

MODEL: Astra 1996-98. Series: TR
ENGINE: C18SEL, X18XE1; 1.8L // X20XEV, 2.0L

REMOVAL

Note: In the event of timing belt failure, it is probable that valve to piston damage has occurred. It is advised that a compression test is carried out on all cylinders before removing the cylinder head.

1. Remove air filter and housing.
2. Remove air intake hose and RH engine mounting.
3. Use SST rotate drive belt tensioner (clockwise) to release tension on belt. Remove the drive belt. Make appropriate mark to ensure its proper reinstallation.
4. Remove timing belt cover.
5. Rotate the crankshaft pulley

clockwise to align timing marks. At this point, the camshaft sprocket timing marks must also be aligned. For engines with dual timing marks: ensure that INTAKE and EXHAUST timing marks aligned with their prospective mark.

6. If the timing marks on camshaft are not aligned, rotate the crankshaft one revolution.
7. Remove crankshaft pulley bolt and then remove the crankshaft.
8. Slacken tensioner bolt.
9. Rotate tensioner clockwise until the pointer on LH stop.

10. Tighten tensioner bolt temporarily.
11. Remove timing belt.

Note: If timing belt is to be reused, mark its direction or rotation on the belt to ensure it is installed in the same direction.

INSTALLATION

1. Ensure the mark on water pump aligned with corresponding mark on the cylinder block.
2. Align timing marks on camshaft sprocket.
3. Install the timing belt.
Note: Belt adjustment must be carried out when engine is cold
4. Loosen tensioner bolt.
5. Rotate tensioner counter-clockwise until pointer on RH stop. Then tighten the bolt finger tight.
6. Install crankshaft pulley and crankshaft pulley bolt. Tighten the bolt to specification.

7. Rotate the crankshaft 2 revolutions (in the direction of normal engine rotation) until the timing marks are aligned.
8. Loosen tensioner bolt.
9. Rotate tensioner (clockwise) until pointer aligned with 'V' notch in bracket (new belt), or LH edge of the notch (used belt).
10. Tighten tensioner to specification.
11. Install all the components in reverse order of removal.

SPECIAL TOOLS

Not required

BELT REPLACEMENT INTERVAL

TR series: 60,000 km

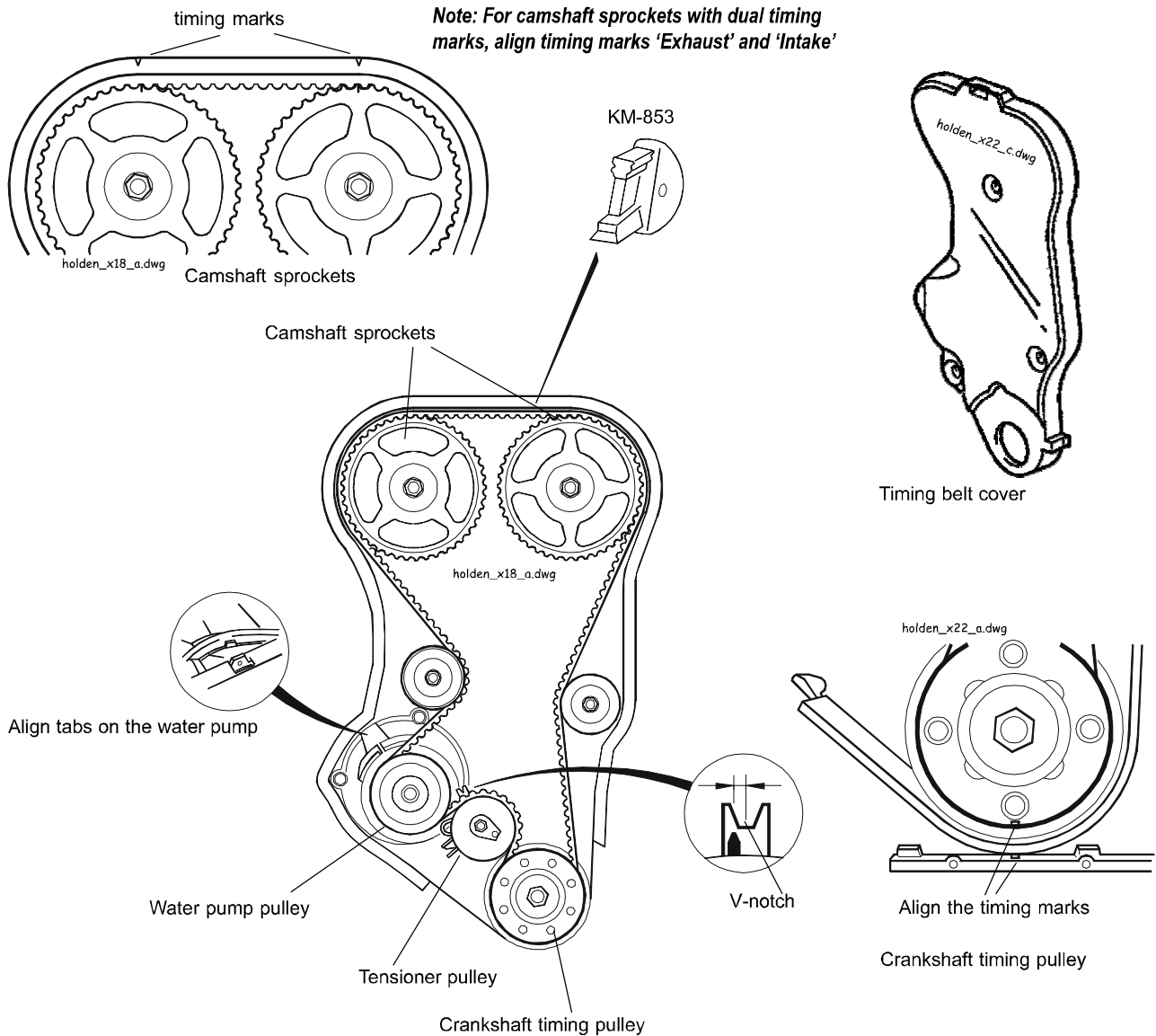
RECOMMENDED REPAIR TIME

1.8L - 1.75hours, 2.0L - 2.25 hours,

TIGHTENING TORQUE

Crankshaft pulley bolt : 20 Nm

Tensioner bolt: 20 Nm



TIMING BELT			
MANUFACTURER NUMBER	NAM		
DEFLECTION (mm) at 49 N	DNA		
AUXILIARY DRIVE BELTS			
BELT	DEFLECTION (mm) under 10kg (98N) load		SIZE (WxL)(mm)
	NEW	USED	
MULT.ACC.	-	-	NAM

#1. Number of ribs. Poly ribs drive belt.

- AC- Air conditioning pulley**
- ALT - Alternator pulley**
- CS - Crankshaft pulley**
- FP - Fan pulley**
- IP - Idler pulley**
- PS - Power steering pump**
- TP - Tensioner pulley**

