

**SUPPLEMENT FOR 6 CYLINDER
ENGINE MODEL**

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.

This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.

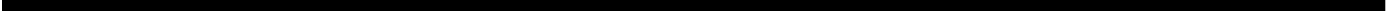
Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

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

FOREWORD**FW****HOW TO USE THIS MANUAL****HU****SPECIFICATIONS****SPC****PRECAUTION****PC****NOTE****NT****IDENTIFICATION****ID****RECOMMENDED MATERIALS****RM****PRE-DELIVERY INSPECTION****PI****PERIODICAL MAINTENANCE****PM**

**SUPPLEMENT FOR 6 CYLINDER
ENGINE MODEL****FUEL INJECTION (FUEL SYSTEMS) FU(H6)****EMISSION CONTROL
(AUX. EMISSION CONTROL DEVICES) EC(H6)****INTAKE (INDUCTION) IN(H6)****MECHANICAL ME(H6)****EXHAUST EX(H6)****COOLING CO(H6)****LUBRICATION LU(H6)****SPEED CONTROL SYSTEMS SP(H6)****IGNITION IG(H6)****START/CHARGING SYSTEMS SC(H6)****ENGINE (DIAGNOSTICS) EN(H6)****REAR SUSPENSION RS****WIRING SYSTEM WI**

FOREWORD



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1. Foreword SA01674

A: FOREWORD SA01674G21

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

Applied model: BE***** and BH***** from 2001MY.

The additional manuals below are also available:
AUTOMATIC TRANSMISSION SERVICE
MANUAL (Pub. No. G0853ZE)

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

HOW TO USE THIS MANUALS

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1. How to Use This Manuals SA02675

A: HOW TO USE THIS MANUALS

SA02675F69

1. STRUCTURE SA02675F6901

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 diagnosis information has also been added where necessary.

2. INDEX SA02675F6902

The first page has an index with tabs. And at the end of each section is an alphabetical index.

3. COMPONENTS SA02675F6903

For each component, a composition drawing is included.

4. SPECIFICATIONS SA02675F6904

If necessary, specifications are also included

5. INSPECTION SA02675F6905

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

6. MAINTENANCE SA02675F6906

Maintenance instructions are provided for each component. When multiple components comprise one process, refer to the instructions for that process for each component.

7. DIAGNOSIS SA02675F6907

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

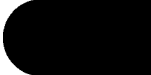
8. SI UNITS SA02675F6909

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

SPECIFICATIONS

SPC

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LEGACY

Specifications

1. Legacy SA08704

A: DIMENSIONS SA08704G28

Model			Sedan	Wagon
			AWD	
Overall length	mm (in)		4,605 (181.3)	4,680 (184.3)
Overall width	mm (in)		1,695 (66.7)	1,695 (66.7)
Overall height (at CW)	mm (in)		1,415 (55.7)	1,515 (59.6)
Compartment	Length	mm (in)	1,965 (77.4)	1,925 (75.8)
	Width	mm (in)	1,440 (56.7), 1,420 (55.9)*2	1,440 (56.7), 1,420 (55.9)*2
	Height	mm (in)	1,155 (45.5)	1,190 (46.9), 1,175 (46.3)*3
Wheelbase	mm (in)		2,650 (104.3)	2,650 (104.3)
Tread	Front	mm (in)	1,460 (57.5)	1,460 (57.5), 1,465 (57.5)*1
	Rear	mm (in)	1,460 (57.5)	1,455 (57.3), 1,465 (57.5)*1
Minimum road clearance	Without catalytic converter	mm (in)	160 (6.3)	165 (6.5), 14.5 (5.7)*1
	With catalytic converter	mm (in)	155 (6.1)	155 (6.1), 140 (5.5)*1
	Australia	mm (in)	155 (6.1)	155 (6.1), 140 (5.5)*1

*1: With pneumatic suspension

*2: With leather seat

*3: With sunroof

B: ENGINE SA08704G29

Model	Sedan/Wagon		
	AWD		
	2.0 L	2.5 L	
Engine type	Horizontally opposed, liquid cooled, 4-cylinder, 4-stroke gasoline engine		
Valve arrangement	Overhead camshaft type		
Bore × Stroke	mm (in)	92 × 75 (3.62 × 2.95)	99.5 × 79.0 (3.917 × 3.110)
Displacement	cm ³ (cu in)	1,994 (121.67)	2,457 (149.9)
Compression ratio	10.0		
Firing order	1 — 3 — 2 — 4		
Idle speed at Park/Neutral position	rpm	700±100	
Maximum output	kW (HP)/rpm	92 (123)/5,600	115 (154)/5,600
Maximum torque	N·m (kgf-m, ft-lb)/rpm	184 (18.8, 136.0)/3,600	223 (22.7, 164.2)/3,600

C: ELECTRICAL SA08704G30

Model			Sedan/Wagon	
			AWD	
			2.0 L	2.5 L
Ignition timing at idling speed			BTDC/rpm	
			10°±10°/700	
Spark plug	Type and manufacturer	Without OBD	NGK: BKR6E (without catalyst) CHAMPION: RC10YC4 (with catalyst) NGK: BKR5E-11 (with catalyst)	
		With OBD	RC10YC4 CHAMPION	
			Alternate	RC8YC4 CHAMPION BKR6E-11 NGK K20PR-U11 NIPPONDENSO
Generator			12V — 90A	
Battery	Type and capacity (5HR)	For Europe and South America	MT: 12V — 48AH (55D23L) AT: 12V — 52AH (65D23L)	MT: 12V — 48AH (55D23L) AT: 12V — 52AH (75D23L)
		Others	12V — 27AH (34B19L)	

D: TRANSMISSION SA08704G31

Model			Sedan/Wagon			
			AWD			
			2.0 L		2.5 L	
Transmission type			5MT*1	4AT*2	5MT*1	4AT*2
Clutch type			DSPD	TCC	DSPD	TCC
Gear ratio	1st	2nd	3.454	2.785	3.454	2.785
		3rd	2.062	1.545	2.062	1.545
		4th	1.448	1.000	1.448	1.000
		5th	1.088	0.694	1.088	0.694
		Reverse	0.825	—	0.825*3, 0.780*4	—
		Reverse	3.333	2.272	3.333	2.272
Reduction gear (Front drive)	1st reduction	Type of gear	—	Helical	—	Helical
		Gear ratio	—	1.000	—	1.000
	Final reduction	Type of gear	Hypoid	Hypoid	Hypoid	Hypoid
		Gear ratio	3.900	4.111	3.700*3, 4.111*4	4.111
Reduction gear (Rear drive)	Transfer reduction	Type of gear	Helical	—	Helical	—
		Gear ratio	1.000	—	1.000	—
	Final reduction	Type of gear	Hypoid	Hypoid	Hypoid	Hypoid
		Gear ratio	3.900	4.111	3.700*3, 4.111*4	4.111

5MT*1: 5 forward speeds with synchromesh and 1-reverse
 4AT*2: Electronically controlled fully-automatic, 4-forward speeds and 1-reverse
 DSPD: Dry Single Plate Diaphragm
 TCC: Torque Converter Clutch
 *3: Except Australia spec. vehicles
 *4: Australia spec. vehicles

E: STEERING SA08704G32

Model	Models with 185/70R14 tires	Models with 195/60R15 tires	Models with 205/50R16 tires
Type	Rack and Pinion		
Turns, lock to lock	3.2		3.1
Minimum turning circle m (ft)	Curb to curb: 10.5±1.0 (34.5±3.3) Wall to wall: 11.4±1.0 (37.4±3.3)		Curb to curb: 10.8±1.0 (35.4±3.3) Wall to wall: 11.5±1.0 (37.7±3.3)

LEGACY

Specifications

F: SUSPENSION SA08704G33

Model	Conventional suspension	Pneumatic suspension
Front	Macpherson strut type, Independent, Coil spring	Macpherson strut type, Independent, Pneumatic suspension with height control
Rear	Multi-link type, Independent, Coil spring	Multi-link type, Independent, Pneumatic suspension with height control

G: BRAKE SA08704G34

Model	Australia spec. vehicles	Except Australia spec. vehicles	
		LX	Others
Service brake system	Dual circuit hydraulic with vacuum suspended power unit		
Front	Ventilated disc brake		
Rear	Disc brake	Drum brake	Disc brake
Parking brake	Mechanical on rear brakes		

H: TIRE SA08704G35

Rim size	14 × 5 ¹ / ₂ JJ	15 × 6JJ	16 × 6 ¹ / ₂ JJ
Tire size	185/70R14	195/60R15	205/50R16
Type	Steel belted radial, Tubeless		

I: CAPACITY SA08704G36

Model	Sedan/Wagon					
	AWD					
	2.0 L			2.5 L		
	5MT	4AT		5MT	4AT	
Fuel tank	ℓ (US gal, Imp gal)		64 (16.9, 14.1)			
Engine oil	Upper level	ℓ (US qt, Imp qt)		4.0 (4.2, 3.5)		
	Lower level	ℓ (US qt, Imp qt)		3.0 (3.2, 2.6)		
Transmission gear oil	ℓ (US qt, Imp qt)		3.5 (3.7, 3.1)	—	3.5 (3.7, 3.1)	—
Automatic transmission fluid	ℓ (US qt, Imp qt)		—	8.4 (8.9, 7.4)	—	9.3 (9.8, 8.2)
AT differential gear oil	ℓ (US qt, Imp qt)		—	1.2 (1.3, 1.1)	—	1.2 (1.3, 1.1)
AWD rear differential gear oil	ℓ (US qt, Imp qt)		0.8 (0.8, 0.6)			
Power steering fluid	ℓ (US qt, Imp qt)		0.7 (0.7, 0.6)			
Engine coolant	ℓ (US qt, Imp qt)		7.0 (7.4, 6.2)	6.9 (7.3, 6.1)	6.8 (7.2, 6.0)	6.7 (7.1, 5.9)

J: WEIGHT SA08704G37

1. EUROPE SPEC. VEHICLE SA08704G3703

Model			Sedan				
			AWD				
			2.0 L				
			LHD			RHD	
			LX	GL		GL	
			5MT	5MT*2	4AT*2	5MT*3	4AT*4
Curb weight (C.W.)	Front	kgf (lb)	770 (1,698)	785 (1,731)	810 (1,786)	785 (1,731)	810 (1,786)
	Rear	kgf (lb)	585 (1,290)	605 (1,334)	605 (1,334)	605 (1,334)	605 (1,334)
	Total	kgf (lb)	1,355 (2,988)	1,390 (3,065)	1,415 (3,120)	1,390 (3,065)	1,415 (3,120)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)
	Rear	kgf (lb)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,835 (4,046)	1,835 (4,046)	1,835 (4,046)	1,835 (4,046)	1,835 (4,046)

Model			Sedan			
			AWD			
			2.5 L			
			LHD		RHD	
			GX		GX	
			5MT*5	4AT*5	5MT*3	4AT*3
Curb weight (C.W.)	Front	kgf (lb)	805 (1,775)	830 (1,830)	795 (1,753)	820 (1,808)
	Rear	kgf (lb)	605 (1,334)	610 (1,345)	605 (1,334)	610 (1,345)
	Total	kgf (lb)	1,410 (3,109)	1,440 (3,175)	1,400 (3,087)	1,430 (3,153)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	950 (2,095)	970 (2,139)	950 (2,095)	970 (2,139)
	Rear	kgf (lb)	975 (2,150)	975 (2,150)	975 (2,150)	975 (2,150)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,875 (4,134)	1,875 (4,134)	1,875 (4,134)	1,875 (4,134)

LEGACY

Specifications

Model			Wagon				
			AWD				
			2.0 L				
			LHD			RHD	
			LX	GL		GL	
			5MT	5MT*2	4AT*2	5MT*3	4AT*3
Curb weight (C.W.)	Front	kgf (lb)	770 (1,698)	785 (1,731)	800 (1,764)	785 (1,731)	800 (1,764)
	Rear	kgf (lb)	630 (1,389)	650 (1,433)	650 (1,433)	650 (1,433)	650 (1,433)
	Total	kgf (lb)	1,400 (3,087)	1,435 (3,164)	1,450 (3,197)	1,435 (3,164)	1,450 (3,197)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)
	Rear	kgf (lb)	1,030 (2,271)	1,030 (2,271)	1,030 (2,271)	1,030 (2,271)	1,030 (2,271)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,895 (4,178)	1,895 (4,178)	1,895 (4,178)	1,895 (4,178)	1,895 (4,178)

Model			Wagon					
			AWD					
			2.5 L					
			LHD			RHD		
			GX		GX*1	GX		GX*1
			5MT*2	4AT*6	4AT*7	5MT*3	4AT*3	4AT*7
Curb weight (C.W.)	Front	kgf (lb)	790 (1,742)	820 (1,808)	845 (1,863)	790 (1,742)	805 (1,775)	845 (1,863)
	Rear	kgf (lb)	655 (1,444)	655 (1,444)	680 (1,499)	655 (1,444)	655 (1,444)	680 (1,499)
	Total	kgf (lb)	1,445 (3,186)	1,475 (3,252)	1,525 (3,363)	1,445 (3,186)	1,460 (3,219)	1,525 (3,363)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	960 (2,117)	980 (2,161)	980 (2,161)	960 (2,117)	980 (2,161)	980 (2,161)
	Rear	kgf (lb)	1,040 (2,293)	1,040 (2,293)	1,040 (2,293)	1,040 (2,293)	1,040 (2,293)	1,040 (2,293)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,945 (4,289)	1,945 (4,289)	1,970 (4,344)	1,945 (4,289)	1,945 (4,289)	1,970 (4,344)

*1: Pneumatic suspension equipped models

*2: Includes weight of side airbag

*3: Includes weight of audio and side airbag

*4: Includes weight of cruise control, audio and side airbag

*5: Includes weight of air conditioner and side airbag

*6: Includes weight of cruise control, cold weather pack, air conditioner and side airbag

*7: Includes weight of VDC, cruise control, audio, leather interior, cold weather pack, air conditioner, side airbag and sunroof

NOTE:

When any of the following optional parts are installed, add the weight to the curb weight.

Weight of optional parts	VDC	Cruise control	Air conditioner	Sunroof	Leather interior	SRS Airbag (Side)	Cold weather pack	Audio	Rear spoiler	Sports package	
Front	kgf (lb)	6.5 (14.3)	2.1 (4.6)	13.9 (30.6)	10.9 (24.0)	1.8 (4.0)	2.9 (6.4)	0.2 (0.4)	1.8 (4.0)	-0.7 (-1.54)	-1.4 (-3.09)
Rear	kgf (lb)	0.1 (0.2)	0.3 (0.7)	-0.1 (-0.2)	16.4 (36.2)	3.1 (6.8)	3.0 (6.6)	0.2 (0.4)	0.7 (1.5)	3.2 (7.1)	-3.8 (-8.38)
Total	kgf (lb)	6.6 (14.6)	2.4 (5.3)	13.8 (30.4)	27.3 (60.2)	4.9 (10.8)	5.9 (13.0)	0.4 (0.9)	2.5 (5.5)	2.5 (5.5)	-5.2 (-11.47)

2. AUSTRALIA SPEC. VEHICLE SA08704G3704

Model		Sedan				
		AWD				
		2.0 L		2.5 L		
		GX		RX		
		5MT*1	4AT*2	5MT*2	4AT*2	
Unladen mass (U.M.)	Front	kgf (lb)	780 (1,720)	775 (1,709)	775 (1,709)	785 (1,731)
	Rear	kgf (lb)	585 (1,290)	585 (1,290)	595 (1,312)	595 (1,312)
	Total	kgf (lb)	1,365 (3,010)	1,360 (2,999)	1,370 (3,021)	1,380 (3,043)
Gross vehicle mass (G.V.M.)	Front	kgf (lb)	930 (2,051)	930 (2,051)	940 (2,073)	940 (2,073)
	Rear	kgf (lb)	970 (2,139)	970 (2,139)	980 (2,161)	980 (2,161)
	Total	kgf (lb)	1,900 (4,190)	1,900 (4,190)	1,920 (4,234)	1,920 (4,234)

Model		Wagon				
		AWD				
		2.0 L		2.5 L		
		GX		RX		
		5MT*1	4AT*2	5MT*2	4AT*2	
Unladen mass (U.M.)	Front	kgf (lb)	775 (1,709)	775 (1,709)	765 (1,687)	780 (1,720)
	Rear	kgf (lb)	635 (1,400)	635 (1,400)	645 (1,422)	645 (1,422)
	Total	kgf (lb)	1,410 (3,109)	1,410 (3,109)	1,410 (3,109)	1,425 (3,142)
Gross vehicle mass (G.V.M.)	Front	kgf (lb)	930 (2,051)	930 (2,051)	950 (2,095)	950 (2,095)
	Rear	kgf (lb)	1,010 (2,227)	1,010 (2,227)	1,040 (2,293)	1,040 (2,293)
	Total	kgf (lb)	1,940 (4,278)	1,940 (4,278)	1,990 (4,388)	1,990 (4,388)

*1: Includes weight of cruise control, audio and air conditioner

*2: Includes weight of audio

NOTE:

When any of the following optional parts are installed, add the weight to the unladen mass.

Weight of optional parts	VDC	Cruise control	Air conditioner	Sunroof	Leather interior	SRS Airbag (Side)	Cold weather pack	Audio	Rear spoiler	Sports package	
Front	kgf (lb)	6.5 (14.3)	2.1 (4.6)	13.9 (30.6)	10.9 (24.0)	1.8 (4.0)	2.9 (6.4)	0.2 (0.4)	1.8 (4.0)	-0.7 (-1.54)	-1.4 (-3.09)
Rear	kgf (lb)	0.1 (0.2)	0.3 (0.7)	-0.1 (-0.2)	16.4 (36.2)	3.1 (6.8)	3.0 (6.6)	0.2 (0.4)	0.7 (1.5)	3.2 (7.1)	-3.8 (-8.38)
Total	kgf (lb)	6.6 (14.6)	2.4 (5.3)	13.8 (30.4)	27.3 (60.2)	4.9 (10.8)	5.9 (13.0)	0.4 (0.9)	2.5 (5.5)	2.5 (5.5)	-5.2 (-11.47)

LEGACY

Specifications

3. OTHERS SA08704G3705

Model		Sedan						
		AWD						
		2.0 L			2.5 L			
		LHD		RHD		LHD		
		LX	GL		GL	GX		
		5MT	5MT	4AT	4AT*1	5MT*1	4AT*1	
Curb weight (C.W.)	Front	kgf (lb)	765 (1,687)	775 (1,709)	800 (1,764)	800 (1,764)	785 (1,731)	810 (1,786)
	Rear	kgf (lb)	590 (1,301)	610 (1,345)	610 (1,345)	605 (1,334)	610 (1,345)	615 (1,356)
	Total	kgf (lb)	1,355 (2,988)	1,385 (3,054)	1,410 (3,109)	1,405 (3,098)	1,395 (3,076)	1,425 (3,142)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)
	Rear	kgf (lb)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	975 (2,139)	975 (2,139)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,835 (4,046)	1,835 (4,046)	1,835 (4,046)	1,835 (4,046)	1,875 (4,134)	1,875 (4,134)

Model		Wagon						
		AWD						
		2.0 L			2.5 L			
		LHD		RHD		LHD		
		LX	GL		GL	GX		
		5MT	5MT	4AT	4AT*1	5MT*1	4AT*2	
Curb weight (C.W.)	Front	kgf (lb)	765 (1,687)	775 (1,709)	790 (1,742)	790 (1,742)	780 (1,720)	805 (1,775)
	Rear	kgf (lb)	635 (1,400)	655 (1,444)	655 (1,444)	655 (1,444)	655 (1,444)	655 (1,444)
	Total	kgf (lb)	1,400 (3,087)	1,430 (3,153)	1,445 (3,186)	1,445 (3,186)	1,435 (3,164)	1,460 (3,219)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	950 (2,095)	950 (2,095)	950 (2,095)	950 (2,095)	960 (2,117)	960 (2,117)
	Rear	kgf (lb)	1,030 (2,271)	1,030 (2,271)	1,030 (2,271)	1,030 (2,271)	1,040 (2,293)	1,040 (2,293)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,895 (4,178)	1,895 (4,178)	1,895 (4,178)	1,895 (4,178)	1,945 (4,289)	1,945 (4,289)

*1: Includes weight of audio

*2: Includes weight of cruise control and air conditioner

NOTE:

When any of the following optional parts are installed, add the weight to the curb weight.

Weight of optional parts	VDC	Cruise control	Air conditioner	Sunroof	Leather interior	SRS Airbag (Side)	Cold weather pack	Audio	Rear spoiler	Sports package	
Front	kgf (lb)	6.5 (14.3)	2.1 (4.6)	13.9 (30.6)	10.9 (24.0)	1.8 (4.0)	2.9 (6.4)	0.2 (0.4)	1.8 (4.0)	-0.7 (-1.54)	-1.4 (-3.09)
Rear	kgf (lb)	0.1 (0.2)	0.3 (0.7)	-0.1 (-0.2)	16.4 (36.2)	3.1 (6.8)	3.0 (6.6)	0.2 (0.4)	0.7 (1.5)	3.2 (7.1)	-3.8 (-8.38)
Total	kgf (lb)	6.6 (14.6)	2.4 (5.3)	13.8 (30.4)	27.3 (60.2)	4.9 (10.8)	5.9 (13.0)	0.4 (0.9)	2.5 (5.5)	2.5 (5.5)	-5.2 (-11.47)

2. OUTBACK SA08705

A: DIMENSIONS SA08705G28

Model		OUTBACK	
		AWD	
Overall length	mm (in)	4,720 (185.8)	
Overall width	mm (in)	1,745 (68.7)	
Overall height (at CW)	mm (in)	1,580 (62.2), 1,590 (62.6)*3	
Compartment	Length	mm (in)	1,925 (75.8)
	Width	mm (in)	1,440 (56.7), 1,420 (55.9)*1
	Height	mm (in)	1,190 (46.9), 1,175 (46.3)*2
Wheelbase	mm (in)	2,650 (104.3)	
Tread	Front	mm (in)	1,470 (57.9)
	Rear	mm (in)	1,460 (57.5)*3, 1,465 (57.7)
Minimum road clearance	Without catalytic converter	mm (in)	195 (7.7)
	With catalytic converter	mm (in)	190 (7.5)
	Australia	mm (in)	200 (7.9)

*1: With leather seat

*2: With sunroof

*3: Australia spec. vehicles

B: ENGINE SA08705G29

Model		OUTBACK	
		AWD	
		2.5 L	3.0 L
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 type	
Bore × Stroke	mm (in)	99.5 × 79.0 (3.917 × 3.110)	89.2 × 80.0 (3.512 × 3.150)
Displacement	cm ³ (cu in)	2,457 (149.9)	3,000 (183.06)
Compression ratio		10.0	10.7
Firing order		1 — 3 — 2 — 4	1 — 6 — 3 — 2 — 5 — 4
Idle speed at Park/Neutral position	rpm	700±100	600±100
Maximum output	kW (HP)/rpm	115 (154)/5,600	154 (206)/6,000
Maximum torque	N·m (kgf·m, ft·lb)/rpm	223 (22.7, 164.2)/3,600	282 (378)/4,400

OUTBACK

Specifications

C: ELECTRICAL SA08705G30

Model		OUTBACK			
		AWD			
		2.5 L		3.0 L	
Ignition timing at idling speed		BTDC/rpm		10°±10°/700	10°±8°/600
Spark plug	Type and manufacturer	RC10YC4 CHAMPION		PLFR6A NGK	
		Alternate	RC8YC4 CHAMPION BKR6E-11 NGK K20PR-U11 NIPPONDENSO		
Generator		12V — 90A		12V — 100A	
Battery	Type and capacity (5HR)	For Europe and South America	MT: 12V — 48AH (55D23L) AT: 12V — 52AH (75D23L)		12V — 52AH (75D23L)
		Others	12V — 27AH (34B19L)		

D: TRANSMISSION SA08705G31

Model		OUTBACK		
		AWD		
		2.5 L		3.0 L
Transmission type		5MT*1	4AT*2	4AT*2
Clutch type		DSPD	TCC	TCC
Gear ratio	1st	3.454	2.785	
	2nd	2.062	1.545	
	3rd	1.448	1.000	
	4th	1.088	0.694	
	5th	0.825	—	
	Reverse	3.333	2.272	
Auxiliary transmission gear ratio	High	1.000	—	
	Low	1.196	—	
Reduction gear (Front drive)	1st Reduction	Type of gear	Helical	
		Gear ratio	1.000	
	Final reduction	Type of gear	Hypoid	
		Gear ratio	3.900*3, 4.111*4	4.444
Reduction gear (Rear drive)	Transfer reduction	Type of gear	Helical	
		Gear ratio	1.000	
	Final reduction	Type of gear	Hypoid	
		Gear ratio	3.900*3, 4.111*4	4.444

5MT*1: 5 × 2 forward speeds with synchromesh and 1-reverse

4AT*2: Electronically controlled fully-automatic, 4-forward speeds and 1-reverse

DSPD: Dry Single Plate Diaphragm

TCC: Torque Converter Clutch

*3: Except Australia spec. vehicles

*4: Australia spec. vehicles

E: STEERING SA08705G32

Model	OUTBACK	
Type	Rack and Pinion	
Turns, lock to lock	LHD 3.4/RHD 3.0	
Minimum turning circle	m (ft)	Curb to curb: 11.2±1.0 (36.7±3.3) Wall to wall: 12.0±1.0 (39.4±3.3)

F: SUSPENSION SA08705G33

Model	OUTBACK	
Front	Macpherson strut type, Independent, Coil spring	
Rear	Multi-link type, Independent, Coil spring	

G: BRAKE SA08705G34

Model	OUTBACK	
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 SA08705G35

Model	OUTBACK	
Rim size	16 × 6 ¹ / ₂ JJ	
Tire size	215/60R16	
Type	Steel belted radial, Tubeless	

I: CAPACITY SA08705G36

Model		OUTBACK		
		AWD		
		2.5 L		3.0 L
		5MT	4AT	
Fuel tank	<i>ℓ</i> (US gal, Imp gal)	64 (16.9, 14.1)		
Engine oil	Upper level	<i>ℓ</i> (US qt, Imp qt)	4.0 (4.2, 3.5)	5.8 (6.1, 5.1)
	Lower level	<i>ℓ</i> (US qt, Imp qt)	3.0 (3.2, 2.6)	4.8 (5.1, 4.2)
Transmission gear oil	<i>ℓ</i> (US qt, Imp qt)	4.0 (4.2, 3.5)	—	
Automatic transmission fluid	<i>ℓ</i> (US qt, Imp qt)	—	9.3 (9.8, 8.2)	
AT differential gear oil	<i>ℓ</i> (US qt, Imp qt)	—	1.2 (1.3, 1.1)	
AWD rear differential gear oil	<i>ℓ</i> (US qt, Imp qt)	0.8 (0.8, 0.6)		
Power steering fluid	<i>ℓ</i> (US qt, Imp qt)	0.7 (0.7, 0.6)		
Engine coolant	<i>ℓ</i> (US qt, Imp qt)	6.8 (7.2, 6.0)	6.7 (7.1, 5.9)	7.7 (8.1, 6.8)

OUTBACK

Specifications

J: WEIGHT SA08705G37

1. EUROPE SPEC. VEHICLE SA08705G3703

Model			OUTBACK					
			AWD					
			4 cylinders				6 cylinders	
			LHD		RHD		LHD	RHD
			5MT*1	4AT*1	5MT*2	4AT*2	4AT	
Curb weight (C.W.)	Front	kgf (lb)	815 (1,797)	830 (1,830)	800 (1,764)	815 (1,797)	915 (2,018)	
	Rear	kgf (lb)	675 (1,488)	675 (1,488)	670 (1,477)	670 (1,477)	695 (1,532)	
	Total	kgf (lb)	1,490 (3,285)	1,505 (3,319)	1,470 (3,241)	1,485 (3,274)	1,610 (3,550)	
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	1,010 (2,227)	1,010 (2,227)	1,010 (2,227)	1,010 (2,227)	1,040 (2,293)	
	Rear	kgf (lb)	1,050 (2,315)	1,050 (2,315)	1,050 (2,315)	1,050 (2,315)	1,050 (2,315)	
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,980 (4,366)	1,980 (4,366)	1,980 (4,366)	1,980 (4,366)	2,085 (4,597)	

*1: Includes weight of air conditioner and side airbag

*2: Includes weight of audio

NOTE:

When any of the following optional parts are installed, add the weight to the curb weight.

Weight of optional parts	Cruise control	Self levelizer	Air conditioner	Sunroof	Leather interior	SRS Airbag (Side)	Cold weather pack	Audio	Rear spoiler	Sports package
Front kgf (lb)	2.1 (4.6)	0.2 (0.4)	13.9 (30.6)	10.9 (24.0)	1.8 (4.0)	2.9 (6.4)	0.2 (0.4)	1.8 (4.0)	-0.7 (-1.54)	-1.4 (-3.09)
Rear kgf (lb)	0.3 (0.7)	4.2 (9.3)	-0.1 (-0.2)	16.4 (36.2)	3.1 (6.8)	3.0 (6.6)	0.2 (0.4)	0.7 (1.5)	3.2 (7.1)	-3.8 (-8.38)
Total kgf (lb)	2.4 (5.3)	4.4 (9.7)	13.8 (30.4)	27.3 (60.2)	4.9 (10.8)	5.9 (13.0)	0.4 (0.9)	2.5 (5.5)	2.5 (5.5)	-5.2 (-11.47)

2. AUSTRALIA SPEC. VEHICLE SA08705G3704

Model			OUTBACK		
			AWD		
			4 cylinders		6 cylinders
			5MT*	4AT*	4AT
Unladen mass (U.M.)	Front	kgf (lb)	790 (1,742)	800 (1,764)	900 (1,985)
	Rear	kgf (lb)	650 (1,433)	650 (1,433)	690 (1,521)
	Total	kgf (lb)	1,440 (3,175)	1,450 (3,197)	1,590 (3,506)
Gross vehicle mass (G.V.M.)	Front	kgf (lb)	950 (2,095)	950 (2,095)	990 (2,183)
	Rear	kgf (lb)	1,040 (2,293)	1,040 (2,293)	1,040 (2,293)
	Total	kgf (lb)	1,990 (4,388)	1,990 (4,388)	2,030 (4,476)

*: Includes weight of audio

NOTE:

When any of the following optional parts are installed, add the weight to the unladen mass.

Weight of optional parts	Cruise control	Self levelizer	Air conditioner	Sunroof	Leather interior	SRS Airbag (Side)	Cold weather pack	Audio	Rear spoiler	Sports package	
Front	kgf (lb)	2.1 (4.6)	0.2 (0.4)	13.9 (30.6)	10.9 (24.0)	1.8 (4.0)	2.9 (6.4)	0.2 (0.4)	1.8 (4.0)	-0.7 (-1.54)	-1.4 (-3.09)
Rear	kgf (lb)	0.3 (0.7)	4.2 (9.3)	-0.1 (-0.2)	16.4 (36.2)	3.1 (6.8)	3.0 (6.6)	0.2 (0.4)	0.7 (1.5)	3.2 (7.1)	-3.8 (-8.38)
Total	kgf (lb)	2.4 (5.3)	4.4 (9.7)	13.8 (30.4)	27.3 (60.2)	4.9 (10.8)	5.9 (13.0)	0.4 (0.9)	2.5 (5.5)	2.5 (5.5)	-5.2 (-11.47)

3. OTHERS SA08705G3705

Model			OUTBACK	
			5MT*	4AT*
Curb weight (C.W.)	Front	kgf (lb)	810 (1,786)	859 (1,894)
	Rear	kgf (lb)	670 (1,477)	711 (1,568)
	Total	kgf (lb)	1,480 (3,263)	1,570 (3,462)
Maximum permissible axle weight (M.P.A.W.)	Front	kgf (lb)	975 (2,150)	975 (2,150)
	Rear	kgf (lb)	1,050 (2,315)	1,050 (2,315)
Maximum permissible weight (M.P.W.)	Total	kgf (lb)	1,980 (4,366)	1,980 (4,366)

*: Includes weight of cruise control and air conditioner

NOTE:

When any of the following optional parts are installed, add the weight to the curb weight.

Weight of optional parts	Cruise control	Self levelizer	Air conditioner	Sunroof	Leather interior	SRS Airbag (Side)	Cold weather pack	Audio	Rear spoiler	Sports package	
Front	kgf (lb)	2.1 (4.6)	0.2 (0.4)	13.9 (30.6)	10.9 (24.0)	1.8 (4.0)	2.9 (6.4)	0.2 (0.4)	1.8 (4.0)	-0.7 (-1.54)	-1.4 (-3.09)
Rear	kgf (lb)	0.3 (0.7)	4.2 (9.3)	-0.1 (-0.2)	16.4 (36.2)	3.1 (6.8)	3.0 (6.6)	0.2 (0.4)	0.7 (1.5)	3.2 (7.1)	-3.8 (-8.38)
Total	kgf (lb)	2.4 (5.3)	4.4 (9.7)	13.8 (30.4)	27.3 (60.2)	4.9 (10.8)	5.9 (13.0)	0.4 (0.9)	2.5 (5.5)	2.5 (5.5)	-5.2 (-11.47)

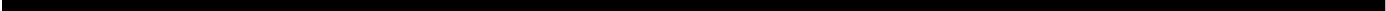
OUTBACK

Specifications

MEMO:

PRECAUTION

PC



1. Precaution	Page 2
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1. Precaution SA04677

A: PRECAUTION SA04677F59

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 SA04677F5901

Handle the ABS as a total system. Do not disassemble or attempt to repair individual parts. Doing so could prevent the ABS system from operating when needed or cause it to operate incorrectly and result in injury.

2. BRAKE FLUID SA04677F5902

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

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

3. ELECTRIC FAN SA04677F5903

The electric 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.

4. ROAD TESTS SA04677F5904

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

5. AIRBAG SA04677F5905

To prevent bodily injury from unexpected deployment of airbags and unnecessary maintenance, follow the instructions in this manual when performing maintenance on airbag components or nearby, and airbag wiring harnesses or nearby.

To prevent unexpected deployment, perform one of the steps below and then wait at least 20 seconds to discharge electricity before beginning work.

- Step 1: Turn the ignition switch OFF.
- Step 2: Remove the negative battery terminal.

6. AIRBAG DISPOSAL SA04677F5906

To prevent bodily injury from unexpected airbag deployment, do not dispose airbag modules in the same way as other refuse. Follow the special instructions for disposal in this manual. Follow all government regulations concerning disposal of refuse.

7. AIRBAG MODULE SA04677F5907

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

- Do not hold 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.

8. AIRBAG SPECIAL TOOLS SA04677F5908

To prevent unexpected deployment, only use special tools.

9. WINDOW SA04677F5909

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

10. WINDOW ADHESIVE SA04677F5910

Always use the specified urethane adhesive when attaching glass to prevent it from coming loose and falling, resulting in accidents and injury.

PRECAUTION

Precaution

MEMO:

PRECAUTION

Precaution

NOTE

NT



1. Note.....	Page 2
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1. Note SA03676

A: NOTE SA03676A15

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

1. FASTENER NOTICE SA03676A1501

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

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

2. STATIC ELECTRICITY DAMAGE SA03676A1502

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

3. IGNITION OFF BATTERY SA03676A1503

When removing the battery cables, always be sure to turn the ignition off to prevent electrical damage to the ECM from rush current.

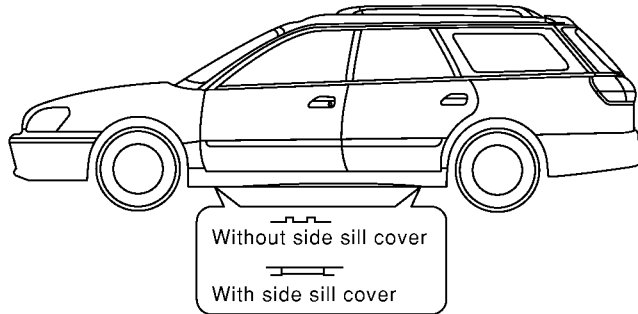
4. SERVICE PARTS SA03676A1504

Use authentic service parts for maximum performance and maintenance, when conducting repairs. Subaru/FHI will not be responsible for poor performance resulting from the use of parts not specified by a genuine dealer.

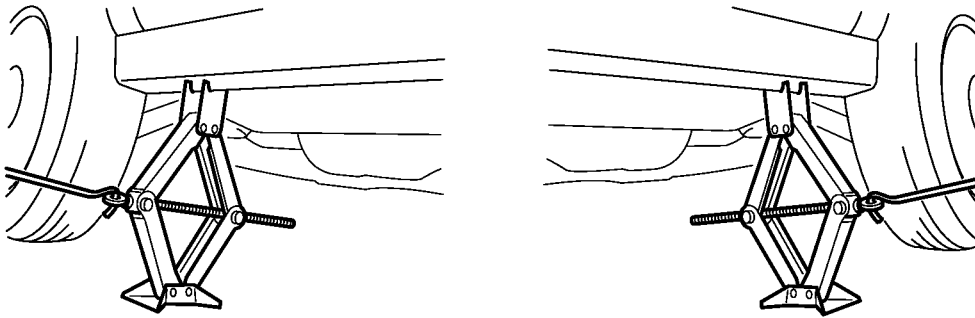
5. LIFTS AND JACKS SA03676A1505

When using a lift or jack-ridged rack to raise 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 to make sure the vehicle is balanced before raising it.

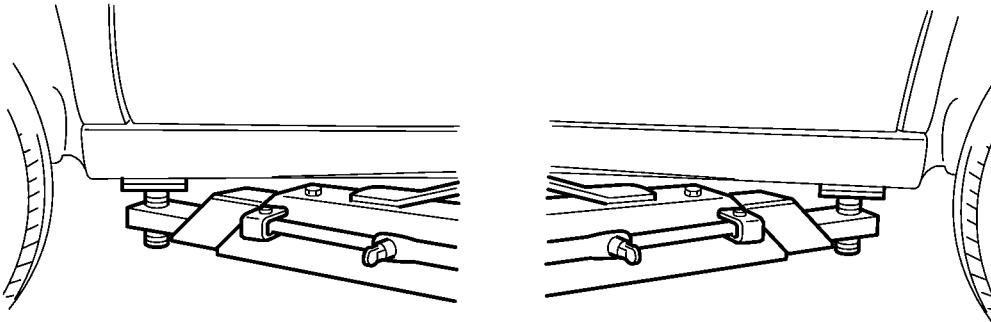
Support locations



Pantograph jack



Lift



Safety stand

