Part 573 Safety Recall Report 24V-598

Manufacturer Name : Ford Motor Company
Submission Date : AUG 09, 2024
NHTSA Recall No. : 24V-598
Manufacturer Recall No. : 24S52

Manufacturer Information :

Manufacturer Name : Ford Motor Company
Address : 330 Town Center Drive
Suite 500 Dearborn MI 48126-2738
Company phone : 1-866-436-7332

Population :

Number of potentially involved : 85,238
Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2020-2022 Ford Explorer
Vehicle Type : LIGHT VEHICLES
Body Style :
Power Train : NR
Descriptive Information : Ford's team reviewed plant records to determine the population of affected parts. The Ford process is capable of tracing engine production to the vehicle in which the engine is installed. Affected vehicles are equipped with Police Interceptor Utility package and 3.3L Hybrid and Gas engines.

85,238 Explorer vehicles are affected.

These vehicles are not produced in VIN order. Information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-866-436-7332) or by contacting a local Ford or Lincoln dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

Production Dates : NOV 10, 2018 - AUG 01, 2022
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Description of Defect :

Description of the Defect : Affected vehicles have engines that could fail prematurely. In the event of an engine failure, significant quantities of engine oil and/or fuel vapor may be released into the under hood environment and may migrate to and/or accumulate near ignition sources resulting in potential under hood fire, localized melting of components, or smoke.

FMVSS 1 : NR
FMVSS 2 : NR

Description of the Safety Risk :	Engine oil and/or fuel vapor that accumulates near a sufficiently hot surface, below the combustion initiation flame speed, may ignite resulting in an under hood fire, and increasing the risk of injury.
Description of the Cause :	The root cause of the fire is that engine oil and/or fuel vapor become uncontained when the cylinder block breaches and ignite on hot surfaces. The block is breached after a piston and rod failure which is collateral damage after the high load event of a bearing seizure. Bearings seize for reasons that are difficult to identify after the catastrophic failure. Potential causes are foreign object debris in the bearing, bearing material failures, crankshaft geometry concerns, and lubricant quality and presence. Ford has not identified a single specific root cause for the bearing failures in these vehicles.
Identification of Any Warning that can Occur :	Engine failure is expected to produce loud noises (example: metal-to-metal clank) audible to the vehicle's occupants. An engine failure will also result in a reduction in engine torque. In Owner Letters mailed to customers, Ford will advise customers to safely park and shut off the engine as promptly as possible upon hearing unexpected engine noises, after experiencing an unexpected torque reduction, or if smoke is observed emanating from the engine compartment.

Involved Components :

Component Name 1 :	Engine
Component Description :	Engine Bare
Component Part Number :	L1MZ-6006-D

Supplier Identification :

Component Manufacturer

Name :	Ford Motor Company
Address :	American Road Dearborn Michigan 48126
Country :	United States

Chronology :

On July 11, 2023, Ford's Critical Concern Review Group (CCRG) opened an investigation into three reports of

under hood fire resulting from engine block breach on 3.3L Explorer Police Interceptor Utility (PIU) vehicles. Damage in the three under hood fires was limited to under hood components and underbody shields. CCRG requested records from Lima Engine Plant (LEP) to understand potential causes and continued to monitor warranty records.

August 2023-June 2024: Ford requested part returns for vehicles in the field with reported block breaches to tear down. Teardown analysis at LEP indicates that engine block breaches are potentially caused by connecting rod fractures; however, no single specific root cause for the connecting rod fractures was identified. LEP continued teardown analysis of warranty returns. Ford has purchased two vehicles that experienced an engine block breach and the engines are currently being evaluated. LEP records indicate a robustness action was taken on June 2, 2022, to change rod bearing material from to improve engine durability in response to elevated rates of engine replacements.

As of July 9, 2024, there are 13 reports of under hood fires in North America resulting from engine block breaches on Explorer PIU vehicles built with 3.3L engines manufactured before June 2, 2022. There are no reports of fire resulting from engine block breaches on non-police vehicles. Regular and repeated wide open throttle accelerations to maximum engine RPM are far more frequent in police applications which could potentially affect engine durability.

On August 2, 2024, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is not aware of any reports of accident or injury related to this condition.

Description of Remedy :

Description of Remedy Program :	The service remedy is currently being developed, Ford anticipates that the dealers will update the Powertrain Control Module (PCM) software which will include connecting rod bearing failure diagnostics and an inspection for engine noise. If a connecting rod bearing failure is detected, dealers will replace the engine long-block. Parts and software are expected to be available in the second quarter of 2025. Owners of vehicles will be notified by mail that Ford's investigation is ongoing, and they will be contacted when further information is available. In letters mailed to owners, Ford will also advise customers to safely park and shut off the engine as promptly as possible upon hearing unexpected engine noises, or after experiencing an unexpected torque reduction, or seeing smoke from the engine compartment. Ford will notify the Agency and update this defect notice when the repair is defined. Ford provided the general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall in May 2023. The ending date for reimbursement eligibility is estimated to be September 5, 2024. Ford will forward a copy of the notification letters to dealers to the agency when available.
How Remedy Component Differs from Recalled Component :	Not applicable at this time.
Identify How/When Recall Condition was Corrected in Production :	Robustness actions to reduce engine failures and block breaches, and therefore reduce the risk of fire, were implemented at the engine plant on or before June 2, 2022.

Recall Schedule :

Description of Recall Schedule :	Notification to dealers is expected to occur on August 12, 2024. Mailing of owner notification letters is expected to begin August 19, 2024, and is expected to be completed by August 23, 2024.
Planned Dealer Notification Date :	AUG 12, 2024 - AUG 12, 2024
Planned Owner Notification Date :	AUG 19, 2024 - AUG 23, 2024

* NR - Not Reported