

Part 573 Safety Recall Report

21V-393

Manufacturer Name : Grand Design RV, LLC

Submission Date : MAY 26, 2021

NHTSA Recall No. : 21V-393

Manufacturer Recall No. : 910023



Manufacturer Information :

Manufacturer Name : Grand Design RV, LLC

Address : 11333 County Road 2
Middlebury IN 46540

Company phone : (574) 825-8000 x2015

Population :

Number of potentially involved : 55,508

Estimated percentage with defect : 10 %

Vehicle Information :

Vehicle 1 : 2016-2021 Grand Design Imagine, Transcend, Momentum

Vehicle Type : TRAILERS

Body Style :

Power Train : NR

Descriptive Information : Grand Design began receiving reports of thermal events at LP gas appliances beginning in September 2020. Investigations revealed a potential defect in the Winn-Tec LP regulator. Independent 3rd party lab testing eventually confirmed that the regulator was failing, resulting in high pressure LP gas being pushed to the appliances, creating the potential for a thermal event or fire. Recall population includes all vehicles that were built with a Winn-Tec LP regulator. Other products use LP regulators from other manufacturers/suppliers and are not affected by this recall. A total of 55,508 Grand Design Imagine, Transcend & Momentum travel trailer vehicles in model years 2016 through 2021 are affected.

Production Dates : JUL 17, 2015 - DEC 17, 2020

VIN Range 1 : Begin : 573TE3221G3400228	End : 573TE252XM3420006	<input checked="" type="checkbox"/> Not sequential
VIN Range 2 : Begin : 573TE2725H6600001	End : 573TE3722M6629984	<input type="checkbox"/> Not sequential
VIN Range 3 : Begin : 573TE2728J5500002	End : 573TE3020M5505277	<input type="checkbox"/> Not sequential
VIN Range 4 : Begin : 573TE2223K1208114	End : 573TE2527M1213444	<input type="checkbox"/> Not sequential
VIN Range 5 : Begin : 573TM2729K5502637	End : 573TM3120M5504621	<input type="checkbox"/> Not sequential
VIN Range 6 : Begin : 573TM3124M1213450	End : 573TM3525M1214360	<input type="checkbox"/> Not sequential
VIN Range 7 : Begin : 573TT3220J5500001	End : 573TT3220J5500001	<input type="checkbox"/> Not sequential
VIN Range 8 : Begin : 573TT3221J8800001	End : 573TT3327M8812752	<input type="checkbox"/> Not sequential

Description of Defect :

Description of the Defect : The LP regulator controls the LP gas pressure to the appliances. Appliance manufacturer's installation instructions require 10-14 inches of water column, with 11 inches as optimal. LP regulators are pre-set at 11 inches of water column from the manufacturer. Multiple tests are performed in the vehicle manufacturing process to confirm proper setting. It was discovered that the Winn-Tec regulators were failing in the field after a period of time, pushing as much as five (5) times the allowable pressure to the appliances. As a result, the flame at the appliances grows significantly, creating the potential for a fire.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : In the event that the LP gas pressure to an appliance exceeds the appliance manufacturers required setting the potential exists for a fire.

Description of the Cause : Suspect regulators were sent to an independent 3rd party laboratory for testing and evaluation. A total of three (3) such examinations took place to drill down to the root cause. It was discovered that the regulators contained an oily substance that was later determined to be emitting from the LP hoses (between the tanks and the regulator) over time. The "oil" was identified as a plasticizer traced to the plastic used in hose construction. It was then determined that this "oil" substance was breaking down the diaphragms/seals inside the regulator, allowing high pressure LP gas to pass to the low pressure side of the regulator, and therefore pushing high pressure LP gas downstream to the appliances. Regulators from other manufacturers were opened up and evaluated. These regulators also contained the "oily" substance, however they have built in protection to prevent high pressure LP gas from entering the low pressure side where the Winn-Tec does not have this protection. There have been no reported thermal events with any regulator other than Winn-Tec.

Identification of Any Warning that can Occur : If high pressure LP gas is released to an appliance there may be a "hissing" sound coming from the appliance. In addition, you may notice a large flame at the appliance.

Involved Components :

Component Name 1 : Winn-Tec LP Regulator

Component Description : LP regulator with connecting hoses

Component Part Number : Dehco Part Number 822331, Grand Design P/N 240028, 240023

Supplier Identification :

Component Manufacturer

Name : Winnspec International Co.
 Address : 13FL.-1, No. 207 Fu Sing Road
 Tao Yuan City Tao Yuan County Foreign States 33066
 Country : Taiwan, Province of China

Chronology :

Grand Design received a report of a thermal event on 9/11/20. During our investigation it was discovered that the potential cause of the event was high pressure LP gas reaching the appliance (refrigerator). Subsequent to this we received another report of a thermal event on 10/2/20. Again the root cause was determined to be high pressure LP to an appliance. In each case the suspect regulator was a Winn-Tec brand. On 10/30/20 Grand Design placed Winnspec (manufacturer) and Dehco (supplier) on notice of a potential safety defect. Grand Design also contacted other RV Manufacturers to share our findings and alert them to a potential safety defect. Grand Design began pulling all Winn-Tec regulators from production. All production lines we switched to other regulators by 12/17/20. We then contracted with a fire forensic laboratory to conduct in depth testing and analysis of the LP regulator. Lab examinations began on 12/22/20, followed by exams on 3/16/21 and 5/24/21. Initial focus was on the "oily" substance discovered in the regulator. This same "oil" was found in other regulators, however it did not cause them to fail (because of built in safety mechanisms). The "oil" (plasticizer) originates from the LP hoses running to the regulator. Further examination and testing eventually determined that the "oil" substance was breaking down a seal in the Winn-Tec regulator which allows high pressure LP to cross over to the low pressure side, pushing high pressure LP downstream to the appliance. As discoveries were made, meetings took place with Dehco (supplier), Patrick Industries (Dehco parent company), and Winnspec (Manufacturer). These meetings took place on 1/27/21, 4/19/21, 4/27/21 and 5/14/21. Immediately following the release of the final finding & conclusions on 5/24/21, Grand Design convened our Executive Product Safety Review Committee on 5/25/21 and decided to file Part 573 as the final stage manufacturer.

Description of Remedy :

Description of Remedy Program :	Remedy involves replacing the LP regulator with another brand. Grand Design will distribute the replacement regulators to dealers for recall completion. Owner's who have paid to have this service performed will be reimbursed by Grand Design.
How Remedy Component Differs from Recalled Component :	The remedy component is designed to function properly with this "oil" present and has built in safety devices to prevent high pressure LP gas from crossing over to the low pressure side of the regulator.
Identify How/When Recall Condition was Corrected in Production :	Effective 12/17/20, Grand Design no longer used the Winn-Tec regulator in production.

Recall Schedule :

Description of Recall Schedule : Owners of affected vehicles will be notified by First Class mail that their vehicle is affected by this recall. In addition we will post recall information electronically for consumer access. Dealers will be notified of the recall action (by First Class mail & electronically) and will be supplied with repair information and vehicle identification information.

Planned Dealer Notification Date : JUN 24, 2021 - JUN 25, 2021

Planned Owner Notification Date : JUN 28, 2021 - JUN 30, 2021

* NR - Not Reported