

Applications

Make	Model	Type	Year
BMW	1 Series 118d/120d/123d	E81/82/87/88	2007-2014
	1 Series 116d/118d/120d/125d	F20/21	2011-2015
	3 Series 316d/318d/320d/325d/330d	E90/91/92/93	2009-2014
	3 Series 316d/318d/320d/325d/330d	F30/31	2012-2016
	5 Series 520d	E60/61	2007-2010
	5 Series 518d/520/525d	F10/11	2010-2016
	5 Series GT	F07	2012-2014
	X1 sDrive16d/20d/23d/25d	E84	2009-2016
	X3 D/xDrive 18d/20d	E83	2007-2010
	X3 xDrive18d/20d	F25	2011-2014
	5 Series 535d/330d/xDrive	F10/11	2010-2014
	5 Series GT	F07	2009-2014
	6 Series Coupe 30d	F12/13/F06	2011-2014
	7 Series 730d/740d/xDrive	F01/02/04	2008-2014
Mini	X3 xDrive30d/35d	F25	2011-2016
	X5 30d/40d xDrive	E70	2010-2013
	X6 30d/40d xDrive	E71/72	2010-2014
	7 Series 750d xDrive	F01/02/04	2012-2016
	Clubman One/Cooper/Clubvan/D/SD	R55/56/57	2010-2016
	Countrymen One/Cooper/D/SD	R60	2010-2016
	Coupe Cooper SD	R58	2011-2016
	Paceman /Cooper/D/SD	R61	2013-2016
	Roadster	R59	2013-2016

Engine Code	
1.6	N47 D16, N47 D16C, N47 C16U1, N47 C16K1, N47 C16A/U1
2.0	N47 D20A/K0, N47 D20A, N47S D20B/D/T0, N47 D20C/K1, N47 D20C/U1, N47 D20C N47 D20D/T1, N47 D20A/OU0, N47T D20K1, N47 D20U0, N47T D20U1, N47T D20O1 N47 D20C/U1, N47 D20C/O, N47 D20C/O1, N47 D20O0, N47S D20D/T0, N47 D20D N47 D20A/O0, N47 D20O1, N47 C20K1, N47 C20U1, N47 C20A/K1
3.0	N57 D30U0, N57 D30A/O0, N57 D30A/O1, N57 D30, N57 D30U0, N57 D30O0 N57 D30O1, N57 D30T0, N57 D30B/T1, N57 D30A/O0, N57 D30B, N57 D30A, N57 D30T0, N57 D30B/T0, N57 D30C

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by Sonic for incorrect use of any of our products, and Sonic cannot be held responsible for any damage to personnel, property or equipment when using the tools. Incorrect use will also invalidate the warranty.

If applicable, the applications database and any instructional information provided has been designed to offer general guidance for a particular tool's use and while all attention is given to the accuracy of the data no project should be attempted without referring first to the manufacturer's technical documentation (workshop or instruction manual) or the use of a recognised authority such as Autodata.

It is our policy to continually improve our products and thus we reserve the right to alter specifications and components without prior notice. It is the responsibility of the user to ensure the suitability of the tools and information prior to their use.

sonic

equipment

Instructions

Engine Timing Kit

BMW, Mini Diesel N47, 47S – 1.6, 2.0, 3.0



829033 - Engine Timing Kit

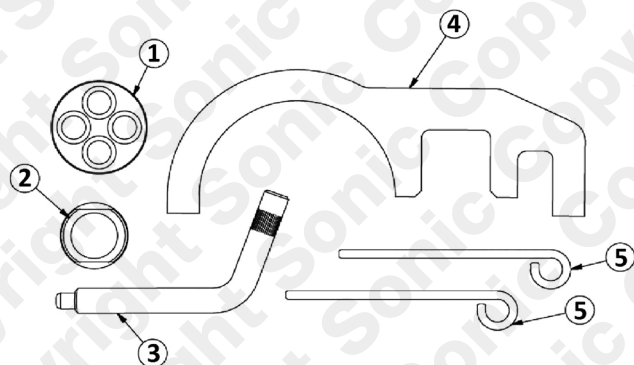
Description:

The 829033 has been Developed to allow the user to check and adjust the Camshaft timing and remove/replace the Cam chain on the 1.6/2.0 and 3.0 BMW Diesel engines found across the BMW range.

N.B: For some applications additional crankshaft holding tool OEM 11 4 320 may be required, sold separately as Sonic number: 829102
Front crankshaft holding OEM 11 7 220 tool available separately as Sonic 829105.

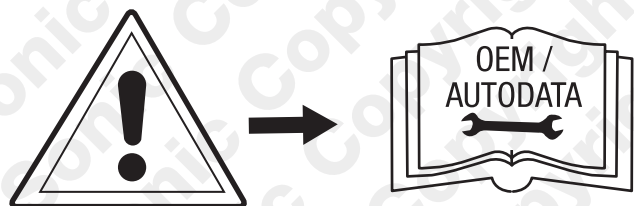
Components

Ref	Comp	OEM	Description
1	4880044	11 6 480	Crankshaft Turning Tool
2	4880045	11 8 740	High Pressure Fuel Pump Sprocket Retainer
3	4880046	11 5 320	Flywheel Timing Pin
4	4880037	11 8 760	Camshaft Alignment Tool
5	488	11 3 340	4mm Tensioner Pins

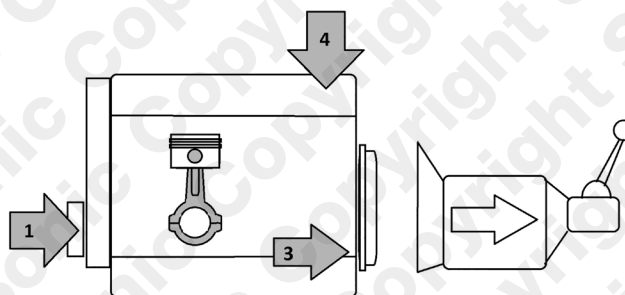


Instructions

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicles manufactures own data or Autodata. The use of these engine timing tools is purely down to the user's discretion and Sonic cannot be held responsible for any damage caused what so ever.



Instructions



Component Descriptions:

Component 1 - Crankshaft Turning Tool

Component 1 is used to turn the front pulley and crankshaft to its required position.

Component 2 - High Pressure Fuel Pump Sprocket Retaining Tool

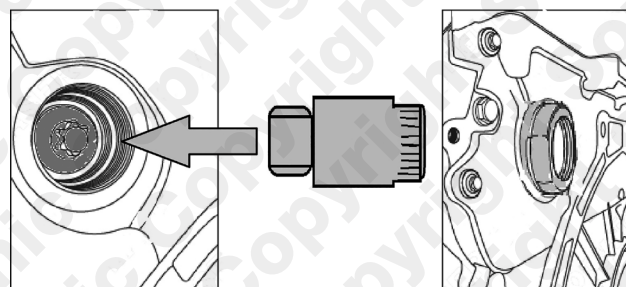
Component 2 is designed to allow the HP diesel pump to be removed whilst holding the pump sprocket in place so the Cam Chain, Valve timing etc. do not need to be disturbed to remove/replace the HP pump.

Locate and remove the plastic blanking plug that covers the HP pump sprocket holding bolt.

Ensure engine is at TDC No 1.

Screw component 2 into the sprocket (do not remove the sprocket central fixing bolt till Component 2 is in place)

Remove the HP pump mounting bolts and slacken the sprocket fixing via the centre of component 2. The HP pump will be pushed out of the back of the sprocket.

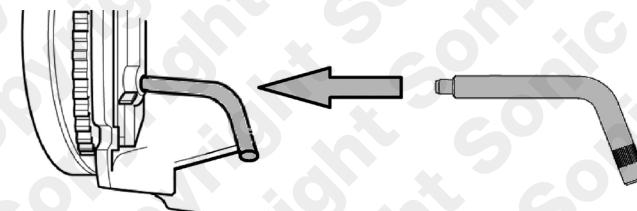


Component 3 - Flywheel Timing Pin

Component 3 is used to lock the crankshaft in its TDC no1 position. 3 locates through the engine block into the back of the Flywheel/ flywheel Plate. Turn the engine in its normal direction of rotation until the pin can be located fully. Confirm TDC no 1 cylinder by checking the position of the Cam lobes on no 1 cylinder.

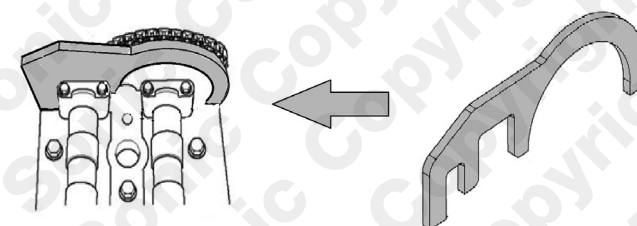


Cylinder no1 Cam lobe positions at TDC when viewed from the front of the engine



Component 4 - Camshaft Alignment Tool

Component 4 locates on the exhaust Cam just behind the Camshaft drive gears. Both ends of 4 should sit flush on the cylinder head when in place if the timing is correct. If incorrect, check component 3 is in place correctly. If 3 is correctly fitted then the camshaft timing must be adjusted.



Components 5 (x 2) - Chain Tensioner Locking Pins

Components 5 are used to lock the Chain Tensioners in their retracted position.