



U.S. Department  
of Transportation

National Highway  
Traffic Safety  
Administration

## Part 573 Safety Recall Report

## 25E039

**Manufacturer Name:** Ford Motor Company

**Submission Date:** Jul 07, 2025

**NHTSA Recall No.:** 25E039

**Manufacturer Recall No.:** 25S62

### Manufacturer Information

### Population

**Manufacturer Name:** Ford Motor Company  
**Address:** 330 Town Center Drive  
Suite 500  
Dearborn MI, 48126-2738

**Total number of potentially involved:** 2,985  
**Estimated percentage with defect:** 1%

### Equipment Information

**Brand / Trade 1:** Ford Customer Service Div

**Model:** 1.5L RFF Cyl Head Asy

**Part Number:** PV4Z-6049-A

**Type:** Replacement

**Function:**

**Size:**

**Production Dates:** Feb 28, 2024 - Nov 04, 2024

**Number of potentially involved:** 2,274

**Descriptive Information:**

Ford's team reviewed Ford Engine Plant maintenance records, Ford service parts sales and repair records to determine the population of affected parts.

**Brand / Trade 2:** Ford Customer Service Div

**Model:** 1.5L RFF Long Block

**Part Number:** PV4Z-6006-A

**Type:** Replacement

**Function:**

**Size:**

**Production Dates:** Jun 10, 2024 - Sep 24, 2024

**Number of potentially involved:** 711

**Descriptive Information:**

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Ford's team reviewed Ford Engine Plant maintenance records, Ford service parts sales and repair records to determine the population of affected parts.

### Defect / Noncompliance Description

#### Description of the defect or noncompliance:

Under oil pressure during vehicle operation, engine cylinder head ball plugs may be expelled from the cylinder head due to insufficient ball plug retention force. An oil leak will result from a missing ball plug.

**FMVSS1:**

**FMVSS2:**

#### Description of the safety risk, including crash, fire, death, injury:

An oil leak in the presence of an ignition source such as hot engine or exhaust components, can increase the risk of a fire. In addition, the loss of oil can result in engine seizure and loss of motive power, increasing the risk of a crash.

#### Description of the cause:

Insufficient retention force is the result of below-specification cylinder head hardness due to lack of or incomplete heat treatment. Improper heat treatment resulted from power failures at the cylinder head supplier's facility that interrupted the heat treatment process.

#### Identification of any warning that can occur:

The customer may receive a low oil pressure warning light in the instrument cluster. The customer may also notice an oil leak, burning smell, white smoke, or noise from the engine compartment.

### Component Manufacturer

**Tier of Supplier:** Tier 1

**Supplier Type:** Other

**Name:** Nematik Monterrey

**Address:** Avenida Arco Vial 3-8 Km  
García Foreign States, 66000

**Country:** Mexico

### Involved Components

**Component Name 1:** Cylinder Head Machined

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**25E039****Component Description:** 1.5L EcoBoost RFF Cylinder Head without Valves**Component Part Number:** PV4E-6049-E\*

## Purchaser Information

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

**Name:****Address:****Country:**

## Chronology

### March 2025

On March 20, 2025, a warranty claim was received by Ford for a 2025 Model Year (MY) Ford Escape 1.5L Modular Power Cylinder (MPC) engine (patient zero) for a large oil leak due to a missing cylinder head ball plug. The loss of oil resulted in low oil pressure and engine seizure. This warranty claim was identified by a Ford Warranty Engineer during the last week of March during a regular review of warranty claims.

### April -May 2025

On April 1, 2025, this issue was brought to Ford's Critical Concern Review Group for review. The warranty claim vehicle's engine was inspected by Ford Engineering team members on April 4, 2025. On April 14, 2025, another Ford Escape vehicle with a 1.5L MPC engine was found to have an oil leak at 0 miles at Ford's Louisville Assembly Plant (LAP). A ball plug was also missing from the cylinder head in the same location as the warranty claim vehicle. The two failed cylinder heads were sent to Ford's Central Labs for further material analysis. The lab's analysis identified below specification hardness indicative of improper heat treatment on both cylinder heads. The investigation team's reviews of these findings with the cylinder head supplier identified a major power failure at the supplier's facility on the date the two cylinder heads were heat treated. These reviews also identified a second power failure at the facility on a different date. With their understanding of the issue's root cause, Ford's Powertrain Engineering team evaluated Ford Chihuahua Engine Plant (ChEP) production history for all 1.5L MPC engines produced with cylinder heads from the affected supplier facility to identify the population of vehicles with potentially improperly heat treated cylinder heads.

On **May 27, 2025**, 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.

**Related NHTSA Recall Number:**

## Description of Remedy

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**Remedy Type:** Inspect, Replace

**Consumer Advisories:**  Do Not Drive  Park Outside

**Description of remedy program:**

Owners will be notified by mail and instructed to take their vehicle to a Ford or Lincoln dealer to have the cylinder head assembly serial number inspected, and if it is within the suspect part population, replace the cylinder head assembly. There will be no charge for this service.

Letters will be sent to the dealer principals of the dealerships that ordered the suspect parts for which there is no traceability. Dealerships will be required to contact customers that purchased the service cylinder head assemblies or long block assemblies over-the-counter or had the assemblies installed at a dealer with instructions to return the part for a full refund or to take their vehicle to a Ford or Lincoln dealer to have the cylinder head assembly serial number inspected. There will be no charge for this service.

**How remedy component differs from recalled component:**

Replacement cylinder head assemblies (PV4E-6049-E\*) will have hardness within specification.

**Identify how/when recall condition was corrected in production:**

Not required per 49 Part 573.

## Reimbursement Plan

Manufacturer used general reimbursement plan on file.

## Recall Schedule

**Description of recall schedule:**

Notification to dealers is expected to occur on July 9, 2025. Mailing of interim owner notification letters is expected to begin July 21, 2025 and is expected to be completed by July 25, 2025. The mailing of remedy owner notification letters timing is still being evaluated. The date VINs are planned to be searchable is July 9, 2025.

**Planned Dealer Notification Date:** Jul 09, 2025 - Jul 09, 2025

No Dealers

**Planned Interim Owner Notification Date:** Jul 21, 2025 - Jul 25, 2025

No Owners

**Planned Remedy Owner Notification Date:**

Phased Recall