

NORMAL OPERATING VALVE CLEARANCE AND TIMING CYCLES

ENGINE TYPE	TIMING DATA (CYLINDER No. 1 at T.D.C.)				NORMAL OPERATING VALVE CLEARANCE AND TIMING CYCLES					
					INTAKE			EXHAUST		
	VALVE CLEAR. mm.	INTAKE OPENS	EXHAUST CLOSES	CLEARANCE (COLD ENGINE) mm.	OPENS	CLOSES	CLEARANCE (COLD ENGINE)	OPENS	CLOSES	
B10 - B21	0.4	3° after TDC (1)	4° after TDC	0.25 ± 0.30	16° before TDC	67° after BDC	0.35 ± 0.40	60° before BDC	23° after TDC	
B22	1	3° before TDC (1)	7° after TDC	0.25 ± 0.30	31° before TDC	81° after BDC	0.35 ± 0.40	67° before BDC	25° after TDC	
B15 - B12 B20 up to No. 2500	0.4	3° after TDC (1)	4° after TDC	0.25 ± 0.30	16° before TDC	67° after BDC	0.35 ± 0.40	60° before BDC	23° after TDC	
B20 from No. 2501 up to No. 4600	1	3° before TDC (1)	7° after TDC	0.25 ± 0.30	31° before TDC	81° after BDC	0.35 ± 0.40	67° before BDC	25° after TDC	
B20 from No. 4601	0.5	3° before TDC (1)	7° after TDC	0.25	22° before TDC	82° after BDC	0.35	55° before BDC	23° after TDC	
B24 up to No. 1300 (America type)	0.4	opens at TDC (1)	7° after TDC	0.25	43° before TDC	65° after BDC	0.35	48° before BDC	9°30' after TDC	
B24 up to No. 1300 (Europe type)	1	3° before TDC (1)	7° after TDC	0.25 ± 0.30	31° before TDC	81° after BDC	0.35 ± 0.40	67° before BDC	23° after TDC	
B24 from No. 1301	0.5	3° before TDC (1)	7° after TDC	0.25	22° before TDC	82° after BDC	0.35	55° before BDC	23° after TDC	
813.00 - 813.03	0.8	opens at TDC (1)	closes at TDC	0.15	11° before TDC (3)	49° after BDC (3)	0.25	49° before BDC (3)	11° after TDC (3)	
C10 up to No. 12500 C10S up to No. 12000	0.8	2° before TDC (2)	2° after TDC	0.15			0.20			
C10 from No. 12501 C10S from No. 12001 808.07 814.00 up to No. 3700	1	opens at TDC	closes at TDC	0.15	15° before TDC (3)	52° after BDC (3)	0.20	52° before BDC (3)	15° after TDC (3)	
823.00 - 825.02 826.000-826.050	1	opens at TDC	closes at TDC	0.15	13° before TDC (3)	57° after BDC (3)	0.25	57° before BDC (3)	13° after TDC (3)	
814.00 from No. 3701	1.35	opens at TDC	3° before TDC	0.15	20° before TDC (3)	59° after BDC (3)	0.20	63° before BDC (3)	15° after TDC (3)	
815.200 - 815.300 815.00	1	1°30' before TDC	1°30' after TDC	0.10	14° before TDC (3)	59° after BDC (3)	0.20	58° before BDC (3)	14° after TDC (3)	
506.00 - 506.12	1	4° before TDC	4° after TDC	0.10	12° before TDC (3)	51° after BDC (3)	0.15	51° before BDC (3)	12° after TDC (3)	
813.10	1	3°30' before TDC	3°30' after TDC	0.15	17° before TDC (3)	55° after BDC (3)	0.25	55° before BDC (3)	17° after TDC (3)	

(1) - one tooth of flywheel ring gear corresponds to about 3° (2) - one tooth of flywheel ring gear corresponds to about 3° 30' (3) - timing considering a clearance of 0.4 mm.