



TECHNICAL SERVICE BULLETIN

MT88 Manual Transmission - Rotational Scraping Noise When Cold And In Neutral, 1st And/Or 2nd Gear With Clutch Pedal Released

23-2019
08 June 2023

This bulletin supersedes 22-2371.

Model:

Ford 2021-2023 Bronco	Transmission/Transaxle: MT88
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Summary

This article supersedes TSB 22-2371 to update the vehicle model years effected.

Issue: Some 2021-2023 Bronco vehicles equipped with a MT88 manual transmission may experience a rotational scraping noise while the transmission is in neutral, 1st or 2nd gear with the clutch pedal released and may be more noticeable in ambient temps below 10°C (50°F) and after a cold soak. This noise may diminish as the transmission warms up. This may be due to the 5th and 6th gear synchronizer rings. To correct the condition, follow the Service Procedure to replace the 5th and 6th gear synchronizer rings.

Action: Follow the Service Procedure to correct the condition if the vehicle meets the following criteria:

- 2021-2023 Bronco
- Equipped with MT88 manual transmission
- Rotational scraping noise from the transmission in neutral, 1st and/or 2nd gear and clutch pedal released may be more noticeable in ambient temps below 10°C (50°F) and after a cold soak
- Noise may diminish as the transmission warms up

Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
W520103-S442	1	Exhaust Flange Nuts	4	2
MB3Z-9450-B	1	Exhaust Flange Gasket	1	1
W713314-S439	1	Hanger Bracket Bolts	4	2
W500121-S439	3	Transfer Case To Transmission Bolts	4	9
LB3Z-4B496-A	8	Rear Driveshaft Bolts And Retaining Straps	1	8
JB3Z-4B496-B	6	Front Driveshaft Bolts And Retaining Straps	1	6
W710624-S300	1	Crawler/Reverse Gear Synchronizer Roll Pin	4	1
MU7Z-7W441-A	1	Gate Pin	1	1
MU7Z-7107-D	2	5th And 6th Gear Synchronizer Rings	1	2
BR3Z-7064-A	1	Input Shaft Circlip	1	1
MU7Z-7048-A	1	Input Shaft Seal	1	1
MU7Z-7P497-A	1	Counter Shaft Bore Plug	1	1
BR3Z-7052-A	1	Output Shaft Seal	1	1

MU7Z-3K050-A	2	Circlip	1	2
MU7Z-3K050-B	1	Circlip	1	1
MU7Z-3K050-C	1	Circlip	1	1
W520214-S440	1	Stabilizer Bar Nuts	2	2
W721041-S439	1	Stabilizer Bar Studs	4	2
W721449-S439	1	Stabilizer Bar Bolts	4	2
TA-357	As Needed	Motorcraft® High Performance Engine RTV Silicone		
XT-11-QDC	As Needed	Motorcraft® Dual Clutch Transmission Fluid		
ZC-30-A	As Needed	Motorcraft® Gasket Remover		
ZC-31-B	As Needed	Motorcraft® Metal Surface Prep Wipes		
ZC-20	As Needed	Motorcraft® Engine Shampoo and Degreaser		
PM-4-A	As Needed	Motorcraft® Metal Brake Parts Cleaner (Compliant With Low Volatile Organic Compound Requirements As Required In Some USA States)		
PM-4-B	As Needed	Motorcraft® Metal Brake Parts Cleaner (Not Compliant With Volatile Organic Compound Requirements)		
PM-20	As Needed	Motorcraft® DOT 4 LV High Performance Motor Vehicle Brake Fluid		
Obtain Locally	As Needed	Plastic Scraper / Plastic Razer Blades		
Obtain Locally	As Needed	Nylon Bristle Brush		
Obtain Locally	As Needed	Lint Free Towel		
Obtain Locally	As Needed	Isopropyl Alcohol (Minimum 90%)		
Obtain Locally	As Needed	Large Zip Ties		

Quantity refers to the amount of the service part number required to repair the vehicle.

Unit of Issue refers to the number of individual pieces included in a service part number package.

Piece Quantity refers to the total number of individual pieces required to repair the vehicle.

As Needed indicates the amount of the part may vary and/or is not a whole number. Parts can be billed out as non-whole numbers, including less than 1.

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation	Time
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	No.	
2021-2023 Bronco Manual Transmission: Replace The 5th And 6th Gear Synchronizer Rings, Includes Time To Remove And Install The Transmission (Do Not Use With Any Other Labor Operations)	232019A	10.1 Hrs.

Repair/Claim Coding

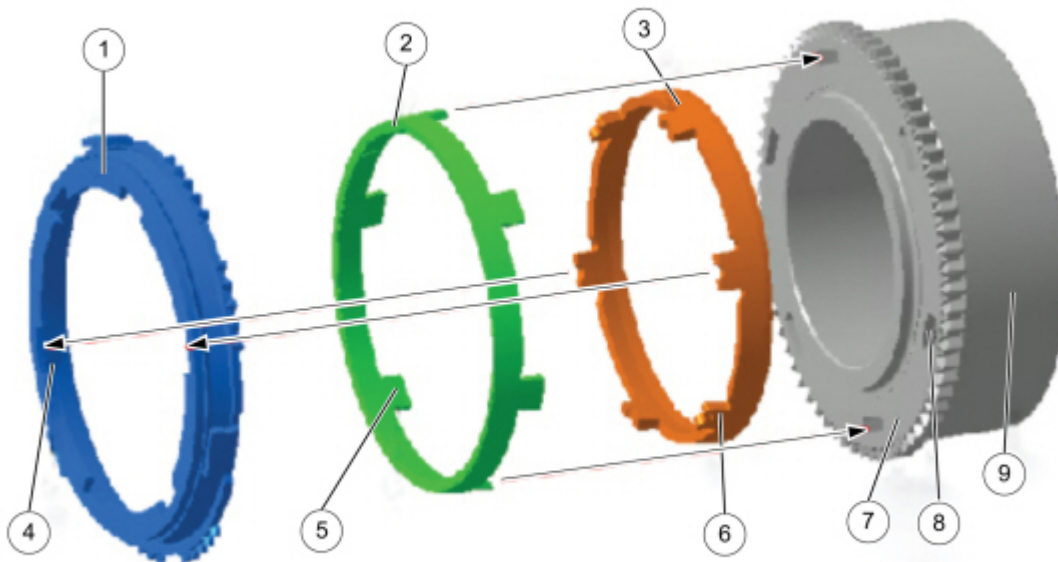
Causal Part:	7107
Condition Code:	42

Service Procedure

NOTE: New 5th and 6th gear synchronizer rings are now available with an improved design to correct the rotational scraping noise. Upon receiving the synchronizer rings, check for engineering part number MU7R-7101-GA or later which will be stamped on the rings.

1. Remove the transmission from the vehicle, Refer to Workshop Manual (WSM), Section 308-03.
2. Disassemble the sub-assemblies to gain access to the 5th and 6th gear synchronizer rings. Refer to WSM, Section 308-03.
3. Replace the 5th and 6th gear synchronizer rings.
4. Assemble the transmission. Refer to WSM, Section 308-03.
 - (1). The reverse/crawl gear synchronizer assembly must be assembled on the transmission. Refer to Figures 1-2 for an exploded view of the reverse/crawl gear synchronizer assembly.

Figure 1



E396046

Figure 2



E396047

5. Install the transmission. Refer to WSM, Section 308-03.

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NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.