

457377
2023

Torque specification guide

Front & rear axle nut, hub mount and lug nut torque specifications
for FWD, RWD & 4WD vehicles



Unmatched quality and market coverage

The SKF vehicle aftermarket boasts a product range of over 20 000 variations in unmatched quality.

We focus on providing system repair products with a wide range coverage so that you don't have to look very far for the parts you need.

Through a strong network of more than 10 000 distributors and dealers within the vehicle, our spare parts for cars, trucks and two-wheelers reach their destination at workshops all over the world.

Who we are

A broad range of products and services and a focus on continuous innovation and improvement make us a trusted partner for the top vehicle aftermarket distributors.

For decades SKF has been a trusted OE supplier to the world's top car manufacturers around the globe.

We utilize this experience to deliver high-quality products and premium services to our customers in the aftermarket for cars and commercial vehicles all over the world.

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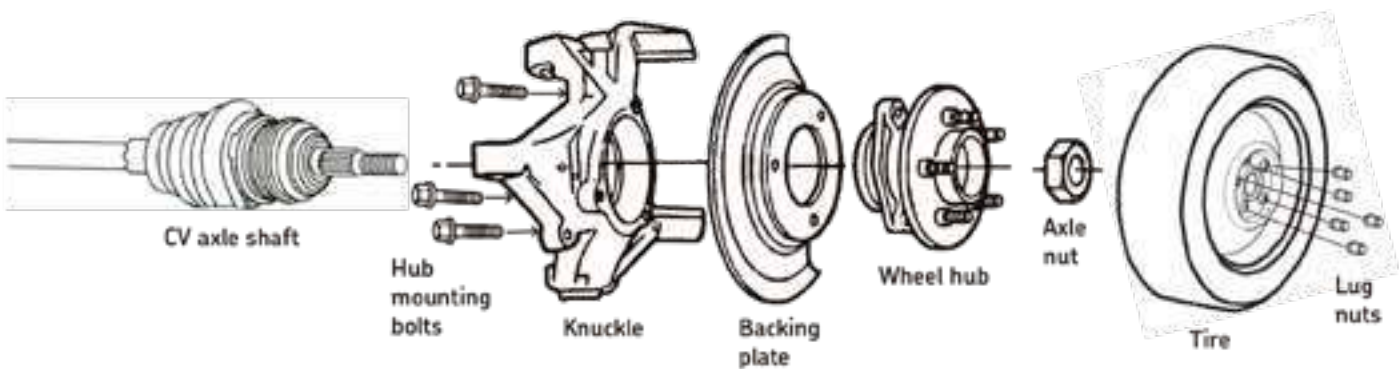
Note:

One of the leading causes of improper fit or premature wheel hub failure is improper torquing of the bolts and nuts that secure the wheel hub and tire. Most drive axle wheel hubs have a center axle nut that must be torqued down onto the axle shaft to a specific torque value. Putting the proper torque on the center axle nut sets the preload for the bearing and keeps the bearing from separating while in operation. The torque specification for this center axle nut is critical to performance and function of the wheel hub.

The wheel hub mounting bolt torque specification also provides a secure fit for the wheel hub and provides proper seating of the wheel hub to knuckle attachment. Improper torque can lead to wheel hub movement and allow potential damage to the wheel hub and surrounding components. Be sure knuckle is clean from rust and debris before hub replacement.

The tire lug nuts should also be properly torqued to secure the wheel to the wheel hub. Improper torque can warp the rotor and adversely affect the surrounding components, including the wheel hub. Potential loss of wheel or broken wheel studs can occur if torque specification is not correct.

For specific mounting instructions, refer to the vehicle manufacturer’s service manual for that model.



Section 1

Axle Nut torque

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
ACURA			
1.6EL.....	1997-2000.....	134/182.....	-
2.2CL, 2.3CL, 3.0CL.....	1997-1999.....	181/245.....	-
2.5TL.....	1995-1998.....	181/245.....	-
3.2CL.....	2001-2003.....	181/245.....	-
3.2TL.....	1996-2004.....	181/245.....	-
	2005-2007.....	181/245.....	134/182
3.5RL.....	1996-2004.....	181/245.....	-
	2005-2008.....	242/328.....	181/245
ILX 1.5L, 2.0L.....	2013-2015.....	133/181 [77].....	-
ILX 2.4L.....	2013-2021.....	181/245 [77].....	-
Integra.....	1986-2001.....	133/181.....	-
Legend.....	1986-1990.....	180/244.....	-
	1991-1995.....	242/328.....	-
MDX.....	2001-2002.....	181/245.....	181/245
	2003-2006.....	210/285.....	181/245
	2013-2020.....	242/328 [77].....	181/245 [77]
MDX Hybrid.....	2017-2020.....	242/328 [77].....	181/245 [77]
MDX, RDX.....	2007-2012.....	242/328 [77].....	181/245 [77]
NSX.....	1991-2005.....	-.....	242/328
	2017-2021.....	242/328 [77].....	290/393 [77]
RDX.....	2013-2021.....	242/328 [77].....	181/245 [77]
RL.....	2008-2013.....	242/328.....	181/245
RLX.....	2014-2020.....	242/328 [77].....	-
RLX Hybrid.....	2014.....	242/328 [77].....	181/245 [77]
	2016-2020.....	242/328 [77].....	181/245 [77]
RSX ex. Type S.....	2002-2006.....	134/182.....	-
RSX Type S.....	2002-2006.....	181/245.....	-
SLX.....	1996-1999.....	[48].....	-
TL.....	2008.....	181/245.....	-
TL AWD.....	2009-2014.....	242/328 [77].....	181/245 [77]
TL FWD.....	2009-2014.....	242/328 [77].....	-
TLX AWD.....	2015-2021.....	242/328 [77].....	181/245 [77]
TLX FWD.....	2015-2021.....	242/328 [77].....	-
TSX.....	2004-2008.....	181/245.....	-
	2009-2014.....	242/328 [77].....	-
Vigor.....	1992-1994.....	181/245.....	-
ZDX.....	2010-2013.....	242/328 [77].....	181/245 [77]

ALFA ROMEO

4C.....	2015-2020.....	-.....	[99]
Giulia.....	2017-2021.....	-.....	52/71[107][111]
Stelvio.....	2018-2021.....	-.....	52/71[107][111]

AM GENERAL

H2.....	2003-2009.....	173/235.....	-
H3/H3T.....	2006-2010.....	191/260.....	-

AMERICAN MOTORS

AMX.....	1980.....	[28].....	-
Concord.....	1980-1983.....	[28].....	-
Pacer.....	1980.....	[28].....	-
Spirit.....	1980-1983.....	[28].....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
AUDI			
80.....	1988-1991.....	195/265.....	-
80 Quattro.....	1988-1991.....	195/265.....	236/320
90.....	1988-1991.....	195/265.....	-
	1992-1995.....	148/200.....	[1]
90 Quattro.....	1988-1991.....	195/265.....	236/320
	1992-1995.....	147/200 [1].....	177/240
100.....	1989-1994.....	147/200 [1].....	-
100 Quattro.....	1989-1991.....	147/200 [1].....	147/200 [1]
200.....	1989-1991.....	147/200 [1].....	-
200 Quattro.....	1989-1991.....	147/200 [1].....	147/200 [1]
4000.....	1980-1987.....	167/226.....	-
4000 Quattro.....	1984-1987.....	206/280.....	206/280
5000.....	1980-1988.....	206/280.....	-
5000 Quattro.....	1984-1988.....	206/280.....	-
A3.....	2006-2013.....	[50].....	-
	2015-2021.....	[35][135].....	-
A3 Quattro.....	2006-2013.....	[50].....	[50]
	2015-2021.....	[35][135].....	[104]
A3 Sport Back e-tron.....	2017-2018.....	[35].....	-
E-tron Quattro.....	2019.....	[35].....	[35]
A4, A4 Quattro.....	1996-2005.....	[2].....	85/115 [3]
	2006-2007.....	[51].....	147/200 [3]
	2008-2021.....	[35].....	[35][78]
A5.....	2010-2014.....	[35].....	-
A5 Quattro, A5 Sportback.....	2008-2019.....	[35].....	[35]
A6.....	1995-1997.....	147/200 [1].....	-
	1998-2004.....	[2].....	-
	2005-2006.....	[35].....	-
	2007-2018.....	[35].....	-
A6 Quattro.....	1995-1997.....	147/200 [1].....	147/200 [1]
	1998-2004.....	[2].....	[2]
	2005-2006.....	[35].....	[35]
	2007-2021.....	[35].....	[35]
A7 Quattro, A7 Sportback.....	2012-2021.....	[35].....	[35]
A8.....	1997-1999.....	140/190 [3].....	-
A8 Quattro.....	1997-2005.....	140/190 [3].....	140/190 [3]
	2006-2021.....	[35].....	[35]
Allroad.....	2001-2005.....	[2].....	[2]
	2013-2021.....	[35].....	[35]
Cabriolet.....	1994-1998.....	147/200 [1].....	-
Coupe.....	1981-1987.....	167/226.....	-
	1990-1991.....	195/265.....	-
Q3.....	2015-2018.....	[35].....	-
	2019-2021.....	[104].....	-
Q3 Quattro.....	2015-2018.....	[35].....	[104]
	2019-2021.....	[104].....	[104]
Q5.....	2009-2021.....	[35].....	[35]
Q7.....	2007-2015.....	[33].....	[33]
	2017-2021.....	[35].....	[35]
Q8.....	2019-21.....	[35].....	[35]
R8.....	2008-2010.....	[35].....	[35]
	2011-2015.....	[95].....	[83]
	2017-2018.....	[35].....	[35]
RS3.....	2017-2021.....	[35][135].....	[104]
RS4.....	2008.....	[39].....	147/200 [36]
RS5, RS5 Sportback.....	2013-2015.....	[35].....	[35]
	2018-2021.....	[35].....	[35]
RS7.....	2014-2019.....	[35].....	[35]
S3.....	2015-2021.....	[35][135].....	[104]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
AUDI - cont.			
S4.....	1992-1994.....	147/200 [1].....	147/200 [1]
	2000-2005.....	[2].....	85/115 [3]
	2007.....	-.....	147/200 [3]
	2008-2016.....	[35].....	[35]
S5, S5 Sportback.....	2018-2021.....	[35].....	[35]
	2008-2021.....	[35].....	[35]
S6.....	1995.....	147/200 [1].....	147/200 [1]
	2002-2005.....	[2].....	[2]
	2007-2018.....	[35].....	[35]
S7.....	2013-2018.....	[35].....	[35]
S8.....	2001-2005.....	140/190 [3].....	140/190 [3]
	2007-2009.....	147/200 [3].....	147/200 [3]
	2013-2018.....	[35].....	[35]
SQ5.....	2014-2021.....	[35].....	[35]
TT.....	2000-2005.....	[4].....	-
	2007-2010.....	[31].....	-
TT Quattro.....	2000-2005.....	[4].....	[4]
	2007-2014.....	[50].....	[50]
	2015-2021.....	[35].....	[104]
TT RS.....	2018-2021.....	[35].....	[104]
V8 Quattro.....	1990-1994.....	147/200 [1].....	147/200 [1]

BMW

1 Series.....	2008-2011.....	-.....	[53]
	2012-2013.....	-.....	[64]
1M.....	2011.....	-.....	[64]
2 Series AWD.....	2015-2021.....	155/210.....	107/145
		[1][36]	[23][36]
2 Series RWD.....	2014-2021.....	-.....	107/145
		-.....	[23][36]
3 Series AWD.....	2000-2005.....	310/420.....	[5]
	2006-2007.....	310/420.....	[6]
	2008-2013.....	310/420.....	[53]
3 Series RWD.....	1985-2005.....	-.....	[5]
	2006-2007.....	-.....	[6]
	2008-2011.....	-.....	[53]
3 Series AWD E92, E93...	2012-2013.....	310/420.....	[64]
3 Series RWD E92, E93...	2012-2013.....	-.....	[64]
3 Series AWD F30.....	2012-2018.....	155/210.....	107/145
		[1][36]	[23][36]
3 Series RWD F30.....	2012-2018.....	-.....	107/145
		-.....	[23][36]
3 Series RWD G20.....	2019-2021.....	-.....	155/210 [1][36]
3 Series AWD G20.....	2019-2021.....	155/210 [1] [36]..	155/210 [1][36]
4 Series AWD.....	2014-2020.....	155/210.....	107/145
		[1][36].....	[23][36]
4 Series AWD.....	2021.....	155/210 [1] [36]..	155/210 [1][36]
4 Series RWD.....	2014-2020.....	-.....	107/145
-.....	-.....	-.....	[23][36]
4 Series RWD.....	2021.....	-.....	155/210 [1][36]
5 Series AWD.....	2004-2010.....	310/420.....	310/420
	2011.....	155/210 [1].....	310/420
	2012-2016.....	155/210.....	74/100
		[1][36]	[66][77]
5 Series AWD F07.....	2017.....	155/210.....	74/100
-.....	-.....	[1][36]	[66][77]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
BMW - cont.			
5 Series AWD G30.....	2017-2021.....	155/210.....	155/210
-.....	-.....	[1][36]	[1][36]
5 Series RWD.....	1997-2003.....	-.....	221/300
	2004-2011.....	-.....	310/420
	2012-2016.....	-.....	74/100
-.....	-.....	-.....	[66][77]
5 Series RWD F07.....	2017.....	-.....	74/100
-.....	-.....	-.....	[66][77]
5 Series RWD G30.....	2017-2021.....	-.....	155/210
-.....	-.....	-.....	[1][36]
6 Series.....	2004-2010.....	-.....	310/420
6 Series AWD.....	2012-2019.....	155/210.....	74/100
	-.....	[1][36]	[66][77]
6 Series RWD.....	2012-2019.....	-.....	74/100
		-.....	[66][77]
7 Series AWD.....	2010-2015.....	155/210.....	74/100
	-.....	[1][36]	[66][77]
	2016-2021.....	155/210.....	155/210
-.....	-.....	[1][36]	[1][36]
7 Series RWD.....	1995-2001.....	-.....	221/300
	2002-2011.....	-.....	310/420
	2012-2015.....	-.....	74/100 [66]
		-.....	155/210
-.....	-.....	[1][36]	
8 Series AWD.....	2020-2021.....	155/210 [1] [36]..	155/210 [1][36]
		-.....	155/210 [1][36]
8 Series RWD.....	2020-2021.....	-.....	107/145
		-.....	[66][77]
Active Hybrid 3.....	2013-2015.....	-.....	74/100
-.....	-.....	-.....	[66][77]
Active Hybrid 5.....	2013-2016.....	-.....	74/100
-.....	-.....	-.....	[66][77]
Active Hybrid 7.....	2013-2015.....	-.....	74/100
-.....	-.....	-.....	[66][77]
i3, i3 S.....	2014-2021.....	-.....	[85]
i8.....	2014-2017.....	155/210.....	155/210
		[1][36]	[1][36]
		[85].....	[85]
M Coupe, Roadster.....	1998-2002.....	-.....	[5]
M Roadster.....	2006.....	-.....	221/300
M2.....	2017-2021.....	-.....	221/300 [77]
M3.....	1988-1991.....	-.....	147/200
	1995-2006.....	-.....	[5]
	2008-2012.....	-.....	221/300 [77]
		-.....	[85]
2013.....	-.....	[85]	
2015-2018.....	-.....	221/300 [77]	
2021.....	-.....	155/210	
-.....	-.....	[1][36]	
M4.....	2015-2020.....	-.....	221/300 [77]
-.....	-.....	-.....	155/210
-.....	-.....	-.....	[1][36]
M5.....	2000-2003.....	-.....	221/300
	2006-2010.....	-.....	310/420
		-.....	[85]
	2013-2016.....	-.....	[85]
2018-2021.....	155/210 [1].....	155/210 [1]	
M6 Coupe, Convertible...	2006-2010.....	-.....	310/420
	2013-2019.....	-.....	[85]
M235i AWD.....	2015-2016.....	155/210.....	107/145
		[1][36]	[23][36]
M235i RWD.....	2014-2016.....	-.....	107/145
-.....	-.....	-.....	[23][36]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
BMW - cont.			
M240i.....	2017-2021.....	-.....	107/145 [23][36]
M240xi.....	2017-2020.....	155/210..... [1][36]	107/145 [23][36]
M760i.....	2017-2021.....	155/210..... [1][36]	155/210 [1][36]
M850i.....	2019-2020.....	155/210[1].....	-
M8.....	2020-2021.....	155/210 [1][36]..	155/210 [1][36]
X1, X2.....	2013-2015.....	155/210..... [1][36]	221/300 [36]
	2016-2021.....	155/210..... [1][36]	[85]
X3.....	2004-2010.....	310/420.....	221/300
	2011-2017.....	155/210..... [1][36]	74/100 [66]
	2018-2021.....	155/210 [1][36]..	155/210 [1][36]
X4.....	2015-2018.....	155/210..... [1][36]	74/100 [66]
	2019-2021.....	155/210 [1][36]..	155/210 [1][36]
X5.....	2000-2018.....	310/420 [77].....	310/420 [77]
	2019-2021.....	155/210 [1].....	155/210 [1]
X6.....	2008-2019.....	310/420 [77].....	310/420 [77]
	2020-2021.....	155/210 [1][36]..	155/210 [1][36]
X7.....	2019-2021.....	155/210 [1][36]..	155/210 [1][36]
Z3.....	1997-2002.....	-.....	[5]
Z4.....	2003-2008.....	-.....	221/300
	2009-2016.....	-.....	184/250 [77]
	2019-2021.....	-.....	155/210 [1][36]
Z8.....	2000-2003.....	-.....	221/300

BUICK

Allure.....	2005-2009.....	118/160.....	-
Cascada.....	2016-2019.....	[56].....	-
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.....	-
		37/50.....	-
Encore AWD.....	2013-2021.....	[27][107][115]..... 37/50	37/50 [27][107]
Encore FWD.....	2013-2021.....	[27][107][115].....	-
Encore GX AWD.....	2020-2021.....	[36][45].....	[36][45]
Encore GX FWD.....	2020-2021.....	[36][45].....	-
Enclave AWD.....	2008-2017.....	173/235.....	151/205
	2018-2021.....	[129].....	[129]
Enclave FWD.....	2008-2017.....	173/235.....	-
	2018-2021.....	[129].....	-
Envision AWD.....	2016-2020.....	[130].....	[45]
	2021.....	[36][45].....	[36][45]
Envision FWD.....	2016-2020.....	[130].....	-
	2021.....	[36][45].....	-
LaCrosse AWD.....	2010-2020.....	[45].....	[45]
LaCrosse FWD.....	2005-2009.....	118/160.....	-
	2010-2020.....	[45].....	-
LeSabre.....	1986-1991.....	185/251.....	-
	1992-1997.....	107/145.....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
BUICK - cont.			
LeSabre.....	1998-2005.....	118/160.....	-
Lucerne.....	2006-2011.....	118/160.....	-
Park Avenue.....	1991.....	185/251.....	-
	1992-1997.....	107/145.....	-
	1998-2005.....	118/160.....	-
Rainier.....	2004-2007.....	103/140.....	-
Reatta.....	1988-1991.....	180/244.....	-
Regal AWD.....	2014-2017.....	[56].....	[56]
	2018-2020.....	[45].....	[45]
Regal FWD.....	1988-1994.....	184/250.....	-
	1995-1997.....	151/205.....	-
	1998-2000.....	159/215.....	-
	2001-2004.....	118/160.....	-
	2011-2017.....	[56].....	-
	2018-2020.....	[45].....	-
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.....	1982-1989.....	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.....	-
Verano.....	2012-2017.....	[45].....	-

CADILLAC

Allante.....	1987-1992.....	183/245.....	-
	1993.....	110/145.....	-
ATS AWD.....	2013-2019.....	185/250 [36].....	185/250 [36]
ATS RWD.....	2013-2019.....	-.....	185/250 [36]
Cimarron.....	1982-1988.....	185/251.....	-
CT4 AWD.....	2020-2021.....	[137]	[137]
CT4 RWD.....	2020-2021.....	-.....	[137]
CT5 AWD.....	2020-2021.....	[137]	[137]
CT5 RWD.....	2020-2021.....	-.....	[137]
CT6 AWD.....	2016-2019.....	[106]	[106]
CT6 RWD.....	2016-2019.....	-.....	[106]
CTS.....	2003-2007.....	-.....	118/160
	2008-2009.....	158/215.....	158/215
CTS AWD.....	2010-2013.....	158/215.....	-
	2016-2019.....	185/250 [107].....	185/250 [107]
CTS RWD.....	2016-2019.....	-.....	185/250 [107]
CTS w/o RPO J56.....	2010-2013.....	-.....	170/230
CTS w/RPO J56.....	2010-2013.....	-.....	158/215
CTS Sedan (VIN A)			
AWD.....	2014-2015.....	184/250 [107].....	184/250 [107]
RWD.....	2014-2015.....	-.....	184/250 [107]
CTS Coupe/Wagon, CTS-V (VIN D)			
Front.....	2014-2015.....	158/215.....	-
Rear w/o RPO J56.....	2014-2015.....	-.....	170/230 [107]
Rear w/RPO J56.....	2014-2015.....	-.....	158/215
DeVille.....	1985-1991.....	180/244.....	-
	1992-1996.....	107/145.....	-
	1997-1999.....	118/160.....	-
	2000-2005.....	[57].....	[58]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)	MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
CADILLAC - cont.				CHEVROLET - cont.			
DTS.....	2006-2007.....	[9].....	[58]	Corvette.....	1980-1983.....	-.....	100/130
	2008-2011.....	[57].....	-		1984-1996.....	-.....	164/223
Eldorado.....	1980-1985.....	176/238.....	-		1997-2004.....	-.....	118/160
	1986-1991.....	180/244.....	-		2005-2013.....	-.....	151/205
	1992-1996.....	107/145.....	-		2014-2019.....	-.....	184/250 [52]
	1997-2002.....	118/160.....	-		2020-2021.....	-.....	[129]
ELR.....	2014, 2016.....	[60].....	-	Cruze.....	2011-2019.....	[60].....	-
Escalade 4WD.....	1999-2000.....	165/224.....	-	Cruze Limited.....	2016.....	[60].....	-
Escalade AWD.....	2002-2014.....	177/240.....	-	Impala.....	2000.....	159/215.....	-
	2015-2020.....	188/255.....	-		2001-2013.....	155/210.....	-
	2021.....	[140].....	[139]		2014-2019.....	[56].....	-
Escalade RWD.....	2021.....	-.....	[139]	Impala Limited.....	2014-2016.....	155/210.....	-
Escalade ESV AWD.....	2003-2014.....	177/240.....	-	Lumina.....	1990-1994.....	184/250.....	-
	2015-2020.....	188/255.....	-		1995-1997.....	151/205.....	-
	2021.....	[140].....	[139]		1998-2001.....	159/216.....	-
Escalade ESV RWD.....	2021.....	-.....	[139]	Lumina APV.....	1990-1994.....	185/251.....	-
Escalade EXT AWD.....	2002-2013.....	177/240.....	-		1995-1996.....	104/145.....	-
Fleetwood.....	1980-1984.....	[59].....	-	Malibu.....	1997-2003.....	[10].....	-
	1985-1991.....	180/244.....	-		2004-2012.....	159/215.....	-
	1992.....	107/145.....	-		2013-2021.....	[36] [60].....	-
	1993-1996.....	[59].....	-	Malibu Limited.....	2016.....	[56].....	-
Seville.....	1980-1985.....	176/238.....	-	Malibu Maxx.....	2004-2007.....	159/215.....	-
	1986-1991.....	180/244.....	-	Metro.....	1998-2001.....	129/175.....	-
	1992-1996.....	107/145.....	-	Monte Carlo.....	1995-1997.....	151/205.....	-
	1997-2004.....	118/160.....	-		1998-2000.....	159/215.....	-
SRX.....	2004-2007.....	118/160.....	118/160		2001-2007.....	118/160.....	-
	2008-2009.....	159/215.....	170/230	Nova.....	1985-1988.....	137/186.....	-
	2010-2016.....	184/250.....	[45]	Prizm.....	1998-2002.....	166/225.....	-
STS.....	2005-2006.....	-.....	118/160	Spark.....	2013-2015.....	177/240 [52].....	-
STS AWD.....	2007.....	118/160.....	118/160		2016-2021.....	37/50.....	-
	2008-2009.....	159/215.....	170/230			[27] [107].....	-
	2010-2011.....	159/215.....	159/215	Spark EV.....	2014-2016.....	37/50.....	-
XLR.....	2004-2007.....	-.....	118/160			[27] [107].....	-
	2008-2009.....	-.....	151/205	Spectrum.....	1985-1988.....	137/186.....	-
XT4.....	2019-2021.....	[36] [45].....	[36] [45]	Sprint.....	1985-1988.....	151/205.....	-
XT5.....	2017-2021.....	[129].....	[129]		1989-1991.....	125/179.....	-
XT6.....	2020-2021.....	[129].....	[129]	Sonic.....	2012-2020.....	[68].....	-
XTS AWD.....	2013-2019.....	[36] [56].....	[36] [56]	SS.....	2014-2017.....	-.....	[87]
XTS FWD.....	2013-2019.....	[36] [56].....	-	Uplander AWD.....	2005-2008.....	118/160.....	192/260
				Uplander FWD.....	2005-2009.....	118/160.....	-
				Venture.....	1997.....	151/205.....	-
				Venture AWD.....	2002-2005.....	118/160.....	192/260
				Venture FWD.....	1998-2005.....	118/160.....	-
				Volt.....	2011-2019.....	[60].....	-
CHEVROLET				CHEVROLET, GMC TRUCKS			
Aveo, Aveo5.....	2004-2011.....	221/300.....	-	Acadia AWD.....	2007-2016.....	173/235.....	151/205
Beretta.....	1987-1996.....	185/251.....	-		2017-2021.....	[129].....	[129]
Bolt.....	2017-2021.....	[138].....	-	Acadia FWD.....	2007-2016.....	173/235.....	-
Camaro.....	2010-2011.....	-.....	199/270		2017-2021.....	[129].....	-
	2012-2015.....	-.....	199/270 [107]	Acadia Limited AWD.....	2017.....	173/235.....	151/205
	2016-2021.....	-.....	185/250 [107]	Acadia Limited FWD.....	2017.....	173/235.....	-
Caprice.....	2012-2013.....	-.....	[67]	Astro, Safari 4WD.....	1990-1995.....	180/244.....	-
	2014-2017.....	-.....	[87]	Astro, Safari AWD.....	1996-2005.....	147/200.....	-
Cavalier.....	1982-1997.....	185/251.....	-	Avalanche 4WD.....	2002-2013.....	177/240.....	-
	1998-2001.....	144/195.....	-	Blazer, Yukon 4WD.....	1980-1991.....	[61].....	-
	2002-2005.....	148/200.....	-		1992-1994.....	165/224.....	-
Celebrity.....	1982.....	225/290.....	-	Blazer, Yukon C/K 4WD..	2007.....	177/240.....	-
	1983-1990.....	185/251.....	-	Blazer FWD.....	2019-2021.....	[129].....	-
Citation.....	1980-1982.....	225/290.....	-	Blazer 4WD.....	2019-2021.....	[129].....	[129]
	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.....	-				

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
CHEVROLET, GMC TRUCKS - cont.			
Canyon, Colorado 4WD...	2004-2012.....	191/260.....	-
	2015-2021.....	185/250 [52].....	-
Captiva Sport AWD.....	2012-2015.....	151/205 [52].....	151/205 [52]
Captiva Sport FWD.....	2012-2015.....	151/205 [52].....	-
City Express.....	2015-2018.....	96/130.....	-
Denali 4WD.....	1999-2000.....	165/224.....	-
	2001-2003.....	155/210.....	-
	2004-2006.....	173/235.....	-
	2007.....	177/240.....	-
Envoy 4WD.....	1999-2009.....	103/140.....	-
Equinox.....	2005-2017.....	151/205.....	151/205
	2018.....	[60].....	[60]
	2019-2021.....	[130].....	[60]
H1500, H2500 Van AWD..	2003-2014.....	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.....	1986-1996.....	181/245.....	-
Typhoon, Syclone 4WD			
S10, S15, Sonoma 4WD..	1982-1985.....	173/235.....	-
	1986-1996.....	180/244.....	-
	1997-2004.....	103/140.....	-
Sierra, Silverado 4WD...	1999-2009.....	177/240.....	-
	2010-2016.....	188/255.....	-
	2017-2018.....	188/255 [52].....	-
Sierra 1500 Limited.....	2019-2020.....	188/255 [52].....	-
Silverado 1500 LD 4WD			
Sierra, Silverado 1500..	2019-2021.....	[140].....	-
4WD			
Sierra, Silverado.....	2019.....	188/255 [52].....	-
2500/3500 4WD	2020-2021.....	[129].....	-
Suburban 4WD.....	1992-1999.....	165/224.....	-
	2000-2014.....	177/240.....	-
	2015-2020.....	188/255 [52].....	-
	2021.....	[140].....	[139]
Suburban RWD.....	2021.....	-.....	[139]
Tahoe, Yukon, Yukon....	1995-1997.....	165/224.....	-
XL 4WD	1998-2014.....	177/240.....	-
	2015-2020.....	188/255 [52].....	-
	2021.....	[140].....	[139]
Tahoe, Yukon, Yukon....	2021.....	-.....	[139]
XL RWD			
Terrain AWD.....	2010-2017.....	151/205.....	151/205
	2018.....	[60].....	[60]
	2019-2021.....	[130].....	[60]
Terrain FWD.....	2010-2017.....	151/205.....	-
	2018.....	[60].....	-
	2019-2021.....	[130].....	-
Tracker.....	1998.....	155/210.....	-
	1999-2004.....	159/216.....	-
TrailBlazer 4WD.....	2002-2009.....	103/140.....	-
Trailblazer AWD.....	2021.....	[36] [60].....	[36] [60]
Trailblazer FWD.....	2021.....	[36] [60].....	-
Traverse AWD.....	2009-2017.....	173/235.....	151/205
	2018.....	[106].....	[106]
	2019-2021.....	[129].....	[129]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
CHEVROLET, GMC TRUCKS - cont.			
Traverse FWD.....	2009-2017.....	173/235.....	-
	2018.....	[106].....	-
	2019-2021.....	[129].....	-
Trax AWD.....	2015-2021.....	37/50 [27][107]....	37/50 [27][107]
		[115]	
Trax FWD.....	2015-2021.....	37/50 [27][107]....	-
		[115]	
CHRYSLER			
200.....	2011-2014.....	118/160.....	-
200 AWD.....	2015-2017.....	148/200 [52].....	129/175 [52]
200 FWD.....	2015-2017.....	148/200 [52].....	-
300 AWD.....	2005-2016.....	157/213.....	157/213
	2017-2021.....	.....	170/230
300 RWD.....	2005-2021.....	-.....	157/213
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.....	-
Pacifica, Pacifica Hybrid..	2017-2021.....	120/163 [52].....	-
Prowler.....	2001-2002.....	-.....	105/142
PT Cruiser.....	2001-2010.....	180/244.....	-
Sebring Convertible.....	1996-1999.....	180/244.....	-
	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.....	2008-2016.....	118/160.....	-
Town & Country AWD....	1990-2006.....	180/244.....	180/244
Town & Country FWD....	1990-2007.....	180/244.....	-
Voyager, Grand			
Voyager AWD.....	2000-2003.....	180/244.....	180/244
Voyager, Grand			
Voyager FWD.....	2000-2003.....	180/244.....	-
Voyager.....	2017-2021.....	120/163 [52].....	-

MAKE/
MODEL Year Axle Nut Front
(Ft-lbs/Nm) Axle Nut Rear
(Ft-lbs/Nm)

DAIHATSU

Charade..... 1988-1992..... 148/201..... -
Rocky..... 1990-1993..... 108/146..... 108/146

DODGE, PLYMOUTH, RAM

024, TC3..... 1980-1982..... 180/244..... -
400..... 1982-1983..... 180/244..... -
600, Caravelle FWD..... 1982-1988..... 180/244..... -
Acclaim..... 1989-1995..... 180/244..... -
Aries..... 1983-1989..... 180/244..... -
Avenger AWD..... 2008..... 97/132..... 181/245
Avenger FWD..... 1995-2000..... 167/226..... -
2008-2011..... 97/132..... -
2012-2014..... 118/160..... -
Breeze..... 1996-1999..... 180/244..... -
2000..... 105/142..... -
Caliber..... 2009-2012..... 180/244..... -
Caliber AWD..... 2007-2008..... 180/244..... 180/244
Caliber FWD..... 2007-2008..... 180/244..... -
Caravan, Grand Caravan... 1984-2004..... 180/244..... -
Voyager, Grand Voyager
AWD
Caravan, Grand Caravan... 2005-2007..... 180/244..... -
2008-2010..... 118/160..... -
2011-2020..... 120/163..... -
Cargo Van..... 2012-2015..... 118/160..... -
Challenger RWD..... 2008-2014..... 184/215..... 157/213
2015-2016..... -..... 170/230 [52]
2017..... -..... 170/230 [52]
2018-2021..... -..... 157/213 [52]
Challenger AWD..... 2017..... 157/213 [52]..... 170/230 [52]
2018-2021..... 157/213 [52]..... 157/213 [52]
Champ FWD..... 1980-1984..... 167/226..... -
Charger AWD..... 2007-2014..... 157/213..... 157/213
2015-2016..... 157/213 [52]..... 157/213 [52]
2017-2021..... 157/213 [52]..... 170/213 [52]
Charger RWD..... 2006-2014..... -..... 157/213
2015-2021..... -..... 157/213 [52]
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..... -
Dart..... 2013-2016..... 148/200 [107]..... -
Daytona..... 1984-1993..... 180/244..... -
Dynasty..... 1988-1993..... 180/244..... -
Horizon, Omni..... 1980-1990..... 180/244..... -
Intrepid..... 1993-1994..... 80/108..... -
1995-2000..... 120/163..... -
2001-2004..... 105/142..... -
Journey AWD..... 2009-2017..... 118/160..... 181/245
2018-2020..... 122/165 [52]..... 181/245
Journey FWD..... 2009-2017..... 118/160..... -
2018-2020..... 122/165 [52]..... -
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..... -

MAKE/
MODEL Year Axle Nut Front
(Ft-lbs/Nm) Axle Nut Rear
(Ft-lbs/Nm)

DODGE, PLYMOUTH, RAM - cont.

Neon..... 1995..... 150/203..... -
1996-1998..... 135/183..... -
2000-2005..... 180/244..... -
Neon SRT-4..... 2003-2005..... 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..... 1989-1995..... 180/244..... -
Stealth 4WD..... 1991-1996..... 166/225..... 203/280
Stealth FWD..... 1991-1996..... 166/225..... -
Stratus Coupe..... 2001-2005..... 167/226..... -
Stratus Sedan..... 1995-1999..... 180/244..... -
2000..... 105/142..... -
2001-2006..... 110/150..... -
Viper..... 1997-2006..... -..... 190/258
2008-2010..... -..... 240/325
2013-2017..... -..... 207/281 [52]
Vista..... 1992-1994..... 167/226..... 166/225
Vista 4WD..... 1984-1991..... 165/224..... -
Vista FWD..... 1984-1991..... 165/224..... -

DODGE, PLYMOUTH, RAM TRUCKS

Dakota 4WD..... 1987-1996..... 190/258..... -
1997-2011..... 185/251..... -
Durango 4WD..... 1997-2010..... 185/251..... -
2011-2021..... 229/310 [52]..... 229/310 [52]
Nitro 4WD..... 2007-2011..... 100/135..... -
Promaster..... 2014-2021..... 110/150 [142]..... -
Promaster City..... 2015-2021..... [97][107]..... -
Ram 1500 Pickup 4WD... 1994-1995..... 180/244 [11]..... -
1996-1999..... 175/237 [11]..... -
2000-2002..... 180/244 [11]..... -
Ram 1500 Pickup..... 2003-2005..... -..... [34][62]
2WD w/Link/Coil Susp -..... [34][62]
2WD w/Indep Susp [12]..... [34][62]
4WD w/Link/Coil Susp 185/251..... [34][62]
4WD w/Indep Susp -.....
Ram 1500 Pickup..... 2006-2007..... -..... -
2WD w/Link/Coil Susp -..... -
2WD w/Indep Susp [12]..... -
4WD w/Link/Coil Susp 185/251..... -
4WD w/Indep Susp -..... -
Ram 1500 Pickup (DS)... 2008-2021..... -..... -
2WD w/Indep Susp 185/251..... -
4WD w/Indep Susp -..... -
Ram 1500 Pickup (DT)... 2019-2021..... -..... -
2WD w/Indep Susp 186/252 [52]..... -
4WD w/Indep Susp 180/244 [11]..... -
Ram 2500 Pickup 4WD... 1994-1995..... 175/237 [11]..... -
2000-2002..... 180/244 [11]..... -
2003-2005..... -..... -
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	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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DODGE, PLYMOUTH, RAM TRUCKS - cont.

Ram 2500, 3500 Pickup...	2006-2007	-	[34][62]
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]
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		
2WD w/Link/Coil Susp		-	[34][62]
2WD w/Link/Coil Susp		-	[32][63]
4WD w/Link/Coil Susp	[69][70]		[34][62]
4WD w/Link/Coil Susp	[69][70]		[32][63]
Ram 2500, 3500.....	2011-2013		
Front	[69][70]		-
10.5, 11.5 or 11.8		-	[109]
ring gear			
310RBI rear axle		-	[63]
Ram 2500, 3500.....	2014-2018		
Front	[70][110]		-
10.5, 11.5 or 11.8		-	[109]
ring gear			
310RBI rear axle		-	[63]
Ram 2500, 3500.....			
Front	2019-2021	107/145 [23]	
Rear 11.5, 12.0 ring		-	[131]
gear			
Ram 3500 Pickup 4WD...	1994-1995	180/244 [11]	-
	1996-1999	175/237 [11]	-
	2000-2002	180/244 [11]	-
Ram 4500, 5500.....	2012-2018	[69][70]	-
	2019-2021	107/145 [23]	-
Ram 4500, 5500.....	2012-2017	-	[109]
w/10.5" or 11.5" ring			
gear			
Ram 4500, 5500.....	2012-2018	-	[63]
w/302/310 RBI rear axle			
Ram 4500, 5500 w/12.0..	2019-2021	-	[132]
ring gear			
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	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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EAGLE - cont.

Vision.....	1993-1994	80/108	-
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FIAT

124 Spider.....	2017-2020	-	[116]
500, 500e, 500L.....	2012-2020	229/310 [52]	-
500X.....	2016-2021	148/200 [107]	52/70 [111]

FORD, MERCURY

Aspire.....	1994-1997	145/196	-
C-Max.....	2013-2018	59/80 [1][52]	-
Capri.....	1992-1994	145/196	-
Contour, Mystique.....	1995-1997	246/334	-
	1998-2000	199/270	-
Cougar, Thunderbird.....	1989-1997	-	221/300
Cougar.....	1999-2002	214/290	-
Crown Victoria.....	1992-2002	221/300	-
Grand Marquis			
Edge AWD.....	2007-2010	[54]	[44]
	2011-2014	[54]	[54]
	2015-2021	148/200 [103]	148/200 [52]
Edge FWD.....	2007-2010	[54]	-
	2011-2014	[54]	-
	2015-2021	148/200 [103]	-
Escort, Lynx, EXP, LN7..	1981-1990	190/258	-
Escort, Tracer.....	1991-2002	205/277	-
Festiva.....	1989-1993	145/196	-
Fiesta.....	2011-2019	188/255	-
Five Hundred AWD.....	2005-2007	258/351 [14]	148/200
Five Hundred FWD.....	2005-2007	259/351 [14]	-
Flex.....	2009-2019	[54]	[54]
Focus.....	2000-2004	233/316	-
	2005-2011	199/270	-
	2012-2018	59/80 [1]	-
Focus EV.....	2012-2018	59/80 [1]	-
Focus RS.....	2016-2018	59/80 [1][52]	37/50 [52]
Freestar.....	2004-2007	111/150	-
Freestyle AWD.....	2005-2007	259/351 [14]	148/200
Freestyle FWD.....	2005-2007	259/351 [14]	-
Fusion AWD.....	2006-2012	189/256	189/256
	2013-2020	148/200 [52]	148/200 [52]
Fusion FWD.....	2006-2012	189/256	-
	2013-2020	148/200 [52]	-
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.....	2015-2017	-	98/133
			[23][52]
	2018-2021	-	85/115 [120]
Mustang Cobra.....	1999-2004	-	240/325
Probe.....	1989-1997	205/277	-
Sable, Taurus.....	1986-1999	190/258	-
Taurus Police Sedan	2000-2007	184/250	-
	2008-2019	[54]	[54]
Tempo, Topaz.....	1984-1994	190/258	-
Thunderbird.....	2002-2005	-	302/410
Tracer.....	1987-1989	145/196	-
Villager.....	1993-2002	203/275	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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FORD, MERCURY - cont.

Windstar.....	1995-1997.....	194/263.....	-
	1998-1999.....	186/252.....	-
	2000-2003.....	184/250.....	-
ZX2.....	1998-2003.....	205/277.....	-

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Aerostar 4WD.....	1986-1994.....	190/260.....	-
	1995-1997.....	185/257.....	-
Bronco.....	2021.....	221/300 [52].....	-
Bronco Sport.....	2021.....	76/103 [66].....	98/133 [52]
Ecosport.....	2018-2021.....	188/255 [52].....	188/255 [52]
Escape 4WD.....	2001-2003.....	214/290.....	214/290
	2012.....	221/300.....	214/290
	2013-2019.....	59/80 [1][52].....	98/133 [52]
	2020-2021.....	74/100 [136].....	98/133 [52]
Escape FWD.....	2012.....	221/300.....	-
	2013-2019.....	59/80 [1][52].....	-
	2020-2021.....	74/100 [136].....	-
Escape, Mariner 4WD....	2004-2011.....	221/300.....	221/300
Escape, Mariner FWD....	2004-2011.....	221/300.....	-
Expedition RWD.....	2003-2008.....	-.....	254/345
	2009.....	-.....	258/350 [52]
	2010-2021.....	-.....	184/250 [52]
Expedition 4WD.....	1997-2002.....	221/300.....	-
	2003-2008.....	20/27 [52].....	254/345
	2009.....	20/27 [52].....	258/350 [52]
	2010-2017.....	20/27 [52].....	184/250 [52]
	2018-2021.....	30/40 [52].....	184/250 [52]
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... 2WD	1997-2010.....	184/250.....	203/275
Explorer, Police Utility.... 2WD	2011-2015.....	[54].....	-
	2016-2019.....	258/350 [52].....	-
	2020-2021.....	-.....	221/300 [52]
Explorer, Police Utility.... 4WD	2011-2015.....	[54].....	[54]
	2016-2019.....	258/350 [52].....	258/350 [52]
	2020-2021.....	98/133 [52].....	221/300 [52]
F150 Pickup 2WD.....	2004-2008.....	296/400.....	-
F150 Pickup 4WD.....	1997-2003.....	221/300.....	-
	2004-2012.....	20/27 [52].....	-
	2013-2021.....	30/40 [52].....	-
F250 LD Pickup 4WD....	1997-1998.....	221/300.....	-
Ranger 4WD.....	1998-2000.....	[16].....	-
	2001-2005.....	162/220.....	-
	2006-2011.....	184/250.....	-
	2019-2021.....	221/300 [52].....	-
Transit Connect.....	2010-2013.....	207/280.....	-
	2014-2021.....	59/80 [1][52].....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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GENESIS

G70 AWD.....	2019-2021.....	232/313 [107]	232/313 [141]
G70 RWD.....	2019-2021.....	-	232/313 [141]
G80 AWD.....	2017-2020.....	217/294 [107]	202/275
	2021.....	232/313 [107]	232/313 [107]
G80 RWD.....	2017-2020.....	-	202/275
	2021.....	-	232/313 [107]
G90 AWD.....	2017-2021.....	232/313 [107]	202/275 [141]
G90 RWD.....	2017-2021.....	-	202/275 [141]
GV80 AWD.....	2021.....	232/313 [107]	232/313 [107]
GV80 RWD.....	2021.....	-	232/313 [107]

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.....	-
	2009-2021.....	242/328 [77].....	-
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... Accord Crosstour FWD...	2010-2015.....	242/328 [77].....	181/245 [77]
Civic FWD.....	1984-2006.....	133/181.....	-
Civic 4WD.....	1985-1991.....	133/181.....	133/181
Civic ex. SI, 2.4L.....	2007-2015.....	133/181.....	-
Civic SI, 2.4L.....	2007-2015.....	181/245 [77].....	-
Civic 1.5L.....	2016-2021.....	181/245 [77].....	-
Civic 2.0L Ex. Type R.....	2016-2021.....	133/181 [77].....	-
Civic 2.0L Type R.....	2016-2021.....	242/328 [77].....	-
Clarity.....	2017-2019.....	242/328 [77].....	-
CR-V FWD.....	1997-2006.....	181/245 [77].....	-
	2007-2021.....	242/328 [77].....	-
CR-V AWD.....	1997-2006.....	181/245.....	133/181
	2007-2011.....	242/328.....	181/245
	2012-2018.....	242/328 [77].....	[65]
	2019-2021.....	242/328 [77].....	133/181 [77]
CRX.....	1984-1991.....	133/181.....	-
CRZ.....	2011-2016.....	133/181 [77].....	-
del Sol.....	1993-1997.....	133/181.....	-
Element.....	2003-2011.....	181/245.....	133/181
Fit.....	2007-2019.....	133/181 [77].....	-
HR-V.....	2016-2021.....	242/328 [77].....	133/181 [77]
Insight.....	2000-2006.....	133/181.....	-
	2010-2014.....	133/181 [77].....	-
	2019-2021.....	181/245 [77].....	-
Odyssey.....	1995-2004.....	181/245.....	-
	2005-2021.....	242/328 [77].....	-
Passport FWD.....	2019-2021.....	242/328 [77].....	-
Passport AWD.....	2019-2021.....	242/328 [77].....	181/245 [77]
Pilot AWD.....	2003-2004.....	181/245.....	181/245
	2005-2008.....	210/285.....	181/245
	2009-2021.....	242/328 [77].....	181/245 [77]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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HONDA - cont.

Pilot FWD.....	2003-2004.....	181/245.....	-
	2005-2008.....	210/285.....	-
	2009-2021.....	242/328 [77].....	-
Prelude.....	1980-1982.....	108/150.....	-
	1983-1989.....	133/181.....	-
	1990-2001.....	181/245.....	-
Ridgeline 4WD.....	2006-2014.....	242/328 [77].....	181/245 [77]
	2017-2021.....	242/328 [77].....	181/245 [77]
Ridgeline FWD.....	2006-2014.....	242/328 [77].....	-
	2017-2021.....	242/328 [77].....	-
S2000.....	2000-2009.....	-.....	181/245

HYUNDAI

Accent.....	1995-2000.....	170/230.....	-	
	2001-2006.....	175/237.....	-	
	2007-2011.....	188/260.....	-	
	2012-2017.....	202/274.....	-	
	2018-2021.....	217/294 [107].....	-	
Azera.....	2006.....	170/230.....	-	
	2007-2011.....	207/280.....	-	
	2012-2017.....	202/274.....	-	
Elantra.....	1992-2006.....	192/260.....	-	
	2007-2017.....	202/274.....	-	
	2018-2021.....	217/294 [107].....	-	
Elantra Coupe.....	2013-2016.....	202/274.....	-	
Elantra GT.....	2013-2014.....	199/270.....	-	
	2015-2017.....	202/274.....	-	
	2018-2020.....	217/294 [107].....	-	
Entourage.....	2007-2008.....	199/275.....	188/260	
Equus.....	2011-2016.....	-.....	203/280	
Excel.....	1986-1994.....	170/230.....	-	
Ioniq.....	2017-2021.....	217/294 [107].....	-	
Genesis.....	2009-2014.....	-.....	202/280 [80]	
Genesis Coupe.....	2010-2016.....	-.....	188/255 [79]	
Genesis AWD.....	2015-2016.....	217/294.....	202/275	
Genesis RWD.....	2015-2016.....	-.....	202/275	
Kona AWD.....	2018-2021.....	217/294 [107].....	217/294 [107]	
Kona FWD.....	2018-2021.....	217/294 [107].....	-	
Kona Electric.....	2019-2021.....	217/294 [107].....	-	
Nexo.....	2019-2021.....	231/313 [107].....	-	
Palisade.....	2020-2021.....	231/313 [107].....	231/313 [107]	
Santa Fe, Santa Fe Sport 4WD.....	2001-2007.....	170/230.....	170/230	
	2008-2012.....	188/255.....	188/255	
	2013-2021.....	217/294 [77].....	217/294 [77]	
	FWD.....	2001-2007.....	170/230.....	-
		2008-2012.....	188/255.....	-
Santa Fe Hybrid.....	2013-2021.....	217/294 [77].....	-	
	2021.....	231/313 [107].....	231/313 [107]	
	Santa Fe PHEV			
Scoupe.....	1991-1995.....	170/230.....	-	
Sonata.....	1989-2001.....	170/230.....	-	
	2002-2007.....	177/240.....	-	
	2008-2009.....	207/280.....	-	
	2011-2014.....	188/255.....	-	
	2015-2020.....	217/294 [77].....	-	
	2020-2021.....	231/313 [77].....	-	
	2021.....	231/313 [107].....	-	
Sonata Hybrid.....	2011-2015.....	188/255 [77].....	-	
	2016-2019.....	217/294 [77].....	-	
	2020-2021.....	231/313 [77].....	-	

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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HYUNDAI - cont.

Tiburon.....	1997-2001.....	170/230.....	-
Tiburon 2.0L.....	2003-2007.....	170/230.....	-
	2008.....	192/260.....	-
Tiburon 2.7L.....	2003-2007.....	177/240.....	-
	2008.....	207/280.....	-
Tuscon 4WD.....	2010-2013.....	232/314.....	217/294
	2014-2015.....	232/314 [77].....	217/294 [77]
	2016-2021.....	232/314 [77].....	232/314 [77]
Tuscon 4WD w/2.0L.....	2007.....	206/280 [40].....	206/280 [40]
Tuscon 4WD w/2.0L..... & 2.7L	2005-2006.....	206/280 [40].....	206/280 [40]
	2007-2009.....	[49].....	206/280 [40]
Tuscon FWD.....	2010-2013.....	232/314.....	-
Tuscon FWD w/2.0L.....	2014-2021.....	232/314 [77].....	-
	2007-2009.....	206/280 [40].....	-
Tuscon FWD w/2.0L..... & 2.7L	2005-2006.....	206/280 [40].....	-
Tuscon FWD w/2.7L.....	2007-2009.....	[49].....	-
Veloster, Veloster N.....	2012-2017.....	202/274 [77].....	-
	2019-2021.....	217/294 [77].....	-
Venue.....	2020-2021.....	217/294 [77].....	-
Veracruz AWD.....	2007-2012.....	202/274.....	202/274
Veracruz FWD.....	2007-2012.....	202/274.....	-
XG300.....	2001.....	192/260.....	-
XG350.....	2002-2005.....	192/260.....	-

INFINITI

EX35 AWD.....	2008-2010.....	92/125.....	133/180
	2011-2012.....	92/125.....	77/105
EX35 RWD.....	2008-2010.....	-.....	133/180
	2011-2012.....	-.....	77/105
EX37.....	2013.....	92/125.....	77/105
FX35, FX45 AWD.....	2003-2008.....	203/275.....	177/240
FX35, FX45 RWD.....	2003-2008.....	-.....	177/240
FX35, FX50 AWD.....	2009-2010.....	92/125.....	133/180
	2011-2012.....	92/125.....	77/105
FX35, FX50 RWD.....	2009-2010.....	-.....	133/180
	2011-2012.....	-.....	77/105
FX37, FX50.....	2013.....	92/125.....	77/105
G20.....	1991-1996.....	203/275.....	-
	1999-2001.....	203/275.....	-
	2002.....	217/294.....	-
G25 AWD.....	2011-2012.....	92/125.....	77/105
G25 RWD.....	2011-2012.....	-.....	77/105
G35 AWD.....	2004-2006.....	177/240.....	177/240
G35 AWD Sedan.....	2007-2008.....	92/125.....	129/175
G35 RWD.....	2003-2006.....	-.....	177/240
G35 RWD Coupe.....	2007-2008.....	-.....	177/240
G35 RWD Sedan.....	2007-2008.....	-.....	129/175
G37 AWD.....	2008-2009.....	92/125.....	177/240
	2010-2013.....	92/125.....	77/105
G37 RWD.....	2008-2009.....	-.....	177/240
	2010-2013.....	-.....	77/105
I30.....	1996-1999.....	203/275.....	-
	2000-2001.....	217/294.....	-
I35.....	2002-2004.....	203/275.....	-
J30.....	1993-1997.....	217/294.....	-
JX35.....	2013.....	135/182.....	92/125
M30.....	1990-1992.....	-.....	117/152

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
KIA - cont.			
K5.....	2021.....	231/131 [77].....	-
K900.....	2015-2018.....	-.....	202/274
	2019-2020.....	231/313 [77].....	202/274
Niro, Niro EV.....	2017-2021.....	217/294 [77].....	-
Optima [43].....	2001-2006.....	170/230.....	-
Optima [42].....	2006-2010.....	206/280.....	-
Optima [41].....	2011-2015.....	217/294 [77].....	-
Optima.....	2016-2020.....	217/294 [77].....	-
Optima Hybrid.....	2011-2016.....	188/255.....	-
	2017-2020.....	217/294 [77].....	-
Rio.....	2001-2007.....	145/200.....	-
	2008-2011.....	188/255.....	-
	2012-2017.....	202/275 [77].....	-
	2018-2021.....	217/294 [77].....	-
Rio5.....	2006-2007.....	145/200.....	-
	2008-2011.....	188/255.....	-
	2012-2014.....	202/275 [77].....	-
Rondo.....	2007.....	177/240.....	-
	2008-2010.....	202/274.....	-
Sedona.....	2002-2007.....	188/255.....	-
	2008-2012.....	199/270.....	-
	2014.....	199/270 [77].....	-
	2015-2021.....	232/314 [77].....	-
Seltos.....	2021.....	217/294 [77].....	217/294 [77]
Sephia.....	1994-1996.....	177/240.....	-
	1997-2001.....	180/244.....	-
Sorento.....	2003-2006.....	192/260.....	-
	2007-2009.....	198/270.....	-
	2011-2013.....	217/294.....	159/215
Sorento AWD.....	2014-2015.....	217/294 [77].....	199/270 [77]
	2016-2021.....	232/314 [77].....	232/314 [77]
Sorento FWD.....	2014-2015.....	217/294 [77].....	-
	2016-2021.....	232/314 [77].....	-
Sorento Hybrid.....	2021.....	232/314 [77].....	232/314 [77]
Soul.....	2010-2013.....	199/270 [77].....	-
	2014-2021.....	217/294 [77].....	-
Soul EV.....	2015-2021.....	217/294 [77].....	-
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]
	2011-2016.....	202/274.....	202/274
	2017-2021.....	232/314 [77].....	232/314 [77]
Sportage FWD.....	2005-2010.....	207/280 [40].....	-
	2011-2016.....	202/274.....	-
	2017-2021.....	232/314 [77].....	-
Stinger AWD.....	2018-2021.....	188/255 [77].....	232/314 [77]
Stinger RWD.....	2018-2021.....	-.....	232/314 [77]
Telluride.....	2020-2021.....	232/314 [77].....	232/314 [77]
LAND ROVER			
Defender.....	2020-2021.....	[124].....	[124]
Discovery.....	2017-2021.....	[124].....	[124]
Discovery II.....	1998-2004.....	360/490 [18].....	-
Discovery Sport.....	2015-2019.....	[125].....	[125]
	2020-2021.....	[143].....	[143]
Evoque.....	2012-2019.....	[125].....	[125]
	2020-2021.....	[143].....	[143]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
LAND ROVER - cont.			
Freelander.....	2002-2005.....	295/400.....	295/400
LR2.....	2008-2015.....	33/45 [17].....	243/330 [22]
LR3.....	2005-2008.....	258/350.....	258/350
	2008.....	33/45 [17].....	243/330 [22]
LR4.....	2010-2016.....	169/230 [52].....	311/420 [52]
Range Rover.....	2000-2002.....	192/260 [18].....	-
	2003-2012.....	311/420.....	311/420
	2013-2021.....	[100].....	[100]
Range Rover Sport.....	2006-2009.....	258/350.....	258/350
	2010-2013.....	170/230.....	311/420
	2014-2021.....	[100].....	[100]
Range Rover Velar.....	2018-2019.....	[126].....	[126]
	2020-2021.....	[145].....	[144]
LEXUS			
CT200H.....	2011-2017.....	159/216.....	-
ES250.....	1990-1991.....	137/186.....	-
ES300.....	1992-2003.....	217/294.....	-
ES300H.....	2013-2021.....	217/294.....	-
ES330.....	2004-2006.....	217/294.....	-
ES350.....	2007-2021.....	217/294.....	-
GS200t, GS Turbo.....	2016-2017.....	-.....	214/290
GS300.....	1993-1997.....	-.....	213/289
GS300 RWD.....	2018-2019.....	-.....	214/290
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
GS350 AWD.....	2013-2020.....	217/294.....	214/290
GS350 RWD.....	2013-2020.....	-.....	214/290
GS450H.....	2007-2011.....	-.....	214/290
	2013-2018.....	-.....	214/290
GS460 AWD.....	2007-2011.....	217/294.....	214/290
GS460 RWD.....	2007-2011.....	-.....	214/290
GS F.....	2016-2020.....	-.....	214/290
GX460.....	2010-2021.....	173/235.....	-
GX470.....	2003-2009.....	173/235.....	-
HS250H.....	2010-2012.....	159/216.....	-
IS200t, IS Turbo.....	2016-2017.....	-.....	214/290
IS250 AWD.....	2006-2015.....	217/294.....	214/290
IS250 RWD.....	2006-2015.....	-.....	214/290
IS300.....	2000-2005.....	-.....	213/289
	2016-2021.....	217/294.....	214/290
IS350 AWD.....	2011-2021.....	217/294.....	214/290
IS350 RWD.....	2006-2021.....	-.....	214/290
IS-F.....	2008-2014.....	-.....	214/290
LC500.....	2018-2021.....	-.....	214/290
LC500H.....	2018-2021.....	-.....	214/290
LS400.....	1990-1994.....	-.....	253/343
	1995-2000.....	-.....	213/289
LS430.....	2001-2006.....	-.....	214/290
LS460 AWD.....	2009-2017.....	217/294.....	214/290
LS460 RWD.....	2007-2017.....	-.....	214/290
LS500 RWD.....	2018-2021.....	-.....	214/290
LS500 AWD.....	2018-2021.....	217/294.....	214/290
LS500H RWD.....	2018-2021.....	-.....	214/290
LS500H AWD.....	2018-2021.....	217/294.....	214/290
LS600hL.....	2008-2016.....	217/294.....	214/290

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
LEXUS - cont.			
LX570.....	2008-2011.....	[37].....	-
	2013-2021.....	[37].....	-
NX200t AWD.....	2015-2017.....	215/292 [77].....	159/216 [77]
NX200t FWD.....	2015-2017.....	215/292 [77].....	-
NX300 FWD.....	2018-2021.....	215/292.....	-
NX300 AWD.....	2018-2021.....	215/292.....	159/216
NX300h AWD.....	2015-2021.....	215/292 [77].....	159/216 [77]
NX300h FWD.....	2015-2021.....	215/292 [77].....	-
RC200t, RC Turbo.....	2016-2017.....	-.....	214/290 [77]
RC300.....	2016-2021.....	217/294 [77].....	214/290 [77]
RC350 AWD.....	2015-2021.....	217/294 [77].....	214/290 [77]
RC350 RWD.....	2015-2021.....	-.....	214/290 [77]
RC-F.....	2015-2021.....	-.....	214/290 [77]
RX300 AWD.....	1999-2003.....	217/294.....	159/216
RX300 FWD.....	1999-2003.....	217/294.....	-
RX330 AWD.....	2004-2006.....	217/294.....	217/294
RX330 FWD.....	2004-2006.....	217/294.....	-
RX350, RX350L AWD....	2007-2021.....	217/294.....	217/294
RX350, RX350L FWD....	2007-2021.....	217/294.....	-
RX400h AWD.....	2007-2009.....	217/294.....	217/294
RX400h FWD.....	2007-2009.....	217/294.....	-
RX450h, RX450hL AWD..	2010-2021.....	217/294.....	217/294
RX450h, RX450hL FWD..	2010-2021.....	217/294.....	-
SC300, SC400.....	1992-2000.....	-.....	213/289
SC430.....	2002-2009.....	-.....	213/289
UX200.....	2019-2021.....	159/216.....	-
UX250H AWD.....	2019-2021.....	159/216.....	159/216
UX250H FWD.....	2019-2021.....	159/216.....	-

LINCOLN

Aviator AWD.....	2003-2005.....	184/250.....	203/275
Aviator RWD.....	2003-2005.....	-.....	203/275
Aviator AWD.....	2020-2021.....	98/133 [52].....	221/300 [52]
Aviator RWD.....	2020-2021.....	-.....	221/300 [52]
Continental.....	1988-2002.....	-.....	221/300
Continental AWD.....	2017-2020.....	148/200 [52].....	148/200 [52]
Continental FWD.....	2017-2020.....	148/200 [52].....	-
Corsair AWD.....	2020-2021.....	74/100 [136].....	98/133 [52]
Corsair FWD.....	2020-2021.....	74/100 [136].....	-
LS.....	2000-2006.....	-.....	221-300
Mark LT Pickup 4WD....	2006-2008.....	20/27.....	-
MKC AWD.....	2015-2019.....	59/80 [1][52].....	98/133 [52]
MKC FWD.....	2015-2019.....	59/80 [1][52].....	-
MKS AWD.....	2009-2016.....	[54].....	[54]
MKS FWD.....	2009-2016.....	[54].....	-
MKT AWD.....	2010-2019.....	[54].....	[54]
MKT FWD.....	2010-2019.....	[54].....	-
MKX AWD.....	2007-2010.....	[54].....	[44]
	2011-2015.....	[54].....	[54]
	2016-2018.....	148/200 [52].....	148/200 [52]
MKX FWD.....	2007-2015.....	[54].....	-
	2016-2018.....	148/200 [52].....	-
MKZ AWD.....	2007-2012.....	189/256.....	189/256
	2013-2020.....	148/200 [52].....	148/200 [52]
MKZ, MKZ Hybrid FWD..	2007-2012.....	189/256.....	-
	2013-2020.....	148/200 [52].....	-
Navigator, Navigator L RWD.....	2003-2008.....	-.....	254/345
	2009.....	-.....	258/350 [52]
	2010-2021.....	-.....	184/250 [52]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
LINCOLN - cont.			
Navigator, Navigator L 4WD.....	1998-2002.....	221/300.....	-
	2003-2008.....	20/27 [52].....	254/345
	2009.....	20/27 [52].....	258/350 [52]
	2010-2017.....	20/27 [52].....	184/250 [52]
	2018-2021.....	30/40 [52].....	184/250 [52]
Nautilus AWD.....	2019-2020.....	148/200 [52].....	148/200 [52]
Nautilus FWD.....	2019-2020.....	148/200 [52].....	-
Zephyr.....	2006.....	185/255.....	-

MAZDA

323.....	1986-1989.....	144/196.....	-
	1990-1994.....	205/277.....	-
626.....	1983-1987.....	145/200.....	-
626, MX-6.....	1988-2002.....	205/277.....	-
929.....	1988-1991.....	-.....	203/275
929, Serenia.....	1992-1995.....	-.....	203/275
B Series Pickup 4WD....	1998-2000.....	[16].....	-
	2001-2009.....	162/220.....	-
CX-3 AWD.....	2016-2021.....	[81].....	[81]
CX-3 FWD.....	2016-2021.....	[81].....	-
CX-5 AWD.....	2013-2021.....	[81].....	[81]
CX-5 FWD.....	2013-2021.....	[81].....	-
CX-7 AWD.....	2007-2012.....	202/274.....	202/274
CX-7 FWD.....	2007-2012.....	202/274.....	-
CX-9 AWD.....	2007-2015.....	202/274.....	202/274
	2016-2021.....	[119].....	[81]
CX-9 FWD.....	2007-2015.....	202/274.....	-
	2016-2021.....	[119].....	-
GLC ex Wagon.....	1981-1985.....	145/200.....	-
Mazda 2.....	2011-2014.....	202/274.....	-
Mazda 3.....	2007-2013.....	202/274.....	-
	2014-2021.....	[81].....	-
Mazda 5.....	2006.....	188/255.....	-
	2007-2015.....	202/274.....	-
Mazda 6 AWD.....	2006-2007.....	202/274.....	235/319
Mazda 6 FWD.....	2003-2013.....	202/274.....	-
	2014-2021.....	[81].....	-
Miata.....	1990-1997.....	-.....	159/217 [52]
	1999-2003.....	-.....	235/318
	2004-2015.....	-.....	202/275 [82]
	2016-2020.....	-.....	[81]
Millenia.....	1995-2002.....	205/277.....	-
MPV.....	2000-2006.....	205/277.....	152/206
MPV 4WD.....	1989-1998.....	203/275.....	-
MPV FWD.....	1989-1998.....	152/206.....	-
MX-3, Precidia.....	1992-1995.....	205/277.....	-
MX-5.....	2006.....	-.....	188/255
Protege, Protege5.....	1990-2003.....	205/277.....	152/206
RX-7.....	1986-1995.....	-.....	203/275
RX-8.....	2004-2006.....	-.....	188/255
	2007-2011.....	-.....	202/275
Tribute.....	2001-2006.....	214/290.....	214/290
	2008-2011.....	221/300.....	221/300

MERCEDES-BENZ

A220 AWD.....	2019-2021.....	74/100 [23].....	74/100 [23]
A220 FWD.....	2019-2021.....	74/100 [23].....	-
AMG GT 43,53.....	2019-2021.....	[93].....	148/200 [22]

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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MERCEDES-BENZ - cont.

AMG GT 63, 63S.....	2019-2021.....	[93].....	162/220 [23]
AMG GT.....	2017-2021.....	-.....	148/200 [22]
AMG GT C.....	2018-2021.....	-.....	148/200 [22]
AMG GT R.....	2018-2021.....	-.....	148/200 [22]
AMG GT S.....	2018-2021.....	-.....	148/200 [22]
AMG GT R PRO.....	2020-2021.....	-.....	148/200 [22]
B Series.....	2015-2017.....	[91].....	-
C Series.....	1997-2007.....	-.....	162/220
C Series ex. 2015 C300, C63 AMG S	2008-2015.....	-.....	[72]
C Series 4 Matic ex. 2015 C300, C400	2003-2007.....	81/110 [27].....	162/220
C43 AMG.....	2008-2015.....	[71].....	[72]
C63 AMG.....	2017-2021.....	[93].....	258/350
C63 AMG S.....	2016-2021.....	-.....	258/350
C63 AMG S.....	2015-2021.....	-.....	258/350
C300 4 Matic.....	2015-2021.....	[93].....	258/350
C300 RWD.....	2015-2021.....	-.....	258/350
C350e.....	2016-2018.....	-.....	258/350
C400.....	2015.....	[93].....	258/350
C450 AMG.....	2016.....	[93].....	258/350
CL Series.....	2000-2005.....	236/320.....	236/320
	2006-2009.....	-.....	[73]
	2010-2014.....	-.....	[72]
CL Series 4 Matic.....	2009-2013.....	[71].....	[72]
CL63 AMG.....	2008-2014.....	-.....	[72]
CL65 AMG.....	2008-2014.....	-.....	[74]
CLA Series AWD.....	2014-2019.....	[91].....	258/350
	2020-2021.....	74/100 [23].....	74/100 [23]
CLA Series FWD.....	2014-2019.....	[91].....	-
	2020-2021.....	74/100 [23].....	-
CLK Series.....	1998-2012.....	-.....	162/220
CLK AMG Series.....	2001-2009.....	-.....	162/220
CLK AMG Cabriolet, Black Series	2004-2009.....	-.....	[73]
CLS Series.....	2006-2011.....	-.....	[72]
	2012-2021.....	-.....	258/350
CLS Series 4 Matic.....	2012-2018.....	[71].....	258/350
	2019-2021.....	[93].....	258/350
E Series.....	1997-1998.....	-.....	162/220
	1999-2003.....	-.....	236/320
	2004-2016.....	-.....	[72]
E Series 4 Matic.....	1997-1998.....	[30].....	162/220
	1999-2003.....	[30].....	236/320
	2004-2009.....	51/70 [1].....	[72]
	2010-2016.....	[71].....	[72]
E43 AMG AWD.....	2017-2018.....	[93].....	258/350
E43 AMG RWD.....	2017-2018.....	-.....	258/350
E53 AMG AWD.....	2019-2021.....	[93].....	258/350
E63A RWD.....	2018.....	-.....	258/350
E63AS 4 Matic.....	2018-2021.....	[93].....	258/350
E300C.....	2017-2020.....	[93].....	258/350
E300 AWD.....	2017-2018.....	[93].....	258/350
E350 AWD.....	2020-2021.....	[93].....	258/350
E350 RWD.....	2020-2021.....	-.....	258/350
E300 RWD.....	2017-2018.....	-.....	258/350
E400 AWD.....	2017-2018.....	[93].....	258/350
E400 RWD.....	2017-2018.....	-.....	258/350
E450 AWD.....	2019-2021.....	[93].....	258/350
E450 RWD.....	2019-2021.....	-.....	258/350

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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MERCEDES-BENZ - cont.

E550.....	2017.....	-.....	[72]
EQC400.....	2021.....	[93].....	288/390
G Series.....	2002-2018.....	133/180.....	-
	2019-2021.....	125/170 [1].....	368/500
GL Series.....	2007-2012.....	192/260 [23].....	-
	2013-2016.....	[75].....	[75]
GLA Series.....	2015-2020.....	[91].....	258/350
	2021.....	74/100 [23].....	74/100 [23]
GLB Series.....	2020-2021.....	74/100 [23].....	74/100 [23]
GLC Series.....	2016-2021.....	-.....	258/350
GLC Series 4 Matic.....	2016-2021.....	[93].....	258/350
GLE Series.....	2016-2019.....	-.....	[75]
GLE Series 4 Matic.....	2016-2019.....	[75].....	[75]
	2020-2021.....	162/220 [23].....	162/220 [23]
GLK Series 4 Matic.....	2010-2015.....	[71].....	[72]
GLK Series.....	2010-2015.....	-.....	[72]
GLS Series AWD.....	2017-2019.....	[75].....	[75]
	2020-2021.....	162/220 [23].....	162/220 [23]
GLS Series RWD.....	2017-2019.....	-.....	[75]
Maybach S550.....	2017-2018.....	[93].....	258/350 [92]
	2017-2018.....	[93].....	288/390 [102]
Maybach S560.....	2019-2020.....	[93].....	258/350 [92]
	2019-2020.....	[93].....	N/A [102]
Maybach S600.....	2016-2018.....	-.....	258/350 [92]
	2016-2018.....	-.....	288/390 [102]
Maybach S650.....	2019-2020.....	[93].....	258/350 [92]
	2019.....	[93].....	N/A [102]
Maybach GLS600.....	2021.....	162/220 [23].....	162/220 [23]
Metris.....	2016-2019.....	-.....	[112]
	2020-2021.....	-.....	[147]
ML Series.....	2013-2015.....	-.....	[75]
ML Series 4 Matic.....	1998-2005.....	361/490.....	361/490
	2006-2011.....	192/260 [23].....	[76]
	2012-2015.....	[75].....	[75]
R Series.....	2006-2012.....	192/260 [23].....	[76]
S Series ex. S550.....	1997-2005.....	-.....	236/320
	2006-2014.....	-.....	[29][72]
S55 AMG.....	2001-2006.....	-.....	[73]
S63, S65 AMG.....	2006-2013.....	-.....	[74]
S63 AMG.....	2014-2015.....	[93].....	258/350 [92]
	2014-2015.....	[93].....	288/390 [102]
	2016.....	[71][113].....	[72][113]
	2016-2021.....	[93][114].....	258/350 [114]
S65 AMG.....	2015-2018.....	-.....	258/350 [92]
	2015-2018.....	-.....	288/390 [102]
	2019-2020.....	-.....	258/350
	2015-2016.....	-.....	[74][113]
S Series 4Matic.....	2003-2005.....	51/70 [1].....	236/320
	2006-2013.....	[71].....	[29][72]
S450 4Matic.....	2018-2020.....	[93].....	258/350
S450 RWD.....	2018-2020.....	-.....	258/350
S550 4Matic.....	2014-2018.....	[93].....	258/350 [92]
	2014-2018.....	[93].....	288/390 [102]
S550 RWD.....	2014-2017.....	-.....	258/350 [92]
	2014-2017.....	-.....	288/390 [102]
S550e.....	2016-2017.....	-.....	258/350
S560 4Matic.....	2018-2021.....	[93].....	258/350
S560 RWD.....	2018-2021.....	-.....	258/350

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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MERCEDES-BENZ - cont.

S600.....	2015-2017.....	-.....	258/350 [92]
	2015-2017.....	-.....	288/390 [102]
SL Series.....	1997-2002.....	-.....	162/220
	2003-2005.....	-.....	236/320
	2006-2013.....	-.....	[72]
	2014-2020.....	-.....	258/350
SL 65 AMG.....	2005-2011.....	-.....	[15]
SLC Series.....	2017-2020.....	-.....	258/350
SLK Series.....	2000-2011.....	-.....	162/220
	2012-2016.....	-.....	258/350
SLK 55 AMG Series.....	2002-2016.....	-.....	258/350
Sprinter, Dual Rear Wheels			
Front Hub Nut.....	2015-2021.....	118/160 [27].....	-
Inner Hub Nut.....	2010-2021.....	-.....	[13]
Outer Hub Nut.....	2010-2021.....	-.....	184/250

MERCURY

See FORD, MERCURY

MINI

Cooper AWD.....	2011-2016.....	134/182 [36].....	134/182 [36]
	2017-2021.....	155/210.....	155/210
		[1][36]	[1][36]
Cooper FWD			
ex. F54, F55, F56,....	2002-2016.....	134/182 [36].....	-
F57			
F54, F55, F56, F57,....	2014-2021.....	155/210.....	-
F60		[1][36]	

MITSUBISHI

3000GT 4WD.....	1991-1999.....	166/225.....	203/280
3000GT FWD.....	1991-1999.....	166/225.....	-
Cordia, Tredia.....	1983-1988.....	167/226.....	-
Diamante.....	1992-2004.....	167/226.....	-
Eclipse.....	2000-2005.....	167/226.....	-
	2006-2012.....	188/255.....	-
Eclipse 4WD.....	1990-1994.....	167/226.....	138/190
	1995-1999.....	167/226.....	166/225
Eclipse FWD.....	1990-1999.....	167/226.....	-
Eclipse Cross AWD.....	2018-2021.....	[121].....	[121]
Eclipse Cross FWD.....	2018-2021.....	[121].....	-
Endeavor 4WD.....	2004-2011.....	188/255.....	-
Endeavor AWD.....	2004-2011.....	188/255.....	188/255
Expo.....	1992-1996.....	167/226.....	166/225
Galant.....	1985-2009.....	167/226.....	-
	2010-2012.....	188/255.....	-
I-MIEV.....	2012, 2014.....	-.....	107-129
	2016.....	-.....	144-176
Lancer.....	2002-2007.....	181/245.....	-
Lancer AWD.....	2008-2011.....	129/175.....	129/175
ex. Evolution.....	2012-2017.....	184/250.....	129/176
Evolution.....	2012-2014.....	129/176 [84].....	129/176
Lancer FWD.....	2008-2011.....	129/175.....	-
	2012-2017.....	184/250.....	-
Mirage.....	1985-2001.....	167/226.....	-
	2014-2015.....	199/270 [77].....	-
	2017.....	184/250 [77].....	-
	2018-2021.....	[77][122].....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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MITSUBISHI - cont.

Mirage G4.....	2017.....	184/250 [77].....	-
	2018-2020.....	[77][122].....	-
Montero.....	2001-2003.....	188/255.....	188/255
	2004-2006.....	148/200.....	188/255
Outlander 2WD.....	2003-2006.....	181/245.....	130/176
	2007-2013.....	129/175.....	-
Outlander AWD.....	2003-2006.....	181/245.....	181/245
	2007-2013.....	129/175.....	129/175
	2014-2016.....	199/270 [77].....	199/270 [77]
	2017.....	184/250 [77].....	184/250 [77]
	2018-2021.....	[77][121].....	[77][121]
Outlander FWD.....	2014-2016.....	199/270 [77].....	-
	2017.....	184/250 [77].....	-
	2018-2021.....	[77][121].....	-
Outlander PHEV.....	2018.....	[77][121].....	[77][121]
Outlander Sport 2WD....	2011-2012.....	129/176.....	-
Outlander Sport 4WD....	2011-2012.....	129/176.....	129/176
Outlander Sport AWD....	2013-2015.....	199/270 [77].....	199/270 [77]
	2016-2017.....	184/250 [77].....	199/270 [77]
	2018-2021.....	[77][121].....	[77][121]
Outlander Sport FWD....	2013-2015.....	199/270 [77].....	-
	2016-2017.....	184/250 [77].....	-
	2018-2021.....	[77][121].....	-
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
	2012-2020.....	-.....	77/105
Altima.....	1993-2006.....	202/275.....	-
	2007.....	92/125.....	-
	2008-2012.....	129/175.....	-
	2013-2018.....	135/182.....	-
Altima FWD.....	2019-2021.....	81/110.....	-
Altima AWD.....	2019-2021.....	81/110.....	92/125
Armada.....	2005-2011.....	101/137.....	170/230
Armada 2WD.....	2012-2015.....	-.....	135/182
	2017-2021.....	-.....	[90]
Armada 4WD.....	2012-2015.....	101/137.....	135/182
	2017-2021.....	[89].....	[90]
Axxess 4WD.....	1990.....	203/275.....	203/275
Axxess FWD.....	1990.....	203/275.....	-
Cube.....	2009-2014.....	92/125.....	-
Frontier 2WD.....	2004.....	-.....	206/280
Frontier 4WD.....	2004.....	-.....	206/280
	2005-2020.....	101/137.....	-
	2021.....	133/180.....	-
GT-R.....	2009-2013.....	166/225.....	166/225
	2014-2021.....	[96].....	[96]
Juke 2WD.....	2011-2017.....	136/185.....	-
Juke AWD.....	2011-2017.....	136/185.....	92/125
Kicks.....	2018-2021.....	183/247.....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
NISSAN - cont.			
Leaf.....	2011-2013.....	136/185.....	-
	2014-2017.....	96/130 [52].....	-
	2018.....	89/250 [52].....	-
	2019-2021.....	[134].....	-
Maxima.....	1985-1999.....	203/275.....	-
	2000-2006.....	217/294.....	-
	2007-2008.....	203/275.....	-
	2009-2013.....	129/175.....	-
	2014.....	135/183.....	-
Murano AWD.....	2016-2021.....	135/183.....	-
	2003-2007.....	92/125.....	92/125
	2009.....	129/175.....	129/175
	2011-2012.....	177/240.....	129/175
	2013-2014.....	177/240.....	92/125
Murano FWD.....	2015-2021.....	135/183 [52].....	92/125
	2003-2007.....	92/125.....	-
	2009.....	129/175.....	-
	2011-2012.....	177/240.....	-
NV200.....	2013-2014.....	96/130.....	-
	2015-2021.....	105/143.....	-
	2014.....	96/130.....	-
NV200 Taxi.....	2015-2020.....	104/141.....	-
NX.....	1991-1993.....	174/236.....	163/221
Pathfinder.....	2005-2012.....	101/137.....	177/240
Pathfinder 2WD.....	2013-2021.....	135/183 [52].....	-
Pathfinder 4WD.....	2013-2021.....	135/182 [52].....	92/125
Pickup 4WD.....	1981-1983.....	129/175.....	-
Pulsar.....	1987-1990.....	174/236.....	-
Quest.....	1993-2002.....	203/275.....	-
	2004-2009.....	92/125.....	-
	2011-2017.....	155/211 [52].....	-
Rogue AWD.....	2008-2011.....	92/125.....	92/125
	2012-2013.....	136/185 [52].....	92/125 [52]
	2014-2021.....	188/255 [52].....	92/125
Rogue FWD.....	2008-2011.....	92/125.....	-
	2012-2013.....	136/185 [52].....	-
	2014-2021.....	188/255 [52].....	-
Rogue Select AWD.....	2014-2015.....	136/185 [52].....	92/125
Rogue Select FWD.....	2014-2015.....	136/185 [52].....	-
Rogue Sport AWD.....	2017-2021.....	188/255 [52].....	92/125 [52]
Rogue Sport FWD.....	2017-2021.....	188/255 [52].....	-
Sentra.....	1987-2001.....	174/236.....	-
	2006.....	145/197.....	-
	2007-2011.....	92/125.....	-
	2012.....	140/190.....	-
	2013-2014.....	96/130.....	-
	2015-2021.....	105/143 [52].....	-
Sentra 1.8L.....	2002-2005.....	174/236.....	-
Sentra 2.5L.....	2002-2005.....	217/294.....	-
Stanza.....	1982-1986.....	174/236.....	-
	1987-1992.....	203/275.....	-
Titan.....	2004-2015.....	101/137.....	-
	2017-2021.....	101/137 [52].....	-
Titan XD.....	2016-2021.....	135/183 [52].....	-
Versa.....	2007-2011.....	83/113.....	-
Versa Hatchback.....	2012.....	140/190.....	-
Versa Note.....	2014-2021.....	183/247 [52].....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
NISSAN - cont.			
Versa Sedan.....	2012-2021.....	183/247 [52].....	-
Xterra 4WD.....	2005-2015.....	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.....	-
Alero.....	1998.....	74/100 [8].....	-
	1999-2004.....	[10].....	-
Aurora.....	1995-1997.....	107/145.....	-
Bravada.....	1998-2003.....	118/160.....	-
	1991-1996.....	181/245.....	-
Calais.....	1997-2004.....	103/140.....	-
	1985-1991.....	185/251.....	-
Ciera, Cruiser.....	1982.....	225/290.....	-
	1983-1991.....	185/251.....	-
	1992-1995.....	103/140 [7].....	-
Cutlass FWD.....	1996.....	107/145.....	-
	1997-1999.....	284/385.....	-
Cutlass Supreme.....	1988-1995.....	184/250.....	-
Firenza.....	1996-1997.....	151/205.....	-
	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.....	-
Silhouette AWD.....	1998-2001.....	118/160.....	-
	2002-2004.....	118/160.....	192/260
Silhouette FWD.....	2002-2004.....	118/160.....	-
Toronado.....	1980-1985.....	175/240.....	-
Trofeo.....	1986-1992.....	183/248.....	-
	1988-1992.....	183/248.....	-
PLYMOUTH			
See DODGE, PLYMOUTH, RAM			
PLYMOUTH TRUCKS			
See DODGE, PLYMOUTH, RAM TRUCKS			
PONTIAC			
2000.....	1983.....	185/251.....	-
6000.....	1982.....	225/290.....	-
Aztek AWD.....	1983-1991.....	185/251.....	-
	2001-2005.....	192/260.....	192/260
Aztek FWD.....	2001-2005.....	192/260.....	-
Bonneville.....	1987-1991.....	185/251.....	-
	1992-1997.....	107/145.....	-
	1998-2005.....	118/160.....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
PONTIAC - cont.			
Fiero.....	1984-1988.....	-.....	200/270
Firefly.....	1985-1988.....	151/210.....	-
	1989-1997.....	129/175.....	-
G3.....	2009.....	221/300.....	-
G5.....	2007-2008.....	155/210.....	-
G5 w/LNF & MU3.....	2009.....	159/215.....	-
G5 w/o LNF & MU3.....	2009.....	155/210.....	-
G6.....	2005-2010.....	159/215.....	-
G8.....	2008-2009.....	-.....	110/150 [19]
Grand Am.....	1985-1997.....	185/251.....	-
	1998.....	74/100 [8].....	-
	1999-2005.....	[10].....	-
Grand Prix.....	1988-1994.....	184/250.....	-
	1995-1997.....	151/205.....	-
	1998-2008.....	118/160.....	-
GTO.....	2004-2006.....	-.....	221/300
J2000.....	1982.....	185/251.....	-
Montana AWD.....	2000-2005.....	118/160.....	192/260
Montana FWD.....	1999-2005.....	118/160.....	-
Montana SV6 AWD.....	2005-2006.....	118/160.....	192/260
Montana SV6 FWD.....	2005-2009.....	118/160.....	-
Phoenix.....	1980-1982.....	225/290.....	-
	1983-1984.....	185/251.....	-
Solstice.....	2006-2010.....	-.....	159/215
Sunbird.....	1984-1994.....	185/251.....	-
Sunburst.....	1985-1987.....	137/186.....	-
Sunfire.....	1995-1997.....	185/251.....	-
	1998-2001.....	144/195.....	-
	2002-2005.....	148/200.....	-
Sunrunner.....	1994-1997.....	155/210.....	-
Tempest.....	1987-1991.....	185/251.....	-
Torrent.....	2006-2009.....	151/205.....	151/205
Trans Sport.....	1990-1994.....	185/251.....	-
	1995-1996.....	104/145.....	-
	1997-1999.....	118/160.....	-
Vibe AWD.....	2003-2010.....	159/216.....	159/216
Vibe FWD.....	2003-2010.....	159/216.....	-
Wave.....	2005-2007.....	221/300.....	140/190

PORSCHE

911 AWD.....	1995-2021.....	340/460 [36].....	340/460 [36]
911 RWD.....	1995-2021.....	-.....	340/460 [20][36]
911 Turbo.....	2001-2006.....	340/460.....	340/460
Boxster, 718 Boxster.....	1995-2021.....	-.....	340/460 [36]
Cayenne.....	2003-2010.....	340/460 [36].....	340/460 [36]
	2011-2018.....	340/460 [36].....	[101]
	2019-2021.....	148/200 [3][36]....	148/200 [3][36]
Cayman, 718 Cayman....	2006-2021.....	-.....	340/460 [36]
Macan.....	2015-2021.....	[35].....	148/200 [3][36]
Panamera AWD.....	2010-2021.....	340/460.....	340/460 [36]
Panamera RWD.....	2010-2021.....	-.....	340/460 [36]

SAAB

900.....	1980-1993.....	221/300.....	-
	1994-1998.....	214/290.....	-
9000.....	1986-1998.....	214/290.....	-
9-2X.....	2005-2006.....	162/220.....	140/190
9-3 FWD.....	1999-2002.....	[21].....	-
	2003-2011.....	170/230.....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
SAAB - cont.			
9-3X AWD.....	2008-2011.....	170/230.....	170/230
9-5.....	1999.....	[21].....	-
	2000-2001.....	125/170 [23].....	-
	2002-2006.....	148/200 [22].....	-
	2007-2010.....	170/230.....	-
9-7X.....	2005-2009.....	103/140.....	-

SATURN

Astra.....	2008-2009.....	[45].....	-
Aura.....	2007-2009.....	159/215.....	-
ION.....	2003.....	81/110.....	-
	2004-2007.....	155/210.....	-
Outlook AWD.....	2007-2010.....	173/235.....	151/205
Outlook FWD.....	2007-2010.....	173/235.....	-
Relay AWD.....	2005-2006.....	118/160.....	192/260
Relay FWD.....	2006-2007.....	118/160.....	-
S Series.....	1991-2002.....	148/200.....	-
SKY.....	2007-2010.....	-.....	159/215
Vue AWD.....	2002-2003.....	151/205.....	81/110
	2004-2010.....	151/205.....	151/205
Vue FWD.....	2002-2010.....	151/205.....	-

SCION

FRS.....	2013-2016.....	-.....	140/190 [52]
iA.....	2016.....	[105].....	-
iM.....	2016.....	159/216 [77].....	-
iQ.....	2012-2015.....	159/216 [52].....	-
tC.....	2005-2010.....	159/216 [52].....	-
tC w/AT.....	2011-2016.....	159/216 [52].....	-
tC w/MT.....	2011-2016.....	215/292 [52].....	-
xA.....	2004-2006.....	159/216 [52].....	-
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	2016-2017.....	-.....	44/60 [86]
ForTwo Electric.....	2016-2018.....	-.....	33/45 [1]

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All.....	1987-1991.....	215/290.....	-
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Baja.....	2003-2006.....	162/220.....	177/240
BRZ.....	2013-2020.....	-.....	140/190 [52]
Crosstrek.....	2016-2021.....	162/220 [77].....	140/190 [77]
Forester.....	1998-2002.....	137/186.....	137/186
	2003-2006.....	140/190.....	140/190
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Impreza.....	2003.....	140/190.....	140/190
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MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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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
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Legacy, Outback 2.5L.....	2001.....	137/186.....	174/235
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SVX.....	1992-1997.....	137/186.....	138/187
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Aerio, Aerio SX FWD.....	2002-2007.....	127/175.....	-
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Esteem.....	1995-2002.....	127/175.....	-
Forenza.....	2004-2008.....	221/300.....	-
Grand Vitara AWD.....	1999-2006.....	156/212.....	-
	2007.....	145/200.....	145/200
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Grand Vitara RWD.....	2007.....	-.....	145/200
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Kizashi AWD.....	2010-2013.....	185/250.....	185/250
Kizashi FWD.....	2010-2013.....	185/250.....	-
Reno.....	2006-2008.....	221/300.....	-
Sidekick 4WD.....	1989-1990.....	119/160.....	-
	1991-1998.....	152/210.....	-
Swift.....	1989-2001.....	127/175.....	-
SX4 4WD.....	2007-2013.....	147/200.....	129/175
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Verona.....	2004-2006.....	236/320.....	-
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X-90 4WD.....	1996-1998.....	152/210.....	-
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86.....	2017-2020.....	-.....	140/190 [77]
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Camry, Camry Hybrid.....	1983-1991.....	137/186.....	-
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Camry 4WD.....	1999-2009.....	217/294.....	-
Camry Solara.....	1986-1991.....	137/186.....	-
Celica FWD.....	1992-1993.....	166/226.....	-
	1994-2005.....	159/216.....	-
Celica 4WD.....	1988-1991.....	137/186.....	137/186
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MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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	1993-1997.....	159/216.....	-
	1998-2002.....	166/225.....	-
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Cressida.....	1989-1992.....	-.....	203/275
Echo.....	2000-2005.....	159/216.....	-
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Land Cruiser.....	2008-2011.....	[37].....	-
	2013-2021.....	[37].....	-
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Matrix FWD.....	2003-2013.....	159/216.....	-
Mirai.....	2016-2019.....	215/292 [107].....	-
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Prius.....	2001-2021.....	159/216.....	-
Prius C.....	2012-2021.....	159/216.....	-
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RAV4 w/3.5L 4WD.....	2007-2012.....	215/292.....	159/216
RAV4 AWD.....	2013-2018.....	215/292.....	159/216
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Tercel.....	1980-1982.....	90/127.....	-
	1983-1991.....	137/186.....	-
	1992-1993.....	166/226.....	-
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Tundra 4WD.....	2000-2006.....	173/235.....	-
	2007-2021.....	249/338.....	-

MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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Yaris.....	2007-2021.....	160/216.....	-
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Atlas AWD.....	2018-2021.....	[123].....	[123]
Cabrio.....	1995-2002.....	195/265.....	-
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Fox.....	1987-1993.....	170/230.....	-
GLI.....	2008.....	147/200 [3].....	-
	2009.....	[38].....	-
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	2018-2021.....	[26].....	[26]
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	2018-2021.....	[26].....	-
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GTI.....	2006-2010.....	[38].....	-
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Passat.....	2007-2008.....	147/200 [3].....	-
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Passat w/Base Suspension 4WD	1995-1997.....	195/265.....	66/90 [23]
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MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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tC w/MT.....	2011-2016.....	215/292 [52].....	-
xA.....	2004-2006.....	159/216 [52].....	-
xB.....	2004-2015.....	159/216 [52].....	-
xD.....	2008-2014.....	159/216 [52].....	-

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	2011-2018.....	26/35 [1].....	26/35 [1]
	2019-2021.....	33/45 [1].....	33/45 [1]
S60 FWD.....	2001-2010.....	26/35 [1].....	-
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	2019-2021.....	33/45 [1].....	-
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MAKE/ MODEL	Year	Axle Nut Front (Ft-lbs/Nm)	Axle Nut Rear (Ft-lbs/Nm)
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V60 AWD.....	2015-2018.....	26/35 [1].....	26/35 [1]
	2019-2021.....	33/45 [1][36].....	33/45 [1][36]
V60 FWD.....	2015-2021.....	26/35 [1].....	-
		33/45 [1][36].....	-
V60 Cross Country.....	2015-2018.....	26/35 [1].....	26/35 [1]
	2019-2021.....	33/45 [1][36].....	33/45 [1][36]
V70 AWD.....	2001-2007.....	26/35 [1].....	37/50
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V90 Cross Country.....	2017-2021.....	26/35 [1][36].....	26/35 [1][36]
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XC60.....	2010-2017.....	26/35 [1].....	26/35 [1]
	2018-2021.....	26/35 [1] [36].....	26/35 [1] [36]
XC70.....	2006-2007.....	26/35 [1].....	37/50
	2008-2016.....	26/35 [1].....	26/35 [1]
XC90.....	2003-2014.....	26/35 [94].....	37/50
	2016-2021.....	26/35 [1] [36].....	26/35 [1] [36]

YUGO

All.....	1985-1991.....	160/215.....	-
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Axle nut footnote codes

- [1] After tightening to this value, turn an additional 90°.
- [2] M14 bolt, tighten to 85 ft-lbs/115 Nm, then turn an additional 180°. M16 bolt, tighten to 140 ft-lbs/190 Nm, then turn an additional 180°.
- [3] After tightening to this value, turn an additional 180°.
- [4] Use new bolt or nut. Bolt: Tighten bolt to 177 ft-lbs/240 Nm, loosen 90°, loosen 90°, tighten bolt to 177 ft-lbs/240 Nm, then advance bolt an additional 90°. Nut: Older adhered type hub stamped 8N0 615, apply Audi locking fluid D185 400 A2, or 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°.
- [5] M22 nut, tighten to 147 ft-lbs/200 Nm; M24 nut, tighten to 184 ft-lbs/250 Nm; M27 nut, 221 ft-lbs/300 Nm.
- [6] M27 nut, tighten to 310 ft-lbs/420 Nm; M24 nut, tighten to 184 ft-lbs/250 Nm.
- [7] After tightening to this value, turn an additional 20°.
- [8] After tightening to this value, turn an additional 40°.
- [9] Soft ride & sport suspension, 118 ft-lbs/160 Nm; heavy duty suspension, 170 ft-lbs/230 Nm.
- [10] First design nut (Pac-style nut painted black), 284 ft-lbs/385 Nm; second design nut (solid gray nut), 173 ft-lbs/235 Nm.
- [11] Tighten nut to specified value and tighten further to align cotter pin with hole.
- [12] Tighten axle nut to 132 ft-lbs/179 Nm, rotate axle 5 to 10 times to seat hub bearings, tighten axle nut to 263 ft-lbs/356 Nm. Align axle nut to next forward cotter pin hole and install cotter pin.
- [13] Tighten inner hub nut 221 ft-lbs/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] Tighten with code P99 to 380 Nm/280 ft-lbs; without code P99 150 Nm/110 ft-lbs, plus an additional 45°.
- [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°.
- [18] Driveshaft nut.
- [19] Loosen -180° then tighten to 313 ft-lbs/425 Nm.
- [20] Additional lock nut on 911 Carrera RS, 147 ft-lbs/200 Nm.
- [21] Nut less top groove, 214 ft-lbs/290 Nm; nut with top groove, 125 ft-lbs/170 Nm, and then turn an additional 45°.
- [22] After tightening to this value, turn an additional 30°.
- [23] After tightening to specification, turn an additional 45°.
- [24] Tighten 12 point nut to 200 Nm and release a half rotation. Rotate wheel hub 180°, then rotate further to 50 Nm +60°.
- [25] Torque to 42 ft-lbs/57 Nm. Turn the wheel while tightening. Loosen the nut half a turn and re-tighten to 1.1 ft-lbs/1.5 Nm (finger tight). Insert the cotter pin. If the holes do not line up, tighten nut to align.
- [26] With vehicle on ground, loosen 90 degrees. With vehicle off the ground and brakes applied, remove bolt. With 12-point bolt, tighten new bolt 148 ft-lbs/200 Nm. Lower vehicle onto its wheels and tighten an additional 180 degrees.
- [27] After tightening to specification, turn an additional 60°.
- [28] Tighten hub nut to 25 ft-lbs/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] Model 221 with code Z07 or Z19, tighten 390 Nm/273 ft-lbs.
- [30] Bolt, 199 ft-lbs/270 Nm; Nut 206 ft-lbs/280 Nm.
- [31] Drive Axle Hex combination bolt, tighten to 148 ft-lbs/200 Nm. With vehicle off the ground, lower vehicle onto its wheels and tighten an additional 180°. With 12 point bolt, tighten to 52 ft-lbs/70 Nm. With vehicle off the ground, lower vehicle onto its wheels and tighten an additional 90°.
- [32] With 302RBI rear axle.
- [33] Tighten to 110 ft-lbs/150 Nm with vehicle off ground. Install wheels and tighten to 368 ft-lbs/500 Nm. Always replace nut after removal.
- [34] With 10.5 or 11.5 rear Axle.
- [35] Tighten to 147 ft-lbs/200 Nm, with vehicle raised. Then turn an additional 180° when vehicle is on floor. Always replace after removal.

Axle nut footnote codes

- [36] Always replace nut/bolt after removal.
- [37] 1st: 148 ft-lbs/200 Nm, 2nd: loosen axle nut, 3rd: 251 ft-lbs/340 Nm.
- [38] M16 Bolt Hex head 148 ft-lbs/200 Nm, then an additional 180°. M16 Bolt 12 point 52 ft-lbs/70 Nm, then an additional 90°.
- [39] Hex bolt M 14: 85 ft-lbs/115 Nm with vehicle off the ground, then lower vehicle onto its wheels and tighten an additional 180°. Hex bolt M16: 148 ft-lbs/200 Nm with vehicle off the ground, then lower vehicle onto its wheels and tighten an additional 180°.
- [40] Maximum value shown. Torques value varies from 147.5-206.5 ft-lbs/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 ft-lbs/275 Nm; outer nut torque, 129 ft-lbs/175 Nm.
- [45] 1st: 111 ft-lbs/150 Nm. 2nd: Loosen 45°. 3rd: 185 ft-lbs/250 Nm.
- [46] With vehicle on ground, loosen axle nut 90°. With vehicle on the ground, remove bolt. Tighten new bolt to 111 ft-lbs/150 Nm. Lower vehicle onto wheels and tighten to 369 ft-lbs/500 Nm.
- [47] Without adjustment cap and washer, tighten 136 ft-lbs/185 Nm. With adjustment cap and washer, tighten 77 ft-lbs/105 Nm.
- [48] Tighten the hub nut to 22 ft-lbs/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 as shown below enough for secure placement of hub bearing. Unfasten hub bearing nut until its tightening torque is 0ft-lbs/0Nm. Hub bearing nut must be fastened again with torque 144 ft-lbs/196Nm. Assemble split pin. If the direction of split pin is not in line with the hole of knuckle unfasten hub bearing nut within 30° and assemble split pin.
- [50] Use special tool XZN18-T10162. 12 point bolt without ribs, tighten new bolt 148 ft-lbs/200 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 180 degrees. 12 point bolt with ribs, tighten new bolt 52 ft-lbs/70 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 90 degrees. Hex bolt: Tighten bolt to 148 ft-lbs/200 Nm. Lower vehicle onto wheels and tighten an additional 180 degrees.
- [51] With M14 bolt, tighten to 85 ft-lbs/115 Nm; with M16 bolt, tighten to 147 ft-lbs/200 Nm, if vehicle is raised. Only turn an additional 180° when vehicle is on floor. Always replace nut after removal.
- [52] Use new original equipment nut.
- [53] With M27, tighten thread to 310 ft-lbs/420 Nm; with M24, tighten thread to 185 ft-lbs/250 Nm.
- [54] Tighten old wheel hub, adjusting nut to 258 ft-lbs/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 ft-lbs/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 hex head bolt: With vehicle on ground, loosen 90 degrees. With vehicle off the ground and brakes applied, remove bolt. Tighten new bolt 148 ft-lbs/200 Nm. Lower vehicle onto its wheels and tighten an additional 180 degrees. With 12 point bolt: Use special tool XZN18-T10162. 12 point bolt without ribs, tighten new bolt 148 ft-lbs/200 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 180 degrees. 12 point bolt with ribs, tighten new bolt 52 ft-lbs/70 Nm with vehicle off the ground. Lower vehicle onto its wheels and tighten an additional 90 degrees.
- [56] Tighten to 111 ft-lbs/150 Nm. Back off 45 degrees and retighten to 184 ft-lbs/250 Nm.
- [57] With RPO Codes FE1 or FE3, 118 ft-lbs/160 Nm; with RPO Code FE7, 170 ft-lbs/230 Nm.
- [58] Models with FE7 suspension 147 ft-lbs/200 Nm.
- [59] Tighten hub nut to 12 ft-lbs/16 Nm while rotating wheel. Back off and finger tighten. Back off slightly to install cotter pin.
- [60] Tighten in three steps: First, 111 ft-lbs/150 Nm; second, loosen 45 degrees; last, tighten 185 ft-lbs/250 Nm.
- [61] With manual locking hubs: Tighten adjusting nut to 50 ft-lbs/68 Nm while turning hub. Back off and retighten to 50 ft-lbs/68 Nm. Back off to 0. Install ring and tighten locknut to 160 ft-lbs/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 ft-lbs/68 Nm while turning hub. Back off and retighten to 35 ft-lbs/47 Nm. Back off 3/8 turn. Install ring and tighten locknut to 160 ft-lbs/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.

Axle nut footnote codes

- [62] Tighten hub bearing adjustment nut to 22 ft-lbs/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 ft-lbs.). NOTE: This will set hub to zero end-play.
- [64] With M27 thread, tighten to 310 ft-lbs/420 Nm; with M24 thread, tighten to 106 ft-lbs/145 Nm, then turn additional 45°. Always replace nut after removal.
- [65] Rear spindle nut with dual pump system, 245 Nm/181 ft-lbs; with real time AWD system, 181 Nm/133 ft-lbs.
- [66] After tightening to specification, turn an additional 45°. Always replace nut/bolt after removal.
- [67] Tighten to 111 ft-lbs/150 Nm. Loosen 180°, then tighten to 313 ft-lbs/425 Nm. Always replace nut after removal.
- [68] There are two types of wheel drive shaft nuts, both of which have different tightening torque specifications. Check the style nut that is on the vehicle when staking the nut. Style 1 nut has the thin collar (1.5 mm) thickness. Style 2 nut has the thick collar (2.7 mm) thickness. For Style 1, 244 ft-lbs/330 Nm. For Style 2, First Pass: 37 ft-lbs/50 Nm; Final Pass: plus 60°. Stake style one nut and make sure not to fracture the nut. Stake style two nut and evenly split nut and ensure it is fully staked. Each side of the stake should be in contact approximately 45° to each side of the slot.
- [69] For 9 1/4 Front axle, tighten axle nut to 132 ft-lbs/179 Nm. (Rotate axle 5-10 times to seat wheel bearing for wheel bearing replacement). Final torque of 263 ft-lbs/356 Nm. Align nut to next cotter pin hole and install new cotter pin.
- [70] For 275FBI Front Axle, install hub nut and tighten to 243 ft-lbs/330 Nm. Bend axle shaft hub nut collar into axle key way with a hammer and punch.
- [71] Tighten 160 Nm/118 ft-lbs, back off nut, tighten 120 Nm/88 ft-lbs, final torque additional 90°.
- [72] Tighten self locking 350 Nm/258 ft-lbs; without self locking, 170 Nm/125 ft-lbs then tighten additional 45°.
- [73] Tighten self locking 350 Nm/258 ft-lbs; without self locking 320 Nm/236 ft-lbs.
- [74] Tighten 150 Nm/110 ft-lbs plus additional 45°.
- [75] Tighten 250 Nm/184 ft-lbs, loosen 180°, 200 Nm/147 ft-lbs plus additional 30°.
- [76] Tighten 250 Nm/184 ft-lbs plus additional 45°.
- [77] Use new nut. After installing nut, stake nut shoulder against spindle. The nut must be replaced if it splits or cracks.
- [78] Quattro only.
- [79] Tighten to 144-188 ft-lbs/196-255 Nm.
- [80] Tighten to 144-202 ft-lbs/200-280 Nm.
- [81] Tighten drive nut to 74-110 ft-lbs/100-150 Nm, loosen 180°, then tighten to 175-202 ft-lbs/236-274 Nm.
- [82] Maximum value shown; torque varies from 174-202 ft-lbs/236-275 Nm.
- [83] Collar bolt: With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, tighten new bolt to 147 ft-lbs/200 Nm. Install wheels and lower the vehicle onto its wheels. Tighten the axle shaft bolt an additional 180°. Always replace bolt after removal. 12 point nut: With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, tighten new nut to 110 ft-lbs/150 Nm. Install wheels and lower the vehicle onto its wheels. Tighten the axle shaft nut to 368 ft-lbs/500 Nm. Always replace nut after removal.
- [84] Front axle: torque with castle nut, 129 ft-lbs/176 Nm; torque with flange nut, 184 ft-lbs/250 Nm.
- [85] Tighten to 37 ft-lbs/50 Nm, then an additional 155°. Replace collar bolt and springs.
- [86] Turn an additional 70°.
- [87] Tighten to 258 ft-lbs/350 Nm. Loosen 180°, then tighten to 273 ft-lbs/370 Nm. Always use a new nut. Stake new nut.
- [88] Tighten to 74-77 ft-lbs/100-105 Nm. Stake the new wheel hub locknut (Q50 models and 2014 -17 Q70 Hybrid, only, 2019 Q70 3.7L). Always use a new wheel hub lock nut.
- [89] Tighten to 87-90 ft-lbs/118-123 Nm.
- [90] Tighten to 161-164 ft-lbs/218-223 Nm.
- [91] Tighten to 88 ft-lbs/120 Nm, loosen, tighten to 110 ft-lbs/150 Nm, then turn an additional 45°.
- [92] Except Code Z07.
- [93] Tighten to 118 ft-lbs/160 Nm, loosen 90°. Tighten to 162 ft-lbs/220 Nm. Turn an additional 45°.
- [94] Turn an additional 120°.
- [95] With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, tighten new bolt to 147 ft-lbs/200 Nm. Install wheels and lower the vehicle onto its wheels. Tighten the axle shaft bolt an additional 180°. Always replace bolt after removal.
- [96] Use new spring washer and nut. Tighten nut to 166 ft-lbs/225 Nm, loosen the nut, then tighten to 258 ft-lbs/350 Nm.
- [97] Tighten to 111 ft-lbs/150 Nm, then loosen 90°. Tighten to 52 ft-lbs/70 Nm then turn an additional 63°.
- [98] Turn an additional 63°.

Axle nut footnote codes

- [99] Pre-tighten the nut to 52 ft-lbs/70 Nm, then turn an additional 61–65°. Apply a final torque of 247 ft-lbs/335 Nm. After final torque, stake nut.
- [100] Torque the old axle nut to 214 ft-lbs/290 Nm. Remove and discard axle nut. Torque new axle nut to 88 ft-lbs/120 Nm, then an additional 60°.
- [101] Always replace nut after removal. Before wheel bearing housing is installed, tighten nut to 96 ft-lbs/130 Nm. When the wheel bearing housing is fitted, tighten nut to 340 ft-lbs/460 Nm.
- [102] Model 222 with code Z07.
- [103] 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 hub nut. Do not attempt to tighten the nut with the vehicle on the ground or the wheel bearing will be damaged.
- [104] Tighten to 147 ft-lbs/200 Nm. Lower vehicle onto its wheels. With black bolt, turn an additional 180°. With silver bolt, turn an additional 90°. Always replace after removal.
- [105] Use new nut. Tighten to 92 ft-lbs/125 Nm. Loosen 180° then retighten to 188 ft-lbs/255 Nm.
- [106] Use new nut. Tighten to 111 ft-lbs/150 Nm. Loosen 45° then retighten to 199 ft-lbs/270 Nm.
- [107] Use new nut. After installation, if necessary stake the nut as required.
- [108] Use new nut. Tighten to 37 ft-lbs/50 Nm. Loosen 45° then retighten to 199 ft-lbs/270 Nm.
- [109] Tighten hub bearing nut to 37 ft-lbs/50 Nm while rotating hub. Back off nut about 50° and align hub nut key slot with axle tube key slot and install locking key. Hub endplay should be .001-.010 inch.
- [110] For 9° front axle, tighten axle nut to 132 ft-lbs/179 Nm. Rotate the axle 5 to 10 times to seat the wheel bearing. Tighten the axle nut to 263 ft-lbs/356 Nm.
- [111] Turn an additional 47°.
- [112] Tighten to 184 ft-lbs/250 Nm, then loosen 180° and tighten to 148 ft-lbs/200 Nm.
- [113] Model 221.
- [114] Model 217 and 222.
- [115] Replace washer on driveshaft with a new one.
- [116] Use new nut. Torque to 92 ft-lbs/125 Nm. Turn an additional 180°. Torque to 188 ft-lbs/255 Nm.
- [117] Tighten to 74-77 ft-lbs/100-105 Nm. Stake the new wheel hub locknut. Always use a new wheel hub locknut.
- [118] Tighten to 111 ft-lbs/150 Nm. Loosen 90°. Tighten to 59 ft-lbs/80 Nm. Turn an additional 60°. Use new nut.
- [119] Tighten to 74-110 ft-lbs/100-150 Nm. Loosen 180°. Tighten to 192-221 ft-lbs/260-300 Nm.
- [120] Replace nut. Tighten an additional 30°.
- [121] Tighten to 166-202 ft-lbs/226-275 Nm.
- [122] Tighten to 179-219 ft-lbs/226-275 Nm.
- [123] With vehicle on the ground, loosen 90°. With vehicle off the ground and brakes applied, remove bolt. With 12-point bolt, tighten new bolt to 148 ft-lbs/200 Nm. Lower vehicle onto its wheels and tighten an additional 90°.
- [124] Torque the old axle nut to 129 ft-lbs/175 Nm. Remove and discard axle nut. Torque new axle nut to 88 ft-lbs/120 Nm, then an additional 60°.
- [125] Torque the old axle nut to 129 ft-lbs/175 Nm. Remove and discard axle nut. Torque new axle nut to 74 ft-lbs/100 Nm, then an additional 90°.
- [126] Torque the old axle nut to 129 ft-lbs/175 Nm. Remove and discard axle nut. Torque new axle nut to 59 ft-lbs/80 Nm, then an additional 60°.
- [127] Torque the old axle nut to 125 ft-lbs/170 Nm. Remove and discard axle nut. Torque new axle nut to 129 ft-lbs/175 Nm, Loosen 90°. Tighten to 74 ft-lbs/100 Nm. Turn an additional 90°. Use new nut.
- [128] Torque the old axle nut to 110 ft-lbs/150 Nm. Remove and discard axle nut. Torque new axle nut to 59 ft-lbs/80 Nm, then an additional 60°.
- [129] Tighten new hub nut to 244 ft-lbs/330nm. Loosen 45°. Tighten additional 199 ft-lbs/270nm.
- [130] Use new nut. Tighten to 210 ft-lbs/285 Nm. Loosen 360° then retighten to 185 ft-lbs/250 Nm.
- [131] Tighten to 70 ft-lbs/95 Nm reverse the nut 30° and align to nearest notch.
- [132] Tighten hub nut to 95 Nm (70 ft- lbs.) while rotating the hub. Then back off nut 1 full turn andCars,2090 retighten nut to 35 Nm (26 ft-lbs.) Back off reverse the nut 25° and align to nearest notch not to exceed 30°.
- [133] Torque the old axle nut to 129 ft-lbs/175 Nm. Remove and discard axle nut. Torque new axle nut to 59 ft-lbs/80 Nm, then an additional 60°.
- [134] With post VIN code 1N4BZ1CP8KC303774 tighten nut to 129 ft-lbs/175 Nm. With prior VIN code 1N4BZ1CP8KC303774 Use new nut, tighten nut to 81 ft-lbs/110 Nm stake the nut.

Axle nut footnote codes

- [135] 2019 models with silver colored bolt tighten to 148 ft-lbs/200 Nm. Then turn an additional 90° when vehicle is on floor. Always replace after removal.
- [136] Replace nut. Tighten additional 60°.
- [137] Tighten new hub nut to 111 ft-lbs/150nm. Loosen 45°. Tighten additional 199 ft-lbs/270nm.
- [138] Tighten new hub nut to 216 ft-lbs/293nm. Loosen 45°. Tighten additional 185 ft-lbs/250nm.
- [139] Tighten new hub nut to 111 ft-lbs/150nm. Loosen 45°. Tighten additional 214 ft-lbs/290nm.
- [140] Tighten new hub nut to 133 ft-lbs/180nm. Loosen 45°. Tighten additional 199 ft-lbs/270nm.
- [141] Install new split pin after tightening.
- [142] Use new fastener. After tightening, turn an additional 35°.
- [143] Tighten new nut to 221 ft-lbs/300 nm, loosen 90°, tighten to 74 ft-lbs/100 nm and then turn an additional 90°.
- [144] Tighten new nut to 129 ft-lbs/175 nm, loosen 90°, tighten to 59 ft-lbs/80 nm and then turn an additional 60°.
- [145] Tighten new nut to 129 ft-lbs/175 nm, loosen 90°, tighten to 66 ft-lbs/90 nm and then turn an additional 60°.
- [146] Tighten new nut to 103 ft-lbs/140 nm, loosen 45°, tighten to 89 ft-lbs/120 nm and then turn an additional 90°.
- [147] Tighten to 184 ft-lbs/250 Nm, then loosen 180° and tighten to 148 ft-lbs/200 Nm plus 30°.

Section 2

Hub Mounting torque

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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ACURA

3.5RL.....		2005-08.....	72/98.....	72/98
ILX.....		2013-21.....	-.....	47/64
MDX.....		2007-13.....	72/98.....	72/98
		2014-20.....	-.....	72/98
NSX.....		2000-05.....	47/64.....	47/64
		2017-21.....	72/98 [66].....	72/98 [66]
RDX.....		2007-18.....	-.....	72/98
		2019-21.....	-.....	80/108 [66]
RL.....		2009-12.....	72/98.....	72/98
RLX.....		2014-20.....	-.....	72/98
TL.....		2009-14.....	-.....	76/103
TLX.....		2015-20.....	-.....	76/103
		2021.....	-.....	72/98 [66]
TSX.....		2004-09.....	-.....	47/64
		2010-14.....	-.....	72/98
ZDX.....		2010-13.....	72/98.....	72/98

ALFA ROMEO

4C.....		2015-2020.....	- [63].....	- [63]
Giulia.....		2017-2021.....	74/100.....	74/100
Stelvio.....		2018-2021.....	74/100.....	74/100

AM GENERAL

Hummer H2.....		2003-09.....	133/180.....	-
Hummer H3.....		2006-10.....	133/180.....	-
Hummer H3T.....		2009-10.....	133/180.....	-

AUDI

A3.....		2006-13.....	52/70 [1][29].....	-
		2015-20.....	52/70 [1][29].....	-
A3 Sportback E-Tron.....		2016-18.....	52/70 [1][29].....	-
A3 Quattro.....		2006-13.....	52/70 [1][29].....	52/70 [1][29]
		2015-20.....	52/70 [1][29].....	59/80 [1][29]
A4.....		2006-16.....	59/80 [1][29].....	59/80 [1][29]
		2017-21.....	59/80 [1][29].....	-
A4 Quattro.....		2006-21.....	59/80 [1][29].....	59/80 [1][29]
A5.....		2010-14.....	59/80 [1][29].....	59/80 [1][29]
A5 Quattro.....		2008-21.....	59/80 [1][29].....	59/80 [1][29]
A5 Sportback.....		2018-21.....	59/80 [1][29].....	59/80 [1][29]
A6.....		2002-20.....	59/80 [1][29].....	-
A6 Quattro.....		2005-21.....	59/80 [1][29].....	59/80 [1][29]
A6 Allroad.....		2020-21.....	59/80 [1][29].....	59/80 [1][29]
A7 Quattro.....		2012-21.....	59/80 [1][29].....	59/80 [1][29]
A8 Quattro.....		2000-21.....	59/80 [1][29].....	59/80 [1][29]
Allroad Quattro.....		2013-21.....	59/80 [1][29].....	59/80 [1][29]
Q3.....		2015-21.....	52/70 [1][29].....	-
Q3 Quattro.....		2015-21.....	52/70 [1][29].....	52/70 [1][29]
Q5, Q5 PHV, Q5 Sportback.....		2009-21.....	59/80 [1][29].....	59/80 [1][29]
Q7.....		2017-21.....	59/80 [1][29].....	59/80 [1][29]
Q8.....		2019-21.....	59/80 [1][29].....	59/80 [1][29]
R8.....		2008-15, 2017-21.....	59/80 [1][29].....	59/80 [1][29]
RS3.....		2017-20.....	52/70 [1][29].....	59/80 [1][29]
RS4.....		2007-08.....	59/80 [1][29].....	59/80 [1][29]
RS5.....		2013-15.....	59/80 [1][29].....	59/80 [1][29]
		2018-21.....	59/80 [1][29].....	59/80 [1][29]
RS6 Avant.....		2021.....	59/80 [1][29].....	59/80 [1][29]
RS7.....		2014-21.....	59/80 [1][29].....	59/80 [1][29]
S3.....		2015-20.....	52/70 [1][29].....	59/80 [1][29]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
AUDI - cont.				
S4		2002-16	59/80 [1][29]	59/80 [1][29]
		2018-21	59/80 [1][29]	59/80 [1][29]
S5, S5 Sportback		2008-21	59/80 [1][29]	59/80 [1][29]
S6		2007-21	59/80 [1][29]	59/80 [1][29]
S7		2013-21	59/80 [1][29]	59/80 [1][29]
S8		2009	37/50 [1][29]	-
		2013-20	59/80 [1][29]	59/80 [1][29]
SQ5, SQ5 Sportback		2014-21	59/80 [1][29]	59/80 [1][29]
SQ7		2020-21	59/80 [1][29]	59/80 [1][29]
SQ8		2020-21	59/80 [1][29]	59/80 [1][29]
TT		2008-09	52/70 [1][29]	-
TT Quattro, TT S Quattro, TT		2008-14	52/70 [1][29]	52/70 [1][29]
RS Quattro		2015-21	52/70 [1][29]	59/80 [1][29]
BMW				
1M		2011	81/110	-
128i		2008-13	81/110 [29]	-
135i, 135is		2008-13	81/110 [29]	-
228i, 228xi Coupe		2014-16	59/80 [1][29]	-
228XG		2020-21	89/120 [1][29]	74/100 [29]
230i, 230xi		2017-21	59/80 [1][29]	-
320i, 320xi		2013-18	59/80 [1][29]	-
328d Sedan, xDrive		2014-18	59/80 [1][29]	-
328i		2008-11	81/110 [29]	-
328i Coupe/Conv.		2012-13	81/110 [29]	-
328i Sedan		2012-16	59/80 [1][29]	-
328xi Sedan		2013-16	59/80 [1][29]	-
328xi		2008-12	-	-
330e		2016-18	59/80 [1][29]	-
		2021	[29][75]	-
330i, 330xi		2016-17	59/80 [1][29]	-
		2018-21	[29][75]	-
335D		2009-11	81/110 [29]	-
335i		2008-11	81/110 [29]	-
335i Coupe/Conv.		2012	81/110 [29]	-
335i Sedan		2012-15	59/80 [1][29]	-
335is		2011-13	81/110 [29]	-
335xi		2008-16	59/80 [1][29]	-
340i/xi		2016-19	59/80[1][29]	-
428i, ixDrive		2014-16	59/80[1][29]	-
430i, 430xi		2017-20	59/80 [1][29]	-
		2021	[29][75]	[29][75]
435i/xi		2014-16	59/80[1][29]	-
440i, 440xi		2017-20	59/80 [1][29]	-
528i		2008-10	81/110 [29]	22/30 [13][29]
		2011-16	59/80 [1][29][39]	74/100 [29]
528xi		2008-10	81/110 [29]	22/30 [13][29]
		2012-16	59/80 [1][29][39]	74/100 [29]
530i		2007	81/110 [29]	22/30 [13][29]
		2017-21	[29][75]	[29][75]
530xi		2007	81/110 [29]	22/30 [13][29]
		2017-21	[29][75]	[29][75]
535d, ixDrive		2014-16	59/80[1][29][39]	74/100 [29]
535i		2008-09	81/110 [29]	22/30 [13][29]
		2011-16	59/80 [1][29][39]	74/100 [29]
535xi Wagon		2008-09	81/110 [29]	74/100 [29]
535xi		2011-17	59/80 [1][29][39]	74/100 [29]
540i, 540xi		2017-21	[29][75]	[29][75]
550i		2007-09	81/110[29]	22/30 [13][29]
		2011-16	59/80 [1][29][39]	74/100 [29]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
BMW - cont.				
550xi.....		2011-17.....	59/80 [1][29][39]..	74/100 [29]
640i.....		2012-19.....	59/80[1][29][39]..	74/100 [29]
640i xDrive.....		2014-19.....	58/80[1][29][39]..	74/100 [29]
650i.....		2007-09.....	81/110 [29].....	74/100 [29]
		2012-19.....	59/80 [1][29][39]..	74/100 [29]
650xi.....		2012-19.....	59/80 [1][29][39]..	74/100 [29]
740e.....		2017-19.....	89/120 [1][29].....	89/120 [1][29]
740i.....		2011-15.....	59/80 [1][29][39]..	74/100 [29]
		2016-21.....	[29][75].....	[29][75]
740LD.....		2015.....	59/80 [1][29][39]..	74/100 [29]
740Li.....		2011-15.....	59/80 [1][29][39]..	74/100 [29]
740Li xDrive.....		2014-15.....	58/80[1][29][39]..	74/100 [29]
740xi.....		2013.....	59/80 [1][29][39]..	74/100 [29]
		2017-21.....	[29][75].....	[29][75]
745i.....		2002-05.....	-.....	74/100 [29]
745Li.....		2002-05.....	-.....	74/100 [29]
745EX.....		2020-21.....	[29][75].....	[29][75]
750i.....		2006-09.....	81/110 [29].....	74/100 [29]
		2010-15.....	59/80 [1][29][39]..	74/100 [29]
		2016-19.....	89/120[1][29].....	89/120[1][29]
750Li.....		2007-09.....	81/110 [29].....	74/100 [29]
		2010-15.....	59/80 [1][29][39]..	74/100 [29]
750Li xDrive.....		2014-15.....	58/80[1][29][39]..	74/100 [29]
750xi.....		2012-14.....	59/80 [1][29][39]..	74/100 [29]
		2016-21.....	[29][75].....	[29][75]
760i.....		2004-06.....	81/110 [29].....	74/100 [29]
760Li.....		2003-08.....	81/110 [29].....	74/100 [29]
		2010-15.....	59/80 [1][29][39]..	74/100 [29]
840i, 840i xDrive, 840i Gran Coupe.....		2020-21.....	[29][75].....	[29][75]
840i xDrive Gran Coupe				
Active Hybrid 3.....		2013-15.....	59/80 [1][29].....	-
Active Hybrid 5.....		2013-16.....	59/80 [1][29][39]..	74/100 [29]
Active Hybrid 7.....		2013-15.....	59/80 [1][29][39]..	74/100 [29]
i3.....		2014-21.....	59/80 [1][29].....	[62]
i8.....		2014-17.....	[62].....	[62]
		2019-20.....	[62].....	[62]
M2.....		2016-21.....	[62].....	59/80 [1][29]
M235i, M235i xDrive.....		2014-16.....	58/80 [1][29].....	-
M235i xDrive Gran Coupe.....		2020-21.....	88/120[1][29].....	74/100[1][29]
M240i, M240i xDrive.....		2017-21.....	59/80 [1][29].....	-
M3.....		2008-13.....	81/110 [29].....	-
		2015-18.....	[62].....	59/80 [1][29]
		2021.....	[29][75].....	89/120 [1][29]
M340i, M340i xDrive.....		2020-21.....	[29][75].....	[29][75]
M4.....		2015-20.....	[62].....	59/80 [1][29]
		2021.....	[29][75].....	89/120 [1][29]
M440i xDrive.....		2021.....	[29][75].....	[29][75]
M5.....		2006-10.....	81/110 [29].....	22/30 [13][29]
		2013-16.....	59/80 [1][29].....	74/100 [29]
		2018-21.....	[29][75].....	[29][75]
M550i xDrive.....		2018-21.....		
M6.....		2007.....	81/110 [29].....	22/30 [13][29]
		2008-09.....	81/110 [29].....	74/100 [29]
		2012-19.....	59/80 [1][29][39]..	74/100 [29]
M760i.....		2017-21.....	[29][75].....	[29][75]
M8.....		2020-21.....	[29][75].....	[29][75]
M850i.....		2019-21.....	[29][75].....	-
M850i Gran Coupe.....		2020-21.....	[29][75].....	-
M850i xDrive.....		2019-21.....	[29][75].....	[29][75]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
BMW - cont.				
M850i xDrive Gran Coupe		2020-21	[29][75]	[29][75]
X1		2013-15	59/80 [1][29]	22/30 [13]
		2016-21	88/120[1][29]	74/100[1][29]
X2		2018-21	88/120[1][29]	74/100[1][29]
		2011-17	59/80 [1][29]	74/100 [29]
X3		2018-21	[29][75]	[29][75]
		2015-17	59/80 [1][29]	74/100 [29]
X4		2018-21	[29][75]	[29][75]
		2000-06	-	74/100 [29]
X5		2007	59/80 [1][29]	-
		2008-14	59/80 [1][29]	74/100 [29]
		2015-18	59/80 [1][29]	74/100 [3][29]
		2019-21	[29][75]	[29][75]
		2008-14	59/80 [1][29]	74/100 [29]
X6		2015-19	59/80 [1][29]	74/100 [3][29]
		2020-21	[29][75]	[29][75]
		2020-21	[29][75]	[29][75]
X7		2020-21	[29][75]	[29][75]
Z4		2009-16	81/110 [29]	-
		2020-21	[29][75]	[29][75]
BUICK				
Allure		2005-09	96/130	55/75
Cascada		2016-19	66/90 [46]	37/50 [9][68]
Century		2000-05	96/130	55/75
Enclave		2008	103/140	103/140
		2009-16	89/121	96/130
		2017-21	74/100 [69][49]	74/100 [69][49]
Encore		2013-21	-	43/58
Encore GX		2020-21	74/100 [66][72]	43/58 [66][73]
Envision		2016-21	74/100 [70]	74/100 [32]
Lacrosse		2005-09	96/130	55/75
		2010-16	74/100 [29][46]	66/90 [12][29]
		2017-19	74/100 [29][46]	74/100 [32]
LeSabre		2000-05	70/95	52/71
Lucerne		2006-11	96/130	50/68
Park Avenue		2000-05	70/95	52/71
Rainier		2004-07	77/104	-
Regal		2000-04	96/130	55/75
		2011	74/100 [12]	66/89 [12]
		2012-17	74/100 [29][46]	66/89 [12][29]
		2018-20	74/100 [29][46]	74/100 [29][49]
Rendezvous		2002-07	96/130 [7]	[21]
Terraza		2005	96/130	96/130 [10]
		2006-07	96/130	[11]
Verano		2012-13	[24]	37/50 [5]
		2014-16	74/100 [33]	37/50 [9]
		2017	[24]	37/50 [47]
CADILLAC				
ATS	Non V-Series W/RWD	2013-19	87/118	96/130
		2013-19	96/130	96/130
		2016-19	74/100 [49]	96/130
Catera		2000-01	-	221/300
		2020-21	74/100 [49][71]	74/100 [49][71]
CT4		2020-21	74/100 [49][71]	74/100 [49][71]
CT5		2020-21	74/100 [49][71]	74/100 [49][71]
CT6		2016-18	92/125	92/125
		2019-20	74/100 [46][71]	74/100 [46][71]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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CADILLAC - cont.

CTS.....		2003-07.....	100/136.....	92/125
		2008.....	100/136.....	100/136
		2009-13.....	100/136.....	103/140
	Coupe, Sport Wagon, V-Series	2014.....	100/135.....	103/140
	Sedan AWD.....	2014-15.....	96/130.....	96/130
	Sedan RWD.....	2014-15.....	87/118.....	96/130
	Non V-Series W/RWD.....	2016-19.....	87/118.....	96/130
	Non V-Series W/AWD.....	2016-19.....	96/130.....	96/130
	V-Series.....	2016-19.....	74/100 [49].....	96/130
Deville w/FE1, FE3.....		2000-05.....	96/130.....	50/68
Deville w/FE7.....		2000-05.....	112/152.....	87/118
DTS w/FE1, FE3.....		2006-11.....	96/130.....	50/68
DTS w/FE7.....		2006-11.....	112/152.....	112/152
Eldorado.....		2000-02.....	70/95.....	52/71
ELR.....		2014.....	74/100 [32].....	37/50 [9]
		2016.....	74/100 [32].....	37/50 [9]
Escalade.....		2000-21.....	133/180.....	-
Escalade ESV.....		2003-21.....	133/180.....	-
Escalade EXT.....		2002-13.....	133/180.....	-
Seville.....		2000-04.....	96/130.....	50/68
SRX.....		2004-09.....	100/136.....	92/125
		2010-11.....	81/110.....	81/110
		2012-14.....	125/170.....	125/170
		2015-16.....	125/170.....	89/120 [9]
STS.....		2005-11.....	100/136.....	92/125
XLR.....		2004-09.....	96/130.....	96/130
XT4.....		2019-21.....	74/100 [29][46]...	74/100 [32][29]
XT5.....		2017-21.....	74/100 [71][72]...	74/100 [32][71]
XT6.....		2020-21.....	74/100 [71][72]...	74/100 [32][71]
XTS.....		2013-16.....	74/100 [29][46]...	66/90 [12][29]
		2017-19.....	74/100 [29][46]...	66/90 [29][46]

CHEVROLET

Aveo.....		2004-11.....	-.....	30/41
Aveo5.....		2007-11.....	-.....	30/41
Bolt.....		2017-21.....	48/65 [9].....	43/58
Camaro.....		2000.....	70/95.....	-
		2001-02.....	63/85.....	-
	w/V-6.....	2010-15.....	85/115.....	85/115
	w/V-8.....	2010-15.....	74/100 [30].....	85/115
		2016-21.....	74/100 [32][45]...	96/130 [45]
Caprice PPV.....		2012-13.....	74/100 [30].....	-
		2014-17.....	74/100 [33].....	-
Cavalier.....		2000-05.....	70/95.....	44/60
Classic.....		2004-05.....	70/95.....	62/84
Cobalt.....		2005-10.....	85/115.....	33/45 [6]
Corvette.....		2000-19.....	96/130 [45].....	96/130 [45]
		2020-21.....	74/100 [49].....	74/100 [77]
Corvette ZR-1.....		2009-13.....	96/130.....	96/130 [19]
Cruze.....		2011-13.....	66/90 [24].....	37/50 [5]
		2014-15.....	74/100 [33].....	37/50 [9]
	Old Body Style.....	2016.....	74/100 [33].....	37/50 [9]
	New Body Style.....	2016.....	66/90 [29][46].....	37/50 [29][46]
		2017-19.....	66/90 [29][46].....	37/50 [29][46]
HHR.....		2006-11.....	85/115.....	33/45 [6]
Impala.....		2000-13.....	96/130.....	55/75
		2014-20.....	74/100 [46].....	66/90 [12][29]
Impala Limited.....		2014-16.....	96/130 [29].....	55/75
Lumina.....		2000-01.....	52/71.....	52/71

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
CHEVROLET - cont.				
Malibu.....		2000-03.....	70/95.....	62/84
		2004-12.....	85/115.....	47/64
		2013-15.....	74/100 [29][46]...	66/90 [12]
		2016-21.....	74/100 [29][46]...	74/100 [29][32]
Malibu Limited.....		2016.....	74/100 [29][45]...	66/90 [12]
Malibu Maxx.....		2004-07.....	85/115.....	47/64
Monte Carlo.....		2000-07.....	96/130.....	55/75
Orlando.....		2013-14.....	66/90 [24].....	37/50 [5]
Prizm.....		2000-02.....	-.....	59/80
Sonic.....		2012-20.....	-.....	43/58
Spark.....		2013-15.....	-.....	59/80
		2016-21.....	-.....	43/58
Spark EV.....		2014-16.....	-.....	43/58
SS.....		2014-17.....	74/100 [33].....	-
Uplander.....		2005.....	96/130.....	96/130 [10]
		2006-09.....	96/130.....	59/80
Venture Mini-Van.....		2000.....	96/130 [7].....	63/85
	2WD.....	2001-05.....	96/130 [7].....	59/80
	4WD.....	2001-05.....	96/130 [7].....	96/130
Volt.....		2011-19.....	74/100 [32].....	37/50 [9]

CHEVROLET TRUCKS				
Astro Van 4WD.....		2000-02.....	66/89.....	-
Astro Van.....		2003-05.....	133/180.....	-
Avalanche.....		2002-13.....	133/180.....	-
Blazer.....		2019-21.....	74/100 [71][72]...	74/100 [32][71]
Captiva Sport.....		2012-15.....	96/130.....	55/75
City Express.....		2015-18.....	65/88.....	125/169
Colorado.....		2004-08.....	81/110.....	-
		2009-12.....	96/130.....	-
		2015-21.....	96/130.....	-
Equinox.....		2005-06.....	96/130.....	62/84
		2007-09.....	96/130.....	55/75
		2010-17.....	74/100.....	52/71
		2018-21.....	74/100 [70].....	74/100 [49]
G1500 Van.....		2003-14.....	133/180.....	-
G2500 Van.....		2003-21.....	133/180.....	-
G3500 Van.....		2003-21.....	133/180.....	-
G4500.....		2012-21.....	133/180.....	-
H1500 Van.....		2003-14.....	133/180.....	-
H2500 Van.....		2003-05.....	133/180.....	-
K3500 4WD.....		2000.....	133/180.....	-
S Series Blazer.....				
	2WD.....	2001-03.....	95/129.....	-
	4WD.....	2000-05.....	77/104.....	-
S10 Pickup 4WD.....		2000-04.....	77/104.....	-
Silverado 1500.....		2000-18.....	133/180.....	-
		2019-21.....	111/150 [73].....	-
Silverado 1500 LD.....		2019.....	133/180.....	-
Silverado 2500.....		2000-21.....	133/180.....	-
Silverado 3500.....		2001-21.....	133/180.....	-
SSR.....		2003-06.....	77/104.....	-
Suburban.....		2000-21.....	133/180.....	-
Suburban 3500.....		2016-19.....	133/180.....	-
Tahoe.....		2000-21.....	133/180.....	-
Tracker.....		2000-04.....	159/216.....	-
Trailblazer.....		2002-09.....	77/104.....	-

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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CHEVROLET TRUCKS - cont.

Traverse.....	2009-16.....	89/121.....	96/130
		2017.....	74/100 [72][29]...	96/130
		2018-21.....	74/100 [72][29]...	74/100 [49][29]
Trax.....	.....	2015-21.....	-.....	43/58

CHRYSLER

200.....	.....	2011-14.....	35/48.....	77/105			
200 AWD.....	.....	2015-17.....	70/95 [29].....	70/95 [29]			
200 FWD.....	.....	2015-17.....	70/95 [29].....	-			
300 AWD.....	.....	2005-14.....	50/68.....	50/68			
		2015-17.....	41/55.....	44/60				
		2018-21.....	50/68.....	50/68				
300 RWD.....	.....	2005-14.....	-.....	50/68			
		2015-16.....	41/55.....	44/60				
		2017.....	74/100.....	44/60				
		2018-21.....	74/100.....	50/68				
300M.....	.....	2000-04.....	81/110.....	-			
Aspen.....	.....	2007-09.....	120/163.....	-			
Concorde.....	.....	2000-04.....	81/110.....	-			
Crossfire.....	.....	2004-08.....	8/11.....	-			
Grand Voyager.....	.....	2000.....	45/61.....	-			
Intrepid.....	.....	2000-04.....	81/110.....	-			
LHS.....	.....	2000-01.....	81/110.....	-			
Pacifica.....	.....	2004-08.....	45/61.....	60/81			
		2017-21.....	44/57 [29].....	59/80				
Prowler.....	.....	2001-02.....	45/61.....	80/108			
Sebring.....	.....	.....	.....	.....
					Convertible.....	2000-05.....	65/88.....	-
					2006.....	80/108.....	-
					2007.....	65/88.....	77/104
					2008-10.....	60/81.....	77/104
Sebring Coupe.....	.....	.....	.....	.....
					2000.....	65/88.....	60/81	
Sebring Sedan.....	.....	.....	.....	.....
					2001-05.....	65/88.....	53/72	
Town & Country.....	.....	.....	.....	.....
					2001-06.....	80/108.....	-	
					2007-10.....	60/81.....	77/104	
Voyager.....	.....	.....	.....	.....
					2000-07.....	45/61.....	95/129	
Voyager.....	.....	.....	.....	.....
					2008-16.....	37/50.....	41/56	
					2000-03.....	45/61.....	95/129	
Voyager.....	.....	.....	.....	.....
					2020-21.....	44/57 [29].....	59/80	

DODGE

Avenger.....	.....	2000.....	65/88.....	65/88
		2008-14.....	35/48.....	77/104
Caliber.....	.....	2007-12.....	-.....	77/104
Caliber SRT-4.....	.....	2008-09.....	60/81.....	77/104
Caravan.....	.....	2000-07.....	45/61.....	95/129
Challenger.....	.....	2008-14.....	-.....	50/68
		2015-16.....	41/55.....	44/60
Challenger AWD.....	.....	2017.....	41/55.....	44/60
		2018-21.....	50/68.....	50/68
Challenger RWD.....	.....	2017.....	74/100.....	44/60
		2018-21.....	74/100.....	50/68
Charger AWD.....	.....	2006-14.....	50/68.....	50/68
		2015-17.....	41/55.....	44/60
		2018-21.....	50/68.....	50/68

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
DODGE - cont.				
Charger RWD.....		2006-14.....	-.....	50/68
		2015-16.....	41/55.....	44/60
		2017.....	74/100.....	44/60
		2018-21.....	74/100.....	50/68
Dart.....		2013-16.....	70/95.....	-
Grand Caravan.....		2000-07.....	45/61.....	95/129
		2008-17.....	37/50.....	41/56
		2018-20.....	35/48.....	41/56
Intrepid.....		2000-04.....	81/110.....	-
Journey.....		2009-10.....	35/48.....	44/60
		2011-20.....	35/48.....	45/61
		2005-08.....	50/68.....	50/68
Magnum AWD.....		2005-08.....	-.....	50/68
Magnum RWD.....		2005-08.....	-.....	50/68
Stratus.....		2000.....	80/108.....	-
Stratus Coupe.....				
Stratus Sedan.....	2 Door.....	2001-05.....	65/88.....	53/72
	4 Door.....	2001-06.....	80/108.....	-

DODGE/RAM TRUCKS				
Cargo Van.....		2012-15.....	37/50.....	41/56
Dakota 2WD.....		2000-03.....	185/251.....	-
Dakota 4WD.....		2000-03.....	123/167.....	-
Dakota.....		2004-11.....	120/163.....	-
Durango 2WD.....		2000-03.....	185/251.....	-
Durango 4WD.....		2000-03.....	123/167.....	-
		2004-09.....	120/163.....	-
		2011-16.....	78/106.....	-
Nitro.....		2017-21.....	74/100.....	-
		2007-11.....	96/130.....	-
Promaster.....		2014-21.....	-.....	-
Promaster City.....		2015-21.....	-.....	207/280
Ram 1500 Pickup.....		2000.....		
	w/IFS.....		185/251.....	-
	w/Link & Coil.....		122/166.....	-
Ram 1500 Pickup.....		2001.....		
	w/4W ABS.....		185/251.....	-
	w/o 4W ABS.....		122/166.....	-
Ram 1500 Pickup.....		2002.....		
	w/4WD or 2WD.....		120/163.....	-
Ram 1500 Pickup.....		2003-04.....		
	4WD w/IFS.....		120/163.....	-
	2WD w/IFS.....		120/163.....	-
	4WD w/Link & Coil.....		149/202.....	-
Ram 1500 Pickup.....		2005-07.....		
	2WD LD w/IFS.....		130/176.....	-
	2WD HD w/IFS.....		120/163.....	-
	4WD w/IFS.....		120/163.....	-
Ram 1500 Pickup.....			149/202.....	-
	4WD w/Link & Coil.....			
	2008.....			
	2WD LD w/IFS.....		130/176.....	-
	2WD HD w/IFS.....		120/163.....	-
	4WD w/IFS.....		120/163.....	-
Ram 1500 Pickup.....		2009-10.....	134/182.....	-
Ram 1500 Pickup.....		2011-18.....	44/60 [64].....	-
Ram 1500 Pickup.....		2019-21.....	37/50 [65].....	-
Ram 1500 Classic.....		2019-20.....	44/60 [64].....	-

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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DODGE/RAM TRUCKS - cont.

Ram 2500 Pickup.....	2000.....
	w/IFS.....	280/380.....	-
	w/Link & Coil.....	122/166.....	-
Ram 2500 Pickup.....	2001.....
	w/4 wheel ABS.....	.....	208/380.....	-
	4WD.....	.....	122/166.....	-
Ram 2500 Pickup.....	.....	2003.....	.....	.....
	2WD w/IFS.....	.....	280/380.....	-
	4WD w/Link/Coil.....	.....	122/166.....	-
Ram 2500 Pickup.....	.....	2004.....	.....	.....
	2WD w/IFS.....	.....	130/176.....	-
	4WD w/IFS.....	.....	120/163.....	-
	Link & Coil.....	.....	149/202.....	-
Ram 2500 Pickup.....	.....	2005-08.....	.....	.....
	2WD HD w/IFS.....	.....	130/176.....	-
	2WD LD w/IFS.....	.....	120/163.....	-
	4WD w/IFS.....	.....	120/163.....	-
	4WD w/Link & Coil.....	.....	149/202.....	-
Ram 2500 Pickup.....	.....	2009-12.....	.....	.....
	2WD w/IFS.....	.....	128/174.....	-
	4WD w/Link & Coil.....	.....	149/202.....	-
Ram 2500 Pickup.....	.....	2013-21.....	149/202.....	-
Ram 3500 Pickup.....	.....	2000-02.....	.....	.....
	2WD.....	.....	280/380.....	-
	4WD.....	.....	122/166.....	-
Ram 3500 Pickup.....	.....	2003-04.....	.....	.....
	2WD w/IFS.....	.....	120/163.....	-
	4WD w/IFS.....	.....	120/163.....	-
	4WD w/Link & Coil.....	.....	149/202.....	-
Ram 3500 Pickup.....	.....	2005-08.....	.....	.....
	2WD w/IFS.....	.....	130/176.....	-
	4WD w/IFS.....	.....	120/163.....	-
	4WD Link & Coil.....	.....	149/202.....	-
Ram 3500 Pickup.....	.....	2009-12.....	.....	.....
	2WD w/IFS.....	.....	128/174.....	-
	4WD Link & Coil.....	.....	149/202.....	-
Ram 3500 Pickup.....	.....	2013-21.....	149/202.....	-
Ram 4500, 5500.....	.....	2008-12.....	.....	.....
	2WD w/IFS Light Duty.....	.....	120/163.....	-
	2WD w/IFS Heavy Duty.....	.....	130/176.....	-
	4WD w/IFS.....	.....	120/163.....	-
	4WD w/Link & Coil.....	.....	149/202.....	-
Ram 4500, 5500.....	.....	2013-21.....	149/202.....	-

FIAT

124 Spider.....	.....	2017-20.....	96/130.....	96/130
500X.....	.....	2016-21.....	77/105 [59].....	77/105 [59]

FORD

C-Max.....	.....	2013-18.....	-.....	81/110
Crown Victoria.....	.....	2003-06.....	74/100.....	-
	.....	2007-11.....	89/121.....	-
Edge.....	.....	2007-10.....	-.....	98/133
	.....	2011-14.....	-.....	85/115
	.....	2015-21.....	98/133.....	98/133
Fiesta ex. 1.6L Ecoboost.....	.....	2011-19.....	-.....	[25]
Fiesta w/ 1.6L Ecoboost.....	.....	2014-19.....	-.....	[34]
Five Hundred.....	.....	2005-07.....	81/110.....	89/121
Flex.....	.....	2009-19.....	98/133 [31].....	98/133 [31]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
FORD - cont.				
Focus.....		2012-18.....	-.....	81/110 [31]
Freestar.....		2004-05.....	96/130.....	85/115
		2006-07.....	96/130.....	52/71
Freestyle.....		2005-07.....	81/110.....	89/121
Fusion.....		2013-20.....	98/133 [31].....	98/133 [31]
GT.....		2017-20.....	98/133 [29][31].....	98/133 [29][31]
Mustang.....	ex. GT500.....	2015-21.....	98/133 [29][31].....	98/133 [29][31]
Mustang.....	GT500.....	2020-21.....	85/115 [29][31].....	81/110 [29][31]
Taurus.....		2000.....	75/102.....	-
		2001-07.....	70/95.....	-
		2008.....	81/110.....	89/121
		2009-10.....	98/133.....	89/121
Taurus, Police Sedan.....		2011-19.....	98/133 [31].....	98/133 [31]
Taurus X FWD.....		2008.....	81/110.....	-
		2009.....	98/133.....	-
Thunderbird.....		2002.....	41/56.....	-
		2003-05.....	66/89.....	-
Windstar.....		2000-03.....	85/115.....	52/71
FORD TRUCKS				
Ecosport.....		2018-21.....	-.....	-
Escape.....		2013-21.....	-.....	81/110 [29]
Excursion 4WD.....		2001-05.....	55/75.....	-
Expedition 4WD.....		2000-02.....	148/201.....	-
Expedition 2WD.....		2003-06.....	148/201.....	136/185
Expedition 4WD.....		2003-06.....	148/201.....	136/185
Expedition 2WD.....		2007-08.....	129/175.....	136/185
Expedition 4WD.....		2007-08.....	129/175.....	136/185
Expedition 2WD.....		2009-21.....	129/175 [29][31].....	129/175 [29][31]
Expedition 4WD.....		2009-21.....	129/175 [29][31].....	129/175 [29][31]
Explorer 4WD.....		2000-01.....	96/130.....	-
Explorer.....		2002-05.....	83/113.....	-
		2006-10.....	90/122.....	-
		2011-19.....	122/165 [29][31].....	122/165 [29][31]
		2020-21.....	66/90 [3][68].....	111/150 [68]
Explorer Police.....		2011-19.....	122/165 [29][31].....	122/165 [29][31]
		2020-21.....	66/90 [3][68].....	111/150 [68]
Explorer Sport Trac 4WD.....		2001.....	96/130.....	-
		2002-05.....	85/115.....	-
Explorer Sport Trac.....		2007-10.....	90/122.....	-
F150 Pickup 4WD.....		2000.....	130/176.....	-
		2001-08.....	148/201.....	-
F150 Pickup 2WD.....		2007-08.....	148/201.....	-
F150 Pickup.....		2009-21.....	129/175.....	-
F250 HD Pickup.....		2000-21.....	133/180.....	-
F350 Pickup.....		2000-21.....	133/180.....	-
F450 Pickup.....		2000-21.....	133/180.....	-
F550 Pickup.....		2000-21.....	133/180.....	-
Ranger 4WD.....		2000-11.....	85/115.....	-
Ranger.....		2019-21.....	129/175 [29][31].....	-
Sport 4WD.....		2001.....	96/130.....	-
		2002.....	85/115.....	-
Transit.....		2015-21.....	[35].....	[80]
Transit Connect.....		2014-21.....	-.....	81/110 [29]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
GENESIS				
G70.....		2018-21.....	72/98.....	80/108
G80.....		2017-21.....	80/108.....	[36]
G90.....		2017-21.....	72/98.....	72/98
GV80.....		2021.....	87/118.....	80/108
GMC TRUCKS				
Acadia.....		2007-08.....	103/140.....	103/140
		2009-16.....	89/121.....	96/130
		2017-20.....	74/100 [71][72]...	74/100 [32][71]
Acadia Limited.....		2017.....	89/120.....	96/130
Canyon.....		2004-08.....	81/110.....	-
		2009-12.....	96/130.....	-
		2015-21.....	96/130.....	-
Envoy.....		2002-09.....	77/104.....	-
G1500 Van.....		2003-14.....	133/180.....	-
G2500 Van.....		2003-21.....	133/180.....	-
G3500 Van.....		2003-21.....	133/180.....	-
G4500.....		2009-21.....	133/180.....	-
H1500 Van.....		2003-14.....	133/180.....	-
H2500 Van.....		2003-05.....	133/180.....	-
K2500 4WD.....		2000.....	133/180.....	-
K3500 4WD.....		2000.....	133/180.....	-
Safari Van AWD.....		2000-02.....	66/89.....	-
Safari Van.....		2003-05.....	133/180.....	-
Sierra 1500 Pickup.....		2000-18.....	133/180.....	-
		2019-21.....	111/150 [73].....	-
Sierra 1500 Limited.....		2019.....	133/180.....	-
Sierra 2500 Pickup.....		2001-21.....	133/180.....	-
Sierra 3500 Pickup.....		2000-21.....	133/180.....	-
Sonoma 4WD.....		2000-04.....	77/104.....	-
S Series Jimmy.....		2000.....	95/129.....	-
		2001-02.....	95/129.....	-
		2001-02.....	77/104.....	-
		2010-17.....	74/100.....	52/71
Terrain.....	4WD.....	2018-21.....	74/100 [70].....	74/100 [49]
	2WD.....	2000-21.....	133/180.....	-
Yukon.....	4WD.....	2000-21.....	133/180.....	-
Yukon XL.....		2000-21.....	133/180.....	-
HONDA				
Accord.....		2008-21.....	-.....	72/98 [66]
Accord Crosstour.....		2010-15.....	-.....	72/98
Civic.....		2006-15.....	-.....	47/64
		2016-21.....	-.....	72/98 [66]
Clarity.....		2017-21.....	-.....	72/98 [66]
CR-V.....		2000-01.....	-.....	76/103
		2007-21.....	-.....	72/98 [66]
CR-Z.....		2011-16.....	-.....	-
Element.....		2003-11.....	-.....	[20]
Fit.....		2015-20.....	-.....	47/64
Fit EV.....		2013-14.....	-.....	72/98
HR-V.....		2016-21.....	-.....	47/64
Insight.....		2000-06.....	43/58.....	-
		2011-14.....	-.....	-
		2019-21.....	-.....	72/98 [66]
Odyssey.....		2005-10.....	-.....	72/98
		2011-17.....	72/98.....	72/98
		2018-21.....	-.....	72/98 [66]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
HONDA - cont.				
Passport.....		2000-02.....	76/103.....	-
		2019-21.....	-.....	72/98
Pilot.....		2009-15.....	72/98.....	72/98
		2016-21.....	-.....	72/98
Prelude.....		2000-01.....	-.....	33/45
Ridgeline.....		2006-14.....	-.....	-
		2017-21.....	-.....	72/98 [66]
HYUNDAI				
Accent.....		2006-21.....	-.....	43/58
Azera.....		2006-11.....	-.....	52/71
		2012-17.....	-.....	65/88
		2007-10.....	-.....	50/68
Elantra.....		2011-16.....	-.....	43/58
		2017-21.....	43/58.....	43/58
		2013-15.....	-.....	43/58
		2013-21.....	-.....	43/58
Elantra Coupe.....		2009-12.....	-.....	65/88
Elantra GT.....		2011-16.....	72/98.....	65/88
Elantra Touring.....		2009-12.....	-.....	65/88
Equus.....		2011-16.....	72/98.....	65/88
Genesis.....		2009-14.....	72/98.....	65/88
		2015-16.....	79/108.....	[36]
		2010-16.....	72/98.....	65/88
Genesis Coupe.....		2017-21.....	79/108.....	79/108
Ioniq.....		2018-21.....	72/98.....	72/98
Kona.....		2020-21.....	72/98.....	65/88
Palisade.....		2007-18.....	72/98.....	65/88
Santa Fe.....		2019-21.....	101/137.....	79/108
		2019.....	72/98.....	65/88
Santa Fe XL.....		2000-14.....	-.....	65/88
Sonata.....		2015-21.....	72/98.....	51/69
Sonata ex. Hybrid.....		2015.....	-.....	65/88
Sonata Hybrid.....		2016-21.....	72/98.....	51/69
		2011-15.....	-.....	65/88
Tucson.....		2016-21.....	72/98.....	43/58
Veloster.....		2012-17.....	-.....	43/58
		2019-21.....	72/98.....	43/58
		2019-21.....	80/108.....	51/69
Veloster N.....		2020-21.....	-.....	43/58
Venue.....		2007-12.....	72/98.....	65/88
Veracruz.....				
INFINITI				
EX35.....		2008-12.....	65/88.....	65/88
EX37.....		2013.....	65/88.....	65/88
FX35.....		2003-08.....	77/104.....	64/87
		2009-12.....	65/88.....	65/88
FX37.....		2013.....	65/88.....	65/88
FX45.....		2003-08.....	77/104.....	64/87
FX50.....		2009-13.....	65/88.....	65/88
G25.....		2011-12.....	65/88.....	65/88
G35.....		2003-06.....	72/98.....	69/94
		2007-08.....	65/88.....	65/88
G37.....		2008-13.....	65/88.....	65/88
JX35.....		2013.....	65/88.....	65/88
M35.....		2006-11.....	65/88.....	65/88
M35H.....		2012-13.....	65/88.....	65/88
M37.....		2011-13.....	65/88.....	65/88
M45.....		2006-11.....	65/88.....	65/88
M56.....		2011-13.....	65/88.....	65/88
Q40.....		2015.....	65/88.....	65/88

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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INFINITI - cont.

Q45.....		2002-06.....	-.....	72/98
Q50.....		2014-21.....	65/88.....	65/88
Q60.....		2014-15.....	65/88.....	65/88
		2017-21.....	65/88.....	65/88
Q70, Q70L.....		2014-19.....	65/88.....	65/88
QX30.....		2017-19.....	-.....	74/100
QX50.....		2014-21.....	65/88.....	65/88
QX56.....		2004-08.....	155/210.....	111/150
		2009-10.....	107/145.....	111/150
		2011-13.....	90/122.....	90/122
QX60.....		2014-21.....	65/88.....	65/88
QX70.....		2014-17.....	65/88.....	65/88
QX80.....		2014-21.....	90/122.....	90/122

ISUZU

Ascender.....		2003-08.....	77/104.....	-
Axiom.....		2002-04.....	76/103.....	-
Hombre.....		2000.....	77/104.....	-
I-280.....		2006.....	133/180.....	-
I-290.....		2007-08.....	81/110.....	-
I-350.....		2006.....	133/180.....	-
I-370.....		2007-08.....	81/110.....	-
Rodeo.....		2002-04.....	76/103.....	-
Rodeo Sport.....		2002-03.....	76/103.....	-

JAGUAR

F-Pace AWD.....		2017-18.....	[29][59].....	-
		2019-21.....	[74].....	-
F-Pace RWD.....		2017-18.....	[29][60].....	-
		2019-21.....	[74].....	-
F-Type.....		2014-15.....	66/90 [29].....	-
F-Type AWD.....		2016-21.....	[51].....	-
F-Type RWD.....		2016-21.....	66/60 [29].....	-
S-Type.....		2000-08.....	66/89.....	-
XE.....		2016.....	[29][61].....	-
XE AWD.....		2017-19.....	[29][59].....	-
XE RWD.....		2017-19.....	[29][59].....	-
XF AWD.....		2013-15.....	66/90 [29].....	-
		2016.....	[79].....	-
		2017-21.....	[74].....	-
XF RWD.....		2009-15.....	66/90 [29].....	-
		2016.....	[79].....	-
		2017-21.....	66/90 [29][82].....	-
XFR.....		2010-15.....	66/90 [29].....	-
XFR-S.....		2013-15.....	66/90 [29].....	-
XJ AWD.....		2013-19.....	-.....	-
XJ RWD.....		2010-19.....	66/90 [29].....	-
XJ8.....		2005-09.....	66/90.....	-
XJR.....		2004-09.....	66/90.....	-
		2014-19.....	66/90 [29].....	-
XK.....		2007-08.....	66/90.....	52/71
		2009-15.....	66/90 [29].....	52/71
XKR.....		2007-08.....	66/90.....	52/71
		2009-15.....	66/90 [29].....	52/71
XKRS.....		2012-15.....	66/90 [29].....	52/71
X-Type.....		2002-03.....	-.....	52/71
		2004-08.....	-.....	46/62

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
JEEP				
Cherokee.....		2014-21.....	83/113 [66].....	83/113 [66]
Cherokee.....		2000-01.....	75/102.....	-
Commander.....		2006-10.....	85/115.....	-
Compass (MK chassis).....		2007-17.....	-.....	77/105
Compass (MP chassis).....				
	FWD.....	2017-21.....	72/98.....	72/98
	AWD.....	2017-21.....	15/20 [67].....	15/20 [67]
Gladiator.....		2020-21.....	75/102.....	-
Grand Cherokee.....		2000-04.....	75/102.....	-
		2005.....	100/136.....	-
		2006-10.....	85/115.....	-
		2011-15.....	78/106.....	-
		2016-21.....	74/100.....	-
Liberty.....		2002-12.....	96/130.....	-
Patriot.....		2007-17.....	-.....	77/105
Renegade.....		2015-21.....	77/105.....	77/105
TJ (Canada).....		2000-06.....	75/102.....	-
Wrangler.....		2000-21.....	75/102.....	-
KIA				
Amanti.....		2004-06.....	-.....	74/100
		2007-09.....	-.....	52/71
Borrego.....		2009.....	-.....	65/88
Cadenza.....		2014-16.....	-.....	65/88
		2017-21.....	79/107.....	50/69
Forte, Forte Koup, Forte5.....		2010-13.....	-.....	80/108
		2014-18.....	-.....	51/69
		2019-21.....	86/117.....	43/58
K900.....		2015-18.....	72/98.....	72/98
		2019-20.....	79/107.....	72/98
Niro.....		2017-21.....	79/107.....	79/107
Optima.....		2001-05.....	-.....	66/89
		2006-10.....	-.....	40/54
		2011-15.....	-.....	65/88
		2016-21.....	72/98.....	51/69
Rio.....		2005-21.....	-.....	43/58
Rio5.....		2007-13.....	-.....	43/58
Rondo.....		2007-10.....	-.....	51/69
Sedona.....		2006-14.....	177/240.....	-
		2015-21.....	72/98.....	72/98
Sorento.....		2011-13.....	87/118.....	65/88
		2014-21.....	72/98.....	65/88
Soul.....		2010-13.....	-.....	65/88
		2014-21.....	-.....	43/58
Soul EV.....		2015-21.....	-.....	43/58
Sportage.....		2017-21.....	72/98.....	51/69
Sportage FWD.....		2011-16.....	-.....	65/88
Sportage AWD.....		2011-16.....	-.....	-
Stinger.....		2018-21.....	79/107.....	79/107
Telluride.....		2020-21.....	108/147 [78].....	79/107
LAND ROVER				
Defender.....		2020-21.....	[81].....	-
Discovery.....		2000-02.....	74/100.....	-
		2017-20.....	-.....	-
		2021.....	[74].....	-
Discovery Sport.....		2015-21.....	-.....	-
Evoque.....		2012-21.....	-.....	-
LR4.....		2010-16.....	85/115.....	-

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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LAND ROVER - cont.

Range Rover.....		2000-01.....	100/136.....	48/65
Range Rover Sport.....		2008-13.....	85/115.....	-
Range Rover Velar.....		2018-21.....	[74].....	-

LEXUS

CT200H.....		2011-17.....	30/41.....	66/89
ES300H.....		2013-21.....	-.....	44/60
ES350.....		2007-12.....	-.....	59/80
		2013-21.....	-.....	44/60
GS200t.....		2016-17.....	51/69.....	55/75
GS350.....		2007-11.....	51/69.....	52/71
		2013-20.....	51/69.....	55/75
GS430.....		2007.....	51/69.....	52/71
GS450H.....		2007-11.....	51/69.....	52/71
		2013-19.....	51/69.....	55/75
GS460.....		2008-11.....	51/69.....	52/71
GS F.....		2016-20.....	51/69.....	55/75
GX460.....		2010-21.....	59/80.....	44/60
GX470.....		2003-09.....	59/80.....	-
HS250h.....		2010-12.....	71/96.....	66/89
IS200t.....		2016.....	51/69.....	55/75
IS250.....		2006-13.....	51/69.....	52/70
		2014-15.....	51/69.....	55/75
IS300.....		2016-21.....	51/69.....	55/75
IS350.....		2006-13.....	51/69.....	52/70
		2014-21.....	51/69.....	55/75
IS-F.....		2008.....	[17].....	52/71
		2009-10.....	51/69 [18].....	52/71
IS-F w/ SST.....		2011-14.....	37/50.....	52/71
IS-F w/o SST.....		2011-14.....	51/69.....	52/71
LC500.....		2018-21.....	59/80.....	-
LC500h.....		2018-21.....	59/80.....	-
LS430.....		2001-06.....	51/69.....	48/65
LS460.....		2007-17.....	48/65.....	72/98
LS500.....		2018-21.....	73/99.....	-
LS500h.....		2018-21.....	59/80.....	-
LS600hL.....		2008-16.....	48/65.....	72/98
LX570.....		2008-21.....	73/99.....	44/60
NX200T.....		2015-17.....	71/96.....	66/90
NX300.....		2018-21.....	59/80.....	-
NX300H.....		2015-21.....	71/96.....	66/90
RC200t.....		2016-17.....	51/69.....	55/75
RC300.....		2016-21.....	51/69.....	55/75
RC350.....		2015-21.....	51/69.....	55/75
RCF.....		2015-21.....	51/69.....	55/75
RX350.....		2007-08.....	-.....	55/75
RX350.....		2009.....	-.....	55/75
		2010-16.....	-.....	92/125
		2017-21.....	71/96.....	92/125
RX350L.....		2018-21.....	71/96.....	92/125
RX400H.....		2006-08.....	-.....	55/75
RX450H.....		2010-15.....	-.....	92/125
		2016-21.....	71/96.....	92/125
RX450HL.....		2018-21.....	71/96.....	92/125
UX200.....		2019-21.....	96/130.....	66/90
UX250H.....		2019-21.....	96/130.....	66/90

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
LINCOLN				
Aviator.....		2003-05.....	83/113.....	-
		2020-21.....	66/90 [3][68].....	111/150 [68]
Continental.....		2000-02.....	79/107.....	-
		2017-20.....	98/133 [68].....	98/133 [68]
Corsair.....		2020-21.....	-.....	81/110 [68]
LS.....		2000-06.....	66/89.....	-
Mark LT 4WD.....		2006-08.....	148/201.....	-
MKC.....		2015-19.....	-.....	81/110
MKS.....		2009-16.....	98/133.....	98/133
MKT.....		2010-19.....	98/133.....	98/133
MKX.....		2007-10.....	-.....	98/133
		2011-15.....	-.....	85/115
		2016-18.....	98/133.....	98/133
MKZ.....		2013-20.....	98/133.....	98/133
Nautilus.....		2019-21.....	98/133.....	98/133
Navigator 4WD.....		2000-02.....	148/201.....	-
Navigator 2WD.....		2003-06.....	148/201.....	136/185
Navigator 4WD.....		2003-06.....	148/201.....	136/185
Navigator 2WD.....		2007-08.....	129/175.....	136/185
Navigator 4WD.....		2007-08.....	129/175.....	136/185
Navigator 2WD.....		2009-21.....	129/175.....	129/175
Navigator 4WD.....		2009-21.....	129/175.....	129/175
Navigator L 2WD.....		2007-08.....	129/175.....	136/185
Navigator L 4WD.....		2007-08.....	129/175.....	136/185
Navigator L 2WD.....		2009-21.....	129/175.....	129/175
Navigator L 4WD.....		2009-21.....	129/175.....	129/175
Town Car.....		2003-06.....	74/100.....	-
		2007-11.....	89/121.....	-
MAZDA				
B2300 4WD.....		2001-09.....	85/115.....	-
B2500 4WD.....		2000.....	85/115.....	-
B4000 4WD.....		2000-09.....	85/115.....	-
CX-3.....		2016-21.....	100/136.....	75/102
CX-5.....		2013-15.....	[37].....	[37]
		2016-21.....	75/102.....	75/102
CX-7.....		2007-12.....	-.....	88/119
CX-9.....		2007-15.....	-.....	97/132
		2016-21.....	75/102.....	75/102
Mazda2.....		2011-14.....	-.....	49/66
Mazda3.....				
	All.....	2004-09.....	-.....	48/65
	w/Torquex Screw.....	2010-13.....	-.....	47/64
	w/Hex Nut.....	2010-13.....	-.....	32/43
	All.....	2014-21.....	75/102.....	75/102
Mazda5.....		2006-10.....	-.....	48/65
		2012-15.....	-.....	47/63
Mazda6.....		2009-14.....	-.....	72/98
		2015-21.....	75/102.....	75/102
Miata.....		2006-15.....	44/60.....	-
		2016-21.....	100/136.....	100/136
RX-8.....		2004-11.....	44/60.....	-

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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MERCEDES-BENZ

A-Class.....	w/ multi-link axle.....	2019-21.....	59/80 [3].....	59/80 [3]
	w/ torsion-beam axle.....	2019-21.....	59/80 [3].....	37/50 [3]
AMG GT.....		2017-21.....	59/80 [3].....	44/60 [3]
AMG GT C, AMG GT R, AMG GT R PRO....		2018-21.....	59/80 [3].....	44/60 [3]
AMG GT S.....		2016-21.....	59/80 [3].....	44/60 [3]
AMG GT 53, AMG GT 63.....		2019-21.....	59/80 [3].....	59/80
AMG GT 63 S, AMG GT 43				
B-Class.....		2015-17.....	-.....	74/100
C Class ex. C63 AMG, 2015-18 C300,....		2008-18.....	-.....	52/70
C350e, 2015 C400 4 Matic				
C63 AMG, C63 AMG S.....		2008-14.....	59/80.....	52/70
		2015-21.....	59/80 [3].....	[52]
C43 AMG.....		2017-21.....	59/80 [3].....	52/70
C300, 2015 C400 4 Matic.....		2015-21.....	59/80 [3].....	52/70
C450 AMG.....		2016-17.....	59/80 [3].....	52/70
CL Class.....	w/ multi-link axle.....	2001-14.....	-.....	52/70
CLAClass.....	w/ torsion-beam axle.....	2014-19.....	-.....	74/100
		2020-21.....	59/80 [3].....	59/80 [3]
		2020-21.....	59/80 [3].....	37/50 [3]
CLS Class.....		2012-18.....	-.....	52/70
		2019-21.....	59/80 [3].....	52/70
E Class.....		2004-17.....	-.....	52/70
		2018-21.....	59/80 [3].....	52/70 [52]
G Class.....		2002-18.....	-.....	368/500
		2019-21.....	59/80 [3].....	59/80 [2]
GL Class.....	w/ multi-link axle.....	2013-16.....	59/80 [3].....	-
GLA Class.....	w/ torsion-beam axle.....	2015-20.....	-.....	74/100
	w/ multi-link axle.....	2021.....	59/80 [3].....	59/80 [3]
	w/ torsion-beam axle.....	2021.....	59/80 [3].....	37/50 [1]
GLB Class.....		2020-21.....	59/80 [3].....	59/80 [3]
		2020-21.....	59/80 [3].....	37/50 [1]
GLC Class.....		2016-21.....	59/80 [3].....	52/70
GLE, GLS Class.....		2016-19.....	59/80 [3].....	-
		2020-21.....	59/80 [1].....	59/80 [1]
GLK Class.....		2010-15.....	-.....	52/70
Maybach S550, S600.....		2016-17.....	59/80 [3].....	52/70
Maybach S560, S650.....		2018-20.....	59/80 [3].....	52/70
Maybach S580.....		2021.....	59/80 [3].....	59/80 [3]
Maybach GLS600.....		2021.....	59/80 [1].....	59/80 [1]
ML Class.....		2012-15.....	59/80 [3].....	-
S Class				
S350.....		2012-13.....	-.....	52/70
S400.....		2010-13.....	-.....	52/70
S450.....		2018-20.....	-.....	52/70
S500.....		2021.....	59/80 [3].....	59/80 [3]
S550, S600, S65 AMG.....		2007-13.....	-.....	52/70
S550.....		2014-17.....	-.....	52/70
S550 4MATIC.....		2014-17.....	59/80 [3].....	52/70
S550e.....		2016-17.....	59/80 [3].....	52/70
S560.....		2018-19.....	59/80 [1].....	52/70
		2020-21.....	59/80 [3].....	52/70
S580.....		2021.....	59/80 [3].....	59/80 [3]
S600, S65 AMG.....		2015-20.....	-.....	52/70
S63 AMG.....		2008-19.....	-.....	52/70
		2020-21.....	59/80 [3].....	52/70
SL Class ex. 2009 SL65 w/P99 Code....		2000-12.....	-.....	52/70
SL Class.....		2013-20.....	59/80.....	52/70
SLC Class.....		2017-20.....	-.....	52/70
SLK Class.....		2012-16.....	-.....	52/70

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
MERCURY				
Grand Marquis.....		2003-06.....	74/100.....	-
		2007-11.....	89/121.....	-
Marauder.....		2003-04.....	74/100.....	-
Montego.....		2005.....	81/110.....	89/121
		2006-07.....	81/110.....	-
Monterey.....		2004-05.....	96/130.....	85/115
		2006-07.....	96/130.....	52/71
Mountaineer 4WD.....		2000.....	85/115.....	-
		2001.....	96/130.....	-
Mountaineer.....		2002-05.....	83/113.....	-
		2006-10.....	90/122.....	-
Sable.....		2000.....	75/102.....	-
		2001-05.....	70/95.....	-
Sable FWD.....		2008.....	81/110.....	-
		2009.....	98/133.....	-
MINI				
Cooper.....		2007-09.....	[16].....	41/56
		2010.....	[16].....	-
Cooper ex. F54, F55, F56, F57, F60, R60, R61		2011-16.....	[16][29].....	41/56
Cooper F54, F55, F56, F57, F60		2014-21.....	[29][62].....	74/100[1][29]
Cooper R60, R61		2011-16.....	[28][29].....	74/100[31]
MITSUBISHI				
Diamante.....		2000-04.....	-.....	65/88
Eclipse.....		2000-05.....	65/88.....	53/72
		2006-12.....	67/91.....	54/73
Eclipse Cross.....		2018-21.....	59/80.....	70/95
Endeavor.....		2004-05.....	67/91.....	49/66
		2006-11.....	67/91.....	67/91
Galant.....		2000-03.....	65/88.....	58/79
		2004-12.....	67/91.....	54/73
Lancer Turbo.....		2003-06.....	65/88.....	53/72
Lancer.....		2008-09.....	-.....	70/95
		2010-14.....	59/80.....	70/95
Lancer ex.				
Evolution.....		2015-17.....	-.....	70/95
Mirage.....		2014-15.....	-.....	-
Mirage, Mirage G4.....		2017-21.....	-.....	-
Montero.....		2001-02.....	65/88.....	60/81
		2003-06.....	65/88.....	98/133
Outlander.....		2007-21.....	-.....	70/95
Outlander Sport.....		2011-18.....	-.....	70/95
Raider.....		2006-09.....	120/163.....	-
NISSAN/DATSUN				
350Z.....		2003-05.....	-.....	69/94
		2006-09.....	.....	65/88
370Z.....		2009-20.....	65/88.....	65/88
Altima.....		2002-04.....	-.....	72/98
		2005-06.....	-.....	68/92
		2007-08.....	44/60.....	65/88
		2009-21.....	65/88.....	65/88
Armada.....		2005-07.....	155/210.....	111/150
		2008-15.....	107/145.....	111/150
		2017-21.....	90/122.....	90/122

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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NISSAN/DATSUN - cont.

Cube.....		2009-14.....	65/88.....	70/95
Frontier.....		2005-21.....	44/60.....	-
GT-R.....		2009-21.....	65/88.....	65/88
Juke.....		2011-17.....	65/88.....	65/88
Kicks.....		2018-21.....	-.....	59/80
Leaf.....		2011-21.....	65/88.....	65/88
Maxima.....		2008.....	-.....	63/85
		2009-14.....	65/88.....	65/88
		2016-21.....	65/88.....	65/88
Murano.....		2003-06.....	51/69.....	51/69
		2007.....	65/88.....	44/60
		2009-21.....	65/88.....	65/88
NV 200.....		2013-21.....	65/88.....	125/169
NV Vans.....		2012-21.....	87/118.....	-
Pathfinder.....		2005-12.....	44/60.....	44/60
		2013-21.....	65/88.....	65/88
Pathfinder Armada.....		2004.....	155/210.....	111/150
Quest.....		2004-09.....	44/60.....	44/60
		2011-17.....	65/88.....	65/88
Rogue, Rogue Select.....		2008-21.....	65/88.....	65/88
Sentra.....		2007-12.....	65/88.....	65/88
		2013-19.....	65/88.....	[38]
		2020-21.....	-.....	65/88
Titan.....		2004-07.....	155/210.....	-
		2008-15.....	107/145.....	-
		2016.....	87/118.....	-
Titan ex. XD.....		2017-21.....	107/145.....	-
Titan XD.....		2017-21.....	87/118.....	-
Versa.....		2008-11.....	65/88.....	70/95
	Sedan	2012-19.....	-.....	62/83
		2020-21.....	-.....	59/80
	Hatchback	2012.....	65/88.....	70/94
Versa Note.....		2014-19.....	-.....	62/83
Xterra.....		2005-15.....	44/60.....	-

OLDSMOBILE

Alero.....		2000-04.....	70/95.....	62/84
Aurora.....		2001-03.....	70/95.....	52/71
Bravada.....		2000-04.....	77/104.....	-
Intrigue.....		2000.....	52/71.....	52/71
		2001-02.....	96/130.....	55/75
Silhouette Van.....		2000.....	133/180.....	59/80
		2001.....	96/130 [7].....	59/80
		2002-04.....	96/130 [7].....	96/130

PLYMOUTH

Breeze.....		2000.....	80/108.....	70/95
Grand Voyager.....		2000.....	45/61.....	95/129
Voyager.....		2000.....	45/61.....	95/129

PONTIAC

Aztek w/Disc.....		2001-05.....	96/130 [7].....	96/130 [7]
Aztek w/Drum.....		2001-05.....	96/130 [7].....	63/85
Bonneville.....		2000-05.....	70/95.....	52/71
Firebird.....		2000-02.....	63/85.....	-
G5.....		2007-09.....	85/115.....	33/45 [6]
G6.....		2005-10.....	85/115.....	47/64
G8.....		2008-09.....	79/107.....	-

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
PONTIAC - cont.				
Grand Am.....		2000-05.....	70/95.....	62/84
Grand Prix.....		2000-08.....	96/130.....	55/75
GTO.....		2004-06.....	80/108.....	-
Montana SV6 AWD.....		2006.....	96/130 [7].....	96/130 [7]
Montana SV6 FWD.....		2006-07.....	96/130 [7].....	59/80
Montana Van AWD.....		2002-05.....	96/130 [7].....	96/130 [7]
Montana Van FWD.....		2000-05.....	96/130 [7].....	59/80 [7]
Pursuit.....		2005-06.....	-.....	33/45 [6]
Solstice.....		2006-09.....	85/115.....	85/115
Sunfire.....		2000-05.....	70/95.....	44/60
Torrent.....		2006.....	96/130.....	62/84
		2007-09.....	96/130.....	55/75
Vibe AWD.....		2003-06.....	-.....	41/56
Vibe FWD.....		2003-08.....	-.....	45/61
Vibe AWD.....		2009-10.....	-.....	41/56
Vibe FWD.....		2009-10.....	-.....	74/100
Wave.....		2005-07.....	-.....	30/41
PORSCHE				
911 ex. 2014-16 GT3.....		1995-16.....	27/37 [44].....	27/37 [44]
		2017-19.....	27/37 [44].....	NS
911 GT3.....		2014-16.....	[53].....	[53]
Boxster.....		1995-16.....	27/37 [44].....	27/37 [44]
		2017-21.....	27/37 [44].....	NS
Cayenne.....		2011-21.....	[53].....	[53]
Cayman.....		2006-16.....	27/37 [44].....	27/37 [44]
		2017-21.....	27/37 [44].....	NS
Cayman GT4.....		2016.....	[53].....	[53]
Macan.....		2015-21.....	[54].....	[54]
Panamera.....		2010-16.....	27/37 [29][44].....	27/37 [29][44]
		2017-21.....	15/20 [1][44].....	15/20 [1][44]
SAAB				
9-3.....		2003-11.....	66/89 [3].....	40/54 [6]
9-3X.....		2010-11.....	66/89 [3].....	40/54 [6]
9-5.....		2002-09.....	66/89 [1].....	40/54 [6]
9-5 AWD.....		2010-11.....	74/100 [22].....	[24]
9-5 FWD.....		2010-11.....	74/100 [22].....	-
9-7X.....		2005-09.....	77/104.....	-
SATURN				
Astra.....		2008-09.....	[14].....	[15]
Aura.....		2007-09.....	85/115.....	47/64
Coupe.....		2000-02.....	-.....	63/85
Ion.....		2003.....	85/115.....	37/50 [6]
		2004-07.....	85/115.....	33/45 [6]
L Series.....		2000.....	-.....	63/85
		2001-03.....	-.....	37/50
		2004-05.....	-.....	37/50 [9]
Outlook.....		2007-08.....	103/140.....	103/140
		2009-10.....	89/121.....	96/130
Relay.....		2005-07.....	96/130.....	96/130 [11]
Sedan.....		2000.....	-.....	63/85
Sky.....		2007-10.....	85/115.....	85/115
Vue.....		2002-07.....	96/130.....	62/84
		2008-09.....	96/130.....	55/75
Wagon.....		2000-01.....	-.....	63/85

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
SCION				
FR-S.....		2013-16.....	48/65.....	48/65
IA.....		2016.....	69/93.....	57/77
IM.....		2016.....	71/96.....	66/90
iQ.....		2012-15.....	-.....	66/90
tC.....		2005-10.....	-.....	[23]
		2011-16.....	71/96.....	66/89
xA.....		2004-06.....	-.....	46/62
xB.....		2004-06.....	-.....	46/62
		2008-15.....	71/96.....	67/91
xD.....		2008-14.....	-.....	67/91
SMART				
Fortwo.....		2008-15.....	-.....	48/65
ex. Electric.....		2016-17.....	-.....	46/62
Electric.....		2016.....	-.....	48/65
		2017-19.....	-.....	46/62
SUBARU				
Ascent.....		2019.....	93/126.....	48/65
		2020-21.....	93/126.....	63/85
B9 Tribeca.....		2006-07.....	48/65.....	48/65
BRZ.....		2013-19.....	48/65.....	48/65
		2020-21.....	70/95.....	63/85
Crosstrek.....		2016-18.....	48/65.....	48/65
		2019-21.....	70/95.....	63/85
Forester.....		2009-18.....	48/65.....	48/65
		2019-21.....	70/95.....	63/85
Impreza.....		2005-07.....	48/65.....	-
		2008-18.....	48/65.....	48/65
		2019-21.....	93/126.....	48/65
Legacy.....		2005-18.....	48/65.....	48/65
		2019.....	93/126.....	48/65
		2020-21.....	93/126.....	63/85
Outback.....		2005-18.....	48/65.....	48/65
		2019.....	93/126.....	48/65
		2020-21.....	93/126.....	63/85
Tribeca.....		2008-14.....	48/65.....	48/65
WRX, WRX STI.....		2015-18.....	48/65.....	48/65
		2019-21.....	70/95.....	63/85
XV Crosstrek.....		2013-15.....	48/65.....	48/65
SUZUKI				
Equator.....		2009-12.....	44/60.....	-
Forenza.....		2004-08.....	-.....	48/65
Grand Vitara.....		2006-13.....	37/50.....	37/50
Kizashi.....		2010-13.....	52/71.....	56/76
Reno.....		2005-08.....	-.....	48/65
SX4.....		2007-10.....	-.....	53/72
		2011-13.....	-.....	61/83
Verona.....		2004-06.....	70/95.....	48/65
XL 7.....		2007.....	96/130.....	52/71
		2008-09.....	96/130.....	-
TOYOTA				
4-Runner.....		2004-21.....	59/80.....	44/60
86.....		2017-20.....	48/65.....	48/65
Avalon.....		2000-12.....	-.....	59/80

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
TOYOTA - cont.				
Avalon, Avalon Hybrid.....		2013-21.....	-.....	44/60
Camry, Camry Hybrid.....		2000-11.....	-.....	59/80
		2012-21.....	-.....	44/60
Celica.....		2000-05.....	-.....	41/56
C-HR.....		2018-21.....	96/130.....	66/90
Corolla, Corolla iM.....		2000-02.....	-.....	59/80
		2003-08.....	-.....	45/61
		2009-21.....	-.....	74/100
Echo.....		2000-05.....	-.....	38/52
FJ Cruiser.....		2007-14.....	59/80.....	89/120
Highlander.....		2008-13.....	-.....	55/75
		2014-21.....	-.....	92/125
Land Cruiser.....		2006-07.....	-.....	91/123
		2008-21.....	73/99.....	44/60
Matrix.....		2003-07.....	-.....	41/56 [8]
		2008.....	-.....	45/61
		2009-13.....	-.....	41/56
Mirai.....		2016-19.....	71/96.....	66/90
MR2.....		2000-05.....	41/56.....	-
Prius.....		2001-03.....	-.....	38/52
		2004-09.....	41/56.....	45/61
		2010-14.....	30/41.....	66/90
		2015-21.....	96/130.....	66/90
Prius C.....		2012-19.....	-.....	66/90
Prius PHV.....		2012-15.....	30/41.....	66/90
Prius Prime.....		2017-21.....	96/130.....	66/90
Prius V.....		2012-17.....	71/96.....	66/90
RAV4.....		2000-05.....	-.....	38/52
		2006-09.....	71/96.....	68/92
		2010-21.....	71/96.....	66/90
Sequoia.....		2008-21.....	73/99.....	64/87
Sienna Van.....		2000-03.....	-.....	59/80
		2004-08.....	-.....	41/56
		2009-10.....	-.....	49/66
		2011-21.....	-.....	66/90
Solara.....		2000-08.....	-.....	59/80
Supra.....		2020-21.....	96/130.....	66/90
Tacoma 2WD.....		2009-15.....	147/199.....	27/36
		2016-21.....	59/80.....	33/45
Tacoma 4WD.....		2009-15.....	59/80.....	27/36
		2016-21.....	59/80.....	33/45
Tundra.....		2007-21.....	73/99.....	44/60
Venza.....		2009-17.....	-.....	59/80
Yaris, Yaris iA.....		2007-21.....	-.....	67/91
VOLKSWAGEN				
Arteon.....		2019-21.....	52/70 [1][29].....	-
Atlas.....		2018-21.....	52/70 [1][29].....	66/90 [1][29]
Atlas Cross Sport.....		2020-21.....	52/70 [1][29].....	66/90 [1][29]
CC FWD.....		2018-19.....	52/70 [1][29].....	66/90 [1][29]
CC AWD.....		2009-16.....	52/70 [1][29].....	52/70 [1][29]
CC FWD.....		2009-17.....	52/70 [1][29].....	-
e-Golf.....		2015-20.....	52/70 [1][29].....	22/30 [1][29]
Eos.....		2007-16.....	52/70 [1][29].....	-
GLI.....		2008-09.....	52/71 [1][29].....	-
Golf AWD.....		2010-15.....	52/71 [1][29].....	52/71[1][29]
		2016-21.....	52/70 [1][29].....	66/90 [1][29]
Golf FWD.....		2010-15.....	52/71 [1][29].....	-
		2016-21.....	52/70 [1][29].....	[41][42]

MAKE/ MODEL	Qualifier	Year	Hub Mount Front (Ft-lbs/Nm)	Hub Mount Rear (Ft-lbs/Nm)
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VOLKSWAGEN - cont.

GTI.....		2006-14.....	52/71 [1][29].....	-
		2014-21.....	52/70 [1][29].....	[41] [42]
ID4 AWD.....		2021.....	52/70 [1][29].....	66/90 [1][29]
Jetta.....		2005-21.....	52/71 [1][29].....	-
New Beetle.....		2012-16.....	52/70 [1][29].....	22/30 [1][29]
		2017-19.....	52/70 [1][29].....	-
Passat AWD.....		2003-05.....	-.....	59/80 [1][29]
Passat FWD.....		2003-05.....	-.....	44/60[1][29]
Passat.....		2006-10.....	52/71 [1][29].....	52/71 [1][29]
		2012-21.....	52/70 [1][29].....	-
Phaeton.....		2006.....	59/80[1][29].....	-
Rabbit.....		2006-09.....	52/71 [1][29].....	-
Routan.....		2009-11.....	45/61.....	41/56
Tiguan AWD.....		2009-21.....	52/71 [1][29].....	52/71 [1][29]
Tiguan FWD.....		2009-21.....	52/71 [1][29].....	-
Touareg.....		2011-19.....	[27].....	[27]

VOLVO

C30.....		2008-13.....	-.....	48/65
C70.....		2000.....	34/46 [2].....	88/119 [6]
		2004.....	48/65.....	-
		2006-13.....	-.....	48/65
S60.....		2004-05.....	48/65 [2].....	48/65 [2]
		2006.....	48/65 [2].....	48/65 [2]
		2007-09.....	48/65 [2].....	[26]
		2011-18.....	-.....	81/110
		2019-21.....	55/75 [3] [29].....	55/75 [3] [29]
S60 Cross Country.....		2016-19.....	-.....	81/110
S60R.....		2004-05.....	48/65 [2].....	48/65
S70.....		2000.....	34/46 [2].....	88/119 [6]
S80.....		2000.....	34/46 [2].....	34/46 [2]
		2001-06.....	[4].....	[4]
		2007-16.....	-.....	81/110
S90.....		2017-21.....	55/75 [3] [29].....	55/75 [3] [29]
V50.....		2006-11.....	-.....	41/55
V60.....		2015-18.....	-.....	81/110
		2019-21.....	55/75 [3] [29].....	55/75 [3] [29]
V60 Cross Country.....		2015-18.....	-.....	81/110
		2019-21.....	55/75 [3] [29].....	55/75 [3] [29]
V70.....		2000.....	34/46 [2].....	-
		2002-05.....	48/65 [2].....	48/65 [2]
		2006.....	48/65 [2].....	48/65 [2]
V70R.....		2004-07.....	48/65 [2].....	48/65 [2]
V90, V90 CC.....		2018-21.....	55/75 [3] [29].....	55/75 [3] [29]
XC40.....		2019-21.....	66/90 [1][29].....	66/90 [1][29]
		2021.....	55/75 [3] [29].....	55/75 [3] [29]
XC60.....		2010-17.....	-.....	81/110
		2018-21.....	55/75 [3] [29].....	55/75 [3] [29]
XC70.....		2003-05.....	-.....	48/65
		2006.....	33/45 [2].....	-
		2008-16.....	-.....	81/110
XC90.....		2003-14.....	[26].....	[26]
		2016-21.....	55/75 [3] [29].....	55/75 [3] [29]

Hub mounting footnote codes

- [1] After tightening to specification, turn an additional 90°.
- [2] After tightening to specification, turn an additional 60°.
- [3] After tightening to specification, turn an additional 45°.
- [4] Tighten in three steps: 15 ft-lbs (20 Nm), 48 ft-lbs (65 Nm), then turn an additional 60°.
- [5] After tightening to specification, turn an additional 40°.
- [6] After tightening to specification, turn an additional 30°.
- [7] Use new bolts and nuts only.
- [8] With disc brakes, tighten to 45 ft-lbs/61 Nm.
- [9] After tightening to specification, turn an additional 30° to 45°.
- [10] With rear with drum brakes, tighten to 58 ft-lbs/80 Nm.
- [11] With independent suspension, tighten to 96 ft-lbs/130 Nm.
- [12] After tightening to specification, turn an additional 75°.
- [13] After tightening to specification, turn an additional 110°.
- [14] Tighten in three steps: 67 ft-lbs/90 Nm, turn 30° and then an additional 15°.
- [15] Tighten in three steps: 37 ft-lbs/50 Nm, turn 30° and then an additional 15°.
- [16] Tighten to 14 ft-lbs/ 20 Nm, then turn an additional 90°.
- [17] Tighten wheel hub bearing to 51 ft-lbs/69 Nm; with Sport Shift Transmission, tighten to 37 ft-lbs/51Nm.
- [18] With Sport Shift Transmission.
- [19] For the ZR1 2009-13 (RPO SSC), identify the short lower bolt (black coated) used to mount the rear wheel bearing to knuckle. This fastener must be used in this location in order to have enough clearance so that the wheel stud will not come in contact with this fastener.
- [20] With rear hub bolts 10x1.25, tighten to 52Nm (38ft-lbs). With Rear nuts 10x1.25, tighten to 38Nm (28 ft-lbs). With Nuts 16x1.5, tighten to 140Nm (103 ft-lbs).
- [21] With rear drums, torque is 63 ft-lbs/85Nm; with disc, 96 ft-lbs/130Nm.
- [22] After tightening to specification, tighten an additional 75° and then loosen 90°.
- [23] Tightening torque for bolts, 41 ft-lbs (56 Nm). Tightening torque for nut, 103 ft-lbs (140 Nm).
- [24] Tighten in three steps: 66 ft-lbs (90 Nm), turn another 60°, then turn an additional 15°.
- [25] Tighten bolts in three steps: 48 ft-lbs (65 Nm), loosen 90°, then torque an additional 48 ft-lbs (65Nm).
- [26] Tighten in three steps: 15 ft-lbs (20Nm), 33 ft-lbs (45Nm), then turn an additional 60°.
- [27] With 18"/19" suspension, 59 ft-lbs/80 Nm plus 120°. Always replace if removed.
- [28] Jointing torque, 22 ft-lbs/30Nm; final torque, 89 ft-lbs/120Nm.
- [29] Replace bolts.
- [30] Then turn an additional 28°.
- [31] Tighten in a criss-cross pattern.
- [32] After tightening to specification, turn an additional 15° to 30°.
- [33] After tightening to specification, turn an additional 20° to 35°.
- [34] Tighten all bolts in a crisscross pattern to 18 ft-lbs/25 Nm, loosen 90°, then tighten to 18 ft-lbs/25 Nm, plus an additional 50°.
- [35] With single rear wheel remove the 5 torx wheel bearing and hub bolts replace bolts tighten in a star cross pattern to 46 ft-lbs/63 Nm. Remove and replace the 5 disc brake bolts an separate the brake disc from the wheel bearing and wheel hub assembly replace bolts tighten in two steps; 22 ft-lbs/30 Nm, then torque an additional 90°. With dual rear wheels, remove the 5 torx wheel bearing and hub bolts. Replace bolts, then tighten to 81 ft-lbs/110 Nm.
- [36] Tighten the four inner bolts 72 ft-lbs/98 Nm, and the two outer bolts to 47 ft-lbs/64 Nm.
- [37] With pink bolt, 24-24 ft-lbs/32-34 Nm; then torque an additional 57°-63°. With green bolt, 63-75 ft-lbs/85-102 Nm.
- [38] With drum brakes 67 ft-lbs/91 Nm, with disc brakes 70 ft-lbs/94 Nm.
- [39] If equipped with M12/1.25x45 bolts, tighten in these steps: 14.7 ft-lbs/20 Nm, 88 ft-lbs/120 Nm, then final torque an additional 90°.
- [40] Models with rear Multi-Link suspension, tighten 52 ft-lbs/70Nm, and then turn an additional 90°. Use new original equipment bolt.

Hub mounting footnote codes

- [41] Models with rear Torsion Beam Axle, tighten 22 ft-lbs/30Nm, and then turn an additional 90°. Use new original equipment bolt.
- [42] FWD models with Multi-Link rear Suspension; do not have hub mounting bolts.
- [43] Wheel bearing assembly to wheel carrier, 59ft-lbs/ 80Nm.
- [44] Bolt torque for wheel bearing plate (lid).
- [45] After removing hub mounting bolts, clean thread locker from the threads. Apply new thread locker to the bolt threads before installation.
- [46] Install new bolts; tighten an additional 60–75°.
- [47] Install new bolts; tighten an additional 40°.
- [48] Tighten in three steps: first, 74 ft-lbs/100 Nm; second, 20°; final, 35°.
- [49] Tighten an additional 15–30°.
- [50] Apply thread locking adhesive to the fasteners; tighten an additional 30–45°.
- [51] Install new bolts: tighten in crisscross pattern in first step, 7 ft-lbs/10 Nm; second, 85 ft-lbs/115 Nm.
- [52] With M12x30 w/cone 59 ft-lbs/80 Nm plus an additional 45°. With M12x35 w/o cone 44 ft-lbs/60 Nm plus an additional 45°.
- [53] Install new bolts to wheel bearing assembly to wheel carrier; 59 ft-lbs/80 Nm plus an additional 120°.
- [54] Install new bolts to wheel bearing assembly to wheel carrier; 59 ft-lbs/80 Nm plus an additional 90°.
- [55] Tighten an additional 70°.
- [56] Replace nut.
- [57] Tighten an additional 65–70°.
- [58] Tighten an additional 65°.
- [59] Tighten 7 ft-lbs/10 Nm. Tighten an additional 81 ft-lbs/110 Nm.
- [60] Tighten 7 ft-lbs/10 Nm. Tighten an additional 66 ft-lbs/90 Nm. Tighten an additional 60°.
- [61] Tighten an additional 66 ft-lbs/90 Nm. Tighten an additional 60°.
- [62] With M12x1.5 bolts, tighten to 59 ft-lbs/80 Nm, then turn an additional 90°. With M12x1.25 bolts, tighten to 89 ft-lbs/120 Nm, then turn an additional 90°.
- [63] The OEM does not specify.
- [64] Tighten an additional 80°
- [65] Tighten an additional 165°
- [66] Use new fasteners.
- [67] Tighten an additional 180°
- [68] Tighten new bolts in a criss-cross pattern.
- [69] Install new bolts; apply thread locking adhesive to the new bolts.
- [70] Tighten an additional 20–30°.
- [71] Use new bolts. Due to unknown shelf life of the new wheel bearing and hub assembly bolt adhesive patches, prepare the new bolts as follows: Remove all traces of the adhesive patches from the new front wheel bearing and hub assembly bolts. Clean the threads of the new bolts with denatured alcohol. Apply thread locking adhesive to the new wheel bearing and hub assembly bolts.
- [72] Tighten an additional 65–75°.
- [73] Tighten an additional 30–45°.
- [74] Tighten in 4 stages. First, 22 ft-lbs/30 Nm; Second, 44 ft-lbs/60 Nm; Third, 66 ft-lbs/90 Nm; Fourth, + 120°
- [75] Tighten to 15 ft-lbs/ 20 Nm. Tighten to 103 ft-lbs/140 Nm. Loosen 45°. Tighten 89 ft-lbs/120 Nm. Tighten additional 90°.
- [76] Apply thread locking adhesive to fasteners.
- [77] Tighten an additional 60–75°.
- [78] Tighten to 65 ft-lbs/88 Nm. Loosen 140°. Tighten to 108 ft-lbs/147 Nm.
- [79] Torque new bolts to 125 ft-lbs/170 Nm, loosen 90°, torque to 66 ft-lbs/90 Nm, the turn an additional 120°.
- [80] Tighten to 70 ft-lbs/95 Nm. Loosen 180°. Tighten to 22 ft-lbs/30 Nm.
- [81] Vehicles with 350mm/365mm brake disc, tighten in 4 stages: first, 22 ft-lbs/30 Nm; second, 44 ft-lbs/60 Nm; third, 66 ft-lbs/90 Nm; fourth, + 120°.
- [82] Tighten an additional 120°

Section 3

Lug Nut torque

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
ACURA			
All.....		2001-04.....	80
3.2TL.....		2005-07.....	80
3.5RL.....		2005-07.....	94
ILX.....		2013-21.....	80
MDX.....		2005-06.....	80
		2007-13.....	94
		2014-16.....	80
		2017-20.....	94
NSX.....		2005.....	80
		2017-21.....	125
RDX.....		2007-21.....	80
RL.....		2008-12.....	94
RLX.....		2014-21.....	94
RSX.....		2005-06.....	80
TL.....		2008.....	80
		2009-14.....	94
TLX.....		2015-21.....	80
TSX.....		2005-14.....	80
ZDX.....		2010-13.....	94

ALFA ROMEO			
4C.....		2015-20.....	72
Giulia.....		2017-21.....	89
Stelvio.....		2018-21.....	89

AM GENERAL			
All.....		2003-05.....	140
		2010.....	103
Hummer H2.....		2006-09.....	140
Hummer H3/H3T.....		2006-09.....	103

AUDI			
A3 Sportback E-Tron.....		2016-21.....	89
A3/A3 Quattro.....		2006-13.....	89
		2015-21.....	89
A4/A4 Quattro.....		2001-21.....	89
A5.....		2010-14.....	89
A5 Quattro.....		2008-21.....	89
A6.....		2001-04.....	89
		2006-15.....	89
		2017-20.....	89
A6 Quattro.....		2001-21.....	89
A7 Quattro.....		2012-21.....	89
A8 Quattro.....		2001-21.....	89
Allroad Quattro.....		2001-05.....	89
		2013-19.....	89
Q3/Q3 Quattro.....		2015-21.....	89
Q5.....		2009.....	89
		2010-21.....	103
Q7.....		2007-15.....	118
		2017-21.....	118
Q8.....		2020-21.....	118
R8.....		2008-12.....	89
		2014-15.....	89
		2017-19.....	89
RS3.....		2018-21.....	89
RS4.....		2007-08.....	89
RS5.....		2013-15.....	89
		2018-21.....	89

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
AUDI - cont.			
RS6.....		2003-04.....	89
RS7.....		2014-19.....	89
		2021.....	89
S3.....		2015-21.....	89
S4.....		2001-02.....	89
		2004-16.....	89
		2018-21.....	89
S5.....		2008-21.....	89
S5 Sportback.....		2018-21.....	89
S6.....		2007-11.....	89
		2013-21.....	89
S6 Quattro.....		2002-03.....	89
S7.....		2013-21.....	89
S8.....		2001-03.....	89
		2007-09.....	89
		2013-21.....	89
SQ5.....		2014-21.....	103
TT/TT Quattro.....		2001-21.....	89
TTRS.....		2018-21.....	89

BMW			
1 Series M.....		2011.....	89
1 Series.....		2008-13.....	89
2 Series.....		2014-21.....	103
320i/320xi.....		2013-19.....	103
325Ci.....		2001-04.....	81-96
325Ci/325i.....		2005-06.....	78-98
325i/325xi.....		2001-04.....	81-96
325xi.....		2005.....	78-98
		2006.....	88
328d/328xd.....		2014-19.....	103
328i.....		2009-11.....	89
328i (w/4-Cyl).....		2012.....	103
328i (w/6-Cyl).....		2012.....	89
328i/328xi.....		2007.....	88
		2008.....	78
		(Coupe).....	89
		(Sedan).....	103
		2014-16.....	103
328xi.....		2009-12.....	89
330Ci.....		2001-04.....	81-96
330Ci/330i.....		2005-06.....	78-98
330E.....		2016-18.....	103
330i/330xi.....		2001-04.....	81-96
		2017-21.....	103
330xi.....		2005.....	78-98
		2006.....	88
335D.....		2009-11.....	89
335i.....		2007.....	78-98
335i/335xi.....		2008.....	78
		2009-13.....	89
		2014-16.....	103
335is.....		2011-13.....	89
335xi.....		2007.....	89
340i/340i Xdrive.....		2016-19.....	103
4 Series.....		2014-21.....	103
525i.....		2001-04.....	81-96
		2005-07.....	78-98
525xi.....		2006-07.....	78-98
528i.....		2008-10.....	81-96

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
BMW - cont.			
528i/528xi		2011-16	103
528xi		2008	78-98
		2009-10	81-96
530E/530EX		2018-21	103
530i		2001-04	81-96
		2005-07	78-98
		2017-21	103
530xi		2006-07	78-98
		2017-21	103
535d/535xd		2014-16	103
535i/535xi		2008	78-98
		2009-10	81-96
		2011-19	103
540i		2001-03	81-96
		2017-21	103
540xi		2017-21	103
545i		2004	81-96
		2005	78-98
550i		2006-07	81-96
		2008	78-98
		2009-10	81-96
		2011-16	103
550xi		2010-17	103
640i/640xi		2012-19	103
645Ci		2004	81-96
		2005	78-98
650i		2006-08	78-98
		2009-10	81-96
650i/650xi		2012-19	103
740e		2017-18	103
740i/740iL		2001	81-96
740i/740xi		2011-21	103
740Ld Xdrive		2015	103
740Li		2011-15	103
745i/745Li		2002-04	96-111
		2005	93-113
750i/750Li		2006-08	96-110
750i/750xi		2009-21	103
750iL		2001	81-96
750Li		2009-15	103
760i		2004	96-111
		2006	96-110
760i/760Li		2005	93-113
760Li		2003-04	96-111
		2006-08	96-110
		2010	81-96
		2011-15	103
ActiveHybrid 3		2013-15	103
ActiveHybrid 5		2012-16	103
ActiveHybrid 7		2013-15	103
i3, i3s		2014-21	103
i8		2014-17	103
		2019-21	103
M Coupe		2001-02	81-96
M Roadster		2001-02	81-96
M2		2016-21	103
M3		2001-04	81-96
		2005-06	78-98
		2008	78-98

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
BMW - cont.			
M3		2009-10	81-96
		2011-13	89
		2015-18	103
M4		2015-21	103
M5		2001-03	81-96
		2006	81-96
		2007-08	78-98
		2009-10	81-96
		2013-16	103
		2018-21	103
M6		2006	81-96
		2007-08	78-98
		2009-10	81-96
		2012-19	103
M235i/M235xi		2014-16	103
M240i/M240xi		2017-21	103
M550ix		2018-21	103
M760ix		2017-21	103
X1		2013-15	89
		2016-21	103
X2		2018-21	103
X3		2004-08	96-110
		2009-10	96-111
		2011-21	103
X4		2015-21	103
X5		2001-04	96-111
		2005-06	93-113
		2007-21	103
X6		2008-19	103
Z3		2001-02	81-96
Z4		2003-08	81-96
		2009	89
		2010	86
		2011-16	89
		2019-21	103
Z8		2001-03	81-96

BUICK

All		2001-03	100
Allure		2005-09	100
Cascada		2016-17	103
		2018-19	100
Century		2004-05	100
Enclave		2008-21	140
Encore		2013-14	100
		2015	103
		2016-21	100
Encore GX		2020-21	100
Envision		2016-18	100
		2019-21	140
Lacrosse		2005-09	100
		2010-11	111
		2012-16	110
		2017-19	100
Lesabre		2004-05	100
Lucerne		2006-11	100
Park Avenue		2004-05	100
Rainier		2004-07	100

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
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BUICK - cont.

Regal.....		2004.....	100
		2011.....	110
		2012-15.....	111
		2016-17.....	110
Rendezvous.....		2004-07.....	100
Sportback/TourX.....		2018-20.....	100
Terraza.....		2005-07.....	100
Verano.....		2012-13.....	103
		2014-17.....	100

CADILLAC

All.....		2001.....	100
ATS.....		2013-15.....	103
ATS (w/V-Series).....		2016.....	110
		2017-19.....	140
ATS (w/o V-Series).....		2016-19.....	100
CT4.....		2020-21.....	100
CT5.....		2020-21.....	140
CT6.....		2016-20.....	110
CTS.....		2003-08.....	100
		2009-13.....	140
		2016.....	110
		2017-19.....	140
	(Coupe).....	2014-15.....	122
	(Sedan).....	2014-15.....	103
Deville.....		2002-05.....	100
DTS.....		2006-08.....	100
		2009-11.....	103
Eldorado.....		2002.....	100
ELR.....		2014-16.....	103
Escalade.....		2002.....	140
		2003.....	125
		2004-21.....	140
Escalade ESV.....		2003-21.....	140
Escalade EXT.....		2002.....	140
		2003.....	125
		2004-13.....	140
Seville.....		2002-04.....	100
SRX.....		2004-09.....	100
		2010-12.....	110
	(w/ blue cone.....	2013.....	110
	seats)		
	(w/ silver cone.....	2013.....	140
	seats)	2014-16.....	140
STS.....		2005-11.....	100
XLR.....		2004-09.....	100
XT4.....		2019-21.....	140
XT5.....		2017-21.....	140
XT6.....		2020-21.....	140
XTS.....		2013-19.....	110

CHEVROLET

All.....		2003.....	100
Aveo.....		2004-09.....	88
		2010.....	103
		2011.....	88
Aveo5.....		2007-09.....	88
		2010.....	103
		2011.....	88

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
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CHEVROLET - cont.

Bolt EV.....		2017-20.....	100
Camaro.....		2001-02.....	100
		2010-11.....	140
		2014-15.....	122
		2016-21.....	140
	(w/ blue cone.....	2012-13.....	111
	seats)		
	(w/ silver cone.....	2012-13.....	140
	seats)		
	(w/ Steel.....	2012-13.....	122
	Wheels)		
Caprice.....		2011-17.....	140
Cavalier.....		2001-02.....	100
		2004-05.....	100
Classic.....		2004-05.....	100
Cobalt.....		2005-10.....	100
Corvette.....		2001-02.....	100
		2004-10.....	100
		2011-13.....	103
		2014-19.....	100
Cruze.....		2011-16.....	103
		2017-19.....	100
Cruze Limited.....		2016.....	100
Epica.....		2004-06.....	81
HHR.....		2006-11.....	100
Impala.....		2001-02.....	100
		2004-11.....	100
	(w/ Aluminum.....	2012-13.....	93
	Wheels)		
	(w/ Steel.....	2012-13.....	103
	Wheels)		
		2014-20.....	110
Impala Limited.....		2014-16.....	100
Lumina.....		2001.....	100
Malibu.....		2001-02.....	100
		2004-12.....	100
		2013.....	111
		2014-15.....	110
		2016-21.....	100
Malibu Limited.....		2016.....	110
Malibu Maxx.....		2004-07.....	100
Metro.....		2001.....	45
Monte Carlo.....		2001-02.....	100
		2004-07.....	100
Optra.....		2004.....	74
		2005.....	100
		2006-07.....	74
Prizm.....		2001-02.....	76
Sonic.....		2012-20.....	100
Spark.....		2013-16.....	103
		2017-21.....	100
Spark EV.....		2014-15.....	92
		2016.....	100
SS.....		2014-17.....	140
Uplander.....		2005-09.....	100
Venture Mini-Van.....		2001-02.....	100
		2004-05.....	100
Volt.....		2011-19.....	100

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
CHEVROLET TRUCKS			
Astro Van.....		2001-02.....	100
		2003.....	125
		2004-05.....	140
Avalanche.....		2002-13.....	140
C3500 HD.....		2001-02.....	175
Captiva Sport.....		2012-15.....	100
City Express.....		2015-18.....	83
Colorado.....		2004-12.....	100
		2015-21.....	140
Equinox.....		2005-09.....	100
		2010.....	125
		2011-17.....	140
		2018-21.....	100
Express 1500/ 2500/3500/4500		2001-21.....	140
G1500 Van.....		2001-02.....	140
S Series Blazer.....		2001-05.....	100
S10 Pickup.....		2001-04.....	100
Silverado 1500/2500....		2001-21.....	140
Silverado 3500.....		2001-21.....	140
SSR.....		2003-06.....	100
Suburban 3500 HD.....		2016-18.....	140
Suburban/Tahoe.....		2001-21.....	140
Tracker.....		2001-02.....	73.8
		2003.....	69
		2004.....	74
Trailblazer.....		2002.....	92
		2003-05.....	100
		2006-09.....	100
Traverse.....		2009-21.....	140
Trax.....		2015-21.....	100

CHRYSLER

All.....		2010.....	100
200.....		2011-14.....	100
		2015-16.....	103
		2017.....	100
300.....		2005-09.....	110
		2011-14.....	110
	(SRT).....	2015-16.....	111
	(Others).....	2015-16.....	130
		2017-21.....	130
300M.....		2001-04.....	100
Aspen.....		2007-09.....	125-145
Concorde.....		2001-04.....	100
Crossfire.....		2004-08.....	81
Intrepid.....		2001-04.....	100
LHS.....		2001.....	100
Pacifica.....		2004-08.....	100
		2017-21.....	100
Prowler.....		2001-02.....	100
PT Cruiser.....		2001-09.....	100
Sebring.....		2001-06.....	100
		2008-10.....	100
Sebring Sebring Convertible.....		2006.....	100
Sebring Coupe 2 Door....		2001-05.....	66-80
Sebring Sedan 4 Door....		2001.....	100
		2003-08.....	100

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
CHRYSLER - cont.			
Town & Country.....		2001-09.....	100
		2011-16.....	100
Voyager.....		2001-03.....	100
		2020-21.....	100

DAEWOO

Lanos.....		2001-02.....	88
Leganza.....		2001-02.....	81
Nubira.....		2001-02.....	88

DODGE

All.....		2001-02.....	100
Avenger.....		2008-14.....	100
Caliber.....		2007-12.....	100
Caravan.....		2003-07.....	100
Challenger.....		2008-15.....	110
	(SRT).....	2016-21.....	111
	(Others).....	2016-21.....	130
Charger.....		2006-09.....	110
	(Police).....	2010-14.....	140
	(Others).....	2010-14.....	110
		2015-21.....	130
	(SRT).....	2015-21.....	111
	(Others).....	2015-21.....	130
Dart.....			
	(w/ Alumimum... Wheels)	2013-16.....	92
	(w/ Steel..... Wheels)	2013-16.....	89
Grand Caravan.....		2003-18.....	100
Intrepid.....		2003-04.....	100
Journey.....		2009-20.....	100
Magnum.....		2005-08.....	110
Neon.....		2003-05.....	100
Stratus.....		2004.....	100
Stratus Coupe 2 Door....		2003-05.....	66-80
Stratus Sedan 4 Door....		2003-06.....	100

DODGE TRUCKS

B1500/2500/3500.....			
	(5 lug).....	2001-03.....	80-110
	(8 lug).....	2001-03.....	120-150
Dakota.....		2001-04.....	85-115
		2005-10.....	125-145
Durango.....		2001-03.....	85-115
		2004-09.....	125-145
		2011-16.....	85-115
		2017.....	130
	(SRT).....	2018-21.....	110
	(Others).....	2018-21.....	130
Nitro.....		2007-09.....	100
		2010-12.....	85-115
Ram 1500.....		2002.....	135
		2003-05.....	98
		2006-10.....	130

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
DODGE TRUCKS - cont.			
Ram 1500/2500/3500..			
	(Cone Nut 1/2.... Stud)	2001.....	85-115
	(Cone Nut 9/16.. Stud)	2001.....	120-150
	(Flange Nut..... 9/16 Stud)	2001.....	130-160
Ram 2500 HD.....			
	(Single Rear..... Wheels)	2010.....	140
	(Dual Rear..... Wheels)	2009-10.....	145
	(Single Rear..... Wheels)	2009-10.....	140
Ram 2500/3500.....		2002-03.....	135
		2004-05.....	145
		2006-09.....	140
Ram 3500.....			
	(Dual Rear..... Wheels)	2010.....	145
	(Single Rear..... Wheels)	2010.....	140
Ram 4500/5500.....		2008-10.....	148
Sprinter 2500.....		2003-06.....	167-187
Sprinter 2500/3500.....			
	(w/ Aluminum.... Wheels)	2007.....	130
	(w/ Steel..... Wheels)	2007.....	177
		2008-09.....	148
Sprinter 3500.....		2003-06.....	130-150

FIAT			
124 Spider.....		2017-20.....	94
500/500L.....			
	(w/ Aluminum.... Wheels)	2012-20.....	75
	(w/ Steel..... Wheels)	2012-20.....	63
500X.....		2016-21.....	89

FORD			
All.....		2012.....	100
C-Max.....		2013-18.....	100
Crown Victoria.....		2001-02.....	85-105
		2003-11.....	100
Edge.....		2007-11.....	100
		2013-14.....	100
		2015-21.....	162
Escort.....	(w/ Aluminum.... Wheels)	2001-02.....	74-100
	(w/ Steel..... Wheels)	2001-02.....	66-87
Fiesta.....		2011.....	100
		2013-19.....	100
Five Hundred.....		2005-06.....	100
		2007.....	98
Flex.....		2009-11.....	98
		2013-19.....	100

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
FORD - cont.			
Focus.....		2001-11.....	94
		2013-18.....	100
Freestar.....		2004-07.....	100
Freestyle.....		2005-07.....	100
Fusion.....		2006-09.....	98
		2010.....	100
		2011.....	98
		2013-16.....	100
	(w/ 2.7L).....	2017-20.....	150
	(w/o 2.7L).....	2017-20.....	100
Mustang.....		2001-02.....	85-105
		2003-05.....	95
		2006-10.....	98
		2011.....	100
		2013-14.....	100
		2015-21.....	150
Police Interceptor.....			
Sedan.....		2013-19.....	110
Special Service.....			
Police SE.....		2014-19.....	110
Taurus.....		2001-02.....	85-105
		2003-07.....	95
		2010-11.....	100
		2013-19.....	100
Taurus/Taurus X.....		2008-09.....	98
Thunderbird.....		2002-05.....	100
Windstar.....		2001-02.....	85-105
		2003.....	100
Zx2 (Escort Coupe).....		2001-03.....	85-105
	(w/ Aluminum.... Wheels)	2003.....	74-100
	(w/ Steel..... Wheels)	2003.....	66-87

FORD TRUCKS			
E150/250/350.....		2001.....	140
E150.....		2002.....	100
		2003-05.....	74-133
E150/250.....		2009-14.....	148
E150/250/350/450.....			
	(w/ 5-lugs).....	2006-07.....	103
	(w/ 8-lugs).....	2006-07.....	148
		2008.....	165
E250 Econoline.....		2003.....	126-170
E250/350.....		2002.....	140
		2003-05.....	126-170
E350/450.....			
	(Dual Rear..... Wheels)	2009-19.....	140
	(Single Rear..... Wheels)	2009-19.....	148
E450.....		2001-05.....	126-170
E550.....		2002.....	126-170
Escape.....		2001.....	65-87
		2002-07.....	98
		2008-21.....	100
Excursion.....		2001-02.....	148
		2003.....	155-165
		2004-05.....	165

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FORD TRUCKS - cont.

Expedition.....		2001.....	100
	(w/ 12mm).....	2002.....	100
	(w/ 14mm).....	2002.....	150
		2003-21.....	150
Explorer.....		2001-19.....	100
		2020-21.....	150
Explorer Sport Trac.....		2001-10.....	100
F150.....			
	(w/ 5 lugs).....	2001-04.....	150
	(w/ 7 lugs).....	2001-04.....	100
		2005-21.....	150
F250 HD.....		2009.....	140
F250/350.....		2003.....	155-165
F250/350/450.....		2004-08.....	165
		2010-21.....	165
F250/350/450/550.....		2001-02.....	148
F350/450.....			
	(Dual Rear.....	2009.....	140
	Wheels)		
	(Single Rear.....	2009.....	148
	Wheels)		
F450/550.....			
	(Loaded).....	2003.....	165
	(Unloaded).....	2003.....	155
F550.....		2004-21.....	165
Police Interceptor Utility...		2013-19.....	110
		2020-21.....	150
Ranger.....		2001-11.....	100
		2019-21.....	100
Transit Connect.....		2010.....	66
		2011-18.....	100
Transit-150/250/350....		2015-19.....	148
		2020-21.....	150

GENESIS

G70.....		2019-21.....	79-94
G80.....		2017.....	65-79
		2018-21.....	79-94
G90.....		2017-21.....	79-94

GMC TRUCKS

All.....		2013-17.....	140
Acadia.....		2007.....	125
		2008-12.....	140
		2018-21.....	140
C3500 HD.....		2001-02.....	175
Canyon.....		2004-12.....	100
		2018-21.....	140
Envoy.....		2002.....	100
		2003-09.....	103
G1500 Van.....		2001-02.....	140
Jimmy.....		2005.....	100
Safari Van.....		2001-02.....	100
		2003-05.....	140
Savana 1500/.....		2001-12.....	140
2500/3500/4500		2018-21.....	140
Sierra 1500/2500		2001-12.....	140
		2018-21.....	140

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GMC TRUCKS - cont.

Sierra 3500.....		2001-12.....	140
		2018-21.....	140
Sierra 1500 Limited.....		2019.....	140
Sonoma.....		2001-04.....	100
S-Series Jimmy.....		2001-04.....	100
Terrain.....		2010-12.....	140
		2018-21.....	100
Yukon/Yukon XL.....		2001-12.....	140
		2018-21.....	140

HONDA

Accord.....		2001-21.....	80
Accord Crosstour.....		2010-15.....	80
Civic.....	(w/o Type R).....	2001-21.....	80
	(w/ Type R).....	2017-18.....	94
CR-V.....		2001-21.....	80
CR-Z.....		2011-16.....	80
Element.....		2003-11.....	80
Fit.....		2007-20.....	80
HR-V.....		2016-21.....	80
Insight.....		2001-06.....	80
		2010-14.....	80
		2019-20.....	80
Odyssey.....		2001-04.....	80
		2005-21.....	94
Passport.....		2001-02.....	87
Pilot.....		2003-08.....	80
		2009-21.....	94
Prelude.....		2001.....	80
Ridgeline.....		2006-14.....	94
		2017-21.....	94
S2000.....		2001-09.....	80

HYUNDAI

All.....		2001.....	65-80
		2010-16.....	65-80
Accent.....		2002-09.....	65-80
		2017.....	65-79
		2018-21.....	79-94
Azera.....		2006-09.....	65-80
		2017.....	65-80
Elantra.....		2002-09.....	65-80
	(w/o 18 inch.....	2017.....	79-94
	wheels)		
	(w/ 18 inch.....	2017.....	65-79
	wheels)		
		2018-21.....	79-94
Elantra GT.....		2017.....	65-79
		2018-21.....	79-94
Entourage.....		2007-08.....	65-80
Genesis.....		2009.....	65-80
Ioniq.....		2017-20.....	79-94
Kona.....		2018-21.....	79-94
Santa Fe.....		2002-09.....	65-80
		2017.....	65-79
		2018-21.....	79-94

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HYUNDAI - cont.

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		2003-05.....	67-81
		2006-17.....	65-79
		2018-20.....	79-94
Tiburon.....		2003-08.....	65-80
Tucson.....		2005-09.....	65-80
		2017-21.....	79-94
Veloster.....		2017-21.....	65-79
Veracruz.....		2007-09.....	65-80
XG350.....		2002-05.....	65-80

INFINITI

EX35.....		2008-12.....	80
EX37.....		2013.....	80
FX35.....		2003-12.....	80
FX37.....		2013.....	80
FX45.....		2003-08.....	80
FX50.....		2009-13.....	80
G20.....		2001.....	72-87
		2002.....	80
G25.....		2011-12.....	80
G35.....		2003-08.....	80
G37.....		2008-13.....	80
I30.....		2001.....	72-87
I35.....		2002-04.....	80
JX35.....		2013.....	83
M35.....		2006-10.....	83
M35h.....		2012-13.....	80
M37.....		2011-13.....	80
M45.....		2003-10.....	80
M56.....		2011-13.....	80
Q40.....		2015.....	80
Q45.....		2001-06.....	80
Q50.....		2014-20.....	80
Q60.....		2014-15.....	80
		2017-21.....	80
Q70/Q70L.....		2014-19.....	80
QX4.....		2001-03.....	98
QX30.....		2017-19.....	96
QX50.....		2014-17.....	80
		2019-21.....	83
QX56.....		2004-13.....	98
QX60.....		2014-21.....	83
QX70.....		2014-17.....	80
QX80.....		2014-21.....	98

ISUZU

All.....		2005-08.....	103
Ascender.....		2003-04.....	103
Axiom/Rodeo/Rodeo.....			
Sport			
	(w/ Aluminum....	2001-04.....	87
	Wheels)		
	(w/ Steel.....	2001-04.....	65
	Wheels)		
Trooper.....		2001-02.....	87
Vehicross.....		2001.....	87

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
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JAGUAR

All.....		2001.....	94
		2009.....	92
		2011-13.....	92
E-Pace.....	(Stage 1).....	2018-21.....	3
	(Stage 2).....	2018-21.....	52
	(Stage 3).....	2018-21.....	98
F-Pace.....	(Stage 1).....	2017-21.....	3
	(Stage 2).....	2017-21.....	52
	(Stage 3).....	2017-21.....	98
F-Type.....	(Stage 1).....	2014-21.....	3
	(Stage 2).....	2014-21.....	52
	(Stage 3).....	2014-21.....	92
S-Type.....		2002-08.....	94
X-Type.....			
	(w/ Aluminum....	2002-08.....	76
	Wheels)		
	(w/ Steel.....	2002-08.....	59
	Wheels)		
XE.....	(Stage 1).....	2017-21.....	3
	(Stage 2).....	2017-21.....	52
	(Stage 3).....	2017-21.....	92
XF.....	(Stage 1).....	2016-21.....	3
	(Stage 2).....	2016-21.....	52
	(Stage 3).....	2016-21.....	92
XF/XFR.....		2010.....	85-100
XF/XFR/XFR-S.....		2014-15.....	92
XJ.....		2010.....	92
XJ/XJR.....		2014-18.....	92
XJ8/XJR.....		2002-03.....	65-75
		2004-08.....	92
XK.....		2010.....	92
XK/XKR.....		2007-08.....	92
XK/XKR/XKR-S.....		2014-15.....	92
XK8/XKR.....		2002-06.....	75
XKR.....		2010.....	85-100

JEEP

All.....		2001-06.....	85-115
Cherokee.....		2014-21.....	100
Commander.....		2007-10.....	85-115
Compass/Patriot (MK)....		2007-17.....	100
Compass (MP).....		2017-21.....	100
Gladiator.....		2020-21.....	130
Grand Cherokee.....		2007-10.....	85-115
		2011-13.....	110
		2014.....	130
	(w/o SRT).....	2015-21.....	130
	(w/ SRT).....	2015-21.....	110
Liberty.....		2007-12.....	85-115
Renegade.....		2015-21.....	89
Wrangler JK.....		2007-13.....	95
		2014-18.....	100
Wrangler JL.....		2018-21.....	130

MAKE/
MODEL Qualifier Year Lug Nut
Torque
(Ft/lbs)

KIA

All.....		2010-16.....	65-80
Amanti.....		2004-06.....	65-86
		2007-09.....	65-80
Borrego.....		2009.....	65-80
Cadenza.....		2017-20.....	79-94
Forte/Forte5.....		2017-21.....	79-94
K900.....		2017-20.....	65-79
Niro.....		2017-21.....	79-94
Optima.....		2001-05.....	65-80
		2006.....	67-81
		2007-09.....	65-80
		2017-18.....	79-94
	(w/ Hybrid).....	2019-20.....	65-80
	(w/o Hybrid).....	2019-20.....	79-94
Rio.....		2001-05.....	65-87
		2006-17.....	65-79
		2018-21.....	79-94
Rio Cinco.....		2002-05.....	65-87
Rio5.....		2006-09.....	65-80
Rondo.....		2007-09.....	65-80
Sedona.....		2002-06.....	65-79
		2007-09.....	65-80
		2017-18.....	65-79
		2019-21.....	79-94
Sephia.....		2001.....	65-87
Sorento.....		2003-09.....	65-86
		2017-18.....	65-79
		2019-21.....	79-94
Soul/Soul EV.....		2017-21.....	79-94
Spectra.....	(w/ 1.8L).....	2001-04.....	65-87
	(w/ 2.0L).....	2004-09.....	65-80
Spectra5.....		2005-07.....	65-80
		2008-09.....	65-86
Sportage.....		2001-02.....	76
		2005.....	81
		2006-09.....	65-80
		2017-21.....	79-94
Stinger.....		2018-21.....	79-94

LAND ROVER

All.....		2006-07.....	103
Defender.....		2020-21.....	103
Discovery.....		2001-04.....	103
		2017-21.....	103
Discovery Sport.....		2015-21.....	98
Freelander.....		2002-05.....	85
LR2.....		2008-15.....	98
LR3.....		2005.....	103
		2008-09.....	103
LR4.....		2010-16.....	103
Range Rover.....		2001-02.....	80
		2003-05.....	103
Range Rover Evoque.....		2012-21.....	98
Range Rover/.....		2008-21.....	103
Range Rover Sport			103
Range Rover Velar.....		2018-21.....	

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MODEL Qualifier Year Lug Nut
Torque
(Ft/lbs)

LEXUS

CT200h.....		2011-17.....	76
ES300.....		2001-03.....	76
ES300h.....		2013-21.....	76
ES330.....		2004-06.....	76
ES350.....		2007-21.....	76
GS F.....		2016-20.....	76
GS200t/GS Turbo.....		2016-18.....	76
GS300.....		2001-06.....	76
GS350.....		2007-11.....	76
		2013-20.....	76
GS430.....		2001-07.....	76
GS450h.....		2007-11.....	76
		2013-18.....	76
GS460.....		2008-11.....	76
GX460.....		2010.....	83
		2011.....	82
		2012-13.....	83
		2014-15.....	82
		2016-21.....	76
GX470.....		2003-09.....	83
HS250h.....		2010-12.....	76
IS200t/IS Turbo.....		2016-17.....	76
IS250.....		2006-15.....	76
IS300.....		2001-05.....	76
		2016-21.....	76
IS300 SPORTCROSS.....		2002-04.....	76
IS350.....		2006-21.....	76
IS-F.....		2008-14.....	76
LC500/LC500h.....		2018-21.....	103
LS430.....		2001-06.....	76
LS460.....		2007-17.....	103
LS500/LS500h.....		2018-21.....	103
LS600h.....		2016.....	103
LS600h L.....		2008-09.....	100
		2010-15.....	103
LX470.....		2001-07.....	97
LX570.....		2008-11.....	97
		2013-21.....	97
NX200t.....		2015-18.....	76
NX300.....		2019-21.....	76
NX300h.....		2015-18.....	76
		2019-21.....	103
RC F.....		2015-21.....	76
RC200t.....		2016-17.....	76
RC300.....		2016-21.....	76
RC350.....		2015-21.....	76
RX300.....		2001-03.....	76
RX330.....		2004-06.....	76
RX350.....		2007-21.....	76
RX400h.....		2006-08.....	76
RX450h.....		2010-21.....	76
SC430.....		2002-10.....	76
UX200/UX250h.....		2019-21.....	76

LINCOLN

Aviator.....		2003-05.....	100
		2020-21.....	150
Blackwood.....		2002.....	148
Continental.....		2001-02.....	95
		2017-20.....	162
Corsair.....		2020-21.....	100

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LINCOLN - cont.			
LS.....		2001-06.....	100
Mark LT.....		2006-08.....	150
MKC.....		2015-19.....	100
MKS.....		2009-11.....	98
		2012-16.....	100
MKT.....		2010-12.....	100
	(Limo Body).....	2013-19.....	150
	(Standard Body)...	2013-19.....	100
MKX.....		2007-15.....	100
		2016-18.....	162
MKZ.....		2007-09.....	98
		2010.....	100
		2011.....	98
		2012-16.....	100
		2017-20.....	150
Nautilus.....		2019-21.....	162
Navigator.....			
	(w/ 12mm).....	2001-02.....	100
	(w/ 14mm).....	2001-02.....	150
		2003-21.....	150
Navigator L.....		2007.....	100
		2008-15.....	150
Town Car.....		2001-04.....	85-105
		2005-11.....	100
Zephyr.....		2006.....	98

MAZDA			
All.....		2016-17.....	80-108
626.....		2001-02.....	65-87
B2300/2500/3000/.....		2001-09.....	100
4000			
CX-3.....		2016-21.....	80-108
CX-30.....		2020-21.....	80-108
CX-5.....		2013-21.....	80-108
CX-7.....		2007-12.....	65-87
CX-9.....		2007-21.....	80-108
Mazda2.....		2011-14.....	65-87
Mazda3.....		2004-13.....	65-87
		2014-21.....	80-108
Mazda5.....		2006-10.....	65-87
		2012-15.....	65-87
Mazda6.....		2003-13.....	65-87
		2014-21.....	80-108
Miata.....		2001-15.....	65-87
		2016-20.....	80-108
Millenia.....		2001.....	65-94
		2002.....	65-87
MPV.....		2001-06.....	80-108
Protege/Protege5.....		2001-03.....	66-88
RX-8.....		2004-11.....	65-87
Tribute.....		2001-08.....	98
		2009-11.....	100

MERCEDES-BENZ			
AMG GT/GT S.....			
	(Size 17).....	2016-18.....	96
	(Size 19).....	2016-18.....	133

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MERCEDES-BENZ - cont.			
AMG GT C/GT R.....			
	(Size 17).....	2018.....	96
	(Size 19).....	2018.....	133
B Electric Drive.....		2014-15.....	96
B250e.....		2016-17.....	96
C32 AMG.....		2002-04.....	81
C43 AMG.....		2017-20.....	96
C55 AMG.....		2005-06.....	81
C63 AMG/AMG S.....		2008-21.....	96
C230.....		2002-07.....	81
C240.....		2001-05.....	81
C250.....		2012.....	96
	(w/ Code 98).....	2013-15.....	133
	(w/o Code 98)....	2013-15.....	96
C280.....		2006-07.....	81
C300.....		2008-12.....	96
	(w/ Code 98).....	2013-14.....	133
	(w/o Code 98)....	2013-14.....	96
		2015-21.....	96
C320.....		2001-05.....	81
C350.....		2006-07.....	81
		2008-15.....	96
C350e.....		2016-18.....	96
C400.....		2015.....	96
C450 AMG.....		2016.....	96
CL55 AMG.....		2001-06.....	110
CL63 AMG.....		2008-14.....	110
CL65 AMG.....		2005-06.....	110
		2008-14.....	110
CL500.....		2001-06.....	110
CL550.....		2007-14.....	110
CL600.....		2001-14.....	110
CLA Class.....		2014-21.....	96
CLK55 AMG.....		2001-06.....	81
CLK63 AMG.....		2007-08.....	81
		2009.....	80
CLK320.....		2001-05.....	81
CLK350.....		2006-09.....	81
CLK430.....		2001-03.....	81
CLK500.....		2003-06.....	81
CLK550.....		2007-09.....	81
CLS55 AMG.....		2006.....	95
CLS53 AMG.....		2019-21.....	96
CLS63 AMG.....		2007-09.....	95
		2010-14.....	96
CLS63 AMG S.....		2014-19.....	96
CLS400.....		2015-17.....	96
CLS450.....		2019-21.....	96
CLS500.....		2006.....	96
CLS550.....		2007-09.....	95
		2010-19.....	96
E43 AMG.....			
	(Alloy Wheels)....	2017-18.....	111
	(Steel Wheels)....	2017-18.....	96
E55 AMG.....		2001-02.....	81
		2003-06.....	95
E63 AMG.....		2007-11.....	95

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MERCEDES-BENZ - cont.

E63 AMG/S.....		2012-16.....	96
	(Alloy Wheels)....	2017-21.....	111
	(Steel Wheels)....	2017-18.....	96
E250.....		2014-16.....	96
E300.....			
	(Alloy Wheels)....	2017-21.....	111
	(Steel Wheels)....	2017-21.....	96
E320.....			
	(Wagon 4Matic)...	2001-03.....	81
	(Sedan).....	2003.....	95
		2004-05.....	95
		2007-09.....	95
E320 CDI.....		2005-06.....	95
E350.....		2006-11.....	95
		2012-16.....	96
E400.....		2013-16.....	96
	(Alloy Wheels)....	2017-18.....	111
	(Steel Wheels)....	2017-18.....	96
E430.....		2001-02.....	81
E450.....		2013-16.....	96
	(Alloy Wheels)....	2019-21.....	111
	(Steel Wheels)....	2019-21.....	96
E500.....		2003-06.....	95
E550.....		2007-11.....	95
		2012-17.....	96
G55.....			
	(Alloy Wheels)....	2003-05.....	96
	(Steel Wheels)....	2003-05.....	132
		2006-11.....	96
G63 AMG.....			
	(Alloy Wheels)....	2013-21.....	96
	(Steel Wheels)....	2013-18.....	133
G65 AMG.....			
	(Alloy Wheels)....	2016-20.....	96
	(Steel Wheels)....	2016-20.....	133
G500.....			
	(Alloy Wheels)....	2002-05.....	96
	(Steel Wheels)....	2002-05.....	132
		2006.....	96
		2007-08.....	96
G550.....		2009-12.....	96
	(Alloy Wheels)....	2013-20.....	96
	(Steel Wheels)....	2013-20.....	133
GL Class.....		2007-16.....	110
GLA Class.....		2015-21.....	96
GLC Class.....		2016-21.....	111
GLE Class.....		2016-21.....	111
GLK250.....		2013-15.....	96
GLK350.....		2010-15.....	110
GLS Class.....		2017-21.....	111
Maybach S550.....			
	(w/ Code Z07)....	2017-18.....	133
	(w/o Code Z07)...	2017-18.....	111
Maybach S600.....		2016-17.....	110
Maybach S650.....			
	(w/ Code Z07)....	2018.....	133
	(w/o Code Z07)...	2018.....	111

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MERCEDES-BENZ - cont.

Metris.....			
	(w/ Aluminum....	2016-21.....	133
	Wheels)		
	(w/ Steel.....	2016-21.....	148
	Wheels)		
ML Class.....		2001-15.....	110
R Class.....		2006-12.....	110
S55 AMG.....		2001-06.....	110
S63 AMG.....		2008-17.....	110
	(w/ Code Z07)....	2018-21.....	133
	(w/o Code Z07)...	2018-21.....	111
S65 AMG.....		2006-13.....	110
		2015-17.....	110
	(w/ Code Z07)....	2018-21.....	133
	(w/o Code Z07)...	2018-21.....	111
S350.....		2006.....	110
		2012-13.....	110
S400.....		2010-13.....	110
S430.....		2001-06.....	110
S450.....			
	(w/ Code Z07)....	2018-21.....	133
	(w/o Code Z07)...	2018-21.....	111
S500.....		2001-06.....	110
S550.....		2007-17.....	110
S550E.....		2015-17.....	133
	(w/ Code Z07)....	2015-17.....	111
	(w/o Code Z07)...	2015-17.....	111
S560.....		2018-21.....	133
	(w/ Code Z07)....	2018-21.....	111
	(w/o Code Z07)...	2018-21.....	111
S600.....		2001-13.....	110
		2015-17.....	110
SL55.....		2003-08.....	95
SL63 AMG.....		2009.....	95
		2011-21.....	96
SL65 AMG.....		2005-09.....	95
		2011.....	96
		2013-17.....	96
SL400.....		2015-16.....	96
SL450.....		2017-21.....	96
SL500.....		2001-02.....	81
		2003-06.....	95
SL550.....		2007-09.....	95
		2011-21.....	96
SL600.....		2001-02.....	81
		2004-09.....	95
SLC43 AMG.....		2017-20.....	96
SLC300.....		2017-20.....	96
SLK32 AMG.....		2002-04.....	81
SLK55 AMG.....		2005.....	80
		2006-10.....	81
		2012-16.....	96
SLK230.....		2001-04.....	81
SLK250.....		2012-15.....	96
SLK280.....		2006-08.....	81
SLK300.....		2009.....	110
		2010-11.....	81
		2016.....	96
SLK320.....		2001-04.....	81

MAKE/ MODEL	Qualifier	Year	Lug Nut Torque (Ft/lbs)
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MERCEDES-BENZ - cont.

SLK350.....		2005.....	80
		2006-08.....	81
		2009.....	110
		2010-11.....	81
		2012-16.....	96
Sprinter 1500/.....	(Alloy Wheels)....	2010-19.....	133
2500/3500	(Steel Wheels)....	2010-19.....	177
Sprinter 1500/.....	(Alloy Wheels)....	2020-21.....	133
2500/3500 w/Rear	(Steel Wheels)....	2020-21.....	177
Axle 741			
Sprinter.....		2020-21.....	184
1500/2500/3500 w/ Rear Axle 748			

MERCURY

All.....		2010.....	100
Cougar.....		2001-02.....	94
Grand Marquis.....		2001-02.....	85-105
		2003-11.....	100
Marauder.....		2003-04.....	100
Mariner.....		2005-07.....	98
		2008-09.....	100
		2011.....	100
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		2011.....	98
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Sable.....		2001-05.....	95
		2008-09.....	98
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		2003-09.....	66-80
I-MIEV.....		2014.....	66-80
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Lancer.....		2002-09.....	66-80
		2014-15.....	66-80
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		2014-15.....	65-79
Mirage/Mirage G4.....		2017-20.....	65-80
Montero.....		2001-06.....	72-87
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Outlander/.....			
Outlander Sport.....		2014-15.....	66-80
		2017-20.....	66-80
Raider.....		2006-09.....	125-145

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350Z.....		2003-05.....	73-93
		2006-09.....	80
370Z.....		2009-20.....	80
Altima.....		2001.....	73-86
		2002-06.....	80
		2007-21.....	83
Armada.....		2005-15.....	98
		2017-21.....	98
Cube.....		2009-14.....	80
Frontier.....		2001-04.....	87-108
		2005-20.....	98
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Kicks.....		2019-21.....	83
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		2009-14.....	83
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		2005-12.....	98
		2013-20.....	83
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Quest.....		2001-02.....	72-87
		2004-09.....	83
		2011-17.....	80
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Titan.....		2004-15.....	98
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TITAN XD.....		2016-21.....	131
Versa/Versa Note.....		2007-21.....	83
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		2005-15.....	98
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All.....		2001-02.....	100
Alero.....		2003-04.....	100
Aurora.....		2003.....	100
Bravada.....		2003-04.....	100
Silhouette Van.....		2003-04.....	100
PLYMOUTH			
Neon.....		2001.....	100
Prowler.....		2001.....	100
PONTIAC			
All.....		2001-02.....	100
Aztek.....		2003-05.....	100
Bonneville.....		2003-05.....	100
G3.....		2009-10.....	88
G5.....		2007-09.....	100
G6.....		2005-10.....	100
G8.....		2008-09.....	125
Grand Am.....		2003-05.....	100
Grand Prix.....		2003-08.....	100
GT0.....		2004-06.....	100
Montana.....		2003-05.....	100
Montana SV6.....		2005-09.....	100
Pursuit.....		2005-06.....	100
Solstice.....		2006-09.....	100
Sunfire.....		2003-05.....	100
Torrent.....		2006-09.....	100
Vibe.....		2003-10.....	76
Wave.....		2005-07.....	81
PORSCHE			
All.....		2001-02.....	96
		2007.....	96
718 Boxster.....		2017-21.....	118
718 Cayman.....		2017-21.....	118
911.....		2003-06.....	96
		2008-11.....	96
	(non GT2/GT3)...	2012-21.....	118
911 GT2.....	(Central Bolt).....	2018-20.....	444
911 GT3.....	(Central Bolt).....	2014-18.....	444
Boxster.....		2003-06.....	96
		2008-11.....	96
		2012-16.....	118
Cayenne.....		2003-06.....	118
		2008-10.....	118
		2011.....	NS
		2012-13.....	118
		2014-18.....	133
		2019-21.....	118
Cayman.....		2006.....	96
		2008-11.....	96
		2012.....	118
		2014-16.....	118
Macan.....		2015-21.....	118
Panamera.....		2010-16.....	133
		2017-20.....	118

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1500 Classic.....			
	(Cone style nut).....	2020-21.....	130
	(Flanged style nut)...	2020-21.....	140
1500 Pickup.....		2011.....	130
		2012-13.....	135
	(Cone style nut).....	2014-19.....	130
	(Flanged style nut)...	2014-19.....	140
		2020-21.....	130
2500 Pickup.....			
	Front.....	2011.....	130
	Rear.....	2011.....	140
	Front.....	2012-13.....	135
	Rear.....	2012-13.....	150
	(Cone style nut).....	2014-21.....	130
	(Flanged style nut)...	2014-21.....	140
3500 Pickup.....			
	Front.....	2011.....	130
	Single Rear.....	2011.....	140
	Dual Rear.....	2011.....	145
	(Cone style nut).....	2012-21.....	130
	(Flanged style nut)...	2012-21.....	129
4500/5500 Pickup.....			
	(Cone style nut).....	2011.....	120-150
	(Flanged style nut)...	2011.....	130-160
	(Cone style nut).....	2012-21.....	130
	(Flanged style nut)...	2012-21.....	129
Cargo Van.....		2012-15.....	100
Dakota.....		2011.....	125-145
Promaster.....		2014-21.....	145
1500/2500/3500			
Promaster City.....	(w/ Aluminum.....	2015-21.....	89
	Wheel)		
	(w/ Steel Wheels)...	2015-21.....	63
SAAB			
9-2x.....		2005-06.....	65,7
9-3.....		2001-08.....	81
		2009.....	80
9-3/9-3x.....		2010-11.....	81
9-4x.....		2011.....	110
9-5.....		2001-09.....	80
		2010-11.....	110
9-7x.....		2005.....	100
		2006-09.....	103
SATURN			
All.....		2006.....	100
Astra.....		2008-09.....	81
Aura.....		2007-10.....	100
Ion.....		2003-05.....	100
		2007.....	100
L 100/200/300 Series...		2001-05.....	92
Outlook.....		2007.....	125
		2008-10.....	140
Relay.....		2005.....	100
		2007.....	100
S-Series.....		2001-02.....	103
Sky.....		2007-10.....	100

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TC.....		2013-16.....	76
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Fortwo.....			
	(Electric Model)...	2016-17.....	81
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Ascent.....		2019-21.....	89
B9 Tribeca.....		2006-07.....	81
Baja.....		2003-04.....	65
		2005-06.....	80
BRZ.....		2013-20.....	89
Crosstrek.....		2016-20.....	89
Forester.....		2003.....	58-72
		2004-06.....	65
		2007-13.....	74
		2014-21.....	89
Impreza.....		2003.....	58-72
		2004-06.....	65
		2007-12.....	74
		2013-21.....	89
Legacy/Outback.....		2003-04.....	58-72
		2005-06.....	81
		2007-21.....	89
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	(w/ Chrome.....	2008-10.....	89-111
	Plated Wheels)		
	(w/ Aluminum....	2008-10.....	74-89
	Wheels)		
		2011-12.....	81
	(w/ Chrome.....	2013-14.....	111
	Wheel)		
	(w/o Chrome.....	2013-14.....	88,5
	Wheel)		
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SX4.....		2007-13.....	61,5
Verona.....		2004-06.....	81
Vitara.....		2001-04.....	72,5
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		2007-08.....	100
		2009.....	72,5

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4-Runner.....		2001-11.....	83
		2012-15.....	81
	(w/ Aluminum....	2016-21.....	76
	Wheels)		
	(w/o Aluminum...)	2016-21.....	83
	Wheels)		
86.....		2017-20.....	89
Avalon.....		2001-21.....	76
C-HR.....		2018-21.....	76
Camry.....		2001-21.....	76
Celica.....		2001-05.....	76
Corolla.....		2001-21.....	76
Corolla Hatchback.....		2019-21.....	76
Corolla iM.....		2017-18.....	76
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FJ Cruiser.....		2007-10.....	85
		2011-14.....	82
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Land Cruiser.....		2001-07.....	97
	(w/ Aluminum....	2008-10.....	97
	Wheels)		
	(w/ Steel.....	2008-10.....	154
	Wheels)		
		2011.....	97
		2013-21.....	97
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Mirai.....		2016-20.....	76
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Prius.....		2001-21.....	76
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	Wheels)		
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	(AWD).....	2009-17.....	89
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	flange)		
	(w/o Recessed.....	2009.....	81
	flange)		
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		2006-08.....	96
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	flange)		
	(w/o Recessed.....	2009.....	81
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		2003-04.....	81
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		2008.....	96
	(w/ Recessed.....	2009.....	96
	flange)		
	(w/o Recessed.....	2009.....	81
	flange)	2010-11.....	81
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