



JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No. *5124*
Group *1 - Series Prod. Touring*

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

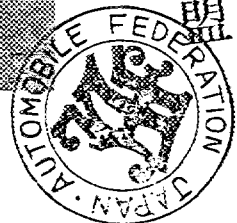
Manufacturer	Toyota Motor Co., Ltd.	Cylinder-capacity	1490	cm ³	90.9	cu. in.
Serial No. of chassis	RT 40 - 10001	Model	RT 40			
Serial No. of engine	2R - 100001	Manufacturer	Toyota Motor Co., Ltd.			
Recognition is valid from	1st Nov. 1966	Manufacturer	Toyota Motor Co., Ltd.			
		List	15/1			

The manufacturing of the model described in this recognition form was started on **March 19 66** and the minimum production of **5000** identical cars, in accordance with the specifications of this form was reached on **August 19 66**

Photograph A, 3/4 view of car from front



東京都港区芝公園第三号地一番五
 法人 日本自動車連盟
 機械振興会館内



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

<u>Variants</u>				<u>Normal evolution of the type</u>			
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

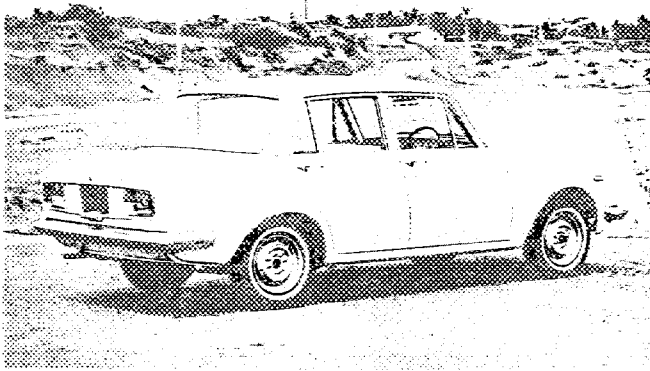
Stamp and signature of the F. I. A.

[Handwritten signature]

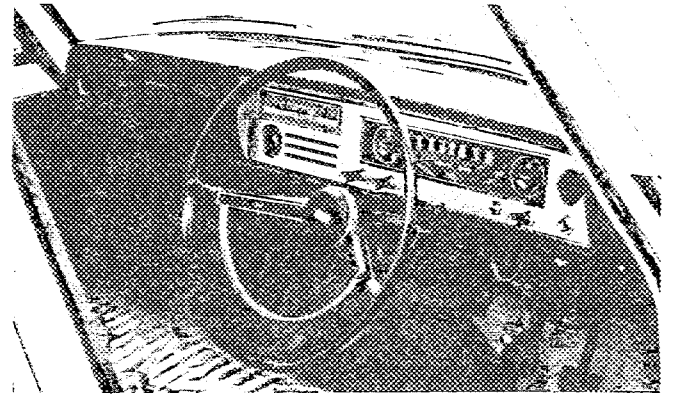
Page 1

Photograph

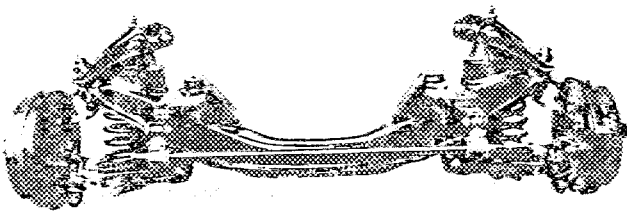
B, 3/4 view of car from rear



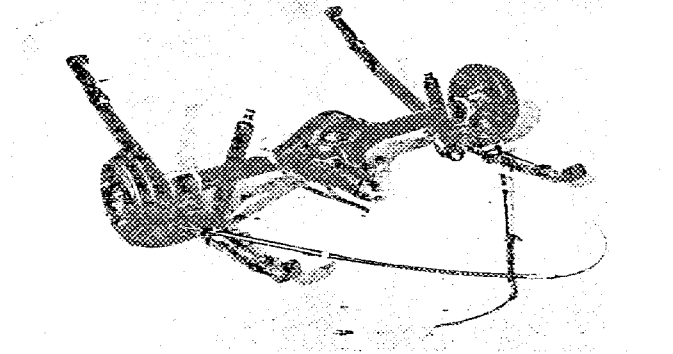
C, interior view of car through driver's door (open or removed)



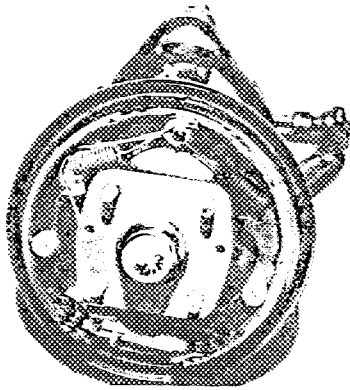
D, front axle complete, removed from car. Without wheels.



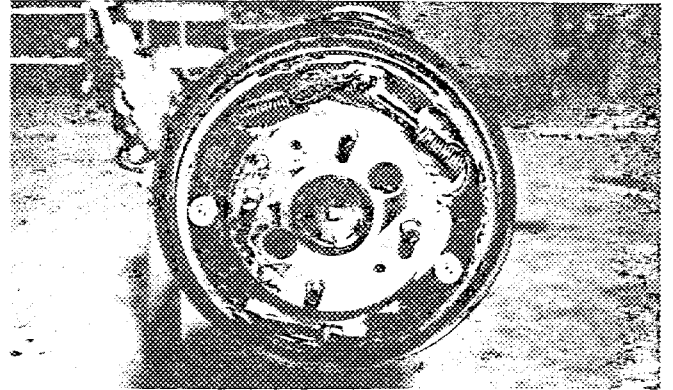
E, Rear axle complete without wheels, removed from car.



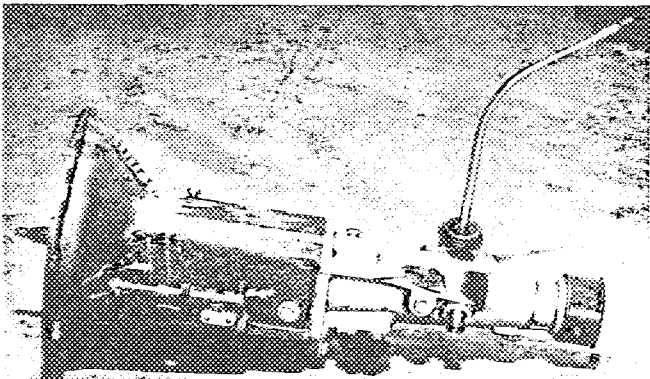
F, front brake, drum removed



G, rear brake, drum removed



H, gear-box, view from side



I, silencer + exhaust pipes after exhaust manifold.



Make

Toyota

Photograph

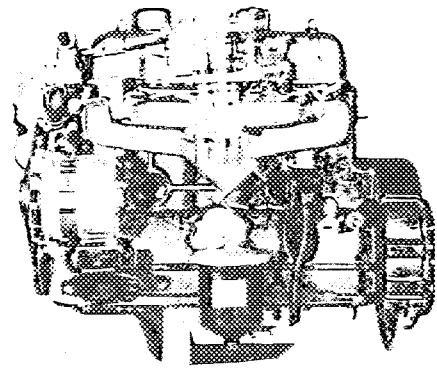
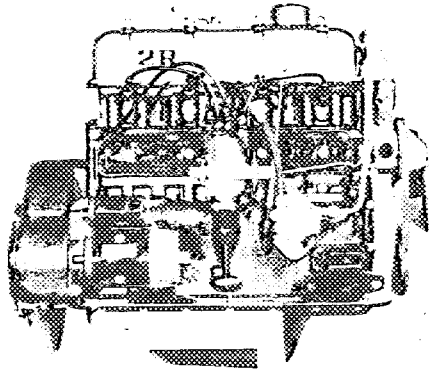
Model

RT 40

F. I. A. Rec. No

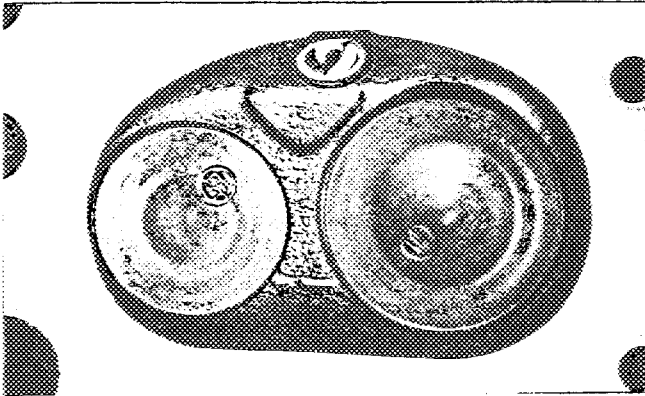
J, engine unit out of car, from right. With clutch and accessories but without air filter nor gear-box.

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



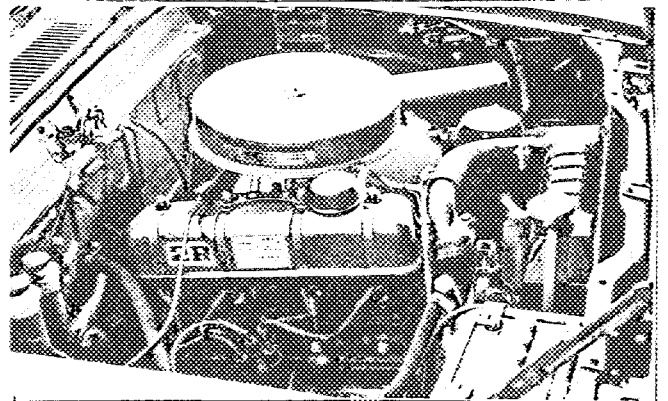
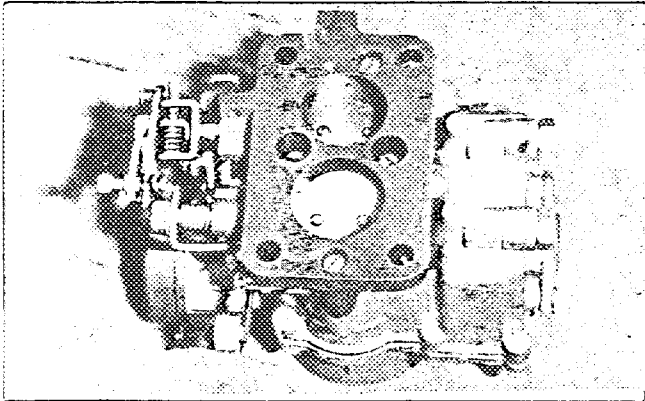
L, combustion chamber

M, piston crown



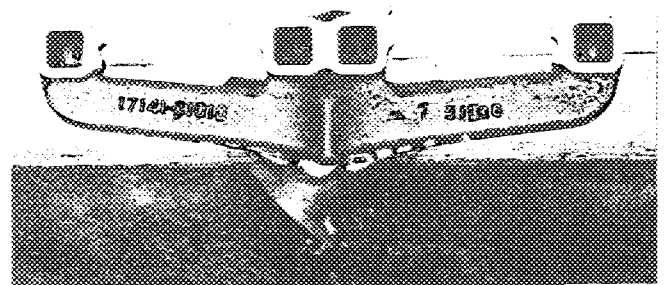
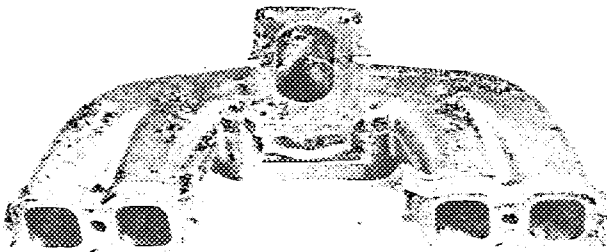
N, Carburettor (view from side of manifold)

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

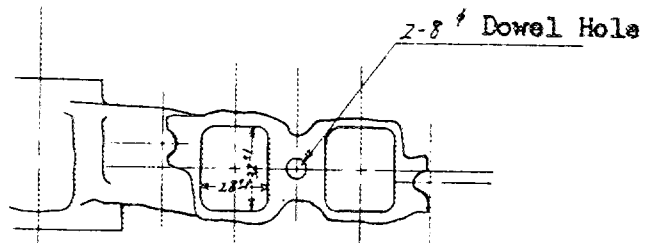


P, inlet manifold

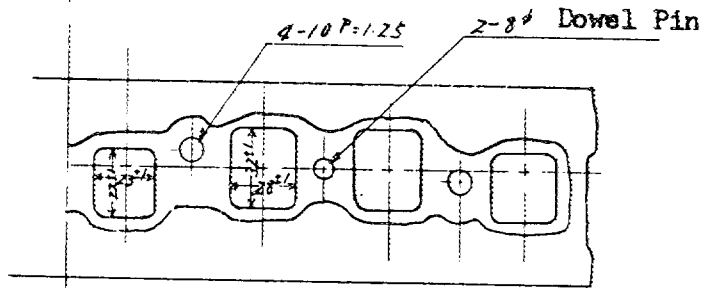
Q, exhaust manifold



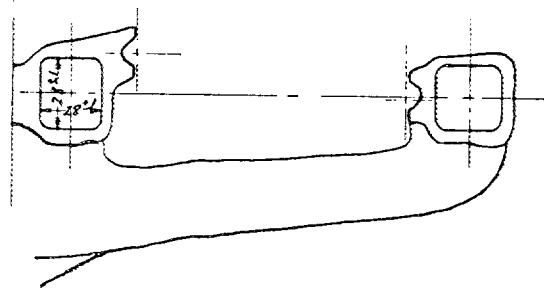
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



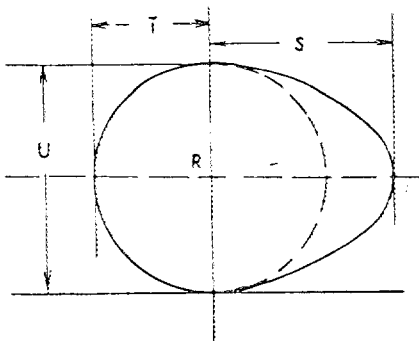
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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.



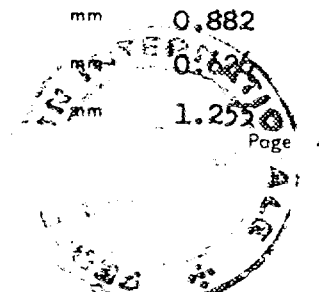
R=centre of camshaft.

Inlet cam

S =	22.4	mm	0.882	inches
T =	16.0	mm	0.630	inches
U =	32.0	mm	1.261	inches

Exhaust cam

S =	22.4	mm	0.882	inches
T =	15.9	mm	0.626	inches
U =	31.9	mm	1.255	inches



Make

Toyota

Model

RT 40

F. I. A. Rec. No.

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>	2420	mm	95.3	inches
2. <u>Front track</u>	1270	mm	50.0	inches *
3. <u>Rear track</u>	1270	mm	50.0	inches *
4. Overall length of the car	406.5		cm	inches
5. Overall width of the car	155.0		cm	inches
6. Overall height of the car	142.0		cm	inches
7. <u>Capacity of fuel tank</u> (reserve included)			45	ltrs
	11.9	Gallon US		Gallon Imp.
8. Seating capacity	5			
9. <u>Weight</u> , total weight of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools:				
	900	kg	1984	lbs
				cwt

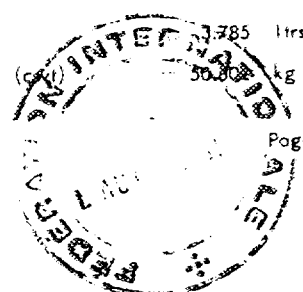
*: Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned.

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 ²	1 gallon Imp.	-- 4.546 ltrs
1 cubic inch / pouce cube	-- 16.387 cm ³	1 gallon US	-- 3.785 ltrs
1 pound / livre (lb)	-- 453.593 gr.	1 hundred weight (cwt)	-- 30.008 kg



CHASSIS AND COACHWORK (Photographs A, B and C)

- 20. Chassis/body construction : ~~XXXX~~ / unitary construction
- 21. Unitary construction, material (s) **Steel Plate**
Separate construction
- 22. Material (s) of chassis
- 23. Material (s) of coachwork
- 24. Number of doors **2** Material (s) **Steel Plate**
- 25. Material (s) of bonnet **Steel Plate**
- 26. Material (s) of boot lid **Steel Plate**
- 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 **---**

ACCESSORIES AND UPHOLSTERY

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

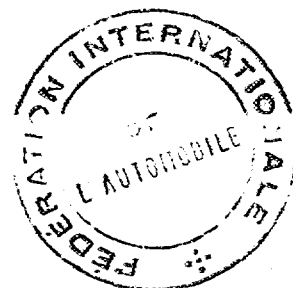
21.1	kg	lbs
------	----	-----
- 43. Rear seats, type of seats and upholstery **Bench, Vinyl Leather**
- 44. Front bumper, material (s) **Steel Plate** Weight **3.9** kg lbs
- 45. Rear bumper, material (s) **Steel Plate** Weight **5.8** kg lbs

WHEELS

- 50. Type **Pressed Disc Wheel**
- 51. Weight (per wheel, without tyre) **5.8** kg lbs
- 52. Method of attachment **Four Hub Bolts and Nuts**
- 53. Rim diameter **330** mm inches
- 54. Rim width **102** mm inches

STEERING

- 60. Type **Worm & Sector Roller**
- 61. Servo-assistance : ~~XXXX~~ - no
- 62. Number of turns of steering wheel from lock to lock **3-3/4**
- 63. In case of servo-assistance **---**



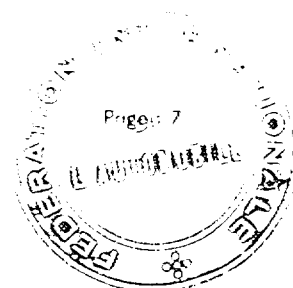
SUSPENSION

70. Front suspension (photogr. D), type Independent by Double Wishbones
 71. Type of spring Coil
 72. Stabiliser (if fitted) Torsion Bar
 73. Number of shockabsorbers 2
 74. Type Hydraulic Telescopic
 78. Rear suspension (photogr. E), type Hotchkiss Drive
 79. Type of spring Semi-elliptic Leaf
 80. Stabiliser (if fitted) —
 81. Number of shockabsorbers 2
 82. Type Hydraulic Telescopic

BRAKES (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	1		1	
94. Bore of wheel cylinder (s)	mm $\frac{13}{16}$	in.	mm $\frac{5}{8}$	in.
Drum brakes				
95. Inside diameter	228.6	mm in.	228.6	mm in.
96. Length of brake linings	220, 250	mm in.	220, 250	mm in.
97. Width of brake linings	40	mm in.	40	mm in.
98. Number of shoes per brake	2		2	
99. Total area per brake	188 x 10 ²	mm ² sq. in.	188 x 10 ²	mm ² sq. in.
Disc brakes				
100. Outside diameter	mm	in.	mm	in.
101. Thickness of disc	mm	in.	mm	in.
102. Length of brake linings	mm	in.	mm	in.
103. Width of brake linings	mm	in.	mm	in.
104. Number of pads per brake				
105. Total area per brake	mm ²	sq. in.	mm ²	sq. in.



Make

Toyota

Model

RT 40

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ENGINE (photographs J and K)

- 130. Cycle **4**
- 131. Number of cylinders **4**
- 132. Cylinder arrangement **In Line**
- 133. Bore **78** mm **3.07** in. 134. Stroke **78** mm **3.07** in.
- 135. Capacity per cylinder **372.5** cm³ **22.7** cu. in.
- 136. Total cylinder-capacity **1490** cm³ **90.9** 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 **1**
- 140. Number of inlet ports **4**
- 141. Number of exhaust ports **4**
- 142. Compression ratio **8.0**
- 143. Volume of one combustion chamber **53** cm³ 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 **39** mm inches
- 147. Crankshaft : ~~xxxxxx~~ / stamped
- 148. Type of crankshaft : integral ~~xxxxxx~~
- 149. Number of crankshaft main bearings **3**
- 150. Material of bearing cap **Cast Iron**
- 151. System of lubrication : ~~xxxxxxx~~ / oil in sump
- 152. Capacity, lubricant **3.5** ltrs pts quarts US
- 153. Oil cooler : ~~xxxx~~ / no
- 154. Method of engine cooling **Forced Water Circulation**
- 155. Capacity of cooling system **7** ltrs pints quarts US
- 156. Cooling fan (if fitted), dia. **30** cm inches
- 157. Number of blades of cooling fan **2**

Bearings

- 158. Crankshaft main, type **Plain** Dia. **58** mm in.
- 159. Connecting rod big end, **Plain** Dia. **50** mm in.

Weights

- 160. Flywheel (clean) **12** kg lbs
- 161. Flywheel with clutch (all turning parts) **16** kg lbs
- 162. Crankshaft **15** kg
- 163. Connecting rod **0.4** kg lbs
- 164. Piston with rings and pin **0.45** kg lbs



FOUR STROKE ENGINES

170. Number of camshafts **1** 171. Location **Cylinder Block**
 172. Type of camshaft drive **Gear**
 173. Type of valve operation **Push Rod & Rocker**

INLET (see page 4) *

180. Material(s) of inlet manifold **Al-Alloy**
 181. Diameter of valves **40** mm **1.58** inches
 182. Max. valve lift **9.3 ± 0.3** mm **0.37 ± 0.01** 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) **0.15** mm inches
 187. Valves open at (with tolerance for tappet clearance indicated) **B.T.D.C. 16° ± 2.5°**
 188. Valves close at (with tolerance for tappet clearance indicated) **A.B.D.C. 54° ± 2.5°**
 189. Air filter, type **Dry**

EXHAUST (see page 4)

195. Material (s) of exhaust manifold **Cast Iron**
 196. Diameter of valves **32** mm **1.26** inches
 197. Max. valve lift **9.5 ± 0.3** mm **0.38 ± 0.01** 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) **0.30** mm inches
 202. Valves open at (with tolerance for tappet clearance indicated) **B.B.D.C. 54° ± 2.5°**
 203. Valves close at (with tolerance for tappet clearance indicated) **A.T.D.C. 16° ± 2.5°**

CARBURETION (photograph N)

210. Number of carburetors fitted **1** 211. Type **Down Draught**
 212. Make **Aisan** 213. Model **21100 - 31010**
 214. Number of mixture passages per carburetor **2**
 215. Flange hole diameter of exit port(s) of carburetor **30 & 32** mm in.
 216. Minimum diameter of venturi / **22 & 27** 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

Toyota

Model

RT 40

F. I. A. Rec. No.

ENGINE ACCESSORIES

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

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

- 250. Max. engine output **70 PS** (type of horsepower: **JIS**) at **5000** rpm
- 251. Maximum rpm **5400** output at that figure **69 PS**
- 252. Maximum torque **11.5 kg-m** at **2600** rpm
- 253. Maximum speed of the car **140** km/hour **miles./hour**



Make

Toyota

Model

RT 40

F. I. A. Rec. No.

DRIVE TRAIN

CLUTCH

- 260. Type of clutch **Dry Single Plate Friction** 261. No. of plates **1**
- 262. Dia. of clutch plates **20.3** cm inches
- 263. Dia. of linings, inside **14** cm in. outside **20** cm in.
- 264. Method of operating clutch **Hydraulic**

GEAR BOX (photograph H)

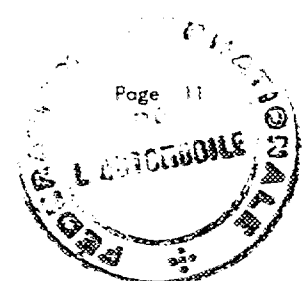
- 270. Manual type, make **Toyota**
- 271. No. of gear-box ratios forward **3 & 4** 272. Synchronized forward ratios **All**
- 273. Location of gear-shift **Steering Column or Floor**
- 274. Automatic, make **Toyota** type **Hydraulic Operating**
- 275. No. of forward ratios **2** 276. Location of gear-shift **Steering Column**

277.	Manual			Automatic			Automatic manual/ Automatic					
	Ratio	No.	teeth	Ratio	No.	teeth	Ratio	No.	teeth	Ratio	No.	teeth
1	3.337	$\frac{31}{18}$	$\cdot \frac{31}{16}$	1.82		$\frac{23 + 28}{28}$	3.673	$\frac{31}{18}$	$\cdot \frac{32}{15}$	3.337	$\frac{31}{18}$	$\cdot \frac{31}{16}$
2	1.653	$\frac{31}{18}$	$\cdot \frac{24}{25}$	1			2.114	$\frac{31}{18}$	$\cdot \frac{27}{22}$	1.948	$\frac{31}{18}$	$\cdot \frac{26}{23}$
3	1						1.403	$\frac{31}{18}$	$\cdot \frac{22}{27}$	1.340	$\frac{31}{18}$	$\cdot \frac{21}{27}$
4							1			1		
5												
6												
reverse	4.449	$\frac{31}{18}$	$\cdot \frac{34}{14}$	1.82		$\frac{23 + 28}{28}$	4.183	$\frac{31}{18}$	$\cdot \frac{34}{14}$	4.183	$\frac{31}{18}$	$\cdot \frac{34}{14}$

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

FINAL DRIVE

- 290. Type of final drive **Hypoid Gear**
- 291. Type of differential **Bevel Gear**
- 292. Type of limited slip differential (if fitted) **---**
- 293. Final drive ratio **3.70, 4.111**
- Number of teeth **37/10, 37/9**



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, 45, 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.

§ **Separate Seats**

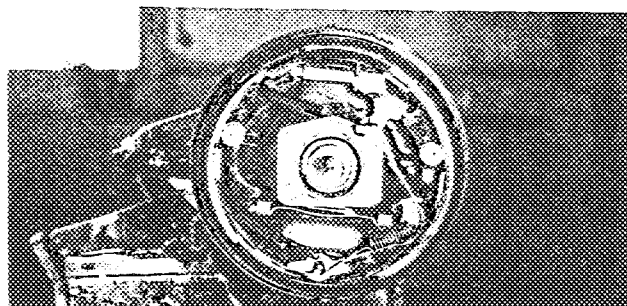
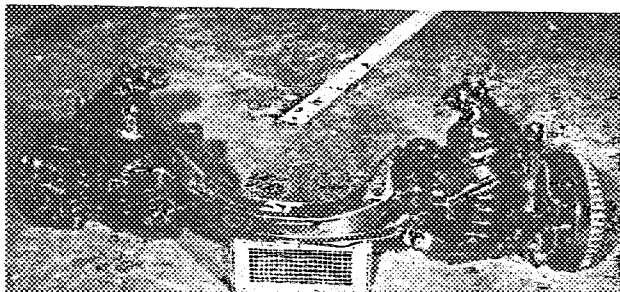
- 41. Front seats, type of seats and upholstery **Separate, Vinyl Leather**
- 42. Weight of front seat(s), complete with supports and rails, out of the Car **13.9 kg**

§ **Heavy Duty Wheels (for Taxis)**

- 51. Weight (per wheel, without tyre) **6.1 kg**
- 53. Rim diameter **330 mm 13 inches**
- 54. Rim width **102 mm 4 inches**

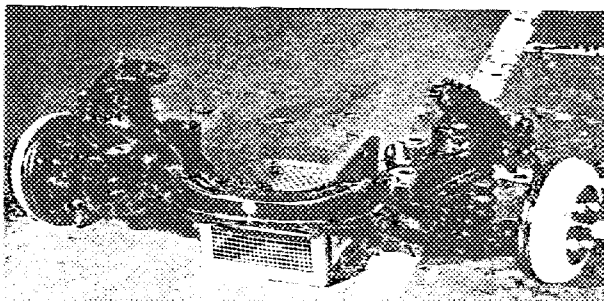
§ **Heavy Duty Drum Brakes (for Taxis)**

- | | | |
|--------------------------------------|--|-------------|
| 96. Length of brake linings | Front | Rear |
| 97. Width of brake linings | 190 mm, 250 mm | |
| 99. Total area per brake | 40 mm | |
| Cast Iron Brake Drum with Fin | 198 x 10² mm² | |

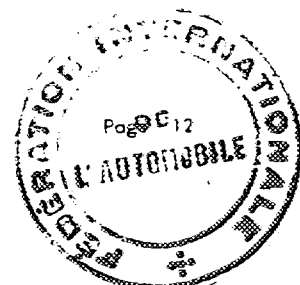
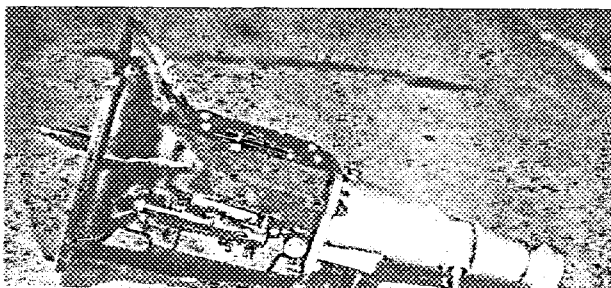


§ **Differential Carrier Ass'y with 4 Differential Pinion (for Taxis)**

§ **Alfin Brake Drum with Fin (for Cars with Torque Converter)**



§ **3 Stage Gear Box.**



Make

Toyota

Model

RT 40

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. 304. Area mm² sq. in.

305. Exhaust ports, length measured around cylinder wall mm inches

306. Height exhaust port mm in. 307. Area mm² sq. in.

308. Transfer port, length measured around cylinder wall mm inches

309. Height transfer port mm in. 310. Area. mm² sq. in.

311. Piston ports, length measured around piston mm inches

312. Height piston port mm in. 313. Area mm² 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 ports.

330. Supercharging—state full details hereafter :

JAPAN AUTOMOBILE FEDERATION

Chairman

of Technical Subcommission

Osamu Hirao