SCHEDULED MAINTENANCE INTERVALS
SUBARU—FORESTER

TO BE SERVICED	TYPE OF SERVICE	VEHICLE MILEAGE INTERVAL (x1000)																
		3	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
Accessory drive belts	R									✓								✓
Accessory drive belts	S/I					✓								✓				
Air cleaner filter	R					✓				✓				✓				✓
Automatic transmission fluid	S/I					✓				✓				✓				✓
Axle shaft joints	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Brake fluid	R					✓				✓				✓				✓
Brake system lines	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Clutch operation	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Disc brake pads & rotors	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Drums brake linings & drums	S/I					✓				✓				✓				✓
Engine coolant	R					✓				✓				✓				✓
Engine cooling system, hoses & connections	S/I					✓				✓				✓				✓
Engine oil & filter	R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Front & rear axle boots	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Front & rear wheel bearings	S/I & L									✓								✓
Fuel filter	R					✓				✓				✓				✓
Parking & service brake systems' operation	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Spark plugs	R									✓								✓
Steering & suspension	S/I			✓		✓		✓		✓		✓		✓		✓		✓
Timing belt	R															✓		
Timing belt	S/I					✓				✓				✓				
Transmission & differential fluid levels	S/I					✓				✓				✓				✓
Valve clearance	S/I															✓		

R: Replace S/I: Inspect and service, if needed L: Lubricate

FREQUENT OPERATION MAINTENANCE (SEVERE SERVICE)

If a vehicle is operated under any of the following conditions it is considered severe service:

- Towing a trailer or using a camper or car-top carrier.

- Repeated short trips of less than 5 miles in temperatures below freezing, or trips of less than 10 miles in any temperature.

- Extensive idling or low-speed driving for long distances as in heavy commercial use, such as delivery, taxi or police cars.

- Operating on rough, muddy or salt-covered roads, or extensive mountain driving.

- Operating on unpaved or dusty roads.

- Driving in extremely hot (over 90°) conditions.

Engine oil and filter: replace every 3000 miles or 3 months, whichever occurs first.

Fuel filter: replace every 7500 miles or 7.5 months, whichever occurs first.

Fuel system, hoses & connections: inspect every 7500 miles or 7.5 months, whichever occurs first.

Transmission & differential fluid: replace every 15,000 miles.

Automatic transmission fluid: replace every 15,000 miles.

Brake fluid: replace every 15,000 miles.

Disc brake pads & rotors: inspect every 7500 miles or 7.5 months, whichever occurs first.

Front & rear axle boots: inspect every 7500 miles or 7.5 months, whichever occurs first.

Axle shaft boots: inspect every 7500 miles or 7.5 months, whichever occurs first.

Drum brake linings & drums: inspect every 7500 miles or 7.5 months, whichever occurs first.

Brake lines: inspect every 7500 miles or 7.5 months, whichever occurs first.

Parking & service brake system operation: inspect every 7500 miles or 7.5 months, whichever occurs first.

Clutch operation: inspect every 7500 miles or 7.5 months, whichever occurs first.

BRAKE SPECIFICATIONS

All measurements in inches unless noted

			Brake Disc			Brake Drum Diameter			Minimum Lining Thickness		Brake Caliper	
Year	Model		Original Thickness	Minimum Thickness	Maximum Runout	Original Inside Diameter	Max. Wear Limit	Maximum Machine Diameter	Front	Rear	Bracket Bolts (ft. lbs.)	Mounting Bolts (ft. lbs.)
1999	Forester	F	0.940	0.870	0.003	—	—	—	0.059	—	51-65	25-31
		R	0.390	0.340	0.004	9.00 A	9.079 B	NA	—	0.059	—	25-31
2000	Forester	F	0.940	0.870	0.003	—	—	—	0.059	—	51-65	25-31
		R	0.390	0.340	0.004	9.00 A	9.079 B	NA	—	0.059	—	25-31
2001	Forester	F	0.940	0.870	0.003	—	—	—	0.059	—	51-65	25-31
		R	0.390	0.340	0.004	9.00 A	9.079 B	NA	—	0.059	—	25-31
2002-03	Forester	F	0.940	0.870	0.003	—	—	—	0.059	—	51-65	25-31
		R	0.390	0.340	0.004	9.00 A	9.079 B	NA	—	0.059	—	25-31

NA: Not Available

A Parking brake drum on vehicles with rear disc brakes: 6.69 in.

B Parking brake drum on vehicles with rear disc brakes: 6.73 in.

CAPACITIES

Year	Model	Engine Displacement Liters (cc)	Engine ID/VIN	Engine Oil with Filter (qts.)	Transmission (pts.)			Transfer Case (pts.)	Drive Axle		Fuel Tank (gal.)	Cooling System (qts.)
					4-Spd	5-Spd	Auto.		Front (pts.)	Rear (pts.)		
1999	Forester	2.5 (2457)	6	4.7	—	7.4	20	—	2.6 A	1.6	15.9	6.3
2000	Forester	2.5 (2457)	6	4.7	—	7.4	20	—	2.6 A	1.6	15.9	6.3
2001	Forester	2.5 (2457)	6	4.7	—	7.4	20	—	2.6 A	1.6	15.9	6.3
2002-03	Forester	2.5 (2457)	6	4.7	—	7.4	20	—	2.6 A	1.6	15.9	6.3

A A/T differential only.

CRANKSHAFT AND CONNECTING ROD SPECIFICATIONS

All measurements are given in inches.

Year	Engine Displacement Liters (cc)	Engine ID/VIN	Crankshaft				Connecting Rod		
			Main Brg. Journal Dia.	Main Brg. Oil Clearance	Shaft End-play	Thrust on No.	Journal Diameter	Oil Clearance	Side Clearance
1999	2.5 (2457)	6	2.3619-2.3625	A	0.0012-0.0098	3	1.8891-1.8898	0.0004-0.0020	0.0028-0.0160
2000	2.5 (2457)	6	2.3619-2.3625	A	0.0012-0.0098	3	1.8891-1.8898	0.0004-0.0020	0.0028-0.0160
2001	2.5 (2457)	6	2.3619-2.3625	A	0.0012-0.0098	3	1.8891-1.8898	0.0004-0.0020	0.0028-0.0160
2002-03	2.5 (2457)	6	2.3619-2.3625	A	0.0012-0.0098	3	1.8891-1.8898	0.0004-0.0020	0.0028-0.0160

A Journals 1 and 5: 0.0001-0.0016
Journals 2 and 4: 0.0004-0.0018
Journal 3: 0.0004-0.0016

ENGINE AND VEHICLE IDENTIFICATION CHART

Engine Code

Code A	Liters (cc)	Cu. In.	Cyl.	Fuel Sys.	Type	Eng. Mfg.
6	2.5 (2457)	150	4	MFI	DOHC	Subaru

MFI: Multiport Fuel Injection

DOHC: Double Overhead Camshafts

A 6th digit of the VIN.

B 10th digit of the VIN.

Model Year

Code B	Year
X	1999
Y	2000
1	2001
2	2002
3	2003

ENGINE TUNE-UP SPECIFICATIONS

Year	Engine Displacement Liters (cc)	Engine ID/VIN	Spark Plugs Gap (in.)	Ignition Timing (deg.) A		Fuel Pump (psi)	Idle Speed (rpm) B		Valve Clearance C	
				MT	AT		MT	AT	In.	Ex.
1999	2.5 (2457)	6	0.039-0.043	7-23 BTDC	7-23 BTDC	34-38	600-800	600-800	0.0071-0.0087	0.0090-0.0106
2000	2.5 (2457)	6	0.039-0.043	7-23 BTDC	7-23 BTDC	34-38	600-800	600-800	0.0071-0.0087	0.0090-0.0106
2001	2.5 (2457)	6	0.039-0.043	7-23 BTDC	7-23 BTDC	34-38	600-800	600-800	0.0071-0.0087	0.0090-0.0106
2002-03	2.5 (2457)	6	0.039-0.043	7-23 BTDC	7-23 BTDC	34-38	600-800	600-800	0.0071-0.0087	0.0090-0.0106

BTDC: Before Top Dead Center

A At idle speed.

B With engine under no load.

C With engine cold.

GENERAL ENGINE SPECIFICATIONS

Year	Model	Engine Displacement Liters (cc)	Engine ID/VIN	Fuel System Type	Net Horsepower @ rpm	Net Torque @ rpm (ft. lbs.)	Bore x Stroke (in.)	Com-pression Ratio	Oil Pressure psi @ rpm
1999	Forester	2.5 (2457)	6	MFI	165@5600	162@4000	3.92x3.11	9.7:1	14 @ 800
2000	Forester	2.5 (2457)	6	MFI	165@5600	162@4000	3.92x3.11	9.7:1	14 @ 800
2001	Forester	2.5 (2457)	6	MFI	165@5600	162@4000	3.92x3.11	9.7:1	14 @ 800
2002-03	Forester	2.5 (2457)	6	MFI	165@5600	162@4000	3.92x3.11	9.7:1	14 @ 800

MFI: Multi-port Fuel Injection

PISTON AND RING SPECIFICATIONS

All measurements are given in inches.

Year	Engine Displacement Liters (cc)	Engine ID/VIN	Piston Clearance	Ring Gap			Ring Side Clearance		
				Top Compression	Bottom Compression	Oil Control	Top Compression	Bottom Compression	Oil Control
1999	2.5 (2457)	6	0.0004-0.0020	0.0079-0.0390	0.0146-0.0390	0.0079-0.0590	0.0016-0.0059	0.0012-0.0059	NA
2000	2.5 (2457)	6	0.0004-0.0020	0.0079-0.0390	0.0146-0.0390	0.0079-0.0590	0.0016-0.0059	0.0012-0.0059	NA
2001	2.5 (2457)	6	0.0004-0.0020	0.0079-0.0390	0.0146-0.0390	0.0079-0.0590	0.0016-0.0059	0.0012-0.0059	NA
2002-03	2.5 (2457)	6	0.0004-0.0020	0.0079-0.0390	0.0146-0.0390	0.0079-0.0590	0.0016-0.0059	0.0012-0.0059	NA

NA: Not Available

TIRE, WHEEL AND BALL JOINT SPECIFICATIONS

Year	Model	OEM Tires		Tire Pressures (psi)		Wheel	Ball Joint
		Standard	Optional	Front	Rear	Size	Inspection
1999	Forester	P205/70R15 95S	P215/60R16 94H	29	26 A	B	0.012 in. C
2000	Forester	P205/70R15 95S	P215/60R16 94H	29	26 A	B	0.012 in. C
2001	Forester	P205/70R15 95S	P215/60R16 94H	29	26 A	B	0.012 in. C
2002-03	Forester	P205/70R15 95S	P215/60R16 94H	29	26 A	B	0.012 in. C

OEM: Original Equipment Manufacturer

PSI: Pounds Per Square Inch

STD: Standard

OPT: Optional

A Wigh full load: 36 psi.

B With standard tires: 6-JJ
With optional tires: 6.5-JJ

C Apply 154 lbs. vertical force

TORQUE SPECIFICATIONS

All readings in ft. lbs.

Year	Engine Displacement Liters (cc)	Engine ID/VIN	Cylinder Head Bolts	Main Bearing Bolts	Rod Bearing Bolts	Crankshaft Damper Bolts	Flywheel Bolts	Manifold		Spark Plugs	Lug Nut
								Intake	Exhaust		
1999	2.5 (2457)	6	A	B	31-34	123-137	51-55	14-17	19-26 C	13-17	58-72
2000	2.5 (2457)	6	A	B	31-34	123-137	51-55	14-17	19-26 C	13-17	58-72
2001	2.5 (2457)	6	A	B	31-34	123-137	51-55	14-17	19-26 C	13-17	58-72
2002-03	2.5 (2457)	6	A	B	31-34	123-137	51-55	14-17	19-26 C	13-17	58-72

A Step 1: Tighten all bolts, in sequence, to 22 ft. lbs.
Step 2: Tighten all bolts, in sequence, to 51 ft. lbs.
Step 3: Loosen all bolts 180 degrees (one-half turn)
Step 4: Loosen all bolts another 180 degrees (one-half turn)
Step 5: Tighetn bolts A and B, in sequence, to 25 ft. lbs.
Step 6: Tighten bolts C, D, E and F, in sequence, to 11 ft. lbs.
Step 7: Tighten all bolts, in sequence, 80-90 degrees
Step 8: Tighten all bolts, in sequence, another 80-90 degrees

B Split engine case bolts:
10mm bolts: 33-37 ft. lbs.
8mm bolts: A thru G to 17-20 ft. lbs. and H to 5 ft. lbs.

C No separate exhaust manifold is used, the front pipe bolts directly to the cylinder heads

VALVE SPECIFICATIONS

Year	Engine Displacement Liters (cc)	Engine ID/VIN	Seat Angle (deg.)	Face Angle (deg.)	Spring Test Pressure (lbs. @ in.)	Spring Installed Height (in.)	Stem-to-Guide Clearance (in.)		Stem Diameter (in.)	
							Intake	Exhaust	Intake	Exhaust
1999	2.5 (2457)	6	A	A	33-38@ 1.654 B	C	0.0014- C 0.0024	0.0016- D 0.0026	0.2343- 0.2348	0.2343- 0.2348
2000	2.5 (2457)	6	A	A	33-38@ 1.654 B	C	0.0014- C 0.0024	0.0016- D 0.0026	0.2343- 0.2348	0.2343- 0.2348
2001	2.5 (2457)	6	A	A	33-38@ 1.654 B	C	0.0014- C 0.0024	0.0016- D 0.0026	0.2343- 0.2348	0.2343- 0.2348
2002-03	2.5 (2457)	6	A	A	33-38@ 1.654 B	C	0.0014- C 0.0024	0.0016- D 0.0026	0.2343- 0.2348	0.2343- 0.2348

A Refacing angle: 90 degrees

B 102-118 lbs. @ 1.315 in.

C Free length: 1.8913 in.

D Wear limit: 0.0059 in.

WHEEL ALIGNMENT

Year	Model		Caster		Camber		Toe-in (in.)	Steering Axis Inclination (Deg.)
			Range (+/-Deg.)	Preferred Setting (Deg.)	Range (+/-Deg.)	Preferred Setting (Deg.)		
1999	Forester	F	0.75	+2.58	0.50	-0.25	0+/-0.12	—
		R	—	—	0.75	-0.58	0.08+/-0.04	—
2000	Forester	F	0.75	+2.58	0.50	-0.25	0+/-0.12	—
		R	—	—	0.75	-0.58	0.08+/-0.04	—
2001	Forester	F	0.75	+2.58	0.50	-0.25	0+/-0.12	—
		R	—	—	0.75	-0.58	0.08+/-0.04	—
2002-03	Forester	F	0.75	+2.58	0.50	-0.25	0+/-0.12	—
		R	—	—	0.75	-0.58	0.08+/-0.04	—