### TOYOTA CUSTOMER SERVICES

Volume: XII Number: TC05-018 Date: 07/25/2005 X\_Action Retain Information

## INTEROFFICE MEMORANDU

TO:

CUSTOMER SERVICES OPERATIONS MANAGERS

FROM:

GEORGE MORINO

QUALITY COMPLIANCE MANAGER, PRODUCT QUALITY & SERVICE SUPPORT

SUBJECT:

SPECIAL SERVICE CAMPAIGN (SSC) - 50J UPDATE

(FRONT SUSPENSION LOWER BALL JOINT)

We have received some reports from dealerships and field staff that the Ball Joint Kits directed to be used by the Technical Instructions and Parts Look-Up website, for the Sequoia and Tundra models, may not fit on a limited number vehicles involved in SSC 50J. Based upon these reports, we have been able to determine the following two separate issues:

- VIN break-point between the two Sequoia/Tundra Ball Joint Kit part numbers (04005-04134 and 04005-21134) can not be accurately determined using TMC data at this time (late 2002 model year vehicles)
- Seguoia and Tundra vehicles that are not involved have been included in the campaign toward the end of the overall VIN range (late 2003/early 2004 model year vehicles).

TMC has been unable to correctly determine the exact break-points in these two "gray" areas. The following amended technical instructions have been developed to inspect the vehicles to determine which part to use and/or determine if the vehicle is affected. TMS is also updating the Parts Look-Up website to refer dealers to the amended technical instructions for these specific "gray" area vehicles. An additional inspection only operation code is being set up for the limited number of late 2003/early 2004 Sequoia and Tundra vehicles that were mistakenly included in the campaign by TMC.

The attached Dealer Letter advising them of the updated technical instructions will be sent to all Toyota dealers within two days of the Region Notification. The technical instructions on TIS are also in the process of being updated.

All other information for this campaign remains unchanged. Please refer to the SPECIAL SERVICE CAMPAIGN (SSC) - 50J PHASE 1 (FRONT SUSPENSION LOWER BALL JOINT) Region/Dealer letter for additional information.

It is our intention to determine the correct VIN range cut off points as soon as possible. Once TMC determines this information we will provide another communication.

We apologize for any inconvenience this may have caused.

Please review this entire Special Service Campaign update with the appropriate associates so that they may provide the necessary support to your dealers and maximize our combined customer satisfaction efforts.

Thank you for your cooperation.

TOYOTA MOTOR SALES, U.S.A, INC.

**Enclosures** 

#### SSC 50J Page 2

CC: Region/Private Distributor Service Managers/Directors/VPs Region/Private Distributor Parts Managers/Directors/VPs Region/Private Distributor Customer Services Field Managers Region/Private Distributor Technical Services & Training Managers Region/Private Distributor District Service and/or Parts Managers Region/Private Distributor Customer Relations Managers

Region/Private Distributor Field Technical Specialists Region/Private Distributor Service Training Specialists All TMS Product Quality & Service Support Managers All Field Product Engineers

G. Bryan

D. Camden

R. Daly G. Fogg R. Foss T. Gartland

J. Kobayashi J. Lang

E. Matsuda T. Nagata

J. Stempkowski

E. Taira

D. Pettitt

M. Yamaguchi

TO: ALL TOYOTA DEALER PRINCIPALS,

SERVICE MANAGERS, PARTS MANAGERS

SUBJECT: SPECIAL SERVICE CAMPAIGN (SSC) - 50J UPDATE

(FRONT SUSPENSION LOWER BALL JOINT)

We have received some reports from dealerships and field staff that the Ball Joint Kits directed to be used by the Technical Instructions and Parts Look-Up website, for the Sequoia and Tundra models, may not fit on a limited number vehicles involved in SSC 50J. Based upon these reports, we have been able to determine the following two separate issues:

- VIN break-point between the two Sequoia/Tundra Ball Joint Kit part numbers (04005-04134 and 04005-21134) can not be accurately determined using available data at this time (late 2002 model year vehicles)
- Sequoia and Tundra vehicles that are not involved have been included in the campaign toward the end of the overall VIN range (late 2003/early 2004 model year vehicles).

The following amended technical instructions have been developed to inspect the vehicles to determine which part to use and/or determine if the vehicle is affected. TMS is also updating the Parts Look-Up website to refer dealers to the amended technical instructions for these specific "gray" area vehicles. An additional inspection only operation code is being set up for the limited number of late 2003/early 2004 Sequoia and Tundra vehicles that were mistakenly included in the campaign.

#### 1. Repair Procedures

Refer to the attached amended Technical Instructions and appropriate Repair Manual as indicated.

#### 2. VIN Ranges

The vehicles in the VIN range below will require inspection to determine the correct Ball Joints (04005-04134 or 04005-21134) to install. Please refer to Appendix A of the attached amended technical instructions.

VEHICLE	ME	-4097	STARE	字配图
Sequoia	2002	BT44A	S136362	S137479
		BT48A	S136360	S137474
		ZT34A	S136356	S137484
		ZT38A	S136364	S137473

Approximate UIO 1,100

VEHELE	<b>新</b> 化	WDS.	STARE	END
		BN441	S332613	S332707
į	2002	BT441	S330331	S332720
Į		BT481	S330344	S332685
Tundra		JN321	S330791	S332714
Turiura		KT441	S330407	S332706
		RN341	S330794	S332719
		RT341	S330792	S332721
i		RT381	S330795	S332666

Approximate UIO 2,000

#### (VIN Ranges continued)

The vehicles in the VIN range below will require the use of Appendix B of the amended technical instructions to determine if the Ball Joint needs to be replaced or not.

Sequoia	2004	BT44A	S206013	S209099
		BT48A	S205495	S209101
		ZT34A	S206169	S209916
		ZT38A	S206167	S209912

Approximate UIO 5,900

				ा जुड़ा -
		BN441	S433917	S434010
		BT441	S437555	S439612
		BT481	S437842	S439613
	2003	JN321	S435972	S436914
	2003	KT441	S438306	S439601
		RN341	S435838	S436915
	ļ	RT341	S437758	S439732
Tundra		RT381	S438287	S439716
Tunula		BN441	S434011	S434105
		BT441	S439614	S441496
		BT481	S439615	S441489
	2004	JN321	S436917	S438452
	2004	KT441	S439633	S441402
		RN341	S436916	S438449
		RT341	S439161	S441893
L		RT381	S439739	S441891

Approximate UIO 9,200

#### 3. Reimbursement Procedures

An additional inspection only op. code has been added for the late 2003/early 2004 model year Sequoia and Tundra inspection (Appendix B). Submit Special Service Campaign claims following the procedures described in the Toyota Warranty Policy and Procedures Manual.

SSC#	Op. Code	Description	Flat Rate Hour
50J	5522D1	Ball joint inspection for Sequoia and Tundra vehicles equipped with the newer style ball joint	0.4 Hr/Veh

NOTE: The above flat rate times include 0.1 hour in each campaign for administrative cost per unit for the dealership.

#### Please note that this does not impact 4Runner and Tacoma vehicles.

All other information for this campaign remains unchanged. Please refer to the SPECIAL SERVICE CAMPAIGN (SSC) – 50J PHASE 1 (FRONT SUSPENSION LOWER BALL JOINT) Region/Dealer letter for additional information. The technical instructions in TIS will also be updated to reflect the amended procedures.

We apologize for any inconvenience this may have caused.

Please review this entire package with your Service and Parts staff to familiarize them with the proper step-by-step procedures required to implement this Special Service Campaign.

Thank you for your cooperation. TOYOTA MOTOR SALES, U.S.A., INC.

#### **TECHNICAL INSTRUCTIONS**

#### **FOR**

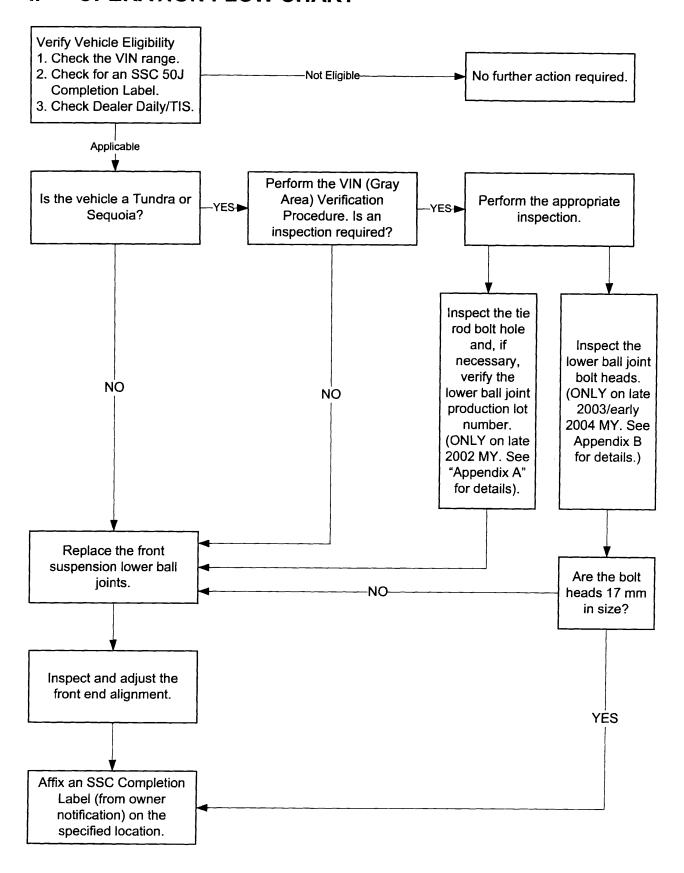
#### **SPECIAL SERVICE CAMPAIGN 50J**

# FRONT SUSPENSION LOWER BALL JOINT REPLACEMENT FOR THE FOLLOWING VEHICLES

2001 THROUGH 2002 MODEL YEAR 4RUNNER 2001 THROUGH 2004 MODEL YEAR TACOMA 4WD & PRERUNNER 2002 THROUGH 2004 MODEL YEAR SEQUOIA & TUNDRA

(Updated on July 22, 2005)

### I. OPERATION FLOW CHART



### II. IDENTIFICATION OF AFFECTED VEHICLES

### A. AFFECTED VIN RANGE

Model	Year		VIN Range
Model	i eai	VDS	Range
		GN86R	0213797 – 0219319
		GN87R	0213798 – 0219315
	2001	HN86R	0356596 - 0360805
	2001	FINOOR	9057980 – 9060573
		HN87R	0356571 – 0360794
			9057954 – 9060571
4Runner		GN86R	0217600 – 0259664
4 Number		GN87R	0217601 - 0259661
			9000001 – 9001238
	2002	HN84R	0359536 – 0392171
	2002	HN86R	0359537 – 0392220
		LINODIK	9059911 – 9078746
		HN87R	0360807 – 0392182
		MINO/K	9060576 – 9078745

Madal	Voca		VIN Range
Model	Year	VDS	Range
		BT44A	S057702 - S137479
	2002	BT48A	S057598 - S137474
	2002	ZT34A	S057720 - S137484
		ZT38A	S057509 - S137473
		BT44A	S101211 - S205101
Sagueia	2003	BT48A	S099426 - S205111
Sequoia	2003	ZT34A	S100033 - S205190
		ZT38A	S100343 - S205189
		BT44A	S205112 - S209099
	2004	BT48A	S205113 - S209101
	2004	ZT34A	S205197 - S209916
		ZT38A	S205191 - S209912

Madel	Y		VIN Range
Model	Year	VDS	Range
		GM92N	Z864889 – Z880431
		GN92N	Z864569 – Z880433
		HN72N	Z864097 – Z880444
		NM92N	Z864158 – Z880427
	2001	PM62N	Z864334 – Z880351
		SM92N	Z864823 – Z880439
		SN92N	Z864591 – Z880436
		WM72N	Z864356 – Z880443
		WN72N	Z864001 – Z880438
		GM92N	Z000001 – Z899998
		GN92N	Z000190 – Z899894
		HN72N	Z000002 – Z899999
		NM92N	Z000233 – Z899936
	2002	PM62N	Z000022 – Z899995
		SM92N	Z000245 – Z899972
		SN92N	Z000012 – Z899646
		WM72N	Z000058 – Z899904
Tacoma 4WD		WN72N	Z000019 – Z899885
& PreRunner		GM92N	Z145585 – Z305459
, , , , , , , , , , , , , , , , , , , ,	2003	GN92N	Z145318 – Z305507
		HN72N	Z145460 – Z305500
		NM92N	Z145535 – Z305379
		PM62N	Z145471 – Z305481
		SM92N	Z145555 – Z305506
		SN92N	Z145622 - Z305491
		WM72N	Z145487 – Z305493
		WN72N	Z145316 - Z305501
		GM92N	Z305895 – Z357444
		GN92N	Z305509 – Z357433
		HN72N	Z305686 – Z357097
		NM92N	Z305853 – Z357252
	2004	PM62N	Z305763 – Z357398
		SM92N	Z305863 – Z357356
		SN92N	Z305944 – Z357209
		WM72N	Z305789 – Z357348
		WN72N	Z305508 – Z357376

Model	Year		VIN Range
Model	rear	VDS	Range
		BN441	S221070 – S332707
		BT441	S220869 - S332720
		BT481	S220923 – S332685
		JN321	S220722 - S332714
	2002	KT421	S221163 - S328382
		KT441	S221132 – S332706
		RN341	S220884 - S332719
		RT341	S220478 - S332721
		RT381	S220953 – S332666
		BN441	S332744 – S434010
		BT441	S316368 - S439612
		BT481	S306031 - S439613
Tundra		JN321	S332745 – S436914
Tulidia	2003	KT421	S332818 - S414089
		KT441	S330788 - S439601
		RN341	S307943 – S436915
		RT341	S306032 – S439732
		RT381	S308386 – S439716
		BN441	S434011 - S434105
		BT441	S439614 – S441496
		BT481	S439615 – S441489
	2004	JN321	S436917 – S438452
	2007	KT441	S439633 – S441402
		RN341	S436916 – S438449
		RT341	S439161 – S441893
	<u> </u>	RT381	S439739 – S441891

#### NOTE:

Not all vehicles in the VIN range are affected. As always, consult Dealer Daily/TIS to confirm VIN eligibility and to assure the SSC is applicable. This will verify the vehicle is affected and has not already been completed prior to dealer shipment or by another dealer. TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

#### III. PREPARATION

#### A. PARTS

#### 4Runner

Part Number	Part Description	Qty.
04005-02235	Lower Ball Joint Kit	1

#### Tacoma 4WD & PreRunner

Part Number	Part Description	Qty.
04005-03235	Lower Ball Joint Kit	1

There are two different Lower Ball Joint Kit part numbers applicable to Sequoia and Tundra vehicles based upon model and production date. To assist dealers in determining the correct part number to order, a website has been set up to look up part numbers by VIN. Please go to <a href="http://50jlookup.imagespm.info">http://50jlookup.imagespm.info</a> (also linked through TIS), enter the VIN, and the correct part number to order will be displayed. The website is for part application reference only and will not order the part nor will it confirm campaign completion status.

After checking the website and prior to ordering parts, a vehicle inspection will be required on late 2002 and late 2003/early 2004 Sequoia and Tundra vehicles.

On late 2002 MY vehicles, an inspection of the tie rod bolt hole and, if necessary, verification of the lower ball joint production lot number will determine the correct parts application (see "Appendix A" for details). On late 2003/early 2004 MY vehicles, an inspection of the lower ball joint bolt heads will determine if the vehicle is involved (see "Appendix B" for details).

Sequoia and Tundra (Production Date: August, 2001 ~ July/August, 2002)

Part Number	Part Description	Model	Qty.	
04005 04404	Lawar Dall Jaint Kit	Sequoia	4	
04005-04134	Lower Ball Joint Kit	Tundra	1	

Seguoia and Tundra (Production Date: July/August, 2002 ~ September, 2003)

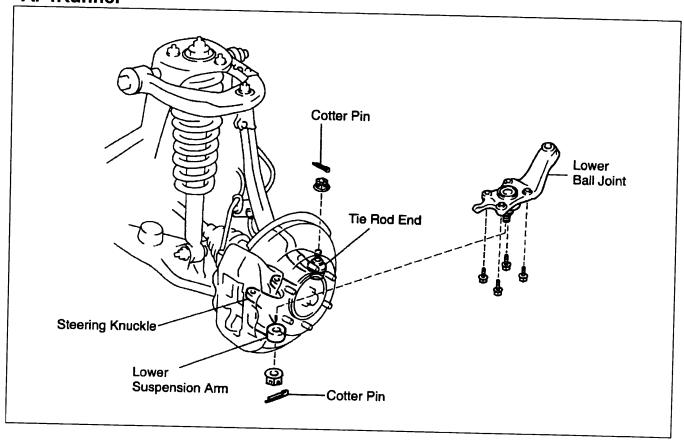
Part Number	Part Description	Model	Qty.
04005 21124	Lower Ball Joint Kit	Sequoia	1
04005-21134	5-21134 Lower Ball Joint Kit		<b>,</b>

#### B. TOOLS

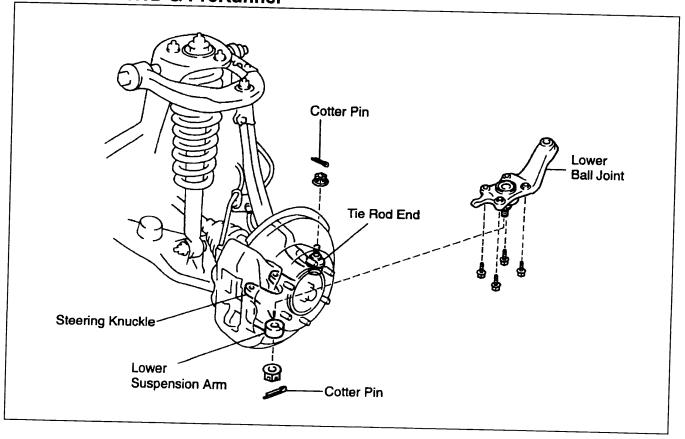
- Standard hand tools
- Special Service Tools
  - (a) Pitman Arm Puller: 09610-20012 or equivalent
  - (b) Ball Joint Puller: 09628-62011 or 00002-07311 or equivalent
- Torque wrench

## IV. COMPONENTS

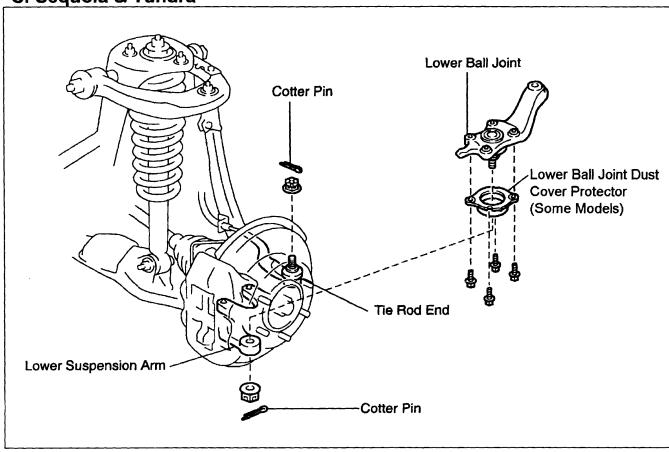
### A. 4Runner



## B. Tacoma 4WD & PreRunner



C. Sequoia & Tundra



### V. BACKGROUND

On certain 2001 – 2002 Model Year 4Runner, 2001 – mid-2004 Model Year Tacoma 4WD and PreRunner, and 2002 – early 2004 Model Year Sequoia and Tundra vehicles, there is a possibility that the Front Suspension Lower Ball Joint may experience excessive wear and looseness causing increased steering effort, reduced vehicle self-centering, and noise in the front suspension.

# VI. VIN (GRAY AREA) VERIFICATION PROCEDURE (ONLY FOR SEQUOIA AND TUNDRA VEHICLES)

1. The Sequoia and Tundra vehicles in the VIN ranges below will require the inspection outlined in "APPENDIX A. INSPECT THE SIZE OF THE TIE ROD BOLT HOLE ON THE LOWER BALL JOINT".

MODEL	YEAR	VDS	START	END
Sequoia 2002		BT44A	S136362	S137479
	2002	BT48A	S136360	S137474
	ZT34A	S136356	S137484	
	ZT38A	S136364	S137473	

MODEL	YEAR	VDS	START	END
		BN441	S332613	S332707
		BT441	S330331	S332720
		BT481	S330344	S332685
Tundra	2002	JN321	S330791	S332714
Tullula	Tundra 2002	KT441	S330407	S332706
		RN341	S330794	S332719
	RT341	S330792	S332721	
		RT381	S330795	S332666

2. The Sequoia and Tundra vehicles in the VIN ranges below will require the inspection outlined in "APPENDIX B. INSPECT THE SIZE OF THE LOWER BALL JOINT BOLT HEADS".

MODEL	YEAR	VDS	START	END
Sequoia 20		BT44A	S206013	S209099
	2004	BT48A	S205495	S209101
	2004	ZT34A	S206169	S209916
		ZT38A	S206167	S209912

MODEL	YEAR	VDS	START	END
		BN441	S433917	S434010
		BT441	S437555	S439612
		BT481	S437842	S439613
	2003	JN321	S435972	S436914
	2003	KT441	S438306	S439601
		RN341	S435838	S436915
		RT341	S437758	S439732
Tundra		RT381	S438287	S439716
Tunuia		BN441	S434011	S434105
		BT441	S439614	S441496
		BT481	S439615	S441489
	2004	JN321	S436917	S438452
	2004	KT441	S439633	S441402
		RN341	S436916	S438449
		RT341	S439161	S441893
		RT381	S439739	S441891

#### VII. WORK PROCEDURE

#### A. FRONT SUSPENSION LOWER BALL JOINT REPLACEMENT

 Replace the front suspension lower ball joints following the procedures outlined in the <u>Suspension And Axle: Front Lower Ball Joint</u> section of the appropriate vehicle Repair Manual.

#### **B. INSPECT AND ADJUST THE FRONT END ALIGNMENT**

 Inspect and adjust the front End alignment following the procedures outlined in the <u>Suspension And Axle: Front Wheel Alignment</u> section of the appropriate vehicle Repair Manual.

#### VIII. SSC COMPLETION LABEL INSTALLATION

After completing the repair and before returning the vehicle to the owner, an SSC completion label, which is enclosed in the owner's notification letter, must be affixed to the left front door hinge post, near the check strap.

- (a) The label is to be filled out as follows:
  - Write in SSC 50J.
  - Write in date of repair.
  - Write in your dealer code.



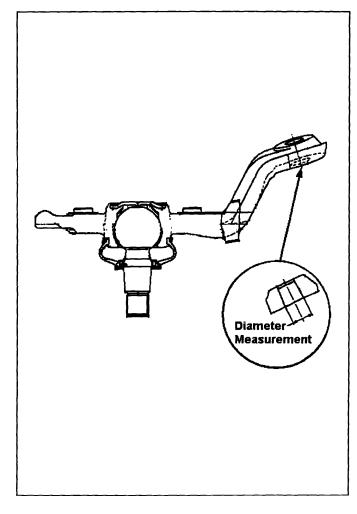
(b) Additional SSC completion labels, in sheets of 50 (P/N 00410-01917), may be ordered through the non-parts system on a 1450 order form or through the TDN system.

# APPENDIX A: INSPECT THE SIZE OF TIE ROD BOLT HOLE ON THE LOWER BALL JOINT

NOTE: THIS INSPECTION APPLIES ONLY TO THE SEQUOIA AND TUNDRA VEHICLES LISTED IN THE VIN RANGES BELOW.

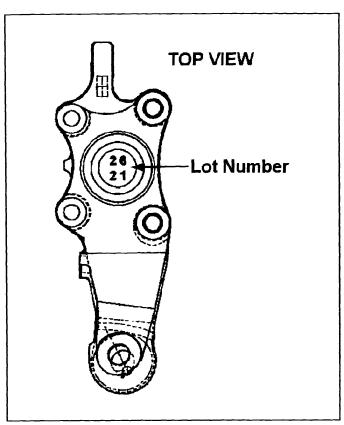
MODEL	YEAR	VDS	START	END
Sequoia		BT44A	S136362	S137479
	2002	BT48A	S136360	S137474
	2002	ZT34A	S136356	S137484
		ZT38A	S136364	S137473

MODEL	YEAR	VDS	START	END
		BN441	S332613	S332707
		BT441	S330331	S332720
		BT481	S330344	S332685
Tundro	2002	JN321	S330791	S332714
Tundra		KT441	S330407	S332706
		RN341	S330794	S332719
		RT341	S330792	S332721
		RT381	\$330795	S332666



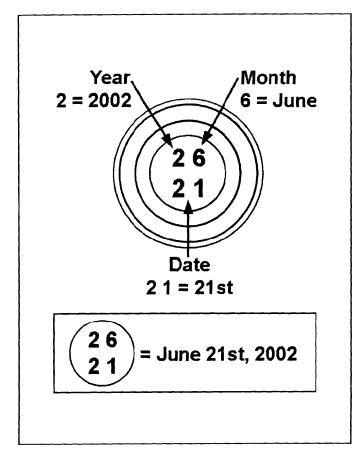
# 1. INSPECT THE DIAMETER OF THE TIE ROD BOLT HOLE

- (a) Disconnect the tie rod from the lower ball joint following the procedures outlined in the <u>Suspension And Axle: Front Lower Ball Joint</u> section of the appropriate vehicle Repair Manual.
- (b) Measure the diameter of the tie rod bolt hole, as shown in the illustration.
  - If the diameter is 16 mm, replace the lower ball joint using part 04005-04134. Proceed to section "VII. WORK PROCEDURE".
  - If the diameter is 17 mm, replace the lower ball joint using part 04005-21134. Proceed to section "VII. WORK PROCEDURE".
  - If the diameter of the tie rod bolt hole cannot be determined, the production lot number on the lower ball joint must be verified.
    Proceed to step "2. LOCATE THE PRODUCTION LOT NUMBER".



# 2. LOCATE THE PRODUCTION LOT NUMBER

- (a) Remove the lower ball joint following the procedures outlined in the **Suspension And Axle: Front Lower Ball Joint** section of the appropriate vehicle Repair Manual.
- (b) Locate the production lot number as shown in the illustration.



# 3. READING AND VERIFYING THE PRODUCTION LOT NUMBER

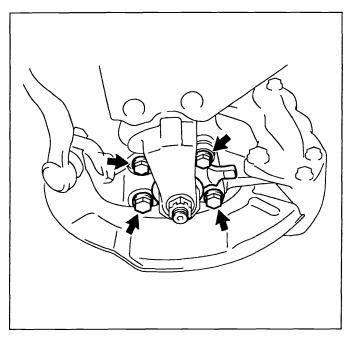
- (a) How to read the production lot number.
  - Upper Left Number: Year
  - Upper Right Number: Month
  - Bottom Numbers: Date
- (b) If the production lot number is...
  - 2620 (June 20<sup>th</sup>, 2002) or earlier, replace the lower ball joint using part 04005-04134. Proceed to section "VII. WORK PROCEDURE".
  - 2622 (June 22<sup>nd</sup>, 2002) or later, replace the lower ball joint using part 04005-21134. Proceed to section "VII. WORK PROCEDURE".

# APPENDIX B: INSPECT THE SIZE OF THE LOWER BALL JOINT BOLT HEADS

NOTE: THIS INSPECTION APPLIES ONLY TO THE SEQUOIA AND TUNDRA VEHICLES LISTED IN THE VIN RANGES BELOW.

MODEL	YEAR	VDS	START	END
Sequoia		BT44A	S206013	S209099
	2004	BT48A	S205495	S209101
	2134	ZT34A	S206169	S209916
		ZT38A	S206167	S209912

MODEL	YEAR	VDS	START	END
		BN441	S433917	S434010
		BT441	S437555	S439612
		BT481	S437842	S439613
	2003	JN321	S435972	S436914
	2003	KT441	S438306	S439601
		RN341	S435838	S436915
		RT341	S437758	S439732
Tundra		RT381	S438287	S439716
Tunura		BN441	S434011	S434105
		BT441	S439614	S441496
		BT481	S439615	S441489
	2004	JN321	S436917	S438452
	2004	KT441	S439633	S441402
		RN341	S436916	S438449
		RT341	S439161	S441893
		RT381	S439739	S441891



# 1. INSPECT THE SIZE OF THE BOLT HEADS FOR THE LOWER BALL JOINTS

- (a) Measure the lower ball joint bolt heads.
- If the sizes of the bolt heads are 17 mm, lower ball joint replacement is NOT NECESSARY. Proceed to section "VIII. SSC COMPLETION LABEL INSTALLATION".
- If the sizes of the bolt heads are 14 mm, replace the lower ball joints using part 04005-21134. Proceed to section "VII. WORK PROCEDURE".