

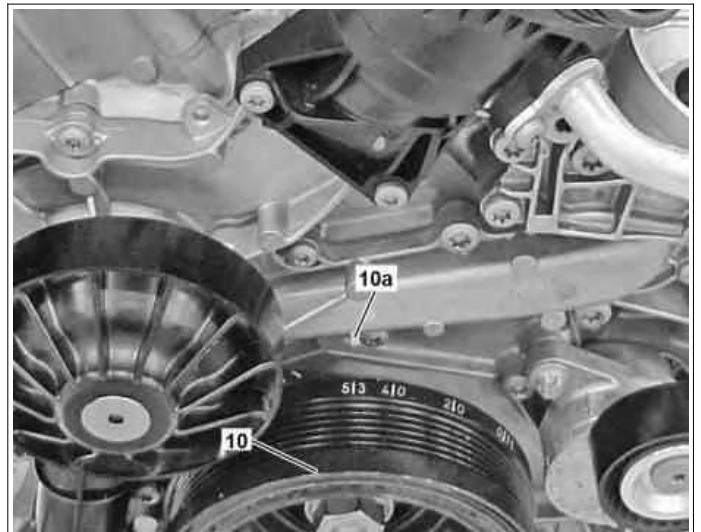
ENGINE 276 in MODEL 204

ENGINE 276, 278 in MODEL 207

Engine 276 with a 53° marking

10 Belt pulley/vibration damper

10a Reference edge (coolant pump)



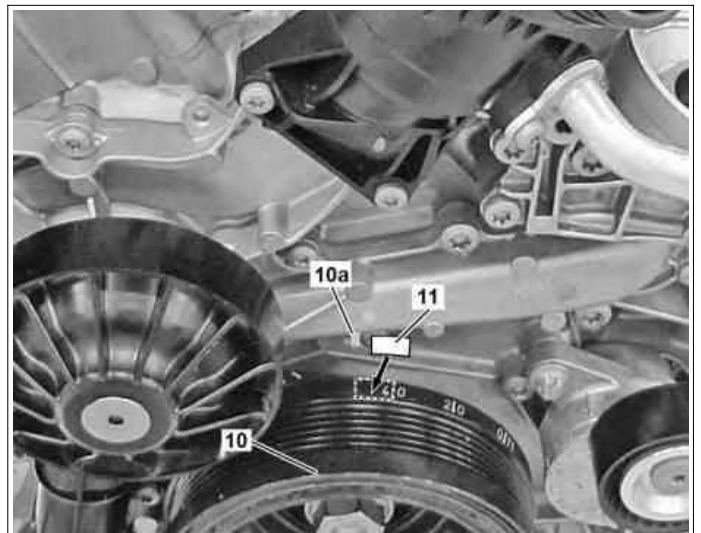
P05.10-2436-11

Engine 276 without a 53° marking

10 Belt pulley/vibration damper

10a Reference edge (coolant pump)

11 Adhesive strip (replacement marking)

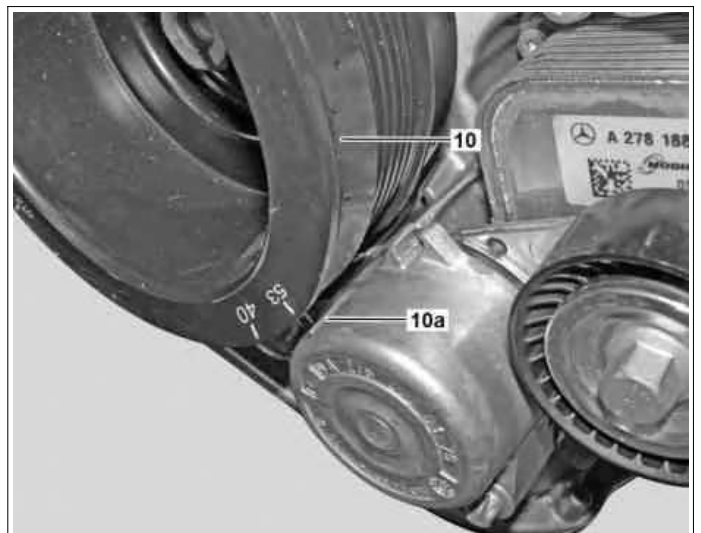


P05.10-2437-11

Engine 278 with a 53° marking

10 Belt pulley/vibration damper

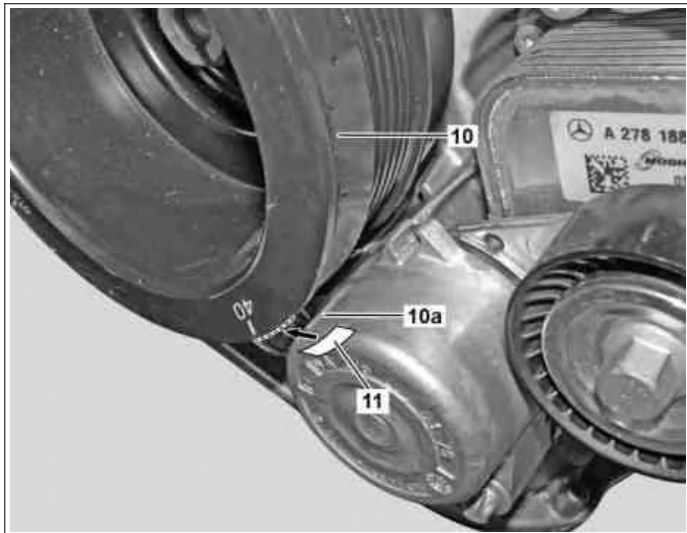
10a Reference edge (poly-V belt tensioning device)



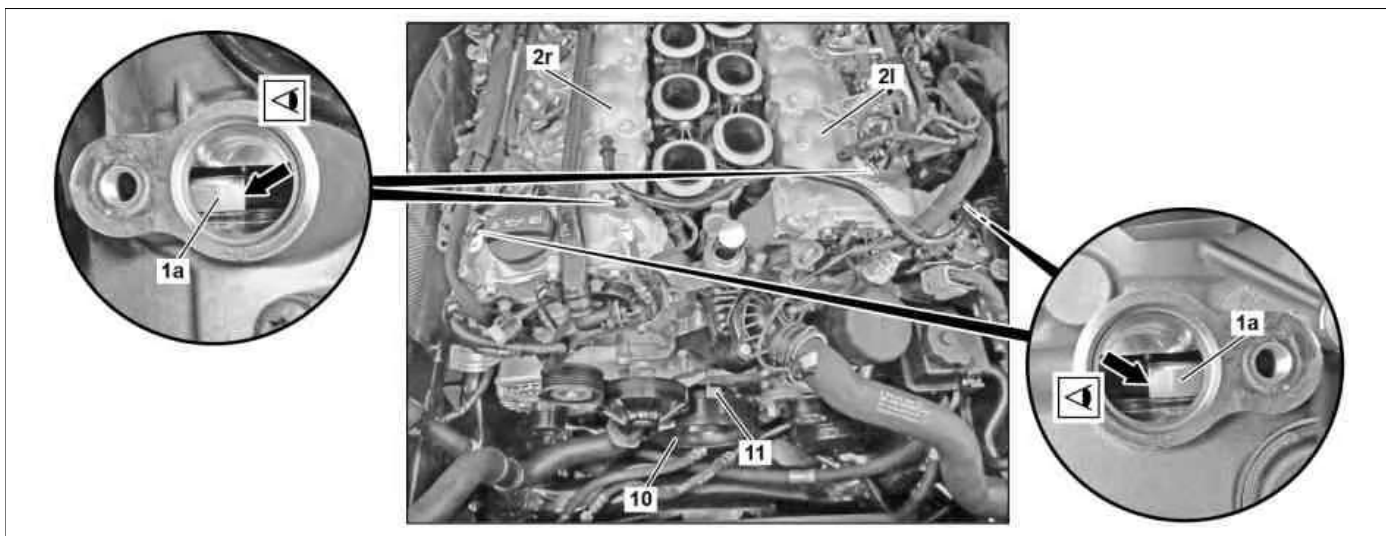
P05.10-2438-11

Engine 278 without a 53° marking

- 10 Belt pulley/vibration damper
- 10a Reference edge (coolant pump)
- 11 Adhesive strip (replacement marking)



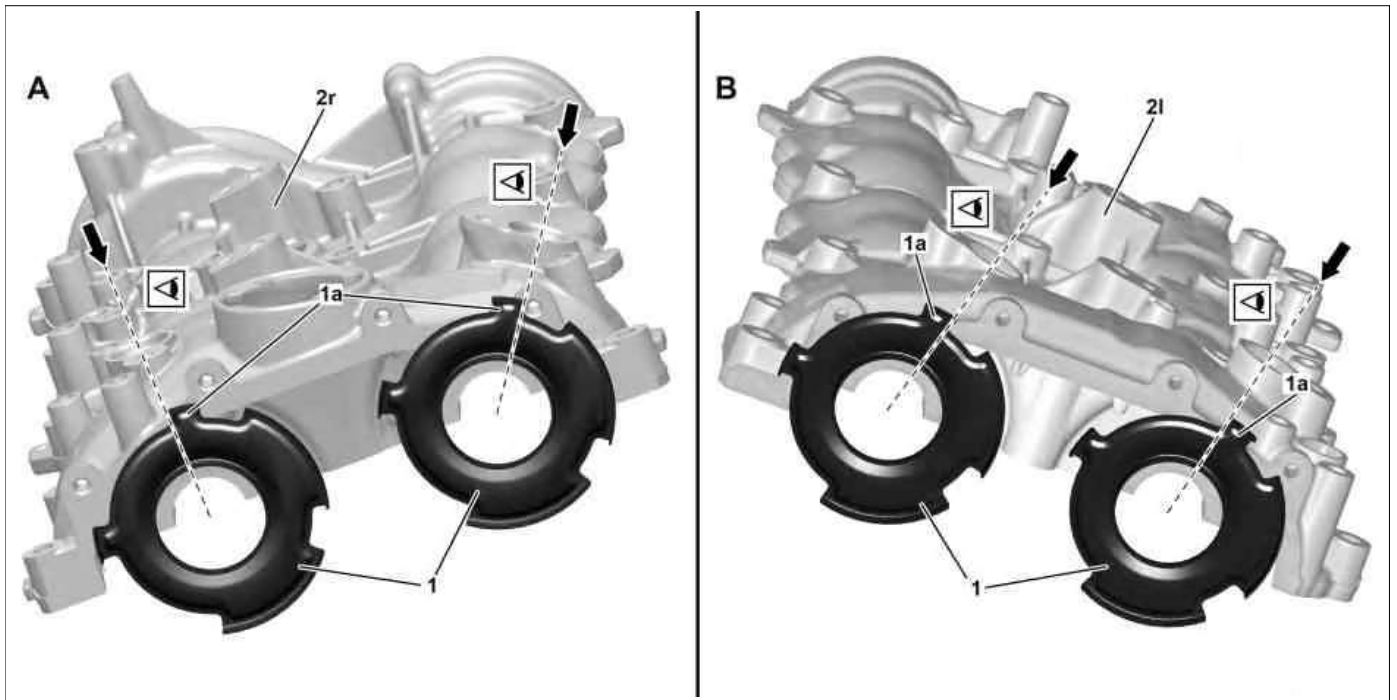
P05.10-2439-11



P05.10-2441-08

Shown on engine 276 without a 53° marking

- | | | | |
|----|---------------------------|----|--------------------------------------|
| 1a | Partial segment | 10 | Belt pulley/vibration damper |
| 2l | Left cylinder head cover | 11 | Adhesive strip (replacement marking) |
| 2r | Right cylinder head cover | | |




P05.10-2426-09

Right cylinder head (A) left cylinder head (B)

- 1 Segment disc
- 1a Partial segment
- 2r Right cylinder head cover

- 1 Segment disc
- 1a Partial segment
- 2l Left cylinder head cover

	Remove/install		
1	Remove all Hall sensors on camshafts	ENGINE 276	AR15.10-P-2000FH
		ENGINE 278	AR15.10-P-2000ELB
2	Remove front and central sections of the lower engine compartment paneling	ENGINE 278	AR61.20-P-1105EW
	Check		
3	Check whether the 53° marking is present on the belt pulley/vibration damper (10)		
4	Attach replacement marking for the 53° marking on belt pulley/vibration damper (10)	Engine without a 53° marking on belt pulley/vibration damper (10) Attach adhesive strips (11) with a length of 17 mm to the 40° marking on belt pulley/vibration damper (10). The end of the adhesive strip (11) marks the 53° marking missing on the belt pulley/vibration damper (10).	
5.1	Rotate engine at crankshaft center bolt in direction of engine rotation to a 53° crank angle after top dead center (TDC) on cylinder 1 (ignition TDC)	Engine with a 53° marking on belt pulley/vibration damper (10) The engine must not be turned against the direction of engine rotation otherwise the timing chain can skip. Rotate engine at crankshaft in direction of engine rotation until the 53° marking on belt pulley/vibration damper (10) corresponds with reference edge (10a). The reference edge (10a) is located for engine 276 on the coolant pump and for engine 278 on the poly-V belt tensioning device.	
5.2	Rotate engine at crankshaft center bolt in direction of engine rotation to the end of the adhesive strip (11) (53° crank angle (KW) after top dead center (TDC) on cylinder 1 (ignition TDC))	Engine without a 53° marking on belt pulley/vibration damper (10)	

		<p>i The engine must not be turned against the direction of engine rotation otherwise the timing chain can skip.</p> <p>i Rotate engine at crankshaft in direction of engine rotation until the 53° marking on belt pulley/vibration damper (10) corresponds with reference edge (10a). The reference edge (10a) is located for engine 276 on the coolant pump and for engine 278 on the poly-V belt tensioning device.</p>	
	Check		
6	Check basic position of camshafts	<p>i The basic position of the camshafts is checked by a visual inspection over the Hall sensor opens on the cylinder head covers (2l, 2r).</p> <p>i On the cylinder head covers (2l, 2r) the edges of the partial segments (1a) of the segment discs (1) must be visibly in the middle in the Hall sensor openings (picture A, B).</p> <p>If the basic setting is not correct: ↓</p> <p>Set basic position of camshafts</p>	AR05.20-P-6020FHA
7	Install in the reverse order		