

# INTRODUCTION OF DATSUN 280Z MODEL S30 SERIES (1976 MODEL)



NISSAN MOTOR CO., LTD. TOKYO, JAPAN

## FOREWORD

This Service Bulletin has been prepared for the purpose of introducing the construction features and performance characteristics of the 1976 280Z and 280Z 2+2 models.

These two models continue to use the same basic exterior design features. As regards the interior design, major changes have not been made. However, a voltmeter has been added, the warning lamps have been rearranged, the shoulder belt mounting has been relocated and an instrument panel under cover has been added.

This Service Bulletin incorporates only the descriptions and specifications of modified parts and newly designed mechanisms. Items continued from the present models are not discussed. *Unless specifically noted, new parts are not interchangeable with the former parts.* 

This Service Bulletin is applicable to the following car serial numbers:

HLS30	270001
GHLS30	030001

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GENERAL SPECIFICATIONS	

Body Color Number	Body Color	Upholstery Color
110*	Red	Black/Beige
214	Brown Metallic	Black/Coffee Brown
301	Bronze Metallic	Black/Coffee Brown
302	Leaf Green Metallic	Black/Beige/Coffee Brown
240	Green Metallic	Black/Beige/Coffee Brown
304	Gold Metallic	Black/Beige/Coffee Brown
305	Light Blue Metallic Black/Beige	
306	Silver Metallic	Black/Coffee Brown
307	Blue Metallic	Black/Beige
216	White	Black/Coffee Brown

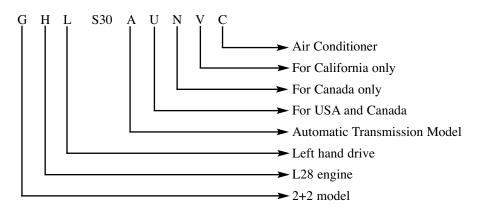
Notes: a. Paint finish consists of two coats and one bake except for those marked with an asterisk, which indicates one coat and one bake.

b. The black cloth upholstery color is optionally available for all body colors on Canada models.

# **MODEL VARIATION**

Dest	tination	Class	Model	Engine	agine Transmission Model Tire Size Differential Ge					
					Widdei		Model	Gear Ratio		
		2-seater	HLS30U		F4W71B	175HR-14 195/70HR-14*	R200			
	All areas except	2-30at01	HLS30AU		3N71B			3.545		
	California		GHLS30U		F4W71B					
U.S.A.			HLS30AU		3N71B					
0.S.A.		2-seater	HLS30UV	L28	F4W71B					
	California		HLS30AUV		3N71B					
	Camorina	2+2	GHLS30U		F4W71B					
						GHLS30AUV		3N71B		
		2-seater	HLS30UN		F4W71B					
	anada	2 500101	GHLS30AUN		3N71B					
	unuuu	2+2	GHLS30UN		F4W71B					
			GHLS30AUN		3N71B					

\*steel radial with tube



# **EQUIPMENT VARIATION**

O — Standard Equipment Opt. — Optional Equipment No — Not Available

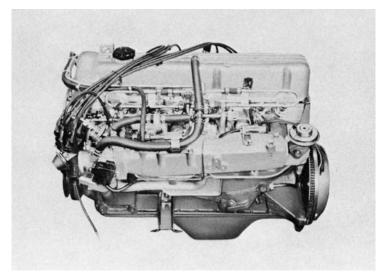
Applied Model Item	HLS30U HLS30UV GHLS30U GHLS30UV	HSL30AU HLS30AUV GHLS30AU GHLS30AUV	HLS30UN GHLS30UN	HLS30AUN GHLS30AUN
ENGINE				
Crankcase emission control	0	0	0	0
Exhaust emission control	0	0	0	0
Air injection system	0	0	0	0
Exhaust gas recirculation system	0	0	0	0
Evaporative emission control	0	0	0	0
Permanent anti-freeze coolant	0	0	0	0
Fan-coupling	0	0	0	0
Alternator 60A	0	0	0	0
Battery 60AH (USA only)	0	0	No	No
65AH	No	No	0	0
CHASSIS				
Collapsible Steering	О	0	о	О
Disc brake (front)	0	0	О	О
NP valve	0	0	0	0
Tire 175HR14-4 (tubeless, white)	0	0	0	0
195/70HR14 (with tube)	Opt.	Opt.	Opt.	Opt.
BODY				
Windshield glass anti-sun laminate	0	0	0	0
Seat belt anchorage	0	0	0	0
(Emergency locking retractor)	-			-
Front 3 points x 2	О	0	О	0
(Automatic locking retractors)	-	-	-	
Rear 2 points x 2	О	0	о	О
Door lock (both sides)	0	0	0	0
Inside & outside (left hand) back mirror	0	0	0	0
Front ashtray (center console)	0	0	0	О

Applied Model Item	HLS30U HLS30UV GHLS30U GHLS30UV	HSL30AU HLS30AUV GHLS30AU GHLS30AUV	HLS30UN GHLS30UN	HLS30AUN GHLS30AUN
Steering lock w/anti-theft warning buzzer	0	0	0	0
Full reclining seat	0	0	0	0
Console box	0	0	0	0
Seat belts (warning buzzer for driver and assistant seats)	Ο	0	0	Ο
Head restraints	0	0	0	0
Two sun visors	0	0	0	0
Floor carpet	0	0	0	0
Arm rests	0	0	0	0
Seat belt warning lamp	0	0	0	0
Hazard warning switch (4-way flasher)	0	0	0	0
Double horn	0	0	0	0
Wiper (Intermittent + two speeds)	0	0	0	0
Heater: Standard type	0	0	No	No
High capacity	No	No	0	0
Air conditioner	Opt.	Opt.	Opt.	Opt.
Cigarette lighter	0	0	0	0
Radio: AM + FM	0	0	0	0
Clock + tachometer	0	0	0	0
Door switch	0	0	0	0
Side marker lights	0	0	0	0
Washer	0	0	0	0
Rear defogger	0	О	0	Ο

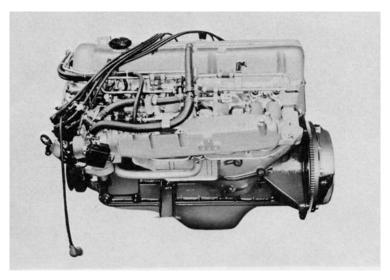
# ENGINE

### SIDE VIEWS

LEFT VIEWS

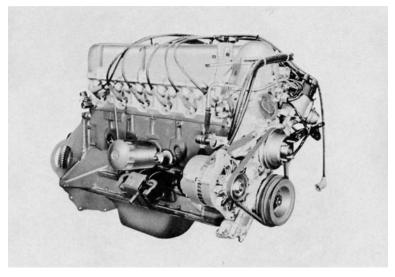


California model



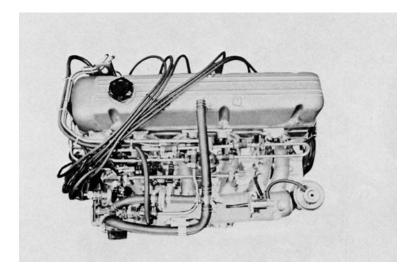
Non-California model

#### **RIGHT VIEW**

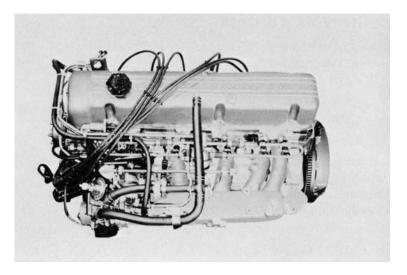


All models

#### **TOP VIEWS**



California model



Non-California model

### **ENGINE PROPER**

#### PISTONS

To provide better contact with the cylinder wall, piston profile has been slightly modified. The new and former parts interchangeable.



#### CYLINDER HEAD INTAKE VALVE SEATS

The material has been changed to increase endurance reliability. The new and former parts are interchangeable.

#### **INTAKE MANIFOLD**

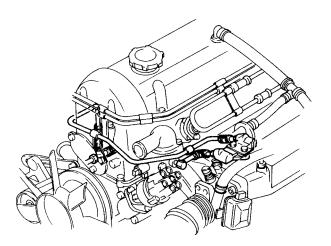
The following modifications have been effected:

- For California models, the exhaust gas recirculation (EGR) passage has been eliminated. This modification has already been effected on 1975 models.
- The seating surface of the cold start valve has been lowered by 0.276" (7mm).
- The boss for the canister purge and the seating surface of the air regulator have also been lowered by 0.276" (7mm).

#### AIR REGULATOR WARMUP SYSTEM

To improve engine warmup performance and operating characteristics, the air regulator is now warmed by coolant, as well as by the electric heater bimetal as was previously done. Because of this modification, the air regulator valve opening now responds to the coolant temperature.

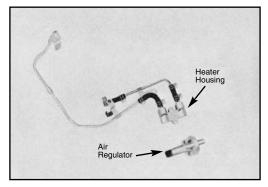
In operation, the coolant from the thermostat housing is directed into the heater housing located between the air regulator and intake manifold and then is flowed back into the cylinder head. Since the water outlet in the thermostat housing is lower than the thermostat, the warm coolant around the cylinder head flows into the heater housing even when the thermostat is closed.



#### **HEATER HOUSING**

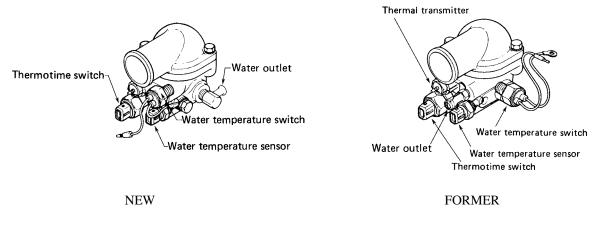
In order to warm the air regulator, a heater housing has been installed on the intake manifold directly under the air regulator. Inlet and outlet coolant lines have also been added between the heater housing and thermostat housing. These coolant lines are composed of two steel pipes with rubber hose.

The air regulator seating surface on the intake manifold has been lowered by 0.276" (7mm) to accommodate the heater housing.



#### THERMOSTAT HOUSING

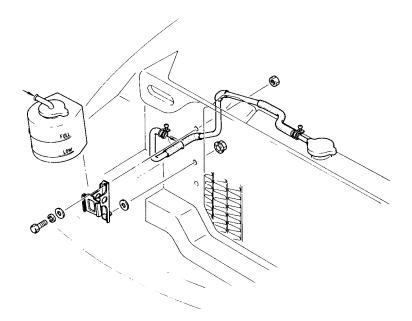
The location of the water outlet and the water temperature switch in the thermostat has been interchanged in order to utilize the water outlet as a coolant line to the heater housing. The water outlet is now located on the left side of the thermostat housing, and the water temperature switch is now located on the the front.



#### **RADIATOR RESERVOIR TANK (except Canada)**

For increased cooling efficiency, a new radiator reservoir tank has been installed on all except those cars destined for Canada.

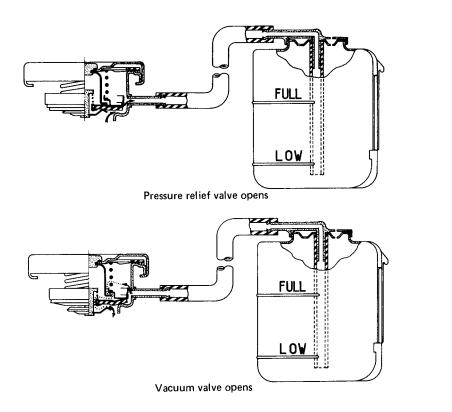
This reservoir tank is mounted to the right-hand side radiator core support through the bracket.



CO065

#### Operation

When the coolant temperature in the radiator rises and pressure builds up to an extent, the pressure relief valve provided in the radiator cap opens to release excess coolant into the reservoir tank. When the coolant temperature lowers and pressure decreases in the radiator, the vacuum valve provided in the radiator cap opens to allow the coolant to re-enter the radiator.



CO064

CO063

#### **Service Notice**

When checking and replenishing coolant, follow this procedure:

Visually check the amount of coolant in the reservoir tank. If the coolant level is below the LOW level, remove the reservoir tank filler cap and add enough coolant to reach that level.

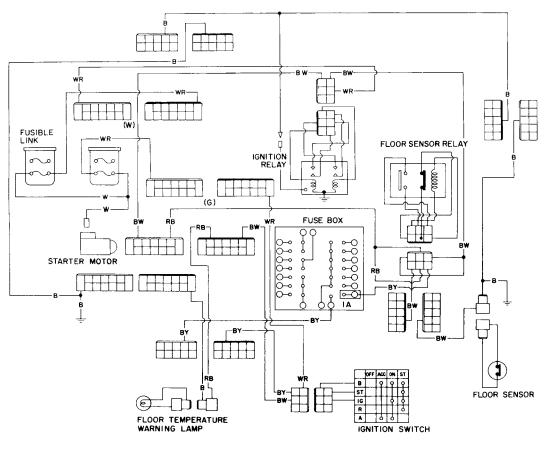
If the reservoir tank is empty, check the coolant level in the radiator. If the coolant in the radiator is insufficient, fill radiator until coolant level is 1" (25mm) below radiator cap. Also fill reservoir tank to the LOW level mark.

If you notice an abnormally rapid decrease in the reservoir tank coolant level, check for leaks in the cooling system.

#### **EMISSION CONTROL**

#### FLOOR TEMPERATURE WARNING SYSTEM

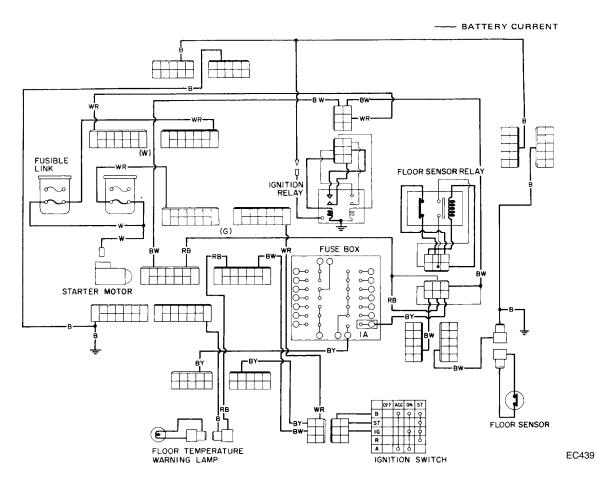
To accommodate the new ignition relay and modified body side harnesses, the wiring of the floor temperature warning system has been revised as shown in the illustration below.



EC438

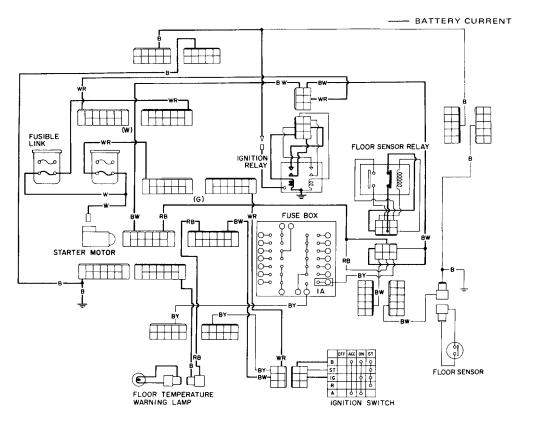
#### OPERATION

The following illustrations depict the operation modes of the floor temperature warning system.



Lamp comes on while starter switch is in the ON position.

EC440

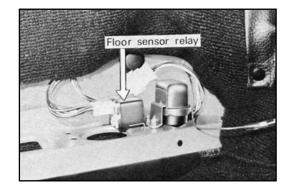


Lamp comes on when floor temperature sensor is OFF

The operation of the floor temperature warning system and the location and operating temperature specifications of the floor sensor remain the same.

#### FLOOR SENSOR RELAY

Due to the elimination of the catalyzer warning system, the floor temperature relay has been relocated and its mounting on the seat mounting bracket modified.



#### FLOOR TEMPERATURE WARNING LAMP

The location has been changed as shown in the following illustrations.



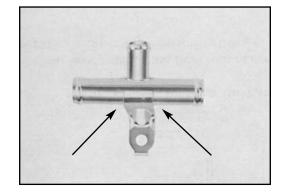
New



Former

#### **T-CONNECTOR BLOWBY HOSE**

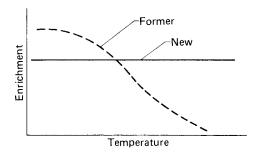
The connector has been slightly bent downward.



#### **ENGINE FUEL**

#### **CONTROL UNIT**

To improve driving performance, the "after-start enrichment" has been kept constant regardless of the temperature variation. The dampening characteristic with the elapse of time remains the same.



#### **FUEL LINES**

#### 1. Fuel rubber hoses

A summary of modifications is presented in the following chart:

① Fuel tank to pump rubber hose

The same basic conventional type has been carried over from the 1975 model.

② Fuel pump to fuel pipe rubber hose

3 Fuel pipe to damper rubber hose

The fuel pump and fuel damper are now connected by two-braid,

nitrile rubber hoses 2 and 3 with a steel pipe between.

The length of rubber hoses <sup>(2)</sup> and <sup>(3)</sup> is 1.713" (43.5 mm).

Formerly, they were connected by a mold-type conventional rubber hose.

④ Fuel damper to feed pipe rubber hose

The rubber hose is of a two-braid, nitrile design.

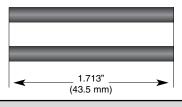
(5) Feed pipe to fuel filter rubber hose

To accommodate the longer fuel feed pipe, the feed-pipe-to-fuel-filter rubber hose has been shortened by 1.890" (48 mm) from 7.09" (180 mm). This hose is of a two-braid, flourine design to increase durability.

- 6 Fuel filter to fuel pipe A rubber hose
- ⑦ Fuel pipe A to fuel pipe B rubber hose
- 8 Fuel pipe A to fuel pipe C rubber hose
- 9 Fuel pipe C to pressure regulator rubber hose
- <sup>(1)</sup> Pressure regulator to fuel pipe B rubber hose
- (1) Pressure regulator to fuel return pipe A rubber hose
- D Fuel pipe A to fuel pipe D rubber hose
- <sup>(3)</sup> Fuel pipe D to cold start valve rubber hose

For increased durability, rubber hoses (6) through (3) have been changed to a two-braid, flourine type.

The length of rubber hoses O through B is 1.713" (43.5 mm).



(1) Injector rubber hose

The Bosch<sup>®</sup> injector is again equipped with its rubber hose. Hose diameter: 0.531" (13.5 mm)

(B) Fuel return pipe A to return pipe rubber hose

The rubber hose is of a nitrile, two-braid type.

#### <sup>(6)</sup> Fuel return pipe to fuel tank rubber hose

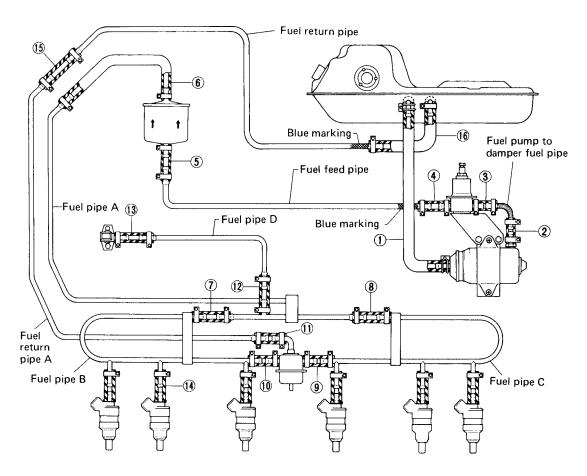
For increased durability, a two-braid, nitrile rubber hose has replace the former conventional hose.

- *<u>NOTE</u>*: **1.** Two-braid nitrile rubber hoses can be distinguished from the two-braid flourine rubber hose by a white mark on them. The flourine rubber hose has a yellow mark on the surface
  - 2. Rubber hose diameter (except ① and ④ above is 0.618" (15.7 mm)

#### 2. Fuel Pipes

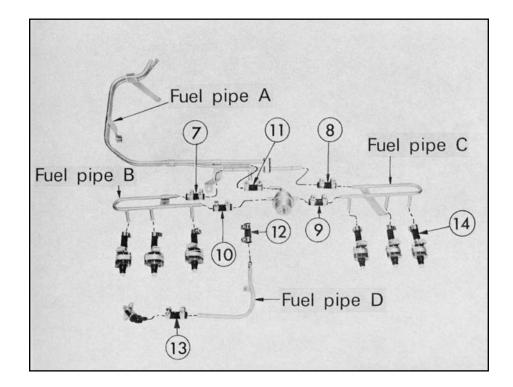
- *Fuel-pump-to-damper fuel pipe* A combination of steel pipes and rubber hoses has replaced the previous mold-type rubber hose
- Fuel feed pipe

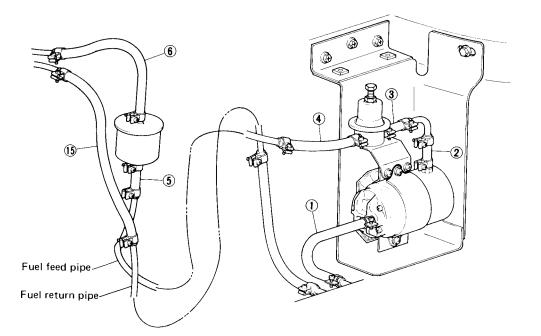
Due to the increase in length of the hose between the fuel damper and fuel filter, the fuel-feed-pipe-to-fuel-filter rubber hose has been lengthened.



Interchangeability:

- Rubber hoses which have been changed in material are interchangeable with former parts.
- Rubber hoses and steel pipes which have been changed in length are interchangeable with former parts as an assembly

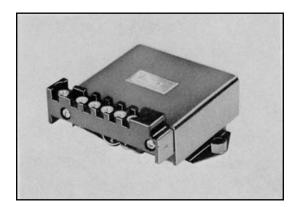




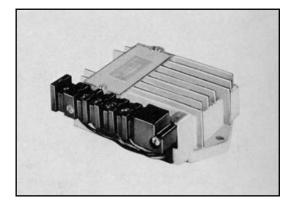
### **TRANSISTOR IGNITION UNIT (California model)**

To improve productivity, a circuit in the transistor ignition unit has partially been changed with a modified external appearance.

Interchangeability: Yes



New



Former

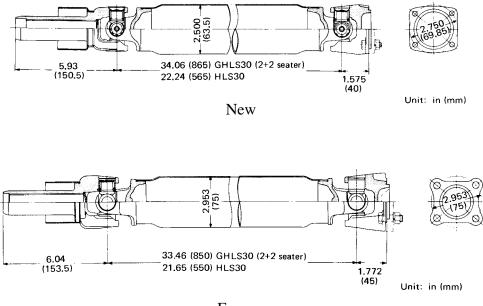
### **CHASSIS**

#### **PROPELLER SHAFT**

To reduce weight of the propeller shaft, the size of the propeller shaft joint and tube has been modified. For details, refer to the following illustrations.

The journal bearing is of a stake retention type and cannot be disassembled.

The new and former parts are NOT INTERCHANGEABLE due to difference in joint size.



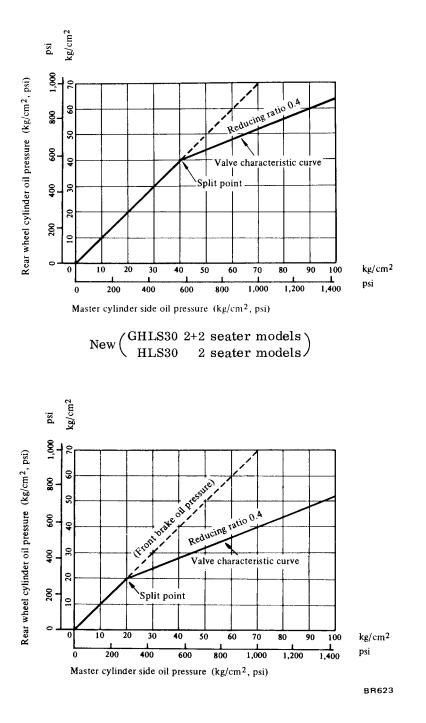
Former

#### **DIFFERENTIAL CARRIER**

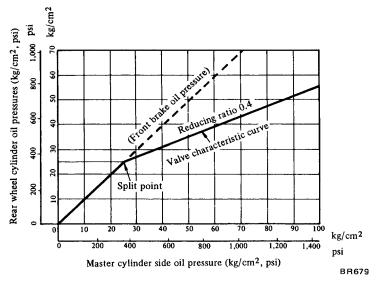
Along with the new propeller shaft joint, the size of the joint for the R200 differential carrier has been changed. The new and former parts are not interchangeable.

#### **NP VALVE**

The NP valves for the GHLS30 2+2 seater and HLS30 two-seater models are now common to each other as shown in the following illustrations.



Former (HLS30 2 seater models)



Former (GHLS30 2+2 seater models)

Formerly they were different in operating performance characteristics.

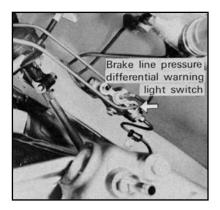
#### BRAKE LINE PRESSURE DIFFERENTIAL WARNING LIGHT SWITCH

The new warning device differs in operation from the former as described below:

The circuit is designed in such a way that the warning lamp remains on even when the brake pedal is released—as long as a hydraulic failure (low pressure) exists in either the front or rear brake line. The lamp goes out only after trouble has been eliminated.

In the former design, the warning lamp went out upon release of the brake pedal. The new and former parts are interchangeable.

This warning light will come on when the pressure differential between the front and rear brake lines is higher than 71 p.s.i. (5.0 kg/cm<sup>2</sup>), or lower than 244 p.s.i. (15.75 kg/cm<sup>2</sup>).



If a pressure differential occurs between these two systems, the valve will shuttle toward the low pressure side.

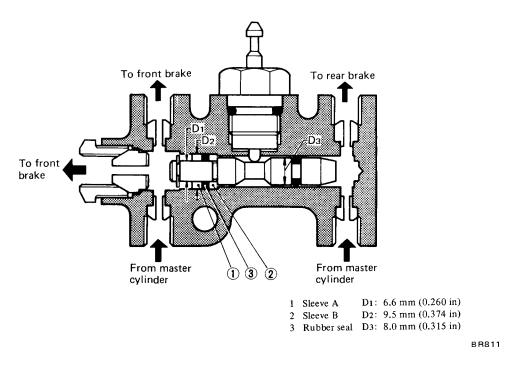
The valve comes into contact with the switch terminal, completing the ground circuit for the warning light and causing the light to come on. After the warning light has activated, the valve is held in this position. The light will not go out until the line pressure imbalance is corrected. The valve will automatically return to its original position in the following manner after the problem has been corrected:

### 1. If the front brake line pressure drops lower than the rear

Since the pressures in the front and rear brake lines are equal after repair and cross-sectional area D2 is larger than D3, the valve moves in the direction of the rear brake line until sleeve B comes into contact with the stopper. At this point the valve is properly brought into balance.

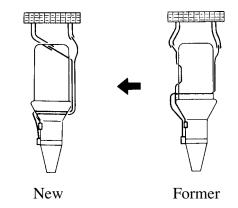
### 2. If the rear brake line pressure drops lower than the front

Sleeve A comes into contact with the valve stopper. After correcting the imbalance, the pressures in the front and rear brake lines are equal and cross-sectional area D3 is larger than D1, the valve moves in the direction of the front brake line until it makes contact with sleeve B. At this point the valve is properly brought into balance.



### AUTOMATIC TRANSMISSION OIL COOLER TUBE

To protect the oil cooler tube against heat from exhaust system components, the pipe route has been changed as shown in this illustration.



Notch

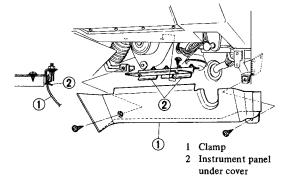
### HAND BRAKE

For increased overall stroke of the hand brake, the number of notches has been increased from twelve to thirteen.

### **BODY AND FRAME**

### **INSTRUMENT PANEL UNDER COVER**

To provide improved appearance, an "under cover" has been added to the lower side of the instrument panel on the front passenger side. The under cover is made from ABS resin. Because of this modification, the relay bracket cover has been eliminated.



### **SEAT BELTS**

#### SHOULDER BELT

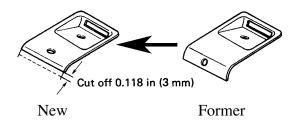
#### HLS30 2-seater models

To provide a better fit, the location of the shoulder belt has been shifted from the side roof rail to the upper strut mounting.



#### GHLS30 2+2 seater models

The shoulder belt is attached to the quarter panel garnish. Except for the location of the escutcheon retaining screw, the basic design has been retained.

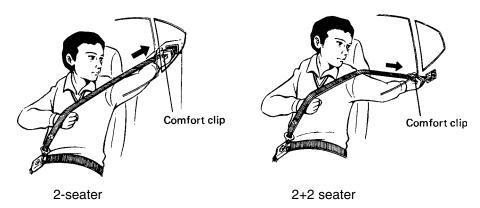


#### **INNER BELT**

The inner belt harness of the seat belt warning system has been lengthened.

#### **COMFORT CLIP**

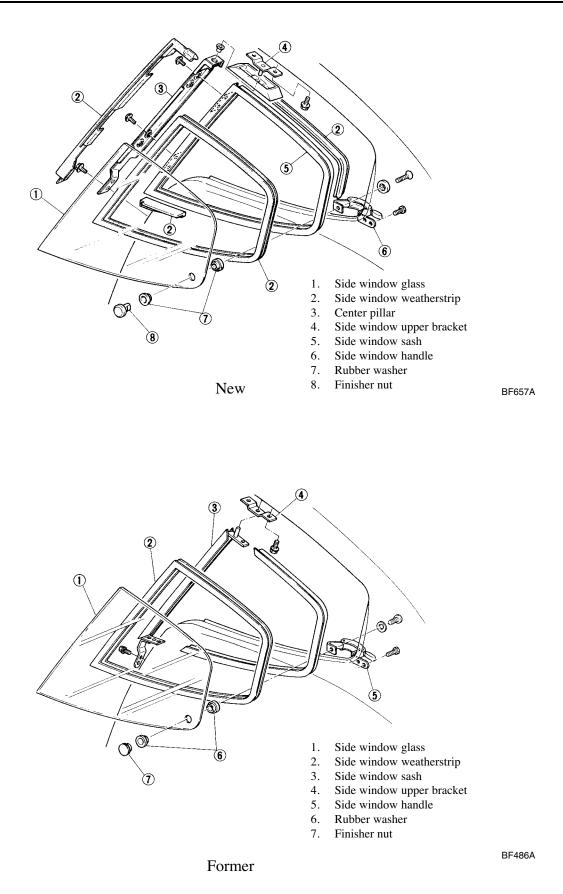
To prevent a tight fit due to retraction of the shoulder belt, a comfort clip has been added to the shoulder belt.



Inner belts alone are interchangeable for all models.

### CENTER PILLAR (GHLS30 2+2 seater models only)

For improved water tightness, the door and side window weatherstrips have been separated, and a center pillar added.



-25-

The new and former weatherstrips are shown in the following illustrations:

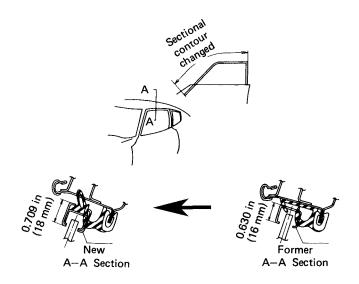


New

Former

### DOOR SASH AND DOOR SIDE WEATHERSTRIP

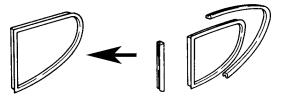
For improved contact with the car body, the door sash and door side weatherstrip have been redesigned.



# SIDE WINDOW GLASS WEATHERSTRIP (HLS30 2-seater models only)

For improved water tightness, the side window glass weatherstrip has been changed from a two-partitioned type to a unitized design.

Bonding agents have been eliminated to install the part. The new and former parts are interchangeable.

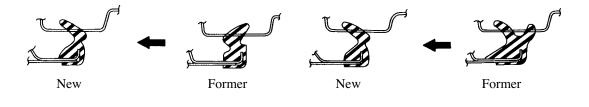


New

Former

### **OUTER TAIL GATE WEATHERSTRIP**

The cross-sectional contour has been modified to reduce reaction of the tail gate weatherstrip and improve door operation.



HLS30 2-seater models

GHLS30 2+2 seater models

### FRONT SAFETY BUMPER

The basic design and mounting method have been retained. Internal construction, however, has been slightly modified. The internal reinforcement has been eliminated and a brace added to the overrider.

The new bumper is lighter in weight than the former one, and is adaptable to the former mode.

Brace

The former bumper, however, cannot be used in place of the new one since its installation on the new model would exceed the gross vehicle weight registered in accordance with M.V.S.S. and the Clean Air Act.

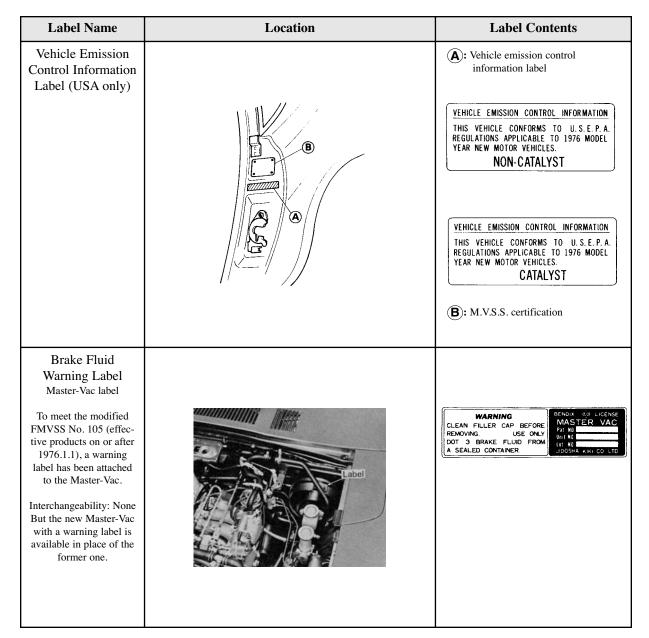
### **REAR SAFETY BUMPER**

The basic external appearance has been carried over from the 1975 model. To reduce the bumper weight, however, the material of the inner plate and reinforcement has been changed and these thicknesses reduced.

The new bumper is adaptable to the former model. The former bumper, however, cannot be used in place of the new one since its installation on the new model would exceed the gross vehicle weight registered in accordance with M.V.S.S. 567 and the Clean Air Act.

### LABELS

On 280Z models, the Vehicle Emission Control Information and Brake Fluid Warning labels have been newly attached to the car as shown in the following table:

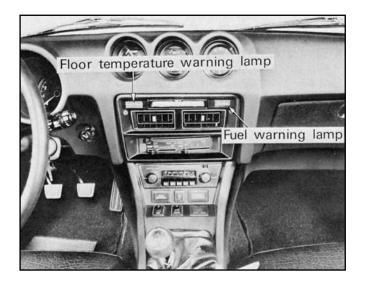


## **BODY ELECTRICAL**

### WARNING LAMPS

Due to the elimination of the catalyzer warning lamp, the fuel warning and floor temperature warning lamp have been relocated as shown in the illustration below. The bulb ratings remain the same. The former and new fuel warning lamps are not interchangeable.

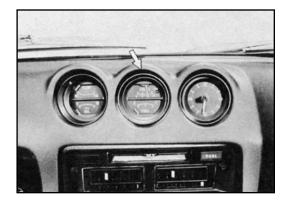
The floor temperature warning lamp is basically the same as the previous design, except that it has been shifted from the right to the left side of the instrument panel.



### VOLTMETER

A voltmeter has replaced the previous ammeter to monitor the condition of the charging system and the battery. Due to this change the shunt unit has also been eliminated.

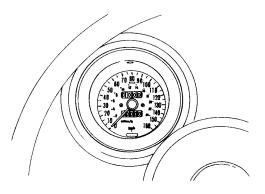




A charge warning lamp has been added to monitor the condition of the alternator.

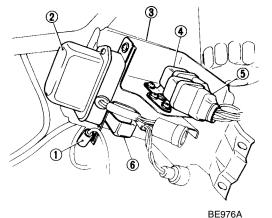
### SPEEDOMETER

For models destined for Canada, the speedometer is now calibrated both in km/h and mph on the scale.

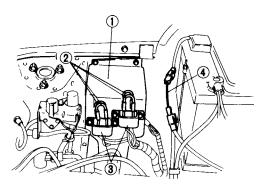


### **RELAY BRACKET IN ENGINE COMPARTMENT**

The relays and fusible links have been installed in the locations shown in the illustration below.



- 1. Condenser
- 2. Voltage regulator
- 3. Relay bracket
- 4. Water temperature relay (Advance control relay)
- 5. Seat belt relay
- (Starter relay, A/T only)6. Air conditioner relay
- (Compressor relay)

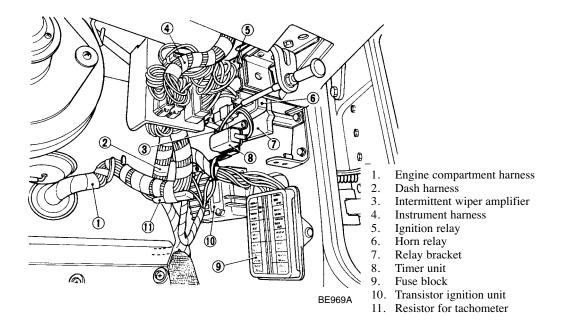


- 1. Relay bracket
- 2. Fusible link
- 3. Fusible link holder
- 4. Fusible link for electronic fuel injection harness

BE975A

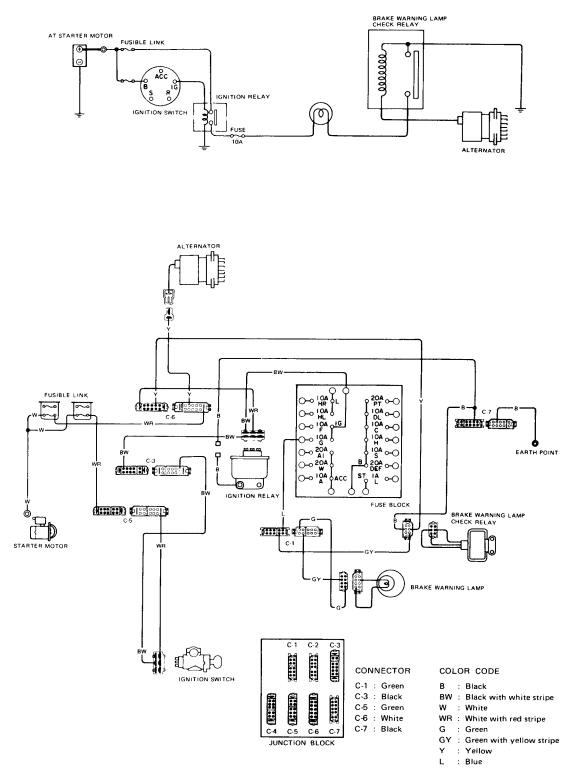
### **RELAY BRACKET IN PASSENGER COMPARTMENT**

The relays have been installed as shown in the following illustration.



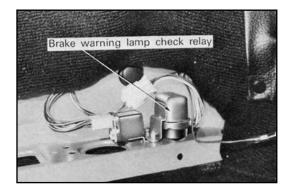
### **BRAKE WARNING LAMP CHECKING SYSTEM**

For increased reliability of the brake warning lamp operation, a checking system has been added. This system, incorporating a light, serves to check the bulb for discontinuity. The light comes on while the ignition switch is in the ON position with the alternator inactivated (or with the engine off).



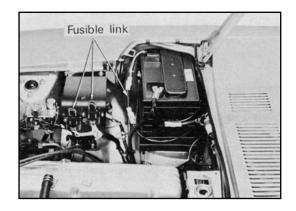
BE001B

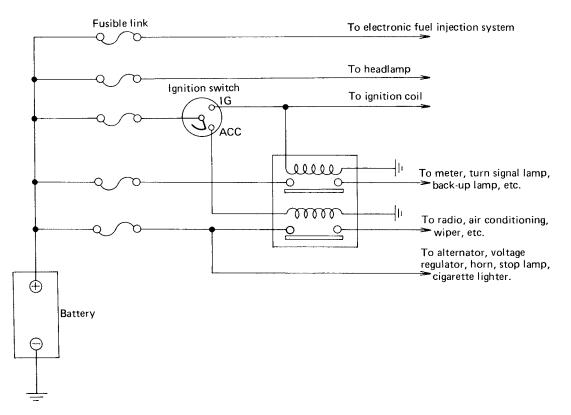
A new brake warning lamp check relay has been installed on the mounting bar of the passenger seat.



### **FUSIBLE LINK**

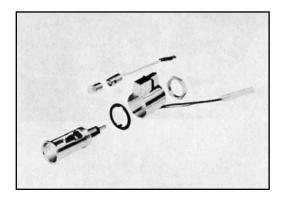
For increased reliability of the battery circuit lines, the number of the fusible links has been increased by three to a total of five.

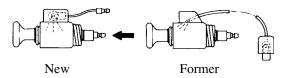




### **CIGARETTE LIGHTER ILLUMINATION SYSTEM**

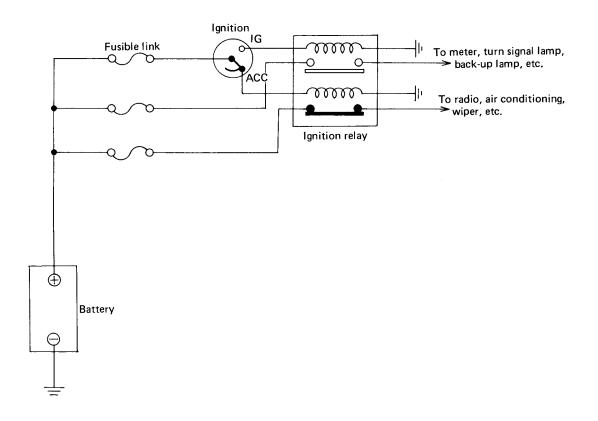
To increase the illumination intensity, a direct, bulb-type illumination method has replaced the indirect photo tube method.

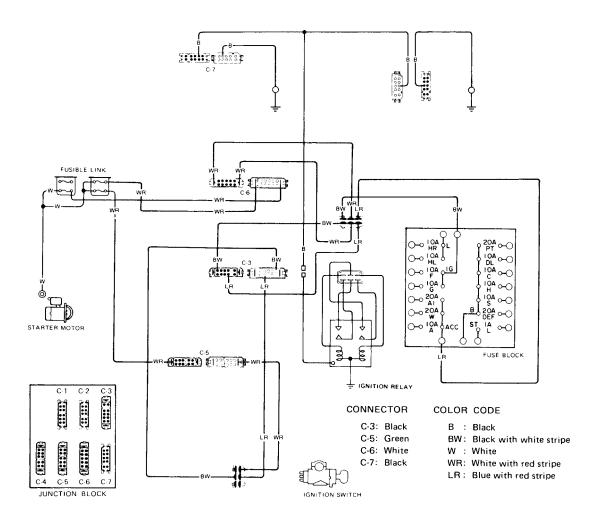




### **IGNITION RELAY**

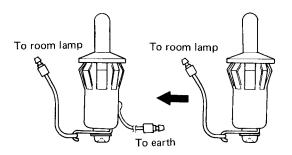
To prevent excess current flow through the ignition switch, a relay has been added. Current flow to the following systems and parts is not through the ignition switch, EFI system, head-lights, ignition system, charging system, horn, stop lamp, or cigarette lighter.





### **DOOR SWITCH**

To provide firm grounding, a ground wire has been added to the body harness. Because of this modification, the former body grounding method has been eliminated.



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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Item			Model	HLS30U(N)	HLS30AU(N)	HLS30UV	HLS30AUV	(N) Of the control of	GHLS30U(N) GHLS30AU(N)	GHLS30UV	GHLS30AUV
Overall width         in (mm) $64.2 (1,630)$ $65.0 (1,630)$ Overall height         in (mm) $51.0 (1,295)^{*1}$ $51.4 (1,305)^{*1}$ Wheebase         in (mm) $90.7 (2,305)$ $102.6 (2,605)$ Wheebase         in (mm) $33.3 (1,355)^{*1}$ $102.6 (2,605)$ Wheebase         in (mm) $33.3 (1,355)^{*1}$ $33.3 (1,355)^{*1}$ Wheebase         in (mm) $33.3 (1,355)^{*1}$ $33.3 (1,355)^{*1}$ Room space         Inner length         in (mm) $33.3 (1,375)^{*1}$ $33.1 (1,500)$ Inner width         in (mm) $34.7 (1,300)$ $54.7 (1,300)$ $54.7 (1,300)$ Min. road clearance (unladen)         in (mm) $42.3 (1,075)$ $42.3 (1,075)$ Min. road clearance (unladen)         in (mm) $6.1 (155)$ $42.3 (1,075)$ Min. road clearance (unladen)         in (mm) $6.1 (155)$ $42.3 (1,075)$ Min. road clearance (unladen)         in (mm) $6.1 (156)$ $6.1 (150)$ Min. road clearance (unladen)         in (mm) $6.1 (1057)$ $42.3 (1,075)$ Min. road clearance         fin (mm) $5.9 ($	0	verall length		in (mm)		173.2 (	4,400)			185.4 (	(4,710)	
	0	Verall width		in (mm)		64.2 (1	,630)			65.0 (1	1.650)	
Wheelbase         in (mm) $90.7(2,305)$ $102.6(2,605)$ Tread         Front         in (mm) $53.3(1,355)*1$ $53.3(1,355)*1$ Rear         in (mm) $53.3(1,345)*1$ $53.3(1,345)*1$ $53.3(1,345)*1$ Room space         Inner width         in (mm) $32.3(820)$ $54.7(1,300)$ $54.7(1,300)$ Inner width         in (mm) $32.3(820)$ $54.7(1,300)$ $54.7(1,300)$ $54.7(1,300)$ Min. road clearance (unladen)         in (mm) $6.1(155)$ $42.3(1,075)$ $42.3(1,075)$ Min. road clearance (unladen)         in (mm) $6.1(155)$ $42.3(1,075)$ $42.3(1,075)$ Min. road clearance (unladen)         in (mm) $6.1(155)$ $40.5(1,028)$ $42.4(1,077)$ Overhang to         Front end         in (mm) $5.9(1,057)$ $6.1(155)$ $42.4(1,077)$ Gross vehicle weight rating         for weight veloweight rating $5.1(1,445)$ $3.203(1,452)$ $3.503(1,626)$ $3.603$ Gross welle weight rating         for weight veloweight rating $1.468(666)$ $1.477(670)$ $1.603(727)$ $1.603(727)$	0	Verall height		in (mm)		51.0 (1	,295)*1			51.4 (1	1,305)*1	
Tread         Front         in (mm) $53.3 (1,355)^*1$ $53.3 (1,355)^*1$ $53.3 (1,355)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,345)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,375)^*1$ $53.3 (1,372)^*1$ $53.3 (1,372)^*1$ $53.3 (1,372)^*1$ $53.3 (1,325)^*1^*1$ $53.3 (1,325)^*1^*1$ $53.3 (1,325)^*1^*1$ $53.3 (1,325)^*1^*1$ $53.3 (1,325)^*1^*1$ $53.3 (1,325)^*1^*1$ $53.3 (1,325)^*1^*1^*1^*1^*1^*1^*1^*1^*1^*1^*1^*1^*1^$	3	Vheelbase		in (mm)		90.7 (2	,305)			102.6 (	(2,605)	
Rear         in (mm) $53.0 (1,345)^*1$ $53.0 (1,345)^*1$ Room space         Inner length         in (mm) $32.3 (820)$ $59.1 (1,500)$ Inner width         in (mm) $54.7 (1,390)$ $54.7 (1,390)$ $54.7 (1,390)$ Min. road clearance (unladen)         in (mm) $6.1 (155)$ $2.9 (150)$ $6.1 (155)$ $42.3 (1,075)$ Min. road clearance (unladen)         in (mm) $6.1 (155)$ $2.9 (150)$ $6.1 (155)$ $42.3 (1,075)$ Min. road clearance (unladen)         in (mm) $6.1 (155)$ $42.3 (1,075)$ $42.4 (1,077)$ Overhang to         Front end         in (mm) $6.1 (1067)$ $5.9 (1500)$ $6.1 (155)$ $42.4 (1,077)$ Overhang to         Front end         in (mm) $5.1 (1,067)$ $5.9 (1500)$ $6.1 (1075)$ $42.4 (1,077)$ Gross vehicle weight rating $6.0 (1,067)$ $3.203 (1,422)$ $3.585 (1,626)$ $3.603 (1,670)$ Front $10 (kg)$ $1,477 (670)$ $1,603 (727)$ $3.603 (1,670)$ $1,612$ Front $10 (kg)$ $1,717 (779)$ $1,726 (783)$ $1,991 (1,$	H	read	Front	in (mm)		53.3 (1	,355)*1			53.3 (1	(,355)*1	
Room spaceInner lengthin (mm) $32.3 (820)$ $59.1 (1,500)$ Inner widthin (mm) $54.7 (1,390)$ $54.7 (1,390)$ $54.7 (1,390)$ Inner widthin (mm) $6.1 (155)$ $5.9 (150)$ $6.1 (155)$ Min. road clearance (unladen)in (mm) $6.1 (155)$ $5.9 (150)$ $6.1 (155)$ Overhang toFront endin (mm) $6.1 (155)$ $5.9 (1,050)$ $6.1 (155)$ Nin. road clearance (unladen)in (mm) $6.1 (155)$ $42.3 (1,075)$ $42.3 (1,075)$ Overhang toFront endin (mm) $42.0 (1,067)$ $6.1 (152)$ $42.4 (1,077)$ Rear endin (mm) $3.185 (1,445)$ $3.203 (1,452)$ $3.585 (1,626)$ $3,603$ Gross whicle weight ratingG.V.W.R.) $3.185 (1,445)$ $3.203 (1,452)$ $3.585 (1,626)$ $3,603$ Gross axle weight rating(G.W.R.) $1,477 (670)$ $1,477 (670)$ $1,603 (727)$ $1,612$ Frontlb (kg) $1,717 (779)$ $1,726 (783)$ $1,992 (899)$ $1,991$			Rear	in (mm)		53.0 (1	,345)*1			53.0 (1	1,345)*1	
	2	toom space	Inner length			32.3 (8	20)			59.1 (1	()200	
			Inner width	in (mm)		54.7 (1	(06£'			54.7 (1	()390)	
Min. road clearance (unladen)in (mm) $6.1 (155)$ $5.9 (150)$ $6.1 (155)$ Overhang toFront endin (mm) $40.5 (1,028)$ $42.4 (1,077)$ Overhang toFront endin (mm) $42.0 (1,067)$ $40.5 (1,028)$ $42.4 (1,077)$ Gross vehicle weight rating (G.W.R.)1b (kg) $3,185 (1,445)$ $3,203 (1,452)$ $3,585 (1,626)$ $3,603$ Gross vehicle weight rating (G.W.R.)1,468 (666) $1,477 (670)$ $1,603 (727)$ $1,612$ Frontlb (kg) $1,717 (779)$ $1,726 (783)$ $1,992 (899)$ $1,991$			Inner height			42.3 (1	,075)			42.3 (1	(,075)	
endin (mm)40.5 (1,028)ndin (mm) $42.0 (1,067)$ $42.4 (1,028)$ nglb (kg) $3,185 (1,445)$ $3,203 (1,452)$ $3,585 (1,626)$ nglb (kg) $1,468 (666)$ $1,477 (670)$ $1,603 (727)$ lb (kg) $1,717 (779)$ $1,726 (783)$ $1,982 (899)$		lin. road clear	ance (unladen)	in (mm)	6.1	(155)	5.9 (15	(0)	6.	1 (155)	5.9 (1	50)
nd in (mm) 42.0 (1,067) 42.4 (1,067) 42.4 (1,067) 42.4 (1,0100 10	0	werhang to	Front end	in (mm)		-		40.5 (1	,028)			
ng lb (kg) 3,185 (1,445) 3,203 (1,452) 3,585 (1,626) 3,585 (1,626) lb (kg) 1,468 (666) 1,477 (670) 1,603 (727) 1,603 (727) lb (kg) 1,717 (779) 1,726 (783) 1,982 (899)			Rear end	in (mm)		42.0 (1	,067)			42.4 (1	(,077)	
lb (kg)     1,468 (666)     1,477 (670)     1,603 (727)       lb (kg)     1,717 (779)     1,726 (783)     1,982 (899)	69	ross vehicle w 3.V.W.R.)	eight rating	lb (kg)	3,185	(1,445)	3,203 (	(1,452)	3,585	(1,626)	3,603 (1,63	4)
lb (kg)         1,468 (666)         1,477 (670)         1,603 (727)           lb (kg)         1,717 (779)         1,726 (783)         1,982 (899)	69	ross axle weig 3.A.W.R.)	ht rating									
Ib (kg)         1,717 (779)         1,726 (783)         1,982 (899)			Front	lb (kg)	1,468	(999)	1,477 (	(670)	1,603	(727)	1,612 (731)	
			Rear	lb (kg)	1,717	(622)	1,726 (	(183)	1,982	(668)	1,991 (903)	

HLS30AU(N) HLS30UV HLS30AUV GHLS30U(N) GHLS30AU(N) GHLS30UV GHLS30AUV		16° B.T.D.C.	52° A.B.D.C.	54° B.B.D.C.	14° A.T.D.C.		0.0098 (0.25)	0.0118 (0.30)	S70) N50Z N50Z (NS70) N50Z	12V	58AH 60AH *65AH 60AH 60AH	Negative	LT160-23	HITACHI	Alternator	12V	60A	TLIZ-85
0ESTH (N)N0ESTH									N50Z (NS70)		60AH, *65AH							
Model		ens	Dses	suedc	closes		in (mm)	in (mm)										
E	Valve timing	Intake opens	Intake closes	Exhaust opens	Exhaust closes	Valve clearance (Warm)	Intake	Exhaust	Type	Voltage	Capacity	Ground polarity	Type	Make	Generating method	Voltage	Capacity	Voltage regulator
Item				əı	rign∃						Batt					ເອເມອກ		-

V	/									
Ħ	Item	Model	(N)N0ESTH	HLS30AU(N)	HLS30UV	HLS30AUV	GHLS30U(N)	GHLS30AU(N)	CHLS30UV	GHLS30AUV
T'	Type		S114-122N	S114-182	S114-122N	S114-182	S114-122N	S114-182	S114-122N	S114-182
starte	Make					HIT∕	HITACHI			
~	Voltage & power		12V-1.0KW	12V-1.2KW   12V-1.0KW   12V-1.2KW   12V-1.0KW	12V-1.0KW	12V-1.2KW	12V-1.0KW	12V-1.2KW	12V-1.0KW	12V-1.2KW
	Ignition method					Battery-coil	y-coil			
	Ignition timing	o/rpm	7/800*1 13/800*2	7/700*1 15/700*2	10/800	10/700	10/700 7/800*1 13/800*2	7/700*1 13/700*2	10/800	10/700
	Firing order					1-5-3-6-2-4	-6-2-4			
isys r	Ignition coil	Type				C.I.T. – 18	C.I.T. – 18 & S.T.C. – 12			
		Make				HITACHI	CHI			
-	Distributor	Type	D6F4-01 D6F4-02	D6F4-02	D6F4-03		D6F4-01	D6F4-02	D6F4-03	-03
		Make				HITACHI	CHI		_	
	_ ~	Ignition timing advance system				Vacuum an	Vacuum and governor			
	Make					NGK (HITACHI)	TACHI)			
nįd y	Type					B6ES (L45W)	L45W)			
	Thread	in (mm)				0.551 (14)	(14)			
	Gap	in (mm)				0.028 to 0.031 (0.7 to 0.8)	1 (0.7 to 0.8)			
						*1: Er *2: Er	igine coolant te igine coolant te	<ul> <li>*1: Engine coolant temperature above 135 to 145°F (57 to 63°C)</li> <li>*2: Engine coolant temperature below 135 to 145°F (57 to 63°C)</li> </ul>	re 135 to 145° w 135 to 145°	F (57 to 63°C F (57 to 63°C

GHLS30AUV 1.57 × 0.18 × 8.64 (40 × 4.5 × 219.5) HLS30AUV | GHLS30U(N) | GHLS30AU(N) | GHLS30UV | 11°57' ±45' 36' ± 45' -0.197 (-5) (out) to -0.079 (-2) (out) 2.03 × 0.38 × 3.06 (51.6 × 9.7 × 77.83) Strut type independent suspension Hydraulic cylindrical multi-motion -0.197 (-5) (out) to 0.197 (5) (in) 0 (0) (out) to 0.118 (3) (in) -0°26' (out) to 0°26' (in) Semi-floating, ball spline Leading trailing  $12^{o}16' \pm 45'$ Coil spring --5' ± 45' Disc 1.57 × 0.18 × 8.64 (40 × 4.5 × 219.5) HLS30UV 11°59' ±45' 42' ± 45' HLS30U(N) HLS30AU(N) in (mm) in (mm) in (mm) in (mm) in (mm) Model Lining (Width × thickness × length) (laden = unladen) Front Front Rear Rear (unladen) Kingpin inclination (unladen) (unladen) Shock absorber type (laden) (laden) Camber (laden) Wheel alignment Rear axle type Toe-in Toe-in Spring Type Type Item Front suspension Rear suspension Brake system

Ite	ltem	Model	(N)N0ESTH	HLS30AU(N)	AN0ESTH	HLS30AUV	GHLS30U(N)	GHLS30U(N) GHLS30AU(N)	CHTS30UV	GHLS30AUV
	Total braking area			•						
	Front	sq in $(cm^2)$				23.6 (	23.6 (152.4)			
	Rear	sq in $(cm^2)$				54.4 (351)	351)			
	Inner (outer) of brake drum dia.	dia.								
mətə	Front	in (mm)				10.67	10.67 (271)			
sys 92	Rear	in (mm)				9 (228.6)	8.6)			
Bral	Inner dia. of master cylinder	in (mm)				7% (22.22)	2.22)			
	Master-Vac	in (mm)		7 ½ (190.5)	(5.06)			9 (228.6)	8.6)	
	Inner dia. of wheel cylinder									
	Front	in (mm)				2 ¼ (	2 ½ (53.98)			
	Rear	in (mm)				7% (22.22)	2.22)			
	Parking brake				Me	chanically oper	Mechanically operated on rear wheel	heel		1
neel & tire	Tire size					175H *1 19:	175HR-14 radial 195/70HR-14 radial	ial		
IM	Rim size					S	51			

\*1: Steel radial with tube

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