Gates
A Tomkins Company
www.gates.com/europe

009
29/12/2005

Technical Bulletin

PowerGrip® Kit K015563XS

GATES REFERENCE : MAKE : MODEL : MOTOR : MOTOR CODE :	**PowerGrip Kit K015563XS** OPEL / VAUXHALL Astra, Combo, Corsa, Meriva 1.7 Di / DTi (ISUZU) / CDTi Y17DT, Y17DTL, Z17DTH	

Some time ago we launched our PowerGrip® Kit K015563XS for GM/Isuzu engines Y17DT, Y17DTL and Z17DTH. This kit contains the coil spring tensioner as advised by GM.

Meanwhile, however, we have learned that initially there were 2 different versions of the belt drive on these engines.

- For engine numbers 328705 and up: no problems to install our current K015563XS
- For the older series of engines (until engine number 328704) : a correct belt replacement is not possible with the components of our current K015563XS.

Installation recommendations for timing system on GM/Isuzu engines Y17DT, Y17DTL and Z17DTH using K015563XS

Up to now we were selling our PowerGrip® Kit K015563XS as a replacement for all above applications without restrictions.
This kit contains :

• the belt 5563XS – OE ref. 636227
• the coil spring tensioner – OE ref. 5636739
• the idler – OE ref. 636730
• the idler bolt (M12)

The coil spring tensioner (fig.2a) is a new type of tensioner which was initially installed on the vehicles with engine number 328705 onwards. Our K015563XS fits perfectly on all these applications.

The coil spring tensioner is also used as an upgrade of the old tensioner (OE ref. 5636724 – fig.1a) which is no longer available at OES level.
For these engines (until engine number 328704), however, there is a problem to install the new tensioner along with the existing engine support bracket. Fig.1b shows how the base plate of the old tensioner is placed under the bottom leg of the engine support bracket. The new tensioner does not have such a base plate.

A Tomkins Company

www.gates.com/europe

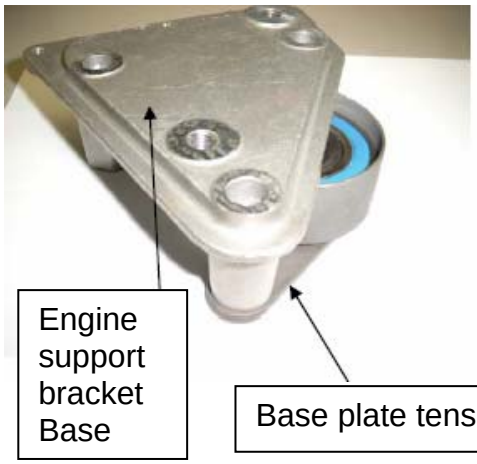
009

29/12/2005

Technical Bulletin

Fig. 1a
OE ref. 5636724

Fig. 1b



Engine support bracket Base

Base plate tensioner

Fig. 2a

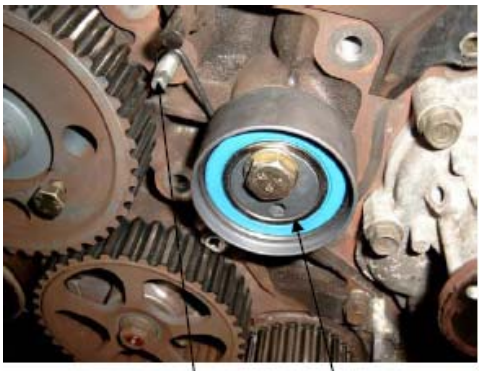


Fig. 2b

Stud

Coil spring tensioner

Fig. 3

To replace an old type tensioner with the new coil spring one, one needs to replace the engine support bracket as the bottom leg now has to be just as long as the other two. Additionally, a stud (OE ref. 5636706 - Fig.2 b) has to be inserted to attach the coil spring of the new tensioner.

So we need to adjust the components of our kit to also cover the older vehicles. But as the new support bracket (OE ref. 5684110) is quite expensive, we have decided to offer one efficient low cost replacement solution for all engines.

We will do this by including a high grade stainless steel spacer (Fig. 3), with the same thickness as the base plate of the original tensioner, to overcome the length difference in the legs of the engine bracket.

We will therefore cancel our kit K015563XS and introduce a new one: K025563XS.
This new kit will be available by February 2006.

K025563XS will have all the needed components for all applications:

- the belt 5563XS – OE ref. 636227
- the coil spring tensioner – OE ref. 5636739
- the tensioner bolt (M10) – OE ref. 5636713
- the stud – OE ref. 5636706
- the spacer (Fig.3) (same thickness as the base plate of the old tensioner)
- the idler - OE ref. 636730
- the idler bolt (M12)

How to handle ?

Important:

Engine has to be cold. Put engine at Top Dead Centre (TDC). Block the camshaft pulley (M6 bolt at 8 o'clock) and the injection pump pulley (M8 bolt at 5 o'clock).

Engine has to be supported and engine support bracket taken away.
A) Engines with the old tensioner type installed:

1) remove old tensioner, spring, idler and belt
2) install new idler and bolt
3) insert and tighten (18,6 Nm) stud at the right side of the injection pump pulley (Fig. 4)

Fig.4

Fig.5

4) install new coil spring tensioner (spring over stud, bolt hand tight)
5) rotate tensioner anticlockwise (Allen key) till Allen key hole +/- in 5 o'clock position
6) tighten bolt
7) install new belt (belt has to be taut on the left hand side (non-tensioner side) of the engine)
8) loosen tensioner bolt, tensioner applies tension, tighten tensioner bolt (38 Nm) (while holding tensioner in place with Allen key)
9) remove camshaft and injection pump blocking bolts
10) rotate engine 720° (2 revolutions), check TDC, loosen tensioner, tighten tensioner bolt (38 Nm) (while holding tensioner in place with Allen key)
11) stick the spacer (Fig. 5) on the bottom engine support leg (using loctite or superglue) in order to avoid losing the spacer when loosening support bracket bolt later.
12) re-install other removed parts

<u>B) engines with a coil spring tensioner installed</u>

NOTE : the installer does not need the stud and the spacer for this version
1) remove old tensioner, idler and belt
2) install new idler and bolt
3) install new tensioner (spring over stud, bolt hand tight)
4) rotate tensioner anticlockwise (Allen key) till Allen key hole +/- in 5 o'clock position
5) tighten bolt
6) install new belt (belt has to be taut on the left hand side (non-tensioner side) of the engine)
7) loosen tensioner bolt, tensioner applies tension, tighten tensioner bolt (38 Nm) (while holding tensioner in place with Allen key)
8) remove camshaft and injection pump blocking bolts
9) rotate engine 720° (2 revolutions), check TDC, loosen tensioner, tighten tensioner bolt (38 Nm) (while holding tensioner in place with Allen key)
10) re-install other removed parts

