



DAYCO AFTERMARKET
TECHNICAL INFORMATION

Subject: **KTBA262 / KTBA262P
TIMING - KIA CARNIVAL /
SEDONA / TERRACAN
TD 2.9 16 v. from 07/2000, CRDi
16v. from 10/2001
DAYCO BELT Ref. 94949**

N° :T10013EN
Updated: 09/03/17

In the timing system of the above-mentioned models, the specific routing of the belt involves 8 rotating parts (4 sprockets and 4 pulleys/bearings) as illustrated in Fig. A.

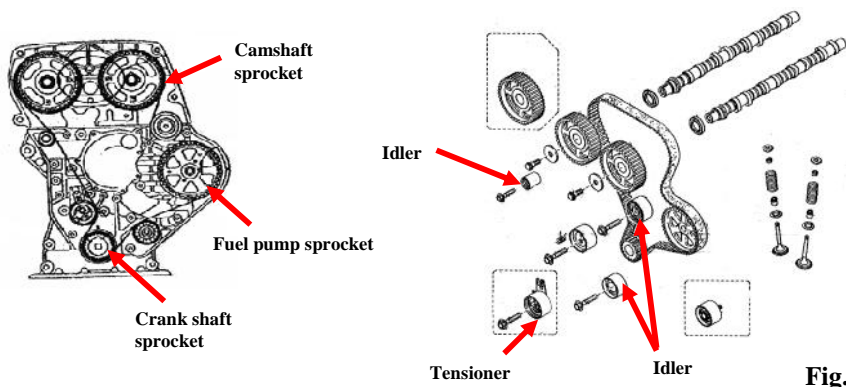


Fig. A

The timing belt is 1448 mm long, 29 mm wide, with 152 teeth.

Dayco produces the timing belt Ref. **94949** in HT structure (High Tenacity) and curve profile RP/SP, in compliance with the original.

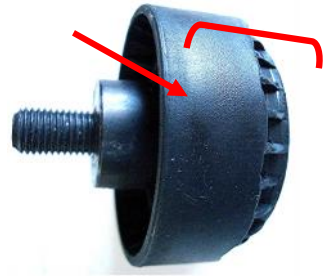


OE 24312-4X000



Dayco 94949

The claim statistics for breaks frequently reports the early deterioration (10-15.000 kilometres) of some of the rigid components of the timing control. In these cases, the damage appears in the form of normal wear of the plastic pulley and/or seizure of the bearing, with consequent side deviation and break of the belt.



Cracked/broken pulley



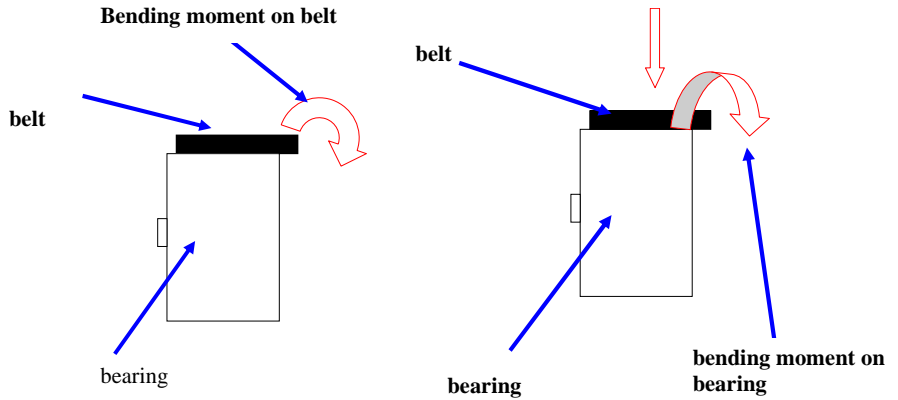
Cracked/broken pulley



Seized guide bearing



A factor that is frequently related to these circumstances is the side deviation of the belt, considered as the cause and not the effect of the subsequent break of the bearing (usually guide bearing). During this stage, the timing belt and the bearing are subject to particular and abnormal stresses of mechanical and thermal nature, related to an alternate bending effort.



The side deviation cannot be ascribed to the belt characteristics but to external factors, mainly:

-) axial misalignment of the components
-) lack of parallelism between the axis
-) normal wear of the timing pulleys
-) loosened tension bearing fastening bolt and reduced tensioning
-) anomalous tensioning
-) foreign bodies.

The correct tensioning of the timing belt is critical; if the belt is not correctly tensioned, it could “amplify” possible failures of the system for the above-listed reasons.

To avoid this kind of failure, the main steps to be followed for a correct tensioning of the timing belt are described below

-) Install the timing belt, starting from the crank shaft sprocket, anti clockwise, Make sure the belt is taut on the side of the belt that is not tensioned.
-) Fit the automatic tensioner as shown in **Fig. B**.
-) Pre-tighten by hand the automatic tensioner (**3,9 Nm**)
The positions of the indicator, the rear plate and the special washer with hexagonal hole, should be as shown in **Fig. B**
-) Make sure the timing notches are aligned.
-) Rotate the tensioner pulley anticlockwise, acting on the special plate with an Allen wrench until the indicator is aligned with the dowel pin (**Fig. C**)

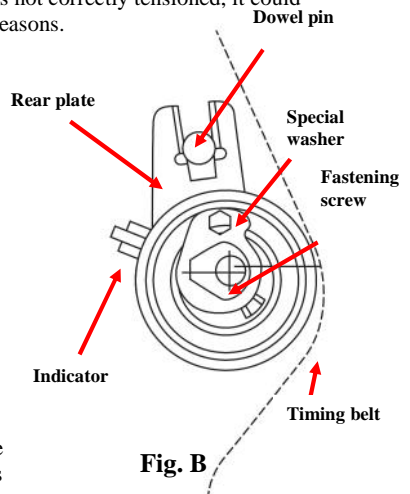


Fig. B

-) Tighten the tensioner bolt with a torque of **24 Nm**.
-) Rotate the crank shaft clockwise by two turns. Make sure the timing notches are aligned (marks on camshafts, crank shaft, fuel pump). Check the indicator alignment with the rear plate (**Fig. D**).
Maximum misalignment tolerance: +/- 5°
-) If the misalignment between the indicator and the rear plate is higher than +/- 5°, repeat the procedure.

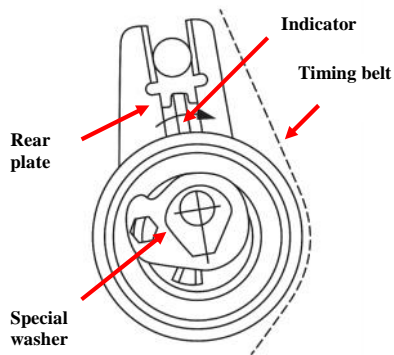


Fig. C

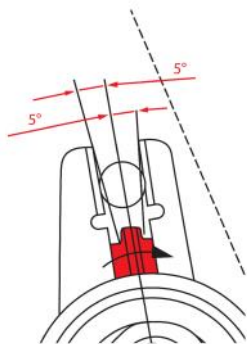


Fig. D



OE OK88R-12-700

| Description | Dayco # | Dayco Kit |
|-------------|---------|-----------|
| Timing belt | 94949 | KTBA262 |
| Tensioner | KT176 | |
| Idler | KI91 | |
| Idler | KI92 | |
| Idler | KI93 | |
| Seal Kit | KS131 | KTBA262P |
| Water Pump | WP6528 | |