

**DAIHATSU**  
**TYPE CB**  
**ENGINE**

**1**

[CB-23, CB-61 & CB-80]

## **SECTION 1 GENERAL INFORMATION**

<b>HOW TO USE THIS WORKSHOP MANUAL .....</b>	<b>1-2</b>
<b>INSTRUCTIONS ON SERVICE OPERATIONS .....</b>	<b>1-3</b>
<b>JACKING POINTS AND SUPPORTING POINTS OF SAFETY STANDS .....</b>	<b>1-5</b>
<b>SUPPORTING POINTS OF TWO-POST LIFT .....</b>	<b>1-5</b>
<b>LOCATION OF ENGINE TYPE AND ENGINE NUMBER .....</b>	<b>1-6</b>
<b>ENGINE TYPE EMBOSSED POSITION .....</b>	<b>1-6</b>
<b>ENGINE NUMBER STAMPED POSITION .....</b>	<b>1-6</b>
<b>ABBREVIATION CODES .....</b>	<b>1-7</b>
<b>MAIN SPECIFICATIONS .....</b>	<b>1-9</b>

WM-01001

## GENERAL INFORMATION

### HOW TO USE THIS WORKSHOP MANUAL

#### [Articles To Be Prepared]

As regards general tools (those tools which are normally provided in a service shop), jacks and other standard equipment, they are omitted in this workshop manual.

As for those Special Service Tools (SSTs) which are necessary for the service operations, they are posted collectively in the tables under SECTION 11 APPENDIX. Hence, please prepare them prior to the service operation.

In respect to instruments, lubricants and so forth, be sure to use those designated by Daihatsu.

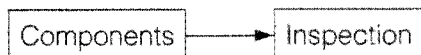
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#### [Composition]

1. The component diagram is provided in the beginning of each section. Refer to this component diagram whenever you want to assure the shape or the part name of each part during the installation operation or the removal operation.
2. In principle, each section is arranged in the following order. However, it should be noted that the composition for the in-vehicle operation differs from this order.



However, instances where the removal or the installation is comparatively easy or no SST or the like is required, the arrangement is made as follows:



3. With regard to the tightening torque specifications, they are indicated in the Engine Components and Tightening Torque under SECTION 3-10. In addition, they are shown in the tables under SECTION 11 SERVICE SPECIFICATIONS.

However, as for those items where no specific tightening torque is mentioned, perform the operation referring to the Tightening Torque for Main Components under SECTION 00.

WM-01003

#### [Numerals]

As regards those numerals which are posted under "Inspection" and under sections other than SECTION 11 SERVICE SPECIFICATIONS, those numerals from the specified values to the allowable limits are posted. As for those numerals which are posted under SECTION 11 SERVICE SPECIFICATIONS, those numerals concerning the specified values and allowable limits are indicated separately.

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#### [NOTE]

1. "NOTES" posted in the main text clearly show those items which need particular attention or prohibited items which must be avoided during the service operation.
2. Prior to the operation, make certain to take any necessary precautionary measures so as to prevent personal injury during the removal/installation of parts.

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## **INSTRUCTIONS ON SERVICE OPERATIONS**

1. Make sure that only the specified bolts and nuts are used. Also, where specified, be sure to employ a torque wrench to tighten bolts or nuts to specifications.
2. When tightening or slackening bolts, be sure to progressively tighten or slacken them over several stages, slightly at a time. This caution must be observed to prevent the tightened parts from being distorted or damaged.
3. Use only genuine parts for every replacement operation.
4. For increased working efficiency and improved accuracy, utilize SSTs (Special Service Tools) effectively.
5. When both front and rear sections of the vehicle or only the rear section thereof is jacked up, make certain to place chocks at the wheels correctly in order to assure safe operations.
6. When the vehicle is jacked up, make sure to support the vehicle with safety stands positioned at the specified jacking points.
7. Before any repair work is made on the electrical system or the engine is removed or installed, first be sure to disconnect the negative (-) terminal of the battery.
8. Disassembly
  - (1) When complicated parts are disassembled, put stamped marks or mate marks on suitable non-functional sections of the parts in order that the said parts may be easily assembled in the correct original positions.
  - (2) Replacements of the cylinder block or crankshaft, etc. should be carried out after the engine assembly has been removed from the vehicle.
9. Checks to be performed during disassembly  
Each time a part is removed, check conditions under which the part has been assembled. Also, check to see if the part exhibits any evidence of distortion, breakage, wear or scores, etc.
10. Arrangement of disassembled parts  
Put disassembled parts in a good order. Moreover, divide disassembled parts into two groups: those parts to be replaced and those parts which can be reused.
11. Washing disassembled parts  
As for those parts which can be reused, thoroughly clean or wash them. (except grease sealed bearing)
12. Inspection  
Those parts which are to be reused must be carefully inspected or measured, as required.
13. Those operations specified under "Inspection" are performed, in principle, in combination with the checks and repairs. It is, therefore, necessary to replace any part which does not conform to the specifications. However, in cases where otherwise specified in the main text, be sure to follow the given instructions.
14. Assembly of parts  
Those satisfactory parts only should be assembled in accordance with the prescribed standards (e.g. specified adjustment values, tightening torque and so forth).  
Furthermore, seal packing or grease should be applied, as required.  
Furthermore, in respect to packings, gaskets, oil seals and similar items, be certain to install new parts.
15. Adjustments and checking of service operations  
Service operations must be carried out correctly by means of gauges or testers, if the use of these instruments is required.
16. Never smoke during the service operation. Also, be sure not to allow any fire to be brought near the working bay.
17. Under no circumstances should your hand touch with the front side and back sides, the installation surfaces of each bearing insert. Also, be very careful not to scratch the surfaces. Do not wipe off the bearing surfaces with a cloth. Be certain to blow off them, using compressed air.  
Protect your eyes with safety glasses during this cleaning.

## GENERAL INFORMATION

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18. The warming-up state of the engine means a state in which the temperature of the cooling water reaches at least 75 - 85°C (167 - 185 F) and the temperature of the engine oil reaches at least 65°C (149 F).

These temperatures can be judged by observing a point where the cooling fan motor ceases its rotation.

**NOTE:**

When the idle speed is checked on Type CB-80 engine, special warming-up procedure is required. Hence, be sure to refer to the section under "Checking Idle Speed."

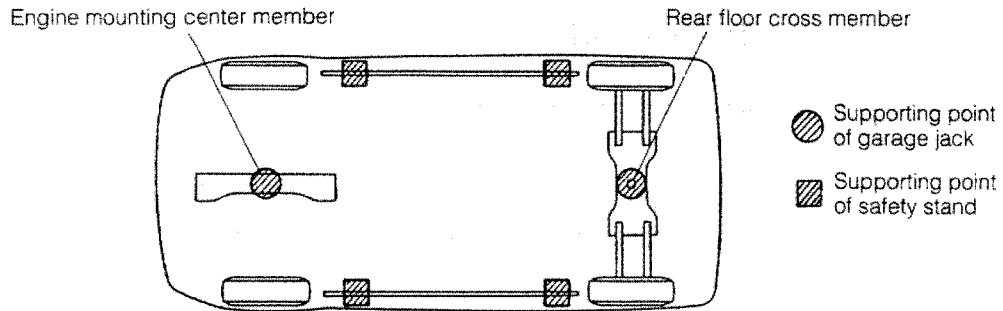
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## JACKING POINTS AND SUPPORTING POINTS OF SAFETY STANDS

- **Jacking point**

Front side ..... Engine mounting center member (Place the jack below the member, exercising care of the exhaust pipe.)

Rear side ..... Center of rear floor cross member



- **Supporting points of safety stands**

Four supporting points are located at the right and left sides. (The supporting points have been strengthened by spot-welding reinforcements. Never support the vehicle at points other than the specified points.)

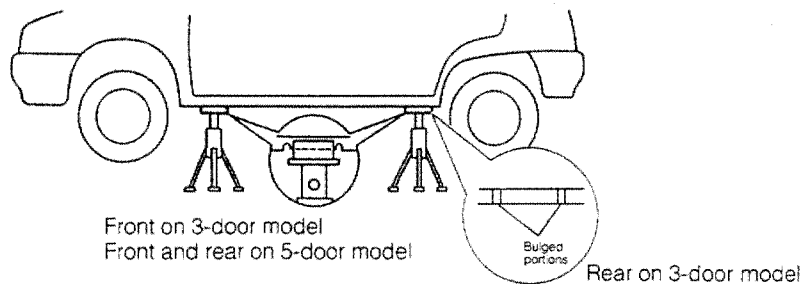


Fig. 1-1

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## 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 above.

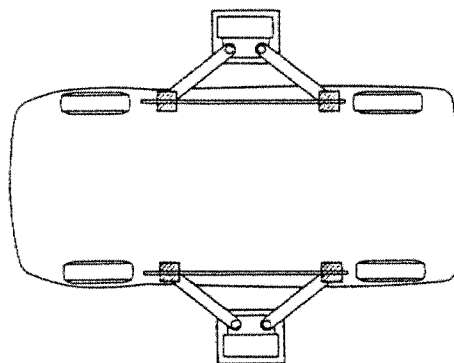


Fig. 1-2

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## GENERAL INFORMATION

### LOCATION OF ENGINE TYPE AND ENGINE NUMBER

#### ENGINE TYPE EMBOSSED POSITION

The engine type is embossed on the power train side of the cylinder block.

#### ENGINE NUMBER STAMPED POSITION

##### 1. CB-23 and CB-61

The engine serial number is stamped on the cylinder head at the front end section.

For the Australian specifications, the engine number is stamped also at the side of the embossed engine type.

##### 2. CB-80

The engine serial number is stamped on the cylinder head at the rear end section

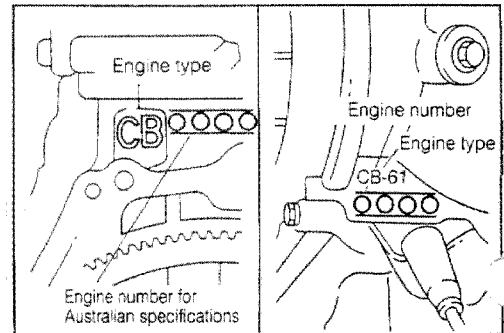


Fig. 1-3

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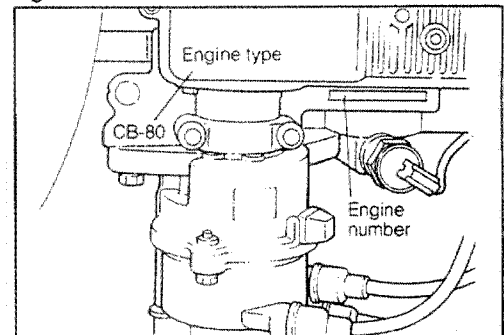


Fig. 1-4

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