

FORD, LINCOLN AND MERCURY

Aviator • Explorer • Explorer Sport • Explorer Sport-Trac • Mountaineer

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SPECIFICATIONS AND MAINTENANCE CHARTS
ENGINE AND VEHICLE IDENTIFICATION

Engine							Model Year	
Code ①	Liters (cc)	Cu. In.	Cyl.	Fuel Sys.	Type	Eng. Mfg.	Code ②	Year
E	4.0 (4000)	244	6	MFI	SOHC	Ford	2	2002
H	4.6 (4601)	281	8	SFI	DOHC	Ford	3	2003
W	4.6 (4601)	281	8	MFI	SOHC	Ford	4	2004
							5	2005
							6	2006

MFI: Multi-port Fuel Injection

SFI: Sequential Multi-port Fuel Injection

DOHC: Dual Overhead Camshafts

SOHC: Single Overhead Camshaft

① 8th digit of the Vehicle Identification Number (VIN)

② 10th digit of the Vehicle Identification Number (VIN)

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GENERAL ENGINE SPECIFICATIONS

Year	Model	Engine	Net	Net	Bore x	Com-	Oil	
		Displ. Liters	Engine VIN	Horsepower @ rpm	Torque @ rpm (ft. lbs.)	Stroke (in.)	pression Ratio	Pressure @ rpm
2002	Explorer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Explorer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Mountaineer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Explorer Sport	4.0	E	160@4000	225@2500	3.81x3.39	9.0:1	40-60@2000
	Explorer Sport-Trac	4.0	E	160@4000	225@2500	3.81x3.39	9.0:1	40-60@2000
2003	Explorer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Explorer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Explorer Sport	4.0	E	160@4000	225@2500	3.81x3.39	9.0:1	40-60@2000
	Explorer Sport-Trac	4.0	E	160@4000	225@2500	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Aviator	4.6	H	302@5750	300@3250	3.55x3.54	10.1:1	20-45@1500
2004	Explorer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Explorer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Explorer Sport-Trac	4.0	E	160@4000	225@2500	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Aviator	4.6	H	302@5750	300@3250	3.55x3.54	10.1:1	20-45@1500
2005	Explorer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Explorer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Explorer Sport-Trac	4.0	E	160@4000	225@2500	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.0	E	210@5250	240@3000	3.81x3.39	9.0:1	40-60@2000
	Mountaineer	4.6	W	239@4750	282@4000	3.55x3.54	9.3:1	20-45@1500
	Aviator	4.6	H	302@5750	300@3250	3.55x3.54	10.1:1	20-45@1500

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GASOLINE ENGINE TUNE-UP SPECIFICATIONS

Year	Engine Displacement Liters	Engine VIN	Spark Plug Gap (in.)	Ignition Timing (deg.) ①		Fuel Pressure (psi) ②	Idle Speed (rpm)		Valve Clearance	
				MT	AT		MT	AT	In.	Ex.
				2002	4.0		E	0.052-0.056	10B	10B
	4.6	W	0.052-0.056	—	10B	57-73	①	①	HYD	HYD
2003	4.0	E	0.052-0.056	10B	10B	57-73	①	①	HYD	HYD
	4.6	H	0.052-0.056	—	10B	25-65	①	①	HYD	HYD
	4.6	W	0.052-0.056	—	10B	57-73	①	①	HYD	HYD
2004	4.0	E	0.052-0.056	10B	10B	60-65	①	①	HYD	HYD
	4.6	W	0.052-0.056	—	10B	60-65	①	①	HYD	HYD
	4.6	H	0.052-0.056	—	10B	25-65	①	①	HYD	HYD
2005	4.0	E	0.061-0.068	10B	10B	30-40	①	①	HYD	HYD
	4.6	W	0.052-0.056	—	10B	30-40	①	①	HYD	HYD
	4.6	H	0.052-0.056	—	10B	25-65	①	①	HYD	HYD

NOTE: The Vehicle Emission Control Information label often reflects specification changes made during production.

The label figures must be used if they differ from those in this chart.

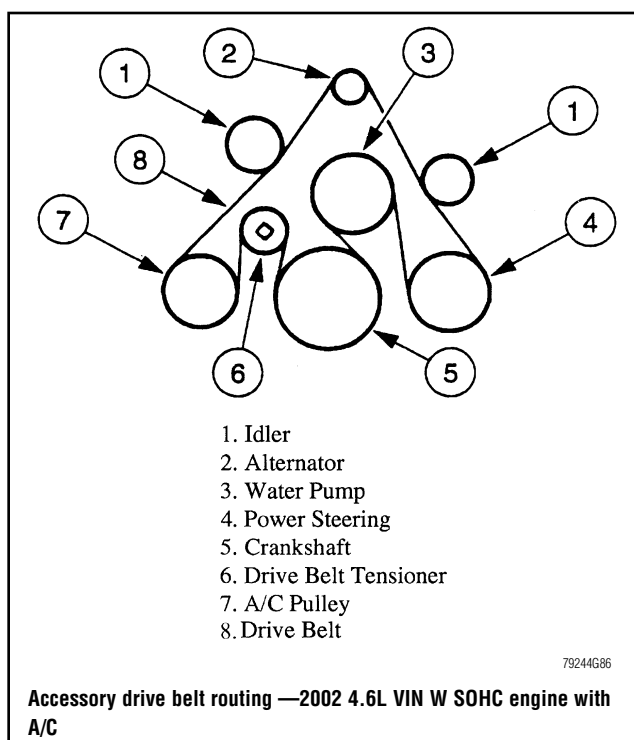
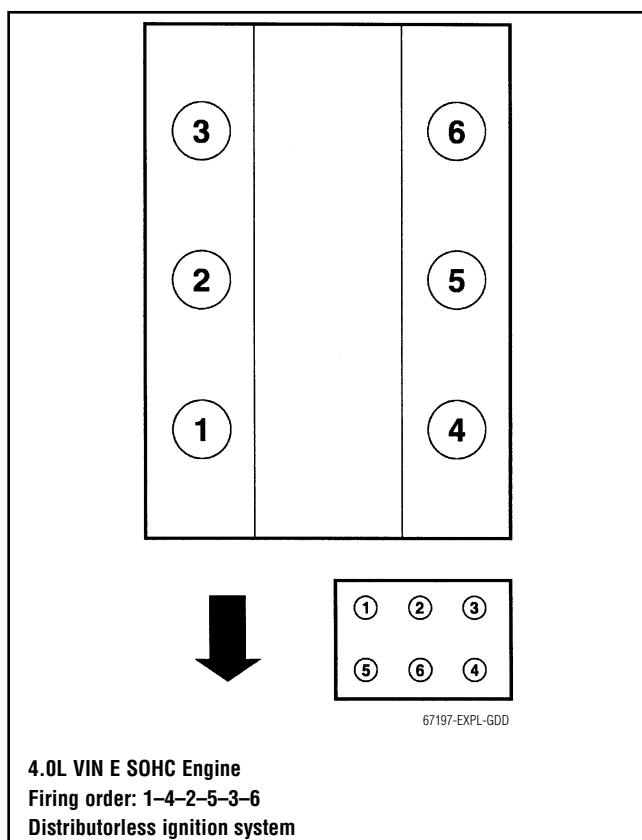
B: Before top dead center

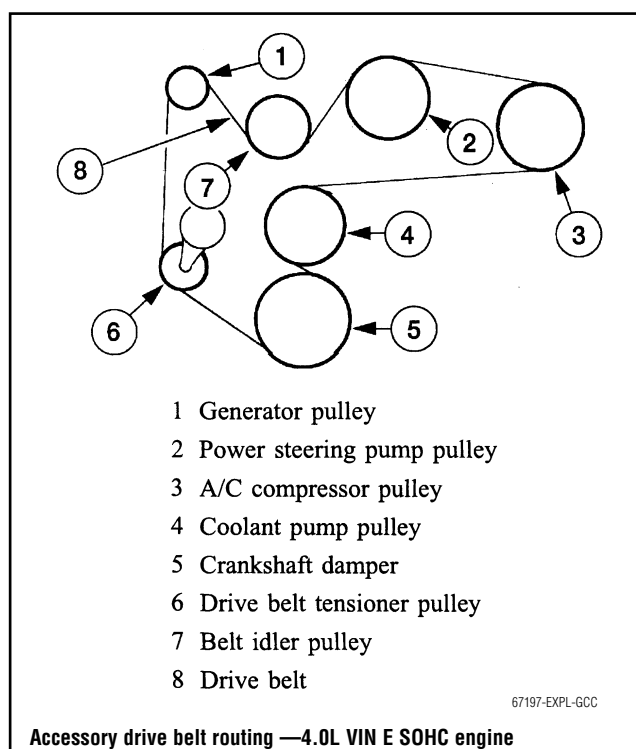
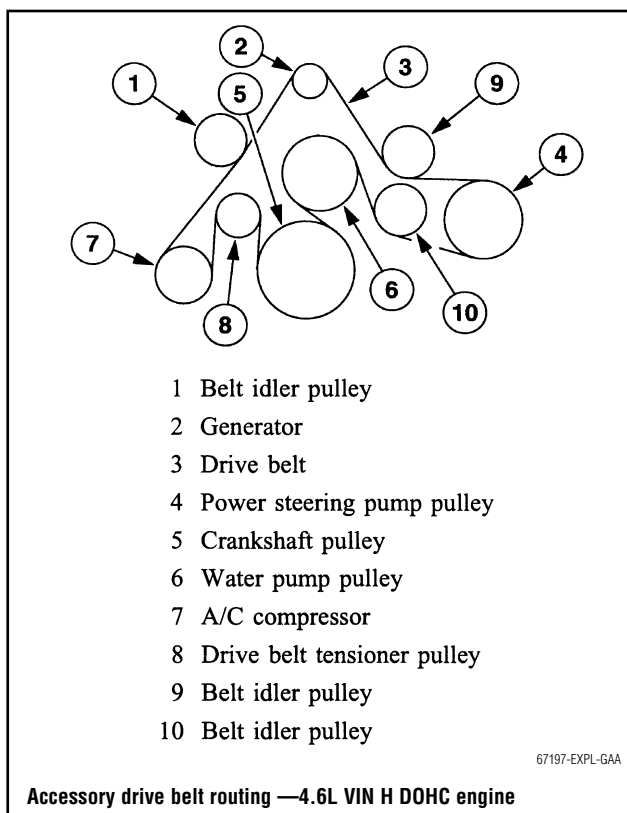
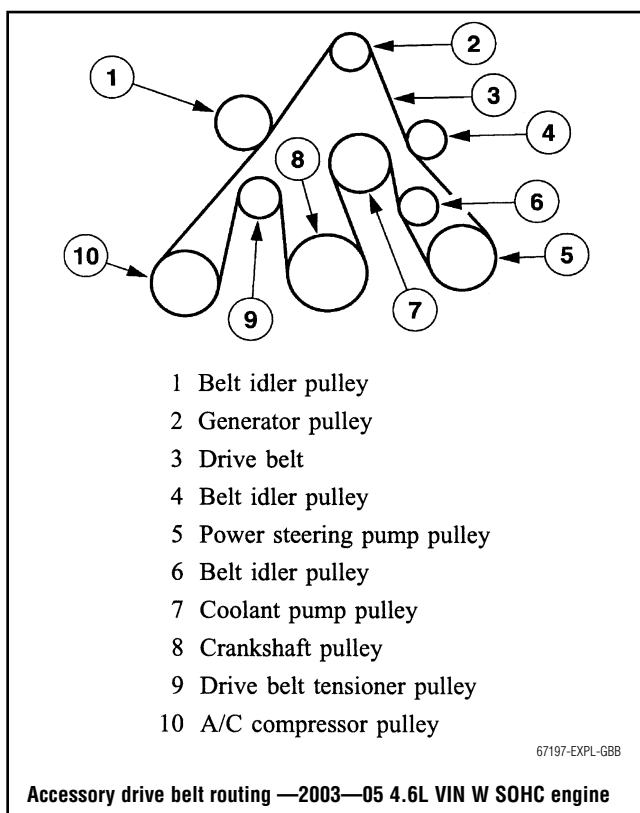
HYD: Hydraulic

① Idle speed and ignition timing are electronically controlled and cannot be adjusted

② Key on; engine off

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CAPACITIES

Year	Model	Engine Displ. Liters	Engine VIN	Engine	Transmission		Transfer Case (pts.)	Drive Axle		Fuel Tank (gal.)	Cooling System (qts.)
				Oil with Filter (qts.)	(pts.)			Front (pts.)	Rear (pts.)		
				5-Spd	Auto. ①						
2002	Explorer Sport	4.0	E	4.0	5.6	20.0	2.5	3.25	②	23.0	14.0
	Explorer Sport-Trac	4.0	E	4.0	5.6	20.0	2.5	3.6	②	23.0	14.0
	Explorer	4.0	E	5.0	5.0	25.4	3.0	3.25	2.75	④	⑤
	Explorer	4.6	W	6.5	—	25.4	③	3.25	2.75	22.5	⑥
	Mountaineer	4.0	E	5.0	5.0	25.4	3.0	3.25	2.75	22.5	⑤
	Mountaineer	4.6	W	6.5	—	25.4	③	3.25	2.75	22.5	⑥
2003	Explorer	4.0	E	5.0	—	25.4	3.0	2.70	3.50	④	⑤
	Explorer Sport	4.0	E	4.0	NA	⑦	2.5	3.25	②	23.0	14.0
	Explorer Sport-Trac	4.0	E	4.0	NA	⑦	2.5	3.25	②	23.0	14.0
	Explorer	4.6	W	6.5	—	25.4	③	2.70	3.50	22.5	⑥
	Mountaineer	4.0	E	5.0	—	25.4	3.0	2.70	3.50	22.5	⑤
	Mountaineer	4.6	W	6.5	—	25.4	③	2.70	3.50	22.5	⑥
	Aviator	4.6	H	6.0	—	25.4	2.6	2.70	3.50	22.5	19.6
2004	Explorer	4.0	E	5.0	—	25.4	3.0	2.70	3.50	22.5	⑤
	Explorer	4.6	W	6.5	—	25.4	③	2.70	3.50	22.5	⑥
	Explorer Sport-Trac	4.0	E	4.0	—	⑦	2.5	3.25	②	23.0	14.0
	Mountaineer	4.0	E	5.0	—	25.4	3.0	2.70	3.50	22.5	⑤
	Mountaineer	4.6	W	6.5	—	25.4	③	2.70	3.50	22.5	⑥
	Aviator	4.6	H	6.0	—	25.4	2.6	2.70	3.50	22.5	19.6
2005	Explorer	4.0	E	5.0	—	25.4	3.0	2.70	3.50	22.5	⑤
	Explorer	4.6	W	6.5	—	25.4	③	2.70	3.50	22.5	⑥
	Explorer Sport-Trac	4.0	E	4.0	—	⑦	2.5	3.25	②	23.0	14.0
	Mountaineer	4.0	E	5.0	—	25.4	3.0	2.70	3.50	22.5	⑤
	Mountaineer	4.6	W	6.5	—	25.4	③	2.70	3.50	22.5	⑥
	Aviator	4.6	H	6.0	—	25.4	2.6	2.70	3.50	22.5	19.6

NA: Information not available

NOTE: All capacities are approximate. Add fluid gradually and check to be sure a proper fluid level is obtained.

① Dry fill

② With Traction-Lok: 5.25 pts.
Without Traction-Lok: 5.5 pts.③ Part time: 3.0
Full time: 2.6④ 4-door Explorer: 22.5
Explorer Sport: 17.5
Explorer Sport Trac: 20.5⑤ w/o auxiliary heater: 16.3
w/auxiliary heater: 18.3⑥ w/o auxiliary heater: 18.6
w/auxiliary heater: 20.1⑦ 4x2: 20.0 pts.
4x4: 20.6 pts.

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1-7**VALVE SPECIFICATIONS**

Year	Engine Displ. Liters	Engine 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
							2002	4.0	E	45
	4.6	W	44.5- 45.1	45.25- 45.75	162-180@ 1.134	1.675	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2750	0.2736- 0.2740
2003	4.0	E	45	45	202-225@ 1.413-1.445	1.569- 1.601	0.0010- 0.0020	0.0010- 0.0020	0.2740- 0.2748	0.2730- 0.2740
	4.6	H	45	45.5	160@1.03	1.4228	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2754	0.2736- 0.2744
	4.6	W	44.5- 45.1	45.25- 45.75	162-180@ 1.134	1.675	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2750	0.2736- 0.2740
2004	4.0	E	45	45	202-225@ 1.413-1.445	1.569- 1.601	0.0010- 0.0020	0.0010- 0.0020	0.2740- 0.2748	0.2730- 0.2740
	4.6	H	45	45.5	160@1.03	1.4228	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2754	0.2736- 0.2744
	4.6	W	44.5- 45.1	45.25- 45.75	162-180@ 1.134	1.675	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2750	0.2736- 0.2740
2005	4.0	E	45	45	202-225@ 1.413-1.445	1.569- 1.601	0.0010- 0.0020	0.0010- 0.0020	0.2740- 0.2748	0.2730- 0.2740
	4.6	H	45	45.5	160@1.03	1.4228	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2754	0.2736- 0.2744
	4.6	W	44.5- 45.1	45.25- 45.75	162-180@ 1.134	1.675	0.0008- 0.0027	0.0018- 0.0037	0.2746- 0.2750	0.2736- 0.2740

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1-8**FORD, LINCOLN AND MERCURY
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All measurements are given in inches.

Year	Engine		Crankshaft				Connecting Rod		
	Displ. Liters	Engine VIN	Main Brg. Journal Dia.	Main Brg. Oil Clearance	Shaft End-play	Thrust on No.	Journal Diameter	Oil Clearance	Side Clearance
2002	4.0	E	2.2430-	0.0008-	0.0020-	3	2.7252-	0.0003-	0.0036-
			2.2440	0.0015	0.0125		2.7260	0.0024	0.0106
	4.6	W	2.6500-	0.0009-	0.0051-	3	2.0867-	0.0010-	0.0059-
			2.6570	0.0018	0.0118		2.0870	0.0027	0.0177
2003	4.0	E	2.2430-	0.0008-	0.0020-	3	2.7252-	0.0003-	0.0036-
			2.2440	0.0015	0.0125		2.7260	0.0024	0.0106
	4.6	H	2.6567-	0.0010-	0.0051-	3	2.0859-	0.0011-	0.0059-
			2.6576	0.0018	0.0118		2.0867	0.0027	0.0177
	4.6	W	2.6500-	0.0009-	0.0051-	3	2.0867-	0.0010-	0.0059-
			2.6570	0.0018	0.0118		2.0870	0.0027	0.0177
2004	4.0	E	2.2430-	0.0008-	0.0020-	3	2.7252-	0.0003-	0.0036-
			2.2440	0.0015	0.0125		2.7260	0.0024	0.0106
	4.6	H	2.6567-	0.0010-	0.0051-	3	2.0859-	0.0011-	0.0059-
			2.6576	0.0018	0.0118		2.0867	0.0027	0.0177
	4.6	W	2.6500-	0.0009-	0.0051-	3	2.0867-	0.0010-	0.0059-
			2.6570	0.0018	0.0118		2.0870	0.0027	0.0177
2005	4.0	E	2.2430-	0.0008-	0.0020-	3	2.7252-	0.0003-	0.0036-
			2.2440	0.0015	0.0125		2.7260	0.0024	0.0106
	4.6	H	2.6567-	0.0010-	0.0051-	3	2.0859-	0.0011-	0.0059-
			2.6576	0.0018	0.0118		2.0867	0.0027	0.0177
	4.6	W	2.6500-	0.0009-	0.0051-	3	2.0867-	0.0010-	0.0059-
			2.6570	0.0018	0.0118		2.0870	0.0027	0.0177

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