

# ***WORKSHOP MANUAL***

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**US VERSION**

**EXP UBS**

**ISUZU**

PubNo. RV99\_02-01.E

# ***WORKSHOP MANUAL***

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***1999***

**Trooper (UX)**

**Rodeo (UE)**

**Amigo (UA)**

**Vehicross (VX)**

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***2000***

**Trooper (UX)**

**Rodeo (UE)**

**Amigo (UA)**

**Vehicross (VX)**

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***2001***

**Rodeo (UE)**

**Rodeo Sport (UA)**

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***2002***

**Axiom (UP)**

**Trooper (UX)**

**Rodeo (UE)**

**Rodeo Sport (UA)**

# WORKSHOP MANUAL

## RODEO (UE)

### FOREWORD

This manual includes special notes, important points, service data, precautions, etc. that are needed for the maintenance, adjustments, service, removal and installation of vehicle components.

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication.

All rights are reserved to make changes at any time without notice.

Arrangement of the material is shown in the table of contents on the right-hand side of this page. A black spot on the first page of each section can be seen on the edge of the book below each section title. These point to a more detailed table of contents preceding each section.

*This manual applies to 1999 models.*

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<b>2A</b>	<b>STEERING</b> Power-Assisted System	
<b>3C</b> <b>3D</b> <b>3E</b>	<b>SUSPENSION</b> Front Suspension Rear Suspension Wheel and Tire System	
<b>4A1</b> <b>4A2</b> <b>4B</b> <b>4C</b> <b>4D</b>	<b>DRIVELINE/AXLE</b> Differential Differential Driveline Control System Drive Shaft System Transfer Case	
<b>5A</b> <b>5B</b> <b>5C</b> <b>5D1</b> <b>5D2</b>	<b>BRAKE</b> Brake Control System Anti-Lock Brake System Power-Assisted Brake System Parking Brake System (4x4 model) Parking Brake System (4x2 model)	
<b>HEC</b> <b>6A</b> <b>6B</b> <b>6C</b> <b>6D1</b> <b>6D2</b> <b>6D3</b> <b>6E</b> <b>6F</b> <b>6G</b> <b>6H</b> <b>6J</b>	<b>6VD1</b> <b>6A</b> <b>6B</b> <b>6C</b> <b>6D1</b> <b>6D2</b> <b>6D3</b> <b>6E</b> <b>6F</b> <b>6G</b> <b>6H</b> <b>6J</b>	<b>ENGINE</b> Engine Mechanical Engine Cooling Engine Fuel Engine Electrical Ignition System Starting and Charging System Driveability and Emissions Engine Exhaust Engine Lubrication Engine Speed Control System Induction
<b>7A</b> <b>7A1</b> <b>7B</b> <b>7C</b>	<b>TRANSMISSION</b> Automatic Transmission Transmission Control System Manual Transmission Clutch	
<b>8A</b> <b>8B</b> <b>8C</b> <b>8D</b> <b>8E</b> <b>8F</b> <b>8G</b> <b>8H</b> <b>8I</b> <b>8J</b>	<b>BODY AND ACCESSORIES</b> Lighting System Wiper/Washer System Entertainment Wiring System Meter and Gauge Body Structure Seats Security and Locks Sun Roof/Convertible Top Exterior/Interior Trim	
<b>9A</b> <b>9J</b> <b>9J1</b>	<b>RESTRAINTS</b> Seat Belt System Supplemental Restraint System (Air Bag System) Restraint Control System	
<b>10A</b>	<b>CONTROL SYSTEM</b> Cruise Control System	

RODEO

# GENERAL INFORMATION

## CONTENTS

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## General Information

### CONTENTS

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Theft Prevention Standard .....	0A-5	Service Parts Identification Plate .....	0A-14

### General Repair Instruction

- If a floor jack is used, the following precautions are recommended.  
Park vehicle on level ground, "block" front or rear wheels, set jack against the recommended lifting points (see "Lifting Instructions" in this section), raise vehicle and support with chassis stands and then perform the service operations.
- Before performing service operations, disconnect ground cable from the battery to reduce the chance of cable damage and burning due to short circuiting.
- Use a cover on body, seats and floor to protect them against damage and contamination.
- Brake fluid and anti-freeze solution must be handled with reasonable care, as they can cause paint damage.
- The use of proper tools and recommended essential and available tools, where specified, is important for efficient and reliable performance of service repairs.
- Use genuine Isuzu parts.
- Used cotter pins, plastic clips, gaskets, O-rings, oil seals, lock washers and self-locking nuts should be discarded and new ones should be installed, as normal function of the parts cannot be maintained if these parts are reused.
- To facilitate proper and smooth reassembly operation, keep disassembled parts neatly in groups. Keeping fixing bolts and nuts separate is very important, as they vary in hardness and design depending on position of installation.
- Clean the parts before inspection or reassembly. Also clean oil ports, etc. using compressed air, and make certain they are free from restrictions.
- Lubricate rotating and sliding faces of the parts with oil or grease before installation.
- When necessary, use a sealer on gaskets to prevent leakage.
- Carefully observe all specifications for bolt and nut torques.
- When removing or replacing parts that require refrigerant to be discharged from the air conditioning system, be sure to use the Vehicle Refrigerant Recovery and Recycling Equipment (VRRRE) to recover and recycle Refrigerant-134a.
- When a service operation is completed, make a final check to be sure the service has been done properly and the problem has been corrected.

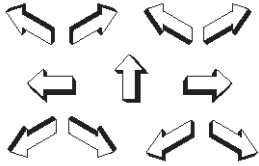






#### 15. SUPPLEMENTAL RESTRAINT SYSTEM








The vehicle is equipped with a Supplemental Restraint System (SRS) – Air Bags. This system is not to be serviced without consulting the appropriate service information. Consult Section 9J "SRS System" if work is to be done on the front of the vehicle such as bumper, sheet metal, seats, wiring, steering wheel or column. Also review SRS system information if any arc welding is to be done on the vehicle. The SRS system equipped vehicle can be identified by:

- "AIR BAG" warning light on the instrument cluster.
- A Code "J" for fifth digit of Vehicle Identification Number.

### Illustration Arrows

Arrows are designed for specific purposes to aid your understanding of technical illustrations.

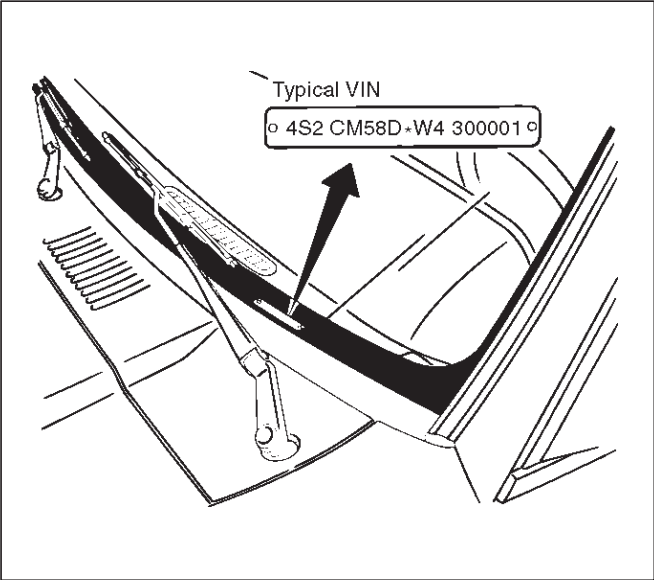
Arrow Type	Application
	Front of vehicle
	Up Side
	Task Related
	View Detail
	View Angle
	Dimension (1:2)
	Sectioning (1:3)

Arrow Type	Application
	<ul style="list-style-type: none"> <li>• Ambient/Clean air flow</li> <li>• Cool air flow</li> </ul>
	<ul style="list-style-type: none"> <li>• Gas other than ambient air</li> <li>• Hot air flow</li> </ul>
	<ul style="list-style-type: none"> <li>• Ambient air mixed with another gas</li> <li>• Can indicate temperature change</li> </ul>
	Motion or direction
	Lubrication point oil or fluid
	Lubrication point grease
	Lubrication point jelly

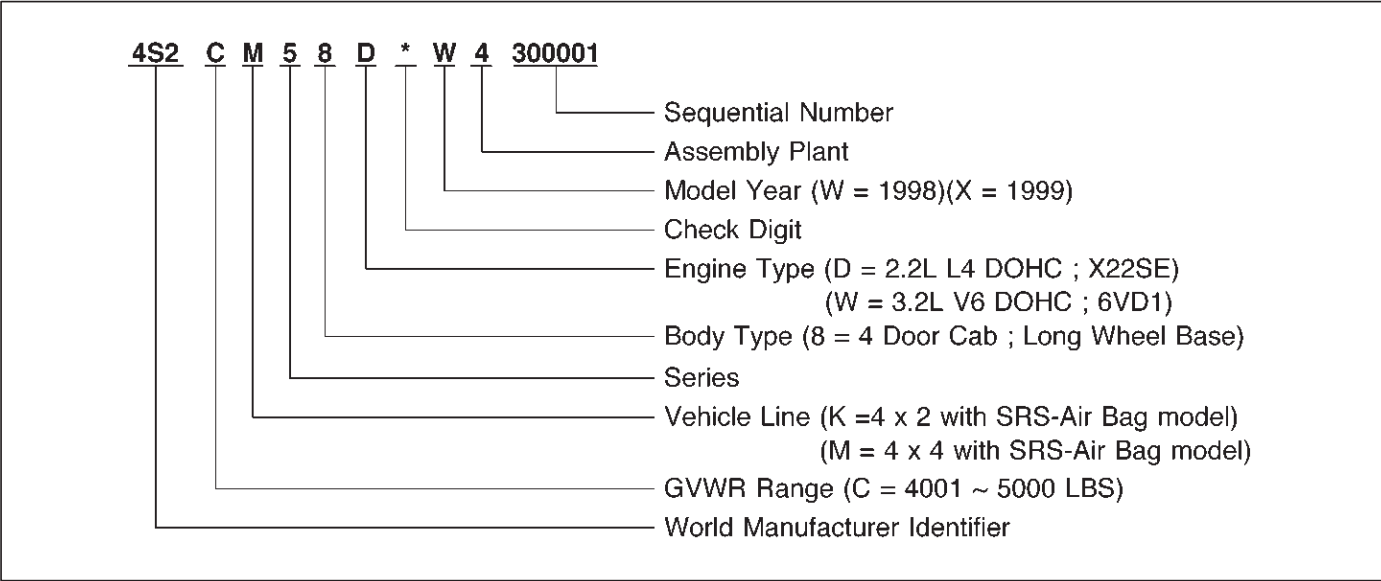
### Identification

#### Vehicle Identification Number (VIN)

This is the legal identification of the vehicle. it is located on the left bottom of the windshield. It can be easily seen through the windshield from outside the vehicle.



710RW003

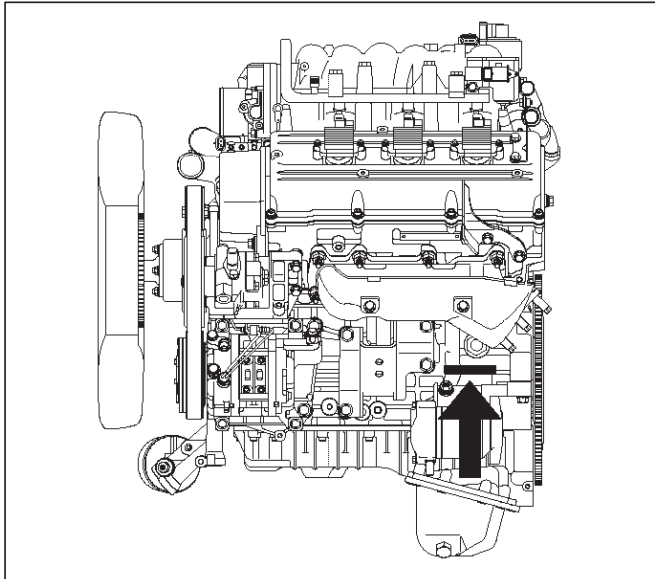


F00RX002

### Engine Serial Number

- **6VD1 Engine**

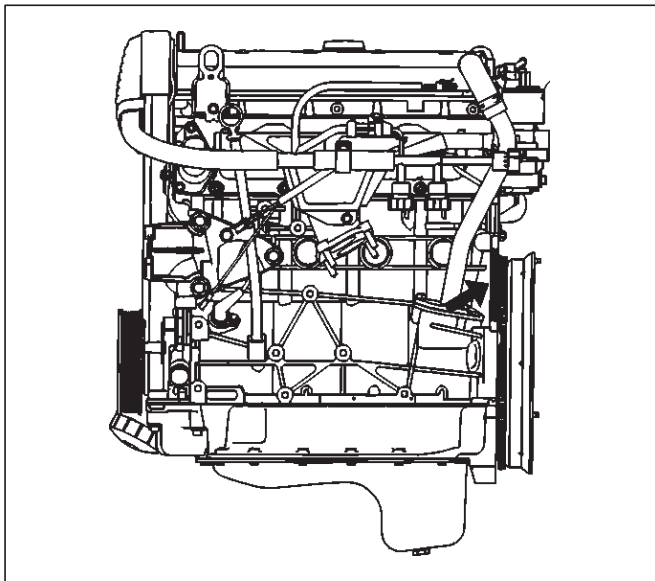
The gasoline engine serial number is stamped on the left rear lower area of the cylinder block above the starter.



F06RW001

- **X22SE Engine**

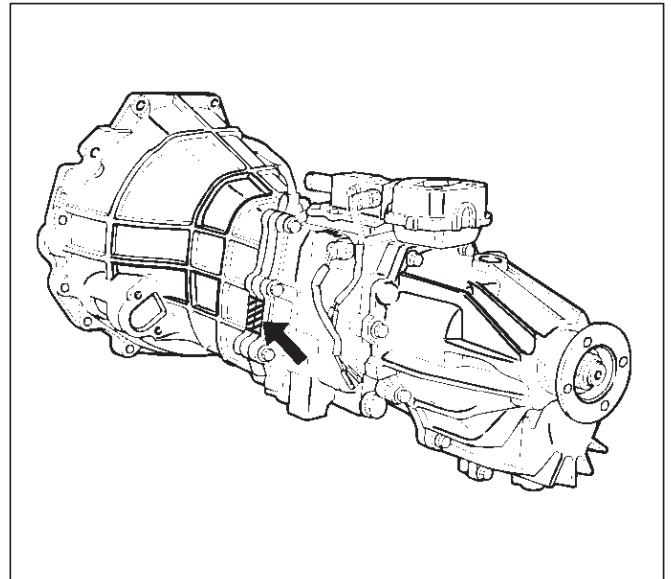
The gasoline engine serial number is stamped on the rear end raised area of the cylinder block left side.



035RW022

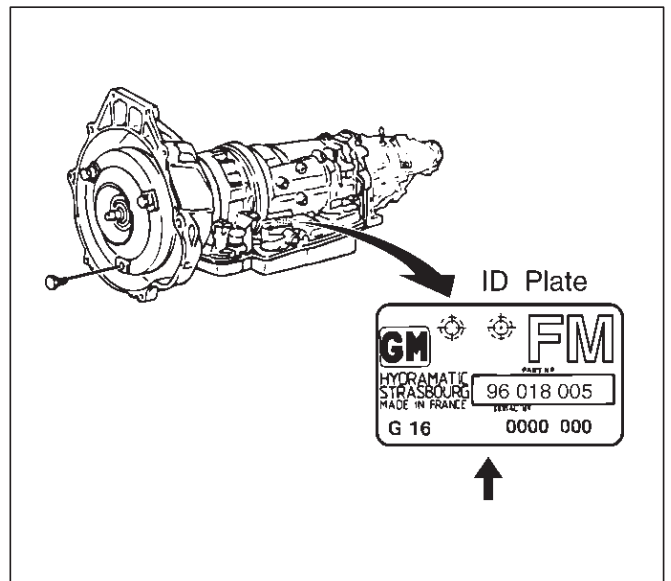
### Transmission Serial Number

Manual : Stamped on the left side of the transmission intermediate plate.



220RS025




Automatic : Stamped on the identification plate, located on the left side of the transmission above the mode switch.



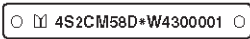



240RW019

### Theft Prevention Standard

The 11 major components listed below will be marked with 17 digit VIN at the stage of production. In addition its service parts will be marked with manufacturer’s trade mark, “R” mark and “DOT” mark.

Reference Figure No.	COMPONENT		INDICATION	
			PRODUCTION	SERVICE PARTS
0A-10	ENGINE	1– 6VD1 – X22SE	VIN plate	
0A-11	TRANSMISSION	2– Manual transmission – Automatic transmission	VIN plate	
0A-11	BODY	3– Engine hood 4– Front door 5– Rear door 6– Fender 7– Rear Quarter panel 8– Front bumper 9– Back door left side 10– Back door right side 11– Rear bumper	VIN label	

### Anti Theft Stamping/Plate/Label

	STAMPING/PLATE	LABEL
PRODUCTION	Example 	Example 
SERVICE PARTS		



## 0A-6 GENERAL INFORMATION

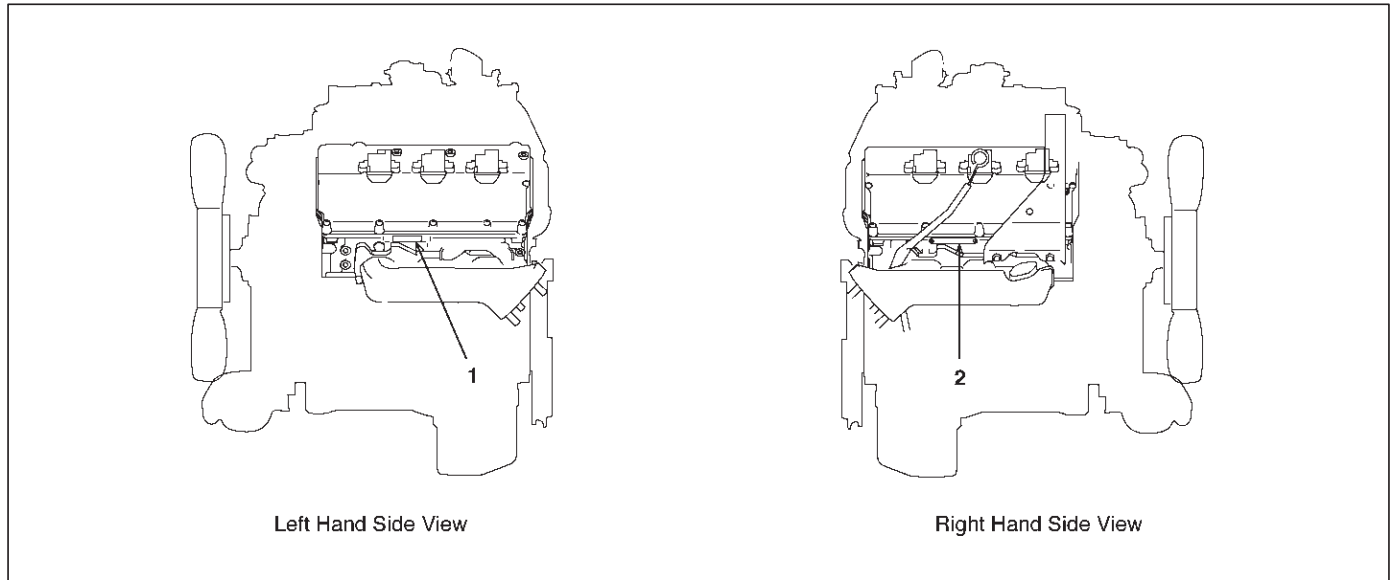
### Anti Theft Stamping/Label/Plate Location

The stamping, label and plate locations are indicated by arrows in the illustration below.

#### NOTE:

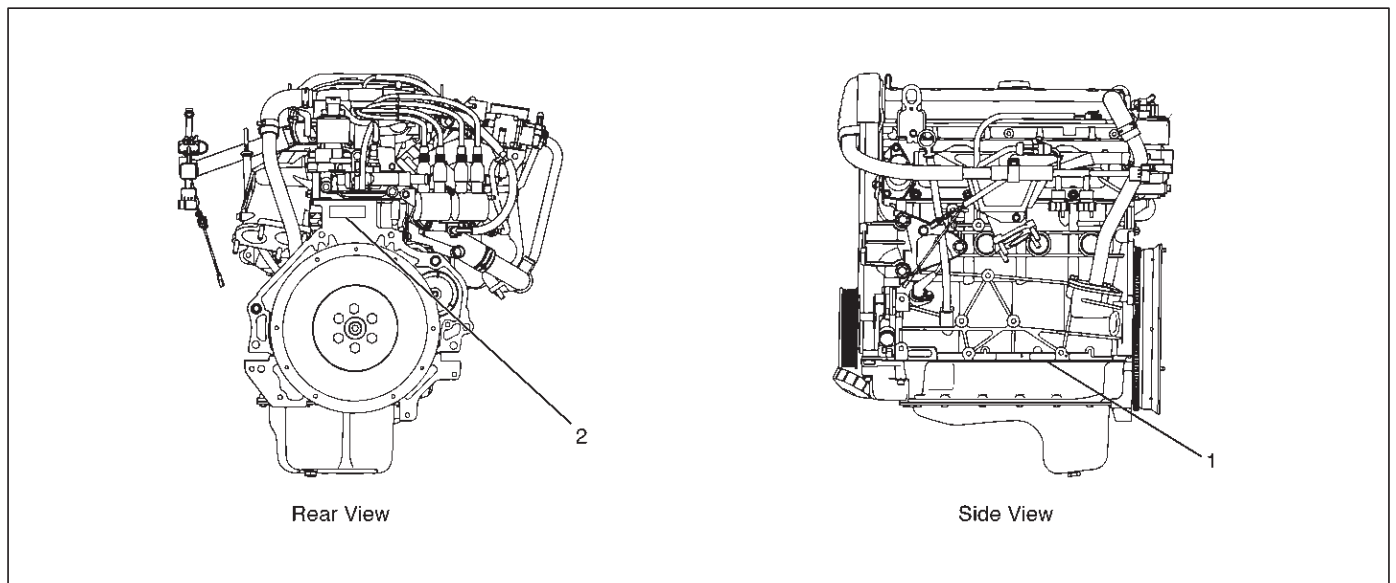
1. VIN plate locations for production.
2. Stamping locations for service parts.

#### Engine (6VD1)



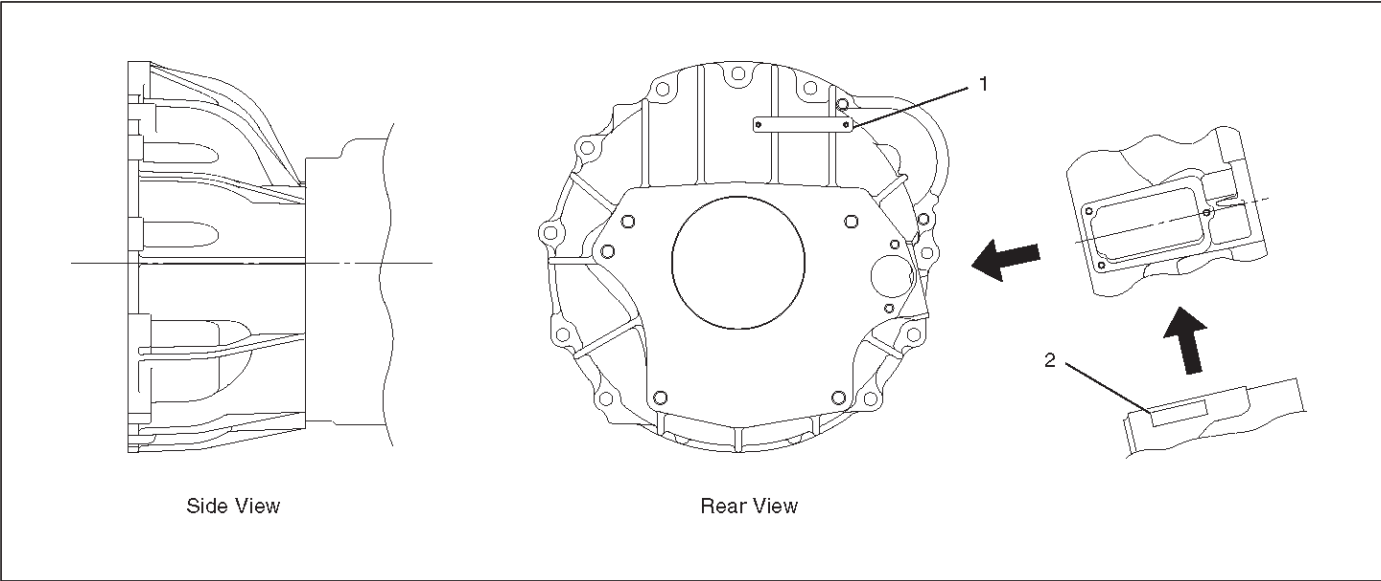
901RW080

#### Engine (X22SE)



035RW025

Manual Transmission (TREMEC T5)



Manual Transmission (MUA)

