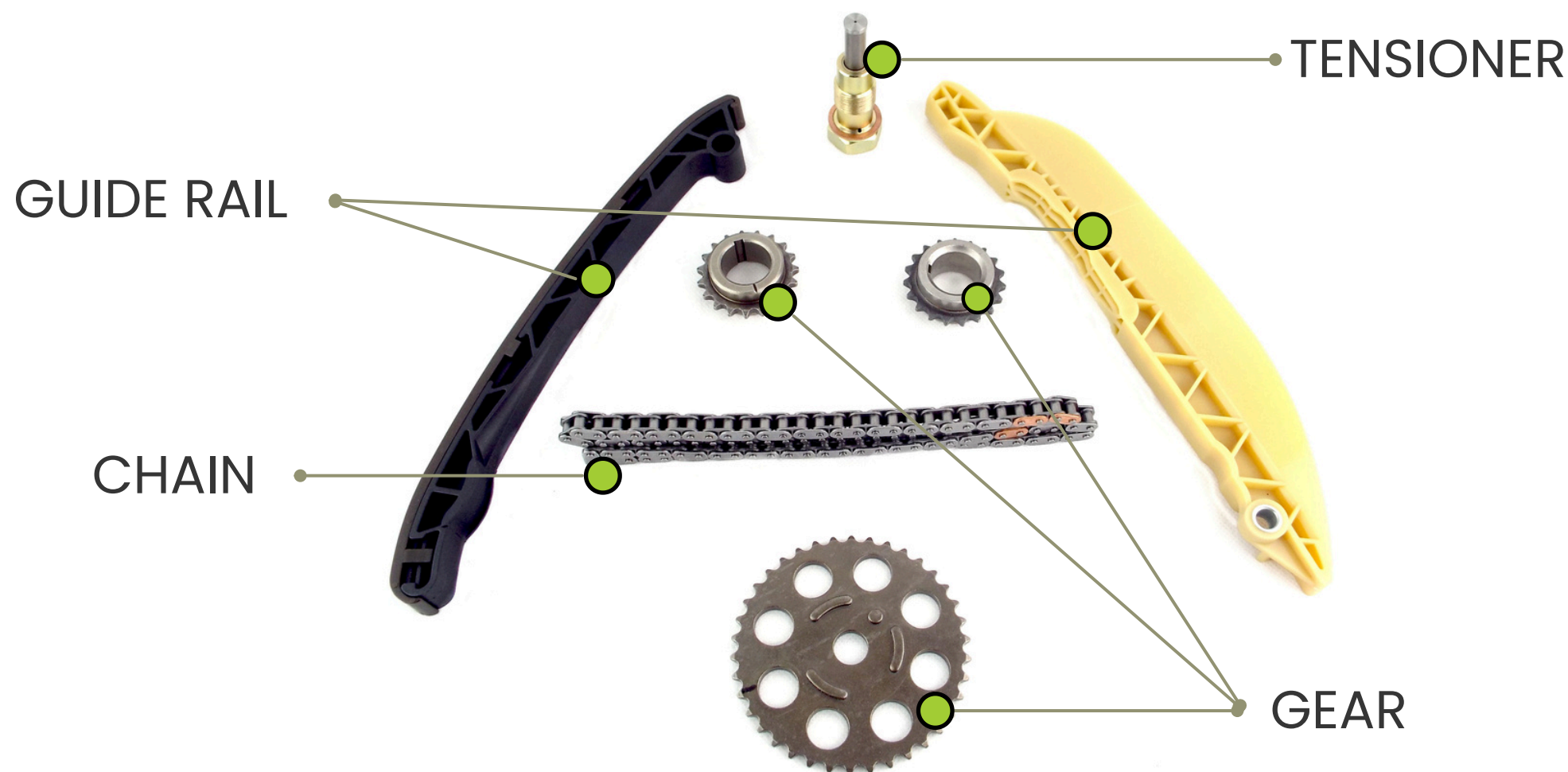


# What's Inside TCK10

## TIMING CHAIN KIT

[www.motivecomponents.co.uk](http://www.motivecomponents.co.uk)



### KIT CONTENTS

CHAIN x 1  
GEAR x 3  
GUIDE RAIL x 2  
TENSIONER x 1

### NUMBER OF CHAIN LINKS

144

### PRODUCT DETAILS

SIMPLEX CHAIN

### APPLICATION

FORD FIESTA 1.3  
FORD KA 1.3

### ENGINE

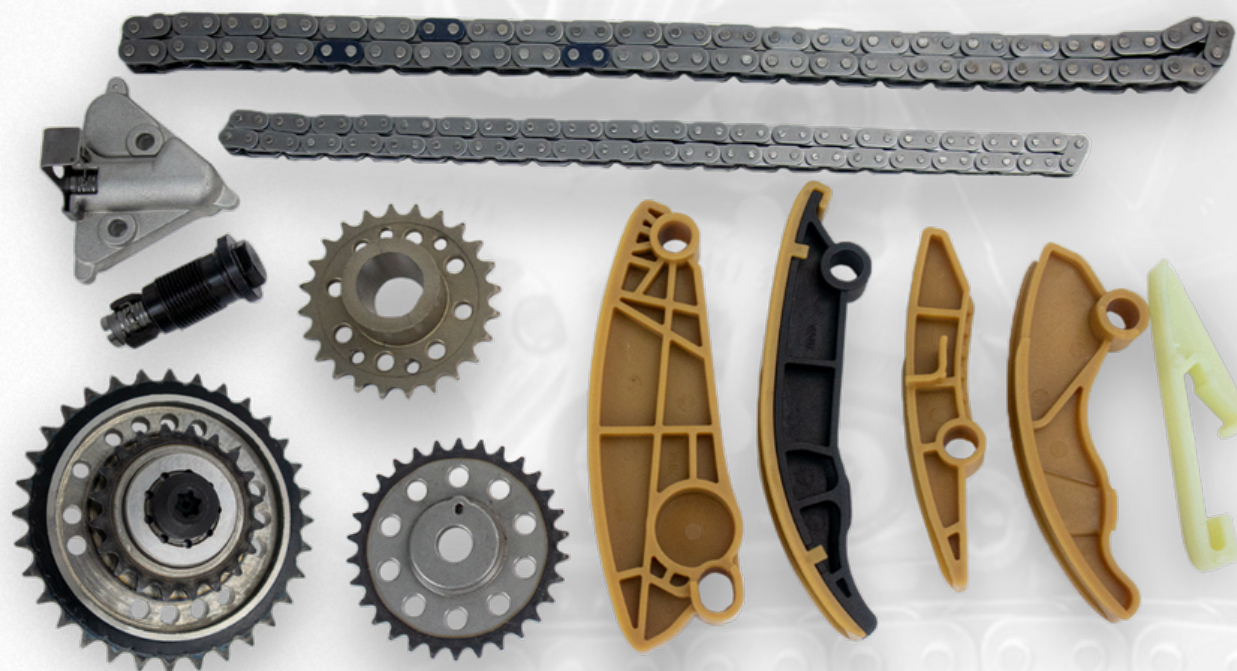
BAJA, A9JA, A9JB, BAA,  
JJD, JJB, A9B, J4D, J4K,  
J4M, J4N, J4P, J4S, JJF,  
JJG, JJH, JJJ, CDB, CDC,  
CDRA, CDRB

# Timing Chain Kits



**Timing Chain Kits** are becoming more popular in modern engines and to meet increasing demand, our engine specialists at **MotiveComponents** are continually working to further increase the range of high-quality Timing Chain Kits, to best serve you and to meet the supply needs of your customers.

**Motive's Timing Chain Kit** range offers all the components needed in each kit to ensure the replacement is **reliable** and fitting is **fast** and **simple**.





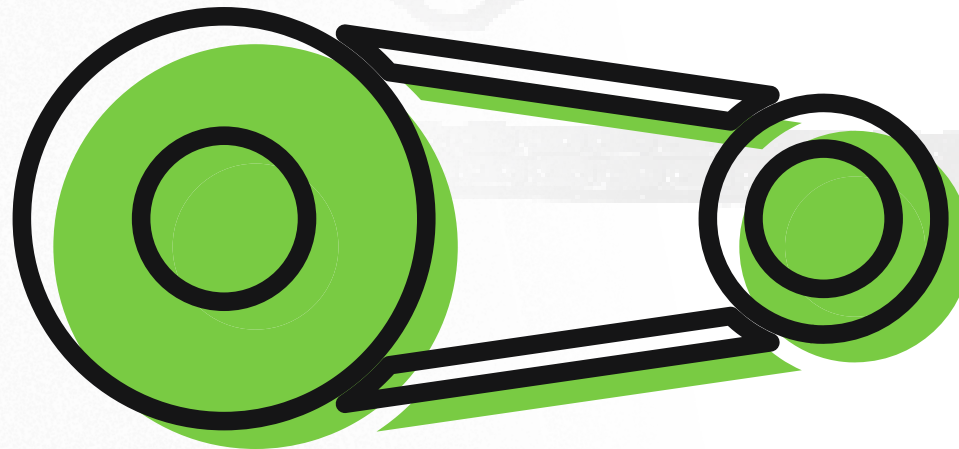
# What is the function of a Timing Chain Kit?

---

The job of a Timing Chain Kit is to connect the camshaft/s and crankshaft to ensure rotation is synchronised. The main benefit of a timing chain, in comparison to a timing belt, is that they last a long time and generally only need replacing if a problem arises. However, if a timing chain were to break, the effects would be far more damaging to the internal engine parts and therefore much more costly than a timing belt break.

Thus, it is of high importance that the engine is maintained correctly. Due to the metal on metal contact that occurs between the gears and the chain, it is of critical importance that the timing chain is sufficiently lubricated with clean engine oil of the correct viscosity to reduce wear on these components. If the engine timing goes out of sync, even by a few degrees, the engine will not run smoothly and will likely show some of the symptoms below indicating that the Timing Chain Kit may need replacing:

- Engine Misfiring
- Engine Backfiring
- Difficulty starting/stalling
- Lack of power or rough running



# Symptoms of a worn timing chain



- **Rattling Noise** - This is one of the most common symptoms of a worn timing chain. Created by a loose chain hitting off the protective covers as it rotates, this can result in further debris around the engine, if this occurs the Timing Chain Kit should be replaced immediately.
- **Rough sound at Idle** - This can be an indication that the engine valves are running out of sync and will be most apparent when starting the engine.
- **Lack of Ignition** - If the engine is not starting then the chain may not be sitting correctly on the gears.
- **Stalling, Shaking, Shuddering or Backfiring whilst driving.** - If the engine is not starting then the chain may not be sitting correctly on the gears.

It is very rare, if not unheard of, that a timing chain will break without showing any warning signs. Common indications can be a rattling noise coming from the front of the engine when idling, backfiring, bucking or sputtering and plastic chunks or metal shavings in the oil.

If foreign chunks or shavings are being circulated around the engine in unclean oil, they may end up in the oil pump screen, resulting in a loss of oil pressure. Lack of oil pressure means critical engine components (including the timing chain and its tensioners) will not have the required pressure or lubrication which could result in quicker degradation of components and catastrophic engine failure.

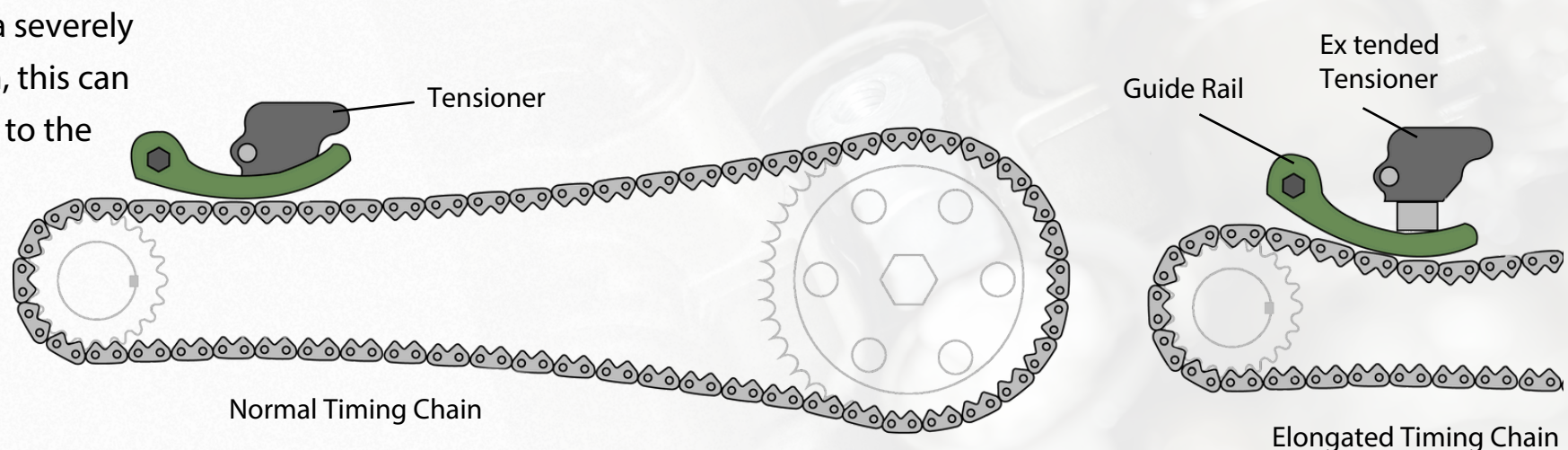
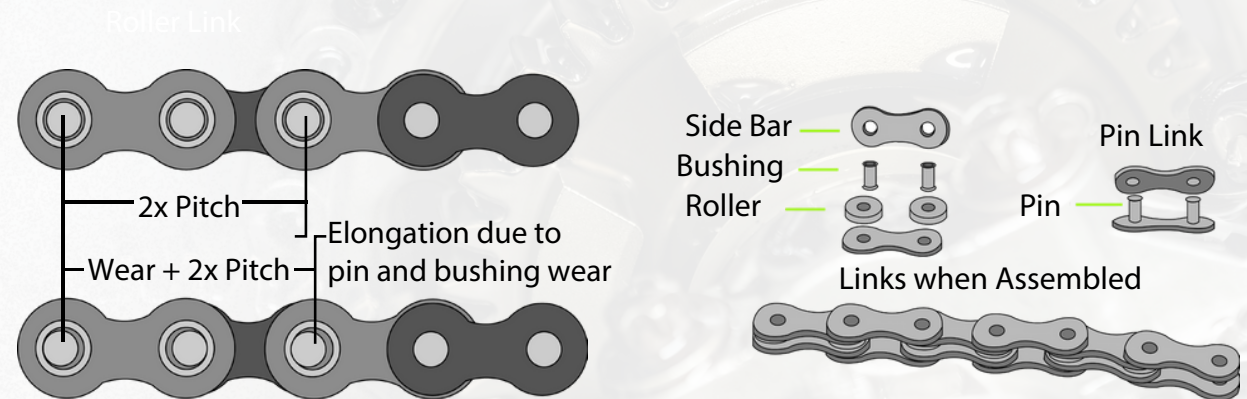


# Looking after the Timing Chain

It is often thought that the Timing Chain stretches, causing the camshaft and crankshaft to fall out of sync. However, what is actually happening is the wear of the chain pins (on the pin link) and bushing (on the roller link) makes the chain longer. Increased wear of this type is most often caused by polluted or contaminated oil by plastic or metal particle build up.

Lack of ignition could be a sign that the Timing Chain Kit needs replacing if the chain has become so loose that it fails to sit on the gears. If this is the case the gears will not turn correctly when the crankshaft is engaged and it is critical that the timing chain kit is replaced before attempting to start the vehicle.

If the engine is started with a severely worn or broken timing chain, this can result in irreparable damage to the engine.





# Guide Rails

---

To meet the high level operating demands of the latest Timing Chain Kits, guides are required to use some of the latest technologically advanced materials. Motives guide rails are no exception and mostly use the same materials as are used by O/E.

Guides and Rails are produced from PA6, PA66, PA45 & PA46 Nylons, depending on the application requirements. Due to the high wear resistant properties, these nylons are widely used in mechanical engineering, automotive and machinery construction.

Other properties include; good impact strength, chemical resistance, abrasion resistance and good sliding properties due to a low coefficient of friction. All of which enhance the function, reliability and durability demanded by Motive's high quality Timing Chain Kits.





# Taking care of your Timing Chain Kit



**Correct Specification of Oil** - Using the correct specification of oil for your vehicle is key to avoiding unwanted friction between components.

**Regular Oil/Oil Filter Changes** - Changing the oil and filters at the recommended intervals will prevent the build-up of contaminating debris and particles that increase wear on the Timing Chain Kit.

## Check any unusual sounds in the Engine

Due to the importance of the smooth running of an engine, it is advised that when replacing a Timing Chain Kit an identification process is adopted to find the root cause of the failure. If the original cause of failure is not identified, the failure will likely re-occur. Below are some of the recommended checks required when replacing a Timing Chain Kit:

- Flush the engine and check for any contamination prior to removal.
- - Clean engine components with appropriate degreaser before beginning.
- - Remove the rocker cover and inspect for damage. Replace as necessary.
- - Remove Oil Pump and inspect. Clean thoroughly or replace if needed.  
(For replacement pumps, Motive holds one of the largest oil pump product ranges on the market.)
- - Inspect for blockages in oil feed holes and oil galleries. - Replace oil filter and fill the engine up with correct oil grade.

