



**MERITOR®**

TP-9789

# Carriers and Transmission Core Inspection Deduction Examples

Revised 3/2019



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# CARRIER CORE EVALUATION

1. Clean and drain the oil from the core.
2. Check the model number on the carrier and match it to the core groups below. If the core model is not on the list it is not acceptable for return.
3. Cores are to be visually inspected for the items listed below. Do not disassemble the cores. Meritor's core evaluation for credit is a visual check.
4. Inspect the exterior of the core for any cracks, bulges or damaged/blown out adjusting rings (damage to mounting leg caps.)
5. Deductions will be taken for parts missing due to disassembly and removal. Parts missing due to carrier failures will not be deducted.
6. During the inspection, check the ring and pinion gears and mountings for signs of burn-up due to overheating. A unit that was run low on oil will show a whitish substance on the housing in the area that gets hottest during operation. See example page 5.
7. Fill out and complete the Core Evaluation form. The Core Evaluation forms are included with every remanufactured carrier. No core credit will be given unless the Core Evaluation form and the core are received. The serial number on the core evaluation form cannot be altered. (Note: Core Bank customers do not need to supply the Core Evaluation form).

# CARRIER CORE DEDUCTIONS

Description	Percentage Deduction of Full Core Value
Visible Crack or Bulge in Housing	50%
Aluminum Core "Only Applicable if Customer Purchased Non-Aluminum Replacement Unit"	50%
Missing Parts due to Physical Removal	50%
Unit Being Run Low on Oil (Burn-Up)	100%
Disassembled Core - Complete	25%
Blown or Missing Adjusting Ring	50%

## CARRIER CORE GROUP LISTING

Carrier Core Group	Models Included
CA110	RD20145 / RD17145 / RP20145 / RD22145 / RP22145
CA110L	RDL20145 / RPL20145 / RDL22145 / RPL22145
CA120	RD23160 / RP23160
CA120L	RDL23160 / RPL23160
CA130	RR20140 / RR17145 / RR20145 / RR22145 / MR2014XH / MR1714XH
CA130L	RRL20145 / RRL22145 / MRL1714XH / MRL2014XH
CA140	RR23160
CA140L	RRL23160
CA150	RR23180 / RR26185
CA150L	RRL23180 / RRL26185
CA170	RS15210 / RS17220 / RS21230 / RS23240
CA180	RP23180 / 26185
CA210	MD2014X
CA211	MDL2014X
CA212	MP2014X
CA213	MPL2014X
CA230	MR2014X
CA260	MR2214XH
CA270	MRL2214XH
CA310	MD2214X
CA311	MDL2214X
CA312	MP2214X
CA313	MPL2214X

**Cores returned must be from the same core group as originally purchased.**

**Only models shown in the Carrier Core Group Listing are acceptable for return (the list will be updated as new models are released for remanufacture).**

# CORE DEDUCTION NOTES

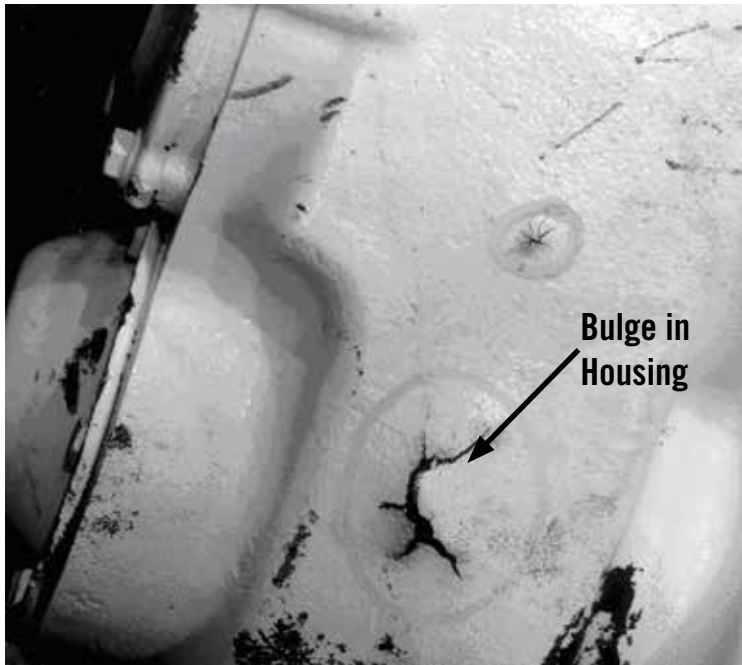
## Missing parts include:

- Ring and pinion gears, shafts, inner axle differential nests, helical gears, leg caps, leg cap bolts and any cast housing cover.

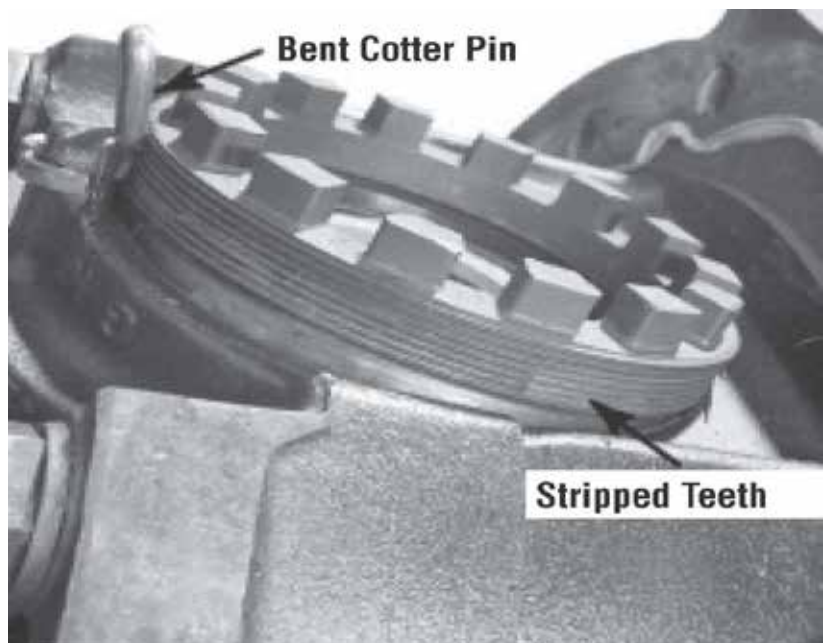
## Burned-up units will be evaluated per the following:

- Ring gear blackened due to burned oil; bluing of the ring and pinion gears and the mounting from over heating.
- A Burned-Up Diff will show a whitish substance on the housing. This is the key indicator. See example.

## Damaged Carrier Core Examples

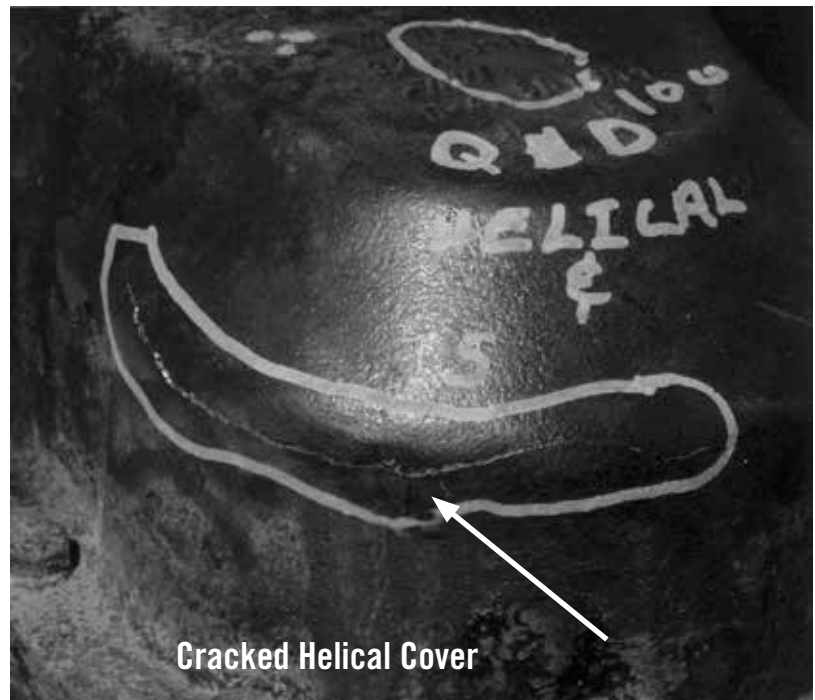
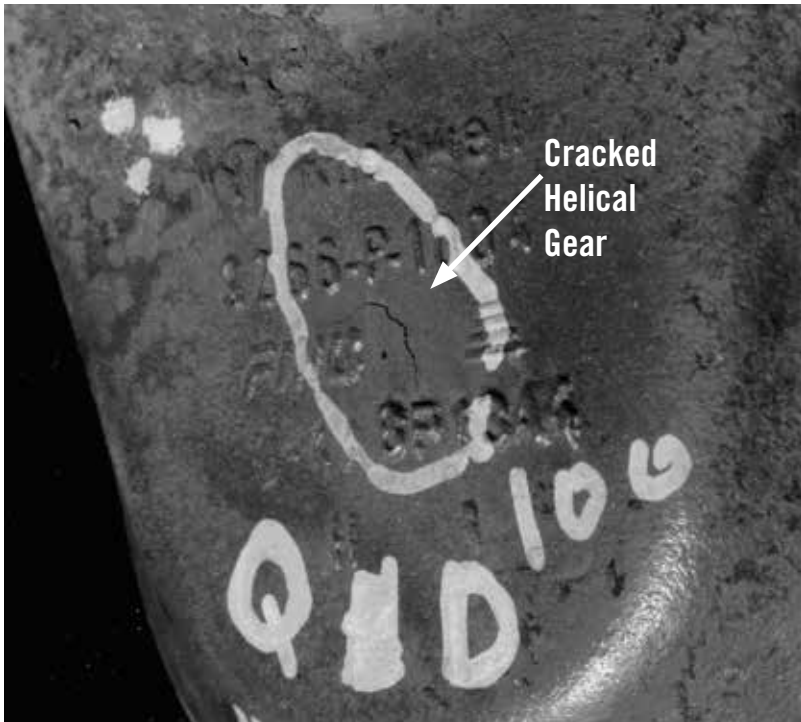


## Blown/Pushed Out Adjusting Ring



# CORE DEDUCTION NOTES

## Damaged Carrier Core Examples (continued)



# CORE DEDUCTION NOTES

## Damaged Carrier Core Examples (continued)

### Burn Up (Low Lube Failure)



# CORE DEDUCTION NOTES

## Damaged Carrier Core Examples (continued)



Excess build-up of grease just to the left of the pinion gear. The pinion gear has melted. Grease is on the ring itself and pinion bearing is not intact.

Excess build-up of grease on the ring gear, a melted pinion gear. The inner pinion bearing shows what a burned bearing looks like.





# CORE DEDUCTION NOTES

## Damaged Carrier Core Examples (continued)



# SERVICE CARRIERS - REMAN

GAWR	Part Number	Tandem Forward		Tandem Amboid Rear	Tandem/Single Rear Hypoid		
		20,000	22,000	20,000	17,000	20,000	22,000
<b>Axle Spline</b>		2.10-41	2.10-41	2.10-41	2.00-39	2.10-41	2.10-41
<b>Less Diff Lock Less Pump</b>	Reman (Add Ratio)	MD2014X	MD2214X	MR2014X	MR1714XH	MR2014XH	MR2214XH
	BOM*	A-3200-K-2221	A-3200-C-2239	A-3200-G-2217	B7-3200-L-1676	B4-3200-L-1676	B68-3200-U-1919
	Casting**	3200-J-2220		3200-F-2216	3200-K-1675		
<b>Diff Lock Only</b>	Reman (Add Ratio)	MDL2014X	MDL2214X		MRL1714XH	MRL2014XH	MRL2214XH
	BOM	A-3200-N-2224	A-3200-D-2240		A21-3200-A-8269	A20-3200-A-8269	A1-3200-D-2266
	Casting	3200-M-2223			3200-Z-8268		
<b>Pump Only</b>	Reman (Add Ratio)	MP2014X	MP2214X				
	BOM	A1-3200-K-2221	A1-3200-C-2239				
	Casting	3200-J-2220					
<b>Diff Lock And Pump</b>	Reman (Add Ratio)	MPL2014X	MPL2214X				
	BOM	A1-3200-K-2224	A1-3200-D-2240				
	Casting	3200-M-2223					

\*For Reference Only – New part number less ratio from axle BOM

\*\*For Reference Only – Carrier and cap casting number

**SERVICE CARRIERS SOLD AS REMAN ONLY WITH CORE CHARGE**

Add ratio for service reman part number  
Example: MD2014X 355

Available Ratios	Tandem Forward		Tandem Rear Amboid	Tandem/Single Rear Hypoid		
	20,000	22,000	20,000	17,000	20,000	22,000
<b>2.47</b>	X		X			
<b>2.64</b>	X		X	X	X	
<b>3.08</b>	X		X	X	X	
<b>3.25</b>	X		X	X	X	
<b>3.36</b>	X		X	X	X	
<b>3.55</b>	X		X	X	X	
<b>3.70</b>	X		X	X	X	
<b>3.90</b>	X	X	X	X	X	X
<b>4.11</b>	X	X	X	X	X	X
<b>4.33</b>	X	X		X	X	X
<b>4.63</b>	X	X		X	X	X
<b>4.88</b>	X	X		X	X	X
<b>5.13</b>					X	
<b>5.29</b>	X	X		X	X	X
<b>5.57</b>					X	
<b>5.86</b>	X	X		X	X	X
<b>6.14</b>	X			X	X	
<b>6.43</b>	X			X	X	
<b>6.83</b>	X			X	X	
<b>7.17</b>	X			X	X	

# SERVICE CARRIERS - REMAN

GAWR	Part Number	Tandem Forward				Tandem/Single Rear Hypoid		
		17,000	20,000	22,000	23,000	17,000	20,000	23,000
<b>Axle Spline</b>		2.00-39	2.10-41	2.10-41	2.35-46	2.00-39	2.10-41	2.35-46
	Reman	RD17145	RD20145	RD22145	RD23160	RR17145	RR20145* RR20145**	RR23160
<b>Less Diff Lock Less Pump</b>	Current New	A6-3200-B-1978	A1-3200B1978	A1-3200D1980	A-3200-J-2116	B7-3200-S-1865	B4 3200-S-1865* B4 3200-L-1676**	A4-3200-E-2137
	Current Cast	3200-F-1644	3200-F-1644	3200-F-1644	3200-L-1702	3200-R-1864	3200-R-1864* 3200-K-1675**	3200-N-1704
	Older New	B6-3200-T-1814	B1-3200-T-1814	B1-3200-B-1874	A1-3200-X-1818			A1-3200-P-1706
	Older Cast	3200-F-1644	3200-F-1644	3200-F-1644	3200-L-1702			3200-N-1704
<b>Diff Lock Only</b>	Reman		RDL20145	RDL22145	RDL23160		RRL20145	RRL23160
	Current New		A1-3200E1981	A1-3200-F-1982	A3-3200-L-2118		B1 3200-G-1879	A4-3200-F-2138
	Current Cast		3200-Q-1889	3200-Q-1889	3200-U-1893		3200-F-1878	3200-S-1891
	Older New		B1-3200-R-1890	B1 3200-G-1905	A1 3200-W-1895			A1-3200-T-1892
	Older Cast		3200-Q-1889	3200-Q-1889	3200-U-1893			3200-S-1891
<b>Pump Only</b>	Reman		RP20145	RP22145	RP23160			
	Current New		A1-3200-H-1984	A1-3200-J-1986	A-3200-K-2117			
	Current Cast		3200-W-1661	3200-W-1661	3200-U-1893			
	Older New		B1-3200-V-1816	B1-3200-D-1876	A4-3200-V-1894			
	Older Cast		3200-W-1661	3200-W-1661	3200-U-1893			
<b>Diff Lock And Pump</b>	Reman		RPL20145	RPL22145	RPL23160			
	Current New		A1-3200-K-1987	A1-3200-L-1988	A3-3200-K-2117			
	Current Cast		3200-N-8886	3200-N-1886	3200-U-1893			
	Older New		B1-3200-P-1888	B1-3200-H-1906	A1-3200-V-1894			
	Older Cast		3200-N-8886	3200-N-1886	3200-U-1893			

\*Ratio 3.42 - 7.17

\*\*Ratio 2.64 - 3.21

# TRANSMISSION CORE EVALUATION

1. Clean and drain the oil from the core. Failure to completely drain the oil from the transmission will result in a core deduction of one hundred (\$100) dollars.
2. Confirm the model number of the core being returned.
3. Perform a thorough inspection for visible cracks or bulges in the housing.
4. Removal of the top cover/shift-bar housing is recommended to inspect the internal components for signs of the unit being run without oil. Meritor's inspection will include removal of the top cover during inspection. To avoid the deduction for disassembly, the top cover should be securely banded to the unit, do not reattach.
5. Ensure the unit is complete with the main case, auxiliary section, shift-bar housing and internal components.
6. Ensure removal and transfer to the replacement unit all other external equipment not supplied (i.e. yokes, shift-tower, PTOs, bell housings, etc.).
7. Only models shown in the Transmission Core Group Listing, are acceptable for return (the list will be updated as new models are released for remanufacture).

## TRANSMISSION CORE DEDUCTIONS

Description	Percentage Deduction of Full Core Value
Unit Being Run with No Oil (Burn-Up)	100%
Visible Crack in Housing	50%
Visible Bulge in Housing	50%
Failure to Completely Drain Oil	\$100 deduction
Disassembled Core – Complete	25%
Missing Parts Due to Physical Removal	50%

### Core Deduction Notes

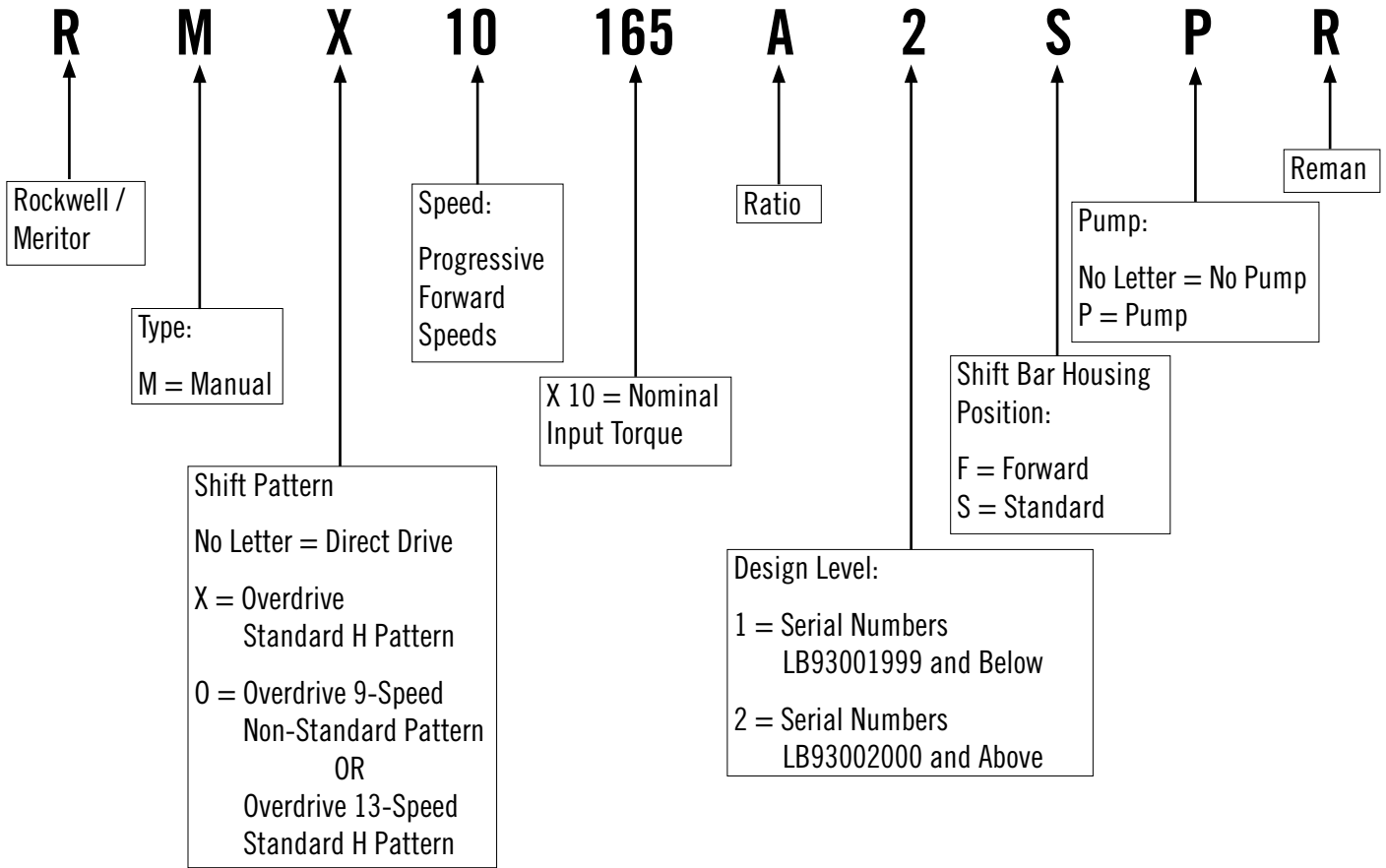
Cores that are returned in an unusable condition will not be accepted or processed for credit. By not processing for credit, the customer does not lose return eligibility. However, the dealers will be responsible for freight charges associated with the return of an unusable core. The following are examples of unusable conditions:

- Full of tar
- Gears and shafts that are blue or burned due to overheating
- Missing internal parts (due to physical removal, not failures)
- A disassembled core with missing parts
- Missing main case

## TRANSMISSION CORE GROUP LISTING

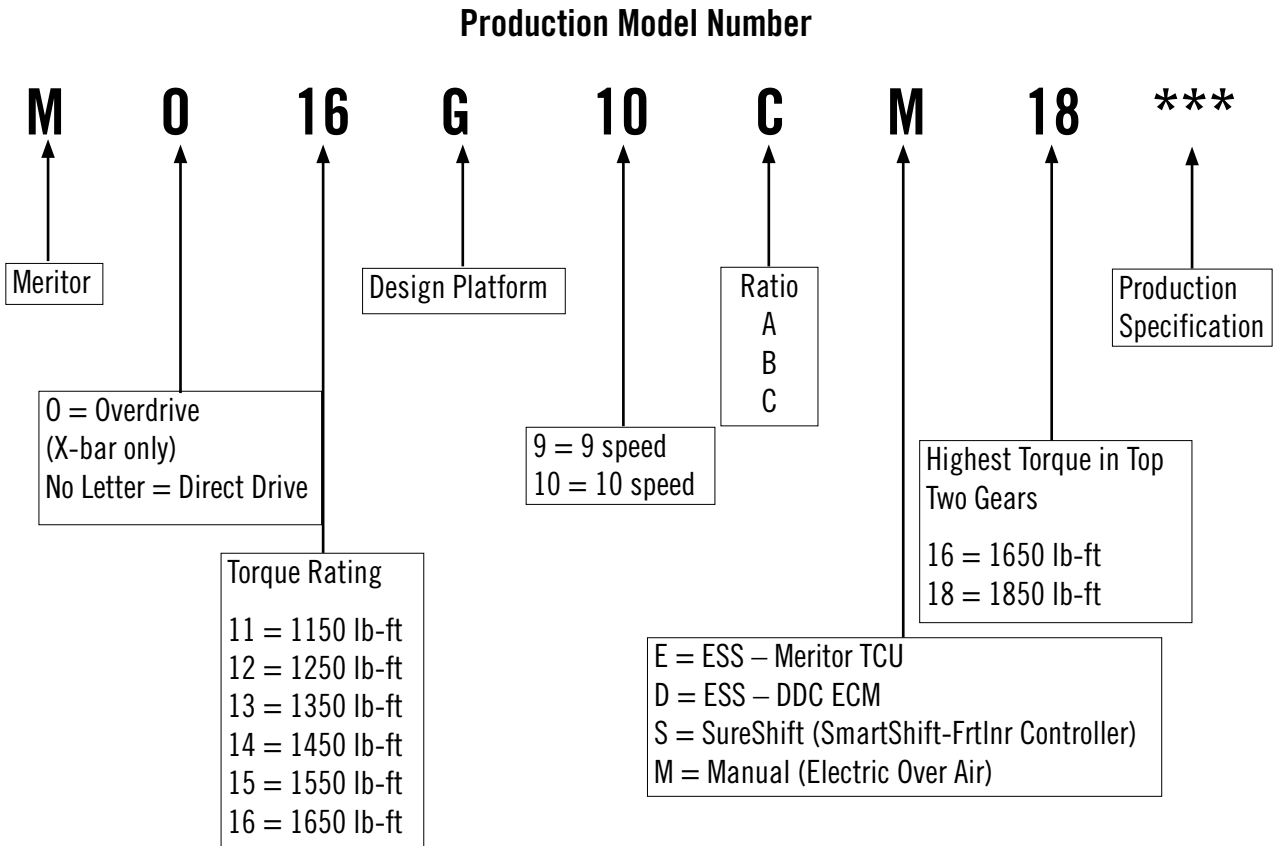
CORE GROUP	Group Description	Reman Part
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX10165C2FPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM09145B2FPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM09145B2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX10165A2FPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX10165A2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX10165C2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX9145A2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX9145R2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX9155B2FPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RMX9155B2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM10155A2FPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM10155A2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM9155A2FPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM9155A2SPR
TRFPLAT	TRANSMISSION "F" PLATFORM	RM013145A2SPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MG10AMFPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10CMFPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10CMSHDR
TRGPLAT	TRANSMISSION "G" PLATFORM	MG9AMFPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10AMFPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10AMSPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG9AMSPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG9BMSPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MG10AMSPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MG9AMSPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10AMFR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10CMSPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG9BMFPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10CSXPR
TRGPLAT	TRANSMISSION "G" PLATFORM	MOG10ASXPR

# "F" PLATFORM REMAN TRANSMISSION PART NUMBERING



# “G” PLATFORM REMAN TRANSMISSION PART NUMBERING

- All “G” platform transmissions are either direct drive or ‘X’ bar overdrive; 9- and 10-speed only (no 13-speeds); electric over air; and a 2.75” 10-spline output shaft.
- The complete model number is required to determine the shift tower position and if a pump is present.
- For all input torques 1350 and higher, use the reman with a pump; for 1150 and 1250 torques, the pump is optional.
- For remanufactured part numbers, use the guide below.



**M      O      G      10      C      M      \*\*\***

SR = Std Shift Tower Position (no pump)-Reman  
FR = Fwd Shift Tower Position (no pump)-Reman  
SPR = Std Shift Tower Position (with pump)-Reman  
FPR = Fwd Shift Tower Position (with pump)-Reman  
XR = SureShift (no pump) – Reman  
XPR = SureShift (with pump) – Reman

# SERIALIZED CARRIER AND TRANSMISSION RETURN INSTRUCTIONS

## **Core Bank Customers**

Follow OEM's core return instruction policy.

## **Non-Core Bank Customers**

Follow instructions below.

Prepare the core for shipment.

- Completely drain oil from each core to avoid a handling deduction
- Clean and wipe down each core
- Band core to the pallet
- Do not disassemble the unit. Units that are received disassembled will result in a deduction

**All cores must be returned within 24 months of original purchase date to be eligible for credit.  
Final credit value will be based on Meritor's inspection of the core.**



# CORE RETURN SHIPPING INSTRUCTIONS

**MINIMUM RETURNS: ANY COMBINATION OF CARRIER AND TRANSMISSION CORES WITH A TOTAL WEIGHT OF 1,200 LBS. OR MORE.**

Follow the below instructions when a shipment of cores is ready to ship:

- **In the continental United States**, customers can ship collect on Meritor's approved freight carrier providing above quantity or minimum weight restrictions are met.
- To schedule a core return through our Transportation Management System (TMS), visit [www.meritorpartsonline.com](http://www.meritorpartsonline.com), click on "Schedule Core Return"; our core return policy is displayed for review. To proceed, click the "I agree" button at the bottom of the page. Complete the request page and click submit. The TMS team will email the freight company, date of core pick-up and a TMS tracking number. TMS will email a bill of lading.
- **For Canadian Returns**, customers can ship collect on Meritor's approved freight carrier providing above quantity or minimum weight restrictions are met. To schedule a core return, call Canadian Customer Care at 905-454-7070.
- For returns fewer than 1200 lbs., ship cores "prepaid" using the freight carrier of your choice.
- Collect shipments will not be accepted unless the minimum requirements are met.
- The core should be returned properly secured to a pallet. Any damage to the core during shipping due to poor packaging will be reflected in Meritor's deductions for that unit.
- Bill of lading must be marked as Class 50 material with the description: "Used Truck Parts for Reconditioning Only".
- Core shipments that arrive in an unstable or unsafe condition will be unloaded at the expense of the buyer. In these cases, digital photographs detailing the condition will be provided via email and expenses will be documented in detail.
- No metal banding — only nylon or plastic.

**FAILURE TO FOLLOW THESE SHIPPING INSTRUCTIONS WILL RESULT IN A PENALTY FOR EACH IMPROPERLY RETURNED CORE.**

**U.S. Locations Ship to:**

**Meritor Inc.  
Core Return Center  
849 Whitaker Road  
Plainfield, IN 46168**

**Canadian Locations Ship to:**

**Meritor Inc.  
1695 Drew Road Unit #2  
Mississauga, Ontario L5S 1J5**

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Meritor Heavy Vehicle Systems, LLC  
7975 Dixie Highway  
Florence, Kentucky 41042 USA

888-725-9355 U.S.  
800-387-3889 Canada  
MeritorPartsXpress.com  
meritor.com

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