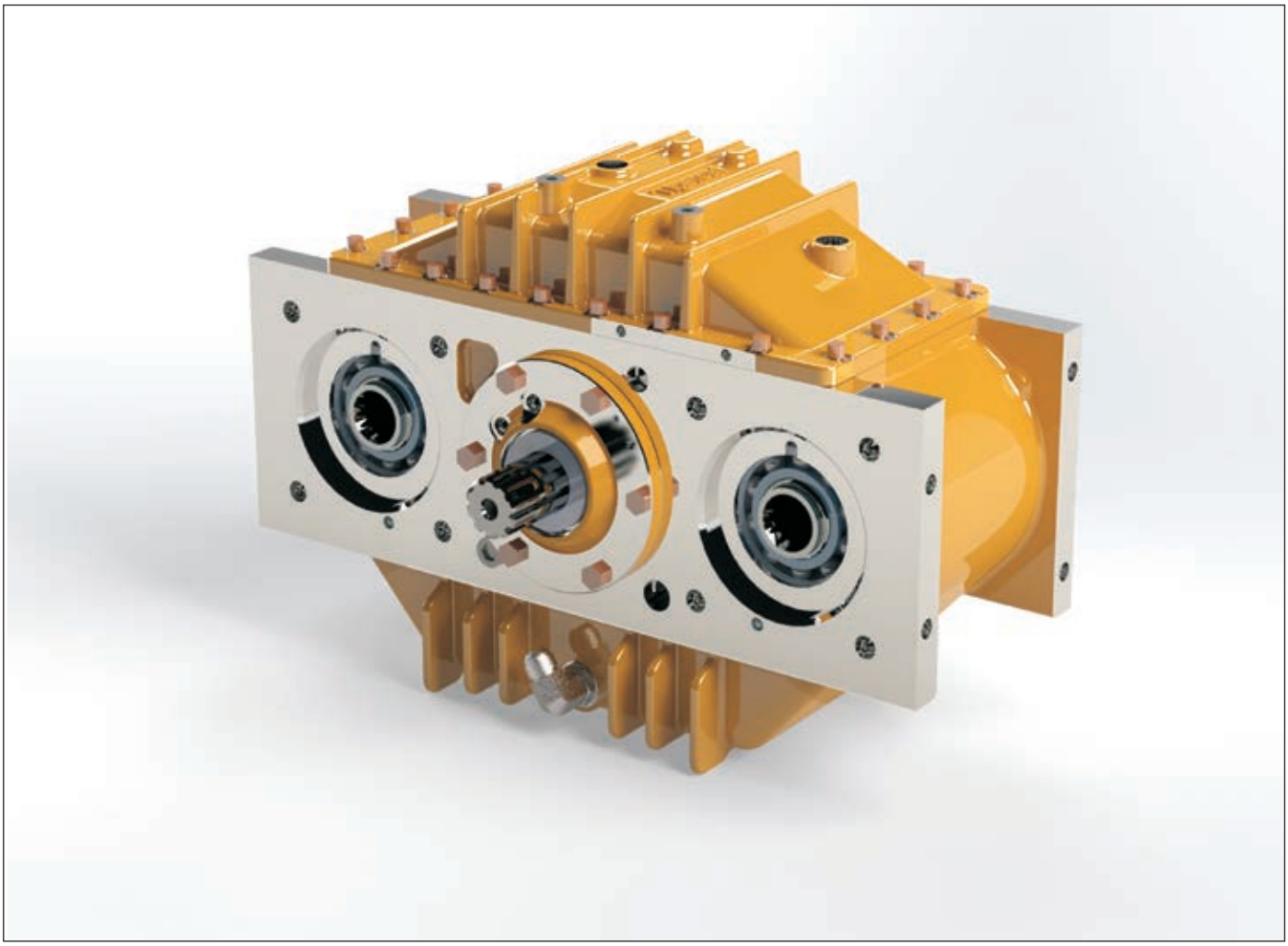
Tigercat®

EHS TRANSMISSION SERVICE AND REPAIR MANUAL



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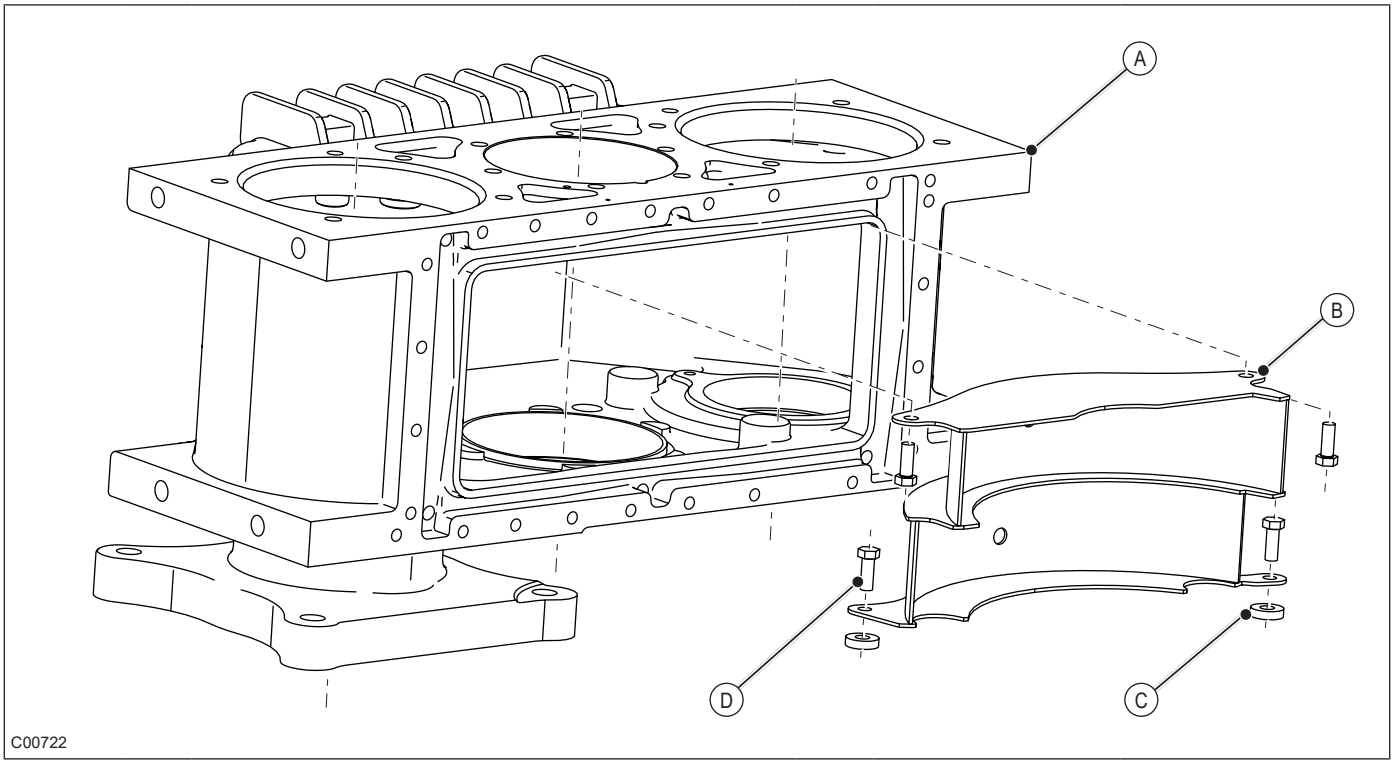
ITEM	PART DESCRIPTION	ITEM	PART DESCRIPTION
1	ASSEMBLED TRANSMISSION (LESS COVER)	9	COVER
2	HOUSING	10	NIPPLE, FITTING
3	PLUG	11	O-RING
4	PLUG	12	BLOCK, FORCED LUBE
5	HOSE	13	*BOLT
6	ELBOW	14	GASKET
7	SWIVEL FITTING	15	SERIAL NUMBER PLATE
8	CONNECTOR	16	BOLT

* INSPECT. See, FASTENER TORQUE AND REUSE on page 1.12.



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EHS Baffle Installation

NOTE: This view is representative of a Tigercat EHS transmission with an SAE-E mount cast into the housing. This modified housing requires a baffle with a different bolt pattern. Some parts may not appear exactly as shown.

ITEM	PART DESCRIPTION	ITEM	PART DESCRIPTION
A	TRANSMISSION HOUSING	C	SPACER
B	BAFFLE	D	BOLT

SHIPPING COMPONENTS

Depending upon the location of the machine site, repair site, or delivery/warehouse site an axle may or may not be filled with oil prior to shipping/delivery. Be aware of supply, shipping and storage constraints as legislated by local, regional, state or federal agencies.

Mark axles that contain oil to clearly show the axle contains oil.

Mark axles that do not contain oil to clearly show the axle does not contain oil.

CLEAN AND INSPECT

⚠ WARNING

Be aware of hazardous solvents, oils, fuels and materials. Wear PPE, avoid breathing fumes and work safely. Read and understand MSDS/PSDS literature.

Before servicing or repairing the EHS transmission, clean and inspect the assembly carefully. Observe and record findings while disassembling the unit:

1. Have required tools, solvents, lint free cloths, rags, tools and other items at hand.
2. Read accompanying reports.
3. Clean all surfaces of grease, oil and dirt using appropriate cleaning solutions or solvents to remove contaminants. Rinse components after cleaning. Use cleaning methods in keeping with materials used and surface finishes.
4. Clean and inspect each component as it is removed from the assembly.
5. Install temporary supports or mounts as required and place the assembly on a clean, secure workbench.
6. Handle the parts carefully. Protect machined surfaces from nicks and burrs. Inspect gears, thrust washers and other wear components for roughness, damaged edges, wear patterns and foreign material. Worn components must be replaced
7. Inspect housings, covers and manifolds for burrs, nicks, scratches, misalignment or cracks.

CONTAMINATION

Open ports increase the risk of contamination of the interior of the transmission. Insert a plug or a clean piece of rag in the open hole.

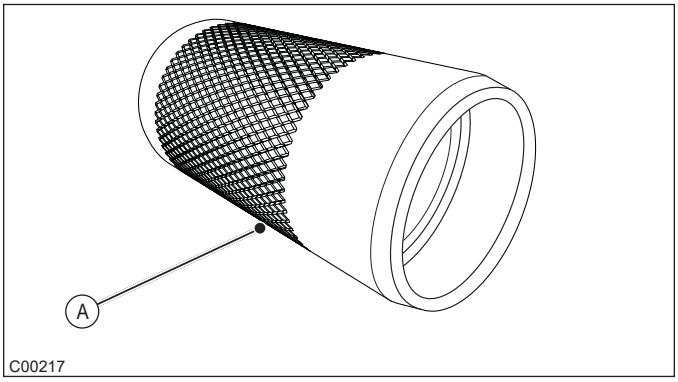
REQUIRED TOOLS AND MATERIALS

To disassemble the EHS Transmission requires the following tools, equipment and materials:

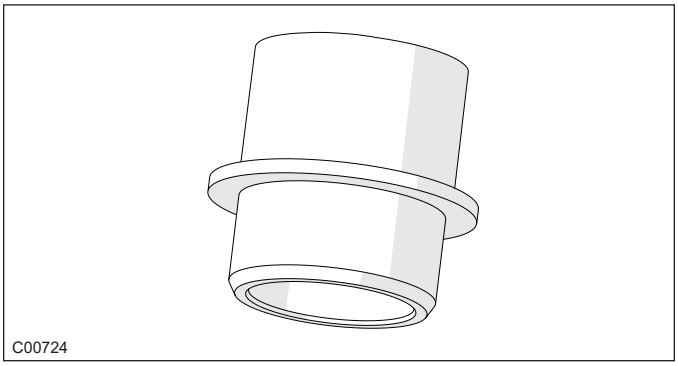
A basic set of tools is required in addition to various special tools and measuring instruments. Additional tools and fixtures used include:

- Bearing Puller
- Isopropyl alcohol or equivalent solvent
- Clean rags
- Marking pen
- PPE
- Wooden support blocks
- Torque wrench
- Loctite solvent or equivalent
- Loctite 242-Z000002
- Loctite Primer 7649-93996
- Loctite 262-SSA100
- Loctite 518-BW085

Loctite 567-BW086

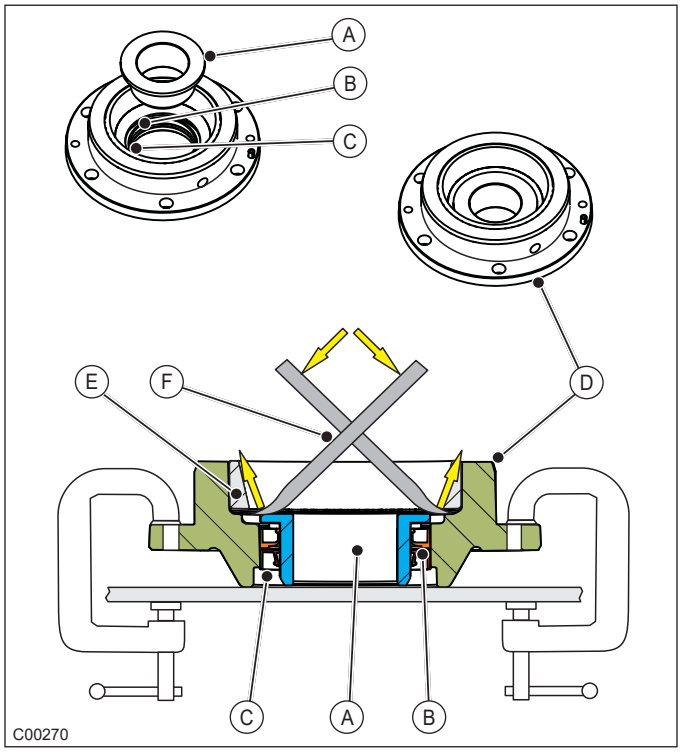


A Output Bearing Cone Installation Tool (B7394001)



A Input Driver Tool (B9436000)

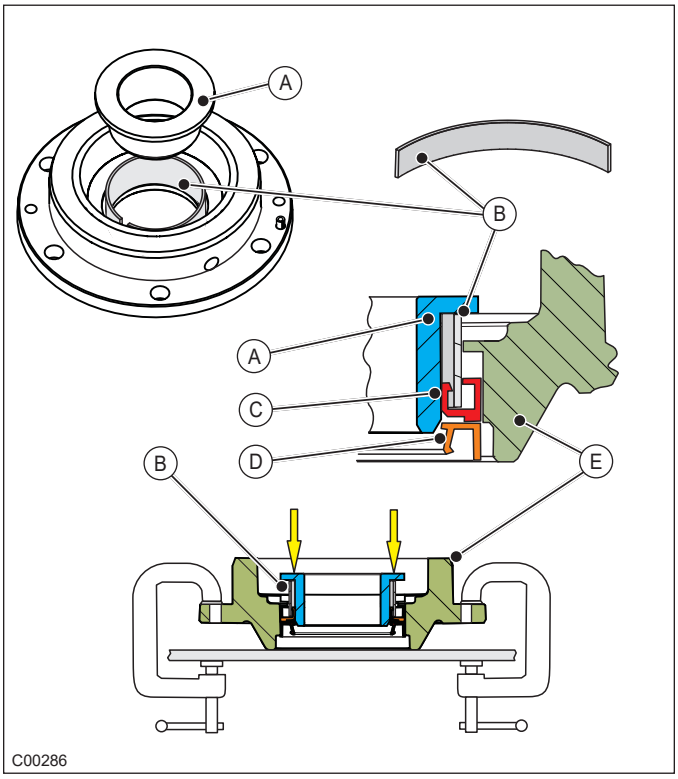
REMOVE BEARING CUP FROM OUTPUT BEARING CARRIERS



A	Output Sleeve
B	Oil Seal
C	Wiper Seal
D	Bearing Carrier
E	Bearing Cup
F	Pry Bars

1. Place the output bearing carrier, with the outer surface facedown, on the work bench.
2. Clamp the carrier to the work bench using C-clamps. Do not overtighten the C-clamps.
3. Insert the output sleeve into the carrier with the top flange facing up. The seals act to centre the output sleeve.
4. Pry the bearing cup from the carrier using a pry bar. Once there is sufficient clearance, use lady slipper pry bars to continue removing the bearing cup.

REMOVE OIL AND WIPER SEAL FROM OUTPUT BEARING CARRIERS



A	Output Sleeve
B	Metal Strap
C	Oil Seal
D	Wiper Seal
E	Bearing Carrier

1. Remove the rotary seals.
   a. Cut a piece of metal shipping strap approximately 19 mm (0.75 in) wide, 222 mm (8.75 in) long and at least 0.76 mm (0.030 in) thick or equivalent.
   b. Fit the strap into the U-channel of the oil seal.
   c. Align the output sleeve, with the flange facing up, on top of the strap.
   d. Strike the top of the output sleeve using a rubber mallet to drive the seals from the carrier.
   e. Discard the seals.
2. Use a brass punch to tap the seals from the carrier if a metal strap or suitable substitute is not available.

Tigercat EHS Transmissions
SECTION 3–ASSEMBLY

Read and understand the safety section in this manual prior to servicing any machine components.

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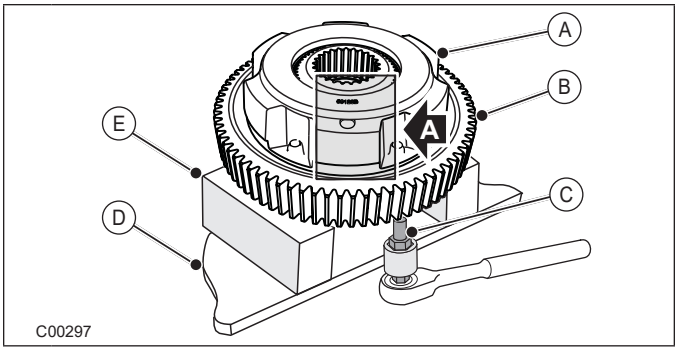


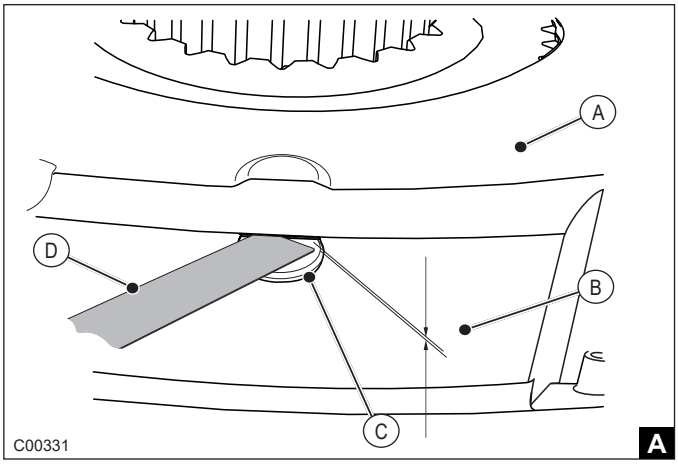
A Clutch Retainer
B Output Gear Components
C Bolt
D Work Surface
E Support Blocks

22. Move the clutch to the edge of the work surface to expose bolt holes from the bottom of the output gear.
23. Apply Primer 7649 and Loctite 262 to the *bolts used to secure the retainer to the clutch assembly. See, THREAD LOCKER AND PRIMER PRODUCTS on page 1.11.
24. Install two *bolts opposite one another, from beneath, to hold the retainer. Torque each *bolt to 108 N-m (80 lbf-ft).

NOTICE

The clutch spline coupler is aligned with the reaction and friction plates. If it moves from the seated position, and the plates become misaligned, the clutch must be dismantled to correct the alignment problem. Secure the clutch spline coupler before turning the clutch over.

25. Turn the clutch over to expose the bolt holes.
26. Install the remaining *bolts and tighten each incrementally until the retainer rests against the output gear. Torque each bolt to 108 N-m (80 lbf-ft), in a star pattern.



A Retainer
B Clearance Gap 0.025 mm (0.001 in)
C Dowel
D Feeler Gauge

27. When the retainer is secured, verify there is a clearance gap of 0.025 mm (0.001 in) between the retainer and the dowel using a feeler gauge.