U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION
NHTSA
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Investigation: PE23005
Prompted By: VOQ Review, EWR Field Report Review and EWR D&I Review
Date Opened: 03/17/2023 **Date Closed:** 11/30/2023
Investigator: Stefanie Oldenburg **Reviewer:** Sharon Yukevich
Approver: Tanya Topka
Subject: Momentary Increased Steering Effort

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Honda (American Honda Motor Co.)
Products: 2022-2023 HONDA CIVIC
Population: 238,271

Problem Description: Vehicle steering can stick and cause a momentary increase in steering effort that could potentially cause overcorrection and an increased risk of a crash.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	431	770	1	0	1,198*	CONF
Crashes/Fires:	13	1	0	0	13*	0
Injury Incidents:	3	0	0	0	3	0
Number of Injuries:	3	0	0	0	3	0
Fatality Incidents:	0	0	0	0	0	0
Number of Fatalities:	0	0	0	0	0	0

Description of Other:

*Total eliminates duplicates received by the manufacturer

ACTION/SUMMARY INFORMATION

Action: This (PE) Preliminary Evaluation has been upgraded to an Engineering Analysis.

Summary:

On March 17, 2023, The Office of Defects Investigation (ODI) opened Preliminary Evaluation (PE23-005) to access the alleged defect of momentary increase in steering effort in model years (MY) 2022 and 2023

Honda Civic vehicles. The complaints report that the momentary increase in steering effort (described as "sticky steering") occurs mostly at highway speeds after driving for a certain amount of time. The reports have been received over the past 2 years with most occurring with low vehicle mileage.

The steering gear contains a unit that includes a worm gear and a worm wheel. Honda stated this condition of momentary increase in steering effort occurs due to two factors within this unit. During manufacturing, the worm wheel goes through annealing and component conditioning processes. These processes caused internal stress and strain within the worm wheel. This strain was slowly released over the first few months of the vehicle life. Over time, the released strain caused the deformation of the teeth on the worm wheel, causing the worm gear to catch on the worm wheel. This results in the consumer's momentary increased in steering effort. Also, the manufacturing process did not guarantee consistent grease application and therefore, some vehicles within the scope received too little grease which contributes to the momentary increase in steering effort.

Analysis of all relevant data indicates that the subject condition occurs early in the vehicle's life primarily in winter months. Additionally, the subject vehicles need to be driven in a straight line for a period of time, possibly until the vehicle is warmed up, to recreate the condition. The condition does not illuminate a malfunction indicator light (MIL). Some complaints allege Honda dealerships are unable to recreate the condition or state this is a normal vehicle operation. However, Honda released Service Bulletin 23-037 in July of 2023 which accurately describes the condition. To address this issue, Honda directs dealerships to remove the electronic power steering (EPS) gearbox and replace with a new gearbox. Further, Honda stated that the worst case steering effort from all warranty returned parts tested was 2.4 pounds.

ODI complaint traffic remains steady. ODI has received 13 crashes to date, 11 of which allege roadway departure due to not being able to overcome the momentary increased steering effort prior to their vehicle leaving the roadway. The remaining 2 incidents claim overcorrection of the steering wheel.

PE23-005 has been upgraded to an Engineering Analysis (EA23-003) to further assess the scope, frequency and potential safety related consequences of the momentary increase of steering effort. Further the scope has been expanded to include assessment of the Acura Integra and Honda CR-V models.

The ODI complaints cited above can be viewed at www.NHTSA.gov under the attached ODI identification numbers.