

BID SUBMITTAL FORM
Alabama County Joint Bidding Program
BID ITEM – LOWBOY TRACTOR - OPTION B

Company Name: Truckworx Kenworth

Address: 2220 Finley Boulevard, Birmingham, AL

Bid Submitted by: Amanda Hanks
(Name of company representative)

Title: Director of Government Affairs E-mail address: amandah@truckworx.cm

Phone: 601.331.2725 Fax: _____

By submitting this bid, we agree: Initials

That the equipment model number identified below meets the bid specs for this bid item ACH

That the bid price will be honored for all counties for the period from **January 1, 2026** to **June 30, 2026**. *All orders must be submitted by March 31, 2026 ACH

That the equipment will be delivered at the bid price to all counties participating in the joint bid program ACH

That the company representative listed above will be the contact person for purchasing this bid item under the joint bid program ACH

That the bid is accompanied by a current catalog or model specification document for the model number identified below ACH

That the bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications ACH

That the bid includes the E-Verify documentation required by Alabama law ACH

We comply with, and if awarded the contract, we will comply with, the requirements of Section 41-16-50 and Sections 41-16-160 to -166, Code of Alabama 1975. ACH

That, if awarded the bid, a performance bond will be provided upon request ACH

That an option sheet with individual pricing is attached ACH

Total Bid Price including options: \$ \$220,900.00

Equipment Model #: T880

Description: Lowboy Tractor Option B

Signature of company representative submitting bid: Amanda Hanks 

Title: Director of Government Affairs

OPTION COST SHEET FOR LOW BOY TRACTOR OPTION B

<u>Options</u>	<u>Option Price</u>
Dual purpose wet line kit, Aluminum Cab Guard, 60" Light Bar	\$ <u>13,000.00</u>
Aluminum cab guard	\$ <u>Included above</u>
60" Long Light bar	\$ <u>Included above</u>
Heavy Hall Tractor Package with 565HP 20k Front, 46k rears, with 18k rated Lift Axle	\$ <u>13,000.00</u>
15L engine in place of 13L engine	\$ <u>7,500.00</u>
(18) Speed Automated Manual Transmission with torque input capacity of 1850 Ft LBs in place of standard 18 Speed Manual Transmission <i>Allison 4500 RDS Series 6spd Transmission</i>	\$ <u>\$11,000.00</u>

NOTE: Award will be made on the basis of the total cost of the Low Boy Tractor with the option included. However, a county may, at its discretion, deduct the above-referenced option from the Low Boy Tractor, and in such event, the cost of the option as stated on the bid shall be deducted from the total cost of the Low Boy Tractor. There shall be no other deductions and no additions made to the Low Boy Tractor by the purchasing county or by the vendor.

Equipment Model #: T880

Description: Lowboy Tractor Option B

Signature of company representative submitting bid: Amanda Banks

Title: Director of Government Affairs

BID SPECIFICATIONS FOR HEAVY DUTY LOW BOY TRACTOR-OPTION B

GENERAL

These specifications shall be construed as the minimum acceptable standards for a heavy duty Low Boy tractor. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturers' equipment.

The use of specific names or numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size, and quality of equipment considered best adapted to the uses of counties participating in this joint bid.

Note all units offered for bid must be of manufacturer's current production model and must be fully compliant with 2021 EPA standards without the use of EPA engine credits. Chassis should be equipped with the appropriate diesel particulate filter and SCR after treatment system.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the Bid Submittal Form included in the invitation to bid package. All written warranties to be submitted shall be attached to the Bid Submittal Form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates and all other applicable costs and refunds.

REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 500,000 miles of use for the piece of equipment bid.

ASSEMBLY AND DELIVERY

The selling Low Boy Tractor dealer shall be responsible for delivery of the completed unit to the purchasing county with all requested options.

DOT INSPECTION AND SAFETY EQUIPMENT

Prior to delivery each unit shall be DOT inspected and include the appropriate documentation and decal. In addition, each unit shall be equipped with the required fire extinguisher and reflective triangle kit.

WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty along with a complete explanation of the warranty with their bid. Warranty must be transferable. Warranty must include the following minimum coverage:

Basic Vehicle: 1 Year or 100,000 miles

Diesel Engine: 2 year or 250,000 miles. However, counties will have the option to purchase additional coverage (an extended warranty) if negotiated between the purchasing county and successful bidder within the first 9 months of truck purchase.

Transmission: 3 Year or 300,000 miles

Rear Carriers: 3 Year or 300,000 miles

Yes No _____

Page # _____

or

Attachment _____

ENGINE AND RELATED COMPONENTS

Shall be an in line 6 design 13 liter minimum, turbo charged diesel engine capable of developing 500HP minimum with a governed engine speed of 1800RPM or more.

Torque rating to be a minimum of 1,850FT Lbs.

Yes No _____

Page # _____

Engine shall have full wet replaceable cylinder liners. Fuel injection system to be equipped with a unit pump or unit injector style with ~~GARB idle reduction~~.

Yes No _____

Page # _____

Air intake system shall have a minimum of 1 filter elements in with a restriction indicator. Air cleaner element/elements mounted either under or outside of the hood.

Yes No _____

Page # _____

Engine cooling system to have a minimum 1,240 square inches of frontal area, aluminum core radiator with silicone hoses throughout and coolant protection to -34 degrees F.

Yes No _____

Page # _____

Fan drive to be Horton two speed type

Yes No _____

Page # _____

Yes No _____

Page # _____

Diesel Particulate Filter and SCR catalyst to be mounted under passenger door with aluminum cover.

Yes No _____

Page # _____

Factory installed integral Engine Brake.

Yes No _____

Page # _____

STARTING AND ELECTRICAL SYSTEM

12-Volt system fuse/circuit breaker protected

Yes No _____

Page # _____

12V gear reduction starter, 12V 160 amp alternator

Yes No _____

Page # _____

Unit should be equipped with a backup alarm Yes No _____
Page # _____

(3) 12V maintenance free group 31 batteries with 700 cold cranking amps each.
Batteries to be mounted in a single steel box with polished aluminum cover LH side under cab. Yes No _____
Page # _____

TRANSMISSION AND DRIVELINE

~~A manual eighteen (18) speed overdrive design, with overall gear ratio coverage of 19.73 and a minimum first gear reduction of 14.4 to 1 and a torque input capacity of 1850 FT#.~~ Yes No _____
Page # _____

~~18speed Automated manual XD Pro Endurant Transmission with 1850 torque~~

Transmission should have oil cooler with dash mounted temperature gauge, left and right-side PTO access gears with appropriate clearance. Yes No _____
Page # _____

Main drivelines Spicer 1810HD or Equivalent with coated splines/ inter axle 1810 with coated splines. Yes No _____
Page # _____

CAB EXTERIOR

Cab to be Class 8 design for construction and vocational applications. Aluminum and composite construction for corrosion resistance. Yes No _____
Page # _____

Huck bolted or Hen rob fastened construction. Minimum width 1.9 meters-

~~2.1meters~~

Drop style side windows for improved driver's downward visibility. Yes No _____
Page # _____

Stainless steel piano type door hinges. No automotive type hinges allowed. Yes No _____
Page # _____

Rear of engine may not extend into cab. No doghouse in firewall is allowed. Yes No _____
Page # _____

Both doors should have power windows and power mirrors. Yes No _____
Page # _____

One piece curved windshield. No bonded in windshield allowed. Yes No _____
Page # _____

Cab mounting should be air suspended at rear on at least 1 air bags. Yes No _____
Page # _____

Cab should feature:

Dual air horns in addition to the standard electric signal horn Yes No _____
Page # _____

LED marker lights Yes No _____
Page # _____

Cab mounted heated mirrors with convex mirrors mounted directly below heated mirrors Yes No _____
Stainless Steel exterior sun visor Page # _____

Hood is to be a full tilting composite design. Yes No _____
Includes bright finished grill and grill surround. Page # _____

Cab and hood paint color to be selected from manufacturer's standard non-metallic paint chart. Yes No _____
Page # _____

CAB INTERIOR

Cab interior to include the following:

Cab interior is to be Midgrade level fully groomed with Yes No _____
with headliner, back wall and door panels. Page # _____

AM/FM/WB and Bluetooth radio with clock and six gauges for engine oil
temperature, transmission oil temperature, turbo boost pressure,
air suspension pressure, & dual rear axle oil temperature.

Yes No _____
Page # _____

Cab should have interior sun visors on both sides of cab.

Yes No _____
Page # _____

Black appearance with chrome gauge surrounds

Yes No _____
Page # _____

Center mount console with cup holders

Yes No _____
Page # _____

Full adjusting tilt and telescopic steering column

Yes No _____
Page # _____

Multifunction Driver Display to include the following:

Average and real time fuel economy

Yes No _____
Page # _____

RPM display

Ignition timer

Trip information

Truck information

Onboard diagnostics

Gear display (automated manual only)

Cab seats should be:
Driver High Back air ride design with dual arm rests Yes No _____
Page #_____

Passenger High Back air ride design with dual arm rests Yes No _____
Page #_____

Both seats to have fabric and/or vinyl covering with required lap and shoulder belts. Yes No _____
Page #_____

Factory installed integral heater/air conditioning (HVAC) with R134A refrigerant and rotary type air conditioner compressor. HVAC unit to be firewall mounted to allow for easier access to components. Yes No _____
Page #_____

Two- way radio power leads with mounting plate installed in overhead console with dual mirror mounted antennas. Yes No _____
Page #_____

One additional dash mounted power outlet to be furnished. Yes No _____
Page #_____

Windshield wipers to be two (2) speed electric with washer and intermittent feature. Wiper motor and linkage to be mounted external of the cab on firewall for easier access. Yes No _____
Page #_____

Power door locks. Yes No _____
Page #_____

AIR BRAKES
Brake system to be full dual antilock Bendix with 6S/6M Road Stability System to include ABS/ATC/ESP with YAW control. Yes No _____
Page #_____

Air compressor should have a minimum 18.7CFM capacity and Bendix heated air dryer with extended purge. Yes No _____
Page #_____

FRAME/BUMPER/FUEL TANKS
Steel 120,000 PSI steel frame rails 10.6875" x 3.50" x 0.50" with a section modulus of 22.35 and a RBM per rail of 2,683,000. Yes No _____
Page #_____

Minimum 205" wheelbase with a 134" cab to axle. Yes No _____
Page #_____

Heavy-duty 3 piece cross members. Huck bolt fasteners Throughout where possible. Yes No _____
Page #_____

Front bumper Bright Finish steel tapered with two removable tow pins.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Dual fuel tank(s) to be aluminum with a minimum of 100-gallon capacity on RH side and 75-gallon capacity on LH side. 7" wide heavy duty fuel tank straps.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Minimum 20.7-gallon capacity DEF tank mounted on LH side with polished cover	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Chassis to be equipped with frame mounted bright finish quarter fenders mounted ahead of front pull axle and rear mud flaps mounted at end of frame on heavy duty spring loaded brackets.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
FIFTH WHEEL	
Tractor to be equipped with a Holland 24" air slide fifth wheel. Fifth wheel should have pinning feature for dump trailer use. Pins should be removable type for Multi-purpose use.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
FRONT AXLE	
Dana Spicer E-1462W or Equivalent 14.6K axle with 16,000# multi leaf suspension and shock absorbers. Threaded spring hanger pins and bushings replacing rubber bushings. Wide track front axle for improved wheel cut.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
13,200# integral power steering.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Minimum of 24.5" spring centers.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Unitized sealed (maintenance free) front wheel hubs.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Sealed tapered kingpins and bearings.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Meritor "S" cam design (or equivalent) Federal Reduced Stopping Distance Compliant Brakes.	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Front wheels to be polished aluminum ten (10) hole bud style, hub piloted 24.5" x 8.25".	Yes <input checked="" type="checkbox"/> No _____ Page # _____
Front tires to be 16 ply 11R24.5 radials Bridgestone, Goodyear, Yokohama, Michelin. Continental	Yes <input checked="" type="checkbox"/> No _____ Page # _____

REAR AXLE

Dual Meritor RT46-164PEH or Equivalent 46K tandem rear axle with heavy wall housing and integral lube pump (4.10 ratio). 46,000# air ride suspension with shock absorbers, torque and tracking rods, and dump valve.

In cab Power divider lock out valve with warning light and buzzer.

Yes No

Page # _____

Driver controlled inter wheel differential locks for both rear axles with manual valve and warning light.

Yes No

Page # _____

Meritor "S" cam design (or equivalent) Federal Reduced Stopping Distance Compliant Brakes.

Yes No

Page # _____

Brake chambers shall be (4) 30/30 Long Stroke for Federal Reduced Stopping Distance Compliant style chambers

Yes No

Page # _____

Polished aluminum ten- (10) hole bud style, hub piloted 24.5 x 8.25 rear wheels.

Yes No

Page # _____

Rear tires to be 14 ply 11R 24.5 traction radials Bridgestone, Goodyear, Yokohama, or Michelin.

Yes No

Page # _____

OPTIONS

In addition the bid must also include the cost for each of the following options, itemized separately on the bid:

Dual-purpose wet line system for use with a dump trailer or a detachable neck low boy trailer. Yes No _____
Page #_____

Aluminum Cab Guard with window Yes No _____
Page #_____

60-Inch Long Light bar with Two Power Supplies and Eight Strobes (4 Front/4 Rear)
-Shall include built-in, rear facing stop/tail/turn signals and Rear Facing work Lights Yes No _____
Page #_____

-Light bar shall be mounted on the Aluminum Cab Guard with controls mounted inside the cab. Yes No _____
Page #_____

(18) Speed Automated Manual Transmission with torque input capacity of 1850 Ft LBs in place of standard 18-Speed Manual:
[Allison 4500RDS Transmission 6 speed](#) Yes No _____
Page#_____

15L engine in place of 13L engine
[Heavy Hall Tractor Package with 565HP 20k front, 46k rear, 18k Lift axle](#) Yes No _____
Page#_____

NOTE: Award will be made on the basis of the total cost of the Low Boy Tractor with all options included. However, a county may, at its discretion, deduct the above-referenced option from the Low Boy Tractor, and in such event, the cost of the option as stated on the bid shall be deducted from the total cost of the Low Boy Tractor. There shall be no other deductions and no additions made to the Low Boy Tractor by the purchasing county or by the vendor.



TRUCKWORX

PROPOSAL SUMMARY

Prepared for:

ACCA JOINT BID PROGRAM

2026 Lowboy Option (B)



\$220,900.00 Heavy Hall Tractor Package with Allison
\$209,900.00 Heavy Hall Tractor Package with 18spd Auto
\$196,900.00 Tandem Axle Lowboy with 18spd Auto

TRUCKS MOVE

AMERICA
TRUCKWORX



TRUCKWORX

Attn: ACCA

January 1, 2026

Dear ACCA Administration:

Truckworx is proposing lowest cost ownership by offering the most aggressive residual value to the county members affiliated with the association. Please be advised that production will be limited to 77 slots for next year's ACCA contract. **First come, first serve basis will be the methodology Truckworx will utilize to fulfill orders next year. Please continue to call for more opportunities.**

2026 T880 Kenworth Heavy Haul with 3rd Axle

Engine X15	565HP w 1850 torque
Transmission	Allison 4500 RDS
Front Axle Meritor or Dana	20,000
Air Ride Rear Suspension	46,000
Tires	11 R24.5
Ratio	4.56
Fan hub on/off or Two speed fan hub	2-speed fan hub
Cooling Module	1330 square inches
Air Compressor	18.7 or greater
Alternator	160 brush type

**Total Price:
\$220,900.00**



CC File: amandah@truckworx.com please copy on all ACCA orders. Cell number: 601.331.2725

Amanda Hanks

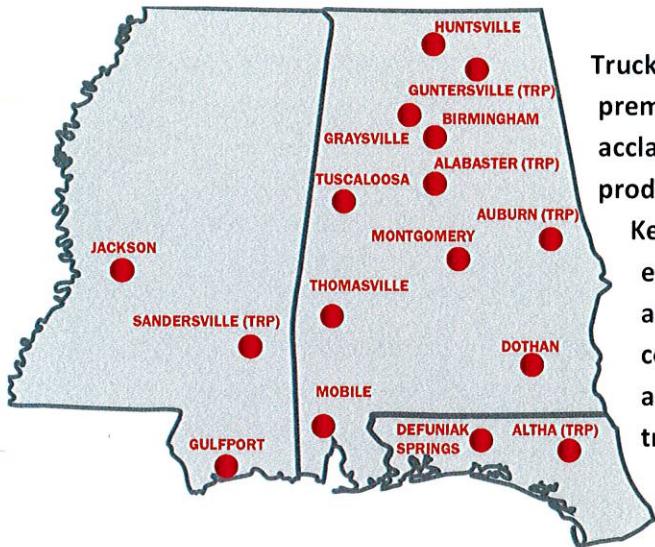
Amanda Hanks, Director of Government Affairs

Thank you for your consideration regarding a Kenworth Truck. Please feel free to contact me if you have any questions. I look forward to providing you with "The World's Best!"

Amanda Hanks, Director of Government Affairs

O: 601.939.5300 | C: 601.331.2725

amandah@truckworx.com



Truckworx is Alabama, Mississippi, and the Florida Panhandle's premier commercial truck dealer featuring nationally acclaimed parts and service teams and award-winning product lines. Our family-owned business was founded as Kenworth of Birmingham in 1978 and remains Alabama's exclusive Kenworth dealer today. Additionally, Truckworx also represents Hino (made by Toyota) and Isuzu commercial trucks; and we now offer full-service leasing and short-term rentals for vocational and over-the-road trucks through PacLease. We are also an authorized dealer of Yeti products, M.B. Ranch King deer blinds, and Pitmaker Grills.

In addition to our high-quality products, our level of service is unmatched! In fact, Truckworx was recently named 2023 North American Kenworth Dealer of the Year and recipient of the Dealer Excellence Gold Award by Kenworth Truck Company out of over 400 dealers nationwide! Our highly trained parts staff is knowledgeable on all makes and models, and we stock an extensive inventory of truck and bus parts in each of our facilities. We work on all makes and models and are certified to do warranty work on Caterpillar, Cummins, and Paccar engines; Kenworth, Hino, and Isuzu trucks.

Truckworx currently employs approximately 625 people throughout 17 locations in Alabama, Mississippi, and Florida. Full-service dealerships are located in Huntsville, Graysville, Birmingham, Montgomery, Dothan, Tuscaloosa, Thomasville, and Mobile, AL; Jackson, Gulfport, and Laurel, MS; and DeFuniak Springs, FL. Additionally, the company has five TRP Parts stores in Alabaster, Opelika, and Guntersville, AL; Altha, FL; and Gulfport, MS; and four Truckworx Fleet Solutions locations inside customers' facilities.

Truckworx Body Shop: The body shop portion of our new Graysville location features three new, state-of-the-art paint booths and offers a wide variety of services including complete collision repair, refurbishing equipment to meet trade terms, complete or spot/area painting, frame repair, front end alignment, cab repair or replacement, aluminum box repair, cargo box panel, door and floor repair, fiberglass repair, fabrication, glass replacement, and cosmetic upgrades.





TRUCKWORX KENWORTH - BIRMINGHAM (K415)
2220 FINLEY BOULEVARD
BIRMINGHAM, Alabama 35234

MAS MML ALM ACCA FAC
4321 MAIN ST
JACKSON, Mississippi 39073
United States of America

Jonathan Callaway
Cell Phone: 601-702-1923
Office Phone: 601-939-5300
Email: jonathanc@truckworx.com

Truck Buyer
Email: truck@buyer.com

Vehicle Summary

	Unit	Chassis
Model:	T880 Series Conventional	Fr Axle Load (lbs): 13200
Type:	TRACTOR	Rr Axle Load (lbs): 46000
Description 1:	MAS MML ALM ACCA FAC	G.C.W. (lbs): 110000
Description 2:	Clone of Chassis 201896 T880 Series Conventional	
	Application	Road Conditions:
Intended Serv.:	Logger: Vehicles which haul logs from t Logs	Class A (Highway) 80
Commodity:		Class B (Hwy/Mtn) 19
		Class C (Off-Hwy) 1
		Class D (Off-Road) 0
	Body	Maximum Grade: 6
Type:		Wheelbase (in): 201
Length (ft):	0	Overhang (in): 58
Height (ft):	0	Fr Axle to BOC (in): 74
Max Laden Weight (lbs):	0	
	Trailer	Cab to Axle (in): 127
No. of Trailer Axles:	3	Cab to EOF (in): 185
Type:	Logger, single bunk or semi-trailer.	Overall Comb. Length (in): 801.5
Length (ft):	48	
Height (ft):	13.5	Special Req.
Kingpin Inset (in):	24	U.S. Domestic Registry, 50-state.
Corner Radius (in):	0	

Restrictions

Length (ft):	75
Width (in):	102
Height (ft):	13.5

Approved by:

Date:

11/17/25

Note: All sales are F.O.B. designated plant of manufacture.

Price Level: August 1, 2025

100% Complete

Date: November 14, 2025

Deal: MAS MML ALM ACCA FAC

Quote Number: QUO-1141753-D8F0D9

Printed On: 11/14/2025 7:09:59 AM

**KENWORTH**

Sales Code	Std/ Opt	Description	\$ List	Weight
Model				
0000810	S	T880 Series Conventional	236,467	15,549
0070060	S	T880	0	0
0080101	O	CARB Low NOX Omnibus Registration Guidelines Dealer/Customer acknowledges that this vehicle is NOT intended for registration or domicile/primary use in the State of California.	0	0
0080310	O	EPA Clean Idle Label - Cummins Engines	107	0
0090000	S	Non-Sleeper w/ Rear Axle Capacity less than 59K.	0	0
0098401	O	State of Registry: Alabama	0	0
Engine & Equipment				
0130362	O	Cummins X15 565 565@1900 1850@1000, 2024 with Intebrake, Performance Series N09420 C333 0.....Reserve Speed Limit Offset (N09380 C334 0.....Maximum Cycle Distance (C334 N09360 C400 252...Reserve Speed Function Reset N09200 C399 100...Standard Maximum Speed Limit N09400 C401 10....Maximum Active Distance (C40 N09220 C402 0.....Expiration Distance (C402) N09540 C395 0.....Expiration Distance (C395) N09260 C121 75....Maximum Accelerator Pedal Ve N09440 C234 YES...Engine Protection Shutdown (N09460 C231 NO....Gear Down Protection (C231) N09580 C133 5.....Timer Setting (C133) N09680 C233 NO....Idle Shutdown Manual Overrul N09480 C132 1400..Max PTO Speed (C132) N09300 C128 75....Maximum Cruise Speed (C128) N09500 C239 NO....Cruise Control Auto Resume (N09520 C238 NO....Auto Engine Brake in Cruise N09240 C209 100...Hard Maximum Speed Limit (C2 N09780 C190 80....High Ambient Temperature Thr N09740 C188 40....Low Ambient Temperature Thre N09760 C189 60....Intermediate Ambient Tempera N09720 C382 YES...Enable Hot Ambient Automatic N09600 C396 YES...Enable Impending Shutdown Wa N09620 C397 60....Timer For Impending Shutdown N09640 C206 35....Engine Load Threshold (C206) N09560 C225 YES...Enable Idle Shutdown Park Br	13,576	470
1000046	O	EPA Emissions Warranty Engine	0	0
1000151	S	PremierSpec	0	0
1000244	O	Gearing Analysis: Balance power/economy blend results.	0	0

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**KENWORTH**

Sales Code	Std/ Opt	Description	\$ List	Weight
1000256	O	Customer's Typical Operating Spd: 64 MPH	0	0
1000344	O	EWI Tracking - A2 Engine Module Chassis	0	0
1000526		RegistrationYear Year of Registration: 2026	0	0
1000683	O	Effective VSL Setting 65.0 MPH or Greater (USA)	0	0
1000858	O	Engine Idle Shutdown Timer Disabled	0	0
1000891	O	Eff EIST NA Expiration Miles Use only with MX and Cummins engines	0	0
1002070	O	Air Compressor: Cummins 37.4 CFM *For C500 Twin Steer use 1002075	2,868	15
1051200	S	Air Cleaner: Composite Firewall Mounted PACCAR or Cummins Engines	0	0
1099080	O	Pre-Cleaner Mounted in the Hood Plenum	370	0
1105220	O	Fan Hub: Horton 2-Speed for X15/X15N	27	0
1123556	O	Cooling Module: 1330 square inches. Clog Resistant. *Low clog radiators have reduced cooling capacity compared to standard radiators. Chassis configuration may be subject to engineering review for cooling capacity.	1,247	50
1160208	O	Bug Screen: Between Hood & Grille	128	2
1247251	O	EXH: Single Can 2024 RH Under with Dual Side-of-Cab Tailpipes	1,400	86
1290442	O	Tailpipe: 7 in. dual 42 in. 45 degree curved.	696	13
1292944	O	Dual Lower Chrome Exhaust Elbow	676	0
1321125	O	Fuel Filter:Davco 382 Fuel/Water Separator	470	8
1321204	O	Run Aid: Cummins TRV + Coolant Heat for Davco *For Fuel Filter, X15 and 2.1M only	489	0
1321305	S	Start Aid:12V Heat *For Fuel Filter	0	0
1500029	O	Kenworth Fuel Cooler Required for Cummins engines with a single fuel tank. Required for PACCAR MX-13 engine with a single fuel tank and stationary use: High RPM, low vehicle speed, sustained for longer than 1 hour. Optional for all other applications.	317	6
1504005	O	Immersion Block Heater 120V 1500W W/ Plug Under Door on C500, T660, T800 & W900.	150	2
1812162	O	Alternator: 160 amp Brushless with battery voltage sense. *This code replaced 1812160.	379	9
1821210	S	Batteries: 3 PACCAR GP31 Threaded Post (700-730) 2100-2190 CCA dual purpose.	0	0

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**KENWORTH**

Sales Code	Std/ Opt	Description	\$ List	Weight
1836103	O	PACCAR Premium 12V Starter W/ Cummins X15 Engines PACCAR 12 volt electrical system. With centralized power distribution incorporating plug-in style relays. Circuit protection for serviceability, 12-volt light system with circuit protection circuits number & color coded.	94	0
1840065	S	12V Low Voltage Disconnect for Battery Protection	0	0
1900996	O	Jump Start Terminals Under Hood.	306	12
1901017	S	Remote PTO/Throttle, 12-Pin, Engine Bay Remote Control Provision	0	0
Transmission & Clutch				
2050008	O	Neutral Coast Mode Cruise Only Automated Transmission Programming.	0	0
2058786	O	Eaton EXDP-18F118D Endurant XD Pro 18 Speed 1850 LB FT, with Hill Start Aid and provisions for rear and bottom mounted PTO.	13,065	0
2240211	O	Clutch: 430mm Self-Adjust, High Capacity Organic, Max Torque 2050 ft-lbs	915	0
2406475	O	Driveline:2 Dana SPL350 LITE HT; W/ 1 C/B Heavy Duty	1,690	60
2410708	O	Performance Shift Calibration	0	0
2429354	O	First Transmission PTO Compatibility - Chelsea 880-V3 bottom mounted 8-Bolt PTO's for Eaton all transmissions. This application includes use of the optional hydraulic clutch actuator on Eaton & PACCAR RT & FR transmissions and supports bottom mounted 8-Bolt PTO's with double acting air actuation.	0	0
2429361	O	First Customer Installed Eaton/PACCAR Trans PTO.	0	0
2460054	O	Additional KW Oil to Water Transmission Cooler For use with Endurant XD/PACCAR TX-18 Transmissions	504	10
2480315	O	Severe Service Rear Transmission Support Spring(s).	92	15
2493009	O	Aluminum Clutch Housing	0	0
Front Axle & Equipment				
2502336	O	Dana Spicer E-1322LW Front Axle rated 13.2K 3-1/2in. drop, wide track for better turning radius.	-2,701	-182
2601605	O	Front Brakes: 13.2K Bendix RSD HP-ES S-Cam 16.5x5 in. drum brake.	-444	-62
2690002	O	Front Brake Drums: 14.6K 16.5x5 in. cast.	-307	78
2701300	O	Front Hub: Aluminum Hub Pilot 13,200 lbs. 10-Bolt, 11-1/4 in. bolt circle .	-549	0
2741970	S	ConMet PreSet Plus Hub Package; Front Axle.	0	0
2750001	S	Hubcap: Front Vented.	0	0

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KENWORTH

Sales Code	Std/ Opt	Description	\$ List	Weight
2765001	O	Front Auto Slack Adjuster for Drum Brakes.	0	0
2864019	O	Front Springs: Taperleaf 14.6K W/ Shock Absorbers 2-leaf. With maintenance-free elastomer spring pin bushings. Standard with rubber pins. Not available on W900L or W900S.	-500	-101
2893671	O	Single Power Steering Gear: 13.2K TRW THP60	-1,281	-62
2899341	O	Delete Standard Power Steering Cooler.	-263	-11
2900615	O	Threaded Bushings for Taperleaf Springs 12K - 14.6K replacing rubber: T6/T8, W900B, W990. W9L gets as standard: code not required. Not available with W9S. 13K - 14.6K for T370.	89	0
Rear Axle & Equipment				
3144183	O	Dual Dana Spicer D46-172HP Rear Axle rated at 46K. w/ 16mm housing and 2.06in. shaft diameter. Includes pump. Tandem rear axles.	2,686	-156
3200391	O	Rear Axle Ratio - 3.91.	0	0
3304012	O	Dual Rear Brake: Bendix RSD 16.5X7 46K Capacity Reduced Stopping Distance Tractor Only. RSD-Compliant HP-ES S-Cam, tandem axle drum brake.	-1,310	-16
3392005	O	Dual Rear Brake Drums: Cast. For use with 16.5X7" or 16.5X8.625" brake.	-512	208
3407050	S	Dual Rear Hubs: Aluminum Hub Pilot 46K; 11.25" bolt circle. Requires "R" series outer ends.	0	0
3441972	S	ConMet PreSet Plus Hub Package; Dual Rear Axle.	0	0
3465002	O	Tandem Rear Axle Automatic Slack Adjusters. For use with drum brakes.	286	0
3485207	O	Spring Brake: 3030 Long Stroke Dual 30 Square inches travel. For drum brakes. Helps keep brakes in adjustment longer.	356	88
3495225	O	FMVSS-136 Stability Control Schedule Review Chassis meets FMVSS-136 requirements and must be equipped with Electronic Stability Control. Reference Option code placed on order.	0	0
3495231	O	Bendix 6S/6M Anti-Lock Brake System W/ Air traction control (ATC) and electronic stability program (ESP) for tractor.	145	15
3500068	O	Interaxle Driveline: 1 Dana SPL250XL *Use with Tandem Axles Only	212	26
3532194	O	Wheel Differential Lock for Dana Spicer Axles D40-170(P)/D46-170(H)(P)(WT) forward rear axle & rear rear axle.	2,829	112
3573111	O	Separate Switch for Dual Axles: differential lock or crosslock.	15	0
3740130	S	Rear suspension: Tandem Kenworth Airglide 460 46K 54 in. axle spacing. 10.5 in. ride height. Includes air suspension dump valve.	0	0
3830152	S	Air Springs: Heavy-Duty for Airglide 460. Replaces standard duty air springs.	0	0

Price Level: August 1, 2025

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Date: November 14, 2025

Deal: MAS MML ALM ACCA FAC

Quote Number: QUO-1141753-D8F0D9

Printed On: 11/14/2025 7:09:59 AM

**KENWORTH**

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Tires & Wheels				
4017158	O	Front Tires: Michelin XZE2 11R24.5 16PR. 43.5 in. Diameter, All Position. 20.3 in. SLR.	-791	34
4210054	O	Rear Tires: Michelin X Multi D+ 11R24.5 16PR	1,076	0
4900008	O	Rear Tire Quantity: 8	0	0
5045275	O	Front Wheel: Alcoa 98U63 24.5X8.25 AL Ultra One High Polish Wheel.	-88	-34
5245275	O	Rear Wheel: Alcoa 98U63 24.5X8.25 AL Ultra One High Polish Wheel.	3,140	-136
5890000	O	V2B Double Seal Cap Valves.	66	0
5900008	O	Rear Wheel/Rim Quantity: 8	0	0
Frame & Equipment				
6056400	O	Frame Rails: 10-3/4 x 3-1/2 x 3/8in. Steel 285in. to 336 in. Truck frame weight is 3.48 lb.-in. per pair of rails. Section modulus is 17.80, RBM is 2,132,000 in-lbs per rail. Frame rail availability may be restricted based upon application, axle/suspension capacity, fifth wheel setting, or component/dimensional specifications. The results of the engineering review may result in a change to the requested frame rail. If a change is required Kenworth Application Engineering will advise the dealer of the appropriate material specification for a substitute rail.	474	278
6302461	O	Bumper: Tapered Chrome Steel Channel. Requires a bumper setting code.	594	63
6319485	S	48.5 in. Bumper Setting. Requires a Bumper Code.	0	0
6324025	O	Front Tow Hook: Center Mounted, Cast. Requires iron front drive brackets.	299	28
6390001	O	Steel Shackle Links.	14	8
6390312	O	Brackets: Iron Front Spring Drive. Included with front spring capacity of 16,000 lbs or greater; code not required.	199	47
6391201	O	Custom Frame Layout: One Chassis CFL A/D: AIR DRYER TO BE MOUNTED RH RAIL BOC CFL A/T: NO AIR TANKS AROUND TRANS. NO RH BOC IS OK	1,380	0
6397001	O	Huck Bolts Throughout Frame, where Possible.	322	0
6405080	O	T8 Parallel Non-Polished Aluminum Battery Box module w/ integral step. Extended length for use w/ 2010 and later SCR style exhaust. Up to 2 air tanks may mount to bottom of box. Batteries will be oriented perpendicular on rail.	119	72
6409901	S	Battery Box Location: LH Side.	0	0
6410010	O	Frame Access Grabhandle(s) LH Mounted. Placement and quantity of grabhandles may vary due to FMCSR frame access requirements.	61	2

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6410011	O	Frame Access Grabhandle(s) RH Mounted. Placement and quantity of grabhandles may vary due to FMCSR frame access requirements.	61	2
6410092	O	Frame Access Grabhandle Horizontal Mounted at midpoint of sleeper or Daycab.	75	2
6414010	O	Deckplate: full coverage, as much as possible keeping ahead of fifth wheel angle or 10 feet maximum.	602	42
6417009	O	Frame Access Steps: 2 for Fuel/Hydraulic Tank BOC, RH mount. Available when rear of tank under extends more than 14 in. behind rear of cab, sleeper, or side extender. For tanks located totally behind a cab or sleeper the front of the tank must be within 14 in. from the rear of cab, sleeper, or side extender.	237	6
6418008	O	Frame Access Steps: 2 for Fuel/Hydraulic Tank BOC, LH mount. Available when rear of tank under extends more than 14 in. behind rear of cab, sleeper, or side extender. For tanks located totally behind a cab or sleeper the front of the tank must be within 14 in. from the rear of cab, sleeper, or side extender.	237	6
6451090	S	C5, T6, T8 diamond plate cover and black end plates with access step for right hand under DPF/SCR or CNG. For T8, use extended length non-polished battery box on opposite rail to match the length of under cab components. End plates will be painted standard black frame color.	0	0
6543610	O	Fifth Wheel: ILS No-Tilt Air, Hol FW35N918YL00 18 in. slide, 9.00 in. height. No-tilt convertible w/ outboard mounting angles, 55K vertical rating, LH release. Air slide control valve standard in dash. Accommodates a 2 in. SAE kingpin. Requires some style of trailer connections.	5,598	629
6679914	O	Any Changes to Rear Cab/Sleeper Area Must Comply w/FMCSR 399.	0	0
6679915	O	Customer-Installed Bulkhead and/or Headache rack.	0	0
6680000		FifthWheelSetting FW rear/fixed setting ahd of bogie 0 in indicates rearmost setting measured forward from centerline of tandem or single rear axle	0	0
6721164	O	Rear Mudflap Arms: Fleet Engineers, FB27 Shortie 033-00865. 45 degree angle, polished stainless steel.	166	6
6722000	S	Rear Mudflap Shields: White Plastic Antisail W/ Kenworth logo.	0	0
6734005	O	Quarter Fenders: Stainless Steel W/ Painted Steel brackets, single post mounted.	383	55
6746131	O	Top Flange of Rear Frame Bent & Welded W/O crossmember. Non-towing end-of-frame configuration.	35	-2
6747000	O	Shortest End-of-Frame Cutoff With Specified end-of-frame configuration. Selecting this code will override the overhang dimension found in the Vocational Analysis of the sales tool.	0	0

Fuel Tanks & Equip

7214120	O	Fuel Tank: 120 US Gallon 24.5 in. Aluminum BOC replace. Class 8 fuel tanks w/ o locking caps include an anti-siphon device on the filler neck.	65	6
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Price Level: August 1, 2025

100% Complete

Date: November 14, 2025

Deal: MAS MML ALM ACCA FAC

Quote Number: QUO-1141753-D8F0D9

Printed On: 11/14/2025 7:09:59 AM

**KENWORTH**

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7216090	O	Fuel Tank: 90 US Gallon 24.5 in. Aluminum BOC Add Class 8 fuel tanks w/o locking caps include an anti-siphon device on the filler neck. Multiple tank installations include a fuel equalization system w/ dual draw and return lines with a splitter valve located within 6 inches behind the cab. Single draw and return is an option in some cases.	2,437	108
7722154	O	Medium Round DEF Tank, 23.8 Gallons. The DEF tank will be located on the side you specified. If you have specific configuration or body builder concerns, please utilize the Custom Frame Layout option. Standard capacity is calculated by fuel capacity of the vehicle and will accommodate two diesel fill-ups for every DEF fill-up. For 1:1 DEF fuel fill ratio, add 7889204.	254	15
7821300	O	Heavy-Duty 7 in. Steel Supports/ Straps for Two 24.5in. tanks. Two supports per tank.	893	36
7840029	O	Polish Only Two Aluminum Tanks.	854	0
7840038	O	Polished Cover for 1 DEF Tank Any Size.	364	3
7889006	O	Fuel Fill Forward Tank(s) BOC.	0	0
7889082	O	Polish Only 7 in. Stainless Steel Straps for Two 24.5in. tanks; 2 straps per tank.	315	0
7889208	O	DEF to fuel fill ratio between 1.25:1 and 2:1.	0	0
7889245	S	Anti-Siphon Device in Fuel Tank Filler Neck. For any number of fuel tanks.	0	0
7889604	S	DEF Tank Location is LH.	0	0
7930120	O	Location: 120 gal fuel tank RH behind cab.	0	0
7940090	O	Location: 90 gal fuel tank LH behind cab.	0	0

Cab & Equipment

8025301	S	Cab: Stamped Aluminum Cab with Panoramic Curved glass windshield. Standard with stamped aluminum doors, heavy duty in-swinging hinges, and triple sealed doors. Manufactured using self-piercing rivets and structural adhesive. Includes LED exterior marker lights and turn signals.	0	0
8090604	O	Hood: T880 Set-Back Medium Length. 122.6 inch BBC W/Std Bumper.	330	15
8098212	O	Bright Engine Air Intake Chrome Trimmed Engine Air Intake on Both Sides of Hood	111	0
8108002	O	Fine Particulate Filter for Cabin Air HVAC system. To provide extra filtration in high dust applications. Cabin airflow is reduced with this additional filter. *Cannot be used with code 8108003.	46	0
8108011	S	Cab HVAC - Day Cab and 40 in. Sleeper System With Defrost, A/C, and 48,000 BTU/hr Heater. Includes automatic temperature control with one touch defrost operation and dash mounted cab temperature and solar intensity sensors. Pleated fresh air filter and cabin recirculation air filter standard. The Kenworth	0	0

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		HVAC system is designed to provide optimal heating and cooling in all operating environments without need for additional insulation. Cab HVAC without sleeper heater AC is available with 40in sleeper.		
8201043	O	Kenworth Smartwheel: 18 in. Leather Wrapped With Integrated Radio and Cruise Controls.	173	2
8201052	S	Column Mtd TMSN Control W/Retarder Cntrl, RH Side Use with Automated and Automated Manual Transmissions Only	0	0
8201200	S	Adjustable Telescoping Tilt Steering Column.	0	0
8203184	O	Switch & Wiring: For Customer-Installed Cab Panel Lights.	105	1
8203196	O	Dash Mounted Compact Trailer Brake Valve. Self Returning.	0	0
8205012	O	Off-Highway Dash Switch: For ABS System. Includes indicator light.	59	0
8205087	O	Auto Suspension Dump W/PTO Engagement Interlock. This feature automatically dumps air from the truck suspension when any PTO is engaged. The intent of this feature is to deflate the air suspension air bags while the load is raised to help alleviate any imbalance or instability that can occur with the air bags inflated.	76	2
8205103	O	Information for Customer-Installed PTO Chelsea 8-bolt.	46	0
8205168	O	Dash Switch: 1st Double-Acting Eaton or PACCAR Mounted PTO. Electric switch, wiring, software, air solenoids, inversion dump valve, and plumbing are factory-installed to control the 1st Eaton (double-acting) trans PTO.	314	0
8205228	O	One (1) Spare Accessory Electric-Over-Air Switch with Latching Air Solenoid. Mounted on dash for customer-installed option. Latching means the output air pressure will remain on, while there is air remaining in the air tank, when the ignition is off and switch position is on. Not intended for Trailer Lift Axle controls, see 8208607 and 8208608.	114	0
8205280	O	Dash Switch: Rock Free Mode for PCAR TX-18 Pro, TX-12 Pro and Endurant XD Pro	41	0
8208495	O	Two Spare Switches: Wired to Power.	90	0
8220106	O	Gauge: Dash Mounted Air Filter Restriction Gauge.	170	0
8221144	O	Gauge: Air Suspension Pressure Gauge.	149	0
8222404	S	Gauge: DD Virtual Gauge - Oil Temp Engine	0	0
8222409	S	Gauge: DD Virtual Gauge - Air Filter Restriction	0	0
8222413	S	Gauge: DD Virtual Gauge - Manifold Pressure Boost	0	0
8222414	S	Gauge: DD Virtual Gauge - Engine Percent	0	0

Price Level: August 1, 2025

100% Complete

Date: November 14, 2025

Deal: MAS MML ALM ACCA FAC

Quote Number: QUO-1141753-D8F0D9

Printed On: 11/14/2025 7:09:59 AM

**KENWORTH**

Sales Code	Std/ Opt	Description	\$ List	Weight
		Torque		
8222417	O	Gauge: DD Virtual Gauge - Secondary Fuel	83	0
8222420	O	GAU: DD VIRTUAL GAUGE - AUTOMATED TRANS CLUTCH TEMP - INSTRUMENT CLUSTER	0	0
8222712	O	Gauge: Fuel Filter Restriction Gauge.	149	0
8222722	O	Gauge: Manifold Pressure Gauge. The NavPlus HD unit includes a virtual manifold pressure gauge.	44	0
8225658	O	Gauge: Axle Oil Temperature, Dual-Drive Axle. (2 gauges) w/integral warning light.	234	0
8282027	S	Main Instrument Package: 15" Digital Display. Includes Speedometer, Tachometer, Primary Air Pressure, Secondary Air Pressure, Fuel Level #1, DEF Level, DPF Filter Status, Fuel Economy, Oil Pressure, Coolant Temp, OAT and Voltmeter, and Air Application.	0	0
8282108	O	Modular Dash Options: RH Dash Storage Unit With two shelves. Reduces total gauge count; HD by 6 and MD by 4.	47	0
8282120	O	USB Charging Port - Dash Panel *Requires 15" Digital Display 8282027/8282028	30	0
8300008	S	Interior Color: Slate Gray	0	0
8330102	S	Interior Package: Vantage Daycab Includes durable headliner and vinyl sidewalls with geometric patterned trim and anodized aluminum accents throughout. Convenient overhead storage cubbies, full size glove box, two center console cupholders, and large door pad map pocket. Standard LH/RH power windows, electric door locks, interior LED lighting, nighttime-friendly red ambient lighting for dash and footwell, and door mounted courtesy light. Includes two standard 12V power outlets. Driver sunvisor includes strap.	0	0
8390634	S	Rubber Floormat	0	0
8410278	O	Driver Seat: GT702 HB with DuraCloth w/ Vinyl material. The GT702 is standard with a single air bag, scissor linkage seat suspension that incorporates seat height memory, auto-leveling valves with exit air dump, and adjustable damper. It includes a dual chamber lumbar support, 10in Fore/Aft adjustment, 5in Up/Down adjustment with protection zones, 2.5in pan extension, 51 degree seat back recline, and 16 degree full seat tilt. Includes 3-point matching seat belts. DR seat standard w/ dual armrests.	88	10
8480120	S	Rider Seat: GT100 Toolbox HB with DuraCloth w/ Vinyl material. The GT100 seats are standard with fixed base. Includes 3-point matching seat belts. Rider seat standard w/ LH armrest.	0	0
8490181	S	Seat Color: Black	0	0
8497005	O	Air Line Fitting: At Driver Seat. Customer-installed air chuck.	71	4
8601429	O	Kenworth Radio DEA730 AM/FM/WB/USB, Bluetooth & Sirius-XM Satellite	238	0

Price Level: August 1, 2025

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Quote Number: QUO-1141753-D8F0D9

Printed On: 11/14/2025 7:09:59 AM

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8698982	O	Mid Level Audio System - Daycab: High Performance Door and B-Pillar Speakers.	52	4
8699926	O	CB Installation Kit: Center Mounted of Header. W/header mounted quick release CB mount. One red power post & one black ground post. Includes dual antenna leads located on the mirror brackets. Includes dual antenna & separate speaker.	364	2
8700197	S	Turn Signal: Non-Self Cancelling	0	0
8700283	S	LH and RH Trip Ledge Rain Deflectors	0	0
8700601	S	Global Telematics Unit	0	0
8800260	O	Long Grabhandle RH Side Mounted to Side-of-Cab exhaust.	68	2
8800262	O	Long Grabhandle LH Side Mounted to Side-of-Cab exhaust.	68	2
8800402	S	Dual Cab Interior Grabhandles: A Pillar Mounted Dash Wrap and B Pillar Mounted Grabhandles	0	0
8832113	S	Kenworth Daylite Door With Standard LH/RH electric door locks and LH/RH electric window controls.	0	0
8841618	O	Dual Rectangular Air Horn 23 in. LH & RH Top of roof. Includes air horn covers.	324	4
8850139	S	Look-Down, Pass. Door, Black 11x6	0	0
8865002	S	Aero Mirror: Dual Kenworth Aerodynamic Motorized heated mirrors, 7in X 13in with cab color mirror shell and black mirror arms. Also includes LH/RH heated 6in X 7in convex mirrors. Mirror brackets set for 8-1/2 ft load width. Mirror controls located on driver side door pad.	0	0
8871447	O	Rear Cab Stationary Window with Dark Tint 19in x 36in.	45	0
8890038	O	3.5in x 11.5in Plastic Records Holder: Mounted On Rear Cab Panel. Not available With Sleeper Or 2 Person Bench Seat.	65	0
8890101	S	One-Piece Bonded-In Windshield With Curved Glass. Standard.	0	0
8890135	S	Exterior Stainless Steel Sunvisor.	893	19
8890300	O	Fender Close-Out: Below Headlamp, Behind bumper. *NOT available with 3-piece bumper.	232	0
8890359	O	Delete Standard Wheelwell Fender Extension.	-290	-4
8890876	S	Kenworth Cab/Sleeper Air Suspension.	0	0
8891013	O	Extreme Temperature Insulation: Daycab Additional cab side wall insulation with improved material properties over standard insulation package.	163	0
Lights & Instruments				
9010553	S	Headlamps: SAE Dual Halogen Complex Reflector	0	0

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9022137	S	Marker Lights: Five Rectangular LED.	0	0
9030016	S	Turn Signal Lights: Flush Mounted LED. Mounted at top of fender wheel arc.	0	0
9030052	S	LED Stop,Turn,Tail: With Two LED Backup Lights and With An LED License Plate.	0	0
9056144	O	Floodlights: Dual LED Pedestal First Set	441	0
9059901	O	Floodlight Location: Located High - First Set. This Code To Be Used With Flush-Mount (9052011) or C/I (9058071) Codes Only.	0	0
9080206	O	Switch & Wiring: Customer-Installed Beacon Lights with additional 20 ft jumper harness shipped loose.	247	1
9090027	O	Headlamps to Turn on When Wipers are Active.	0	0
9090039	S	Marker Lights: Interrupter Switch. Included in Turn Signal For All Models Except T3. The T3 Switch Is In The Dash.	0	0
9090052	O	Brake Lights on when Engine Brake Active. Can only be selected when chassis also has engine brake. Cannot be used with options to delete engine brake.	0	0
9090849	O	Polyswitches Replacing Fuses. Switch Will automatically reset after removal of excess load.	49	0

Air Equipment

9101219	O	Air Dryer: Bendix AD-HF Extended Purge Heated With Puraguard	145	0
9102009	O	Moisture Ejection Valve: Midland Automatic Use with AD-IS or AD-HF.	148	2
9110071	O	Tractor Kit: Center Frame-Mounted W/ Hosetenna. Includes composite gladhand/light plug holder. Kit includes dash mounted trailer air supply valve, trailer hand control valve, and hoses/fittings for the valves. Dash mounted parking brake valve and tractor protection valve are standard. Air lines are detachable at one end only, light lines are detachable at both ends. Conspicuity components are standard.	1,570	24
9121115	O	Coiled Air & Light Lines Replacing Straight Lines Included in tractor kit. 15ft working length.	61	2
9140020	S	Nylon Air Tubing in Frame & Cab, Excluding Hoses subject to excessive heat or flexing.	0	0
9140254	O	Locate Air Dryer Inside RH Rail BOC. This code requires the use of a custom frame layout code.	0	0
9140288	O	Air Tanks: Clear of Transmission Area. This code requires the use of a custom frame layout code.	0	0
9140328	O	Trailer ABS Electric Supply Through SAE J560 7-pin connector per TMC RP137).	0	0
9140703	O	Optional Hosetenna Bracket Location 3ft BOC/sleeper. Hosetenna bracket will be located plus or minus six inches from any non-standard location requested	15	0

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Extended Warranty				
9200021	S	Base Warranty - Standard Service Heavy Duty 12 months / 100,000 miles / 160,000 km.	0	0
9210102	U	CLASS 8 SALES PROGRAM Narr CLASS 8 SALES PROGRAM	-5,000	0
9212653	O	TruckTech+ RD - 5YR Sub Cummins Engines	799	0
9220001	O	Base Warranty: Emissions 5YR/100K MI - EPA Engine	0	0
Miscellaneous				
9409852	O	GHG Secondary Manufacturer: Does Not Apply	0	0
9490206	O	Warning Triangle Reflector Kit: Shipped Loose. Kit consists of 3 triangles in plastic carrying case. Not floor mounted.	56	4
9490417	O	One 5 lb. Dry Chemical Type Fire Extinguisher mounted inboard of driver seat. Class ABC.	155	11
9491652	S	EMUX Architecture	0	0
Promotions				
9511085	U	COPPER FREE LINING TRACKING CODE Narr COPPER FREE LINING TRACKING CODE	0	0
Paint				
9700000	O	Paint Color Number(s).	0	0
		N9702 A - L0006 WHITE N9720 FRAME N0001 BLACK		
9943004	O	Bumper Unpainted	0	0
9943048	O	Day Cab Bulk Paint	0	0
9943050	O	Day Cab Standard Paint	0	0
9944820	S	1 - Color Paint - Day Cab Color will be White if no other color is specified.	0	0
9965510	S	Base Coat/ Clear Coat. The Kenworth Color Selector contains additional instructions, as well as information on Kenworth paint guidelines and surface finish applications. Kenworth is standard with Dupont Imron Elite paint.	0	0

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Quote Number: QUO-1141753-D8F0D9

Printed On: 11/14/2025 7:09:59 AM



Sales Code	Std/ Opt	Description	\$ List	Weight
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Special Requirements

Special Requirement 1 0098025
Special Requirement 2
Special Requirement 3
Special Requirement 4

Order Comments

Total List Price (W/O Freight & Warranty & Surcharges) \$296,904

Marketing and Service Support Fee \$1,555
Prepaid Freight \$3,775
Total Surcharge/Options Not Subject To Discount \$799

Total Weight (lbs) 17,627

Any price increase as the result of force majeure, rising costs of components (including but not limited to material shortages) or government tariffs are not included in the quoted price and will be the financial responsibility of the customer.

Prices and Specifications Subject to Change Without Notice.

Unpublished options may require review/approval.

Dimensional and performance data for unpublished options may vary from that displayed in CRM.

PRICING DISCLAIMER

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Shipping Destinations

Intermediate Destination:

Final Destinations	Quantity

Price Level: August 1, 2025

Deal: MAS MML ALM ACCA FAC

Printed On: 11/14/2025 7:09:59 AM

100% Complete

Page 15 of 15

Date: November 14, 2025

Quote Number: QUO-1141753-D8F0D9

Eaton Cummins Automated Transmission Technologies Warranty Manual ECWY3000 EN-US

October 2025



BACKED BY
Roadranger
SUPPORT

General Information

Product Warranty Statement	1
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Warranty Information

Emissions Component Warranty Statement	4
Warranty Terminology	5
Extended Warranty Coverage	7

Claim Procedures and Information

Standard and Aftermarket Warranty	
Claim Procedures	8
Transmission Unit or Electronics	
Part with Core Value.....	9
Extended Warranty Claim Procedures.....	10
Transmission Unit or Electronics Part with	
Core Value.....	12
Part Return Requirements	13
Warranty Claim Processing	14
Repair or Replacement Guidelines for Eaton	
Cummins Warrantable Failures	18

Labor Hour Guidelines

Labor Hour Guidelines	20
UltraShift PLUS, Fuller Advantage Automated, SmartAdvantage, and AutoShift-18	
Transmission Product Families - Air System, Electrical and Mechanical Repairs.....	21
AutoShift-PV Transmission Product Family	
- Electrical and Mechanical Repairs.....	24
Endurant Transmission Product Family	
- Electrical and Mechanical Repairs.....	26
Precision Transmission Product Family	
- Electrical and Mechanical Repairs.....	29
Service / Aftermarket Parts	
Limits and Exclusions	32
General Limits and Exclusions	32
Specific Limits and Exclusions.....	33
Vocational Self-Service Coverage Guide	34
Pick Up and Delivery	35
Construction	37
Heavy Haul	39
Linehaul	40
Logging	42
Oil Field	43
Refuse	44
Mining	46
Specialized Applications	47
School Bus.....	47
Yard Tractor	47
Rescue Vehicle	47
Recreation Vehicle	47

Fire Service	48
Transit Coach.....	48
Heavy Haul Military.....	48
Off-Highway.....	48
Industrial Equipment	48
InterCity Bus	48
Agriculture	49
Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)	49
International Coverage	51

Extended Protection Plans

Eaton Cummins - Service / Aftermarket Parts Warranty Coverage - U.S. and Canada Only	53
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Appendix

Extended Protection Plan Requirements	55
Lubricant Specifications	56
Change Control Log	57

Product Warranty Statement

Product Warranty Statement

Warranty

Subject to the conditions stated herein, Eaton Cummins Automated Transmission Technologies (Eaton Cummins) warrants to purchasers thereof that the parts, components and assemblies sold as original equipment or service parts, (individually and collectively referred to hereafter as the "Product") will, when properly assembled and installed on vehicles approved for such purpose, be free from defects in material and workmanship under normal use and proper maintenance for the applicable warranty period as described in the Warranty Period section of this statement. This warranty is transferable (by the original retail purchaser) to one subsequent owner of the vehicle in which the Product was installed as original equipment. Eaton Cummins assumes no responsibility, in the absence of its written approval, for the selection of Product for specific applications and makes no general representation whatever in respect of any such selection.

Remedy

If any Product supplied hereunder fails to comply with this warranty, Eaton Cummins agrees to repair or, at its sole option, furnish a replacement product for the defective Product.

Eaton Cummins obligation to satisfy a warranty claim as contemplated herein is subject to the following conditions: (a) all such claims must be submitted to Eaton Cummins no later than ninety (90) days from the date of the failure occurrence and shall be supported by satisfactory evidence in respect of the conditions stated herein; (b) if requested by Eaton Cummins the Product involved shall be returned, freight collect, to Eaton Cummins Warranty Return Center for examination; and (c) Eaton Cummins examination of the Product must disclose to its satisfaction that none of the Warranty Exclusions described herein are applicable, and that said Product was defective when originally delivered to Purchaser. In all cases, Eaton Cummins shall make the final determination and interpretation as to the warrantability of the Product. Products repaired or replaced under warranty are covered hereunder by the remaining portion of the original warranty period.

Warranty Exclusions

Eaton Cummins warranty shall not extend to any Product that has been subjected to the following: (a) accident, damage, negligence, abuse or misuse; (b) improper installation or maintenance; (c) abnormal operating conditions; (d) alteration or modification; (e) a purpose or application in any way different from that for which it was designed; (f) damage by casualty or shipment; or (g) re-rating the engine to exceed torque capacity of the transmission. Normal wear is not warrantable.

Limitations on Reimbursement

Eaton Cummins warranty covers (a) parts and labor for repaired Product or (b) the cost of the replaced Product, whichever is less. Eaton Cummins warranty for service parts covers parts for repairs only outside the Original Equipment Manufacturer (OEM) dealer channel. Service parts and labor will be reimbursed for warranty repairs performed within the United States and Canada, through the Original Equipment Manufacturer or Eaton Cummins approved channel. Rates for parts and labor are subject to predetermined limitations established by Eaton Cummins.

Eaton's warranty policy for transmission parts reimbursement during the OEM warranty period will follow the guidelines of the current OEM and Eaton Warranty Long Term Agreement (LTA).

Eaton Cummins warranty policy for transmission parts reimbursement that fall outside the OEM warranty period, but within Eaton Cummins standard or Extended Warranty (i.e. Direct Pay Claims) will reimburse the repair facility at a maximum of 52% of the Eaton Cummins published list price. Refer to the Eaton Cummins Aftermarket price list provided to the OEM and Aftermarket Distributors.

Other exclusions are listed in the "Limits and Exclusions" section of this manual for additional exclusions. In all cases, Eaton Cummins shall make the final determination as to the appropriate reimbursement for the respective claim.

Product Warranty Statement

Warranty Period

Product Warranty Periods are stated within the coverage section of this Manual.

- a. Warranty coverage for Product furnished as original equipment commences on the vehicle in-service date.
- b. Warranty coverage for Product furnished as service parts commences on the date of retail sale.

Note: See additional service/aftermarket parts warranty information within the coverage section of this manual.

Claims Procedure

Warranty claims should be submitted to the original equipment truck manufacturer through an authorized dealer or, at the option of the truck manufacturer, directly to Eaton Cummins during the extended warranty period. Refer to the "Warranty Repair and Claim Procedures" section for the guidelines to submit direct warranty claims to Eaton Cummins.

Product returned to Eaton Cummins under this warranty shall become the property of Eaton Cummins. In addition to the Limits and Exclusions published in this manual, Eaton Cummins reserves the right to reject a warranty claim for any or all of the following reasons:

- Original claim was filed after ninety (90) days from the date of failure
- Refile claim was filed after ninety (90) days from the date of failure
- Failure occurred beyond coverage parameters
- Claim information is insufficient
- Product inspected does not substantiate claim or indicate a failure
- Product requested was not received at the correct location 30 days from the date of request with confirmed tracking number
- Part used in the repair and requested back per the claim is not returned as defined in TMIB0129
- Claim does not follow TAIB1012 requirements.
- Part is returned with incomplete, missing or illegible material tags or packaging slips
- Part is damaged upon arrival to warranty, inhibiting the ability to inspect, test or utilize for core
- Part arrived at the wrong location per TMIB-0129 requirements
- Claim does not follow Claim Procedures and Part Requirements as documented in this Warranty Manual
- TCM software updated not in alignment with TAIB-0881
- Part shipped improperly, resulting in damage in the part or the inability to test or inspect the part
- Failure to select the proper labor times/codes or parts may result in adjustments or denial
- Parts shipped back without a proper copy of the repair order/invoice

Warranty Disclaimer

EATON CUMMINS AUTOMATED TRANSMISSION TECHNOLOGIES EXPRESS WARRANTY AND PURCHASER'S REMEDIES THEREUNDER ARE EXCLUSIVE AND GIVEN IN PLACE OF (a) ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, WHETHER WRITTEN OR ORAL, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR IMPLIED WARRANTY ARISING FROM PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE, AND (b) ALL OTHER OBLIGATIONS, LIABILITIES, RIGHTS, CLAIMS OR REMEDIES, INCLUDING ANY RIGHT IN CONTRACT, TORT, EXTRA-CONTRACTUALLY, STRICT LIABILITY OR ANY RIGHT ARISING FROM EATON CUMMINS AUTOMATED TRANSMISSION TECHNOLOGIES NEGLIGENCE, ACTUAL OR IMPUTED.

Product Warranty Statement

Limitation of Liability

EATON CUMMINS AUTOMATED TRANSMISSION TECHNOLOGIES OBLIGATIONS AND PURCHASER'S REMEDIES UNDER EATON CUMMINS EXPRESS WARRANTY ARE LIMITED TO EATON CUMMINS CHOICE OF REPAIR OR REPLACEMENT AND EXCLUDE LIABILITY FOR INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR ANY OTHER DAMAGES, INCLUDING, WITHOUT LIMITATION, REPLACEMENT COSTS, ECONOMIC LOSS, LOST REVENUE, LOST PROFITS, OR LOSS OF USE OR DAMAGE TO OTHER PROPERTY.

Effective Date

This warranty shall become effective August 1, 2017, and applies only to Product sold for use in the United States and Canada. This warranty supersedes all past warranties expressed by Eaton Cummins or Product identified within this manual that was previously offered by Eaton Cummins Automated Transmission Technologies, and may not be changed, altered or modified in any way except in writing by Eaton Cummins.

Note: For coverages of Product offerings sold for use outside the United States and Canada, refer to the International and Export Warranty Coverage section of this Product Warranty Statement.

Service Support

Your service and support channel is the Roadranger Field Marketing network at 1-800-826-HELP (4357).

Governing Law

This warranty shall be governed, interpreted and construed by, and in accordance with, the laws of the State of Indiana.

English Language

It is the express wish of the parties that this document and all documents related to it be written in English.

Les parties aux présentes ont expressément exigé que ce document soit rédigé en langue anglaise ainsi que tous documents y afférent.

International and Export Warranty Coverage

Products and components sold for use and operated outside the United States and Canada are warranted for 1 year / 150,000 kilometers, whichever occurs first. Parts and/or labor are covered, subject to predetermined guidelines. Service/aftermarket parts are warranted for 1 year/Unlimited kilometers from the date of retail sale. Parts only are covered, subject to predetermined guidelines. Labor is not covered.

All warranty requirements, limitations and exclusions, as established by Eaton Cummins, shall apply to this warranty coverage as of August 1, 2017.

Emissions Component Warranty Statement

Products Warranted

Eaton-Cummins Transmissions that are installed in vehicles designed for transporting persons or property on a street or highway in the United States or Canada may be covered by an Emissions Component Warranty. This warranty applies to new Transmissions installed on or after January 1, 2021 that have been deemed certified in accordance with EPA Heavy-Duty On-Road Greenhouse Gas Phase 2 regulations.

Coverage

Eaton-Cummins warrants to the first user or lessee and each subsequent purchaser that the Transmission is designed and built so as to conform at the time of sale with EPA Heavy-Duty On-Road Greenhouse Gas Phase 2 regulations, applicable at the time of manufacture, and that it is free from defects in material or factory workmanship which would cause it not to meet these regulations.

The Emissions Warranty period varies based on the basic mechanical warranty period defined by Eaton-Cummins. For products whose basic mechanical warranty is longer in terms of both time and mileage than the federally mandated 5-years/100,000 miles, the Emissions Warranty period shall be equal to the basic mechanical warranty period. For products whose basic mechanical warranty is shorter in terms of either time or mileage, the Emissions Warranty period shall be equal to the federally mandated period of 5-years/100,000 miles.

A separately purchased Extended Warranty does not extend the Emissions Warranty.

Limitations

Failures, other than those resulting from defects in material or factory workmanship are not covered by this Emissions Warranty. The Emissions Warranty shall not extend to any Transmission that has been subjected to the following: (a) accident, damage, negligence, abuse, or misuse; (b) improper installation or maintenance; (c) abnormal operating conditions; (d) alteration or modifications; (e) a purpose or application in any way different from that for which it was designed; (f) damage by casualty or shipment; (g) improper lubrication; or (h) re-rating the engine to exceed torque capacity of the transmission. Normal wear is not warrantable.

See Limits and Exclusions for a list of items not reimbursable under warranty.

THE WARRANTIES SET FORTH HEREIN ARE THE SOLE WARRANTIES MADE BY EATON CUMMINS IN REGARD TO PRODUCT EMISSIONS, AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. EATON CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Progressive / Secondary Damage

All damage that results after, and is related to, the initial failure of a covered component.

Cleaning

EATON-CUMMINS DOES NOT COVER CLEANING OF THE VEHICLE. IT IS THE CUSTOMER'S RESPONSIBILITY TO CLEAN THE VEHICLE PRIOR TO BRINGING IT IN FOR REPAIRS.

All Transmission repair procedures include disassembly (if required), cleaning and reassembly in the posted SRT times under "Labor Hour Guidelines".

Warranty Terminology

Warranty Terminology

Warranty: A statement of support offered by a manufacturer to promote customer confidence in a product. This support is generally provided in the form of reimbursement for repairs performed to correct qualified failures associated with defects in material and / or workmanship. A warranty is not necessarily an implication of a product's anticipated life expectancy or level of performance.

Guarantee: A statement of support offered by a manufacturer to promote customer confidence in a product. This support is generally provided in the form of reimbursement for qualified service procedures regardless of origin or source of failure. This support is limited only to the terms of the written guarantee and is not necessarily associated with failures due to defects in material or workmanship.

Standard Warranty: A manufacturer's published warranty available to anyone who purchases the product. The base warranty coverage, offered to all purchasers of a product. Sometimes called the "OEM warranty period".

Extended Warranty: A warranty which extends the parameters of the standard coverage (time, mileage, hours). Normally, the same failure criteria apply, but some limitations may be placed on which parts or services are covered. A fee or surcharge may be required in some cases.

Original Warranty: The total warranty coverage for which a product is eligible. A combination of the Standard and Extended Warranty periods.

Policy / Goodwill: Support provided in cases where the manufacturer has no liability for service procedures performed to correct a failure / condition to a product. In these situations, no entitlement to reimbursement exists for the customer. Other support (i.e., parts for training, show exhibits, etc.) given to customer in appreciation for business enhancing activities to negotiate settlement.

OEM Warranty

1. OEM Warranty

- a. The OEM provides coverage for the parts and labor cost of certain expenses incurred for warrantable repairs to Eaton Cummins components. The failures must be the result of verified and actual defects in material and / or workmanship and have occurred within the time and mileage limitations of the warranty coverage. Some expenses, even though related to the repair, are excluded from the coverage and are not recoverable under the terms of the Eaton Cummins warranties.
- b. All OEM warranty repairs must be performed by the corresponding nameplate dealer or Cummins Distributor. Exceptions must have the approval of the nameplate OEM.

2. Administration of OEM Warranty Claims

- a. Repairing dealer / distributor will be responsible for following OEM policies and procedures in administering warranty claims.
- b. Filing for OEM warranty is the responsibility of the repairing dealer and OEM. Warrantability decisions are the responsibility of the truck OEM.
- c. Always refer to the OEM's Warranty Policies and Procedures manual for specific information and guidelines.
- d. Claims for repairs made as exceptions to item 1b. above must be submitted as sublet repairs through the nameplate OEM.
- e. Cummins Distributors will submit a direct file claims to the Eaton Cummins Automated Transmission Technologies.

Standard Warranty Information

- a. Warranty coverages are stated in terms of time, mileage, kilometers or hours and expire whichever is reached first.
- b. Warranty coverage for original equipment components commences from the date the vehicle is first placed in service. Warranty coverage for service parts commences from the date of retail sale.
- c. If Eaton Cummins pays for, or supplies, any part or component within the original warranty coverage period (Standard or Extended), that part or component will be warranted for the unexpired portion of the original warranty period, excluding policy or goodwill participation. Original warranty coverage parameters supersede any service / replacement part, remanufactured transmission, or exchange unit warranty when such part is installed in a warrantable repair.

Note: Some exclusions apply to these warranties. Refer to the Limits and Exclusions section of this document.

Extended Warranty Information

- a. Some OEM's are currently pre-registering vehicles by providing information at the time of build. Registration is not required for the free warranty categories where the component meets the application guidelines approval and vocational warranty definitions. Registration of vehicles is only required for optional purchased ("pay-for"), Extended Warranties.
- b. Eaton Cummins Extended Warranty coverage begins at the expiration of the OEM standard warranty.
- c. Failures due to defects in materials and/or workmanship are covered.
- d. All warranty limits and exclusions apply.
- e. Proof of lube changes at the prescribed intervals is required if the failure is determined to be lube related.
- f. Refer to the Eaton Cummins Extended Warranty offerings for the specific warranty requirements and details of each program.

Note: For specific claim filing instructions, refer to the "Standard and Aftermarket Warranty Claim Procedures" and "Extended Warranty Claim Procedures" sections.

Warranty Programs

Extended Warranty Coverage

Warranty Coverage

- a. Eaton Cummins Extended Warranties cover components in vehicles operating in a variety of vocations. (Refer to the Coverage section of this manual for specific product coverages and options.)
- b. Coverage begins on the original in-service date of the vehicle.
- c. The warranty covers defects in materials and / or workmanship only.
- d. Secondary damage is not covered. See "Limits and Exclusions for Eaton Cummins Warranties."
- e. The use of PS-386 or PS-278 synthetic lubricant is required for Extended Warranties per the transmission model requirements. The customer is responsible for providing proof of synthetic lube usage and for documenting that lube changes were performed at the prescribed intervals and / or the time of the warranty transfer, if applicable.
- f. Refer to "Warranty Claim Procedures" for information on claim processing.
- g. Guidelines for transferring warranty coverage to a new owner:
 - Eaton Cummins warranties are fully transferable and do not need to be registered by a subsequent owner if the vehicle vocation has not changed from the original vocation. For purchased warranties, no additional fees are required.
 - If the vocation is changed on a vehicle, the vocation with the least amount of coverage determines the warranty.
 - Component lubrication maintenance records must be available in order to transfer free or purchased extended warranties. If these records are not available, components must be refilled with an Eaton Cummins approved lubricant.
 - Re-rating engine torque above the approved torque capacity of the component (transmission) voids the warranty.
 - Purchased warranties are available on some products. To verify coverage, call the Roadranger Call Center at 1-800-826-HELP (4357) or see www.eatoncummins.com.

Standard and Aftermarket Warranty Claim Procedures

Note: It is recommended “Claim Processing” be read, and understood, by all personnel at your location who are involved in any part of the warranty process.

- a. Verify your Eaton Cummins products have application approval and meet the Standard Warranty Coverage.

Note: Refer to the stated warranty coverages for your specific OEM. Additional Eaton Cummins standard component coverage is communicated with the Coverages Section, in this Manual.

- b. Claims Administration / Processing are handled through the OEM, per your OEM warranty procedures or additional channels as approved by Eaton Cummins.
- c. Claims submitted must be for verifiable defects in material or workmanship.
- d. Claims must be submitted within ninety (90) days from the date on which the failure occurred.
- e. Claims submitted, which have been approved or authorized by a Roadranger field service / sales representative, must reference the corresponding claim number (Example: ECT123456) Referencing the representatives' name is not sufficient to ensure claim payment.
- f. Provide the following information with the claim:
 1. Complete 17-digit Vehicle Identification Number (VIN)
 2. Date in service
 3. Model and serial number of failed component
 4. Itemized Eaton Cummins or Eaton Corporation Aftermarket part numbers and prices
 5. Description of complaint, failure, fault code(s), dealer test results, cause, correction (repair)
 6. Date of failure and mileage at time of failure
 7. Hourly shop labor OEM approved warranty rate and number of labor hours requested
 8. Correct labor times/codes for the given repair

Note: If a claim with Eaton exists, use the SRT codes provided in the claim. If you are unable to find the specific SRT code, put the Eaton SRT you are looking for in the repair story and use a generic OEM SRT time that matches the one you were unable to locate. This must be done for each SRT time you are unable to locate.

- g. If the truck has the same nameplate as the repairing dealer, file the claim through the OEM. This applies to all repair facilities, including those that use the optional Roadranger Real Time Warranty.
- h. If the truck has a different nameplate than the repairing dealer, before beginning work on the vehicle, obtain permission to perform a sublet repair through OEM of nameplate truck by contacting either selling dealership or local OEM dealer. Claim for the failure is to be filed as sublet repair through truck nameplate OEM. If permission is not obtained, dealer cannot perform OEM warranty repair.
- i. See “Part Return Requirements” for part return details.

Claim Procedures

For the timeliest processing and to maximize reimbursement of a claim, follow these important steps:

- Verify the failure or condition was caused by a defect in material or workmanship.
- Identify the root cause of the failure.
- Understand all the terms and conditions of a supplier's warranty coverage; what is covered and what is not covered.
- Avoid over-repairs. Use the most economical method to correct the failure. File only for the repairs allowed under the warranty coverage.
- Provide all required information. This includes information on the vehicle, component models and serial numbers, correction of the failure, and invoices. Explain all charges. Be sure they are not only relative to the repair but are covered under the warranty.
- If returning failed material to the supplier, be sure to include all parts replaced in the repair, not just some of them. Identify the parts by including a copy of the claim. If the failure seems questionable, mark the area suspected as the cause of the failure.
- Do not initiate a campaign without the prior written approval of the OEM and Eaton Cummins.

Transmission Unit or Electronics Part with Core Value

Transmission units and parts used in a warranty repair with an assigned Eaton Cummins or Eaton Corporation core value must request the core value on the warranty claim for reimbursement. For core credit to be reimbursed on the warranty claim, all parts with core value must be received at the Warranty Return Center:

- “OEM / Distributor Warranty claims must include the core value on the OEM / Distributor warranty claim for core value reimbursement.
- “Direct pay claims by Eaton Cummins (Standard Warranty, Extended Warranty or Extended Protection Plan) must include the core value on the repair facilities (dealer) repair order (invoice), identifying the core value and also the OEM (Distributor) from which the unit / part with core value was purchased, for reimbursement. Core credit eligibility will be administrated with the OEM / Distributor of the claim or repair facility OEM.

All core values must follow the Eaton Cummins Aftermarket or Eaton Corporation Aftermarket guidelines

Extended Warranty Claim Procedures

- a. Prior to starting a repair, Eaton Cummins recommends that the repairing dealer verify that the transmission has warranty coverage by referring to the coverage section of this manual and / or the purchased warranty verification. For clarification and pay-for registration confirmation number contact the Roadranger Call Center at 1-800-826-HELP (4357).
 1. The repairing dealer provides the 17-digit VIN and customer name. Component model and serial number may also be requested.
 2. Eaton Cummins verifies vehicle registration and Extended Warranty coverage.
- b. For failures which are determined to be lube related, the customer is responsible for furnishing the following information to the repairing dealer:
 1. Proof of synthetic lube usage.
 2. Proof the synthetic lube was changed at the prescribed intervals.

Note: For further details about lube related failures, refer to "Limits and Exclusions to Eaton Cummins Warranties" of this manual.

- c. If the failure is warrantable, the repairing dealer completes the repair and files a claim using one of the following options:

Option 1: If the OEM has decided to process Eaton Cummins Extended Warranty claims, the claim should be submitted through the OEM. Some OEM's have adopted this approach. Please check with the OEM to confirm they are using this method.

Option 2: If the OEM has decided not to administer Eaton Cummins Extended Warranties, please submit your claims for direct payment (OEM Authorized Repair Facilities ONLY) by referring to the Eaton Cummins "Claim Procedures" section at www.eatoncummins.com under the "Warranty" tab.

Option 3: In some isolated cases, the dealer may decide to bill the customer for the entire repair, including parts and labor. The dealer should still file the claim to the OEM for warranty reimbursement according to Option 1 above or direct to Eaton Cummins under Option 2.

- d. For claims submitted directly to Eaton Cummins, a standard OEM / dealer repair order must accompany the claim. In all cases the following information must be provided:
 1. Eaton Cummins Extended Warranty registration confirmation number (only in the case of paid for Extended Warranties)
 2. Date and mileage at time of failure
 3. Description of the complaint, failure, fault codes, dealer test results, cause, correction (repair)
 4. In-service date
 5. 17-digit Vehicle Identification Number
 6. Component model and serial number
 7. Itemized replaced parts list to include Eaton Cummins or Eaton Corporation Aftermarket part numbers and prices
 8. Correct labor times/codes for the given repair

Note: If a claim with Eaton exists, use the SRT codes provided in the claim. If you are unable to find the specific SRT code, put the Eaton SRT you are looking for in the repair story and use a generic OEM SRT time that matches the one you were unable to locate. This must be done for each SRT time you are unable to locate.

Claim Procedures

Note: Refer to Labor Hour Guidelines.

9. Hourly shop warranty rate (OEM approved warranty rate)
10. Total cost of the repair / total amount of the claim
11. Identify the party (name and mailing address) who should receive reimbursement for the claim
12. Date of retail sale for service/replacement parts, replacement components, and remanufactured transmission claims.
13. Vehicle vocation

e. Failed parts must be retained by the customer, dealer, or repairing facility for 60 days after the date the claim is submitted to Eaton Cummins, subject to possible inspection. When a complete unit (transmission) is replaced under warranty, **The failed unit must always be returned to the Warranty Return Center for inspection.**

f. The decision as to the warrantability of the failure will be made by Eaton Cummins based upon the following:

1. Review of the warranty claim
2. Identification of a verifiable failure
3. Proof of synthetic lube usage
4. Return and examination of failed parts, if required (see "Part Return Requirements" within this manual)

NOTE: You may be required to return failed parts to Eaton Cummins. You will be advised to return them to the appropriate Warranty Return Center shipped freight "collect" using shipping methods suggested by Eaton Cummins:

g. For complete Eaton Cummins shipping instructions see Eaton Service Bulletin TMIB0129 available on eatoncummins.com.

Eaton Cummins will determine the amount of the settlement based on the review of the warranty claim and failed parts, if required. Certain deductions may be made from the amount claimed if standard OEM and Eaton Cummins labor hour guidelines are not met. Refer to "Labor Hour Guidelines."

For the timeliest processing and to maximize reimbursement of a claim, follow these important steps:

- Verify the failure or condition was caused by a defect in material or workmanship.
- Identify the root cause of the failure.
- Understand all the terms and conditions of a supplier's warranty coverage; what is covered and what is not covered.
- Avoid over-repairs. Use the most economical method to correct the failure. File only for the repairs allowed under the warranty coverage.
- Provide all required information. This includes information on the vehicle, component models and serial numbers, correction of the failure, and invoices. Explain all charges. Be sure they are not only relative to the repair but are covered under the warranty.
- If returning failed material to the supplier, be sure to include all parts replaced in the repair, not just some of them. Identify the parts by including a copy of the claim. If the failure seems questionable, mark the area suspected as the cause of the failure.
- Do not initiate a campaign without the prior written approval of the OEM and Eaton Cummins.

Transmission Unit or Electronics Part with Core Value

Transmission units and parts used in a warranty repair with an assigned Eaton Cummins or Eaton Corporation core value must request the core value on the warranty claim for the reimbursement. For the core credit to be reimbursed on the warranty claim, all parts with core value must be received at the Warranty Return Center. Reference section above.

- “OEM / Distributor Warranty claims must include the core value on the OEM / Distributor warranty claim for core value reimbursement.
- “Direct pay claims by Eaton Cummins (Standard Warranty, Extended Warranty or Extended Protection Plan) must include the core value on the repair facilities (dealer) repair order (invoice), identifying the core value and also the OEM (Distributor) from which the unit / part with core value was purchased, for reimbursement. Core credit eligibility will be administrated with the OEM / Distributor of the claim or repair facility OEM.

All core values must follow the Eaton Cummins Aftermarket or Eaton Corporation Aftermarket guidelines.

Component and Part Return Requirements

Part Return Requirements

Be sure the parts are properly identified.

- a. Clearly print the claim number, Eaton authorization number, or repair order (RO) number on the bill of lading. All parts associated with the claim must be returned for warranty consideration.
- b. If parts for more than one claim / component are shipped on the same pallet, list all claim numbers on the bill of lading or provide a detailed packing list and ensure each part has a defective material tag. This will ensure proof of shipment for a specific claim if the parts are lost.
- c. When shipping parts for several different claims together, do not mix the parts in the same container, box, etc. This could cause confusion in performing a failure analysis, a delay in claim processing, and possible rejection of the claim.
- d. Always include a copy of the claim or repair order (direct pay) in, or attached to, the container holding the parts for that particular claim. **Protect the copies from grease, oil, etc.**
- e. Package the parts carefully to avoid shipping damage which could distort or mask the true cause of the failure.
- f. All fluid, oils, and lubricants are to be drained from the parts or components prior to return. Penalties (or fees) may result for failure to comply.
- g. Dealer to identify parts disposition, return or scrap, for rejected claims with each claim by a parts disposition tag. The tag is to identify, at a minimum, the following:
 1. Dealer code
 2. Claim number
 3. Repair order number (for direct pay only)
 4. Repair date
 5. Primary failed part number
 6. Eaton Cummins claim authorization number (only if provided by RTW or Roadranger field representative; not required for OEM claims)
 7. VIN
- h. Parts disposition for rejected claims ("Scrap" or "Return to Dealer")
- i. Return all parts collect, per Eaton Cummins approved carrier and to the correct designated location, as outlined in TMIB0129. Failure to return parts collect will result in no freight reimbursement. Failure to return requested parts to designated Eaton Cummins Return Center locations will result in rejection of the claim.
- j. Component being returned for warranty must match serial number on warranty claim or repair order (RO).
- k. Parts lost from broken boxes, damaged shipping containers, negligence in packaging, or returned without proper claim identification, may result in no reimbursement for the parts not received and shall be the responsibility of the dealer.
- l. Corrosion or rust that prevents proper inspection, or prevents identification of the primary failure, may result in a rejected claim.
- m. When a complete unit (transmission) is replaced under warranty or policy, the failed unit must always be returned to the Warranty Return Center for inspection.
- n. All rejected, non-warrantable, non-Eaton parts and non-Eaton Cummins parts will be scrapped unless the dealer includes return notice on the parts disposition tag as required in section "g" above. All such parts will be returned at dealer's expense.

Warranty Claim Processing

The following information is provided to help you understand warranty claim processing.

In the following paragraphs, the term "supplier" will be used to indicate a manufacturer or supplier. The term "dealer" could be an OEM dealership or other repair facility.

The following is a list of some key items regarding warrantable failures and other conditions which can determine if a claim is to be paid. Examples of claim processing situations are given to clarify each point.

Item 1

Verifiable Defect (verifiable through fault code data analysis, testing and visual inspections):

Warranty is intended to cover verifiable defects in material or workmanship. If documentation of a product defect can not be provided, warranty claim will be rejected. Defects may be determined using fault code data analysis, product testing and visual inspection.

There are many cases in which parts are returned for inspection and no failure can be found nor is there any indication or marking of what the repairing mechanic determined to be the cause of the failure. If the warranty analyst cannot verify any defect, the claim will be rejected.

Example: Manufacturers do extensive testing to determine the durability of their products. This testing is done both in the lab and on the road. In this process, conditions are deliberately induced to cause a variety of failure modes. The visual results of these failure modes are documented for future failure analysis. Additionally, the effects of other conditions, such as normal wear and contaminated lube, are recorded and studied.

Item 2

Identifying root cause and responsibility for the failure:

The failure is not always a "defective" nor "causal" part. The failure might be the result of a driveline problem, driver error, or an improper prior repair. In any case, recognizing the cause of the failure determines to whom the repair should be charged.

Item 3

Dealing with wear items and normal maintenance:

Truck components have many moving parts. Some, such as gears, move internally. As this interaction occurs, it causes wear. It is a normal process in the life of a component.

Normal wear is not a defect and is not warrantable unless specifically stated. The amount of normal wear can vary greatly depending on vehicle application and the habits of the driver.

Warranty only covers verifiable defects in material or workmanship.

Claim Processing

Item 4

Over-repairs:

Example 1: A customer brings his truck in for a transmission shifting complaint. Upon inspection, the mechanic finds a gear with a chipped tooth and a broken main shaft washer. All other parts are reusable and show only normal wear. The shop is extremely busy that day and to disassemble and reassemble the transmission would take several hours. There is a new transmission in the parts room which, if used, would save a lot of time. The repair is made using the new transmission. A warranty claim for a total of \$5,400 is filed for the cost of the new transmission, and allowable mark-up and labor.

Upon receipt of the claim and failed material, the supplier's warranty analyst determines the only required repair was the replacement of the gear, the washer, and the labor. The remaining parts were all reusable. He approves the claim for a total of \$1,300, the amount allowed for this type of repair within the warranty limitations. This reduces the claim by \$4,100.

Example 2: A replacement transmission is used and the technician fails to transfer over parts that did not come with the unit such as the MTM, output yoke, output speed sensor, etc. Upon receipt of the claim and failed material, the suppliers warranty analyst determines that the parts replaced because they were not transferred over to the replacement transmission were reusable, qualifying as an over-repair, and makes adjustments.

Warranty pays only for the most economical method to correct a failure, repair or replace, whichever is less. Warranty claim approval amounts are determined by these limitations.

In some situations, manufacturers might sell kits containing groups of parts which are designed to renew a component. Remember, not all of these parts are necessarily warrantable, even though some parts from the kit might have been used to complete the repair. Only failed parts are covered.

Item 5

Elective repairs:

Warranty only covers verifiable defects. During a transmission replacement, failure to transfer parts and choosing to replace them without any verifiable failure will result in a reduction on the claim.

Example: A customer owns a fleet of thirty trucks which are all used in similar applications. The dealer noticed five of the vehicles have experienced failures to the same part. With good intentions to save the customer from unnecessary down time, the dealer decides to replace this questionable part on every truck in the fleet. The dealer files warranty claims for all the repairs and forwards the parts to the supplier.

Upon inspection, the supplier's warranty analyst finds no failure to twenty-five of the parts and rejects those claims accordingly.

The correct method of handling a situation like this is to contact both the OEM and the Roadranger representative for your area, before starting any activity to repair trucks which you suspect might have future failures.

Warranty claims are reviewed one at a time, each on its own merit, based on verifiable failures.

If a repair facility does not have Eaton Cummins or the OEM's written authorization to make repairs on vehicles which have not failed, it runs the risk of not getting paid for those repairs.

Likewise, retrofit repairs, to enhance or update a component to the latest technology are not warrantable unless approved in writing by Eaton Cummins or the OEM. Warranty coverages are based on the technological knowledge at the time a component is designed. It would be unrealistic to expect older products to achieve performance standards which have been elevated by the latest technological advancements.

Item 6

Claim overcharges, undefined, and unidentifiable charges:

Example: A supplier's warranty analyst is reviewing a claim. The claim shows a miscellaneous charge for \$55 but there is no explanation of the charge. The work order shows repairs to other systems on the truck and the warranty analyst is not sure if the charge is against his product. Since it is not clear, the \$55 is deducted. Further review of the claim shows an automatic shop supply charge of \$20. The analyst knows this type of charge is not covered under the warranty and deducts it. Finally, he notices a part price which is very high and determines the \$50 overcharge is due to the higher part mark-up than allowed by the warranty. The \$50 is also deducted from the claim making the total reduction \$125.

In order to prevent a similar situation from occurring, claims filed should only contain charges allowed by the warranty coverage. If the repairing facility chooses to charge amounts beyond warranty limitations, the difference should be billed to the customer or absorbed by the dealer.

Item 7

Standard warranty versus extended warranties:

Most Extended Warranties simply expand the time and mileage parameters to some greater limit. Some specify only certain parts are covered or limit coverages on maintenance items such as seals and gaskets. However, no additional allowances are made for parts pricing, parts mark-up, or labor. These remain consistent with the allowances used in standard warranty. In addition, all exclusions apply (shock load, lack of lube, etc.).

Eaton Cummins Reimbursement Policy for Transmission Unit and Transmission Parts - Direct Pay to Dealer / Distributor / repair facility:

Eaton Cummins warranty policy for parts reimbursement that fall outside the OEM warranty period but within Eaton Cummins Standard and Extended Warranty (i.e. Direct Pay Claims) will reimburse the OEM dealer / Distributor / repair facility at a maximum of 52% of the Eaton Cummins published aftermarket list price.

Example: Eaton Cummins / Eaton List Price = \$100

Direct Pay claim Reimbursement is 52% of the Eaton Cummins published list price

Maximum unit / part reimbursement - \$52 (52% of list)

Refer to the Eaton Cummins aftermarket price list provided to the OEM and Distributors.

Item 8

Component and vehicle information:

A supplier is certainly not happy when a product fails. It is a costly inconvenience to the customer and an expense to the supplier. Always trying to improve products by correcting failures and increasing durability, suppliers must gather as much information as possible. This information helps identify, not only which parts are failing but which time frame the component was built. This data can link failures to engineering changes or problems with materials used in manufacturing.

The quicker the root cause of a problem can be determined, the more quickly corrective action can be taken.

Claim Processing

Item 9

Coverage expiration time:

Example 1: A component is covered by a five-year warranty with an in-service date of September 8, 2017. A product failure must occur on or before September 7, 2022 to be submitted on a warranty claim.

Example 2: A service part has a retail sale date of October 15, 2017. A product failure must occur on or before October 14, 2017 to be submitted on a warranty claim.

Item 10

Selection of the appropriate SRT's:

If a Call Center claim exists with labor times for reference, any submission for warranty must match for each SRT time/description, or at a minimum the SRT time must match if a generic or Non-time is used.

Example: A claim was opened with Eaton and the claim was updated with labor times. If you are filing warranty and referencing the Eaton claim, and you are unable to find one of the SRT's provided on the Eaton claim, the recommendation is to utilize the OEM "General or Non-Time" SRT for the same SRT time you were unable to find followed by a brief comment in the notes describing what each "General or Non-Time" covers. If more than one SRT is not found this process should be followed for each SRT.

Repair or Replacement Guidelines

Repair or Replacement Guidelines for Eaton Cummins Warrantable Failures

Warranty sometimes requires decisions regarding the most economical method to complete a repair. Should the component be repaired? Is the warrantable damage so extensive, the component must be replaced?

Additionally, if replacement of the entire component is being considered, which level of component is the most logical to use? Does an Eaton Cummins Remanufactured transmission fulfill the need? Depending on the failure, is the Service Unit Exchange Transmission the proper choice?

Reimbursement for warranty claims is based on the cost to repair versus the cost to replace, whichever is less. Because of this, certain guidelines have been established to help a repairing facility decide which repair choice is best.

In the case of transmission repairs, the options are usually more evident. If the total bench time repair labor cost, plus the cost of the parts (plus markup if OEM claim), is less than that of an Eaton Cummins Remanufactured transmission, the obvious choice is to repair the transmission.

The example shown below uses an Eaton Cummins Remanufactured transmission to illustrate the formula for deciding whether to repair or replace.

Example:

REPAIR	REPLACE
*Total Parts	\$3,115
Bench Time	\$880
R & R Labor	\$605
Total	<u>\$4,600</u>
	<u>Total</u>
	<u>\$5,940</u>

*Total Parts and Replacement Transmission includes OEM markup for OEM submitted claims.

Obviously, in this example, the proper choice would be to repair the transmission because the total is \$1,340 less to do so.

Another consideration to the example above is the availability of the Eaton Cummins Remanufactured product line; it can create the need to consider vehicle mileage as part of the equation.

The following guidelines determine when to use an Eaton Cummins Remanufactured replacement transmission and when a New Service Unit Exchange transmission is the correct component for the repair.

* Components which fail within the OEM warranty period and have accumulated 100,000 miles or less should be replaced by a Service Unit Exchange transmission providing the cost to repair exceeds the cost to replace. (See "Example" above.)

* Components which fail within the OEM warranty period and have accumulated over 100,000 miles should be replaced by an Eaton Cummins Remanufactured replacement transmission providing the cost to repair exceeds the cost to replace and meets Eaton Cummins Warranty requirements. (See "Example" above.)

* Components which fail beyond the standard OEM coverage, but are covered under an Extended Warranty, should be replaced by an Eaton Cummins Remanufactured replacement transmission providing the cost to repair exceeds the cost to replace. (See "Example" above.)

NOTE: As a reminder, do not use new production transmissions for warranty repairs. Use only Eaton Cummins Remanufactured replacement transmission or a New Service Unit Exchange Transmissions per these replacement guidelines. Refer to "Eaton Cummins Non-warrantable Failure Transmission Replacement Requirements".

Repair or Replacement Guidelines

Warranty claims are paid according to these Repair or Replacement Guidelines. Please read them carefully. If you have any questions contact the Roadranger Call Center at 1-800-826-HELP (4357).

Note: To continue warranty coverage, the purchased component model must be the same as the failed component model, unless substitution is authorized by Eaton Cummins.

Labor Hour Guidelines

This section contains a schedule of labor hours allowed for performing warrantable repairs. The hours listed are the maximum amounts which will be paid on a warranty claim according to the latest update of this publication. To ensure a better understanding of its content, please have all personnel involved in warranty, read the section thoroughly.

In general, these labor times are for the repair of a major component after it has been removed from the vehicle (bench time). However, some repair times (i.e. seals, synchronizers, air systems parts, electric components, etc.) are based on the repair being performed with the component remaining in the vehicle.

If you find a repair time which seems incorrect, [consult the appropriate service manual](#) to be sure the most efficient repair method is being used. For additional support, please contact the Roadranger Call Center at 1-800-826-HELP (4357).

Labor Hour Guidelines

UltraShift PLUS, Fuller Advantage Automated, SmartAdvantage, and AutoShift-18 Transmission Product Families - Air System, Electrical and Mechanical Repairs

R & R = Remove and Replace

In-Chassis Repairs

Repair	Standard Hours
Auxiliary Section - R & R	3.5
Countershaft Speed Sensor R&R (Located in the Rear of the shift bar housing)	0.5
Driver Command Console - R & R	0.3
Electric Clutch Actuator	0.7
Electric XY Shifter - R & R	0.5
Electronic Range Valve - R & R	0.6
Endplay Settings - Adjust (Auxiliary countershafts with tapered bearings)	0.4
Filter Regulator - R & R	0.6
Gasket - R & R (Any miscellaneous gasket)	0.3
Gear Display - R & R	0.4
Hydraulic Clutch Actuator Adapter Assy / Release Fork Assy - R & R	0.5
Hydraulic Clutch Actuator Grease Tubes - R & R (With Hydraulic Clutch Actuator - R & R)	0.8
Inertia Brake - R & R	1.0
Input Speed Sensor R&R (Located in the front of the shift bar housing)	0.5
Insert Valve - R & R	0.3
Output Seal - R & R (Includes: Cleaning)	1.0
Output Speed Sensor - R & R (When installed by Eaton)	0.3
Pneumatic Range Cover - R & R	1.0
Power Connect Relay - R & R	0.3
Power Interface Module - R & R	0.7
Push Button Control - R & R	0.3
Range Solenoid Valve R&R	0.6
Reverse Switch - R & R	0.6
Shift Bar Housing - R & R (Includes: XY Shifter Assembly R & R)	2.0

Labor Hour Guidelines

Repair	Standard Hours
Splitter Solenoid Valve R&R	0.6
System Manager - R & R	0.4
Synchronizer - R & R (Includes: Auxiliary Section R & R, Auxiliary Drive Gear R & R, and all steps necessary to complete the repair with the transmission in the chassis.)	5.5
Tower Harness - R & R	0.4
Transmission Controller (ECU) - R & R	0.7
Transmission Harness - R & R	1.2
XY Shifter Assembly R&R	0.5

Complete Transmission R & R

Includes R & R for transmission mounts, driveline, brackets, hoses, and wires. Drain and refill with lube.

Repair	Standard Hours
Transmission - R & R (Clutch housing frame mounted)	5.0
Transmission - R & R (Clutch housing nodal mount)	6.5
PTO - R & R (if required) Transmission mounted	1.0

Bench Service (Component Removed from Chassis)

The following procedures are performed with the component previously removed from the chassis. All procedures include disassembly, cleaning, and reassembly.

Repair	Standard Hours
Auxiliary Section Synchronizer (Range) - R & R (Includes: Auxiliary Drive Gear R & R)	2.0
Auxiliary Section (Back Box) - Overhaul -Two gear set auxiliary section -Three gear set auxiliary section (Includes: Auxiliary Section R & R, both types)	2.5 3.5
Clutch Housing - R & R	0.5
Complete Transmission - Overhaul -Two gear set auxiliary section -Three gear set auxiliary section (Includes: Overhaul of main case, auxiliary section) (Does Not Include: Overhaul of shift bar housing)	8.0 9.0
Gasket - R & R (Any miscellaneous gasket)	0.2

Labor Hour Guidelines

Repair	Standard Hours
Input Shaft - R & R (Includes: Clutch housing R & R)	0.8
Main Case (Front Box) - Overhaul (Includes: R & R auxiliary section and shift bar housing; overhaul of main shaft and countershafts)	5.5
Main Shaft (Front Box) - Overhaul (Includes: R & R auxiliary section, input shaft, main shaft, and shift bar housing)	4.0
Oil Pump (Internal) - R & R (Includes main case disassembly)	4.0
Shift Bar Housing - Overhaul (Includes shift bar housing R & R)	1.0

AutoShift-PV Transmission Product Family - Electrical and Mechanical Repairs

R & R = Remove and Replace

In-Chassis Repairs

Repair	Standard Hours
Gasket - R & R (Any miscellaneous gasket)	0.3
Output Seal - R & R (Includes: Cleaning)	1.0
Output Speed Sensor - R & R (When installed by Eaton)	0.3
Shift Bar Housing - R & R (Includes: XY Shifter Assembly R & R)	2.0
XY Shifter Assembly R&R	0.5
Input Speed Sensor R&R (Located in the front of the shift bar housing)	0.5
Countershaft Speed Sensor R&R (Located in the Rear of the shift bar housing)	0.5
Electric Clutch Actuator	0.7

Complete Transmission R & R

Includes R & R for transmission mounts, driveline, brackets, hoses, and wires. Drain and refill with lube.

Repair	Standard Hours
Transmission - R & R	3.5
PTO - R & R (if required) Transmission mounted	1.0

Bench Service (Component Removed from Chassis)

The following procedures are performed with the component previously removed from the chassis. All procedures include disassembly, cleaning, and reassembly.

Repair	Standard Hours
Bearing Cover and Seal (Front) - R & R (Includes: Clutch Housing R & R, if required)	0.5
Bearing Cover and Seal (Front) - R & R	1.0
Clutch Housing - R & R	0.3
Input Shaft - R & R (Includes: Clutch housing R & R and Front Bearing Cover R & R)	1.0
Main shaft - Overhaul (Includes: R & R shift bar housing, front bearing cover, rear bearing cover, main shaft, and all other parts of the main shaft assembly)	3.0

Labor Hour Guidelines

Repair	Standard Hours
Transmission (Complete) - Overhaul (Includes: R & R shift bar housing, front bearing cover, and rear bearing cover. Complete R & R of main shaft and countershaft assemblies. Disassembly, reassembly, and replacement of all necessary parts.)	5.0

Endurant Transmission Product Family - Electrical and Mechanical Repairs

R & R = Remove and Replace

In-Chassis Repairs

Repair	Standard Hours
Transmission Air Supply Pressure Sensor (TASPS)	1.5
Software Download / Update	0.3
Transmission Control Module (TCM) R&R	0.4
Fluid Pressure Sensor (FPS) R&R	0.3
Linear Clutch Actuator (LCA) R&R (Includes locking LCA in "Reset Position")	0.4
Output Shaft Speed Sensor R&R	0.3
Output Shaft Yoke R&R	0.5
Output Shaft Seal and Bearing Cover (with yoke R&R)	1.0
Rail, Clutch and Grade Recalibration after Repair (Can only be used if TCM is Replaced or directed by ECJV Call Center. Rail and Clutch Calibration is Automatically Completed when LCA is Locked in "Reset Position")	0.3
PTO Cover R&R (includes drain and fill)	0.5

Complete Transmission R & R

Includes R&R for LCA, transmission mounts, driveline, brackets, hoses and wires, drain and refill lube, release bearing and yoke

Remove and Replace (R&R)	Standard Hours
Transmission - R & R (Clutch housing frame mounted)	3.4
PTO (4 bolt or 8 bolt) - R & R (if required) Transmission Mounted	1.0
PTO Rear Mounted R&R Transmission Mounted	0.4
Optional Cooler and Cooler Lines R&R (Endurant XD and XD Pro 18-Speed Transmission Only)	0.3

Labor Hour Guidelines

Bench Service (Component Removed from Chassis)

The following procedures are performed with the component previously removed from the chassis. All procedures include disassembly, cleaning, and reassembly.

Repair	Standard Hours
Complete Main Box transmission Overhaul only (Includes Drain and Fill, R&R of Range box assembly, and MTM R&R)	5.2
Transmission Control Module (TCM) R&R	0.2
Linear Clutch Actuator (LCA) R&R (Does not include Mechatronic Transmission Module (MTM) (Includes locking LCA in "Reset Position")	0.2
Fluid Pressure Sensor (FPS) R&R	0.1
Output Shaft Speed Sensor R&R	0.1
Install Clutch Release Yoke R&R	0.1
Install Clutch Release Bearing R&R	0.1
Install Clutch Release Yoke Pivot Pin	0.1
Input shaft Cover Assembly R&R (Release bearing and yoke)	0.4
Input shaft Wear Sleeve (no pilot bearing R&R included)	0.2
Input shaft Assembly R&R (Endurant XD and XD PRO)	1.0
Mechatronic Transmission Module (MTM) R&R (w/ transmission removed) (includes TCM)	1.2
Transmission MTM, TCM, External Speed Sensor Harness, Rear Planetary Housing, and Range Synchronizer R&R (Replacing either Planetary Output Shaft, and or Rear Housing Assembly)	2.9
Transmission MTM, external speed sensor harness and Rear Planetary Housing R&R, (Replacing only Range Synchronizer Assembly)	2.2
Transmission Oil Pump R&R (includes rear housing R&R)	1.8
Inertia Brake R&R (Including release bearing, yoke and inertia brake)	0.7
MTM Rail Cover Capscrews Tightening RRMT0037 (Does not include MTM Bench R&R) (Includes protruding O-ring & MTM cover tightening)	0.8

Diagnostics (Endurant Transmission Family)

Diagnostics	Standard Hours
Diagnostic / Troubleshooting Time <ul style="list-style-type: none">• Verify Driver Complaint / Test Drive• Computer Hookup - Service Ranger and Internet (Internet Access Required)• Retrieve and Inventory (Internet Access Required) Service Activity Report (will be required by Call Center)• Retrieval of Active and Inactive Fault Codes• Diagnose 1 Active fault code	1.0
Obtain the Service Activity Report with Internet Connection w/o 1 hour diagnostics (Internet Access Required)	0.3
Verify Repair Road Test	0.3

Labor Hour Guidelines

Procision Transmission Product Family - Electrical and Mechanical Repairs

R&R = Remove and Replace

In-Chassis Repairs

Repair	Standard Hours
Software Download / Update	0.5
Transmission Control Module (TCM)	0.3
Output Shaft Speed Sensor R&R	0.1
Output shaft Yoke	1.0
74-Way Connector Retainer	0.7
Output Yoke	1.0
Output Seal (includes Output Yoke R&R)	1.5
PTO Cover	0.3
Transmission Range Sensor (TRS)	0.5
Cartridge Filter	0.3
Sump Pan and Sump Pan Filter *Note 1	0.5
Triple Pressure Sensor (Includes Sump Pan and Sump Pan Filter R&R) *Note 1	0.8
Cooler Temperature Sensor (Includes Sump Pan and Sump Pan Filter R&R)	0.8
ACM/Transmission Harness Assy (Includes TCM, Sump Pan, and Sump Pan Filter R&R) *Note 1	2.0
Transmission Harness (Includes ACM/Transmission Harness Assy, TCM, Sump Pan and Sump Pan Filter R&R)	2.5
Engine Speed Sensor (Includes ACM/Transmission Harness Assy, TCM, Sump Pan, and Sump Pan Filter R&R)	3.5
Rail D Position Sensor (Includes ACM/Transmission Harness Assy, TCM, Sump Pan, and Sump Pan Filter R&R) *Note 1	2.3
ACM Solenoid Replacement (Includes ACM/Transmission Harness Assy, TCM, Sump Pan, and Sump Pan Filter R&R) *Note 1	2.3
Rear Housing Cover Assy (Includes Output Seal, Output Yoke, and TRS R&R) *Note 1	2.5

Repair	Standard Hours
Rear Housing Assy Repair (Includes 6th/4th gear and bearing assemblies, Rail C synchronizer assy, inner bearing races, rear spray bar, Rear Cover Assy R&R, Output Seal and Yoke R&R, and TRS R&R) *Note 1	4.0
3 Rail Position Sensor R&R (Includes the Rear Housing Dis-Assy/Assy, Rear Cover Assy R&R, Output Seal and Yoke R&R, and TRS R&R) *Note 1	4.3
90-Degree Connector (Includes Rear Housing Dis-Assy/Assy, Sump Pan, and Sump Pan Filter and TRS R&R)	5.3
Oil Drain and Fill (Includes Oil Drain Plug with O-ring R&R)	0.2
Note 1: If oil is required to be drained and filled to perform the repair, the oil drain and fill will be included in the above repair times.	

Complete Transmission R & R

Includes R & R for transmission mounts, driveline, brackets, hoses, and wires. Drain and refill with lube.

Remove and Replace (R&R)	Standard Hours
Transmission - R & R	3.5
PTO - R & R (if required) Transmission mounted	1.0

Bench Service (Component Removed from Chassis)

The following procedures are performed with the component previously removed from the chassis. All procedures include disassembly, cleaning, and reassembly.

Repair	Standard Hours
Transmission Overhaul	8.0
Rear Housing Assy Repair (Includes 6th & 4th gear assembly, Rail C synchronizer assy, inner bearing races, rear spray bar, Rear Cover Assy R&R, Output Seal and Yoke R&R, and TRS R&R) *Note 1	4.0
Pump, Clutch Cooling Module, Primary or Secondary Input Shaft Assembly Replacement	4.5
Interface Manifold, Shift Rail D Magnet	5.0
Upper or Lower Shaft Repair (Includes pressing of the gears on the shafts)	5.5
Dual Clutch Replacement (Includes Clutch Support Manifold, Cartridge Filter, Sump Pan Filter R&R)	1.0
Input Shaft Seal Replacement	0.5
Damper	0.3

Labor Hour Guidelines

Repair	Standard Hours
Note 1: If oil is required to be drained and filled to perform the repair, the oil drain and fill will be included in the above repair times.	

Diagnostics (Precision Transmission Family)

Diagnostics	Standard Hours
Diagnostic / Troubleshooting Time <ul style="list-style-type: none">• Verify Driver Complaint / Test Drive• Computer Hookup - Service Ranger and Internet (Internet Access Required)• Retrieve and Inventory (Internet Access Required) Service Activity Report (will be required by Call Center)• Retrieval of Active and Inactive Fault Codes• Diagnose 1 Active Fault Code	1.0
Obtain the Service Activity Report with Internet Connection w/o 1 hour diagnostics (Internet Access Required)	0.3
Verify Repair Road Test	0.5

Limits and Exclusions

This section contains listings of various items which are not reimbursable under Eaton's warranties. Some exclusions are based on failure mode (i.e. shock load), others are expenses which, due to their nature, are difficult to control or verify (i.e. downtime, meals, towing).

Many claims are received with unexplained charges or miscellaneous expenses which warranty does not cover. (See "Claim Processing" section.) These types of charges are typically not reimbursed by suppliers because they are not clearly defined or verifiable. Some are considered overhead charges which are included in the shop labor rate.

Eaton Cummins recommends your warranty personnel reference the "Limits and Exclusions to Eaton Cummins Warranties" when performing repairs and preparing claims. By doing so, it could reduce the number of unexpected claim reductions and chargebacks.

If there is a question as to whether an item is excluded from warranty, please contact 1-800-826-HELP (4357).

General Limits and Exclusions

Note: Coverage is **not provided** for the following failures or expenses:

- Failures resulting from abuse (i.e. shock load), neglect, or accidents.
- Failures due to lack of prescribed maintenance.
- Failures due to excessive vibration from engine, clutch, or drivelines. Failures due to improper driveline angles.
- Failures caused by the driver, such as; twisted or broken shafts.
- Towing.
- Cleaning
- Downtime, lodging, meals, and travel time or transportation.
- Troubleshooting / Diagnostics - except where allowed as indicated in the "Important Information About Labor Hour Guidelines" and the "Labor Hour Guidelines".
- Secondary, progressive, or consequential damage.
- Freight for parts shipments.
- Non-genuine replacement parts void the component warranty when used to make a repair.
- Component damage due to failure of other chassis components.
- Parts and labor markup in excess of OEM / Eaton Cummins approved guidelines.
- Undefined or unidentifiable miscellaneous charges.
- Failures due to product misapplication or Eaton Cummins unapproved application.
- Failures due to unapproved alterations or modifications to the vehicle or the Eaton Cummins component.
- Taxes of any kind except where mandated by law.
- Failures caused by improper installation or improper prior repair.
- Failures caused by excessive operating temperature.
- Failures resulting from non-Roadranger or Eaton Cummins approved lubricants.
- Daily rentals.
- Loss of revenue.

Warranty Limits and Exclusions

- Miscellaneous shop supplies and/or fees.
- Corrosion and rust.
- Re-rating the engine to exceed torque capacity of Eaton Cummins component voids the warranty.
- Wear is not warrantable.
- Part premium charges or freight for direct ship parts.
- Noise complaints when noise is the only complaint, no failed component found.

Specific Limits and Exclusions

Transmission

1. Endurant product family are warranting low lube burnup failures when the Lube Burnup Protection is enabled and indicated by the low lubricant protection fault light alert and / or reduction in operations. This protection is enabled by software and a lube pressure sensor which detects a reduction in lube pressure from the internal lube pump. Eaton Cummins Automated Transmission Technologies will warranty a low lubricant condition of the transmission causing a "burnup" in cases except:
 - The low lube burnup protection is disabled or is faulty where the owner / operator did not perform repairs;
 - Low Lube Burnup Protection was neglected by the owner / operator and did not take precautionary measures to stop operating the vehicle.
 - A Roadranger Service Ranger Service Activity Report is required to verify all Low Lube Burnup failures.
 - Verification of grade, speed, time operating after the fault was activated is required
 - Verification of operational performance is required.
 - "Burnup" is a condition of the transmission where excessive heat causes deformities and structural changes (metallic or various physical characteristics) of the gears, shafts, synchronizers, bearings and other transmission parts.
2. Transmission system communication of clutch prognostics is an indicator of clutch wear life and does not indicate a failure due to defect in material and workmanship. No coverage will be considered due to clutch prognostics.
3. Failures resulting from or progressive damage to ancillary equipment such as PTOs (including Eaton Corporation Sourced Bezares PTO / Pumps), yokes, speedometer equipment, controls and clutch release parts that are not sourced from the Eaton Cummins.
4. Noise (when the transmission is not the cause and verified).
5. Vibration (when not verified).
6. Leaking or damaged output shaft seal when the yoke is not installed by Eaton Cummins.
7. Failures caused by rust and corrosion.
8. Failures to electronics due to environmental corrosive fumes or vapors.

IMPORTANT NOTICE:

THE USE OF ANY LUBRICANT THAT IS NOT APPROVED BY EATON CUMMINS AUTOMATED TRANSMISSION TECHNOLOGIES FOR USE IN ITS COMPONENTS, IS SUFFICIENT REASON TO DENY A WARRANTY CLAIM AND / OR VOID ALL FUTURE WARRANTY.

FOR SPECIFIC LUBRICATION REQUIREMENTS AND INFORMATION, PLEASE REFER TO THE ROADRANGER LUBRICATION MANUAL - TCMT0021.

Vocational Groups by Transmission Model

Vocational Self-Service Coverage Guide

Introduction

The administration of warranty by Eaton Cummins for Standard and Extended Warranty coverage is extensive. This guide provides the method of matching your transmission model to the Eaton Cummins Vocational group that identifies the transmission coverage. This Vocational group contains the vocation definitions, component time and mileage limits per vocation, aftermarket component / part warranties, and references location of the Extended Protection Plan purchase options.

How to use this vocational coverages to determine your warranty coverage on your component:

How do I define my vocation coverage?

1. Review all the "Vocational Definitions" listed and select the one that most accurately describes the use (Vocational Definition) and configuration (Typical Vehicle Types) of the vehicle.
2. Ensure your vehicle vocation is listed in the "Typical Vehicle Types" under the selected Vocational Definition.
3. Once the vocation is defined refer to the "Product Time and Mileage Coverage Per Vocation" section.
4. Identify the component in question using the product model number for the time and mileage coverage.

Note: If the transmission model is not included within the Vocational chart, no warranty coverage is available for the Transmission within that specific Vocation.

5. Refer to and understand any notes (requirements) that pertain to a specific coverage (i.e. lube requirements).
6. If you cannot determine coverage, contact your Roadranger Representative or call the Roadranger Call Center at the time of sale or repair at 1-800-826-HELP (4357).

Effective Date

Warranties listed in this guide are effective for vehicles placed in service after the first day for the month / year of this publication month / year revision.

Help is Available

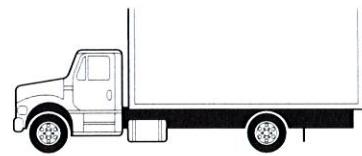
We realize there are many different warranties available. Manufacturers and suppliers have established coverages to suit their specific products.

If, at any time, you have questions regarding Eaton Cummins warranty coverages or model eligibility, contact the Roadranger Call Center at 1-800-826-HELP (4357). A customer service coordinator will be glad to assist you in getting the answers you need.

For warranty limits, exclusions, and requirements see the "Limits and Exclusions" section of this manual. Additional limits, exclusions, and requirements for the Extended Protection Plan are available within this guide and expressed within each of the specific offering details.

See the Change Log at the end of this guide for detailed updates.

Pick Up and Delivery



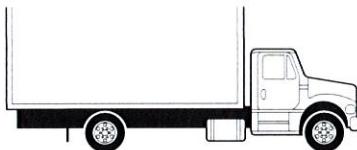
Pick Up and Delivery

Vocational Description:

- Pick up and delivery service consists of the movement of freight typically within a 100 mile radius in cities and/or sub-urban areas.
- Operation on road surfaces of concrete, asphalt and maintained gravel.
- Three (3) to thirty (30) miles between starts/stops (typical).
- Annual mileage less than 50,000 miles (80,000 Km).
- 100% load going / 40% load return (typical).
- 40% load going / 100% load return.

Typical Vehicle Types

Beverage Truck	Municipal Truck	Stake Truck	Step Van
Flatbed Truck	City Delivery	Tanker	Grain Hauler
Moving Van	Refrigerated Truck	Wrecker	(grain hopper/bottom dump trailers)



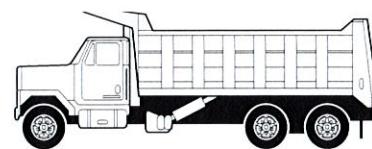
Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	Procision (Note 2, 3)	3 years / Unlimited Mileage
	Endurant HD 11-Speed Automated (Direct drive) (Includes clutch release yoke) (Note 1)	5 years / 750,000 Miles (1,200,000 km)
	Endurant HD 12-Speed Automated (Includes clutch release yoke)(Overdrive) C-Ratio (Note 1)	5 years / 750,000 Miles (1,200,000 km)
	Endurant HD V Automated (Includes clutch release yoke) (Note 1)	5 years / 750,000 Miles (1,200,000 km)
	Endurant XD (Note 1) (Includes clutch release yoke)	3 Years / 300,000 Miles (480,000 km)
	Endurant XD Pro (Note 1) (Includes clutch release yoke)	3 Years / 300,000 Miles (480,000 km)
	UltraShift PLUS VCS, VMS, VXP, MHP, MXP Excludes Clutch & LCIB (Note 1, 3)	3 years / Unlimited Mileage
	UltraShift PLUS LAS, VAS. Excludes Clutch and LCIB (Note 1, 3)	5 years / 750,000 Miles (1,200,000 km)
	Fuller Advantage Automated EA3 Excludes Clutch and LCIB (Note 1, 3)	5 years / 750,000 Miles (1,200,000 km)
Clutch Release Bearing	Clutch release bearing for Endurant	3 years / 350,000 Miles (560,000 km)
Clutch Release Yoke	Endurant HD / XD / XD Pro Transmission Families	Same as Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift PLUS models (Note 1)	3 years / Unlimited Mileage

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions and transmissions with Purchased Extended Protection Plans and Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021). All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Procision transmissions require the use of PS-278 approved lubricants (Refer to Lubrication Manual, TCMT0021). Procision transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 3: Refer to "Extended Protection Plan Matrix" section on www.eatoncummins.com.



Construction

Vocational Description:

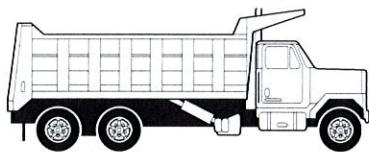
- Movement of material to and from a job site.
- Vehicles used in transfer / relocation on a maximum grade of 8%, typically greater than 10 miles per trip.
- 90% of loaded operation on road surfaces of concrete, asphalt, gravel, crushed rock or hard packed dirt and up to 10% of loaded operation into sandy or muddy job sites.
- Vehicles operating less than 90%, refer to Specialized Applications "Off-Highway" coverages.

Typical Vehicle Types

Asphalt Truck	Dump Truck	Roll-off	Tank Truck	Concrete Pumper	Mixer
Block Truck	Flatbed Truck	Snowplow	Utility Truck	Landscape Truck	Mobile Crane

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	Procision (Note 2, 3)	3 years / Unlimited Mileage
	UltraShift PLUS VCS, VMS, VXP, MHP, MXP Excludes Clutch & LCIB (Note 1, 3)	3 years / Unlimited Mileage
	Fuller Advantage Automated, Smart Advantage 10-C Excludes Clutch and LCIB (Note 1, 3)	3 years / Unlimited Mileage
	Endurant HD 12-Speed Automated (Over-drive) (Includes clutch release yoke) (Note 1, 3, 4)	3 years / 300,000 Miles (480,000 km)
	Endurant HD V Automated (Includes clutch release yoke) (Note 1, 3, 4)	3 years / 300,000 Miles (480,000 km)
	Endurant XD (Includes clutch release yoke) (Note 1, 3, 4)	3 years / 300,000 Miles (480,000 km)
	Endurant XD Pro (Includes clutch release yoke) (Note 1, 3)	3 years / 300,000 Miles (480,000 km)
Clutch Release Bearing	Clutch release bearing for Endurant	2 years / 200,000 Miles (320,000 km)
Clutch Release Yoke	Endurant HD / XD / XD Pro Transmission Families	Same as Endurant Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as UltraShift PLUS Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift PLUS Models (Note 1)	3 years / Unlimited Mileage



Construction

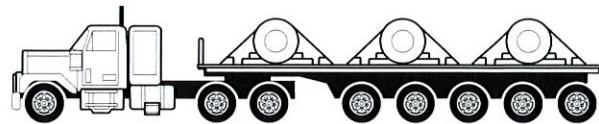
Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Precision transmissions require the use of PS-278 approved lubricants (Refer to Lubrication Manual, TCMT0021). Precision transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 3: Refer to "Extended Protection Plan Matrix" section on www.eatoncummins.com.

Note 4: Off-Road operations (Class D roads) prohibited, straight truck with dump bodies are excluded.

Heavy Haul



Heavy Haul

- Movement of heavy equipment or materials at legal maximums or special permit loadings, typically with GCW at or above 140,000 lbs.
- Operation on road surfaces of concrete, asphalt and maintained gravel.
- High horsepower engines and auxiliary gear boxes might be used.
- Vehicles may be equipped with two retarders.
- 100% load going and empty return.

Typical Vehicle Types

Equipment Hauling

Lowboy

Steel Hauling

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines

(For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	Endurant XD (GCWR limited to 166,000 lbs [75.5mt]) (Note 1, 2) (Includes clutch release yoke)	3 years / 300,000 Mile (480,000 km)
	Endurant XD Pro (Note 1, 2) (Includes clutch release yoke)	3 years / 300,000 Mile (480,000 km)
	UltraShift <i>PLUS</i> VXP, MHP, MXP Excludes Clutch & LCIB (Note 1, 2)	2 years / Unlimited Mileage
	Fuller Advantage Automated, SmartAdvantage 10-C Excludes Clutch and LCIB (Note 1, 2)	2 years / Unlimited Mileage
Clutch Release Bearing	Clutch release bearing for Endurant	2 years / 200,000 Miles (320,000 km)
Clutch Release Yoke	Endurant XD / XD Pro Transmission Families	Same as Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift PLUS Models (Note 1)	2 years / Unlimited Mileage

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Refer to "Extended Protection Plan Matrix" on www.eatoncummins.com



Linehaul

Vocational Description:

- Linehaul is moving different types of freight in high mileage operation [over 50,000 miles (80,000 km) / year].
- Operation on road surfaces of good to excellent concrete or asphalt.
- 80% of distances are more than 30 miles between starting and stopping with remaining 20% being within 30 miles between starting and stopping.
- Typical vehicle configurations are 4X2, 6X2, and 6X4 tractor / trailer combinations and straight trucks.

Typical Vehicle Types

Auto Hauler	Flatbed Trailer	Livestock Hauler	Tanker
Bulk Hauler	General Freight	Moving Van	Triples
Doubles	Grain Hauler (grain hopper/bottom dump trailers)	Refrigerated Freight	Regional Hauler

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	Procision (Note 2, 3)	3 years / Unlimited Mileage
	Endurant HD 11-Speed Automated (Includes clutch release yoke) (Direct drive) (Notes 1, 3)	5 years / 750,000 Miles (1,200,000 km)
	Endurant HD 12-Speed Automated (Overdrive) C-Ratio (Includes clutch release yoke) (Note 1)	5 years / 750,000 Miles (1,200,000 km)
	Endurant HD V Automated (Includes clutch release yoke) (Note 1)	5 years / 750,000 Miles (1,200,000 km)
	Endurant XD (Note 1, 3) (Includes clutch release yoke)	5 years / 750,000 Miles (1,200,000 km)
	Endurant XD Pro (Note 1, 3) (Includes clutch release yoke)	5 years / 750,000 Miles (1,200,000 km)
	Fuller Advantage SmartAdvantage 10-C Excludes Clutch and LCIB ((Note 1, 3))	5 years / 750,000 Miles (1,200,000 km)
	UltraShift PLUS MHP, MXP Excludes Clutch & LCIB (Note 1, 3)	5 years / 500,000 Miles (800,000 km)
Clutch Release Bearing	UltraShift PLUS VCS, VMS, VXP Excludes Clutch & LCIB (Note 1, 3)	3 years / 300,000 Miles (480,000 km)
	Clutch release bearing for Endurant	3 years / 350,000 Miles (560,000 km)
Clutch Release Yoke	Endurant HD / XD / XD Pro Transmission Families	Same as Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift PLUS Models (Note 1)	3 years / Unlimited Mileage

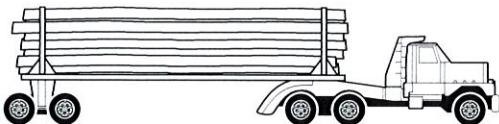
Linehaul



Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Precision transmissions require the use of PS-278 approved lubricants (Refer to Lubrication Manual, TCMT0021). Precision transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 3: Refer to "Extended Protection Plan Matrix" section on www.eatoncummins.com.



Logging

- Movement of logs, chips, and pulp between logging sites and / or mills.
- High horsepower engines and multiple retarders are typically used in this vocation.
- 3 to 30 miles between starts and stops (typical).
- 90% of loaded operation on road surfaces of concrete, asphalt, maintained gravel, crushed rock or hard packed dirt and up to 10% of loaded operation into sandy or muddy job sites.
- Vehicles operating less than 90%, refer to Specialized Applications “Off-Highway” coverages.
- 100% load going and empty return.

Typical Vehicle Types

Log Hauler

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines

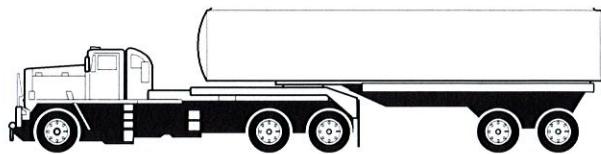
(For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	UltraShift <i>PLUS</i> VCS, VMS, VXP, LAS, MHP, MXP Excludes Clutch & LCIB (Note 1, 2)	2 years / Unlimited Mileage
	Fuller Advantage Automated EA3 Excludes Clutch and LCIB (Note 1, 2)	2 years / Unlimited Mileage
	Endurant HD V Automated (Includes clutch release yoke) (Note 1, 2)	2 years / Unlimited Mileage
	Endurant XD Pro (Note 1, 2) (Includes clutch release yoke)	2 years / Unlimited Mileage
Clutch Release Bearing	Clutch release bearing for Endurant	2 years / 200,000 Miles (320,000 km)
Clutch Release Yoke	Endurant XD Pro Transmission Families	Same as Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift <i>PLUS</i> Models (Note 1)	2 years / Unlimited Mileage

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Refer to "Extended Protection Plan Matrix" on www.eatoncummins.com

Oil Field



Oil Field

- Movement of production related products, supplies, and tools between job sites.
- Movement of processing equipment and laboratories on job sites.
- Low mileage operation on road surfaces made of concrete, asphalt, maintained gravel, crushed rock or hard packed dirt.

Typical Vehicle Types

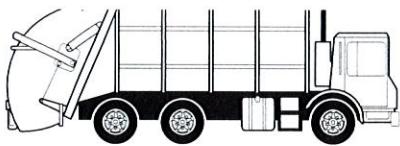
Cementing Vehicle	Drill Rig	Geophysical Exploration	Winch Truck
Demolition	Fracturing Truck	Tanker	

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	UltraShift <i>PLUS</i> VCS, VMS, VXP, LAS, MHP, MXP Excludes Clutch & LCIB (Note 1, 2)	2 years / Unlimited Mileage
	Fuller Advantage Automated, SmartAdvantage 10C Excludes Clutch and LCIB (Note 1, 2)	2 years / Unlimited Mileage
	Endurant HD V Automated (Includes clutch release yoke) (Note 1, 2)	2 years / Unlimited Mileage
	Endurant XD Pro (Note 1, 2) (Includes clutch release yoke)	2 years / Unlimited Mileage
Clutch Release Bearing	Clutch release bearing for Endurant	2 years / 200,000 Miles (320,000 km)
Clutch Release Yoke	Endurant XD Pro Transmission Families	Same as Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift <i>PLUS</i> Models (Note 1)	2 years / Unlimited Mileage

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Refer to "Extended Protection Plan Matrix" on www.eatoncummins.com



Refuse

Vocational Description:

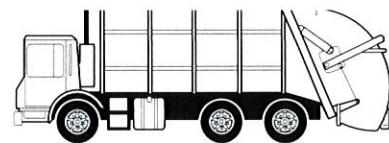
- Vehicles used for residential refuse / recycle pickup, typically a high number of stops per mile.
- Vehicles operated in commercial / industrial pickup, typically a low number of stops per mile.
- Vehicles used in transfer / relocation, typically greater than 10 miles per trip.
- 90% of loaded operation on road surfaces of concrete, asphalt, or maintained gravel and up to 10% of loaded operation into landfill, transfer or recycling sites.
- Vehicles operating less than 90%, refer to Specialized Applications "Off-Highway" coverages.

Typical Vehicle Types

Sewer / Septic / Waste Transfer Vehicle

Residential/ Commercial Pickup Scrap Truck
(Roll-Off)

Note: Continuous stop and go (door-to-door) applications are not approved for any automated transmission.



Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

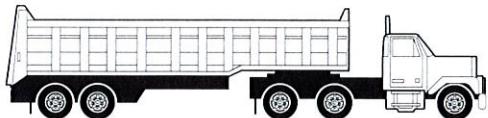
Product	Model	Warranty Coverage
Transmissions	Procision (Note 2, 3)	3 years / Unlimited Mileage
	UltraShift PLUS VCS, VMS, VXP, MHP, MXP Excludes Clutch & LCIB (Note 1, 3)	2 years / Unlimited Mileage
	Fuller Advantage Automated, Smart Advantage 10-C Excludes Clutch & LCIB (Note 1, 3)	3 years / Unlimited Mileage
	Endurant HD 12-Speed Automated (Over-drive) (Note 1, 3, 4) (Includes clutch release yoke)	3 years / 300,000 Miles (480,000 km)
	Endurant HD V Automated (Includes clutch re- lease yoke) (Note 1, 3, 4)	3 years / 300,000 Miles (480,000 km)
	Endurant XD (Note 1, 3, 4) (Includes clutch release yoke)	3 years / 300,000 Miles (480,000 km)
	Endurant XD Pro (Note 1, 3) (Includes clutch release yoke)	3 years / 300,000 Miles (480,000 km)
Clutch Release Bearing	Clutch release bearing for Endurant	2 years / 200,000 Miles (320,000 km)
Clutch Release Yoke	Endurant HD / XD / XD Pro Transmission Families	Same as Endurant Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as UltraShift PLUS Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift PLUS Models (Note 1)	3 years / Unlimited Mileage

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Procision transmissions require the use of PS-278 approved lubricants (Refer to Lubrication Manual, TCMT0021). Procision transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 3: Refer to "Extended Protection Plan Matrix" section on www.eatoncummins.com.

Note 4: Off-Road operations (Class D roads) prohibited, straight truck with dump bodies are excluded.



Mining

- Movement of rock, ore, gravel, and minerals between mine site and delivery site on a fixed, repetitive route.
- High horsepower engines are typically used in this vocation.
- A cyclic route with less than 8 hour turn around.
- 90% operation on-highway and up to 10% into sandy or muddy job site. Vehicles operating less than 90%, refer to Specialized Applications "Off-highway" coverages.
- 100% load going and empty return.

Typical Vehicle Types

Bottom Dump Trailer Semi-End Dump
Hopper Trailer Combinations Side Dump Trailer

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	Endurant HD V Automated (Includes clutch release yoke) (Note 1, 2)	2 years / Unlimited Mileage
	Endurant XD Pro (Note 1, 2) (Includes clutch release yoke)	2 years / Unlimited Mileage
Clutch Release Bearing	Clutch release bearing for Endurant	2 years / 200,000 Miles (320,000 km)
Clutch Release Yoke	Endurant XD Pro Transmission Families	Same as Transmission Coverage

Note 1: All transmission models require the use of a Roadranger approved lubricant. Automated transmissions and transmissions with Purchased Extended Protection Plans must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Contact your OEM for details. Refer to "Extended Protection Plan Matrix" on www.eatoncummins.com.

Specialized Applications

Specialized Applications

School Bus

- Transporting students to and from school and /or school related events.
- Operation on road surfaces made of concrete, asphalt, maintained gravel, crushed rock, hard packed dirt, or other similar surfaces.

Typical Vehicle Types

Front Engine Commercial Chassis	Rear Engine Integral Coach
Front Engine Integral Coach	Rear Engine Commercial Chassis

Yard Tractor

- Moving and spotting trailers and containers around freight terminals, port facilities, and warehouses (short distances).
- Operation on well maintained concrete, asphalt, or gravel surfaces at yards, terminals, or docks.

Typical Vehicle Types

Load-On/ Load-Off	Roll-On/Roll-Off	Stevedoring Tractor	Yard Jockey
Port Tractor	Rail Yard Spotter	Trailer Spotter	

Rescue Vehicle

- Specialized vehicles for rapid acceleration to crash sites away from hydrant hookups.
- Airport rescue is the most common.
- Low mileage operation.

Typical Vehicle Types

Airport Rescue Fire (ARF)	Emergency Service
Crash Fire (CFR)	Rapid Intervention Vehicle (RIV)

Recreation Vehicle

- A privately owned recreational vehicle.
- Truck chassis based
- Bus chassis based

Typical Vehicle Types

Recreational Vehicles	Motor Homes Class A
Racecar Toter	Super C Motorhome

Fire Service

- Pumpers, tankers, or aerial ladders used in fighting structural fires.
- Low mileage operation.

Typical Vehicle Types

Ambulance	Aerial Platform	Tanker Truck
Aerial Ladder Truck	Pumper	

Transit Coach

- Transporting people and sometimes light freight between cities and/or suburban areas.
- Transporting people in and around city or suburban areas.

Heavy Haul Military

- Vehicles often operate under extreme conditions of load, weight, road conditions and grade

Typical Vehicle Types

Equipment Hauling

Off-Highway

- Operation exceeding 10% of the time on unimproved surfaces such as loose dirt, mud, and sand.

Industrial Equipment

- Non-vehicle applications such as generator sets, winches, and cranes.

InterCity Bus

- Transporting people and sometimes light freight between cities and/or suburban areas.
- Transporting people in and around city or suburban areas.

Typical Vehicle Types

Airport Shuttle	Trolley
City Bus	Shuttle Bus

Specialized Applications

Agriculture

Vocational Description:

- Vehicles used in the agriculture industry. Use typically involves transportation of agricultural & dairy products to/from/on/around farm sites
- Includes operation off of improved surfaces while on the farm.

Typical Vehicle Types

Milk Tankers for Farm Pickup	Feed Trucks (No feedlot, spreader or open field operations)	Grain Silage, and Hay Haulers (No feedlot, spreader or open field operations)
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Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines (For U.S. and Canada Only)

Product	School Bus	Yard Tractor	Rescue Vehicle	Fire Service	Transit Coach	Off Highway	Industrial Equipment	Recreational Vehicle	InterCity Bus	Agriculture	Heavy Haul Military
Procision (Note 2, 3)	5 year / Unlimited Miles	N/A	N/A	N/A	N/A	N/A	N/A	3 year / Unlimited Miles	3 year / Unlimited Miles	N/A	N/A
Endurant HD (Includes clutch release yoke) (Note 1, 3, 4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 year / 300,000 Miles (480,000 km)	N/A
Endurant HD V Automated (Includes clutch release yoke) (Note 1, 3, 4)	N/A	N/A	N/A	N/A	N/A	2 year / Unlimited miles	N/A	3 year / 300,000 Miles (480,000 km)	N/A	3 year / 300,000 Miles (480,000 km)	N/A
Endurant XD (Includes clutch release yoke) (Note 1, 3, 4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 year / 300,000 Miles (480,000 km)	N/A	3 year / 300,000 Miles (480,000 km)	N/A
Endurant XD Pro (Includes clutch release yoke) (Note 1, 3)	N/A	N/A	3 year / 300,000 Miles (480,000 km)	3 year / 300,000 Miles (480,000 km)	N/A	2 year / Unlimited miles	N/A	3 year / 300,000 Miles (480,000 km)	N/A	3 year / 300,000 Miles (480,000 km)	N/A
Electronic Clutch Actuator	N/A	N/A	Same as Transmission	Same as Transmission	Same as Transmission	Same as Transmission	N/A	Same as Transmission	Same as Transmission	Same as Transmission	Same as Transmission
Endurant Clutch Release Bearing	N/A	N/A	2 year / 200,000 mile (320,000 km)	2 year / 200,000 mile (320,000 km)	N/A	2 year / 200,000 mile (320,000 km)	N/A	2 year / 200,000 mile (320,000 km)	N/A	2 year / 200,000 Mile (320,000 km)	N/A
Clutch Release Yoke	N/A	N/A	Same as Transmission	Same as Transmission	N/A	Same as Transmission	N/A	Same as Transmission	N/A	Same as Transmission	N/A
UltraShift PLUS LST, LHP AutoShift (Note 1, 3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5 years/ Unlimited Miles	N/A	N/A	N/A

Specialized Applications

Product	School Bus	Yard Tractor	Rescue Vehicle	Fire Service	Transit Coach	Off Highway	Industrial Equipment	Recreational Vehicle	InterCity Bus	Agriculture	Heavy Haul Military
Transmission UltraShift <i>PLUS</i> Models (Note 1, 3)	N/A	N/A	VCS, VMS, VXP, LAS, MHP 3 year / Unlimited Miles	VCS, VMS, VXP, LAS, MHP 3 year / Unlimited Miles	LAS, LSE, MXP, MHP, VCS, VMS, VXP 3 year / Unlimited Miles	VCS, VMS, VXP, LAS, MHP 2 year / Unlimited Miles	N/A	MXP, LAS, LSE, VCS, VMS, VXP 3 years/ Unlimited Miles ***** MHP 5 years/ Unlimited Miles	N/A	VCS, VMS, VXP, LAS, MHP 2 year / Unlimited Miles	FO-22E318A-VXP 1 year Manufacturing Defects Only
Oil-to-Water Heat Exchangers All UltraShift <i>PLUS</i> Models (Note 1)	N/A	N/A	3 year / Unlimited Miles	3 year / Unlimited Miles	3 year / Unlimited Miles	2 year / Unlimited Miles	N/A	3 year / Unlimited Miles	N/A	2 year / Unlimited Miles	1 year / Unlimited Miles

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty. All UltraShift *PLUS* model coverage excludes the clutch and LCIB.

Note 2: Precision transmissions require the use of PS-278 approved lubricants (Refer to Lubrication Manual, TCMT0021). Precision transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 3: Refer to "Extended Protection Plan Matrix" section on www.eatoncummins.com.

Note 4: Off-Road operations (Class D roads) prohibited, straight truck with dump bodies are excluded.

International Coverage

International Coverage

International Description:

- Service of the vehicle meeting the types and applications that were approved by Eaton Cummins Automated Transmission Technologies Application Approvals guidelines. Refer to International and Export Warranty Coverage definition found in this manual.

Typical Vehicle Types

All vehicle types and applications that meet Eaton Cummins Automated Transmission Technologies Application Approvals guidelines and approvals.

Warranty Coverage for Vehicles Meeting Vocation Definitions and Application Guidelines

(For U.S. and Canada Only)

Product	Model	Warranty Coverage
Transmissions	Procision (Note 2)	1 year / 150,000 Kilometers
	Endurant HD 12-Speed Automated (Over-drive) C-Ratio (Includes clutch release yoke) (Notes 1)	1 year / 150,000 Kilometers
	Endurant XD (Note 1) (Includes clutch release yoke)	1 year / 150,000 Kilometers
	Endurant XD Pro (Note 1) (Includes clutch release yoke)	1 year / 150,000 Kilometers
	UltraShift <i>PLUS</i> VCS, VMS, VXP, MHP, MXP Excludes Clutch & LCIB (Note 1, 3)	1 year / 150,000 Kilometers
	UltraShift <i>PLUS</i> LAS, VAS. Excludes Clutch and LCIB (Note 1, 3)	1 year / 150,000 Kilometers
Clutch Release Bearing	Fuller Advantage Automated, Smart Advantage 10-C Excludes Clutch and LCIB (Note 1)	1 year / 150,000 Kilometers
	Clutch release bearing for Endurant	1 year / 150,000 Kilometers
Clutch Release Yoke	Endurant HD/XD/XD Pro Transmission Families	Same as Transmission Coverage
Electronic Clutch Actuator	Electronic Clutch Actuator	Same as Transmission Coverage
Oil-to-Water Heat Exchangers	All UltraShift <i>PLUS</i> Models (Note 1)	1 year / 150,000 Kilometers

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans and transmission with Oil-to-Water Heat Exchangers must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated and serviced with the approved applications and country. Those that do not will void their warranty. Warranty coverage is limited to and claims will not exceed the standard OEM warranty coverage for a given country.

Note 2: Procision transmissions require the use of PS-278 approved lubricants (Refer to Lubrication Manual, TCMT0021). Procision transmission models must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated and serviced with the approved applications and country. Those that do not will void their warranty. Warranty coverage is limited to and claims will not exceed the standard OEM warranty coverage for a given country.

Service / Aftermarket Parts Warranty Coverage

Eaton Cummins - Service / Aftermarket Parts Warranty Coverage - U.S. and Canada Only

The following warranty coverages apply for all genuine Eaton Cummins Automated Transmission Services service/aftermarket parts, subcomponents, and complete components (subject to the exceptions, notes, and definitions stated therein):

Product Supplied	Warranty Term	Exceptions
Service / Aftermarket Parts (Note 1)	12 months / Unlimited Mileage (km)	- Parts and Labor*
New Procision Transmissions (Note 2)	36 months / Unlimited Mileage (km)	- Excludes Output Shaft Seals - Parts and Labor*
Procision REMAN (Note 2)	12 months / Unlimited Mileage (km)	- Excludes Output Shaft Seals - Parts and Labor*
New Endurant HD Exchange Transmissions (Note 1)	36 months / Unlimited Mileage (km)	- Excludes Output Shaft Seals - Parts and Labor* (Excludes clutch release bearing and yoke)
New Endurant XD Exchange Transmission	24 months / Unlimited Mileage (km)	- Excludes Output Shaft Seals - Parts and Labor* (Excludes clutch release bearing and yoke)
Endurant HD REMAN Transmission (Note 1)	24 months / Unlimited Mileage (km)	- Excludes Output Shaft Seals - Parts and Labor* (Excludes clutch release bearing and yoke)

Note 1: All transmission models require the use of a Roadranger approved lubricant. ALL Automated transmissions, transmissions with Purchased Extended Protection Plans, excluding Procision, must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification (Refer to Lubrication Manual, TCMT0021.) All transmission models must meet Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Note 2: Procision transmissions require the use of PS-278 approved lubricants. All transmission models must meet Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

* Parts and Labor will be reimbursed for warranty repairs performed through OEM or Eaton Cummins approved channel.

Exceptions

If a non-warrantable failure occurs within the Standard warranty coverage period, and the customer purchases a new Eaton Cummins Exchange Transmission to complete the repair; warranty coverage shall be the remainder of the original warranty period, or the coverage period of the new Exchange, whichever is greater. If an Eaton Cummins Remanufactured Transmission is purchased to complete a non-warrantable repair during the Standard warranty period, warranty coverage shall be the coverage period of the Eaton Cummins Remanufactured Transmission.

If a non-warrantable failure occurs within the Extended Warranty coverage period, and the customer purchases a genuine New Exchange Transmission or an Eaton Cummins Remanufactured transmission to complete the repair; warranty coverage shall be the remainder of the original warranty period, or the defined coverage period of the purchased replacement transmission, whichever is greater.

If a non-warrantable failure occurs during the Original warranty period (Standard or Extended) and the customer purchases genuine Eaton Cummins service/aftermarket parts to complete the repair; the warranty coverage period of the service/aftermarket parts shall be one year from the date of installation. Remaining parts and subcomponents, which were not replaced at the time of the non-warrantable repair, shall maintain the coverage of the original warranty period.

See the "Repair or Replacement Guidelines" section for replacement matrix.

Service / Aftermarket Parts Warranty Coverage

Definitions

Standard Warranty - The base warranty coverage, offered to all purchasers of a product. It is sometimes called, "the OEM warranty period."

Extended Warranty - Additional coverage, which becomes effective when the Standard warranty period ends. Usually, there are other requirements for eligibility and, in some cases; a service charge must be paid to purchase the coverage.

Original Warranty - The total warranty coverage for which a product is eligible. A combination of the Standard and Extended Warranty periods.

Notes

- Warranty coverages for genuine Eaton Cummins service / aftermarket parts, subcomponents, and complete components commence on the date of retail sale.
- Warranty coverages, stated herein, apply only to genuine Eaton Cummins service / aftermarket parts, subcomponents, and complete components, which are purchased by the customer at normal retail prices.
- Warranty coverages, stated herein, do not apply to genuine Eaton Cummins service / aftermarket parts, or subcomponents for which Eaton Cummins has contributed, to any extent, to the purchase and/or installation by full or partial reimbursement in the form of check, coupon, or no charge parts to the customer as a goodwill or policy transaction. Such service/aftermarket parts shall be covered for a period of ninety (90) days from the date of installation. Remanufactured transmission and New Exchange transmissions provided as the result of a good will or policy transaction are warranted for 12 months from the installation date.
- To continue warranty coverage, the purchased component model must be the same as the failed component model, unless substitution is authorized by Eaton Cummins.
- All other Eaton Cummins warranty exclusions and limitations apply to the coverages stated herein and within the "Limits and Exclusions" section. Special Aftermarket programs and products not listed in this manual have warranty parameters and requirements specified individually per released documentation.
- New / Remanufactured / Part Product warranty starts the date of RETAIL Sale when used in Glider Kits and vehicle refurbishing. IF a product is transferred to a Glider Kit or a vehicle / chassis other than the original vehicle / chassis, the warranty of the transferred product is VOID.

Extended Protection Plan (EPP)

Extended Protection Plan Requirements

Eaton Cummins Extended Protection Plans, offerings, cost, and additional information are available on Eaton.com. Limits and Exclusions as identified in the "Limits and Exclusions" of this manual apply to the Extended Protection Plan in addition to the details communicated in the below details and the details published on eaton.com for the Extended Protection Plans.

- Application for purchased warranty must be made within one (1) year of the in-service date of the vehicle.
- A vehicle or component may not be registered if it has exceeded:
 - Transmission - the time of the Eaton Cummins published standard warranty.
- Extended warranty is only available for the eligible models listed or referenced herein.
- Warranty applies only to transmissions installed in vehicles as original equipment.
- An Eaton Cummins approved synthetic lubricant must be used. Lubricant must be changed per Eaton Cummins prescribed maintenance schedules (Reference Eaton publication TCMT0021). Lube change records might be requested for verification purposes.
- Transmission oil temperatures must be maintained per Eaton publication TCMT0021.
- Warranty applies exclusively to vehicles licensed and operating in the United States of America or Canada.
- Warranty is transferable to only one subsequent vehicle owner. Warranty is only transferable within the same vehicle vocation. Changing vehicle vocations voids the warranty coverage.
- Re-rating engine torque above the approved torque capacity of the component voids the warranty coverage. Dealer/ Purchaser shall be responsible for verifying the engine torque does not exceed the torque capacity of the drivetrain.
- Warranty covers parts and labor per Eaton Cummins established guidelines.
- Oil to water heat exchangers are not covered under the Eaton Cummins Extended Protection Plans.
- Reference other sections of this manual for time and mileage examples and warranty information, requirements, limits, and exclusions.

For complete information on requirements, limitations or exclusions available warranty coverages, warranty claim filing procedures, and authorized repair times, reference the sections of this warranty manual and Extended Purchase Plan details available on eaton.com or contact the Eaton Call Center at 1-800-826-HELP (4357).

Note: Automated Heavy-Duty transmissions and transmissions with Purchased Extended Protection Plans must use Roadranger Synthetic Lubricant meeting Eaton PS-386 specification & Precision transmissions require the use of PS-278 approved lubricants. (Refer to Lubrication Manual, TCMT0021.) All transmission must meet and have Eaton Cummins Engineering Application Approval prior to sale to qualify for any warranty coverage, and then be operated in the approved applications. Those that do not will void their warranty.

Lubricant Specifications

Transmission Lubricants

Eaton Cummins recommends the Use of Eaton Lubricants for Extended Drain. Transmission Product Families must meet the Lubrication Specification to qualify for Eaton Cummins Automated Transmission Technologies' Warranty Coverage.

Lubrication References:

- Transmission lubricant documents with specifications are available on Eaton.com.
 - Eaton Lubrication Manual TCMT0021
 - Eaton Lubrication Suppliers TCMT0020

Transmission Oil Filters

- Transmission filters should be changed during regular lube intervals.
- Inspection of the external transmission filter should be conducted during preventative maintenance checks for damage or corrosion. Replace as necessary.

Automated Heavy-Duty Transmission Product Families

Product Family	Synthetic or Mineral	Lubricant Specification	Change Interval for Linehaul	Change Interval for Vocational / Bus
AutoShift UltraShift <i>Plus</i> Fuller Advantage SmartAdvantage	Synthetic	PS-386	500,000 miles [800,000 Km] or 5 years	180,000 miles [288,000 Km] or 3 years (mobile applications) 2,000 hours or 5 years (stationary applications)
Endurant HD	Synthetic	PS-386	750,000 miles [1,200,000 Km] or 5 years	250,000 mi (400,000 km) or 3 years
Endurant XD Series	Synthetic	PS-386	500,000 miles [800,000 Km] or 5 years	250,000 mi (400,000 km) or 3 years (mobile applications) 2,500 hours or 3 years (stationary applications)

Procision Transmission Product Family

Product Family	Synthetic or Mineral	Lubricant Specification	Change Interval for Linehaul	Change Interval for Vocational
Procision	Synthetic	PS-278	150,000 miles [250,000 Km] or 10 years	150,000 miles [250,000 Km] or 10 years

Change Control Log

Change Control Log

Last Revised Date	Description of Clarifications and Updates
October 2025	Added Endurant HD V warranty information
September 2025	Small wording change in Warranty Statement Claims Procedure
August 2025	Added pivot pin SRT 0.1. Provided clarification on the use of SRT's when an Eaton claim exists
May 2025	Wording Change Labor Guidelines
March 2025	Aligned service repair times with Endurant series service bulletins. Updated UltraShift PLUS refuse warranty coverage to align with offerings.
January 2025	Endurant transmission R&R from 4.9 hrs to 3.4 hrs. Added optional Cooler and Cooler Line R&R SRT for Endurant XD / XD Pro.
October 2024	Added Transmission Air Supply Pressure Sensor (TASPS) to Endurant In-Chassis Repairs
August 2024	Updated SRT's
June 2024	Updated SRT's
April 2024	Lowered MTM Labor SRT by 0.8 hours from time study completed
January 2024	Updated web addresses, removed redundancies in warranty coverage tables
December 2023	Added/Updated Endurant XD Coverage in Warranty Tables
February 2023	Added Precision REMAN Coverage Edited Services / Aftermarket Parts Warranty table for ease of readability
November 2022	Added "MTM Rail Cover Capscrew Tightening" to Labor Guidelines
July 2022	Published the Endurant XD and XD Pro coverages. Updated the diagnostics SRT Times to remove the 1 hour pre-diagnostics (hook up breakout box in specific diagnostics) from the time assigned to the Fault Code diagnostics. Update the Endurant Family Transmission Overhaul time due to improved service tools and availability of product training.
May 2021	Added Endurant REMAN Coverage
February 2021	Added Emissions Component Warranty Statement section
December 2019	Added Endurant Transmission vocations/applications and Endurant Clutch Warranty Updated clutch bearing
June 2019	Updated Pickup and Delivery section.
February 2019	Published the Eaton Cummins Automated Transmission Technologies Warranty Manual.

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