       |
|  | International MaxxForce 13 (2007-2014)   | Injector      | -           | <b>TU-15-87*</b>                                       |
| Isuzu/Isuzu Truck                                      | HE1-TC (1992-98)<br>6HK1-TC (1998-present)   | Glow Plug     | M10 x 1.25  | <b>TU-15-3A*</b>                                       |
|  | 4HE1-TC (1998-present)<br>6HK1-TC (up to 1998)                                     | Glow Plug     | M12 x 1.25  | <b>TU-15-23*</b><br><b>TU-15-5*</b><br><b>TU-15-6*</b> |
|  | 1.8L, 2.2L, I-Mark, Pick-up, Trooper   | Glow Plug     | M10-1.25    | <b>TU-15-14*</b>                                       |
| Jeep   | Liberty 2.8L (2005)  | Glow Plug     | M10 x 1.00  | <b>TU-15-2A*</b>                                       |
|  | Grand Cherokee 3.0L (2014-2018)  | Injector      | -           | <b>TU-15-85*</b>                                       |
| J.I. Case  | 2.9L, 3.9L, 5.9L   | Injector      | M24 x 1.50  | <b>TU-15-17*</b>                                       |
|  | 8.3L   | Injector M17  | -           | <b>TU-15-18A*</b>                                      |
|  | Models not using pencil nozzle   | Injector M21  | -           | <b>TU-15-11A*</b>                                      |
|  | 70 Series, 188, 207  | Injector 3/8" | -           | <b>TU-15-20*</b>                                       |
| John Deere   | Early 300, 400, 500 Series; 276, 404, and 531 CID                                  | Injector 3/8" | -           | <b>TU-15-20*</b>                                       |
|  | 404, 466, 531, 619, 720  | Injector M21  | M28 X 1.5   | <b>TU-15-11A*</b>                                      |
| Kawasaki   | Mule 3010 Diesel (Kubota)  | Injector      | M20 x 1.50  | <b>TU-15-34*</b>                                       |
|  | Mule 3010 Diesel (Diahatsu)  | Glow Plug     | M10 x 1.25  | <b>TU-15-14*</b>                                       |
| Kubota   | D722, D902, D950, D1105, V1505, V2203  | Glow Plug     | M8 x 1.00   | <b>TU-15-35*</b>                                       |
|  | D650, D1100  | Glow Plug     | M10 x 1.25  | <b>TU-15-14*</b>                                       |
|  | D902, D950   | Injector      | M20 x 1.50  | <b>TU-15-34*</b>                                       |
| Lincoln  | Mark VII, Continental 2.4L MFI Turbo (1984-85)                                     | Glow Plug     | M12 x 1.25  | <b>TU-15-6*</b><br><b>TU-15-23*</b>                    |
| Mack Truck   | END 405, 457, 510, 519, 605, 672, 673, 674, 711, 864, ENDT 673, 675, 676, 865, 866 | Injector M21  | -           | <b>TU-15-11A*</b>                                      |
|  | E6, E7, E-Tech, E460 (1988-99)   | Injector      | M32 & 1-1/4 | <b>TU-15-36*</b>                                       |
| Mazda  | B2200 2.2L (1982-84), 626 2.0L (1984-85)   | Glow Plug     | M10 x 1.25  | <b>TU-15-14*</b>                                       |
| Massey Ferguson  | 4.203, 4.236, 4.248, 6.354, 8.540  | Injector M21  | -           | <b>TU-15-11A*</b>                                      |
| Mercedes-Benz  | Auto models (1960-80)  | Glow Plug     | M18 x 1.50  | <b>TU-15-5*</b><br><b>TU-15-6*</b>                     |
|  | Auto models (1978-99), 190E 2.5L (1988-89), E300 (1991-99), 300 SD/S350 (1992-95)  | Glow Plug     | M12 x 1.25  | <b>TU-15-5*</b><br><b>TU-15-6*</b><br><b>TU-15-23*</b> |
|  | Auto models (1966-87)  | Injector      | M24 x 2.00  | <b>TU-15-4A*</b>                                       |
|  | Auto models (1987-2005)  | Injector      | M22 x 1.50  | <b>TU-15-39*</b>                                       |
|  | E320 CDI (2004-05)   | Glow Plug     | M10 x 1.00  | <b>TU-15-1A*</b>                                       |
|  | MBE 900 (OM904LA & OM906LA) & MBE 4000 (OM460)                                     | Injector      | -           | <b>TU-15-37*</b>                                       |
|  | 2.7L I5 Sprinter (OM612 & OM647)   | Glow Plug     | M10 x 1.00  | <b>TU-15-2A*</b>                                       |
| Mitsubishi   | 2 and 3 cylinder engines   | Glow plug     | M10 x 1.25  | <b>TU-15-14*</b>                                       |
|  | 4M4 engine   | Injector      | M20 x 1.50  | <b>TU-15-34*</b>                                       |

Chart continues on next page.

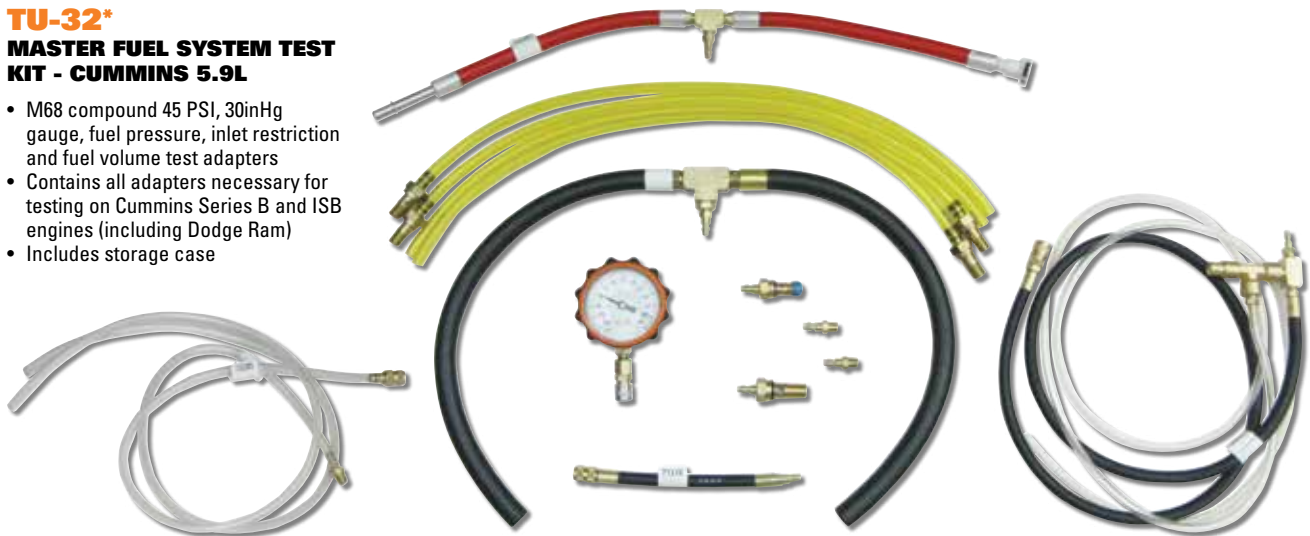
## DIESEL COMPRESSION TEST ADAPTERS

| APPLICATION CHART FOR DIESEL COMPRESSION TEST ADAPTERS |  |              |            |  |
|--|--|--------------|------------|--|
| Application  | Engine   | Type         | Thread     | Adapter  |
| Mitsubishi-Fuso  | Medium duty trucks   | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
|  | Medium duty trucks   | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Nissan   | Cedric 2.2L SD22 (1965-71)   | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
|  | 810 2.8L (Datsun) RD 28 (1981); Maxima 2.8L RD28 (1982-83)   | Glow Plug    | M12 x 1.25 | <b>TU-15-23*</b>                                       |
|  | Sentra 1.7L CD17 (1983-87)   | Glow Plug    | M10 x 1.00 | <b>TU-15-1A*</b>                                       |
|  | Titan XD 5.0L ISV-V8 (2016-2019)   | Injector     | -          | <b>TU-15-89*</b>                                       |
| Nissan/UD Truck  | Medium duty trucks   | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
| Onan   | DSL, MDSL  | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Perkins  | 3.125, 4.203, 4.236, 4.248, 4.318, 6.354, 6.370, 8.540, 8.640, Phaser/1004, Phaser/1006  | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
|  | 100, 200, 400, 700 series  | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
|  | 4.108  | Glow Plug    | 5/8"-18    | <b>TU-15-40*</b>                                       |
|  | 1000 series, 1200 series   | Injector     | M24 x 1.50 | <b>TU-15-41*</b>                                       |
|  | 1100 series  | Injector M17 | -          | <b>TU-15-18A*</b>                                      |
|  | 1200 series, 1100 series   | Glow Plug    | M10 x 1.00 | <b>TU-15-22A*</b>                                      |
| Peugeot  | Most Models  | Glow Plug    | M12 x 1.25 | <b>TU-15-6*</b>  |
|  |  |              | M18 x 1.50 |  |
| Ram  | Pickups 3.0L (2014-2018)   | Injector     | -          | <b>TU-15-85*</b>                                       |
|  | ProMaster Van 1500, 2500, and 3500 3.0L (2014-2018)  | Injector     | -          | <b>TU-15-85*</b>                                       |
| Scania   | DN11, DS11   | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Sprinter/Mercedes/<br>Freightliner/Dodge               | 2.7L, OM612/OM647 (2001-2006)  | Glow Plug    | M10 x 1.00 | <b>TU-15-2A*</b>                                       |
|  | 3.0L, OM642/V6 (2007-Present)  | Glow Plug    | M8 x 1.00  | <b>TU-15-80*</b>                                       |
| Toyota   | 1.8L   | Glow Plug    | M10 x 1.25 | <b>TU-15-3A*</b>                                       |
|  | 2.2L   | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
| UD Truck   | Medium   | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
| Universal Marine                                       | M15, M20, M25, M25XP, M30  | Injector     | M20 x 1.50 | <b>TU-4A*</b><br><b>TU-15-34*</b>                      |
| VM Motori  | 3.0L-V6, A 630 DOHC (2011-present)   | Injector     | -          | <b>TU-15-85*</b>                                       |
| Volvo  | Early auto models  | Injector     | M24 x 2.00 | <b>TU-15-4A*</b>                                       |
|  | Models 30's, 40's  | Glow Plug    | M12 x 1.25 | <b>TU-15-23*</b>                                       |
|  | D12C (1998-2001), D12D (2001-2005) 12.1 L engine with E3.1 injector  | Injector     | -          | <b>TU-15-86*</b>                                       |
| Volvo Penta  | MD marine engines  | Injector M17 | -          | <b>TU-15-18A*</b>                                      |
|  | TAMD60C  | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Volkswagen   | Rabbit (1970s)   | Injector     | M24 x 2.00 | <b>TU-15-4A*</b>                                       |
|  | Dasher (1979-81), Eurovan (1996), Golf (1985-96), Jetta (1981-95), Passat (1992-94), Pick-up (1981-84), Quantum (1982-85), Rabbit (1977-84), Vanagon (1982-85) | Glow Plug    | M12 x 1.25 | <b>TU-15-23*</b><br><b>TU-15-5*</b><br><b>TU-15-6*</b> |
|  | Golf (1997-05), Jetta/Jetta Wagon (1997-05), Beetle (1998-05), Passat (1996-97), Touareg (2004-05)   | Glow Plug    | M10 x 1.00 | <b>TU-15-22A*</b>                                      |
| Waukesha   | Most   | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Westerbeke   | Marine engines   | Glow Plug    | M10 x 1.00 | <b>TU-15-1A*</b>                                       |
|  |  | Glow Plug    | M10 x 1.25 | <b>TU-15-14*</b>                                       |
|  |  | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| White Farm   | 66, 77, 88, 99, 166, 177, 188, 199, 550, 660, 770, 880, 950, 1550, 1555, 1600, 1650, 1655, 1750, 1755, 1800, D2000, 2300, 3000                                 | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Wisconsin  | 340, 350, 430, 660, 670, 750, 860, 1000  | Injector M21 | -          | <b>TU-15-11A*</b>                                      |
| Yanmar   | Some models  | Injector M17 | -          | <b>TU-15-18A*</b>                                      |

## FUEL PRESSURE TESTING

### TU-32\* MASTER FUEL SYSTEM TEST KIT - CUMMINS 5.9L

- M68 compound 45 PSI, 30inHg gauge, fuel pressure, inlet restriction and fuel volume test adapters
- Contains all adapters necessary for testing on Cummins Series B and ISB engines (including Dodge Ram)
- Includes storage case



### TU-32-2\* BASIC DIESEL FUEL PRESSURE TEST KIT

- M91/100 PSI gauge with boot assembly and 4-ft. hose
- Pressure relief valve
- 5 banjo bolt adapters ranging from M8 to M14 and 1 repair kit
- Includes storage case



### TU-32-7\* HIGH PRESSURE OIL SYSTEM TEST KIT

- Used to diagnose the inline pressure, pressure loss to one head, and oil pump dead head pressure in the following: Ford Power Stroke 6.0L and 7.3L as well as International T444E and VT 365E engines
- 5000 PSI gauge and hose assembly, 12mm straight thread adapter
- STC and JIC adapters
- STC release tool
- Includes storage case



### TU-32-8\* HIGH PRESSURE OIL SYSTEM TEST KIT

- Used to diagnose the inline pressure and oil pump dead head pressure in the following engines using ORFS connectors: DT-466 engines with EGR, MaxxForce 5, MaxxForce DT, MaxxForce 9, and MaxxForce 10
- 10,000 PSI gauge and hose assembly
- Inline adapter tee, shop air adapter
- Includes storage case



## FUEL PRESSURE TESTING

### TU-32-3\*

#### INTERNATIONAL DIESEL FUEL SYSTEM TEST KIT

- International engines VT365, T444E, DT466, DT530, and DT570
- Two M91 gauges: 0-100 PSI and 0-30 inHg
- 4-ft. hose
- 4 adapters
- Includes storage case



### TU-32-4\*

#### FORD POWER STROKE DIESEL FUEL SYSTEM KIT

- Ford Power Stroke engines 1994 to present
- M91/100 PSI gauge with boot and bleed off assembly
- Adapters necessary to pressure test the fuel system on Power Stroke engines
- Adapters can be used for testing at both the fuel filter and at the fuel pump
- Includes storage case



### TU-32-6\*

#### GM 6.6L DURAMAX DIESEL FUEL SYSTEM TEST KIT

- Quick connect test port on GM 6.6L Duramax engines
- Gauge assembly with 6-ft. hose
- M91 gauge with vinyl boot reads 30 inHg to 15 PSI



### TU-32-20\*

#### FUEL SYSTEM PRESSURE TEST GAUGE - COMPUCHEK

- Used to check fuel system pressure on diesel engines with Compuchek test ports
- M91/300 PSI gauge with boot
- 6-ft. hose



### TU-32-21\*

#### FUEL SYSTEM RESTRICTION TEST GAUGE - COMPUCHEK

- Used to check fuel system restriction on diesel engines with Compuchek test ports
- M91/30 inHg vacuum gauge with boot
- 6-ft. hose





## FUEL ADAPTERS, ASSEMBLIES & REPLACEMENT PARTS

### TU-32-22\* COMPUCHEK TEST PORT

- Can be added to an engine's fuel system permanently or temporarily for testing pressure or restriction with a Compuchek tester



### TU-32-25\* COMPUCHEK ADAPTER

- To be used with the Lang Tools 74438 gauge assembly, or the 74424 gauge assembly with the 74425 hose assembly
- Used to measure fuel pressure, check for air bubbles and bleed air from the fuel system on the family of engines from Navistar/International VT365, DT466, DT570 and HT570 engines



### 73211\* GAUGE ASSEMBLY 30 INHG

- Gauge assembly for the TU-32-3



### 74471\* M14 X 1.50 BANJO BOLT 100 PSI

- M14 banjo bolt



### 74484\* 5/16" QUICK DISCONNECT HOSE ASSEMBLY

- 5/16" quick disconnect hose assembly with quick coupler plug: Chrysler, Ford



### TU-32-23\* INTERNATIONAL SCHRADER ADAPTER

- Fits Schrader test ports on the fuel system of International Diesel engines and Ford Power Stroke (1994-1997) diesel engines



### TU-32-26\* FORD POWER STROKE 7.3L FUEL PRESSURE ADAPTER

- For diesel fuel pressure testing on Ford Power Stroke 7.3L engines, 1998 thru 2004
- 8-in. hose with 1/8-in. MNPT



### TU-32-27\* FORD POWER STROKE 6.0L FUEL PRESSURE ADAPTER

- For testing Ford Power Stroke 6.0L engines, 2003 to present
- M12 x 1.50 male fitting on a 6" hose with 1/4" NPTF on the other



### 74427\* GAUGE ASSEMBLY

- Gauge assembly for the TU-32-2, TU-32-3 or TU-32-4



### 74425\* RELEASE VALVE & AMP TUBING

- Hose assembly for the TU-32, TU-32-2, TU-32-3 & TU-32-4



### TU-32-24\* INTERNATIONAL RIGHT ANGLE ADAPTER

- Used to connect a pressure gauge to the engine fuel system
- Fits Schrader test ports on the fuel system of International Diesel engines and Ford Power Stroke diesel engines



### TU-32-28\* INTERNATIONAL MAXXFORCE ADAPTER

- Applications include: late model DT-466 engines with EGR, MaxxForce DT, MaxxForce 9, and Maxx Force 10 engines



### 41753\* FUEL PRESSURE SCHRADER VALVE CORE REPLACEMENT (5-PACK)

- For use with fuel pressure gauge sets and adapters
- Contains hi-tension spring on stem



### 74475\* FORD 6.7 FUEL TEST HOSE ADAPTER

- Allows for fuel lift pump pressure testing on new Ford 6.7L Powerstroke engines
- Use with Lang TU-32-4 Fuel Pressure Kit



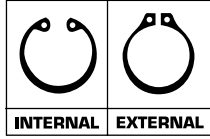
### 74485\* 3/8" QUICK DISCONNECT HOSE ASSEMBLY

- 3/8" quick disconnect hose assembly with quick coupler plug: GM



## FIXED TIP CONVERTIBLE RETAINING RING PLIERS

- Knurled center screw converts from internal to external
- Cushion grip



| FIXED TIP CONVERTIBLE RETAINING RING PLIERS |                     |           |                     |                     |               |      |      |
|---|---------------------|-----------|---------------------|---------------------|---------------|------|------|
| Part Number                                 | Tip Diameter (inch) | Tip Angle | Internal Ring Sizes | External Ring Sizes | length (inch) | 3495 | 3497 |
| 3483*                                       | .038                | 0°        | 3/8" – 7/16"        | 1/4" – 15/32"       | 6             | •    | •    |
| 3484*                                       | .038                | 45°       | 3/8" – 7/16"        | 1/4" – 15/32"       | 6             | •    |      |
| 3485*                                       | .038                | 90°       | 3/8" – 7/16"        | 1/4" – 15/32"       | 6             | •    | •    |
| 3486*                                       | .047                | 0°        | 29/64" – 1"         | 1/2" – 7/8"         | 6             | •    | •    |
| 3487*                                       | .047                | 45°       | 29/64" – 1"         | 1/2" – 7/8"         | 6             | •    |      |
| 3488*                                       | .047                | 90°       | 29/64" – 1"         | 1/2" – 7/8"         | 6             | •    | •    |
| 3489*                                       | .070                | 0°        | 1-1/16" – 1-3/4"    | 15/16" – 1-7/16"    | 7-1/2         | •    | •    |
| 3490*                                       | .070                | 45°       | 1-1/16" – 1-3/4"    | 15/16" – 1-7/16"    | 7-1/2         | •    |      |
| 3491*                                       | .070                | 90°       | 1-1/16" – 1-3/4"    | 15/16" – 1-7/16"    | 7-1/2         | •    | •    |
| 3492*                                       | .090                | 0°        | 1-13/16" – 3"       | 1-1/2" – 3-1/2"     | 9-1/4         | •    |      |
| 3493*                                       | .090                | 45°       | 1-13/16" – 3"       | 1-1/2" – 3-1/2"     | 9-1/4         | •    |      |
| 3494*                                       | .090                | 90°       | 1-13/16" – 3"       | 1-1/2" – 3-1/2"     | 9-1/4         | •    |      |

Individual pliers packaged in a plastic hanger.

### 3495\* 12-PIECE FIXED TIP CONVERTIBLE RETAINING RING PLIERS SET

- Internal Ring Sizes: 3/8" – 3" (10mm – 76mm)
- External Ring Sizes: 1/4" – 3-1/2" (3mm – 89mm)
- Includes storage case



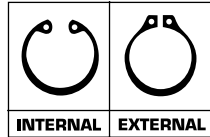
### 3497\* 6-PIECE FIXED TIP CONVERTIBLE RETAINING RING PLIERS SET

- Internal Ring Sizes: 3/8" – 1-3/4" (10mm – 44mm)
- External Ring Sizes: 1/4" – 1-7/16" (7mm – 37mm)
- Includes storage case



## FIXED TIP V-NOTCH CONVERTIBLE RETAINING RING PLIERS

- Improved design makes it possible to switch from internal to external, without separating the pliers
- Cushion grip



| FIXED TIP V-NOTCH CONVERTIBLE RETAINING RING PLIERS |                     |           |                     |                     |               |      |      |
|---|---------------------|-----------|---------------------|---------------------|---------------|------|------|
| Part Number   | Tip Diameter (inch) | Tip Angle | Internal Ring Sizes | External Ring Sizes | length (inch) | 3595 | 3597 |
| <b>3583</b>   | .038                | 0°        | 3/8" – 7/16"        | 1/4" – 15/32"       | 6             | •    | •    |
| <b>3584</b>   | .038                | 45°       | 3/8" – 7/16"        | 1/4" – 15/32"       | 6             | •    |      |
| <b>3585</b>   | .038                | 90°       | 3/8" – 7/16"        | 1/4" – 15/32"       | 6             | •    | •    |
| <b>3586</b>   | .047                | 0°        | 29/64" – 1"         | 1/2" – 7/8"         | 6             | •    | •    |
| <b>3587</b>   | .047                | 45°       | 29/64" – 1"         | 1/2" – 7/8"         | 6             | •    |      |
| <b>3588</b>   | .047                | 90°       | 29/64" – 1"         | 1/2" – 7/8"         | 6             | •    | •    |
| <b>3589</b>   | .070                | 0°        | 1-1/16" – 1-3/4"    | 15/16" – 1-7/16"    | 7-1/2         | •    | •    |
| <b>3590</b>   | .070                | 45°       | 1-1/16" – 1-3/4"    | 15/16" – 1-7/16"    | 7-1/2         | •    |      |
| <b>3591</b>   | .070                | 90°       | 1-1/16" – 1-3/4"    | 15/16" – 1-7/16"    | 7-1/2         | •    | •    |
| <b>3592</b>   | .090                | 0°        | 1-13/16" – 3"       | 1-1/2" – 3-1/2"     | 9-1/4         | •    |      |
| <b>3593</b>   | .090                | 45°       | 1-13/16" – 3"       | 1-1/2" – 3-1/2"     | 9-1/4         | •    |      |
| <b>3594</b>   | .090                | 90°       | 1-13/16" – 3"       | 1-1/2" – 3-1/2"     | 9-1/4         | •    |      |

Individual pliers packaged in a plastic hanger.

### 3595 12-PIECE FIXED TIP V-NOTCH CONVERTIBLE RETAINING RING PLIERS SET

- Internal Ring Sizes: 3/8" – 3" (10mm – 76mm)
- External Ring Sizes: 1/4" – 3-1/2" (3mm – 89mm)
- Includes storage case



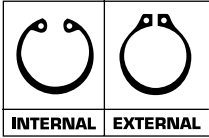
### 3597 6-PIECE FIXED TIP V-NOTCH CONVERTIBLE RETAINING RING PLIERS SET

- Internal Ring Sizes: 3/8" – 1-3/4" (10mm – 44mm)
- External Ring Sizes: 1/4" – 1-7/16" (7mm – 37mm)
- Includes storage case





## QUICK SWITCH CONVERTIBLE RETAINING RING PLIERS



- Convert between internal/external with a quick flip of a switch
- Color-coded tip kit included with every pliers
- Cushion grip
- Patented

### 1421\* QUICK SWITCH PLIERS WITH ADJUSTABLE STOP

- Internal Ring Sizes: 1/4" – 1" (7mm – 26mm)
- External Ring Sizes: 1/8" – 1" (3mm – 26mm)
- Straight Tips: .023", .039", .047" (.6mm, 1.0mm, 1.2mm)
- Bent 90° Tips: .039", .047" (1.0mm, 1.2mm)
- Length: 6"



### 75\* QUICK SWITCH PLIERS WITH AUTOMATIC RATCHET LOCK

- Internal Ring Sizes: 1-13/16" – 4" (46mm – 102mm)
- External Ring Sizes: 1-1/2" – 4" (38mm – 102mm)
- Bent 15° Tips: .090", .108", .120" (2.3mm, 2.7mm, 3.0mm)
- Bent 70° Tips: .090", .108", .120" (2.3mm, 2.7mm, 3.0mm)
- Automatic ratchet lock feature keeps rings open or closed for easy installation and removal
- Length: 10"



### 1434\* QUICK SWITCH PLIERS

- Internal Ring Sizes: 3/8" – 2" (10mm – 51mm)
- External Ring Sizes: 1/4" – 2" (7mm – 51mm)
- Straight Tips: .039", .047", .074" (1.0mm, 1.2mm, 1.9mm)
- Bent 90° Tips: .039", .047" (1.0mm, 1.2mm)
- Length: 8"



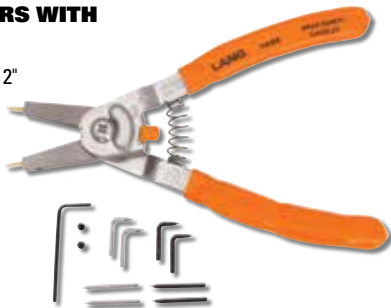
### 1465\* 3-PIECE QUICK SWITCH RETAINING RING PLIERS SET

- Contains Models: 1421, 1434 & 75
- Includes storage case



### 1435\* QUICK SWITCH PLIERS WITH ADJUSTABLE STOP

- Internal Ring Sizes: 3/8" – 2" (10mm – 51mm)
- External Ring Sizes: 1/4" – 2" (7mm – 51mm)
- Straight Tips: .039", .047", .074" (1.0mm, 1.2mm, 1.9mm)
- Bent 90° Tips: .039", .047" (1.0mm, 1.2mm)
- Length: 8"



### 1450\* 2-PIECE QUICK SWITCH RETAINING RING PLIERS SET

- Contains Models: 1421 and 1434
- Includes storage tray





## HEAVY-DUTY REPLACEABLE TIP RETAINING RING PLIERS

### 1485 INTERNAL RETAINING RING PLIERS - INTERCHANGEABLE TIP

- Ring Sizes: 3-1/16" – 6-1/4" (78mm – 159mm)
- Straight Tips: .120" (3.0mm)
- Bent 45° Tips: .120" (3.0mm)
- Bent 90° Tips: .120" (3.0mm)
- Secure ratchet locking mechanism
- Length: 16"



### 1486 EXTERNAL RETAINING RING PLIERS - INTERCHANGEABLE TIP

- Ring Sizes: 3-1/2" – 6-1/2" (89mm – 165mm)
- Straight Tips: .120" (3.0mm)
- Bent 45° Tips: .120" (3.0mm)
- Bent 90° Tips: .120" (3.0mm)
- Secure ratchet locking mechanism
- Length: 16"

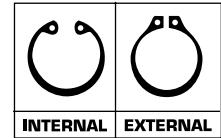


### 1487 2-PIECE RETAINING RING PLIERS SET

- Contains Models: 1485 and 1486

### 87\* HEAVY-DUTY PLIERS WITH TIP KIT

- Internal Ring Sizes: 3-1/2" – 7" (90mm – 175mm)
- External Ring Sizes: 3-1/2" – 7" (90mm – 175mm)
- Bent 20° Tips: .120", .150", .180" (3.0mm, 3.8mm, 4.6mm)
- Bent 72° Tips: .120", .150", .180" (3.0mm, 3.8mm, 4.6mm)
- Provides safe and stable service of extra large retaining rings
- Compound screw lever for easy ring installation and removal
- Length: 6.5"
- Includes storage case



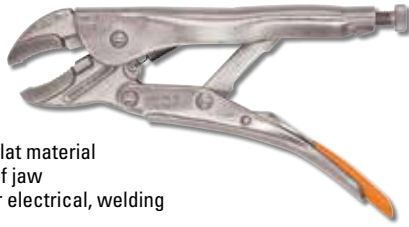
## RETAINING RING PLIERS TIP KITS

| TIP SIZES     |           |          |                     |                     |
|---------------|-----------|----------|---------------------|---------------------|
| Part Number   | Models    | Tips     | SAE (Inch)          | Metric              |
| <b>12</b>     | 1421      | Straight | .023", .039", .047" | .6mm, 1.0mm, 1.2mm  |
|               |           | Bent 90° | .039", .047"        | 1.0mm, 1.2mm        |
| <b>14</b>     | 1434,1435 | Straight | .039", .047", .074" | 1.0mm, 1.2mm, 1.9mm |
|               |           | Bent 90° | .039", .047"        | 1.0mm, 1.2mm        |
| <b>6515</b>   | 75        | Bent 15° | .090", .108", .120" | 2.3mm, 2.7mm, 3.0mm |
| <b>6590</b>   | 75        | Bent 70° | .090", .108", .120" | 2.3mm, 2.7mm, 3.0mm |
| <b>651590</b> | 75        | Bent 15° | .090", .108", .120" | 2.3mm, 2.7mm, 3.0mm |
|               |           | Bent 70° | .090", .108", .120" | 2.3mm, 2.7mm, 3.0mm |
| <b>8600</b>   | 1485,1486 | Straight | .120"               | 3.0mm               |
| <b>8645</b>   | 1485,1486 | Bent 45° | .120"               | 3.0mm               |
| <b>8690</b>   | 1485,1486 | Bent 90° | .120"               | 3.0mm               |
| <b>8720</b>   | 87        | Bent 20° | .120", .150", .180" | 3.0mm, 3.8mm, 4.6mm |
| <b>8790</b>   | 87        | Bent 72° | .120", .150", .180" | 3.0mm, 3.8mm, 4.6mm |

## LOCKING PLIERS

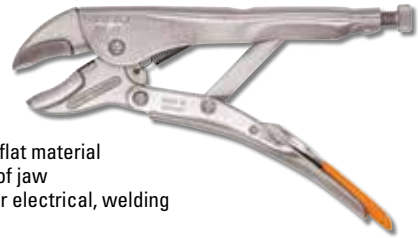
### 100-07\* CURVED JAW

- Clamping range of 1-3/8" (35mm)
- Semicircular jaws are suitable for round and flat material
- Fine serration at front of jaw
- Polished wire cutter for electrical, welding wire and nails
- Length: 7"



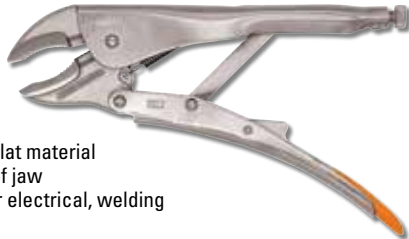
### 100-10\* CURVED JAW

- Clamping range of 1-15/16" (50mm)
- Semicircular jaws are suitable for round and flat material
- Fine serration at front of jaw
- Polished wire cutter for electrical, welding wire and nails
- Length: 10"



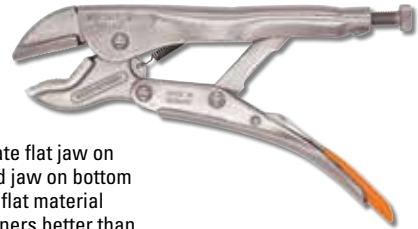
### 100-12\* CURVED JAW

- Clamping range of 2-9/16" (65mm)
- Semicircular jaws are suitable for round and flat material
- Fine serration at front of jaw
- Polished wire cutter for electrical, welding wire and nails
- Length: 12"



### 101-07\* COMBINATION JAW

- Clamping range of 1-3/16" (30mm)
- Special jaws incorporate flat jaw on top with special curved jaw on bottom
- Suitable for round and flat material
- Captures flats on fasteners better than traditional curved jaw
- Wire groove on top jaw allows for wire and nails to be gripped from front
- Length: 7"



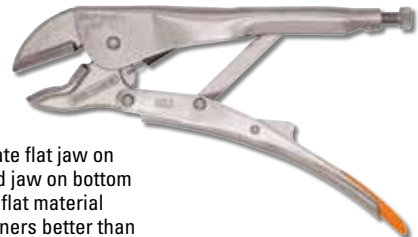
### 101-10\* COMBINATION JAW

- Clamping range of 1-3/8" (35mm)
- Special jaws incorporate flat jaw on top with special curved jaw on bottom
- Suitable for round and flat material
- Captures flats on fasteners better than traditional curved jaw
- Wire groove on top jaw allows for wire and nails to be gripped from front
- Length: 10"



### 101-12\* COMBINATION JAW

- Clamping range of 1-15/16" (50mm)
- Special jaws incorporate flat jaw on top with special curved jaw on bottom
- Suitable for round and flat material
- Captures flats on fasteners better than traditional curved jaw
- Wire groove on top jaw allows for wire and nails to be gripped from front
- Length: 12"



### 102-10\* COMBINATION PLUS JAW

- Clamping range of 1-31/32" (50mm)
- Special jaws incorporate angled jaw on top and bottom
- Suitable for round, flat, angular and profiled material
- Captures flats on fasteners better than traditional curved jaw
- Length: 10"



### 104-08\* COMBINATION PLIER JAW

- Clamping range of 1-9/16" (40mm)
- Special jaw combines standard combination plier shape with advantaged of locking plier
- Can be used as cutter, locking/gripping pliers, wire stripper, open end wrench, nipper, etc.
- With the locking lever, clamping force can be up to 3 times greater than normal combination pliers
- Fine serration at front of jaws
- Larger clamping range than normal combination pliers
- Length: 8"



## LOCKING PLIERS

### 105-10\* FLOATING JAW

- Clamping range of 1-3/4" (45mm)
- Special jaws incorporate angled jaw on top and floating jaw on bottom
- Suitable for round, flat and asymmetrical material
- Captures flats on fasteners better than traditional curved jaw
- Length: 10"



### 106-10\* PARALLEL JAW

- Clamping range of 1-15/16" (50mm)
- Jaws are parallel with uniformly distributed clamping pressure
- For use on flat material, especially sheet metal work and welding
- Serrated jaws for grip
- Length: 10"



### 107-07\* NEEDLE NOSE JAW

- Clamping range of 1-9/16" (40mm)
- For use in narrow spaces
- Fine serration at front of jaws
- Jaw thickness less than 1/4" (5mm)
- Length: 6-1/2"



### 110-07\* C-CLAMP JAWS

- Clamping range of 1-15/16" (50mm)
- For clamping various material shapes especially flat
- Ideal for clamping over objects
- Length: 7"



### 110-11\* C-CLAMP JAWS

- Clamping range of 3-1/2" (90mm)
- For clamping various material shapes especially flat
- Ideal for clamping over objects
- Length: 11"



### 111-11\* C-CLAMP MOVABLE JAWS

- Clamping range of 3-1/2" (90mm)
- For clamping various material shapes especially flat
- Ideal for clamping over objects
- Length: 11"



### 112-11\* WELDING JAWS

- Clamping range of 2-5/16" (60mm)
- For clamping profiled or flat material
- Length: 11"



### 113-11\* TUBE WELDING JAWS

- Clamping range of 3-8" – 3-1/2" (10 – 90mm)
- For clamping found or pipe material
- Length: 11"



### 114-07\* SHEET METAL WELDING JAWS

- Clamping range of 1-3/4" (45mm)
- For tightening, bending and crimping thin sheet steel
- Length: 7"



## HOSE CLAMP PLIERS

### 3444\*

#### LARGE HOSE CLAMP PLIERS

- For use on flat type hose clamps
- Fine tooth locking ratchet
- For heavy-duty jobs
- Length: 10-1/2"



### 3975\*

#### HOSE CLAMP PLIERS

- For Corbin style hose clamps
- Slotted tips rotate to grip at any angle
- Length: 8-1/4"



### 3976\*

#### HOSE CLAMP PLIERS

- For flat type hose clamps
- Tips rotate to grip at any angle
- Length: 9-1/2"



### 3977\*

#### ANGLED HOSE CLAMP PLIERS

- For flat type hose clamps
- Angle feature provides easy access to clamps located in hard-to-reach areas
- Length: 9"



## LOCK RING PLIERS

- Spreads, removes and installs lock rings without holes
- For use on brakes, transmissions, clutch shafts, and output shafts

### 1407

#### STRAIGHT TIP

- Straight tip serrated jaws
- 3/32" tip width
- Length: 9"



### 1408

#### BENT TIP

- 90-degree angle serrated jaws
- 3/32" tip width, 1/16" tip thickness
- Length: 9"



### 1409

#### RIGHT ANGLE TIP

- 90-degree angle serrated jaws with dimples for lock rings with tabs
- 3/32" tip width, 1/8" tip thickness
- Length: 9"



### 1705

#### PARALLEL JAWS

- Straight, non-serrated jaws with dimples for lock rings with tabs
- Jaws remain parallel for compound, high leverage expansion of rings
- 1/4" tip width, 1/8" tip thickness
- Length: 10"



### 1406

#### 3-PIECE LOCK RING PLIERS SET

- Contains Models: 1407, 1408, and 1409



## HOSE PINCH PLIERS

- **Self-locking feature holds after pressure is applied**
- **Simply pull handles apart to release**
- **Patented offset design allows more access in hard-to-reach areas**
- **Ideal for radiator, vacuum, and fuel lines hoses, plus other flexible materials**

### **1480\*** **LARGE**

- Capacity: 2-1/2"
- Length: 13"

### **1470\*** **MEDIUM**

- Capacity: 1-1/4"
- Length: 9-3/4"

### **1460\*** **SMALL**

- Capacity: 3/4"
- Length: 6"

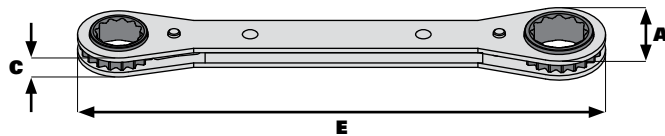
### **1500\*** **3-PIECE HOSE PINCH PLIER SET**

- Contains Models: 1460, 1470, and 1480



# WRENCHES

## FLAT RATCHETING BOX WRENCHES



- Reverse by merely turning the wrench over
- Openings are accurately broached for that perfect non-slip fit
- Heat-treated and chrome-plated for durability and appearance

### SAE FLAT RATCHETING BOX WRENCHES

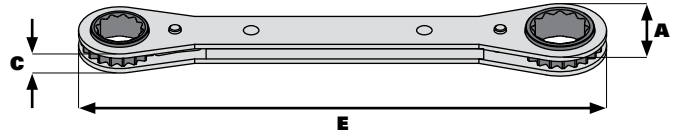
| EDP#   | Part Number       | Description      | Point | Weight (Each) | Dimensions          |       |        |
|--------|-------------------|------------------|-------|---------------|---------------------|-------|--------|
|        |                   |                  |       |               | A                   | C     | E      |
| 5500*† | <b>RB-810**</b>   | 1/4" x 5/16"     | 6     | .16 lbs.      | 19/32" & 43/64"     | 3/8"  | 4-1/2" |
| 5501*  | <b>RB-810DH*</b>  | 1/4" x 5/16"     | 12    | .12           | 19/32" & 43/64"     | 3/8"  | 4-1/2" |
| 6500*† | <b>RB-1214**</b>  | 3/8" x 7/16"     | 6     | .21           | 51/64" & 57/64"     | 3/8"  | 5-1/2" |
| 6501*  | <b>RB-1214DH*</b> | 3/8" x 7/16"     | 12    | .17           | 51/64" & 57/64"     | 3/8"  | 5-1/2" |
| 7522*† | <b>7522**</b>     | 3/8" x 1/2"      | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 7514*  | <b>RB-1218*</b>   | 3/8" x 9/16"     | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 7529*  | <b>RB-1218DH*</b> | 3/8" x 9/16"     | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 7517*  | <b>RB-1416*</b>   | 7/16" x 1/2"     | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 7518*  | <b>RB-1416DH*</b> | 7/16" x 1/2"     | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 7500*† | <b>RB-1618**</b>  | 1/2" x 9/16"     | 6     | .34           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 7501*  | <b>RB-1618DH*</b> | 1/2" x 9/16"     | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2"  | 6-7/8" |
| 8512*  | <b>RB-1820*</b>   | 9/16" x 5/8"     | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2"  | 8-1/8" |
| 8513*† | <b>8513**</b>     | 9/16" x 3/4"     | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2"  | 8-1/8" |
| 8500*† | <b>RB-2022**</b>  | 5/8" x 11/16"    | 12    | .50           | 1-19/64" & 1-7/16"  | 1/2"  | 8-1/8" |
| 8501*  | <b>RB-2024*</b>   | 5/8" x 3/4"      | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2"  | 8-1/8" |
| 9515*  | <b>RB-2224*</b>   | 11/16" x 3/4"    | 12    | .46           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9501*  | <b>RB-2226*</b>   | 11/16" x 13/16"  | 12    | .50           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9516*  | <b>RB-2228*</b>   | 11/16" x 7/8"    | 12    | .50           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9518*  | <b>RB-2426*</b>   | 3/4" x 13/16"    | 12    | .50           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9500*† | <b>RB-2428**</b>  | 3/4" x 7/8"      | 12    | .54           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9520*  | <b>RB-2628*</b>   | 13/16" x 7/8"    | 12    | .50           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9521*† | <b>RB-2630**</b>  | 13/16" x 15/16"  | 12    | .54           | 1-13/32" & 1-37/64" | 1/2"  | 9-1/4" |
| 9601*  | <b>RB-3234*</b>   | 1" x 1-1/16"     | 12    | 1.38          | 1-29/32" & 2-17/64" | 9/16" | 15"    |
| 9602*  | <b>RB-3436*</b>   | 1-1/16" x 1-1/8" | 12    | 1.38          | 1-29/32" & 2-17/64" | 9/16" | 15"    |
| 9604*  | <b>RB-3440*</b>   | 1-1/16" x 1-1/4" | 12    | 1.38          | 1-29/32" & 2-17/64" | 9/16" | 15"    |
| 9603*  | <b>RB-3638*</b>   | 1-1/8" x 1-3/16" | 12    | 1.38          | 1-29/32" & 2-17/64" | 9/16" | 15"    |
| 9608*  | <b>RB-3640*</b>   | 1-1/8" x 1-1/4"  | 12    | 1.38          | 1-29/32" & 2-17/64" | 9/16" | 15"    |

### SAE FLAT AIRCRAFT RATCHETING BOX WRENCHES

| EDP#   | Part Number   | Description    | Point | Weight (Each) | Dimensions      |      |        |
|--------|---------------|----------------|-------|---------------|-----------------|------|--------|
|        |               |                |       |               | A               | C    | E      |
| 5508*† | <b>5508**</b> | 7/32" x 1/4"   | 6     | .12 lbs.      | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5532*† | <b>5532**</b> | 1/4" x 9/32"   | 6     | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5516*† | <b>5516**</b> | 5/16" x 11/32" | 6     | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5520*† | <b>5520**</b> | 1/4" x 11/32"  | 6     | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5526*† | <b>5526**</b> | 5/16" x 11/32" | 12    | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5527*† | <b>5527**</b> | 7/32" x 11/32" | 12    | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5528*† | <b>5528**</b> | 9/32" x 11/32" | 12    | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |
| 5531*† | <b>5531**</b> | 1/4" x 9/32"   | 12    | .12           | 19/32" & 43/64" | 3/8" | 4-1/2" |

\*Skin-packed. †Available only by special quote (with lead time and minimum order requirements).

## FLAT RATCHETING BOX WRENCHES



- Reverse by merely turning the wrench over
- Openings are accurately broached for that perfect non-slip fit
- Heat-treated and chrome-plated for durability and appearance

| METRIC FLAT RATCHETING BOX WRENCHES |                    |             |       |               |                     |      |        |
|-------------------------------------|--------------------|-------------|-------|---------------|---------------------|------|--------|
| EDP#                                | Part Number        | Description | Point | Weight (Each) | Dimensions          |      |        |
|                                     |                    |             |       |               | A                   | C    | E      |
| 5504*                               | <b>RBM-0708*</b>   | 7mm x 8mm   | 6     | .12 lbs.      | 19/32" & 43/64"     | 3/8" | 4-1/2" |
| 5506*                               | <b>RBM-0708DH*</b> | 7mm x 8mm   | 12    | .12           | 19/32" & 43/64"     | 3/8" | 4-1/2" |
| 5585**                              | <b>5585**</b>      | 6mm x 7mm   | 12    | .12           | 19/32" & 43/64"     | 3/8" | 4-1/2" |
| 6585**                              | <b>6585**</b>      | 8mm x 9mm   | 12    | .17           | 51/64" & 57/64"     | 3/8" | 5-1/2" |
| 6504*                               | <b>RBM-0910*</b>   | 9mm x 10mm  | 6     | .17           | 51/64" & 57/64"     | 3/8" | 5-1/2" |
| 6506*                               | <b>RBM-0910DH*</b> | 9mm x 10mm  | 12    | .17           | 51/64" & 57/64"     | 3/8" | 5-1/2" |
| 6507**                              | <b>6507**</b>      | 8mm x 10mm  | 12    | .17           | 51/64" & 57/64"     | 3/8" | 5-1/2" |
| 7515*                               | <b>RBM-1011DH*</b> | 10mm x 11mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7504*                               | <b>RBM-1112*</b>   | 11mm x 12mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7509*                               | <b>RBM-1112DH*</b> | 11mm x 12mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7523*                               | <b>RBM-1113*</b>   | 11mm x 13mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7586*                               | <b>RBM-1213DH*</b> | 12mm x 13mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7524*                               | <b>RBM-1214*</b>   | 12mm x 14mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7506*                               | <b>RBM-1314*</b>   | 13mm x 14mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 7510*                               | <b>RBM-1314DH*</b> | 13mm x 14mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8" |
| 8587*                               | <b>RBM-1415*</b>   | 14mm x 15mm | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2" | 8-1/8" |
| 8504*                               | <b>RBM-1517*</b>   | 15mm x 17mm | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2" | 8-1/8" |
| 8505*                               | <b>RBM-1618*</b>   | 16mm x 18mm | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2" | 8-1/8" |
| 9504*                               | <b>RBM-1921*</b>   | 19mm x 21mm | 12    | .50           | 1-13/32" & 1-37/64" | 1/2" | 9-1/4" |

\*Available only by special quote (with lead time and minimum order requirements).

## FLAT RATCHETING BOX WRENCH SETS

- Reverse by merely turning the wrench over
- 6 and 12 point openings are accurately broached for that perfect non-slip fit
- Heat-treated and chrome-plated for durability and appearance

### 5373\*

#### 5-PIECE SAE RATCHETING BOX WRENCH SET

- Packaged in a portable tool caddy

| Part Number       | Description   | Point |
|-------------------|---------------|-------|
| <b>RB-810DH*</b>  | 1/4" x 5/16"  | 12    |
| <b>RB-1214DH*</b> | 3/8" x 7/16"  | 12    |
| <b>RB-1618DH*</b> | 1/2" x 9/16"  | 12    |
| <b>RB-2024*</b>   | 5/8" x 3/4"   | 12    |
| <b>RB-2228*</b>   | 11/16" x 7/8" | 12    |



### 5374\*

#### 5-PIECE METRIC RATCHETING BOX WRENCH SET

- Packaged in a portable tool caddy

| Part Number        | Description | Point |
|--------------------|-------------|-------|
| <b>RBM-0708DH*</b> | 7mm x 8mm   | 12    |
| <b>RBM-0910DH*</b> | 9mm x 10mm  | 12    |
| <b>RBM-1213DH*</b> | 12mm x 13mm | 12    |
| <b>RBM-1415*</b>   | 14mm x 15mm | 12    |
| <b>RBM-1921*</b>   | 19mm x 21mm | 12    |

## FLAT RATCHETING BOX WRENCH SETS

- Reverse by merely turning the wrench over
- 6 and 12 point openings are accurately broached for that perfect non-slip fit
- Heat-treated and chrome-plated for durability and appearance

### RB-312P\* (EDP#5428\*)

#### 3-PIECE 12-PT. SAE FLAT WRENCH SET

- Packaged in a vinyl pouch

| Part Number       | Description  | Point |
|-------------------|--------------|-------|
| <b>RB-1214DH*</b> | 3/8" x 7/16" | 12    |
| <b>RB-1618DH*</b> | 1/2" x 9/16" | 12    |
| <b>RB-2024*</b>   | 5/8" x 3/4"  | 12    |



### RB-6\* (EDP#5486\*)

#### 6-PIECE SAE FLAT WRENCH SET

- Packaged in a vinyl pouch

| Part Number     | Description     | Point |
|-----------------|-----------------|-------|
| <b>RB-810*</b>  | 1/4" x 5/16"    | 6     |
| <b>RB-1214*</b> | 3/8" x 7/16"    | 6     |
| <b>RB-1618*</b> | 1/2" x 9/16"    | 6     |
| <b>RB-2022*</b> | 5/8" x 11/16"   | 12    |
| <b>RB-2428*</b> | 3/4" x 7/8"     | 12    |
| <b>RB-2630*</b> | 13/16" x 15/16" | 12    |



### RB-3P\* (EDP#5483\*)

#### 3-PIECE SAE FLAT WRENCH SET

- Packaged in a vinyl pouch

| Part Number     | Description  | Point |
|-----------------|--------------|-------|
| <b>RB-810*</b>  | 1/4" x 5/16" | 6     |
| <b>RB-1214*</b> | 3/8" x 7/16" | 6     |
| <b>RB-1618*</b> | 1/2" x 9/16" | 6     |



### RB-5\* (EDP#5485\*)

#### 5-PIECE SAE FLAT WRENCH SET

- Packaged in a vinyl pouch

| Part Number     | Description   | Point |
|-----------------|---------------|-------|
| <b>RB-810*</b>  | 1/4" x 5/16"  | 6     |
| <b>RB-1214*</b> | 3/8" x 7/16"  | 6     |
| <b>RB-1618*</b> | 1/2" x 9/16"  | 6     |
| <b>RB-2022*</b> | 5/8" x 11/16" | 12    |
| <b>RB-2428*</b> | 3/4" x 7/8"   | 12    |



### RBM-7\* (EDP#5491\*)

#### 7-PIECE METRIC FLAT WRENCH SET

- Packaged in a roll pouch

| Part Number      | Description | Point |
|------------------|-------------|-------|
| <b>RBM-0708*</b> | 7mm x 8mm   | 6     |
| <b>RBM-0910*</b> | 9mm x 10mm  | 6     |
| <b>RBM-1113*</b> | 11mm x 13mm | 6     |
| <b>RBM-1214*</b> | 12mm x 14mm | 6     |
| <b>RBM-1517*</b> | 15mm x 17mm | 12    |
| <b>RBM-1618*</b> | 16mm x 18mm | 12    |
| <b>RBM-1921*</b> | 19mm x 21mm | 12    |



### RBM-5\* (EDP#5490\*)

#### 5-PIECE METRIC FLAT WRENCH SET

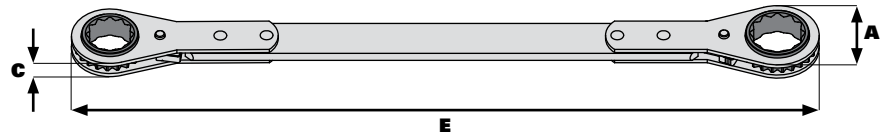
- Packaged in a vinyl pouch

| Part Number      | Description | Point |
|------------------|-------------|-------|
| <b>RBM-0708*</b> | 7mm x 8mm   | 6     |
| <b>RBM-0910*</b> | 9mm x 10mm  | 6     |
| <b>RBM-1113*</b> | 11mm x 13mm | 6     |
| <b>RBM-1214*</b> | 12mm x 14mm | 6     |
| <b>RBM-1517*</b> | 15mm x 17mm | 12    |





## EXTRA LONG RATCHETING BOX WRENCHES

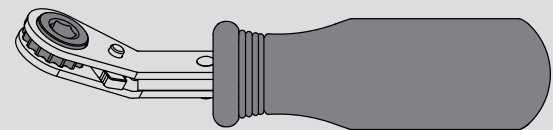


- Reverse by merely turning the wrench over
- Openings are accurately broached for that perfect non-slip fit
- Heat-treated and chrome-plated for durability and appearance

| SAE EXTRA LONG RATCHETING BOX WRENCHES |               |       |               |                     |       |     |
|--|---------------|-------|---------------|---------------------|-------|-----|
| Part Number                            | Description   | Point | Weight (Each) | Dimensions          |       |     |
|  |               |       |               | A                   | C     | E   |
| 6660*                                  | 1/4" x 5/16"  | 12    | .30 lbs.      | 51/64" & 57/64"     | 3/8"  | 8"  |
| 7660*                                  | 3/8" x 7/16"  | 12    | .70           | 1-1/64" & 1-5/32"   | 1/2"  | 10" |
| 7661*                                  | 1/2" x 9/16"  | 12    | .70           | 1-1/64" & 1-5/32"   | 1/2"  | 10" |
| 8660*                                  | 5/8" x 11/16" | 12    | .80           | 1-19/64" & 1-7/16"  | 1/2"  | 12" |
| 9660*                                  | 3/4" x 7/8"   | 12    | .90           | 1-29/32" & 2-17/64" | 9/16" | 14" |

| METRIC EXTRA LONG RATCHETING BOX WRENCHES |             |       |               |                     |       |     |
|---|-------------|-------|---------------|---------------------|-------|-----|
| Part Number                               | Description | Point | Weight (Each) | Dimensions          |       |     |
|   |             |       |               | A                   | C     | E   |
| 6665*                                     | 8mm x 10mm  | 12    | .30 lbs.      | 51/64" & 57/64"     | 3/8"  | 8"  |
| 7665*                                     | 12mm x 14mm | 12    | .70           | 1-1/64" & 1-5/32"   | 1/2"  | 10" |
| 8665*                                     | 13mm x 15mm | 12    | .80           | 1-19/64" & 1-7/16"  | 1/2"  | 12" |
| 8666*                                     | 17mm x 19mm | 12    | .80           | 1-19/64" & 1-7/16"  | 1/2"  | 12" |
| 9665*                                     | 18mm x 21mm | 12    | .90           | 1-29/32" & 2-17/64" | 9/16" | 14" |

## E-Z GRIP OFFSET RATCHETING BOX WRENCHES



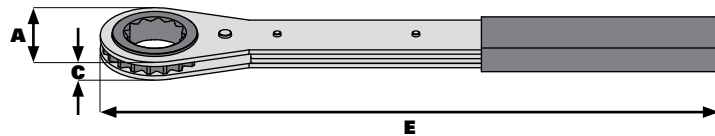
- Our offset E-Z GRIP ratcheting box wrenches combine the speed of a ratcheting box wrench with the comfort of a screwdriver-style handle to create the ultimate fastener turning tool
- Easy thumb-operated reversing lever especially useful for bench type repetitive applications

| SAE E-Z GRIP OFFSET RATCHETING BOX WRENCHES |             |        |       |        |           |
|---|-------------|--------|-------|--------|-----------|
| EDP#  | Part Number | Size   | Point | Length | Wt. (ea.) |
| 6789*                                       | ROW-08*     | 1/4"   | 6     | 5-1/2" | .25 lbs.  |
| 6790*                                       | ROW-10*     | 5/16"  | 6     | 5-1/2" | .25       |
| 6791*                                       | ROW-12*     | 3/8"   | 6     | 5-1/2" | .25       |
| 6792*                                       | ROW-14*     | 7/16"  | 6     | 5-1/2" | .25       |
| 7791*                                       | ROW-16*     | 1/2"   | 6     | 6-3/4" | .43       |
| 7792*                                       | ROW-18*     | 9/16"  | 6     | 7"     | .43       |
| 8791*                                       | ROW-20*     | 5/8"   | 12    | 7-3/4" | .50       |
| 8792*                                       | ROW-22*     | 11/16" | 12    | 8"     | .56       |
| 9791*                                       | ROW-24*     | 3/4"   | 12    | 8-3/4" | .56       |
| 9792*                                       | ROW-28*     | 7/8"   | 12    | 9"     | .62       |

| METRIC E-Z GRIP OFFSET RATCHETING BOX WRENCHES |             |      |       |        |           |
|--|-------------|------|-------|--------|-----------|
| EDP#   | Part Number | Size | Point | Length | Wt. (ea.) |
| 6794*  | ROWM-08*    | 8mm  | 6     | 5-1/2" | .25 lbs.  |
| 6795*  | ROWM-09*    | 9mm  | 6     | 5-1/2" | .25       |
| 6796*  | ROWM-10*    | 10mm | 6     | 5-1/2" | .25       |
| 7795*  | ROWM-11*    | 11mm | 6     | 6-3/4" | .43       |
| 7796*  | ROWM-12*    | 12mm | 6     | 6-3/4" | .43       |
| 7797*  | ROWM-13*    | 13mm | 6     | 6-3/4" | .43       |
| 7798*  | ROWM-14*    | 14mm | 6     | 7"     | .50       |
| 8795*  | ROWM-15*    | 15mm | 12    | 7-3/4" | .50       |
| 8796*  | ROWM-16*    | 16mm | 12    | 7-3/4" | .50       |
| 8797*  | ROWM-17*    | 17mm | 12    | 8"     | .56       |
| 8798*  | ROWM-18*    | 18mm | 12    | 8"     | .56       |

# WRENCHES

## LARGE RATCHETING BOX WRENCHES



- For Heavy Duty Equipment and Industrial Applications
- Built for those tough jobs where lots of torque, leverage & durability are required
- Requires less effort than a conventional combination wrench
- Great for: agricultural, construction, utility, mining, industrial equipment and much more!

### SAE LARGE RATCHETING BOX WRENCHES

| EDP#  | Part Number   | Description | Point | Weight (Each) | Dimensions |      |         |
|-------|---------------|-------------|-------|---------------|------------|------|---------|
|       |               |             |       |               | A          | C    | E       |
| 9630* | <b>RB-42*</b> | 1-5/16"     | 12    | 3.2 lbs.      | 2-3/4"     | 5/8" | 15-1/2" |
| 9631* | <b>RB-44*</b> | 1-3/8"      | 12    | 3.2           | 2-3/4"     | 5/8" | 15-1/2" |
| 9632* | <b>RB-46*</b> | 1-7/16"     | 12    | 3.2           | 2-3/4"     | 5/8" | 15-1/2" |
| 9633* | <b>RB-48*</b> | 1-1/2"      | 12    | 3.2           | 2-3/4"     | 5/8" | 15-1/2" |
| 9634* | <b>RB-50*</b> | 1-9/16"     | 12    | 3.2           | 2-3/4"     | 5/8" | 15-1/2" |
| 9635* | <b>RB-52*</b> | 1-5/8"      | 12    | 3.2           | 2-3/4"     | 5/8" | 15-1/2" |
| 9650* | <b>RB-54*</b> | 1-11/16"    | 12    | 4.1           | 3-3/8"     | 5/8" | 19"     |
| 9651* | <b>RB-56*</b> | 1-3/4"      | 12    | 4.1           | 3-3/8"     | 5/8" | 19"     |
| 9652* | <b>RB-58*</b> | 1-13/16"    | 12    | 4.1           | 3-3/8"     | 5/8" | 19"     |
| 9653* | <b>RB-60*</b> | 1-7/8"      | 12    | 4.1           | 3-3/8"     | 5/8" | 19"     |
| 9654* | <b>RB-64*</b> | 2"          | 12    | 4.1           | 3-3/8"     | 5/8" | 19"     |
| 9655* | <b>RB-68*</b> | 2-1/8"      | 12    | 4.1           | 3-3/8"     | 5/8" | 19"     |

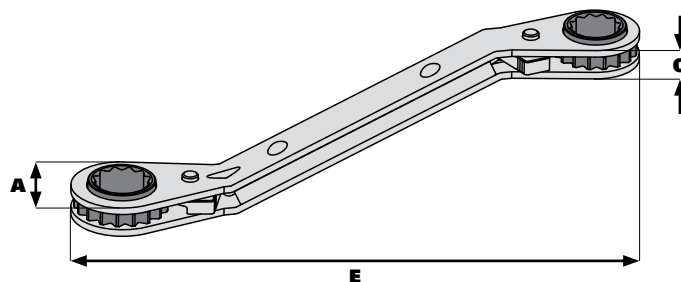
### METRIC LARGE RATCHETING BOX WRENCHES

| EDP#  | Part Number    | Description | Point | Weight (Each) | Dimensions |       |         |
|-------|----------------|-------------|-------|---------------|------------|-------|---------|
|       |                |             |       |               | A          | C     | E       |
| 9620* | <b>RBM-22*</b> | 22mm        | 12    | 1.0 lbs.      | 1-15/16"   | 9/16" | 12"     |
| 9623* | <b>RBM-23*</b> | 23mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9622* | <b>RBM-24*</b> | 24mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9624* | <b>RBM-25*</b> | 25mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9625* | <b>RBM-26*</b> | 26mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9626* | <b>RBM-27*</b> | 27mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9627* | <b>RBM-29*</b> | 29mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9629* | <b>RBM-30*</b> | 30mm        | 12    | 1.0           | 1-15/16"   | 9/16" | 12"     |
| 9640* | <b>RBM-32*</b> | 32mm        | 12    | 3.2           | 2-3/4"     | 5/8"  | 15-1/2" |
| 9641* | <b>RBM-36*</b> | 36mm        | 12    | 3.2           | 2-3/4"     | 5/8"  | 15-1/2" |



## OFFSET RATCHETING BOX WRENCHES

The 25° angle at each end of these wrenches allows reach to those tight applications without scraping knuckles, and still provided the speed and convenience of a ratcheting box wrench. Reverse direction by simply flipping the reversing lever



| SAE OFFSET RATCHETING BOX WRENCHES |                    |                 |       |               |                     |      |         |
|------------------------------------|--------------------|-----------------|-------|---------------|---------------------|------|---------|
| EDP#                               | Part Number        | Description     | Point | Weight (Each) | Dimensions          |      |         |
|                                    |                    |                 |       |               | A                   | C    | E       |
| 5700*†                             | <b>ROW-0810**</b>  | 1/4" x 5/16"    | 6     | .16 lbs.      | 19/32" & 43/64"     | 3/8" | 4-1/4"  |
| 5701*                              | <b>ROW-0810DH*</b> | 1/4" x 5/16"    | 12    | .13           | 19/32" & 43/64"     | 3/8" | 4-1/4"  |
| 6700*†                             | <b>ROW-1214**</b>  | 3/8" x 7/16"    | 6     | .24           | 51/64" & 57/64"     | 3/8" | 5-7/16" |
| 6701*                              | <b>ROW-1214DH*</b> | 3/8" x 7/16"    | 12    | .20           | 51/64" & 57/64"     | 3/8" | 5-7/16" |
| 7717**                             | <b>7717**</b>      | 7/16" x 1/2"    | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7700*†                             | <b>ROW-1618**</b>  | 1/2" x 9/16"    | 6     | .34           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7701*                              | <b>ROW-1618DH*</b> | 1/2" x 9/16"    | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 8712*†                             | <b>8712**</b>      | 9/16" x 5/8"    | 12    | .44           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 8713*†                             | <b>8713**</b>      | 9/16" x 3/4"    | 12    | .44           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 8700*                              | <b>ROW-2022A*</b>  | 5/8" x 11/16"   | 12    | .44           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 8701*†                             | <b>ROW-2024**</b>  | 5/8" x 3/4"     | 12    | .48           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 9701*†                             | <b>9701**</b>      | 11/16" x 13/16" | 12    | .51           | 1-13/32" & 1-37/64" | 1/2" | 9-1/8"  |
| 9781*                              | <b>ROW-2228*</b>   | 11/16" x 7/8"   | 12    | .51           | 1-13/32" & 1-37/64" | 1/2" | 9-1/8"  |
| 9700*†                             | <b>ROW-2428**</b>  | 3/4" x 7/8"     | 12    | .55           | 1-13/32" & 1-37/64" | 1/2" | 9-1/8"  |
| 9721*                              | <b>ROW-2630*</b>   | 13/16" x 15/16" | 12    | .51           | 1-13/32" & 1-37/64" | 1/2" | 9-1/8"  |

| SAE OFFSET AIRCRAFT RATCHETING BOX WRENCHES |                    |                |       |               |                 |      |        |
|---|--------------------|----------------|-------|---------------|-----------------|------|--------|
| EDP#  | Part Number        | Description    | Point | Weight (Each) | Dimensions      |      |        |
|   |                    |                |       |               | A               | C    | E      |
| 5709*†                                      | <b>5709**</b>      | 7/32" x 9/32"  | 12    | .13 lbs.      | 19/32" & 43/64" | 3/8" | 4-1/4" |
| 5717*                                       | <b>ROW-1011DH*</b> | 5/16" x 11/32" | 12    | .13           | 19/32" & 43/64" | 3/8" | 4-1/4" |

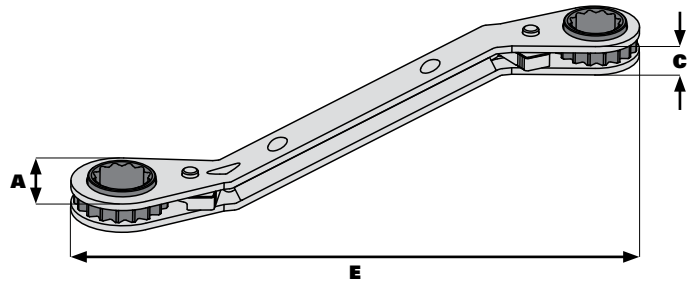
\*Skin-packed. †Available only by special quote (with lead time and minimum order requirements).



# WRENCHES

## OFFSET RATCHETING BOX WRENCHES

The 25° angle at each end of these wrenches allows reach to those tight applications without scraping knuckles, and still provided the speed and convenience of a ratcheting box wrench. Reverse direction by simply flipping the reversing lever



### METRIC OFFSET RATCHETING BOX WRENCHES

| EDP#   | Part Number         | Description | Point | Weight (Each) | Dimensions          |      |         |
|--------|---------------------|-------------|-------|---------------|---------------------|------|---------|
|        |                     |             |       |               | A                   | C    | E       |
| 5704*  | <b>ROWM-0708A*</b>  | 7mm x 8mm   | 6     | .12 lbs.      | 19/32" & 43/64"     | 3/8" | 4-1/4"  |
| 5706*  | <b>ROWM-0708DH*</b> | 7mm x 8mm   | 12    | .12           | 19/32" & 43/64"     | 3/8" | 4-1/4"  |
| 6704*† | <b>ROWM-0910**</b>  | 9mm x 10mm  | 6     | .17           | 51/64" & 57/64"     | 3/8" | 5-7/16" |
| 6705*  | <b>ROWM-0910DH*</b> | 9mm x 10mm  | 12    | .17           | 51/64" & 57/64"     | 3/8" | 5-7/16" |
| 7704*  | <b>ROWM-1112*</b>   | 11mm x 12mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7705*  | <b>ROWM-1112DH*</b> | 11mm x 12mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7723*† | <b>ROWM-1113**</b>  | 11mm x 13mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7786*  | <b>ROWM-1213DH*</b> | 12mm x 13mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7724*† | <b>ROWM-1214**</b>  | 12mm x 14mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 7706*  | <b>ROWM-1314*</b>   | 13mm x 14mm | 6     | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-7/8"  |
| 7710*  | <b>ROWM-1314DH*</b> | 13mm x 14mm | 12    | .30           | 1-1/64" & 1-5/32"   | 1/2" | 6-3/4"  |
| 8787*  | <b>ROWM-1415*</b>   | 14mm x 15mm | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 8704*  | <b>ROWM-1517*</b>   | 15mm x 17mm | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 8705*  | <b>ROWM-1618*</b>   | 16mm x 18mm | 12    | .46           | 1-19/64" & 1-7/16"  | 1/2" | 8"      |
| 9704*  | <b>ROWM-1921*</b>   | 19mm x 21mm | 12    | .50           | 1-13/32" & 1-37/64" | 1/2" | 9-1/8"  |

\*Skin-packed.





## OFFSET RATCHETING BOX WRENCH SETS

- 25-degree angle allows the user to reach tight situations without scraping their knuckle, and still provides the speed and convenience of a ratcheting box wrench
- Reverse direction by simply flipping the reversing lever
- 6 and 12 point openings are accurately broached for that perfect non-slip fit
- Heat-treated and chrome-plated for durability and appearance

### 5362\*

#### 5-PIECE SAE OFFSET RATCHETING BOX WRENCH SET

- Packaged in a portable tool caddy

| Part Number        | Description    | Point |
|--------------------|----------------|-------|
| <b>ROW-0810DH*</b> | 1/4" x 5/16"   | 12    |
| <b>ROW-1214DH*</b> | 3/8" x 7/16"   | 12    |
| <b>ROW-1618DH*</b> | 1/2" x 9/16"   | 12    |
| <b>ROW-2024*</b>   | 5/8" x 3/4"    | 12    |
| <b>ROW-2228*</b>   | 1 1/16" x 7/8" | 12    |



### 5363\*

#### 5-PIECE METRIC OFFSET RATCHETING BOX WRENCH SET

- Packaged in a portable tool caddy

| Part Number         | Description | Point |
|---------------------|-------------|-------|
| <b>ROWM-0708DH*</b> | 7mm x 8mm   | 12    |
| <b>ROWM-0910DH*</b> | 9mm x 10mm  | 12    |
| <b>ROWM-1213DH*</b> | 12mm x 13mm | 12    |
| <b>ROWM-1415*</b>   | 14mm x 15mm | 12    |
| <b>ROWM-1921*</b>   | 19mm x 21mm | 12    |

### ROW-3\* (EDP#5493\*)

#### 3-PIECE SAE OFFSET WRENCH SET

- Packaged in a vinyl pouch

| Part Number      | Description  | Point |
|------------------|--------------|-------|
| <b>ROW-0810*</b> | 1/4" x 5/16" | 6     |
| <b>ROW-1214*</b> | 3/8" x 7/16" | 6     |
| <b>ROW-1618*</b> | 1/2" x 9/16" | 6     |



### ROWM-7P\* (EDP#5497\*)

#### 7-PIECE METRIC OFFSET WRENCH SET

- Packaged in a roll pouch

| Part Number       | Description | Point |
|-------------------|-------------|-------|
| <b>ROWM-0708*</b> | 7mm x 8mm   | 6     |
| <b>ROWM-0910*</b> | 9mm x 10mm  | 6     |
| <b>ROWM-1113*</b> | 11mm x 13mm | 6     |
| <b>ROWM-1214*</b> | 12mm x 14mm | 6     |
| <b>ROWM-1517*</b> | 15mm x 17mm | 12    |
| <b>ROWM-1618*</b> | 16mm x 18mm | 12    |
| <b>ROWM-1921*</b> | 19mm x 21mm | 12    |



### ROW-5\* (EDP#5495\*)

#### 5-PIECE SAE OFFSET WRENCH SET

- Packaged in a vinyl pouch

| Part Number      | Description   | Point |
|------------------|---------------|-------|
| <b>ROW-0810*</b> | 1/4" x 5/16"  | 6     |
| <b>ROW-1214*</b> | 3/8" x 7/16"  | 6     |
| <b>ROW-1618*</b> | 1/2" x 9/16"  | 6     |
| <b>ROW-2022*</b> | 5/8" x 11/16" | 12    |
| <b>ROW-2428*</b> | 3/4" x 7/8"   | 12    |



### ROWM-5\* (EDP#5496\*)

#### 5-PIECE METRIC OFFSET WRENCH SET

- Packaged in a vinyl pouch

| Part Number       | Description | Point |
|-------------------|-------------|-------|
| <b>ROWM-0708*</b> | 7mm x 8mm   | 6     |
| <b>ROWM-0910*</b> | 9mm x 10mm  | 6     |
| <b>ROWM-1113*</b> | 11mm x 13mm | 6     |
| <b>ROWM-1214*</b> | 12mm x 14mm | 6     |
| <b>ROWM-1517*</b> | 15mm x 17mm | 12    |



## BIT WRENCH SETS WITH MAGNETIC BIT RETENTION

- Use with any 1/4" drive bit as a ratcheting screwdriver or a 1/4" adapter enabling use of a 1/4" socket to access restricted applications
- Readily accessible reversing lever for one-hand use
- Raised knurl design allows fingertip control for loose screws

### 5220\* 7-PIECE FINE TOOTH BIT WRENCH SET

- Lengths: 4-1/2"



### 5221\* 5-PIECE FINE TOOTH BIT WRENCH SET

- Length: 4-1/2"



### 5382\* 2-PIECE FINE TOOTH BIT WRENCH SET

- Length: 4-1/2"



### 5278\* 7-PIECE RATCHETING SCREWDRIVER BIT WRENCH SET

- Lengths: 4-1/4"



### 5370\* 5-PIECE OFFSET RATCHETING SCREWDRIVER BIT WRENCH SET

- Length: 4-1/4"



### 5222\* 6-PIECE FINGER RATCHET BIT DRIVER

- Length: 1-7/8"



### BIT WRENCH SETS WITH MAGNETIC BIT RETENTION

| Part Number | 5° Ratchet Flat | 5° Ratchet Offset | 5° Reverse Ratchet Offset | 5° Finger Ratchet | Flat | Offset | Reverse | #1 Phillips | #2 Phillips | 6-8" Slotted | 8-10" Slotted | 1/4" Adapter | Extender |
|-------------|-----------------|-------------------|---------------------------|-------------------|------|--------|---------|-------------|-------------|--------------|---------------|--------------|----------|
| 5220*       | •               | •                 | •                         |                   |      |        |         | •           | •           | •            | •             |              |          |
| 5221*       |                 | •                 |                           |                   |      |        |         | •           | •           | •            | •             |              |          |
| 5222*       |                 |                   |                           | •                 |      |        |         | •           | •           | •            | •             | •            | •        |
| 5278*       |                 |                   |                           |                   | •    | •      | •       | •           | •           | •            | •             |              |          |
| 5370*       |                 |                   |                           |                   |      | •      |         | •           | •           | •            | •             |              |          |
| 5382*       |                 | •                 |                           |                   |      |        |         |             |             |              |               | •            |          |



## BIT WRENCH SETS WITH MAGNETIC BIT RETENTION

### 5457\*

#### 35-PIECE RATCHETING SCREWDRIVER BIT WRENCH SET

- One flat ratcheting bit wrench (1/4" and 5/16" drive)
- One 25° offset ratcheting bit wrench (1/4" and 5/16" drive)
- One magnetic 1/4" extension (4-1/2" in length)
- 1/4" Torx® bits: T-10, T-15, T-20, T-25, T-27, T-30, T40, T45, T50
- Phillips® bits: P1, P2
- Hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 7/32", 1/4", 5/32", 3/16"
- Pozidriv® bits: PZ-1, PZ-2
- Clutch bits: C2, C3, C4
- Slotted bits: 4-5, 6-8, 8-10
- Robertson bits: R-1, R-2, R-3



## SQUARE DRIVE

### Air Conditioning and Refrigerator Ratcheting Box Wrenches

- Specifically designed for servicing automotive, commercial and home air conditioners, refrigeration units and freezers
- Reversing feature on both ends
- Four sizes in each wrench

#### 9902A\*

##### 1/4" X 3/16" SQUARE X 9/16" X 1/2" 6-PT. AC AND REFRIGERATION WRENCH

- Length: 7"



#### 9903A\*

##### 3/8" X 5/16" SQUARE X 1/4" X 3/16" SQUARE AC AND REFRIGERATION WRENCH

- Length: 5-1/2"



#### 9907A\*

##### 3/8" X 5/16" SQUARE X 1/4" X 3/16" SQUARE OFFSET AC AND REFRIGERATION WRENCH

- Length: 5-7/32"





## DIGITAL THERMOMETERS & MULTIMETERS

### 13811\*

#### CAT IV GENERAL PURPOSE & HYBRID MULTIMETER

- 1000V AC/DC, 10A AC/DC
- ms-Pulse/Duty Cycle, Resistance, Continuity and Diode
- Test leads, batteries, and temperature probe
- Auto Ranging
- Data Hold
- CAT III 1000V
- CAT IV 600V



### 13803\*

#### AUTOMOTIVE DIGITAL MULTIMETER

- 600 V AC/DC, 10A AC/DC
- RPM measurement for 1 to 8 cylinder engines
- Duty Cycle and direct DWELL reading
- Auto-ranging AC/DC V, AC/DC A
- ACV/DCV, ACA/DCA, Resistance, Diode, Frequency, Continuity, Temperature
- CAT III 600V
- Inductive pickup, carrying case, thermocouple probe, and test leads



### 13809\*

#### BASIC CATIII DMM

- DC and AC Voltage to 600V
- 2M ohm resistance
- 10A DC Current
- Perform basic voltage and resistance measurement
- Audible continuity for checking switches and fuses
- CAT III 600V



### 13800\*

#### DIGITAL THERMOMETER

### 13800PK\*

#### DIGITAL THERMOMETER (10-PACK)

- Foldout stainless steel probe
- Magnetic mount for hands-free use
- Large, easy-to-read display
- Min/Max/Record
- -58°F to 572°F





## TEST LEADS

- Used for testing electrical circuits in cars, trailers, boats and more
- Retractable test leads pull out and stay at desired length and rewind into its own protective case when not in use
- 18 gauge copper wire with insulated alligator clips
- Different color wires for easy identification
- Maximum amperage: 10 AMPS fully unwound, 6 AMPS wound

**1129\***  
RETRACTABLE TEST LEADS -  
3 LEADS X 10-FT.



**1130\***  
RETRACTABLE TEST LEADS -  
1 LEAD X 30-FT.



**1135\***  
MAGNETIC RETRACTABLE TEST  
LEADS - 3 LEADS X 10-FT.



**1137\***  
RETRACTABLE TEST LEADS -  
2 LEADS X 30-FT.



**1138\***  
MAGNETIC RETRACTABLE TEST  
LEADS - 2 LEADS X 30-FT.



**1140\***  
RETRACTABLE TEST LEADS -  
2 LEADS X 10-FT.



**1175\***  
RETRACTABLE TEST LEADS -  
2 LEADS X 15-FT. WITH  
BANANA PLUGS



**1176\***  
7-PIECE RETRACTABLE TEST LEAD SET

- Use with any multimeters with steel banana jack connectors
- Includes: One 2 x 15-ft. test lead with banana plugs (1175), one pair of test probes (1170R), one pair of alligator clips (1167R), and one pair of spring hooks (1173R)



## TEST LEAD REPLACEMENT PARTS

**1167R**  
REPLACEMENT  
ALLIGATOR CLIPS  
FOR 1176



**1170R**  
REPLACEMENT TEST  
PROBES FOR 1176



**1173R**  
REPLACEMENT SPRING  
HOOKS FOR 1176



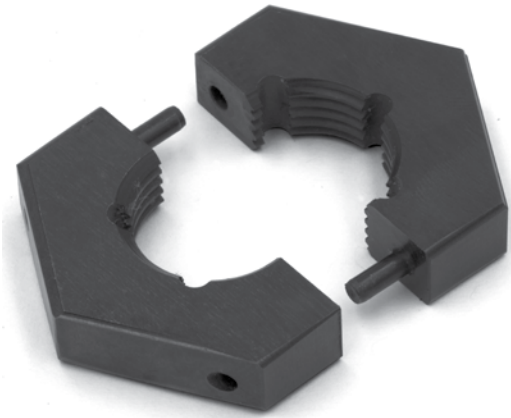
**1174R**  
REPLACEMENT SET -  
ALLIGATOR CLIPS, TEST  
PROBES & SPRING  
HOOKS



# THREAD RESTORERS

## SPLIT RETHREADING DIES

- Helps eliminate the possibility of cross-threading
- Repairs threads from the bottom up, instead of top down
- Black oxide coated to inhibit rust and aid in lubricity
- Made of A2 Tool Steel and heat treated for extra strength and durability



### SPLIT RETHREADING DIES

|                 | Part Number | Size          | 2566 | 2565 |
|-----------------|-------------|---------------|------|------|
| NATIONAL COARSE | 56-1001     | 1/4"-20       | •    |      |
|                 | 56-1003     | 5/16"-18      | •    |      |
|                 | 56-1005     | 3/8"-16       | •    |      |
|                 | 56-1007     | 7/16"-14      | •    |      |
|                 | 56-1009     | 1/2"-13       | •    |      |
|                 | 56-1011     | 9/16"-12      | •    |      |
|                 | 56-1013     | 5/8"-11       | •    |      |
|                 | 56-1015     | 3/4"-10       | •    |      |
|                 | 56-1017     | 7/8"-9        | •    |      |
|                 | 56-1026     | 1"-8          | •    |      |
| NATIONAL FINE   | 56-1002     | 1/4"-28       | •    |      |
|                 | 56-1004     | 5/16"-24      | •    |      |
|                 | 56-1006     | 3/8"-24       | •    |      |
|                 | 56-1008     | 7/16"-20      | •    |      |
|                 | 56-1010     | 1/2"-20       | •    |      |
|                 | 56-1012     | 9/16"-18      | •    |      |
|                 | 56-1014     | 5/8"-18       | •    |      |
|                 | 56-1016     | 3/4"-16       | •    |      |
|                 | 56-1018     | 7/8"-14       | •    |      |
|                 | 56-1019     | 1"-14         | •    |      |
| GUNSMITHING     | 56-1020     | 1/2"-28       |      |      |
|                 | 56-1021     | 1/2"-36       |      |      |
|                 | 56-1023     | 5/8"-24       |      |      |
|                 | 56-1024     | 1-3/16"-16    |      |      |
|                 | 56-1025     | 1-1/4"-18     |      |      |
|                 | 56-2024     | M14 x 1.00 LH |      |      |

### SPLIT RETHREADING DIES

|        | Part Number | Size       | 2566 | 2565 |
|--------|-------------|------------|------|------|
| METRIC | 56-2001     | M6 x 1.00  |      | •    |
|        | 56-2002     | M7 x 1.00  |      |      |
|        | 56-2003     | M8 x 1.00  |      | •    |
|        | 56-2004     | M8 x 1.25  |      | •    |
|        | 56-2005     | M9 x 1.00  |      | •    |
|        | 56-2006     | M9 x 1.25  |      | •    |
|        | 56-2007     | M10 x 1.25 |      | •    |
|        | 56-2008     | M10 x 1.50 |      | •    |
|        | 56-2009     | M11 x 1.50 |      | •    |
|        | 56-2010     | M12 x 1.50 |      | •    |
|        | 56-2011     | M12 x 1.75 |      | •    |
|        | 56-2012     | M14 x 1.25 |      | •    |
|        | 56-2013     | M14 x 1.50 |      | •    |
|        | 56-2014     | M14 x 2.00 |      |      |
|        | 56-2015     | M16 x 1.50 |      |      |
|        | 56-2016     | M16 x 2.00 |      | •    |
|        | 56-2017     | M18 x 1.50 |      |      |
|        | 56-2018     | M18 x 2.50 |      |      |
|        | 56-2019     | M20 x 2.50 |      | •    |
|        | 56-2020     | M22 x 1.50 |      |      |
|        | 56-2021     | M24 x 2.00 |      |      |
|        | 56-2022     | M24 x 3.00 |      | •    |
|        | 56-2023     | M12 x 1.25 |      | •    |
|        | 56-2025     | M5 x 0.80  |      | •    |
|        | 56-2026     | M10 x 1.00 |      | •    |

## SPLIT RETHREADING DIE KITS

### 2566

#### 20-PIECE SAE SPLIT RETHREADING DIE KIT

- National coarse split dies:
  - 1/4"-20
  - 5/16"-18
  - 3/8"-16
  - 7/16"-14
  - 1/2"-13
  - 9/16"-12
  - 5/8"-11
  - 3/4"-10
  - 7/8"-9
  - 1"-8
- National fine split dies:
  - 1/4"-28
  - 5/16"-24
  - 3/8"-24
  - 7/16"-20
  - 1/2"-20
  - 9/16"-18
  - 5/8"-18
  - 3/4"-16
  - 7/8"-14
  - 1"-14



### 2565

#### 18-PIECE METRIC SPLIT RETHREADING DIE KIT

- Metric split dies:
  - M5 x 0.80
  - M6 x 1.00
  - M8 x 1.00
  - M8 x 1.25
  - M9 x 1.00
  - M9 x 1.25
  - M10 x 1.00
  - M10 x 1.25
  - M10 x 1.50
  - M11 x 1.50
  - M12 x 1.25
  - M12 x 1.50
  - M12 x 1.75
  - M14 x 1.25
  - M14 x 1.50
  - M14 x 1.50
  - M16 x 2.00
  - M20 x 2.50
  - M24 x 3.00



## RETHREADING KITS

Properly repair or renew damaged threads with the capability of the Rethreading Kits. Fractional or metric, these kits are equipped with a tooling selection to simplify all rethreading jobs.

### 971\*

#### 48-PIECE SAE AND METRIC THREAD RESTORER KIT

- 7 national coarse dies
- 6 national coarse taps
- 7 national fine dies
- 6 national fine taps
- 10 metric dies
- 10 metric taps
- 2 thread restorer files



### 972\*

#### 40-PIECE SAE AND METRIC THREAD RESTORER KIT

- 7 national coarse dies
- 6 national coarse taps
- 7 national fine dies
- 6 national fine taps
- 6 metric dies
- 6 metric taps
- 2 thread restorer files



### 2581\*

#### 26-PIECE THREAD RESTORER TAP AND DIE SET

- 7 national coarse dies
- 6 national coarse taps
- 7 national fine dies
- 6 national fine taps
- Packaged in a high-impact styrene tray with clear cover for display and storage



### 2584\*

#### 15-PIECE METRIC THREAD RESTORER SET

- 7 metric dies
- 7 metric taps
- 1 thread restorer file
- Packaged in a high-impact styrene tray with clear cover for display and storage



### RETHREADING KITS

|                      | Part Number   | Size   | 971 | 972 | 2581 | 2584 |
|----------------------|---------------|--|-----|-----|------|------|
| NATIONAL COARSE DIES | 51-2625-0005* | 1/4"-20  | •   | •   | •    |      |
|                      | 51-2626-0005* | 5/16"-18   | •   | •   | •    |      |
|                      | 51-2627-0005* | 3/8"-16  | •   | •   | •    |      |
|                      | 51-2628-0005* | 7/16"-14   | •   | •   | •    |      |
|                      | 51-2629-0005* | 1/2"-13  | •   | •   | •    |      |
|                      | 51-2630-0005* | 9/16"-12   | •   | •   | •    |      |
|                      | 51-2631-0005* | 5/8"-11  | •   | •   | •    |      |
| NATIONAL COARSE TAPS | 50-2600-0005* | 1/4"-20  | •   | •   | •    |      |
|                      | 50-2601-0005* | 5/16"-18   | •   | •   | •    |      |
|                      | 50-2602-0005* | 3/8"-16  | •   | •   | •    |      |
|                      | 50-2603-0005* | 7/16"-14   | •   | •   | •    |      |
|                      | 50-2604-0005* | 1/2"-13  | •   | •   | •    |      |
|                      | 50-2605-0005* | 9/16"-12   | •   | •   | •    |      |
| NATIONAL FINE DIES   | 51-2640-0005* | 1/4"-28  | •   | •   | •    |      |
|                      | 51-2641-0005* | 5/16"-24   | •   | •   | •    |      |
|                      | 51-2642-0005* | 3/8"-24  | •   | •   | •    |      |
|                      | 51-2643-0005* | 7/16"-20   | •   | •   | •    |      |
|                      | 51-2644-0005* | 1/2"-20  | •   | •   | •    |      |
|                      | 51-2645-0005* | 9/16"-18   | •   | •   | •    |      |
| NATIONAL FINE TAPS   | 50-2610-0005* | 1/4"-28  | •   | •   | •    |      |
|                      | 50-2611-0005* | 5/16"-24   | •   | •   | •    |      |
|                      | 50-2612-0005* | 3/8"-24  | •   | •   | •    |      |
|                      | 50-2613-0005* | 7/16"-20   | •   | •   | •    |      |
|                      | 50-2614-0005* | 1/2"-20  | •   | •   | •    |      |
|                      | 50-2615-0005* | 9/16"-18   | •   | •   | •    |      |
| METRIC DIES          | 52-2655-0005* | M6 x 1.00  | •   | •   |      | •    |
|                      | 52-2656-0005* | M8 x 1.25  | •   | •   |      | •    |
|                      | 52-2699-0005* | M10 x 1.00                                       | •   |     |      |      |
|                      | 52-2662-0005* | M10 x 1.25                                       | •   |     |      | •    |
|                      | 52-2657-0005* | M10 x 1.50                                       | •   | •   |      | •    |
|                      | 52-2702-0005* | M11 x 1.50                                       | •   |     |      |      |
|                      | 52-2660-0005* | M12 x 1.25                                       | •   | •   |      | •    |
|                      | 52-2658-0005* | M12 x 1.50                                       | •   | •   |      | •    |
| METRIC TAPS          | 52-2659-0005* | M12 x 1.75                                       | •   | •   |      | •    |
|                      | 52-2703-0005* | M14 x 1.50                                       | •   |     |      |      |
|                      | 50-2620-0005* | M6 x 1.00  | •   | •   |      | •    |
|                      | 50-2621-0005* | M8 x 1.25  | •   | •   |      | •    |
|                      | 50-2638-0005* | M10 x 1.00                                       | •   |     |      |      |
|                      | 50-2619-0005* | M10 x 1.25                                       | •   |     |      | •    |
|                      | 50-2622-0005* | M10 x 1.50                                       | •   | •   |      | •    |
|                      | 50-2639-0005* | M11 x 1.50                                       | •   |     |      |      |
| FILES                | 2665*         | 11, 12, 13, 14, 16, 18, 20, 24 TPI               | •   | •   |      |      |
|                      | 2670*         | 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50, 3.00mm | •   | •   |      | •    |

\* ⚠️ **WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# THREAD RESTORERS

## DIES

For quick, on-the-job repairs of damaged threads on bolts and studs. Chase out damaged threads and remove nicks and burrs without undercutting good threads. Rethreading dies are highly tempered for strength and durability, and are 6-point shaped for use with socket or wrench. Dies are color-coded for quick visual identification. Use with standard wrench and light oil. Never use to cut new threads.

### 2599\* 20-PIECE SPINDLE THREAD RESTORER DIE SET

- Properly repair or renew damaged threads on stub axles/spindles on most vehicles
- 7 national fine dies
- 13 metric dies



### 2577\* 8-PIECE FLOATING AXLE HOUSING THREAD RESTORER KIT

- Contains seven thread restorer dies and one driver socket to refurbish damaged or corroded spindle threads
- 6 national fine dies
- 1 metric die



### 2579\* 8-PIECE FRACTIONAL AND METRIC SPINDLE RETHREADER SET

- Properly repair or renew damaged threads on spindles of front wheel drive vehicles
- 2 national fine dies
- 6 metric dies



|                 |               | DIES          |           |      |      |      |     |      |      |      |      |
|-----------------|---------------|---------------|-----------|------|------|------|-----|------|------|------|------|
|                 |               | Part Number   | Size      | 2599 | 2577 | 2579 | 801 | 2583 | 2590 | 2592 | 2594 |
| NATIONAL COARSE |               | 51-2625-0005* | 1/4"-20   |      |      |      |     |      | •    |      |      |
|                 |               | 51-2626-0005* | 5/16"-18  |      |      |      |     |      | •    |      |      |
|                 |               | 51-2627-0005* | 3/8"-16   |      |      |      |     |      | •    |      |      |
|                 |               | 51-2628-0005* | 7/16"-14  |      |      |      |     |      | •    |      |      |
|                 |               | 51-2629-0005* | 1/2"-13   |      |      |      |     |      | •    |      |      |
|                 |               | 51-2630-0005* | 9/16"-12  |      |      |      |     |      | •    |      |      |
|                 |               | 51-2631-0005* | 5/8"-11   |      |      |      |     |      | •    |      |      |
|                 |               | 51-2632-0005* | 3/4"-10   |      |      |      |     |      |      |      |      |
|                 |               | 51-2633-0005* | 7/8"-9    |      |      |      |     |      |      |      |      |
|                 |               | 51-2634-0005* | 1"-8      |      |      |      |     |      |      |      |      |
|                 |               | 51-2635-0005* | 1-1/8"-7  |      |      |      |     |      |      |      |      |
|                 | 51-2636-0005* | 1-1/4"-7      |           |      |      |      |     |      |      |      |      |
| NATIONAL FINE   |               | 51-2640-0005* | 1/4"-28   |      |      |      |     |      |      | •    |      |
|                 |               | 51-2641-0005* | 5/16"-24  |      |      |      |     |      |      | •    |      |
|                 |               | 51-2642-0005* | 3/8"-24   |      |      |      |     |      |      | •    |      |
|                 |               | 51-2643-0005* | 7/16"-20  |      |      |      |     | •    |      | •    |      |
|                 |               | 51-2644-0005* | 1/2"-20   |      |      |      |     | •    |      | •    |      |
|                 |               | 51-2645-0005* | 9/16"-18  |      |      |      |     | •    |      | •    |      |
|                 |               | 51-2646-0005* | 5/8"-18   |      |      |      |     |      |      | •    |      |
|                 |               | 54-2671-0005* | 11/16"-24 | •    |      |      |     |      |      |      |      |
|                 |               | 54-2696-0005* | 3/4"-16   | •    |      |      | •   |      |      |      |      |
|                 |               | 54-2676-0005* | 3/4"-20   | •    |      | •    |     |      |      |      |      |
|                 |               | 54-2677-0005* | 13/16"-20 | •    |      | •    |     |      |      |      |      |
|                 |               | 54-2688-0005* | 27/32"-20 | •    |      |      |     |      |      |      |      |
|                 |               | 54-2697-0005* | 7/8"-14   | •    |      |      | •   |      |      |      |      |
|                 |               | 54-2698-0005* | 1"-14 UNS | •    |      |      |     |      |      |      |      |
|                 |               | 51-2649-0005* | 1"-14     |      |      |      |     |      |      |      |      |
|                 |               | 51-2650-0005* | 1-1/8"-12 |      |      |      |     |      |      |      |      |
|                 |               | 51-2651-0005* | 1-1/4"-12 |      |      |      |     |      |      |      |      |
|                 | 1043-3R*      | 1-5/8"-16     |           | •    |      |      |     |      |      |      |      |
|                 | 1043-4R*      | 1-13/16"-16   |           | •    |      |      |     |      |      |      |      |
|                 | 1043-1R*      | 2"-16         |           | •    |      |      |     |      |      |      |      |
|                 | 1043-5R*      | 2"-16 LH      |           | •    |      |      |     |      |      |      |      |
|                 | 1043-6R*      | 2-1/8"-16     |           | •    |      |      |     |      |      |      |      |
|                 | 1043-7R*      | 2-1/4"-16     |           | •    |      |      |     |      |      |      |      |

Chart continues on next page.



## DIES

For quick, on-the-job repairs of damaged threads on bolts and studs. Chase out damaged threads and remove nicks and burrs without undercutting good threads. Rethreading dies are highly tempered for strength and durability, and are 6-point shaped for use with socket or wrench. Dies are color-coded for quick visual identification. Use with standard wrench and light oil. Never use to cut new threads.

|               |               | DIES       |      |      |     |      |      |      |      |
|---------------|---------------|------------|------|------|-----|------|------|------|------|
|               |               | 2599       | 2577 | 2579 | 801 | 2583 | 2590 | 2592 | 2594 |
| METRIC        | Part Number   | Size       |      |      |     |      |      |      |      |
|               | 52-2655-0005* | M6 x 1.00  |      |      |     |      |      |      | •    |
|               | 52-2656-0005* | M8 x 1.25  |      |      |     |      |      |      | •    |
|               | 52-2699-0005* | M10 x 1.00 |      |      |     |      |      |      |      |
|               | 52-2662-0005* | M10 x 1.25 |      |      |     |      |      |      |      |
|               | 52-2657-0005* | M10 x 1.50 |      |      |     |      |      |      | •    |
|               | 52-2702-0005* | M11 x 1.50 |      |      |     |      |      |      |      |
|               | 52-2660-0005* | M12 x 1.25 |      |      |     |      | •    |      |      |
|               | 52-2658-0005* | M12 x 1.50 |      |      |     |      | •    |      | •    |
|               | 52-2659-0005* | M12 x 1.75 |      |      |     |      | •    |      | •    |
|               | 52-2703-0005* | M14 x 1.50 |      |      |     | •    | •    |      |      |
|               | 54-2689-0005* | M16 x 1.00 | •    |      |     |      |      |      |      |
|               | 54-2690-0005* | M16 x 1.50 | •    |      |     | •    |      |      |      |
|               | 54-2691-0005* | M18 x 1.50 | •    |      |     | •    |      |      |      |
|               | 54-2692-0005* | M19 x 1.50 | •    |      |     |      |      |      |      |
|               | 54-2693-0005* | M20 x 1.00 | •    |      |     |      |      |      |      |
|               | 54-2673-0005* | M20 x 1.25 | •    |      | •   |      |      |      |      |
|               | 54-2678-0005* | M20 x 1.50 | •    |      | •   | •    |      |      |      |
|               | 54-2674-0005* | M22 x 1.00 | •    |      | •   |      |      |      |      |
|               | 54-2679-0005* | M22 x 1.50 | •    |      | •   |      |      |      |      |
| 54-2675-0005* | M24 x 1.50    | •          |      | •    | •   |      |      |      |      |
| 54-2680-0005* | M24 x 2.00    | •          |      | •    |     |      |      |      |      |
| 54-2681-0005* | M25 x 1.50    | •          |      |      |     |      |      |      |      |
| 54-2682-0005* | M27 x 2.00    | •          |      |      |     |      |      |      |      |
|               | 1043-2R*      | M38 x 1.50 |      | •    |     |      |      |      |      |

### 801\* 7-PIECE ATV AXLE END THREAD RESTORER KIT

- Contains 7 different dies to restore threads on axle ends of ATVs such as Honda, Kawasaki, Suzuki, Yamaha and more
- 2 national fine dies
- 5 metric dies



### 2583\* 7-PIECE WHEEL STUD THREAD RESTORER KIT

- This 7 piece set will repair or renew damaged threads on wheel studs
- 3 national fine dies
- 4 metric dies



### 2590\* 7-PIECE SAE COARSE THREAD RESTORER DIE SET

- 7 national coarse dies
- Packed in reusable clamshell



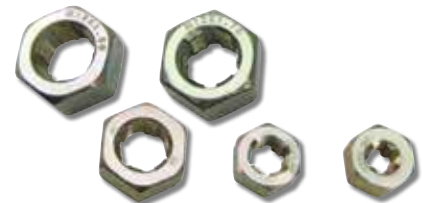
### 2592\* 7-PIECE SAE FINE THREAD RESTORER DIE SET

- 7 national fine dies
- Packed in reusable clamshell



### 2594\* 5-PIECE METRIC THREAD RESTORER DIE SET

- 5 metric dies
- Packed in reusable clamshell



# THREAD RESTORERS

## TAPS

**For repair of damaged internal threads on nuts. Chase out damaged threads and remove nicks and burrs without undercutting good threads. Rethreading taps are highly tempered for strength and durability, and are 6-point shaped for use with a socket or wrench. Taps are color-coded for quick visual identification. Use with standard wrench and light oil. Never use to cut new threads. Packed in reusable clamshell.**

### 2585\* 6-PIECE SAE COARSE THREAD RESTORER TAP SET

- National coarse taps:
  - 1/4"-20
  - 5/16"-18
  - 3/8"-16
  - 7/16"-14
  - 1/2"-13
  - 9/16"-12



### 2586\* 6-PIECE NATIONAL FINE THREAD RESTORER TAP SET

- National fine taps:
  - 1/4"-28
  - 5/16"-24
  - 3/8"-24
  - 7/16"-20
  - 1/2"-20
  - 9/16"-18



### 2588\* 6-PIECE METRIC THREAD RESTORER TAP SET

- Metric taps:
  - M6 x 1.00
  - M8 x 1.25
  - M10 x 1.50
  - M12 x 1.25
  - M12 x 1.50
  - M12 x 1.75



|                 |               | TAPS          |            |      |      |      |
|-----------------|---------------|---------------|------------|------|------|------|
|                 |               | Part Number   | Size       | 2585 | 2586 | 2588 |
| NATIONAL COARSE |               | 50-2600-0005* | 1/4"-20    | •    |      |      |
|                 |               | 50-2601-0005* | 5/16"-18   | •    |      |      |
|                 |               | 50-2602-0005* | 3/8"-16    | •    |      |      |
|                 |               | 50-2603-0005* | 7/16"-14   | •    |      |      |
|                 |               | 50-2604-0005* | 1/2"-13    | •    |      |      |
|                 |               | 50-2605-0005* | 9/16"-12   | •    |      |      |
| NATIONAL FINE   |               | 50-2610-0005* | 1/4"-28    |      | •    |      |
|                 |               | 50-2611-0005* | 5/16"-24   |      | •    |      |
|                 |               | 50-2612-0005* | 3/8"-24    |      | •    |      |
|                 |               | 50-2613-0005* | 7/16"-20   |      | •    |      |
|                 |               | 50-2614-0005* | 1/2"-20    |      | •    |      |
|                 |               | 50-2615-0005* | 9/16"-18   |      | •    |      |
| METRIC          |               | 50-2620-0005* | M6 x 1.00  |      |      | •    |
|                 |               | 50-2621-0005* | M8 x 1.25  |      |      | •    |
|                 |               | 50-2638-0005* | M10 x 1.00 |      |      |      |
|                 |               | 50-2619-0005* | M10 x 1.25 |      |      |      |
|                 |               | 50-2622-0005* | M10 x 1.50 |      |      | •    |
|                 |               | 50-2639-0005* | M11 x 1.50 |      |      |      |
|                 |               | 50-2637-0005* | M12 x 1.25 |      |      | •    |
|                 |               | 50-2623-0005* | M12 x 1.50 |      |      | •    |
|                 | 50-2624-0005* | M12 x 1.75    |            |      | •    |      |
|                 | 50-2618-0005* | M14 x 1.50    |            |      |      |      |



## FILES

Restores damaged external threads, any diameter, right or left hand. Just select the proper number of threads per inch or millimeters per thread, and overlapping several good threads, work over the area using regular file strokes. Rethreading files are highly tempered for strength and durability. Packaged in a reusable pouch.

### 2665\* THREAD RESTORER FILE 8 PITCHES 11-24 TPI

- Pitches (threads per inch): 11, 12, 13, 14, 16, 18, 20, and 24
- Length: 8-1/2"



### 2666\* THREAD RESTORER FILE 8 PITCHES 9-32 TPI

- Pitches (threads per inch): 9, 10, 12, 16, 20, 27, 28, and 32
- Length: 8-1/2"



### 2670\* METRIC THREAD FILE 8 PITCHES 0.75MM-3.0MM

- Pitches (millimeters per thread): 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50, and 3.00
- Length: 8-1/2"



### 2573\* 3-PIECE THREAD RESTORER FILE SET

- Contains Models: 2665, 2666, and 2670



## RETHREADERS

- Restores and cleans threads of dirt, carbon build up and metal particles
- Rubber o-ring holds chaser firmly in socket

### 1030\* 5-PIECE SPECIALTY THREAD CHASER TAP SET

- Set includes M10 x 1.0, M12 x 1.25, M14 x 1.25, M18 x 1.5, and M20 x 1.5
- Works with hex deep well sockets or 3/8" square drive
- Contains Models: 1024, 1025, 1026, 1027, and 1028



### 1010\* M10 X M14 SPARK PLUG THREAD CHASER

- Services all major vehicle platforms using 10mm and 14mm spark plugs
- Use with 5/8" hex deep well socket



### 1012\* M14 X M18 SPARK PLUG THREAD CHASER

- Services all major vehicle platforms using 14mm and 18mm spark plugs
- Use with 13/16" hex deep well socket



### 1013A\* M12 SPARK PLUG THREAD RESTORER

- Services Harley-Davidson® TwinCam®, V-Rod® and other Sportster® models
- Use with 5/8" hex deep well socket or 3/8" square ratcheting wrench



### 1016A\* M18 O2 SENSOR THREAD RESTORER

- Services all major vehicle platforms using 18mm oxygen sensors
- Use with 13/16" hex deep well socket or 3/8" square ratchet wrench



### 1020A\* M14 SINGLE END SPARK PLUG CHASER

- Designed with long neck to accommodate extra deep spark plug cavities (2.3L Ford and Mercury engines)
- Use with 5/8" hex deep well socket or 3/8" square ratcheting wrench



## SPINDLE NUT SOCKETS

### 2467 4-LUG 4WD SPINDLE NUT SOCKET 1/2- TO 3/4-TON DANA 44

- Remove and install 4-slot axle lock nuts on Ford Ranger, Bronco II, Explorer, F-Series, and full-size Bronco; GM 1/2-ton trucks and full-size Blazer/Jimmy; International 1/2-ton trucks; Dodge 1/2-ton trucks and Dodge with Dana 44



### 2770 6-LUG 4WD SPINDLE NUT SOCKET 3/4- TO 1-TON DANA 44

- Remove and install 4-slot front axle lock nuts on Ford F-Series 4WD trucks; Ranger, Bronco, GM 4WD 3/4- and 1-ton trucks; Dodge trucks with Dana 44



### 3195 4-LUG WITH EXTENSION 1/2-TON DANA 80

- For high-shear rotating nuts on F250-350 with Dana 80 rear axle 10-1/4" ring gear; E350 with Dana 80 rear axle and 10-1/4" ring gear; F super-duty with Dana 80 rear axle and 10-1/4" ring gear



### 3246 4WD SPINDLE NUT WRENCH

- For use on GM 3/4- and 1-ton trucks; Ford F-Series 1/2-ton trucks with Dana 28, F250 and F350 4WD trucks



## MECHANIC MATS AND KNEELING PADS

- Will not breakdown under harsh chemicals, including the harsh oils used in the automotive/aircraft industry
- Customer name and logo can be marked on the pads (Minimum required)
- Laminated closed cell foam

### 1167-0 FOAM MECHANICS FLOOR MAT (5-PACK)

- Size: 15-1/2" x 38-1/2"



### 1169-0 FOAM KNEELING PAD - MEDIUM (5-PACK)

- Size: 10" x 19"



### 1160 FOAM KNEELING PAD - SMALL (5-PACK)

- Size: 8-5/8" x 13"





## AXLE NUT SOCKETS

- Axle nut sockets are designed for use with a torque wrench when servicing truck wheel bearing lock nuts
- 3/4" square drive OR 1/2" square drive (see chart ◊)
- Full range of six and eight-point sizes



| 6-POINT     |              |      |      |
|-------------|--------------|------|------|
| Part Number | Size         | 1290 | 1291 |
| 1201        | 2-3/32"      |      | •    |
| 1202        | 2-3/8"       |      | •    |
| 1204        | 2-9/16"      | •    | •    |
| 1206        | 3"           | •    | •    |
| 1208        | 3-1/4"       | •    | •    |
| 1210        | 3-1/2"       | •    | •    |
| 1212        | 3-7/8"       |      | •    |
| 1214        | 4"           | •    | •    |
| 1215        | 4-1/8"       | •    | •    |
| 1216        | 4-3/8"       |      |      |
| 1218        | 4-7/8"       |      |      |
| 1220        | 2-1/4"       | •    | •    |
| 1221        | 2-1/2"       | •    | •    |
| 1222        | 2-5/8"       | •    | •    |
| 1223        | 2-3/4"       | •    | •    |
| 1228        | 2-9/16" Rd.  | •    | •    |
| 1229        | 54mm         |      | •    |
| 1231        | 3-3/4"       |      |      |
| 1232        | 2-7/8"       |      | •    |
| 1234        | 3-1/8"       |      |      |
| 1236        | 2-3/8" Rd.   |      |      |
| 1238        | 59mm         |      |      |
| 1239        | 5-1/4"       |      |      |
| 1244        | 2-1/2" Rd. ◊ |      |      |
| 1245        | 2-3/4" Rd. ◊ |      | •    |
| 1251        | 55mm ◊       |      |      |
| 1252        | 60mm         |      |      |
| 1253        | 70mm         |      |      |
| 1254        | 71mm         |      |      |
| 1255        | 80mm         |      |      |

| 8-POINT     |            |      |      |
|-------------|------------|------|------|
| Part Number | Size       | 1290 | 1291 |
| 1203        | 2-3/8"     |      |      |
| 1205        | 2-9/16"    |      |      |
| 1207        | 3"         |      | •    |
| 1209        | 3-1/4"     | •    | •    |
| 1211        | 3-1/2"     |      |      |
| 1213        | 3-7/8"     |      | •    |
| 1217        | 4-3/8"     |      |      |
| 1219        | 4-7/8"     |      |      |
| 1224        | 2-3/4" Rd. |      |      |
| 1225        | 3-3/4"     | •    | •    |
| 1226        | 2-13/16"   |      |      |
| 1227        | 3-13/16"   | •    | •    |
| 1230        | 3-3/8"     |      |      |
| 1233        | 2-7/8"     |      |      |
| 1235        | 3-1/8"     |      |      |
| 1237        | 2-3/4"     |      |      |
| 1240        | 4-1/8"     |      |      |
| 1241        | 4-13/16"   |      |      |
| 1250        | 4-1/2"     |      |      |
| 1256        | 82mm       |      |      |
| 1257        | 90mm       |      |      |
| 1258        | 94mm       |      |      |
| 1259        | 106mm      |      |      |
| 1260        | 110mm      |      |      |
| 1261        | 120mm      |      |      |
| 1262        | 100mm      |      |      |

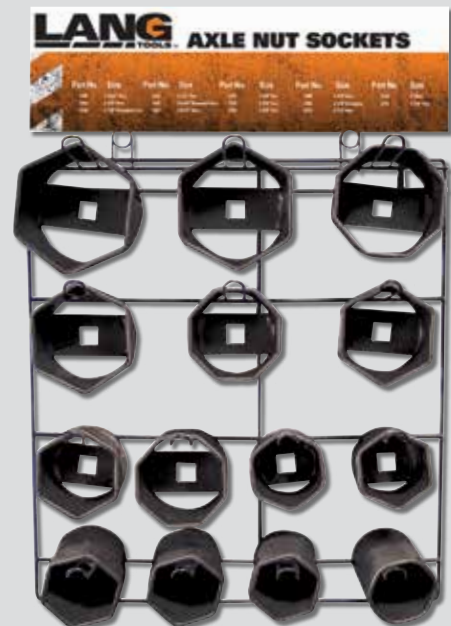
### 1291 22-PIECE AXLE NUT DISPLAY

Includes: rack, header board and 22 axle nut sockets



### 1290 14-PIECE AXLE NUT DISPLAY

Includes: rack, header board and 14 axle nut sockets



## BATTERY

### 297 BATTERY NUT PLIERS

- Use to easily loosen and tighten nuts on battery terminal clamps
- Handles are offset for working in confined areas
- Jaws are serrated for a firm grip
- Length: 7-1/8"



### 298 BATTERY TERMINAL SPREADER AND CLEANER

- Use to clean corrosion from the cable clamp
- Sharp teeth effectively clean corrosion from the cable clamp
- Length: 6-1/2"



### 299 BATTERY BRUSH

- Use this durable steel brush to remove corrosion and dirt from battery terminals and cable clamps
- External brush cleans cable clamps and internal brush cleans terminal posts
- Rugged steel case has long life
- Length: 3-1/4"



### 202\* BATTERY TERMINAL PULLER

- Easily remove battery terminal cables, preventing damage to battery posts
- Jaws fit under cable terminal and center screw pushes down on post to pull terminal up
- Durable jaws open 1/4" to 1-1/8" to fit most battery terminals
- Length: 5-1/4"



### B-10A\* 5/16" RATCHETING SIDE TERMINAL BATTERY WRENCH

- Insulated handle helps prevent electrical shock
- Reversible ratcheting box wrench allows for quick and effective bolt removal
- Length: 5-3/4"



### 6525\* 5/16" EXTRA LONG RATCHETING SIDE TERMINAL BATTERY WRENCH

- Insulated handle helps prevent electrical shock
- Reversible ratcheting box wrench allows for quick and effective bolt removal
- 9-3/4" length allows for better accessibility to recessed terminals



### 6571\* 5/16" X 10MM EXTRA LONG BATTERY TERMINAL WRENCH

- Insulated handle helps prevent electrical shock
- Reversible ratcheting box wrench allows for quick and effective bolt removal
- 9-3/4" length allows for better accessibility to recessed terminals



### 41701\* BATTERY SERVICE KIT

- Contains Models: 297, 298, 299, 202, and 6571



### B-600 HEAVY DUTY BATTERY CARRIER

- For use on all batteries with horizontal ridges; Non-slip, acid resistant, riveted rubber grip pads secure a firm hold on any battery up to 7-1/2" wide
- Zinc-plated steel construction



### 295A COMPUTER MEMORY SAVER WITH 9 VOLT ALKALINE BATTERY

- Maintains the memory of the on-board vehicle computer (CCU) when battery is disconnected
- Prevents loss of certain drivability codes, keyless entry codes, digital radio settings and function on anti-theft systems, cellular phone settings, and other memory related functions
- Use with 9V alkaline battery (not included)



## BRAKES/WHEELS

### 279\* BRAKE CALIPER PRESS

- Four tools in one
- Works on various single, dual & quad piston calipers
- Size Range is 1.625" to 2.75"
- Centrally distributes force
- Compact design
- 360° ratchet swing allows access at any angle
- Length: 10"



### 277\* SMALL BRAKE CALIPER PRESS

- Works on small and medium single piston brake calipers that are found in subcompact to mid-size vehicles
- Size Range is 1" to 3"
- Centrally located Acme threaded screw for durability, speed and ease of use
- Pressure is applied in a parallel manner to evenly distribute force
- Length: 10"



### 5455\* BRAKE LINE WRENCH SET

- Two-piece brake bleeder set includes 1/4" x 3/8" ratcheting wrench and 8mm x 10mm Ratcheting wrench for use on most common brake systems
- Ratchet allows for continuous loosening and tightening without removing from bleeder
- 18" silicone hose and inserts will withstand brake fluids
- One-way check valve prevents spillage
- Wrench lengths: 5-1/2"



### 802\* 12-PIECE WHEEL STUD INSTALLER KIT

- For use installing button head wheel studs
- Patented installer pull the stud into the drive flange, or hub without damaging the threads
  - Assures correct installation of wheel studs
  - No more ruined studs or lug nuts
- Will install wheel studs on most major vehicle platforms, domestic and foreign, including light trucks and SUVs
- Includes installers, washer, spacer and corresponding rethreader dies



### 380A\* BRAKE RESETTING GAUGE

- Wide working range allows measurements from 6-1/2" to 13-1/4" in diameter
- Services foreign and domestic cars and light trucks with drum brakes
- Locks the measurement at the appropriate inch or metric calibration during use
- Heat-treated, chrome-plated steel jaws ensure long tool life



### 833\* BRAKE DRUM AND ROTOR PULLER

- Saves time and reduces damage to the wheel bearing by eliminating the need to repeatedly strike or heat the brake drum to free it from the hub
- Adjustable with a 17" spread and 6" reach to accommodate the most common drum sizes
- Includes specially designed jaws to maximize surface contact ensuring uniform grip even on deteriorated drums



### 932R\* 7/16"-20 THREADED WHEEL STUD INSTALLER

- Assures correct installation of wheel studs.
- No more ruined studs or lug nuts.
- Dimensions: 3" x 4" x 1.375"



### 933R\* 1/2"-20 THREADED WHEEL STUD INSTALLER

- Assures correct installation of wheel studs.
- No more ruined studs or lug nuts.
- Dimensions: 3" x 4" x 1.313"



### 1410\* TIRE VALVE INSTALLER

- Simplify inserting any tubeless tire valve
- Swivel head screws onto cap thread of tire valve
- Handle is used as a lever to pull tire valve into rim hole
- Length: 11"



## AIR CHUCKS

- These air chucks are combined with our E-Z Grip handles to provide a **comfort grip when using the air chuck**
- **Durable, heavy duty handle stands up to tough shop abuse**
- **1/4" NPT pipe threaded end will accept an air line quick-disconnect fitting**

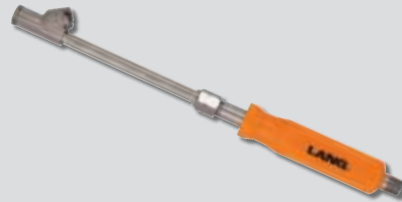
### 780 E-Z GRIP DUAL HEAD AIR CHUCK

- Designed for use on trucks, dual rear wheels, semis, and hard-to-reach wheels
- Length: 11-7/8"



### 782 E-Z GRIP DUAL HEAD STRAIGHT AIR CHUCK TOOL

- Straight On Dual Head Tool permits access to hard to reach inner tandem wheels and includes the new tilt-lock feature which locks onto the valve reducing user fatigue
- Length: 12-3/16"



### 915\* E-Z GRIP AIR CHUCK TOOL - PASSENGER VEHICLES

- Sealed ball air chuck is extended 1" from handle to allow access to tight areas
- Length: 7"



## GENERAL PURPOSE

### 520 9-PIECE MAGNETIC SOCKET INSERTS (SAE)

- Magnetic insert firmly holds the fastener in the socket for easy installation/removal
- Includes nine pieces: 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", and 7/8"



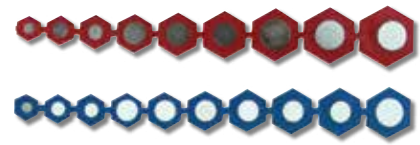
### 521 10-PIECE MAGNETIC SOCKET INSERTS (METRIC)

- Magnetic insert firmly holds the fastener in the socket for easy installation/removal
- Includes nine pieces: 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19mm



### 522 19-PIECE MAGNETIC SOCKET INSERTS (SAE & METRIC)

- Contains Models: 520 and 521



### 850\* UNIVERSAL SEAL PULLER KIT

- Pin creates a pivot point on the surface of the seal, thus distributing the force evenly over a larger surface area (when compared to competitive puller designs)
- Greater surface area on hook helps prevent seal puller from piercing through the seal
- Works with 3/8" square drive ratchet or breaker bar



### 5238\* MASTER POWER STEERING PULLEY REMOVER AND INSTALLER SET

- Designed to remove and install press-on-type belt-driven accessory pulleys found on most major domestic vehicle platforms
- Includes components necessary to use on pumps with 3/8"-16 threaded shaft



### 950\* 11-PIECE GASKET HOLE PUNCH SET

- Designed to cut holes and internal radii in gaskets and other soft material (i.e., rubber, lead foil, linoleum, felt fiber)
- Contains long driving mandrel
- Ten punch sizes: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4", 7/8", 1"





## SPECIALTY WRENCHES

### 615 TIE ROD WRENCH

- For adjusting tie rods on vehicles with rack and pinion steering
- Spring-loaded upper jaw pivots to accommodate tie rods ranging in size from 10mm-18mm
- Works on 2-flat, spline and hex
- Cam action increases the gripping pressure as the load applied to the handle increases
- Length: 10-1/2"



### 1418 DRAIN PLUG WRENCH

- For drain plugs on differentials, transmissions (auto/manual), transfer cases, and engines
- Designed to fit the two most common female drain plug sizes: 3/8" and 1/2" square
- Length: 14-1/2"



### 5529A\* FORD HEADLIGHT ADJUSTING RATCHETING WRENCH

- 4mm x 4.5mm wrench for adjusting headlights on late model Fords with aerodynamic designs and headlights with rear mounted adjusters
- Length: 8"



### FM-720A\* FORD IGNITION MODULE WRENCH

- 25° offset ratcheting dual-end wrench containing a 7/32" six-point (5.5mm), and T-20 TORX® bit
- For easy removal of Ford ignition module without removing or tampering with the distributor
- Length: 4-1/4"



## SERRATED BITS

- Use to install and remove 12-point (triple-square) metric socket-head screws
- Turn with a socket or wrench

### 676-6\* 6MM SERRATED BIT

- Hex size is 5/16"
- Length: 3"



### 676-8\* 8MM SERRATED BIT

- Hex size is 5/16"
- Length: 3"



### 676-10\* 10MM SERRATED BIT

- Hex size is 1/2"
- Length: 3-1/4"



### 676-12\* 12MM SERRATED BIT

- Hex size is 1/2"
- Length: 3-3/4"



## EXTRA LONG PIN PUNCHES

- 16" Length allows increased access for hard to reach areas
- Ergonomic handle with striking cap for secure grip while striking
- Forged from hardened, high carbon molybdenum tool steel for extra strength



### 856-05 16" X 5/32" (4MM) EXTRA LONG PIN PUNCH

### 856-08 16" X 1/4" EXTRA LONG PIN PUNCH

### 856-10 16" X 5/16" EXTRA LONG PIN PUNCH

### 856-12 16" X 3/8" EXTRA LONG PIN PUNCH

### 856-3ST 3-PIECE EXTRA LONG PIN PUNCH SET

- Contains Models: 856-08, 856-10, and 856-12

## SPARK PLUG

### 135 SPARK PLUG TERMINAL PLIERS

- Safely remove spark plug cables and prevent cable damage
- Pliers' handles and jaws are coated with heavy-duty plastic for a sure grip
- Length: 8"



### 528 MAGNETIC SPARK PLUG SOCKET WITH 5/8" DIAMETER, 3/8" DRIVE

### 529 MAGNETIC SPARK PLUG SOCKET WITH 13/16" DIAMETER, 3/8" DRIVE

- Magnet firmly holds the spark plug for easy installation and removal avoiding the chance of dropping and damaging the spark plug
- Unique design prevents damage to the spark plug's ceramic top
- Unlike sockets with rubber inserts, the permanent magnet in this socket will not wear out or be damaged by exposure to oil or humidity



### 4663\* SPARK PLUG EXTRACTOR TOOL

- Removes broken spark plugs from the cylinder head on Ford Triton® 4.6L, 5.4L, and 6.8L 3-valve engines without removing the head
- Engine Applications:
  - Ford Triton® 4.6L V8 3-valve
  - Ford Triton® 6.8L V10 3-valve
  - Ford Triton® 5.4L V8 3-valve used on 2004-2010 Ford F150
  - F250 and F350 F-Series pick-ups, 2004-2010 Ford Super Duty pick-ups, 2004-2010 Ford Expedition and 2004-2010 Lincoln Navigator



## SERVICE

- **Compress valve springs on overhead valve and L-head engines on cars, trucks and tractors**
- **Variable sizes, jaw openings and throat depths for use on multiple engine models**

### 379\* SMALL ENGINE VALVE SPRING COMPRESSOR

- Long and slender, maximum opening 2-3/8"
- Will reach into small recesses where valve springs and retaining washers are located
- Jaws are adjustable in width and have edges so thin they can be forced under and over ends of valve spring to compress it for removal



### 380\* VALVE SPRING COMPRESSOR

- Jaws and plunger bars are easily adjusted
- Plunger bar seats on both flat and cup-shaped valve heads
- 9-3/4" Throat depth, and jaw openings of 2-3/4" to 7-3/4", 2 straight jaws included



### 383A\* VALVE SPRING COMPRESSOR

- A handle on the outside of the tool makes it easy to use
- 7-1/2" Throat depth, and jaw openings of 2-3/4" to 5-7/8"



### 385\* VALVE SPRING COMPRESSOR

- Designed for light-weight valve springs
- 6-1/4" Throat depth, and jaw openings of 3" to 5-3/8"



## PRY BARS

- Exceeds ASME standards
- Bit extends entire length of handle to the strike plate
- Strike protection hard capped handles are ergonomically designed for comfort, secure grip and durability
- Tips are bent for ease of access
- High carbon alloy steel is forged and heat treated for strength and durability

**853-12**  
12" PRY BAR

**853-17**  
17" PRY BAR

**853-25**  
25" PRY BAR

**853-31**  
31" PRY BAR

**853-36**  
36" PRY BAR

**853-45**  
45" PRY BAR

**853-3ST**  
3-PIECE PRY BAR SET

- Sizes included: 12", 17" and 25"

**853-5ST**  
5-PIECE PRY BAR SET

- Sizes included: 12", 17", 25", 31" and 36"

**853-6ST**  
6-PIECE PRY BAR SET

- Sizes included: 12", 17", 25", 31", 36" and 45"



## GASKET SCRAPERS

- Drop forged from high carbon steel
- Blade face and scraping ends are precision ground
- Strike protection hard capped handles are ergonomically designed for comfort, secure grip and durability



**855-050**  
1/2" FACE

- Length: 11-1/8"

**855-075**  
3/4" FACE

- Length: 10-3/4"

**855-100**  
1" FACE

- Length: 10-3/4"

**855-1000**  
1" FACE OFFSET

- Length: 10-7/8"

**855-100P**  
1" FACE PULL

- Length: 11"

**855-100S**  
1" FACE STUBBY

- Length: 8-1/4"

**855-125**  
1-1/4" FACE

- Length: 11-1/8"

**855-150**  
1-1/2" FACE

- Length: 10-3/4"

**855-3ST**  
3-PIECE SET

- Contains Models: 855-075, 855-100, and 855-150

**855-4ST**  
4-PIECE SET

- Contains Models: 855-050, 855-1000, 855-100P, and 855-100S

## FAN CLUTCH WRENCH SETS

- Remove and install the fan clutch thermostatic fan assembly on many models when repairing or replacing water pump, timing chain or the fan clutch
- Use with 1/2" square drive tools and a torque wrench
- Individual and set configurations listed in chart below

### 3136 FORD FAN CLUTCH WRENCH SET



### 3472\* FAN CLUTCH WRENCH SET



### 41570\* FAN CLUTCH WRENCH SERVICE KIT

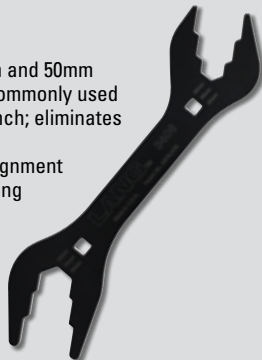


| FAN CLUTCH WRENCH SETS |   |         |      |      |       |
|------------------------|---|---------|------|------|-------|
| Part Number            | Product Description   | Length  | 3136 | 3472 | 41570 |
| <b>3136-36</b>         | <b>36mm Fan Clutch Wrench</b><br>Used to remove/replace the thermostatic fan assembly on:<br>• Ford 4.9L E and F Series truck engines (1984-1993)<br>• Ford 4.6L modular engines<br>• Ford 2.8L engines (1984-1987)<br>• Ford 2.9-3.0L engines (1988-current)<br>• Ford 4.0L engines (1990-current) | 13-5/8" | •    | •    | •     |
| <b>3136-58</b>         | <b>58mm Short Fan Clutch Wrench</b><br>Used to install/remove thermostatic fan assembly in Fords  | 5-1/2"  | •    |      |       |
| <b>3296-83</b>         | <b>83mm Short Fan Clutch Wrench</b><br>Used to install/remove thermostatic fan assembly in Ford Diesels, Ford 6.9L and 7.3L engines   | 7"      |      |      |       |
| <b>3422</b>            | <b>40mm Fan Clutch Wrench</b><br>Removes thermostatic fan assembly on 1993-current 4.9L Ford engines. Use in conjunction with 8mm Short Wrench of Universal Pulley Holder   | 13-5/8" |      | •    | •     |
| <b>3473</b>            | <b>47mm Fan Clutch Wrench</b><br>Used to install/remove thermostatic fan assembly in Ford Diesels   | 14-1/4" |      |      | •     |
| <b>3474</b>            | <b>48mm Fan Clutch Wrench</b><br>Used to install/remove thermostatic fan assembly in Ford Diesels, Ford 6.9L and 7.3L engines   | 14-1/4" |      |      |       |
| <b>3900*</b>           | <b>Universal Pulley Holder with pin set (5 x 8mm)</b><br>Holds both bolted-on and pressed-on pulleys found on many vehicles   | 23-1/2" |      | •    | •     |
| <b>3903</b>            | <b>22mm Fan Clutch Wrench</b><br>Used to install/remove thermostatic fan assembly in Fords  | 13-1/2" |      |      | •     |
| <b>3904</b>            | <b>50mm Fan Clutch Wrench</b><br>Used to install/remove thermostatic fan assembly in Fords and Internationals   | 13-1/2" |      |      | •     |

## FAN CLUTCH

### 3406 FAN CLUTCH WRENCH

- Sizes: 22mm, 32mm, 36mm, 40mm, 48mm and 50mm
- Convenience of combining the 6 most commonly used wrench sizes onto one double-end wrench; eliminates the guess work of sizing
- Offset wrenches provide better hand alignment and a clearer line of sight, while improving accessibility in tight fan clutch areas
- Square drive cutouts designed for use with a breaker bar for added torque or length
- Length: 16-1/2"



### 3901\* PULLEY HOLDER PIN SET

- Small set: 5mm x 8mm



### 3902\* PULLEY HOLDER PIN SET

- Large set: 6mm x 10mm and 7.5mm x 18mm





## RATCHETING SERPENTINE BELT WRENCHES

- Releases the tension on spring-loaded idler pulleys
- Allows access to the tensioner without having to remove engine accessories or frame components
- Ratcheting feature allows quick and easy positioning to access the tensioner from any angle
- Heat-treated and nickel-chrome plated for strength, durability, appearance, and long tool life
- Slim head design for access to restricted areas

### 8579\* RATCHETING SERPENTINE BELT WRENCH 15MM 6-PT. X 3/8" MALE SQUARE X 16MM 6-PT.

- Length: 15-1/4"



### 8585\* RATCHETING SERPENTINE BELT WRENCH 13MM X 14MM 6-PT. X 18MM 6-PT. X 1/2" MALE SQUARE

- Length: 15-1/4"



### 8586\* RATCHETING SERPENTINE BELT WRENCH 15MM 6-PT. X 3/8" MALE SQUARE X 16MM 6-PT. X 1/2" MALE SQUARE

- Length: 15-1/4"



### 8591\* RATCHETING SERPENTINE BELT WRENCH 14MM X 17MM 6-PT. X 19MM 6-PT. X 3/4" MALE SQUARE

- Length: 15-1/4"



### 8592\* RATCHETING SERPENTINE BELT WRENCH 15MM 6-PT. X 3/8" MALE SQUARE X 13MM X 14MM 6-PT.

- Length: 15-1/4"



## NON-RATCHETING SERPENTINE BELT WRENCHES

### 3414 SERPENTINE BELT WRENCH SET

- 3/8" drive bar for sockets and crowfoot wrenches
- 1/2" square drive bar
- 3/8" drive 12 point sockets: 15mm, 16mm, and 18mm
- 3/8" drive crowfoot wrenches: 13mm, 14mm, and 15mm
- Length: 23-1/4"



## RATCHETING WRENCH SETS

### 5344\* 3-PIECE UNIVERSAL RATCHETING SERPENTINE BELT WRENCH SET

- Contains Models:  
8579, 8585, and 8591



### 8584\* 2-PIECE RATCHETING SERPENTINE BELT WRENCH SET

- Contains Models:  
8579 and 8585



### 5333\* 9-PIECE FINE TOOTH SERPENTINE BELT WRENCH SET

- Fine Tooth ratcheting action allows quick and easy positioning of wrench-driving end for tensioner access from any angle
- Interchangeable adapters allow service to most serpentine belt applications
- 6-Point adapters: 13mm (1/2"), 14mm (9/16"), 15mm, 16mm (5/8"), 18mm, and 19mm (3/4")
- Square adapters: 3/8" and 1/2"
- Length: 17-3/4"



## MISCELLANEOUS

**413**

### FORD SEATBELT PRE-TENSIONER RELEASE TOOL

- Allows for the disconnection of Ford Interceptor, Taurus & Lincoln MKS seat belt pre-tensioner system
- Simplifies disconnection of seatbelt release mechanism
- Length: 6-1/2"



**436A**

### EXHAUST HANGER REMOVAL PLIERS

- For removal of rubber exhaust system hangers, (i.e. tailpipe, exhaust pipe and muffler)
- Self-locating forcing pin
- Cushioned slip-resistant handles at a 25° offset for easy access in restricted areas
- Length: 11-1/4"



**504**

### GLOW PLUG HARNESS TOOL

- Prevents damage to harness and connector rail
- Removes and installs glow plug connectors
- Applications Include 2004 and newer
  - 6.0 Liter Diesel
  - E-series
  - Low Cab Forward
  - F250-F350 Super Duty
- Length: 3-1/2"



**524**

### DUAL FORD FUEL FILTER SOCKET

- Blue anodizing makes socket easily visible even in dark areas
- Double sided socket includes 24mm 6-pt. socket and 36mm slotted socket



**854**

### 2-PIECE HOSE REMOVAL/INSTALLER SET

- Two piece hose removal set includes straight tip for pushing and 150-degree tip for pulling
- Rounded profile reduces gouging and puncturing of hose and mating connector
- For use on various hoses, such as radiator, heater, turbo and intake ducting
- 854-S length: 10-3/4"
- 854-U length: 11-1/4"



**548**

### MAXXFORCE FUEL LINE RELEASE TOOL

- Fuel line disconnect for International MaxxForce series 11 & 13 engines
- Heat treated to minimize fork deflection
- 548-1 length: 7-3/8"
- 548-2 length: 6"
- 548-3 length: 7-3/8"
- 548-4 length: 6"



**708\***

### CAMSHAFT SPROCKET HOLDING TOOL

- Pivoting design allows fit in most cam and injection pump gear sizes
- Dented grooves on holding pins gives user a sure hold
- Use as a counter holder when loosening or tightening sprocket retainer bolts
- Length: 16-1/2"



**3509\***

### STEEL WHEEL LOCK-PLATE REMOVER/INSTALLER

- Features puller yoke to fit late model GM cars with (S.I.R.) air bags
- Narrow yoke prevents damage to the lock plate
- Hex screw supplied will lock down telescoping steering columns while removing lock plate
- Zinc and black oxide for corrosion resistance



## SLACK ADJUSTER WRENCHES

### 4651\* AUTOMATIC SLACK ADJUSTER RELEASE TOOL AND WRENCH

- Used for Rockwell®, Arvin® Meritor systems
- Fork-end tool to release the tensioner button, and a 5/16" double square offset reversible wrench with E-Z Grip handle
- Release the anti-reverse mechanism without prying and apply more turning power with less fatigue to the hand
- 4655 length: 8-1/4"
- 7789 length: 6-3/4"



### 7578\* 7/16" AUTOMATIC SLACK ADJUSTER WRENCH

- For brake adjustment on heavy-duty trucks equipped with Haldex® slack adjusters
- Extra long handle provides comfort while overcoming the anti-reverse mechanism
- Length: 18"



### 8569\* 9/16" EXTRA LONG AUTOMATIC SLACK ADJUSTER WRENCH

- For brake adjustment on heavy-duty trucks equipped with Bendix® slack end adjusters
- Extra deep hex allows reach to recessed adjusters
- Length: 17-7/8"



## MISCELLANEOUS

### 3350\* INJECTOR HEIGHT GAUGE FOR DETROIT DIESEL ENGINES



| Size   | Series  | Engine   | Year               |
|--------|---------|----------|--------------------|
| 78.2mm | 60      | DDEC I   | 1986-1993          |
| 78.2mm | 60 & 50 | DDEC II  | 1896-1993          |
| 78.8mm | 60 & 50 | DDEC III | 1994-1997          |
| 80.3mm | 60      | DDEC III | Late 1997          |
| 80.3mm | 60 & 50 | DDEC IV  | 1997-1998          |
| 81.0mm | 60 & 50 | DDEC IV  | 1998-1999          |
| 81.0mm | 60      | Marine   | 2000-2003          |
| 82.1mm | 60      |          | See service manual |

### 758\* 5/8"-11 HEAVY-DUTY TRUCK WHEEL STUD INSTALLERS

- Used for installing drive flange and spoke wheel studs
- 1-1/4" six-point drive
- Easily releases stud when removing tool
- Easily turns in studs without damage to threads



### 759\* 3/4"-10 HEAVY-DUTY TRUCK WHEEL STUD INSTALLERS

- Used for installing drive flange and spoke wheel studs
- 1-1/4" six-point drive
- Easily releases stud when removing tool
- Easily turns in studs without damage to threads



### 795\* WHEEL STUD INSTALLER FOR FORD F250 THRU F550

- Used for installing button head wheel studs on Ford trucks F-250 Super-Duty through F-550 (1998 to present)
- Patented installer pull the stud into the drive flange or hub without damaging the threads
- 1-1/8" six-point drive
- 1-7/8" long and internally threaded M14 x 2.0



## FEELER GAUGES

The sizes, both decimal and metric equivalent, are permanently etched on each blade

### 3079\* MASTER FEELER GAUGE SET FOR HEAVY-DUTY TRUCK VALVE ADJUSTMENT

- Contains Models: 3072, 3074, 3075, and 5469
- This handle and blade set was designed to make valve adjustments faster and easier



### 3072 23-BLADE FEELER GAUGE FOR CUMMINS DIESEL VALVE ADJUSTMENT

- 6" blade, with 1" long 90° offset



### 3074 23-BLADE FEELER GAUGE FOR HEAVY-DUTY TRUCK VALVE ADJUSTMENT

- 3" blade, with 5/8" long 45° offset



### 3075 23-BLADE FEELER GAUGE FOR DETROIT DIESEL VALVE ADJUSTMENT

- 3" blade, with 1" long 30° offset, and 1/2" of 0.002" step



### 3078\* FEELER GAUGE SET, JACOBS ENGINE BRAKES - DETROIT DIESEL

- Blade sizes and usage: 0.019" - 0.021" Series 60 model years 1999 and before; 0.022" - 0.024" Series 60 all model years, Series 50; 0.025" - 0.027" Series 60 all model years, Series 50; 0.031" - 0.033" Series 60 model year 2000 and after; 0.058" - 0.060" Series 71, Series 92; 0.063" - 0.065" Series 71, Series 92
- This set contains the gauges required to set slave piston lash on Detroit Diesel engines
- 4" blade with 1/2" long 45° offset and 0.002" step Go-No-Go
- 0.002" step is on the bottom side of the blade so that the Go-No-Go can be felt against the exhaust rocker arm adjusting screw or exhaust valve bridge (depending on the model engine)



### 5469\* DOUBLE-END HANDLE FOR FEELER GAUGE BLADES

- Color-coded handle makes using the correct blade fast and accurate, where light blue is for intake and red for exhaust
- Even in dimly lit shops, the technician can be confident in using the correct blade without wasting time having to read the blades every time
- 5-1/2" length



| FEELER GAUGES  |               |      |      |       |       |
|----------------|---------------|------|------|-------|-------|
|                | 3072          | 3074 | 3075 | 3078* | 3079* |
| .50-inch Width | .008"         | •    | •    | •     | •     |
|                | .009"         | •    | •    | •     | •     |
|                | .010"         | •    | •    | •     | •     |
|                | .011"         | •    | •    | •     | •     |
|                | .012"         | •    | •    | •     | •     |
|                | .013"         | •    | •    | •     | •     |
|                | .014"         | •    | •    | •     | •     |
|                | .015"         | •    | •    | •     | •     |
|                | .016"         | •    | •    | •     | •     |
|                | .017"         | •    | •    | •     | •     |
|                | .018"         | •    | •    | •     | •     |
|                | .019"         | •    | •    | •     | •     |
|                | .020"         | •    | •    | •     | •     |
|                | .021"         | •    | •    | •     | •     |
|                | .022"         | •    | •    | •     | •     |
|                | .023"         | •    | •    | •     | •     |
|                | .024"         | •    | •    | •     | •     |
|                | .025"         | •    | •    | •     | •     |
|                | .026"         | •    | •    | •     | •     |
|                | .027"         | •    | •    | •     | •     |
|                | .028"         | •    | •    | •     | •     |
|                | .029"         | •    | •    | •     | •     |
|                | .030"         | •    | •    | •     | •     |
|                | .019" - .021" |      |      |       | •     |
|                | .022" - .024" |      |      |       | •     |
|                | .025" - .027" |      |      |       | •     |
|                | .031" - .033" |      |      |       | •     |
|                | .058" - .060" |      |      |       | •     |
|                | .063" - .065" |      |      |       | •     |



## SAE OFFSET FEELER GAUGES

The sizes, both decimal and metric equivalent, are permanently etched on each blade

### 3085\*

#### 11 OFFSET VALVE TAPPET GAUGE SET - IMPORTS

- 3" x 1/2" blades
- Blades have 30° offset for easy use
- This two handle, eleven feeler blade set is designed for use when setting valve tappets on many import vehicles
- E-Z grip handle for comfort and control



### 3275A\*

#### 26-BLADE OFFSET FEELER GAUGE 4" LONG

- 4" x 1/2" blades
- Blades have 1" 45° offset for checking valve clearances



### 39A

#### 12-BLADE OFFSET FEELER GAUGE 4" LONG

- 4" x 1/2" blades
- Blades have 1" 45° offset for checking valve clearances



### 316A

#### 16 OFFSET BLADE TAPPET FEELER GAUGE 4" LONG

- 4" x 1/2" blades
- Blades have 1" 45° offset for checking valve clearances



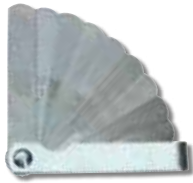
| SAE OFFSET FEELER GAUGES |     |      |       |        |
|--------------------------|-----|------|-------|--------|
|                          | 39A | 316A | 3085* | 3275A* |
| .004"                    |     |      | •     |        |
| .005"                    |     | •    | •     | •      |
| .006"                    |     | •    | •     | •      |
| .007"                    |     | •    | •     | •      |
| .008"                    | •   | •    | •     | •      |
| .009"                    |     | •    | •     | •      |
| .010"                    | •   | •    | •     | •      |
| .011"                    |     | •    | •     | •      |
| .012"                    | •   | •    | •     | •      |
| .013"                    | •   | •    | •     | •      |
| .014"                    | •   | •    | •     | •      |
| .015"                    | •   | •    |       | •      |
| .016"                    | •   | •    |       | •      |
| .017"                    |     | •    |       | •      |
| .018"                    | •   | •    |       | •      |
| .019"                    | •   | •    |       | •      |
| .020"                    | •   | •    |       | •      |
| .021"                    |     |      |       | •      |
| .022"                    |     |      |       | •      |
| .023"                    |     |      |       | •      |
| .024"                    |     |      |       | •      |
| .025"                    | •   |      |       | •      |
| .026"                    | •   |      |       | •      |
| .027"                    |     |      |       | •      |
| .028"                    |     |      |       | •      |
| .029"                    |     |      |       | •      |
| .030"                    |     |      |       | •      |
| Knurl Lock-Nut           |     |      | •     | •      |
| Rivet                    | •   | •    |       |        |

## SAE FEELER GAUGES

The sizes, both decimal and metric equivalent, are permanently etched on each blade

### 21A 9-BLADE FEELER GAUGE

- 3" x 1/2" blades
- Steel ruler
- For ignition and general purpose



### 27A 15-BLADE FEELER GAUGE

- 3" x 1/2" blades
- Steel ruler



### 28A TUNE-UP GAUGE

- Nine 3" x 1/2" blades
- Five 1" x 1/4" blades
- Steel ruler and adjusting tool



### 29A\* 26-BLADE FEELER GAUGE

- 3" x 1/2" blades



| SAE FEELER GAUGES |     |     |     |      |      |       |        |        |        |              |       |          |         |              |
|-------------------|-----|-----|-----|------|------|-------|--------|--------|--------|--------------|-------|----------|---------|--------------|
|                   | 21A | 27A | 28A | 29A* | 36A* | 36XK* | 3013A* | 4046A* | 9-3MC* | 16-3-5/16MC* | FG-2* | FG-35-A* | FG-135* | 22-2-5/16MC* |
| .0015"            |     |     |     | •    | •    | •     |        | •      | •      |              | •     | •        | •       |              |
| .002"             | •   | •   | •   | •    | •    | •     |        | •      | •      | •            | •     | •        | •       |              |
| .0025"            |     |     |     | •    | •    | •     |        | •      |        |              |       |          | •       |              |
| .003"             | •   | •   | •   | •    | •    | •     |        | •      | •      | •            | •     | •        | •       |              |
| .004"             | •   | •   | •   | •    | •    | •     |        | •      | •      | •            | •     | •        | •       | •            |
| .005"             |     | •   |     | •    | •    | •     |        | •      |        | •            | •     | •        | •       | •            |
| .006"             | •   | •   | •   | •    | •    | •     | •      | •      | •      | •            | •     | •        | •       | •            |
| .007"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .008"             | •   | •   | •   | •    | •    | •     | •      | •      | •      | •            | •     | •        | •       | •            |
| .009"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .010"             |     |     |     | •    | •    | •     | •      | •      | •      |              |       | •        | •       | •            |
| .011"             |     | •   |     | •    | •    | •     |        | •      |        | •            | •     | •        | •       | •            |
| .012"             | •   | •   | •   | •    | •    | •     | •      | •      | •      |              | •     | •        | •       | •            |
| .013"             | •   | •   | •   | •    | •    | •     | •      | •      |        | •            | •     | •        | •       | •            |
| .014"             |     | •   |     | •    | •    | •     | •      | •      |        | •            | •     | •        | •       | •            |
| .015"             |     |     |     | •    | •    | •     | •      | •      | •      |              | •     | •        | •       | •            |
| .016"             |     | •   |     | •    | •    | •     | •      | •      |        | •            | •     | •        | •       | •            |
| .017"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .018"             |     | •   |     | •    | •    | •     | •      | •      |        | •            | •     | •        | •       | •            |
| .019"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .020"             | •   | •   | •   | •    | •    | •     | •      | •      |        | •            |       | •        | •       | •            |
| .021"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .022"             |     | •   |     | •    | •    | •     | •      | •      |        | •            | •     | •        | •       | •            |
| .023"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .024"             |     |     |     | •    | •    | •     | •      | •      |        |              | •     | •        | •       | •            |
| .025"             | •   | •   | •   | •    | •    | •     | •      | •      |        | •            | •     | •        | •       | •            |
| .026"             |     |     |     |      | •    | •     | •      | •      |        |              |       | •        | •       |              |
| .027"             |     |     |     |      |      |       | •      |        |        |              |       | •        |         |              |
| .028"             |     |     |     |      | •    | •     |        |        |        |              | •     | •        | •       |              |
| .029"             |     |     |     |      |      |       |        |        |        |              |       | •        |         |              |
| .030"             |     |     |     |      | •    | •     |        |        |        |              | •     | •        | •       |              |
| .031"             |     |     |     |      |      |       |        |        |        |              |       | •        |         |              |
| .032"             |     |     |     |      | •    | •     |        |        |        |              | •     | •        | •       |              |
| .033"             |     |     |     |      |      |       |        |        |        |              |       | •        |         |              |
| .034"             |     |     |     |      |      |       |        |        |        |              |       | •        |         |              |
| .035"             |     |     |     |      | •    | •     |        |        |        |              | •     | •        | •       |              |
| .040"             |     |     |     |      |      |       |        |        |        |              |       |          |         |              |

Chart continues on next page.

## SAE FEELER GAUGES

The sizes, both decimal and metric equivalent, are permanently etched on each blade

| SAE FEELER GAUGES |       |     |     |      |      |       |        |        |        |              |       |          |         |              |
|-------------------|-------|-----|-----|------|------|-------|--------|--------|--------|--------------|-------|----------|---------|--------------|
|                   | 21A   | 27A | 28A | 29A* | 36A* | 36XK* | 3013A* | 4046A* | 9-3MC* | 16-3-5/16MC* | FG-2* | FG-35-A* | FG-135* | 22-2-5/16MC* |
| .25-inch Width    | .025" |     |     | •    |      |       |        |        |        |              |       |          |         |              |
|                   | .030" |     |     | •    |      |       |        |        |        |              |       |          |         |              |
|                   | .035" |     |     | •    |      |       |        |        |        |              |       |          |         |              |
|                   | .040" |     |     | •    |      |       |        |        |        |              |       |          |         |              |
|                   | .044" |     |     | •    |      |       |        |        |        |              |       |          |         |              |
| Brass             | .006" |     |     |      |      |       |        |        |        |              |       |          | •       |              |
|                   | .008" |     |     |      |      |       |        |        |        |              |       |          | •       |              |
|                   | .010" |     |     |      | •    | •     |        |        |        |              |       |          | •       |              |
|                   | .012" |     |     |      |      |       |        |        |        |              |       |          | •       |              |
|                   | .014" |     |     |      |      |       |        |        |        |              |       |          | •       |              |
|                   | .016" |     |     |      |      |       |        |        |        |              |       |          | •       |              |
| Steel Rule        | •     | •   | •   |      |      |       |        |        |        | •            |       |          |         |              |
| Electrode Tool    |       |     | •   |      |      |       |        |        |        |              |       |          |         |              |
| Knurl Lock-Nut    |       |     |     | •    | •    | •     | •      | •      | •      | •            | •     | •        | •       | •            |
| Rivet             | •     | •   | •   |      | •    |       |        |        |        |              |       |          |         |              |

### 36A\* 32-BLADE FEELER GAUGE

- 3" x 1/2" blades
- Thirty-one steel and one .010 brass blade for transistorized engines



### 36XK\* MASTER THICKNESS GAUGE

- 3" x 1/2" blades
- Thirty-one steel and one .010 brass blade for transistorized engines



### 3013A\* 22-BLADE GO-NO-GO GAUGE

- 3" x 1/2" step-ground blades



### 4046A\* 26-BLADE FEELER GAUGE

- 3" x 1/2" blades



### 9-3MC\* 9-BLADE FEELER GAUGE

- 3" x 1/2" blades



### 16-3-5/16MC\* 15-BLADE FEELER GAUGE WITH STEEL RULER

- 3" x 1/2" blades



### FG-2\* 25-BLADE FEELER GAUGE

- 3" x 1/2" blades



### FG-35-A\* 35-BLADE FEELER GAUGE

- 3" x 1/2" blades



### FG-135\* 36-BLADE COMBINATION STANDARD AND BRASS FEELER GAUGE

- Thirty steel and six brass blades - 3" x 1/2" blades



### 22-2-5/16MC\* 22-BLADE FEELER GAUGE

- 2-5/16" x 1/2" blades

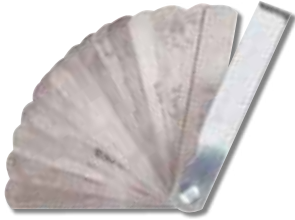


## METRIC FEELER GAUGES

Only metric sizes etched on blades

### 342A 15-BLADE METRIC FEELER GAUGE

- 3" x 1/2" blades



### 343A\* 25-BLADE METRIC FEELER GAUGE

- 3" x 1/2" blades



### FG-30\* 25-BLADE METRIC FEELER GAUGE

- 3" x 1/2" blades



| METRIC FEELER GAUGES |        |       |        |
|----------------------|--------|-------|--------|
|                      | 342A   | 343A* | FG-30* |
| .50-inch Width       | .04 mm |       | •      |
|                      | .05 mm |       | •      |
|                      | .06 mm | •     | •      |
|                      | .07 mm | •     | •      |
|                      | .08 mm | •     | •      |
|                      | .09 mm |       | •      |
|                      | .10 mm | •     | •      |
|                      | .15 mm | •     | •      |
|                      | .20 mm | •     | •      |
|                      | .25 mm | •     | •      |
|                      | .30 mm | •     | •      |
|                      | .35 mm | •     | •      |
|                      | .40 mm | •     | •      |
|                      | .45 mm | •     | •      |
|                      | .50 mm | •     | •      |
|                      | .55 mm | •     | •      |
|                      | .60 mm | •     | •      |
|                      | .65 mm |       | •      |
|                      | .70 mm | •     | •      |
|                      | .75 mm |       | •      |
| .80 mm               |        | •     |        |
| .85 mm               |        | •     |        |
| .90 mm               |        | •     |        |
| .95 mm               |        | •     |        |
| 1.00 mm              |        | •     |        |
| Rivet                | •      |       |        |
| Knurl Lock-Nut       |        | •     | •      |

## THIN FEELER GAUGES

### 1610 14-BLADE VALVE LASH GAUGE SET

- 4" x 1/4" blades
- 1/4" wide gauge blades can be used to check valve clearances of small diameter bucket and shim type valve trains
- Standard 1/2" wide blades may contact the cylinder head and not provide the proper clearance "feel"
- 4" length allows for extra reach to recessed valve systems



### 2636A\* 17 MINI-BLADE FEELER GAUGE

- 1-3/4" x 1/4" blades



| THIN FEELER GAUGES |       |        |   |
|--------------------|-------|--------|---|
|                    | 1610  | 2636A* |   |
| .25-inch Width     | .002" | •      |   |
|                    | .003" | •      |   |
|                    | .004" | •      |   |
|                    | .005" | •      |   |
|                    | .006" | •      |   |
|                    | .007" | •      |   |
|                    | .008" | •      |   |
|                    | .009" | •      |   |
|                    | .010" | •      | • |
|                    | .011" | •      |   |
|                    | .012" | •      | • |
|                    | .013" | •      | • |
|                    | .014" | •      |   |
|                    | .015" | •      | • |
|                    | .016" |        | • |
|                    | .017" |        | • |
|                    | .018" |        | • |
|                    | .019" |        | • |
|                    | .020" |        | • |
|                    | .022" |        | • |
| .024"              |       | •      |   |
| .025"              |       | •      |   |
| .026"              |       | •      |   |
| .028"              |       | •      |   |
| .030"              |       | •      |   |
| .032"              |       | •      |   |
| .035"              |       | •      |   |
| Pouch              | •     |        |   |
| Knurl Lock-Nut     |       | •      |   |



## SAE LONG FEELER GAUGES

The sizes, both decimal and metric equivalent, are permanently etched on each blade

### 12025\* 25-BLADE FEELER GAUGE

- 12" x 1/2" blades



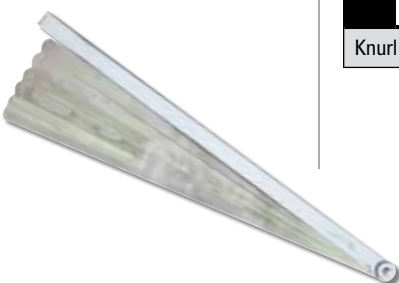
### 8-9MC\* 8-BLADE FEELER GAUGE

- 9" x 1/2" blades



### 8-12MC\* 8-BLADE FEELER GAUGE

- 12" x 1/2" blades



### SAE LONG FEELER GAUGES

|                | 12025* | 8-9MC* | 8-12MC* |
|----------------|--------|--------|---------|
| .0015"         | •      |        |         |
| .002"          | •      | •      | •       |
| .003"          | •      | •      | •       |
| .004"          | •      | •      | •       |
| .005"          | •      | •      | •       |
| .006"          | •      | •      | •       |
| .007"          | •      |        |         |
| .008"          | •      | •      | •       |
| .009"          | •      |        |         |
| .010"          | •      | •      | •       |
| .011"          | •      |        |         |
| .012"          | •      |        |         |
| .013"          | •      |        |         |
| .014"          | •      |        |         |
| .015"          | •      | •      | •       |
| .016"          | •      |        |         |
| .017"          | •      |        |         |
| .018"          | •      |        |         |
| .019"          | •      |        |         |
| .020"          | •      |        |         |
| .021"          | •      |        |         |
| .025"          | •      |        |         |
| .027"          | •      |        |         |
| .030"          | •      |        |         |
| .040"          | •      |        |         |
| Knurl Lock-Nut | •      | •      | •       |

## SPARK PLUG GAP

### 712A RAMP GAUGE LARGE CHROME

- Spark plug tool adjusts spark plug gap in graduated ramp sequence
- SAE sizes: .020 – .100
- Metric sizes: .60 – 2.40mm



### 4450A E-Z GRIP SPARK PLUG RAMP GAUGE

- Full range coverage for all spark plug gapping requirements from .020 to .080 (.60 to 2.00mm)
- Applications include those with distributor-less ignition systems
- Tool includes a recess specifically designed to adjust electrodes



### 2633A HIGH-ENERGY SPARK GAUGE

- Contains: Six round wires - .040, .044, .045, .050, .060, .080 with double end electrode adjusting tool
- Popular sizes required to gap spark plugs
- Round wire in this gauge permit exact gap checking at all angles



### 2634A ROUND STYLE WIRE GAUGE

- Contains: Six round wires - .025, .030, .034, .035, .040, .045 with double end electrode adjusting tool
- Most popular "standard ignition" spark plug gapping wire sizes
- Round wire in this gauge permit exact gap checking at all angles



## WRENCHES

### 702 ROCKER BOX COVER WRENCH REPLACEMENT BITS

- Three 3/16" Allen bits packaged in a polybag



### 5530\* INTAKE MANIFOLD WRENCH

- Reversible ratcheting box wrench used on BigTwin® engines to install/remove intake manifold socket head cap screws
- 1/4" ball-end Allen bit
- Length: 8-3/4"



### 6529\* ROCKER BOX COVER RATCHETING BOLT WRENCH

- Reversible ratcheting box wrench used on Harley-Davidson® Evolution® motor rocker box covers
- Low profile allows clearance between the frame and engine
- Long handle for increased reach
- Ergonomic rubber grip will not scratch chrome
- 9-3/4" long chrome plated with 1/4" drive



### 6530\* LOWER ROCKER BOX 7/16" WRENCH FOR TWIN CAM®

- Reversible ratcheting box wrench used to install/remove the lower rocker box on Harley-Davidson® motorcycles with Twin Cam® engines (1999–2006)
- Vinyl grip prevents the wrench from scratching or marring the bike
- 7/16" protruding socket, 1" socket length
- Length: 9-3/4"



### 6531\* LOWER ROCKER BOX 7/16" WRENCH FOR EVOLUTION®

- Reversible ratcheting box wrench used to install/remove the lower rocker box on Harley-Davidson® motorcycles with Evolution® engines (1994–1999)
- Vinyl grip prevents the wrench from scratching or marring the bike
- 7/16" protruding socket, 1-1/4" socket length
- Length: 9-3/4"



### 6538\* EXHAUST BRACKET WRENCH

- Reversible ratcheting wrench used to remove/install the front exhaust bracket on Harley-Davidson® Dyna® model Twin Cams® from 1999 to present
- 9-3/4" long with a removable/replaceable shortened T-27 TORX® bit
- Vinyl grip prevents the wrench from scratching or marring the bike
- Length: 9-3/4"



### 9280\* 24-TOOTH CRANKSHAFT WRENCH

- Used for rotation of the crankshaft on all 24-spline engines (2006 Harley-Davidson® Dyna®), and to check engine timing and parts clearance
- Custom design fits perfectly on the crankshafts of 2006 Dyna® model
- E-Z Grip handle allows more turning power with less fatigue to the hand
- Length: 10-1/2"



### 9636\* REAR AXLE 36MM NUT RATCHET WRENCH

- Reversible ratcheting wrench used to install/remove 36mm axle nuts on FL Touring® models
- Insert a torque wrench into the built-in 1/2" square drive to get a torque reading
- Length: 8-3/4"



### 9793\* SIX SPLINE RATCHETING OUTPUT WRENCH

- Reversible offset ratcheting EZ Grip wrench contains a 1" drive to service a six spline crankshaft
- Used for rotation of the crankshaft check engine timing and parts clearance on Sportster® motorcycles
- Length: 8-3/4"



### 9794\* TEN SPLINE RATCHETING OUTPUT WRENCH

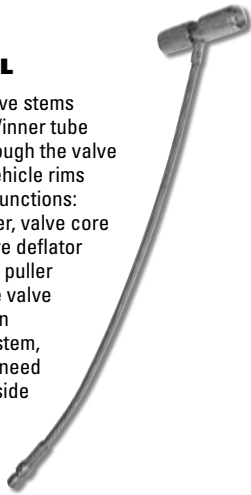
- Reversible offset ratcheting EZ Grip wrench contains a 1-1/8" drive to service a ten spline crankshaft
- Used for rotation of the crankshaft/check engine timing and parts clearance on Sportster® motorcycles
- Length: 8-3/4"



## MISCELLANEOUS

### 408A\* VALVE STEM FISHING TOOL

- Used to pull valve stems and valve stem/inner tube assemblies through the valve stem hole on vehicle rims
- Tool has three functions: valve stem puller, valve core removal, and tire deflator
- This valve stem puller threads into the valve stem rather than over-the valve stem, eliminating the need to put hands inside the rim/tire assembly



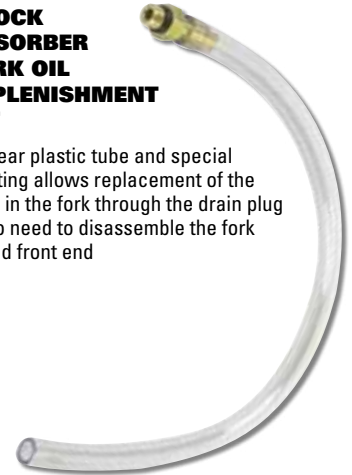
### 437\* CRANKSHAFT BEARING END PLAY SETUP TOOL

- Used on Big Twin® engines
- Allows inner bearing races to be installed and removed without pressing them on or off as you would if you were using a crankshaft
- Allows for much faster servicing



### 440\* SHOCK ABSORBER FORK OIL REPLENISHMENT KIT

- Clear plastic tube and special fitting allows replacement of the oil in the fork through the drain plug
- No need to disassemble the fork and front end



### 444\* SPRINGER FORK BEARING ADJUSTING TOOL

- Adjust the steering stem adjuster nut to allow for proper neck bearing endplay
- Three-prong socket, 3/8" drive, with a pass through hole in the center allows for precise neck endplay adjustment
- Used on Harley-Davidson® motorcycle Springer® forks



### 446\* CYLINDER SLEEVE HOLD DOWNS

- Specialty nuts (four per package) used to hold down cylinder sleeves during service procedures
- Motor can be turned over with the heads off
- Applications: Harley-Davidson® Big Twin®, Twin Cam®, Sportster® and models with 3/8" studs
- Nuts are for a 3/8"-16 UNC thread
- 3/4" hexagon (easy handling)



### 492 LOCK RING TOOL

- Allows access to the fuel filter and pump as the lock ring is connected to the pump
- Made of durable ABS plastic
- Competitive products are metal and can scratch the painted surface of the motorcycle
- Length: 15"



### 801\* 7-PIECE ATV AXLE END THREAD RESTORER KIT

- Contains 7 different dies to restore threads on axle ends of ATVs such as Honda, Kawasaki, Suzuki, Yamaha and more
- Die sizes included: M14 x 1.50, M16 x 1.50, M18 x 1.50, M20 x 1.50, M24 x 1.50, 3/4"-16 and 7/8"-14



### 1201A\* LOW PRESSURE TIRE GAUGE

- Reads 1-20 PSI, 1/2 lb. increments
- Metal body/plastic gauge, pocket clip, deflator feature
- For ATVs, lawn tractors and motorcycles



### 1610 14-BLADE VALVE LASH GAUGE SET

- Set of 4" x 1/4" feeler gauge blades, thickness .002" through .015"
- 1/4" wide gauge blades can be used to check valve clearances of small diameter bucket and shim type valve trains
- Standard 1/2" wide blades may contact the cylinder head and not provide the proper clearance "feel"
- 4" length allows for extra reach to recessed valve systems



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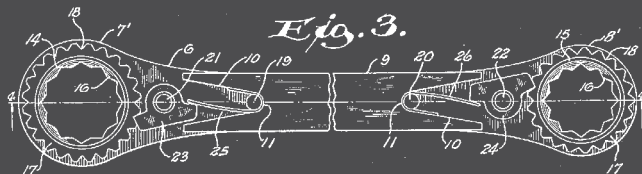
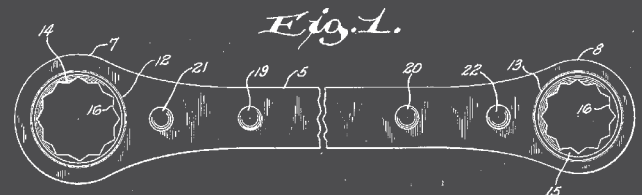
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