



JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No.
Group *1*

5178

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

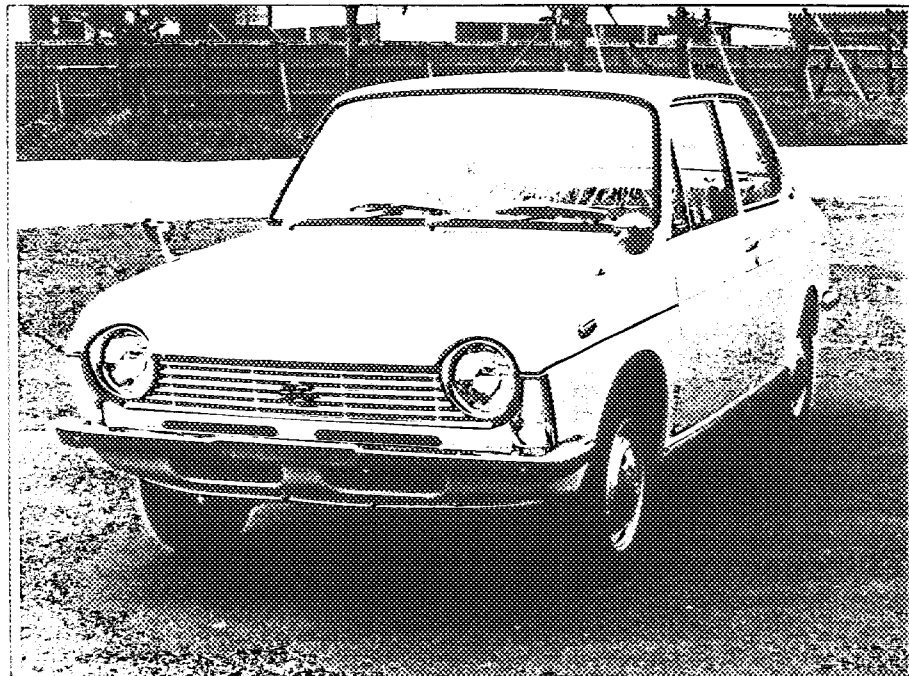


Form of recognition in accordance with
Appendix J to the International Sporting Code.

Manufacturer	FUJI HEAVY INDUSTRIES LTD.	Cylinder-capacity	977	cm ³	59.6	cu. in.
Serial No. of chassis	A12-2001	Model	A12 (SUBARU 1000)			
Serial No. of engine	EA52-16995	Manufacturer	FUJI HEAVY INDUSTRIES LTD.			
Recognition is valid from		Manufacturer	FUJI HEAVY INDUSTRIES LTD.			
		List				

The manufacturing of the model described in this recognition form was started on *May 1967* and the minimum production of *5000* identical cars, in accordance with the specifications of this form was reached on *Aug. 1967*

Photograph A, 3/4 view of car from front



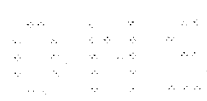
Handwritten signature

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.



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Make FUJI HEAVY INDUSTRIES LTD. Model. A12 (SUBARU 1000)

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.

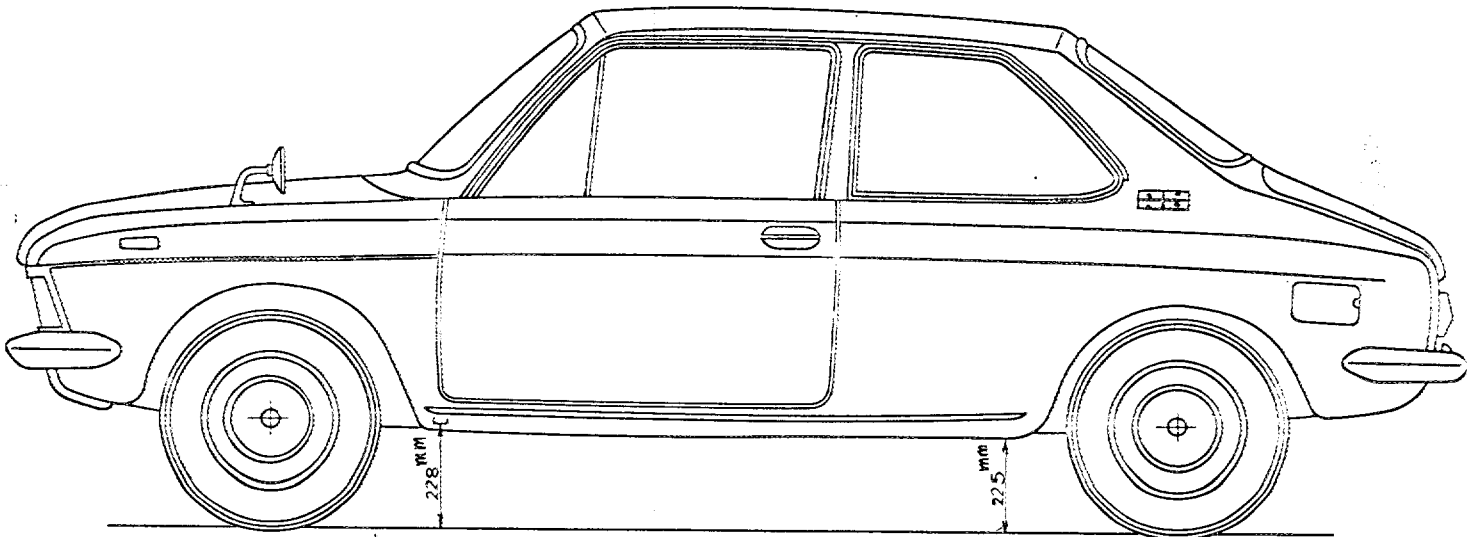
CAPACITIES AND DIMENSIONS

1. <u>Wheelbase</u>	2420	mm	95.3	inches
2. <u>Front track</u>	1225	mm	48.2	inches *
3. <u>Rear track</u>	1210	mm	47.7	inches *
4. Overall length of the car		390.0	cm	inches
5. Overall width of the car		148.0	cm	inches
6. Overall height of the car		139.0	cm	inches
7. <u>Capacity of fuel tank</u> (reserve included)			36	ltrs
	9.5	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:				
	645	kg	1422	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 fixed points of the vehicle's structure 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)	-- 50.802 kg

Make FUJI HEAVY INDUSTRIES LTD. Model A12 (SUBARU 1000)

CHASSIS AND COACHWORK (Photographs A, B and C)

- 20. Chassis/body construction : ~~separate~~ / unitary construction
- 21. Unitary construction, material (s) **Steel.**
Separate construction
- 22. Separate Constructions: Material(s) of chassis
- 23. Material (s) of coachwork
- 24. Number of doors **2** 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
- 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 **Bench, Vinyl leather.**
- 42. Weight of front seat (s), complete with supports and rails, out of the car :

20.3	kg	lbs
------	----	-----
- 43. Rear seats, type of seats and upholstery **Bench, Vinyl leather.**
- 44. Front bumper, material (s) **Steel.** Weight **2.9** kg lbs
- 45. Rear bumper, material (s) **Steel.** Weight **3.0** kg lbs

WHEELS

- 50. Type **Pressed steel.**
- 51. Weight (per wheel, without tyre) **4.7** kg lbs
- 52. Method of attachment **Wheel nut (4 nuts)**
- 53. Rim diameter **330** mm **13** inches
- 54. Rim width **102** mm **4** inches

STEERING

- 60. Type **Rack and pinion.**
- 61. Servo-assistance : **yes - no**
- 62. Number of turns of steering wheel from lock to lock **3.3**
- 63. In case of servo-assistance

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SUSPENSION

- 70. Front suspension (photogr. D), type Independent.
- 71. Type of spring Torsion bar.
- 72. Stabiliser (if fitted)
- 73. Number of shockabsorbers 2 74. Type Hydraulic, Telescopic.
- 78. Rear suspension (photogr. E), type Independent.
- 79. Type of spring Torsion bar and Coil spring.
- 80. Stabiliser (if fitted)
- 81. Number of shockabsorbers 2 82. Type Hydraulic, Telescopic.

BRAKES (photographs F and G)

- 90. System 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)	23.81	mm	in.	15.88	mm	in.
Drum brakes						
95. Inside diameter	203.2	mm	in.	180	mm	in.
96. Length of brake linings	195	mm	in.	141	mm	in.
97. Width of brake linings	45	mm	in.	35	mm	in.
98. Number of shoes per brake	2			2		
99. Total area per brake	17550	mm ²	sq. in.	9870	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.



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Make FUJI HEAVY INDUSTRIES LTD.

Model A12 (SUBARU 1000)

ENGINE (photographs J and K)

- 130. Cycle 4
- 131. Number of cylinders 4
- 132. Cylinder arrangement Horizontally opposed.
- 133. Bore 72 mm 2.83 in. 134. Stroke 60 mm 2.36 in.
- 135. Capacity per cylinder 244.28 cm³ 14.9 cu. in.
- 136. Total cylinder-capacity 977 cm³ 59.6 cu. in.
- 137. Material (s) of cylinder block Aluminium alloy.
- 138. Material (s) of sleeves (if fitted) Cast iron.
- 139. Cylinder-head, material (s) Aluminium alloy. Number fitted 2
- 140. Number of inlet ports 1 per cylinder. 141. Number of exhaust ports 1 per cylinder.
- 142. Compression ratio 9.0 : 1
- 143. Volume of one combustion chamber 24 cm³ cu. in.
- 144. Piston, material Aluminium alloy casting 145. Number of rings 3
- 146. Distance from gudgeon pin centre line to highest point of piston crown 32.5 mm inches
- 147. Crankshaft : ~~mounted~~ stamped 148. Type of crankshaft : integral /
- 149. Number of crankshaft main bearings 3
- 150. Material of bearing cap
- 151. System of lubrication : ~~dry sump~~ / oil in sump
- 152. Capacity, lubricant 3.6 ltrs pts quarts US
- 153. Oil cooler : ~~yes~~ / no 154. Method of engine cooling Water.
- 155. Capacity of cooling system 6 ltrs pints quarts US
- 156. Cooling fan (if fitted), dia. cm inches
- 157. Number of blades of cooling fan

Bearings

- 158. Crankshaft main, type Plane metals. Dia. 50 mm in.
- 159. Connecting rod big end, Plane metals. Dia. 45 mm in.

Weights

- 160. Flywheel (clean) 6.1 kg lbs
- 161. Flywheel with clutch (all turning parts) 9.8 kg lbs
- 162. Crankshaft 6.55 kg lbs 163. Connecting rod 0.35 kg lbs
- 164. Piston with rings and pin 0.3 kg lbs

FOUR STROKE ENGINES

170. Number of camshafts 1 171. Location Crank case.
 172. Type of camshaft drive Gear drive.
 173. Type of valve operation Pushrods and rockers.

INLET (see page 4) *

180. Material(s) of inlet manifold Carbon steel.
 181. Diameter of valves 32 mm 1.26 inches
 182. Max. valve lift 7 mm 0.28 in. 183. Number of valve springs 2
 184. Type of spring Coil spring. 185. Number of valves per cylinder 1
 186. Tappet clearance for checking timing (cold) 0.22 mm inches
 187. Valves open at (with tolerance for tappet clearance indicated) $20^{\circ} \pm 5^{\circ}$ (B.T.D.C.)
 188. Valves close at (with tolerance for tappet clearance indicated) $60^{\circ} \pm 5^{\circ}$ (A.B.D.C.)
 189. Air filter, type Dry.

EXHAUST (see page 4)

195. Material (s) of exhaust manifold Steel.
 196. Diameter of valves 27.6 mm 1.09 inches
 197. Max. valve lift 7 mm 0.28 in. 198. Number of valve springs 2
 199. Type of spring Coil spring 200. Number of valves per cylinder 1
 201. Tappet clearance for checking timing (cold) 0.27 mm inches
 202. Valves open at (with tolerance for tappet clearance indicated) $60^{\circ} \pm 5^{\circ}$ (B.B.D.C.)
 203. Valves close at (with tolerance for tappet clearance indicated) $20^{\circ} \pm 5^{\circ}$ (A.T.D.C.)

CARBURETION (photograph N)

210. Number of carburetors fitted 1 211. Type Down draft.
 212. Make Hitachi LTD. 213. Model DCG 286
 214. Number of mixture passages per carburettor 2
 215. Flange hold diameter of exit port(s) of carburettor Pri. 26, Secon. 28 mm in.
 216. Minimum dimensions of mixture pasage (s) ~~with piston of max. height to ramp SU~~
 Pri. 19, Secon. 25 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 FUJI HEAVY INDUSTRIES LTD.

Model A12 (SUBARU 1000)

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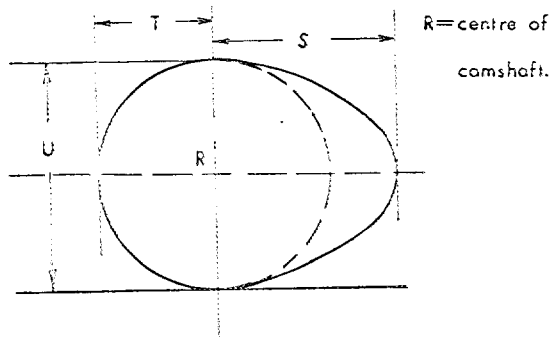
ENGINE ACCESSORIES

- | | | |
|---|--------------------------------------|-------------|
| 230. Fuel pump : mechanical and/or electric | 231. No. fitted | 2 |
| 232. Type of ignition system Make and Break Ignition. | 233. No. of distributors | 1 |
| 234. No. of ignition coils | 235. No. of spark plugs per cylinder | 1 |
| 236. Generator, type: dynamo /alternator-number fitted | 237. Method of drive | V Belt. |
| 238. Voltage of generator | 239. Battery, number | 1 |
| 240. Location | | Engine room |
| 241. Voltage of battery | | 12 volts |

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

- | | | | |
|-------------------------------|----------------------------------|-----------------------|--------------|
| 250. Max. engine output | 55 PS (type of horsepower: JIS) | at | 6000 rpm |
| 251. Maximum rpm | 6500 | output at that figure | 54 PS |
| 252. Maximum torque | 7.8 kg-m | at | 3200 rpm |
| 253. Maximum speed of the car | 135 | km/hour | miles / hour |

255.



Inlet cam

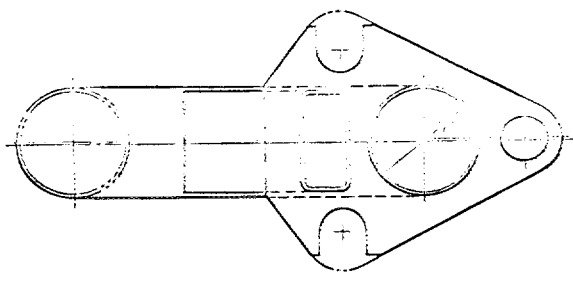
S = 18.0	mm	0.71	inches
T = 12.5	mm	0.49	inches
U = 25	mm	0.98	inches

Exhaust cam

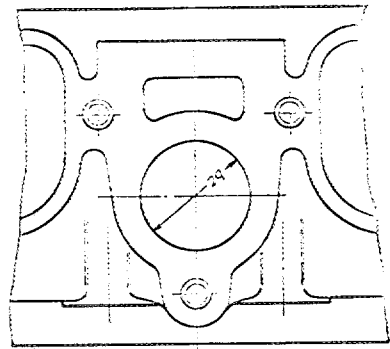
S = 18.0	mm	0.71	inches
T = 12.5	mm	0.49	inches
U = 25	mm	0.98	inches

Make FUJI HEAVY INDUSTRIES LTD. Model A12 (SUBARU 1000)

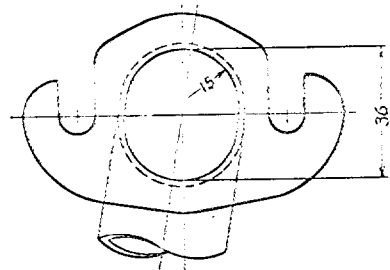
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



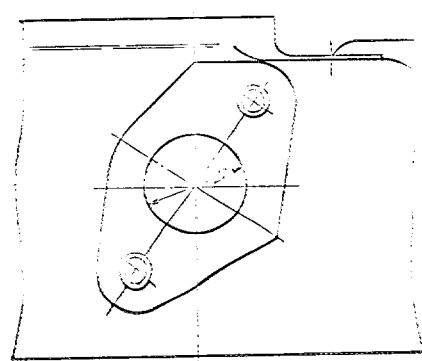
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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.



Unit : mm
Tolerance : ± 1.5

Make FUJI HEAVY INDUSTRIES LTD.

Model A12 (SUBARU 1000)

F.I.A. Rec. No.

DRIVE TRAIN

CLUTCH

- 260. Type of clutch Dry single plate. 261. No. of plates 1
- 262. Dia. of clutch plates 18.4 cm inches
- 263. Dia. of linings inside 12.5 cm in. outside 18.0 cm in.
- 264. Method of operating clutch Mechanical.

GEAR BOX photograph H)

- 270. Manual type, make FUJI HEAVY INDUSTRIES LTD. Method of operation Mechanical.
- 271. No. of gear-box ratios forward 4 272. Synchronized forward ratios 1,2,3,4
- 273. Location of gear-shift Column.
- 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	3.540	39/11							
2	2.235	38/17							
3	1.524	32/21							
4	1.038	27/26							
5									
6									
reverse	4.100	41/19/10							

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

FINAL DRIVE

- 290. Type of final drive Hypoid gears.
- 291. Type of differential Straight Bevel, 2 pinion.
- 292. Type of limited slip differential (if fitted)
- 293. Final drive ratio 4.375
- Number of teeth 35/8

Make FUJI HEAVY INDUSTRIES LTD.

Model A12 (SUBARU 1000)

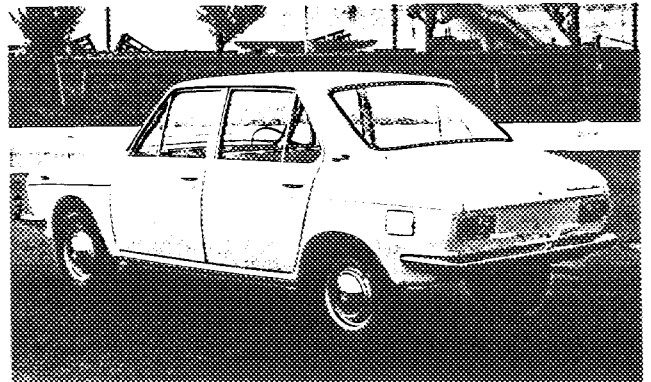
F.I.A. Rec. No. 5178

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 C (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, 197, 201, 202, 203, 211, 212, 213, 215, 216, 222, 225, 230, 236, 250, 251, 252, 253, 255, and photographs I, M, N, O page 8

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, 7, 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, 154, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 and photographs A, B, D, E, F, G, H and J.

Optional equipment affecting preceding information. This to be stated together with reference number.

Four door sedan



The model produced on the same line as two door sedan.

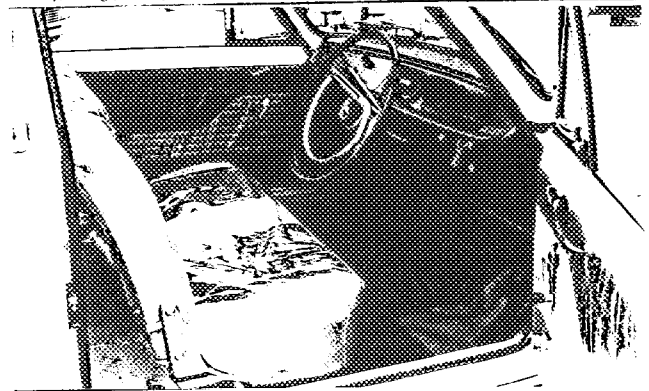
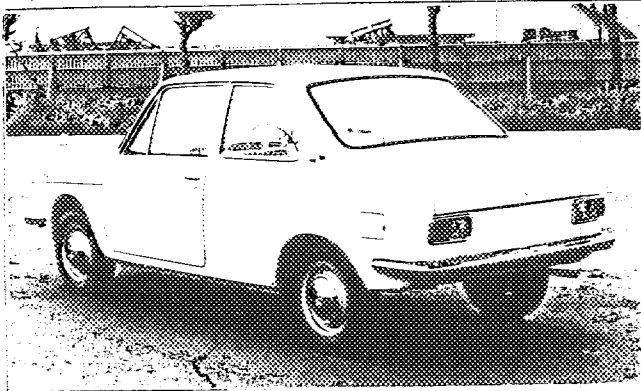
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Make FUJI HEAVY INDUSTRIES LTD.

Model ML2 (SUBARU 1000) F.I.A. Rec. No

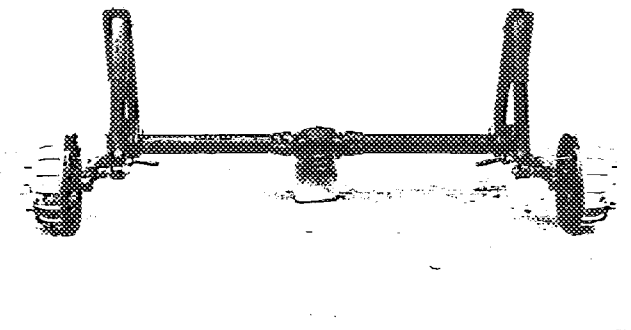
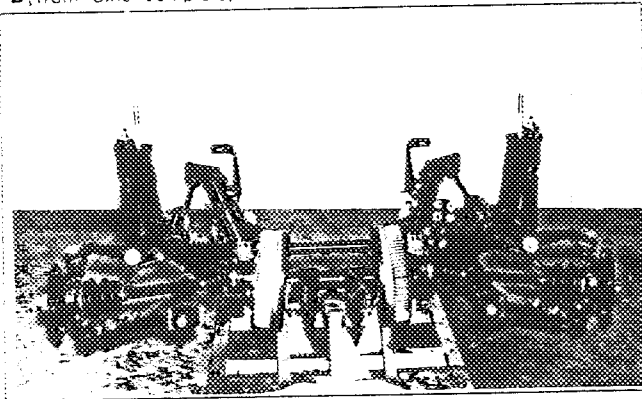
Photograph interior view of car through driver's door (open or removed with door)

B, 3/4 view of car from rear



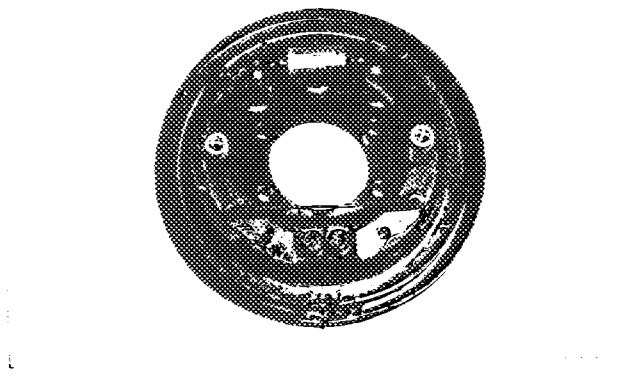
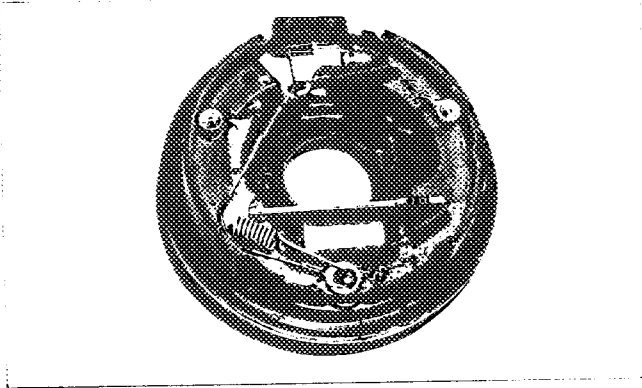
D, front axle complete, removed from car. Without wheels.

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



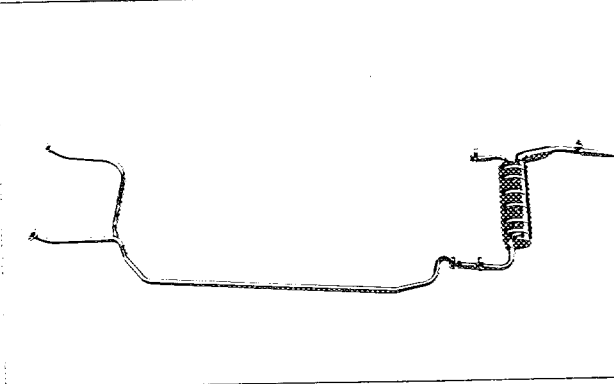
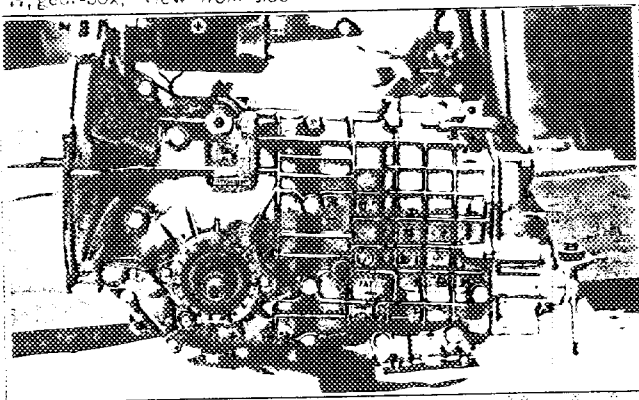
E, front brake, drum removed or disc with caliper(s)

G, rear brake, drum removed or disc with caliper(s)



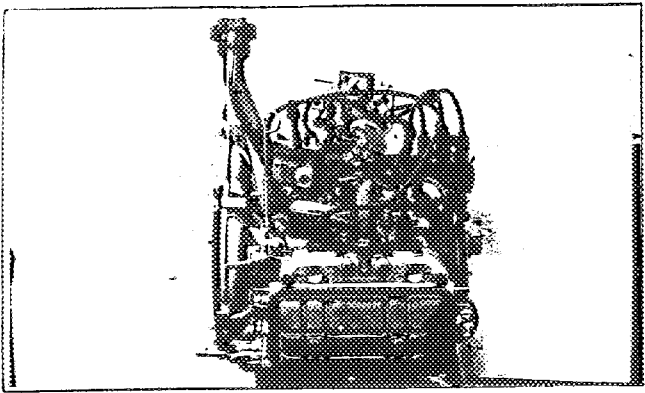
H, gear-box, view from side

I, silencer + exhaust pipes after exhaust manifold.

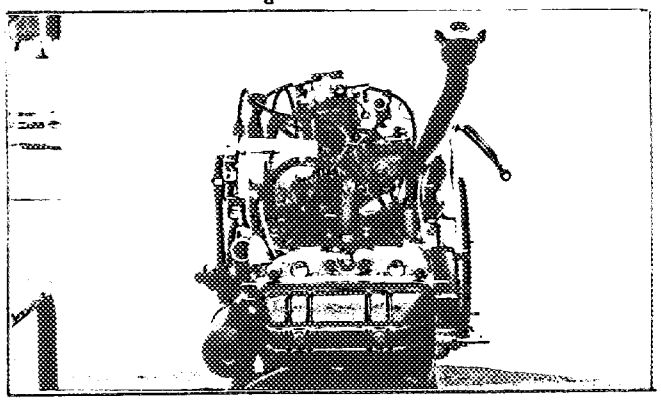


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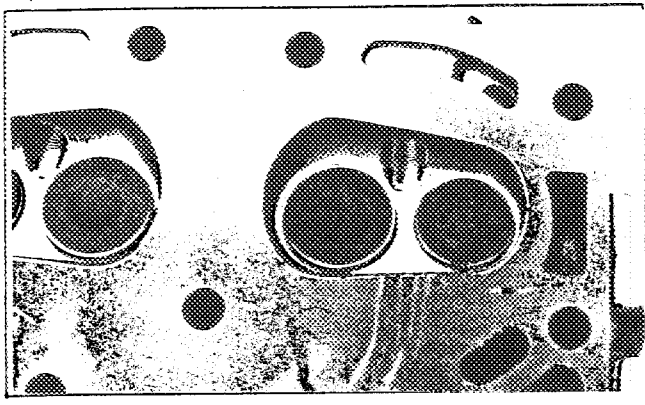
Make FUJI HEAVY INDUSTRIES LTD.
engine unit out of car, from right. With clutch and
J, accessories but without air filter nor gear-box.



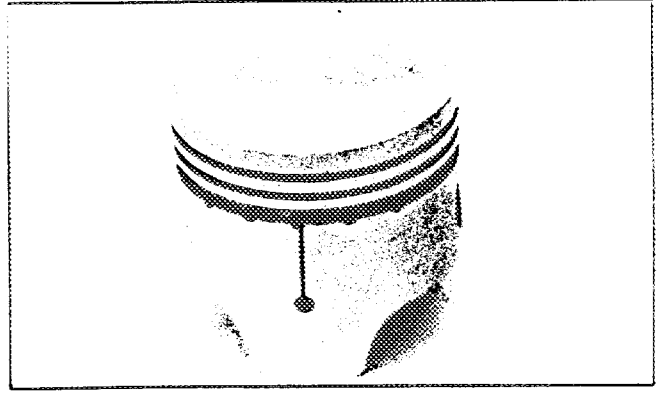
Model A12 (SUBARU 1000) F.I.A. Rec. No
Photograph Engine unit out of car, from left. With clutch and oc-
K, cessories but without gear-box nor air filter.



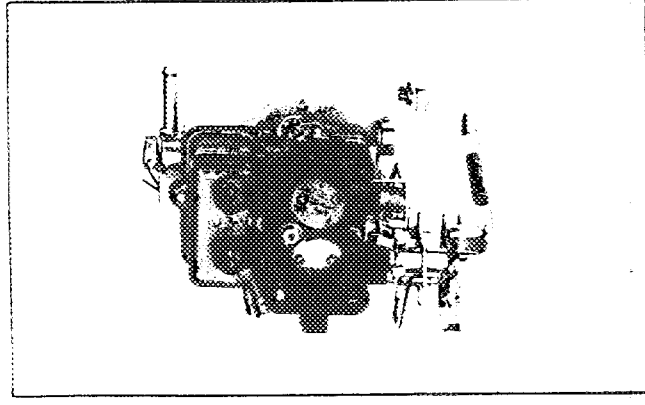
L, combustion chamber



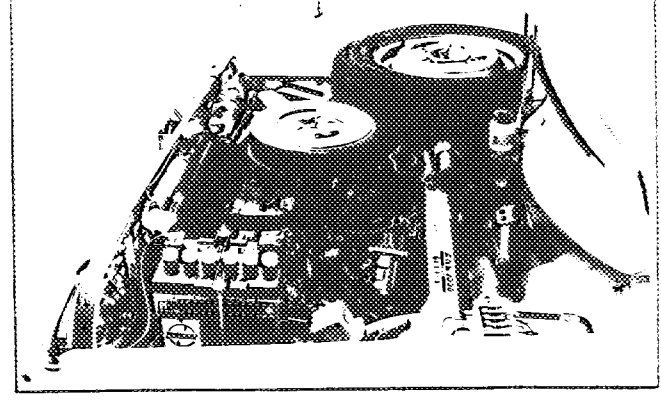
M, piston crown



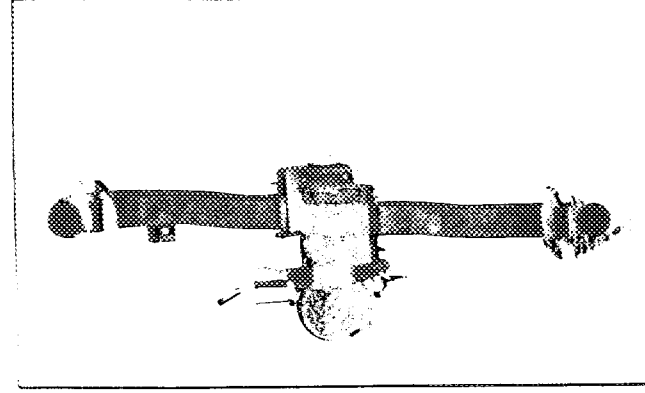
N, Carburettor (view from side of manifold)



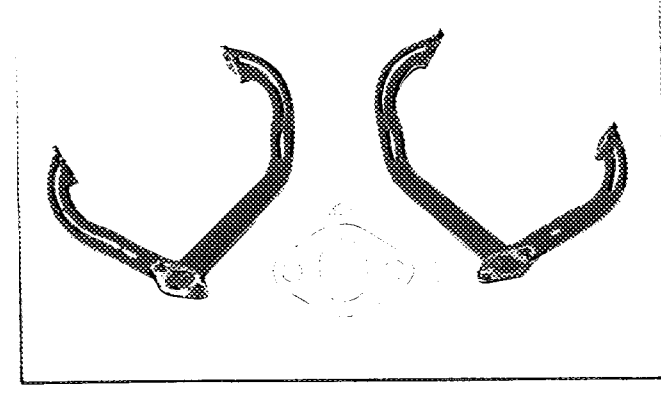
O, engine in car with all accessories, bonnet open or removed.



P, inlet manifold



Q, exhaust manifold



Make FUJI HEAVY INDUSTRIES LTD.

Model A12 (SUBARU 1000)

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.

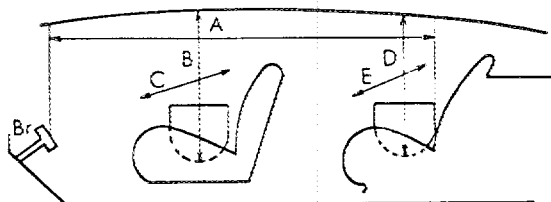
330. Supercharging—state full details hereafter :

JAPAN AUTOMOSILE FEDERATION

Kazunari Komotori

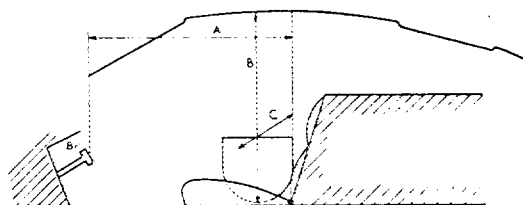
DIMENSIONS OF INTERIOR
(Conform to Art. 253 b of Appendix J)

For four seaters :



Minimum		Dimensions		
A	B	C	D	E
164 cm	92 cm	125 cm	92 cm	125 cm

For two seaters :



Minimum		Dimensions
A	B	C
cm	cm	cm