



TECHNICAL SERVICE BULLETIN

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

24-204221 February
2024

This bulletin supersedes 23-2019. Reason for update: add 2024 model year vehicles, add an additional labor operation, and correct the part number called out in the Service Procedure.

Model:

Ford 2021-2024 Bronco	Transmission: MT88 Manual Transmission
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Issue: Some 2021-2024 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:

- 2021-2024 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	Claim Quantity	Package Order Quantity	Number in Package	Description
W520103-S442	2	1	4	Exhaust Flange Nuts
MB3Z-9450-B	1	1	1	Exhaust Flange Gasket
W713314-S439	2	1	4	Hanger Bracket Bolts
W500121-S439	9	3	4	Transfer Case To Transmission Bolts
LB3Z-4B496-A	8	8	1	Rear Driveshaft Bolts And Retaining Straps
JB3Z-4B496-B	6	6	1	Front Driveshaft Bolts And Retaining Straps
W710624-S300	1	1	4	Crawler/Reverse Gear Synchronizer Roll Pin
MU7Z-7W441-A	1	1	1	Gate Pin
MU7Z-7107-D	2	2	1	5th And 6th Gear Synchronizer Rings
BR3Z-7064-A	1	1	1	Input Shaft Circlip
MU7Z-7048-A	1	1	1	Input Shaft Seal
MU7Z-7P497-A	1	1	1	Counter Shaft Bore Plug

BR3Z-7052-A	1	1	1	Output Shaft Seal
MU7Z-3K050-A	2	2	1	Circlip
MU7Z-3K050-B	1	1	1	Circlip
MU7Z-3K050-C	1	1	1	Circlip
W520214-S440	2	1	2	Stabilizer Bar Nuts
W721041-S439	2	1	4	Stabilizer Bar Studs
W721449-S439	2	1	4	Stabilizer Bar Bolts
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 No.	Time
2021-2024 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	242042A	10.1 Hrs.

Operations Outside Of This Article)		
2021-2024 Bronco Manual Transmission: Extra Time If Equipped With Front Stabilizer Bar Disconnect (Can Be Claimed With Operation A)	242042B	0.8 Hrs.

Repair/Claim Coding

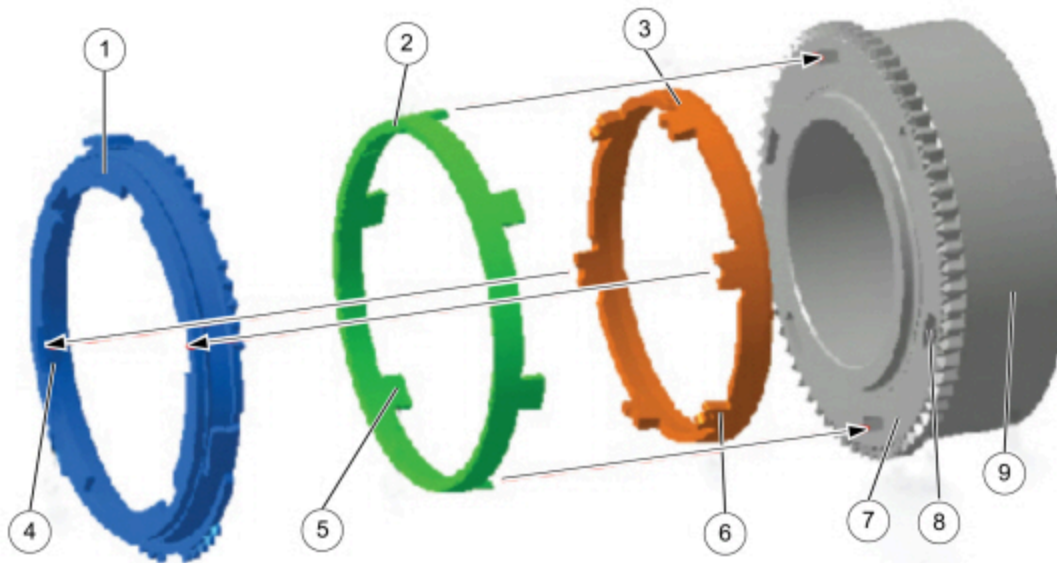
Causal Part:	7107
Condition Code:	42

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-7107-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. Refer to WSM, Section 308-03.
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 (Figures 1-2).

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.