

Part 573 Safety Recall Report

20E-057

Manufacturer Name : Motorcar Parts of America, Inc.**Submission Date :** AUG 20, 2020**NHTSA Recall No. :** 20E-057**Manufacturer Recall No. :** NR**Manufacturer Information :****Population :****Manufacturer Name :** Motorcar Parts of America, Inc.**Number of potentially involved :** 2,403**Address :** 2929 California**Estimated percentage with defect :** 1 %**Torrance CA 90503****Company phone :** 3109724046**Equipment Information :****Brand / Trade 1 :** Duralast mostly**Model :** Volkswagen**Part No. :** NM4222 and NM55381**Size :** NR**Function :** Master Cylinder**Descriptive Information :** MPA and our Customers use the following part numbers, with the production dates listed:

NM4222: 3/25/2015 - 2/23/2020, NM55381: 10/7/2015-04/15/2020

The manufacturer, Yusin used V0300-1 (AH) as its part number for both part numbers.

MPA started selling this product in 2015 and have decided to voluntarily recall all the product of this type, from this manufacturer (Yusin) that we have ever sold. Part number NM4222 had a production date of 03/25/2015 - 02/23/2020 and Part number NM55381 had a production date of 10/7/2015 - 04/15/2020. We have a chart of the chart of affected products with the specific make/model and model year available, but it does not transfer well to this format so I will submit separately.

We have not received any complaints about the issue identified originally by Yusin, but out of an abundance of caution we are initiating this voluntary recall. This is why we put one percent in the estimated percentage involved in defect, as the actual number is unknown, but we do not want to guess.

Production Dates : MAR 25, 2015 - APR 15, 2020

Description of Defect :

Description of the Defect : Based upon the information received from the component part manufacturer Yusin, MPA has discovered that the Master Cylinder may have a defective fluid seal crimp. The defective seal crimp may allow brake fluid to leak from the Master Cylinder. To date, MPA has not received any reports of failures due to this issue.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A failure could result in reduced braking capacity which may cause hazardous driving conditions, serious injury, or property damage. Under extreme conditions, a complete loss of braking function may occur.

Description of the Cause : The operator at the manufacturing plant, Yusin, mistakenly reversed the crimping fixture during production, so the tool can't limit the fixture's position. The operator didn't increase pressure on crimping fixture for 2 seconds, according to SOP so the crimping is not processed correctly.

Based upon the information received from the component part manufacturer Yusin:

WHY1: Crimping machine did not put enough pressure on casting to secure seal properly.

WHY2: Process operator reversed the crimping fixture which caused the tool to limit the crimping angle and pressure.

WHY3: The SOP was not followed correctly and controls were not adjusted to include two seconds of applied pressure.

WHY4: The sum of tolerances between the casting and plastic seal, plus the lack of controls to lock the plastic seal during assembly can lead to improper crimping, allowing the seal to move.

WHY5: The master cylinder design does not consider an error proofing solution to secure the seal regardless of assembly and operator mistakes.

Identification of Any Warning that can Occur : Prior to total failure, the operator may experience some loss of braking power due to brake fluid leaking from the master cylinder.

Involved Components :

Component Name : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :**Component Manufacturer**

Name : Yusin Brake Corp., Taiwan Branch

Address : 5F., No. 381, Wusengn Road

East Dist., Chiayic Foreign States East Dist. FOREIGN STATES 60045

Country : Taiwan, Province of China

Chronology :

I will send a chart separately, as more than 1/2 will not fit.

Description of Remedy :

Description of Remedy Program : If you believe you own a vehicle equipped with this Master Cylinder, please go to your nearest AutoZone store to return the recalled Master Cylinder for a full refund. If you prefer to exchange the recalled Master Cylinder for a redesigned replacement unit, they should be available by October 1, 2020.

Recalled Part Sold to DIY Customers: Take the recalled part to your nearest AutoZone store for full refund. If the recalled part was installed in your vehicle by a professional installer, MPA will reimburse you for charges up to \$178.50 for a VW Beetle and \$110.50 for a VW Jetta, based upon ALLDATA average hours (1.3 hours for a Jetta and 2.1 hours for a Beetle) and reimbursement rates according to the average national mechanic rate of \$85 per hour.

IMPORTANT NOTE: Federal law prohibits the sale of the recalled parts.

Recalled Part Sold to Professional Installers: For professional installers that purchased the recalled part, you must forward a copy of this letter to any of your customers which you installed this recalled part in their vehicle within five (5) business days of receipt. MPA will reimburse you directly for the labor and the replacement part. The Professional Installer should document the recalled part consistent with applicable laws.

MPA Contact Information:

Please call our call center at 1-833-758-0239 or email recall@motocarparts.com.

Additional Questions and Concerns?

If after having attempted to take advantage of this recall, you are still not satisfied, you may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to [http:// www.safercar.gov](http://www.safercar.gov).

How Remedy Component Differs from Recalled Component :

Master cylinder was re-designed by manufacturer Yusin to include a C-clip which will secure the seal. MPA has validated C-clip redesign made by manufacturer Yusin's with push (destructive) and durability test.

MPA Durability test simulates the vehicle braking system. The tester consists of 4 wheel cylinders and an electric actuator that cycles the master cylinder. The unit was bench bled and filled with dot 3 brake fluid and cycled every 3-5 seconds to reach a pressure of 600-1500 psi. Every hour a pressure hold test was performed to ensure there was no pressure loss. The unit ran for 70 hours (49,426 cycles) with no signs of pressure loss or visible leaks. The test was resumed for further testing and stopped

at 424 Hours (299,503 cycles) with no signs of pressure loss or leaks. Once removed from the tester the unit showed no signs of fluid leaks or movement of the seal retainer and C-clip. To measure the strength of the C-clip retention destructive testing was also performed. The unit was cut at the neck of the mounting flange and a force was applied to the primary piston in the direction of the retainer. This simulates the force direction the internal springs would apply on the C-clip when the unit is fully assembled. A force of 2023 lbs. was applied causing the piston to break through the plastic seal retainer. The aluminum casting did not fracture and the c clip showed no signs of movement from its initial position. This was well above the OEM unit tested, which had the casting fracture at 1600 lbs. From this, we can conclude that the improved design with the addition of the C-clip retainer will not have any of the seal retention failures the previous design had and that the design meets and exceeds OEM seal retainer retention specifications.

Identify How/When Recall Condition was Corrected in Production : The crimp style casting was discontinued, and the master cylinder was re-designed to include a C-clip which will secure the seal.

Recall Schedule :

Description of Recall Schedule : After getting guidance and approval from NHTSA we plan to start end user notification right away. We notified our customers shortly after submitting our initial letter to NHTSA. We would like to confirm what form of proof is required to show the mailing? Can we send first class mail?

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

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 : NR

Address : NR

NR

Country : NR

Company Phone : NR

* NR - Not Reported