



# JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No.

Group

1529  
2 - Touring

## FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Manufacturer FUJI HEAVY INDUSTRIES LTD.

Serial No. of chassis A12-509194

engine EA53-30286

Recognition is valid from

1st Sept. 1968

The manufacturing of the model described in this recognition form was started on Nov 1967 and the minimum production of 1000 identical cars, in accordance with the specifications of this form was reached on Feb. 1968

Cylinder-capacity 977 cm<sup>3</sup> 59.6 cu. in.

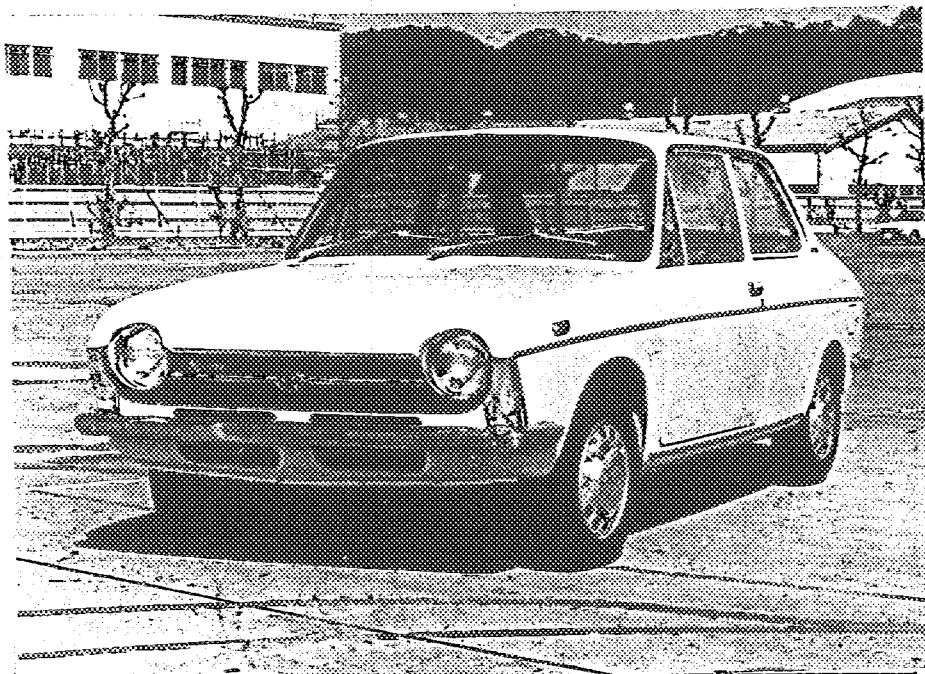
Model A12Z(SUBARU 1000Sports Sedan)

Manufacturer FUJI HEAVY INDUSTRIES LTD.

Manufacturer FUJI HEAVY INDUSTRIES LTD.

List 1968/9

Photograph A, 3/4 view of car from front



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

### Variants

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

### 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

Stamp and signature of the  
National Sporting Authority

Stamp and signature of the F. I. A.

F. I. A. stamp and signature

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

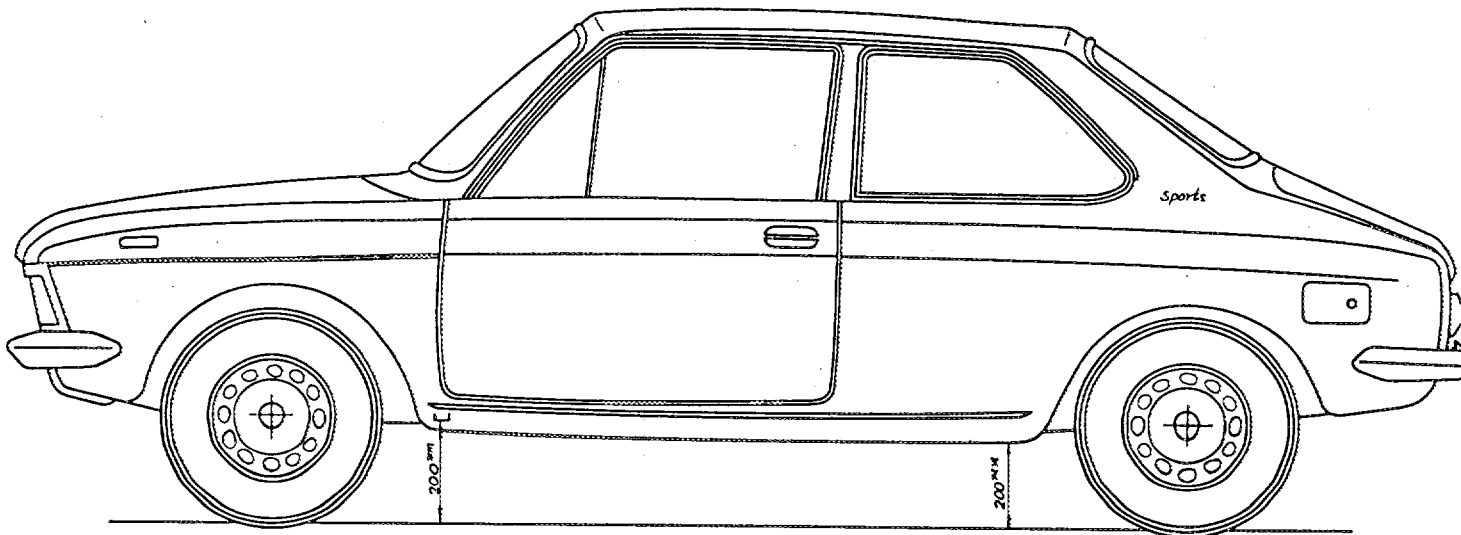
**CAPACITIES AND DIMENSIONS**

1. <u>Wheelbase</u>	2420	mm	95.3	inches
2. <u>Front track</u>	1235	mm	48.6	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		137.5	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:				
	680	kg	1499	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 <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

STAMP: FEDERAL BUREAU OF INVESTIGATION, MOTOR VEHICLE DIVISION, WASHINGTON, D.C. 20535

Make FUJI HEAVY INDUSTRIES LTD.

Model A12Z

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. 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 **Separate, Vinyl leather.**
42. Weight of front seat (s), complete with supports and rails, out of the car :  
12.5 x 2 kg lbs
43. Rear seats, type of seats and upholstery **Bench, Vinyl leather.**
- |                                |               |        |            |    |     |
|--------------------------------|---------------|--------|------------|----|-----|
| 44. Front bumper, material (s) | <b>Steel.</b> | Weight | <b>2.9</b> | kg | lbs |
| 45. Rear bumper, material (s)  | <b>Steel.</b> | Weight | <b>3.0</b> | 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. <u>Rim diameter</u> | <b>330</b> | mm | <b>13</b> | inches |
| 54. <u>Rim width</u>    | <b>102</b> | mm | <b>4</b>  | inches |

**STEERING**

60. Type **Rack and pinion.**
61. Servo-assistance : ~~yes~~ - no
62. Number of turns of steering wheel from lock to lock **3.0**
63. in case of servo-assistance



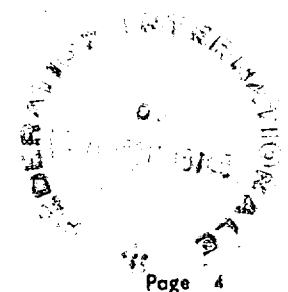
**SUSPENSION**

- 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)	mm 1- $\frac{1}{2}$	in.	mm 9/16	in.
<b>Drum brakes</b>				
95. Inside diameter	mm	in.	180 mm	in.
96. Length of brake linings	mm	in.	141 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.	9870 mm <sup>2</sup>	sq. in.
<b>Disc brakes</b>				
100. Outside diameter	262 mm	in.	mm	in.
101. Thickness of disc	10 mm	in.	mm	in.
102. Length of brake linings	95 mm	in.	mm	in.
103. Width of brake linings	37 mm	in.	mm	in.
104. Number of pads per brake	2			
105. Total area per brake	6400 mm <sup>2</sup>	sq. in.	mm <sup>2</sup>	sq. in.



**ENGINE** (photographs J and K)

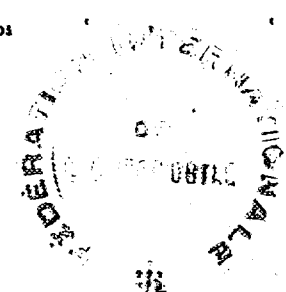
- 130. Cycle 4
- 131. Number of cylinders 4
- 132. Cylinder arrangement Horizontally opposed.
- 133. Bore 72 mm 2.83 in. 134. Stroke 60 mm 2.36 in.
- 135. Capacity per cylinder 244.28 cm<sup>3</sup> 14.9 cu. in.
- 136. Total cylinder-capacity 977 cm<sup>3</sup> 59.6 cu. in.
- 137. Material (s) of cylinder 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 10.0:1
- 143. Volume of one combustion chamber 21.6 cm<sup>3</sup> 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 : ~~casted~~ / 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 6.1 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 8) \*

180. Material(s) of inlet manifold ██████████ steel.  
 181. Diameter of valves 32 mm 1.26 inches  
 182. Max. valve lift 8 mm 0.315 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) 0.25 mm inches  
 187. Valves open at (with tolerance for tappet clearance indicated)  $40^{\circ} + 5^{\circ}$  (B.T.D.C.)  
 188. Valves close at (with tolerance for tappet clearance indicated)  $76^{\circ} \pm 5^{\circ}$  (A.B.D.C.)  
 189. Air filter, type Dry.

**EXHAUST** (see page 8)

195. Material (s) of exhaust manifold Steel.  
 196. Diameter of valves 27.6 mm 1.09 inches  
 197. Max. valve lift 8 mm 0.315 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) 0.30 mm inches  
 202. Valves open at (with tolerance for tappet clearance indicated)  $76^{\circ} + 5^{\circ}$  (B.B.D.C.)  
 203. Valves close at (with tolerance for tappet clearance indicated)  $40^{\circ} + 5^{\circ}$  (A.T.D.C.)

**CARBURETION** (photograph N)

210. Number of carburetors fitted 2 211. Type Down draft.  
 212. Make MIKUNI KOGYO LTD. 213. Model BDS 36  
 214. Number of mixture passages per carburetor 1  
 215. Flange hold diameter of exit port(s) of carburetor 36 mm in.  
 216. Minimum dimensions of mixture passage(s) with piston at max. height (example: SU)  
 29 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 A12Z

F. I. A. Rec. No.

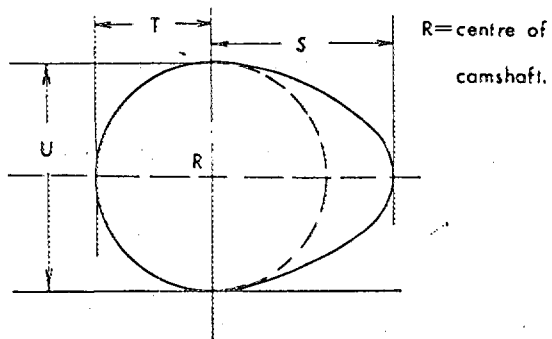
**ENGINE ACCESSORIES**

- |  |                          |   |
|--|--------------------------|---|
| 230. Fuel pump : <del>mechanical</del> / <del>and</del> / <del>as</del> electric | 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: <del>dyno</del> / alternator - number fitted               | 1                        |   |
| 237. Method of drive   | V Belt                   |   |
| 238. Voltage of generator  | 12 volts                 |   |
| 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       | 67 PS    | (type of horsepower: JIS ) at | 6600  | rpm          |
| 251. Maximum rpm              | 7000     | output at that figure         | 66 PS |              |
| 252. Maximum torque           | 8.2 kg-m | at                            | 4600  | rpm          |
| 253. Maximum speed of the car | 150      | km/hour                       |       | miles / hour |

255.



Inlet cam

s = 18.62	mm	0.733	inches
T = 12.5	mm	0.492	inches
U = 25	mm	0.984	inches

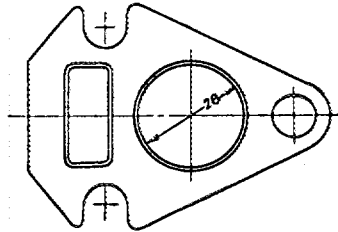
Exhaust cam

s = 18.62	mm	0.733	inches
T = 12.5	mm	0.492	inches
U = 25	mm	0.984	inches



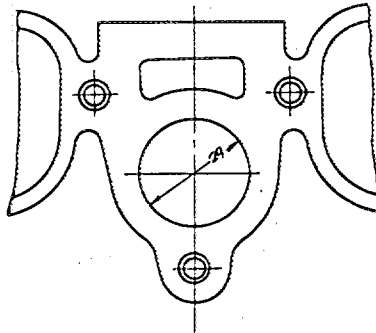
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.

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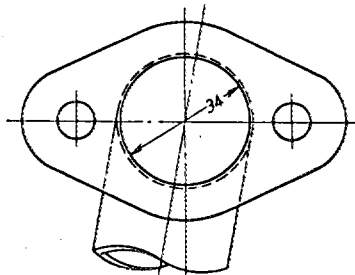
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.

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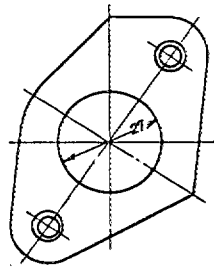
Drawing exhaust manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.

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

---



Unit : mm

Tolerance :  $\pm 1.5$



**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 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	3.540	39/11			3.540	39/11	3.167	38/12
2	2.235	38/17			2.235	38/17	2.056	37/18
3	1.524	32/21			1.542	37/24	1.440	36/25
4	1.038	27/26			1.033	31/30	1.103	32/29
5								
6								
reverse	4.100	41/19/10			4.100	41/19/10	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 gear.
- 291. Type of differential XXXXXXXXXX Bevel, XXXXXXXXXX
- 292. Type of limited slip differential (if fitted)
- 293. Final drive ratio 4.375 4.125 3.875 3.625 3.375  
 Number of teeth 35/8 33/8 31/8 29/8 27/8



Make FUJI HEAVY INDUSTRIES LTD.

Model A12Z

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, 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 ~~and~~ N. & 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.

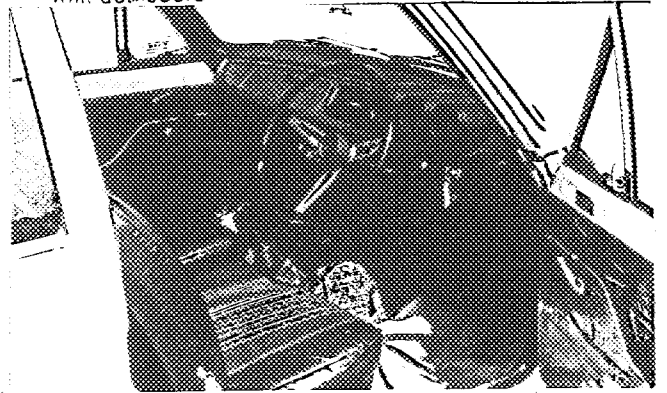
277	Alternative Ratio	manual NO. teeth
1	2.846	37/13
2	1.895	36/19
3	1.440	36/25
4	1.179	33/28
reverse	4.100	41/19/10

Photograph

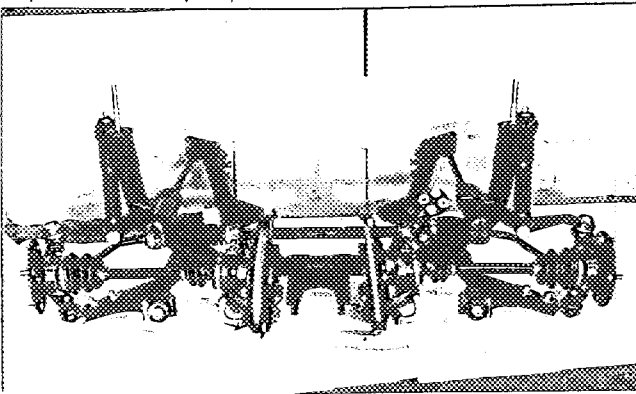
B, 3/4 view of car from rear



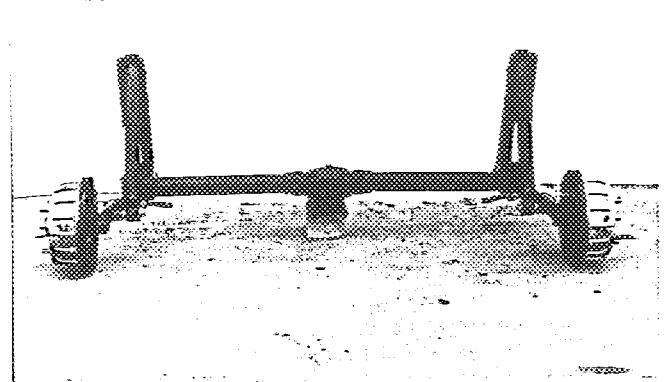
C, interior view of car through driver's door (open or removed) with dashboard



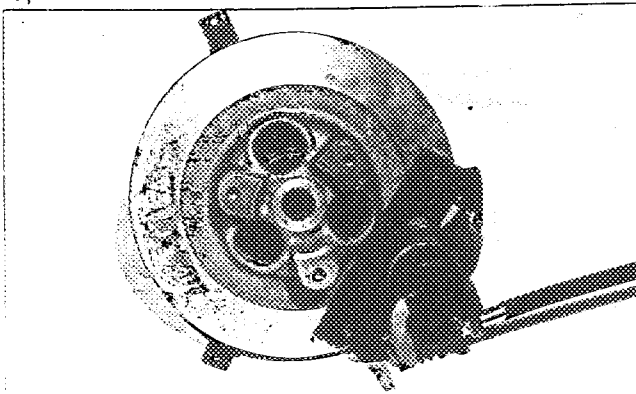
D, front axle complete, removed from car. Without wheels.



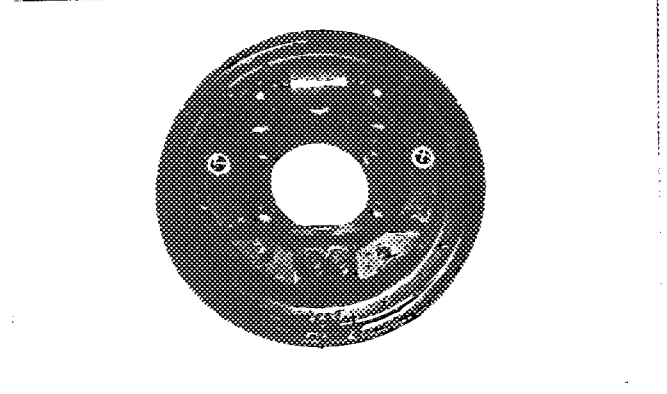
E, Rear axle complete without wheels, removed from car.



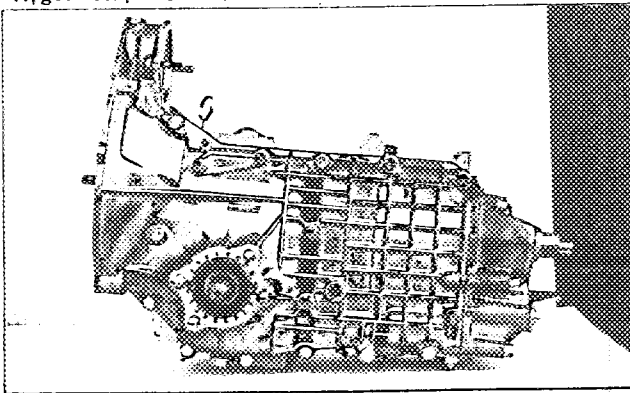
F, front brake, drum removed or disc with calipers



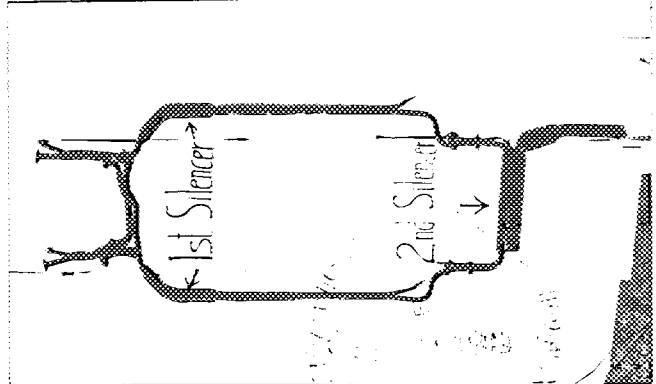
G, rear brake, drum removed or disc with calipers



H, gear-box, view from side

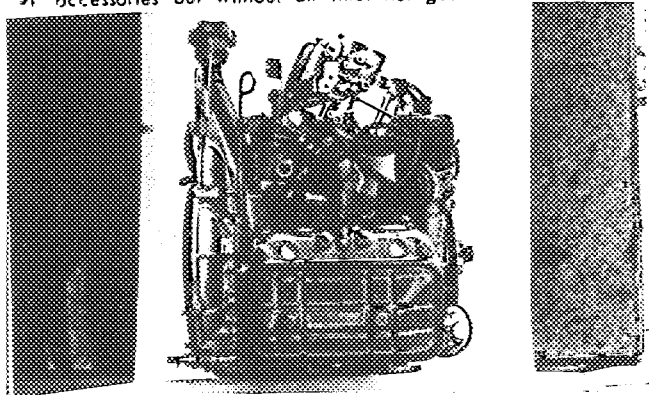


I, silencer + exhaust pipes after exhaust manifold



Make FUJI HEAVY INDUSTRIES LTD.

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

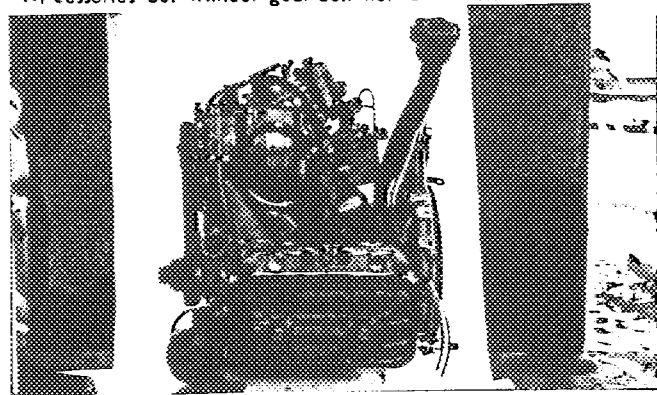


Photograph

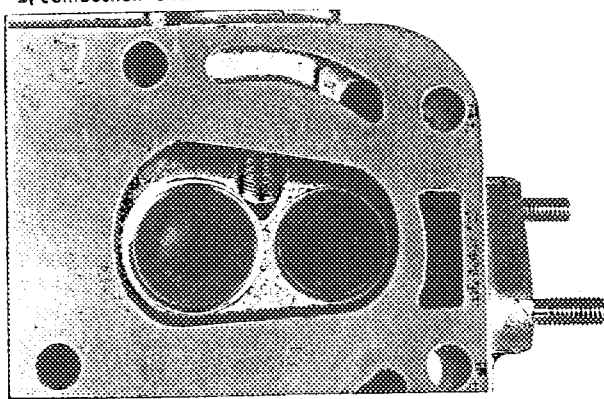
Model A12Z

F. I. A. Rec. No

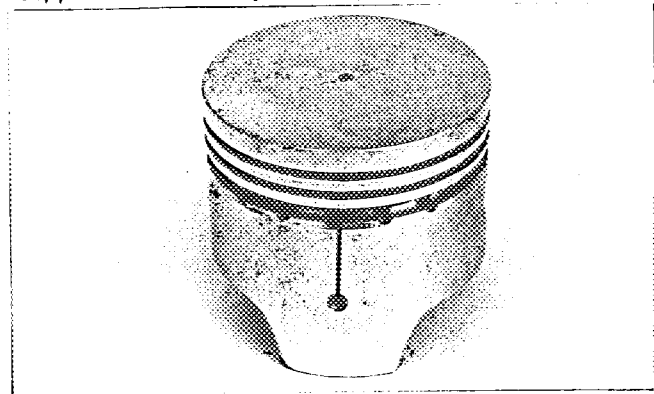
Engine unit out of car, from left. With clutch and accessories but without gear-box nor air filter.



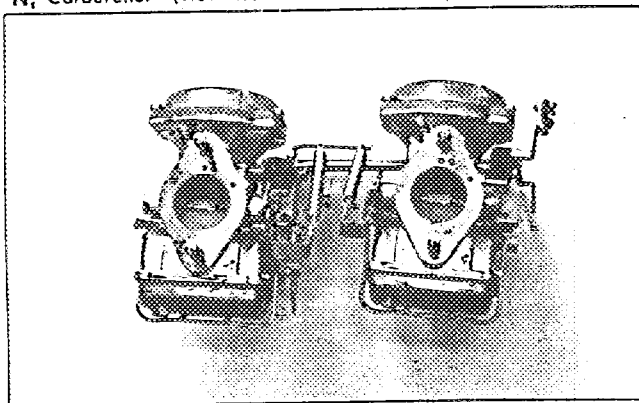
L, combustion chamber



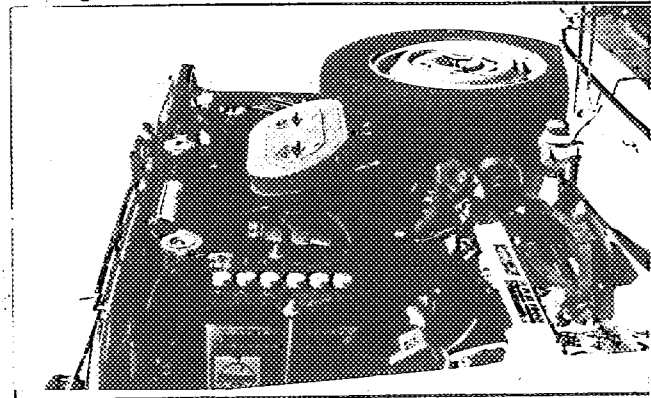
M, piston crown



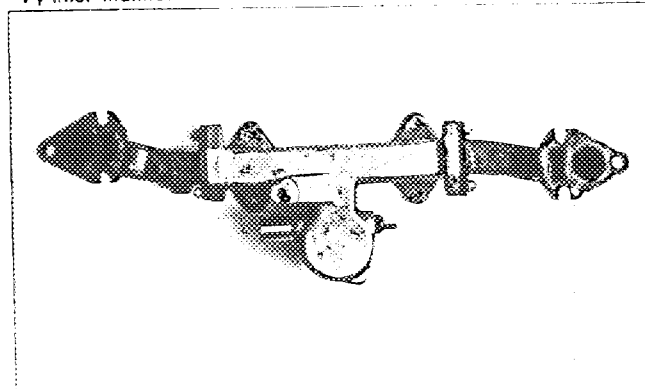
N, Carburettor (view from side of manifold)



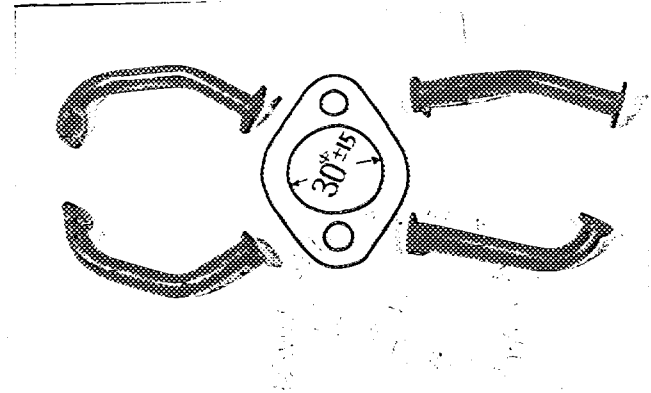
O, engine in car with all accessories, bonnet open or removed



P, inlet manifold



Q, exhaust manifold



Make FUJI HEAVY INDUSTRIES LTD.

Model A12Z

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

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 ports, 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 ports.

330. Supercharging—state full details hereafter :

JAPAN AUTOMOBILE FEDERATION

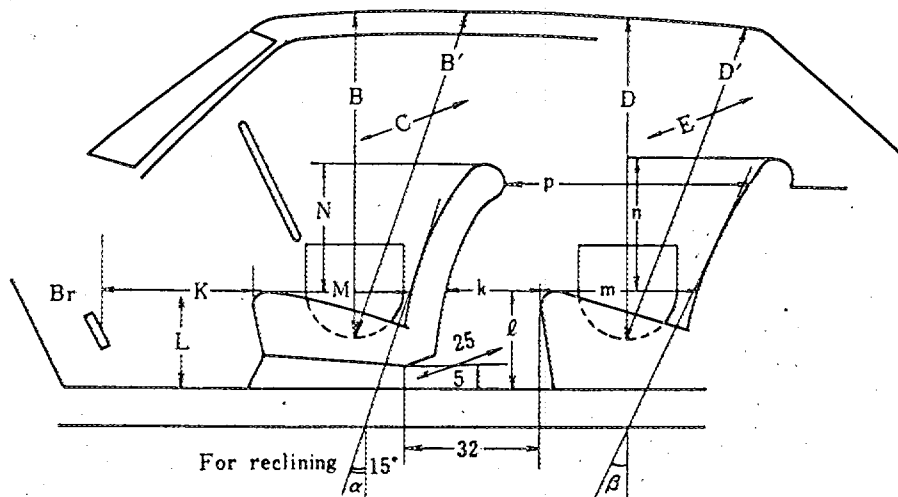
難波清治

Yasuharu Nanba



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

For four seaters :



Minimum Dimensions (cm)							
B	B'	$\alpha$	C	D	D'	$\beta$	E
94	98	$15^\circ$	125	92	92	$22^\circ$	125

Minimum Dimensions (cm)										
L	$l$	M	m	N	n	k+m	p	k	k+l+m	K+L+M
29	34	46	45	40	37	65	70	20	99	122
$0.9L = 26.1$		$0.85M = 39.1$		$0.8N = 32$		$0.8(k+m) = 52.0$		(15)	(95)	(120)