

## 1. Foreword

### A: FOREWORD

These manuals are used when performing maintenance, repair or diagnosis of Subaru LEGACY.

Applicable model:  
2009MY BL\*\*\*\*, BP\*\*\*\*

The manuals contain the latest information at the time of publication. Changes in the specifications, methods, etc. may be made without notice.

# How to Use This Manuals

## HOW TO USE THIS MANUALS

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### **1. How to Use This Manuals**

#### **A: HOW TO USE THIS MANUALS**

##### **1. STRUCTURE**

Each section consists of SCT that are broken down into SC that are divided into sections for each component. The specification, maintenance and other information for the components are included, and the diagnostic information has also been added where necessary.

##### **2. CONTENTS**

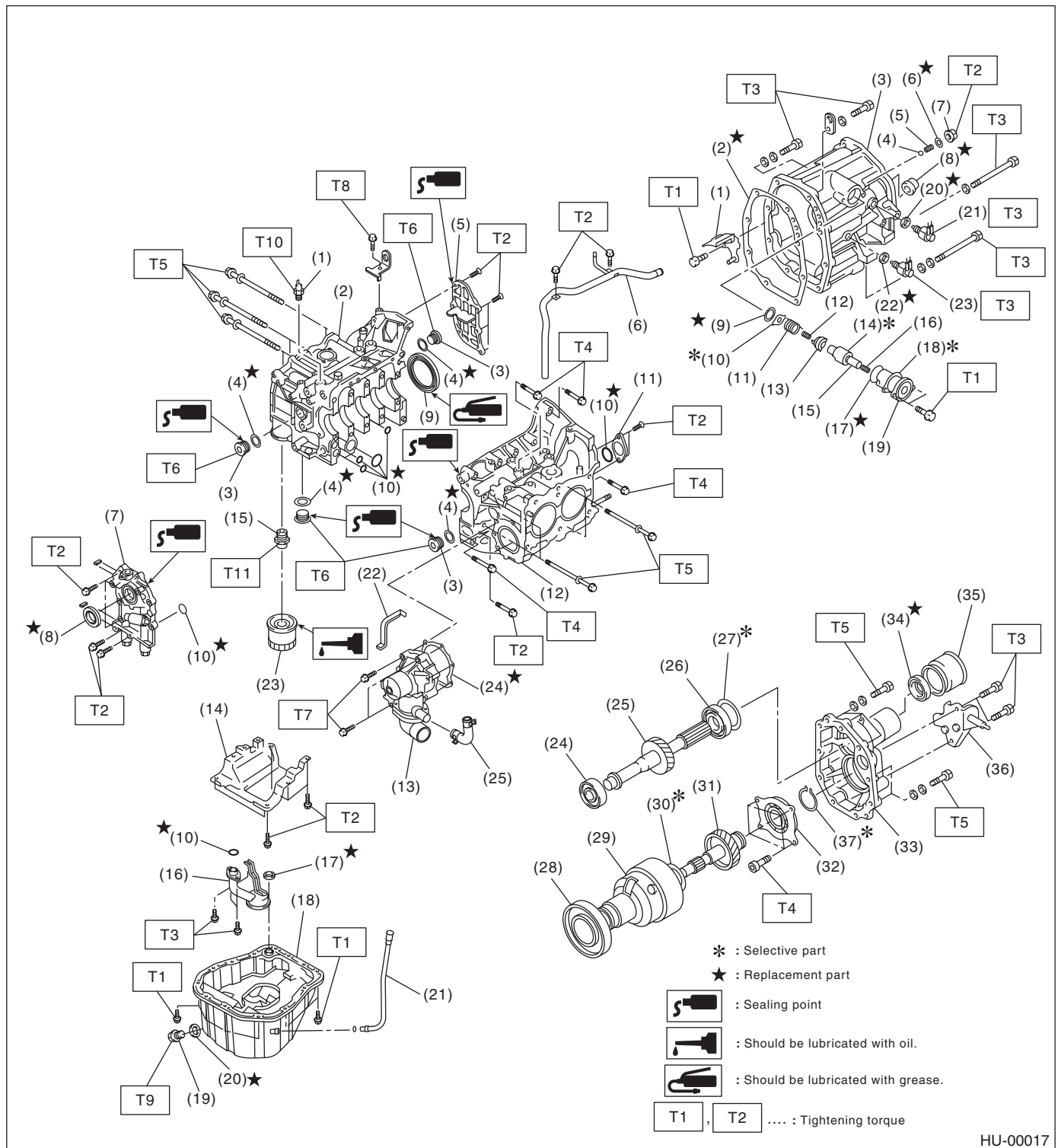
The first page has an index with tabs.

## 3. COMPONENT

Illustrations are provided for each component. The information necessary for repair work (tightening torque, grease up points, etc.) is described on these illustrations. Information is described using symbol.

To order parts, refer to parts catalogue.

**Example:**



HU-00017

# How to Use This Manuals

## HOW TO USE THIS MANUALS

### 4. SPECIFICATION

If necessary, specifications are also included.

### 5. INSPECTION

Inspections to be carried out before and after maintenance are included.

### 6. MAINTENANCE

- Maintenance instructions for serviceable parts describe work area and detailed step with illustration. It also describes the use of special tool, tightening torque, caution for each procedure.
- If many serviceable parts are included in one service procedure, appropriate reference is provided for each parts.

#### Example:

## 15. Main Shaft Assembly for Single-Range ← (A)

### A: REMOVAL ← (B)

1) Remove the manual transmission assembly from vehicle. <Ref. to MT-33, REMOVAL, Manual Transmission Assembly.> ← (C)

11) Tighten the lock nuts to the specified torque using ST1 and ST2.

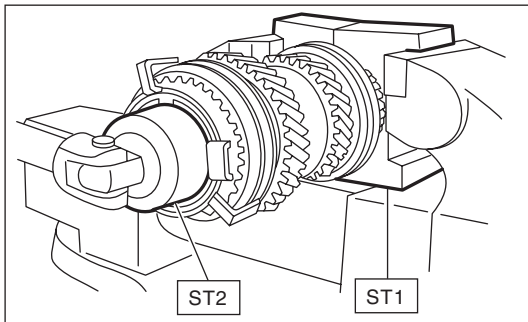
NOTE: ← (D)  
Secure the lock nuts in two places after tightening.

ST1 498937000 TRANSMISSION HOLDER

ST2 499987003 SOCKET WRENCH (35) ← (E) (F)

#### Tightening torque:

**118 N·m (12.0 kgf-m, 86.8 ft-lb)** ← (G)



HU-00020

(A) Component

(D) Cautions

(G) Tightening torque

(B) Process

(E) Tool number of special tool

(H) Illustration

(C) Reference

(F) Name of special tool

## 7. DIAGNOSIS

Tables showing a step-by-step process make it easy to conduct diagnosis.

## 8. SI UNITS

Measurements in these manuals are according to the SI units. Metric and yard/pound measurements are also included.

### Example:

#### *Tightening torque:*

***44 N·m (4.5 kgf·m, 33 ft·lb)***

Item	SI units	Conventional unit	Remarks
Force	N (Newton)	kgf	1 kgf = 9.80655 N
Mass (Weight)	kg, g	kg, g	
Capacity	ℓ, mℓ or cm <sup>3</sup>	ℓ or cc	1 cc = 1 cm <sup>3</sup> = 1 mℓ
Torque	N·m	kgf·m, kgf·cm	1 kgf·m = 9.80655 N·m
Rotating speed	rpm	rpm	
Pressure	kPa (kilopascal)	kgf/cm <sup>2</sup>	1 kgf/cm <sup>2</sup> = 98.0655 kPa
		mmHg	1 mmHg = 0.133322 kPa
Power	W	PS	1 PS = 0.735499 kW
Calorie	W·h	cal	1 kcal = 1.16279 W·h
Fuel consumption rate	g/kw·h	g/PS·h	1 g/PS·h = 1.3596 g/kW·h

The figure used in these manuals are described in the SI units and conventional units are described in ( ).

# How to Use This Manuals

## HOW TO USE THIS MANUALS

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### 9. EXPLANATION OF TERMINOLOGY

#### • List

AAI	: Air Assist Injection	H/U	: Hydraulic Unit
A/B	: Airbag	HVAC	: Heater, Ventilator and Air Conditioner
ABS	: Anti-lock Brake System	IG	: Ignition
A/C	: Air Conditioner	IN	: Intake
ADA	: Active Driving Assist	INT	: Intermittent
A/F	: Air Fuel Ratio	I/O	: Input / Output
ALT	: Generator	ISC	: Idle Speed Control
APS	: Accessory power supply socket	LAN	: Local Area Network
ASSY	: Assembly	LH	: LH (Left Hand)
AT	: Automatic Transmission	LSD	: Limited Slip Differential
ATF	: Automatic Transmission Fluid	M/B	: Main Fuse & Relay Box
AVCS	: Active Valve Control System	MID	: Multi-information Display
AWD	: All Wheel Drive	MFI	: Multi Point Injection
BATT	: Battery	MP-T	: Multi-Plate Transfer
BJ	: Bell Joint	MT	: Manual Transmission
CAN	: Communication Area Network	NA	: Natural Aspiration
CD	: Compact Disc	OP	: Option Parts
COMPL	: Complete	PC	: Personal Computer
CPU	: Central Processing Unit	PCV	: Positive Crankcase Ventilation
DOHC	: Double Overhead Camshaft	P/S	: Power Steering
DOJ	: Double Offset Joint	PTJ	: Pillow Tripod Joint
DTC	: Diagnostic code	P/W	: Power Window
EBJ	: High-Efficiency Compact Ball Fixed Joint	RH	: RH (Right Hand)
ECM	: Engine Control Module	Rr	: Rear
EDJ	: High-Efficiency Compact Double Offset Joint	SDI	: SUBARU Diagnostic Interface
EGI	: Electronic Gasoline Injection	SI-DRIVE	: SUBARU Intelligent Drive
E/G	: Engine	SOHC	: Single Overhead Camshaft
EGR	: Exhaust Gas Recirculation	SRS	: Supplemental Restraint System
ETC	: Electronic Throttle Control	ST	: Special Tool
EX	: Exhaust	SW	: Switch
F/B	: Fuse & Joint Box	TCS	: Traction Control System
Ft	: Front	TGV	: Tumble Generator Valve
FWD	: Front Wheel Drive	VDC	: Vehicle Dynamics Control
GPS	: Global Positioning System	VTD	: Variable Torque Distribution
HID	: High-Intensity Discharge		

# LEGACY

## SPECIFICATIONS

### 1. LEGACY

#### A: DIMENSION

##### 1. SEDAN MODEL

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Overall length	mm (in)	4,700 (185.0)		
Overall width	mm (in)	1,730 (68.1)		
Overall height (at C.W.)	mm (in)	1,425 (56.1)	1,425 (56.1), 1,435 (56.5) <sup>*2</sup>	1,435 (56.5)
Compartment	Length	mm (in)	1,900 (74.8)	
	Width	mm (in)	1,445 (56.9)	
	Height	mm (in)	1,165 (45.9), 1,100 (43.3) <sup>*1</sup>	
Wheelbase	mm (in)	2,670 (105.1)		
Tread	Front	mm (in)	1,495 (58.9)	
	Rear	mm (in)	1,485 (58.5)	
Minimum road clearance	mm (in)	150 (5.9)	150 (5.9), 160 (6.3) <sup>*2</sup>	160 (6.3)

\*1: With sunroof

\*2: 2.5 GT spec. B model

##### 2. WAGON MODEL

Model		2.5 L SOHC	2.5 L DOHC turbo
Overall length	mm (in)	4,785 (188.4)	
Overall width	mm (in)	1,730 (68.1)	
Overall height (at C.W.)	mm (in)	1,475 (58.1)	
Compartment	Length	mm (in)	1,840 (72.4)
	Width	mm (in)	1,445 (56.9)
	Height	mm (in)	1,190 (46.9), 1,145 (45.1) <sup>*1</sup>
Wheelbase	mm (in)	2,670 (105.1)	
Tread	Front	mm (in)	1,495 (58.9)
	Rear	mm (in)	1,485 (58.5)
Minimum road clearance	mm (in)	150 (5.9)	155 (6.1)

\*1: With sunroof

## B: ENGINE

Model	2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Engine type	Horizontally opposed, liquid cooled, 4-cylinder, 4-stroke gasoline engine		Horizontally opposed, liquid cooled, 6-cylinder, 4-stroke gasoline engine
Valve arrangement	Overhead camshaft		
Bore × stroke mm (in)	99.5 × 79.0 (3.917 × 3.110)		89.2 × 80.0 (3.512 × 3.150)
Displacement cm <sup>3</sup> (cu in)	2,457 (149.9)		3,000 (183.06)
Compression ratio	10.0	8.4	10.7
Ignition order	1 — 3 — 2 — 4		1 — 6 — 3 — 2 — 5 — 4
Idle speed at Park or Neutral position rpm	650 (MT) 700 (AT)	750	650
Maximum output kW (HP)/rpm	125 (170)/6,000	184 (243)/6,000	185 (245)/6,600
Maximum torque N·m (kgf-m, ft-lb)/rpm	230 (23.5, 170)/4,400	327 (33.3, 241)/3,600	291 (29.7, 215)/4,200

## C: ELECTRICAL

Model	2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Ignition timing (at idling) BTDC	MT: 10° AT: 15°	MT: 12° AT: 17°	15°
Spark plug Type and manufacturer	NGK: FR5AP-11	NGK: SILFR6A	NGK: ILFR6B
Generator	12 V — 110 A		
Battery Type and capacity (5HR)	MT	12V — 48AH (55D23L)	
	AT	12V — 52AH (75D23L)	



# LEGACY

## SPECIFICATIONS

### D: TRANSMISSION

#### 1. MT

Model		2.5 L SOHC	2.5 L DOHC turbo	
Transmission type		5MT	5MT	6MT
Clutch type		DSPD	DSPD	DSPD
Gear ratio	1st	3.454	3.166	3.636
	2nd	2.062	1.882	2.235
	3rd	1.448	1.296	1.521
	4th	1.088	0.972	1.137
	5th	0.780	0.738	0.891
	6th	—	—	0.707
	Rev.	3.333	3.333	3.545
Reduction gear (Front)		Type of gear	Hypoid	Hypoid
		Gear ratio	3.900	3.900
Reduction gear (Rear)	Transfer reduction	Type of gear	Helical	Helical
		Gear ratio	1.000	1.100
	Final reduction	Type of gear	Hypoid	Hypoid
		Gear ratio	3.900	3.545

5MT: 5-forward speeds with synchromesh and 1-reverse

6MT: 6-forward speeds with synchromesh and 1-reverse

DSPD: Dry Single Plate Diaphragm

#### 2. AT

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC	
				3.0 R	3.0 R LTD
Transmission type		4AT	5AT	5AT	
Clutch type		TCC	TCC	TCC	
Gear ratio	1st	2.785	3.540	3.540	
	2nd	1.545	2.264	2.264	
	3rd	1.000	1.471	1.471	
	4th	0.694	1.000	1.000	
	5th	—	0.834	0.834	
	6th	—	—	—	
	Rev.	2.272	2.370	2.370	
Reduction gear (Front)	1st reduction	Type of gear	Helical	Helical	
		Gear ratio	1.000	1.000	
	Final reduction	Type of gear	Hypoid	Hypoid	
		Gear ratio	4.111	3.083	3.272
Reduction gear (Rear)		Type of gear	Hypoid	Hypoid	
		Gear ratio	4.111	3.083	3.272

4AT: Electronically controlled fully-automatic, 4-forward speeds and 1-reverse

5AT: Electronically controlled fully-automatic, 5-forward speeds and 1-reverse

TCC: Torque Converter Clutch

**E: STEERING**

Model		2.5 L SOHC	2.5 L DOHC turbo		3.0 L DOHC	
			GT spec. B	GT	3.0 R LTD	3.0 R
Type		Rack and pinion				
Turns, lock to lock		3.2	2.6	2.8	2.6	2.8
Minimum turning diameter	Curb to curb	10.8 (35.4)	11.6 (38.0)	10.8 (35.4)	11.6 (38.0)	10.8 (35.4)
	Wall to wall	11.6 (38.1)	12.4 (40.7)	11.6 (35.4)	12.4 (40.7)	11.6 (35.4)

**F: SUSPENSION**

Front	Macpherson strut type suspension
Rear	Multi-link type suspension

**G: BRAKE**

Model	2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Service brake system	Dual circuit hydraulic with vacuum suspended power unit		
Front	Ventilated disc brake		
Rear	Disc brake	Ventilated disc brake	
Parking brake	Mechanical on rear brakes		

**H: TIRE**

Model	2.5 L SOHC		2.5 L DOHC turbo		3.0 L DOHC	
	Canada model	Except Canada model	2.5 GT spec. B	Except 2.5 GT spec.B	3.0 R	3.0 R LTD
Wheel size	16 × 6 1/2JJ	17 × 7JJ	18 × 7JJ	17 × 7JJ	17 × 7JJ	18 × 7JJ
Tire size	P205/55 R16 89H	P205/50 R17 88V	215/45 R18 89Y	215/45 R17 91W	215/45 R17 91W	P215/45 R18 89W
Type	Tubeless, Steel belted radial					

**I: CAPACITY**

Model		2.5 L SOHC		2.5 L DOHC turbo			3.0 L DOHC	
		5MT	4AT	5MT	5AT	6MT	5AT	
Fuel tank		ℓ (US gal, Imp gal)						64 (16.9, 14.1)
Engine oil	Total capacity (Overhaul)	ℓ (US qt, Imp qt)					5.0 (5.3, 4.4)	7.0 (7.4, 6.2)
	Filling amount of engine oil ℓ (US qt, Imp qt)	When replacing engine oil and oil filter		4.2 (4.4, 3.7)		4.3 (4.5, 3.8)		5.7 (6.0, 5.0)
		When replacing engine oil only		4.0 (4.2, 3.5)				5.5 (5.8, 4.8)
Transmission gear oil		ℓ (US qt, Imp qt)	3.5 (3.7, 3.1)	—	3.5 (3.7, 3.1)	—	4.1 (4.3, 3.6)	—
ATF		ℓ (US qt, Imp qt)	—	9.3 (9.8, 8.2)	—	9.8 (10.4, 8.6)	—	9.8 (10.4, 8.6)
Front differential gear oil		ℓ (US qt, Imp qt)	—	1.2 (1.3, 1.1)	—	1.4 (1.5, 1.2)	—	1.4 (1.5, 1.2)
Rear differential gear oil		ℓ (US qt, Imp qt)	0.8 (0.8, 0.7)			1.0 (1.1, 0.9)	0.8 (0.8, 0.7)	
Power steering fluid		ℓ (US qt, Imp qt)	0.7 (0.7, 0.6)					
Engine coolant		ℓ (US qt, Imp qt)	6.4 (6.8, 5.6)	6.3 (6.7, 5.5)	7.3 (7.7, 6.4)	7.2 (7.6, 6.3)	7.3 (7.7, 6.4)	7.2 (7.6, 6.3)

# LEGACY

## SPECIFICATIONS

### J: WEIGHT

#### 1. US MODEL

Model			Sedan				
			2.5 L Non-turbo				
			2.5 i BASE		2.5 i		2.5 i Limited
			5MT	4AT	5MT	4AT	4AT
Destination code			U5, U6				
OP code			DC		DW		EW
Curb weight (C.W.)	Front	kg (lb)	821 (1,810)	841 (1,855)	825 (1,819)	845 (1,864)	854 (1,884)
	Rear	kg (lb)	664 (1,465)	669 (1,475)	673 (1,483)	677 (1,493)	682 (1,503)
	Total	kg (lb)	1,485 (3,275)	1,510 (3,330)	1,498 (3,302)	1,522 (3,357)	1,536 (3,387)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)
Option	Vehicle dynamics control		○	○	○	○	○
	Power package		—	—	—	—	○
	Side airbag		○	○	○	○	○
	Curtain airbag		○	○	○	○	○
	Sunroof		—	—	○	○	○
	Navigation system		—	—	—	—	—
Dark colored glass		—	—	—	—	—	

# LEGACY

## SPECIFICATIONS

Model		Sedan							
		2.5 L Turbo				3.0 L Non-turbo			
		2.5 GT LTD		2.5 GT spec. B		3.0 R	3.0 R LTD		
		5MT	5AT	6MT	5AT				
Destination code		U4							
OP code		3W	EW	EK	EK	DW	EW	EK	
Curb weight (C.W.)	Front	kg (lb)	872 (1,922)	901 (1,987)	903 (1,992)	912 (2,012)	911 (2,008)	926 (2,042)	928 (2,047)
	Rear	kg (lb)	683 (1,506)	688 (1,516)	688 (1,516)	694 (1,531)	682 (1,503)	685 (1,511)	685 (1,511)
	Total	kg (lb)	1,555 (3,428)	1,589 (3,503)	1,591 (3,508)	1,607 (3,543)	1,592 (3,511)	1,611 (3,553)	1,614 (3,558)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	2,010 (4,435)	2,010 (4,435)	2,010 (4,535)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,010 (4,535)
Option	Vehicle dynamics control		—	○	○	○	○	○	○
	Power package		○	○	○	○	—	○	○
	Side airbag		○	○	○	○	○	○	○
	Curtain airbag		○	○	○	○	○	○	○
	Sunroof		○	○	○	○	○	○	○
	Navigation system		—	—	○	○	—	—	○
	Dark colored glass		—	—	—	—	—	—	—

# LEGACY

## SPECIFICATIONS

### 2. CANADA MODEL

Model			Sedan						
			2.5 L Non-turbo				2.5 L Turbo	3.0 L Non-turbo	
			2.5 i				2.5 GT spec. B	3.0 R	
			5MT		4AT		6MT	5AT	
Destination code			C0	C5	C0	C5	C0		
OP code			DW	UC	DW	UC	EK	EW	EK
Curb weight (C.W.)	Front	kg (lb)	828 (1,826)	812 (1,790)	848 (1,870)	832 (1,835)	913 (2,013)	913 (2,013)	916 (2,020)
	Rear	kg (lb)	678 (1,495)	660 (1,455)	682 (1,504)	664 (1,464)	695 (1,532)	684 (1,508)	684 (1,508)
	Total	kg (lb)	1,506 (3,321)	1,472 (3,246)	1,530 (3,374)	1,496 (3,299)	1,608 (3,546)	1,597 (3,521)	1,600 (3,528)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)
Option	Vehicle dynamics control		○	—	○	—	○	○	○
	Power package		—	—	—	—	○	○	○
	Side airbag		○	○	○	○	○	○	○
	Curtain airbag		○	○	○	○	○	○	○
	Sunroof		○	—	○	—	○	○	○
	Navigation system		—	—	—	—	○	—	○
	Dark colored glass		—	—	—	—	—	—	—

Model		Wagon				
		2.5 L Non-turbo				
		2.5 i				
		5MT		4AT		
Destination code		C0	C5	C0	C5	
OP code		DW	UC	DW	UC	
Curb weight (C.W.)	Front	kg (lb)	823 (1,815)	806 (1,777)	843 (1,859)	826 (1,821)
	Rear	kg (lb)	697 (1,537)	670 (1,477)	697 (1,537)	670 (1,477)
	Total	kg (lb)	1,520 (3,352)	1,476 (3,255)	1,540 (3,396)	1,496 (3,299)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)	1,960 (4,325)
Option	Vehicle dynamics control		○	—	○	—
	Power package		—	—	—	—
	Side airbag		○	○	○	○
	Curtain airbag		○	○	○	○
	Sunroof		○	—	○	—
	Navigation system		—	—	—	—
	Dark colored glass		—	—	—	—

# OUTBACK

## SPECIFICATIONS

## 2. OUTBACK

### A: DIMENSION

#### 1. WAGON MODEL

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Overall length	mm (in)	4,800 (189.0)		
Overall width	mm (in)	1,770 (69.7)		
Overall height (at C.W.)	mm (in)	1,605 (63.2)		
Compartment	Length	mm (in)	1,840 (72.4)	
	Width	mm (in)	1,445 (56.9)	
	Height	mm (in)	1,190 (46.9), 1,145 (45.1)* <sup>1</sup>	
Wheelbase	mm (in)	2,670 (105.1)		
Tread	Front	mm (in)	1,495 (58.9)	
	Rear	mm (in)	1,490 (58.7)	
Minimum road clearance	mm (in)	215 (8.5)	220 (8.7)	215 (8.5)

\*1: With sunroof

### B: ENGINE

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Engine type		Horizontally opposed, liquid cooled, 4-cylinder, 4-stroke gasoline engine		Horizontally opposed, liquid cooled, 6-cylinder, 4-stroke gasoline engine
Valve arrangement		Overhead camshaft		
Bore × stroke	mm (in)	99.5 × 79.0 (3.917 × 3.110)		89.2 × 80.0 (3.512 × 3.150)
Displacement	cm <sup>3</sup> (cu in)	2,457 (149.9)		3,000 (183.06)
Compression ratio		10.0	8.4	10.7
Ignition order		1 — 3 — 2 — 4		1 — 6 — 3 — 2 — 5 — 4
Idle speed at Park or Neutral position	rpm	650 (MT) 700 (AT)	750	650
Maximum output	kW (HP)/rpm	125 (170)/6,000	184 (243)/6,000	185 (245)/6,600
Maximum torque	N·m (kgf-m, ft-lb)/rpm	230 (23.5, 170)/4,400	327 (33.3, 241)/3,600	291 (29.7, 215)/4,200

### C: ELECTRICAL

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Ignition timing (at idling)	BTDC	MT: 10° AT: 15°	MT: 12° AT: 17°	15°
Spark plug	Type and manufacturer	NGK: FR5AP-11	NGK: SILFR6A	NGK: ILFR6B
Generator		12 V — 110 A		
Battery	Type and capacity (5HR)	MT	12V — 48AH (55D23L)	
		AT	12V — 52AH (75D23L)	

## D: TRANSMISSION

### 1. MT

Model		2.5 L SOHC	2.5 L DOHC turbo
Transmission type		5MT	5MT
Clutch type		DSPD	DSPD
Gear ratio	1st	3.454	3.166
	2nd	2.062	1.882
	3rd	1.448	1.296
	4th	1.088	0.972
	5th	0.825	0.738
	Rev.	3.333	3.333
Reduction gear (Front)		Type of gear	Hypoid
		Gear ratio	4.111
Reduction gear (Rear)	Transfer reduction	Type of gear	Helical
		Gear ratio	1.000
	Final reduction	Type of gear	Hypoid
		Gear ratio	4.111

5MT: 5-forward speeds with synchromesh and 1-reverse

DSPD: Dry Single Plate Diaphragm

### 2. AT

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Transmission type		4AT	5AT	5AT
Clutch type		TCC	TCC	TCC
Gear ratio	1st	2.785	3.540	3.540
	2nd	1.545	2.264	2.264
	3rd	1.000	1.471	1.471
	4th	0.694	1.000	1.000
	5th	—	0.834	0.834
	Rev.	2.272	2.370	2.370
Reduction gear (Front)	1st reduction	Type of gear	Helical	Helical
		Gear ratio	1.000	1.000
	Final reduction	Type of gear	Hypoid	Hypoid
		Gear ratio	4.444	3.272
Reduction gear (Rear)		Type of gear	Hypoid	Hypoid
		Gear ratio	4.444	3.272

4AT: Electronically controlled fully-automatic, 4-forward speeds and 1-reverse

5AT: Electronically controlled fully-automatic, 5-forward speeds and 1-reverse

TCC: Torque Converter Clutch

## E: STEERING

Model		2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Type		Rack & pinion		
Turns, lock to lock		3.2		
Minimum turn- ing diameter	m (ft)	Curb to curb	10.8 (35.4)	
		Wall to wall	11.6 (38.1)	



# OUTBACK

## SPECIFICATIONS

### F: SUSPENSION

Front	Macpherson strut type suspension
Rear	Multi-link type suspension

### G: BRAKE

Model	2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Service brake system	Dual circuit hydraulic with vacuum suspended power unit		
Front	Ventilated disc brake		
Rear	Disc brake		
Parking brake	Mechanical on rear brakes		

### H: TIRE

Model	2.5L SOHC BASE	2.5 L SOHC	2.5 L DOHC turbo	3.0 L DOHC
Wheel size	16 × 6 <sup>1</sup> / <sub>2</sub> JJ	16 × 6 <sup>1</sup> / <sub>2</sub> JJ <sup>*1</sup> , 17 × 7JJ	17 × 7JJ	17 × 7JJ
Tire size	P225/60 R16 97H	P225/60 R16 97H <sup>*1</sup> , P225/55 R17 95V		
Type	Tubeless, Steel belted radial			

\*1: 2.5 L SOHC model for Canada

### I: CAPACITY

Model		2.5 L SOHC		2.5 L DOHC turbo		3.0 L DOHC
		5MT	4AT	5MT	5AT	5AT
Fuel tank		ℓ (US gal, Imp gal)		64 (16.9, 14.1)		
Engine oil	Total capacity (Overhaul)	ℓ (US qt, Imp qt)		5.0 (5.3, 4.4)		7.0 (7.4, 6.2)
	Filling amount of engine oil ℓ (US qt, Imp qt)	When replacing engine oil and oil filter		4.2 (4.4, 3.7)	4.3 (4.5, 3.8)	5.7 (6.0, 5.0)
		When replacing engine oil only		4.0 (4.2, 3.5)		5.5 (5.8, 4.8)
Transmission gear oil		ℓ (US qt, Imp qt)		3.5 (3.7, 3.1)	—	3.5 (3.7, 3.1)
ATF		ℓ (US qt, Imp qt)		—	9.3 (9.8, 8.2)	—
Front differential gear oil		ℓ (US qt, Imp qt)		—	1.2 (1.3, 1.1)	—
Rear differential gear oil		ℓ (US qt, Imp qt)		0.8 (0.8, 0.7)		
Power steering fluid		ℓ (US qt, Imp qt)		0.7 (0.7, 0.6)		
Engine coolant		ℓ (US qt, Imp qt)		6.4 (6.8, 5.6)	6.3 (6.7, 5.5)	7.3 (7.7, 6.4)
				7.2 (7.6, 6.3)	7.2 (7.6, 6.3)	7.2 (7.6, 6.3)

## J: WEIGHT

### 1. US MODEL

Model			OUTBACK					
			2.5 L Non-turbo					
			2.5 i BASE		2.5 i		2.5 i LTD LLB	
			5MT	4AT	5MT	4AT	4AT	
Destination code			U5, U6					
OP code			DC		DC		EB	EH
Curb weight (C.W.)	Front	kg (lb)	826 (1,822)	847 (1,867)	826 (1,822)	849 (1,872)	863 (1,902)	863 (1,902)
	Rear	kg (lb)	696 (1,535)	696 (1,535)	700 (1,544)	700 (1,544)	716 (1,579)	716 (1,579)
	Total	kg (lb)	1,522 (3,357)	1,543 (3,402)	1,527 (3,366)	1,549 (3,416)	1,579 (3,481)	1,579 (3,481)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)
Option	Vehicle dynamics control		○	○	○	○	○	○
	Power package		—	—	—	—	○	○
	Side airbag		○	○	○	○	○	○
	Curtain airbag		○	○	○	○	○	○
	Sunroof		—	—	—	—	○	○
	Navigation system		—	—	—	—	—	○
Dark colored glass		—	—	—	—	○	○	

# OUTBACK

## SPECIFICATIONS

Model			OUTBACK				
			2.5 L Turbo			3.0 L Non-turbo	
			2.5XT LTD			3.0 R LTD	
			5MT	5AT		5AT	
Destination code			U4				
OP code			EB	EB	EH	EB	EH
Curb weight (C.W.)	Front	kg (lb)	881 (1,942)	912 (2,012)	915 (2,017)	924 (2,037)	926 (2,042)
	Rear	kg (lb)	727 (1,604)	727 (1,604)	727 (1,604)	723 (1,594)	723 (1,594)
	Total	kg (lb)	1,608 (3,546)	1,640 (3,616)	1,642 (3,621)	1,647 (3,631)	1,649 (3,636)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	2,060 (4,545)	2,060 (4,545)	2,060 (4,545)	2,100 (4,635)	2,100 (4,635)
Option	Vehicle dynamics control		○	○	○	○	○
	Power package		○	○	○	○	○
	Side airbag		○	○	○	○	○
	Curtain airbag		○	○	○	○	○
	Sunroof		○	○	○	○	○
	Navigation system		—	—	○	—	○
	Dark colored glass		○	○	○	○	○

## 2. CANADA MODEL

Model		OUTBACK						
		2.5 L Non-turbo					3.0 L Non-turbo	
		2.5 i BASE		2.5 i		2.5 i Limited	3.0 R LTD	
		5MT	4AT	5MT	4AT	4AT	5AT	
Destination code		C0		C5		C0		
OP code		UC		DB		EB	EH	
Curb weight (C.W.)	Front	kg (lb)	824 (1,817)	845 (1,863)	828 (1,826)	848 (1,870)	861 (1,899)	926 (2,042)
	Rear	kg (lb)	697 (1,537)	697 (1,537)	704 (1,552)	704 (1,552)	716 (1,579)	723 (1,594)
	Total	kg (lb)	1,521 (3,354)	1,542 (3,400)	1,532 (3,378)	1,552 (3,422)	1,577 (3,477)	1,649 (3,636)
Gross axle weight ratio (G.A.W.R.)	Front	kg (lb)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)	1,040 (2,295)
	Rear	kg (lb)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)	1,060 (2,340)
Gross vehicle weight (G.V.W.)	Total	kg (lb)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,010 (4,435)	2,100 (4,635)
Option	Vehicle dynamics control		—	—	○	○	○	○
	Power package		—	—	—	—	○	○
	Side airbag		○	○	○	○	○	○
	Curtain airbag		○	○	○	○	○	○
	Sunroof		—	—	○	○	○	○
	Navigation system		—	—	—	—	—	○
	Dark colored glass		—	—	○	○	○	○

# OUTBACK

SPECIFICATIONS

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### 1. Precaution

#### A: CAUTION

Please clearly understand and adhere to the following general precautions. They must be strictly followed to avoid minor or serious injury to the person doing the work or people in the area.

#### 1. ABS

Handle the ABS as a total system. Do not disassemble or attempt to repair parts which are not instructed in this manual. Follow the directions in this manual when performing maintenance on the ABS/SCM&H/U. When parts other than those specified are disassembled, it is possible that the ABS system will not operate when needed or cause it to operate incorrectly and result in injury.

#### 2. VEHICLE DYNAMICS CONTROL (VDC)

Handle the VDC as a total system. Do not disassemble or attempt to repair individual parts. Follow the directions in this manual when performing maintenance on the VDCCM&H/U. When parts other than those specified are disassembled, it is possible that the VDC system will not operate when needed or cause it to operate incorrectly and result in injury.

#### 3. BRAKE FLUID

If brake fluid gets in your eyes or on your skin, do the following:

- Wash eyes and seek immediate medical attention.
- Wash your skin with soap and then rinse thoroughly with water.

#### 4. RADIATOR FAN

The radiator fan may rotate without warning, even when the engine is not ON. Do not place your hand, cloth, tools or other items near the fan at any time.

#### 5. ROAD TEST

Always conduct road tests in accordance with traffic rules and regulations to avoid bodily injury and interrupting traffic.

#### 6. AIRBAG

To prevent bodily injury from unexpected deployment of airbags and unnecessary maintenance, follow the instructions in this manual when performing maintenance on the airbag components or nearby, around front of the vehicle (radiator panel, front wheel apron, front side frame, bumper, hood, front fender), around side of the vehicle (front door, rear door, center pillar, rear fender, side sill, rear wheel apron), around rear of the vehicle (rear seat cushion, rear floor, rear crossmember) and the airbag wiring harnesses or nearby.

To prevent unexpected deployment, turn the ignition switch to OFF and disconnect the ground terminal from battery, then wait at least 20 seconds before starting work.

#### 7. AIRBAG AND SEAT BELT PRETENSIONER DISPOSAL

To prevent bodily injury from unexpected airbag deployment, do not dispose the airbag modules and seat belt pretensioner in the same way as other waste. Follow all government regulations concerning disposal of refuse.

#### 8. AIRBAG MODULE

Adhere to the following when handling and storing the airbag module to prevent bodily injury from unexpected deployment:

- Do not hold the harnesses or connectors to carry the module.
- Do not face the bag in the direction that it opens towards yourself or other people.
- Do not face the bag in the direction that it opens towards the floor or walls.

#### 9. AIRBAG SPECIAL TOOL

To prevent unexpected deployment, only use special tools.

#### 10.WINDOW

Always wear safety glasses when working around any glass to prevent glass fragments from damaging your eyes.

#### 11.WINDOW ADHESIVE

Always use the recommended or equivalent adhesive when attaching glass to prevent it from coming falling, resulting in accidents and injury.

## 12.OIL

When handling oil, carefully observe the following to prevent unexpected accidents.

- Prepare a container and cloth to prevent scattering of oil when performing work where fuels can be spilled. If the fuel spills, wipe it off immediately to prevent from penetrating into floor or flowing out for environmental protection.
- Follow all government regulations concerning disposal of refuse when disposing.

## 13.FUEL

When handling and storing fuel, carefully observe the following to prevent unexpected accidents.

- Be careful of fires.
- Prepare a container and cloth to prevent scattering of fuels when performing work where fuels can be spilled. If the fuel spills, wipe it off immediately to prevent it from penetrating the floor or flowing out, to protect the environment.
- Follow all government and local regulations concerning disposal of refuse when disposing.

## 14.ENGINE COOLANT

When handling engine coolant, adhere to the following to prevent from unexpected accident.

- Never remove the radiator cap because of the danger of engine coolant blowing out when the engine coolant is hot.
- Prepare a container and cloth to prevent spraying of engine coolant when performing work in which engine coolant can be spilled. If the fuel spills, wipe it off immediately to prevent from penetrating into floor or flowing out for environmental protection.
- Follow all government and local regulations concerning disposal of refuse when disposing.

## 15.AIR CONDITIONER REFRIGERANT

In order to prevent from global warming, avoid releasing air conditioner refrigerant into the atmosphere. Using a refrigerant recovery system, discharge and reuse it.

# Precaution

PRECAUTION

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## 1. Note

### A: NOTE

This is the information that can improve the efficiency of maintenance and assure the sound work.

### 1. FASTENERS NOTICE

Fasteners are used to prevent the parts from damage, dislocation and play due to looseness. Fasteners must be tightened to the specified torque.

Do not apply paint, lubricant, rust retardant or other substance to the surface around bolts, nuts, etc. Doing so will make it difficult to obtain the correct torque and result in looseness and other problem.

### 2. STATIC ELECTRICITY DAMAGE

Do not touch the control modules, connectors, logic boards and other such parts when there is a possibility of static electricity. Always use a static electricity prevention cord or touch grounded metal for the elimination of static electricity before conducting work.

### 3. BATTERY

When removing the battery terminal, always be sure to turn the ignition switch to OFF to prevent electrical damage of the control module from overcurrent. Be sure to remove the battery ground cable first.

### 4. SERVICE PARTS

Use genuine parts for maximum performance and maintenance when conducting repairs. Subaru/FHI will not be responsible for poor performance resulting from the use of parts except for genuine parts.

### 5. PROTECTING VEHICLE UNDER MAINTENANCE

Make sure to attach the fender cover, seat covers, etc. before work.

### 6. ENSURING SECURITY DURING WORK

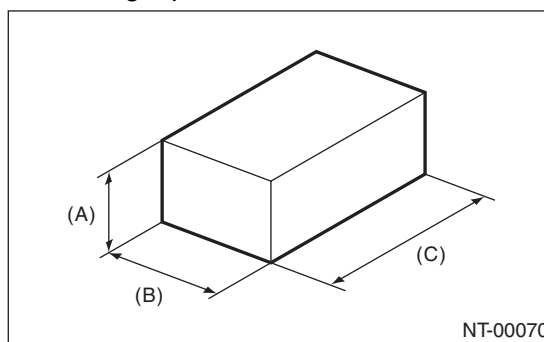
When working in a group of two or more, perform the work with calling each other to ensure mutual safety.

## 7. LIFT AND JACK

When using a lift or shop jack raise a vehicle or using rigid rack to support a vehicle, always follow instructions concerning jack-up points and weight limits to prevent the vehicle from falling, which could result in injury. Be especially careful that the vehicle is balanced before raising it. Be sure to set the wheel stoppers when jacking-up only the front or rear side of the vehicle.

### NOTE:

- When using a lift, follow its operation manual before work.
- Do not work or leave unattended while the vehicle is supported with jack, support it with rigid racks.
- Be sure to use the rigid racks with rubber attached to cradle to support the vehicle.
- When using a plate lift, use a rubber attachment.



- (A) 80 mm (3.1 in) or more
- (B) 100 — 150 mm (3.94 — 5.91 in)
- (C) 120 — 190 mm (4.72 — 7.48 in)

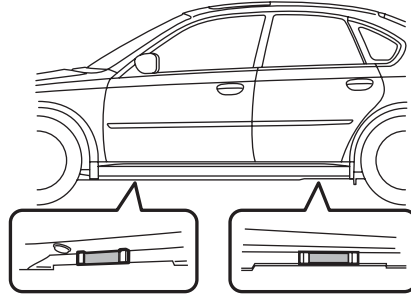
- Align the cushion rubber end of plate lift with the end of rubber attachment. (Portion b) Also, align the protrusion portion of the supporting locations with the end of attachment. (Portion a)

# Note

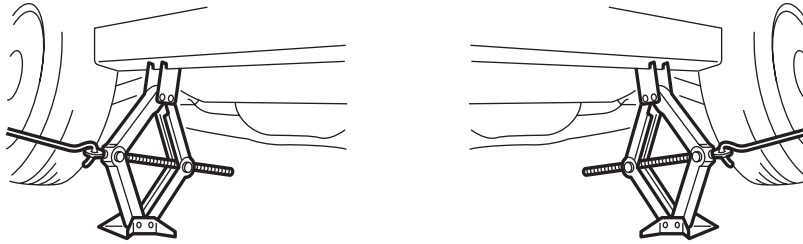
NOTE

- Do not use the plate lift whose attachment does not reach the supporting locations.

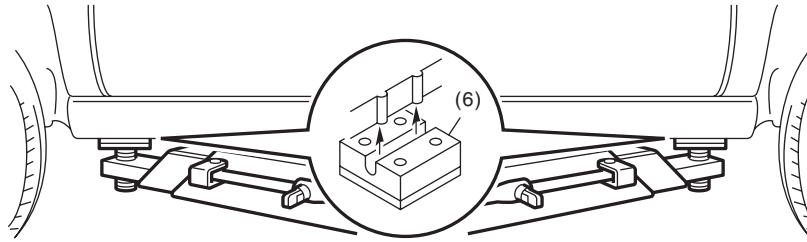
(1)



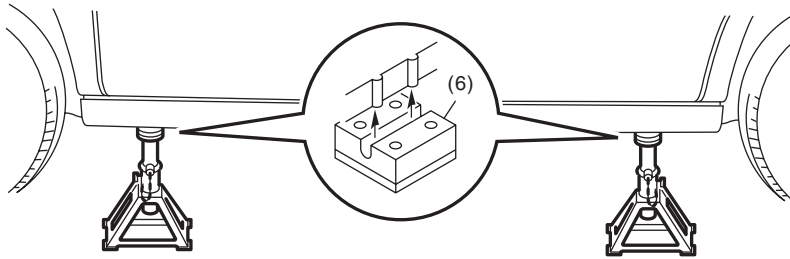
(2)



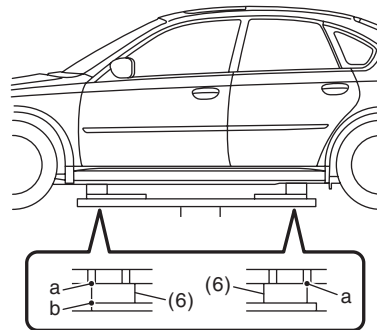
(3)



(4)



(5)



(1) Supporting locations  
(2) Pantograph jack

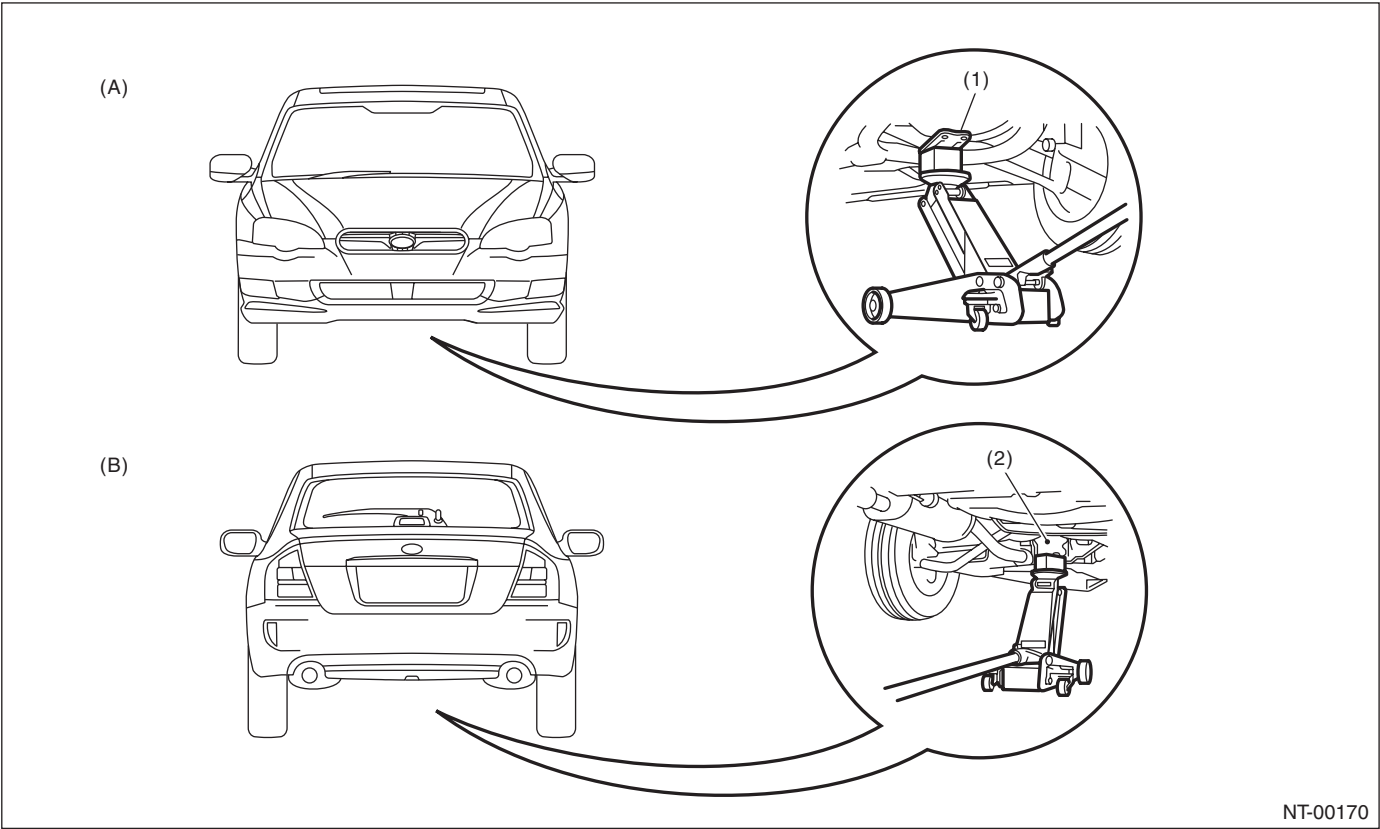
(3) Swing arm lift  
(4) Rigid rack

(5) Plate lift  
(6) Attachment

NT-00086

# Note

NOTE



NT-00170

(A) Front

(B) Rear

(1) Front crossmember

(2) Rear differential

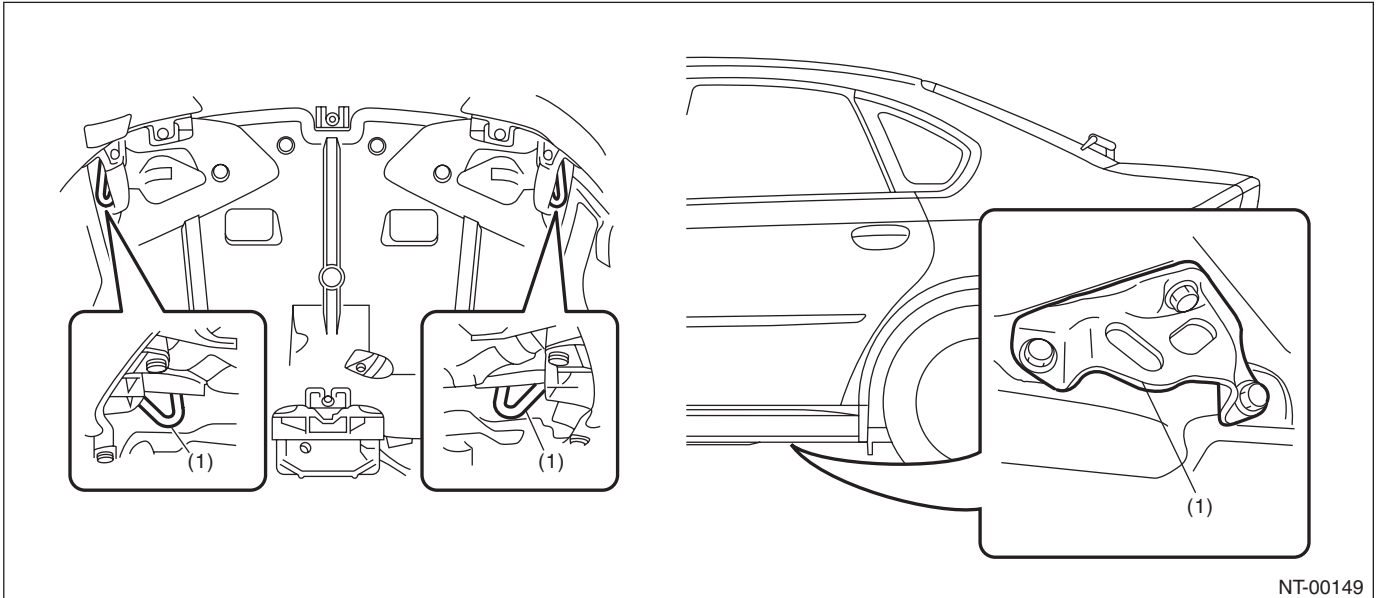
## 8. TIE-DOWNS

Tie-downs are used when transporting vehicles and when using the chassis dynamo. Attach tie-down only to the specified locations on the vehicle.

- TIE-DOWN LOCATION

### CAUTION:

Use the T-hook for rear tie-down. Do not use the hook other than T-hook, otherwise it can be removed when transporting vehicles.



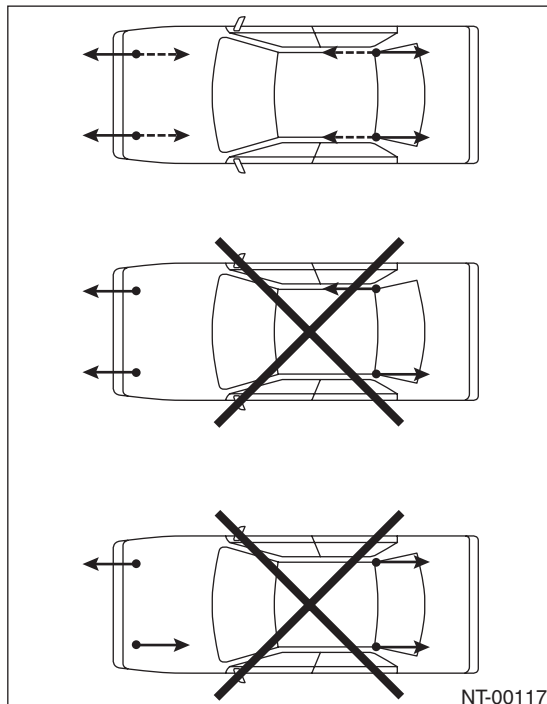
NT-00149

(1) Hook for tie-down

- CHAIN DIRECTION AT TIE-DOWN CONDITION

### NOTE:

Pull the chains LH and RH in the same direction, but front and rear side in the counter direction. Pull all the chains in a same moment.

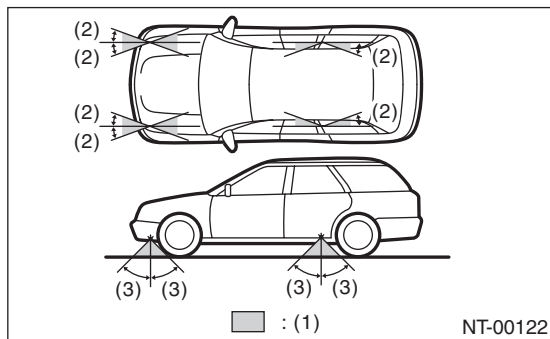


NT-00117

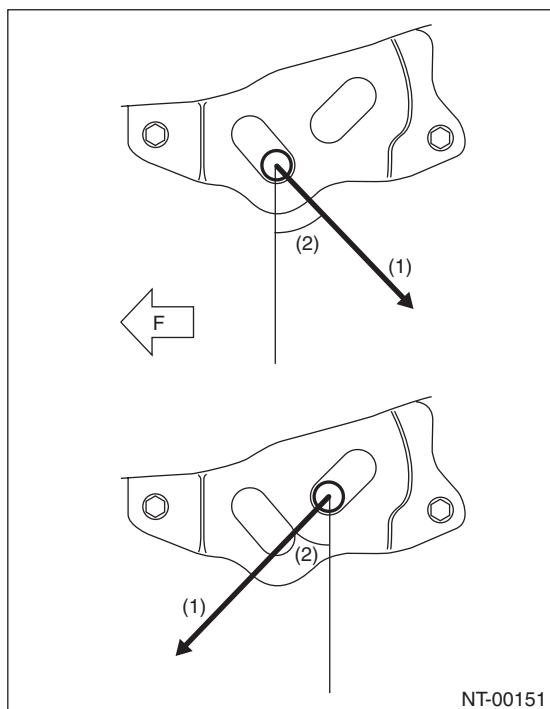
## Note

### NOTE

#### • CHAIN PULLING RANGE AT TIE-DOWN CONDITION



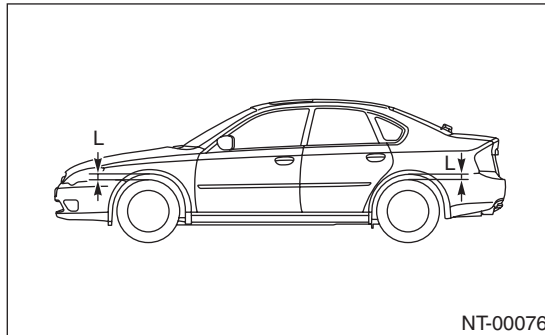
- (1) Chain pulling range at tie-down condition
- (2) 20°
- (3) 45°



- (F) Front side
- (1) Tightening direction of chain
- (2) 45°

#### • VEHICLE SINKING VOLUME AT TIE-DOWN CONDITION

Measure the distance between the highest tire point and highest arch point before and after tie-down. Difference of measured values (sinking volume) should be within 50 mm (1.97 in) and make sure to fix the vehicle securely.

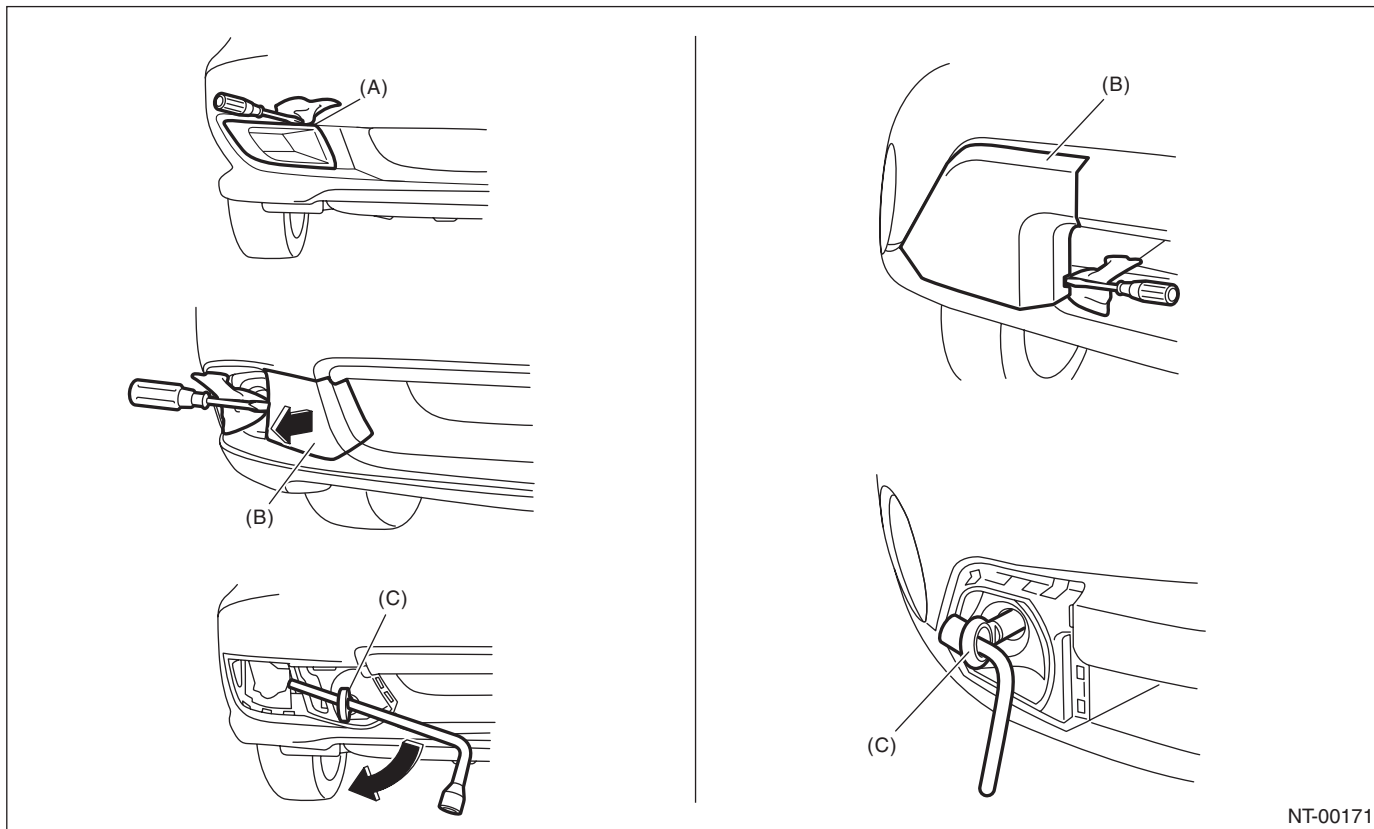


## 9. TOWING

Avoid towing vehicles except when the vehicle cannot be driven. For models with AWD, AT or VTD, use a loader instead of towing. When towing other vehicles, pay attention to the following to prevent hook or vehicle damage resulting from excessive weight.

- Do not tow other vehicles with a front tie-down hook.
- Make sure the vehicle towing is heavier than the vehicle being towed.
- Front

Remove the fog light cover (except for OUTBACK model) and hook cover, and then install the hook.



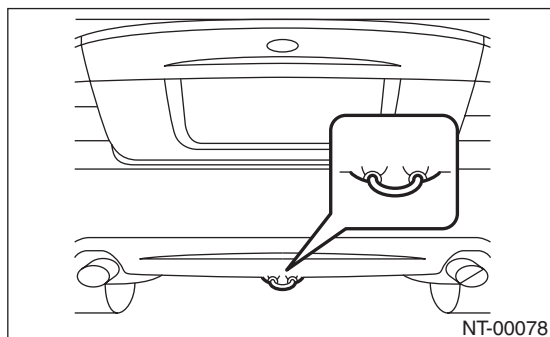
NT-00171

(A) Fog light cover  
(except for OUTBACK model)

(B) Hook cover

(C) Hook

- Rear

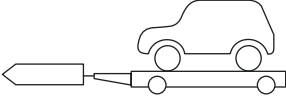

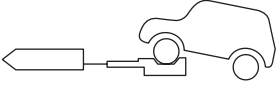



NT-00078

# Note

## NOTE

### • Notes

Towing	Precautions	MT	AT
<p>Lifting up four wheels (On a trailer)</p>  <p style="text-align: right;">NT-00023</p>	<p>Towing the vehicle after lifting up all four wheels is a basic rule for AWD model.</p>	○	○
<p>Rope</p>  <p style="text-align: right;">NT-00024</p>	<ul style="list-style-type: none"> <li>• Check if both front and rear wheels are rotated normally.</li> <li>• AT model driving conditions: Driving speed of 50 km/h (31 MPH) or less</li> <li>Allow driving distance 30 km (19 miles) or less</li> </ul>	○	▲
<p>Raising the front wheels</p>  <p style="text-align: right;">NT-00025</p>	<p>Prohibited for full-time AWD model.</p>	×	×
<p>Lifting up the front wheels</p>  <p style="text-align: right;">NT-00026</p>	<ul style="list-style-type: none"> <li>• Prohibited, due to damage on bumper, front grille, etc.</li> <li>• Do not raise the vehicle with bumper.</li> </ul>	×	×

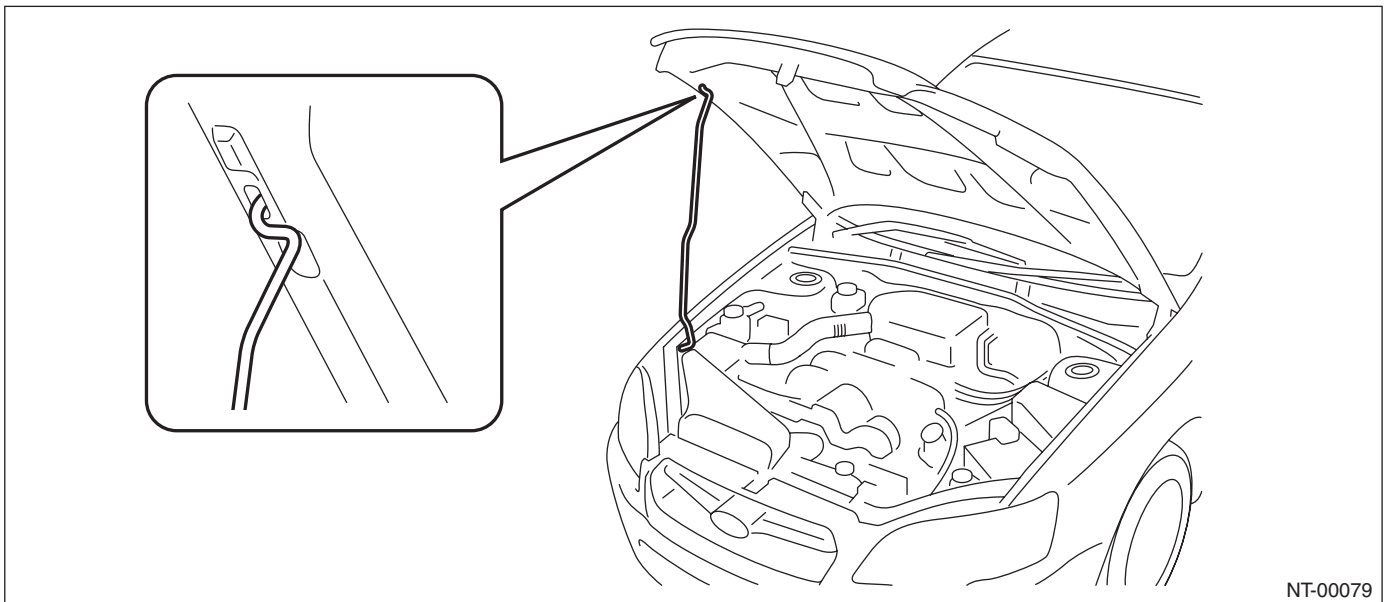
Marked ○ : OK, Marked × : Prohibited, Marked ▲ : Conditionally OK.

**CAUTION:**

- Check ATF, gear oil and rear differential oil before driving.
- Place the shift lever in “N” position during towing.
- Do not lift up the rear wheels to avoid unsteady rotation.
- Turn the ignition key to “ACC”, then check the steering wheel moves freely.
- Release the parking brake to avoid tire dragging.
- Since the power steering does not work, be careful for the heavy steering effort. (When engine is stopped)
- Since the servo brake does not work, be careful that the brake is not applied effectively. (When engine is stopped)
- In case of the malfunction of internal transmission or drive system, lift up four wheels (on a trailer) for towing.

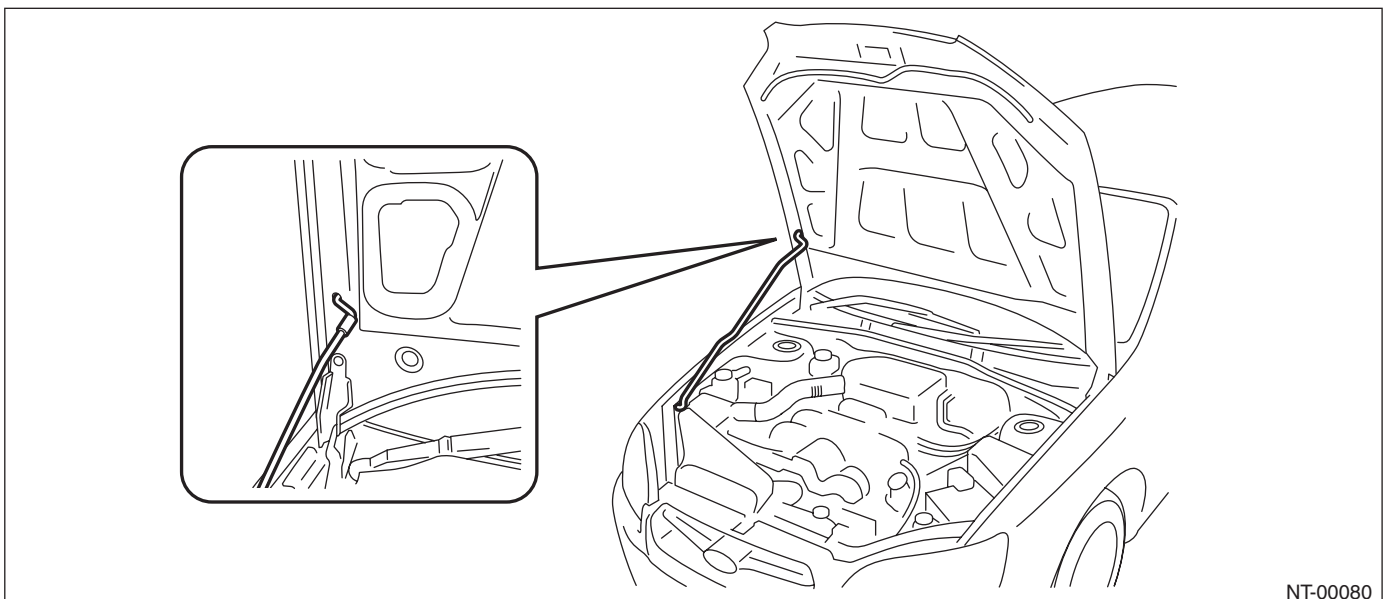
**10.FRONT HOOD STAY INSTALLATION**

- At the check and general maintenance



NT-00079

- When wider hood opening is necessary  
Set the stay into the hole of lower hood as shown in the figure below.



NT-00080



## NOTE

### 11.GENERAL SCAN TOOL

Using general scan tools will greatly improve the efficiency of repairing engine electronic throttle controls. Subaru Select Monitor can be used to diagnose the engine, VDC, air conditioner and other parts.

### 12.AWD CIRCUIT MEASURES

#### 1) Full-time AWD MT model

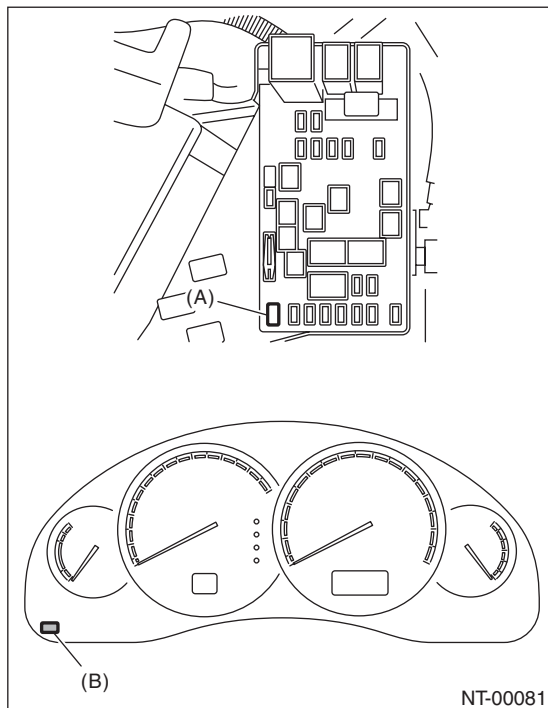
Since viscous coupling (limited slip differential) is used in the center differential, cut-off of AWD circuit cannot be carried out.

#### 2) Full-time AWD 5AT model

Since VTD type is used in the center differential, cut-off of AWD circuit cannot be carried out.

#### 3) Full-time AWD 4AT model

Insert a spare fuse into FWD fuse holder in the fuse box located in the left side of engine room to select the FWD. Since electronically controlled MT-P hydraulic multi-plate clutch is adapted for center differential, select FWD. When maintenance is performed with jack-up or on the free roller, check the illumination of AWD warning light in the combination meter.



- (A) FWD fuse holder
- (B) AWD warning light

### 13.SPEEDOMETER TEST

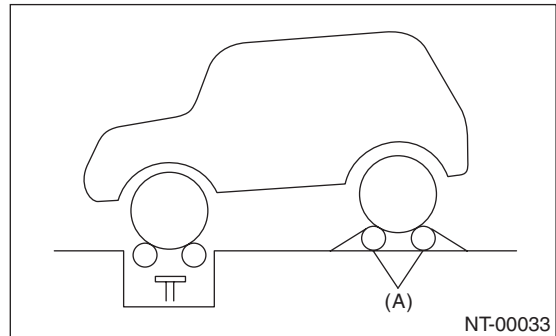
#### 1) Rear wheel free roller system

(1) Set the free roller on the floor of rear wheel side securely according to the wheel base and rear tread of the vehicle.

(2) Let the vehicle ride on the tester and free roller gently.

#### CAUTION:

**Fix the vehicle using a pulling metal (chain or wire) to the front and rear towing hooks or tie-down hook to prevent the lateral runout of front wheels and springing out of vehicle.**



- (A) Free roller

(3) Set the speedometer tester.

(4) Conduct the speedometer test work.

#### CAUTION:

**Do not operate the clutch quickly and do not accelerate or decelerate suddenly during work.**

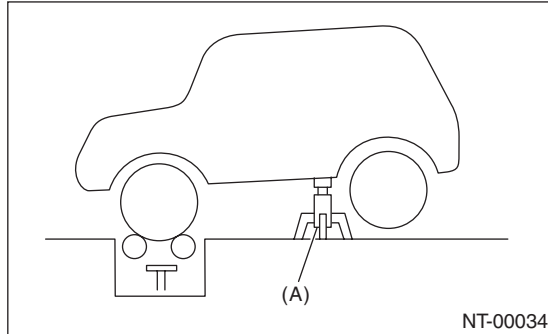
2) Rear wheel jack-up system

- (1) Set the vehicle on speedometer tester.

**CAUTION:**

**Fix the vehicle using a pulling metal (chain or wire) to the front and rear towing hooks or tie-down hook to prevent the lateral runout of front wheels and springing out of vehicle.**

- (2) Jack up the rear wheels and set the rigid racks to the specified locations of side sill.



(A) Rigid rack

- (3) Conduct the speedometer test work.

**CAUTION:**

**Do not operate the clutch quickly and do not accelerate or decelerate suddenly during work.**

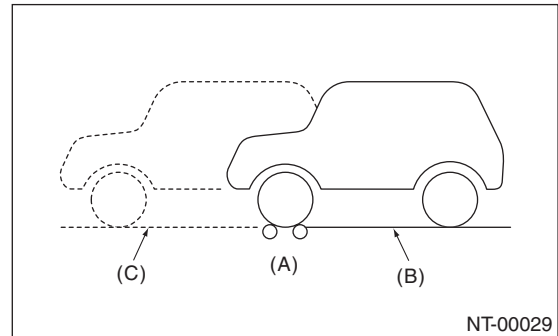
**14. BRAKE TEST**

1) Full-time AWD MT model

- (1) Perform this test after driving the vehicle 2 to 3 km (1.24 to 1.86 miles) on road in order to stabilize the viscous torque of viscous coupling.
- (2) Keep the front or rear wheels on the ground for this test.

**NOTE:**

Effect of the viscous torque on braking force will be added approx. 25 kg compared with FWD model.



- (A) Brake tester
- (B) Position for measuring front wheel
- (C) Position for measuring rear wheel

(3) When the brake dragging force is large.

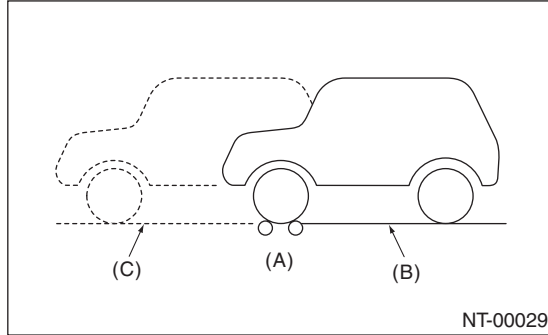
- Check the dragging of brake pad or brake shoe.
- Since it may be affected by the viscosity of viscous coupling, jack up either of the front or rear two wheels to check the each wheel rotation condition with the viscous coupling affection removed.

## Note

### NOTE

#### 2) Full-time AWD AT model

- (1) Keep the front or rear wheels on the ground during measurement.



- (A) Brake tester  
 (B) Position for measuring front wheel  
 (C) Position for measuring rear wheel

- (2) When the brake dragging force is large.

- Check the dragging of brake pad or brake shoe.

#### Specifications:

	Braking force
Rear wheel total	10% or more of load on front or rear wheels
Difference between right and left wheels	8% or less of load on front or rear wheels
Grand total	50% or more of vehicle weight at the time of test

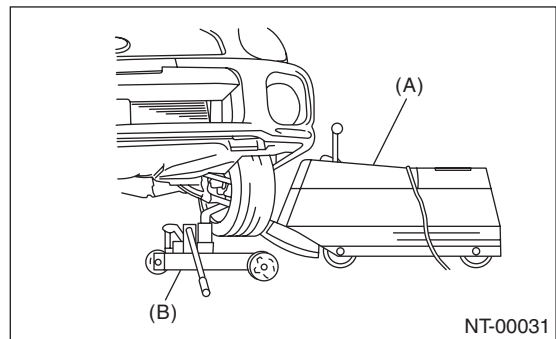
- When measurement is difficult to carry out because both of front wheels are locked, brake force measurement in this condition conforms to standard grand total.

## 15.ON THE CAR WHEEL BALANCING

### CAUTION:

- Carry out this procedures after measuring the balance of each single tire.
- Set the vehicle so that the front and rear wheels are the same height.
- Release the parking brake during measurement.
- Rotate each wheel by hands, and make sure it rotates without dragging.
- Do not operate the clutch quickly and do not accelerate or decelerate suddenly during work.
- When an error is indicated during engine drive, do not use the motor drive together.

- 1) Set the rigid rack to the specified locations of side sill, jack up the front or rear two wheels of non-measuring side and set the pickup stands to two wheels of measuring side.



- (A) Balancer body  
 (B) Pickup stand

- 2) For drive wheel, drive the tires with engine for measurement.

- 3) For non-drive wheel, drive the tires from the on the car wheel balancer for measurement.

# Identification

## IDENTIFICATION

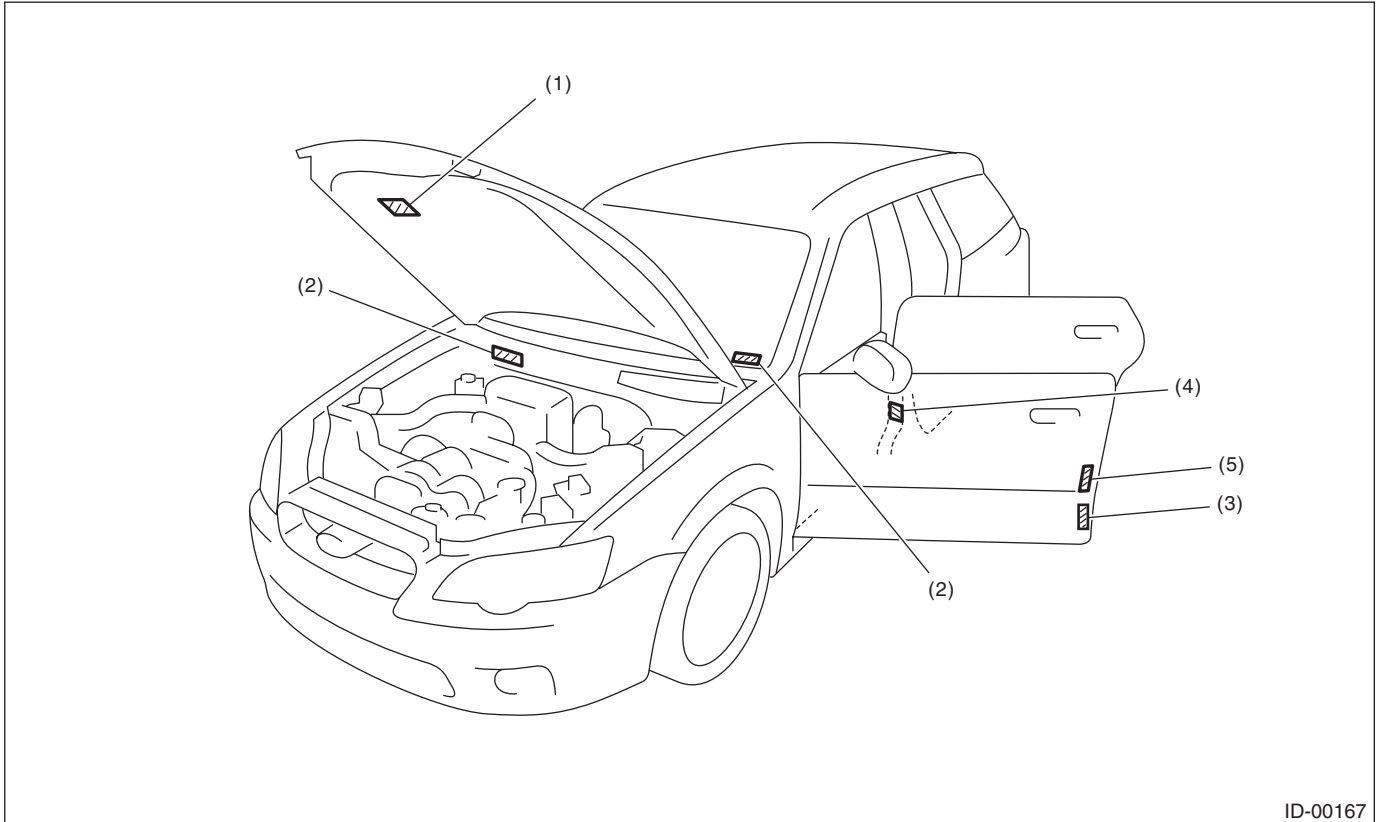
### 1. Identification

#### A: IDENTIFICATION

##### 1. IDENTIFICATION NUMBER & LABEL LOCATIONS

The V.I.N. (Vehicle Identification Numbers) is used to classify the vehicle.

##### • POSITIONING OF THE PLATE LABEL FOR IDENTIFICATION



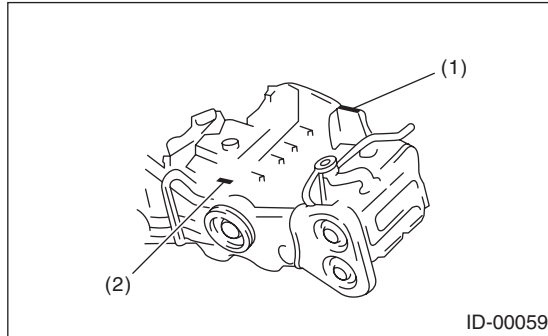
ID-00167

(1) Emission control label  
(2) Vehicle identification number  
(V.I.N.)

(3) Model number label (Right side)  
(4) Tire inflation pressure label  
(Driver's side)

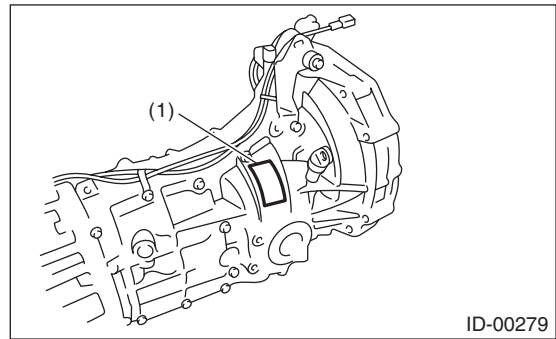
(5) Emission control label FMVSS  
label (U.S. model) (Left side)  
CMVSS label (Canada model)  
(Left side)

• **ENGINE**



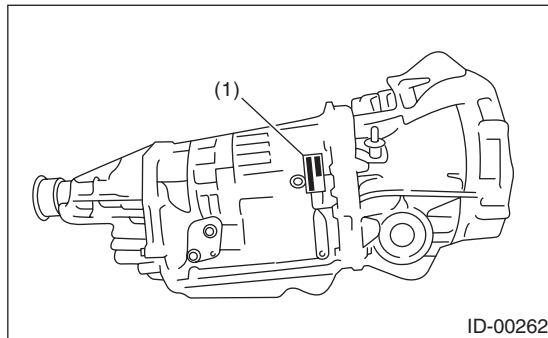
- (1) Engine serial number (Punch mark)
- (2) Engine type (Crankcase upper side)

• **MANUAL TRANSMISSION  
5MT (non-turbo model)**



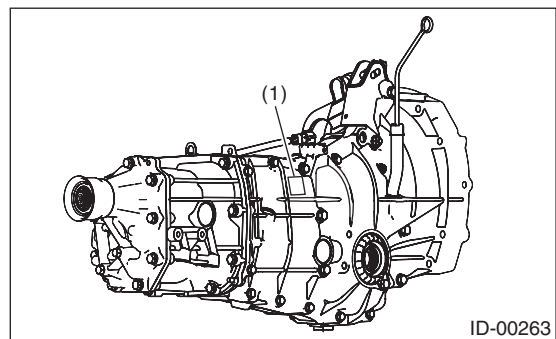
- (1) MT type and Transmission serial number label

• **AUTOMATIC TRANSMISSION  
4AT**



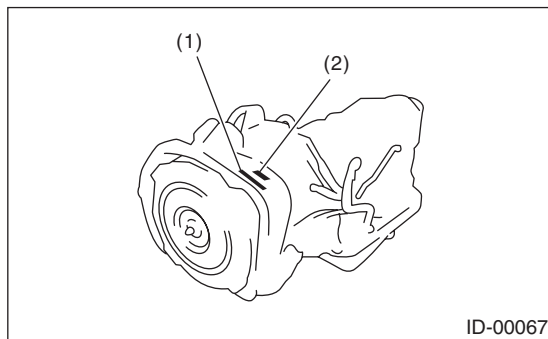
- (1) AT type and Transmission serial number label

**5MT (turbo model)**



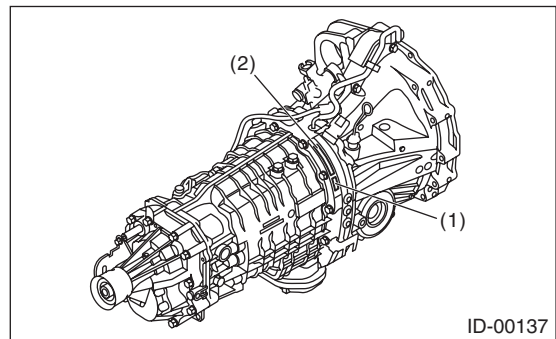
- (1) MT type and Transmission serial number label

**5AT**



- (1) AT type label
- (2) Transmission serial number label

**6MT**

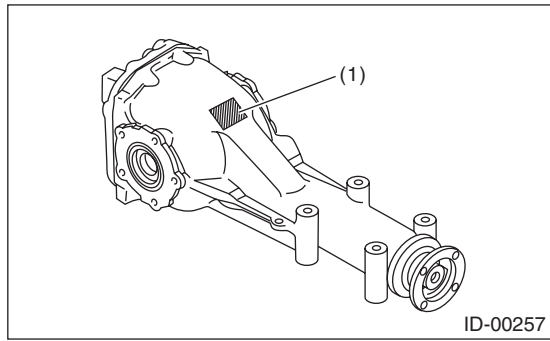


- (1) Transmission serial No.
- (2) MT type label

# Identification

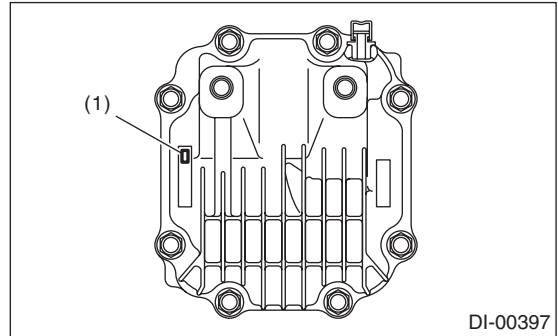
## IDENTIFICATION

### • REAR DIFFERENTIAL T-TYPE



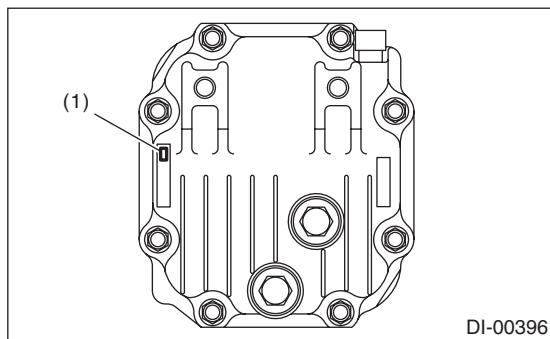
(1) Type (white paint)

### VA2-TYPE



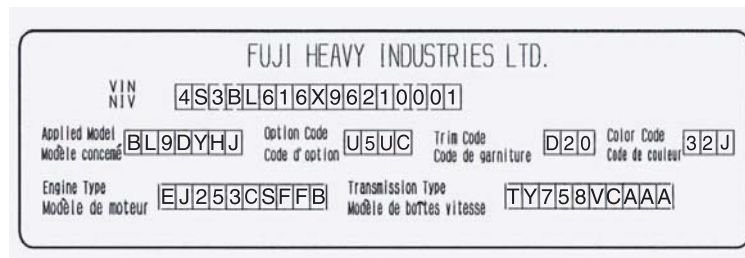
(1) Type (label)

### VA1-TYPE



(1) Type (label)

### • MODEL NUMBER LABEL



ID-00280

## 2. MEANING OF V.I.N.

The meaning of the V.I.N. is as follows:

**[4S3BL616X96210001[**

The starting and ending brackets ( [ ] ) are stop marks.

Digits	Code	Meaning	Details
1 — 3	4S3	Manufacturer body area	4S3: For C0 except OUTBACK model 4S4: For C0 OUTBACK model
4	B	Car line	B: LEGACY
5	L	Body type	L: Sedan P: Wagon
6	6	Displacement	6: 2.5 L AWD 8: 3.0 L AWD
7	1	Grade	0: 2.5 i BASE, OUTBACK 2.5 i BASE 1: 2.5 i, OUTBACK 2.5 i 2: 2.5 i-LTD, OUTBACK 2.5 i-LTD 3: OUTBACK 2.5 XT-LTD 4: 3.0 R 5: OUTBACK 3.0 R-LTD, 3.0 R-LTD 6: OUTBACK 2.5 i-LTD-LLB (L.L.Bean) 7: 2.5 GT-LTD 9: 2.5 GT-B
8	6	Restraint system or GVWR Class	6: Manual belts, Dual airbag, Side airbag (Except for OUTBACK model) C: Class C (GVWR 4001 — 5000 lb) (OUTBACK model)
9	X	Check digit	0 — 9&X
10	9	Model year	9: 2009MY
11	6	Transmission type	3: Full-time AWD 6MT 4: Full-time AWD 5AT 6: Full-time AWD 5MT 7: Full-time AWD 4AT
12 — 17	210001	Serial number	From 210001: Sedan From 310001: Wagon

# Identification

## IDENTIFICATION

### 3. MODEL NUMBER PLATE

The model number plate indicates the type, V.I.N. <Ref. to ID-5, MEANING OF V.I.N., IDENTIFICATION, Identification.>, applied model, option code, trim code, engine type, transmission type and the exterior color code. This information is helpful when placing orders for parts.

#### • BL9FYJJ

Digits	Code	Meaning	Details
1	B	Series	LEGACY
2	L	Body type	L: Sedan P: Wagon
3	9	Engine displacement Drive system Suspension system	9: 2.5 L AWD E: 3.0 L AWD
4	F	Model year	F: 2009MY
5	Y	Destination	Y: U.S., Canada
6	J	Grade	C: 2.5 GT Limited D: OUTBACK 2.5 XT Limited F: 2.5 GT spec. B H: 2.5 i J: 2.5 i BASE K: 2.5 i Limited L: 3.0 R Limited N: 3.0 R P: OUTBACK 2.5 BASE S: OUTBACK 2.5 i T: OUTBACK 2.5 i Limited U: OUTBACK 3.0 R V: OUTBACK 3.0 R Limited W: OUTBACK 2.5 i LTD-LLB
7	J	Transmission, fuel feed system	D: DOHC MFI Turbo 5MT J: SOHC MFI 5MT H: DOHC MFI Turbo 6MT L: SOHC MFI 4AT TIP U: DOHC MFI 5AT TIP V: DOHC MFI Turbo 5AT TIP

The engine and transmission type are as follows.

#### • ENGINE

#### EJ253CSFFB

Digits	Code	Meaning	Details
1 and 2	EJ	Engine type	EJ: 4 cylinder EZ: 6 cylinders
3 and 4	25	Displacement	25: 2.5 L 30: 3.0 L
5	3	Fuel feed system	3: MFI Non-turbo (SOHC) 5: MFI turbo D: MFI Non-turbo (DOHC, H6)
6	C	Emission control	A: For states not using California emission standards B: For USA C: For states using California emission standards
7	S	Mounted transmission	C: D-5AT E: 5MT (Flexible type flywheel, Wide angle damper type disc wheel) F: 6MT (Flywheel ø230) P: 4AT S: 5MT (Flexible type flywheel)
8 — 10	FFB	Detailed specifications	Used when ordering parts. For details, refer to the parts catalog.



**• Transmission**

**1. MT  
TY758VCAAA**

Digits	Code	Meaning	Details
1	T	Transmission	T: Transmission
2	Y	Transmission type	Y: Full-time AWD MT center differential
3 and 4	75	Identification	75: 5MT 85: 6MT
5	8	Series	6: 6MT 8: 5MT
6	V	Transmission specifications	V: Full-time AWD 5MT single range with viscous coupling center differential W: Full-time AWD 6MT single range with viscous coupling center differential
7	C	Mounted vehicle	C: 2.5 L SOHC W: 2.5 L DOHC Turbo
8 — 10	AAA	Detailed specifications	Used when ordering parts. For details, refer to the parts catalog.

**2. AT  
TZ1B8LCEBA**

Digits	Code	Meaning	Details
1	T	Transmission	T: Transmission
2	Z	Transmission type	G: Full-time AWD 5AT center differential Z: Full-time AWD 4AT MPT
3 and 4	1B	Identification	1B: 4AT 5D: 5AT
5	8	Series	7: 5AT 8: 4AT
6	L	Transmission specifications	C: Full-time AWD VTD 5AT L: Full-time AWD MPT 4AT
7	C	Mounted vehicle	C: 2.5 L SOHC Sedan, Touring wagon F: 2.5 L SOHC OUTBACK V: 3.0 L DOHC W: 2.5 L DOHC Turbo
8 — 10	EBA	Detailed specifications	Used when ordering parts. For details, refer to the parts catalog.

**• REAR DIFFERENTIAL**

Code	Reduction gear ratio	LSD
CD	4.444	Viscous
CF	4.444	Viscous
EW	3.900	Viscous
HY	3.545	Torsen
JE	4.111	Viscous
T1	3.900	None
T2	4.111	None
TP	4.444	None
XJ	4.111	None
XT	3.083	Viscous
XU	3.272	Viscous
XZ	3.083	Viscous

# Identification

## IDENTIFICATION

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### • OPTION

#### U5DC

Digits	Code	Meaning	Details
1 — 2	U5	Destination	C0: Canada U4: U.S. For USA U5: U.S. For states using California emission standards U6: U.S. For states not using California emission standards
3	D	Option equipment	3: Cruise control, Power pack D: Vehicle dynamics control (VDC), Cruise control E: Vehicle dynamics control (VDC), Cruise control, Power pack U: Cruise control
4	C	Option equipment	B: None C: A/C, Side airbag, Curtain airbag H: A/C, Side airbag, Curtain airbag, Sunroof, Navigation system, Dark colored glass K: A/C, Side airbag, Curtain airbag, Sunroof, Navigation system W: A/C, Side airbag, Curtain airbag, Sunroof

# Recommended Materials

## RECOMMENDED MATERIALS

### 1. Recommended Materials

#### A: RECOMMENDED MATERIALS

##### 1. GENERAL

To insure the best performance, always use the specified oil, gasoline, adhesive, sealant, etc. or a substitute of equivalent quality.

##### 2. FUEL

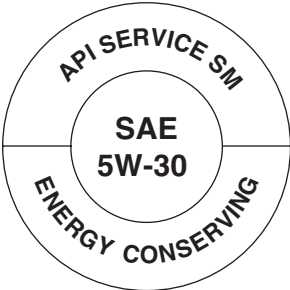

Always use gasoline of the same or higher octane value than specified in the owner's manual. Ignoring the specifications below will result in damage or poor performance of engine and fuel injection system. Use the specified gasoline to correct performance.

##### Unleaded gasoline

In order to reduce air pollution, use unleaded gasoline for the vehicle equipped with catalytic converter. Using leaded gasoline may damage the catalytic converter.

##### 3. LUBRICANTS

Use the lubricants shown in the table below, or equivalent. See the table below to choose the correct SAE viscosity.

Lubricants	Recommended materials	
	API standard	ILSAC standard
Engine oil Choose oil suitable for the standard from the right.	SM "Energy conserving"  RM-00049	GF-4  RM-00002
Manual transmission oil	GL-5	—
AT front differential gear oil	GL-5	—
Rear differential gear oil	GL-5	—