



Technical Journal

TITLE:

Test schedule for vehicle speed dependent vibrations at highway speeds

| | | | |
|--|---|--|-----------------------------------|
| REF NO: TJ 20803.9.0 | ISSUING DEPARTMENT: Technical Service | CAR MARKET: United States and Canada | |
| PARTNER: 3 US 7510 Volvo Car USA | | ISSUE DATE: 2016-06-23 | STATUS DATE: 2016-06-28 |
| FUNC GROUP: 2185 | FUNC DESC: Engine undershield | Page 1 of 9 | |

“Right first time in Time”

Attachment

| File Name | File Size |
|----------------|-----------|
| T9379EN01.docx | 0.0435 MB |
| TJ20803.doc | 0.4819 MB |

Vehicle Type

| Type | Eng | Eng Desc | Sales | Body | Gear | Steer | Model Year | Plant | Chassis range | Struc Week Range |
|------|-----|----------|-------|------|------|-------|------------|-------|-----------------|------------------|
| 124 | | | | | | | 2007-2017 | | 0000850-0200260 | 200620-201614 |
| 134 | | | | | | | 2011-9999 | | 0000194-9999999 | 201020-999999 |
| 135 | | | | | | | 2008-2017 | | 0000395-0377263 | 200720-201616 |
| 136 | | | | | | | 2008-2017 | | 0000395-0274097 | 200720-201619 |
| 155 | | | | | | | 2011-9999 | | 0000100-9999999 | 201035-999999 |
| 157 | | | | | | | 2015-9999 | | 0000001-0999999 | 201450-999952 |
| 234 | | | | | | | 2017-9999 | | - | 201617-999952 |
| 256 | | | | | | | 2016-9999 | | 0000001-0999999 | 201505-999952 |
| 275 | | | | | | | 2007-9999 | | 0328000-9999999 | 200620-999999 |
| 285 | | | | | | | 2007-9999 | | 0617000-9999999 | 200620-999999 |
| 295 | | | | | | | 2007-9999 | | 0254000-9999999 | 200620-999999 |
| 384 | | | | | | | 2007-9999 | | 0600000-9999999 | 200620-999999 |
| 5XX | | | | | | | 2007-9999 | | 0010000-9999999 | 200620-999999 |



CSC Customer Symptom Codes

| Code | Description |
|------|---|
| C4 | Complete vehicle/Unusual noise/While driving |
| F3 | Complete vehicle/Unusual noise/During acceleration |
| F6 | Complete vehicle/Unusual noise/During deceleration |
| 8N | Driving/Unusual noise/Unsure when/at all times |
| F1 | Driving/Unusual noise/At engine shut off |
| F2 | Driving/Unusual noise/During acceleration |
| ZE | Idling/Unusual noise |
| XB | Exhaust system/Rattle/rumble |
| WX | Engine cooling fan (FC)/Unusual noise |
| F4 | Clutch/Unusual noise/Noise from engine compartment |
| C3 | Automatic transmission/Unusual noise |
| F5 | Gear selector/Unusual noise |
| C6 | Manual transmission/Unusual noise |
| D2 | Front/rear axle/Unusual noise |
| WV | Suspension/Clicking/clonking noise/At start/stop |
| WY | Suspension/Clicking/clonking noise/Unsure when/at all times |
| X1 | Suspension/Unusual noise |
| H3 | Steering wheel/Squeak/rattle/Steering column/wheel |
| H4 | Steering/Unusual noise/Unsure when/at all times |
| X8 | Steering/Unusual noise/At full turn |
| E7 | Suspension/Unusual noise |
| WZ | Suspension/Clicking/clonking noise |
| 8J | Shock absorption/Unusual noise |
| 1M | Wheels, tires, hubs/Unusual noise/Front |
| 1N | Wheels, tires, hubs/Unusual noise/Rear |
| V6 | Complete vehicle/Vibration/When driving below 45 MPH |
| V7 | Complete vehicle/Vibration/When driving above 45 MPH |
| NY | Automatic transmission/Vibration |
| V9 | Gear selector/Vibration |
| 8A | Manual transmission/Vibration |
| W2 | Front/rear axle/Vibration/shake |
| V2 | Steering wheel/Vibration/shimmy/When driving above 45 mph |
| W3 | Steering wheel/Vibration/shimmy/When driving below 45 mph |
| X7 | Steering wheel/Vibration/shimmy/At idle |
| V1 | Tires/Vibration/out of round |

VST Operation Number



DTC Diagnostic Trouble Codes

Rows beginning with * are modified

Note! If using a printed copy of this Technical Journal, first check for the latest online version.

Text

DESCRIPTION:

- * Updated title
- * Updated vehicle list
- * Updated attachment
- * Updated description

In case of complaint of Noise, Vibration or Harshness, NVH, and you request help from CMQ, some “tools” have been created to help you to do a better and more precise fault tracing.

1. Question form to fill in and attach along with a vehicle report for faster support
2. Guideline to help you to sort out NVH related problems.

SERVICE:

N/A

VEHICLE REPORT:

Yes, together with a complete filled in attachment, included in this journal.

The attachment **MUST** be in English when sending in it to CMQ.

Use always function group 2185.

To view TJ attachments continue to next page. This TJ has two attachments.



Volvo Car Customer Service

TJ Instruction T9379

| | | | |
|---------------|----------------------------|--------------------------|-------|
| Title | Fault-tracing schedule NVH | Page: | 1 (3) |
| Action | Test protocol | Operation number: | |

| | | |
|--------------|-------------|--------------|
| Issue | Date | Cause |
| 1 | 2015-02 | First issue |

Affected vehicles

| | | | | | |
|-------------|--------------|---------------|---------------------|-----------------|-----------------------|
| Year | Model | Engine | Transmission | Steering | Chassis number |
| All | All | | | | |

Special tools

| | |
|--------------------|--------------------|
| Description | Tool number |
| CHASSIS-EAR | 9814108 |

Relevant vehicle

| | | | | | |
|------------|--------------|-------------|---------------|---------------------|-----------------|
| VIN | Model | Year | Engine | Transmission | Steering |
| | | | | | |

1.

Note! ALWAYS start by inflating the tyres to **comfort** pressure.

Note! ALWAYS test drive with the customer and allow the customer to describe the interference.

Note! ALWAYS record the noise and include in the report.

2.

Questions to be filled in with the customer

1: When was the interference noticed for the first time?

Odometer: _____ KM

Odometer: _____ Miles

2: What type of interference?

- ☐ Noise
☐ Vibration

2:2 Experienced in?

- ☐ The steering wheel
☐ Floor
☐ Seats: Front
☐ Seats: Rear
☐ Seats: Third row (XC90)

3: When does the interference occur?

- ☐ Stationary vehicle during "revving engine"
☐ uphill
☐ Downhill
☐ Whilst driving
☐ Rolling vehicle
☐ Acceleration
☐ Deceleration

Speed: _____ km/h

Speed: _____ mph

Engine speed: _____ Rpm

Which gear(s)? _____

- ☐ Recurring ☐ Sporadic

4: Weather conditions when the interference occurs?

Outdoor temperature: _____ °C

- ☐ Dry road
☐ Wet road

5: What type of road surface?

6: Vehicle status?

- ☐ Cold
☐ Hot

3.

Further questions

7: Engine temperature? _____ °C

8: If there is a sound file, where is it recorded?

- ☐ In the passenger compartment, front seat
- ☐ In the passenger compartment, rear seat
- ☐ Under the vehicle
- ☐ In the engine compartment

Describe at what second the noise is heard. _____ Sec?

9: Has Chassis-ear, 9814108, been used for fault tracing?

- ☐ Yes
- ☐ No

10: What type of recording equipment has been used? _____

11: Space for further comments.



Volvo Car Customer Service

TJ Instruction 20803

| | | | |
|---------------|----------------------------|--------------------------|-------|
| Title | Fault-tracing schedule NVH | Page: | 1 (3) |
| Action | Test protocol | Operation number: | |

| | | |
|--------------|-------------|--------------|
| Issue | Date | Cause |
| 1 | 2015-02 | First issue |

Affected vehicles

| | | | | | |
|-------------|--------------|---------------|---------------------|-----------------|-----------------------|
| Year | Model | Engine | Transmission | Steering | Chassis number |
| All | All | | | | |

Special tools

| | |
|--------------------|--------------------|
| Description | Tool number |
| CHASSIS-EAR | 9814108 |

Relevant vehicle

| | | | | | |
|------------|--------------|-------------|---------------|---------------------|-----------------|
| VIN | Model | Year | Engine | Transmission | Steering |
| | | | | | |

1.

Note! ALWAYS start by inflating the tyres to **comfort** pressure.

Note! ALWAYS test drive with the customer and allow the customer to describe the interference.

Note! ALWAYS record the noise and include in the report.

2.

Questions to be filled in with the customer

1: When was the interference noticed for the first time?

Odometer: _____ KM

Odometer: _____ Miles

2: What type of interference?

- ☐ Noise
☐ Vibration

2:2 Experienced in?

- ☐ The steering wheel
☐ Floor
☐ Seats: Front
☐ Seats: Rear
☐ Seats: Third row (XC90)

3: When does the interference occur?

- ☐ Stationary vehicle during "revving engine"
☐ uphill
☐ Downhill
☐ Whilst driving
☐ Rolling vehicle
☐ Acceleration
☐ Deceleration

Speed: _____ km/h

Speed: _____ mph

Engine speed: _____ Rpm

Which gear(s)? _____

- ☐ Recurring ☐ Sporadic

4: Weather conditions when the interference occurs?

Outdoor temperature: _____ °C

- ☐ Dry road
☐ Wet road

5: What type of road surface?

6: Vehicle status?

- ☐ Cold
☐ Hot

3.

Further questions

7: Engine temperature? _____ °C

8: If there is a sound file, where is it recorded?

- ☐ In the passenger compartment, front seat
- ☐ In the passenger compartment, rear seat
- ☐ Under the vehicle
- ☐ In the engine compartment

Describe at what second the noise is heard. _____ Sec?

9: Has Chassis-ear, 9814108, been used for fault tracing?

- ☐ Yes
- ☐ No

10: What type of recording equipment has been used? _____

11: Space for further comments.
