

Manufacturers Reference No. for Application

EL/1800/4/1



F.I.A. Recognition No.

155

ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

Federation Internationale de l'Automobile.

*Form of Recognition in accordance with
Appendix J to the
International Sporting Code.*

Manufacturer.....Trojan Limited.....

Model.....Elva Courier Mk.IV T-type..... Year of Manufacture.....1964.....

Serial No. of Chassis.....E.1127.....

Engine.....18G.UH.21667.....

Type of Coachwork.....Sports 2-seater.....

Recognition is valid from.....13 JANV 1964..... In category.....G.T.....

Photograph to be affixed here $\frac{3}{4}$ v



Robert J. Hardy
FEDERATION INTERNATIONALE DE L'AUTOMOBILE

Stamp of F.I.A./R.A.C. to be affixed here.

Form: R.F.I.A.

General description of car:

Specify here material/s of chassis/body construction

2-seater sports - glass fibre body
Steel doors and chassis
4-cylinder OHV pushrod engine with
4-speed gearbox
Independent rear suspension of double
wishbone layout
Disc brakes front - drums rear

Photographs to be affixed below.

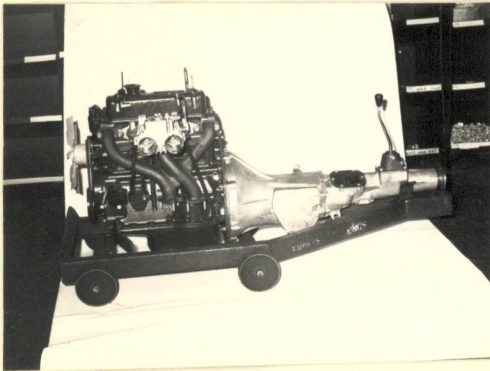
3/4 view of car from rear left.



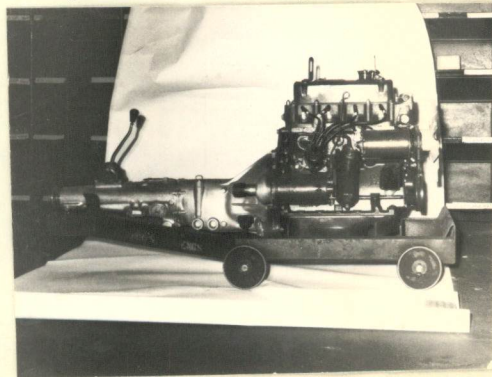
Interior view



Engine unit with accessories from right.

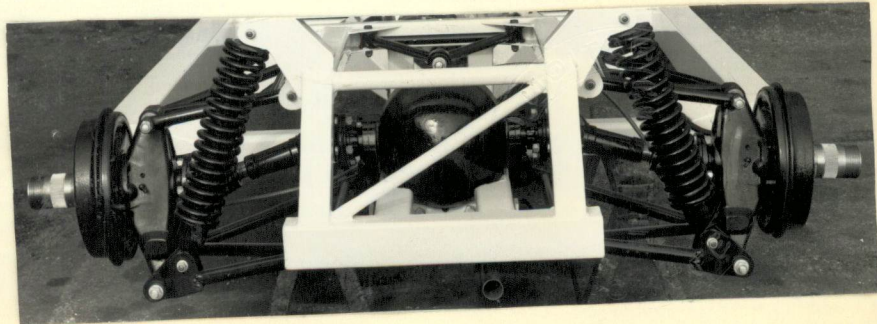
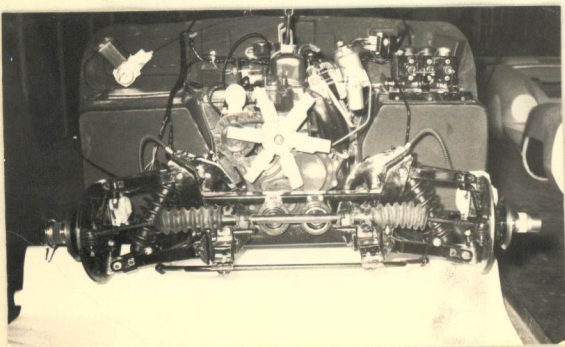


Engine unit with accessories from left.



Front axle complete (without wheels).

Rear axle complete (without wheels).



ENGINE

in line Yes
 No. of cylinders 4 in V -
 opposed -
 Cycle 4 stroke Firing order 1, 3, 4, 2
 Capacity 1798 c.c. Bore 80.26 m.m. Stroke 89 m.m.
 Maximum rebore 0.040 Resultant capacity 1840 c.c.
 Material of cylinder block Cast iron Material of sleeves, if fitted _____
 Distance from crankshaft centre line to top face of block at centre line of cylinders 252.4 m.m.
 Material of cylinder head Cast iron Volume of one combustion chamber 42.5 c.c.
 Compression ratio 9.5 : 1 or 43.5
 Material of piston Aluminium No. of piston rings 4
 Distance from gudgeon pin centre line to highest point of piston crown 42.07 m.m.
 Bearings { Crankshaft main bearings: Type Copper lead Dia. 53.97 m.m.
 Connecting rod big end: Type Copper lead Dia. 47.66 m.m.
 Weights { Flywheel 9.75 kg.
 Crankshaft 17.3 kg.
 Connecting rod 1.02 kg.
 Piston with rings 0.20 kg.
 Gudgeon pin 0.121 kg.
 No. of valves per cylinder 2 Method of valve operation Pushrod
 No. of camshafts 1 AEH.714 Location of camshafts Cylinder block
 Type of camshaft drive Chain
 Diameter of valves: Inlet 39.8 m.m. Exhaust 34.23 m.m.
 Diameter of port at valve seat: Inlet 33.33 m.m. Exhaust 29.37 m.m.
 Tappet clearance for checking timing: Inlet 0.46 m.m. Exhaust 0.46 m.m.
 Valves open: Inlet 34° BTDC Exhaust 69° BBDC
 Valves close: Inlet 74° ABDC Exhaust 39° ATDC
 Maximum valve lift: Inlet 11.12 m.m. Exhaust 11.12 m.m.
 Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 152° Exhaust 152°
 $\frac{3}{4}$ Maximum lift: Inlet 96° Exhaust 96°
 Valve springs: Inlet _____ Exhaust _____
 Type Coil _____ Coil _____
 No. per valve 2 _____ 2 _____
 Carburettor: Type Horizontal No. fitted 1
 (up or down draft, horizontal)
 Make Weber Model 45 DCOE
 Flange hole diameter 45 m.m. Choke diameter 45 m.m.
 Main jet identification No. 170

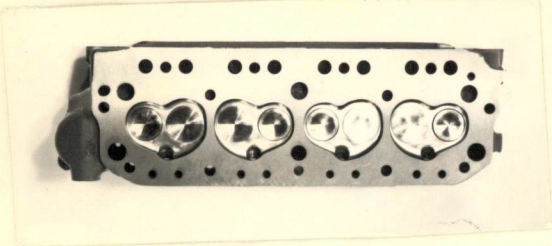
Air filter: Type..... - No. fitted..... -

Inlet manifold:

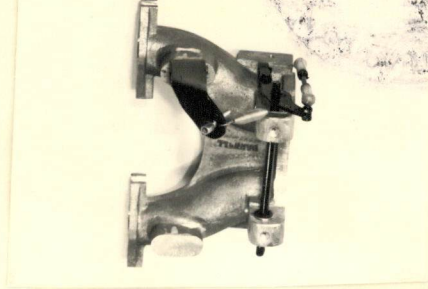
Diameter of flange hole at carburettor..... 45 m.m.

Diameter of flange hole at port..... 37.92 m.m.

Photograph of combustion chamber to be affixed here.



Photograph of inlet manifold to be affixed here.



Exhaust manifold:

Diameter of flange hole at port..... 37.92 m.m.

Diameter of flange hole at connection to silencer inlet pipe..... 44.78 m.m.

Photograph of piston showing crown to be affixed here.



Photograph of exhaust manifold to be affixed here.



ENGINE ACCESSORIES

Make of fuel pump..... SU No. fitted..... 1

Method of operation..... Electrical

Type of ignition system..... Coil coil or magneto

Make of ignition..... Lucas Model..... P.4.

Method of advance and retard..... Centrifugal and vacuum

Make of ignition coil..... Lucas Model..... HA 12

No. of ignition coils..... 1 Voltage..... 12

Make of dynamo..... Lucas Model..... C40/1

Voltage of dynamo..... 12 Maximum output..... 22 amps.

Make of starter motor..... Lucas Model..... M35GI

Battery: No. fitted..... 1 Voltage..... 12 Capacity..... 58 amp. hour

Oil Cooler (if fitted) type..... - Capacity..... - pints

Make ELVA Model Mk.IV T F.I.A. Recognition No.

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TRANSMISSION

Make of clutch Borg & Beck Type DSG Diaphragm
 Diameter of clutch plate 8" No. of plates 1
 Method of operating clutch Hydraulic
 Make of gearbox B.M.C. Type Synchromesh 2,3,4
 No. of gearbox ratios 4 forward, 1 reverse
 Method of operating gearshift Manual
 Location of gearshift Remote control - central floor
 Is overdrive fitted? No.
 Method of controlling overdrive, if fitted -

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	3.636:1	$\frac{30 \times 28}{21 \times 11}$	2.44:1	$\frac{25 \times 11}{26 \times 28}$				
2.	2.214:1	$\frac{30 \times 31}{21 \times 20}$	1.618:1	$\frac{25 \times 19}{26 \times 32}$				
3.	1.373:1	$\frac{30 \times 25}{21 \times 26}$	1.266:1	$\frac{25 \times 29}{26 \times 22}$				
4.	1.0:1		1.0:1					
5/R	4.755:1	$\frac{30 \times 28 \times 17}{21 \times 11 \times 13}$	3.199:1					

Type of final drive Hypoid or limited slip
 Type of differential Bevel
 Final drive ratio 3.909:1 Alternatives 4.1 : 1
 No. of teeth 11-43 4.3 : 1
 Overdrive ratio, if fitted 4.5 : 1
3.5 : 1

WHEELS

Type Wire Weight 6.15 kg.
 Method of attachment Spline and knock on hub
 Rim diameter 355.6 m.m. Rim width 101.6 m.m.
 Tyre size: Front 560 x 14 Rear 560 x 14

BRAKES

Method of operation Hydraulic
 Is servo assistance fitted? No.
 Type of servo, if fitted -
 No. of hydraulic master cylinders 2 Bore 15.9 m.m.

	Front		Rear
No. of wheel cylinders	4		2
Bore of wheel cylinders	47.31	m.m.	19.05
Inside diameter of brake drums		m.m.	228.6
No. of shoes per brake			2
Outside diameter of brake discs	272.8	m.m.	-
No. of pads per brake	2		-
Dimensions of brake linings per shoe or pad (if all shoes or pads in each brake are not of same dimensions, specify each)			

	Front		Rear
Length	66.45	m.m.	221.98
		m.m.	
Width	47.31	m.m.	44.18
		m.m.	
Total area per brake	6297.6	m.m. ²	19140.16

SUSPENSION

	Front		Rear
Type	Unequal wishbone		Unequal wishbone
Type of spring	Coil spring		Coil spring
Is stabiliser fitted?	Yes		No
Type of shock absorber	Armstrong Telescopic		Armstrong Telescopic
No. of shock absorbers	1 per wheel		1 per wheel

STEERING

Type of steering gear	Rack and pinion		
Turning circle of car	10		m., approx.
No. of turns of steering wheel from lock to lock	3 $\frac{1}{3}$		

CAPACITIES AND DIMENSIONS

Fuel tank	113	litres	Sump	3.69	litres
Radiator	5.82	litres			
Overall length of car	39.73	cm.	Overall width of car	154.94	cm.
Overall height of car, unladen (with hood up, if appropriate)	121.97 cm.				
Distance from floor to top of windscreen:					
Highest point	92.71	cm.	Lowest point	61.59	cm.
Width of windscreen:					
Maximum width	129.54	cm.	Minimum width	114.30	cm.
*Interior width of car	117.38 cm.				
No. of seats	2				
Track: Front	128.27	cm.	Rear	124.46	cm.
Wheelbase	226.60	cm.	Ground clearance	152.4	m.m.

*(To be measured at the immediate rear of the steering wheel, and the width quoted to be maintained in a vertical plane of not less than 25 cms.)

Overall weight with water, oil and spare wheel, but without fuel 603 kgs.

Additional information for cars fitted with two-cycle engines

System of cylinder scavenging.....

Type of lubrication.....

Size of inlet port:

Length measured around cylinder wall..... m.m.

Height..... m.m. Area..... m.m.²

Size of exhaust port:

Length measured around cylinder wall..... m.m.

Height..... m.m. Area..... m.m.²

Size of transfer port:

Length measured around cylinder wall..... m.m.

Height..... m.m. Area..... m.m.²

Size of piston port:

Length measured around piston..... m.m.

Height..... m.m. Area..... m.m.²

Method of pre-compression.....

Bore and stroke of pre-compression cylinder, if fitted..... m.m.

Distance from top of cylinder block to lowest point of inlet port..... m.m.

Distance from top of cylinder block to highest point of exhaust port..... m.m.

Distance from top of cylinder block to highest point of transfer port..... m.m.

Drawing of cylinder ports.

Supercharger, if fitted

Make..... Model or Type No.....

Type of drive..... Ratio of drive.....

Fuel injection, if fitted

Make of pump..... Model or Type No.....

Make of injectors..... Model or Type No.....

Location of injectors.....

Optional equipment affecting preceding information:—

Touring Equipment

Camshaft 1H729 I.O. 16° BTDC É.O. 51° BHDC
I.C. 56° ABDC E.C. 21° ATDC
Max. Valve Lift - 9.5 mm.

Exhaust Manifold Part No. 12H709

Twin SU 1½" carburettors
Induction Manifold Part No. 12H708
Touring fuel tanks Part No. 467294E
(303480E)

Piston 12H755

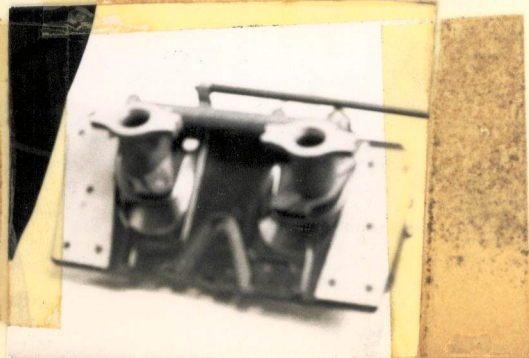
Other Equipment

Oil Cooler ARH 113
Magnesium Wheels 450425E
ZF 5-speed gearbox 450426E

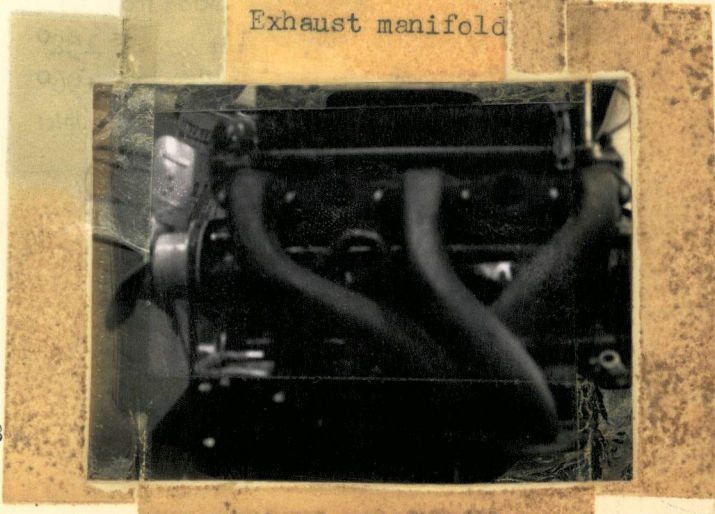


1. 3.0
 2. 1.705
 3. 1.24
 4. 1.0
 5. 0.85
- R 2.75

inlet manifold



Exhaust manifold



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Amendment to Form of Recognition

Manufacturer

TROJAN LTD.

Model

ELVA COURIER MK. IV T-TYPE

Add to Optional Equipment

~~Twin fuel tanks each of 6½ gallons (total 113 litres)
replacing single tank.~~

Wire wheels 5½ J rims. With these wheels nominal track becomes 123.85 cms. front and 127.0 cms. rear.

Engine options as homologated for M.G.B.

Correction

Overall length of car should read 397.3 cms., not 39.73 cms.



Stamp of F.I.A./R.A.C. to be affixed here.

Date amendment is valid from

11 April 1964

Form: R.F.I.B.

