# **Service Bulletin**

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SUBJECT	: Steering vibration	
APPLICABLE MODEL	: SN413(JS3JB43V834161319~. JSAFJB43V00170547~) SN415(SOP~)	
EFFECTIVE ENGINE OR FRAME NO.	2009/3/2~ JSAFJB43V00422454~ (E02,E06,E11,E21,E22,E24,E37) JSAFJB53V00420452~ (E22) JS3JB43V3A4100053~ (E10) JS3JB43V694103542~ (E43) JS3JB43V294103554~ (E50) JS3JB43V694103556~ (E85)	
REFERENCE	:	

#### 1. CONDITION

Steering wheel starts vibrating when cruising at around 80km/h or applying brakes and vibration would not stop until speed was accelerated to over 90km/h or decelerated to under 60km/h.

#### 2. CAUSE

Suspension and steering system were so sensitive to vibration caused by wheel imbalance and such.

Because of this, the steering vibration became apparent especially when wheel imbalance between right and left became "opposite phase".

#### 3. CORRECTION

- By improving spring characteristic of front leading arm bushing, vibration transmission characteristic on front suspension has been changed.
- Shim has been set up as an optional part in order to adjust friction of steering system.

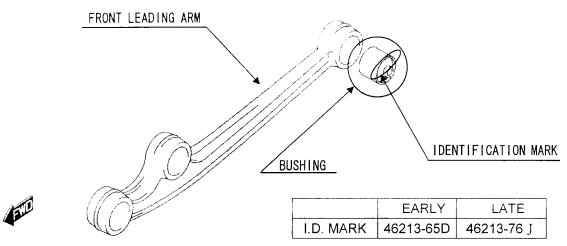


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#### 4. PART INFORMATION

(1) Production (after effective VIN)

PART NAME	PART No.		INTERCHANGE ABILITY	
PART NAIVIE	EARLY	LATE	(O: YES, X: NO)	UNIT/PER
BUSHING, BODY SIDE	46213-65D01	46213-76J00	EARLY 🕁 LATE	2



# NOTE:

 Along with this change, rear trailing arm bushing has also been changed as unification, but the change has no relation to this countermeasure.

## (2) Replacement and additional parts for field correction (before effective VIN.)

PART	PART No.		INTERCHANGE ABILITY	UNIT/PER	REMARKS
NAME	EARLY	LATE	(O: YES, X: NO)	UNITIFER	KLIVIAKKS
BUSHING, BODY SIDE	46213-65D01	46213-76J00	EARLY # LATE	2	
SHIM, 15×24×0.5	09181-15158		EARLY = LATE	0~4	One side: Max 2 pieces

# 5. COUNTERMEASURE FOR PRODUCTION 2009/3/2~

JSAFJB43V00422454~ (E02,E06,E11,E21,E22,E24,E37)

JSAFJB53V00420452~ (E22)

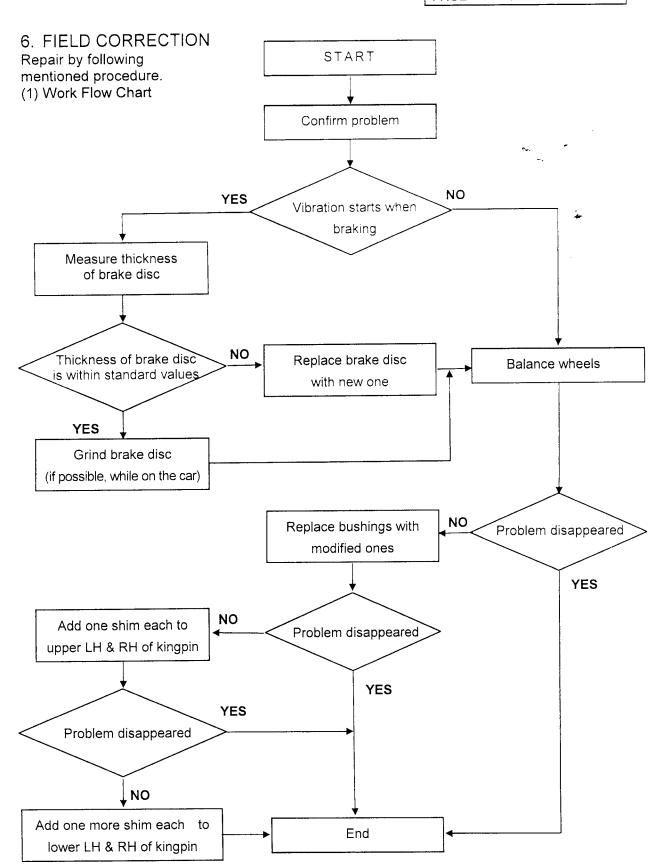
JS3JB43V3A4100053~ (E10)

JS3JB43V694103542~ (E43)

JS3JB43V294103554~ (E50)

JS3JB43V694103556~ (E85)

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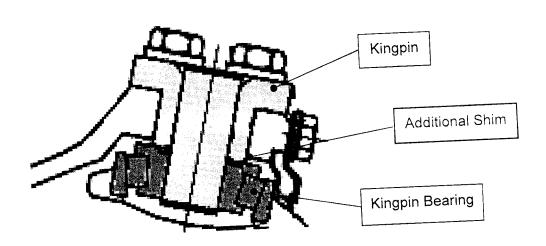
# (2) Notes

Install shim as following procedures.

1. Remove kingpin, install the shim (FIG-1), and reinstall kingpin. (Follow service manual for removal and assembly of the kingpin)

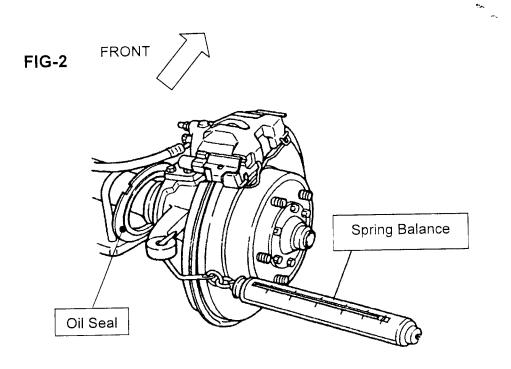
FIG-1: Location of additional shim

Put one shim in between kingpin and kingpin bearing.



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2. After adding shim, remove oil seal, tie-rod, and drag rod which are assembled on steering knuckle. And then, after shaking knuckle right and left around 20 to 30 times, measure start-up load by hooking a spring balance to tie-rod fixing hole of knuckle arm (which extends toward the rear of vehicle). Make sure start-up load is 4.6kg(45N) or less (Ref. : FIG-2).



## CAUTION:

Please make sure start-up load should stay 4.6kg(45N) or less. If start-up load exceeds 4.6kg(45N), it might cause loss of steering returning performance or/and damage of kingpin bearing.