



## MODEL

G12 (7 Series xDrive)

## SITUATION

A significant cracking noise/groaning noise coming from the area of the steering shaft/steering column while steering.

## CAUSE

Steering shaft double cross joint.

## CORRECTION

Operate steering through entire range of motion from end to end numerous times.

## PROCEDURE

For conditions that are similar to the situation described:

1. Lift the vehicle on a hoist and turn the steering at least 10 times stop to stop.

Did this eliminate the groaning/cracking noise?

YES – The repair is complete.

NO – Go to next step.

2. Remove the double cross joint and manipulate by hand in all tilting levels, respectively offset by 90°, **at least 10 times from stop to stop.**
3. Reinstall the double cross joint using new bolts according to REP 32 31 211.

## PARTS INFORMATION

Part Number	Description	Quantity
32 30 6 778 609	Torx Bolt, M8x33	1

Installation of a new double cross joint DOES NOT provide a solution.

## WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

<b>Defect Code:</b>	<b>3231003900</b>	
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### A. Turning the Steering Stop to Stop

Labor Operation:	Labor Allowance:	Description:
32 99 000	4 FRU	Work time to lift vehicle and turn the steering stop to stop (At least 10 times) (Main work)

Or:		
32 99 000	2 FRU	Work time to lift vehicle and turn the steering stop to stop (At least 10 times) (Plus work – Vehicle is already in the workshop)

Or:

**B. Turning the Steering Stop to Stop and Manipulating the Double Cross Joint**

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
32 99 000	2 FRU	Work time to lift vehicle and turn the steering stop to stop (At least 10 times) (Plus work – Vehicle is already in the workshop)
And:		
32 31 579	Refer to KSD2	Removing and installing universal joint for lower steering spindle to manipulate as outlined
And:		
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)
And:		
32 13 905	Refer to KSD2	Start-up, electric power steering (EPS)

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowances.