



FEDERATION INTERNATIONALE DU SPORT AUTOMOBILE

Homologation N°

N = 5420 N

FN-031

1990年8月31日

FICHE COMPLEMENTAIRE D'HOMOLOGATION EN GROUPE «N»
COMPLEMENTARY HOMOLOGATION FORM FOR GROUP «N»

Homologation valable à partir du **01 NOV. 1990** prononcée par
Homologation valid as from _____ decided by FISA

En complément de la fiche de Gr. A n° **5420**
In addition to the Gr. A from n° _____

IMPORTANT:

La présente fiche comporte toutes informations complémentaires à la fiche d'homologation de base de Gr. A pour la participation du véhicule en groupe «N». En cas d'information contradictoire, seule l'information figurant sur la présente fiche complémentaire est à prendre en considération pour le Groupe «N».

IMPORTANT:

This form includes all the additional information to the basic Group A homologation form for the participation of the vehicle in Group «N». In the case of contradictory information, only the information appearing on the present additional form is to be taken into consideration for Group «N».

1. DEFINITIONS

101. Constructeur Fuji Heavy Industries Ltd.
Manufacturer _____

102. Dénomination(s) commerciale(s) – Modèle et type SUBARU LEGACY SEDAN 2.2 4WD , BC
Commercial name(s) – Type and model _____

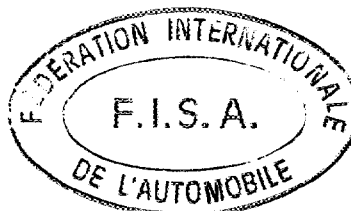
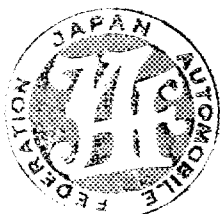
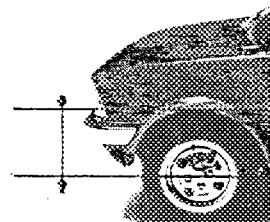
103. Cylindrée totale 2.212.4 cm³
Cylinder capacity _____

2. DIMENSIONS, POIDS / DIMENSIONS, WEIGHTS

201. Poids minimum 1.230 kg
Minimum weight _____

205. Hauteur minimum centre moyeu de roue /
ouverture du passage de roue
Minimum height center hub /
wheel arch opening

AV
Front 338 mm
AR
Rear 324 mm



Marque Fuji Modéle BC N° Homol. N-5420 **N**

207. Voie maximum AV 1,495 mm AR 1,485 mm
 Maximum track Front Rear

208. Garde au sol minimum X X X X mm Endroit de la mesure X X X X
 Minimum ground clearance Where measured

3. MOTEUR / ENGINE

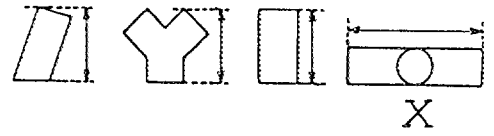
302. Nombre de supports 3
 Number of supports

308. Volume minimal total d'une chambre de combustion 60.79 cm³
 Total minimum volume of a combustion chamber

309. Volume minimum d'une chambre de combustion dans la culasse 41.10 cm³
 Minimum volume of a combustion chamber in the cylinderhead

310. Rapport volumétrique maximum (par rapport à l'unité) 9.8 : 1
 Maximum compression ratio (in relation with the unit)

311. Hauteur minimum du bloc-cylindres 401.0 mm
 Minimum height of the cylinder block



313. Chemises b) Matériau cast-iron
 Sleeves Material

317. Piston a) Matériau Aluminum alloy
 Piston Material

b) Nombre de segments 3 c) Poids minimum 558.0 g
 Number of rings Minimum weight

d) Distance de la médiane de l'axe au sommet du piston 33.3 ± 0.1 mm
 Distance from gudgeon pin center line to highest point of piston crown

e) Distance (+/-) entre le sommet du piston au PMH et le plan de joint du bloc-cylindre 0.3 ± 0.15 mm
 Distance (+/-) between the top of the piston at TDC and the gasket plane of the cylinderblock

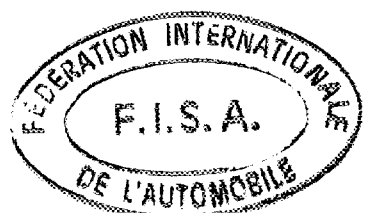
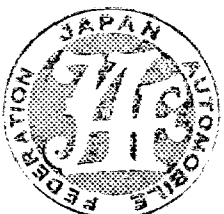
f) Volume de l'évidement du piston 13.3 ± 0.5 cm³
 Piston groove volume

319. Vilebrequin i) Diamètre maximum des manetons 52.0 mm
 Crankshaft Maximum diameter of big end journals

320. Volant moteur
 Flywheel
 c) Poids minimum avec couronne de démarreur et embrayage complet X X X X g
 Minimum weight of the flywheel with starter ring and complete clutch

321. Culasse: c) Hauteur minimum 97.7 mm
 Cylinderhead: Minimum height

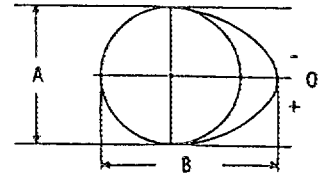
d) Endroit de la mesure From top to bottom of the cylinderhead
 Where measured



322. Epaisseur du joint de culasse serré 1.5 ± 0.2 mm
 Thickness of the tightened cylinderhead gasket 1.5 ± 0.2 mm

325. Arbre à cames e) Diamètre des paliers F 32.0, C 38.0, R 37.5, RR 32.0 mm
 Camshaft Diameter of bearings F 32.0, C 38.0, R 37.5, RR 32.0 mm

g) Dimensions de la came Admission: A = 34.0 ± 0.1 mm
 Cam dimensions Inlet: B = 38.4 ± 0.1 mm
 Echappement Exhaust: A = 34.0 ± 0.1 mm
B = 38.4 ± 0.1 mm



326. Distribution a) Jeu théorique pour la distribution Admission 0 mm Echappement 0 mm
 Timing Theoretical timing clearance Inlet 0 mm Exhaust 0 mm

b) Avance à l'ouverture (avec jeu théorique (326 a))
 Valves open at (with theoretical timing clearance (326 a))
 Admission 4 ± 1.0 ° avant/~~XXXX~~ PMH Echappement 48 ± 1.0 ° avant/~~XXXX~~ PMB
 Inlet 4 ± 1.0 ° before/~~XXXX~~ TDC Exhaust 48 ± 1.0 ° before/~~XXXX~~ BDC

c) Retard à la fermeture (avec jeu théorique (326 a))
 Valves closes at (with theoretical timing clearance (326 a))
 Admission 52 ± 1.0 ° ~~XXXX~~/après PMB Echappement 12 ± 1.0 ° ~~XXXX~~/après PMH
 Inlet 52 ± 1.0 ° ~~XXXX~~/after BDC Exhaust 12 ± 1.0 ° ~~XXXX~~/after TDC

d) Levée de came en mm (arbre démonté) (dessin/drawing art. 325)
 Cam lifts in mm (dismounted camshaft)

Admission / Inlet

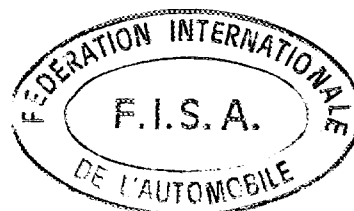
$$0 = 4.4 \pm 0.2 \text{ mm}$$

- 5° = <u>4.4 ± 0.2</u> mm	+ 5° = <u>4.3 ± 0.2</u> mm
- 10° = <u>4.2 ± 0.2</u> mm	+ 10° = <u>4.2 ± 0.2</u> mm
- 15° = <u>3.9 ± 0.2</u> mm	+ 15° = <u>3.8 ± 0.2</u> mm
- 30° = <u>2.3 ± 0.2</u> mm	+ 30° = <u>2.1 ± 0.2</u> mm
- 45° = <u>0.4 ± 0.2</u> mm	+ 45° = <u>0.3 ± 0.2</u> mm
- 60° = <u>0.1 ± 0.2</u> mm	+ 60° = <u>0.1 ± 0.2</u> mm
- 75° = <u>0 ± 0.2</u> mm	+ 75° = <u>0 ± 0.2</u> mm
- 90° = <u>0 ± 0.2</u> mm	+ 90° = <u>0 ± 0.2</u> mm
- 105° = <u>0 ± 0.2</u> mm	+ 105° = <u>0 ± 0.2</u> mm
- 120° = <u>0 ± 0.2</u> mm	+ 120° = <u>0 ± 0.2</u> mm
- 135° = <u>0 ± 0.2</u> mm	+ 135° = <u>0 ± 0.2</u> mm
- 150° = <u>0 ± 0.2</u> mm	+ 150° = <u>0 ± 0.2</u> mm

Echappement / Exhaust

$$0 = 4.4 \pm 0.2 \text{ mm}$$

- 5° = <u>4.4 ± 0.2</u> mm	+ 5° = <u>4.4 ± 0.2</u> mm
- 10° = <u>4.2 ± 0.2</u> mm	+ 10° = <u>4.2 ± 0.2</u> mm
- 15° = <u>3.9 ± 0.2</u> mm	+ 15° = <u>3.9 ± 0.2</u> mm
- 30° = <u>2.4 ± 0.2</u> mm	+ 30° = <u>2.2 ± 0.2</u> mm
- 45° = <u>0.4 ± 0.2</u> mm	+ 45° = <u>0.4 ± 0.2</u> mm
- 60° = <u>0.1 ± 0.2</u> mm	+ 60° = <u>0.1 ± 0.2</u> mm
- 75° = <u>0 ± 0.2</u> mm	+ 75° = <u>0 ± 0.2</u> mm
- 90° = <u>0 ± 0.2</u> mm	+ 90° = <u>0 ± 0.2</u> mm
- 105° = <u>0 ± 0.2</u> mm	+ 105° = <u>0 ± 0.2</u> mm
- 120° = <u>0 ± 0.2</u> mm	+ 120° = <u>0 ± 0.2</u> mm
- 135° = <u>0 ± 0.2</u> mm	+ 135° = <u>0 ± 0.2</u> mm
- 150° = <u>0 ± 0.2</u> mm	+ 150° = <u>0 ± 0.2</u> mm



e) Levée de soupape en mm avec jeu théorique de distribution (art. 326 a)
 Valve lift in mm with theoretical timing clearance (art. 326 a)

Admission / Inlet

Echappement / Exhaust

Art. 326 b) = 2 avant/après ~~PMH~~ ~~TDC~~ PMH
 before/after ~~TDC~~ TDC = 0.0 mm

+ 20°	= 0.6 ± 0.2 mm
+ 40°	= 2.5 ± 0.2 mm
+ 60°	= 4.9 ± 0.2 mm
+ 80°	= 6.7 ± 0.2 mm
+ 100°	= 7.8 ± 0.2 mm
+ 120°	= 8.0 ± 0.2 mm
+ 140°	= 7.4 ± 0.2 mm
+ 160°	= 5.9 ± 0.2 mm
+ 180°	= 3.8 ± 0.2 mm
+ 200°	= 1.4 ± 0.2 mm
+ 220°	= 0.3 ± 0.2 mm
+ 240°	= 0.2 ± 0.2 mm
+ 260°	= 0.1 ± 0.2 mm
+ 280°	= 0 ± 0.2 mm
+ 300°	= 0 ± 0.2 mm
+ 320°	= 0 ± 0.2 mm
+ 340°	= 0 ± 0.2 mm
+ 360°	= 0 ± 0.2 mm

Art. 326 b) = 46 avant/après ~~PMB~~ ~~BDC~~ PMB
 before/after ~~BDC~~ BDC = 0.0 mm

+ 20°	= 0.6 ± 0.2 mm
+ 40°	= 2.5 ± 0.2 mm
+ 60°	= 4.9 ± 0.2 mm
+ 80°	= 6.7 ± 0.2 mm
+ 100°	= 7.8 ± 0.2 mm
+ 120°	= 8.1 ± 0.2 mm
+ 140°	= 7.6 ± 0.2 mm
+ 160°	= 6.2 ± 0.2 mm
+ 180°	= 4.2 ± 0.2 mm
+ 200°	= 1.9 ± 0.2 mm
+ 220°	= 0.4 ± 0.2 mm
+ 240°	= 0.2 ± 0.2 mm
+ 260°	= 0 ± 0.2 mm
+ 280°	= 0 ± 0.2 mm
+ 300°	= 0 ± 0.2 mm
+ 320°	= 0 ± 0.2 mm
+ 340°	= 0 ± 0.2 mm
+ 360°	= 0 ± 0.2 mm

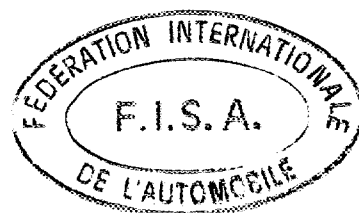
327. Admission h) Nombre de ressorts par soupape
 Inlet Number of springs per valve

1

i) Caractéristiques des ressorts: Sous une charge de	<u>8.4</u> kg, la longueur max. du ressort est de	<u>31.5</u> mm
(in) Spring characteristics: Under a load of	<u>8.4</u> kg, the max. length of the spring is	<u>31.5</u> mm
Caractéristiques des ressorts: Sous une charge de	<u>21.0</u> kg, la longueur max. du ressort est de	<u>35.0</u> mm
(out) Spring characteristics: Under a load of	<u>21.0</u> kg, the max. length of the spring is	<u>35.0</u> mm
k) Diamètre extérieur des ressorts	Exterior diameter of the springs	<u>28.5 ± 0.2</u> mm
m) Diamètre du fil des ressorts	Diameter of spring wire	<u>4.3 ± 0.1</u> mm
l) Nombre de spires des ressorts	Number of spring coils	<u>7.1</u>
n) Longueur libre maximum des ressorts	Maximum free length of the springs	<u>41.7</u> mm

328. Echappement
 Exhaust

c) Diamètre de(s) sortie(s) du collecteur	Diameter of the manifold exit(s)	<u>46.5 ± 1.0</u> mm
k) Caractéristiques des ressorts: Sous une charge de	Spring characteristics: Under a load of	<u>21.0</u> kg, the max. length of the spring is <u>35.0</u> mm
l) Diamètre extérieur des ressorts	Exterior diameter of the springs	<u>28.5 ± 0.2</u> mm
n) Diamètre du fil des ressorts	Diameter of spring wire	<u>4.3 ± 0.1</u> mm
i) Nombre de ressorts par soupape	Number of springs per valve	<u>1</u>
m) Nombre de spires des ressorts	Number of spring coils	<u>7.1</u>
o) Longueur libre maximum des ressorts	Maximum free length of the springs	<u>41.7</u> mm



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329. Système anti-pollution a) oui/~~XXX~~
Anti pollution system Yes/~~XXX~~
b) Description
Description Catalitic converter with O₂ feedback

330. Système d'allumage d) Nombre de bobines
Ignition system Number of coils 1

331. Capacité du circuit de refroidissement
Cooling system capacity 6.0 L

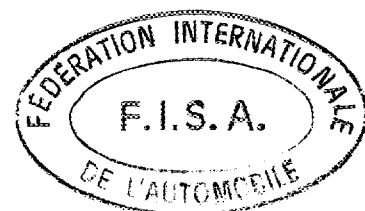
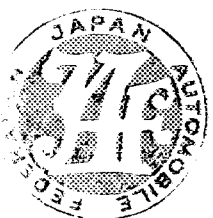
332. Ventilateur de refroidissement a) Nombre
Cooling fan Number 1 b) Diamètre de l'hélice
Diameter of the screw 350 mm
c) Matériau de l'hélice d) Nombre de pales
Material of the screw Polypropylene Number of blades 5
e) Type de connexion f) Ventilateur débrayable oui/~~XXX~~
Type of connexion Electrical Automatic cut in yes/~~XXX~~

333. Système de lubrification c) Capacité totale
Lubrification system Total capacity 4.5 L
d) Radiateur(s) d'huile oui/~~XXX~~ Nombre
Oil radiator(s) yes/~~XXX~~ Number 1
e) Emplacement du/des radiateurs
Position of the radiator(s) Between the cylinder block and the oil filter

4. CIRCUIT DE CARBURANT / FUEL CIRCUIT

401. Réservoir e) Emplacement des orifices
Fuel tank Filler holes location Rearward on the righthand

402. Pompe(s) à essence a) Electrique Mécanique
Fuel pump(s) Electrical Mechanical
b) Nombre c) Marque et type Make: NIHONDENSHIKIKI
Number 1 Make and type Type: Electrical
d) Emplacement e) Débit maximum
Location In the fuel tank Maximum flow 3.17 l/mn



Marque Fuji Modèle BC N° Homoi. N-5420 N
 Make Fuji Model BC N° Homoi. N-5420 N

5. EQUIPEMENT ELECTRIQUE / ELECTRICAL EQUIPEMENT

501. Batterie(s) b) Tension 12 V c) Emplacement
 Battery(ies) Tension 12 V Location In the engine compartment

502. Génératrice(s) a) Nombre 1
 Generator(s) Number 1
 b) Type Alternator c) Système d'entraînement Belt
 Type Alternator Drive system Belt

503. Phares escamotables: a) ~~XX~~/non b) Système de commande XXXX
 Retractable headlights: ~~XX~~/no Drive system XXXX

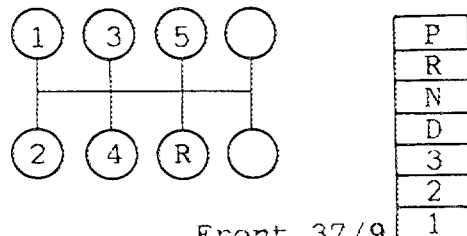
6. TRANSMISSION / DRIVE

602. Embrayage a) Type Dry d) Diamètre du(des) disque(s)
 Clutch Type Dry Diameter of the plate(s) 225 ± 2.0 mm

603. Boîte de vitesse
 Gearbox
 e) rapports ratios

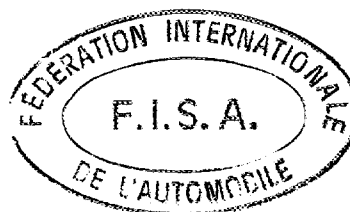
	Manuelle / Manual			Automatique / Automatic		
	rappports ratio	nombre de dents/ number of teeth	synchro.	rappports ratio	nombre de dents/ number of teeth	synchro.
1	3.545	39/11	X	2.785	75 1+42	
2	1.947	37/19	X	1.545	75/33+75/42+1 75/33+1	
3	1.366	41/30	X	1.000	—	
4	0.972	35/36	X	0.694	75/33 75/33+1	
5	0.738	31/42	X	—	—	
AR/R	3.416	41/12		2.272	75/33	
Constante	—	—		1.000	53/53	

f) Grille de vitesse
 Gear change gate



605. Couple final b) Rapport Front 4.111
 Final drive Ratio Rear 4.111

c) Nombre de dents Front 37/9
 Number of teeth Rear 37/9



Marque Fuji
 Make _____

Modèle BC
 Model _____

N° Homol. N-5420 **N**

7. SUSPENSION / SUSPENSION

702. Ressorts hélicoïdaux
Helical springs

- a) Matériau
Material
- b) Type progressif
Progressive type
- c) Longueur libre minimale
Minimal free length
- d) Nombre de spires
Number of coils
- e) Diamètre du fil
Diameter of the wire
- f) Diamètre extérieur
Exterior diameter

AV / Front	AR / Rear
Steel	Steel
XXXXX	XXXXX
XXXXX	XXXXX
X X X X _____ mm	X X X X _____ mm
X X X X _____ mm	X X X X _____ mm
X X X X _____ mm	X X X X _____ mm
X X X X _____ mm	X X X X _____ mm

g) Caractéristiques des ressorts: Sous une charge de XXX kg, la longueur min. du ressort AV est de XXX mm
 Spring characteristics: Under a load of XXX kg, the min. length of the front spring is XXX mm
 Sous une charge de XXX kg, la longueur min. du ressort AR est de XXX mm
 Under a load of XXX kg, the min. length of the rear spring is XXX mm

703. Ressorts à lames
Leaf springs

A = Lame maîtresse / X = lame auxiliaire
 2 = 2è lame / 3 = 3è lame / 4 = 4è lame / 5 = 5è lame

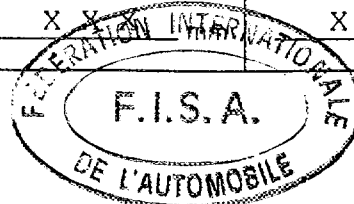
A = major leaf / X = auxiliary leaf
 2 = 2nd leaf / 3 = 3rd leaf / 4 = 4th leaf / 5 = 5th leaf

- a) Matériau
Material
- b) Nombre d'étriers
Number of spring hangers
- c) Longueur libre minimum
Minimum free length
- d) Largeur maximum
Maximum width
- e) Epaisseur
Thickness
- f) Courbure verticale maximale
Maximum vertical curve

A	2	3
X X X _____	X X X _____	X X X _____
X X X _____	X X X _____	X X X _____
X X X _____ mm	X X X _____ mm	X X X _____ mm
X X X _____ mm	X X X _____ mm	X X X _____ mm
X X X _____ mm	X X X _____ mm	X X X _____ mm
X X X _____ mm	X X X _____ mm	X X X _____ mm

- a) Matériau
Material
- b) Nombre d'étriers
Number of spring hangers
- c) Longueur libre minimum
Minimum free length
- d) Largeur maximum
Maximum width
- e) Epaisseur
Thickness
- f) Courbure verticale maximale
Maximum vertical curve

4	5	X
X X X _____	X X X _____	X X X _____
X X X _____	X X X _____	X X X _____
X X X _____ mm	X X X _____ mm	X X X _____ mm
X X X _____ mm	X X X _____ mm	X X X _____ mm
X X X _____ mm	X X X _____ mm	X X X _____ mm
X X X _____ mm	X X X _____ mm	X X X _____ mm



Marque fuji
 Make _____

Modèle BC
 Model _____

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 N° Homol. _____ **N**

704. Barre de torsion
Torsion bar

- a) Longueur efficace
 Effective length
 mesurée de:
 measured from:
 à:
 to:
- b) Diamètre efficace
 Effective diameter
 mesuré à:
 measured at:
- c) Matériau
 Material

AV / Front	AR / Rear
_____ X X X _____ mm	_____ X X X _____ mm
_____ X X X _____	_____ X X X _____
_____ X X X _____	_____ X X X _____
_____ X X X _____ mm	_____ X X X _____ mm
_____ X X X _____	_____ X X X _____
_____ X X X _____	_____ X X X _____

706. Stabilisateur
Stabilizer

- a) Longueur efficace
 Effective length
- b) Diamètre efficace
 Effective diameter
- c) Matériau
 Material

AV / Front	AR / Rear
_____ 1,066.4 ± 1% _____ mm	_____ 1,134.0 ± 1% _____ mm
_____ 18.0 _____ mm	_____ 16.0 _____ mm
_____ Steel _____	_____ Steel _____

707. Amortisseurs
Shock absorbers

- d) Diamètre extérieur
 Exterior diameter
- e) Assiette du ressort réglable
 Adjustable spring trim
~~XX~~/non
~~XX~~/no
- f) Distance assiette-fixation
 Distance trim-monitoring
- g) Diamètre de la tige de piston
 Diameter of the piston rod

AV / Front	AR / Rear
_____ X X X X _____ mm	_____ X X X X _____ mm
XX /non XX /no	XX /non XX /no
_____ X X X X _____ mm	_____ X X X X _____ mm
_____ X X X X _____ mm	_____ X X X X _____ mm



Marque Fuji
 Make _____

Modèle BC
 Model _____

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8. TRAIN ROULANT / RUNNING GEAR

**801. Roues
 Wheels**

- a) Diamètre
 Diameter
- b) Largeur
 Width
- c) Marque et type
 Make and type
- d) Matériau
 Material
- e) Poids unitaire
 Unitary weight
- f) Dépot entre plan de montage
 et extrémité intérieure
 Offset between mounting
 and extreme inner face

AV / Front	AR / Rear	Secours / Spare
<u>14</u> "	<u>14</u> "	<u>14</u> "
<u>356</u> mm	<u>356</u> mm	<u>356</u> mm
<u>5.5</u> "	<u>5.5</u> "	<u>5.5</u> "
<u>140</u> mm	<u>140</u> mm	<u>140</u> mm
<u>X X X</u>	<u>X X X</u>	<u>X X X</u>
<u>X X X</u>	<u>X X X</u>	<u>X X X</u>
<u>X X X</u> kg	<u>X X X</u> kg	<u>X X X</u> kg
<u>X X X</u> mm	<u>X X X</u> mm	<u>X X X</u> mm

**802. Emplacement de la roue de secours
 Location of the spare wheel**

Behind the rear seat

9. CARROSSERIE / BODYWORK

**901. Intérieur
 Interior**

c) Climatisation ~~XX~~/non
 Air conditioning ~~XX~~/no

- d) Sièges
 Seats
- d1) Type
 Type
- d2) Appuie-tête
 Headrest
- d3) Poids
 Weight

AR / Rear	AV / Front
<u>Bench</u>	<u>Separate</u>
XX /non XX /no	oui/ XX yes/ XX
<u>10.2 ±1.0</u> kg	<u>13.5 ±1.0</u> kg

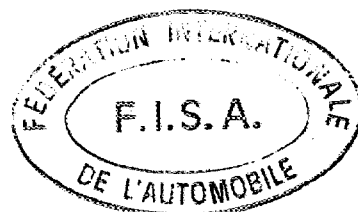
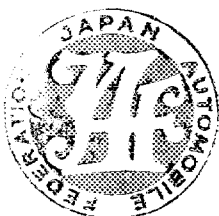
d4) Siège AR rabattable ~~XX~~/non
 Car rear seat be folded ~~XX~~/no

e) Plage arrière oui/~~XX~~
 Rear ledge yes/~~XX~~

e1) Matériau Cloth
 Material _____

**902. Extérieur
 Exterior**

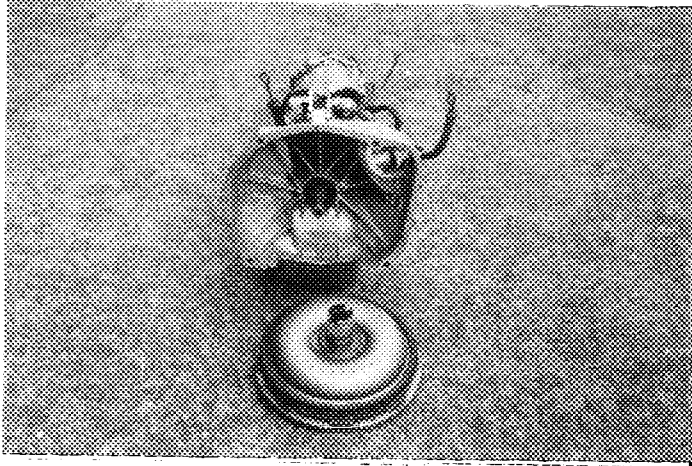
n) Essuie-glace AR ~~XX~~/non
 Rear wiper ~~XX~~/no



COMPLEMENTARY INFORMATION

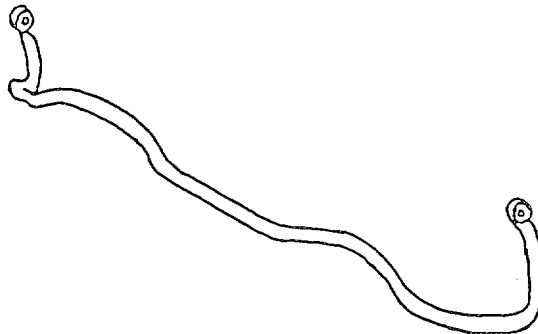
JAF公認番号

(1) Photo CC) Complete clutch of automatic gear-box



(2) 706 Drawing of the stabilizer

Front stabilizer



Rear stabilizer

