



CAT® CUSTOMER VALUE AGREEMENT (CVA) CONTRACT INFORMATION

Schedule 3 | New Machine Equipment Protection Plan (EPP)

Overview

This Schedule defines the New Machine Equipment Protection Plan (EPP) Program available through this Customer Value Agreement (CVA) for new machines with Standard Machine Warranty.

This Schedule defines the Powertrain, Hydraulic, and Technology components that are covered under new equipment programs offered through this CVA.

Powertrain components produce, transmit, or control engine horsepower for the purpose of propelling (moving) the equipment.

Hydraulic components are the components on equipment that are associated with steering and implement control.

Technology components are certain components on the equipment that are associated with Cat Connect Productivity Solutions: Compact, Grade, Link, and Payload. The following Cat Minestar System technology is covered: Terrain.

EPP provides dealer reimbursement for parts and/or labor for covered defects in Cat material and manufacturer workmanship. Repairs must be completed by a Cat authorized dealer.

Coverage for defects in Caterpillar material and manufacturer workmanship as defined by this Schedule means the failure of any original or Cat approved replacement part to work as designed in normal service, providing proper maintenance was received as recommended in the applicable Caterpillar manuals, including the Operation and Maintenance Manual (OMM) and other applicable service literature. Mechanical breakdown means the failure of any original or replacement part covered by this Schedule to work as it was designed in normal service, providing it has received customary maintenance as recommended by the manufacturer. Any mechanical breakdown and resultant damage caused by failure of a non-covered component (including Yellowmark™, Cat® General Duty, and Classic™ brand parts) are not eligible.

EPP & Standard Factory Warranty Coverage Terms

EPP provides coverage beyond Standard Machine Warranty for parts and labor. The coverage term for the New Machine EPP starts from the product delivery date and includes the standard machine warranty. Coverage under the EPP Program does not change the standard machine warranty. The EPP expires when the length of time (measured in months) or the machine hour usage is reached, whichever comes first. Your CVA specifies the applicable EPP month and hour limit.

Emissions Components

In the United States, Canada, Virgin Islands, Puerto Rico, and South Korea certain parts and/or components may qualify for Manufacturer Emissions Warranty in accordance with the United States Environmental Protection Agency (US EPA) and the California Air Resources Board (ARB). The South Korea Clean Air Conservation Act requires Caterpillar to provide an emission warranty to end users for engines used in certain construction equipment operated and repaired in South Korea.

Contact your dealer for more details regarding the Manufacturer Emissions Warranty and the claiming procedures for emissions components.

Unless otherwise specified, upon expiration of the Manufacturer Emissions Warranty, certain parts are included in EPP and covered for defects in material and workmanship according to the normal EPP guidelines.

Coverage for Parts Replaced or Repaired Under EPP

New, remanufactured, or Caterpillar approved replacement parts provided under the terms of this EPP are warranted for the remainder of the EPP period applicable to the product in which installed as if such parts were original components of that product. The parts warranty on replaced or repaired parts ceases when the EPP coverage expires.

Wear-out and Extent of Coverage

Wear-out and/or deterioration of any component are not covered by EPP.

The intent is not to restore the product to a “like new” condition, but rather to restore the product to its operating condition just prior to the covered failure. EPP covers only the repair or replacement of the failed component and any resultant damaged parts. Other parts removed in the process of repair will be reinstalled as is, unless the customer authorizes and funds any additional replacement cost.

Example: While performing an EPP repair for a piston ring failure, the dealer service technician notices the v-belts and coolant hoses are worn and deteriorated. The service technician also notices some wear (within acceptable limits) on the cylinder head valve guides. In addition to the piston ring failure, the service technician replaces the v-belts and coolant hoses and reconditions the valve guides to avoid future downtime.

In this example the v-belts, coolant hoses and valve guide reconditioning cannot be claimed under EPP because they did not have a defect, nor were they damaged as a result of the piston ring failure. They were repaired or replaced as a result of the Customer Responsibilities for assuring all recommended preventive maintenance is performed.

NOTE: If the piston ring failed due to abuse (such as operating without changing oil at the proper interval), the ring failure and resultant damage would not be due to a Caterpillar defect and therefore is not a covered failure.

Example: While performing a Hydraulic EPP repair of a leaking bucket cylinder, the dealer service technician notices the hydraulic hoses have cuts from falling rocks. The service technician also notices some wear (within acceptable limits) in the rod eye bearing. In addition to repairing the leaking bucket cylinder, the service technician replaces the hydraulic hoses and rod eye bearing to avoid future downtime.

In this example the hydraulic hoses and rod eye bearing cannot be claimed to Caterpillar because they did not have a defect, nor were they damaged as a result of the leaking bucket cylinder. They were repaired or replaced as a result of Customer Responsibilities for assuring all recommended preventive maintenance is performed.

NOTE: If the bucket cylinder seals failed due to abuse (damage to the cylinder rod from falling rocks), the repair of the leaking lift cylinder and resultant damage would not be due to a Caterpillar defect and therefore is not a covered failure.

Example: While performing a Hydraulic and Technology - EPP program repair of a defective position sensing cylinder, the dealer service technician notices the wiring harness has cuts from falling rocks. In addition to repairing the defective position sensing cylinder, the service technician replaces the wiring harness to avoid future downtime.

In this example the wiring harness cannot be claimed to Caterpillar because it did not have a defect nor was it damaged as a result of the defective position sensing cylinder. The wiring harness was repaired or replaced as a result of the Customer Responsibilities for assuring all recommended preventative maintenance is performed.

NOTE: If the position sensing cylinder failed due to abuse (damage to the cylinder from falling rocks), the repair of the position sensing cylinder and resultant damage would not be due to a Caterpillar defect and therefore is not a covered failure.

Customer Responsibilities

- Operating the product properly and within the limits of intended capacity and application as described in the OMM
- Fueling, lubricating, adjusting, operating, and maintaining the equipment as instructed by the dealer and in accordance with Schedule 2, the OMM, and any other dealer provided service literature
- Notifying the dealer promptly if a problem exists
- Promptly making the product available to the dealer for warranty repairs and product improvement programs to reduce further damage
- Assuring all recommended preventative maintenance is performed at the specified service intervals as described in the OMM. Preventative maintenance includes, but is not limited to, the servicing, adjusting and/or replacing of specified components

EPP does not cover failure of any components if Customer Responsibilities are not followed. The customer may be required to provide proof of compliance with the maintenance schedules at the time of a failure. Proof may include receipts, copies of work orders, or invoices showing the performed maintenance services.

General Exclusions and Limitations

EPP does not cover the following:

- Operator abuse, neglect, improper or abusive use of the equipment including, but not limited to, the failure to perform the recommended preventive maintenance as specified in the applicable Caterpillar manuals, including the Operation and Maintenance Manual (OMM) and other applicable service literature
- Claims related to applications not approved by Caterpillar as described in the OMM
- Operation beyond the design and/or capacity of the machine
- Wear-out and normal deterioration in performance, accelerated wear-out of components due to operating technique or application; including, but not limited to, oil consumption and gasket or seal leaks
- Chemical corrosion and physical or mechanical erosion
- Unauthorized fuel setting changes
- A mechanical breakdown caused by, or a result of, acts of war, vandalism, riot, theft, explosion, collision, fire and/or any other act of nature, person or vermin
- Operating equipment with improper, contaminated, or improper levels of fuel or fluids, or the use of improper filters
- Modifications, unless the modifications were authorized at the request of Caterpillar and performed at an approved repair facility
- Normally scheduled preventive maintenance or maintenance services including, but not limited to, valve lash adjustments and maintenance items including filters, fuel nozzles, fuel injectors, thermostats, and seals and gaskets
- Operating at performance settings other than the standard Caterpillar specification
- Physical damage to any product resulting from causes other than mechanical breakdown
- Any repairs if the service meter has been stopped or altered or misrepresents the equipment's actual usage
- Mechanical transportation or towing costs or field service travel expenses, unless Travel Equipment Protection Plan (Americas North, EAME) is purchased. See bulletin 8.04
- Loss of time, inconvenience, downtime or downtime-related expenses or other incidental or consequential loss that results from a defect in material or workmanship
- Any costs incurred to improve operating performance due to normal wear and tear
- Storage or miscellaneous shop supplies
- Freight
- Taxes
- Any cost covered by any warranty of the manufacturer including emissions warranty or repairer's guarantee regardless of whether the warranty or repairer's guarantee is honored
- Performance complaints including, but not limited to, adjustments to fuel settings or electronic unit injectors to comply with emissions standards under Environmental Protection Agency or similar national, federal, provincial or state law
- Any costs incurred for the manufacturer to comply with emissions standards under the Environmental Protection Agency or similar national, federal, provincial or state law
- Failure to use fuels and lubricants that meet or exceed the minimum specification requirements of the manufacturer as specified in the OMM or other technical bulletins

- Dealer rework or dealer workmanship issues relating to previous repairs
- Modifications including any reconfiguration of or addition to the equipment
- Failure of and resultant damage caused by attachments, implements, work tools and modifications, including both serialized or non-serialized Cat products added to the equipment. Examples include but are not limited to booms, sticks, buckets, screeds, winches, augers, ground engagements, hitches, etc. Separate and optional EPP coverage may be available for certain products outside of the scope of this EPP
- Non-serialized work tools and other attachments shipped with the equipment are generally excluded from EPP coverage unless specifically identified as covered components within applicable warranty statement
- Components or systems covered by other Caterpillar Warranty Statements and are therefore excluded from EPP. Examples include, but are not limited to:
 - Batteries
 - Cat Work Tools
 - Mobil-trac™ belts
 - Rubber track used on Compact Construction Equipment (CCE).
 - Machine Control & Guidance
 - Cat Tires
 - Service Tools and Supplies
 - Yellowmark™ & Cat® General Duty
 - Moving Undercarriage (Refer to bulletins 5.01 & 5.02)
 - Ground Engaging Tools (GET) (Refer to bulletin 4.03)
 - Long-Life Weld-On Landfill Compactor Plus Tip (Refer to bulletin 4.03)
- Components covered by any other Manufacturers' Warranty Statements and are therefore excluded from EPP. If an Original Equipment Manufacturer (OEM) other than Caterpillar has a warranty in place for the equipment, claims should be filed and settled with that OEM prior to submitting supplemental EPP claims. Examples include, but not limited to:
 - Other manufacturer tires
 - Other manufacturer hammers
 - Timberking™ Products
 - Forestry Work Tools
 - Ag Products
 - Trimble
- Adjustments diagnosed and completed in the absence of a defect in Cat material or manufacturer workmanship. Examples include, but are not limited to:
 - Tightening of lines/hoses
 - Cleaning/washing of any part, including cleaning of electrical connectors & glass lenses
 - Alignments or calibrations of any component
 - Securing electrical connections
 - Adjusting bolts/screws/clips/clamps/nuts/snap rings/o-rings/shims/washers/pins
 - Decreasing panel gaps
 - Application or addition of lube oils/grease/glue/seals/thread lock/coolant/air conditioner refrigerant
 - Linkage adjustments
 - Battery recharge, software reboot, reset of circuit breakers

Parts Book Component Codes

On most pages of all Cat Parts Manuals (paper or electronic), is printed a four-digit numeric Service Management Control System (SMCS) component code. These component codes are used to describe the area of primary use for the parts and/or components listed on that page.

Following are the SMCS component codes that Caterpillar considers part of EPP:

Powertrain Coverage:

► I. BASIC ENGINE		
Engine - components essential to engine operation		
1002 Power Pack	1007 Engine & Flywheel Clutch	1014 Engine & Output Drive Assembly
1017 Engine & Pump Drive	1020 Long Block	1025 Engine, Transmission, Cooling Pkg
Air Induction & Exhaust System		
105H High-Pressure Turbocharger	105L Low-Pressure Turbocharger	105P Precooler
1050 Air Induction & Exhaust System	1052 Turbocharger Group	1053 Turbocharger Cartridge
1056 Turbocharger Cartridge Housing	1057 Exhaust Bypass Valve	1058 Inlet Manifold
1059 Exhaust Manifold	106A Aftercooler Air Temperature Control (All Regions)	106B Intercooler
1060 Turbocharger Compressor Housing	1062 Muffler (wear out or physical damage related failures is not covered)	1063 Aftercooler Group
1064 Aftercooler Core	1065 Turbocharger Turbine Housing	1066 Turbocharger Thrust Plate Assembly
1069 Roots Blower	107P Air Pump	1070 Water Cooled Turbocharger
1071 Air line/Pipe (of the Air Inlet and Exhaust System)	1073 Turbocharger Heat Shield	1074 Positive Crankcase Ventilation Valve
1075 Diesel Oxidation Catalyst	1076 Differential Pressure Ratio Regulator	1077 Turbocharger Shaft & Wheel Assembly
1079 Aftercooler Intake Manifold	108B Combustion Body	108D Clean Emissions Module
1080 Exhaust Gas Recirculation System	1081 Boost Control Valve	1082 Exhaust Gas Recirculation Actuator
1084 Exhaust Gas Recirculation Switch	1085 Hydra-Mechanical Shutoff Control	1086 Hydra-Mechanical Shutoff Drive
1087 Air Inlet	1088 Exhaust Gas Valve	1092 Flame Arrestor
1094 Plenum	1096 Oxygen Sensor	
Cylinder Head Assembly – of the 1100 Assembly, EPP covers the following:		
	1101 Cylinder Head Casting	1102 Rocker Shaft Assembly
1103 Valve Seat/Insert	1104 Valve Guide	1105 Inlet/Exhaust Valve

1106 Prechamber/Nozzle Adapter	1107 Valve Cover	1108 Valve Spring
1109 Valve Rotator	1110 & 1111 Camshaft	
1112 Camshaft Bearing	1113 Camshaft Housing Assembly	1114 Spark Plug Adaptor
1115 Water Director	1117 Threaded Insert	1118 Compression Release
	1120 Valve Cover Base	1121 Valve Bridge
1123 Rocker Arm	1124 Cylinder Head Gasket	1125 Injector Sleeve
1126 Cylinder Head Manifold	1129 Engine Brake (of the Engine Brake Group)	
Front and Rear Covers		
1150 Front & Rear Covers	1162 & 1166 Cover/Housing	1155 Brakesaver Group
1156 Flywheel	1157 Flywheel Housing	1158 Flywheel Ring Gear
1159 Brakesaver Control Valve	1160 Crankshaft Front Seal	1161 Crankshaft Rear Seal
1162 Timing Gear Housing	1163 Timing Gear Housing Plate	1164 Engine Output Transfer Gear
1165 Engine Power Takeoff Drive	1166 Timing Gear Housing Cover	1167 Flywheel Housing Scavenge Pump
Short Block – of the 1200 Assembly, EPP covers the following:		
	1201 Cylinder Block	1202 Crankshaft
1203 Crankshaft Main Bearing	1204 Crankshaft Gear	1205 Crankshaft Damper/Pulley
1206 Timing/Accessory Gears	1207 Accessory Drive	1208 Push Rod
1209 Camshaft Roller/Follower/Lifter	1210 Camshaft	1211 Camshaft Bearing
1212 Camshaft Gear	1213 & 1214 Piston & Liner	
1215 Piston Rings	1216 Cylinder Liner	1217 Liner Seat/Insert
1218 Connecting Rod	1219 Connecting Rod Bearing	1220 Balancer
1221 Spacer Plate	1222 Cylinder Block Sleeve	1223 Cylinder Block Cylinder
1224 Cylinder Block Main Bearing Bores	1225 Piston & Connecting Rod	1230 Crankshaft Main & Rod Bearings
1231 Crankshaft Counterweight	1232 Crankshaft Thrust Plate	1233 Crankcase Explosion Relief Valve
1234 Idler Gear	1237 Engine Stub Shaft	1239 Cylinder Pack
1240 Block Underframe	1241 Timing Chain/Belt	1242 Pump Drive
Fuel System – of the 1250 system, EPP covers the following:		
125H High Pressure Fuel Pump		1251 Fuel Injection Pump
1252 Fuel Injection Lines	1253 Fuel Injection Pump Housing	1254 Fuel Injection Valve/Nozzle
1255 Fuel Transfer Pump Housing	1256 Fuel Transfer Pump	1257 Rack/Control Shaft

1259 Fuel Shutoff Solenoid	1264 Governor	1268 Speed Limiter
1269 Throttle	1272 Timing Advance	1275 Air Control Valve
1276 Decelerator/Accelerator	1278 Air/Fuel Ratio Control	1281 Fuel Injection Pump-Lifters
1282 LPG Fuellock Valve	1286 Injection Pump & Governor Group	1287 Governor Housing
1288 Fuel Pump/Governor Drive	1289 Hydraulic/Hydra-Mechanical Governor	1290 Unit Injector
1292 Fuel Camshaft	1295 Auxiliary Fuel Transfer Pump	1298 Unit Injector Control Linkage
1272 Hydraulic Timing Advance		
1703 Injector Control Shaft Lever	1704 Fuel Shutoff	1705 Variable Hp Control Valve/Solenoid
1711 Fuel Injection Line Adaptor	1712 Fuel Cooler	1713 Unit Injector Sleeve
1714 Unit Injector Hydraulic Pump	1715 Fuel Pressure Regulator Valve	1716 Governor Actuator
1718 Fuel Pressor Sensor	1719 Nozzle Cleaning Manifold	1723 Combustion Fuel Enable Solenoid
1741 Gas Air Fuel Ration Control Valve	1743 Spray Nozzle	1258 Fuel Priming Pump (Excluding maintenance items or wear out related failure. Does not include fuel filter)
Lubrication System		
130M Oil Metering Valve	1302 Engine Oil Pan Group	1304 Engine Oil Pump
1306 Engine Oil Filter Housing/Base (Excluding external Engine Oil Hoses & Lines)	1309 Turbocharger Lube Valve	1312 Oil Scavenge Pump
1313 Oil Pump Drive	1314 Oil Cooler Bypass Valve	1315 Oil Pressure Relief Valve
1319 Prelube Pump	1320 Turbocharger Oil Accumulator	1324 Engine Oil Sump Pump
1325 High-Speed Oil Change Group	1327 Engine Priority Valve	1329 Shutoff Valve
1330 Oil Temperature Regulator	1331 Piston Cooling Tube	1332 Oil Sequence Valve
1334 Engine Oil Level Regulator	1336 Oil Mist Detector	
Cooling System		
135D Coolant Diverter Valve	135V Thermostatic Valve	1355 Thermostat/Regulator
1357 V-Belt Pulley Assembly (Excluding maintenance items or wear	1356 Fan & Fan Drive	1358 Fan Belt Tightener

out related failure. Does not include serpentine V Belt).		
1359 Fan Drive Assembly	1361 Jacket Water Pump, Drive Group	1362 Water Manifold
1363 Aftercooler Water Pump	1364 Water Pump Impeller	1365 Brake Oil Cooler
1366 Brake/Torque Converter Cooler	1368 Retarder Cooler	1370 Cooling System Relief Valve
1371 Auxiliary Raw Water Pump	1373 Water Pump Housing	1374 Hydraulic Oil Cooler
1375 Powertrain Oil Cooler (replaced 3019)	1375 Torque Converter/Transmission Cooler	1376 Torque Converter Trans. & Hydraulic Cooler
1378 Engine Oil Cooler	1379 Heat Exchanger	1384 Water Pump Pulley
1385 Raw Water Pump Drive	1386 Hydraulic Fan Motor	1387 Hydraulic Fan Pump
1389 Water Pump Shaft	138R Fan Reversing Valve	1390 Auxiliary Fan Drive
Electric System		
1404 Generator	1406 Charging System (Note: Does not include Alternator or Alternator Group)	1411 Disconnect Switch
1412 Glow Plug	1416 Start Switch	1419 Series Parallel Switch
1424 Neutral Start Switch	1439 Sensor (of the Electrical and Starting System Group) Excluding Filter Group	
Starting System		
1469 Prelube Starter		
Ignition System		
1563 Combustion Sensor		
Electronic Drive & Control		
1611 Directional Switch Assembly	1613 Drive Axle Control Unit	
Engine Electronic Control (ECM) System – of the 1900 Assembly, EPP covers the following:		
	1901 Electronic Control Module (ECM)	1902 Ratings Personality Module
1904 Transducer Module	1905 Timing Position Sensor	1906 Water Temperature Sensor
1907 Engine Speed Sensor	1908 Electronic Governor	1909 Rack Solenoid
1910 Timing Solenoid	1911 Rack Position Sensor	1912 Engine Speed/Timing Sensor
1913 Throttle Speed Sensor	1914 Machine Speed Buffer	1915 Engine Speed Control

1916 Crankcase Pressure Sensor	1917 Boost Pressure Sensor	1918 Throttle Lock Control
1919 Exhaust Temperature Sensor	1920 Engine Software Flashing	1921 Inlet Air Temperature Sensor
1922 Fuel Temperature Sensor	1923 Atmospheric Pressure Sensor	1924 Engine Oil Pressure Sensor
1925 Injection Actuation Pressure Sensor	1926 Customer Communications Module (of the ECM System)	1927 Relay Electronic Control
1928 Atmospheric Temperature Sensor	1929 Engine Oil Temperature Sensor	192T Injection Actuator Temperature Sensor
1931 Engine & Hydraulic Pump Electronic Control Module	1940 Modulating Valve	1948 Dual Fuel Electronic Control Unit
► II. TRANSMISSION OF POWER		
Transmission & Drive Line – of the 3000 Assembly, EPP covers the following:		
3001, 3002, 3003 Transmission, Torque Converter, & Transfer Gears	3005 Drive Train/Transmission Oil Filler	3011 Bevel and Transfer Case
3013 Axle Arrangement	3015 Transmission & Axle	3016 Drive Train Oil Lines
3066 Drive Train Oil Pump	301T Drive Train Oil Temperature Sensor	3020 Drive & Steering Axle
3024 Drive Train Breather	3030 Transmission	3031 & 3032 Transmission, Transfer Gears, Retarder
Clutch & Manual Shift/Direct Drive Transmission		
	3052 Flywheel Clutch	3053 Clutch Shaft
3054 Clutch Plate	3055 Power Takeoff Clutch	3056 Clutch Oil Pump
3057 Clutch Booster	3058 Clutch Brake	3059 Clutch Control
	3061 Transmission Gears	3062 Transmission Reverse Box
3063 Transmission Shaft	3064 Transmission Case	3065 Transmission Control
3066 Transmission Oil Pump	3068 Transmission Oil Filter Base	3069 Shift Console
3071 Flywheel Clutch Hydraulic Control	3072 Range Transmission/Selector	3073 Transmission Hydraulic Control Valve
3074 Transmission Pressure Control Valve	3075 Transmission Output Gears	3076 Throwout Bearing
3077 Transmission Brake	3078 Transmission Speed Control Valve	3079 Shuttle Control
3082 Transmission Mount	3083 Transmission Selector & Pressure Control Valve	
Torque Converter, Divider, Retarder – of the 3100 Assembly, EPP covers the following:		
	3101 Torque Converter	3102 Torque Converter Clutch

3103 Torque Converter Lines/Hoses	3104 Torque Converter/Transmission Wiring Harness	3105 Torque Converter Housing
3106 Torque Converter, Transfer Gear, Retarder	3107 Power Takeoff Drive	3108 Pump Drive
3109 Torque Converter & Retarder	3030 Torque Divider Transmission	3073 Torque Divider Control Valve
3151 Torque Divider Governor	3113 Torque Divider	3114 Torque Divider Planetary Carrier
3115 Torque Converter Scavenge Pump	3031 Transfer Gears, Torque Divider, & Retarder	3117 Transfer Gears and Retarder
3032 Torque Divider & Retarder	3120 Retarder	3121 Retarder Extended Braking Control
3122 Retarder Lines	3123 Retarder Control Valve	3124 Lockup Clutch Pressure Control Valve
3125 Torque Converter & Divider	3126 Retarder Selector Valve	3127 Torque Converter Bearing Retainer
3128 Torque Converter Flange	3129 Torque Converter Stator	3130 Torque Divider/Torque Converter Shaft
3131 Torque Converter Turbine Wheel	3132 High-Low Clutch Group	3133 Torque Converter Relief Valve
3134 Torque Converter Impeller	3135 Torque Converter Carrier	3136 Torque Converter Hub
3137 Torque Converter Pressure/Sequence Control Valve	3138 Torque Converter & Park Brake Release Pump	3139 Modulating Valve
3140 Torque Converter Control	3141 Torque Converter Speed Sensor	3142 Automatic Retarder Control
3143 Torque Converter Electronic Control		
Powershift Transmission		
3150 Power Shift Transmission	3151 Transmission Governor	3066 Transmission Oil Pump
3154 Transmission Lines/Hoses	3155 Transmission Clutches	3156 Transmission Control Linkage
3157 Transmission Manual Selector Valve	3158 Transmission Auto Selector Valve	3159 Transfer Gear Group
3160 Transmission Planetary	3162 Creeper Control	3163 Hydraulic Shift Cylinder
3068 Oil Filter Base	3166 Rotary Actuator	3167 Transmission Hydraulic Control
3168 Transmission Electronic Control (Includes Fingertip Controls)	3169 Transmission Clutch Housing	3170 Transmission Clutch Piston
3171 Transmission Manual Switch	3172 Transmission Slave Switch	3173 Transmission Synchronous Switch
3174 Transmission Shift Solenoid	3175 Transmission Speed Sensor	3176 Transmission & Transfer Gears

3180 Transmission Priority Valve	3181 Transmission Neutralizer Control Valve	3182 Transmission Lubrication Relief Valve
3183 Transmission Control Lock	3184 Transmission Oil Cooler Bypass Valve	3186 Transmission Planet Carrier
3187 Transmission Planet Carrier Thrust Disc/Plate	3064 Transmission Case	3063 Transmission Shaft
3190 Transmission Clutch Plate	3191 Transmission Neutralizer	3192 Transmission Dump Valve
3193 Drive Train High Speed Oil Change Group	3194 Transmission Temperature Sensor	
Hydrostatic Transmission - on hydraulic excavators and equipment with hydrostatic drive or differential steering, including hydrostatic lines between the pump and motor		
3202 Hydraulic Flow Control	3203 Drive Pump	3204 Charge Pump
3205 Servo Control Valve	3206 Manifold/Metering Valve	3207 Servo Cylinder
3073 Hydrostatic Control Valve	3209 Hydrostatic Control Linkage	3210 High Pressure Relief Valve
3063 Hydrostatic Transmission Input Shaft	3063 Hydrostatic Transmission Output Shaft	3213 Charge and Main Relief Valve
3214 Synchronizing Valve	3215 Power Unit Control Linkage	3216 Transmission Underspeed/Overspeed Valve
3218 Hydrostatic Lines & Hoses	3219 Hydrostatic Pilot Overspeed Valve	3220 Hydrostatic Transmission Speed Control Valve
3221 Hydrostatic Power Case	3222 Hydrostatic Pump Head	3223 Transmission Underspeed/Override Valve
3225 Travel Electronic Control	3226 Downshift Inhibitor	
Drive Line/Drive Axle		
325A Drive Coupling	3250 Drive Line/Drive Axle	3251 Universal Joint
3252 Flexible Coupling	3253 Drive Shaft	3254 Drive Line Pinion
3255 Gearbox (Note: Gearbox located in the Mast of a Rotary Blasthole Drill is excluded. Part Causing Failure numbers include, but are not limited to: 584-0273, 527-5343, 527-5344, 559-1003, and 540-2212)	3256 Bevel Gear/Shaft	3257 Bevel Gear Shaft Bearing
3258 Differential	3259 Axle Shaft	3260 Axle Housing Assembly
3261 Drive Chain	3262 Double Reduction Differential	3263 Limited Slip Differential

3264 Differential Lock	3265 No-Spin Differential	3266 Differential Lock Cylinder
3267 Drive Shaft Support	3268 Axle Housing Support/Trunnion	3269 Pinion Housing
3270 Locking Differential	3271 Transaxle	3272 Differential Lock Control Valve
3273 Differential Lock Actuator Valve	3274 Constant Velocity Universal Joint	3275 Drive Line Brake (see exclusions listed under Braking System section)
3276 Drive Line Brake Disc (see exclusions listed under Braking System section)	3277 Drive Line Brake Lining (see exclusions listed under Braking System section)	3278 Drive Axle
3279 Engine Output Drive Assembly/Coupling	3281 Bevel Gear Case	3283 Differential Case
3284 Differential Carrier	3287 Interaxle Differential	3288 Anti-Spin Control
3290 Differential Temperature Sensor	3291 Drive Axle Oil Pump	3292 Differential Lock Pump
Countershaft Transmission – of the 3400 Assembly, EPP covers the following:		
	3064 Countershaft Transmission Case	3066 Countershaft Oil Pump
3403 Countershaft Lines/Hoses	3155 Countershaft Clutches	3169 Countershaft Clutch Housing
3170 Countershaft Clutch Piston	3159 Countershaft Transfer Gear	3063 Countershaft Shaft
3075 Countershaft Output Gears	3077 Countershaft Brake	3074 Countershaft Pressure Control Valve
3413 Countershaft Transmission Control Linkage	3414 Countershaft Transmission Ratio/Directional Selector	3416 Countershaft Transmission Pneumatic Control
3167 Hydrostatic Control Groups	3168 Electrical Control Groups	
Drive Train		
4001 Final Drive & Brake Wheel (see exclusions listed under Braking System section)	4003 Final Drive, Steering Clutch, & Brake	4004 Brake & Axle
4005 Steering & Braking System	4006 Wheel & Brake Assembly	4007 Steering & Brake Pump
4008 Final Drive, Brake & Wheel Pump	4009 Final Drive, Brake & Differential Steering Planetary	4010 Final Drive, Brake & Differential Steering Drive
4011 Final Drive & Brake		
Final Drive		
4050 Final Drive & Torque Hub	4051 Final Drive & Wheel	4052 Final Drive Seal
4053 Drive Axle Hub/Gear Assembly	4054 Final Drive Hub	4055 Final Drive Gears

4056 Final Drive Shaft	4057 Final Drive Pinion Flange	4058 Sprocket Shaft/Bore
4059 Final Drive Case/Bore	4060 Final Drive Oil Pump	4061 Final Drive Parking Brake
4062 Tandem Drive	4063 Tandem/Single Drive Chain	4064 Tandem Drive Housing
4066 Final Drive Outer Bearing Support	4068 Tandem Drive Stub Axle	4069 Final Drive Chain
4072 Tandem Drive Sprocket	4073 Tandem Drive Driven Sprocket	4074 Final Drive - Outer Section
4075 Final Drive - Inner Section	4076 Tandem Drive, Bevel Gear, & Final Drive	4084 Final Drive Planet Carrier Hub/Ring Gear
4091 Final Drive Pinion	4092 Planetary Final Drive Carrier	4093 Final Drive Planet Carrier Thrust Surface
4094 Final Drive Pinion & Flange		
Steering Clutch & Brake Machines – Components on track-type equipment only, if so equipped. Of the 4100 Assembly, EPP covers the following:		
	4101 Steering Clutch	4102 Steering Clutch Control Valve
4103 Steering Clutch Control Pump	4104 Steering Clutch & Brake Control Lines	4105 Steering Clutch Booster
4106 Steering Clutch Control	4108 Steering Clutch Relief Valve	4110 Brake Band
4111 Track Brake Control Valve	4112 Track Brake Control Valve	4113 Track Brake Drum
4114 Track Brake Booster	4115 Brake Actuating Mechanism	4116 Brake Hand Pump
4117 Steering Clutch Case	4118 Steering Clutch Release Piston	4119 Steering Clutch/Bevel Gear & Shaft
4120 Steering Clutch & Brake Control Valve	4121 Brake Lubrication Relief Valve	4122 Steering Clutch & Brake Linkage (see exclusions listed under Braking System section)
4123 Steering Clutch Hub	4124 Steering Clutch, Bevel Gear Shaft, & Pinion	
Differential Steer Machines		
4129 Differential Steering	4130 Differential Steering Planetary	4131 Differential Drive & Brake
4132 Planetary & Brake	4133 Steering & Brake Lines	4135 Differential Steering & Transmission Control
Braking System		
The following additional guidance applies to all SMCS codes within this Braking System section:		

- **Brake Components** for track-type equipment are covered **only** if they also provide steering

Examples include:

1. Hydrostatic drive machine steer
2. Torque divider powertrain with differential steer
3. Clutch/brake steer

- **Service Brake Components** are limited to those parts that are internal to a covered Powertrain component, such as a powered axle assembly or differential steering housing
- **Brake Seals and Gaskets** that serve to prevent fluid cross contamination of a Powertrain component
- **Exclusions:** Service Brake Components - External brake components that are accessible without disassembly of a Powertrain component are not covered (i.e. brake linkage and control valves). Wear items, including but not limited to, discs, plates, and linings, either internal or external

4251 Service Brake Assembly – Excluding wear items.	4252 Brake Drum Assembly – Excluding wear items. See	4253 Brake Shoes Assembly – Excluding wear items.
4254 Brake Lining Assembly – Excluding wear items.	4255 Brake Disc Assembly – Excluding wear items.	4256 Brake Caliper/Head Assembly – Excluding wear items.
4257 Brake Lines	4258 Brake Master Cylinder	4259 Hydrovac
4260 Wheel Cylinder	4261 Brake/Slack Adjuster	4262 Brake Actuator
4263 Brake Accumulator	4264 Brake Accumulator Charging Valve	4265 Service Brake Control Valve
4266 Brake Booster	4267 Parking Brake	4268 Brake Pump
4269 Service Brake Control	4270 Brake Expander Tube	4271 Selector Brake Valve
4272 Brake Air Tank	4273 Friction Pad Assembly – Excluding wear items.	4274 Brake Control Neutralizer Valve
4275 Brake Return Check Valve	4277 Brake Air Over Cylinder	4280 Brake Air Relay Valve
4281 Brake Air Check Valve	4283 Quick Release Valve	4284 Parking Brake Control
4285 Air Dryer	4286 Brake System Diverter Valve	4287 Vacuum Pump
4288 Interlock Valve	4289 Brake Shuttle Valve	429B Brake Balance Valve
429T Brake/Axle Oil Temperature Sensor	4290 Treadle Brake Control Valve	4291 Brake Hydraulic Reservoir
4293 Accumulator Bleed Valve	4294 Automatic Electronic Traction Aid	4296 Brake Differential Pressure Switch
Steering System (Hydrostatic & Diff-Steer)		
4304 Steering Lines/Hoses	4305 Steer Linkage	4306 Steering Pump
4307 Steering Valve	4312 Steering Metering Pump	4313 Steering Axle
4318 Tie Rod	4320 Steering Flow Divider Valve	4322 Steering Relief Valve
4341 Steering Cooler Pump	4342 Steering Pilot Valve	4343 Steering Control
4344 Steering Charge Pump	4346 Steering Oil Cooler	4347 All Wheel Steer Valve

Hydrostatic Drive - on hydraulic excavators and equipment with hydrostatic drive or differential steering, including hydrostatic lines between the pump and motor		
4350 Hydrostatic Drive	4351 Hydraulic Propel/Drive Motor	4352 Drive Control Valve
4353 Hydrostatic Drive Parking Brake	4354 Brake Release Pump	4355 Hydrostatic Drive Gear Reducer
4356 Brake & Shift Valve		
Electric Power Generator		
4458 Brushes	4466 Surge Suppressor	4467 Voltage Regulator Assembly/Tray
4468 Series Boost	4470 Exciter Field	4471 Generator Bearing
4473 Rectifier Module	4474 Regulator Module	4475 Voltage Droop Transformer
4476 Current Transformer	4477 Excitation Transformer	4480 Uninterruptable Power Supply
4481 Permanent Magnet Pilot Exciter	449C Programmable Logic Controller	
Drive Train Electronic Control		
4801 Traction Control System	4803 Wheel Speed Sensor	4804 Brake Proportional Solenoid Valve
4805 On/Off Pilot Solenoid Valve	4806 Articulation Angle Position Sensor	4807 Brake Pressing Reducing Valve
4808 Drive Train Electronic Control Module	4809 Brake Position Sensor	4810 All Wheel Drive Electronic Control
4811 Electronic Traction Control	4812 Drive Train Electronic Control	4815 Drive Control Manual Override
4820 Drive Train Software	4823 Electronic Current Sensor	4824 Solenoid Driver
Hydraulic System		
5055 Van Pump	5058 Hydraulic Motor, Piston-Type (Associated Only with Hydrostatic Transmission or Differential Steer)	5059 Pilot Control Valve
5060 Swivel	5062 Hydraulic Pump Coupling	5069 Main System Relief Valve
5070 Hydraulic Pump, Piston-Type (Associated Only with Hydrostatic Trans. Or Differential Steer)		
Air Control System		
5511 Air System Electronic Control	5512 Air Pressure Switch	5513 Air Ratio Valve
Gauges & Indicators		

7498 Thermocouple		
Engine Electronic Control System		
191N Nitrogen Oxide Sensor	191W Jacket Water Outlet Pressure Sensor	
Paving Equipment only: - Excluded are belts, chains and rotor brakes		
5630 Rotor Axle	5631 Rotor Drive	5632 Rotor Drive Shaft
5633 Rotor Drive Differential	5635 Rotor Transmission	5636 Rotor Drive Electric Shift
5651 Vibratory Motor	5652 Vibratory Pump	5653 Vibratory Control Valve
	5655 Drum Drive Gear Reducer	5656 Drum Support Gear Box
5658 Countershaft Drive	6605 Compactor Drum	6606 Vibration Mechanism
3168 Propel ECM	3168 Propel Speed Dial Buffer	3168 Propel Lever
3168 Speed Dial	3168 Steering PWM Sensor	3168 Brake PWM Sensor
5070 Pump EDC Control	5058 Track Speed Sensor	
Compact Construction Equipment (CCE) Powertrain (MTL/CTL/MHEX) only:		
4164 Drive Sprocket	4166 Sprocket Dust Guard	4197 Roller Frame Tensioning System
4159 Idler Wheels	4192 Bogie Wheels	4180 Track Rollers
4154 Carrier Rollers	4158 Recoil Spring	4157 Track Adjuster
1351 Radiator and Oil Cooler		
Electric Drive Powertrain Note: Belts, chains and rotor brakes are excluded.		
1410 Voltage Reg	1421 DC To DC Converter	1437 Electrical System Resistor
1603 Traction Drive Motor	1607 Drive System Contactor	1617 Drive System Thyristor/Transistor
1618 Drive System Rectifier/Diode	1619 Drive System Capacitor	1627 Drive System Resistor
1633 Drive system Power Cable	1636 Drive Motor Fan	3121 Retarder Extended Braking Control
3225 Travel Electronic Control	3279 Engine Output Drive	4018 Propulsion Module
425R Electric Retarder Group	4450 Generator	4453 Stator
4454 Excitor/Arm	4456 Generator Drive Coupling	4457 Rotor
4459 Cable or Wire	445B Bus Bar	4465 Rotating Rectifier Diode
4802 TCS Electro Control	4822 Inverter	7611 Optical Interface Control Module

Special Service Claim Categories		
7729 HEUI Actuation		
Emissions Module These additional components are included only when used to control emissions or when part of the Caterpillar Clean Emissions Module (CEM).		
1061 Exhaust Piping	1071 Air Lines/Pipe	108A Solenoid Valve
108B Combustion Body	108C Clean Gas Induction Cooler	108E Exhaust Combustion Lines
108F Diesel Particulate Filter (DPF)	108G Exhaust Cooler	108H Diesel Exhaust Fluid Module
108I Diesel Exhaust Fluid Injector	108J Diesel Exhaust Fluid Pump	108L Boost Pressure Line
108N Clean Gas Induction Valve	108O Exhaust Gas Recirculation High Temperature Cooler Core	108P Exhaust Back Pressure Valve
108Q Exhaust Gas Recirculation Low Temperature Cooler Core	108R NOX Reduction System Air Inlet	108S Combustion Air System
108T Diesel Exhaust Fluid Tank	108V Venturi	108M Exhaust Combustion Manifold
1091 Catalytic Converter	1274 Fuel Supply/Return Line	1335 Particle Sensor
1380 Coolant Lines (of the Emissions Module related to DEF)	1408 Wiring Harness - included in Powertrain EPP only if part of the Caterpillar Clean Emissions Module (CEM.)	1554 Coil
1702 Fuel Manifold	3206 Manifold/Metering Valve	4493 Relay (of the Emissions Module related to DEF)
5506 Air Control Valve		
Other Implements & Machine Components		
7063 Swing Gear/Bearing		
Rail/Road Wheeled Excavator only:		
4321 Steering Knuckle	5713 Electric Hydraulic Pump	
Rotary Blasthole Drills only		
1803 Air Compressor		

Hydraulic Coverage:

Lubrication System		
1306 Hydraulic Oil Base		
Cooling System		

1374 Hydraulic Oil Cooler		
Transmission and Drive Line		
3016 Drive Train Oil Lines	3154 Transmission Oil Lines	
Steering System		
4303 Steering Cylinder	4304 Steering Lines or Hoses	4306 Steering Pump
4307 Steering Valve	4311 Steering Booster	4312 Steering Metering Pump
4315 Servo Steering Cylinder	4317 Steering Gear & Valve	4320 Steering Flow Divider Valve
4322 Steering Relief Valve	4324 Secondary Steering Pump	4330 Steering Neutralizer Valve
4331 Steering Accumulator	4332 Steering Hydraulic Tank	4337 Steering Pressure Reducing Valve
4339 Secondary Steering Diverter Valve	4340 Steering Counterbalance Valve	4341 Steering Cooler Pump
4342 Steering Pilot Valve	4343 Steering Control	4344 Steering Charge Pump
4346 Steering Oil Cooler	4347 All Wheel Steer Valve	4349 Steering Selector & Pressure Control Valve
Hydraulic System		
5051 Hydraulic Control Valve	5052 Hydraulic Motor - Vane Type	5054 External Control Valve
5055 Hydraulic Pump - Vane Type	5056 Hydraulic Tank	5057 Hydraulic Hoses or Lines (Hydraulic Hoses excluded for the 6000 series Hydraulic Mining Shovels)
5058 Hydraulic Motor - Piston Type	5059 Pilot Control Valve	505C Piston Cylinder
505Q Quick Release Valve	505U Unloading Valve	5060 Swivel
5061 Hydraulic Motor - Gear Type	5063 Implement Control	5064 Combination Valve
5065 Selector Valve	5066 Diverter Valve	5067 Check Valve
5069 Main System Relief Valve	506G Gear Pump & Motor	506P Implement Priority Valve
5070 Hydraulic Pump - Piston Type	5071 Hydraulic Oil Cooler Bypass Valve	5072 Pilot System Relief Valve
5073 Hydraulic Pump - Gear Type	5074 Thermal Bypass Valve	5076 Hydraulic Tank Valve
5077 Hydraulic Accumulator (excluded for the 6000 series Hydraulic Mining Shovels)	5078 Hydraulic Actuator	5079 Shuttle Valve
507G Piston & Gear Pump	507V Piston & Vane Pump	5080 Make-Up Valve
5081 Hydraulic Accumulator Charging Valve	5082 Gerotor Motor	5083 Hydraulic Hoist Pump

5084 Implement Pump	5085 Pilot Pump	5086 Pressure & Flow Compensator Valve
5087 Cooling & Test Manifold	5088 Pilot Test Valve	5089 Blocker Valve
5090 Line Make-Up Valve	5093 Hydraulic Filter By-Pass Valve	5097 Hydraulic Flow Divider Valve
509T Hydraulic Oil Temperature Sensor		
Lift, Tilt, Tip Controls		
5101 Angling Cylinder	5102 Lift or Hoist Cylinder	5104 Tilt Cylinder
5105 Swing Cylinder	5106 Tip Cylinder	5107 Tailgate Cylinder
5108 Side Dump Cylinder	5109 Lift Kickout Control	5110 Quick Drop Valve
5111 Crossover Valve	5112 Bucket Positioner Control	5115 Bulldozer Control Valve
5117 Pressure Control/Relief Valve	5118 Vent Valve	5119 Float Selector Valve
5120 Pump Selector Valve	5122 Bucket Control Valve	5123 Tilt Control Valve
5124 Loader Control Valve	5125 Tilt Pilot Valve	5126 Lift Pilot Valve
5127 Cylinder Check Valve	5128 Over-Center Valve	5129 Restrictor Valve
5130 Lock Valve	5132 Hydraulic Position Sensor	5133 Coupler Cylinder – Note: Quick Coupler (6129) not included. Note: Coupler Cylinder must be factory consist and/or first mount to receive coverage.
5134 Kickout Valve	5136 Lift/Hoist Control Valve	5137 Flow Control Valve
5138 Door Cylinder	5140 Angle Control Valve	5141 Hitch Lift Cylinder
5142 Draft Control	5143 Drift Reduction Valve	5144 Frame Level Valve
5145 Top Clamp Cylinder	5146 Dump Cylinder	5147 Lowering Control Valve
5148 Multipurpose Bucket Control Valve		
Cat Skidder only - Controls		
5164 Winch Hydraulic Pump	5179 Winch Hoses/Lines	
Cat Motor Grader only - Implement Controls		
5201 Power Control Box	5206 Circle Drive Motor	5211 Wheel Lean Cylinder
5213 Scarifier Cylinder	5214 Scarifier Valve	5216 Automatic Blade Control
5220 Centershift Lock Control Valve	5223 Centershift Cylinder	5226 Leaning Wheel Control Valve
5227 Blade Sideshift Control	5229 Blade Sideshift Cylinder	5235 Lock Check Valve
5236 Power Control Pump	5261 Servo Valve	5264 Hydraulic Manifold
5265 Articulation Cylinder	5266 Articulation Valve	
Cat Scraper only - Controls		

5301 Apron Lift Cylinder	5302 Apron Sequence Valve	5303 Bowl Lift Cylinder
5304 Scraper Control Valve	5305 Ejector Cylinder	5306 Ejector Sequence Valve
5307 Push-Pull Bail Cylinder	5308 Bail-Pull Control Valve	5309 Floor Dump Cylinder
5310 Traction Control Cylinder	5311 Traction Control Valve	5312 Leveling Valve
5313 Cushion Hitch Control Valve	5314 Elevator Motor	5315 Elevator Hydraulic Pump
5316 Cushion Hitch Pump	5317 Cushion Hitch Load Cylinder	5318 Elevator Delay Valve
5319 Cushion Hitch Selector Valve	5320 Elevator Chain Adjustment Cylinder	5321 Carry Check Valve
5322 Ejector Check Valve	5323 Push-Pull Pump	5325 Speed Control Valve
Ripper, Tool Bar & Other Implement Controls		
5351 Ripper Control Valve	5352 Ripper Lift Cylinder	5353 Ripper Pin Puller Control Valve
5354 Ripper Pin Puller Cylinder	5355 Tool Bar Cylinder	5356 Ripper Tilt Cylinder
5357 Ripper Control		
Excavator, Backhoe, Front Shovel & Other Implement Controls		
5451 Shovel Boom Cylinder	5452 Shovel Stick Cylinder	5453 Check & Relief Valve
5454 Swing Relief Valve	5455 Pump Signal Pressure Control Valve	5456 Boom Cylinder
5457 Bucket Cylinder	5458 Stick Cylinder	5459 Swing Drive
5461 Boom Control Valve	5462 Speed & Direction Pilot Control Valve	5463 Offset Cylinder
5464 Stick Control Valve	5465 Stick & Swing Pilot Control Valve	5466 Boom & Attachment Pilot Control Valve
5467 Pressure Reducing/Summing Valve	5468 Stabilizer Cylinder	5469 Underspeed Valve
5470 Bucket Master Cylinder	5471 Combiner & Relief Valve	5472 Load Check Valve
5473 Swing Pump	5474 Extendable Stick Control Valve	5475 Bottom Dump Bucket Control Valve
5476 Backhoe Control Valve	5477 Swing Actuator	5478 Bucket Bowl Cylinder (excluded for the 6000 series Hydraulic Mining Shovels)
5479 Solenoid Valve	5480 Swing Control Valve	5481 Stabilizer Control Valve
5482 Heel Cylinder	5483 Swing Brake Valve	5484 Sideshift Lock
5486 Telescoping Cylinder	5487 Slow Return Valve	5488 Hydraulic Hammer Control
5489 Increased Pressure Control		5491 Quick Coupler Valve
5492 Clam Control Valve	5493 Shovel Bucket Cylinder	5494 Rotator Motor
5495 Rotator Cylinder	5496 Control Pattern Change Valve	5497 Fore Boom Cylinder

5498 Multipurpose Bucket Cylinder		
Logger & Skidder only Controls		
5551 Speed Reducer Valve	5553 Shear Cylinder	5554 Delimb Cylinder
5555 Grapple Cylinder	5557 Arch Cylinder	5558 Saw Cylinder
5560 Logger Head Control Valve	5561 Logger Head Check Valve	5562 Delimb Cylinder Selector Valve
5563 Shear Speed Change Valve	5564 Grapple Cylinder Check Valve	5565 Grapple/Delimb Arm Pilot Valve
5567 Logger Head Positioner Master Cylinder	5568 Grapple Control Valve	5570 Grapple Hydraulic Control
5571 Solenoid & Relief Valve	5572 Feed Roller Arm Cylinder	5573 Holding Arm Cylinder
5574 Measuring Sensor	5575 Saw Motor	5576 Gate Cylinder
Implement Electronic Controls		
5701 ECM (of the Implement Electronic Controls system only)	5702 Implement Hydraulic Electronic Control	5705 Joystick (of the Implement Electronic Control system only)
5721 Potentiometer	5736 Linkage Position Sensor	5737 Control Lever Position Sensor
5740 Implement Software & Hydraulic Software flashing		
Material Handler only Controls		
5802 Full Free Lift Cylinder	5803 Full Free Triple Lift Cylinder	5809 Sideshift Valve
5811 Load Control Valve	5812 Full Free Triple Lift Primary Cylinder	5813 Full Free Triple Lift Second Cylinder
5814 Full Free Quadruple Lift Cylinder	5815 Slew Cylinder	5822 Twist Lock Cylinder
Other Controls		
5804 Side Shift Cylinder	5807 Fork Positioner Cylinder	5816 Compensating Cylinder
5823 Fork Leveling Cylinder	5904 Auger Drive	
Other Implements & Machine Components		
	7078 Frame Level Cylinder	7080 Oscillation Lock Cylinder
6000 Series Hydraulic Mining Shovel only Components		
4265 Service Brake Control Valve	508A Auxiliary Pilot Pump	508C Hydraulic Cooling Pump
79C3 Propel Brake	79PA Swing Drive Motor	

Rail/Road Wheeled Excavator only		
1130 Valve Actuator	7562 Hydraulic Cylinders	5116 Attachment Cylinder
5149 Bogie Lift Cylinder	5362 Work Tool Cylinder	

Technology Coverage:

The following components are covered only for the following: Compact, Grade, Link, Payload, and Terrain. These items may or may not be applicable to Powertrain and/or Hydraulic Coverage.		
1408 Wiring Harness - included only if part of the Compact, Grade, Link, Payload, and Terrain. Harness must be connected directly to the component.	5645 Sensor, Grade, Mechanical (Averaging Ski/Sensing Wheel/Grade Control)	5705 Control Group-Joystick (only if controlling the above-mentioned Productivity & Minestar components)
5741 Autodig Control	7008 Remote Control System	7009 Laser Receiver
7010 Satellite Receiver	7215 Sensor, Grade, Sonic (Suspension Control)	7219 Control, Slope, Digital (Cross Slope Control)
7220 Cat Grade Control Cross Slope (Automatic Grade Control)	7332 Control Group-Payload (Electric Switch (Manual))	7347 Displays/Monitors
7426 Box Group-J (Junction Box)	7451 Control Group-B (Instrument Panel/Control Panel)	7475 Payload Monitor System
7490 Grade Control Group (Instrument Panel/Control Panel)	7493 Monitor Group-Operator (Ground Speed Sensor)	7494 Monitor Arrangement-Payload (Payload Monitor System)
7601 Vital Information Management System (VIMS)	7602 Global Positioning System Electronic Control	7603 Vital Information Display System (VIDS)
7604 Computer Aided Earthmoving System (CAES)	7606 Product Link System	7620 Machine Software
7632 Road Analysis Control	7852 VIMS (Compactometer)	733T Control Group (2-Way Radio)
7605 Minestar System	7622 Minestar Terrain	

Additional Coverage Clarifications:

- Electronic controls and sensors which function to direct power for the purpose of moving the machine are included. This includes power shift controls, engine pressure controls, differential lock, finger-tip controls, wiring connectors that are part of the designated Powertrain components
- Hydraulic valves & controls - includes specified valve parts for directing or controlling hydraulic fluid for steering and implements, including automatic blade controls and bucket position controls
- Service Letters on machines covered by New Machine EPP: EPP only applies to the customer participation portion of the after-failure Product Support Programs (PSP) that exceeds the Service Letter limit. Contact your dealer for additional information.

The following are components commonly mistaken as covered Powertrain Components. The following components are excluded:

- Service Brake Components - External brake components that are accessible without disassembly of a Powertrain component are not covered (i.e. brake linkage and control valves.) Wear items, including but not limited to, discs, plates, and linings, either internal or external are also not included.
- Rotor Drive Mechanism - belts, chains and rotor brakes
- Undercarriage Components on track-type and track belt machines - including sprockets, drive wheels, track assemblies, track belts, track rollers, mid-wheels, idlers, roller frames tensioning system and nonpowered axles
 - Some of these exclusions do not apply to Multi Terrain Loader (MTL), Compact Track Loader (CTL) and Mini Hydraulic Excavators (MHEX) products. For MTL/CTL/MHEX machines, see the list of additional components included in the SMCS codes section
- MTL/CTL/MHEX track belts and track assemblies
- Radiator
 - The Radiator exclusion does not always apply to MTL/CTL/MHEX products. For MTL/CTL/MHEX machines, see the list of additional components included on the SMCS codes section
- Engine Attachments - alternator, engine starter, air compressor and air conditioning compressor
- External Hoses and Lines - for oil, water and air
 - **For clarification, only** hydrostatic/high-pressure lines and hoses itemized in the SMCS code list between the drive pump and motor are included in coverage
- Ignition Key Fob

The following are components commonly mistaken as covered Hydraulic Components. The following components are excluded:

- Hydraulic Line Quick Connect/Disconnect Components
- Winch Pumps & Valves
- Hydraulic Brake System Components - While part of the hydraulic system, they are not associated with machine steering or implement control
- Hydraulic Actuated Work Tools and Other Attachments which are individually serialized and warranted by Caterpillar under separate warranty statements

- Hydraulic Hoses and Hydraulic Oil Coolers are excluded for the 6000 series Hydraulic Mining Shovels

The following are components commonly mistaken as covered Technology Components. The following components are excluded:

- Elective software updates that are not required to maintain the current operating condition of the machine
- Technology components installed after delivery to the end customer
- Technology that is considered aftermarket, covered by other warranty statements, or covered by another manufacturer warranty. Example: Trimble's Accugrade product
- Software flashing for technology listed unless performed by an authorized dealer to fix a defect in material and manufacturer workmanship
- Ignition Key Fob