



# JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No **7431**  
Group **2 - Touring Cars**

## FEDERATION INTERNATIONALE DE L'AUTOMOBILE

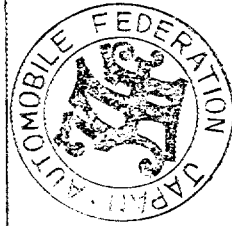
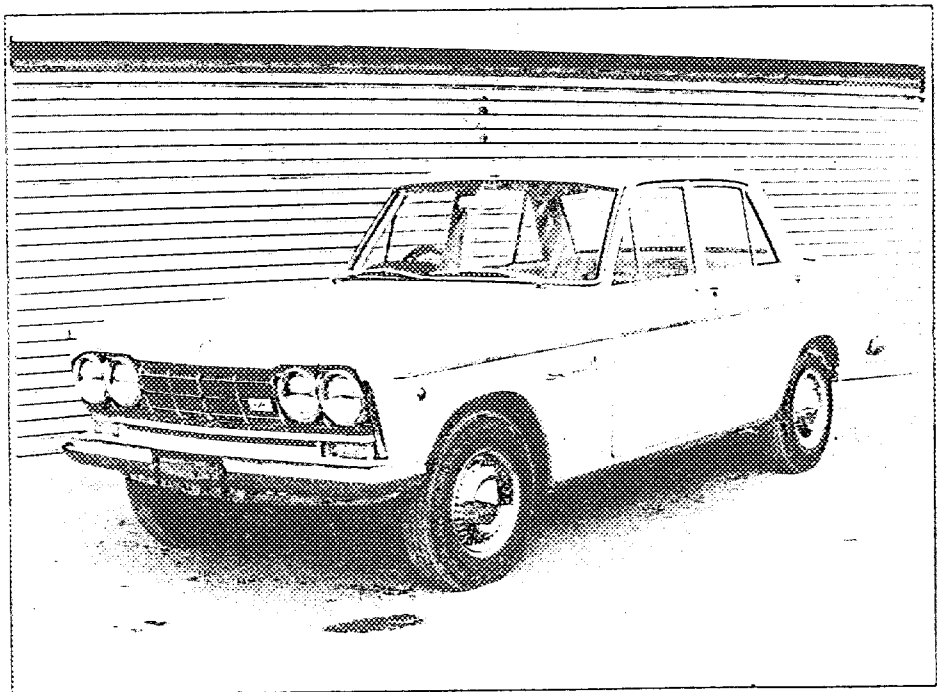
Form of recognition in accordance with  
Appendix J to the International Sporting Code.

Manufacturer	<b>PRINCE MOTORS Ltd.</b>	Cylinder-capacity	1,988 cm <sup>3</sup> 121.3 cu. in.
Serial No of chassis	54 - 101251	Model	S 54 A - 2
Serial No of engine	G7 - 137095	Manufacturer	<b>PRINCE MOTORS Ltd.</b>
Recognition is valid from	<b>1st May 1966</b>	Manufacturer	<b>PRINCE MOTORS Ltd.</b>
		List	<b>14/4</b>

The manufacturing of the model described in this recognition form was started on **Aug.** 1965 and the minimum production of **1,000** identical cars, in accordance with the specifications of this form was reached on **Dec.** 1965

東京都港区芝公園第三号地二番五  
 機械振興会館内  
 日本自動車連盟

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

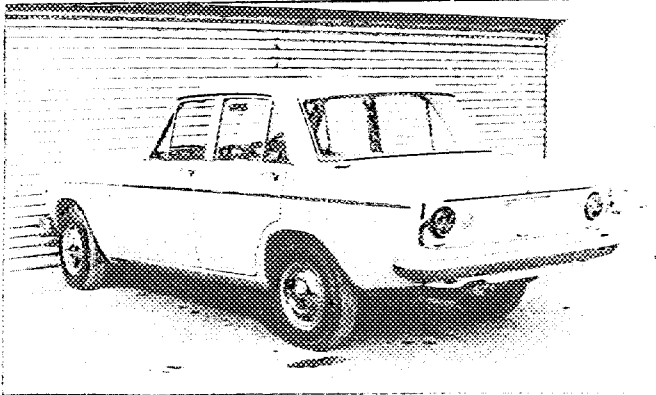
Stamp and signature of the  
National Sporting Authority

Stamp and signature of the F. I. A.

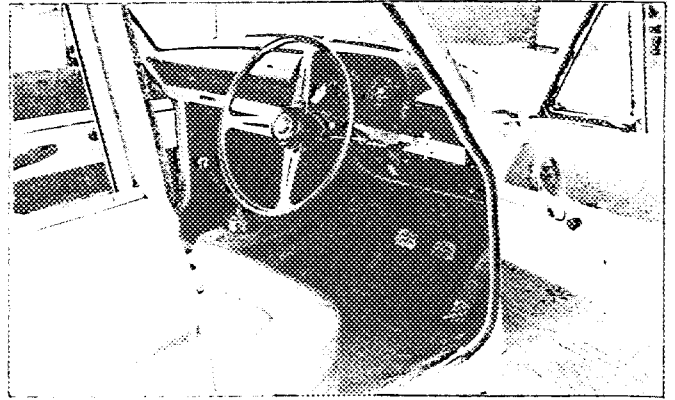
*Handwritten signature*

Photograph

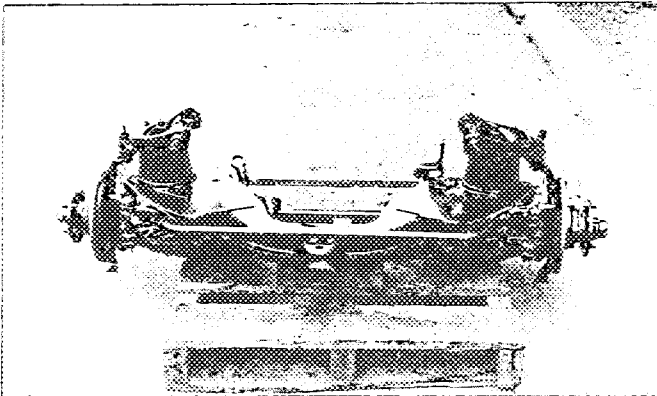
B, 3/4 view of car from rear



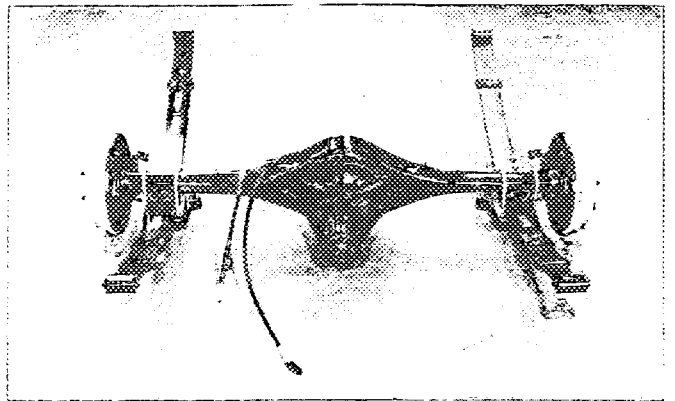
C, interior view of car through driver's door open or removed.



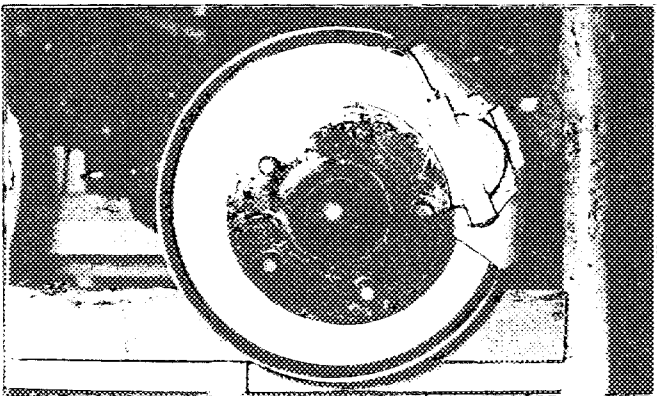
D, front axle complete, removed from car. Without wheels.



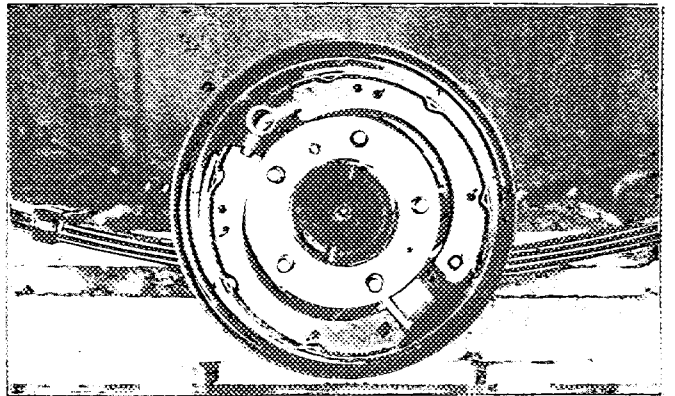
E, Rear axle complete with 4 wheels, removed from car



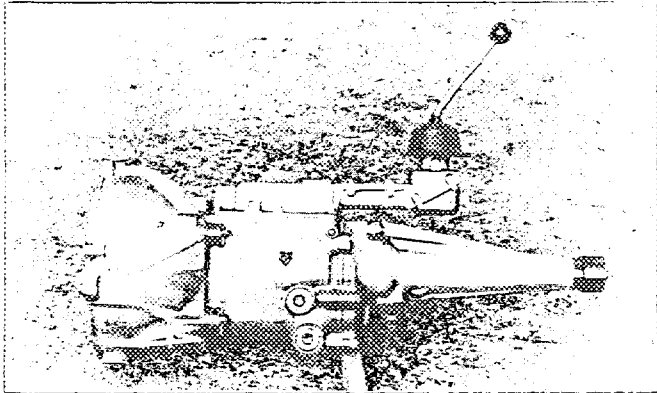
F, front brake, drum removed



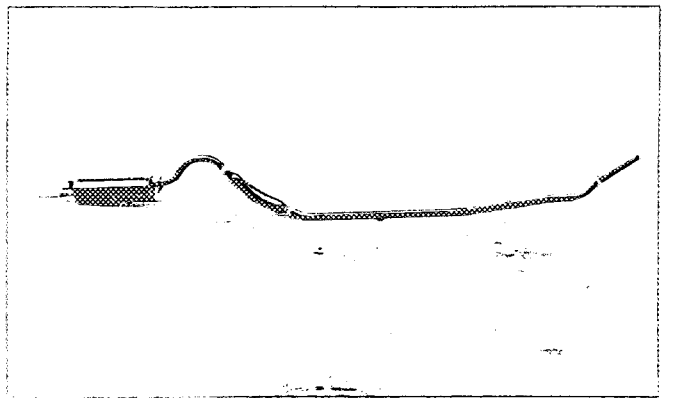
G, rear brake, drum removed



H, gear-box, view from side

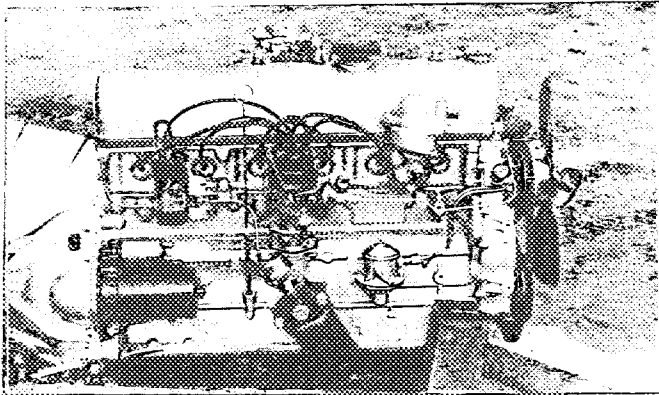


I, silencer & exhaust pipes after exhaust manifold.

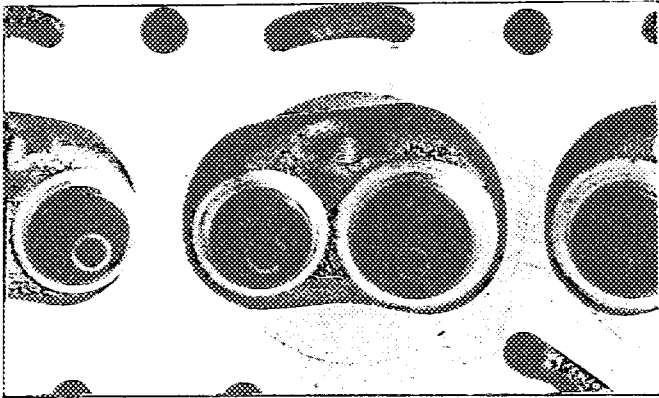


Make **PRINCE**

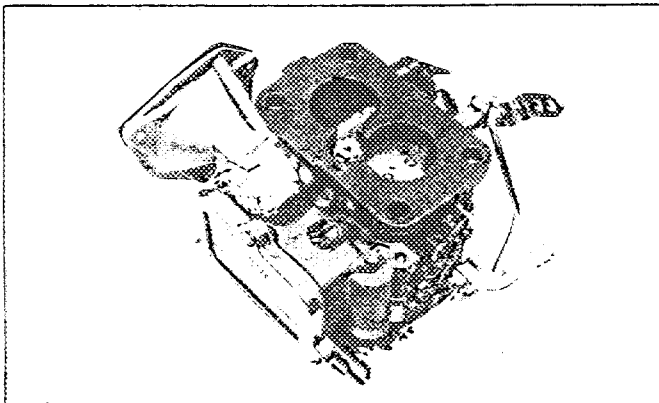
Engine unit out of car, from right. With clutch and accessories but without air filter nor gear-box



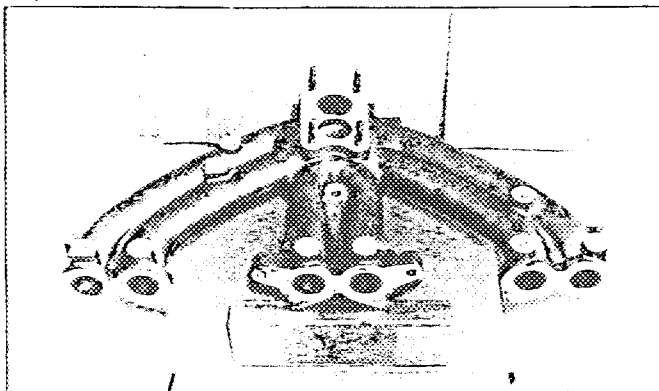
L, combustion chamber



N, Carburettor (view from side of manifold)



P, inlet manifold

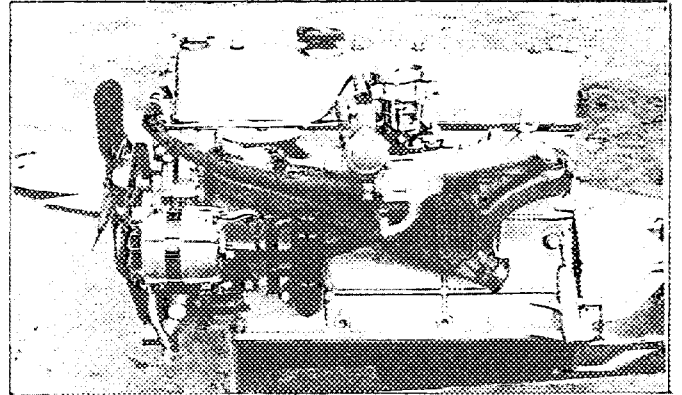


Model **S 54 A - 2**

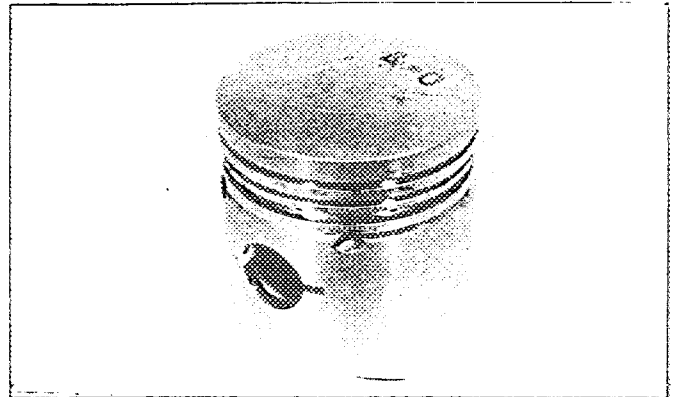
F.I.A. Rec. No

Photograph

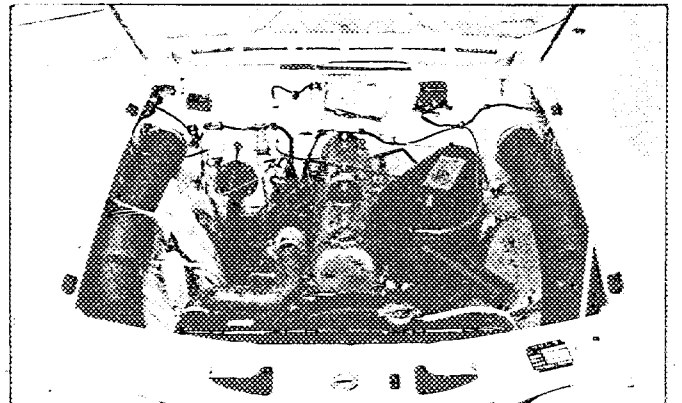
Engine unit out of car, from left. With clutch and accessories but without gear-box nor air filter



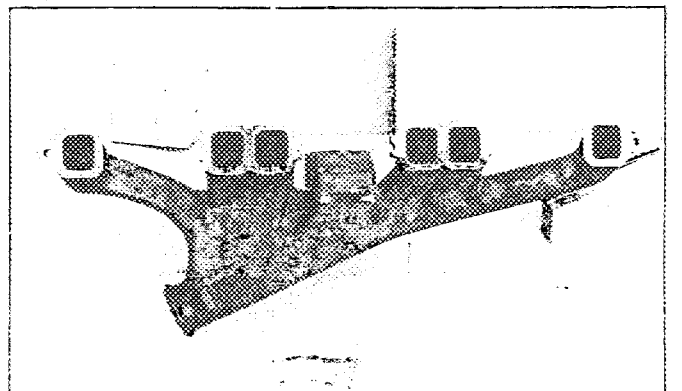
M, piston crown



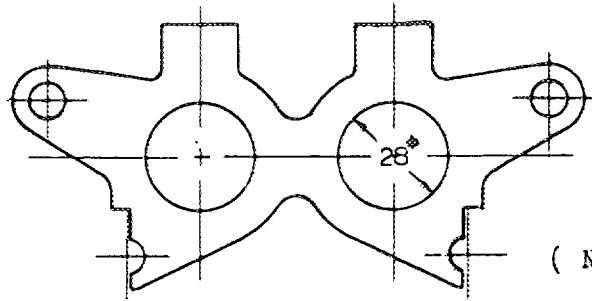
O, engine in car with all accessories, bonnet open or removed



Q, exhaust manifold



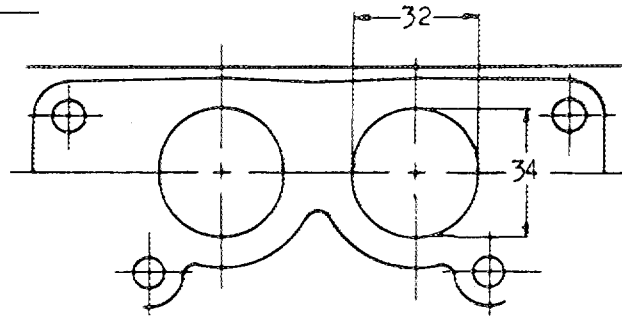
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



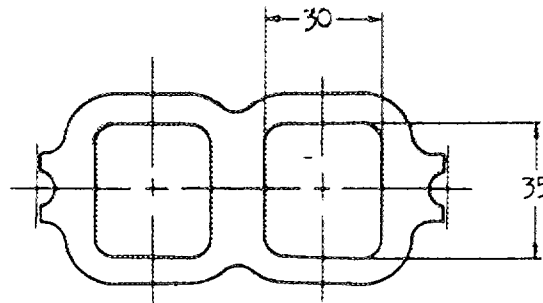
Dimension  
~~Dimension~~ ; mm  
Tolerance ; ± 1.2

( Note ; There are applicable to drawing of this sheet )

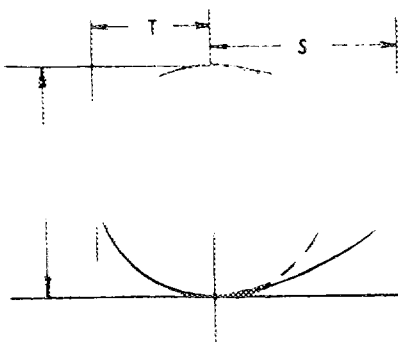
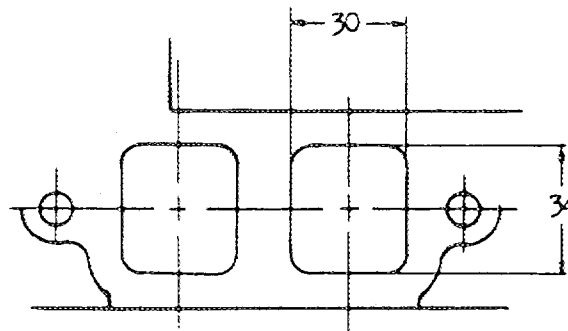
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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



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



Inlet cam

S =	22.8	mm	0.9	inches
	16.8	mm	0.66	inches
				inches

Exhaust cam

S =	22.8	mm	0.9	inches
T =	16.8		0.66	inches
U =	33.6	mm	1.32	inches



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. <u>Wheelbase</u>	2,590	mm	102	inches
2. <u>Front track</u>	1,265	mm	49.8	inches *
3. <u>Rear track</u>	1,255	mm	49.4	inches *
4. Overall length of the car	425.5	cm		inches
5. Overall width of the car	149.5	cm		inches
6. Overall height of the car	141.0	cm		inches
7. <u>Capacity of fuel tank</u> (reserve included)			50	ltrs
	13.2	Gallon US		Gallon Imp.
8. Seating capacity	5			
9. <u>Weight, total weight</u> of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools:				
	1,010	kg	2,227	lbs
				cwt

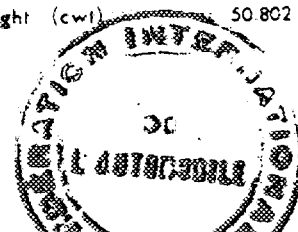
\* Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned.

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.

**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 cm <sup>2</sup>	1 gallon imp.	= 4.546 ltrs
1 cubic inch / pouce cube	= 16.387 cm <sup>3</sup>	1 gallon US	= 3.785 ltrs
1 pound / livre (lb)	= 453.593 gr.	1 hundred weight (cwt)	= 50.802 kg



Make PRINCE

Model S 54 A - 2

F.I.A. Rec. No.

**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
- 24. Number of doors & Material (s) **Steel**
- 25. Material (s) of bonnet **Steel**
- 26. Material (s) of boot lid **Steel**
- 27. Material (s) of rear-window **Glass**
- 28. Material (s) of windscreen **Glass**
- 29. Material (s) of front-door windows **Glass**
- 30. Material (s) of rear-door windows **Glass**
- 31. Sliding system of door windows ~~Vertical~~ , **Manual**
- 32. Material (s) of rear-quarter light **Glass**

**ACCESSORIES AND UPHOLSTERY**

- 38. Interior heating : ~~yes~~ - no
- 39. Air-conditioning : ~~yes~~ - no
- 40. Ventilation : yes - ~~no~~
- 41. Front seats, type of seats and upholstery **Separate Seat & Vinyl Leather**
- 42. Weight of front seat (s), complete with supports and rails, out of the car  
12.4 x 2 kg lbs
- 43. Rear seats, type of seats and upholstery **Bench Seat & Vinyl Leather**
- 44. Front bumper, material (s) **Steel** Weight 6.3 kg lbs
- 45. Rear bumper, material (s) **Steel** Weight 5.3 kg lbs

**WHEELS**

- 50. Type **Pressed Steel**
- 51. Weight (per wheel, without tyre) 6.5 kg lbs
- 52. Method of attachment **5 Hub - Bolts & Nuts**
- 53. Rim diameter 329 mm 13 inches
- 54. Rim width 114 mm 4.5 inches

**STEERING**

- 60. Type **Recirculating Ball**
- 61. Servo-assistance : ~~yes~~ - no
- 62. Number of turns of steering wheel from lock to lock **3.1**
- 63. In case of servo-assistance



Make **PRINCE**

Model **S 54 A - 2**

F. I. A. Rec. No.

**SUSPENSION**

- 70. Front suspension (photogr. D), type **Independent, <sup>Wishbone</sup> ~~Wishbone~~**
- 71. Type of spring **Coil**
- 72. Stabiliser (if fitted) **~~Torsion~~ <sup>Torsion</sup> Bar**
- 73. Number of shockabsorbers **2**
- 74. Type **Hydraulic, Telescopic**
- 78. Rear suspension (photogr. E), type **Rigid Axle Case, Leaf Spring**
- 79. Type of spring **Semi - Elliptic Leaf Spring**
- 80. Stabiliser (if fitted)
- 81. Number of shockabsorbers **2**
- 82. Type **Hydraulic, Telescopic**

**AXES** (photographs F and G)

- 90. Method of operation **Hydraulic**
- 91. Servo-assistance (if fitted), type
- 92. Number of hydraulic master cylinders **1**

	FRONT			REAR		
93. Number of cylinders per wheel	2			1		
94. Bore of wheel cylinder (s)	57.1	mm	in.	22.2	mm	in.

**Drum brakes**

95. Inside diameter		mm	in.	230	mm	in.
96. Length of brake linings		mm	in.	240 & 240	mm	in.
97. Width of brake linings	-	mm	in.	35	mm	in.
98. Number of shoes per brake				2		
99. Total area per brake		mm <sup>2</sup>	sq. in.	16,800	mm <sup>2</sup>	sq. in.

**Disc brakes**

100. Outside diameter	246	mm	in.		mm	in.
101. Thickness of disc	10.4	mm	in.		mm	in.
102. Length of brake linings	54	mm	in.		mm	in.
103. Width of brake linings	47.5	mm	in.		mm	in.
104. Number of pads per brake	2					
105. Total area per brake	5,130	mm <sup>2</sup>	sq. in.		mm <sup>2</sup>	sq. in.



Make **PRIMO**

Model **S 54 A - 2**

F. I. A. Rec. No.

~~XXXXXXXXXX~~ (photographs J and K)

130. Cycles	4	131. Number of cylinders	6
132. Cylinder arrangement	In Line		
133. Bore	75 mm	134. Stroke	75 mm
	2.95 in.		2.95 in.
135. Capacity per cylinder		331 cm <sup>3</sup>	20.2 cu. in.
136. Total cylinder-capacity		1,988 cm <sup>3</sup>	121.3 cu. in.
137. Material (s) of cylinder block		Cast Iron	
138. Material (s) of sleeves (if fitted)		Cast Iron	
139. Cylinder-head, material (s)		Cast Iron	Number fitted 1
140. Number of inlet ports	6	141. Number of exhaust ports	6
142. Compression ratio	8.8		
143. Volume of one combustion chamber		54.5 cm <sup>3</sup>	cu. in.
144. Piston, material	Al - Alloy	145. Number of rings	3
146. Distance from gudgeon pin centre line to highest point of piston crown			
	54.5 mm		inches
147. Crankshaft : <del>cast</del> / stamped		148. Type of crankshaft :	integral /
149. Number of crankshaft main bearings	4		
150. Material of bearing cap		Cast Iron	
151. System of lubrication : <del>dry sump</del> / oil in sump			
152. Capacity, lubricant	6.5 ltrs	pts	quarts US
153. Oil cooler : <del>yes</del> / no			
154. Method of engine cooling		Water Cooling	
155. Capacity of cooling system	11.8 ltrs	pints	quarts US
156. Cooling fan (if fitted), dia.	380 cm	inches	
157. Number of blades of cooling fan	4		

#### Bearings

158. Crankshaft main, type	Plain	Dia	53 mm	in.
159. Connecting rod big end,	Plain	Dia.	47 mm	in.

#### Weights

160. Flywheel (clean)	6.6 kg	lbs			
161. Flywheel with clutch (all turning parts)		12.9 kg	lbs		
162. Crankshaft	24 kg	lbs	163. Connecting rod	0.66 kg	lbs
164. Piston with rings and pin	0.46 kg	lbs			





**POPE STROKE ENGINES**

- 170. Number of camshafts **1**      171. Location **Over Head**
- 172. Type of camshaft drive **Chain**
- 173. Type of valve operation **Rocker Arm**

**INLET** (see page 4) \*

- 180. Material(s) of inlet manifold **Al - Cast**
- 181. Diameter of valves **40** mm **1.57** inches
- 182. Max. valve lift **8.5** mm **0.33** in. 183. Number of valve springs **2**
- 184. Type of spring **Coil** 185. Number of valves per cylinder **1**
- 186. Tappet clearance for checking timing (cold) **0.2** mm **inches**
- 187. Valves open at (with tolerance for tappet clearance indicated) **24° B.T.D.C. ± 5°**
- 188. Valves close at (with tolerance for tappet clearance indicated) **46° A.B.D.C. ± 5°**
- 189. Air filter, type **Dry**

**EXHAUST** (see page 4)

- 195. Material (s) of exhaust manifold **Cast Iron**
- 196. Diameter of valves **35** mm **1.38** inches
- 197. Max. valve lift **8.5** mm **0.33** in. 198. Number of valve springs **2**
- 199. Type of spring **Coil** 200. Number of valves per cylinder **1**
- 201. Tappet clearance for checking timing (cold) **0.2** mm **inches**
- 202. Valves open at (with tolerance for tappet clearance indicated) **54° B.B.D.C. ± 5°**
- 203. Valves close at (with tolerance for tappet clearance indicated) **16° A.T.D.C. ± 5°**

**CARBURETION** (photograph N)

- 210. Number of carburetors fitted **1** 211. Type **Down Draft**
- 212. Make **Nippon Carburetor** 213. Model **D 3232**
- 214. Number of mixture passages per carburetor **2**
- 215. Flange hole diameter of exit port(s) of carburettor **32 & 32** mm **in.**
- 216. Minimum diameter of venturi ~~at minimum height~~  
**23 & 26** mm **inches**

**INJECTION** (if fitted)

- 220. Make of pump 221. Number of plungers
- 222. Model or type of pump 223. Total number of injectors
- 224. Location of injectors
- 225. Minimum diameter of inlet pipe mm inches

\* ) for additional information concerning two-stroke engines and super-charged engines see page 13.

Make PRINCE

Model S 54 A - 2

F. I. A. Rec. No.

**ENGINE ACCESSORIES**

230. Fuel pump : mechanical <del>electronic</del>	231. No fitted	1
232. Type of ignition system <del>Make &amp; Break</del> <sup>Break</sup> Ignition	233. No of distributors	1
234. No. of ignition coils	235. No of spark plugs per cylinder	1
236. Generator, type: <del>generator</del> /alternator-number fitted	237. Method of drive	V Belt
238. Voltage of generator	239. Battery, number	1
240. Location		12 volts
241. Voltage of battery		12 volts

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

250. Max. engine output	105 PS (type of horsepower: JIS )	at	5,200 rpm
251. Maximum rpm	6,200	output at that figure	85 PS
252. Maximum torque	16 Kg - m	at	3,600 rpm
253. Maximum speed of the car	170 km/hour		miles / hour



Make **PRINCE**

Model **S 54 A - 2**

F. I. A. Rec. No.

**DRIVE TRAIN**

**CLUTCH**

- 260. Type of clutch **Dry Plates** 261. No. of plates **1**
- 262. Dia. of clutch plates **21.5** cm inches
- 263. Dia. of linings, inside **15.4** cm in. outside **21.5** cm in.
- 264. Method of operating clutch **Hydraulic**  
**CLASS BOX** (photograph H)
- 270. Manual type, make **PRINCE MOTORS Ltd.**
- 271. No. of gear-box ratios forward **4 & 5** 272. Synchronized forward ratios **4 forward 1,2,3,4**  
**5 forward 2,3,4,5**
- 273. Location of gear-shift **Floor**
- 274. Automatic, make type
- 275. No. of forward ratios 276. Location of gear-shift

277.	Manual		Automatic		Alternative manual/ <del>Automatic</del>			
	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth
1	2.980	$\frac{27}{22} \frac{34}{14}$			2.851	$\frac{27}{23} \frac{34}{14}$		
2	1.618	$\frac{27}{22} \frac{29}{22}$			1.854	$\frac{27}{23} \frac{30}{19}$		
3	1.000				1.387	$\frac{27}{23} \frac{27}{23}$		
4	0.777	$\frac{27}{22} \frac{19}{30}$			1.000			
5					0.810	$\frac{27}{23} \frac{20}{29}$		
6								
reverse	3.273	$\frac{27}{22} \frac{23}{12} \frac{32}{23}$			3.564	$\frac{27}{23} \frac{25}{14} \frac{34}{20}$		

- 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 **Bevel Gear**
- 292. Type of limited slip differential (if fitted) **Mechanical**
- 293. Final drive ratio **4.444** **4.875**  
Number of teeth **40/ 9** **39/ 8**



Make **PRINCE**

Model **S 54 A - 2**

F. I. A. Rec. No.

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, 184, 186, 187, 188, 189, 199, 201, 202, 203, 212, 213, 215, 216, 222, 225, 230, 250, 251, 252, 253, and photographs I, M and N.

During the scrutineering of cars entered in group 4 (Sportscars) 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 equipment affecting preceding information. This to be stated together with reference number.

WHEELS

50. Type	Pressed Steel			
51. Weight ( per wheel , without tyre )	6.7	Kg		lbs
52. Method of attachment	5 Hub - Bolts & Nuts			
53. <u>Rim diameter</u>	329	mm	13	inches
54. <u>Rim width</u>	127	mm	5	inches

Bonnet Flap ( See photo )

*- refused -*



Make PRINCE

Model S 54 A - 2

F. I. A. Rec. No.

TWO STROKE ENGINES

- 300. System of cylinder scavenging
- 301. Type of lubrication
- 302. Inlet ports, length measured around cylinder wall mm inches
- 303. Height inlet port mm in. 303. Area mm<sup>2</sup> sq. in.
- 305. Exhaust ports, length measured around cylinder wall mm inches
- 306. Height exhaust port mm in. 307. Area mm<sup>2</sup> sq. in.
- 308. Transfer port, length measured around cylinder wall mm inches
- 309. Height transfer port mm in. 310. Area. mm<sup>2</sup> sq. in.
- 311. Piston ports, length measured around piston mm inches
- 312. Height piston port mm in. 313. Area mm<sup>2</sup> sq. in.
- 314. Method of precompression 315. Precompression cyl.: yes/no
- 316. Bore mm inches 317. Stroke mm inches
- 318. Distance from top of cyl. block to highest point of exhaust port : mm inches
- 319. Distance from top of cyl. block to lowest point of inlet port : mm inches
- 320. Distance from top of cyl. block to highest point of transfer port : mm inches
- 321. Drawing of cylinder parts.

330. Supercharging—state full details hereafter :

JAPAN AUTOMOBILE FEDERATION

Chairman

of Technical Subcommission

*Osamu Hira o*

Osamu Hira o

