



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

**Investigation:** PE 22-007  
**Date Opened:** 07/22/2022  
**Investigator:** Donte Kirksey  
**Approver:** Stephen Ridella  
**Subject:** Loss of Motive Power  
**Reviewer:** Peter Kivett

## MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** Ford Motor Company  
**Products:** 2021 Ford Bronco  
**Population:** 25,538 (Estimated)

**Problem Description:** Under normal driving conditions without warning the vehicle may experience a loss of motive power without restart due to catastrophic engine failure related to an alleged faulty valve within 2.7 L Eco-Boost Engines.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
<b>Complaints:</b>	26	0	26
<b>Crashes/Fires:</b>	0	TBD	TBD
<b>Injury Incidents:</b>	0	TBD	TBD
<b>Number of Injuries:</b>	0	TBD	TBD
<b>Fatality Incidents:</b>	0	TBD	TBD
<b>Number of Fatalities:</b>	0	TBD	TBD

## ACTION / SUMMARY INFORMATION

**Action:** Opening Preliminary Evaluation (PE)

### Summary:

On May 27, 2022, ODI opened a Defect Petition (DP22-001) to evaluate whether to grant or deny three petitions that requested a defect investigation into an alleged defect of the "valvetrain" on model year (MY) 2021 Ford Bronco vehicles equipped with the 2.7L Eco-boost engines. The petitioners alleged that MY 2021 Ford Broncos vehicles are experiencing a loss of motive power at highway speeds with no-restart. In a June 7, 2022 meeting with Ford ODI learned this alleged loss of motor power is a result of catastrophic engine failures due to the engine valves failing. Ford identified the root cause as the valve "keepers" not holding the retainer in place allowing the valve spring to detach from the valve resulting in interference between the valve and piston. This interference can cause an engine lockup.

ODI has identified 26 Vehicle Owner's Questionnaires (VOQs) that relate to the alleged defect in the subject vehicles. Based on ODI's review of the applicable materials, including VOQs, NHTSA has decided to grant the petition and open this Preliminary Evaluation to assess the scope, frequency, and potential safety-related consequences of the alleged defect.

The ODI complaints cited above can be reviewed at [NHTSA.gov](https://www.nhtsa.gov) under the following ODI numbers:

11448171, 11448461, 11450659, 11450702, 11450737, 11450788, 11450871, 11450879, 11451158, 11451503, 11451957, 11452074, 11452692, 11453669, 11453933, 11454098, 11455294, 11456219, 11456713, 11459262, 11460124, 11460125, 11461178, 11463199, 11463296, 11464516.

