

ENGINE

Engine - Special Tools - X6

11 0 240 COUPLING

In conjunction with: 11 0 222, 11 0 226, 11 0 227, 11 0 225

NOTE: For adapting test probes to pressure gauge 11 0 162

Engine: All models

Order number: 11 0 240

Coupling

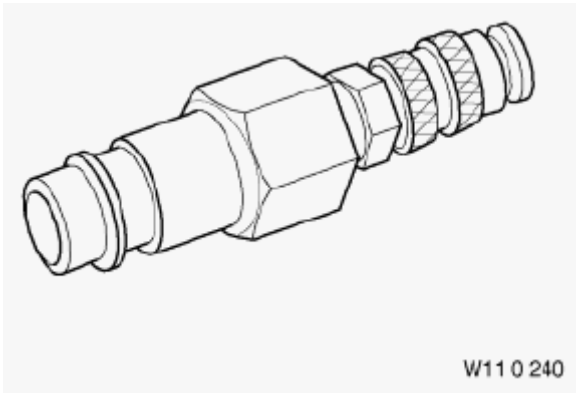


Fig. 1: Identify Special Tool (11 0 240)

Courtesy of BMW OF NORTH AMERICA, INC.

11 0 290 HOLDER

Minimum set: Mechanical tools

NOTE: For removing and installing triangular drive (vacuum pump) on crankcase.

Engine: N51, N52, N52K, N53, N54

Storage location: A52

SI number: 1 17 04 (130)

Order number: 11 0 290

Holder



Fig. 2: Identify Special Tool (11 0 290)

Courtesy of BMW OF NORTH AMERICA, INC.

11 0 300 PLUG MANDREL

Minimum set: Mechanical tools

NOTE: For locking flywheel in TDC position

Engine: N43, N51, N52, N52K, N53, N54

Storage location: A52

SI number: 1 17 04 (130)

Order number: 11 0 300

Plug mandrel



Fig. 3: Identify Special Tool (11 0 300)

Courtesy of BMW OF NORTH AMERICA, INC.

11 0 320 REMOVAL AND INSTALLATION BRACKET

NOTE: For removing and installing cylinder head.

Engine: N51, N52, N52K, N53, N54

Storage location: B51

SI number: 1 17 04 (130)

Order number: 11 0 320

Removal and installation bracket

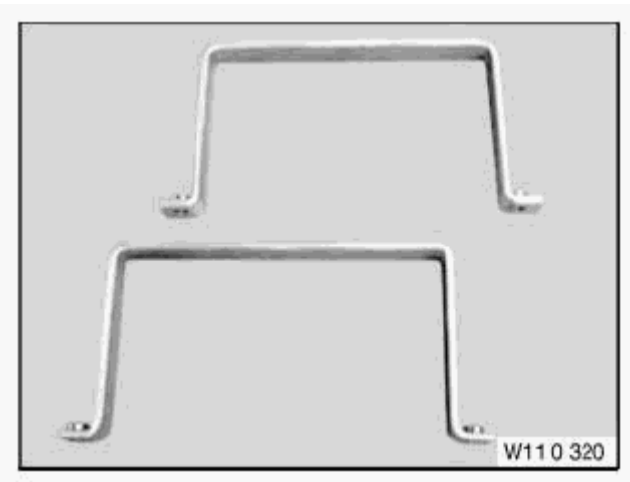


Fig. 4: Identify Special Tool (11 0 320)

Courtesy of BMW OF NORTH AMERICA, INC.

11 0 390 CLAMPING PIN

Minimum set: Mechanical tools

NOTE: For securing the new N43 tensioning pulley (Poly-V-belt)

Engine: N43, N63

SI number: 01 15 07 (390)

Order number: 11 0 390

Clamping pin

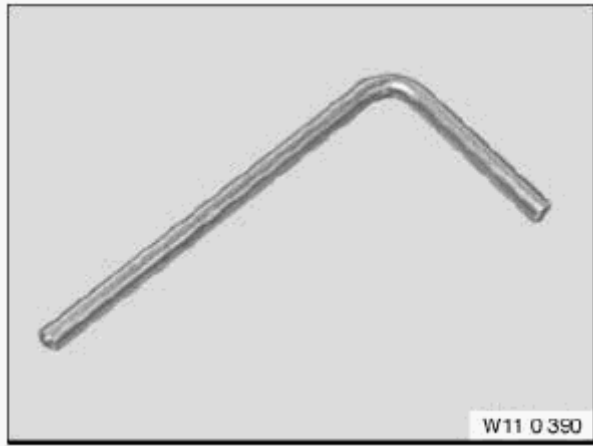


Fig. 5: Identify Special Tool (11 0 390)
Courtesy of BMW OF NORTH AMERICA, INC.

11 1 480 PLIERS

Minimum set: Mechanical tools

NOTE: For removing valve stem seal

Engine: M40, M41, M42, M43, M44, M50, M51, M52, M52TU, M54, M56, M60, M62, M70, M73, N12, N14, N43, N45, N47, N47S, N52, N53, N54, S38, S50B30, S50B32, S50US, S52US, S54, S62, W10, W11

Storage location: B10

SI number: 1 01 93 (621)

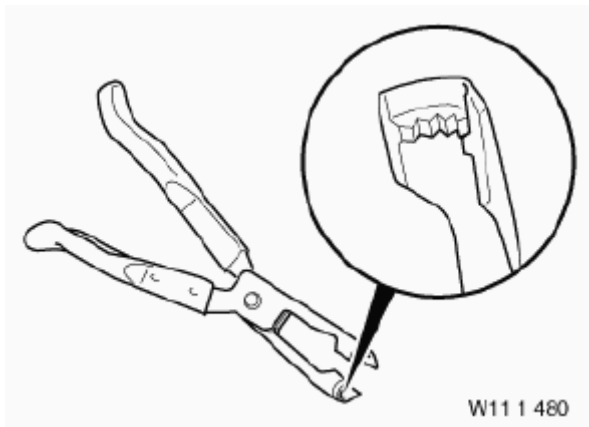


Fig. 6: Identify Special Tool (11 1 480)
Courtesy of BMW OF NORTH AMERICA, INC.

Order number: 11 1 480

Pliers

11 2 000 PULLER

Minimum set: Mechanical tools

NOTE: For crankshaft sprocket

Engine: M10, M30, M50, M52, M60, M62, M70, M73, N62TU, N63, N73, S14, S38, W10, W11

Storage location: B9, C42

Order number: 11 2 000

Puller

Consisting of:

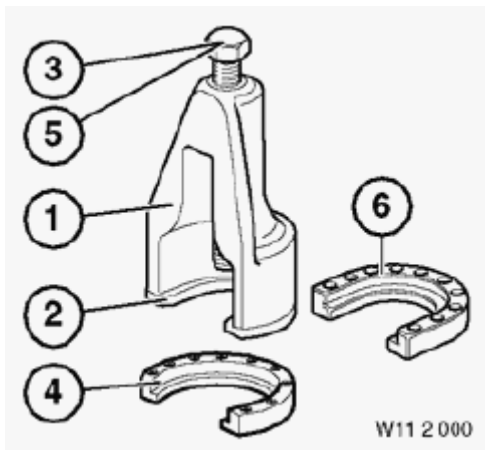


Fig. 7: Identify Special Tool (11 2 000)

Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 2 001 Bell housing

2 = 11 2 002 Plate

NOTE: Engine: M10, M30, S14, S38, N73

3 = 11 2 003 Spindle

NOTE: Engine: M10, M30, M70, M73, S14, S38, N73

4 = 11 2 004 Plate

NOTE: Engine: M50, M52, M60, M62

5 = 11 2 005 Spindle 165 mm

NOTE: Engine: M50, M52, M60, M62

6 = 11 2 006 Plate

NOTE: Engine: M70, M73, N73

7 = 11 2 007 Thrust piece

NOTE: Engine: N73

11 3 340 LOCKING PIN (2 PIECES)

Minimum set: Mechanical tools

NOTE: For locking chain tensioner piston in position (e.g. when removing and installing cylinder head) as well as for locking drive belt tensioner

Engine: M41, M43, M44, M47, M47T2, M47TU, M51, M57, M57T2, M57TU, M62, N40, N42, N43, N45, N45T, N46, N46T, N47, N51, N52, N53, N54, N57, N62, N73

Storage location: B5, C5

SI number: 1 09 91(416)

Order number: 11 3 340

Locking pin (2 pieces)

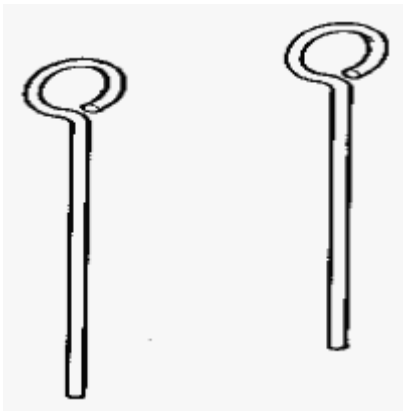


Fig. 8: Identify Special Tool (11 3 340)

Courtesy of BMW OF NORTH AMERICA, INC.

11 3 460 PROTRACTOR

Minimum set: Mechanical tools

In conjunction with: 11 2 450

NOTE: For fitting on brace 11 2 450 when tightening central bolt using torsion angle tightening method

Engine: M60, M62, M73, N62, N62TU, N63, N73

Storage location: C1

SI number: 1 08 92 (555)

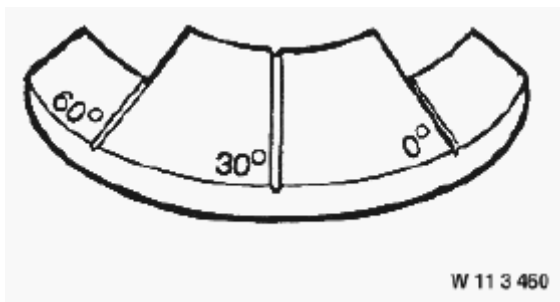


Fig. 9: Identify Special Tool (11 3 460)
Courtesy of BMW OF NORTH AMERICA, INC.

Order number: 11 3 460

Protractor

11 4 050 REDUCER

Minimum set: Mechanical tools

In conjunction with: 13 3 063 or 13 6 051

NOTE: For connection of pipe bend 13 6 054 to pressure gauge 13 3 061 or BMW DIS for checking oil pressure

Engine: M10, M20, M21, M30, M47, M47T2, M47TU, M50, M51, M52, M54, M56, M57, M57T2, M57TU, M60, M62, M70, M73, N43, N51, N52, N52K, N53, N54, N62, N63, N73, S14, S38, S50B30, S50B32, S62

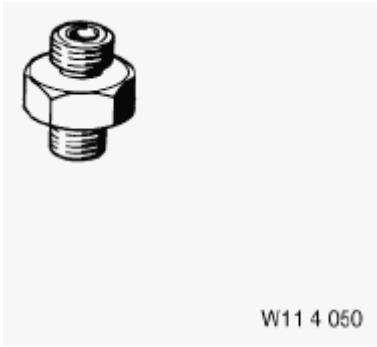


Fig. 10: Identify Special Tool (11 4 050)
Courtesy of BMW OF NORTH AMERICA, INC.

Storage location: A4

Order number: 11 4 050

Reducer

11 4 120 LOCKING PIN

Minimum set: Mechanical tools

NOTE: For chain tensioner to lock chain tensioner piston in position (e.g. when removing and installing cylinder head)

Engine: M43, N47, N47S, N51, N52, N52K, N53, N54

Storage location: B5, C5

SI number: 1 12 93 (701)

Order number: 11 4 120

Locking pin



W 11 4 120

Fig. 11: Identify Special Tool (11 4 120)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 160 ADAPTER

In conjunction with: 13 3 061, 13 3 063 or 13 6 051

NOTE: For pressure gauge 13 3 061 or BMW DIS; for checking oil pressure

Engine: M41, N53, N54

Storage location: A2, B2

SI number: 1 09 94 (839)

Order number: 11 4 160

Adapter

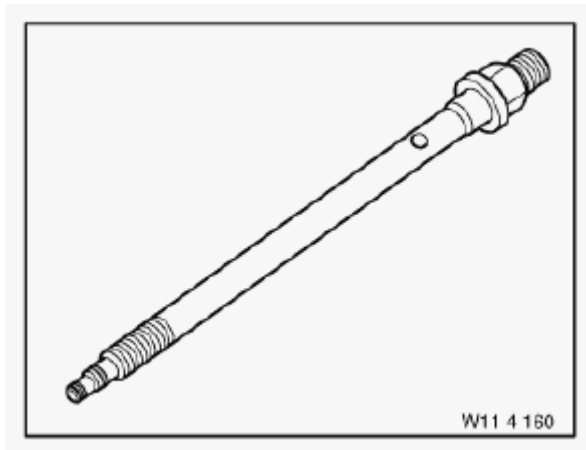


Fig. 12: Identify Special Tool (11 4 160)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 180 SCREWDRIVER SOCKET TORX T60

Minimum set: Mechanical tools

NOTE: For releasing and tightening dual-mass flywheel - model year: from Jan 94

Engine: M57T2, M57TU, M60, M62, N43, N45T, N46T, N47, N47S, N52, N53, N54, S62, S85

Storage location: A11

SI number: 1 02 94 (777)

Order number: 11 4 180

Screwdriver socket Torx T60

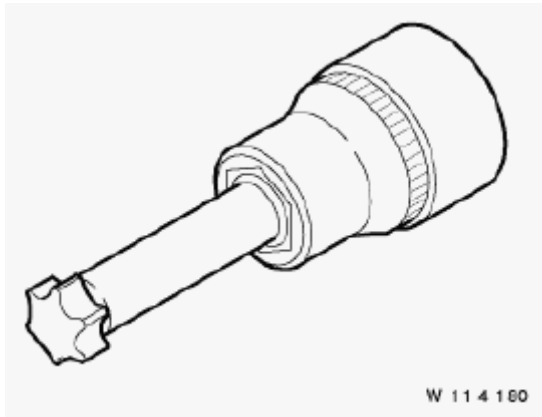


Fig. 13: Identify Special Tool (11 4 180)

Courtesy of BMW OF NORTH AMERICA, INC.

11 4 190 1/4" EXTENSION PIECE

Minimum set: Mechanical tools

In conjunction with: 11 3 390, 00 2 050

NOTE: M73 For removing and installing pedal travel sensor M60 Pretensioning timing chain E53 Mounting airbag control unit

Series: All models

Storage Location: B6

SI number: 1 06 94(801)

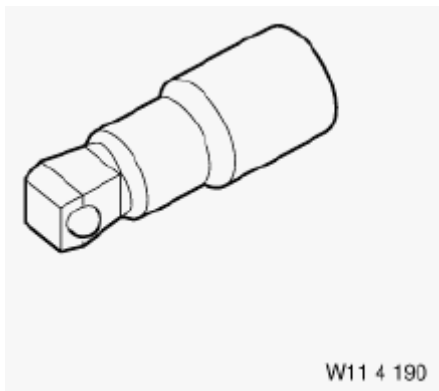


Fig. 14: Identify Special Tool (11 4 190)

Courtesy of BMW OF NORTH AMERICA, INC.

Order Number: 11 4 190

1/4" extension piece

11 4 260 BOX SPANNER

NOTE: For removing and installing lambda oxygen sensors.

Engine: N45T, N51, N52, N53, N54

Storage location: A52

SI number: 1 17 04 (130)

Order number: 11 4 260

Box spanner

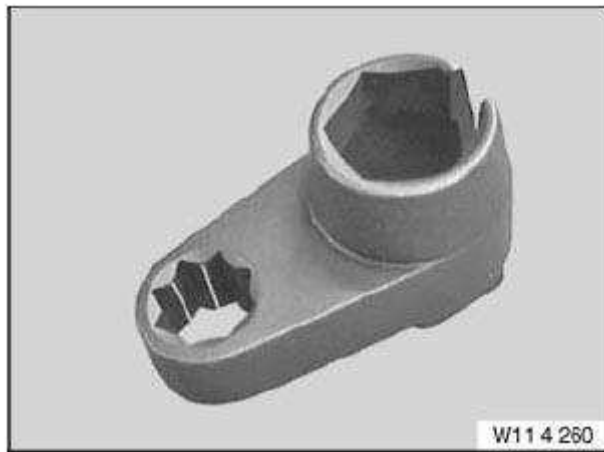


Fig. 15: Identify Special Tool (11 4 260)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 280 GAUGE

Minimum set: Mechanical tools

NOTE: For locating camshaft in TDC position.

Engine: N43, N51, N52, N52K, N53, N54

Storage location: B52

SI number: 1 17 04 (130)

Order number: 11 4 280

Gauge

Consisting of:

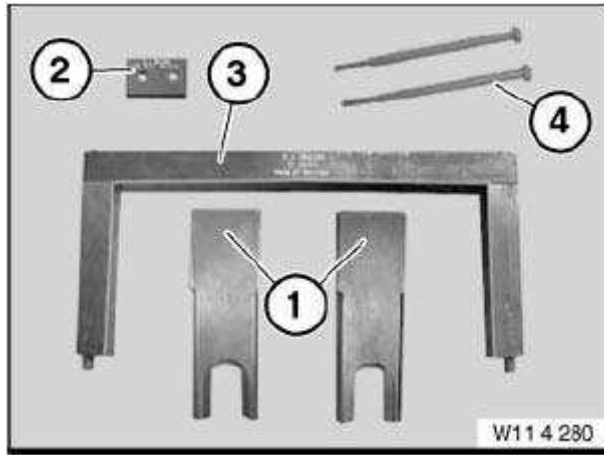


Fig. 16: Identify Special Tool (11 4 280)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 4 281 Gauge

2 = 11 4 282 Adapter

3 = 11 4 283 Bracket

4 = 11 4 284 Set of M6 screws

NOTE: **Engine: N54**

11 4 340 PRESSURE-TESTING FIXTURE

NOTE: **For pressure-testing cylinder head.**

Engine: N51, N52, N53, N54

SI number: 1 17 04 (130)

Order number: 11 4 340

Pressure-testing fixture

Consisting of:

1 = 11 4 341 Baseplate with seal

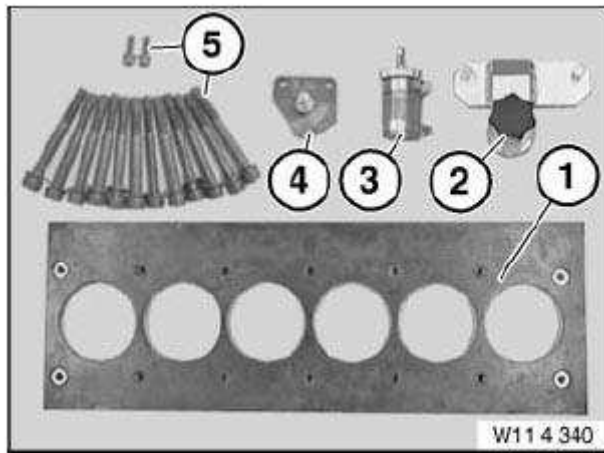


Fig. 17: Identify Special Tool (11 4 340)
Courtesy of BMW OF NORTH AMERICA, INC.

2 = 11 4 342 Plate with thrust member

3 = 11 4 343 Hose with air connection

4 = 11 4 344 Adapter plate with valve

NOTE: N54

5 = 11 4 345 Set of screws

NOTE: N54

11 4 350 TORQUE WRENCH

NOTE: For installing camshaft bearing strips.

Engine: N47, N47S, N51, N52, N52K, N53, N54, S85

Storage location: A51

SI number: 1 17 04 (130)

Order number: 11 4 350

Torque wrench

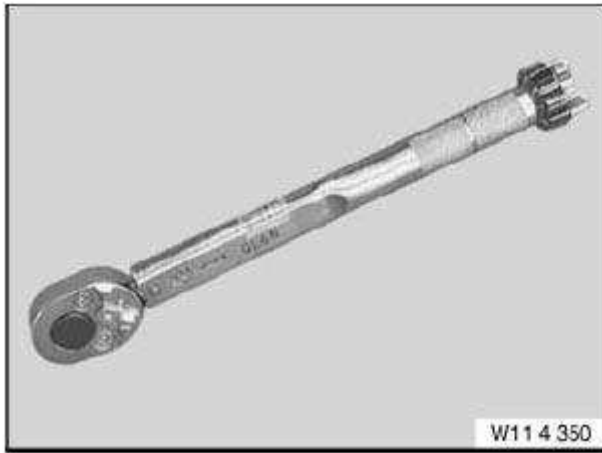


Fig. 18: Identify Special Tool (11 4 350)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 370 PRESSING FIXTURE

NOTE: For pressing out sealing compound for bedplate.

Engine: N43, N45T, N51, N52, N52K, N53, N54, S85

Storage location: A52

SI number: 1 17 04 (130)

Order number: 11 4 370

Pressing fixture



Fig. 19: Identify Special Tool (11 4 370)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 420 TORX SOCKET T50

Minimum set: Mechanical tools

NOTE: For removing and installing cylinder head.

Engine: N51, N52, N52K, N53, N54

Storage location: A51

SI number: 1 17 04 (130)

Order number: 11 4 420

Torx socket T50

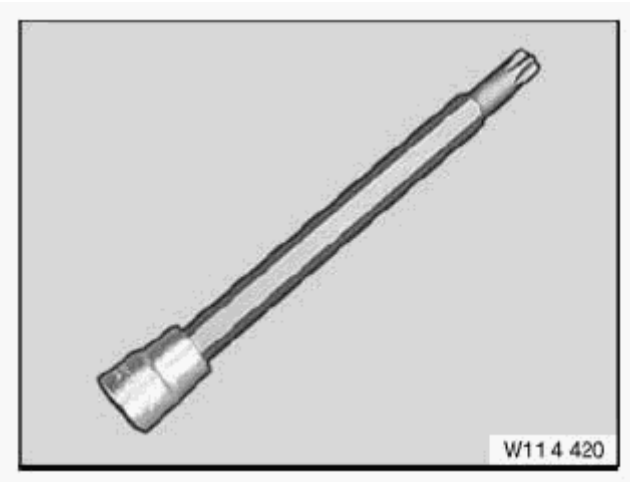


Fig. 20: Identify Special Tool (11 4 420)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 430 SEAL PLUGS (2 X)

Minimum set: Mechanical tools

NOTE: For sealing off oil holes in oil pump.

Engine: N51, N52, N52K, N53, N54

Storage location: A52

SI number: 1 17 04 (130)

Order number: 11 4 430

Seal plugs (2 x)

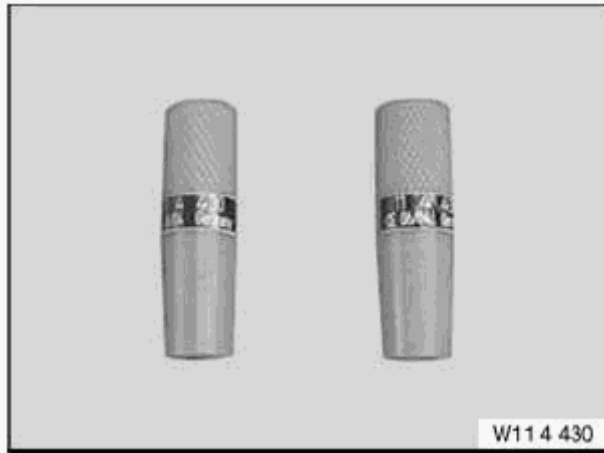


Fig. 21: Identify Special Tool (11 4 430)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 440 ENGINE SUPPORT PLATE

In conjunction with: 00 1 450" 00 2 300

NOTE: For accommodating engine on assembly stand. Is replaced by 11 8 540.

Engine: N51, N52, N53, N54

SI number: 1 17 04 (130)

Order number: 11 4 440

Engine support plate



Fig. 22: Identify Special Tool (11 4 440)
Courtesy of BMW OF NORTH AMERICA, INC.

11 4 470 CLEANING KIT

Minimum set: Mechanical tools

NOTE: For cleaning sealing surfaces on magnesium crankcase/cylinder head.

Engine: N43, N45T, N46T, N47, N51, N52, N52K, N53, N54, N63

SI number: 1 17 04 (130)

Order number: 11 4 470

Cleaning kit

Consisting of:

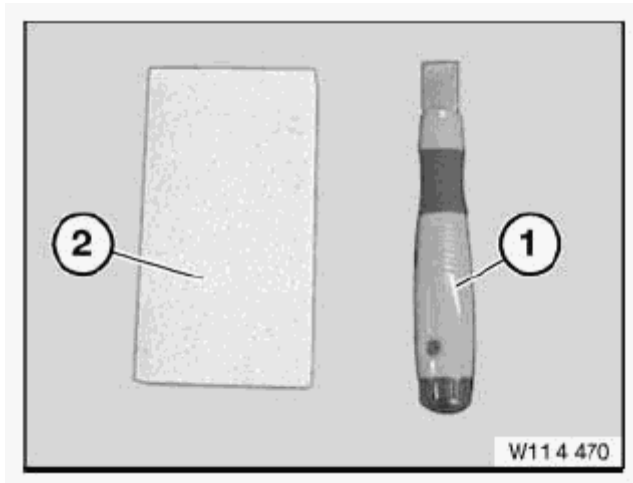


Fig. 23: Identify Special Tool (11 4 470)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 4 471 Scraper

2 = 11 4 472 Grindstone

11 4 480 PLACEMENT BOARDS (2 X)

Minimum set: Mechanical tools

NOTE: For storing individual components of cylinder head.

Engine: N12, N14, N43, N45T, N47, N47S, N51, N52, N52K, N53, N54, N63

SI number: 1 17 04 (130)

Order number: 11 4 480

Placement boards (2 x)

Consisting of:

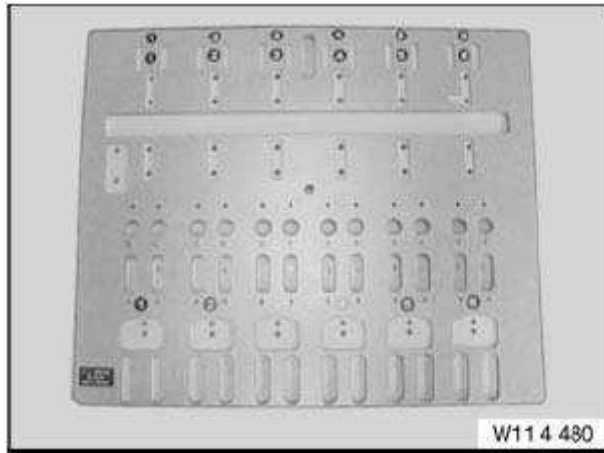


Fig. 24: Identify Special Tool (11 4 480)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 4 481 Placement board, inlet side

2 = 11 4 482 Placement board, exhaust side

11 4 490 REMOVAL AND INSTALLATION KIT

NOTE: For removing and installing piston pin circlips.

Engine: M57T2, N43, N45T, N46T, N51, N52, N52K, N53, N54, N62TU

SI number: 1 17 04 (130)

Order number: 11 4 490

Removal and installation kit

Consisting of:

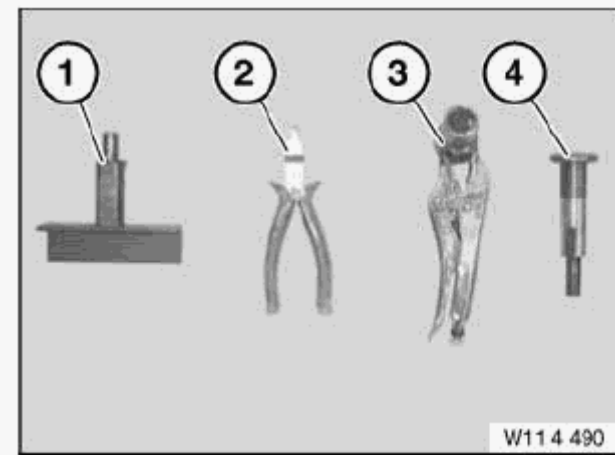


Fig. 25: Identify Special Tool (11 4 490)

Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 4 491 Mounting holder

2 = 11 4 492 Removal pliers

3 = 11 4 493 Mounting pliers

4 = 11 4 494 Drift

11 5 190 TORX SOCKET T60

Minimum set: Mechanical tools

NOTE: For removing and installing cylinder head.

Engine: N51, N52, N52K, N53, N54

Storage location: A51

SI number: 01 17 04 (130)

Order number: 11 5 190

Torx socket T60



Fig. 26: Identify Special Tool (11 5 190)
Courtesy of BMW OF NORTH AMERICA, INC.

11 5 200 SPACER RING

Minimum set: Mechanical tools

In conjunction with: 11 9 280 Counterholder

NOTE: For releasing and tightening down central bolt.

Engine: N43, N51, N52, N52K, N53, N54

Storage location: B51

SI number: 1 17 04 (130)

Order number: 11 5 200

Spacer ring

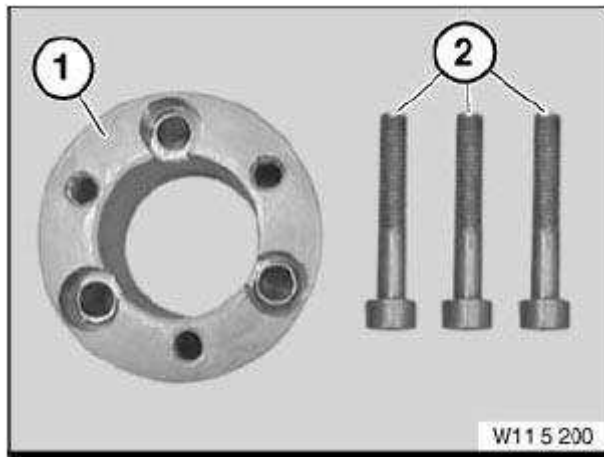


Fig. 27: Identify Special Tool (11 5 200)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 5 201 Shim

2 = 11 5 202 M8x40 mm screws (3 x)

11 5 460 REMOVAL AND INSTALLATION KIT

NOTE: For removing and installing piston pin circlips.

Engine: M67TU, N54, N57

SI number: 1 14 05 (198)

Order number: 11 5 460

Removal and installation kit

Consisting of:

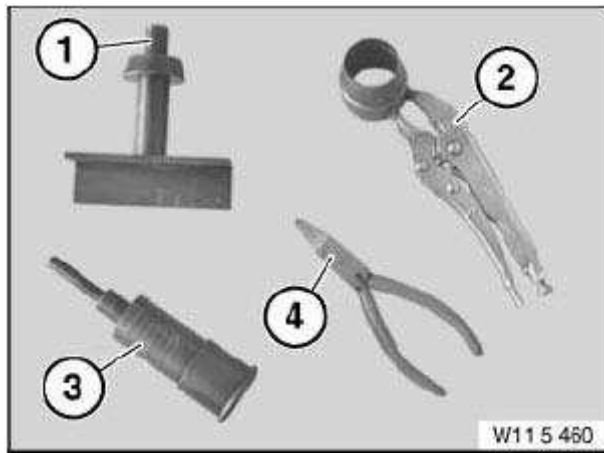


Fig. 28: Identify Special Tool (11 5 460)
 Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 5 461 Holder

2 = 11 5 462 Installation pliers

3 = 11 5 463 Drift

4 = 11 5 464 Removal pliers

11 5 461 INSTALLATION HOLDER

Order number: 11 5 461

Installation holder

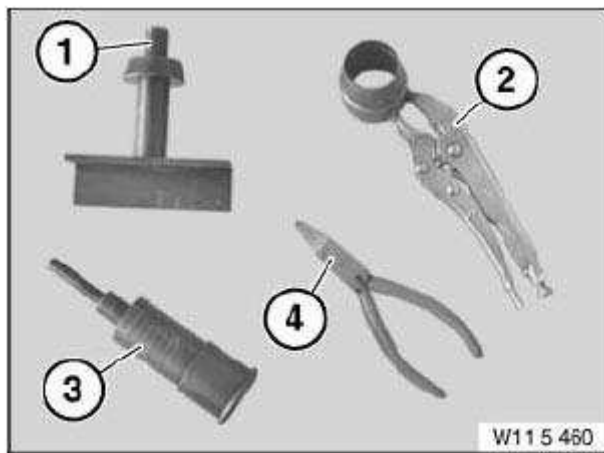


Fig. 29: Identify Special Tool (11 5 461)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 5 462 INSTALLATION PLIERS

Order number: 11 5 462

Installation pliers

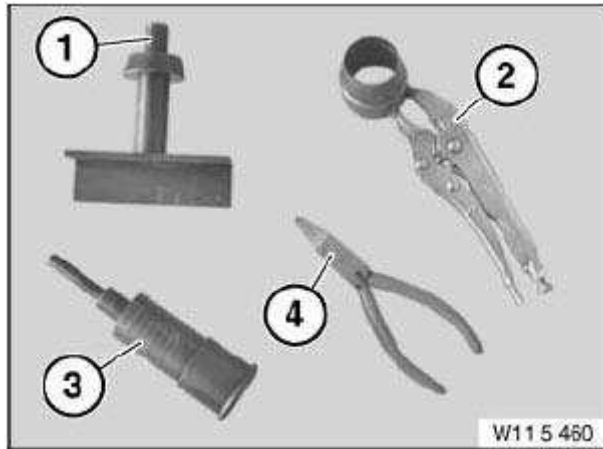


Fig. 30: Identify Special Tool (11 5 462)

Courtesy of BMW OF NORTH AMERICA, INC.

11 5 463 INSTALLATION DRIFT

Order number: 11 5 463

Installation drift

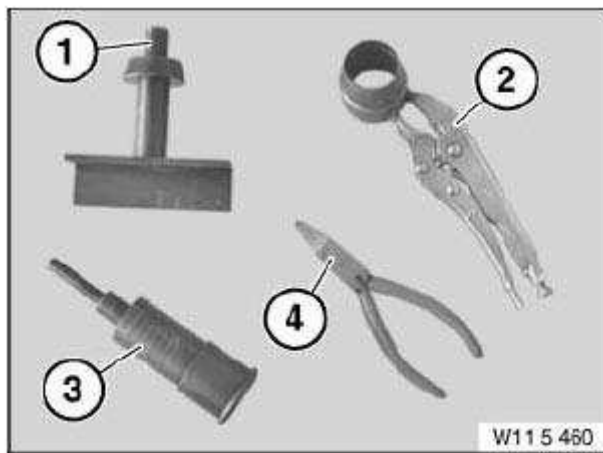


Fig. 31: Identify Special Tool (11 5 463)

Courtesy of BMW OF NORTH AMERICA, INC.

11 5 464 REMOVAL PLIERS

Order number: 11 5 464

Removal pliers

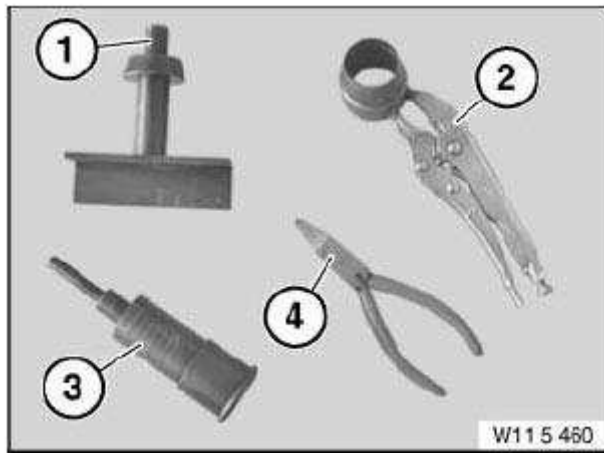


Fig. 32: Identify Special Tool (11 5 464)
Courtesy of BMW OF NORTH AMERICA, INC.

11 6 250 LEVER GAUGE (PUPPITAST)

Minimum set: Mechanical tools

NOTE: With small stand for measuring tooth backlash and axial clearance at balancing shafts, camshafts and crankshafts.

Engine: M43TU, M47T2, M57T2, M67TU, N57, N63, S85

SI number: 1 04 98(304)

Order number: 11 6 250

Lever gauge (Puppitast)

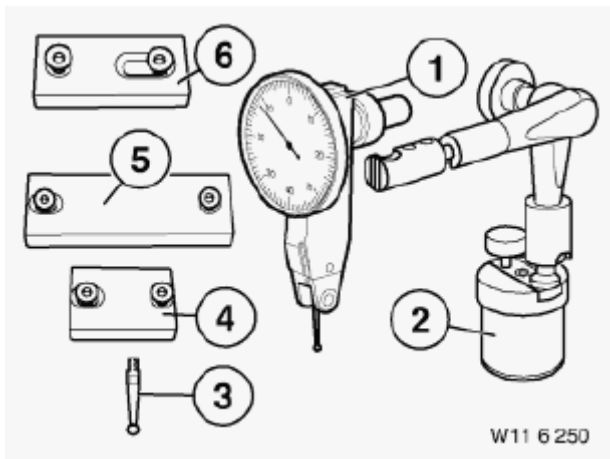


Fig. 33: Identify Special Tool (11 6 250)

Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 6 251 Lever gauge

NOTE: With 0.8 mm measuring range in each direction

2 = 11 6 252 Hydraulic small stand with magnetic foot

4 = 11 6 254 Support plate

NOTE: Engine: M47T2" M57T2" S85

5 = 11 6 255 Locating plate M7

NOTE: Camshaft Engine: M67TU

6 = 11 6 256 Locating plate M8

NOTE: Crankshaft Engine: M67TU

11 6 260 MOUNTING SLEEVES WITH CASE

Minimum set: Mechanical tools

NOTE: For installing pistons of 85 mm diameter (urgently required for pistons with U-Flex ring)

Engine: M43TU, M44, N51, N52, N52K, N53, N54

Order number: 11 6 260

Mounting sleeves with case

Consisting of:



Fig. 34: Identify Special Tool (11 6 260)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 6 261 Assembly bush

NOTE: Diameter 85.00 mm

2 = 11 6 262 Assembly bush

NOTE: Diameter 85.08 mm, repair

3 = 11 6 263 Assembly bush

NOTE: Diameter 85.25 mm, stage 1

4 = 11 6 264 Assembly bush

NOTE: Diameter 85.50 mm, stage 2

9 = 11 6 269 Case with foam inlay

NOTE: For holding assembly bushes, gauge 11 6 270 and lever gauge 11 6 250

11 6 370 PULLER

Minimum set: Mechanical tools

NOTE: For removing valve stem seal

Engine: M47, M47TU, M57, M57T2, M57TU, N40, N42, N43, N45, N45T, N46, N46T, N52, N62, N63, N73

Storage location: B15

SI number: 1 06 98(306)

Order number: 11 6 370

Puller

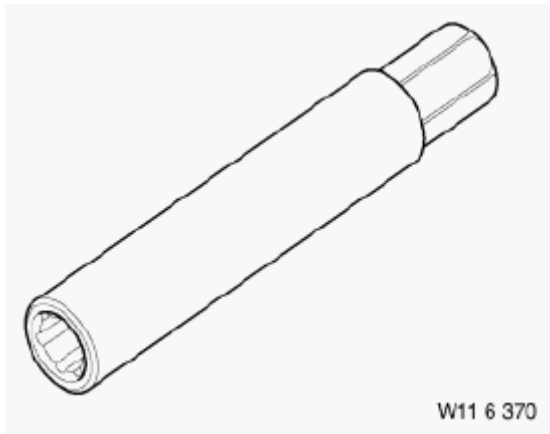


Fig. 35: Identify Special Tool (11 6 370)
Courtesy of BMW OF NORTH AMERICA, INC.

11 6 380 BUSH

Minimum set: Mechanical tools

NOTE: For fitting valve stem seal

Engine: M47, M47TU, M57, M57T2, M57TU, N12, N14, N40, N42, N43, N45, N45T, N46, N46T, N47, N47S, N51, N52, N52K, N53, N54, N57, N62, N63, N73

Storage location: B15

SI number: 1 06 98(306)

Order number: 11 6 380

Bush

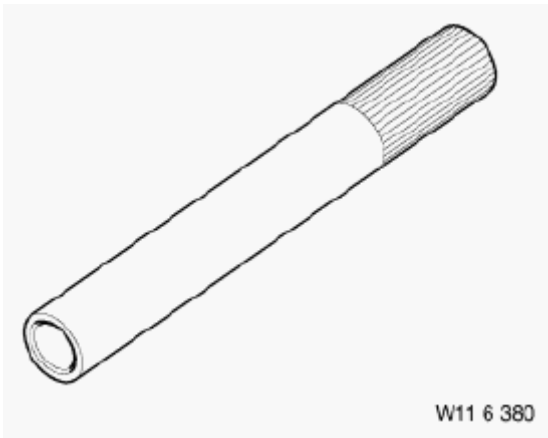


Fig. 36: Identify Special Tool (11 6 380)
Courtesy of BMW OF NORTH AMERICA, INC.

11 7 020 SOCKET WRENCH SOCKET WAF 22

Minimum set: Mechanical tools

NOTE: For loosening and tightening oxygen sensor

Engine: M10, M20, M30, M40, M42, M50, M52TU, M54, M56, M57, M57T2, M60, M70, M73, N12, N14, N42, N45, N46, N47, N47S, N53, N54, N63, S14, S38, S50B30, S50B32, S50US, S52US, S54, W16

Storage location: A9

Order number: 11 7 020

Socket wrench socket WAF 22



Fig. 37: Identify Special Tool (11 7 020)
Courtesy of BMW OF NORTH AMERICA, INC.

11 7 030 SOCKET WRENCH SOCKET WAF 22

Minimum set: Mechanical tools

In conjunction with: 11 9 150

NOTE: For loosening and tightening oxygen sensor

Engine: M40, M43, M43TU, M44, M52, M52TU, M54, M56, M62, N40, N42, N45, N46, N53, N54, N62, N62TU, N73, S54, S62, S85

Storage location: B15

SI number: 1 06 95 (963)

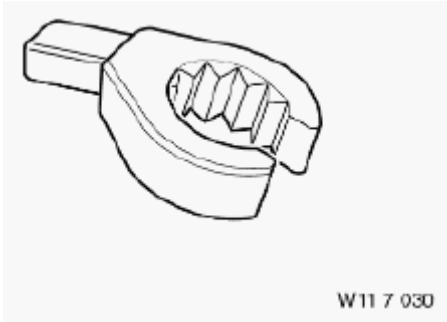


Fig. 38: Identify Special Tool (11 7 030)

Courtesy of BMW OF NORTH AMERICA, INC.

Order number: 11 7 030

Socket wrench socket WAF 22

11 7 200 PLUG-ON TOOL

In conjunction with: Commercially available torque wrench

NOTE: Open-ended spanner WAF 10 for tightening threaded connection of VANOS gear unit

Engine: N63, S54, S62

Storage location: C10

SI number: 1 23 98(390)

Order number: 11 7 200

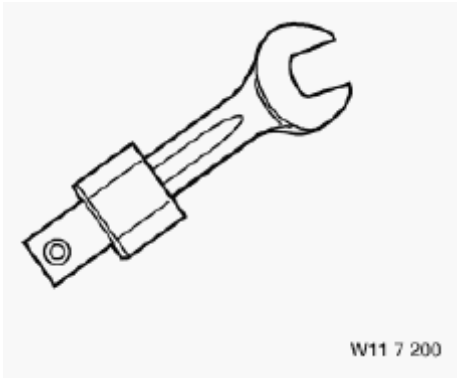


Fig. 39: Identify Special Tool (11 7 200)
Courtesy of BMW OF NORTH AMERICA, INC.

Plug-on tool

11 7 280 PISTON RING PLIERS

NOTE: For installing piston with connecting rod in crankcase (for 89 mm diameter).

Engine: N63, N73

Storage location: B42, C42

SI number: 1 14 02 (939)

Order number: 11 7 280

Piston ring pliers

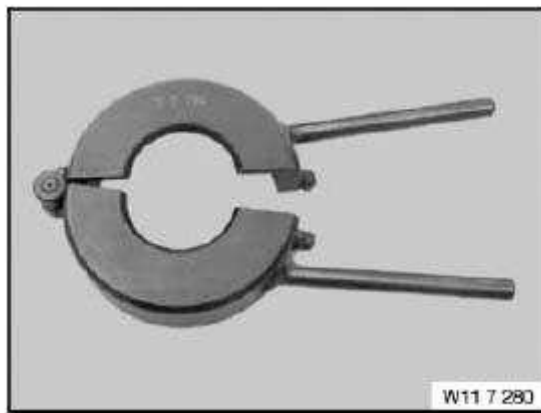


Fig. 40: Identify Special Tool (11 7 280)
Courtesy of BMW OF NORTH AMERICA, INC.

11 7 310 SPACER

Minimum set: Mechanical tools

NOTE: For supporting engine during removal and installation of transmission

Engine: M62, M73, N53, N54

Storage location: B6

SI number: 1 11 94 (858)

Order number: 11 7 310

Spacer

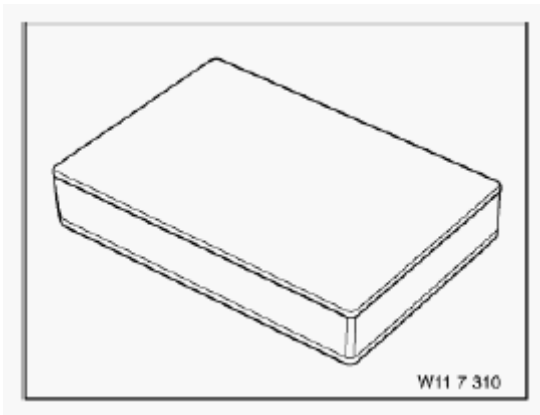


Fig. 41: Identify Special Tool (11 7 310)

Courtesy of BMW OF NORTH AMERICA, INC.

11 8 080 PRESSURE-TESTING FIXTURE

NOTE: For leak-testing cylinder head.

Engine: N63

SI number: 01 05 08 436

Order number: 11 8 080

Pressure-testing fixture

Consisting of:

1 = 11 8 081 Base plate

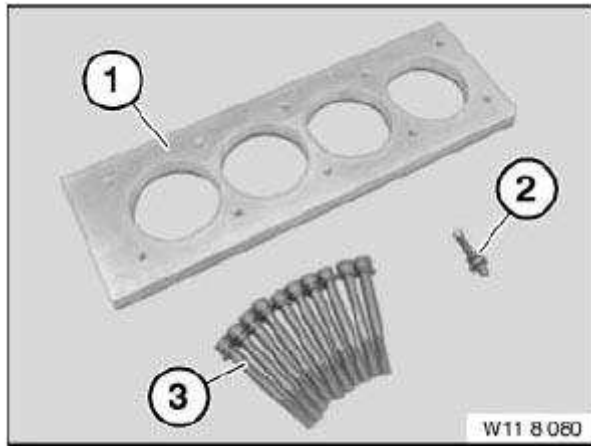


Fig. 42: Identify Special Tool (11 8 080)
Courtesy of BMW OF NORTH AMERICA, INC.

2 = 11 8 082 Valve

3 = 11 8 083 Set of screws

4 = 11 8 084 Replacement seal for base plate

11 8 090 HOLDER

NOTE: For releasing central bolt.

Engine: N63

SI number: 01 05 08 436

Order number: 11 8 090

Holder



Fig. 43: Identify Special Tool (11 8 090)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 8 150 INSERTION TOOL

Minimum set: Mechanical tools

NOTE: For removing and installing connecting rods

Engine: M67, M73, N63, N73

Storage location: B2, C2

SI number: 1 12 99(452)

Order number: 11 8 150

Insertion tool

Consisting of:

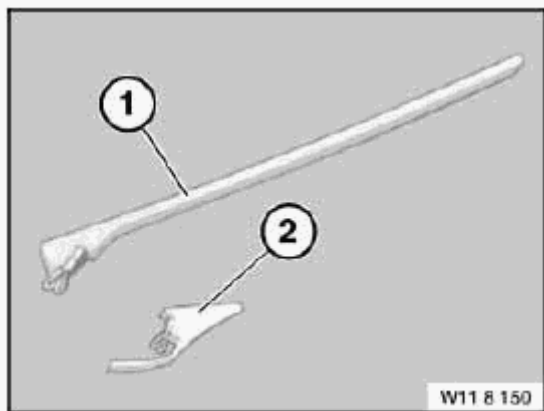


Fig. 44: Identify Special Tool (11 8 150)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 8 151 Insertion aid 1 with spring clip, long

2 = 11 8 152 Insertion aid 2 with spring clip, short

11 8 180 HOLDER

Minimum set: Mechanical tools

NOTE: Blocking flywheel when releasing and tightening down central bolts on vibration damper

Engine: M47T2, M47TU, M57T2, M57TU, M67, N43, N45, N45T, N46, N46T, N47, N47S, N51, N52, N53, N54, W17

Storage location: C45, C46

SI number: 1 12 99 (452)

Order number: 11 8 180

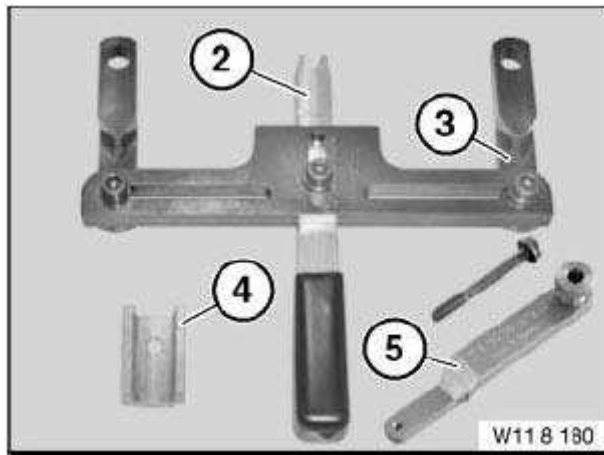


Fig. 45: Identify Special Tool (11 8 180)
Courtesy of BMW OF NORTH AMERICA, INC.

Holder

Consisting of:

2 = 11 8 182 Locking piece

3 = 11 8 183 Basic body

4 = 11 8 184 Adapter

NOTE: E65/M67

5 = 11 8 185 Adapter with setting sleeve

NOTE: E46 M47TU

11 8 730 ADAPTER

Minimum set: Mechanical tools

In conjunction with: 11 0 220

NOTE: For compression testing.

Engine: N12, N14, N43, N53, N54, N63

SI number: 1 04 07 (352)

Order number: 11 8 730

Adapter

Consisting of:



Fig. 46: Identify Special Tool (11 8 730)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 8 731 Adapter

2 = 11 8 732 Sealing ring

NOTE: For firmly connecting test probe 11 0 222 and adapter 11 8 730/731.

11 8 510 GAUGE

NOTE: For securing oil spray nozzles

Engine: N54

SI number: 1 20 06 (299)

Order number: 11 8 510

Gauge

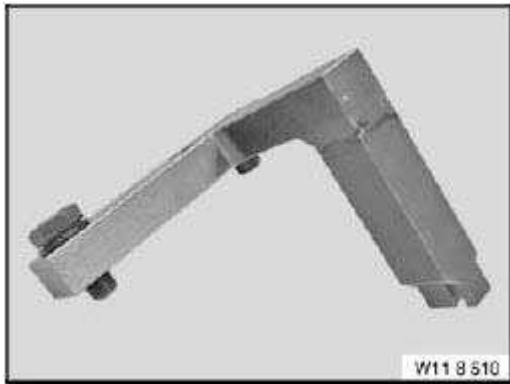


Fig. 47: Identify Special Tool (11 8 510)
Courtesy of BMW OF NORTH AMERICA, INC.

11 8 520 GAUGE WITH SCREWS

Minimum set: Mechanical tools

NOTE: For disconnecting camshaft sensor gears.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 520

Gauge with screws

Consisting of:

1 = 11 8 521 Gauge

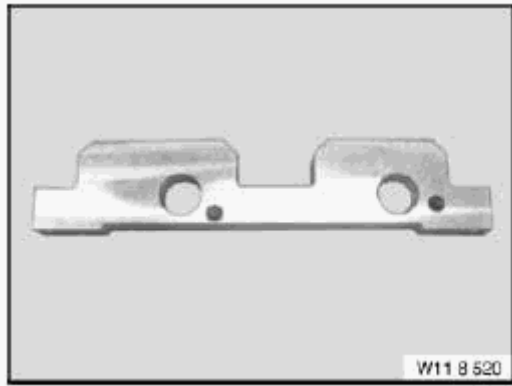


Fig. 48: Identify Special Tool (11 8 520)
Courtesy of BMW OF NORTH AMERICA, INC.

2 = 11 8 522 M6x45 screws (2 x)

11 8 530 REMOVAL AND INSTALLATION TOOL

Minimum set: Mechanical tools

NOTE: For removing and installing sealing cap on vacuum pump.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 530

Removal and installation tool

Consisting of:

1 = 11 8 531 Baseplate

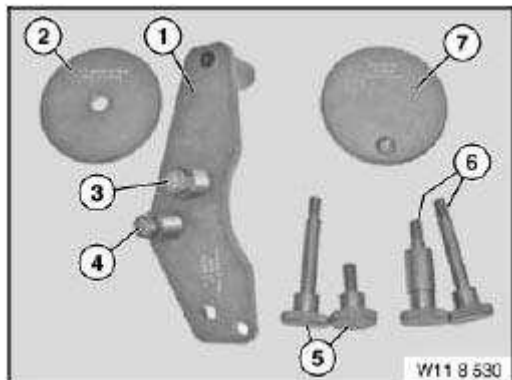


Fig. 49: Identify Special Tool (11 8 530)
Courtesy of BMW OF NORTH AMERICA, INC.

2 = 11 8 532 Pressure plate

3 = 11 8 533 Spindle (pressure plate)

4 = 11 8 534 Spindle (removal plate)

5 = 11 8 535 Set of M10 screws (N54)

6 = 11 8 536 Set of M11 screws incl. sleeve (N53)

7 = 11 8 537 Removal plate

11 8 540 ENGINE SUPPORT PLATE

In conjunction with: 00 1 450" 00 2 300

NOTE: For accommodating engine on assembly stand.

Engine: N51, N52, N52K, N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 540

Engine support plate

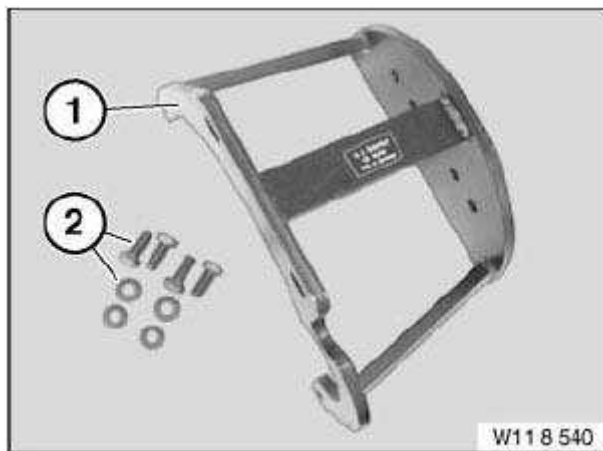


Fig. 50: Identify Special Tool (11 8 540)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 8 541 Engine take-up

2 = 11 8 542 Set of screws (4 x)

11 8 550 LOCATING FIXTURE

Minimum set: Mechanical tools

NOTE: For securing bearing strips when installing inlet camshaft.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 550

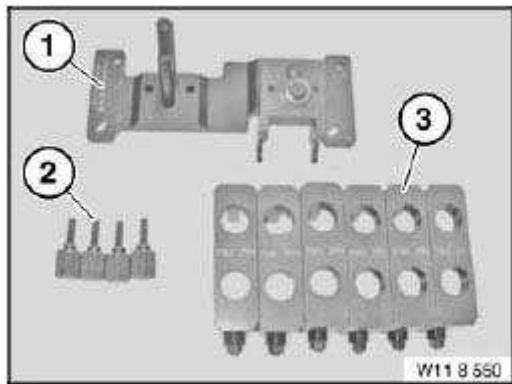


Fig. 51: Identify Special Tool (11 8 550)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 8 551 Press-down tool

2 = 11 8 552 Knurled screw (4 x)

3 = 11 8 553 Thrust piece (6 x)

11 8 560 REMOVAL AND INSTALLATION KIT

In conjunction with: 11 5 464

NOTE: For removing and installing piston pin retaining rings.

Engine: N54

SI number: 1 20 06 (299)

Order number: 11 8 560

Removal and installation kit

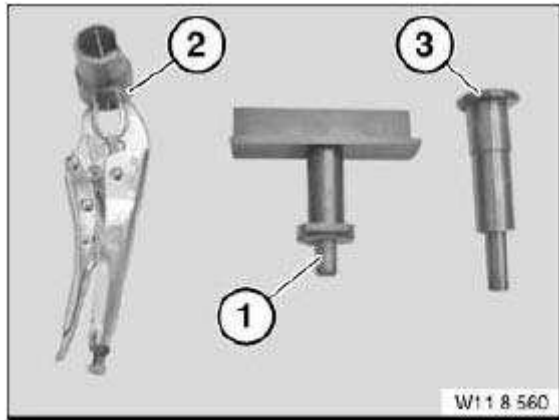


Fig. 52: Identify Special Tool (11 8 560)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 8 561 Mounting holder

2 = 11 8 562 Mounting pliers

3 = 11 8 563 Drift

11 8 570 LOCATING TOOL

In conjunction with: 11 9 190

NOTE: For locating engine at TDC.

Engine: N63

SI number: 01 05 08 436

Order number: 11 8 570

Locating tool



Fig. 53: Identify Special Tool (11 8 570)
Courtesy of BMW OF NORTH AMERICA, INC.

11 8 580 WRENCH SOCKET TORX T60

Minimum set: Mechanical tools

NOTE: For removing and installing cylinder head (outside dia. 13.5 mm).

Engine: N52K, N53, N54

Storage location: A20, B20

SI number: 1 20 06 (299)

Order number: 11 8 580

Wrench socket Torx T60



Fig. 54: Identify Special Tool (11 8 580)

Courtesy of BMW OF NORTH AMERICA, INC.

11 8 590 INSERTION TOOL

NOTE: For installing piston with conrod in cylinder head.

Engine: N54

SI number: 1 20 06 (299)

Order number: 11 8 590

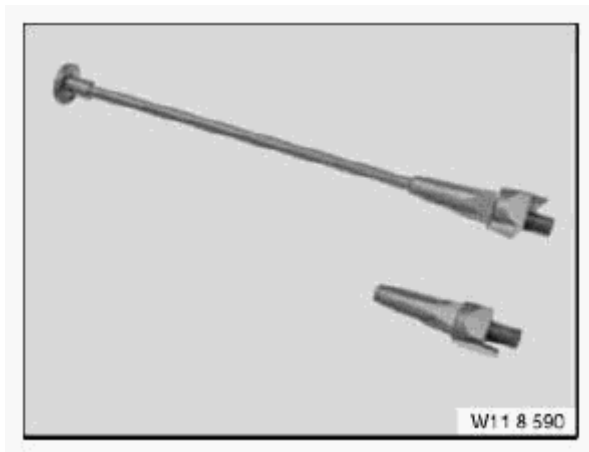


Fig. 55: Identify Special Tool (11 8 590)

Courtesy of BMW OF NORTH AMERICA, INC.

11 8 610 WRENCH SOCKET, HEXAGON SOCKET WAF 5

Minimum set: Mechanical tools

NOTE: For removing and installing high-pressure pump (length 125 mm).

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 610

Wrench socket, hexagon socket WAF 5



Fig. 56: Identify Special Tool (11 8 610)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 8 620 WRENCH SOCKET WAF 10

Minimum set: Mechanical tools

NOTE: For removing and installing injector ground connection screws.

Engine: N54

SI number: 1 20 06 (299)

Order number: 11 8 620

Wrench socket WAF 10



Fig. 57: Identify Special Tool (11 8 620)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 8 640 TORX SOCKET E10

Minimum set: Mechanical tools

NOTE: For removing and installing oil pump triangle drive.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 640

Torx socket E10



Fig. 58: Identify Special Tool (11 8 640)
Courtesy of BMW OF NORTH AMERICA, INC.

11 8 650 HOLDER

Minimum set: Mechanical tools

NOTE: For removing and installing oil pump drive ring gear.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 650



Fig. 59: Identify Special Tool (11 8 650)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 8 660 HOLDER

Minimum set: Mechanical tools

NOTE: For locking flywheel with A-transmission installed.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 660

Holder

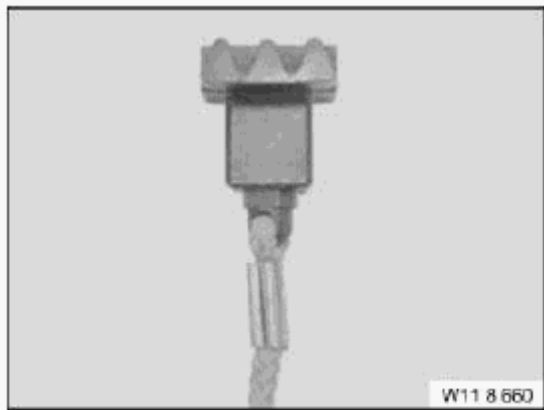


Fig. 60: Identify Special Tool (11 8 660)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 8 670 PLIERS

NOTE: For removing and installing boost air line.

Engine: N54

SI number: 1 20 06 (299)

Order number: 11 8 670



Fig. 61: Identify Special Tool (11 8 670)
Courtesy of BMW OF NORTH AMERICA, INC.

11 8 680 ADAPTER

NOTE: For securing engine during removal and installation.

Engine: N53, N54

SI number: 1 20 06 (299)

Order number: 11 8 680



Fig. 62: Identify Special Tool (11 8 680)
Courtesy of BMW OF NORTH AMERICA, INC.

11 8 730 ADAPTER

Minimum set: Mechanical tools

In conjunction with: 11 0 220

NOTE: For compression testing.

Engine: N12, N14, N43, N53, N54, N63

SI number: 1 04 07 (352)

Order number: 11 8 730

Adapter

Consisting of:



Fig. 63: Identify Special Tool (11 8 730)
Courtesy of BMW OF NORTH AMERICA, INC.

1 = 11 8 731 Adapter

2 = 11 8 732 Sealing ring

NOTE: For firmly connecting test probe 11 0 222 and adapter 11 8 730/731.

11 8 840 VALVE SPRING BASKET

In conjunction with: 11 9 000

NOTE: For removing and installing valves.

Engine: N47, N47S, N57, N63, W16

SI number: 1 05 07 (353)

Order number: 11 8 840

Valve spring basket



Fig. 64: Identify Special Tool (11 8 840)
Courtesy of BMW OF NORTH AMERICA, INC.

11 8 920 HOLDER

In conjunction with: 11 9 280

NOTE: For removing oil pump flange.

Engine: N63

SI number: 01 05 08 436

Order number: 11 8 920



Fig. 65: Identify Special Tool (11 8 920)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 8 930 ENGINE TAKE-UP

In conjunction with: 00 2 300

NOTE: For accommodating engine on engine assembly stand.

Engine: N63

SI number: 01 05 08 436

Order number: 11 8 930



Fig. 66: Identify Special Tool (11 8 930)
 Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 8 931 Engine take-up

2 = 11 8 932 Set of screws

11 9 000 CYLINDER HEAD EXPANDER TOOL

Minimum set: Mechanical tools

In conjunction with: Assembly stand 00 1 450

Engine: M10, M20, M20B25, M20B27, M21, M30, M30B34, M30Tur, M40, M41, M42, M43, M43TU, M44, M47, M47TU, M50, M51, M52, M52TU, M54, M56, M57, M57D25, M57D30, M57T2, M57TU, M60, M62, M62VAN, M67, M70, M73, M88, N12, N14, N40, N42, N45, N46, N51, N52, N53, N54, N62, N62TU, N73, S14, S38, S50B30, S50B32, S50US, S52US, S54, S62, S85, W10, W11, W17

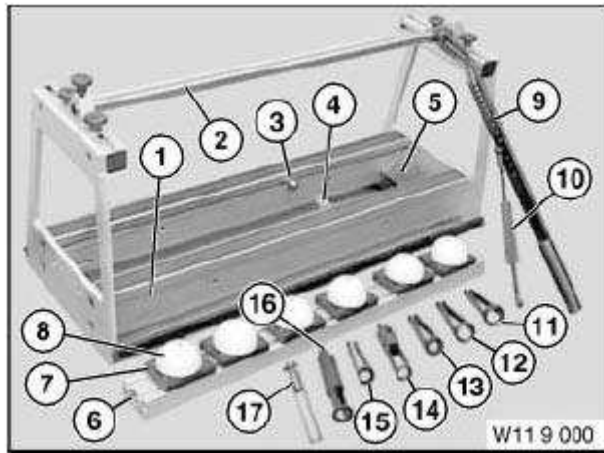


Fig. 67: Identify Special Tool (11 9 000)
Courtesy of BMW OF NORTH AMERICA, INC.

Storage location: Single

SI number: 1 03 02 (833)

Order number: 11 9 000

Cylinder head expander tool

Consisting of:

1 = 11 9 001 Fixture

2 = 11 9 002 Rod

3 = 11 9 003 Sliding block with M10 thread

4 = 11 9 004 Tab

5 = 11 9 005 Quick tensioner

6 = 11 9 006 Aluminium profile insert

7 = 11 9 007 Slide

8 = 11 9 008 Profile plastic part

9 = 11 9 009 Lever

10= 11 9 011 Hook

11 = 11 9 012 Valve spring cage

NOTE: Engine M41, M51, S50

12 = 11 9 013 Valve spring cage

NOTE: Engine M43, M73

13 = 11 9 014 Valve spring cage

NOTE: Engine M44, M52, M54, M56, M62, S52, S54, S62

14 = 11 9 015 Valve spring cage

NOTE: Engine M47, M47TU, M57, M57TU, N40, N42, N62, N73

15 = 11 9 016 Valve spring cage

NOTE: Engine M21, M40

16 = 11 8 421 Valve spring cage

NOTE: Engine: W10, W11, W17

17 = 11 9 017 Valve spring cage

NOTE: Engine N52

11 9 150 SPECIAL WRENCH

Minimum set: Mechanical tools

In conjunction with: 11 7 030

NOTE: For releasing and tightening down oxygen sensors

Engine: M54, M56, N12, N14, N42, N45, N46, N53, N54, N62, N62TU, N73, S54, S85

Storage location: A42

SI number: 01 15 00 (609)



Fig. 68: Identify Special Tool (11 9 150)
Courtesy of BMW OF NORTH AMERICA, INC.

Order number: 11 9 150

Special wrench

11 9 180 INSTALLER

Minimum set: Mechanical tools

NOTE: For RSS into engine block at rear

Engine: N40, N42, N43, N45, N45T, N46, N46T, N51, N52, N52K, N53, N54

Storage location: C43

SI number: 1 01 01(662)

Order number: 11 9 180

Installer

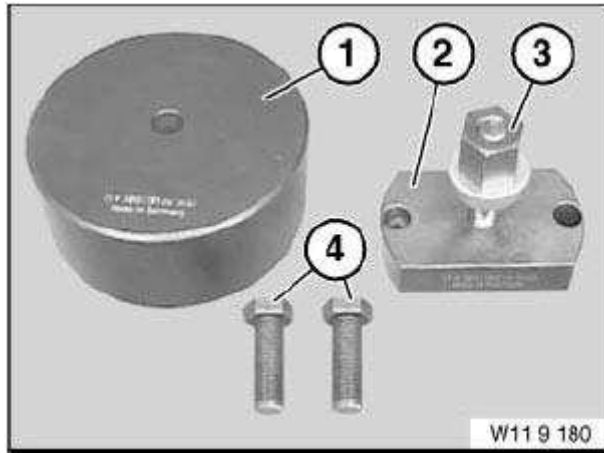


Fig. 69: Identify Special Tool (11 9 180)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 9 181 Bushing

2 = 11 9 182 Thrust piece

3 = 11 9 183 Nut

4 = 11 9 184 Screws (2 x)

11 9 190 PLUG MANDREL

Minimum set: Mechanical tools

NOTE: For locking flywheel in TDC position

Engine: N40, N42, N62, N62TU, N63, N73

Storage location: B43

SI number: 1 01 01(662)

Order number: 11 9 190

Plug mandrel



Fig. 70: Identify Special Tool (11 9 190)
Courtesy of BMW OF NORTH AMERICA, INC.

11 9 200 PULLER

Minimum set: Mechanical tools

NOTE: For RSS out of engine block at rear

Engine: N40, N42, N43, N45, N45T, N46, N51, N52, N52K, N53, N54

Storage location: C43

SI number: 1 01 01(662)

Order number: 11 9 200



Fig. 71: Identify Special Tool (11 9 200)
Courtesy of BMW OF NORTH AMERICA, INC.

11 9 220 PULLER

Minimum set: Mechanical tools

NOTE: For RSS out of engine block at front

Engine: N40, N42, N43, N45, N45T, N46, N51, N52, N52K, N53, N54

Storage location: C43

SI number: 1 01 01(662)

Order number: 11 9 220

Puller

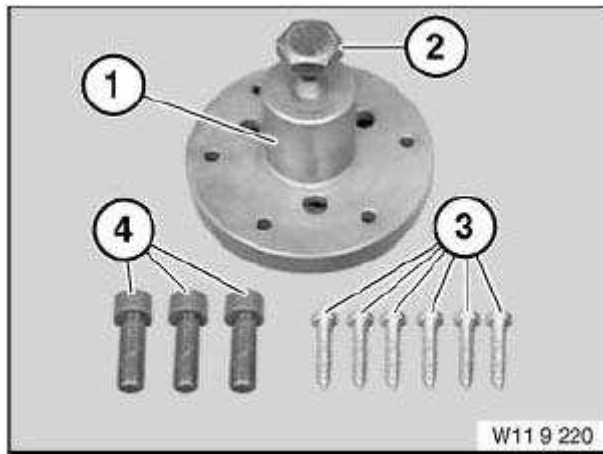


Fig. 72: Identify Special Tool (11 9 220)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 9 221 Thrust member

In conjunction with:

4 = 11 9 224 Screws (3 x)

5 = 11 9 225 Screw

6 = 11 9 226 Extractor

11 9 230 INSTALLER

Minimum set: Mechanical tools

NOTE: For RSS into engine block at front

Engine: N40, N42, N43, N45, N45T, N46, N51, N52, N52K, N53, N54

Storage location: C43

SI number: 1 01 01(662)

Order number: 11 9 230

Installer

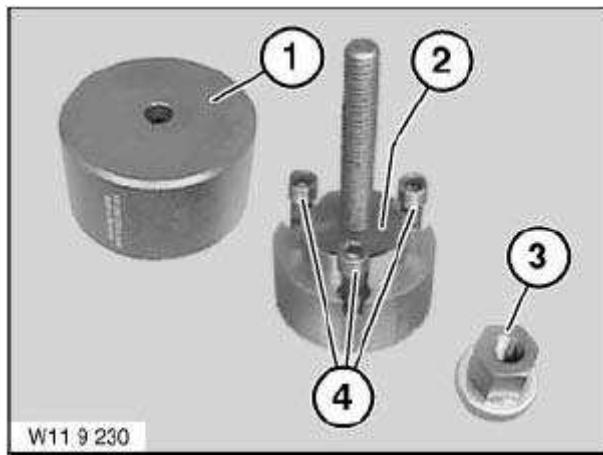


Fig. 73: Identify Special Tool (11 9 230)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 9 231 Bushing

2 = 11 9 232 Spindle

3 = 11 9 233 Nut

4 = 11 9 234 Screws (3 x)

11 9 240 OIL FILTER WRENCH

Minimum set: Mechanical tools

NOTE: For unfastening and tightening oil filter cap

Engine: N40, N42, N43, N45, N45T, N46, N46T, N51, N52, N52K, N53, N54, N63

Storage location: A43

SI number: 1 01 01 (662)

Order number: 11 9 240



Fig. 74: Identify Special Tool (11 9 240)

Courtesy of BMW OF NORTH AMERICA, INC.

11 9 260 COUNTER SUPPORT WITH SCREW CONNECTION

Minimum set: Mechanical tools

NOTE: For locking flywheel with transmission removed

Engine: M47TU, M54, M57T2, M57TU, N40, N42, N43, N45, N45T, N46, N46T, N47, N47S, N51, N52, N53, N54, N62, N63, N73, S65, S85, W17

Storage location: B43

SI number: 1 01 01 (662)

Order number: 11 9 260



Fig. 75: Identify Special Tool (11 9 260)
Courtesy of BMW OF NORTH AMERICA, INC.

Counter support with screw connection

Consisting of:

1 = 11 9 261 Counterholder, individual

2 = 11 9 262 Bolt (M10 thread) with washer

NOTE: For bolting down counterholder

3 = 11 9 263 Sleeve for counterholder

NOTE: For counterholder for locking flywheel with transmission removed engine: N62, N73

4 = 11 9 264 Bolt (M12 thread)

NOTE: For counterholder for locking flywheel with transmission removed

5 = 11 9 265 Sleeve

6 = 11 9 266 Sleeve

NOTE: For counterholder for locking flywheel with transmission removed Engine: M57TU2

11 9 280 HOLDER

Minimum set: Mechanical tools

NOTE: For crankshaft when releasing/tightening central bolt

Engine: N12, N14, N40, N42, N43, N45, N46, N51, N52, N52K, N53, N63

Storage location: A43, B43, C43

SI number: 1 01 01(662)

Order number: 11 9 280

Holder

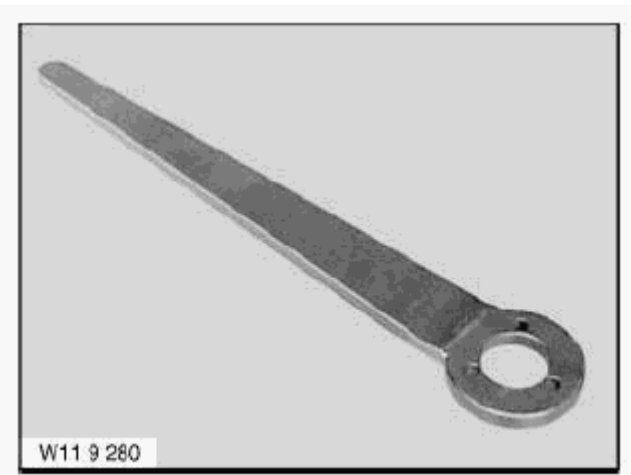


Fig. 76: Identify Special Tool (11 9 280)
Courtesy of BMW OF NORTH AMERICA, INC.

11 9 340 CHAIN TENSIONER, COMPLETE

Minimum set: Mechanical tools

NOTE: For tensioning timing chain when adjusting timing

Engine: N12, N14, N40, N42, N43, N45, N45T, N46, N46T, N51, N52, N52K, N53, N54

Storage location: B43

SI number: 1 01 01(662)

Order number: 11 9 340

Chain tensioner, complete

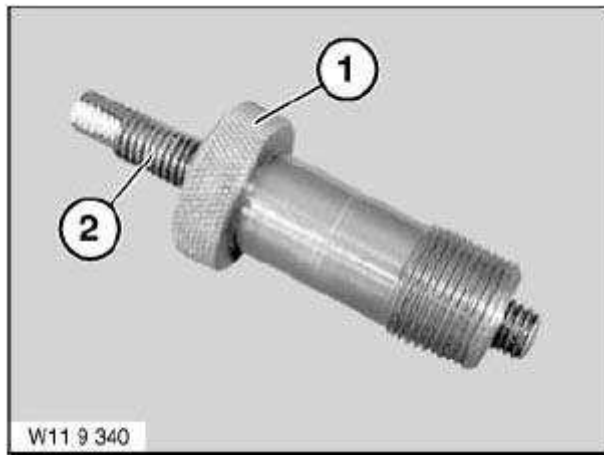


Fig. 77: Identify Special Tool (11 9 340)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 9 341 Screw

2 = 11 9 342 Spindle

11 9 360 DRIFT

Minimum set: Mechanical tools

NOTE: For driving valve into engine block (sealing compound)

Engine: N40, N42, N43, N45, N45T, N46, N46T, N51, N52, N52K, N53, N54, S85

Storage location: A43

SI number: 1 01 01(662)

Order number: 11 9 360

Drift



Fig. 78: Identify Special Tool (11 9 360)
Courtesy of BMW OF NORTH AMERICA, INC.

11 9 410 PULLER

Minimum set: Mechanical tools

NOTE: For pulling radial seal out of engine block at front

Engine: N62, N62TU, N63, N73

Storage location: A45

SI number: 1 14 01(766)

Order number: 11 9 410

Puller



Fig. 79: Identify Special Tool (11 9 410)

Courtesy of BMW OF NORTH AMERICA, INC.

11 9 420 INSTALLER

Minimum set: Mechanical tools

NOTE: For drawing in radial shaft seal in gearcase cover at bottom

Engine: N62, N62TU, N63, N73

Storage location: C45

SI number: 1 14 01(766)

Order number: 11 9 420

Installer



Fig. 80: Identify Special Tool (11 9 420)

Courtesy of BMW OF NORTH AMERICA, INC.

11 9 450 COUNTER HOLDER W/ SOCKET & POINTER

Minimum set: Mechanical tools

NOTE: For gripping crankshaft when releasing/tightening central bolt

Engine: N62, N62TU, N63, N73

Storage location: A45, C42

SI number: 1 14 01 (766)

Order number: 11 9 450

Counter holder w/ socket & pointer



Fig. 81: Identify Special Tool (11 9 450)
Courtesy of BMW OF NORTH AMERICA, INC.

Consisting of:

1 = 11 9 451 Lever

2 = 11 9 452 Disk

NOTE: Height 22.5 mm with hexagon screw

3 = 11 9 453 Pointer

4 = 11 9 454 Socket WAF 27

5 = 11 9 455 Disk

NOTE: Height 10 mm with hexagon screw

11 9 811 HOLDER

Order number: 11 9 811

Holder

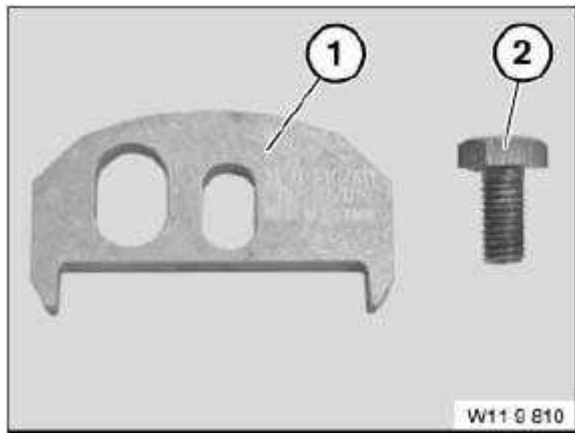


Fig. 82: Identify Special Tool (11 9 811)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 9 812 SCREW

Order number: 11 9 812

Screw

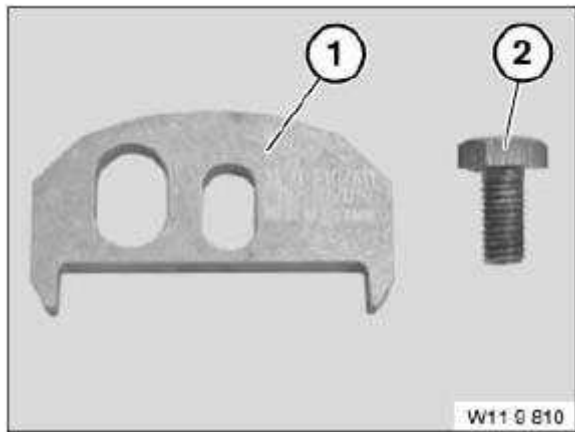


Fig. 83: Identify Special Tool (11 9 812)
 Courtesy of BMW OF NORTH AMERICA, INC.

11 9 900 CHAIN TENSIONER

NOTE: For pretensioning timing chain when adjusting timing.

Engine: N63

SI number: 01 05 08 436

Order number: 11 9 900

Chain tensioner

Consisting of:

1 = 11 9 901 Chain tensioner

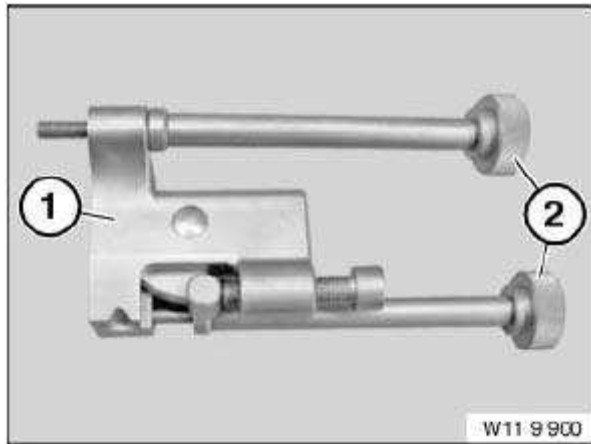


Fig. 84: Identify Special Tool (11 9 900)
Courtesy of BMW OF NORTH AMERICA, INC.

2 = 11 9 902 Set of screws