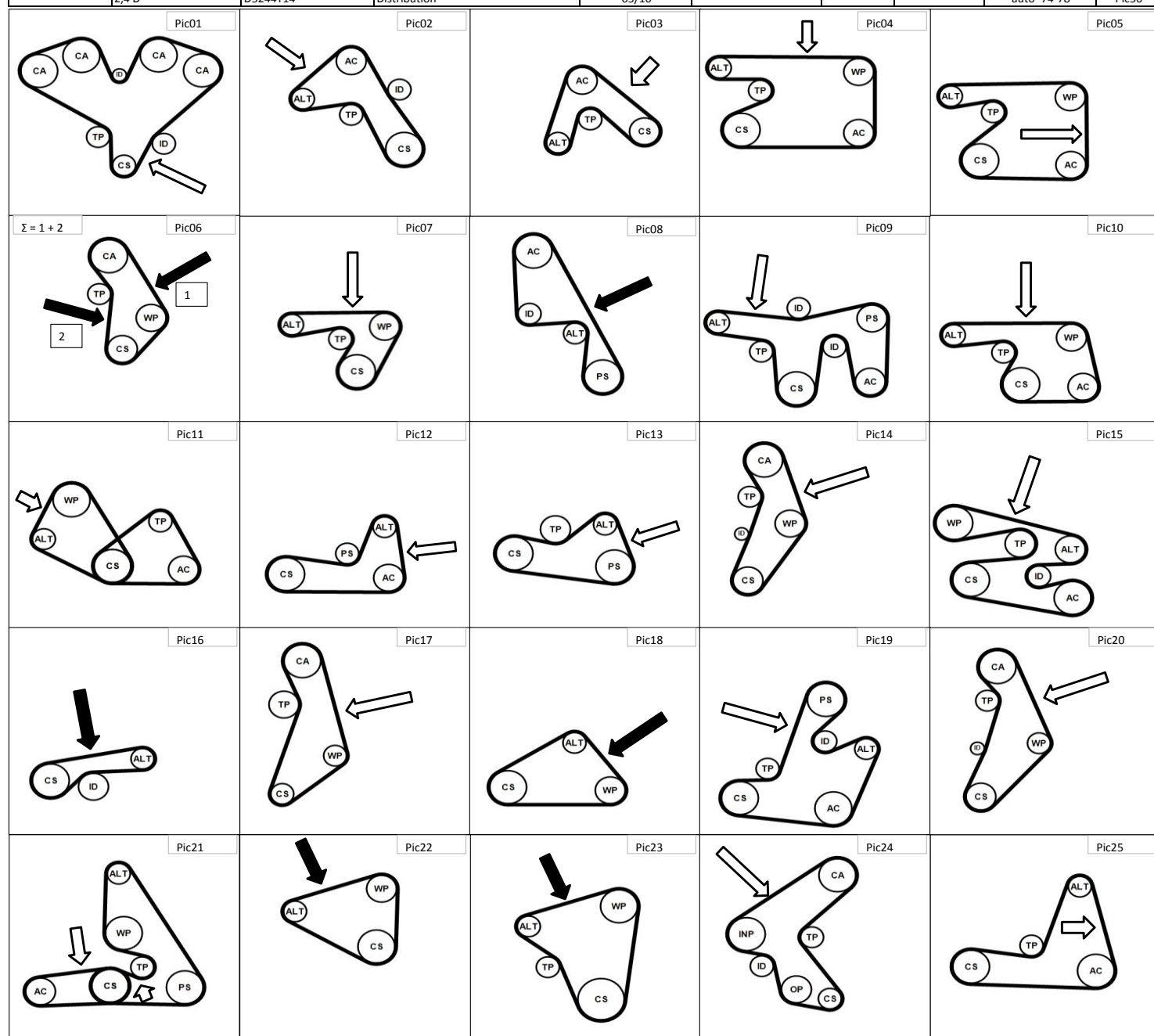


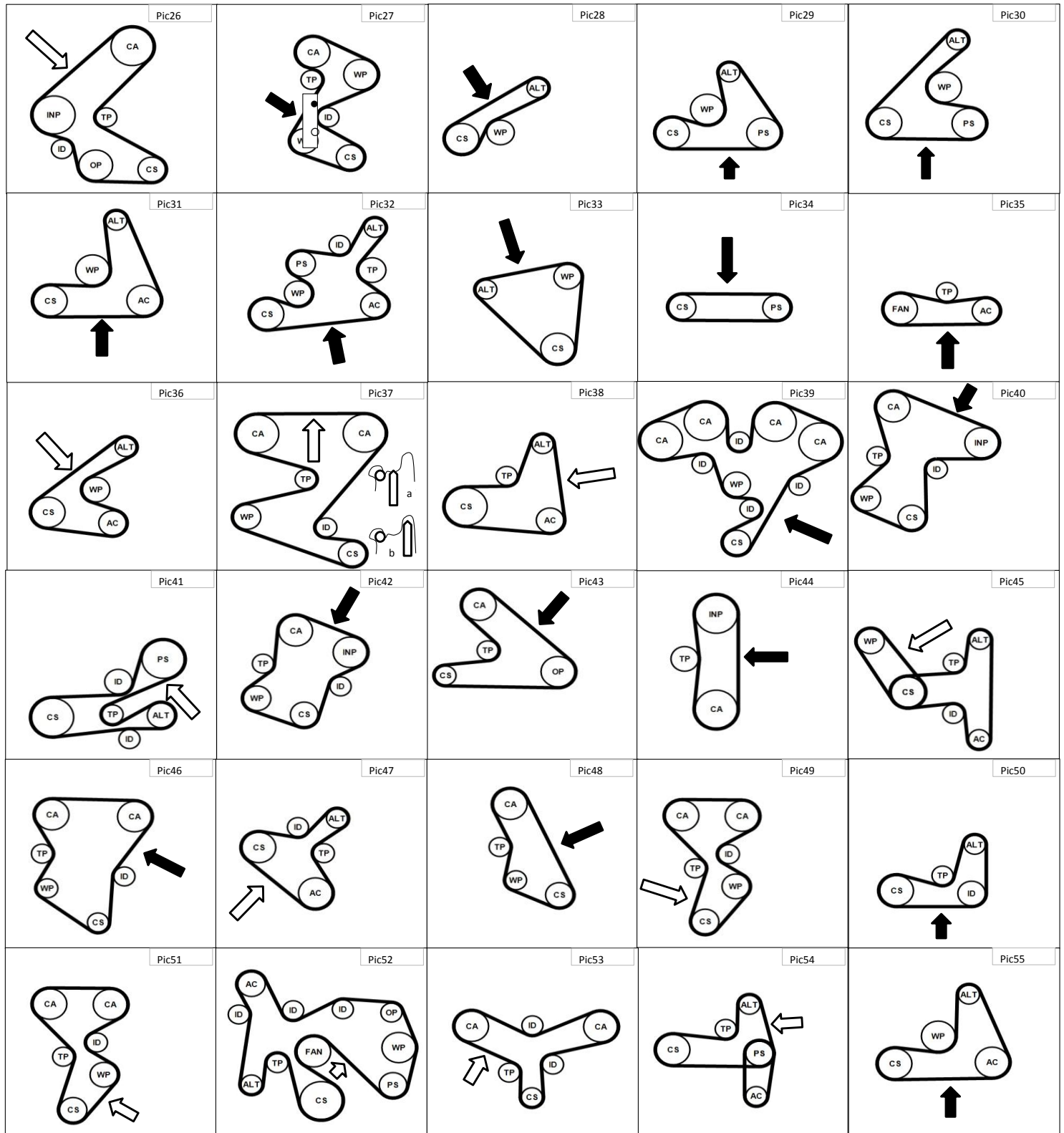
Update BTT Hz 2009 - 2013

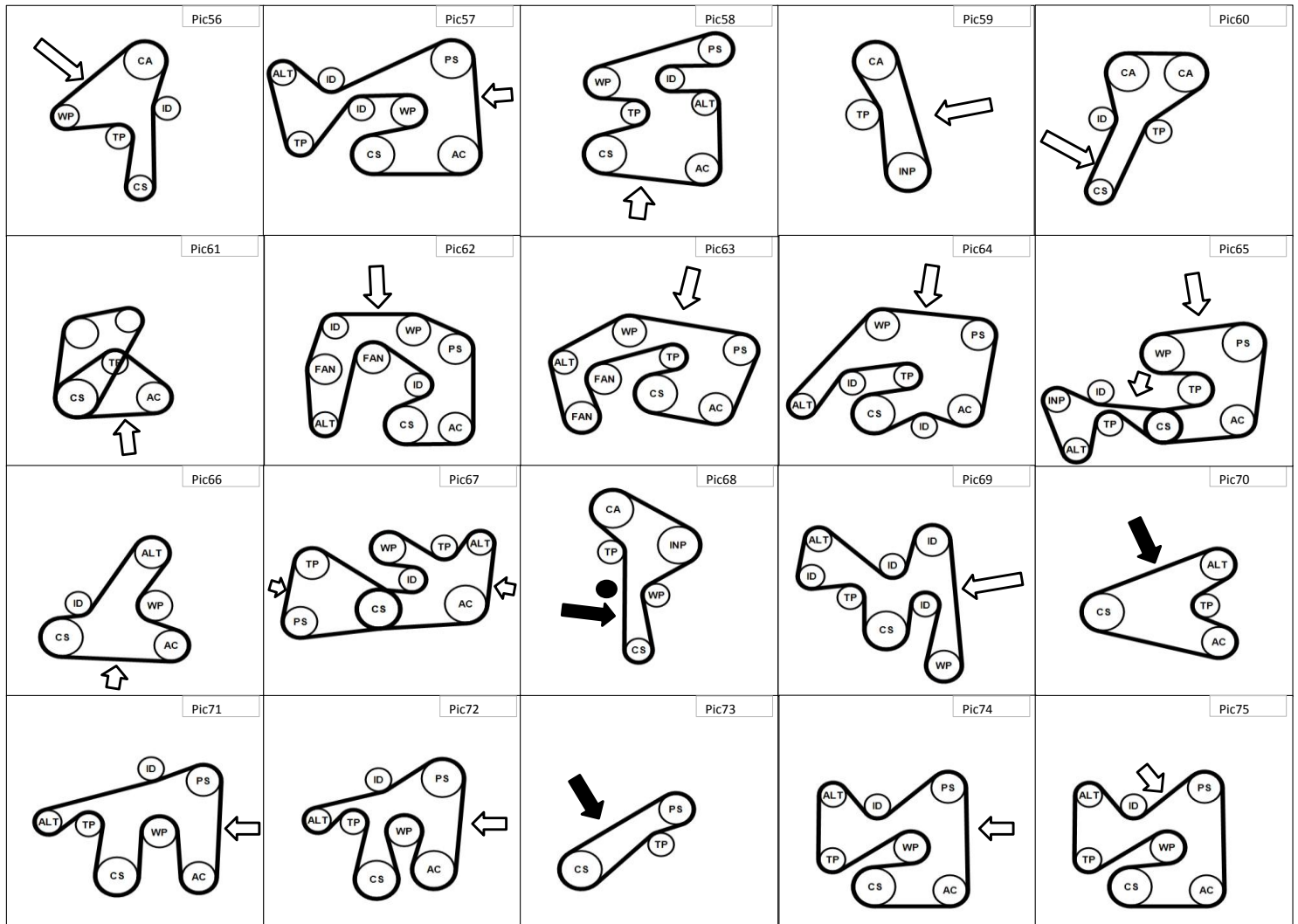
Model	Engine	Engine code	Configuration	Date	Techn. Features	T1 - Hz	Rotation	T2 - Hz	Scheme
ALFA ROMEO									
156	2,5 24V	32401	Distribution	1997 - 2001		175-179	2	auto*175-179	Pic01
AUDI									
A3 Cabriolet	2,0 TFSI	CCZA	CS;AC;ALT	01/09				auto*166-201	Pic12
	2,0 TDI CR	CFFB	Distribution	11/09				auto*165-201	Pic13
Q3	2,0 TDI	CFFB	ALT;PS;CS	06/11				auto*165-201	Pic13
BMW									
Serie 3	2,0	M47D20TU2OL (204D4)	CS;AC	2005 - 2013				Elastic 200-240	Pic21
			WP;ALT;PS;CS					auto*133-203	Pic21
CHEVROLET									
Cruze	1,7	A17DTS	Distribution	08/12				auto*85-89	Pic24
Orlando	2,0	Z20D1 (LNP)	ALT;PS;AC;CS;WP	2011 - 2013				130-150	Pic57
CITROEN									
C1	1,0 12V	1KR-FE	AC;WP;ALT;CS	2005 - 2011				Elastic 117-147	Pic36
Xsara Picasso	1,6 HDI	DV6TED4 (9HY)	Distribution	2004 - 2010				auto*116-120	Pic37
DS4	1,6 e-HDI	DV6C (9HR)	Distribution	2011				auto*181-220	Pic38
C6	3,0 i	ES9A (XFV)	Distribution	12/2005				98-110	Pic39
C8	2,0 HDI 16V	DW10ATED4 (RHT)	Distribution	06/02 - 05/06		128-133	8	80	Pic40
Jumpy	2,0 HDI	DW10ATED (RHZ)	Distribution	1995 - 2007		128-133	8	79-84	Pic40
			ALT;PS;CS					auto*144-156	Pic41
C25	1,9 D	XUD9A (D9B)	Distribution	1987 - 1994				90-96	Pic42
		XUD9A	Distribution	1988 - 1991				90-96	Pic42
	2,0	U65/673 (CRD93L)	CS;OP;CA	1987 - 1994				97-103	Pic43
			CA;INP					184-196	Pic44
	2,5 D	U25/661	CS;OP;CA	1987 - 1994				97-103	Pic43
			CA;INP					184-196	Pic44
DACIA									
Sandero	1,5 dCi	K9K796	Distribution	2008 - 2012				auto*109-113	Pic49
			CS;TR;ALT					223-245	Pic50
FIAT									
500	0,9 TwinAir turbo	312 A2 000	ALT;AC;CS	09/10				auto*233-247	Pic02
	1,4 MPI 16V	169 A3 000	ALT;AC;CS	07/07				auto*84-120	Pic03
500 C	1,4 16V	169 A3 000	ALT;AC;CS	06/09				auto*84-120	Pic03
500 L	1,3 multijet	199 B4 000	CS;WP;AC;ALT	2012				auto*103-110	Pic04
			CS;WP;AC;ALT					auto*202-215	Pic05
Panda	1,2 8V	169 A4 000	Distribution	01/10				160-210	Pic06
			Accessoire					auto*97-101	Pic03
	1,2	169 A4 000	Accessoire	01/12				auto*85-101	Pic03
Punto Evo	1,3 Multijet	223 A9 000	ALT;WP;CS	2009				auto*209-255	Pic05
			ALT;WP;AC;CS					auto*209-255	Pic07
Coupé	2,0 20V TB	175 A3 000	AC;PS;ALT	1996 - 2002				90-130	Pic08
Doblo	1,6 MJTD 16V		ALT;PS;AC;CS	01/10				auto*150-184	Pic09
Doblo Cargo II	1,3 MJTD	223 A9 000	ALT;WP;CS	01/06				auto*209-255	Pic05
Ford									
Ka	1,3 8V	J4M	CS;AC;ALT;PS;WP	1996 - 2008				auto*190-220	Pic58
Focus	1,8 Lynx	C9DA/C9DB/C9DC	Distribution	1998 - 2005				auto*73-81	Pic59
CMax	1,6 SCTi	G8DA/G8DB	CS;AC;ALT	08/2010				auto*150-190	Pic25
		G8DC/G8DD	CS;AC;ALT	08/2010				auto*150-190	Pic25
Ranger	2,5 16S DOHC	WL-C	Distribution	2009				193-142	Pic60
			CS;AC					74-140	Pic61
			CS;...					70-140	Pic61
Tourneo Connect	1,8 TDCi	HCPA	Distribution	06/06				auto*84-88	Pic59
LANCIA									
Ypsilon	0,9 TwinAir	312 A2 000	ALT;AC;CS					auto*223-247	Pic02
LAND ROVER									
Defender	2,4	244 DT	Comp.;ALT;FAN;PS;AC;FAN;CS	2007 - 2012				auto*133-173	Pic52
Discovery 3	2,7	276 DT	Distribution	2005 - 2009				auto*149-157	Pic53
MAZDA									
Mazda 3	2,3 MZR 16V MP5	L3	CS;AC;PS;WP;ALT	2007 - 2010				auto*201-236	Pic74
MX-5	2,0 16V	LF	CS;PS;ALT;WP					auto*102-152	Pic75
MERCEDES									
300TE 4matic	3,0	103, 985	ALT;FAN;WP;PS;AC;CS;FAN	1989 - 1995				77-82	Pic62
500SL	5,0	119, 96	ALT;AC;PS;WP					120-170	Pic63
Classe C	2,1	651, 913	CS;AC;PS;WP;ALT	2010				auto*140-207	Pic64
SLK	2,3	111, 973	ALT;CS;TR;TP;Comp.	1996 - 2000				auto*180-200	Pic65
			WP;AC;PS;TP;CS					auto*90-180	Pic65
GLK	2,1	651, 913	CS;AC;PS;WP;ALT	2010				auto*140-207	Pic64
MITSUBISHI									
ASX	1,6 16V	4A92	CS;AC;WP;ALT	2010	140-171			auto*148-164	Pic36
	1,8 16V DI-D	4N13	CS;WP	2010	113-264			113-264	Pic45
Lancer	1,8 16V DI-D	4N13	CS;WP	2010	113-264			113-264	Pic45
NISSAN									
Juke	1,6 DIG Turbo 16V	MR16DDT	Accessoire	06/10				Rod auto*100-150	Pic66
Navara	2,5 dCi	YD25DDTI (D40)	CS;PS	05/05 - 12/09				auto*237-284	Pic67
			CS;AC;ALT;WP					auto*171-207	Pic67

Model	Engine	Engine code	Configuration	Date	Techn. Features	T1 - Hz	Rotation	T2 - Hz	Scheme
OPEL									
Astra	1,7 CDTI	A17DTJ (LPV)	Distribution	09/2009				auto*85-89	Pic26
		A17DTF (LPL)	Distribution					auto*85-89	Pic26
		A17DTF (LUD)	Distribution					auto*85-89	Pic26
Astra GTC	1,7 CDTI	A17DTF	Distribution	10/11				auto*85-89	Pic26
		A17DTC	Distribution	10/11				auto*85-89	Pic26
Meriva	1,7 CDTI	A17DTC (LUE)	Distribution	08/10				auto*85-89	Pic24
		A17DTS (LUD)	Distribution	08/10				auto*85-89	Pic24
Zafira	1,7 CDTI	Z17DTJ	Distribution	03/07				auto*85-89	Pic24
		A17DT/A17DTR	Distribution	03/07				auto*85-89	Pic24
Frontera	1,9 D	F8Q	Distribution		DT.Dci 11N.m	▼65-71	4	▼56-66	Pic27
			ALT;WP		New	160-170	2	160-170	Pic28
			ALT;WP;PS		New	183-193	2	183-193	Pic29
			ALT;WP;PS		New	161-171	2	161-171	Pic30
			ALT;WP;AC		New	183-193	2	183-193	Pic31
			ALT;WP;PS;AC		New	165-175	2	165-175	Pic32
	2,5 D	S8U	ALT;WP (VB.)		All new	218-228	2	218-228	Pic33
			PS (5V)		750 New	382-392	2	382-392	Pic34
			AC (5V)		762 New	245-255	2	245-255	Pic35
			AC (5V)		763 New	245-255	2	245-255	Pic38
			ALT;WP (6V)		770 New	285-295	2	285-295	Pic23
			ALT;WP (6V)		772 New	282-292	2	282-292	Pic22
			ALT;WP (6V)		780 New	204-214	2	204-214	Pic22
Mokka	1,7 CDTI	A17DTS (LUD)	Distribution	12/12				auto*85-87	Pic26
PEUGEOT									
J5	1,9 D	XUD9A (D9B)	Distribution	1987 - 1994				90-96	Pic42
		XUD9A	Distribution	1998 - 1991				90-96	Pic42
	2,5 D	U25/661	CS;OP;CA	1987 - 1994				97-103	Pic43
			CA;INP					184-196	Pic44
		U65/673 (CRD93L)	CS;OP;CA	1987 - 1994				97-103	Pic43
			CA;INP					184-196	Pic44
107	1,0 12V	1KR-FE	AC;WP;ALT;CS	2005 - 2011				Elastic 127 - 177	Pic36
207	1,4 HDiF	DV4C (8HR)	CS;ALT;AC					auto*195-250	Pic38
208	1,6 VTi	EP6C (5FS)	CS;ALT;AC	03/12				auto*173-200	Pic38
	1,4 e-HDi	DV4C	Accessoire	03/12				auto*195-210	Pic38
306	2,0 16V	XU10J4R	Distribution	03/97 - 10/01				88-92	Pic46
	2,0 Hybrid4	DW10CTED4 (RHC)	Accessoire	2011 - 2013				auto*210-230	Pic47
	1,8 HDi	4N13 (6HZ)	CS;WP	2012 - 2013	113-264			113-264	Pic45
508 RXH	2,0 HDi / Hybrid4	DW10CTED4 (RHC)	Accessoire	2011				auto*210-230	
807	2,0 HDi 16V	DW10ATED4 (RHT)	Distribution	06/02 - 05/06		128-133	8	78-82	Pic40
Expert	2,0 HDi 16	DW10ATED4	Distribution	07/00 - 10/06		128-133	8	78-82	Pic40
		DW10ATED	Distribution	2004 - 2007		128-133	8	78-82	Pic40
Boxer	2,0 8V	XU10J2U (RFW)	Distribution	02/94 - 09/00		46-48	4	58-60	Pic48
RENAULT									
	1,6 16S e	K4M	710					auto*151-157	Pic51
			711					auto*151-157	Pic51
	1,5 d	K9K	636					auto*93-97	Pic49
			764					auto*87-91	Pic49
			786					auto*93-97	Pic49
SEAT									
Ibiza	1,9 TDI	AXR	Distribution	2006 - 2008				auto*133-139	Pic14
Ibiza IV	1,2 12V	BXV	AC;ALT;WP;CS	2007 - 2009				auto*102-180	Pic15
Alhambra	2,0	ADY	ALT (6V)			85-95		110-120	Pic16
	2,0 TDI CR	CFFB	ALT;PS;CS	05/11				auto*165-201	Pic13
		CFFB	ALT;PS;CS	06/10				auto*165-201	Pic13
SKODA									
Octavia GLX	1,6 8V	AKL	Distribution	1997 - 2007				auto*73-77	Pic17
	2,0 TFSI	CCZA	CS;ALT;AC	03/09				auto*180-186	Pic12
Superb	2,0 TDI CR	CFFB	ALT;PS;CS	03/10				auto*165-201	Pic13
SUZUKI									
Swift	1,3 DDIS	D13A (Z13D)	ALT;WP;AC;CS	04/05 - 01/08				auto*118-188	Pic10
Swift Sport	1,6	M16A	ALT;WP;CS					286-294	Pic11
Vitara	2,0 D i/C Turbo	RF	CS;ALT;WP	1996 - 1998	78-86		2	105-150	Pic18
Grand Vitara	1,9 DDIS	F9Q B2	Distribution	2005			4	78-81	Pic68
SUBARU									
BRZ	2,0 DOHC	FA20	ALT;WP;CS	2012				auto*85-99	Pic69
TOYOTA									
IQ	1,0 VTT-i 12V	1KR-FE	CS;ALT;AC	01/09				125-150	Pic70
Yaris	1,0 VVT-i	1KR-FE	CS;ALT;AC	01/06				125-150	Pic70
Auris	2,0 D-4D 16V	1AD-FTV	ALT;PS;AC;WP;CS	10/12				auto*117-123	Pic71
Avensis	2,0L D-4D	1AD-FTV (CDT220)	ALT;PS;AC;WP;CS	11/08				auto*117-123	Pic71
	2,2 D-4D	2AD-FTV	ALT;PS;AC;WP;CS	11/08				auto*123-150	Pic72
Verso	2,0 D-4D	1AD-FTV (AUR20)	ALT;PS;AC;WP;CS	04/09				auto*117-123	Pic71
	D-CAT	2AD-FHV	ALT;PS;AC;WP;CS	2009				auto*123-147	Pic72
GT 86	2,0 D-S	FA20	ALT;WP;CS	2012				auto*85-99	Pic69
RAV 4	2,0 D4-D	1CD-FTV	PS	2009		68-93		108-128	Pic73
			PS;AC	2009		82-99		122-130	Pic72

Model	Engine	Engine code	Configuration	Date	Techn. Features	T1 - Hz	Rotation	T2 - Hz	Scheme
VOLKSWAGEN									
Golf IV	1,4 16V	AHW	AC;ALT;PS;CS					auto*247-287	Pic19
Bettle	2,0 TSI	CCZA	ALT;CS;AC	12/10				auto*180-186	Pic12
Eos	2,0 TDI	CFFB	ALT;PS;CS	01/09				auto*165-201	Pic13
CC	2,0 TDI	CFFB	ALT;PS;CS	01/09				auto*165-201	Pic13
Jetta	2,0 TDI 16V	CFFB	ALT;PS;CS	07/10				auto*165-201	Pic13
Passat	2,0 TDI	CFFB	ALT;PS;CS					auto*165-201	Pic13
Passat SW	2,0 TDI	CFFB	ALT;PS;CS					auto*165-201	Pic13
Passat Alltrack	2,0 TDI	CFFB	ALT;PS;CS					auto*165-201	Pic13
Bora	1,9 TDI	ASZ	Distribution	2001 - 2005				auto*169-174	Pic20
Sharan	2,0 TDI	CFFB	ALT;PS;CS	05/10				auto*165-201	Pic13
	2,0 TDI CR	CFFB	ALT;PS;CS	05/10 - 05/11				auto*165-201	Pic13
VOLVO									
V40	2,0 D3	D5204T6	ALT;PS;CS	2012				auto*114-144	Pic54
S60	2,4 D5	D5244T11	ALT;PS;CS	2011				auto*180-198	Pic55
		D5244T15	ALT;PS;CS	2011				auto*180-198	Pic55
	2,4 TDI D5	D5244T11	ALT;PS;CS	04/11				auto*180-198	Pic55
V70	2,4 D 20V D5	D5244T11	ALT;PS;CS	04/11				auto*180-198	Pic55
XC60	2,4 D D5	D5244T14	ALT;PS;CS	04/09 - 03/10				auto*174-78	Pic56
XC70	2,4 D/D5 AWD	D5244T11	ALT;PS;CS	05/10				auto*180-198	Pic55
	2,4 D	D5244T14	Distribution	05/10				auto*174-78	Pic56







Erläuterungen / Explanations		
T1 (Hz) Rotation	Erster Einstellwert / Einstellspannung für gebrauchte Riemen Anzahl Motordrehungen zwischen erstem Einstellwert und Endspannung	Timing belt: Pre-tension (before engine rotation) / Accessory belt: Tension for used belt Number of engine rotations between pre-tension and final tension
T2 (Hz)	Endspannung / Einstellspannung für neue Riemen	Timing belt: Final tension (after engine rotation) / Accessory belt: Tension for new belt
	Messpunkt, Einstellwert	Measured point, adjustment value
	Messpunkt, Kontrollwert	Measured point, check value
	Vorspannwerkzeug auf Messstrang	Tool for applying preload to the side
Abkürzungen / Abbreviations		
CA	Nockenwelle	Camshaft
ID	Umlenkrolle	Idler
TP	Spannrolle	Tension pulley
CS	Kurbelwelle	Crankshaft
PS	Servopumpe	Servo pump
FAN	Lüfter	Fan
OP	Ölpumpe	Oil pump
WP	Wasserpumpe	Water pump
ALT	Generator	Alternator
AC	Klimapumpe	Clima pump
INP	Einspritzpumpe	Injection pump