



TriMark 060-1650 Motor Home Entrance Door Hardware

March. 12, 2021



Note

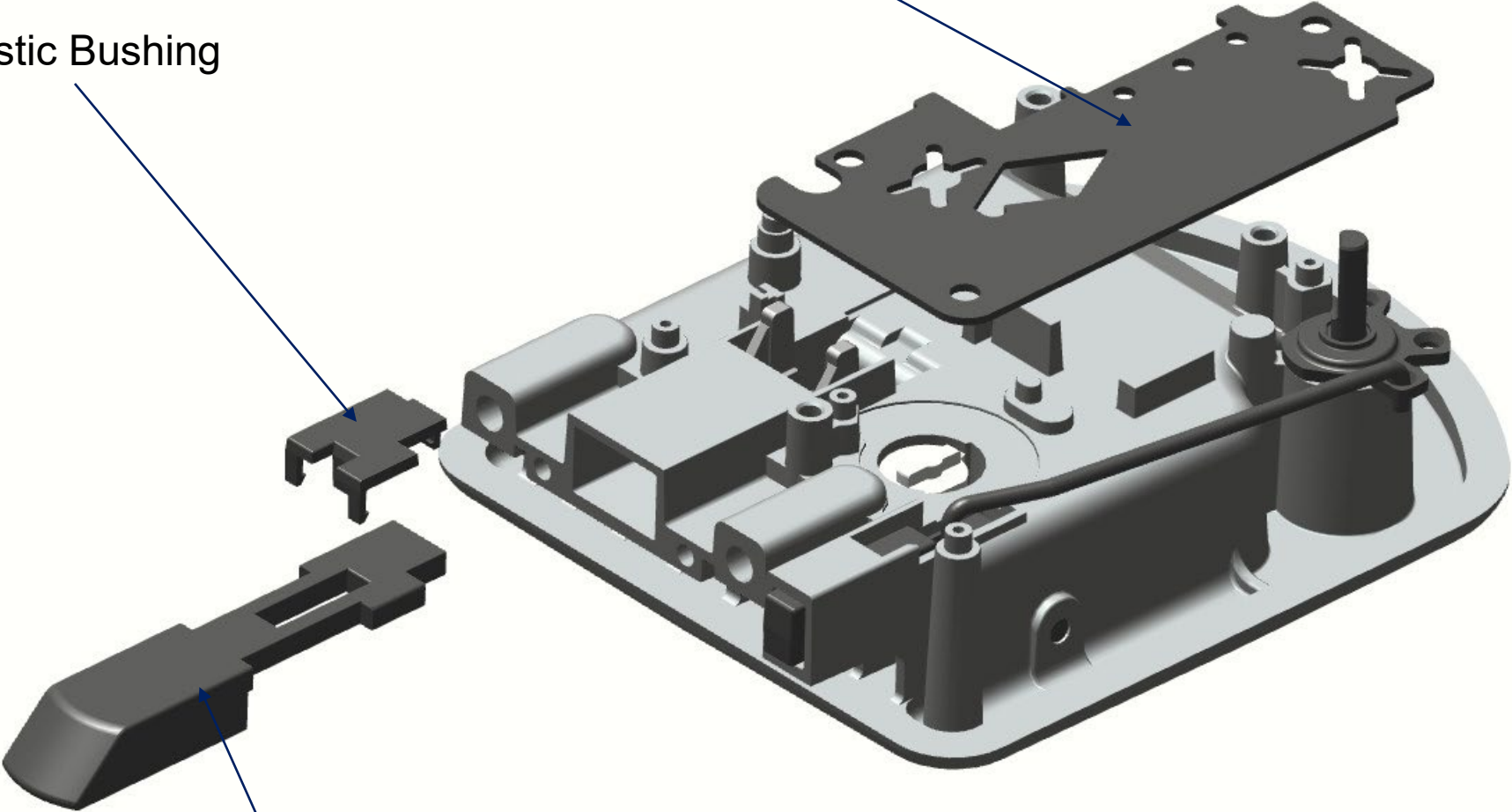
- **This is a Summary document and is updated from the previous PowerPoint that was presented to NHTSA on 10/6/2020.**
- **Supporting details will be provided before the extended Due Date of 4/30/2021**

History

- **We know that we have had some lock-ins/lock-outs relative to the Product**
 - **First knowledge was 4/28/16 - Customer called-in (not sure make/model)**
 - **First OEM – 10/14/16 – 2 units – 1 had both a broken plunger and a fractured plastic bushing (Challenger Door - not sure make/model)**
- **TriMark has identified 3 potential causes for lock-in/lock-out**
 - **Plunger bolt failure**
 - **Broken/fractured plastic bushing**
 - **Insufficient staking of the deadbolt plate**

Deadbolt Plate

Plastic Bushing

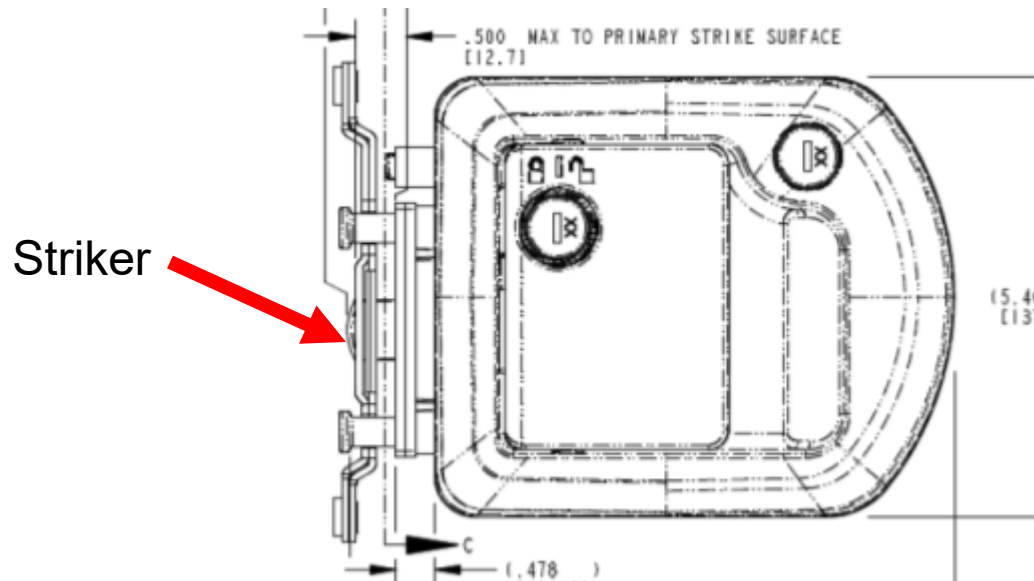


Plunger Bolt

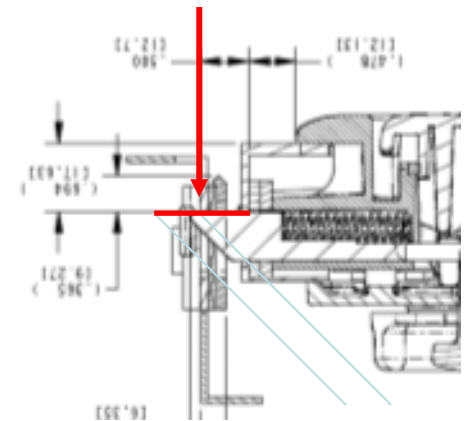
Failure Detail

- **Plunger bolt failure**

- In extreme conditions with strike plate angularity and high door seal, the strike plate can cut a groove into the zinc plunger causing excessive force required to retract the plunger and potentially stress the plunger in the retraction mode causing plunger failure

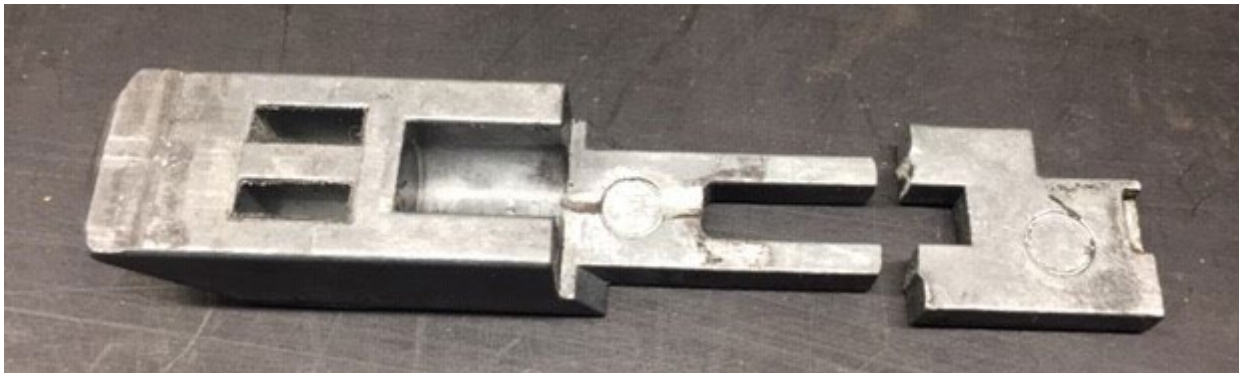


Striker Bolt Load



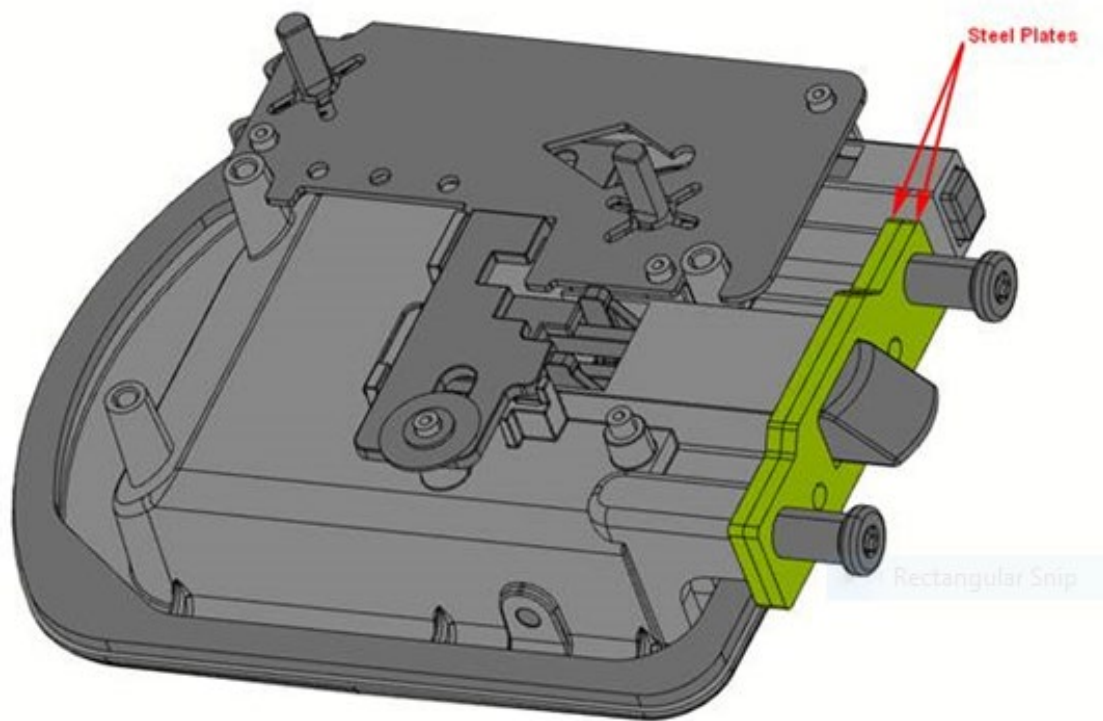
Failure Detail

- **Plunger bolt failure**
 - Photographs of groove from striker bolt load



Failure Detail

- **Plunger bolt failure**
 - Excessive striker bolt loads also causes a groove(s) to be worn on the back side of the plunger as well



Failure Detail

- **Plunger bolt failure**
 - Photographs – back side



TriMark Warranty Data -12/31/20

- Broken plunger bolts
 - 145 total claims related to broken plunger bolts
 - 127 claims are Dexter Door (87.5%)
 - 6 claims are Lippert (4%)

Warranty Data by Year Reported	Plunger
2012	0
2013	0
2014	0
2015	2
2016	1
2017	75
2018	51
2019	16
2020	0
Unknown	0
	145

Warranty Data by Year Manufactured	Plunger
2012	0
2013	0
2014	4
2015	64
2016	70
2017	4
2018	2
2019	0
2020	0
Unknown	1
	145

- **No claims in 2020 relating to broken plungers**

TriMark Warranty Data -12/31/20

- Broken plastic bushings
 - 13 total claims related to broken plastic bushing
 - 8 claims are Dexter Door (61%)
 - 5 claims are RV Designer (39%)

Warranty Data by Year Reported	Bushing
2012	0
2013	0
2014	0
2015	0
2016	0
2017	2
2018	8
2019	3
2020	0
Unknown	0
	13

Warranty Data by Year Manufactured	Bushing
2012	0
2013	0
2014	0
2015	1
2016	5
2017	6
2018	1
2019	0
2020	0
Unknown	0
	13

- **No claims in 2020 relating to broken bushing failures**

TriMark Field Incident Reports

Manufacturer		
Forest River	14	26%
Thor	16	30%
Winnebago	7	13%
Coachman	2	4%
Other	12	22%
Unknown	3	6%
	54	

Model Year		
2012	2	4%
2013	1	2%
2014	5	38%
2015	1	2%
2016	14	26%
2017	11	20%
2018	7	13%
2019	0	
2020	0	
Unknown	13	24%
	54	

Service and Replacement Reports

Manufacturer		
Thor	22	21%
Winnebago	18	17%
Forest River	21	20%
Leisure Travel	3	3%
Fourwinds	4	4%
Coachman	12	11%
Renegade	3	3%
Other	16	15%
Unknown	6	6%
	105	

Model Year		
Earlier than 2012	25	24%
2012	4	4%
2013	2	2%
2014	6	6%
2015	6	6%
2016	7	7%
2017	16	15%
2018	23	22%
2019	16	15%
2020	0	
	105	

NHTSA VOQ's

- **TriMark has identified 51 VOQ (Vehicle Owner Questionnaire) complaints filed in last 48 months. Note that 14 are for the previous Product (060-0650), 1 is deadbolt failure and 1 is a bushing failure**

Failure Date		
2020	11	22%
2019	6	12%
2018	21	41%
2017	10	20%
2016	3	6%
2015	0	0%
	51	

NHTSA VOQ's

- **TriMark has identified 51 VOQ (Vehicle Owner Questionnaire) complaints filed in last 48 months. Note that 14 are for the previous Product (060-0650), 1 is deadbolt failure and 1 is a bushing failure**

<u>Manufacturer</u>	<u>#</u>	<u>%</u>
Thor	36	71%
Forest River	5	10%
Gulf Stream	2	4%
Coachman	1	2%
Ford	1	2%
Winnebago	3	6%
Mercedes	1	2%
Four Winds	1	2%
Starcraft	1	2%
	51	

Model Year		
2019	1	2%
2018	3	6%
2017	9	18%
2016	12	24%
2015	10	20%
2014	6	12%
2013	4	8%
2011	1	2%
2009	1	2%
2007	1	2%
2006	2	4%
2001	1	2%
	51	

NHTSA VOQ's

- **Thor models/years**

- **Note that Keystone and Starcraft are owned by Thor (3 units total)**

Thor Model		
ACE	10	26%
Challenger	6	15%
Hurricane	3	8%
Palazzo	5	13%
Vegas	3	8%
Axis	2	5%
Four Winds	2	5%
Aruba	1	5%
Bullet	1	3%
Compass	1	3%
Miramar	1	3%
Outback	1	3%
Outlaw	1	3%
Tuscany	1	3%
Windsport	1	3%
	39	

Model Year		
2019		0%
2018	1	3%
2017	9	23%
2016	11	28%
2015	9	23%
2014	4	10%
2013	3	8%
2011		0%
2007		0%
2006	1	3%
2001	1	3%
	39	

Total Reported Failures – all sources

Reported Failures	Plunger	Bushing	Staking	
VOQ	49	1		51
FIRs	42	12		54
Warranty	145	13	67	145
Service	81	24		105
Total	317	50	67	355
%	89%	16%	21%	

- **Note that only the VOQ data contains Lock-in – Lock-out references**



500 Bailey Ave.

New Hampton, IA 50659

Toll Free: 1-800-447-0343

Tel: 641-394-3188

Fax: 641-394-2392

www.trimarkcorp.com