F.I.A. Recognition No 5465

Group 1

FEDERATION INTERNATIONALE DE L' AUTOMOBILE

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

Manufacturer AB VOLVO

Serial No of chassis 52790

engine 101

Recognition is valid from 1/5/1972

Cylinder-capacity 2980 cm3 182 in3

Model VOLVO 164 E

Manufacturer AB VOLVO

Manufacturer AB VOLVO

List

The manufacturing of the model described in this recognition form was started on Aug 9, 19 71 and the minimum production of 5000 identical cars, in accordance with the specifications of this form was reached on .....19 ..

Photograph A, 3/4 view of car from front

The vehicle described in this form has been subject to the following amendments

Variants	Normal evolution of the type
on ..... 19.. rec.No .....List	on .....19.. rec.No.....List.....
on ..... 19.. rec.No .....List	on .....19.. rec.No.....List.....
on ..... 19.. rec.No .....List	on .....19.. rec.No.....List.....
on ..... 19.. rec.No .....List	on .....19.. rec.No.....List.....
on ..... 19.. rec.No .....List	on .....19.. rec.No.....List.....

Stamp and signature of the
National Sporting Authority

SVENSKA BILSPORTFÖRBUNDET
THE SWEDISH AUTOMOBILE-SPORT FEDERATION

Stamp and signature of the F.I.A.

Make VOLVO Model 164 E F.I.A. Rec. No SU15

Photograph B

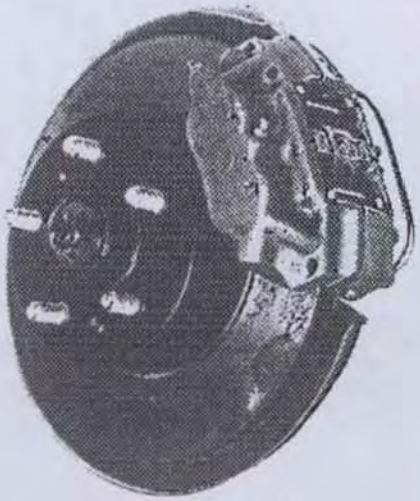
Photograph C

Photograph D

Photograph E

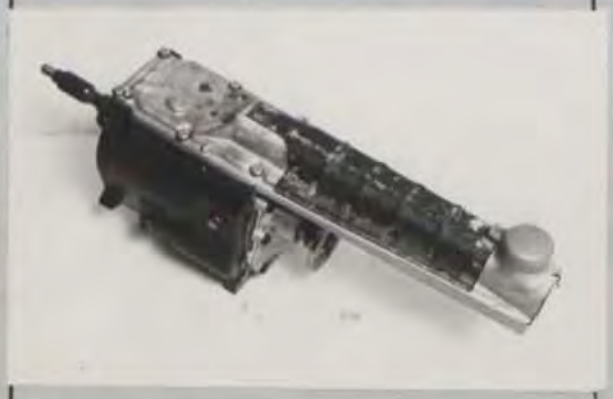
L

r



Photograph G

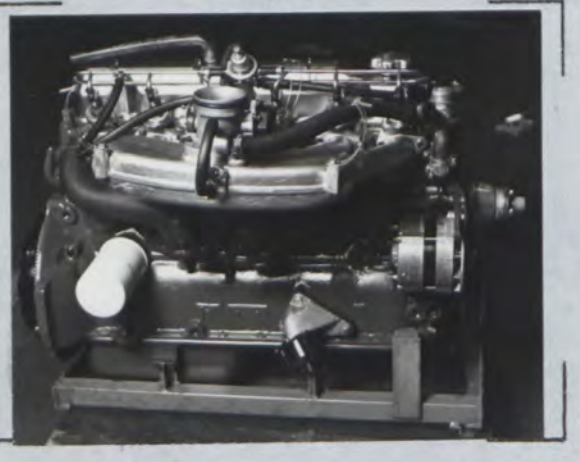
Photograph H



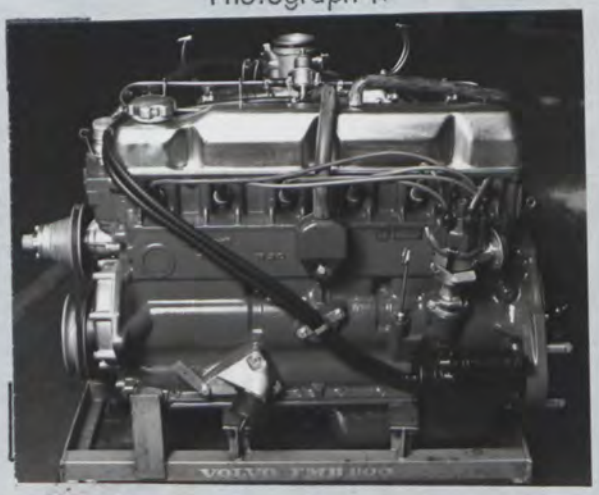
Photograph I

Make VOLVO Model 164 E F.I.A. Rec.No 5465

Photograph J



Photograph K



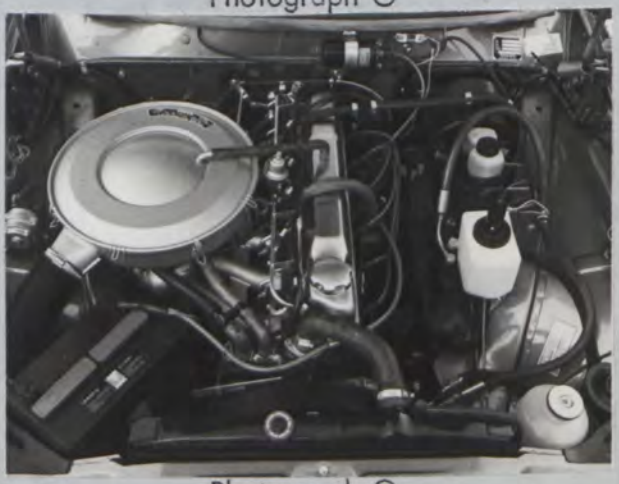
Photograph L

Photograph N

Carburettor (view from side of manifold)

Photograph M

Photograph O



Photograph P

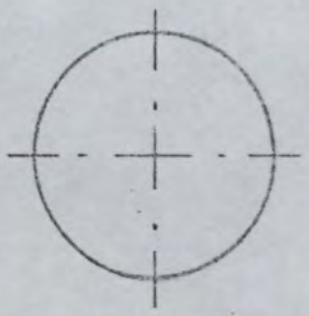
Photograph Q

Make VOLVO Model 164 E F.I.A. Rec.No 5465

Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.

Ø 41 H 12 $^{+0.25}_{-0}$

Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



Ø 37.5 H 12 $^{+0.25}_{-0}$

Drawing exhaust manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.

Ø 36 H 12 $\pm$ 0.2

Drawing of exit to exhaust port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

Ø 34 H 12 $^{+0.25}_{-0}$

Make VOLVO Model 164 E F.I.A. Rec.No 5465

IMPORTANT - the underlined items must be stated in two measuring systems, one of which must be the metric system. See conversion table hereafter.

CAPACITIES AND DIMENSIONS

1. Wheelbase	2720	mm	1063	inches	
2. Front track	1350	mm	532	inches *	
3. Rear track	1350	mm	532	inches *	
4. Overall length of the car	471.5	cm	185.6	inches	
5. Overall width of the car	170.5	cm	67.1	inches	
6. Overall height of the car	144	cm	56.7	inches	

7. Capacity of fuel tank (reserve included) 58 ltrs
15 Gallon US 13 Gallon Imp.

8. Seating capacity 5

9. Weight, total weight of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools:

1370 kg 3017 lbs 26.97 cwt

*) Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned. Specify ground clearance in relation to the track and give drawing of two easily recognizable points at front and rear at which measurements are taken. These ground clearance dimensions are only for information when checking the track and can in no way affect the eligibility of the car.

Minimum Ground Clearance : front axle member - ground : 16 cm
Rear axle casing - ground : 17 cm

Overall Width at front axle : 167 cm
at rear axle : 169 cm

CONVERSION TABLE

1 inch/pouce	- 2.54 cm	1 quart US	- 0.9464 ltrs
1 foot/pied	- 30.4794 cm	1 pint (pt)	- 0.568 ltrs
1 square inch/pouce carré	- 6.452 cm2	1 gallon Imp.	- 4.546 ltrs
1 cubic inch/pouce cube	- 16.387 cm3	1 gallon US	- 3.785 ltrs
1 pound/livre (l b)	- 453.593 gr.	1 hundred weight (cwt)	- 50.802 kg

Make VOLVO Model 164 E F.I.A. Rec.No 5465

CHASSIS AND COACHWORK (Photographs A, B and C)

20. Chassis/~~body construction : separate~~/ unitary construction
21. Unitary construction, material (s) Steel

Separate construction

22. Material (s) of chassis
23. Material (s) of coachwork Sheet-metal
24. Number of doors 4 Material (s) Sheet-metal
25. Material (s) of bonnet Sheet-metal
26. Material (s) of boot lid Sheet-metal
27. Material (s) of rear-window Tempered glass
28. Material (s) of windscreen Laminated glass
29. Material (s) of front-door windows Tempered glass
30. Material (s) of rear-door windows Tempered glass
31. Sliding system of door windows Window winders
32. Material (s) of rear-quarter light Tempered glass

ACCESSORIES AND UPHOLSTERY

38. Interior heating : yes - ~~no~~
39. Air-conditioning : ~~yes~~ - no
40. Ventilation : yes - ~~no~~
41. Front seats, type of seat and upholstery Separate seats, leather
42. Weight of front seat (s), complete with supports and rails, out of the car :

20 kg 44.10 lbs

43. Rear seats, type of seat and upholstery Bench, leather
44. Front bumper, material (s) Anodized, alumin. Weight 7.92 kg lbs
45. Rear bumper, material (s) Anodized, alumin. Weight 7 kg lbs

WHEELS

50. Type Disc wheels
51. Weight (per wheel, without tyre) 9.6 kg lbs
52. Method of attachment By 5 nuts
53. Rim diameter 381 mm 15 inches
54. Rim width 140 mm 5.5 inches

STEERING

60. Type Ball and nut
61. Servo-assistance : yes - ~~no~~
62. Number of turns of steering wheel from lock to lock 3.7
63. In case of servo-assistance 3.7

Make VOLVO Model 164 E F.I.A. Rec.No 5465

SUSPENSION

70.	Front suspension (photogr. D), type	Individual
71.	Type of spring	Coil
72.	Stabiliser (fitted)	Yes
73.	Number of shockabsorbers	2
74.	Type	Telescopic
78.	Rear suspension (photogr. E), type	Rigid axle
79.	Type of spring	Coil
80.	Stabiliser (if fitted)	No
81.	Number of shockabsorbers	2
82.	Type	Telescopic

BRAKES (photographs F and G)

90.	Method of operation	Hydraulic, dual-circuit brake system
91.	Servo-assistance (if fitted), type	Vacuum servo
92.	Number of hydraulic master cylinders	Tandem master cylinder

		FRONT			REAR		
93.	Number of cylinders per wheel	4			2		
94.	Bore of wheel cylinder (s)	4x36	mm	in.	2x38	mm	in.
	Drum brakes						
95.	Inside diameter		mm	in.		mm	in.
96.	Length of brake linings		mm	in.		mm	in.
97.	Width of brake linings		mm	in.		mm	in.
98.	Number of shoes per brake						
99.	Total area per brake		mm2	sq.in.		mm2	sq.in.
	Disc brakes						
100.	Outside diameter	272	mm	in.	295	mm	in.
101.	Thickness of disc	24.0	mm	in.	9.6	mm	in.
102.	Length of brake linings	80	mm	in.	61	mm	in.
103.	Width of brake linings	48	mm	in.	43	mm	in.
104.	Number of pads per brake	2			2		
105.	Total area per brake	6766.6	mm2	sq.in.	6714.2	mm2	sq.in.

Make VOLVO Model 164 E F.I.A. Rec.No 5465

ENGINE (photographs J and K)

130. Cycle 4 stroke
131. Number of cylinders 6
132. Cylinder arrangement In line
133. Bore 88.9 $^{+0.01}_{-0.0}$ mm 3.5 in.
134. Stroke 80.0 ± 0.01 mm 3.5 in.
135. Capacity per cylinder 496.6 cm3 30.3 cu.in.
136. Total cylinder-capacity 2980 cm3 182.0 cu.in.
137. Material (s) of cylinder block Cast iron
138. Material (s) of sleeves (if fitted)
139. Cylinder-head, material (s) Cast iron Number fitted
140. Number of inlet ports 6
141. Number of exhaust ports 6
142. Compression ratio 10.0:1
143. Volume of one combustion chamber 47.5 cm3 cu.in.
144. Piston, material Light alloy
145. Number of rings 3
146. Distance from gudgeon pin centre line to highest point of piston crown

46 mm inches

147. Crankshaft : ~~moulded~~ / stamped
148. Type of crankshaft : integral/..... (STEEL)
149. Number of crankshaft main bearings 7
150. Material of bearing cap Cast iron
151. System of lubrication : ~~dry sump~~ / oil in sump
152. Capacity, lubricant 6 ltrs pts quarts US
153. Oil cooler: yes/ ~~no~~
154. Method of engine cooling Water
155. Capacity of cooling system 13 ltrs pints quarts US
156. Cooling fan (if fitted), dia. 41 cm inches
157. Number of blades of cooling fan 6

Bearings

158. Crankshaft main, type Copper-lead-Ind. Dia. 63.464 mm in.
159. Connecting, rod big end, type " Dia. 54.112 mm in.

Weights

160. Flywheel (clean) 9.13 kg lbs
161. Flywheel with clutch (all turning parts) 15.07 kg lbs
162. Crankshaft 22.4 kg lbs
163. Connecting rod 0.68 kg lbs
164. Piston with rings and pin 0.71 kg lbs

Make VOLVO Model 164 E F.I.A. Rec.No 5465

FOUR STROKE ENGINES

170. Number of camshafts 1
171. Location Cylinder block
172. Type of camshaft drive Gears
173. Type of valve operation Push rod

INLET (see page 4)*

180. Material (s) of inlet manifold Aluminium
181. Diameter of valves 44 mm inches
182. Max. valve lift 11 mm in.
183. Number of valve springs 1
184. Type of spring Coil
185. Number of valves per cylinder 1
186. Tappet clearance for checking timing (cold) 0.5 mm inches
187. Valves open at (with tolerance for tappet clearance indicated) 29° B. T. D. C.
188. Valves close at (with tolerance for tappet clearance indicated) 71° A. B. D. C.
189. Air filter, type Paper

EXHAUST (see page 4)

195. Material (s) of exhaust manifold Cast iron
196. Diameter of valves 35 mm inches
197. Max. valve lift 11 mm in.
198. Number of valve springs 1
199. Type of spring Coil
200. Number of valves per cylinder 1
201. Tappet clearance for checking timing (cold) 0.5 mm inches
202. Valves open at (with tolerance for tappet clearance indicated) 71° B. T. D. C.
203. Valves close at (with tolerance for tappet clearance indicated) 29° A. B. D. C.

CARBURETION (photograph N)

210. Number of carburettors fitted
211. Type
212. Make
213. Model
214. Number of mixture passages per carburettor
215. Flange hole diameter of exit port (s) of carburettor mm in.
216. Minimum diameter of venturi / minimum diam. with piston at maximum height

mm inches

INJECTION (if fitted)

220. Make of pump Bosch (Feeding pump)
221. Number of plungers
222. Model or type of pump Rotor pump
223. Total number of injectors 6 (electronically controlled)
224. Location of injectors Cylinder head
225. Minimum diameter of inlet pipe mm inches

Make VOLVO Model 164 E F.I.A. Rec.No 5465

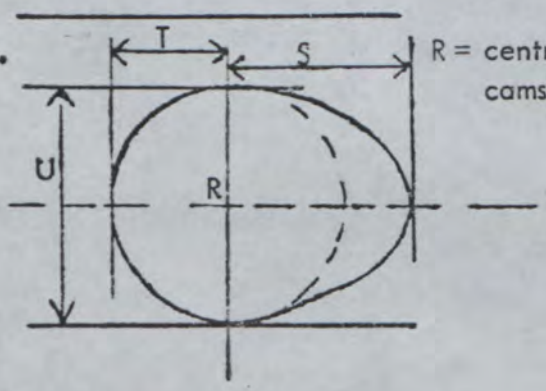
ENGINE ACCESSORIES

230. Fuel pump : ~~mechanical and/or~~ electric
231. No fitted 1
232. Type of ignition system Coil
233. No of distributors 1
234. No of ignition coils 1
235. No of spark plugs per cylinder 1
236. Generator, type : dynamo/alternator - number fitted 1
237. Method of drive Belt driven
238. Voltage of generator 12 V volts
239. Battery, number 1
240. Location Engine room
241. Voltage of battery 12 V volts

ENGINE AND CAR PERFORMANCES (as declared by manufacturer in catalogue)

250. Max. engine output 160 (type of horsepower:) at 5.500 rpm
251. Maximum rpm 5.800 output at that figure
252. Maximum torque 23.5 at 2.500 rpm
253. Maximum speed of the car km/hour miles/hour

255.



R = centre of camshaft.

Inlet cam

S = 21.3 mm inches

T = 14.1 mm inches

U = - mm inches

Exhaust cam

S = 21.3 mm inches

T = 14.1 mm inches

U = - mm inches

Make VOLVO Model 164 E F.I.A. Rec.No 5465

DRIVE TRAIN
CLUTCH

260. Type of clutch — Dry disc
261. No of plates — 1
262. Dia. of clutch plates — 24.0 cm — inches
263. Dia. of linings, inside — 15.5 cm — in. outside 24.0 cm — in.
264. Method of operating clutch — Mechanical

GEAR BOX (photograph H)

270. Manual type, make — VOLVO M400 — Method of operation
271. No of gear-box ratios forward — 4
272. Synchronized forward ratios — 4
273. Location of gear-shift — Center floor lever
274. Automatic, make — type
275. No of forward ratios
276. Location of gear-shift

277.	Manual		Automatic		Alternative manual/automatic			
	Ratio	No teeth	Ratio	No teeth	Ratio	No teeth	Ratio	No teeth
1	3.54:1	15/37						
2	2.12:1	23/34						
3	1.34:1	27/29						
4	1.0:1	-						
5								
6								
reverse	3.54:1	15/37						

278. Overdrive, type
279. Forward gears on which overdrive can be selected
280. Overdrive ratio

FINAL DRIVE

290. Type of final drive — Hypoid
291. Type of differential — Rigid axle
292. Type of limited slip differential (if fitted)
293. Final drive ratio — 3.73:1 — 3.31:1
Number of teeth — 11/41 — 13/43

Make VOLVO Model 164 E F.I.A. Rec.No 5465

IMPORTANT - The conformity of the car with the following items of the present recognition form is to be disregarded during the scrutineering, when the vehicle has been entered in group 2 (Touring cars) or 3 (Grand Touring cars) : 41, 72, 80, 91, 142, 143, 144, 145, 146, 153, 156, 157, 160, 161, 162, 163, 164, 182, 186, 187, 188, 189, 201, 202, 203, 212, 213, 215, 216, 222, 225, 230, 236, 250, 251, 252, 253, 255, and photographs I, M and N. and page 4.

During the scrutineering of cars entered in group 4 (Sportcars) only the following items of the present recognition form are to be taken into consideration : 1, 2, 3, 9, 20, 21, 22, 23, 24, 25, 26, 70, 71, 78, 79, 90, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 147, 148, 149, 150, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 and photographs A, B, D, E, F, G, H, J, K and O.

Optional equipement affecting preceeding information. This to be stated together with reference number.

F. I. A. Recognition No. 5465
F I A Identifieringskort Nr 1/1E

KUNGL AUTOMOBIL KLUBBEN
THE ROYAL SWEDISH AUTOMOBILE CLUB

Form of Recognition (normal development of original vehicle type)
Identifieringskort (normal utveckling av vagnstypen)

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valid from / gällande fr. o. m. 1.4.73

upon documentation delivered by the manufacturer. / på grundval av från tillverkaren lämnade uppgifter.

Make / Märke VOLVO

Previously recognized type, to which this extension refers / Tidigare klassad typ, till vilken denna utökning hänföres 164 E

Date when the first vehicles in this stage of development were manufactured / Tillverkningsdatum för de första fordonen av denna vidareutveckling 7th of August 1972

Serial No. of the type inaugurating this extension / Nummerserie för denna utvecklade typ 74450

The / Modellen 164 E recognized in Category / klassad i kategori GROUP I

by the F.I.A. on the / av FIA den List / Lista as a normal / som normal

development of the original vehicle type. / utveckling av vagnstypen

Stamp and signature of the F.I.A. / FIAs signatur och stämpel

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DESCRIPTION OF MODIFICATIONS HAVING LED TO THIS RECOGNITION
BESKRIVNING AV DE ÄNDRINGAR, SOM LETT TILL DENNA KLASSNING

Concerns Group I

New type of grille

New type of rubber insert in front bumper

Bonnet without Volvo emblem

New type of front fender emblem

5465

KUNGL AUTOMOBIL KLUBBEN

1/1E

Form of Recognition (Normal development of original vehicle type)

Identifieringskort (Normal utveckling av vagnstypen)

No. Nr		Make Märke	VOLVO	Type Typ	164 E

Photographic documentation
Fotografier

Concerns Group I

New dashboard

New steering wheel

New rear lamps

New rear body panel

New type of rubber insert in rear bumper

New type of emblem

Stockholm den 28/11 1972

KUNGL AUTOMOBIL KLUBBEN

SVENSKA BILSPORTFÖRBUNDET
THE SWEDISH AUTOMOBILE SPORT FEDERATION

F. I. A. Recognition No.
FIA Identifieringskort Nr 5465

2/2E

KUNGL AUTOMOBIL KLUBBEN
THE ROYAL SWEDISH AUTOMOBILE CLUB

Form of Recognition (normal development of original vehicle type)
Identifieringskort (normal utveckling av vagnstypen)

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valid from
gällande fr. o. m. 1.1.74

upon documentation delivered by the manufacturer.
på grundval av från tillverkaren lämnade uppgifter.

Make
Märke VOLVO

Previously recognized type, to which this extension refers
Tidigare klassad typ, till vilken denna utökning hänföres 164 E

Date when the first vehicles in this stage of development were manufactured
Tillverkningsdatum för de första fordonen av denna vidareutveckling 6th of August 1972

Serial No. of the type inaugurating this extension
Nummerserie för denna utvecklade typ 102 950

The
Modellen 164 E

recognized in Category
, klassad i kategori GROUP I

by the F.I.A. on the
av FIA den 1/5/72

List
Lista

as a normal
som normal

development of the original vehicle type.
utveckling av vagnstypen

Stamp and signature of the F.I.A.
FIA:s signatur och stämpel

DESCRIPTION OF MODIFICATIONS HAVING LED TO THIS RECOGNITION
BESKRIVNING AV DE ÄNDRINGAR, SOM LETT TILL DENNA KLASSNING

Concerns Group I

New type of front bumper

New type of rear bumper

10

11

KUNGL AUTOMOBIL KLUBBEN

Form of Recognition (Normal development of original vehicle type)

Identifieringskort (Normal utveckling av vagnstypen)

No. Nr	5465	Make Märke	164 E	Type Typ	164 E	2/2E

Photographic documentation
Fotografier

Fuel filler cap under lid in right hand rear fender

Front door without 3/4 light window

Capacities and dimensions

4. Overall length of the car 487 cm
7. Capacity of fuel tank (reserve included) 60 ltrs
9. Weight, total weight of the car 1380 kg
44. Front bumpers, weight 18.5 kg
45. Rear bumpers, weight 17.1 kg
158. Crankshaft main bearings, type lead bronze
159. Connecting rod, bearing big end, type lead bronze, diam. 54.0 mm
163. Weight of connecting rod 0.85 kg

Stockholm den 9/11 19 70

KUNGL AUTOMOBIL KLUBBEN

SVENSKA BILSPORTFÖRBUNDET
THE SWEDISH AUTOMOBILE-SPORT FEDERATION

3

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