

Specifications for Ignition Timing, Distributor Curves and Carburetor Settings  
 For 4.9 Litre Ghibli and Bora Engines  
 Song Controlled vs. Euro

**Distributor for all cars:**

Bosch ZV2/30V2

Static Adv.      0°      +10°      +11°

**Distributor Advance, Only**

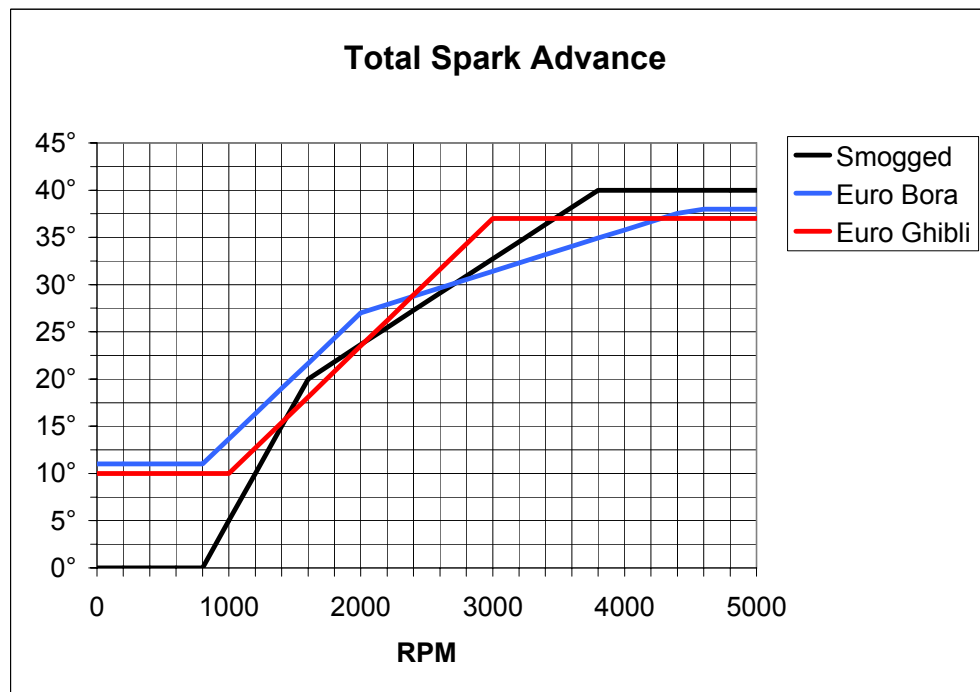
RPM	w/Smog	Euro	
	Both	Ghibli	Bora
0	0	0	0
200	0	0	0
400	0	0	0
600	0	0	0
800	0	0	0
1000	5	0	3
1200	10	3	5
1400	15	5	8
1600	20	8	11
1800	22	11	13
2000	24	14	16
2200	25	16	17
2400	27	19	18
2600	29	22	19
2800	31	24	20
3000	33	27	20
3200	35	27	21
3400	36	27	22
3600	38	27	23
3800	40	27	24
4000	40	27	25
4200	40	27	26
4400	40	27	27
4600	40	27	27
4800	40	27	27
5000	40	27	27

**Total Advance**

RPM	w/Smog	Euro	
	Both	Ghibli	Bora
0	0	10	11
200	0	10	11
400	0	10	11
600	0	10	11
800	0	10	11
1000	5	10	14
1200	10	13	16
1400	15	15	19
1600	20	18	22
1800	22	21	24
2000	24	24	27
2200	25	26	28
2400	27	29	29
2600	29	32	30
2800	31	34	31
3000	33	37	31
3200	35	37	32
3400	36	37	33
3600	38	37	34
3800	40	37	35
4000	40	37	36
4200	40	37	37
4400	40	37	38
4600	40	37	38
4800	40	37	38
5000	40	37	38

**Total Suggested Advance**

40°      38° - 40°      39°



**Camshafts and Cold Clearance Are the Same for All Cars**

**Intake Cam (#67000, Cold Clearance 0.28mm)**

	Euro		
	Both	Ghibli	Bora
Opens	38°	40°	40°
Closes	84°	80°	80°
Dwell	302°	300°	300°

**Exhaust Cam (#67500, Cold Clearance 0.47mm)**

	Euro		
	Both	Ghibli	Bora
	65°	54°	54°
	10°	22°	22°
	255°	256°	256°

BBDC  
ATDC

**Carburetor Specifications**

	Smogged		Euro	
	Ghibli	Bora	Ghibli	Bora
Slow running air correction jet	Ø 1.30	Ø 1.30	Ø 1.20	Ø 1.20
Float Level	50±0.5 mm	50±0.5 mm	48±0.5 mm	48±0.5 mm
Progression holes	0.7-0.9-0.9-1	??	??	??
Holes	??	n. 4	??	n. 4
Pump cams	n. 26	n. 8	n. 26	n. 26
Spark plug gap	.5 - .6 mm	.5 - .6 mm	.8 - .9 mm	.8 - .9 mm

**Conclusion:**

- All 4.9 litre engines used the same heads, cams and distributor.
- Differences were in:
  - Static distributor advance
  - Curving of the distributor
  - The setting of when the cams opened, in terms of degrees. Cam clearance was the same.
- All 4.9 litre engines used the same base carburetor, the 42 DCNF. Differences were in:
  - General leaning out of the fuel mixture through out the range via float setting
  - More leaning at idle via the slow running correction jet
- The smogged engines used a smaller spark plug gap, to avoid fouling
- The smogged Bora had a "n. 8" pump cam, while all others had a "n. 26"
- "Holes"
  - The Euro Ghibli settings make no mention of holes
  - The smogged Ghibli has "Progression holes: 0.7-0.9-0.9-1"
  - Both the smogged and Euro Bora have "Holes: n. 4", but make no mention of "Progression Holes"
- The smogged engines had an air pump to force air into the exhaust to assist in post combustion burning

**Changes to Convert Smog Controlled 4.9 Engines to Euro Spec**

- Recurve the distributor to either the Euro Ghibli or Euro Bora settings
- Set the static advance to 11 degrees, with the total engine timing advance from 38 - 40 degrees
- Advance the intake cam by 2 degrees
- Retard the exhaust cam by 11 degrees
- Change the carburetor slow running air correction jet to Ø 1.20
- Adjust the float to 48 ± 0.5 mm
- Remove air pump (if so equipped) and block off the air injection holes in the exhaust pipes

