

ELAN
1974 LOTUS CLINIC ANNUAL

ELECTRICAL

The big Sears Die Hard was taking too much room in the trunk of my 1970 Elan +2. Its height precluded use of the decking on the right side. So, I had a sheet metal outfit make a flanged box a couple of inches oversize, made a cutout in the bilge to take it, bolted it in place, lined it with fiberglass and inserted the battery via a strap. The Die Hard is just low enough now to allow normal installation of the deck. The box cost \$10.

ENGINE

When disassembling the valve trains for adjustments it's a good idea to physically separate and identify the buckets and shims. An ideal holder for those pieces is an egg carton. Label one side EX and the other IN and number the holes 1-4. The carton will snugly hold the buckets, will not drip excess oil left on the buckets and has a lid to keep out dust and on which you can record your measurements of shims and clearances. It also works for Alfas and is ideal for Jaguar (a dozen valves).

The stock twin-cam timing chain has no master link, requiring the camshaft sprocket removal when removing cams. Since the chains are subject to stretching anyway, the replacement of the stock chain with a 3/8" pitch, single row, 120 link chain (BAP #3 SR 120), which has a master link, is reasonable. The chain can then easily be laid back (ends held by safety wire) and the whole cam removed. It's much easier to set up the cam drive correctly upon reassembly.

For twin cams with Stromberg carbs the crossover pipes and butterflies (in manifold adapter) can be removed and the CHP or DMV will never know or care. If stock look desired, then same affect can be had by blocking the crossover pipes with a plate type gasket at the manifold and removing the butterfly plates only (leaving linkage and shafts intact). The system will appear intact and modification cannot be detected without disassembly.

Also the distributor with the vacuum retard can be replaced with the relatively cheap distributor from early twin cams (Lucas #40953) which is fully centrifugal and gives a much better advance curve. Timing should be advanced from 5° BTDC to 10° BTDC.

If you find that your carburetor floods after the engine has been shut down for a few minutes, you may find that, among other causes, the orifice in the fuel return line is plugged with very fine dirt. This orifice is located in the tee just downstream from the fuel pump. The tee can be removed easily without tools. It is likely that the stoppage will require removal by probing with a very fine wire which you can extract from a fine wire brush

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ENGINE (continued)

or a multistrand electric wire. My experience has shown that this orifice will be plugged again within a few hundred miles of driving. Obviously, a fuel filter just upstream from the tee would help to solve the problem but reports that I have read on the efficacy of fuel filters prompted me to enlarge the orifice by a factor of two in the hope that flow stoppage can be avoided at the expense of more wasted work from the fuel pump.

DRIVETRAIN

Those of you rebuilding Cortina and Lotus transmissions should be careful when purchasing the input shaft bearing. The correct Cortina bearing is no longer stocked by many Ford dealers and has been replaced by a bearing intended to be used in Pinto and Capri. This Pinto bearing has a dust shield which prevents the oil in the transmission from lubricating the bearing, while the correct part has no dust seals. If your Ford dealer cannot provide the correct bearing try your local bearing supply house. I've been told that the correct part number is made by but I suggest you check carefully, preferably by comparing with your old bearing.

Yes, you can replace broken Elan stub axles without removing differential and half the rear suspension (as suggested by Lotus Elan manual). By simply removing the half-axle shaft with both donuts still bolted to it, one can then remove the snap-ring on the stub axle and try to remove the broken part from the differential (methods of doing this vary according to situation, but it's usually not too traumatic) along with the bearing. Only one side need be worked on if you can decide which one has the broken axle (a guess will do). Flush the differential through the side where the stub axle used to be (use motor flush), drain and refill fresh. Place snap ring then bearing (used or new) on new \$\$ stub axle and installation is the reverse of removal. Note: this doesn't always work, as sometimes stub axle won't come out* (try slide hammer on 3 arm [bolt type] puller), but it doesn't cost any extra effort, since the same steps are necessary by std. method anyway.

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Chassis Identification: Elan

<u>Date</u>	<u>Chassis No.</u>	
January 1963	26/0001	Elan 1500 introduced
May 1963	26/0026	Hardtop optional
January 1964	26/0330	Model continues
November 1964	26/3901	Series 2 introduced
January 1965	26/4325	Series 2 continues
September 1965	36/4510	Series 3 fhc introduced
November 1965	36/5147	Close ratio gearbox available
January 1966	26/5207	Convertible continues
	36/5201	Fhc continues
	26/5282	Special equipment convertible available
June 1966	26/5810	S2 convertible final chassis number
	26/5798	S2 conv. (special equipment) final chassis number
	45/5702	S3 convertible introduced
	45/5701	S3 convertible (special equip.) introduced
July 1966	36/5977	S3 fhc (special equip.) introduced
January 1967	45/6678	S3 convertible continued
	45/6680	S3 conv. (special equip.) continued
	36/6679	S3 fhc continued
	36/6683	S3 fhc (special equip.) continued
June 1967	50/0001	+2 fhc introduced
August 1967	45/7328	Convertible continued
	45/7329	Conv. (special equip.) continued
	36/7327	Fhc continued
	36/7331	Fhc (special equip.) continued
March 1968	45/7895	S4 convertible introduced
	36/7895	S4 fhc introduced
November 1968	50/1280	Stromberg carbs introduced on +2 fhc
	45/8600	Stromberg carbs introduced on conv. and fh
March 1969	50/1554	+2S fhc introduced
August 1969	45/9524	Weber carbs re-introduced on convertible
	36/9524	Weber carbs re-introduced on fhc
December 1969	50/2407	+2 final chassis number
	50/2526	Final number of old numbering (+2S)
	45/9824	Final number of old numbering (conv.)
	36/9824	Final number of old numbering (fhc)
January 1970	7001 010001	All models continued with a suffix to identify each one, i.e., S4 fhc=A; S4 fhc special equipment=E; S4 conv.=C; S4 conv. special equipment=G; +2S fhc=L
February 1971	7101...	Sprint version introduced on fhc and convertible; +2S 130 introduced
January 1972	7201...	Models continued unchanged
October 1972	--	5-Speed gearbox option on +2S 130
January 1973	7301...	Convertible and fhc continued
	7301 1132	+2S 130 and +2S 130/5 continued
August 1973	7301...	Elan convertible and fhc discontinued

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MISCELLANEOUS

I did some shopping around for parts and began dealing with an outfit in England because they seemed cheaper on most items; £ 90. for a Big Valve Weber Head; a pair of 40 DCOE Webers for £ 74.; a #41189 Distributor for £ 15.; a pair of Cosworth CPL2 cams for £ 45.; etc. For those who may be interested I have attached the address. The service is fast and personalized.

Signed, Ted Wilbur

Gordon Spice (International Spares) Limited
12 B Central Trading Estate
Staines, Middlesex
England

Increased lighting on gauge conversion in 26CS030 can be had by rattailing the back dash where the light is.

V.W. (dreaded word) are direct replacement exhaust manifold gaskets for twin-cams at a great savings.

When installing a Delta C.D., Believe the instructions regarding the 15 ohms resistor. Lynn reports ruined points and Tach coil \$22.50 without placing resistor in.

Lastly, the right angle drive is available only through either Smith's or Lotus dealer and is specific for the Ford box, although there are a few people around who will rebuild.

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Lotus Elan Milestones

- October 1962 New Lotus Elan 1500 introduced at £1,095 in kit form, £1,499 UK list price, heater and tonneau cover extra. Ford twin-ohc engine developing 100 bhp. Ford Classic gearbox with 3.90 final drive ratio. Steel backbone chassis glass fibre reinforced bodywork. All independent suspension, four wheel disc brakes, rack and pinion steering.
- May 1963 1,558 c.c. engine introduced and hardtop available as an option. "Elan 1600" flash on front wing (n.b. all Elan 1500's were recalled by the factory for fitment of 1,558 c.c. engine).
- November 1964 Series 2 introduced. Full width wood veneer fascia with lockable glovebox. Chrome bezels on instruments. Independent rear lights merged into oval units. Larger front brake calipers fitted. Centre lock road wheels available as an option. Smaller pedal pads and a quick release petrol filler cap fitted. Further identified by "S2" motif.
- September 1965 Series 3 fixed head coupe introduced. Bootlid extended to rear edge of rear deck. Battery positioned in boot. Windows operated electrically. High ratio 3-55 axle available.
- November 1965 Close ratio gearbox available as an option.
- January 1966 Special Equipment model available. Power output increased to 115 bhp, close ratio gearbox standard, servo-assisted brakes, centrelock road wheels standard, repeater flashers on front wheel arches.
- June 1966 Series 3 version of convertible introduced with side window frames, otherwise as fhc.
- June 1967 Elan +2 fhc introduced. Similar construction to Elan fhc but wider. Longer body to provide increased interior accomodation. Engine power increased to 118 bhp. Servo-assisted brakes. Throughflow ventilation.
- March 1968 Series 4 model introduced on convertible and fhc. Low profile tires adopted requiring flared wheel arches. Facia revised with rocker switches. Elan +2 lights adopted. Bulge on bonnet and perforated seat trim specified.
- October 1968 Elan +2S introduced. First Elan not to be available in kit form. Specification similar to Elan +2 but with improved interior specification. Fog lights standard and "+2" emblem on boot.
- November 1968 Strömberg carburettors replace Webers on all models except Elan +2S.
- August 1969 Elan Series 4 convertible and fhc revert to Weber carburettors.
- December 1969 Elan +2 discontinued, +2S continues.

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Lotus Elan Milestones
(continued)

February 1971 Sprint version of Elan S4 introduced with more powerful engine (126 bhp), strengthened differential and drive-shafts and stronger drive shaft couplings. Identified by duotone paintwork.

February 1971 Elan +2S 130 announced with same engine as Elan Sprint. Identifiable by silver roof.

Note: Both Elan Sprint and +2S 130 were announced in October 1970 but neither was available until the later date shown.

October 1972 5-speed gearbox available as optional extra on Elan +2S 130. When fitted, the model identified by "S130/5" on nearside rear quarter.

August 1973 Elan convertible and fhc production discontinued.