

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by the Tool Connection for incorrect use of any of our products, and the Tool Connection 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.

7253_Instructions_V3

Guarantee

If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186**. Normal wear and tear are excluded as are consumable items and abuse.



Distributed by The Tool Connection Ltd

Kineton Road, Southam, Warwickshire CV47 0DR
T +44 (0) 1926 815000 F +44 (0) 1926 815888
info@toolconnection.co.uk www.toolconnection.co.uk



www.lasertools.co.uk

LASER[®]

7253

Balance Shaft Removal & Alignment Kit

BMW/Mini 1.2 Diesel, 1.2/1.5 Petrol



- Engine codes B37 diesel engines, B38 petrol engines.
- Equivalent to OEM 2 288 943, 2 288 942 & 2 358 646 (use with 7067 split gear alignment tool).
- For engine timing on B37 diesel use Laser 6997.
For engine timing on B38 petrol use Laser 7242.
- EU Registered Design Back Plate.

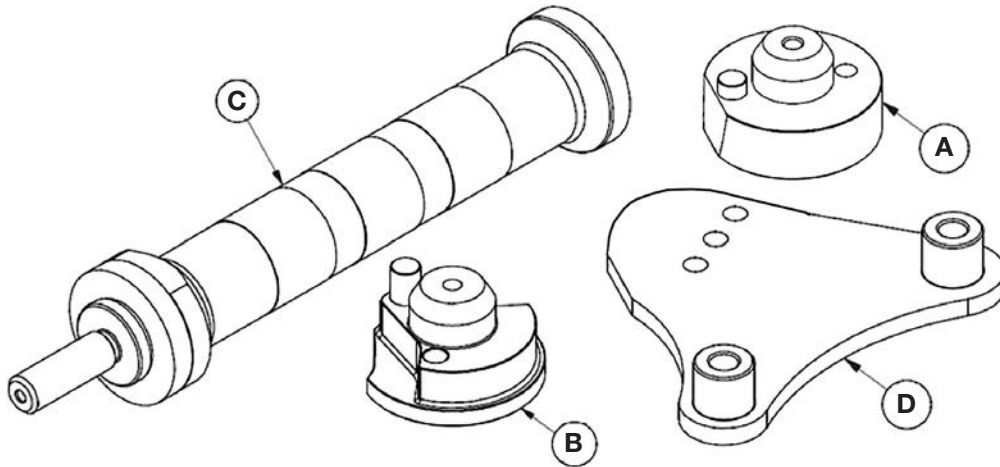
www.lasertools.co.uk

7253 - Balance Shaft Removal & Alignment Kit

This kit is made up of the essential tools required to remove, replace and time the balance shaft on the new BMW/Mini 1.2 and 1.5 petrol and 1.5 diesel engines. We recommend the use of the Laser 6997 timing tool kit and Laser 7067 split gear alignment tool when refitting the balance shaft split gear.

NOTE: The use of this kit requires the use of a copper mallet to drive out the balance shaft, wear protective gloves and eye protection at all times during use.

Components



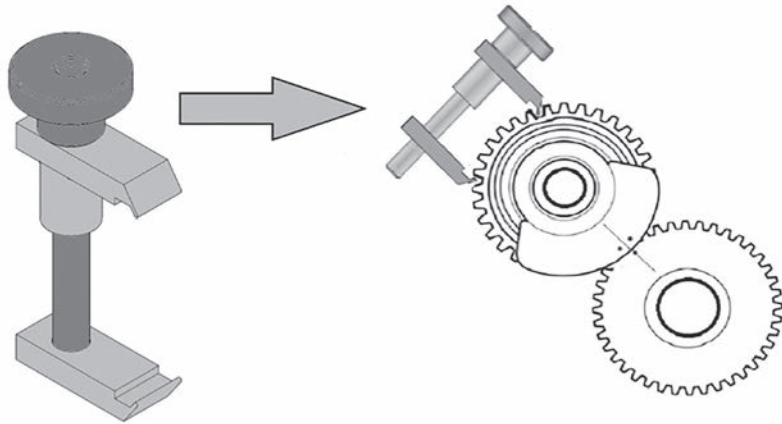
Ref	Code	OEM	Description
A	C839	2 288 942	Balancer shaft locking tool - Diesel
B	C854	2 358 646	Balancer shaft locking tool - Petrol
C	C840	2 288 943	Balancer shaft removal tool
D			Back Plate - EU Registered Design

Component C - Balance shaft removal tool:

NOTE: Safety glasses and protective gloves must worn.

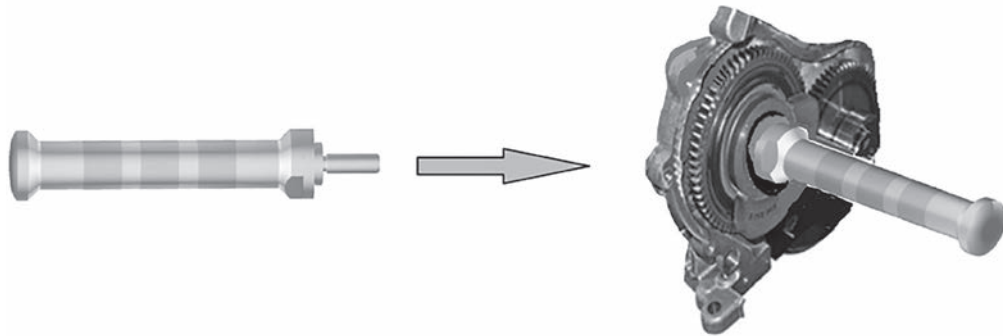
WARNING: Before attempting to knock out the balance shaft ensure the balance shaft alignment tool has been removed.

If the split gear is to be re-used, a split gear alignment tool should be used. We recommend the use of Laser 7067 as shown. (Not supplied in this kit)



Remove securing bolt from balance shaft gear and screw in the removal tool until it seats against the balance shaft.

Strike balance shaft removal tool until gear and balance shaft are separated, support the gear and balance shaft while sliding the shaft out of the engine.



Installation - (Refer to OEM instructions):

- Ensure the crankshaft is at TDC on No1 cylinder and all timing marks are aligned.
- Refit the balance shaft and fit the balance shaft split gear ensuring the marks are aligned with the crankshaft gear.
- Screw in the gear fixing bolt hand tight.
- Refit the balance shaft alignment tool (A) or (B) diesel or petrol and tighten the gear fixing to the manufacturers recommended torque.

Applications

Make	Model	Code	Years	Type
BMW	1 Series	(F20/21)	2015-2017	114d/116d/214d/216d 116d EfficientDynamics 116i/118i/216i/218i/318i 225xe sDrive 16d, sDrive 18i
	2 Series	(F22/F23/F45/F46)	2014-2017	
	3 Series	(F30/31)	2015-2017	
	i8	(I12)	2014-2017	
	X1	(F48)	2015-2017	
Mini	Clubman	(F54)	2015-2017	Cooper/D/One/D Ray
	Convertible	(F57)	2016-2017	
	Mini Hatch	(F55/F56)	2014-2017	

Engine Codes

1.2 Petrol	B38 A12A
1.5 Diesel	B37 D15A, B37 C15A
1.5 Petrol	B38 B15A, B38 A15A, B38 K15A

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 this Balancer Shaft Tool is purely down to the user's discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused what so ever.

N.B. Always turn the engine in normal direction of rotation.

Do not use timing tools to torque or loosen fixings against unless otherwise stated.



Preparation

Removal of the Balance shaft and gears require:

- Engine and transmission removal
- Cylinder head and flywheel removal
- Sump, timing chain and gear removal.

Instructions

Component A – Diesel Only Balance shaft locking tool,

Component B – Petrol Only Balance shaft locking tool,

With the engine set to TDC on No1 cylinder ensure that the timing marks on the balance shaft split gear and crankshaft gear are aligned as shown (front of the engine). Fit the corresponding Balance Shaft Locking Tool to the Back Plate (D) dependent on diesel component (A) or petrol component (B) and fit as shown (Flywheel end of the engine).

NOTE: The Balance shaft gear is a split gear design. We recommend the use of the Laser 7067 Split gear alignment tool to hold the 2 halves of the gear in alignment. If the gear is to be re-used do not remove the split gear alignment tool.

