SPITFIRE & GT6 MAGAZINE
REFERENCE
MAINTENANCE AND TROUBLESHOOTING
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Tuning Data

Fields left blank are ones I am still hunting for correct info. North American cars unless otherwise noted.

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Spitfire	Up to 1977	Catalytic Converter Specification only
Idle Speed	700-900 r.p.m.	700-900 r.p.m.
Fast Idle Speed (US)	1700-1900 r.p.m.	1700-1900 r.p.m.
Fast Idle Speed (non-US)	1100-1300 r.p.m.	-
Rocker (valve) Clearance (Cold)	0.010" (0.25 mm)	0.010" (0.25 mm)
Dwell	1962-74 see Timing data below, 1975-77 fixed	Fixed (Electronic)
Carburetter Type	150 CDSE 1970-? 150 CD4 (? to 1977)	150 CD4T (1977 on)
Needle	A.N. (1147cc w/twin SU) B5AV (US Mk3 & MkIV w/Stromberg) B5CH (1973-74) BIDL (1975-76)	BIDL (1977-78), 45P (1978-79) 45N (1980) 45L (1978-79 California), 45N (1979-80 California)
CO Reading at Idle	Min. 1%, Max 3.5% (1970 US spec.) Min. 2.5%, Max 4.5% (pre-1500) 1.5% Nominal, Min. 0.5%, Max 2.5% (US 1500) 3% Nominal, Min. 0.5%, Max 6.5% (non-US)	3% Nominal, Min. 0.5%, Max 6% (1977) 5% Nominal, Min. 3%, Max 7% (1978-79)
Procedure for Setting	Disconnect and plug the air injection system, (downstream of the diverter valve vent pump to atmosphere) and adjust the mixture strength with the external adjuster. To give larger adjustments move the metering needle using a special tool.	
Firing Order	1-3-4-2 (#1 is at front of car)(turning counter clockwise)	1-3-4-2
Points Gap	0.015" Mk1-2 (factory manual says 0.020, but service bulletin revises to .015 in 6/63) 0.015" Mk3 0.016" Mk4	0.015" (0.38 mm.)

	0.015" 1500	
Plug Gap	0.025" (0.64 mm.)	0.025" (0.64 mm.)
Plug Type	Champion N9Y (62-70), UN-12Y (70), N-12Y (71-80)	N-12Y
Plug Torque	25 ft/lbs	

GT6	North America spec GT6 Mk1	GT6 Mk2	North America spec GT6+	Mk 3
Idle Speed	600-750 r.p.m.	700-900 r.p.m.	700-900 r.p.m.	700-850 r.p.m.
Fast Idle Speed	1700-1900 r.p.m.	1700-1900 r.p.m.	1700-1900 r.p.m.	
Rocker (valve) Clearance (cold)	0.010" (0.254 mm.)	0.010" (0.254 mm.)	0.010" (0.254 mm.)	0.010" (0.254 mm.)
Carburetter Type	150 CD	150 CDSE (150 CD non-US)	150 CDSE	150 CDSE
Needle	6J	6 AL (6 AC non-US)	B5 AJ	B5BT (B5CF)*
CO Reading at Idle	-	Max 2.0%	Max 2.0%	
Firing Order	1-5-3-6-2-4 counter-clockwise (from top of distrib.)	1-5-3-6-2-4	1-5-3-6-2-4	1-5-3-6-2-4
Points Gap	0.015" (0.38 mm.)	0.015" (0.38 mm.)	0.015" (0.38 mm.)	0.015" (0.38 mm.)
Plug Gap	0.025" (0.64 mm.)	0.025" (0.64 mm.)	0.025" (0.64 mm.)	0.025" (0.64 mm.)
Plug Type	Champion N-9Y	Champion N-9Y AC Delco 42XLS	Champion UN12Y AC Delco 44XLS	Champion N-9Y & N12Y

TIMING	static (engine not running)	Strobescopic (at idle with distrib vacuum advance disconnected and plugged)	Stroboscopic (other)	Dwell
GT6				
GT6 Mk1	13° BTDC (100 octane fuel) 7° BTDC (97	-	-	40°-42°

	octane fuel)			
GT6 Mk2	10° BTDC	4° ATDC	-	40°-42°
GT6 +	6° BTDC	4° ATDC	-	?
GT6 Mk3	10° BTDC 6° BTDC* (12° BTDC according to 1973 Emissions service bulletin)	4° ATDC	-	40°-42° (*38°-40°)
Spitfire				
Spitfire Mk1	13° BTDC***	-	-	36°
Spitfire Mk2	13° BTDC***	-	-	36°
Spitfire Mk3	6° BTDC	6° ATDC	-	40°-42°
Spitfire Mk3 w/emissions	6° BTDC	2° ATDC (800-850 rpm)	-	?
Spitfire Mk4 (non-US)	6° BTDC (up to FM25000) 8° BTDC (after FM25000)	?	-	?
Spitfire Mk4	6° BTDC	2° ATDC (800-850 rpm)	-	?
Spitfire 1500 (non-US)	10° BTDC	10° BTDC (650-850 rpm)	-	46°-56°
Spitfire 1500 up to 1976	10° BTDC**	2° ATDC	14° (plus or minus 2°) BTDC at 1100 rpm	38 to 40 deg. fixed for electronic ignition
Spitfire 1500 1977-79	10° BTDC**	10° BTDC	14° (plus or minus 2°) BTDC at 1100 rpm	fixed
California Spitfire 1500 up to 1976	2° ATDC**	2° ATDC	-	fixed
California Spitfire 1500 1977-79	10° BTDC**	2° ATDC	-	fixed

* after KC or KF 10000
** Electronic Ignition. A few manuals I found recommend against using static timing

on cars with electronic ignition.

BTDC= Before Top Dead Center
ATDC= After Top Dead Center

*****The recommended timing for a Mk1 or Mk2 Spit. Adjust as follows:**
1. Rotate the Vernier adjuster knob counterclockwise until it won't turn anymore.
2. Position the crankshaft so that the front cylinder is at TDC and ready to fire. (The pointer on the timing chain cover will be lined up with the timing mark on the pulley)
3. Rotate the distributor body clockwise until the points just begin to open (make sure the rotor is pointing to the #1 piston) A test lamp is helpful for this operation.
4. Tighten the distributor clamp to lock the distributor in place.
5. Rotate the vernier adjuster knob until you achieve 13 degrees of advance (each click of the adjustment knob is equal to 1 degree of advance)

Visit this link to see timing marks.

This timing chart is under construction as I have found MANY inconsistancies between sources.
Please email me any revisions, corrections, additions.

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