



Catalog 457377 2011

Supercedes 457377, Dated 2010

Torque specification guide

Front & rear axle nut torque specifications
for FWD, RWD & 4 W/D vehicles



Instructions

One of the most common mistakes during installation is improper torque of the Axle nut. To guarantee the (Bearing, Spindle or Hub) is torqued correctly, follow the manufacture's installation procedure. Ignoring these important details will reduce the life of your (Bearing, Spindle or Hub).

Use a qualified, calibrated torque wrench. Do not use an impact gun to install the axle nut. The impact gun will damage the axle nut. It will also leave your spindle nut under or over torque resulting in hub assembly failure.

Ensure that you have the correct torque for the application by referring to SKF 457377 torque specification guide or contact the vehicle manufactures dealer. It is important that you properly torque the spindle nut to ensure optimum bearing life. Under torque of an axle nut will allow excessive movement causing uneven loading and excessive wear. Over torque of the axle nut will cause excessive load and cause the bearing to overheat, this is one of the most common causes for failures.

All replacement hub units are not created equal

SKF premium quality hubs

- Engineered to meet or exceed OE specifications
- Life expectancy of 100,000+ miles
- OE sensors assure correct ABS functions
- Premium seals, both inboard and outboard, protect the bearing
- Precision bearing preload and correct application of advanced manufacturing techniques such as orbital rolling
- 100% tested to the actual OE specifications per part number for fit, form and function
- High quality steel and surface finishes
- Proper implementation of heat treatment
- Precise assembly tolerances

VS

“Value” grade hubs

- Reverse engineered to generic specifications
- Typically last about 25% to 35% as long as the OE hub (25,000 to 35,000 miles)
- Low quality reproduction sensors can cause ABS system malfunctions
- Reproduction seals selected for price, not performance, quickly subject the bearing to contamination
- Imprecise bearing preload and inconsistent manufacturing techniques may lead to poor performance and shortened bearing life
- Tests not performed on all critical areas – defective return rates run 6 to 12 times higher than premium hubs
- Inferior quality steel and surface finishes will lead to bearing noise and premature failure
- Heat treatment improperly applied and/or poorly controlled can result in safety issues like a wheel off condition
- Inconsistent and imprecise assembly tolerances may lead to wheel pulsation

**Don't compromise your customer's vehicle safety.
Always install SKF premium quality hubs!**

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm	Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Acura				Audi - cont.			
1.6EL	1997-2000	134/182	—	A3, A3 Quattro	2006-2007	147/200	133/180[3]
2.2CL, 2.3CL, 3.0CL	1997-1999	181/245	—		2008-2010	[35]	[35]
2.5TL	1995-1998	181/245	—		2011	[2]	[50]
3.2CL	2001-2003	181/245	—	A4, A4 Quattro	1996-2005	[2]	85/115[3]
3.2TL	1996-2004	181/245	—		2006-2007	[51]	147/200[3]
	2005-2007	181/245	134/182		2008-2011	[35]	[35]
3.5RL	1996-2004	181/245	—	A5 Quattro	2008-2011	[35]	[35]
Integra	1986-2001	133/181	—	A6	1995-1997	147/200[1]	—
Legend	1986-1990	180/244	—		1998-2004	[2]	—
	1991-1995	242/328	—		2005-2006	133/180[3]	—
MDX	2001-2002	181/245	181/245	A6 Quattro	1995-1997	147/200[1]	147/200[1]
	2003-2006	210/285	181/245		1998-2004	[2]	[2]
MDX, RDX	2007-2011	242/328	181/245		2005-2006	133/180[3]	133/180[3]
NSX	1991-2005	—	242/328	A6, A6 Quattro	2007-2011	[35]	[35]
RL	2005-2011	242/328	181/245	A8	1997-1999	140/190[3]	—
RSX Except Type S	2002-2006	134/182	—	A8 Quattro	1997-2005	140/190[3]	140/190[3]
RSX Type S	2002-2006	181/245	—		2006-2011	147/200[3]	147/200[3]
SLX	1996-1999	[48]	—	Allroad	2001-2005	[2]	[2]
TL	2005-2008	181/245	—	Cabriolet	1994-1998	147/200[1]	—
TL AWD	2009-2010	242/328	181/245	Coupe	1981-1987	167/226	—
TL FWD	2009-2010	242/328	—		1990-1991	195/265	—
TSX	2004-2008	181/245	—	Q5	2009-2011	[35]	[35]
	2009-2011	242/328	—	Q7	2007-2011	[33]	[33]
Vigor	1992-1994	181/245	—	R8	2008-2010	[35]	[35]
ZDX	2010-2011	242/328	181/245	R8 with V10 engine	2011	[51]	368/500
				R8 with V8 engine	2011	[51]	[51]
AM General				RS4	2008	[39]	147/200[36]
H2	2003-2009	173/235	—	S4	1992-1994	147/200[1]	147/200[1]
H3/H3T	2006-2010	191/260	—		2000-2005	[2]	85/115[3]
					2007	—	147/200[3]
American Motors					2008-2011	[35]	[35]
AMX	1980	[28]	—	S5	2008-2011	[35]	[35]
Concord	1980-83	[28]	—	S6	1995	147/200[1]	147/200[1]
Pacer	1980	[28]	—		2002-2005	[2]	[2]
Spirit	1980-83	[28]	—		2007-2011	[35]	[35]
				S8	2001-2005	140/190[3]	140/190[3]
Audi					2007-2009	147/200[3]	147/200[3]
100	1989-1994	147/200[1]	—	TT	2000-2005	[4]	—
100 Quattro	1989-1991	147/200[1]	147/200[1]		2007-2010	[31]	—
200	1989-1991	147/200[1]	—	TT Quattro	2000-2005	[4]	[4]
200 Quattro	1989-1991	147/200[1]	147/200[1]		2007-2010	[31]	[31]
4000	1980-1987	167/226	—		2011	147/200	147/200
4000 Quattro	1984-1987	206/280	206/280	V8 Quattro	1990-1994	147/200[1]	147/200[1]
5000	1980-1988	206/280	—	BMW			
5000 Quattro	1984-1988	206/280	—	1 Series	2008-2011	—	[53]
80	1988-1991	195/265	—	3 Series AWD	2000-2005	310/420	[5]
80 Quattro	1988-1991	195/265	236/320		2006-2007	310/420	[6]
90	1988-1991	195/265	—		2008-2011	310/420	[53]
	1992-1995	148/200	[1]				
90 Quattro	1988-1991	195/265	236/320				
	1992-1995	147/200[1]	177/240				

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
BMW - cont.			
3 Series RWD	1985-2005	—	[5]
	2006-2007	—	[6]
	2008-2011	—	[53]
5 Series AWD	2004-2010	310/420	310/420
	2011	155/210[1]	310/420
5 Series RWD	1997-2003	—	221/300
	2004-2011	—	310/420
6 Series	2004-2010	—	310/420
7 Series	1995-2001	—	221/300
	2002-2011	—	310/420
M Coupe, Roadster	1998-2002	—	[5]
M Roadster	2006	—	221/300
M3	1988-1991	—	147/200
	1995-2006	—	[5]
	2008-2010	—	221/300
	2011	—	[53]
M5	2000-2003	—	221/300
	2006-2010	—	310/420
M6 Coupe, Convertible	2006-2010	—	310/420
X3	2004-2010	310/420	221/300
	2011	155/210[1]	73/100[55]
X5	2000-2011	310/420	310/420
X6	2008-2010	310/420	310/420
Z3	1997-2002	—	[5]
Z4	2003-2008	—	221/300
	2009-2011	—	184/250
Z8	2000-2003	—	221/300

Buick

Allure	2005-2009	118/160	—
Century	1982	225/290	—
	1983-1991	185/251	—
	1992-1995	103/140[7]	—
	1996	107/145	—
	1997	151/205	—
	1998-2000	159/216	—
	2001-2005	118/160	—
Electra	1985-1990	185/251	—
Enclave AWD	2008-2011	173/235	151/205
Enclave FWD	2008-2011	173/235	—
LaCrosse	2005-2009	118/160	—
	2010-2011	[45]	—
LeSabre	1986-1991	185/251	—
	1992-1997	107/145	—
	1998-2005	118/160	—
Lucerne	2006-2011	118/160	—
Park Avenue	1991	185/251	—
	1992-1997	107/145	—
	1998-2005	118/160	—
Rainer	2004-2007	103/140	—
Reatta	1988-1991	180/244	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Buick - cont.			
Regal	1988-1994	184/250	—
	1995-1997	151/205	—
	1998-2000	159/215	—
	2001-2004	118/160	—
	2011	[56]	—
Rendezvous AWD	2002-2006	192/260	192/260
Rendezvous FWD	2002-2007	192/260	—
Riviera	1980-1985	175/240	—
	1986-1993	183/248	—
	1995-1998	107/145	—
	1999	118/160	—
Skyhawk	1982-1988	185/251	—
Skylark	1980-1982	225/290	—
	1983-1997	185/251	—
	1998	74/100[8]	—
Somerset	1985-1987	185/251	—
Terraza	2005-2007	118/160	—

Cadillac

Allante	1987-1992	183/245	—
	1993	110/145	—
Cimarron	1982-1988	185/251	—
CTS	2003-2007	—	118/160
	2008-2009	158/215	158/215
CTS AWD	2010-2011	158/215	158/215
CTS RWD w/o RPO J56	2010-2011	—	170/230
CTS RWD w/RPO J56	2010-2011	—	158/215
DeVille	1985-1991	180/244	—
	1992-1996	107/145	—
	1997-1999	118/160	—
	2000-2005	[57]	[58]
DTS	2006-2007	[9]	[58]
	2008-2011	[57]	—
Eldorado	1980-1985	176/238	—
	1986-1991	180/244	—
	1992-1996	107/145	—
	1997-2002	118/160	—
Escalade 4WD	1999-2000	165/224	—
Escalade AWD	2002-2010	177/240	—
Escalade ESV AWD	2003-2011	177/240	—
Escalade EXT AWD	2002-2011	177/240	—
Fleetwood	1980-1984	[59]	—
	1985-1991	180/244	—
	1992	107/145	—
	1993-1996	[59]	—
Seville	1980-1985	176/238	—
	1986-1991	180/244	—
	1992-1996	107/145	—
	1997-2004	118/160	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Cadillac - cont.			
SRX	2004-2007	118/160	118/160
	2008-2009	159/215	170/230
	2010-2011	184/250	184/250
STS	2005-06	—	118/160
STS AWD	2007	118/160	118/160
	2008-2009	159/215	170/230
	2010-2011	159/215	159/215
XLR	2004-2007	—	118/160
	2008-2009	—	151/205
Chevrolet			
Aveo, Aveo5	2004-2011	221/300	—
Beretta	1987-1996	185/251	—
Camaro	2010-2011	—	199/270
Cavalier	1982-1997	185/251	—
	1998-2001	144/195	—
	2002-2005	148/200	—
Celebrity	1982	225/290	—
	1983-1990	185/251	—
Citation	1980-1982	225/290	—
	1983-1985	185/251	—
Cobalt	2005-2008	155/210	—
Cobalt w/LNF & MU3	2009-2010	159/215	—
Cobalt w/o LNF & MU3	2009-2010	155/210	—
Corsica	1987-1996	185/251	—
Corvette	1980-1983	—	100/130
	1984-1996	—	164/223
	1997-2004	—	118/160
	2005-2011	—	151/205
Cruze	2011	[60]	—
Impala	2000	159/215	—
	2001-2011	118/160	—
Lumina	1990-1994	184/250	—
	1995-1997	151/205	—
	1998-2001	159/216	—
Lumina APV	1990-1994	185/251	—
	1995-1996	104/145	—
Malibu	1997-2003	[10]	—
	2004-2011	159/215	—
Malibu Maxx	2004-2007	159/215	—
Metro	1998-2001	129/175	—
Monte Carlo	1995-1997	151/205	—
	1998-2000	159/215	—
	2001-2007	118/160	—
Nova	1985-1988	137/186	—
Prizm	1998-2002	166/225	—
Spectrum	1985-1988	137/186	—
Sprint	1985-1988	151/205	—
	1989-1991	125/179	—
Uplander AWD	2005-2008	118/160	192/260
Uplander FWD	2005-2008	118/160	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Chevrolet - cont.			
Venture	1997	151/205	—
Venture AWD	2002-2005	118/160	192/260
Venture FWD	1998-2005	118/160	—
Volt	2011	[60]	—
Chevrolet / GMC Trucks			
Acadia FWD	2007-2010	173/235	—
Acadia AWD	2007-2011	173/235	151/205
Astro, Safari 4WD	1990-1995	180/244	—
Astro, Safari AWD	1996-2005	147/200	—
Avalanche 4WD	2002-2010	177/240	—
Blazer, Yukon 4WD	1980-1991	[61]	—
	1992-1994	165/224	—
Blazer, Yukon C/K 4WD	2007	177/240	—
Canyon, Colorado 4WD	2004-2011	191/260	—
Denali 4WD	1999-2000	165/224	—
	2001-2003	155/210	—
	2004-2006	173/235	—
	2007	177/240	—
Envoy 4WD	1999-2009	103/140	—
Equinox	2005-2011	151/205	151/205
H1500, H2500 Van AWD	2003-2010	155/210	—
HHR	2006-2011	155/210	—
K Series 4WD Pickup	1988-1990	173/235	—
	1991-2000	165/224	—
S Blazer, Jimmy 4WD	1982-1985	173/235	—
	1997-2005	103/140	—
S Blazer, Jimmy, Typhoon, Cyclone 4WD	1986-1996	181/245	—
S10, Sonoma, S15 4WD	1982-1985	173/235	—
	1986-1996	180/244	—
	1997-2004	103/140	—
Sierra, Silverado 4WD	1999-2011	177/240	—
Suburban 4WD	1992-1999	165/224	—
	2000-2010	177/240	—
Tahoe, Yukon 4WD	1995-1997	165/224	—
	1998-2011	177/240	—
Terrain	2010-2011	151/205	151/205
Tracker	1998	155/210	—
	1999-2004	159/216	—
TrailBlazer 4WD	2002-2009	103/140	—
Traverse AWD	2009-2011	173/235	151/205
Traverse FWD	2009-2011	173/235	—
Yukon XL 4WD	2000-2010	177/240	—
Chrysler			
200	2011	97/132	—
300 AWD	2005-2010	157/213	157/213
300 RWD	2005-2010	—	157/213

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Chrysler - cont.			
300M	1999-2000	120/163	—
	2001-2004	105/142	—
Aspen 4WD	2007-2009	185/251	—
Cirrus	1995-1999	180/244	—
	2000	105/142	—
Concorde	1993-1994	80/108	—
	1995-2000	120/163	—
	2001-2004	105/142	—
Crossfire	2004-2008	—	164/220
Daytona	1984-1993	180/244	—
Dynasty	1988-1993	180/244	—
E Class	1983-1984	180/244	—
Fifth Ave	1990-1993	180/244	—
Imperial	1990-1993	180/244	—
Laser	1984-1986	180/244	—
LeBaron	1982-1995	180/244	—
LHS	1994	80/108	—
	1995-2000	120/163	—
	2001	105/142	—
New Yorker	1983-1993	180/244	—
	1994	80/108	—
	1995-1996	120/163	—
Pacifica AWD	2004-2008	180/244	180/244
Pacifica FWD	2004-2008	180/244	—
Prowler	2001-2002	—	105/142
PT Cruiser	2001-2010	180/244	—
Sebring Convertible	1996-1999	180/244	—
Sebring Convertible	2000	105/142	—
	2001-2006	110/150	—
	2007-2010	118/160	—
Sebring Coupe	1995-2005	167/226	—
Sebring Sedan	2001-2006	110/150	—
	2007-2010	118/160	—
TC	1989-1991	180/244	—
Town & Country	2008-2011	118/160	—
Town & Country AWD	1990-2006	180/244	180/244
Town & Country FWD	1990-2007	180/244	—
Voyager, Grand	2000-2003	180/244	180//244
Voyager AWD			
Voyager, Grand	2000-2003	180/244	—
Voyager FWD			
Daihatsu			
Charade	1988-1992	148/201	—
Rocky	1990-1993	108/146	108/146
Dodge / Plymouth			
024, TC3	1980-1982	180/244	—
400	1982-1983	180/244	—
600, Caravelle FWD	1982-1988	180/244	—
Aries	1983-1989	180/244	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Dodge / Plymouth - cont.			
Avenger AWD	2008	97/132	181/245
Avenger FWD	1995-2000	167/226	—
	2008-2011	97/132	—
Breeze	1996-1999	180/244	—
	2000	105/142	—
Caliber	2009-2011	180/244	—
Caliber AWD	2007-2008	180/244	180/244
Caliber FWD	2007-2008	180/244	—
Caravan, Grand Caravan	2005-2007	180/244	—
	2008-2011	118/160	—
Caravan, Grand Caravan, ..	1990-2004	180/244	180/244
Voyager, Grand			
Voyager AWD			
Caravan, Grand Caravan, ..	1984-2004	180/244	—
Voyager, Grand			
Voyager FWD			
Challenger	2008-2011	—	157/213
Champ FWD	1980-1984	167/226	—
Charger AWD	2007-2011	157/213	157/213
Charger RWD	2006-2011	—	157/213
Charger, Turismo	1982-1987	180/244	—
Colt 4WD	1985-1988	167/226	90/125
	1989-1992	167/226	127/175
	1993-1994	167/226	130/180
Colt FWD	1980-1994	167/226	—
Daytona	1984-1993	180/244	—
Dynasty	1988-1993	180/244	—
Intrepid	1993-1994	80/108	—
	1995-2000	120/163	—
	2001-2004	105/142	—
Journey AWD	2009-2011	97/132	181/245
Journey FWD	2009-2011	97/132	—
Lancer	1985-1989	180/244	—
Laser 4WD	1990-1994	167/226	138/190
Laser FWD	1990-1994	167/226	—
Magnum AWD	2005-2007	157/213	157/213
	2008	184/250	157/213
Magnum RWD	2005-2008	—	157/213
Monaco	1990-1992	181/245	—
Neon	1995	150/203	—
	1996-1998	135/183	—
	2000-2005	180/244	—
Neon SRT-4	2003-2005	180/244	—
Omni, Horizon	1980-1990	180/244	—
Prowler	1997-2000	—	105/141
Rampage, Scamp	1982-1984	180/244	—
Reliant	1981-1989	180/244	—
Shadow, Sundance	1987-1994	180/244	—
Spirit, Acclaim	1989-1995	180/244	—
Stealth 4WD	1991-1996	166/225	203/280
Stealth FWD	1991-1996	166/225	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Dodge / Plymouth - cont.			
Stratus Coupe	2001-2005.....	167/226	—
Stratus Sedan	1995-1999.....	180/244	—
	2000.....	105/142	—
	2001-2006.....	110/150	—
Viper	1997-2006.....	—	190/258
Vista	1992-1994.....	167/226	166/225
Vista 4WD	1984-1991.....	165/224	—
Vista FWD	1984-1991.....	165/224	—
Dodge / Plymouth Trucks			
Dakota 4WD	1987-1996.....	190/258	—
	1997-2011.....	185/251	—
Durango 4WD	1997-2010.....	185/251	—
	2011.....	229/310	—
Nitro 4WD	2007-2011.....	100/135	—
Ram 1500 Pickup 4WD ...	1994-1995.....	180/244[11]	—
	1996-1999.....	175/237[11]	—
	2000-2001.....	180/244[11]	—
	2002.....	185/251	—
Ram 1500 Pickup	2003-2005.....		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Indep Susp		—	[34][62]
4WD w/Link/Coil Susp		[38]	[34][62]
4WD w/Indep Susp		185/251	[34][62]
Ram 1500 Pickup	2006-2007.....		
2WD w/Link/Coil Susp		—	—
2WD w/Indep Susp		—	—
4WD w/Link/Coil Susp		[12]	—
4WD w/Indep Susp		185/251	—
Ram 1500 Pickup	2008-2011.....		
2WD w/Indep Susp		—	—
4WD w/Indep Susp		185/251	—
Ram 2500 Pickup 4WD ...	1994-1995.....	180/244[11]	—
	1996-1999.....	175/237[11]	—
	2000-2002.....	180/244[11]	—
Ram 2500, 3500 Pickup ..	2003-2005.....		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Indep Susp		—	[34][62]
4WD w/Link/Coil Susp		[38]	[34][62]
4WD w/Indep Susp		185/251	[34][62]
Ram 2500, 3500 Pickup ..	2006-2007.....		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Indep Susp		—	[34][62]
4WD w/Link/Coil Susp		[12]	[34][62]
4WD w/Indep Susp		185/251	[34][62]

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Dodge / Plymouth Trucks - cont.			
Ram 2500, 3500 Pickup..	2008-2009.....		
2WD w/Indep Susp		—	[34][62]
2WD w/Indep Susp		—	[32][63]
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Link/Coil Susp		—	[32][63]
4WD w/Indep Susp		185/251	[34][62]
4WD w/Indep Susp		185/251	[32][63]
4WD w/Link/Coil Susp		[12]	[34][62]
4WD w/Link/Coil Susp		[12]	[32][63]
Ram 2500, 3500 Pickup..	2010-2011.....		
2WD w/Link/Coil Susp		—	[34][62]
2WD w/Link/Coil Susp		—	[32][63]
4WD w/Link/Coil Susp		[38]	[34][62]
4WD w/Link/Coil Susp		[38]	[32][63]
Ram 3500 Pickup 4WD ...	1994-1995.....	180/244[11]	—
	1996-1999.....	175/237[11]	—
	2000-2002.....	180/244[11]	—
Sprinter, Dual Rear	2004-2009.....	—	[13]
Wheels, Inner Hub Nut			
Sprinter, Dual Rear	2004-2009.....	—	184/250
Wheels, Outer Hub Nut			
Eagle			
Premier	1988-1992.....	181/245	—
Summit AWD	1989-1992.....	167/226	127/175
	1993-1996.....	167/226	130/180
Summit FWD	1989-1996.....	167/226	—
Summit Wagon	1989-1991.....	165/224	—
	1992-1996.....	167/226	—
Talon 4WD	1990-1994.....	167/226	138/190
	1995-1998.....	167/226	167/226
Talon FWD	1990-1998.....	167/226	—
Vision	1993-1994.....	80/108	—
Ford / Mercury			
Aspire	1994-1997.....	145/196	—
Capri	1992-1994.....	145/196	—
Contour, Mystique	1995-1997.....	246/334	—
	1998-2000.....	199/270	—
Cougar	1999-2002.....	214/290	—
Crown Victoria,	1992-2002.....	221/300	—
Grand Marquis			
Edge AWD	2007-2011.....	258/351	[44]
Edge FWD	2007-2011.....	258/351	—
Escort, Lynx, EXP, LN7 ...	1981-1990.....	190/258	—
Escort, Tracer	1991-2002.....	205/277	—
Fiesta	1989-1993.....	145/196	—
	2011.....	188/255	—
Five Hundred AWD	2005-2007.....	258/351[14]	148/200
Five Hundred FWD	2005-2007.....	259/351[14]	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Ford / Mercury - cont.			
Flex	2009-2011	[54]	[54]
Focus	2000-2004	233/316	—
	2005-2010	199/270	—
Freestar	2004-2007	111/150	—
Freestyle AWD	2005-2007	259/351[14]	148/200
Freestyle FWD	2005-2007	259/351[14]	—
Fusion AWD	2006-2011	189/256	189/256
Fusion FWD	2006-2011	189/256	—
Milan AWD	2006-2011	189/256	189/256
Milan FWD	2006-2011	189/256	—
Montego AWD	2005-2007	259/351[14]	148/200
Montego FWD	2005-2007	259/351[14]	—
Monterey	2005-2007	111/150	—
Mustang Cobra	1999-2004	—	240/325
Probe	1989-1997	205/277	—
Taurus, Sable	1986-1999	190/258	—
	2000-2007	184/250	—
	2008-2011	[54]	[54]
Tempo, Topaz	1984-1994	190/258	—
Thunderbird	2002-2005	—	302/410
Thunderbird, Cougar	1989-1997	—	221/300
Tracer	1987-1989	145/196	—
Villager	1993-2002	203/275	—
Windstar	1995-1997	194/263	—
	1998-1999	186/252	—
	2000-2003	184/250	—
ZX2	1998-2003	205/277	—
Ford / Mercury Trucks			
Aerostar 4WD	1986-1994	190/260	—
	1995-1997	185/257	—
Escape 4WD	2001-2003	214/290	214/290
Escape, Mariner 4WD	2004-2010	221/300	221/300
Escape, Mariner FWD	2004-2010	221/300	—
Expedition 2WD	2003-2008	—	254/345
	2009-2011	—	221/300
Expedition 4WD	1997-2002	221/300	—
	2003-2008	20/27	254/345
	2009-2011	20/27	221/300
Explorer 4WD	1995-1996	195/270	—
Explorer Sport &	2001-2003	184/250	—
Sport-Trac 4WD	2004-2005	162/220	—
Explorer Sport Trac	2007-2010	—	203/275
2WD			
Explorer Sport Trac	2007	148/200	203/275
4WD	2008-2010	184/250	203/275
Explorer, Mountaineer	1997-2010	184/250	203/275
2WD			
F150 Pickup 2WD	2004-2008	296/400	—
F150 Pickup 4WD	1997-2003	221/300	—
	2004-2011	20/27[52]	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Ford / Mercury Trucks - cont.			
F250 LD Pickup 4WD	1997-1998	221/300	—
Ranger 4WD	1998-2000	[16]	—
	2001-2005	162/220	—
	2006-2011	184/250	—
Geo			
Metro	1989-1997	129/175	—
Prizm	1989-1992	137/186	—
	1993-1997	159/216	—
Spectrum	1989	137/186	—
Storm	1990-1993	137/186	—
Tracker	1989-1997	155/210	—
Honda			
Accord	1983-1985	137/190	—
	1986-1989	133/181	—
	1990-2002	181/245	—
	2009-2011	242/328	—
Accord 2.4L A/T	2003-2008	133/181	—
Accord 2.4L M/T	2003-2008	181/245	—
Accord 3.0L	2003-2008	181/245	—
Accord Crosstour AWD	2010-2011	242/328	181/245
Accord Crosstour FWD	2010-2011	242/328	—
Civic FWD	1984-2006	133/181	—
Civic 4WD	1985-1991	133/181	133/181
Civic except SI	2007-2011	133/181	—
Civic SI	2007-2011	181/245	—
CR-V FWD	1997-2006	181/245	—
	2007-2011	242/328	—
CR-V 4WD	1997-2006	181/245	133/181
	2007-2011	242/328	181/245
CRX	1984-1991	133/181	-
CRZ	2011	133/181	133/181
del Sol	1993-1997	133/181	—
Element	2003-2011	181/245	133/181
Fit	2007-2011	133/181	—
Insight	2000-2006	133/181	—
	2010-2011	133/181	—
Odyssey	1995-2004	181/245	—
	2005-2011	242/328	—
Pilot	2003-2004	181/245	181/245
	2005-2008	210/285	181/245
	2009-2011	242/328	181/245
Prelude	1980-1982	108/150	—
	1983-1989	133/181	—
	1990-2001	181/245	—
Ridgeline	2006-2011	242/328	181/245
S2000	2000-2009	—	181/245

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm	Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Hyundai				Infiniti - cont.			
Accent	1995-2000	170/230	—	G20	1991-1996	203/275	—
	2001-2006	175/237	—		1999-2001	203/275	—
	2007-2011	188/260	—	G20	2002	217/294	—
Azera	2006	170/230	—	G25 AWD	2011	92/125	77/105
	2007-2011	207/280	—	G25 RWD	2011	—	77/105
Elantra	1992-2007	170/230	—	G35 AWD	2004-2006	177/240	177/240
	2008-2011	202/274	—	G35 AWD (Sedan)	2007-2008	92/125	129/175
Entourage	2007-2008	199/275	188/260	G35 RWD	2003-2006	—	177/240
Equus	2011	—	203/280	G35 RWD (Coupe)	2007-2008	—	177/240
Excel	1986-1994	170/230	—	G35 RWD (Sedan)	2007-2008	—	129/175
Genesis	2009-2011	—	202/280	G37 AWD	2008-2009	92/125	177/240
Genesis Coupe	2010-11	—	188/255		2010-2011	92/125	77/105
Santa Fe 4WD	2001-2007	170/230	170/230	G37 RWD	2008-2009	—	177/240
	2008-2011	188/255	188/255		2010-2011	—	77/105
Santa Fe FWD	2001-2007	170/230	—	I30	1996-1999	203/275	—
	2008-2011	188/255	—		2000-2001	217/294	—
Scoupe	1991-1995	170/230	—	I35	2002-2004	203/275	—
Sonata	1989-2001	170/230	—	J30	1993-1997	217/294	—
	2002-2007	177/240	—	M30	1990-1992	—	117/152
	2008-2009	207/280	—	M35	2010	92/125	136/185
	2011	188/255	—	M35 AWD	2006-2009	92/125	130/176
Tiburon	1997-2001	170/230	—	M35 RWD	2006-2009	—	130/176
Tiburon 2.0L	2003-2007	170/230	—	M37, M56	2011	92/125	133/180
	2008	192/260	—	M45	2003-2004	—	177/240
Tiburon 2.7L	2003-2007	177/240	—		2010	92/125	136/185
	2008	207/280	—	M45 AWD	2006-2009	92/125	130/176
Tuscon 4WD	2010-2011	203/275	203/275	M45 RWD	2006-2009	—	130/176
Tuscon 4WD w/ 2.0L	2007	206/280[40]	206/280[40]	Q45	1990-2006	—	177/240
Tuscon 4WD w/ 2.0L & 2.7L	2005-2006	206/280[40]	206/280[40]	QX4	1997-2003	—	181/245
Tuscon 4WD w/ 2.7L	2007-2009	[49]	206/280[40]	QX56	2011	90/123	164/223
Tuscon FWD	2010-2011	203/275	—	QX56 AWD	2004-2010	101/137	170/230
Tuscon FWD w/ 2.0L	2007-2009	206/280[40]	—	QX56 RWD	2004-2010	—	170/230
Tuscon FWD w/ 2.0L & 2.7L	2005-2006	206/280[40]	—	Isuzu			
Tuscon FWD w/ 2.7	2007-2009	[49]	—	Ascender 4WD	2003-2008	103/140	—
Veracruz	2007-2011	202/274	202/274	Axiom 4WD	2002-2004	181/245	—
XG300	2001	192/260	—	Hombre 4WD	1996	181/245	—
XG350	2002-2005	192/260	—		1997-2000	103/140	—
Infiniti				i-350, i-370 4WD	2006-2007	191/260	—
EX35 AWD	2008-10	92/125	133/180	I-Mark FWD	1985-1989	137/186	—
	2011	92/125	77/105	Impulse	1990-1993	137/186	—
EX35 RWD	2008-10	—	133/180	Oasis	1996-1999	181/245	—
	2011	—	77/105	Rodeo 4WD	2003-2004	181/245	—
FX35, FX45 AWD	2003-2008	203/275	177/240	Stylus	1991-1993	137/186	—
FX35, FX45 RWD	2003-2008	—	177/240	Jaguar			
FX35, FX50 AWD	2009-2010	92/125	133/180	S-Type	2000-2008	—	221/300
	2011	92/125	77/105	XF	2009-2011	—	221/300
FX35, FX50 RWD	2009-2010	—	133/180	XFR	2010-2011	—	221/300
	2011	—	77/105	XJ Series	2004-2011	—	221/300
				XJ8	1998-2003	—	236/320

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Jaguar - cont.			
XK Series	2004-2011	—	221/300
XK8	1997-2003	—	236/320
X-Type	2002-2008	200/270	200/270
Jeep			
Cherokee 4WD	1984-2001	175/237	—
Comanche 4WD	1986-1992	175/237	—
Commander 4WD	2006-2010	100/135	—
Compass, Patriot 4WD	2007-2011	180/244	180/244
Compass, Patriot FWD	2007-2011	180/244	—
Grand Cherokee 4WD	1993-2004	175/237	—
	2005-2010	100/135	—
Grand Cherokee AWD	2011	229/310	229/310
Grand Cherokee RWD	2011	—	229/310
Grand Wagoneer 4WD	1993	175/237	—
Liberty 4WD	2002-2011	100/135	—
Wagoneer 4WD	1984-1990	175/237	—
Wrangler 4WD	1987-2006	175/237	—
	2007-2011	100/135	—
Kia			
Amanti	2004-2007	177/240	—
	2008-2009	207/280	—
Borrego 4WD	2009-2010	199/270	199/270
Borrego RWD	2009-2010	—	199/270
Forte	2010-2011	203/275	—
Optima [43]	2001-2006	170/230	—
Optima [42]	2006-2010	206/280	—
Optima [41]	2011	188/255	—
Rio	2001-2007	145/200	—
	2008-2011	188/255	—
Rio5	2006-2007	145/200	—
	2008-2011	188/255	—
Rondo	2007	177/240	—
	2008-2010	202/274	—
Sedona	2002-2007	188/255	—
	2008-2011	199/275	—
Sephia	1994-1996	177/240	—
	1997-2001	180/244	—
Sorento	2003-2006	192/260	—
	2007-2009	198/270	—
	2011	159/215	159/215
Soul	2010-2011	199/270	—
Spectra, Spectra5	2002-2004	205/279	—
	2005-2007	184/250	—
	2008-2009	192/260	188/260
Sportage 4WD	2005-2010	207/280[40]	207/280[40]
	2011	202/274	202/274
Sportage FWD	2005-2010	207/280[40]	—
	2011	202/274	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Land Rover			
Discovery II	1998-2004	360/490[18]	—
Freelander	2002-2005	295/400	295/400
LR3	2005-2008	258/350	258/350
	2008	33/45[17]	243/330[22]
LR4	2011	169/230[52]	258/350[52]
Range Rover	2000-2002	192/260[18]	—
	2003-2008	311/420	311/420
Range Rover Sport	2006-2008	258/350	258/350
Lexus			
CT200H	2011	159/216	—
ES250	1990-1991	137/186	—
ES300	1992-2003	217/294	—
ES330	2004-2006	217/294	—
ES350	2007-2011	217/294	—
GS300	1993-1997	—	213/289
GS300, GS400	1998-2000	—	213/289
GS300, GS430 AWD	2001-2006	217/294	213/289
GS300, GS430 RWD	2001-2006	—	213/289
GS350, GS430 AWD	2007-2011	217/294	214/290
GS350, GS430 RWD	2007-2011	—	214/290
GS450H	2007-2011	—	214/290
GS460 AWD	2007-2011	217/294	214/290
GS460 RWD	2007-2011	—	214/290
GX460	2010-2011	173/235	—
GX470	2003-2009	173/235	—
HS250H	2010-2011	159/216	—
IS250 AWD	2006-2011	217/294	214/290
IS250 RWD	2006-2011	—	217/294
IS300	2000-2005	—	213/289
IS350 AWD	2011	217/294	214/290
IS350 RWD	2006-2010	—	214/290
IS-F	2008-2011	—	214/290
LS400	1990-1994	—	253/343
	1995-2000	—	213/289
LS430	2001-2006	—	214/290
LS460 AWD	2009-2011	217/294	214/290
LS460 RWD	2007-2011	—	214/290
LS600hl	2008-2011	217/294	214/290
LX570	2008-2011	[37]	—
RX300 FWD	1999-2003	217/294	—
RX300 AWD	1999-2003	217/294	159/216
RX330 FWD	2004-2006	217/294	—
RX330 AWD	2004-2006	217/294	217/294
RX350 FWD	2007-2011	217/294	—
RX350 AWD	2007-2011	217/294	217/294
RX400h FWD	2007-2009	217/294	—
RX400h AWD	2007-2009	217/294	217/294
RX450h FWD	2010-2011	217/294	—
RX450h AWD	2010-2011	217/294	217/294

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm	Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Lexus - cont.				Mazda - cont.			
SC300, SC400	1992-2000	—	213/289	Millenia	1995-2002	205/277	—
SC430	2002-2009	—	213/289	MPV	2000-2006	205/277	152/206
Lincoln				MPV 4WD	1989-1998	203/275	—
Aviator AWD	2003-2005	184/250	203/275	MPV FWD	1989-1998	152/206	—
Aviator RWD	2003-2005	—	203/275	MX-3, Precidia	1992-1995	205/277	—
Continental	1988-2002	—	221/300	MX-5	2006	—	188/255
LS	2000-2006	—	221-300	Protege, Protege5	1990-2003	205/277	152/206
Mark LT Pickup 4WD	2006-2008	20/27	—	RX-7	1986-1995	—	203/275
MKS AWD	2009-2011	258/350	285/350	RX-8	2004-2006	—	188/255
MKS FWD	2009-2011	258/350	—		2007-2011	—	202/275
MKT AWD	2010-2011	258/350	258/350	Tribute	2001-2006	214/290	214/290
MKT FWD	2010-2011	258/350	—		2008-2011	221/300	221/300
MKX AWD	2007-2011	258/350	[44]	Mercedes-Benz			
MKX FWD	2007-2011	258/350	—	C Series	1997-2005	—	162/220
MKZ AWD	2007-2010	189/256	189/256	C Series 4Matic	2003-2005	81/110[27]	162/220
MKZ FWD	2007-2010	189/256	—	CL Series	2000-2005	236/320	236/320
Navigator 4WD	1998-2002	221/300	—	CLK Series	1998-2005	—	162/220
	2003-2006	20/27	221/300	E Series	1997-1998	[30]	162/220
	2007-2008	20/27	254/345		1999-2001	[30]	236/320
	2009	20/27	258/350		2002-2005	—	236/320
	2010	20/27	184/250	G Series	2007-2009	133/180	—
Navigator RWD	2003-2006	—	221/300	GL Series	2007-2009	192/260[23]	—
	2007-2008	—	254/345	ML Series	1998-2005	361/490	361/490
	2009	—	258/350	ML Series	2007-2009	192/260[23]	—
	2010	—	184/250	R Series	2007-2009	192/260[23]	—
Zephyr	2006	185/255	—	S Series	1997-2005	—	236/320
Mazda				S Series 4Matic	2003-2005	51/70[1]	236/320
323	1986-1989	144/196	—	SL Series	1997-2002	—	162/220
	1990-1994	205/277	—		2003-2005	—	236/320
626	1983-1987	145/200	—	SLK Series	2000-2005	—	162/220
626, MX-6	1988-2002	205/277	—	Mercury - See Ford / Mercury			
929	1988-1991	—	203/275	Mini			
929, Serenia	1992-1995	—	203/275	Cooper AWD	2002-2011	134/182	134/182
B Series Pickup 4WD	1998-2000	[16]	—	Cooper FWD	2002-2011	134/182	—
	2001-2009	162/220	—	Mitsubishi			
CX-7 AWD	2007-2011	202/274	202/274	3000GT 4WD	1991-1999	166/225	203/280
CX-7 FWD	2007-2011	202/274	—	3000GT FWD	1991-1999	166/225	—
CX-9 AWD	2007-2011	202/274	202/274	Cordia, Tredia	1983-1988	167/226	—
CX-9 FWD	2007-2011	202/274	—	Diamante	1992-2004	167/226	—
GLC ex Wagon	1981-1985	145/200	—	Eclipse	2000-2005	167/226	—
Mazda 2	2011	202/274	—		2006-2011	188/255	—
Mazda 3	2007-2011	202/274	—	Eclipse 4WD	1990-1994	167/226	138/190
Mazda 5	2006	188/255	—		1995-1999	167/226	166/225
	2007-2009	202/274	—	Eclipse FWD	1990-1999	167/226	—
Mazda 6 AWD	2006-2007	202/274	235/319	Endeavor 4WD	2004-2011	188/255	—
Mazda 6 FWD	2003-2011	202/274	—	Endeavor AWD	2004-2011	188/255	188/255
Miata	1990-1997	—	159/217[52]				
	1999-2005	—	174/235[52]				
	2006-2011	—	174/235[52]				

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Mitsubishi - cont.			
Expo	1992-1996	167/226	166/225
Galant	1985-2009	167/226	—
	2010-2011	188/255	—
Lancer	2002-2007	181/245	—
Lancer AWD	2008-2011	129/175	129/175
Lancer FWD	2008-2011	129/175	—
Mirage	1985-2001	167/226	—
Montero	2001-2003	188/255	188/255
	2004-2006	148/200	188/255
Outlander 2WD	2003-2006	181/245	130/176
	2007-2011	129/175	—
Outlander AWD	2003-2006	181/245	181/245
	2007-2011	129/175	129/175
Precis	1987-1992	167/226	—
	1993-1994	170/230	—
Raider	2006-2009	185/251	—
Sigma	1988-1990	167/226	—

Nissan

200SX	1995-1998	174/236	—
240SX	1989-1994	—	203/275
	1995-1998	—	178/241
300ZX	1990-1996	—	178/241
350Z	2003-2009	—	177/240
370Z	2010-2011	—	135/183
Altima	1993-2006	202/275	—
	2007	92/125	—
	2008-2011	129/175	—
Armada	2005-2011	101/137	170/230
Axxess 4WD	1990	203/275	203/275
Axxess FWD	1990	203/275	—
Cube	2009-2011	92/125	—
Frontier 2WD	2004	—	206/280
Frontier 4WD	2004	—	206/280
	2005-2011	101/137	—
GT-R	2009-2010	166/225	166/225
Juke 2WD	2011	136/185	—
Juke AWD	2011	136/185	92/125
Leaf	2011	136/185	—
Maxima	1985-1999	203/275	—
	2000-2006	217/294	—
	2007-2008	203/275	—
	2009	129/175	—
Murano AWD	2003-2007	92/125	92/125
	2009	129/175	129/175
	2011	177/240	129/175
Murano FWD	2003-2007	92/125	—
	2009	129/175	—
	2011	177/240	—
NX	1991-1993	174/236	163/221
Pathfinder	2005-2011	101/137	177/240

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Nissan - cont.			
Pickup 4WD	1981-1983	129/175	—
Pulsar	1987-1990	174/236	—
Quest	1993-2002	203/275	—
	2004-2009	92/125	—
	2011	155/211	—
Rogue AWD	2008-2011	92/125	92/125
Rogue FWD	2008-2011	92/125	—
Sentra	1987-2001	174/236	—
	2006	145/197	—
	2007-2011	92/125	—
Sentra 1.8L	2002-2005	174/236	—
Sentra 2.5L	2002-2005	217/294	—
Stanza	1982-1986	174/236	—
	1987-1992	203/275	—
Titan	2004-2011	101/137	—
Versa	2007-2011	83/113	—
Xterra 4WD	2005-2011	101/137	—

Oldsmobile

88	1986-1991	185/251	—
	1992-1997	107/145	—
	1998-1999	118/160	—
98	1985-1991	185/251	—
	1992-1996	107/145	—
Achieva	1992-1997	185/251	—
	1998	74/100[8]	—
Alero	1999-2004	[10]	—
Aurora	1995-1997	107/145	—
	1998-2003	118/160	—
Bravada	1991-1996	181/245	—
	1997-2004	103/140	—
Calais	1985-1991	185/251	—
Ciera, Cruiser	1982	225/290	—
	1983-1991	185/251	—
	1992-1995	103/140[7]	—
	1996	107/145	—
Cutlass FWD	1997-1999	284/385	—
Cutlass Supreme	1988-1995	184/250	—
	1996-1997	151/205	—
Firenza	1982-1988	185/251	—
Intrigue	1998-2000	118/160	—
	2001-2002	159/215	—
LSS	1992-1997	107/145	—
	1998-1999	118/160	—
Omega	1980-1982	225/290	—
	1983-1984	185/251	—
Regency	1997	107/145	—
Silhouette	1990-1994	185/251	—
	1995-1996	104/145	—
	1997	151/205	—
	1998-2001	118/160	—

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm	Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Oldsmobile - cont.				Pontiac - cont.			
Silhouette AWD	2002-2004	118/160	192/260	Torrent	2006-2009	151/205	151/205
Silhouette FWD	2002-2004	118/160	—	Trans Sport	1990-1994	185/251	—
Toronado	1980-1985	175/240	—		1995-1996	104/145	—
	1986-1992	183/248	—	Trans Sport	1997-1999	118/160	—
Trofeo	1988-1992	183/248	—	Vibe AWD	2003-2010	159/216	159/216
				Vibe FWD	2003-2010	159/216	—
Plymouth - See Dodge / Plymouth				Wave	2005-2007	221/300	140/190
Plymouth Trucks - See Dodge / Plymouth Trucks				Porsche			
Pontiac				911	1995-1998	—	340/460[20]
2000	1983	185/251	—		1999-2011	—	340/460
6000	1982	225/290	—	911 Turbo	2001-2006	340/460	340/460
	1983-1991	185/251	—	Boxster	1995-2011	—	340/460
Aztek AWD	2001-2005	192/260	192/260	Cayman	2006-2011	—	340/460
Aztek FWD	2001-2005	192/260	—	Saab			
Bonneville	1987-1991	185/251	—	900	1980-1993	221/300	—
	1992-1997	107/145	—		1994-1998	214/290	—
	1998-2005	118/160	—	9000	1986-1998	214/290	—
Fiero	1984-1988	—	200/270	9-2X	2005-2006	162/220	140/190
Firefly	1985-1988	151/210	—	9-3 FWD	1999-2002	[21]	—
	1989-1997	129/175	—		2003-2011	170/230	—
G3	2009	221/300	—	9-3XAWD	2008-2011	170/230	170/230
G5	2007-2008	155/210	—	9-5	1999	[21]	—
G5 w/LNF & MU3	2009	159/215	—		2000-2001	125/170[23]	—
G5 w/o LNF & MU3	2009	155/210	—		2002-2006	148/200[22]	—
G6	2005-2010	159/215	—		2007-2010	170/230	—
G8	2008-2009	—	110/150[19]	9-7X	2005-2009	103/140	—
Grand Am	1985-1997	185/251	—	Saturn			
	1998	74/100[8]	—	Astra	2008-2009	[45]	—
	1999-2005	[10]	—	Aura	2007-2009	159/215	—
Grand Prix	1988-1994	184/250	—	ION	2003	81/110	—
	1995-1997	151/205	—		2004-2007	155/210	—
	1998-2008	118/160	—	Outlook AWD	2007-2010	173/235	151/205
GTO	2004-2006	—	221/300	Outlook FWD	2007-2010	173/235	—
J2000	1982	185/251	—	Relay AWD	2005-2006	118/160	192/260
Montana AWD	2000-2005	118/160	192/260	Relay FWD	2006-2007	118/160	—
Montana FWD	1999-2005	118/160	—	S Series	1991-2002	148/200	—
Montana SV6 AWD	2005-2006	118/160	192/260	SKY	2007-2010	—	159/215
Montana SV6 FWD	2005-2009	118/160	—	Vue AWD	2002-2003	151/205	81/110
Phoenix	1980-1982	225/290	—		2004-2010	151/205	151/205
	1983-1984	185/251	—	Vue FWD	2002-2010	151/205	—
Solstice	2006-2010	—	159/215	Scion			
Sunbird	1984-1994	185/251	—	tC	2005-2010	159/216	—
Sunburst	1985-1987	137/186	—	tC with AT	2011	159/216	—
Sunfire	1995-1997	185/251	—	tC with MT	2011	215/292	—
	1998-2001	144/195	—	xA	2004-2006	159/216	—
	2002-2005	148/200	—	xB	2004-2011	159/216	—
Sunrunner	1994-1997	155/210	—	xD	2008-2011	159/216	—
Tempest	1987-1991	185/251	—				

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Smart			
ForTwo	2008-2009	74/100	—
Sterling			
All	1987-1991	215/290	—
Subaru			
All Others FWD	1987-1994	148/200	—
B9 Tribeca, Tribeca	2006-2011	177/240	177/240
Baja	2003-2006	162/220	177/240
Forester	1998-2002	137/186	137/186
	2003-2006	140/190	140/190
	2007-2011	162/220	140/190
Impreza	2003	140/190	140/190
	2004-2011	162/220	140/190
Impreza FWD	1993-1995	137/186	—
Impreza AWD	1993-2002	137/186	137/186
Justy	1987-1994	130/177	—
Legacy AWD	1990-1999	137/186	137/186
Legacy FWD	1990-1996	137/186	—
Legacy, Outback	2000	137/186	174/235
	2002-2003	159/216	174/235
	2004-2011	162/220	177/240
Legacy, Outback 2.5L	2001	137/186	174/235
Legacy, Outback 3.0L	2001	159/216	174/235
SVX	1992-1997	137/186	138/187
Suzuki			
Aerio, Aerio SX AWD	2002-2007	127/175	127/175
Aerio, Aerio SX FWD	2002-2007	127/175	—
Equator	2009-2011	101/137	—
Esteem	1995-2002	127/175	—
Foreza	2004-2008	221/300	—
Grand Vitara AWD	1999-2006	156/212	—
	2007	145/200	145/200
	2008-2009	160/220	160/220
Grand Vitara RWD	2007	—	145/200
	2008-2009	—	160/220
Reno	2006-2008	221/300	—
Sidekick 4WD	1989-1990	119/160	—
	1991-1998	152/210	—
Swift	1989-2001	127/175	—
SX4 4WD	2007-2011	145/200	127/175
SX4 FWD	2008-2011	145/200	—
Verona	2004-2006	236/320	—
Vitara	1999-2004	156/212	—
X-90 4WD	1996-1998	152/210	—
XL-7 4WD	2004-2006	157/216	—
	2007-2009	151/205	151/205

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Toyota			
4-Runner 4WD	1996-2011	173/235	—
Avalon	1995-2011	217/294	—
Camry FWD	1983-1991	137/186	—
	1992-2011	217/294	—
Camry 4WD	1988-1991	137/186	137/187
Camry Solara	1999-2009	217/294	—
Celica FWD	1986-1991	137/186	—
	1992-1993	166/226	—
	1994-2005	159/216	—
Celica 4WD	1988-1991	137/186	137/186
	1992-1993	166/226	166/226
Corolla	1988-1990	137/186	—
	1991-1992	152/206	—
	1993-1997	159/216	—
	1998-2002	166/225	—
	2003-2011	159/216	—
Cressida	1989-1992	—	203/275
Echo	2000-2005	159/216	—
FJ Cruiser 2WD	2007-2011	203/275	—
FJ Cruiser 4WD	2007-2011	173/235	—
Highlander 4WD	2001-2011	217/294	217/294
Highlander FWD	2001-2011	217/294	—
Land Cruiser	2008-2011	[46]	—
Matrix 4WD	2003-2011	159/216	159/216
Matrix FWD	2003-2011	159/216	—
MR2	1985-1989	—	137/186
	2000-2005	—	159/216
MR2 ex Turbo	1991-1992	—	137/186
	1993-1995	—	159/216
MR2 Turbo	1991-1995	—	217/294
Paseo	1992-1993	166/226	—
	1994-1997	159/216	—
Previa	1991-1997	147/199	—
Prius	2001-2011	159/216	—
RAV4 2WD	1996-2006	159/216	—
RAV4 4WD	1996-2006	159/216	159/216
RAV4 w/2.4L 2WD	2007-2011	159/216	—
RAV4 w/2.4L 4WD	2007-2011	159/216	159/216
RAV4 w/3.5L 2WD	2007-2011	215/292	—
RAV4 w/3.5L 4WD	2007-2011	215/292	159/216
Sequoia	2001-2007	173/235	—
Sequoia 4WD	2008-2011	249/338	251/340
Sienna FWD	1998-2011	217/294	—
Sienna AWD	2004-2006	217/294	217/294
	2007-2010	217/294	159/216
	2011	217/294	217/294
Supra	1982-1985	—	100/137
	1987-1992	—	203/275
	1993-1998	—	213/289
Supra 2.8L	1986	—	100/137
Supra 3.0L	1986	—	203/275

Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm	Make/ Model	Year	Front proc. or torque lbs-ft/Nm	Rear proc. or torque lbs-ft/Nm
Toyota - cont.				Volkswagen - cont.			
Tacoma 4WD	1997-2011	173/235	—	Rabbit	2009	[38]	—
Tercel	1980-1982	90/127	—	Routan	2009	118/160	—
	1983-1991	137/186	—	Scirocco	1985-1989	195/265	—
	1992-1993	166/226	—	Tiguan AWD	2009-2011	[29]	[29]
	1994-1999	159/216	—	Tiguan FWD	2009-2011	[29]	—
Tundra 4WD	2000-2006	173/235	—	Touareg w/16 whls	2004-2011	148/200[52]	148/200[52]
	2007-2011	249/338	—	Touareg w/17,18,19 whls	2004-2011	369/500[52]	369/500[52]
Venza AWD	2009-2011	217/294	217/294	Vanagon	1980-1983	—	253/350
Yaris	2007-2011	160/216	—	Vanagon ex Synchro	1984-1991	—	253/350
				Vanagon Synchro	1984-1991	258/350	253/350
Volkswagen				Volvo			
Cabrio	1995-2002	195/265	—	740 w/integral hub disc	1982-1987	[25]	—
Cabriolet	1985-1992	174/240	—	740 w/separate hub disc	1982-1992	74/100[23]	—
Corrado	1990-1994	195/265	—	760	1988-1990	—	102/140[27]
EOS	2007-2011	[38]	—	780	1987-1990	—	102/140[27]
EuroVan	1993-1996	148/200	—	850	1993-1997	89/120[27]	—
EuroVan AWD	1997-2003	111/150[1]	111/150[1]	940	1991-1995	—	102/140[27]
EuroVan FWD	1997-2003	111/150[1]	—	960	1992-1997	—	102/140[27]
Fox	1987-1993	170/230	—	C3	2009-2011	26/35[1]	—
GLI	2008	147/200[3]	—	C70	1998-2006	89/120[27]	—
	2009	[38]	—		2007-2011	26/35[1]	—
Golf	2010-2011	[29]	—	Coupe	1991	—	102/140[27]
Golf w/Base Suspension	1985-1998	195/265	—	S40, V40 AWD	2003	89/120[27]	89/120[27]
GTI	2011	[15]	—		2004-2011	26/35[1]	37/50
GTI w/Base Suspension	1985-1998	195/265	—	S40, V40 FWD	2003	89/120[27]	—
Jetta	1980-1984	174/240	—		2004-2011	26/35[1]	—
	2007-2008	147/200[3]	133/180[23]	S60	2011	26/35[1]	81/110
	2009-2010	[38]	—	S60 AWD	2001-2009	26/35[1]	37/50
	2011	[29]	—	S60 FWD	2001-2010	26/35[1]	—
Jetta w/Base Suspension	1985-1998	195/265	—	S70, V70	1998-2000	89/120[27]	—
New Beetle	2008-2009	[24]	—	S80	1999-2000	37/50	—
Passat	2007-2008	147/200[3]	—		2001-2006	26/35[1]	—
	2009	[38]	—		2011	26/35[44]	81/110
Passat AWD	1998-2006	[2]	85/115	S80 AWD	2007-2010	26/35[1]	26/35
Passat CC	2009	52/70[1]	147/200[3]	S80 FWD	2007-2010	26/35[1]	—
Passat ex Synchro	1990-1994	195/265	—	S90, V90	1998-1999	—	102/140[27]
Passat FWD	1998-2006	[2]	—	V50	2011	26/35[44]	81/110
Passat Synchro	1990-1994	195/265	170/230	V50 AWD	2005-2010	26/35[1]	37/50
Passat w/Base	1995-1997	195/265	66/90[23]	V50 FWD	2005-2010	26/35[1]	—
Suspension 4WD				V70 AWD	2001-2007	26/35[1]	37/50
Passat w/Base	1995-1997	195/265	—	V70 FWD	2001-2007	26/35[1]	—
Suspension FWD				XC60	2010	26/35[1]	26/35
Passat w/Plus	1995-1997	66/90[23]	—		2011	26/35[1]	81/110
Suspension 4WD				XC70	2006-2007	26/35[1]	37/50
Passat w/Plus	1995-1997	66/90[23]	—		2008-2010	26/35[1]	26/35
Suspension FWD					2011	26/35[1]	81/110
Phaeton	2004-2006	—	148/200[3]	XC90	2003-2010	26/35[1]	37/50
Pickup	1980-1984	174/240	—		2011	26/35[47]	[26]
Quantum ex Synchro	1982-1988	170/230	—				
Quantum Synchro	1982-1988	170/230	170/230				
Rabbit	2008	147/200[3]	133/180[3]				
				Yugo			
				All	1985-1991	160/215	—

Footnote codes

- [1] After tightening to this value, turn an additional 90 degrees.
- [2] M14 bolt, tighten to 85 lbs-ft/115 Nm, then turn an additional 180 degrees. M16 bolt, tighten to 140 lbs-ft/190 Nm, then turn an additional 180 degrees.
- [3] After tightening to this value, turn an additional 180 degrees.
- [4] Use new bolt or nut. Bolt: Tighten bolt to 177 ft-lbs/240 Nm, loosen 90 degrees, tighten bolt to 177 ft-lbs/240 Nm, then advance bolt an additional 90 degrees. Nut: Older adhered type hub stamped 8N0 615, apply Audi locking fluid D185 400 A2, or equivalent, tighten nut to 235 Nm. Newer greased type hub stamped 8N0 615A or B, apply grease G052 142 A2, or equivalent, tighten nut to 140 ft-lbs/190 Nm, then turn an additional 90 degrees.
- [5] M22 nut, tighten to 147 lbs-ft/200 Nm; M24 nut, tighten to 184 lbs-ft/250 Nm; M27 nut, 221 lbs-ft/300 Nm.
- [6] M27 nut, tighten to 310 lbs-ft/420 Nm; M24 nut, tighten to 184 lbs-ft/250 Nm.
- [7] After tightening to this value, turn an additional 20 degrees.
- [8] After tightening to this value, turn an additional 40 degrees.
- [9] Soft ride & sport suspension, 118 lbs-ft/160 Nm; heavy duty suspension, 170 lbs-ft/230 Nm.
- [10] First design nut (Pac-style nut painted black), 284 lbs-ft/385 Nm; second design nut (solid gray nut), 173 lbs-ft/235 Nm.
- [11] Tighten nut to specified value and tighten further to align cotter pin with hole.
- [12] Tighten axle nut to 132 lbs-ft/179 Nm, rotate axle 5 to 10 times to seat hub bearings, tighten axle nut to 263 lbs-ft/356 Nm. Align axle nut to next forward cotter pin hole and install cotter pin.
- [13] Tighten inner hub nut 221 lbs-ft/300 Nm while spinning wheel hub constantly. Turn back inner nut and then tighten until it touches thrust washer without play. Then tighten 1/8 turn.
- [14] Install and tighten new front axle wheel end nut to specification in a continuous rotation. Stopping the rotation during installation will cause the nylon lock to seat incorrectly.
- [15] With hex head bolt, 133 lbs-ft/180 Nm. Then turn nut an additional 180 degrees. With 12 point bolt, 52 lbs-ft/70 Nm. Always replace with a new bolt.
- [16] The wheel hub and bearing are not serviceable or adjustable. If the bearing retaining nut is removed, the hub and bearing must be replaced.
- [17] After tightening to specification, turn an additional 80 degrees.
- [18] Driveshaft nut.
- [19] Loosen -180 degrees then tighten to 313 lbs-ft/425 Nm.
- [20] Additional lock nut on 911 Carrera RS, 147 lbs-ft/200 Nm.
- [21] Nut less top groove, 214 lbs-ft/290 Nm; nut with top groove, 125 lbs-ft/170 Nm, and then turn an additional 45 degrees.
- [22] After tightening to this value, turn an additional 30 degrees.
- [23] After tightening to specification, turn an additional 45 degrees.
- [24] Tighten 12 point nut to 200 Nm and release a half rotation. Rotate wheel hub 180 degrees, then rotate further to 50 Nm +60 degrees.
- [25] Torque to 42 lbs-ft/57 Nm. Turn the wheel while tightening. Loosen the nut half a turn and re-tighten to 1.1 lbs-ft/1.5 Nm (finger tight). Insert the cotter pin. If the holes do not line up, tighten nut to align.
- [26] Tighten adjusting nut to 15 lbs-ft/20, then 33 lbs-ft/45 Nm. Tighten an additional 60 degrees.
- [27] After tightening to specification, turn an additional 60 degrees.
- [28] Tighten hub nut to 25 lbs-ft/33 Nm, then back off 1/3 turn. Tighten to 6 in-lbs/1 Nm while turning wheel. Install cage nut and cotter pin.
- [29] Tighten bolt to 52 lbs-ft/70 Nm plus an additional 90 degrees. Always replace bolt after removal.
- [30] Bolt, 199 lbs-ft/270 Nm; Nut 206 lbs-ft/280 Nm.
- [31] Drive Axle Hex combination bolt, tighten to 148 lbs-ft/200 Nm. With vehicle off the ground, lower vehicle onto its wheels and tighten an additional 180 degrees. With 12 point bolt, tighten to 52 lbs-ft/70 Nm. With vehicle off the ground, lower vehicle onto its wheels and tighten an additional 90 degrees.
- [32] With 302RBI rear axle.
- [33] Tighten to 110 lbs-ft/150 Nm with vehicle off ground. Install wheels and tighten to 368 lbs-ft/500 Nm. Always replace nut after removal.
- [34] With 10.5 or 11.5 rear Axle.
- [35] Tighten to 147 ft-lbs/200 Nm, turn an additional 180 degrees when vehicle is on floor. Always replace after removal.

Footnote codes

- [36] Always replace nut/bolt after removal.
- [37] 1st: 148 lbs-ft/200 Nm, 2nd: 251 lbs-ft/340 Nm.
- [38] M16 Bolt Hex head 148 lbs-ft/200 Nm, then an additional 180 degrees. M16 Bolt 12 point 52 lbs-ft/70 Nm, then an additional 90 degrees.
- [39] Hex bolt M 14: 85 lbs-ft/115 Nm with vehicle off the ground, then lower vehicle onto its wheels and tighten an additional 180 degrees. Hex bolt M16: 148 lbs-ft/200 Nm with vehicle off the ground, then lower vehicle onto its wheels and tighten an additional 180 degrees.
- [40] Maximum value shown. Torques value varies from 147.5-206.5 lbs-ft/200-280 Nm.
- [41] Kia Optima model code 'TF'.
- [42] Kia Optima model code 'MG'.
- [43] Kia Optima model code 'MS'.
- [44] Inner nut torque, 203 lbs-ft/275 Nm; outer nut torque, 129 lbs-ft/175 Nm.
- [45] 1st: 111 lbs-ft/150 Nm. 2nd: Loosen 45 degrees. 3rd: 185 lbs-ft/250 Nm.
- [46] Tighten in two steps: 148 lbs-ft/200 Nm. Final, 251 lbs-ft/340 Nm.
- [47] After tightening to specification, turn an additional 120 degrees.
- [48] Tighten the hub nut to 22 lbs-ft/29 Nm, and then fully loosen. Install a spring scale to one of the wheel nut studs. Tighten the hub nut until the scale reads: 4.5-5.5 lbs/2-2.5 kg for new bearing and seal; 2.5-4.0 lbs/1.2-1.8 kg for a used bearing and seal.
- [49] Tighten the hub bearing nut by the following procedures. Hub bearing nut must be fastened with a torque of 202 ft-lbs/274 Nm and front hub must be rotated 3 times. Unfasten hub bearing nut until its tightening torque is 0 ft-lbs/0 Nm. Hub bearing nut must be fastened again with torque 144 ft-lbs/196 Nm Assemble split pin. If the direction of split pin is not in line with the hole of knuckle unfasten hub bearing nut within 30 degrees and assemble split pin.
- [50] Hex head bolt, 147 lbs-ft/200 Nm +180 degrees. Twelve-point bolt, 52 lbs-ft/70 Nm +180 degrees. Always replace bolt after removal.
- [51] With M14 bolt, tighten to 85 lbs-ft/115 Nm; with M16 bolt, tighten to 147 lbs-ft/200 Nm, if vehicle is raised. Only turn an additional 180 degrees when vehicle is on floor. Always replace nut after removal.
- [52] Use new original equipment nut.
- [53] With M27, tighten thread to 310 lbs-ft/420 Nm; with M24, tighten thread to 185 lbs-ft/250 Nm.
- [54] Tighten old wheel hub, adjusting nut to 258 lbs-ft/350 Nm to seat the halfshaft. Remove and discard the old wheel hub nut. With the vehicle raised up, apply the brake so the halfshaft will not rotate, and install a new wheel hub nut. Tighten nut to 258 lbs-ft/350 Nm. Do not attempt to tighten the nut with the vehicle on the ground or the wheel bearing will be damaged. Tighten the new wheel hub nut to specification within 5 minutes of starting it on treads. Always install a new wheel hub nut after loosening or when not tightening in the specified time.
- [55] With M27, tighten thread to 221 lbs-ft/300 Nm; with M24, tighten thread to 185 lbs-ft/250 Nm.
- [56] Tighten to 111 lbs-ft/150 Nm. Back off 45 degrees and retighten to 184 lbs-ft/250 Nm.
- [57] With RPO Codes FE1 or FE3, 118 lbs-ft/160 Nm; with RPO Code FE7, 170 lbs-ft/230 Nm.
- [58] Models with FE7 suspension 147 lbs-ft/200 Nm.
- [59] Tighten hub nut to 12 lbs-ft/16 Nm while rotating wheel. Back off and finger tighten. Back off slightly to install cotter pin.
- [60] Tighten in three steps: First, 111 lbs-ft/150 Nm; second, loosen 45 degrees; last, tighten 185 lbs-ft/250 Nm.
- [61] With manual locking hubs: Tighten adjusting nut to 50 lbs-ft/68 Nm while turning hub. Back off and retighten to 50 lbs-ft/68 Nm. Back off to 0. Install ring and tighten locknut to 160 lbs-ft/217 Nm minimum. Tang on ring must press through slot on spindle. Hole in pin must align with locknut. Turn adjusting nut to align. Endplay should be .001- .010." With automatic locking hubs Tighten adjusting nut to 50 lbs-ft/68 Nm while turning hub. Back off and retighten to 35 lbs-ft/47 Nm. Back off 3/8 turn. Install ring and tighten locknut to 160 lbs-ft/217 Nm minimum. Tang on ring must press through slot on spindle. Hole in pin must align with locknut. Turn adjusting nut to align. Endplay should be .001-.010."
- [62] Tighten hub bearing adjustment nut to 22 lbs-ft/ 30 Nm while turning hub. Loosen nut approximately 30 degrees and align hub nut with axle tube key slot. Install locking key. Endplay should be .001-.010 inch.
- [63] Tighten hub nut to 95 Nm (70 ft- lbs.) while rotating the hub. Then back off nut 90 degrees and retighten nut to 41 Nm (30 lbs-ft.). NOTE: This will set hub to zero endplay.

Notes



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