

# Technical Service Bulletin

SUBJECT:

# CORRECTION OF LUBRICANT BRANDS FOR TRANSMISSION & DRIVELINE – SERVICE MANUAL REVISION

No: TSB-23-23-005

DATE: December 2023

MODEL: Outlander

CIRCULATE TO:	[ ] GENERAL MANAGER	[X] PARTS MANAGER	[X]TECHNICIAN
[X] SERVICE ADVISOR	[X] SERVICE MANAGER	[X] WARRANTY PROCESSOR	[ ] SALES MANAGER

#### **PURPOSE**

This TSB provides correction to the brand name of lubricants for the Transmission & Driveline in the applicable Service Manual sections:

- Transfer
- Electro-Hydraulic Coupling
- Differential Gear

#### **AFFECTED VEHICLES**

2022-2023 Outlander

#### **AFFECTED SERVICE MANUAL**

2022-2023 Outlander Service Manual

#### **PROCEDURE**

Please use the following chart as a guide to replace the indicated pages in the affected Service Manuals, Group 23, Transmission & Driveline, Driveline and Group 00 Maintenance, Periodic Maintenance.



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Applicable Manual No.		Applicable Title	Contents
2022	MSCD-030B-2022	TRANSMISSION & DRIVELINE	Attached
OUTLANDER	(Volume 2)	└ DRIVELINE	sheet 2
Service Manual		└ REAR FINAL DRIVE: R145	
		└ PREPARATION	
		└ PREPARATION	
		└ Lubricant or/and Sealant	
		TRANSMISSION & DRIVELINE	Attached
		└ DRIVELINE	sheet 3
		└ REAR FINAL DRIVE: R145	
		└ UNIT REMOVAL AND INSTALLATION	
		└ REAR FINAL DRIVE ASSEMBLY	
		└ Adjustment	
	MSCD-030B-2022	MAINTENANCE	Attached
	(Volume 5)	└ PERIODIC MAINTENANCE	sheet 4
		└ RECOMMENDED FLUIDS AND LUBRICANTS	
		└ Fluids and Lubricants	
2023	MSCD-030B-2023	TRANSMISSION & DRIVELINE	Attached
OUTLANDER		└ DRIVELINE	sheet 2
Service Manual		└ REAR FINAL DRIVE: R145	
		└ PREPARATION	
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		└ Adjustment	
		MAINTENANCE	Attached
		└ PERIODIC MAINTENANCE	sheet 5
		└ RECOMMENDED FLUIDS AND LUBRICANTS	
		└ Fluids and Lubricants	

DRIVELINE 153

Tool name		Description
Drift a: 63 mm (2.48 in) dia. b: 49 mm (1.93 in) dia.	CF100AC5AA00USA	Installing side oil seal
Drift a: 60 – 73 mm (2.36 – 2.87 in) dia. b: 24 – 53 mm (0.94 – 2.09 in) dia. c: 68 mm (2.68 in) or more	CF100AC6AA00USA	Installing drive pinion oil seal
Power tool		Loosening bolts and nuts
	CF100A1DAA00USA	

# Lubricant or/and Sealant

Item	Use		
Electro-hydraulic coupling oil (Missistem Cenuine part) < Incorrect>	Filling when the parts of electro-hydraulic coupling assembly and/or rear final drive assembly is disassembled		
Red lead or equivalent	Checking tooth contact		

BorgWarner LSC Transmission Fluid 12-301

<Correct>

DRIVELINE 167

Attached sheet 3

#### \_...\_

#### INSTALLATION

Note the following, install in the reverse order of removal.

- For non-reusable parts, refer to REAR FINAL DRIVE ASSEMBLY
- For each tightening torque, refer to REAR FINAL DRIVE ASSEMBLY.
- . When oil leaks while removing/installing final drive assembly, check oil level after the installation. Refer to REAR DIFFERENTIAL GEAR OIL
- Perform adjustment after installation. Refer to REAR FINAL DRIVE ASSEMBLY

#### Adjustment

#### **ADJUSTMENT BEFORE REMOVAL**

#### **AWD Control Unit Part Number Saving**

When replacing AWD control unit (integrated with actuator assembly of electro-hydraulic coupling assembly) and electro-hydraulic coupling assembly, perform AWD control unit part number saving. Refer to <a href="ADDITIONAL SERVICE WHEN REPLACING AWD CONTROL UNIT (IN ELECTRO-HYDRAULIC COUPLING)">ADDITIONAL SERVICE WHEN REPLACING AWD CONTROL UNIT (IN ELECTRO-HYDRAULIC COUPLING)</a>.

#### ADJUSTMENT AFTER INSTALLATION

#### **AWD Control Unit Programming**

When replacing AWD control unit (integrated with actuator assembly of electro-hydraulic coupling assembly) and electro-hydraulic coupling assembly, perform programming to AWD control unit. Refer to <u>ADDITIONAL SERVICE WHEN REPLACING AWD CONTROL UNIT (IN ELECTRO-HYDRAULIC COUPLING)</u>.

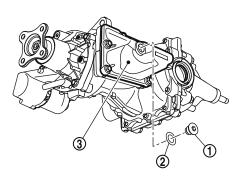
#### Electro-Hydraulic Coupling Oil Filling, Air Bleeding and Initialize Oil Deterioration Level

When the electro-hydraulic coupling oil is drained, such as when replacing or removing/installing electro-hydraulic coupling component parts, the air bleeding and initialize oil deterioration level of electro-hydraulic coupling oil is required after fill with new electro-hydraulic coupling oil.

#### Refilling for electro-hydraulic coupling oil

Fill with electro-hydraulic coupling oil following the instructions below.

1.Remove filler plug 1 and gasket 2 from coupling oil tank cover 3.



CF100ACTAA00USA

<Correct>

2.Fill with new electro-hydraulic coupling oil to specified amount.

Use BorgWarner LSC Transmission Fluid 12-301 for the electro-hydraulic coupling oil.

Specified amount : Approx. 0.6

: Approx. 0.6  $\ell$  (1-1/4 US pt, 1 Imp pt)

#### CAUTION:

- Use only genuine Musubishi Meters parts for electro-hydrautic coupling oil.
- . When using oil, allow the additives to diffuse well before use.
- Oil that has been stored for 12 months can not be used.

NOTE:

Oil level should be level with bottom of filler plug mounting hole.

#### RECOMMENDED FLUIDS AND LUBRICANTS

#### **Fluids and Lubricants**

The following are approximate capacities. The actual refill capacities may be slightly different. When refilling, follow the procedures described elsewhere in this manual

Fluid type		Capacity (approximate)				
		Metric	us	Imperial	Recommended Fluids/Lubricants	
		Measure	Measure	Measure		
Engine oil	With oil filter change	5.1 <i>l</i>	5-3/8 qt	4-4/8 qt	Genuine "Mitsubishi Motors Motor Oil 0W-20 SN" (or equivalent) is recommended.	
Drain and refill	Without oil filter change	4.8 <i>l</i>	5-1/8 qt	4-2/8 qt	If the above motor oil (or engine oil) is not available, a synthetic 0W-20 GF-5 SN motor oil (or engine oil) may be used. Damage caused by the use of motor oil (or engine oil) other than as recommended is not covered under Mitsubishi	
Dry engine (engine overhau	1)	6.4 <i>l</i>	6-6/8 qt	5-5/8 qt	Motors's New Vehicle Limited Warranty. For additional information, see "Engine Oil Recommendations".	
Engine coolant (with reservoir tank)		9.4 ℓ	9-9/10 qt	8-3/10 qt	Pre-diluted MITSUBISHI MOTORS GENUINE SURPER	
Reservoir tank		0.83 ℓ	7/8 qt	6/8 qt	LONG LIFE COOLANT PREMIUM or equivalent	
CVT fluid		7.4 ℓ	7-7/8 qt	6-1/2 qt	MITSUBISHI MOTORS GENUINE CVTF-J4     Use only "Mitsubishi Motors Genuine CVTF-J4" transmission fluid to ensure optimum transmission performance.	
Transfer oil		0.31 ℓ	5/8 pt	1/2 pt	Nissan Genuine Differential Oil Hypoid Super-S GL-5 synthetic 75W-90 or equivalent	
Differential gear	oil	0.5 ℓ	1 pt	7/8 pt	Nissan Genuine HYPOID FLUID-S1 GL 5 75W-80 or equivalent	
Brake fluid		_	_	_	Brake Fluid DOT 3 or DOT 4	
Multi-purpose gr	ease	_	_	_	NLGI No. 2 (Lithium soap base)	

# **Engine Oil Recommendation**

Mitsubishi Motors recommends the use of an resource conserving oil in order to improve fuel economy.

Select only engine oils that meet the American Petroleum Institute (API) certification and International Lubricant Standardization and Approval Committee (ILSAC) certification and SAE viscosity standard. These oils have the API certification mark on the front of the container. Oils which do not have the specified quality label should not be used as they could cause engine damage.





CF100CJZAA00USA

1	API certification mark	2.	API service symbol

•Genuine NISSAN Differential Oil Hypoid Super-S GL-5 synthetic 75W-90 or equivalent

•Genuine NISSAN HYPOID FLUID-S1 GL-5 75W-80 or equivalent

<Correct>

#### RECOMMENDED FLUIDS AND LUBRICANTS

#### **Fluids and Lubricants**

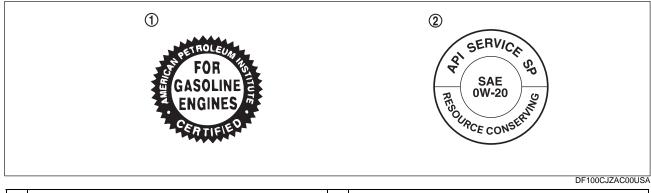
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		Metric	us	Imperial	Recommended Fluids/Lubricants
		Measure	Measure	Measure	
Engine oil	With oil filter change	5.1 ℓ	5-3/8 qt	4-1/2 qt	Genuine "MITSUBISHI MOTORS GENUINE MOTOR OIL SP 0W-20" (or equivalent, or higher) is recommended.
Drain and refill	Without oil filter change	4.8 <i>l</i>	5-1/8 qt	4-1/4 qt	If the above motor oil (or engine oil) is not available, a synthetic 0W-20 GF-5 SN (or higher) motor oil (or engine oil) may be used. Damage caused by the use of motor oil (or engine oil) other than as recommended is not covered under
Dry engine (engine overhau	))	6.4 <i>l</i>	6-3/4 qt	5-5/8 qt	Mitsubishi Motor's New Vehicle Limited warranty. For additional information, see "Engine oil and oil filter recommendation".
Engine coolant (	with reservoir tank)	9.4 ℓ	9-9/10 qt	8-3/10 qt	MITSUBISHI MOTORS GENUINE SUPER LONG LIFE
Reservoir tank		0.8 ℓ	7/8 qt	3/4 qt	COOLANT PREMIUM or equivalent
CVT fluid		7.4 <i>l</i>	7-7/8 qt	6-1/2 qt	MITSUBISHI MOTORS GENUINE CVTF-J4     Use only "Mitsubishi Motors Genuine CVTF-J4" transmission fluid to ensure optimum transmission performance.
Transfer oil		0.31 ℓ	5/8 pt	1/2 pt	Nissen Genuine Differential Oil Hypoid Super-S GL-5 synthetic 75W-90 or equivalent
Differential gear	oil	0.5 ℓ	1 pt	7/8 pt	Nissan Genuine HYPOID FLUID-S1 GL-5-75W-80 or equivalent
Brake fluid		_	_	_	Brake Fluid DOT 3 or DOT 4
Multi-purpose gr	ease	_	_	_	NLGI No. 2 (Lithium soap base)

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1. ILSAC certification symbol 2. API service symbol

•Genuine NISSAN Differential Oil Hypoid Super-S GL-5 synthetic 75W-90 or equivalent

•Genuine NISSAN HYPOID FLUID-S1 GL-5 75W-80 or equivalent

<Correct>

12/11/2023 6 of 6 (5365/MSB23M23501)