

NVH Diagnostic Report

Report Date
June 16, 2023

Record Name
2017 Ford Fusion (2)

Record Date
2023-06-16 17:12:09

Record Length
01:06.0

Vehicle Data:

- Manufacturer: Ford
- Year: 2017
- Model: Fusion
- Powertrain: Crossover AWD
- Number of Cylinders: 6.0
- Tire Diameter: 26.72
- Rear Axle Gear Ratio: 2.58
- Front Axle Gear Ratio: 3.16
- Transmission Speeds: 6

Relevant Settings:

- Amplitude Threshold: 0.0010g

Diagnostic Results

The diagnosis shown below is the primary vibration detected. Repair this vibration first and then re-test for additional vibrations if needed.

1st Order Tire Speed Related Vibration (T1)

Definition: First order tire speed related vibrations cause one shake or disturbance for each revolution of the tire. There are over 77 conditions that can cause a tire speed related vibration.

Totals

Tire Speed Related Vibrations

Order	Times Detected	Average Amplitude (g)
1st	83	0.0079
2nd	6	0.0127

Driveshaft Speed Related Vibrations

Order	Times Detected	Average Amplitude (g)
1st	3	0.0161
2nd	3	0.0209

Engine Speed Related Vibrations

Order	Times Detected	Average Amplitude (g)
1st	4	0.0156
2nd	17	0.0080

Vibration Breakdown By Vehicle Speed

The NVH app takes samples of the vibrations on your vehicle twice per second.

- The "Count" column shown below indicates the number of times each type of vibration was detected in that particular vehicle speed range.
- The "Count (Time) Spent in Range" column shows the number of half second intervals spent driving at that vehicle speed range, and the amount of time spent driving at that vehicle speed range.
- The "Percentage" column shows the percentage of time the vibration was detected at that vehicle speed range. It is possible for this to exceed 100% if multiple instances of the vibration were detected in the same half second interval.

Tire Speed Related Vibration Breakdown

1st Order Tire Speed Related Vibration Breakdown

Vehicle Speed	Count	Count (Time) Spent in Range	Percentage	Average Amplitude (g)
70-74 MPH	6	14 (00:06.5)	42.86%	0.0048
75-79 MPH	45	49 (00:24.0)	91.84%	0.0071
80-84 MPH	32	31 (00:15.0)	103.23%	0.0095

2nd Order Tire Speed Related Vibration Breakdown

Vehicle Speed	Count	Count (Time) Spent in Range	Percentage	Average Amplitude (g)
60-64 MPH	2	20 (00:09.5)	10.00%	0.0112
65-69 MPH	4	15 (00:07.0)	26.67%	0.0135

Driveshaft Speed Related Vibration Breakdown

1st Order Driveshaft Speed Related Vibration Breakdown

Vehicle Speed	Count	Count (Time) Spent in Range	Percentage	Average Amplitude (g)
55-59 MPH	3	4 (00:01.5)	75.00%	0.0161

2nd Order Driveshaft Speed Related Vibration Breakdown

Vehicle Speed	Count	Count (Time) Spent in Range	Percentage	Average Amplitude (g)
65-69 MPH	3	15 (00:07.0)	20.00%	0.0209

Engine Speed Related Vibration Breakdown

1st Order Engine Speed Related Vibration Breakdown

Vehicle Speed	Count	Count (Time) Spent in Range	Percentage	Average Amplitude (g)
55-59 MPH	2	4 (00:01.5)	50.00%	0.0151
60-64 MPH	2	20 (00:09.5)	10.00%	0.0160

2nd Order Engine Speed Related Vibration Breakdown

Vehicle Speed	Count	Count (Time) Spent in Range	Percentage	Average Amplitude (g)
65-69 MPH	6	15 (00:07.0)	40.00%	0.0136
80-84 MPH	11	31 (00:15.0)	35.48%	0.0050

This report, along with the data and diagnoses it contains, was generated by the NVH For Android app (version 3.3.4 (80)), created by Vibrate Software, Inc.

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