

# **DAIHATSU**

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# **F300**

**GI**

**[HD-ENGINE]**

## **GENERAL INFORMATION**

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WN88E-GI001

## HOW TO USE THIS MANUAL

In this workshop manual, the entire portion is divided into 11 sections and four supplements. Each section has a table of contents in the beginning. For easier reference, a thumb index is provided. Also, the upper part of each page bears the section title concerned so that you may use this manual readily and fully.

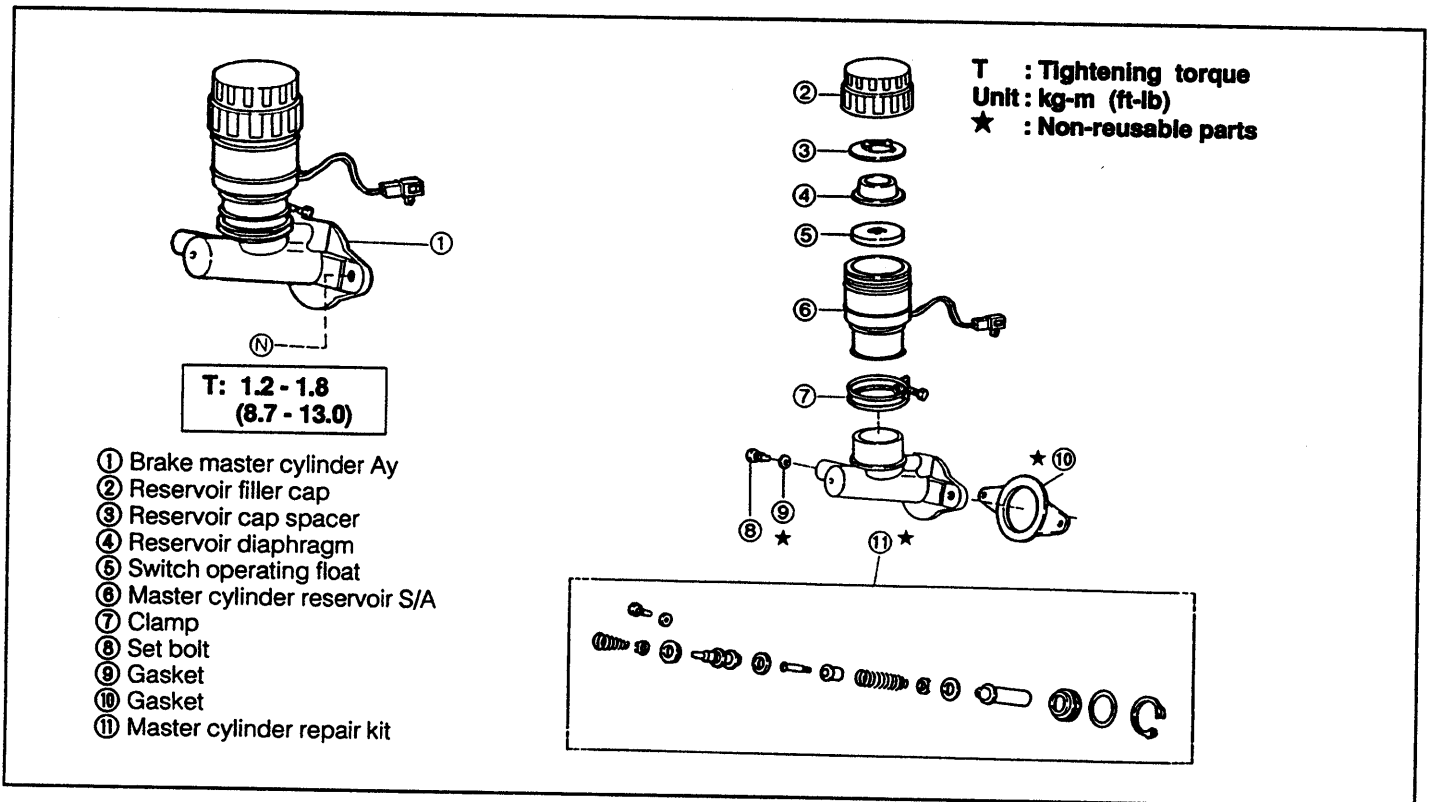
WN88E-GI002

## CONTENTS OF EXPLANATION

### 1. Schematic Diagram of Components

- (1) The schematic diagram of components that appears at the beginning of each section describes the nomenclature and installed conditions of each component. Also, the tightening torque is posted in the figure.
- (2) Those parts whose reuse is not permitted bear a "★" mark for an identification purpose. Be certain to replace these parts with new ones during the assembly.

#### (Example)



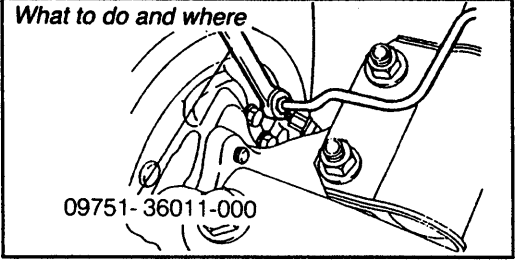
WN88E-GI003

### 2. Servicing Procedure

- (1) In principle, the servicing procedure is described in the following sequence given below: Removal → Inspection → Installation, and Disassembly → Inspection → Assembly.
- (2) The explanation covers detailed servicing methods, specifications and notes.
- (3) The main point of each item explains the servicing section and servicing procedure, using illustrations.

WN88E-GI004

**(Example)**

What to do	How to it	What to do and where
<p>3. Brake tube installation</p> <p>(1) Install the brake tube to the wheel cylinder temporarily by hands.</p> <p>(2) Tighten the brake tube to the wheel cylinder, using the following SST.</p> <p><b>SST: 09751-36011-000</b></p>		

WN88E-G1005

(4) The inspection section in this manual describes only checking operation. Therefore, if you find any malfunction, replace the defective parts with new ones.

**3. SST**

For those operations which require the use of any SST, the SST numbers concerned are given in bold letters.

Also, a table of all SSTs is collectively posted in the Appendix Data A.

**4. Service Specifications**

Service specifications are indicated in bold letters or enclosed by heavy lines. Be certain to confirm the specifications concerned.

Service specifications are collectively posted in the Appendix Data B.

**5. Tightening Torque**

For those operations which require the control of tightening torque, the relevant tightening torque is given in bold letters. Be certain to confirm the tightening torque concerned. Tightening torque specifications are collectively posted in the Appendix Data C.

**6. Definitions of Terms**

Specified Value ... A value which represents the allowable range during the inspection and adjustment.

Limit ..... A maximum or a minimum limit which the value should not exceed or fall below.

**WARNING, CAUTION & NOTE:**

All these symbols are indicated in bold letters.

**WARNING:**

This symbol means that there is a possibility of personal injury of the operator himself or the nearby workers if the operator fails to follow the operating procedure prescribed in this manual.

**CAUTION:**

This symbol means that there is a possibility of damage to the component being repaired if the operator fails to follow the operating procedure prescribed in this manual.

**NOTE:**

To accomplish the operation in an efficient manner, additional instructions concerning the operation are given in this section.

WN88E-G1006

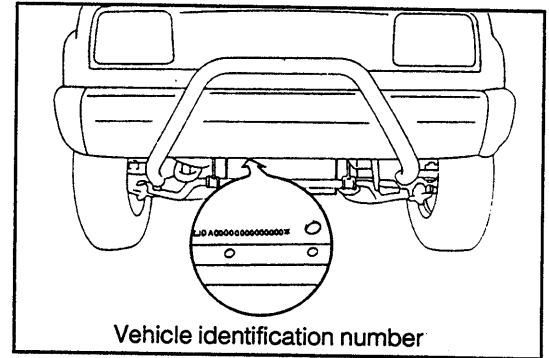
# GENERAL INFORMATION

## IDENTIFICATION INFORMATION

### VEHICLE IDENTIFICATION NUMBER

#### 1. Position of Vehicle Identification Number

The vehicle identification number is stamped on the crossmember at the vehicle front section.



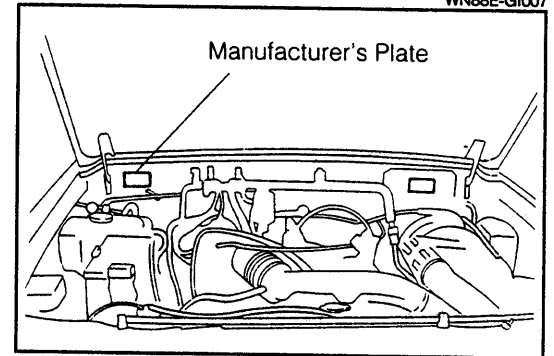
#### 2. The First Stamped Vehicle Identification Number

\* JDA00F30000000021 \*

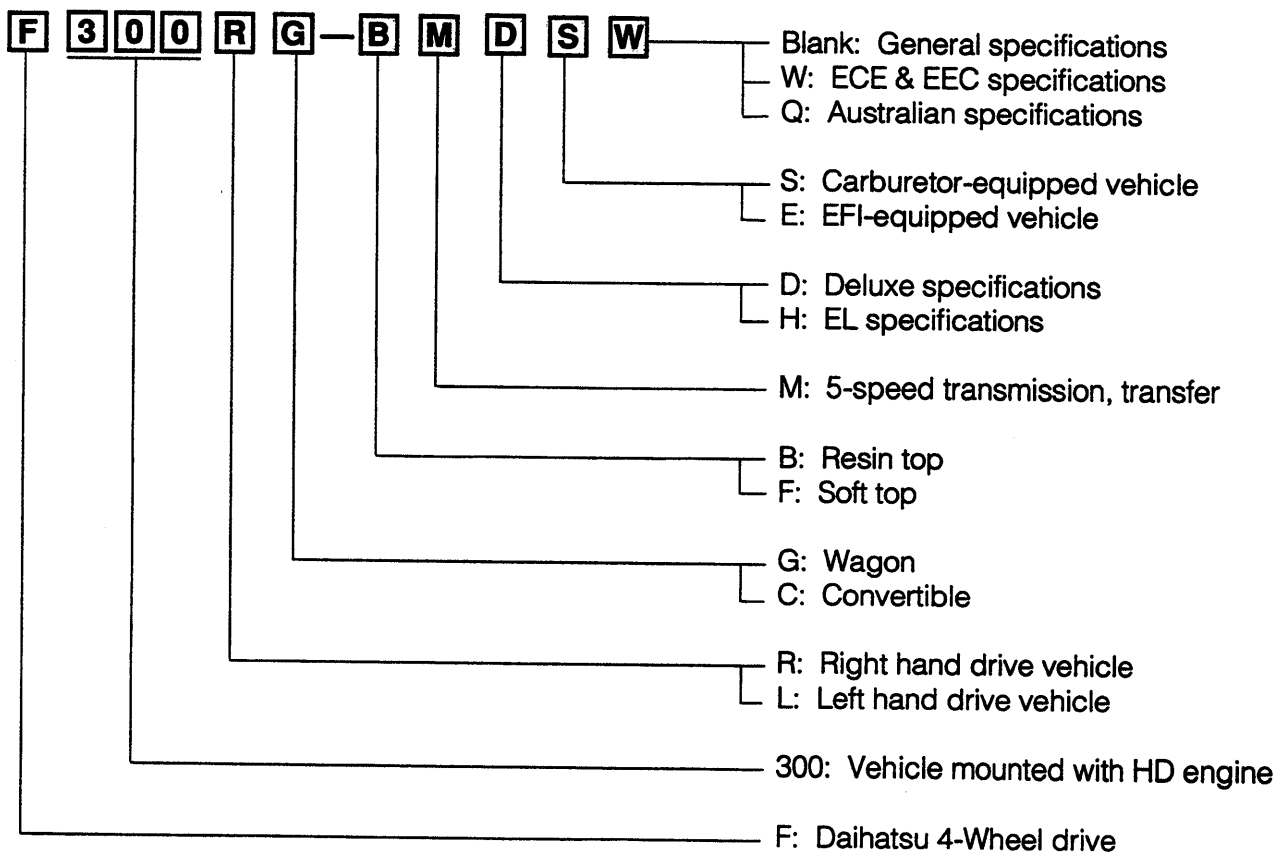
### MANUFACTURER'S PLATE

#### 1. Position of Manufacturer's Plate

The manufacturer's plate is affixed on the cowl panel inside the engine compartment.



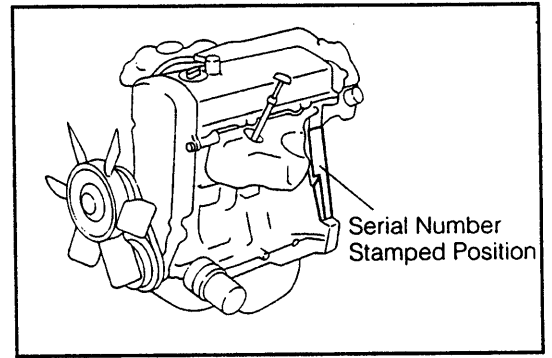
#### 2. Explanation of Vehicle Model Code



WN88E-GI009

## ENGINE NUMBER AND TYPE STAMPED POSITION

The engine number is stamped on the rear left side wall of the cylinder block and the engine type is indicated by embossed letters at near the engine number stamped position.



WN88E-GI010

### GENERAL SERVICE INSTRUCTIONS

1. Use fender covers, seat covers or floor sheets so that the vehicle may not get dirty or be scratched.
2. Jacking up
  - (1) When only the front section or rear section of the vehicle is jacked up, be sure to place chocks at the wheels so as to insure safe operations.
  - (2) When the vehicle has been jacked up, be sure to support the vehicle at the specified section using safety stands. (See page GI-9)
3. Handling instructions related to battery
  - (1) Before you start performing the electrical works, make certain to disconnect the battery cable from the negative (-) terminal of the battery.
  - (2) When it becomes necessary to disconnect the battery cables for the purpose of carrying out checks or repairs, always start at the negative (-) battery terminal which is grounded to the body.
  - (3) To avoid damaging the battery plates, after the terminal nut has been loosened, pull out the battery cable straight upward, rather than turning or prying the terminal.
  - (4) Clean the battery terminal posts or cable terminals, using a cloth. Never use a file or other adhesive agents.
  - (5) When connecting the cable terminal to the battery, first the cable terminal should be fitted onto the battery post with the attaching nut in a loose state. Then, tighten the nut. Never tap the terminal onto the battery post, using a hammer.
  - (6) As for the cover at the positive (+) terminal side, be sure to install it at the correct position.
4. Repairing of fuel system

Type HD-E engine employs a high fuel pressure. Therefore, the following notes should be observed.

  - (1) When the union bolt is removed take a measure to prevent the fuel from splashing with a cloth or the like. Slacken the union bolt gradually.
  - (2) Tighten each connecting section to the specified torque.
  - (3) Attach the specified clip to each connecting section.
5. For increased work efficiency and improved accuracy, be sure to utilize the SSTs (Special Service Tools) effectively.
6. Removal and disassembly
  - (1) When disassembling complicated components, put stamped marks or mating marks on those sections where such marks do not affect their functions so that the assembling operation may be performed easily.
  - (2) Each time a part removed, check the part for the assembled condition, deformation, breakage, roughness and scratches.
  - (3) Arrange the disassembled parts in the disassembling order. In addition, separate and arrange those parts to be replaced and those parts to be reused.
  - (4) Thoroughly clean and wash those parts to be reused.
  - (5) Inspection and measurement of part  
Perform thorough inspection and measurement on those parts to be reused, as required.
7. Installation and assembly
  - (1) Assemble those satisfactory parts, following the proper procedure and specified standards. (adjusting values and tightening torque, etc.)
  - (2) Ensure that seal packings and grease are applied to those sections where such application is needed.
  - (3) Be sure to use new packings, gaskets, cotter pins and so forth.
  - (4) Ensure that the specified bolts and nuts only be used. Moreover, where specified, make sure to employ a torque wrench to tighten bolts and nuts to the specified torque.  
Make sure to use only genuine parts for every replacement.

## 8. Adjustment and operation check

Adjust the reassembled or replaced components to the servicing specifications, using gauges and testers, as required.

## 9. Handling of hoses, etc.

(1) Connect fuel hoses and water hoses, etc. securely so that they exhibit no leakage.

(2) When disconnecting fuel hoses, make sure that no fuel is splashed around the hose. (Special care must be exercised as to the engine mount rubber, etc., for there is a possibility that the rubber is deteriorated by the petrol-based liquid.)

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## 10. Observe the following precautions to avoid damage to the parts.

(1) When pulling out vacuum hoses, be sure to hold the hose end, not the middle part of the hose.

(2) When disconnecting connectors, be sure to hold the connector itself, not the wire portion.

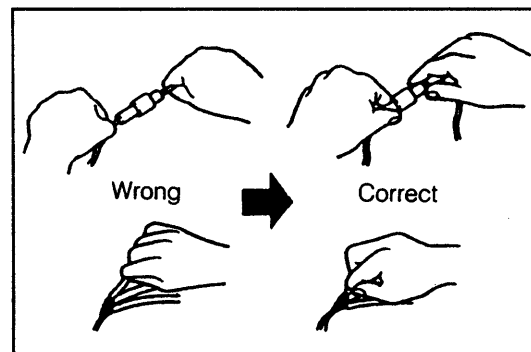
(3) Be very careful not to drop electrical components, such as sensors or relays, to the floor. If they are dropped, they must be replaced. Never reuse them.

(4) When steam cleaning the engine, take precautionary measures so that no water is applied to the air filter, carburetor, distributor, ignition coil and so forth.

(5) Never use an impact wrench to remove or install thermo switches or thermo sensors.

(6) When checking continuity at the wire connector, insert the tester probe carefully to prevent terminals from bending.

(7) When using a vacuum gauge, never force the hose onto a connector that is too large. Use a step-down adapter instead. Once the hose has been stretched, it may leak.

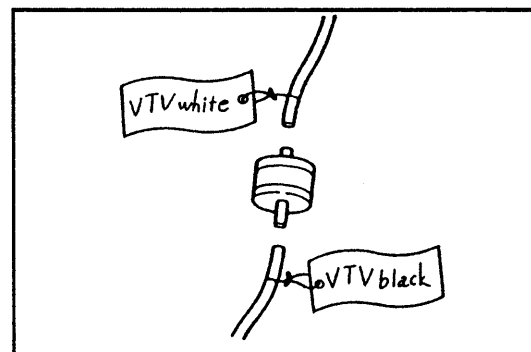


WN88E-GI013

## 11. Tag hoses before disconnecting them:

(1) When disconnecting vacuum hoses, use tags to identify how they should be reconnected.

(2) After completing a job, double check that the vacuum hoses are properly connected. A label under the hood shows the proper layout.



WN88E-GI014

## 12. The dimensions and specified values that appear in this manual are those values at 20°C (68°F), unless otherwise specified.

## 13. As for the values other those indicated in "si" unit, such as ft, inch, lb, cu-in and gallon, they are the converted values. Therefore, there are cases where the converted values have been rounded up or down according to their use at the time of conversion.

WN88E-GI015

### HANDLING INSTRUCTIONS ON CATALYTIC CONVERTER-EQUIPPED VEHICLES

**WARNING:**

When a great amount of unburnt gas is admitted into the catalytic converter, overheating is prone to occur, resulting in a fire hazard.

To avoid such trouble in advance, be certain to observe the following precautions. Also, be sure to explain such precautions to your customers.

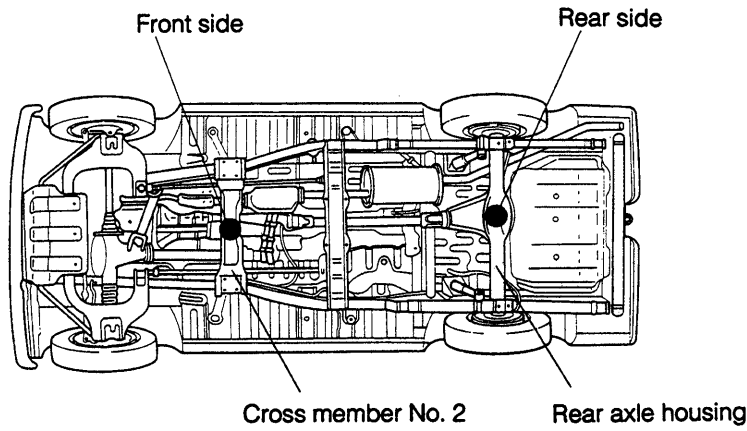
1. Use only unleaded gasoline to your vehicle.
2. Avoid idling the engine for a prolonged length of time.  
Do not run the engine continuously at the idle speed for more than 20 minutes.
3. Never perform spark jump tests.
  - (1) The spark jump test must be limited to cases where such test is absolutely necessary. Also, be sure to finish the test in the shortest possible time.
  - (2) Never race the engine during the test.
4. Do not run the engine when the fuel tank becomes nearly empty.  
Failure to observe this caution will cause misfiring. Also, it will apply excessive load to the converter, even leading to catalyst damage.
5. Do not dispose the waste catalyst along with parts contaminated with gasoline or oil.

WN88E-GI016

# JACKING POINTS & SUPPORTING POINTS OF SAFETY STANDS

• **Jacking point**

- Front side ..... Cross member No.2
- Rear side ..... Rear axle housing



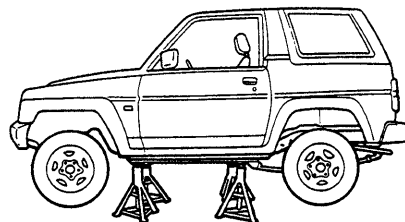
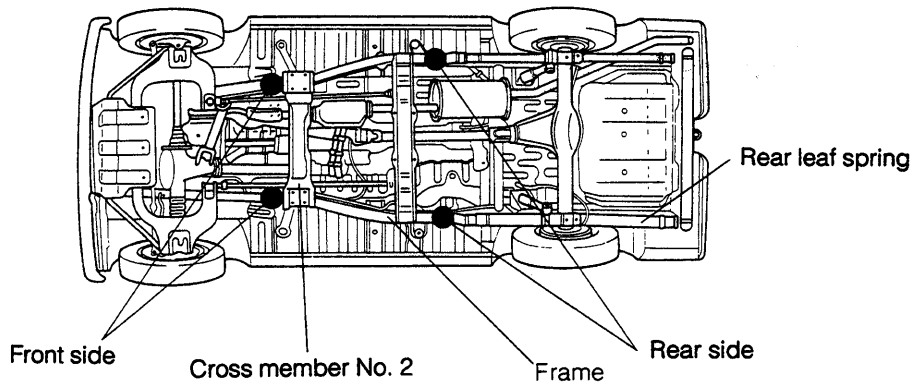
WN88E-GI017

**SUPPORTING POINTS OF TWO-POST LIFT**

Align the supporting pads of a two-post lift with the supporting points of safety stands, as indicated in the figure below.

• **Supporting points**

- Front side ..... Frame (In front of the crossmember No.2)
- Rear side ..... Frame (In front of the rear leaf speing)



WN88E-GI018

# GENERAL INFORMATION

## ABBREVIATION CODES

The abbreviation codes that appear in this workshop manual stand for the following, respectively.

A/C	Air Conditioner
BDC	Bottom Dead Center
BTDC	Before Top Dead Center
BVSV	Bimetal Vacuum Switching Valve
ECU	Electronic Control Unit
EFI	Electronic Fuel Injection
EX	Exhaust (Manifold Valve)
FL	Fusible Link
IN	Intake (Manifold, Valve)
LH	Left Hand
LHD	Left Hand Drive
LLC	Long Life Coolant
MP	Multipurpose
N.m.	Newton meter
PCV	Positive Crankcase Ventilation
PVSV	Pressure Vacuum Switching Valve
RH	Right Hand
SST	Special Service Tool
STD	Standard
TDC	Top Dead Center
TVSV	Thermostatic Vacuum Switching Valve
VSV	Vacuum Switching Valve
VTV	Vacuum Transmitting Valve
W/	With
W/O	without
4WD	Four-wheel Drive Vehicle
HIC	Hot Idle Compensator
ITC	Intake air Temperature Compensating valve
TP	Throttle positioner
TWC	Three-way catalyst
SD	Spark delay
C/B	Choke Breaker
EVAP	Fuel evaporative emission control

WN88E-GI019

The abbreviation codes that appear in the figure stand for the following, respectively.

Ⓑ	Bolt	Ⓢ	Screw
Ⓝ	Nut	Ⓦ	Washer

WN88E-GI020