

Master Engine Timing Tool Set For Ford , Mazda

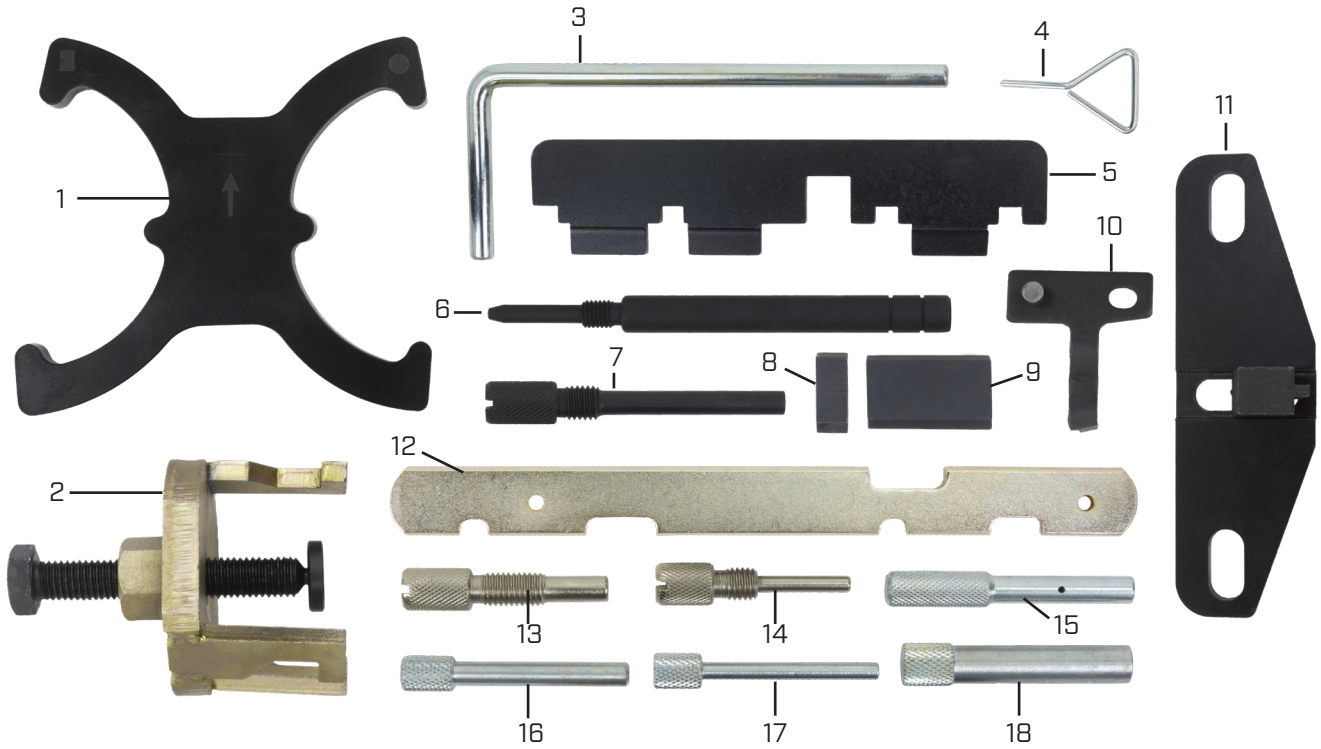


Information

- For Ford Mazda, Fiesta, Fusion, Puma, Focus, Focus C-Max, Mondeo, Cougar, S-Max, Galaxy, Courier, Tourneo Connect, and Transit Connect.
- Heat treated and made from heavy duty carbon steel.
- For Diesel and Gas Engines: FOR FORD 1.8 D/TD/TDCI diesel and 1.25-2.0 16V Zetec petrol engine.
- Includes: Camshaft and flywheel locking tools, a camshaft sprocket remover, pins for locking the various parts of the engine.

Precautions

Always wear safety gear.
Working in a clean and safe environment.
This task should be carried out by trained personnel.
Make sure to consult manufacturers manual.
Do NOT use with air tools.



Part	Description	Applications
1	VVT (Variable Valve Timing) Setting Tool	303-1097
2	Camshaft Sprocket Puller	21-229 303-651
3	Flywheel Timing Pin	303-1059
4	Tensioner Pulley Pin	303-1054
5	Camshaft Alignment Tool	
6	Crankshaft Locking Peg / Crankshaft TDC Pin	21-104 303-193
7	Crankshaft Timing Pin	21-163 303-620
8	Short Tooth Block	
9	Tooth Block	
10	Crankshaft Vibration Dampener Alignment Tool	
11	Flywheel Locking Tool	21-168 303-393
12	Camshaft Alignment Plate	21-162B 303-367 303-376
13	Crankshaft Timing Pin	21-259 303-748
14	Crankshaft Timing Pin	21-210 303-507
15	Camshaft Timing Pin	303-735 21-263
16	Camshaft Sprocket Pin	21-263 303-735
17	Crankshaft / Pump Pin	21-260 303-732
18	Flywheel Pin	21-262 303-734

Instructions

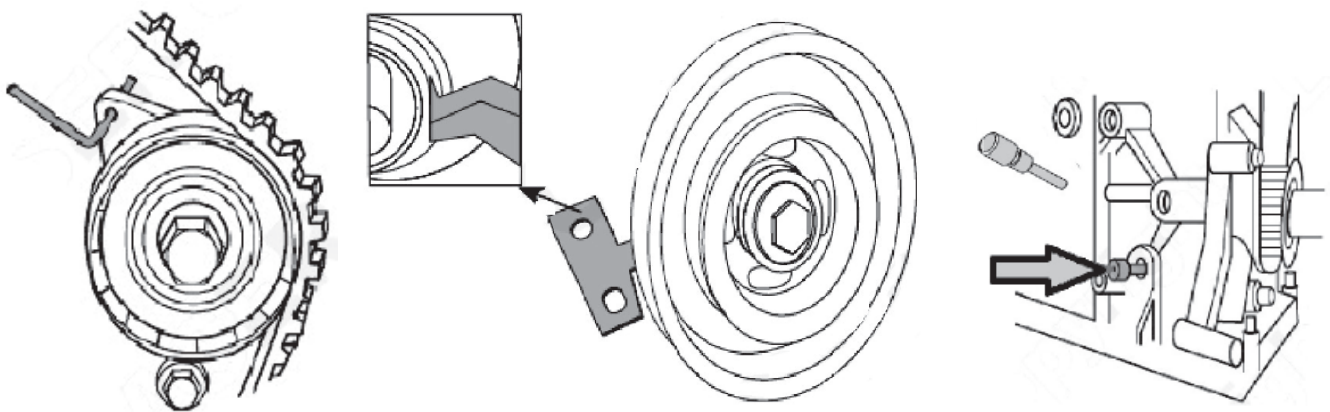
Step 1

- Insert the Camshaft Alignment Tool [5] onto 1.6 EcoBoost Sigma engines from 2010.
 - Insert the VVT Setting Tool [1] so it locks the variable valve timing camshaft sprockets.
- Use the Flywheel Timing Pin [3] to lock the belt tensioner.



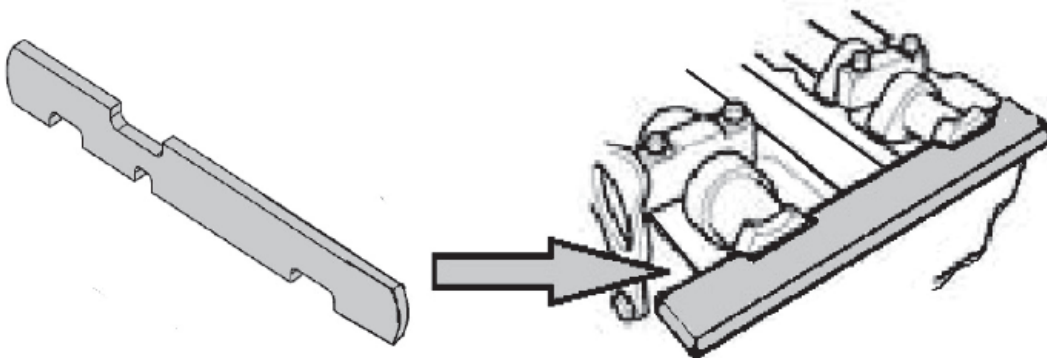
Step 2

- Use the Crankshaft Vibration Dampener Alignment Tool [10] to align the crankshaft front pulley for direct injection engines from 2010.
- Select the appropriate Crankshaft Timing Pin [7, 13, 14, 15, or 16] according to the OEM vehicle application data.
- Lock the crankshaft position by screwing in to the side of the block, and then locking it against the crankshaft web.



Step 3

- Use the Camshaft Alignment Plate [12] to lock both camshafts into their timed positions.



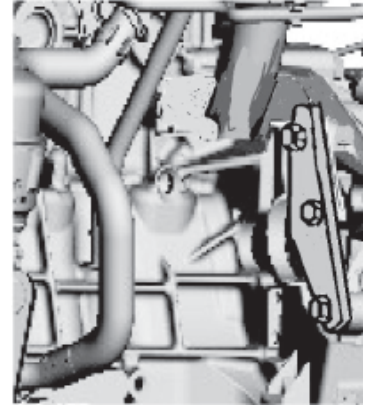
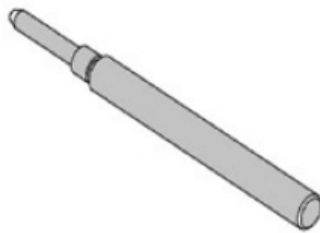
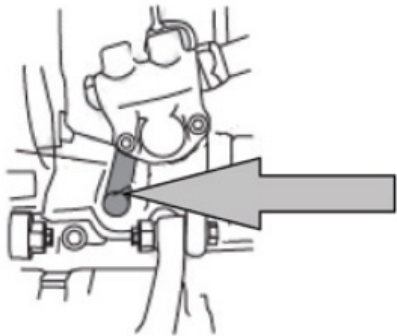
Instructions

Step 4

- Turn the crankshaft to just before TDC using the Crankshaft TDC Pin (6). Turn the crankshaft until contact is established.

Step 5

- Use the Flywheel Locking Tool (11) to hold the flywheel in place of the starter motor; allowing tightening and loosening of the front crankshaft pulley. Additional blocks are supplied (8 and 9).



Applications

- Ford Duratec petrol engine 1.25, 1.4, 1.6, 1.7, 1.8, and 2.0 twin cam 16V; compatible FORD Duratorq diesel engine 1.4, 1.6, 1.8, 2.0 TDCI; compatible with FORD ESCOBOOST 1.6 Ti-VCT, 1.5/1.6 VVT; compatible with MAZDA PSA 1.4, 1.6HDI engine. engine code: 1.25 16V (DHA, DHB, DHC, DHD, DHH, DHG, F8JA, F8JB, FUJA, FUJB, M7JA, M7JB) ; 1.4 16V (ASDA, ASDB, FHA, FHD, FHE, FHF, FXDA / C, FXDB / D, FXJA, FXJB).

- Engine codes:

1.6 16V (FYDA / C, FYDB / D, FYJA, FYJB, L1F, L1J, L1L, L1N, L1O, L1T, L1V, L1W, HWDA, HWDB); 1.7 16V (MHA, MHB); 1.8 16V (EYDB, EYDC, EYDD, EYDE, EYDJ, EYDG, EYDI, EYDJ, EYPA, EYPC, RKA, RKB, RKF, RKH, RKJ, RKK); 1.8 16V with control chain (CDBB, CGBA / B, CHBA / B, CSDA, CSDB, QQDA, QQDB, QQDC); 2.0 16V (EDBA / C, EDBB, EDBD, Eddb, EDDC, EDDD, EDDF, NGA, NGB, NGC, NGD); 2.0 RS / ST170 (ALDA, HMDA) 2.0 16V with control chain (AODA, AODB, AOWA, CJBA / B).

- Replace OEM:

303-1097; 303-748; 303-1550; 303-1552; 303-1054; 303-1059; 303-735; 303-1552; 303-393A; 303-393-01; 303-393-02; 303-376B; 303-651; 303-193; 303-507; 303-734; 303-732; 303-xtra.

- For Focus (2004-2008); for Focus C-Max (2003-2008); for Mondeo (2007-2008) 1.6 Ti-VCT 16V (HXDA) Diesel engines; for Duratorq Fiesta / Courier (2000-2006); for Focus (1998-2006); for Focus C-Max (2003-2008); for Mondeo (2007-2008); for Tourneo Connect (2002-2008); for Transit Connect (2002-2008); for Fusion (2002-2008); for S-Max (2006-2008); for Galaxy (2006-2008); 012 Ford B-Max 1.4L Duratec-16V; 2015 Ford C-Max 1.5L EcoBoost.

- Fitment vehicles:

2011 Ford C-Max 1.6L EcoBoost, 1.6L Duratec-16V Ti-VCT; 13 - 14 Ford Fusion 1.6L EcoBoost; 13 - 18 Ford Fusion 1.5L EcoBoost; 14 - 16 Ford Transit 1.6L EcoBoost for 03 - 05 Mazda MP 3.0L; 04 - 06 Mazda Tribute 2.0L 2.3L & 3.0L; 04- 09 Mazda 3 2.0L 2.3L.

- Compatible with Ford and Mazda vehicles.

Warranty

If you are unsure on how to use the item please contact us. If it were to fail due to a manufacturing fault or poor workmanship we will repair or replace it. Please contact your local dealer in the event you need to send the item back. You can also make a repair/replacement request on our website and download & complete the form online. Normal wear and tear along with misuse will void any warranty. Consumables are not covered under warranty.

www.welzh.com

Limited **12 month** warranty



Welzh Werkzeug Ltd
Loanwath Road
Gretna, Scotland
DG16 5HD
+44 (0)1461 700120