



JAPAN AUTOMOBILE FEDERATION

F. I. A. Recognition No *1417*
Group *2 TOURING CARS*

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Manufacturer	ISUZU MOTORS LIMITED	Cylinder-capacity	1579	cm ³	96.36	inches
Serial No of chassis	PR90 - 4201738	Model	ISUZU PR90 (BELLETT 1600GT)			
Serial No of engine	G160 - 3001738	Manufacturer	ISUZU MOTORS LIMITED			
Recognition is valid from	<i>1st February 1966</i>	Manufacturer	ISUZU MOTORS LIMITED			
		List	<i>14/2</i>			

The manufacturing of the model described in this recognition form was started on *10 SEPT. 1965* and the minimum production of *1,000* identical cars, in accordance with the specifications of this form was reached on *30 NOV. 1965*

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

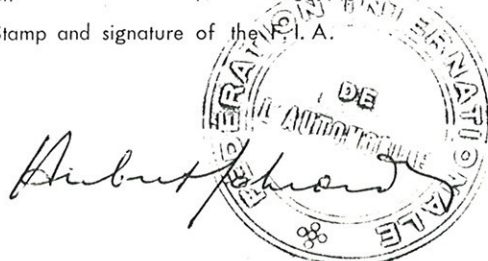
Stamp and signature of the
National Sporting Authority

Kametarō Fujita

Kametarō Fujita
Chairman of C.S.



Stamp and signature of the F. I. A.

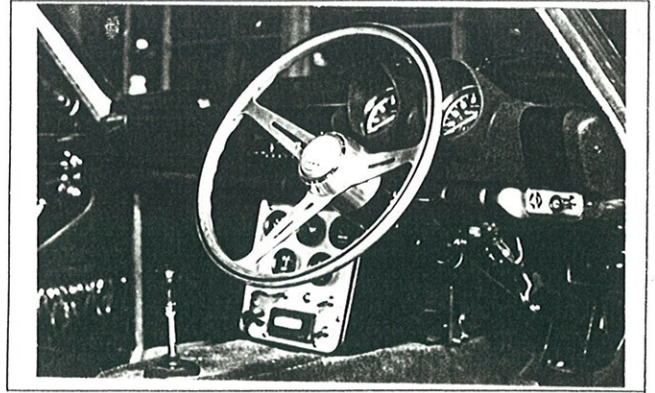


F

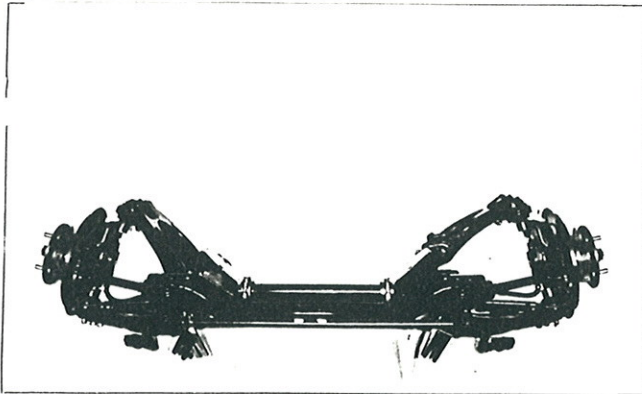
B 3/4 view of car from rear



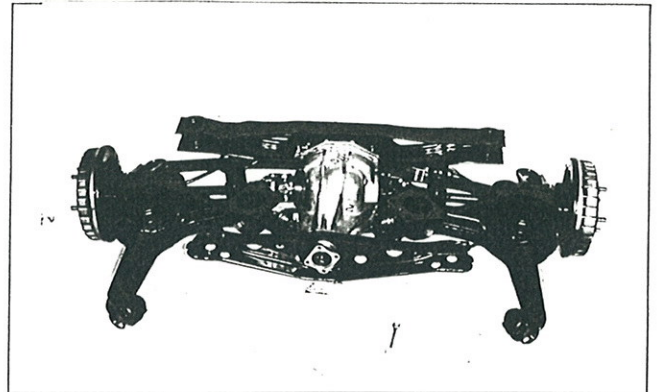
C interior view of car through driver's door (open or removed)



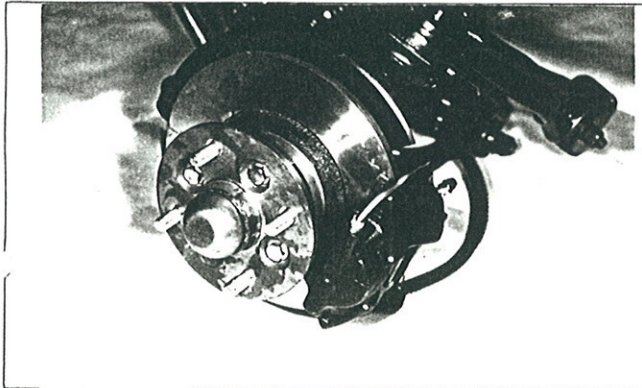
D front axle complete, removed from car. Without wheels.



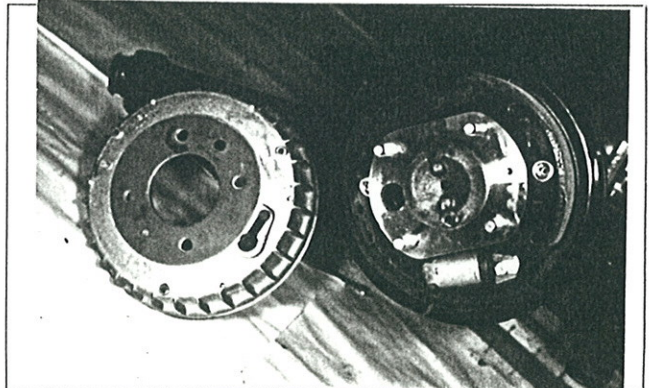
E Rear axle complete without wheels, removed from car.



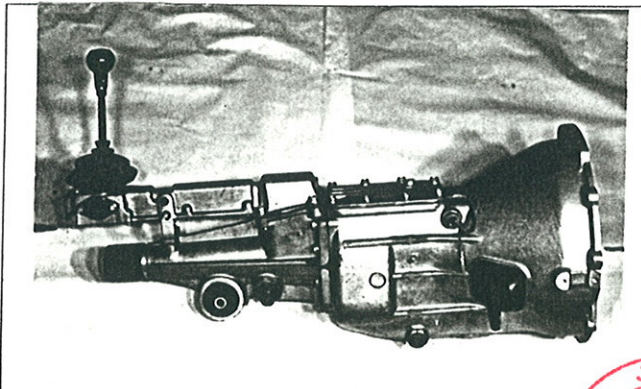
F front brake, drum removed



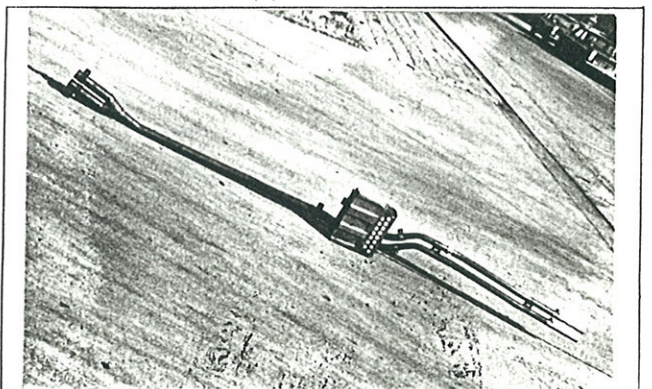
G rear brake, drum removed



H gear-box, view from side



I silencer + exhaust pipes after exhaust manifold.



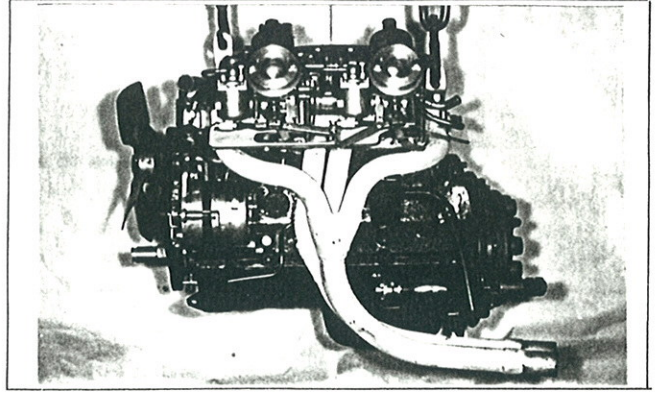
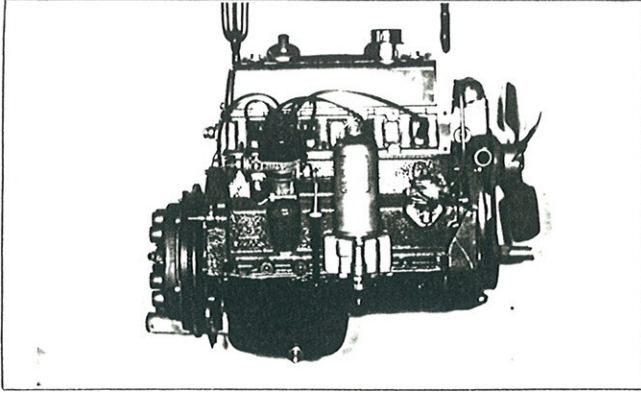
Make ISUZU MOTORS LIMITED

Model ISUZU PR90

F.I.A. Rec. No

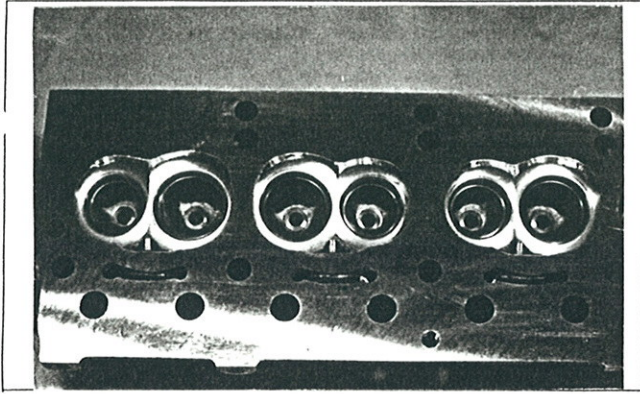
J engine unit out of car, from right. With clutch and accessories but without air filter nor gear-box.

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



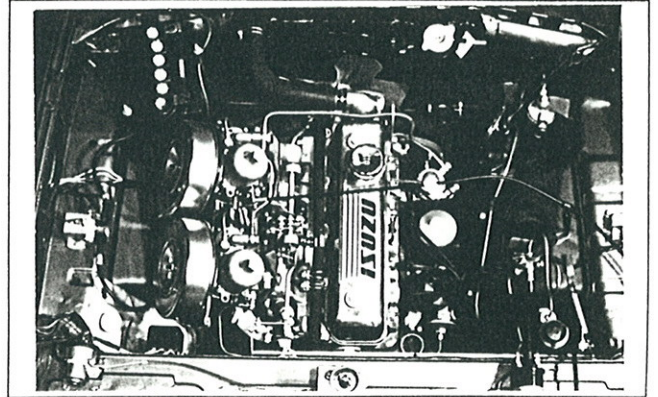
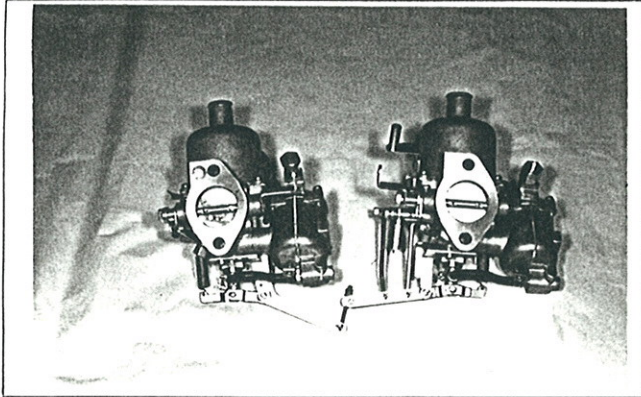
L combustion chamber

M piston crown



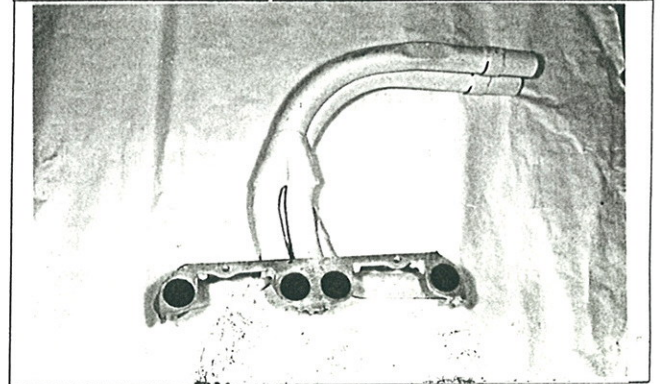
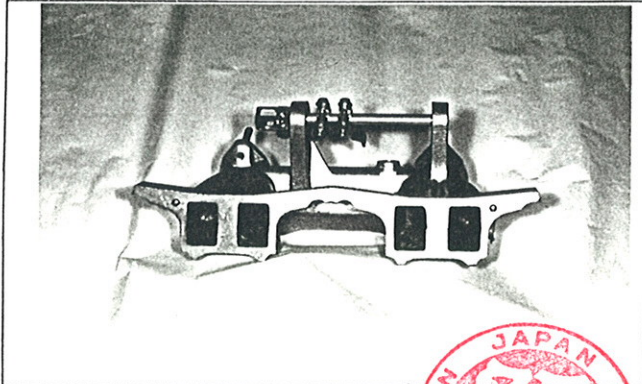
N Carburettor (view from side of manifold)

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



P inlet manifold

Q exhaust manifold



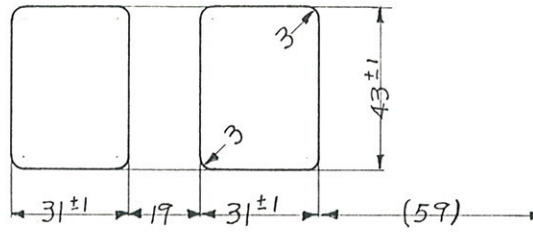
Make ISUZU MOTORS LIMITED

Model ISUZU PR90

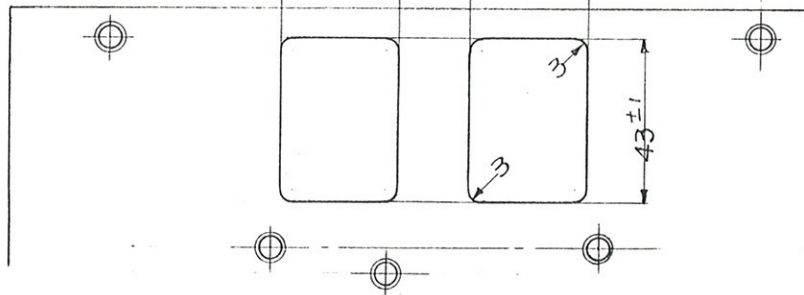
Engine's
Center

F. I. A. Rec. No

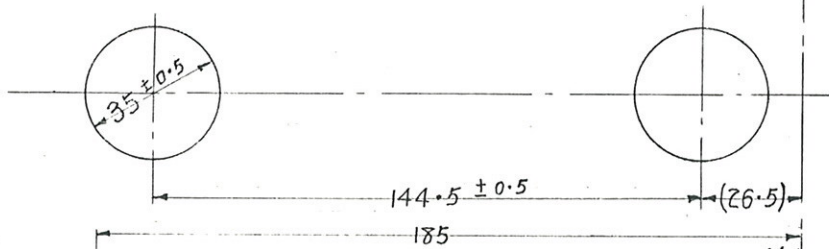
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



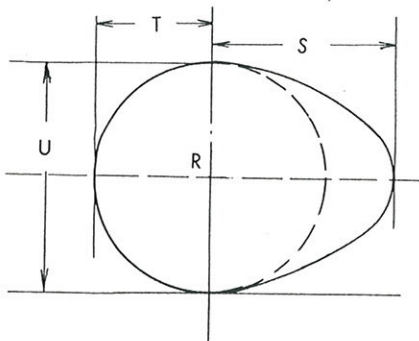
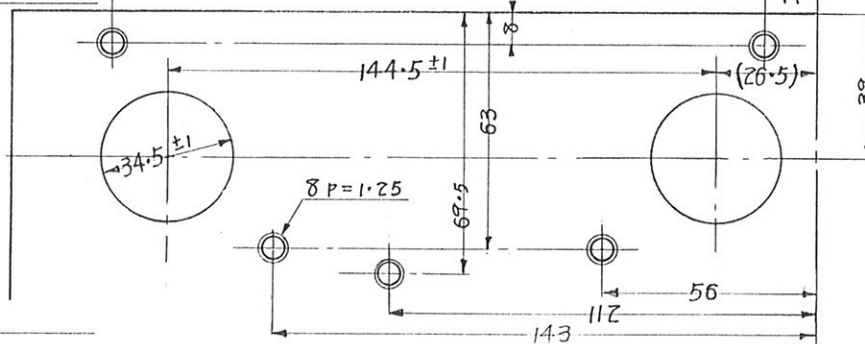
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



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 =	21.465	mm	0.845	inches
T =	14.616	mm	0.575	inches
U =	29.333	mm	1.155	inches

Exhaust cam

S =	21.465	mm	0.845	inches
T =	14.616	mm	0.575	inches
U =	29.333	mm	1.155	inches



7

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

CAPACITIES AND DIMENSIONS

1. <u>Wheelbase</u>	2,350 mm	92.5 inches
2. <u>Front track</u>	1,245 mm	49.0 inches *
3. <u>Rear track</u>	1,195 mm	47.0 inches *
4. Overall length of the car	400.5 cm	inches
5. Overall width of the car	149.5 cm	inches
6. Overall height of the car	134.0 cm	inches
7. <u>Capacity of fuel tank</u> (reserve included)		40 ltrs
	10.5 Gallon US	8.75 Gallon Imp.
8. Seating capacity	4	
9. <u>Weight</u> , total weight of the car with normal equipment, water, oil and spare wheel but without fuel nor repair tools :	910 kg	2,010 lbs cwt

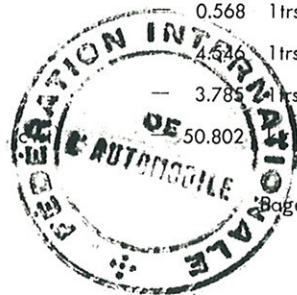
*) Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned.

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 (1b)	— 453.593 gr.	1 hundred weight	— 50.802 ltrs



CHASSIS AND COACHWORK (Photographs A, B and C)

- 20. Chassis/body construction : ~~separate~~ / unitary construction
- 21. Unitary construction, material (s) **STEEL, CAST IRON, ALUMINUM**
Separate construction
- 22. 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 seat and upholstery ~~TENTILES~~ , **BUCKET, VINYL**
- 42. Weight of front seat (s), complete with supports and rails, out of the car :

13x2	kg	13	lbs
-------------	----	----	-----
- 43. Rear seats, type of seat and upholstery ~~TENTILES~~ , **BENCH, VINYL**
- 44. Front bumper, material (s) **STEEL** Weight **5** kg inches
- 45. Rear bumper, material (s) **STEEL** Weight **6** kg inches

WHEELS

- 50. Type **PRESSED STEEL**
- 51. Weight (per wheel, without tyre) **7.2** kg lbs
- 52. Method of attachment **WHEEL PIN & NUT, 4**
- 53. Rim diameter **329.4** mm **13.0** inches
- 54. Rim width **127 OR 114** mm **5 OR 4.5** inches

STEERING

- 60. Type **RACK AND PINION**
- 61. Servo-assistance : ~~yes~~ - no
- 62. Number of turns of steering wheel from lock to lock **2.9**
- 63. In case of servo-assistance



Make ISUZU MOTORS LIMITED

Model ISUZU PR90

F. I. A. Rec. No

SUSPENSION

- 70. Front suspension (photogr. D), type INDEPENDENT, COIL SPRING, WISHBONE
- 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 INDEPENDENT, DIAGONAL LINK
- 79. Type of spring COIL AND TRANSVERSE 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	2			1		
94. Bore of wheel cylinder (s)	57.2	mm	in.	22.2	mm	in.
Drum brakes						
95. Inside diameter		mm	in.	203.2	mm	in.
96. Length of brake linings		mm	in.	195	mm	in.
97. Width of brake linings		mm	in.	37.1	mm	in.
98. Number of shoes per brake				2		
99. Total area per brake		mm ²	sq. in.	14,430	mm ²	sq. in.
Disc brakes						
100. Outside diameter	237	mm	in.		mm	in.
101. Thickness of disc	10	mm	in.		mm	in.
102. Length of brake linings	60	mm	in.		mm	in.
103. Width of brake linings	45	mm	in.		mm	in.
104. Number of pads per brake	2					
105. Total area per brake	5,400	mm ²	sq. in.		mm ²	sq. in.



Make ISUZU MOTORS LIMITED

Model ISUZU PR90

F. I. A. Rec. No.

ENGINE (photographs J and K)

- 130. Cycle 4
- 131. Number of cylinders 4
- 132. Cylinder arrangement **IN-LINE**
- 133. Bore 83 mm 3.268 in. 134. Stroke 73 mm 2.874 in.
- 135. Capacity per cylinder 395 cm³ 24.09 cu. in.
- 136. Total cylinder-capacity 1579 cm³ 96.36 cu. in.
- 137. Material (s) of cylinder block **CAST IRON**
- 138. Material (s) of sleeves (if fitted)
- 139. Cylinder-head, material (s) **ALUMINUM** Number fitted 1
- 140. Number of inlet ports 4
- 141. Number of exhaust ports 4.
- 142. Compression ratio 9.3
- 143. Volume of one combustion chamber 47.6 cm³ cu. in.
- 144. Piston, material **ALUMINUM** 145. Number of rings 3
- 146. Distance from gudgeon pin centre line to highest point of piston crown 38.4 mm inches
- 147. Crankshaft : ~~stamped~~ / stamped 148. Type of crankshaft : integral / ~~stamped~~ ...
- 149. Number of crankshaft main bearings 3 SET
- 150. Material of bearing cap **CAST IRON**
- 151. System of lubrication : ~~oil~~ / oil in sump
- 152. Capacity, lubricant 3.2 ltrs. pts WATER quarts US
- 153. Oil cooler : ~~yes~~ / no
- 154. Method of engine cooling **FORCED CIRCULATION** (W/THERMOSTAT) quarts US
- 155. Capacity of cooling system 5.7 ltrs pints
- 156. Cooling (if fitted), dia. 32 cm inches
- 157. Number of blades of cooling fan 4

Bearings

- 158. Crankshaft main, type **PLAIN** Dia. 56 mm in.
- 159. Connecting rod big end, type **PLAIN** Dia. 53 mm in.

Weights

- 160. Flywheel (clean) 5.7 kg lbs
- 161. Flywheel with clutch (all turning parts) 12 kg lbs
- 162. Crankshaft 17.6 kg lbs 163. Connecting rod 0.71 kg lbs
- 164. Piston with rings and pin 0.567 kg lbs



FOUR STROKE ENGINES

- 170. Number of camshafts 1 171 Location CYL BLOCK
- 172. Type of camshaft drive CHAIN DRIVE
- 173. Type of valve operation PUSH ROD

INLET (see page 4) *

- 180. Material(s) of inlet manifold ALUMINUM
- 181. Diameter of valves 41 mm 1.614 inches
- 182. Max. valve lift 9.3 mm 0.366 in. 183. Number of valve springs 2
- 184. Type of spring COIL; ~~COMPRESSION~~ 185. Numbr of valves per cylinder 1
- 186. Tappet clearance for checking timing (cold) 0.30 mm inches
- 187. Valves open at (With tolerance for tappet clearance indicated) 38° B.T.D.C ± 3°
- 188. Valves close at (with tolerance for tappet clearance indicated) 82° A.B.D.C ± 3°
- 189. Air filter, type PAPER

EXHAUST (see page 4)

- 195. Material (s) of exhaust manifold STEEL
- 196. Diameter of valves 36 mm 1.417 inches
- 197. Max. valve lift 9.3 mm 0.366 in. 198. Number of valve springs 2
- 199. Type of spring COIL, ~~COMPRESSION~~ 200. Number of valves per cylinder 1
- 201. Tappet clearance for checking timing (cold) 0.35 mm inches
- 202. Valves open at (with tolerance for tappet clearance indicated) 73° B.B.D.C ± 3°
- 203. Valves close at (with tolerance for tappet clearance indicated) 35° A.T.D.C ± 3°

CARBURETION (photograph N)

- 210. Number of carburetors fitted 2 211. Type S.U.TYPE (VARIABLE VENTURI)
- 212. Make HITACHI 213. Model HJD38W
- 214. Number of mixture passages per caburettor 1
- 215. Flange hold diameter of exit port(s) of carburettor 38 mm in.
- 216. ~~Minimum diameter of~~ / minimum diam. with piston at maximum height 36 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 injecters
- 225. Minimum diameter of inlet pipe mm inches

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



Make ISUZU MOTORS LIMITED

Model ISUZU PR90

F.I.A. Rec. No.

ENGINE ACCESSORIES

- 230. Fuel pump : mechanical and / ~~electrical~~
- 231. No fitted 1
- 232. Type of ignition system ~~DISTRIBUTOR SYSTEM~~
- 233. No of distributors 1
- 234. No of ignition coils 1 ~~1~~ MAKE AND BRAKE IGNITION.
- 235. No of spark plugs per cylinder 1
- 236. Generator, type: ~~dyno~~/alternator-number fitted 1
- 237. Method of drive BELT DRIVE
- 238. Voltage of generator 12 volts
- 239. Battery, number 1
- 240. Location ~~BONNET~~ ENGINE ROOM
- 241. Voltage of battery 12 volts

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

- 250. Max. engine output 88 P.S. (type of horsepower: JIS.) at 5400 rpm
- 251. Maximum rpm 5400 output at that figure 88 P.S.
- 252. Maximum torque 12.5kg-m at 4200 rpm
- 253. Maximum speed of the car 160 km/hour miles / hour



Make ISUZU MOTORS LIMITED

Model ISUZU PR90

F. I. A. Rec. No

DRIVE TRAIN

CLUTCH

- 260. Type of clutch **DRY PLATE**
- 261. No. of plates **1**
- 262. Dia. of clutch plates **20.3** cm inches
- 263. Dia. of linings, inside **14.6** cm in. outside **20.3** cm in.
- 264. Method of operating clutch **MECHANICAL**

GEAR BOX (photograph H)

- 270. Method of operation **MANUAL, MAKE-ISUZU**
- 271. No. of gear-box ratios forward **4**
- 272. Synchronized forward ratios **3 (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		Ratio	Alternative manual/ automatic		No. teeth
	Ratio	No. teeth	Ratio	No. teeth		Ratio	No. teeth	
1	3.444	$\frac{28}{21} \times \frac{31}{12}$			3.444	$\frac{28}{21} \times \frac{31}{12}$		
2	2.133	$\frac{28}{21} \times \frac{32}{20}$			1.820	$\frac{28}{21} \times \frac{30}{22}$		
3	1.387	$\frac{28}{21} \times \frac{26}{25}$			1.280	$\frac{28}{21} \times \frac{25}{26}$		
4	1.000				1.000			
5								
6								
reverse	4.593	$\frac{28}{21} \times \frac{20}{12} \times \frac{31}{15}$			4.593	$\frac{28}{21} \times \frac{20}{12} \times \frac{31}{15}$		

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

FINAL DRIVE

- 290. Type of final drive **HYPOID BEVEL**
- 291. Type of differential **BEVEL**
- 292. Type of limited slip differential (if fitted) **MECHANICAL**
- 293. Final drive ratio **3.727 OR 4.111**
- Number of teeth **41/11 37/9**



F

Make

Model

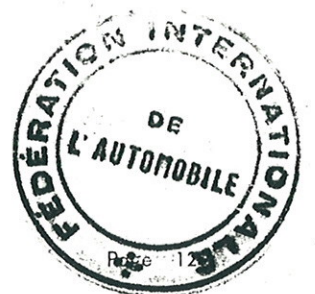
F. I. A. Rec. No

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, 201, 202, 203, 212, 213, 215, 216, 222, 225, 230, 236, 250, 251, 252, 253, 255 page 4. and photographs I, M and N,

During the scrutineering of 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.

~~30. HEATER~~ ~~DIESEL KIKI~~
~~RADIO~~ ~~MITSUBISHI~~
~~WINDSCREEN WASHER~~ ~~JIDOSHA DENKI~~
~~CARPET~~ ~~SUMINOH~~



F

Make ISUZU MOTORS LIMITED

Model ISUZU PR90

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

Osamu Hirao



F



JAPAN AUTOMOBILE FEDERATION F. I. A. Homol. No

1417 A/V

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

Amendment to Form of Recognition
in accordance with the International
Sporting Code.

Make ISUZU MOTORS LIMITED

Model ISUZU PR90(BELLETT 1600G.T.)

Modification's application starts with serial

No. chassis PR90-4201738

Application of this amendment started the

No. engine G160-3001738

Commercial denomination after application of modifications

The modifications are to be considered as: Variant/ ~~original evolution of the type~~

Date amendment is valid from 1st May '66 List 14/4

Description of amendment ORIGINAL F.I.A RECOGNITION No.1417

277	MANUAL		MANUAL		MANUAL	
	RATIO	No. TEETH	RATIO	No. TEETH	RATIO	No. TEETH
1.	3.746	$\frac{29 \times 31}{20 \times 12}$	3.053	$\frac{26 \times 31}{22 \times 12}$	3.170	$\frac{27 \times 31}{22 \times 12}$
2.	2.320	$\frac{29 \times 32}{20 \times 20}$	1.891	$\frac{26 \times 32}{22 \times 20}$	1.964	$\frac{27 \times 32}{22 \times 20}$
3.	1.508	$\frac{29 \times 26}{20 \times 25}$	1.330	$\frac{26 \times 27}{22 \times 24}$	1.276	$\frac{27 \times 26}{22 \times 25}$
4.	1.000		1.000		1.000	
REVER- SE	4.994	$\frac{29 \times 20 \times 31}{20 \times 12 \times 15}$	4.071	$\frac{26 \times 20 \times 31}{22 \times 12 \times 15}$	4.227	$\frac{27 \times 20 \times 31}{22 \times 12 \times 15}$

293

FINAL DRIVE RATIO
NUMBER OF TEETH

3.778 4.300 4.625
34/9 43/10 37/8

WHEELS

- 50. TYPE PRESSED STEEL
- 51. WEIGHT (PER WHEEL, WITHOUT TYRE) 6.5kg
- 52. METHOD OF ATTACHMENT 4 HUB-BOLTS & NUTS
- 53. RIM DIAMETER 356mm 14 inches
- 54. RIM WIDTH 102 or 114mm 4 or 4.5 inches.

Stamp and signature of
National Sporting Authority

Stamp and signature of F. I. A.

JAPAN AUTOMOBILE FEDERATION

Chairman

of Technical Sub-commission

Osamu Hirao

Osamu Hirao

