

Good links

[Erik's fantastic diff info page \(what diff do you have?\)](#)

[Just Differentials -seller of MOTIVE and NITRO GEAR](#)

[East Coast Gear Supply - complete assembled 3rds](#)

[Performance Off-Road Center](#)

[Dave'z OffRoad Performance](#)

[www.brian894x4.com \(Toyota 4x4 Gears and Diff Page\)](#)

[JT's gear break-in procedure](#) ▲▲▲▲

[Breaking in gears and other useful documents](#) ▲▲▲▲

[Marlin's new gear break-in procedure](#) ▲▲▲▲

[Randy's new gear break-in procedure](#) ▲▲▲▲

[Precision's new gear break-in procedure](#) ▲▲▲▲

[\\$49.99 DIGITAL TRANSMISSION TEMPERATURE GAUGE](#) ▲▲▲▲

[ToyoDIY.com \(part number database and more\)](#)

[My cheatsheet\(outdated\)](#)

Toyota bearing numbers

79~85 (REAR) mini-truck models

outer pinion

KOYO 30306JA cone/30306J-N cup verified (90366-30008-77 \$48.11 retail)

inner pinion

KOYO 32307JR cone/32307J cup verified

NACHI E32307JN same

TIMKEN X32307 cone/Y32307 cup

carrier

TIMKEN LM603049 cone/LM603014 cup verified

NACHI 17887

TIMKEN 17887

NSK 17887 cone/17831 cup verified

[Front outer axle spindle brass bushing solid----- 90999-70067 verified with my eyeballs](#)

[Solid collar final length~2.440"](#)

86~95 (REAR) 22R/22RE models

outer pinion

KOYO TRA0607RYR-N cone/TRA0607-N cup (genuine Toyota part # 90366-30022-77 \$48.72 retail)

NACHI TRA0607RYR-N cone/TRA0607-N cup

inner pinion

KOYO TR070803C-N (cone/cup # is same,"N" is optional) verified...genuine Toy superceded part is 90366-35044-77 \$63.84 retail

NACHI 35KC802 (cone/cup # same)

carrier

TIMKEN LM603049 cone/LM603014 cup verified
NACHI 17887 same verified
TIMKEN 17887 same
NSK 17887 same

[Solid collar final length~~2.389](#)

88~95 (REAR) V6 models

outer pinion

Toyota part # 90366-30025 superceded by 9036630067 (\$49.93 retail)
KOYO TR0607J-1 same verified
NSK R30-13

inner pinion

Toyota part # 90366-35028 superceded by 90366-35028-77 (\$87.55 retail)
KOYO TR070904-1-N same verified

carrier

KOYO TR100802-1-N cone/TR100802-2-N cup verified
TIMKEN JLM104948 cone/LM104912 cup verified
90366-50007(retail \$48.61)

V6 4 pinion cases...sidegear thrust washer part numbers(updated/verified)

superceded part numbers below(4-21-13)

PART NUMBER	mm	inches	retail
41361-60E00	0.875	.0344	\$6.60
41361-60E10	0.900	.0354	\$6.60
41361-60E20	0.925	.0364	\$6.60
41361-60E30	0.950	.0374	\$6.60
41361-60E40	0.975	.0384	\$6.60
41361-60E50	1.000	.0394	\$6.60
41361-60E60	1.025	.0404	\$6.60
41361-60E70	1.050	.0413	\$6.60
41361-60E80	1.075	.0423	\$6.76
41361-60E90	1.100	.0433	\$6.92
41361-60F00	1.125	.0443	\$7.00
41361-60F10	1.150	.0453	\$7.20
41361-60F20	1.175	.0463	\$7.31
41361-60F30	1.200	.0472	\$7.43
41361-60F40	1.225	.0482	\$7.71
41361-60F50	1.250	.0492	\$7.83
41361-60F60	1.275	.0502	\$8.03
41361-60F70	1.300	.0512	\$8.22
41361-60F80	1.325	.0522	\$8.38

[Solid collar final length~~1.866"~1.868"](#)

IFS 7.5" (FRONT) 86~95 models

[Does your passenger side inner CV axle stub seem too loose or wobbly?](#)

Outer pinion bearing

KOYO TRA0607Rr-N cone/TRA0607-N cup verified
KOYO 30306JRYA-N cone/30306J-N cup verified
KOYO TR0607RYR-N cone/TRA0607-N cup verified
NSK HR30306J cup and cone verified

Inner pinion bearing

KOYO TR0708-1r-N cone/TR0708-1-N cup verified
KOYO 32307 cone/32307J-N cup verified
KOYO TR0708-1YR-N cone/TR0708-1-N cup verified
NTN 4T 32307C cone and cup verified
Nachi 35KC802 cup and cone verified

"4 cyl" carrier bearing (45mm journal)

Nachi 17887 cone/ 17831S cup (correct offset for 4 cylinder)verified
Nachi 17887 cone/ 17831 cup (**need to add .030" shim behind both bearings**)
Timken LM603049 cone/LM603015 cup (**need to add .030" shim behind both bearings**)
Timken LM603049 cone/LM603014 cup (**need to add .081" shim behind both bearings**)

"V6" carrier bearing (50mm journal)

Nachi 50KB801LT cone/50KB801 cup correct offset verified

axle stub inner c-clip(2 desired) 90521-29002 retail \$1.15

Solid collar final length~2.170"

Tacoma 8" E-Lockers

[Wiring TRD e-lockers with an FZJ80 e-locker ECU and switch](#)

[broken e-locker sidegear discussion](#)[another alternate discussion](#)

[E-Locker re-assembly and CBPL](#)

[3rd Gen 4Runner E-locker Retrofit](#)

[adding a factory E-locker in a non E-locker quipped Tacoma\(yotatech.com\)](#)

[Retrofit Electric Locker](#)

Diff lock indicator switch Toyota part number 84725-35010

[E-Locker 1.5 volt battery test](#)

41110-35860 4.10 electric locking diff (verified with my own eyes on the box) \$1425.90 retail (6-14-2011)

41110-3D280 4.30 electric locking diff (verified with my own eyes) \$1293.21 retail

41110-3D010 4.56 electric locking diff \$1293.21 retail

41201-69466 4.30 V6 ring/pinion verified \$843.33 retail

41110-3D230 3.909 electric locking diff(verbal from Toyota parts-counter) \$1422.35 retail

41110-3D220 3.58 electric locking diff(verbal from Toyota parts-counter) \$1422.35 retail

outer pinion bearing

KOYO STA3072 verified (90366-30067 \$49.93 retail)

inner pinion bearing

TWB TR070904 same verified

KOYO TR070904-1-N cone/TR070904-1-9 cup (90366-35087 \$76.45 retail)verified

carrier bearing

case side-----KOYO TR100802-1 cone/TR100802-2 cup verified (90366-50007 \$46.33 retail)

ring side BIG side-----KOYO 32915JRYA1-N cone/32915JR-N cup (Toyota # 90366-75001 \$29.44 retail) verified

8.4" Tacoma rear

Outer pinion bearing

KOYO HM88649-N cone/HM88610-N cup verified

Timken HM88649 555 cone/HM88610 555 cup verified

90368-34007 (\$46.33 retail)

Inner pinion bearing

90366-40068 \$101.34 retail (Koyo ST4595-N race/ST4095-N bearing) verified

carrier bearing

90366-51001(\$50.20 retail) (KOYO ST5186 both) verified

pinion seal 90311-44007 (\$16.32 retail)

flanged pinion nut(big 30 spline) 90179-22016 (\$3.00 retail)

flanged pinion nut(big 30 spline) 90179-24012 (\$1.89 retail) verified alternate part number

[Pinion washer part numbers \(screen snapshot\)](#)

Solid collar final length ~ 2.316"(plus any increase in the OEM pinion depth washer plate)

High pinion reverse cut 8" E-Locker

Outer pinion bearing

90366-30067 (\$49.93 retail)verified

Inner pinion bearing

90366-35087 (\$76.45 retail) verified

flanged pinion nut (27 spline count) 90179-20018 \$3.23 retail

oil retainer 41115-35010 \$3.83 retail

Oil slinger for High pinions 41214-60010 \$15.83 retail

oil seal 90311-38047 \$8.03 retail

Solid collar final length~1.866"~1.868"



Landcruiser rear 9.5"

Outer pinion bearing(race/bearing)

KOYO 30306DJ-N/30306DJr-N from 1988 FJ62 model..... verified

Timken Y30306M/X30306M (90366-30038 \$47.53 retail) verified

Koyo 30306JR

Inner pinion bearing(race/bearing)

NSK HR 30308DJ/HR 30308DJ from 1988 FJ62 model..... (90366-40059 \$70.91 retail) verified

Timken Y30308M/X30308M verified

Koyo STA4090-N/ST4090

Carrier bearing(race/bearing)

Nachi 17831/17887 from 1988 open diff model..... verified

Timken 50mm adapter bearing Y32010X/X32010X (used on 91 and newer due to larger 50mm case journals) see next line

OEM Genuine KOYO carrier bearing (32010X 50mm adapter bearing equiv) 90368-50024 \$62.59 retail each.... verified

Timken LM603014/LM603049 (45mm ID bearing...also used on all the older 4 cyl mini-trucks...same carrier bearing part number)

Monster sized carrier bearings used in the E-Locker rears--- 90366-60002 retail for \$81 EACH.

crush sleeve 41231-60030 \$16.95 retail

pinion seal 90311-38047 \$8.00 retail(F7134 in tiny print on rubber)

FSM specs.....

ring gear 81

bearing caps 83

new PPL 11~17

sidegear washer plate shims(spider gear backlash spec = .002"~.008")

.063" (41361-40021)

.067" (41362-40021)

.071" (41363-40021)

Solid collar final length (1990 and older 27 spline pinions)..... 2.189"

Solid collar final length (91 and newer, OEM pinion bearings)..... 2.111"

Solid collar final length (91 and newer, using aftermarket outer 30306 pinion bearing)..... 2.135~2.137"



Other stuff

79~85 pinion head length ~ 1.534" (4 cyl)

86~95 pinion head length ~ 1.668" (V6'ers)

pinion seal----common 8" rear (1)90311-38047 8.00 retail (79~95) or Napa #19630 is a good quality one

pinion seal----29 spline rubberized black 90311-41009 \$17.56 retail

pinion seal----8.4" rubberized black 90311-44007 (BH4053G) \$17.58 retail

washer----thick hardened (used behind the pinion nut on 8" 3rds) 90201-20005 \$2.54 retail

pinion nut----normal 30mm 90179-20001 verified \$5.29 retail

axle seal----common rear 8" inner (2)90310-50001 (superceded by 9031050006 \$6.48 retail each) (79~95)

axle seal----IFS 7.5" front 3rd (2 needed for non-vacuum type) 90311-35032 (86~95)

crush sleeve----IFS 7.5" front 41231-22010 \$13.80 retail(86~95)

crush sleeve----4 cyl 8" rear 3rds(79~95) 41231-40011 \$23.64 retail

crush sleeve----V6 3rd(88~95) 41231-24010 \$17.15 retail

crush sleeve----LC (9.5" rear 3rd) 41231-60020 \$27.06 retail

ring gear bolts---- 11mm x 1mm 90101-11353 (\$1.03 each retail)

Oil slinger---- for low pinions 41214-26010 \$10.23 retail

Oil slinger---- for High pinions 41214-60010 \$15.83 retail
spanner adjuster ring----V6 larger version 41315-35020 \$13.78 retail

91 and newer Cruisers have the larger 50mm case journals

shifting selonoid kit for autos on older Yotas(86-95)
Axiom Automotive Technologies....1360 Ingleside Rd.....Norfolk, VA 23502....800-622-6997 (kit#97420K)

On-line wholesale Toyota pricing(20~25% savings) ToyotaPartsZone.com

On-line wholesale Toyota pricing(20~25% savings) ToyoMotorParts.com

On-line wholesale Toyota pricing(20~25% savings) ToyotaPartsOverstock.com

Front 7.5" IFS carrier bearing shim (washer plate) part numbers						
mm	inches	4 cyl PN	V6 cyl PN	8.4" CB plates	8.4" pinion shims	FJ80 9.5" E-Locker CB plates
2.58	.1016	90201-65007	90201-50003			
2.61	.1028	90201-65008	90201-50004			
2.64	.1039	90201-65009	90201-50005			
2.67	.1051	90201-65010	90201-50006			
2.70	.1063	90201-65011	90201-50007			
2.73	.1075	90201-65012	90201-50008			
2.76	.1087	90201-65013	90201-50009			
2.79	.1098	90201-65014	90201-50010			
2.82	.1110	90201-65015	90201-50011			
2.85	.1122	90201-65016	90201-50012			
2.88	.1134	90201-65017	90201-50013			
2.91	.1145	90201-65018	90201-50014			
2.94	.1157	90201-65019	90201-50015			
2.97	.1169	90201-65020	90201-50016			
3.00	.1181	90201-65021	90201-50017			
3.03	.1193	90201-65022	90201-50018			
3.06	.1204	90201-65023	90201-50019			
3.09	.1216	90201-65024	90201-50020			
3.12	.1228	90201-65025	90201-50021			
3.15	.1240	90201-65026	90201-50022			
3.18	.1252	90201-65027	90201-50023			
3.21	.1264	90201-65028	90201-50024			
3.24	.1276	90201-65029	90201-50025			

Tacoma front carriers(common from 1995.5 to about 2009)
Front clamshell IFS 7.5 side washer (Backlash) washer plates

mm	inches	Part Number
2.01	.0791"	90564-50092
2.04	.0803"	90564-50093
2.07	.0815"	90564-50094
2.10	.0827"	90564-50095
2.13	.0839"	90564-50096
2.16	.0850"	90564-50097
2.19	.0862"	90564-50098
2.22	.0874"	90564-50099
2.25	.0886"	90564-50100
2.28	.0898"	90564-50101
2.31	.0909"	90564-50102
2.34	.0921"	90564-50103
2.37	.0933"	90564-50104
2.40	.0945"	90564-50105
2.43	.0957"	90564-50106
2.46	.0969"	90564-50107
2.49	.0980"	90564-50108
2.52	.0992"	90564-50109
2.55	.1004"	90564-50110
2.58	.1016"	90564-50111
2.61	.1028"	90564-50112
2.64	.1039"	90564-50113
2.67	.1051"	90564-50114
2.70	.1063"	90564-50115
2.73	.1075"	90564-50116
2.76	.1087"	90564-50117
2.79	.1098"	90564-50118

clamshell pinion seal---old # 90311-38049....6-16-2013---new superceded # 90311-38066 (retail \$12.18)

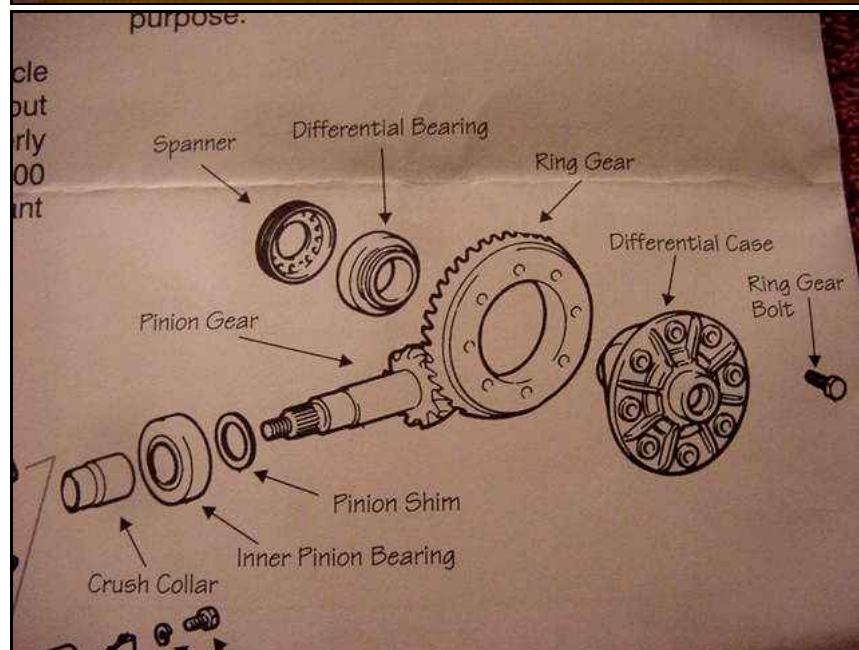
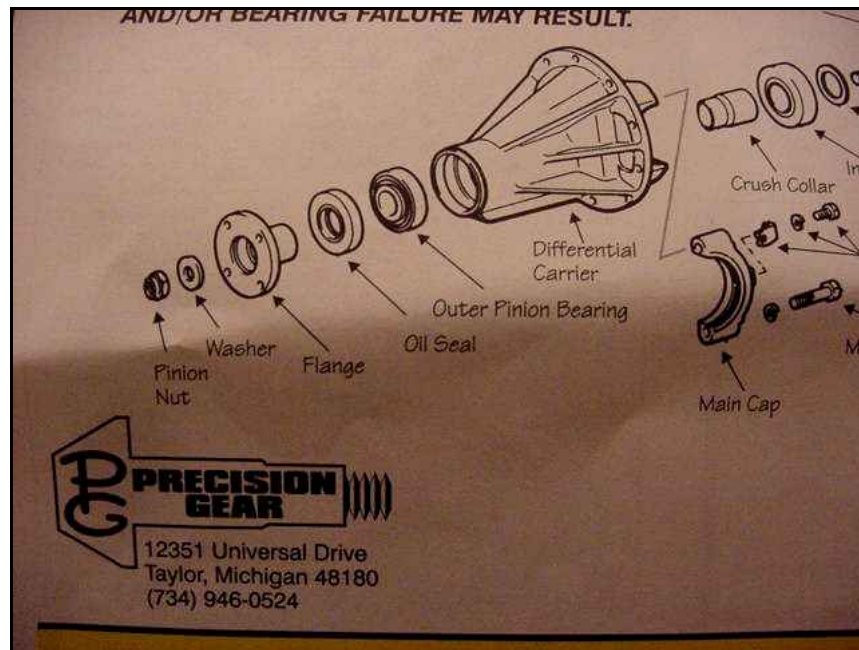
Supra LSD info

Supra LSD install (into standard V6 carrier)..... carrier bearing requirements

ring bolt side bearing(Supra carrier bearing) = Toyota part # 90366-50001 \$49.93 retail (Nachi 50KB8301 cone and cup)

ring tooth side bearing = V6 truck bearing (90366-50007)

conversion bearings (90368-50024) allow SUPRA LSD to fit in a 4 cyl 3rd....verified.



HOME