

Volkswagen Cabriolet

Tightening Torques

Engine Bolt/Nut	Nm	SAE
Air connection to cylinder head	10	87 in. lb.
Alternator adjusting bracket to engine	20	15
Alternator to adjusting bracket of vehicle	35	26
Alternator to lower mounting of vehicle	35	26
Camshaft bearing caps to cylinder head	20	15
Camshaft drive belt sprocket to camshaft or intermediate shaft	80	59
Camshaft drive belt tensioner locknut	45	33
Clutch pressure plate or auto trans drive plate to crankshaft	30 +¼ turn	22 +¼ turn
Connecting rod cap to connecting rod	30 +¼ turn	22 +¼ turn
Cover plate to transaxle	15	11
Crankshaft oil seal carrier to cylinder block: M6 bolt	10	87 in. lb.
Crankshaft oil seal carrier to cylinder block: M8 bolt	20	15
Crankshaft timing belt sprocket to crankshaft: 12-point bolt w/o washer	90	66
Crankshaft timing belt sprocket to crankshaft: Hex bolt w/ washer	150	111
Cylinder head/valve cover to cylinder head	10	87 in. lb.
Cylinder head to engine block (engine cold)	60 +½ turn	43 +½ turn
Drive belt rear cover to stud in cylinder head (socket-head bolt)	30	22
Drive shaft to transaxle drive flange	42	30
Engine front mount to body	52	38
Engine right and left mounting to rubber	35	26
Engine to transaxle bellhousing: M10 bolt	45	33
Engine to transaxle bellhousing: M12 bolt	75	55
Engine/transaxle rear mount to engine	35	26
Fuel injector insert to cylinder head (w/ thread locking compound)	20	15
Intermediate shaft oil seal carrier to cylinder block	25	18
Main bearing caps to cylinder block	65	48
Manifolds to cylinder head	25	18
Oil cooler to oil filter flange	25	18
Oil filter mounting flange to engine cylinder block (socket-head bolt)	25	18
Oil pan drain plug	30	22
Oil pan to cylinder block (hand tighten bolts when using rubber gasket)	20	15
Oil pickup to oil pump housing cover	10	87 in. lb.
Oil pressure switches	25	18
Oil pump cover bolt	10	87 in. lb.
Oil pump to cylinder block, M8 bolt	20	15
Power steering pump to mount	20	15
Radiator shroud mounting to radiator	10	87 in. lb.
Spark plug	20	15
Starter to bellhousing (manual trans)	46	34
Torque converter to drive plate (w/ D6 locking compound)	35	26
Upper radiator mounts to body	10	87 in. lb.
V-belt pulleys to coolant pump or crankshaft sprocket	20	15

Cooling System Bolt/Nut	Nm	SAE
Coolant outlet to cylinder head	10	87 in. lb.
Coolant pump housing to engine	20	15
Coolant pump pulley to coolant pump	20	15
Coolant pump to coolant pump housing	10	87 in. lb.
Coolant temp sending unit to cylinder head water outlet	10	87 in. lb.
Thermostat housing to coolant pump housing	10	87 in. lb.
Exhaust System Bolt/Nut	Nm	SAE
CO tap tube clamp	10	87 in. lb.
CO tap tube union to exhaust manifold	20	15
Exhaust manifold to cylinder head	25	18
Exhaust pipe to exhaust manifold (2H engine)	40	30
Exhaust slip-joint clamps (2H engine)	40	30
Exhaust slip-joint clamps (JH engine)	25	18
Front pipe or intermediate pipe flange to catalytic converter (JH engine)	25	18
Heatshield mounting	40	30
Oxygen sensor	50	37
Manual Transmission Bolt/Nut	Nm	SAE
5th gear lockout plunger to transaxle housing (locknut)	20	15
5th gear synchronizer to main shaft	150	111
5th gear/release housing to transaxle case	25	18
Clutch cable locknut to cable sleeve	4-6	36-48 in. lb.
Driveshaft to drive flange (socket-head bolt)	45	33
Flywheel to clutch pressure plate	20	15
Flywheel to pressure plate	20	15
Gearshift lever housing to body	23	17
Main shaft ball bearing clamping plate transmission case	15	11
Pinion shaft bearing retaining plate to transmission case	40	30
Pressure plate to crankshaft	30 +¼ turn	20 +¼ turn
Relay lever to relay shaft	20	15
Relay shaft bracket to body	20	15
Reverse gear relay lever supports to gear carrier housing	25	18
Reverse gear shaft lock bolt	30	22
Reverse gear/upshift light switch to transaxle	10	89 in. lb.
Ring gear to differential housing bolt (repair kit only)	70	52
Selector shaft cover	50	37
Selector shaft detent plunger to transaxle housing	20	15
Selector shaft lever to selector shaft	13	10
Shift lever retaining plate to shift lever housing	8.5	74 in. lb.
Shift rod to selector lever (clamp bolt and nut)	20	15
Starter to transaxle, M10 bolt	60	44
Transaxle to engine, M12 bolt	80	59
Transmission case cover	25	18
Transmission case to gear carrier housing	25	18

Automatic Transmission Bolt/Nut	Nm	SAE
Driveshaft to drive flange (socket-head bolt)	45	33
Engine to transaxle	80	59
Locknut for 2nd gear brake band adjusting screw	20	15
Lower ball joint to wheel bearing housing (clamp bolt)	50	37
Main pressure tap plug in transmission case (threaded plug)	10	87 in. lb.
Protection plate to transaxle	24	17
Selector lever cable to transmission operating lever	8	71 in. lb.
Selector support to floor board	9.2	80 in. lb.
Starter to bellhousing	23	17
Throttle cable to valve cover	10	87 in. lb.
Torque converter to cover plate to bellhousing	15	11
Torque converter to drive plate	30	22
Transmission case to final drive housing	30	22
Suspension & Steering Bolt/Nut	Nm	SAE
Ball joint: to control arm	25	18
Ball joint: to wheel bearing housing, clamping bolt	50	37
Brake caliper mounting bolts to front wheel bearing housing	40	29
Brake caliper mounting bolts to rear wheel bearing housing	65	48
Control arms to body: front mounting point	70	52
Control arms to body: rear mounting point	45	33
CV joint to drive flange socket-head bolt	45	33
Drive axle to front hub, self-locking axle nut	240	177
Front suspension strut: to wheel bearing housing	80	59
Front suspension strut: top mounting flange nut	20	15
Power steering: hose unions, pump to mounting bracket, pulley to shaft/flange	20	15
Rear axle beam: mounting bracket to body	45	33
Rear axle beam: pivot bolt	60	44
Rear stub axle (w/ brake backing plate or splash shield) to trailing arm	60	44
Shock absorber, rear: lower mount	45	33
Shock absorber, rear: upper mount	31.5	23
Spring retainer to rear shock absorber	20	15
Stabilizer bar to control arm	25	18
Steering column housing clamping socket-head bolts	10	89 in. lb.
Steering gear housing to body	30	22
Steering wheel to splined steering column shaft: cars with airbag	40	30
Steering wheel to splined steering column shaft: cars without airbag	50	37
Tie rod end, outer: to steering arm; to tie rod	30	22
Tie rod to steering rack: manual steering	50	37
Tie rod to steering rack: power steering	70	52
Universal joint shaft: to steering column; to steering gear pinion	30	22
Wheel lug bolts	110	81

Brakes Bolt/Nut	Nm	SAE
Brake caliper (front) to wheel bearing housing	25	18
Brake caliper (rear) to brake pad carrier (self-locking bolt)	35	26
Brake disc splash shield to wheel bearing housing	10	87 in. lb.
Brake hose to brake caliper	15	11
Brake hose to wheel cylinder	15	11
Brake hoses -- except to caliper or wheel cylinder	15-20	11-15
Brake line unions (union nuts)	15-20	11-15
Brake lines to master cylinder	15-20	11-15
Brake pad carrier (front) to wheel bearing housing	70	52
Brake pad carrier to stub axle flange	65	48
Master cylinder to vacuum booster	21	15
Proportioning valves to master cylinder	15-20	11-15
Rear brake backing plate and stub axle to axle beam	60	44
Rear wheel cylinder to backing plate	10	87 in. lb.
Vacuum booster to support bracket	21	15