

WATEROUS

Form Number: F-2878

Issue Date: Aug 26, 2025

QC Transmissions

Overhaul

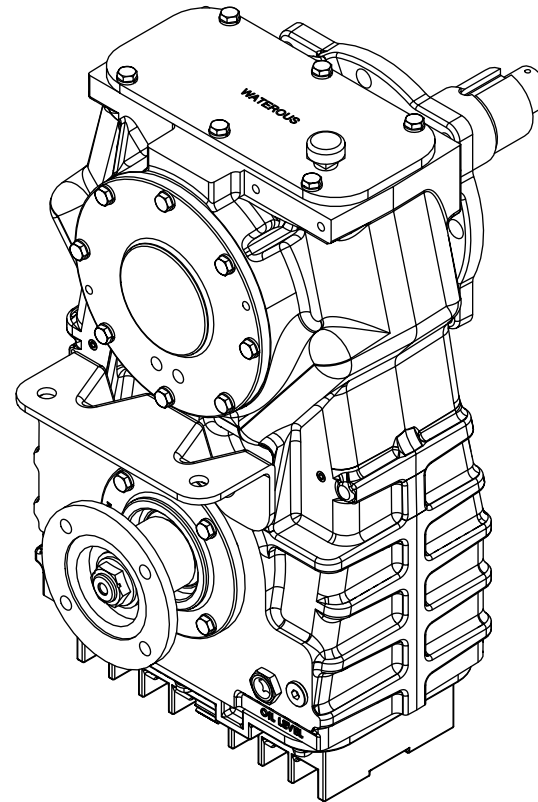
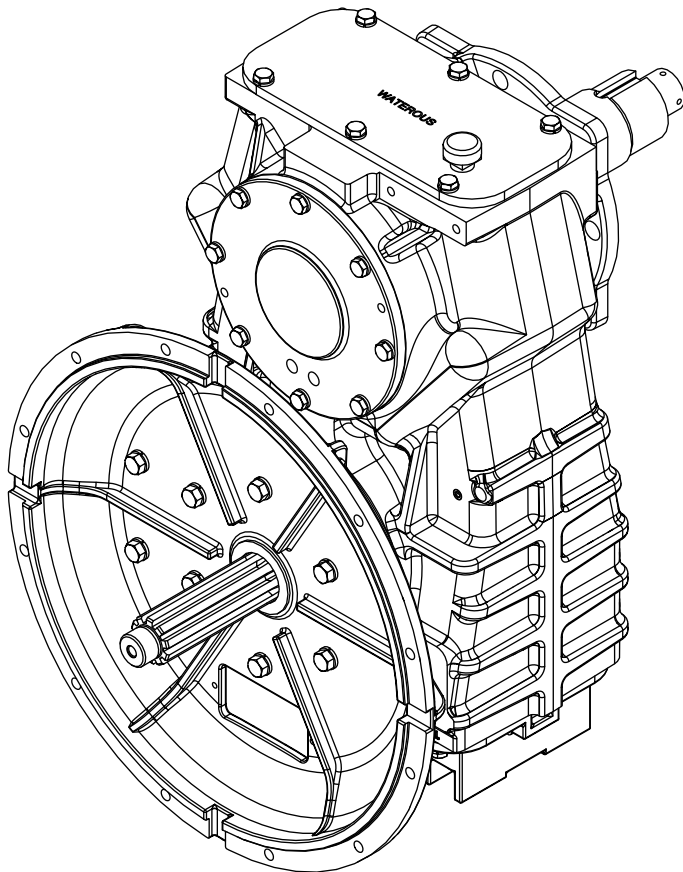



Table of Contents


Safety	4	Assembly	28
Safety Precautions	4	Preparing to Assemble the Equipment	28
Introduction	5	Tools Required	28
Using this Document	5	Best Practices	28
Viewing the Document Electronically	5	Assembling the Components	28
Printing the Document	5	Installing the Equipment	28
Additional Documentation	5	Understanding the Illustrations	28
Symbols	5	CRQC and CRUQC-2 without Bellhousing Adapter	29
Overview	6	Assembling the Driven Shaft	30
Driveline Options	6	Installing the Driven Shaft	31
Identifying Exterior Components—Driveline without Bellhousing Adapter	7	Assembling the Drive Shaft	33
Identifying Exterior Components—Driveline with Bellhousing Adapter	8	Installing the Drive Shaft	34
Disassembly	9	CRQC and CRUQC-2 with Bellhousing Adapter	37
Preparing to Disassemble the Equipment	9	Assembling the Driven Shaft	38
Tools Required	9	Installing the Driven Shaft	39
Preparing the Apparatus	9	Assembling the Drive Shaft	41
Best Practices	9	Installing the Bearing Lock Washer and Nut	44
Removing the Equipment	9	Installing the Chain	45
Disassembling the Components	9	Installing the Cover and Transmission Pan	47
Draining the Lubricant	10	Installing the Companion Flange	48
Removing the Transmission	11	Installing the Bellhousing Adapter	49
Removing the Companion Flange	13	Adding Lubricant to the Transmission	51
Removing the Bellhousing Adapter	14		
Removing the Cover and Transmission Pan	16		
Removing the Chain	17		
CRQC and CRUQC-2 without Bellhousing Adapter	18		
Removing the Drive Components	18		
Disassembling the Drive Shaft	20		
CRQC and CRUQC-2 with Bellhousing Adapter	22		
Removing the Drive Components	22		
Disassembling the Drive Shaft	24		
Removing the Driven Components	25		

Safety Precautions

- Read and understand all the associated documentation before you begin operating the product.
- Contact Waterous when you have questions about operating or maintaining the equipment.
- Read and understand all the notices and safety precautions.
- Do not operate the equipment when safety guards are removed.
- Do not modify the equipment.

 WARNING	
Sudden Unexpected Movement <ul style="list-style-type: none">• Unexpected movement can cause injury or death.• Make sure the shift unit is in the proper mode before operation.	

 WARNING	
Hot Surface <ul style="list-style-type: none">• Hot surfaces can burn you.• Do not touch the surface during operation—allow it to cool after operating.	

NOTICE	
Before Operation <ul style="list-style-type: none">• Read and understand all the instructions provided.• Check all fluid levels and replenish if necessary.• Remove all shipping plugs and install the operation plugs or caps.	

Use this document to overhaul your Waterous equipment. Understand the following conditions before proceeding:

- Be aware that these instructions are only guidelines and are not meant to be definitive. Contact Waterous when you have questions.
- Understand that your configuration may require additional steps, that are not described in the illustrations or instructions, to perform the overhaul.
- The equipment described in this document is intended to be overhauled by a person or persons with the necessary skills and knowledge to perform the overhaul.
- The information in this document is subject to change without notice.

This document is divided into the following sections:

SAFETY

This section describes general precautions and alert symbols in the document.

INTRODUCTION

This section is an overview of the document.

OVERVIEW

This section describes the components that make up the system.

DISASSEMBLY

This section describes disassembly procedures.

ASSEMBLY

This section describes assembly procedures.

Using this Document

Use the guidelines below when viewing this document.

Viewing the Document Electronically

- View this document in landscape orientation.
- Use the table of contents to navigate directly to that section.
- Text **with this appearance** is linked to a reference.

Printing the Document

- The document is designed to be printed on both sides and in color.
- Use a 3-ring binder to store the document.

Additional Documentation

Additional documentation is available through the MyWaterous login at waterousco.com. Use your serial number to gain access to the service parts list (SPL) associated with your system. Dimensional drawings are available through the Waterous service department.

Symbols

Symbols are used to illustrate additional tools or operations that are required to complete the instructions.



Arbor press—This symbol tells you to use an arbor press to complete this step.



Discard—This symbol tells you to discard or recycle the part in accordance with local regulations.



Finger tight—This symbol tells you to secure the hardware to finger tight.



Extreme pressure assembly lubricant—This symbol tells you to apply extreme pressure assembly lubricant to the part.



Lubrication—This symbol tells you to apply an appropriate lubricant to the part.



Removable threadlocker—This symbol tells you to apply an appropriate threadlocker to the part.



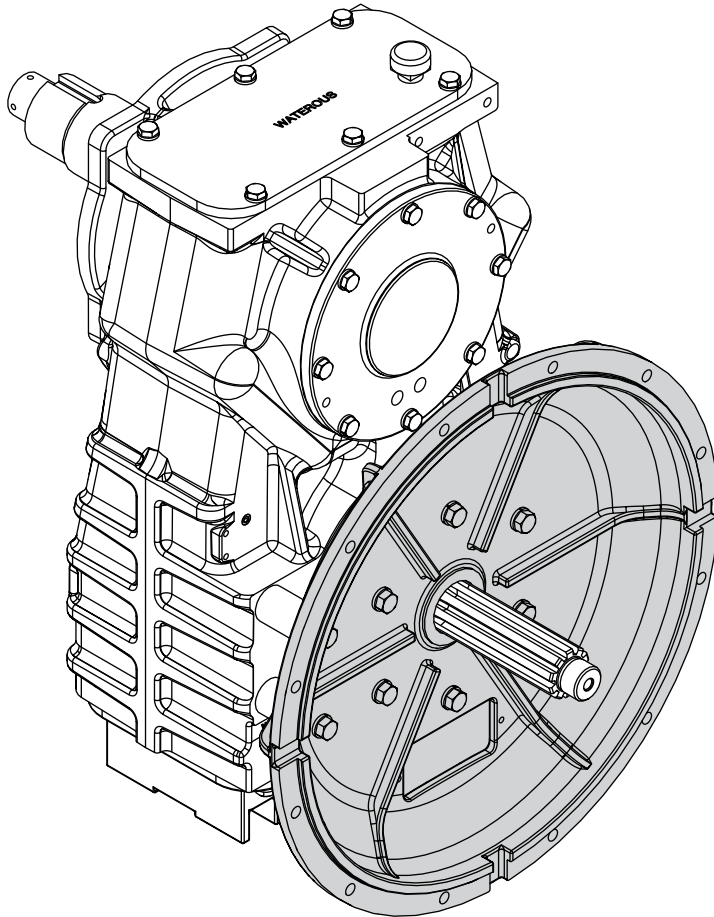
Sealant—This symbol tells you to apply an appropriate sealant to the part.



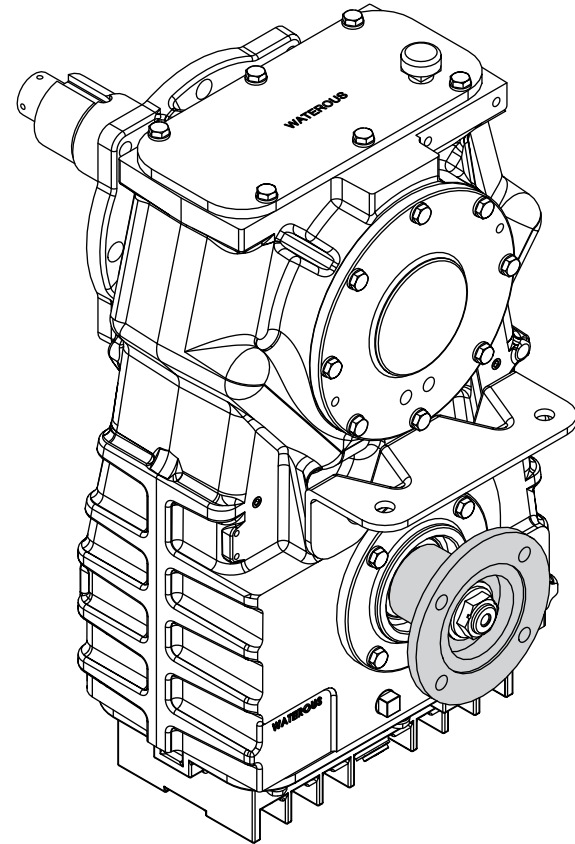
Torque to specification—This symbol tells you to torque the hardware to the specified value.

Driveline Options

QC transmissions can be driven by an engine or power take-off (PTO). The direct engine driveline requires a bellhousing adapter. The PTO driveline supports multiple connection options, including companion flanges and end yokes.

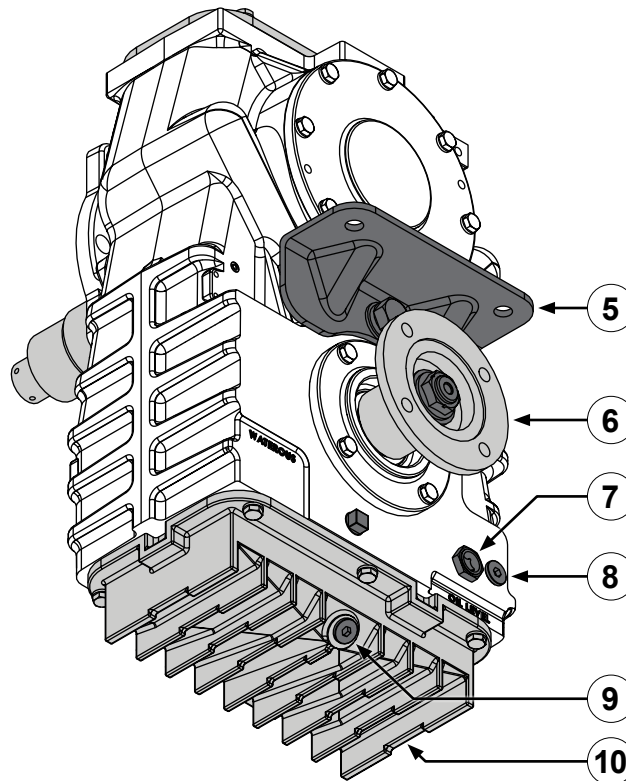
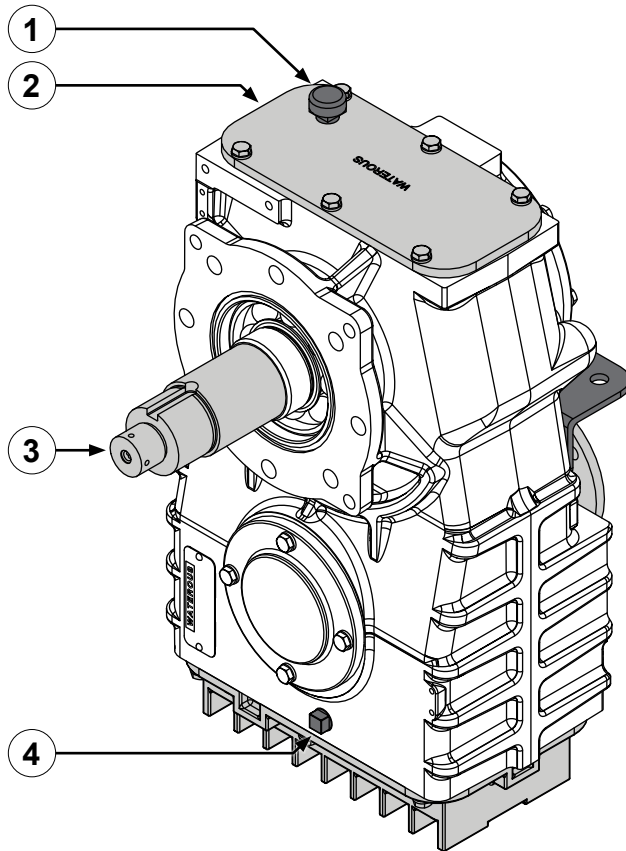


With Bellhousing Adapter



Without Bellhousing Adapter

Identifying Exterior Components—Driveline without Bellhousing Adapter



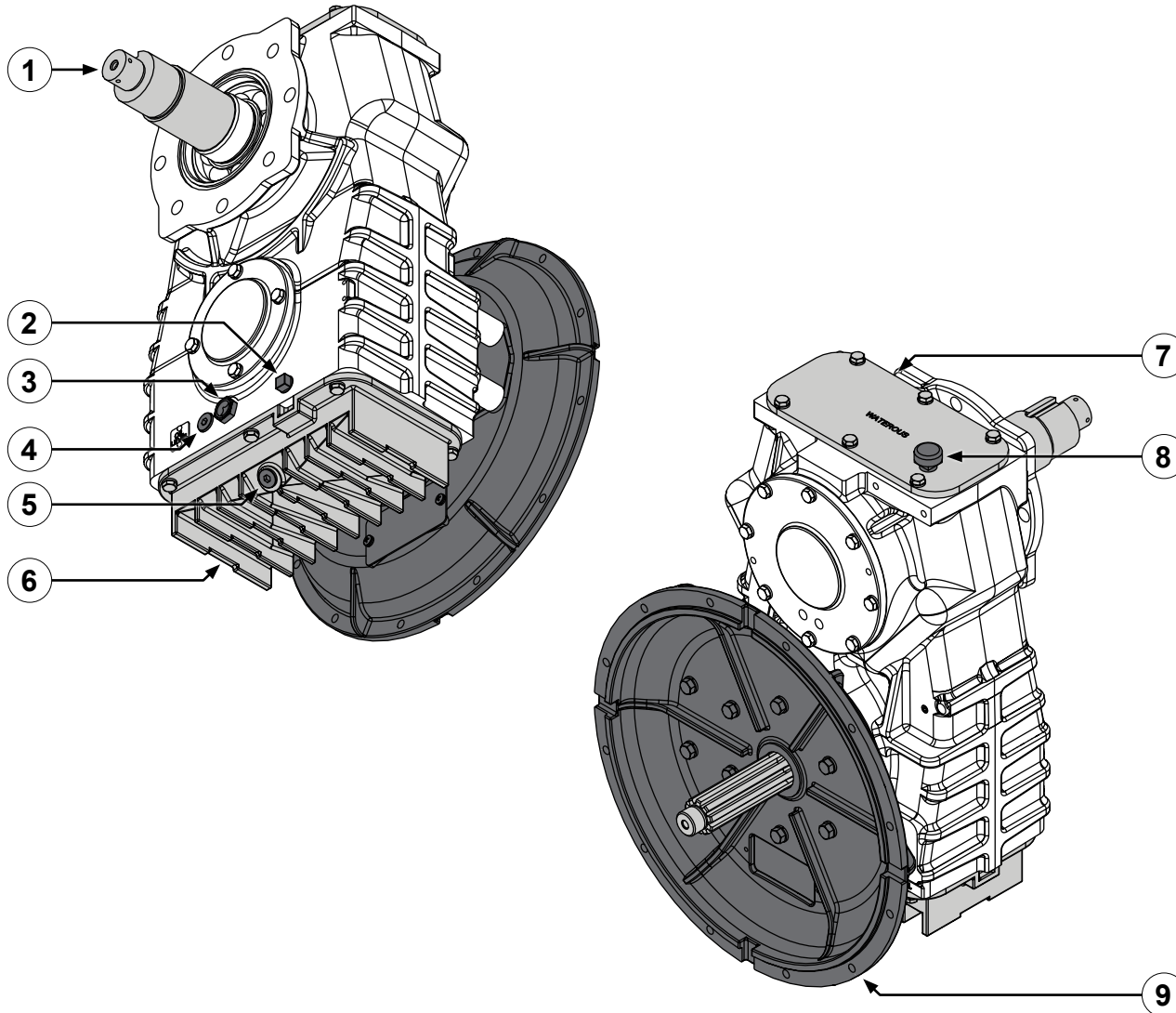
Use the illustration to identify various components on the transmission.

- | | |
|----|------------------------------------|
| 1 | Breather |
| 2 | Transmission cover |
| 3 | Impeller shaft |
| 4 | Chain pin access plug |
| 5 | Mounting bracket |
| 6 | Driven shaft with companion flange |
| 7 | Oil level sight plug |
| 8 | Magnetic plug—oil fill |
| 9 | Magnetic plug—oil drain |
| 10 | Transmission pan |

Identifying Exterior Components—Driveline with Bellhousing Adapter

Use the illustration to identify various components on the transmission.

- | | |
|---|---------------------------------------|
| 1 | Impeller shaft |
| 2 | Chain pin access plug |
| 3 | Oil level sight plug |
| 4 | Magnetic plug—oil fill |
| 5 | Magnetic plug—oil drain |
| 6 | Transmission pan |
| 7 | Transmission cover |
| 8 | Breather |
| 9 | Driven shaft with bellhousing adapter |



Preparing to Disassemble the Equipment

- Read and understand the instructions before disassembling the equipment.
- Prepare a workspace suitable to accommodate and support the equipment.
- Gather the necessary tools, cleaning cloths, brushes, and penetrating fluids.
- Understand that your configuration may require additional steps that are not described in the illustrations or instructions to perform the disassembly.
- This equipment is intended to be disassembled by a person or persons with the basic knowledge of servicing similar equipment. Contact Waterous for more information.

Tools Required

- Typical automotive mechanics hand tools.
- Suitable arbor press.
- Suitable support and lifting equipment.

Preparing the Apparatus

- Park the apparatus on a level surface in a well-lit area.
- Engage the parking brake.
- Shut off the engine and remove the key from the ignition switch.
- Allow the apparatus to cool before servicing.

Best Practices

- Remove any dirt, sand, grease, or oil from the enclosure before you disassemble the equipment. Surface debris can transfer into the interior and prematurely wear internal parts.
- Only use a clean, lint-free cloth, a debris-free work surface, and properly maintained tools to perform the disassembly.
- Replace any gaskets and O-ring seals during the overhaul.
- Do not reuse the lock nuts.
- Apply penetrating oil to screws and nuts before disassembly.

Removing the Equipment

Removing the equipment for overhaul varies by application. Your application may require components such as cooling lines, support brackets, plumbing connections, and other accessories to be removed or disconnected before removing the equipment.

Furthermore, some applications require you to remove the transmission and pump together before separating the transmission from the pump. Other applications allow you to remove the transmission without removing the pump from the apparatus. Refer to the pump instructions before proceeding.

Record the process used to remove the equipment from the apparatus. Use this information to install the equipment into the apparatus after the overhaul.

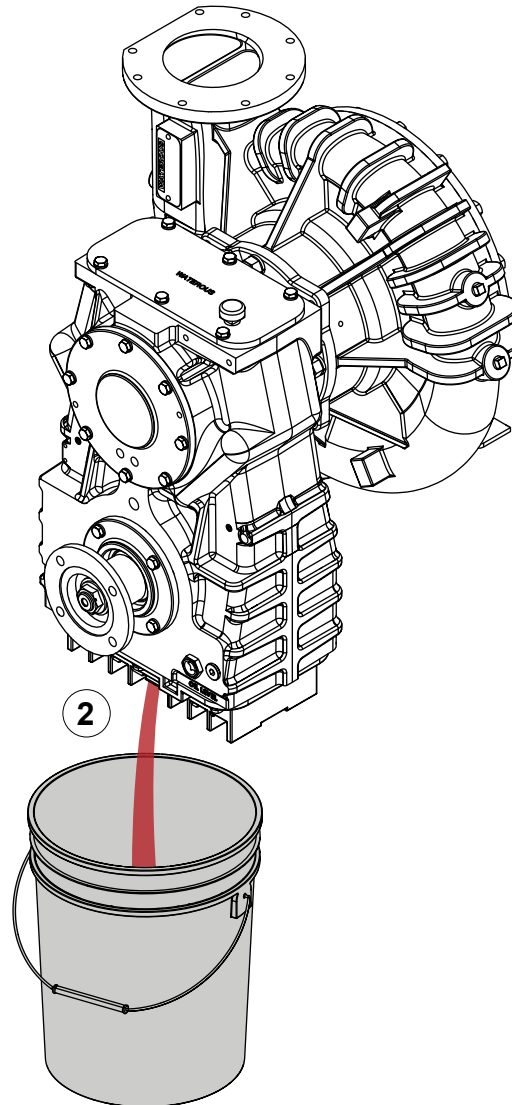
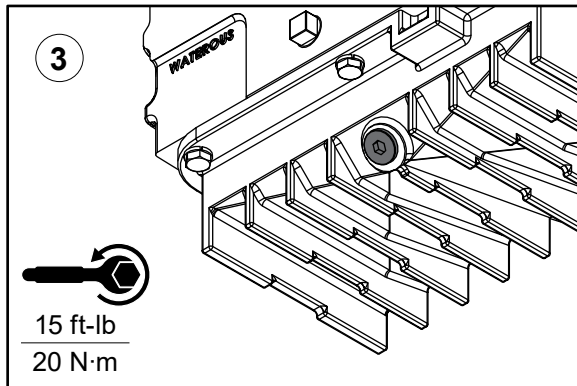
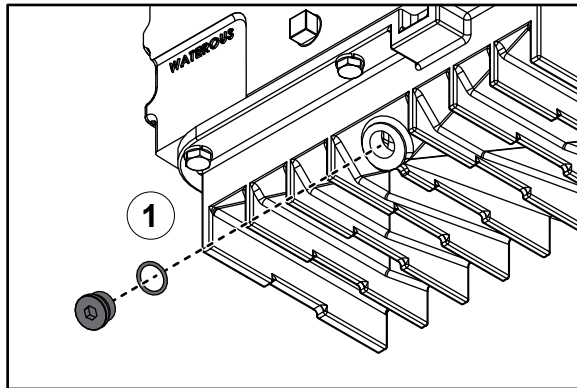
Disassembling the Components

- Refer to the SPL for part identification and disassembly order.

Note: Documents specific to your application are available through the MyWaterous login at waterousco.com by entering the serial number for your system. Depending on the application, the serial number for your equipment is located on the operator panel, pump, transmission, or some combination of the three.

- The SPL specific to your application is determined by the following:
 - The pump connected to the transmission.
 - The transmission drive method.
 - Whether the transmission drives a CAFS compressor.
- Use established industry practices to disassemble the equipment.
- Record or mark components as you remove them to make sure that you install them in the same orientation.
- Discard or recycle drained fluids collected during the overhaul in accordance with your local regulations.

Draining the Lubricant

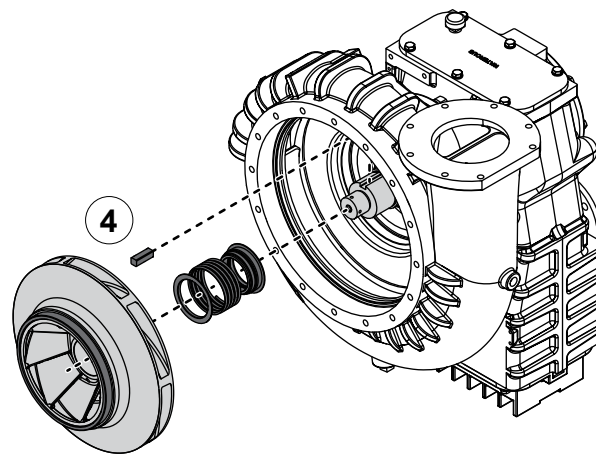
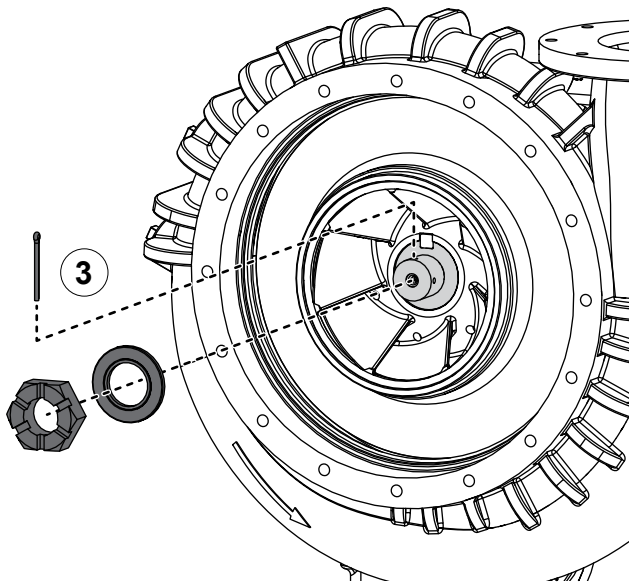
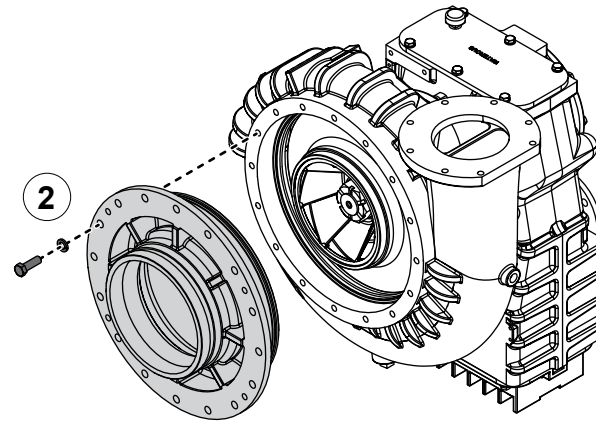
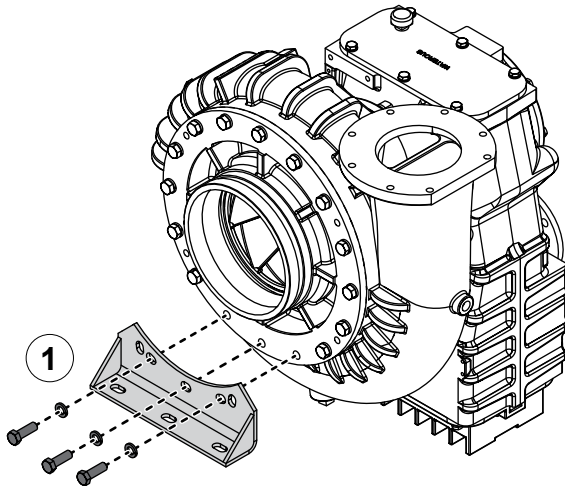


Use the illustrations and instructions to drain the lubricant from the transmission.

- 1 Place a suitable container under the transmission to collect the drained lubricant, then remove the oil drain plug. Clear any debris that may have adhered to the drain plug. If needed, replace the O-ring.
- 2 Allow the lubricant to drain.
- 3 Install the oil drain plug.

Note: Make sure that you do not over-tighten the plug.

Removing the Transmission



Use the illustrations and instructions to remove the transmission from the pump.

Note: CR pump shown. The process of removing the transmission for overhaul is similar regardless of pump model.

1 Remove the mounting hardware, then remove the pump mounting bracket.

2 Remove the mounting hardware, then remove the intake fitting.

Note: If needed, there are jacking screw holes to aid in removing the intake fitting.

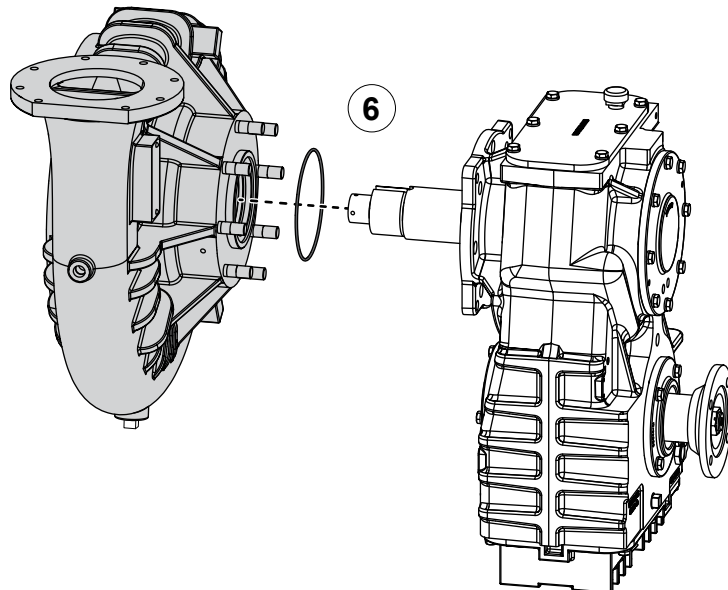
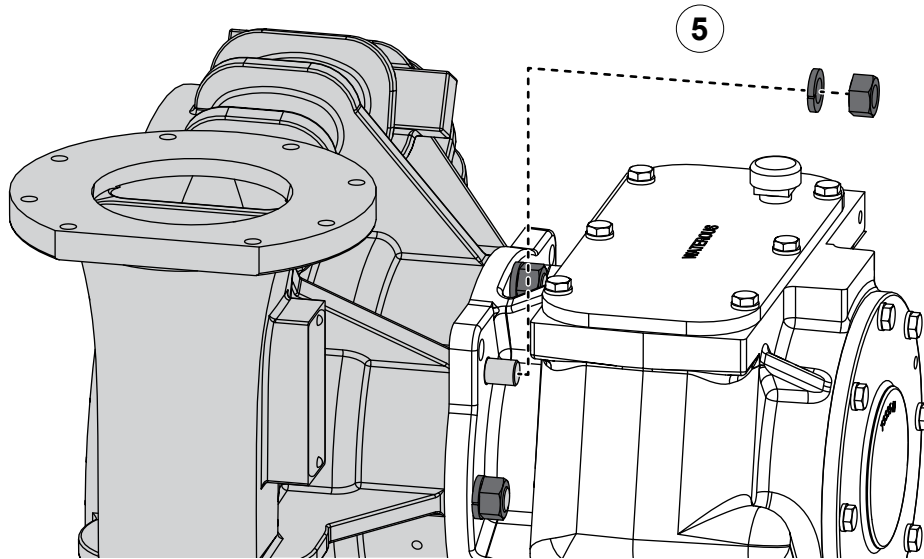
3 Remove the cotter pin, nut, and washer securing the impeller.

4 Remove the impeller, mechanical seal, and key.

Removing the Transmission

Use the illustrations and instructions to remove the transmission from the pump.

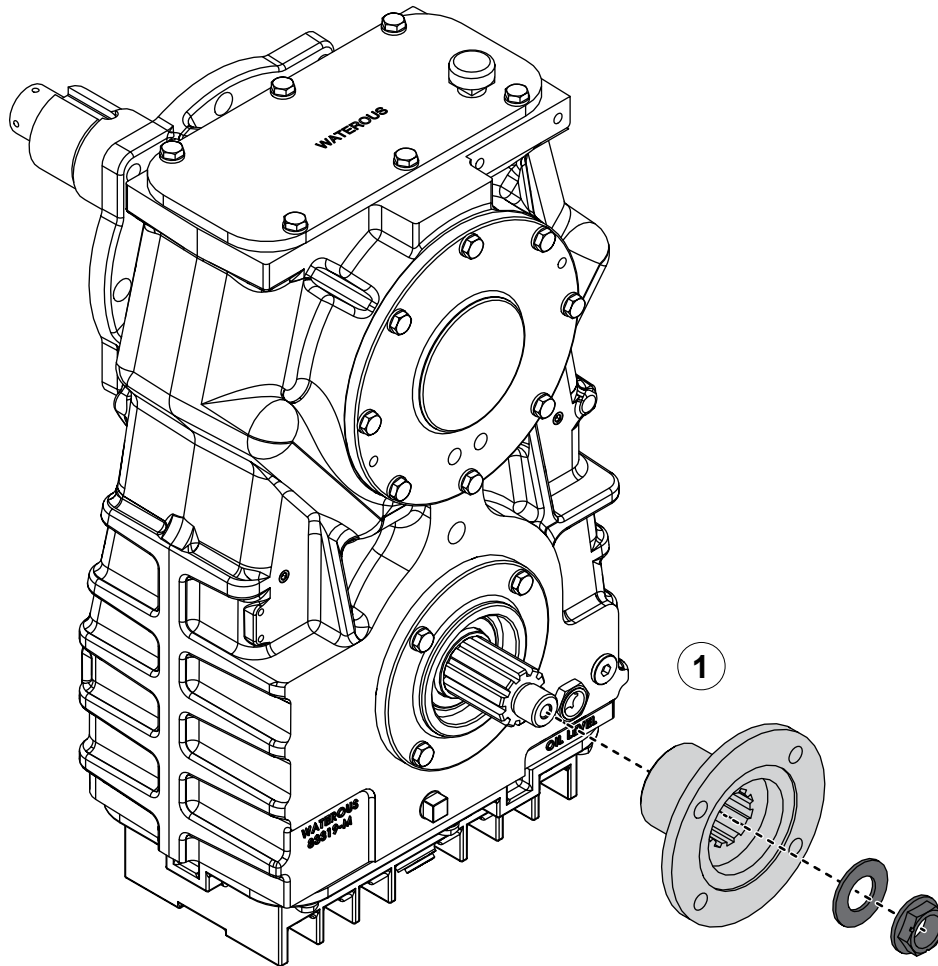
- 5 Remove the transmission mounting hardware.
- 6 Remove the transmission from the pump, then remove and discard the O-ring between the transmission and pump.



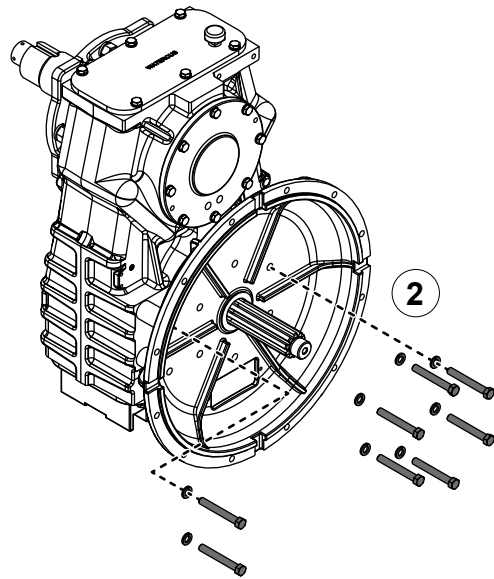
Removing the Companion Flange

Use the illustration and instructions to remove the companion flange.

- 1 Remove the lock nut and washer, then remove the companion flange.

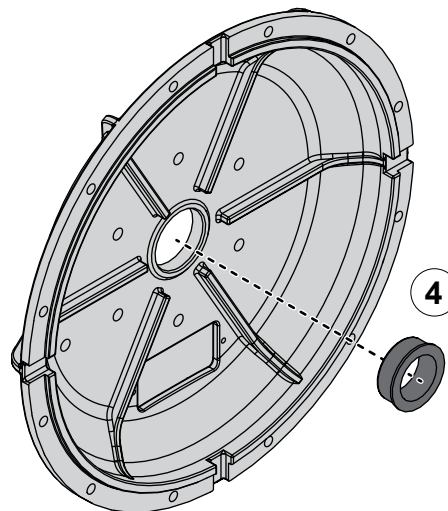
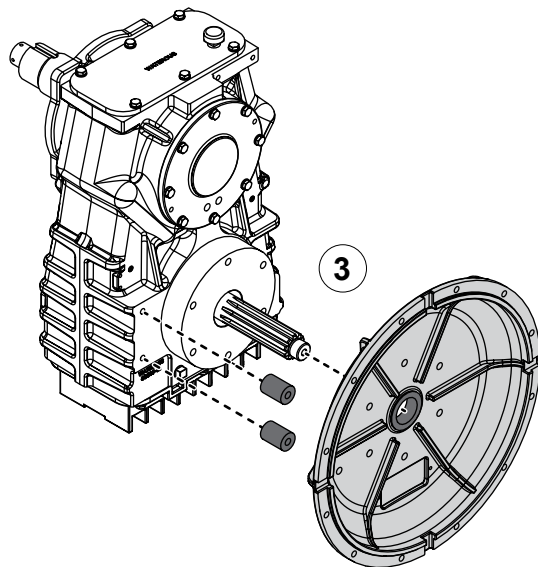


Removing the Bellhousing Adapter

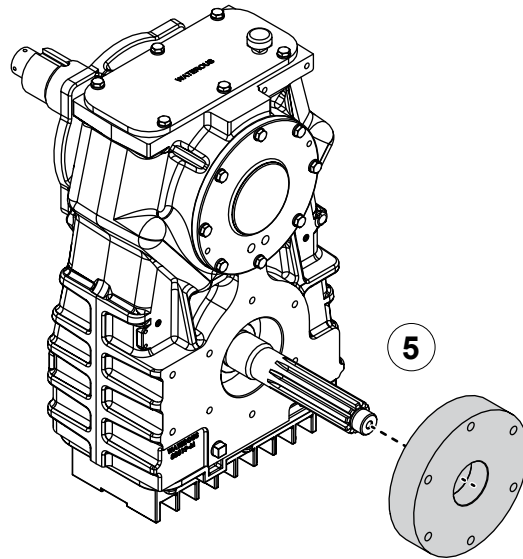


Use the illustrations and instructions to remove the bellhousing adapter.

- 1 To separate the transmission from the engine, do the following:
 - Drain any fluids, then disconnect the cooling lines that will be affected when you separate the transmission and engine.
 - Remove the hardware securing the bellhousing adapter to the engine.
- 2 Remove the bellhousing adapter hardware.
- 3 Remove the bellhousing adapter and spacers.
- 4 Press the bushing out of the bellhousing adapter.

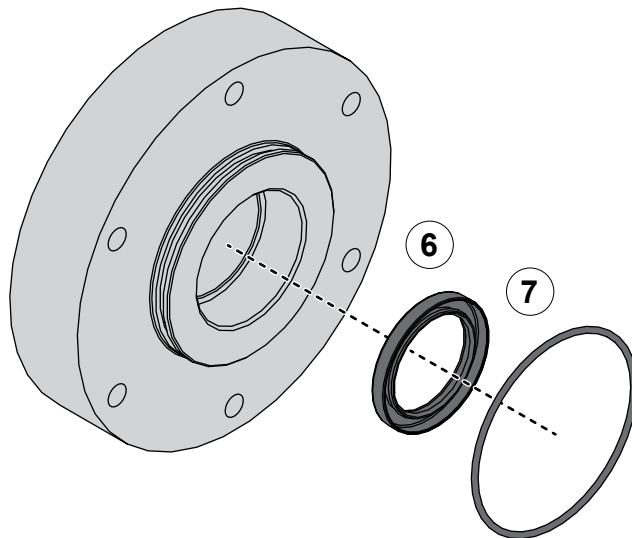


Removing the Bellhousing Adapter

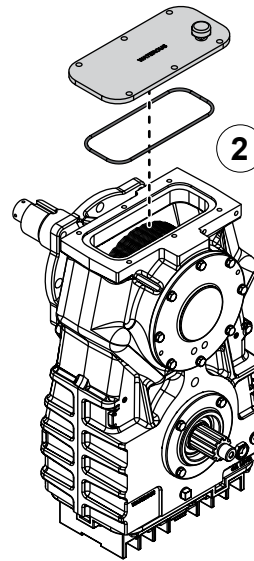
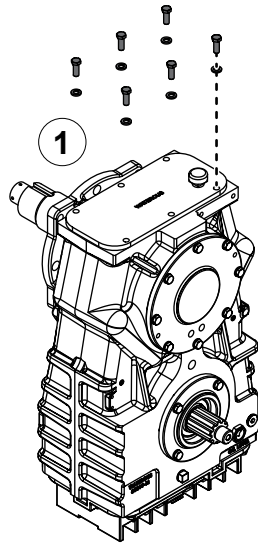


Use the illustrations and instructions to remove the bellhousing adapter.

- 5 Remove the spacer.
- 6 Remove and discard the oil seal.
- 7 Remove and discard the O-ring.

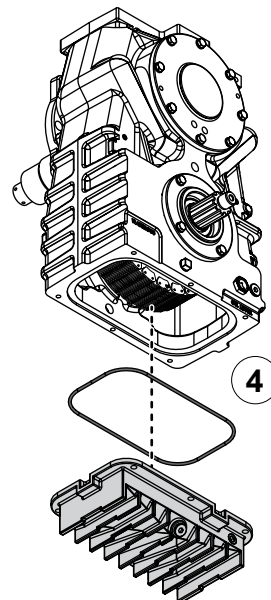
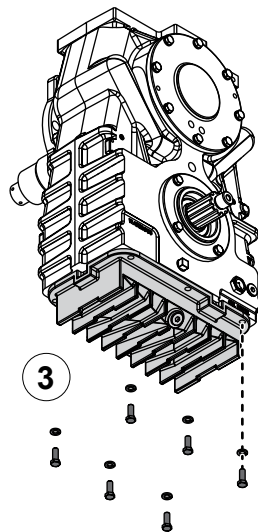


Removing the Cover and Transmission Pan



Use the illustrations and instructions to remove the cover and transmission pan.

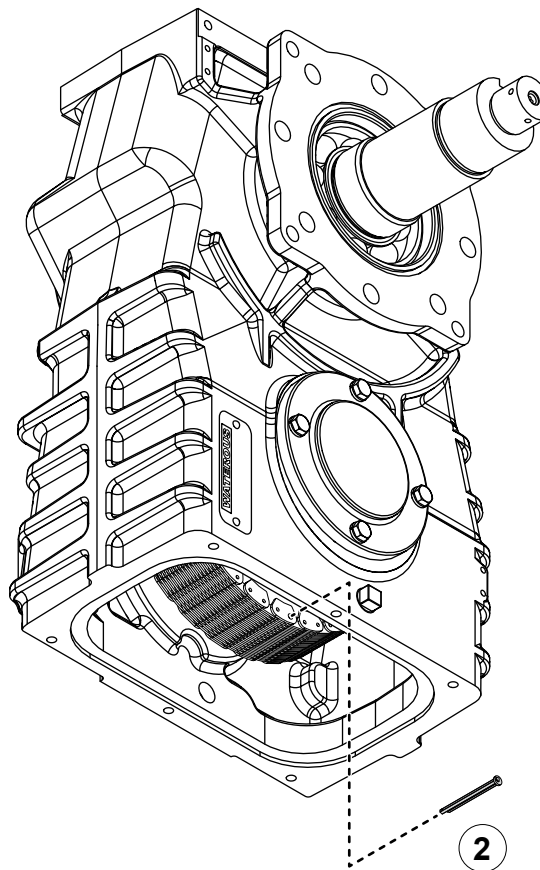
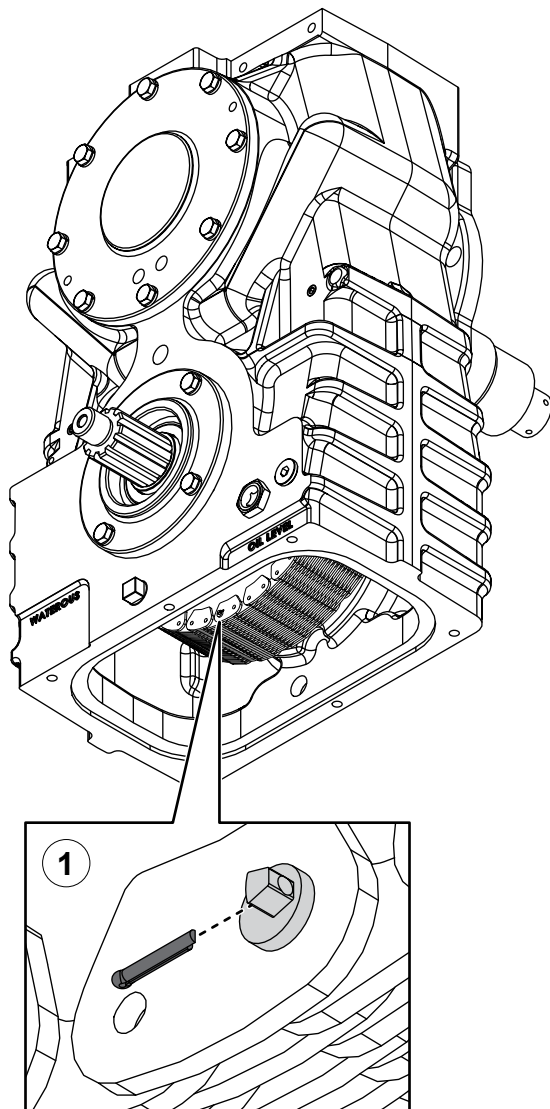
- 1 Remove the hardware securing the cover to the case.
- 2 Remove the cover, then remove and discard the cover gasket.
- 3 Remove the hardware securing the transmission pan to the case.
- 4 Remove the transmission pan, then remove and discard the transmission pan gasket.



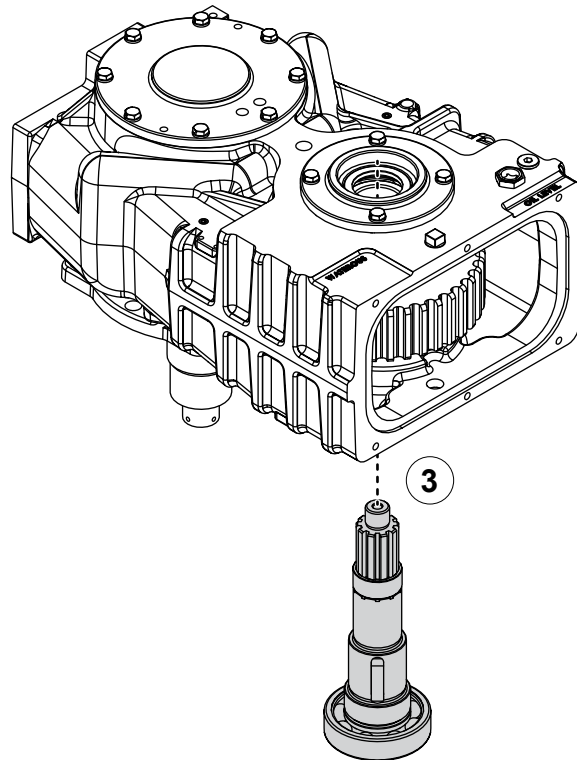
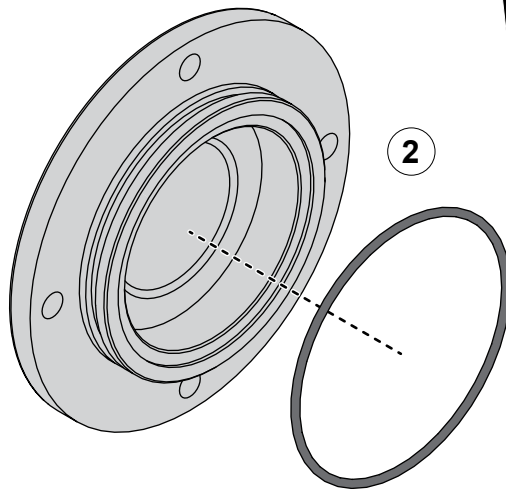
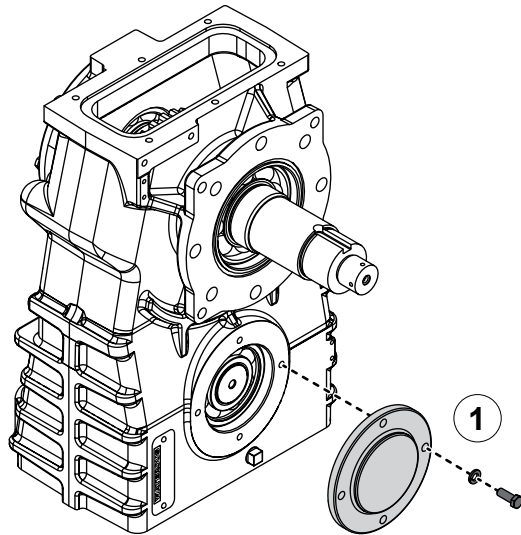
Removing the Chain

Use the illustrations and instructions to remove the drive chain.

- 1 Locate the connecting link, then remove the cotter pin and rivet disk.
- 2 Remove the pin lock, then remove the chain from the case.



CRQC and CRUQC-2 without Bellhousing Adapter

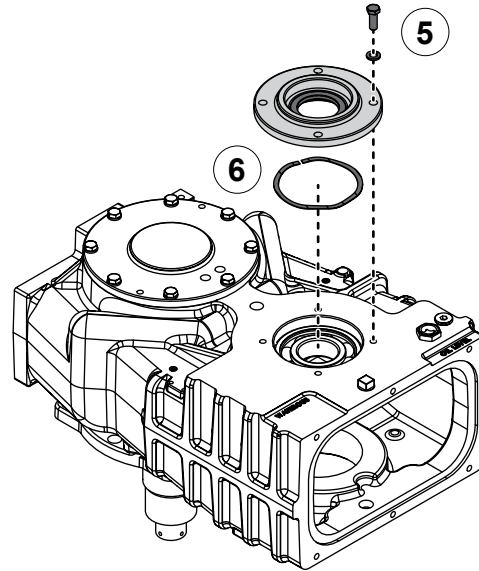
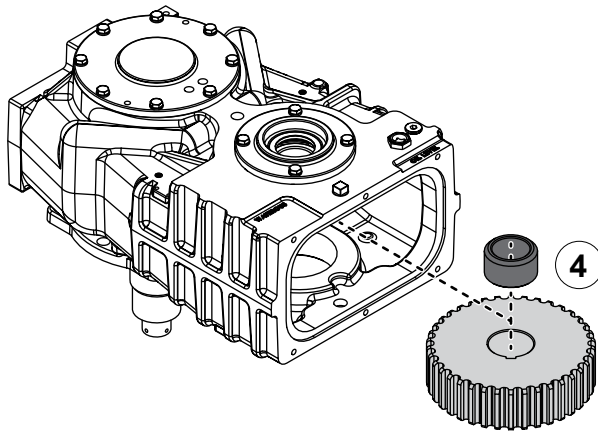


Removing the Drive Components

Use the illustrations and instructions to remove the drive components from the transmission case.

- 1 Remove the bearing cover hardware, then remove the bearing cover.
- 2 Remove and discard the O-ring.
- 3 Press the drive shaft assembly out of the case.

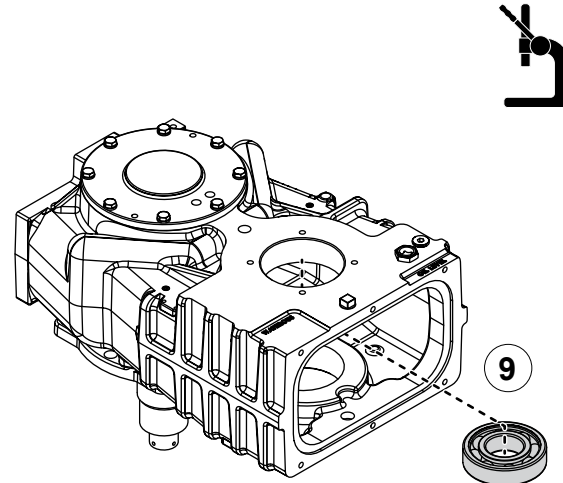
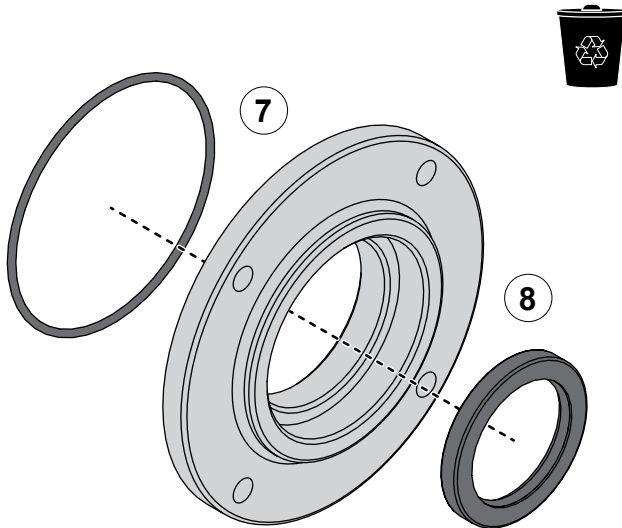
CRQC and CRUQC-2 without Bellhousing Adapter



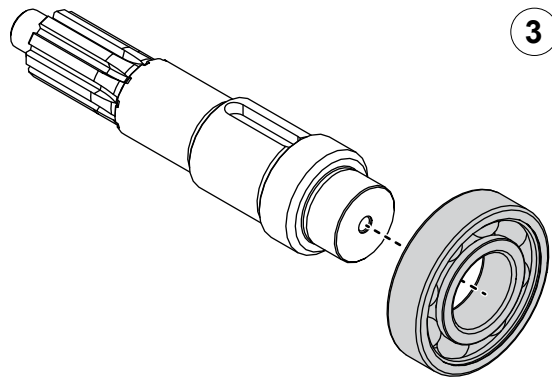
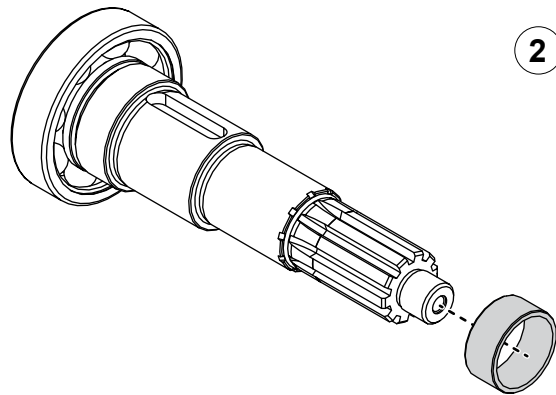
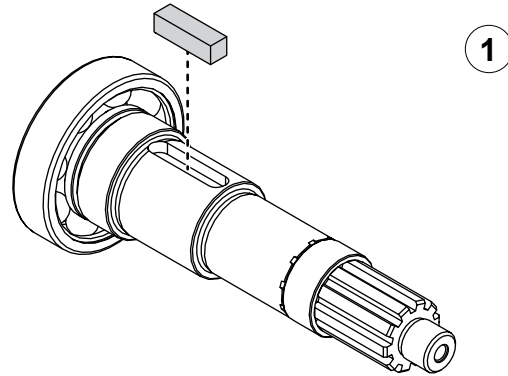
Removing the Drive Components

Use the illustrations and instructions to remove the drive components from the transmission case.

- 4 Remove the sprocket and spacer.
- 5 Remove the oil seal housing hardware, then remove the oil seal housing.
- 6 Remove the wave spring.
- 7 Remove and discard the O-ring.
- 8 Remove and discard the oil seal.
- 9 Press the bearing out of the case.



CRQC and CRUQC-2 without Bellhousing Adapter



Disassembling the Drive Shaft

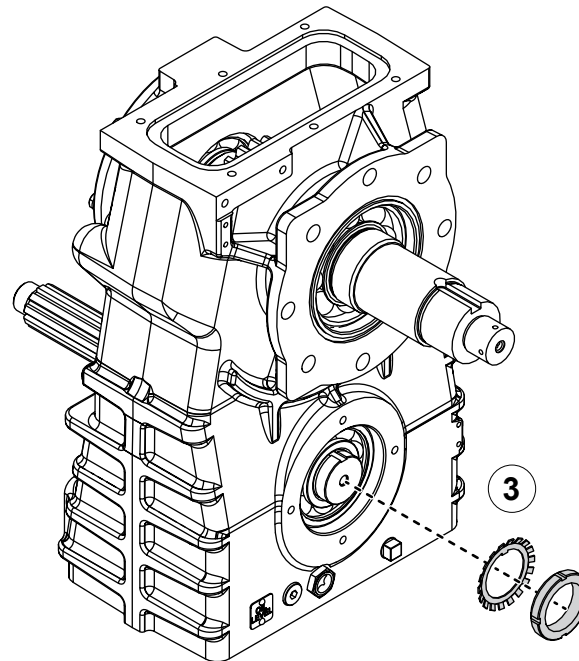
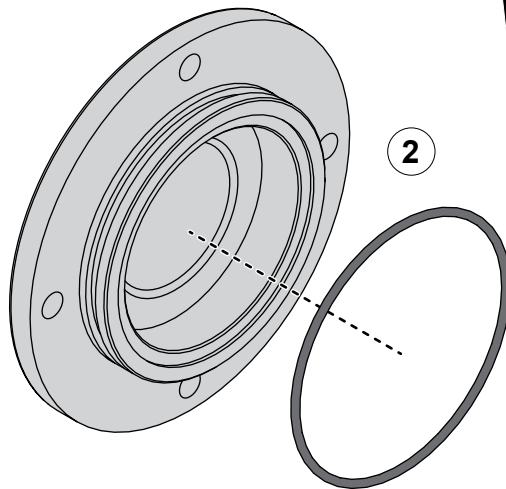
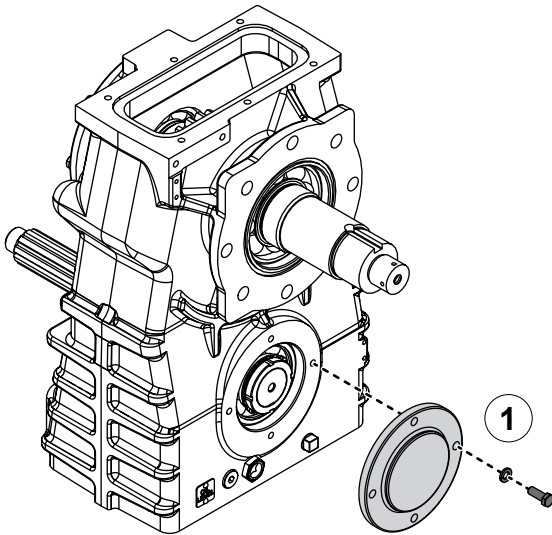
Use the illustrations and instructions to disassemble the drive shaft.

- 1 Remove the key.
- 2 Remove the spacer.
- 3 Remove the bearing.



This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across the entire width of the page, providing a guide for handwriting or typing. The background is a solid off-white color.

CRQC and CRUQC-2 with Bellhousing Adapter

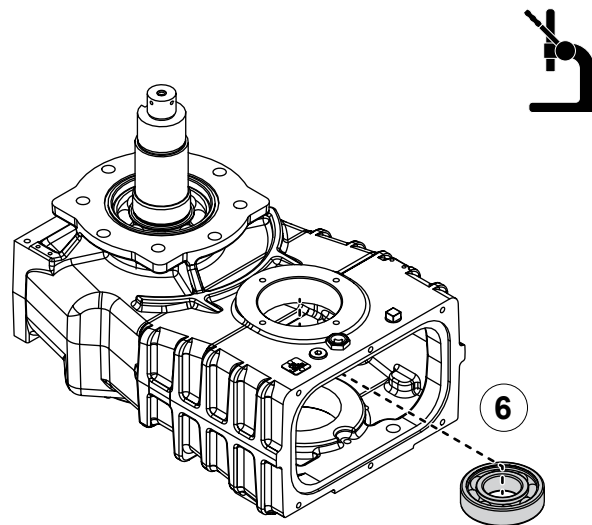
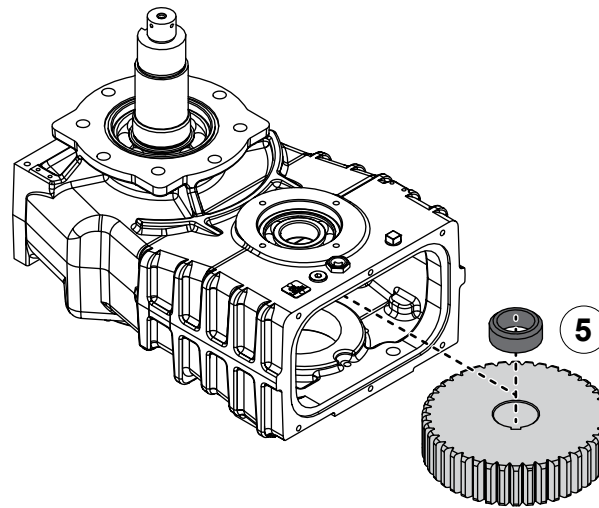
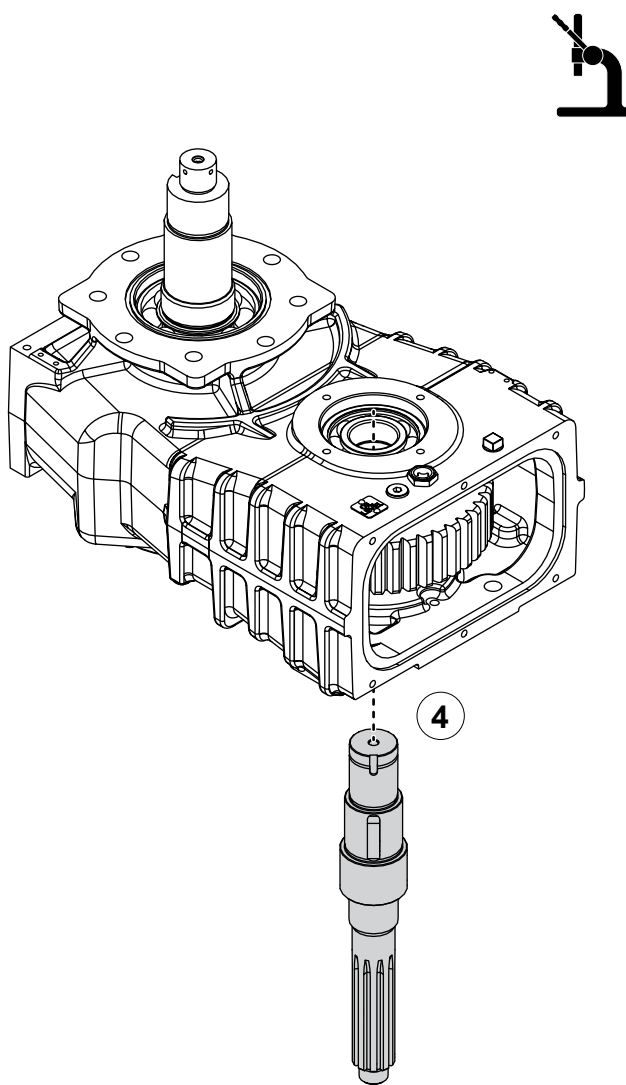


Removing the Drive Components

Use the illustrations and instructions to remove the drive components from the transmission case.

- 1 Remove the bearing cover hardware, then remove the bearing cover.
- 2 Remove and discard the O-ring.
- 3 Straighten the tab on the bearing lock washer, then remove the nut and washer.

CRQC and CRUQC-2 with Bellhousing Adapter



Removing the Drive Components

Use the illustrations and instructions to remove the drive components from the transmission case.

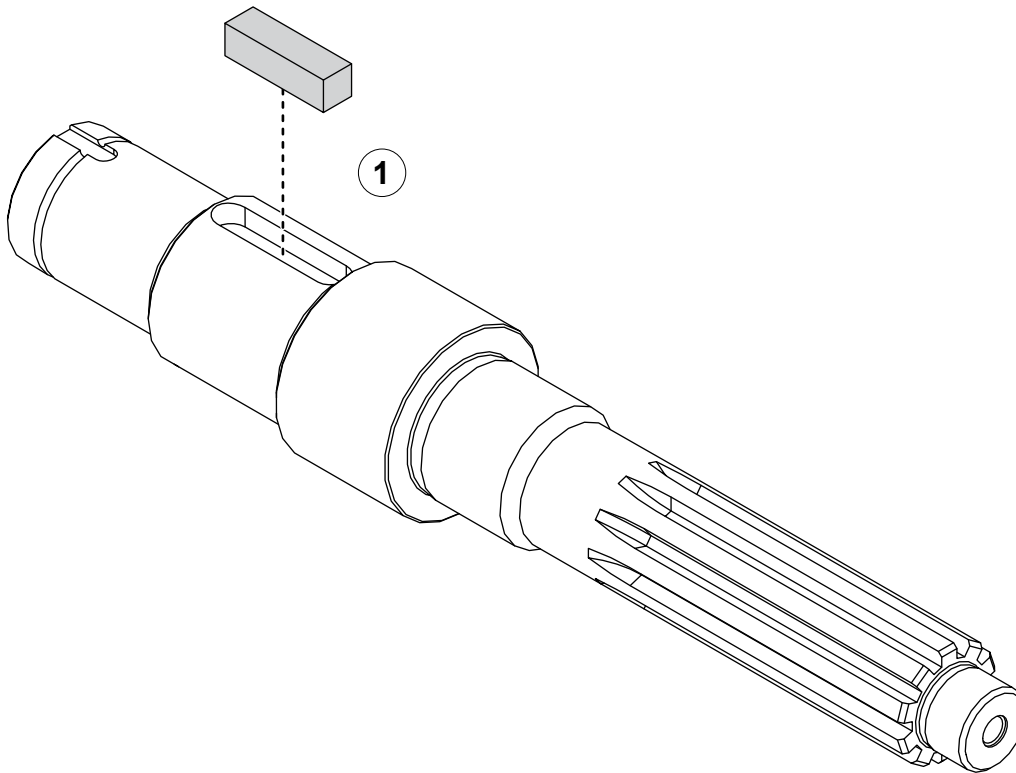
- 4 Press the drive shaft assembly out of the case.
- 5 Remove the sprocket and spacer.
- 6 Press the bearing out of the case.

CRQC and CRUQC-2 with Bellhousing Adapter

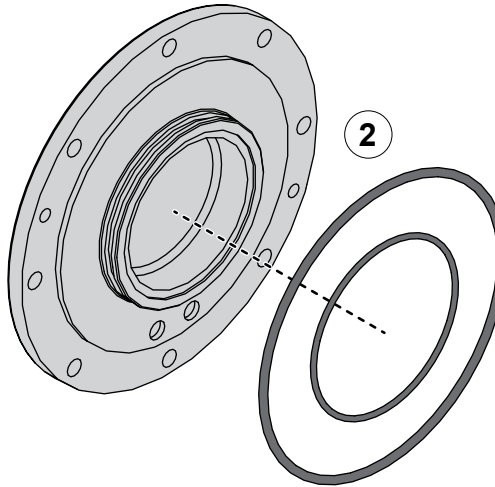
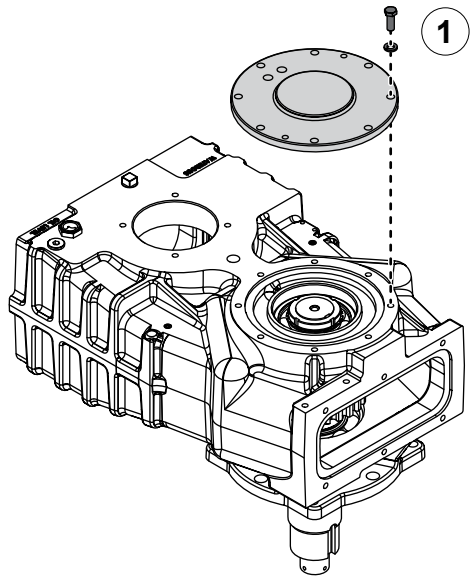
Disassembling the Drive Shaft

Use the illustration and instructions to disassemble the drive shaft.

- 1 Remove the key.

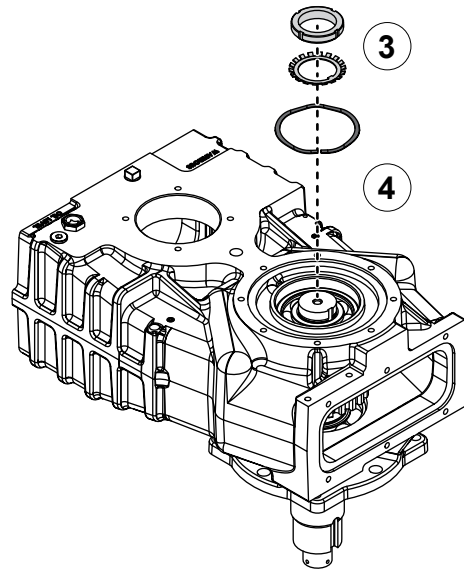


Removing the Driven Components

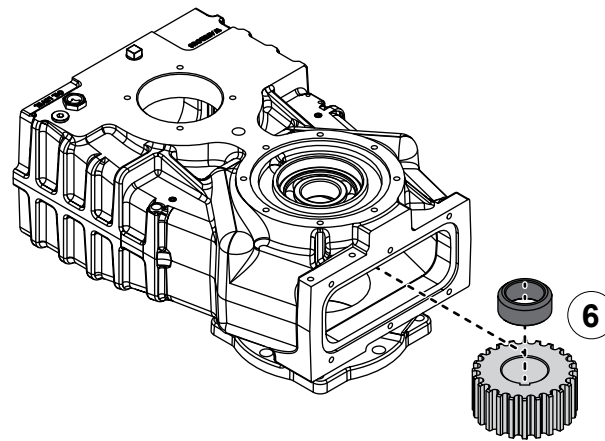
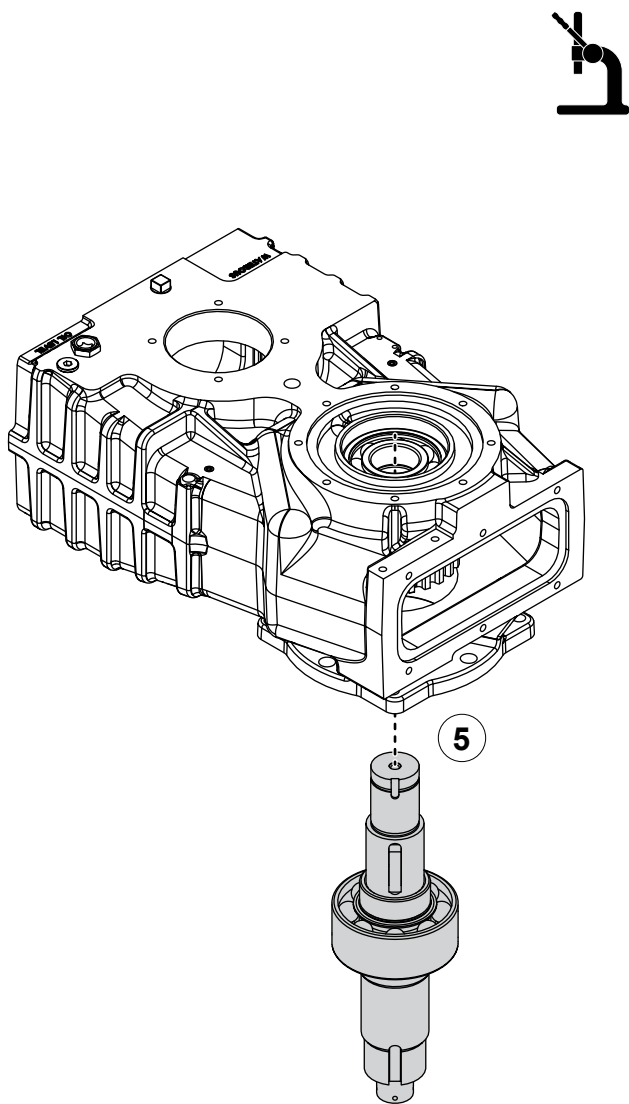


Use the illustrations and instructions to remove the driven components from the transmission case.

- 1 Remove the bearing cover hardware, then remove the bearing cover.
- 2 Remove and discard the O-rings.
- 3 Straighten the tab on the lock washer, then remove the lock nut and washer.
- 4 Remove the wave spring.

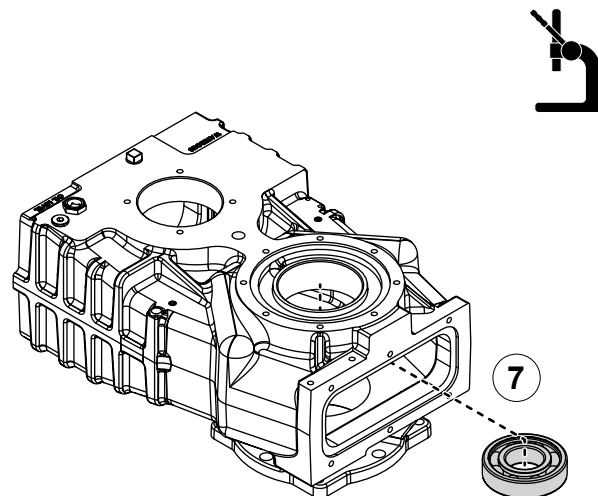


Removing the Driven Components

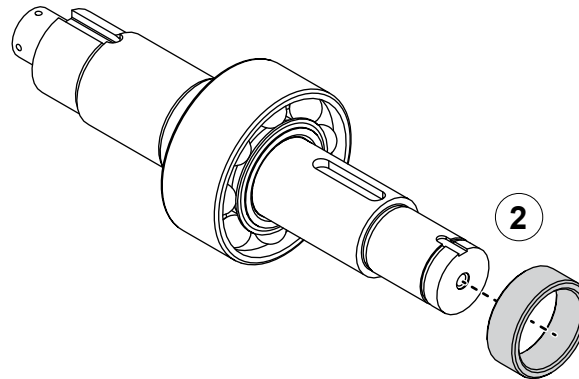
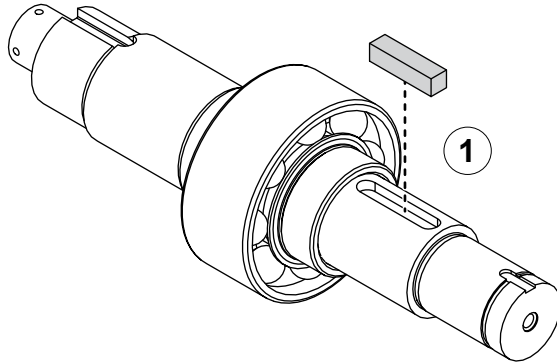


Use the illustrations and instructions to remove the driven components from the transmission case.

- 5 Press the driven shaft assembly out of the case.
- 6 Remove the sprocket and spacer.
- 7 Press the bearing out of the case.

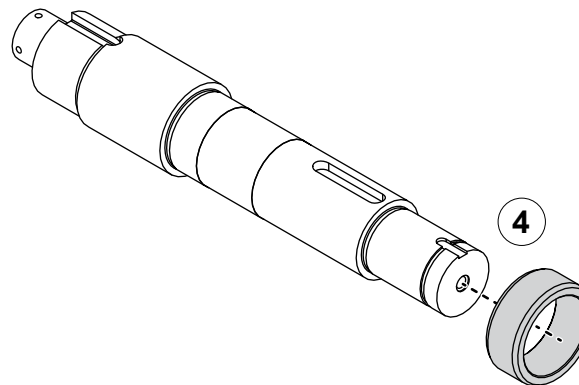
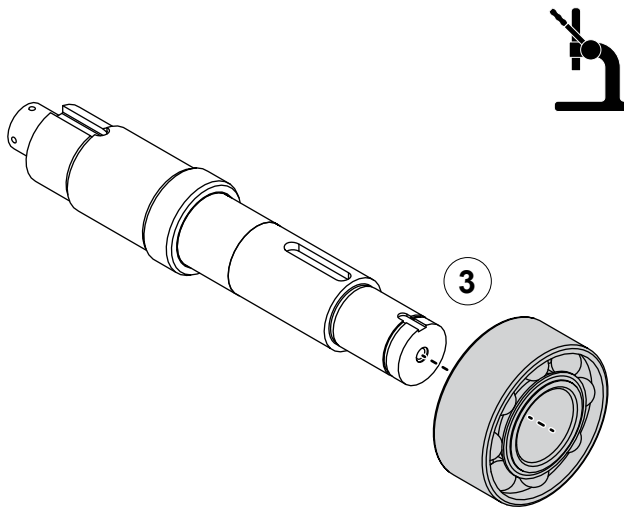


Disassembling the Driven Shaft



Use the illustrations and instructions to disassemble the driven shaft.

- 1 Remove the key.
- 2 Remove the spacer.
- 3 Remove the bearing.
- 4 Remove the oil seal sleeve.



Preparing to Assemble the Equipment

- Read and understand the instructions before assembling the equipment.
- Prepare a workspace suitable to accommodate and support the equipment.
- Gather the necessary tools and assembly aids.
- Gather the overhaul components, such as lubricant, bearings, seals, and O-rings—only use equivalent components.
- Understand that your configuration may require additional steps that are not described in the illustrations or instructions to perform the assembly.
- This equipment is intended to be assembled by a person or persons with the basic knowledge of servicing similar equipment. Contact Waterous for more information.

Tools Required

- Typical automotive mechanics hand tools.
- Suitable arbor press.
- Torque wrench capable of 450 ft-lb (610 N·m).
- Suitable support and lifting equipment.

Best Practices

- Remove any dirt, sand, grease, or oil from the enclosure before you begin the overhaul. Surface debris can transfer into the interior and prematurely wear internal parts.
- Replace any gaskets and O-ring seals during the assembly.
- Do not reuse the lock nuts.
- Apply anti-seize compound to the lock nut threads before installation.

Assembling the Components

- Refer to the SPL for part identification.
- The SPL specific to your application is determined by the following:
 - The transmission drive method.
 - Whether the transmission drives a CAFS compressor.

Note: Documents specific to your application are available through the MyWaterous login at waterousco.com by entering the serial number for your system. Depending on the application, the serial number for your equipment is located on the operator panel, pump, transmission, or some combination of the three.

- Use established industry practices to assemble the equipment.
- Tighten hardware to industry standard torque specifications—unless otherwise noted.
- Make sure that you do not over-tighten plugs.
- Replace components such as O-rings, bearings, gaskets, oil seals, lock nuts, lock washers, and lubricants with equivalent components.

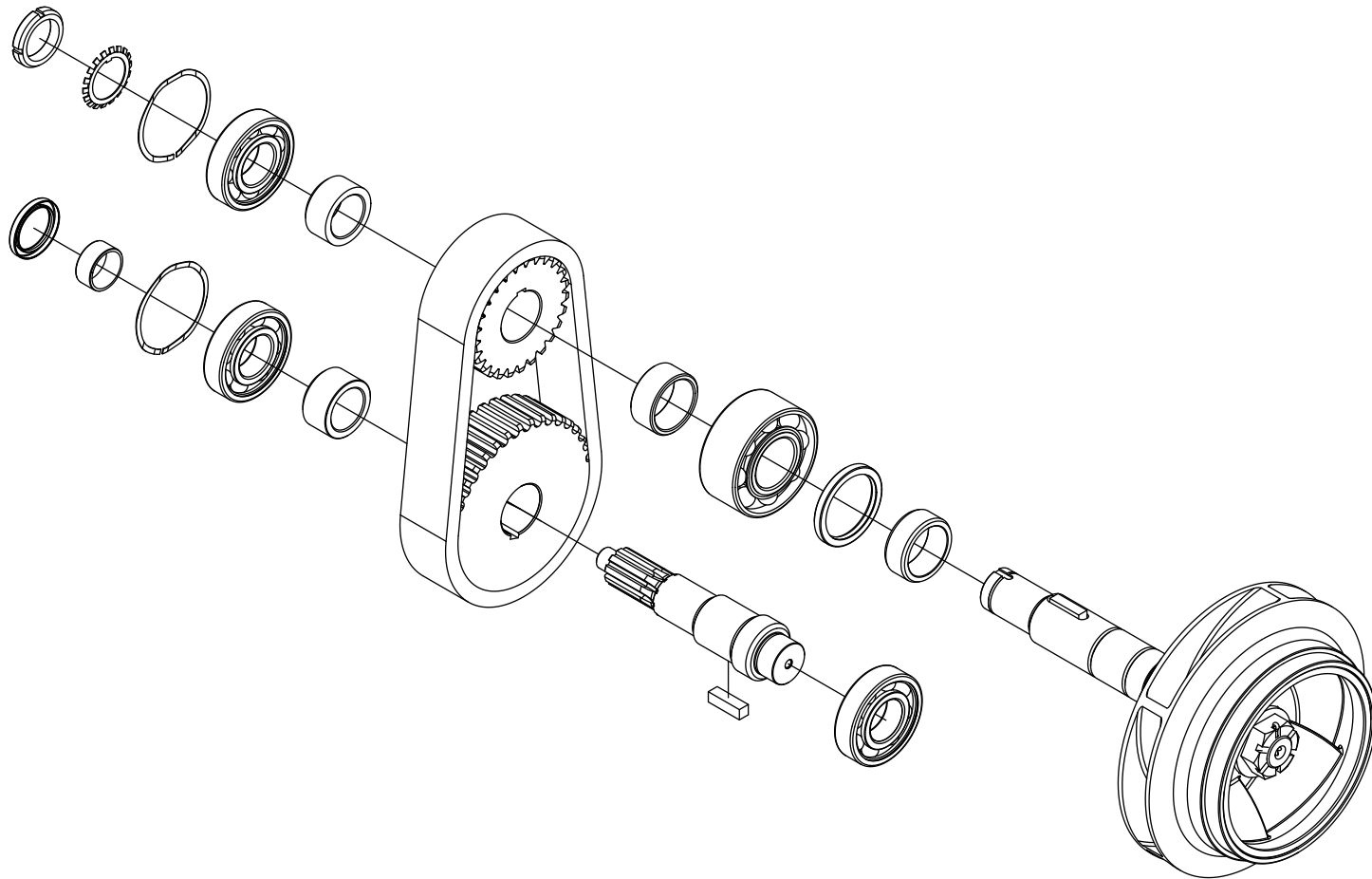
Installing the Equipment

Use the information that you recorded when you removed the equipment to install it into the apparatus.

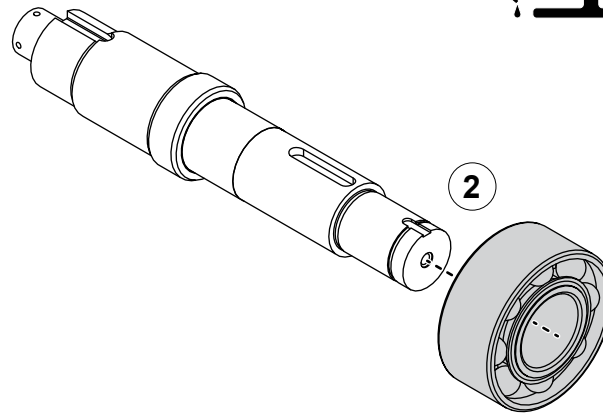
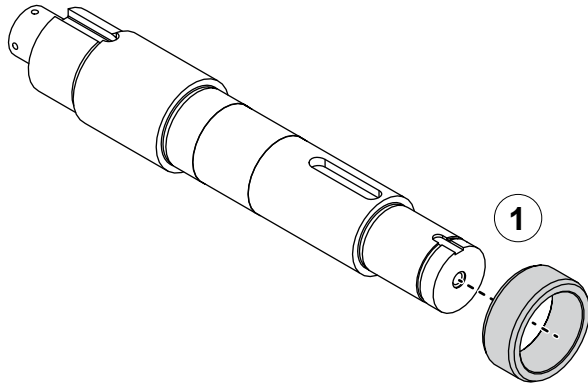
Understanding the Illustrations

The assembly illustrations depict a typical application. Plugs, breathers, cooling hoses, and fittings are not illustrated as they may be in a different location on your application. Refer to the SPL for your application to identify the various plug locations.

CRQC and CRUQC-2 without Bellhousing Adapter



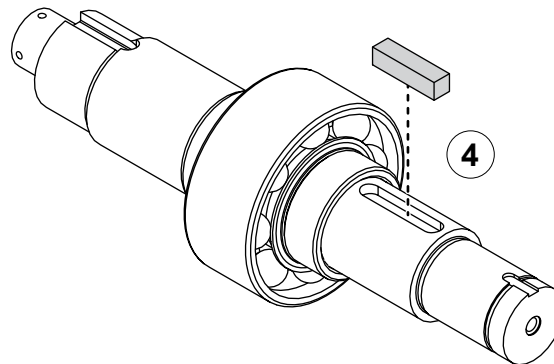
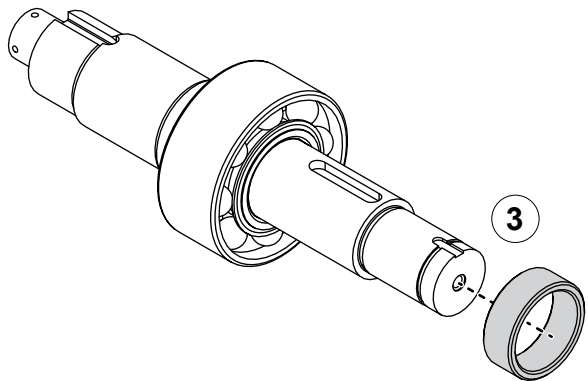
CRQC and CRUQC-2 without Bellhousing Adapter



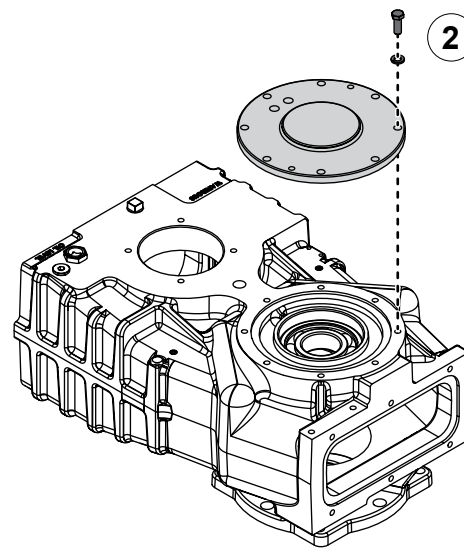
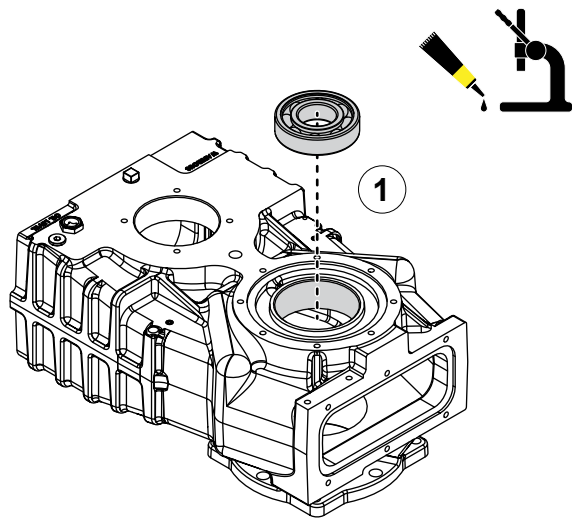
Assembling the Driven Shaft

Use the illustrations and instructions to assemble the driven shaft.

- 1 Install the oil seal sleeve onto the shaft.
- 2 Apply extreme pressure assembly lubricant to the shaft, then press the bearing onto the shaft.
- 3 Install the spacer onto the shaft.
- 4 Install the key into the key slot.



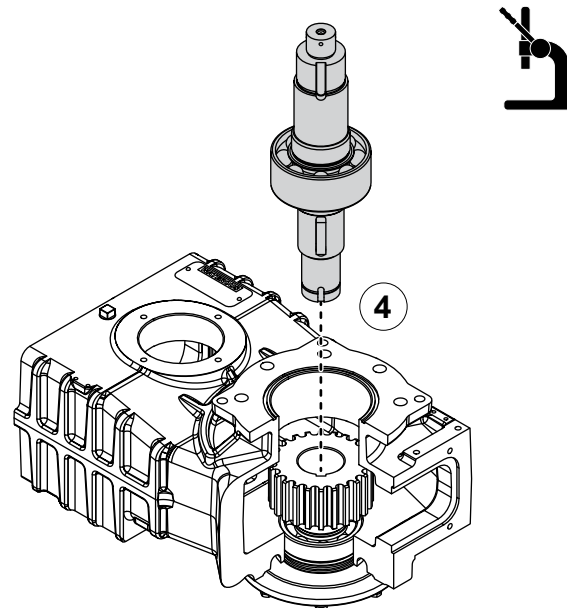
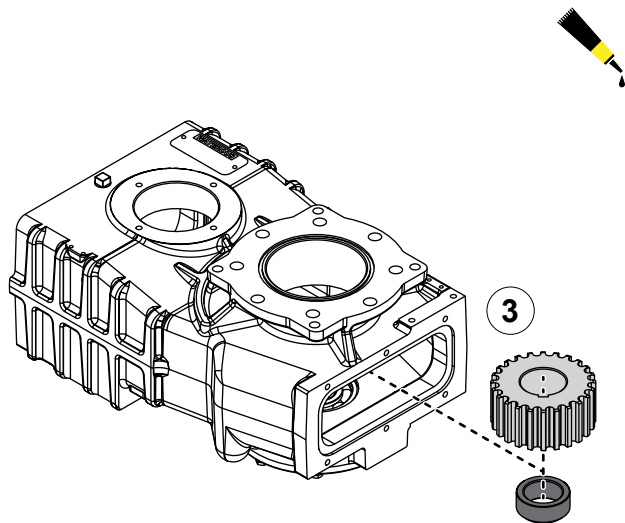
CRQC and CRUQC-2 without Bellhousing Adapter



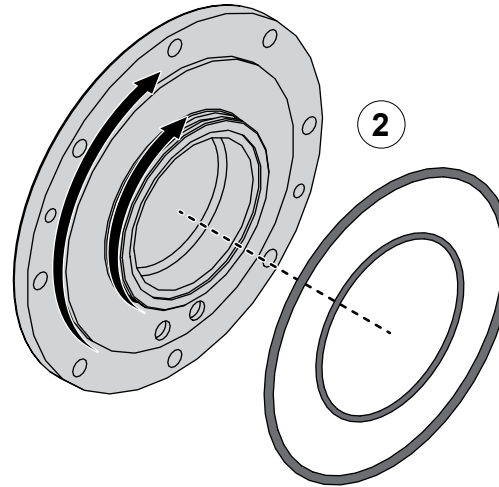
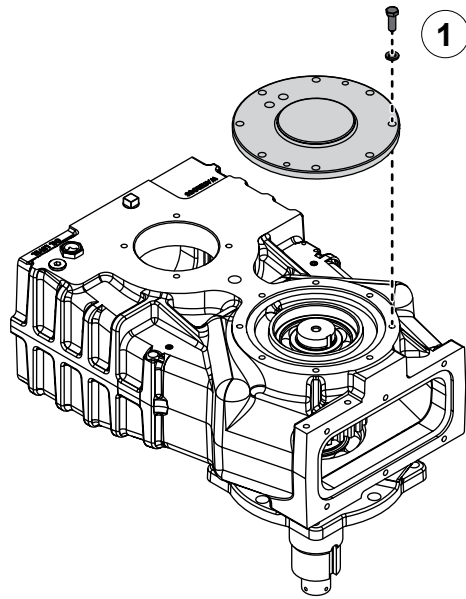
Installing the Driven Shaft

Use the illustrations and instructions to assemble the driven shaft.

- 1 Apply extreme pressure assembly lubricant to the bore, then press the bearing into the bore.
- 2 Temporarily install the bearing cover onto the transmission case.
- 3 Flip the case so that the input side is facing down, then position the sprocket and spacer inside the case.
- 4 Press the driven shaft assembly through the case, sprocket, and spacer.



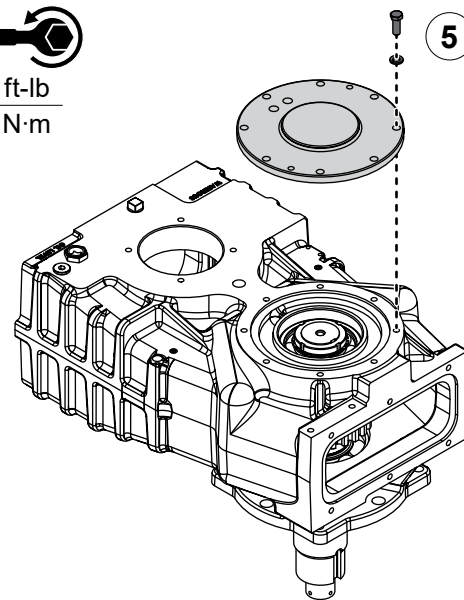
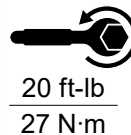
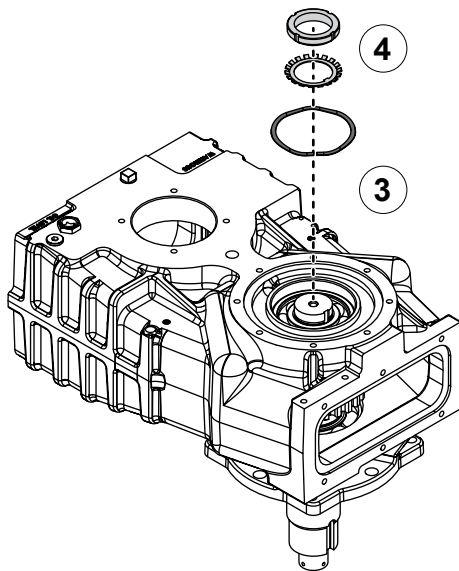
CRQC and CRUQC-2 without Bellhousing Adapter



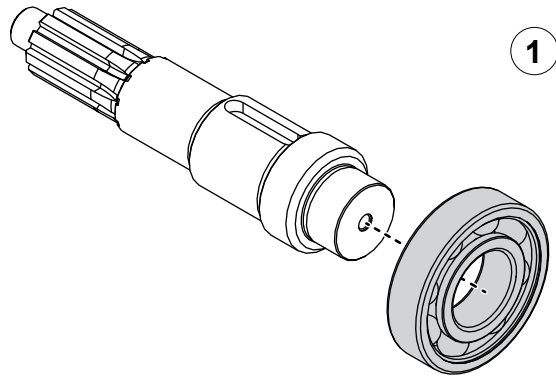
Installing the Bearing Cover

Use the illustrations and instructions to install the bearing cover.

- 1 Flip the case so that the pump side is facing down, then remove the bearing cover.
- 2 Apply lubricant around the lip of the cover, then install the larger O-ring onto the cover. Apply lubricant to the O-ring groove, then install the remaining O-ring into the groove.
- 3 Install the wave spring into the case.
- 4 Install the bearing lock nut and washer. Refer to: **"Installing the Bearing Lock Washer and Nut" on page 44.**
- 5 Use the mounting hardware to secure the bearing cover to the case.



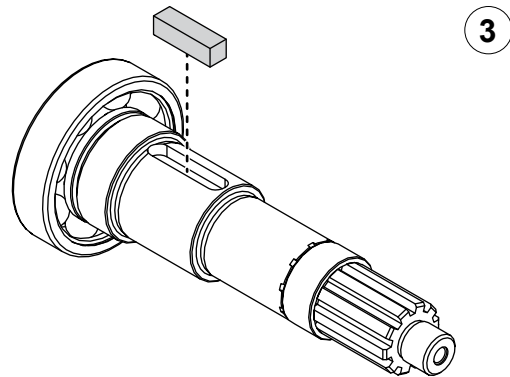
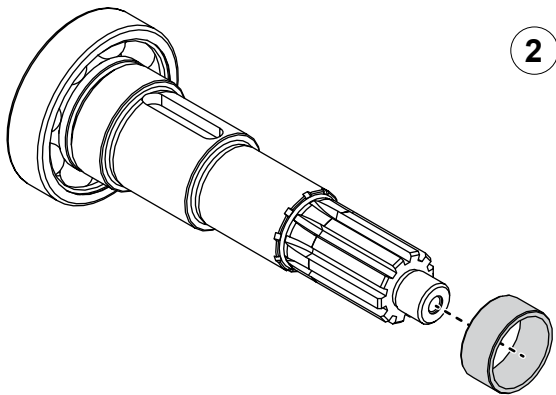
CRQC and CRUQC-2 without Bellhousing Adapter



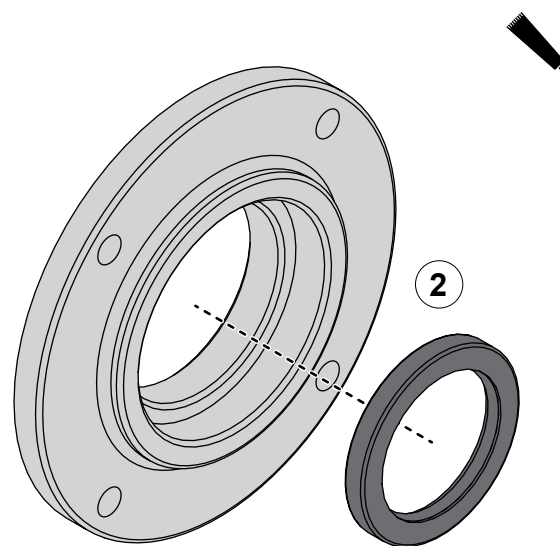
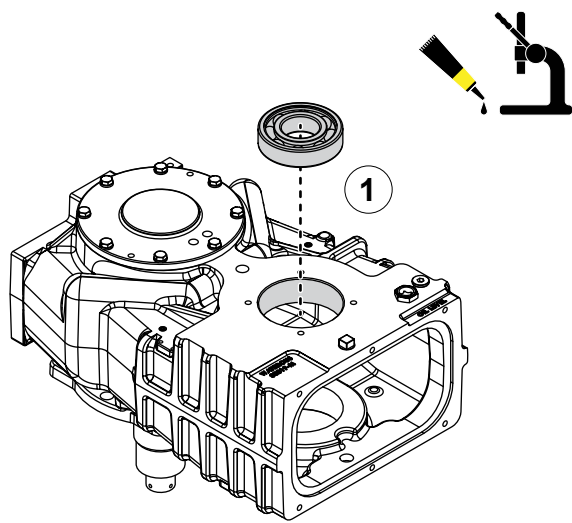
Assembling the Drive Shaft

Use the illustrations and instructions to assemble the drive shaft.

- 1 Apply extreme pressure assembly lubricant to the shaft, then press the bearing onto the shaft.
- 2 Install the spacer onto the shaft.
- 3 Install the key into the key slot.



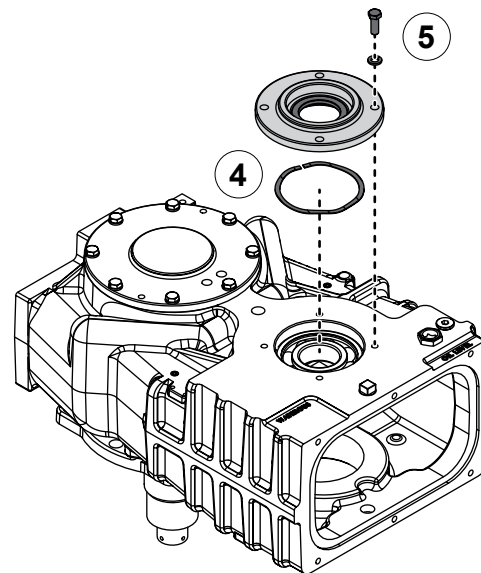
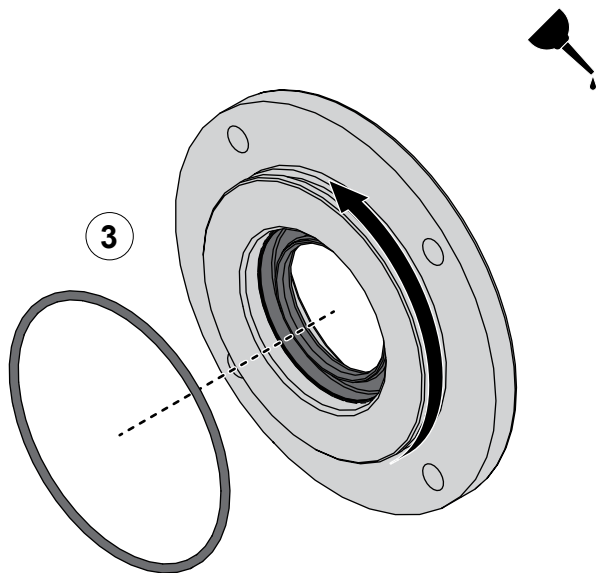
CRQC and CRUQC-2 without Bellhousing Adapter



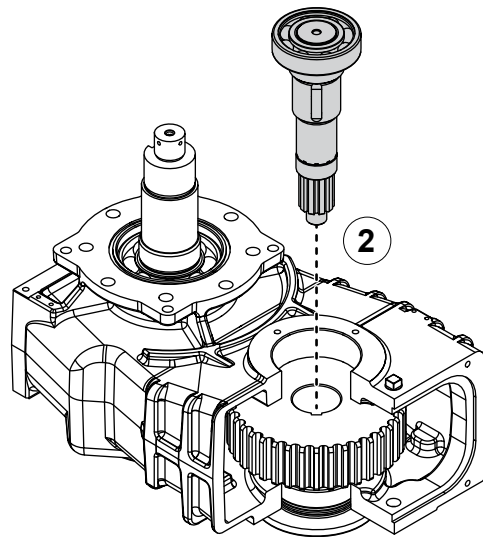
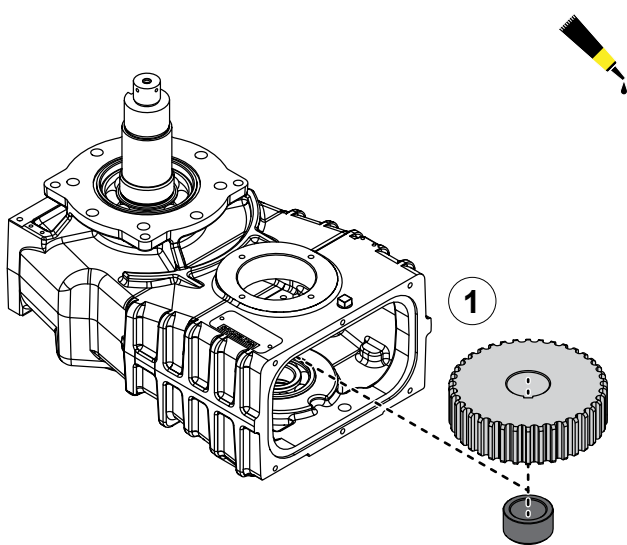
Installing the Drive Shaft

Use the illustrations and instructions to install the drive shaft.

- 1 Apply extreme pressure assembly lubricant to the bore, then press the bearing into the bore.
- 2 Apply sealant around the oil seal, then install it into the oil seal housing.
- 3 Apply lubricant to the O-ring groove, then install the O-ring into the groove.
- 4 Install the wave spring into the case.
- 5 Use the mounting hardware to secure the oil seal housing to the case.



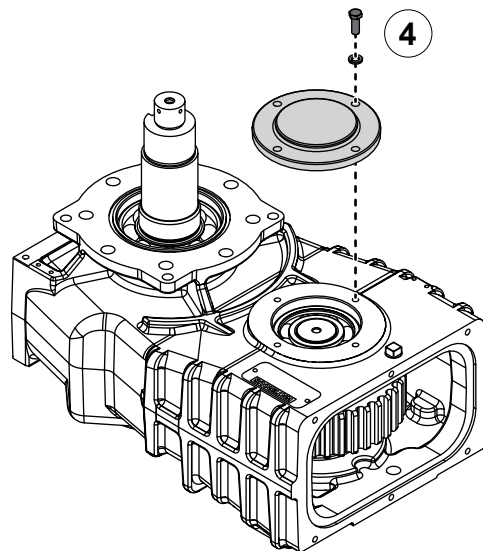
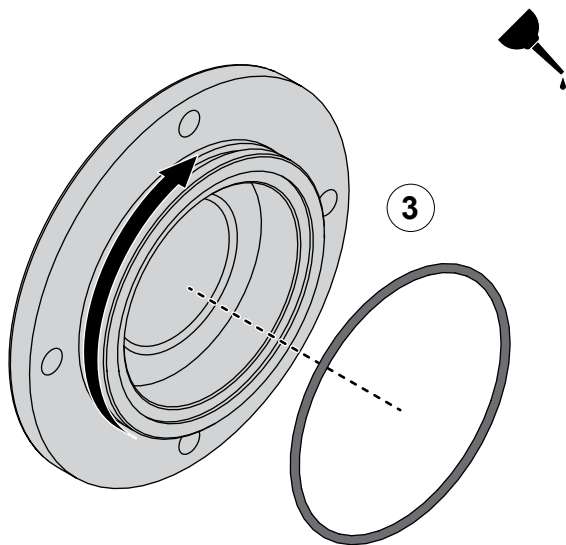
CRQC and CRUQC-2 without Bellhousing Adapter



Installing the Drive Shaft

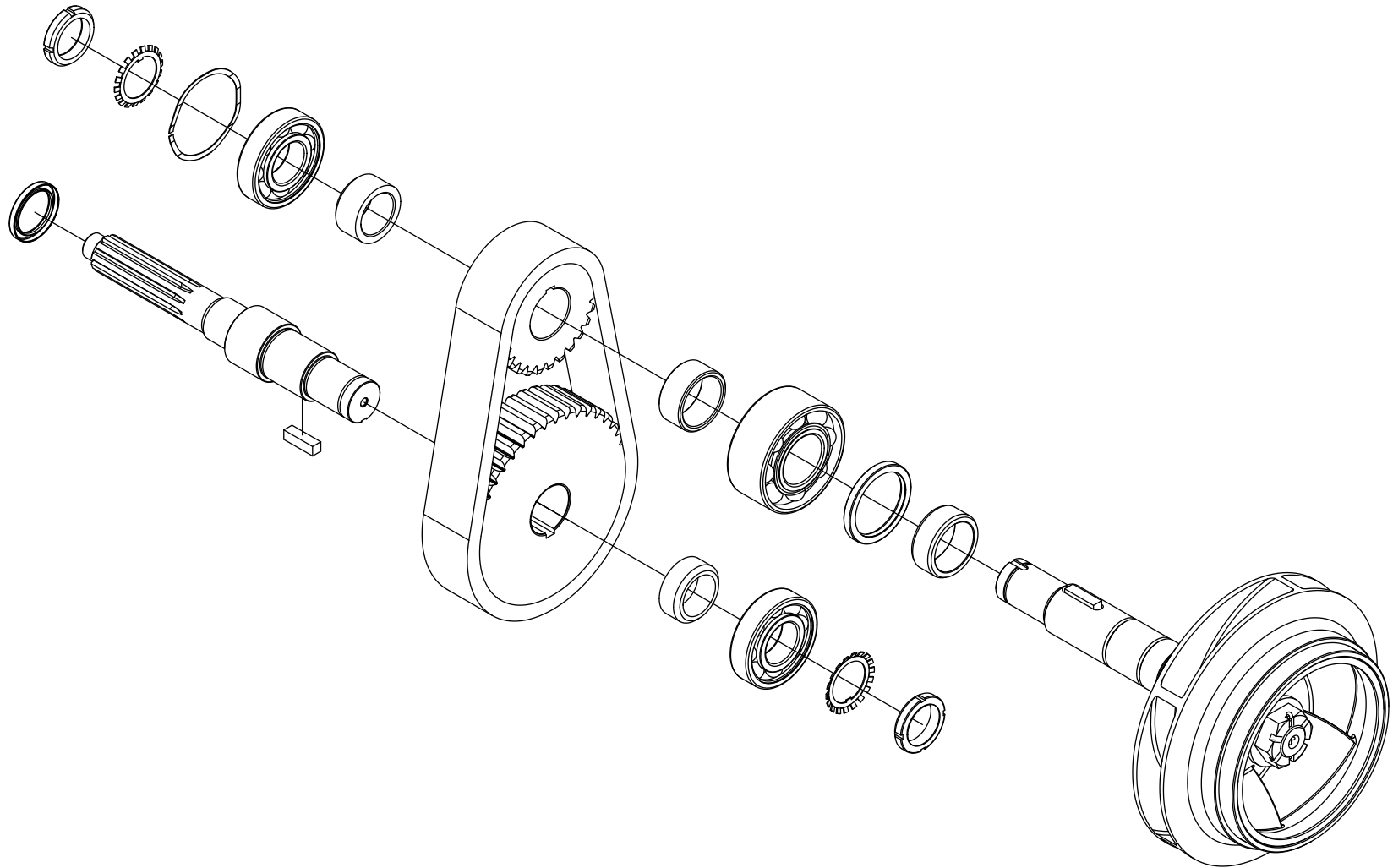
Use the illustrations and instructions to install the drive shaft.

- 1 Position the sprocket and spacer inside the case.
- 2 Press the drive shaft assembly through the case, sprocket, and spacer.
- 3 Apply lubricant to the O-ring groove, then install the O-ring into the groove.
- 4 Use the mounting hardware to secure the bearing cover to the case.

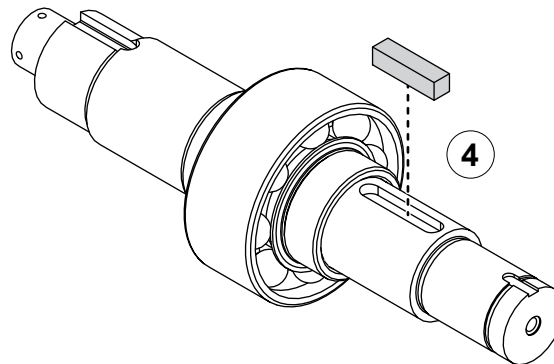
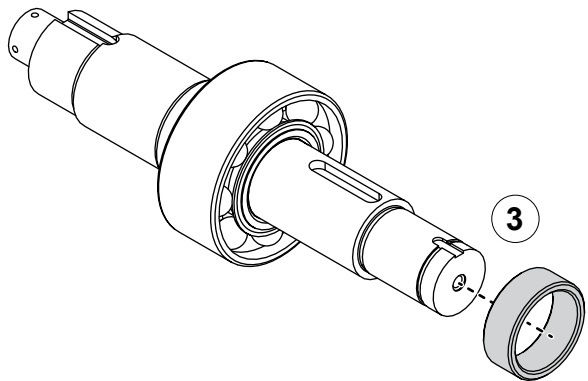
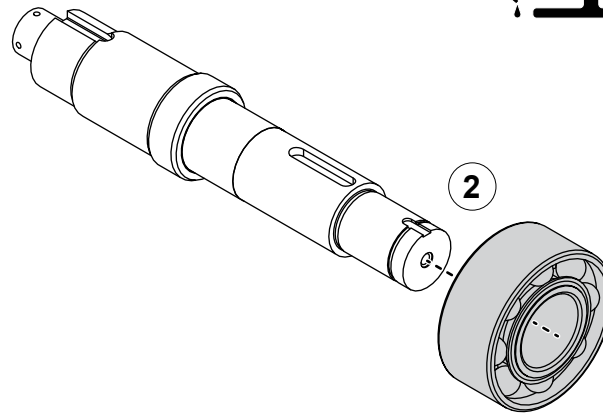
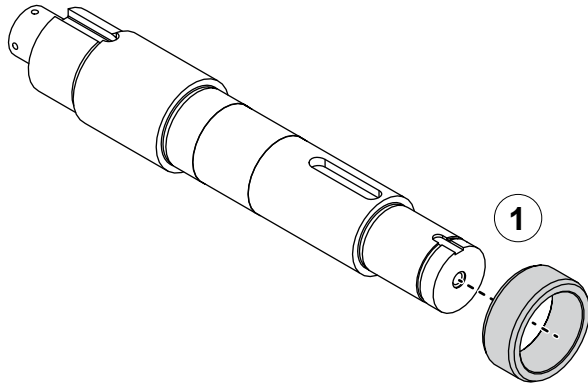


[illegible]

CRQC and CRUQC-2 with Bellhousing Adapter



CRQC and CRUQC-2 with Bellhousing Adapter

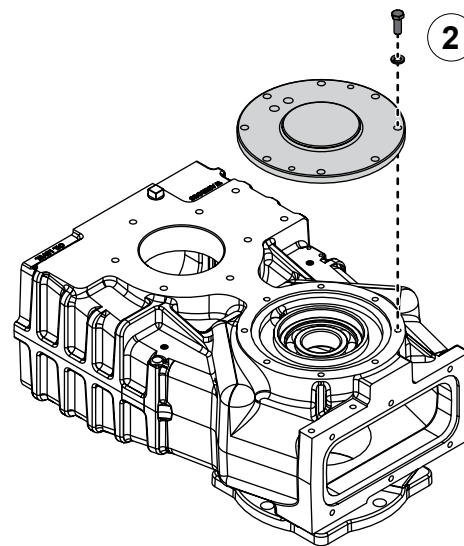
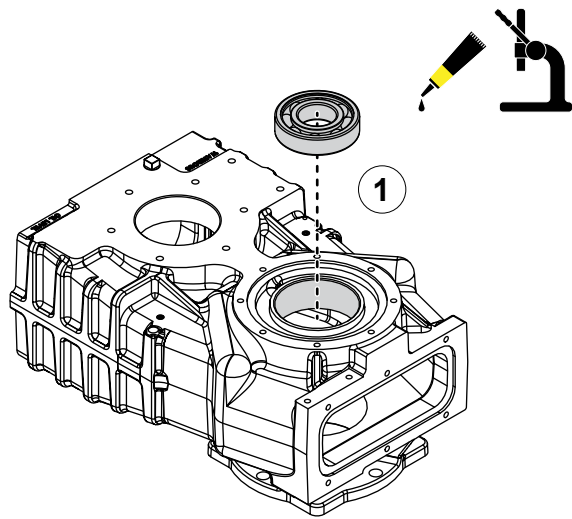


Assembling the Driven Shaft

Use the illustrations and instructions to assemble the driven shaft.

- 1 Install the oil seal sleeve onto the shaft.
- 2 Apply extreme pressure assembly lubricant to the shaft, then press the bearing onto the shaft.
- 3 Install the spacer onto the shaft.
- 4 Install the key into the key slot.

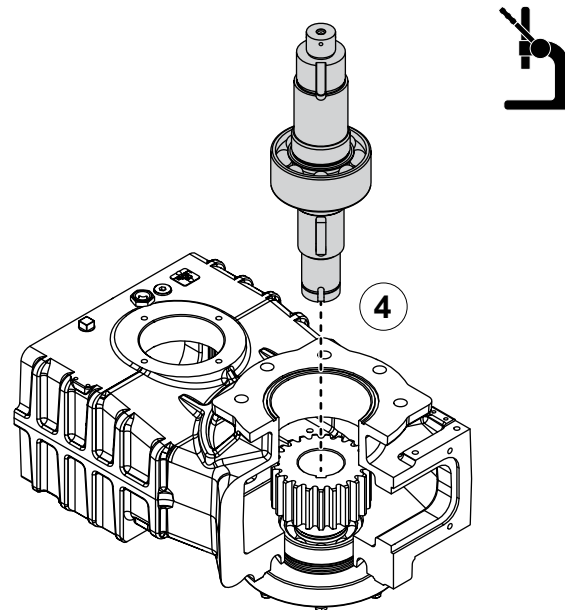
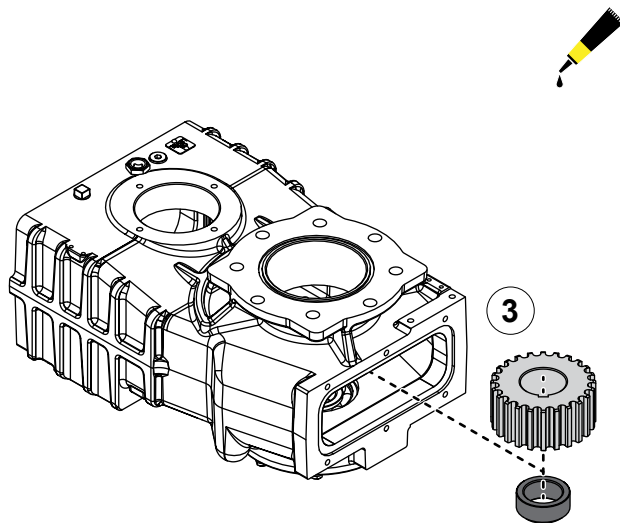
CRQC and CRUQC-2 with Bellhousing Adapter



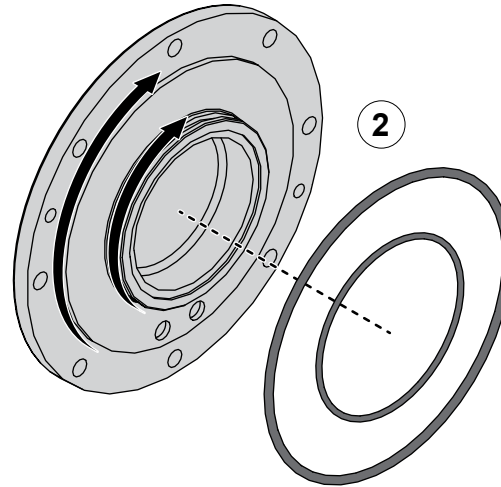
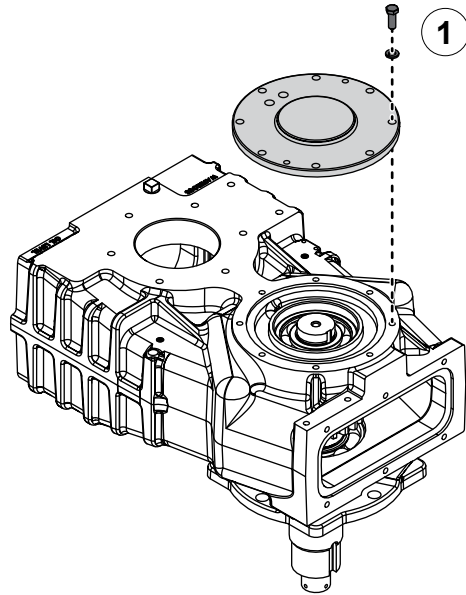
Installing the Driven Shaft

Use the illustrations and instructions to assemble the driven shaft.

- 1 Apply extreme pressure assembly lubricant to the bore, then press the bearing into the bore.
- 2 Temporarily install the bearing cover onto the transmission case.
- 3 Flip the case so that the input side is facing down, then position the sprocket and spacer inside the case.
- 4 Press the driven shaft assembly through the case, sprocket, and spacer.



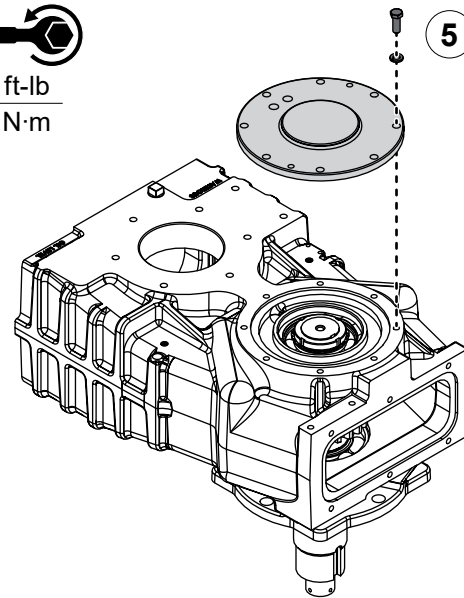
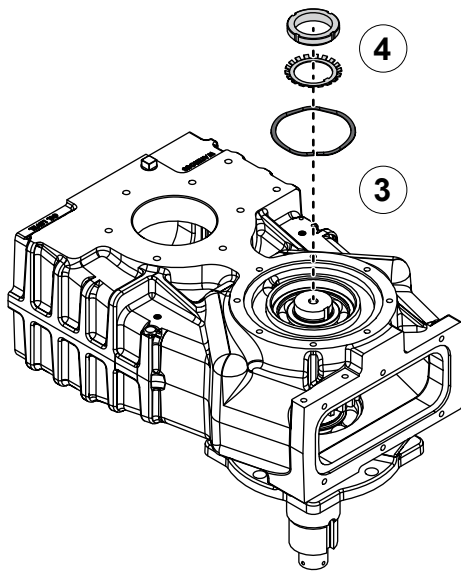
CRQC and CRUQC-2 with Bellhousing Adapter



Installing the Bearing Cover

Use the illustrations and instructions to install the bearing cover.

- 1 Flip the case so that the pump side is facing down, then remove the bearing cover.
- 2 Apply lubricant around the lip of the cover, then install the larger O-ring onto the cover. Apply lubricant to the O-ring groove, then install the remaining O-ring into the groove.
- 3 Install the wave spring into the case.
- 4 Install the bearing lock nut and washer. Refer to: **"Installing the Bearing Lock Washer and Nut" on page 44.**
- 5 Use the mounting hardware to secure the bearing cover to the case.

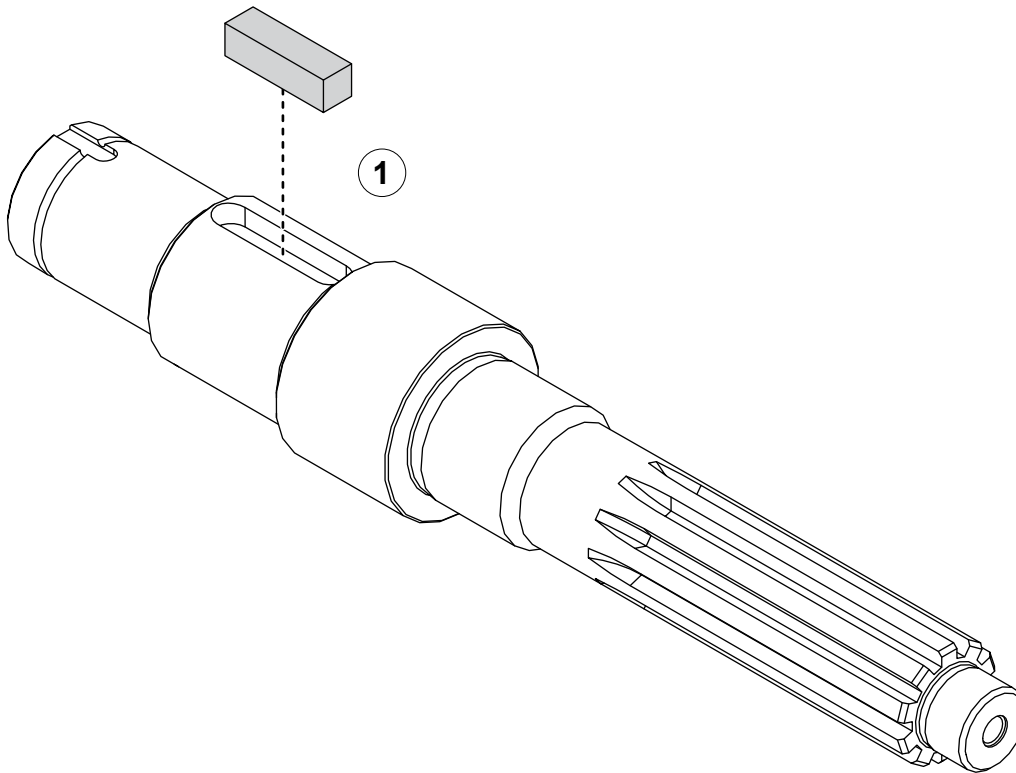


CRQC and CRUQC-2 with Bellhousing Adapter

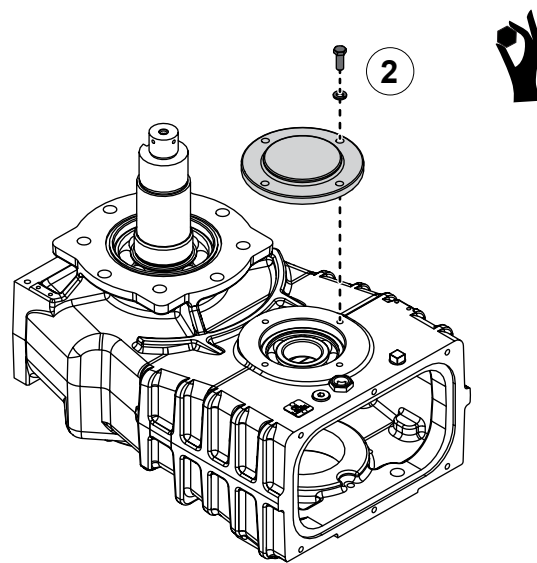
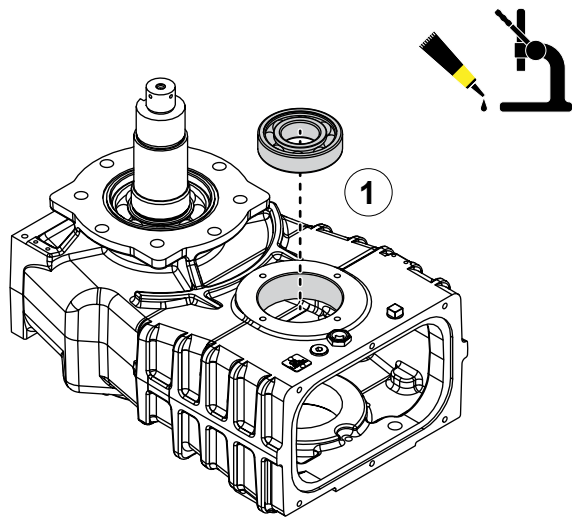
Assembling the Drive Shaft

Use the illustration and instructions to assemble the drive shaft.

- 1 Install the key into the key slot.



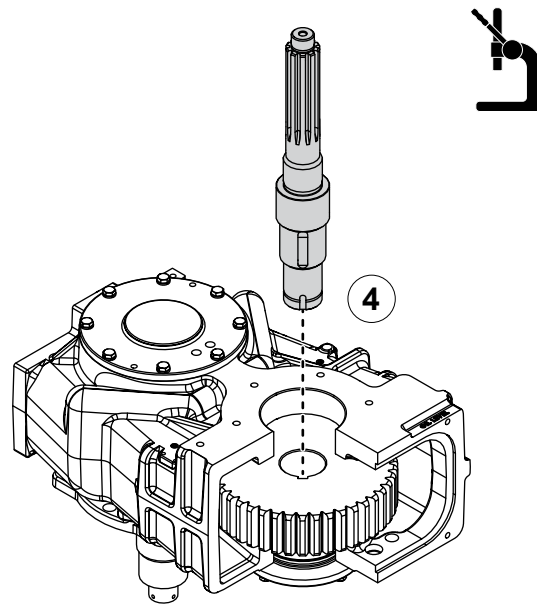
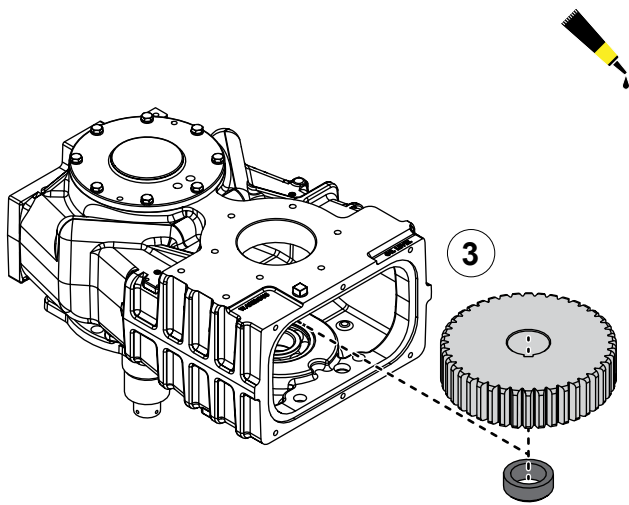
CRQC and CRUQC-2 with Bellhousing Adapter



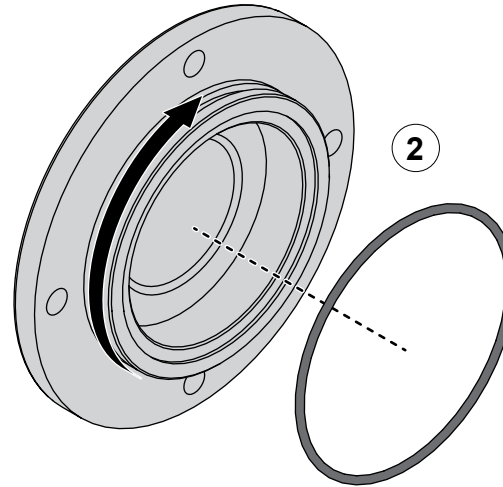
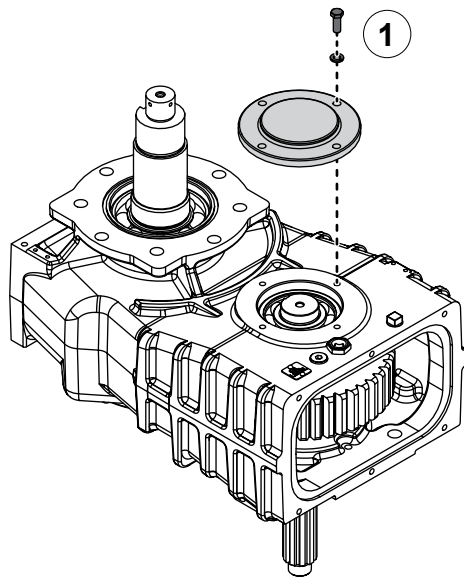
Installing the Drive Shaft

Use the illustrations and instructions to install the drive shaft.

- 1 Apply extreme pressure assembly lubricant to the bore, then press the bearing into the bore.
- 2 Temporarily install the bearing cover onto the transmission case.
- 3 Flip the case so that the pump side is facing down, then position the sprocket and spacer inside the case.
- 4 Press the drive shaft assembly through the case, sprocket, and spacer.



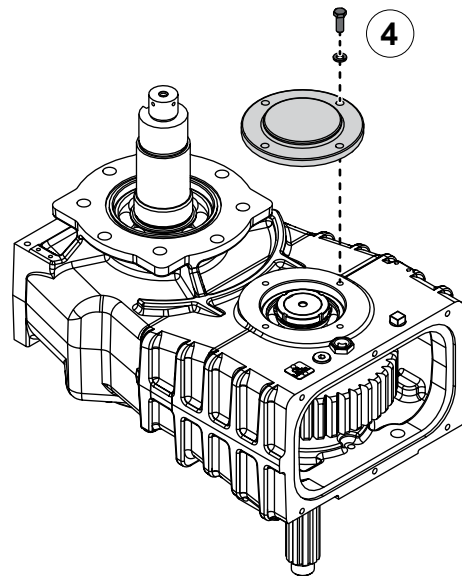
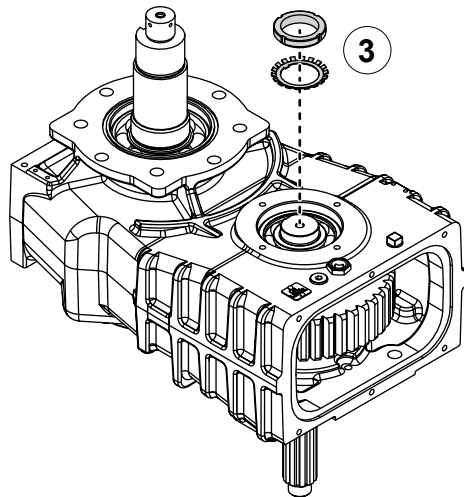
CRQC and CRUQC-2 with Bellhousing Adapter



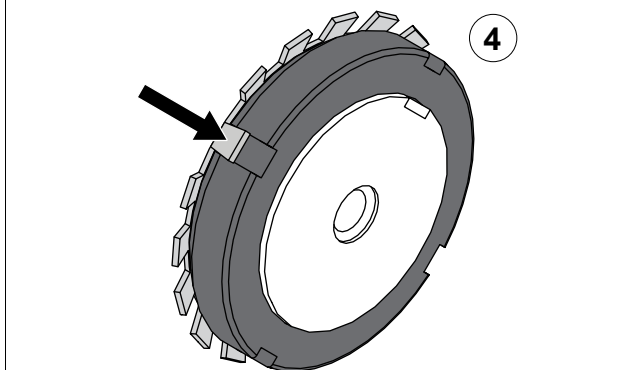
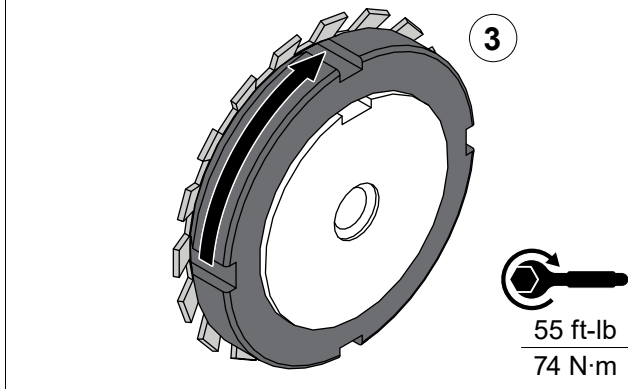
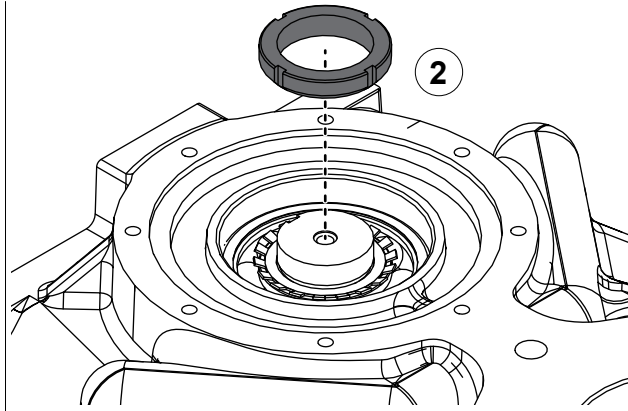
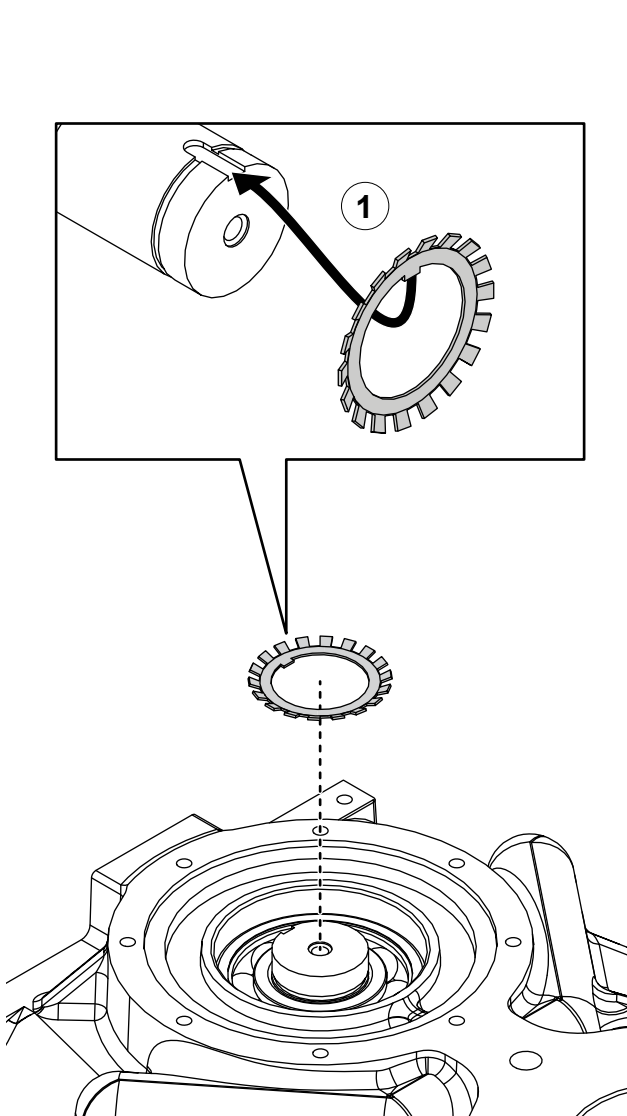
Installing the Bearing Cover

Use the illustrations and instructions to install the bearing cover.

- 1 Flip the case so that the input side is facing down, then remove the bearing cover.
- 2 Apply lubricant to the O-ring groove, then install the O-ring into the groove.
- 3 Install the bearing lock nut and washer. Refer to: **"Installing the Bearing Lock Washer and Nut" on page 44.**
- 4 Use the mounting hardware to secure the bearing cover to the case.



Installing the Bearing Lock Washer and Nut

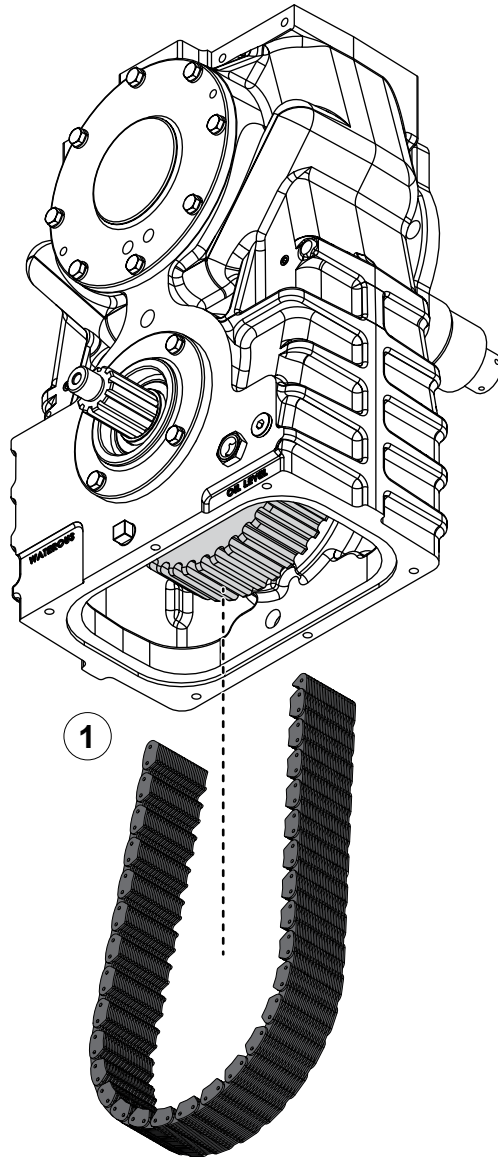


Use the illustrations and instructions to install the bearing lock washer and nut.

- 1 Align the inner tab on the bearing lock washer with the slot in the shaft, then install the washer onto the end of the shaft.
- 2 Install the nut onto the shaft.
- 3 Torque the nut to 55 ft-lb (74 N·m).
- 4 Align one of the outer tabs on the washer with one of the slots on the nut, then bend the tab to lock the nut into position.

Note: Do not loosen the nut to align with a tab. Tighten the nut purposefully to achieve alignment.

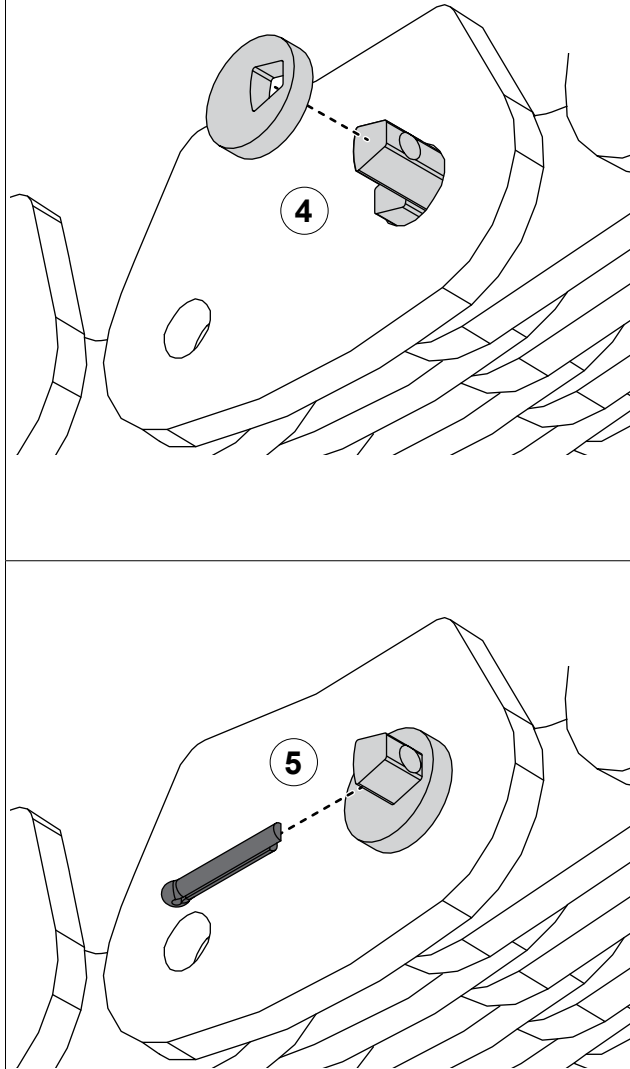
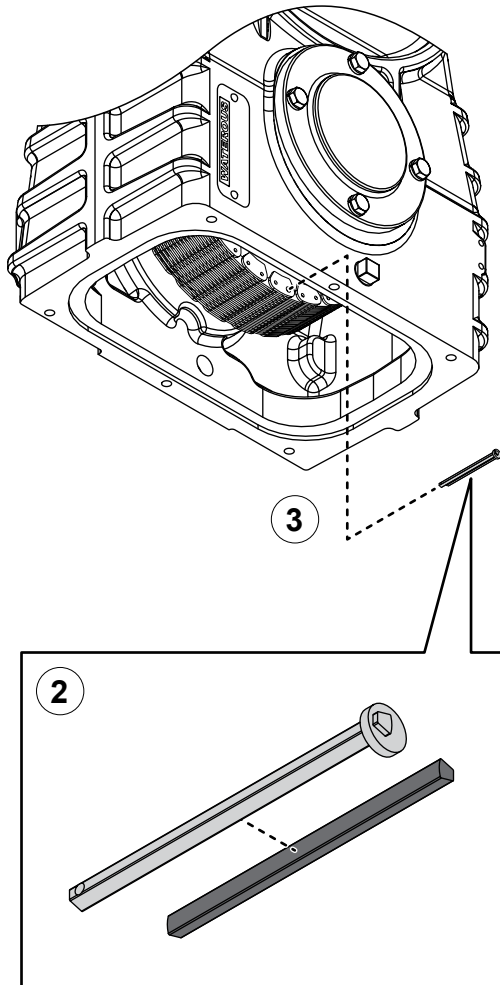
Installing the Chain



Use the illustration and instructions to install the chain into the transmission case.

- 1 Install the chain around the driven sprocket inside the case, then overlap the chain ends around the drive sprocket.

Installing the Chain

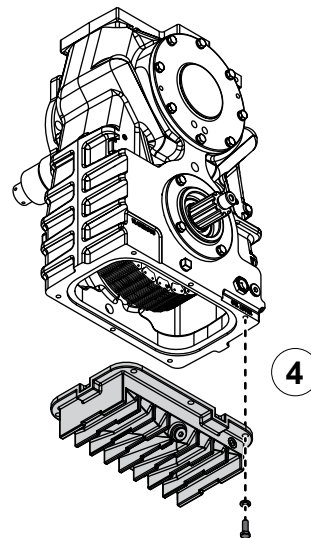
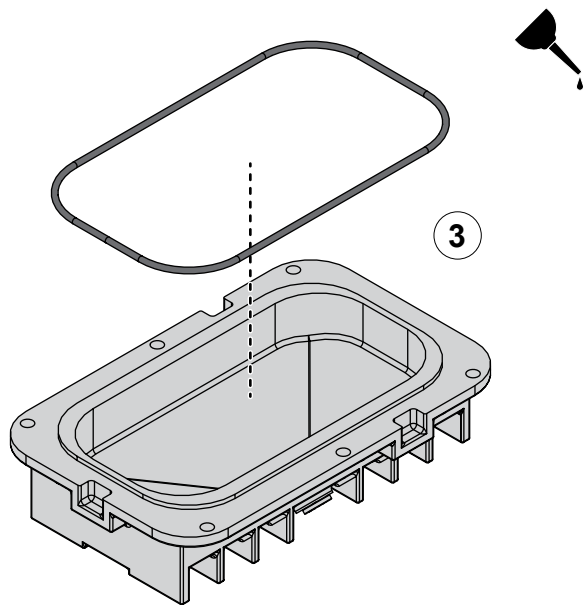
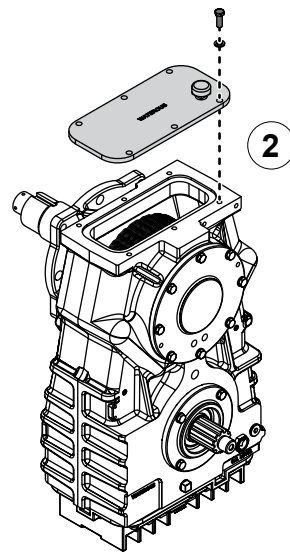
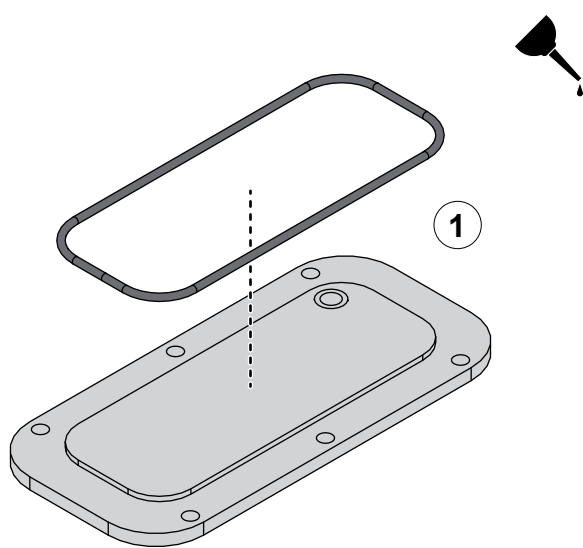


Use the illustrations and instructions to install the chain into the transmission case.

- 2 Align the axle pivot and rolling pivot with their curved faces toward each other at the entrance of the connecting link.
- 3 Push the pin lock through the connecting link.
- 4 Install the rivet disk onto the axle pivot.
- 5 Use the cotter pin to secure the connecting pin lock.

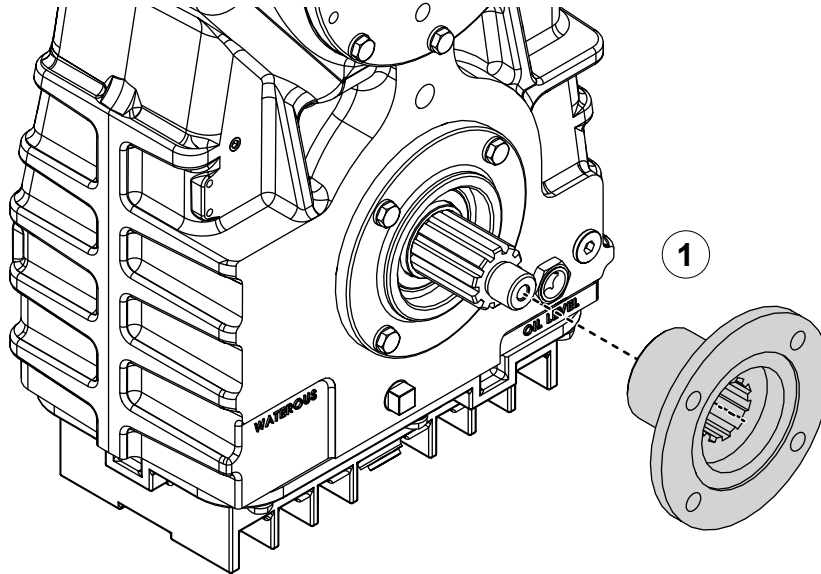
Installing the Cover and Transmission Pan

Use the illustrations and instructions to install the cover and transmission pan.



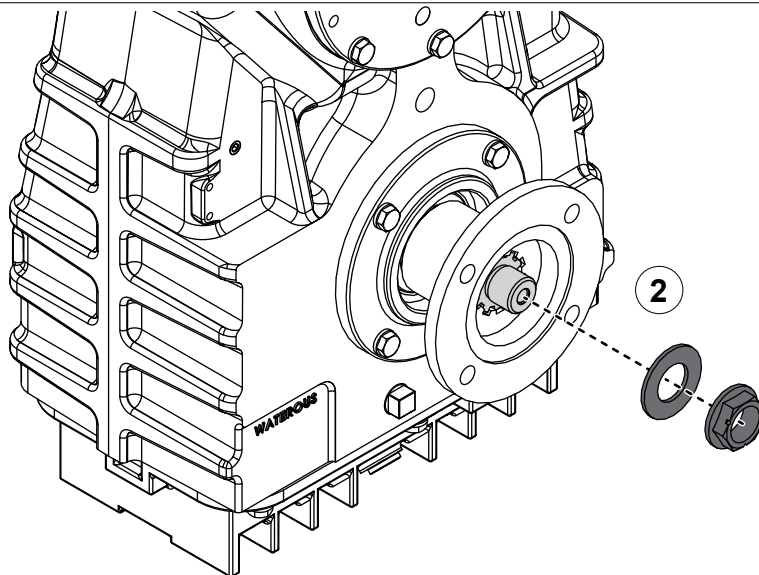
- 1 Apply lubricant around the lip of the cover, then install the gasket onto the cover.
- 2 Use the mounting hardware to secure the cover to the case.
- 3 Apply lubricant around the lip of the transmission pan, then install the gasket onto the transmission pan.
- 4 Use the mounting hardware to secure the transmission pan to the case.

Installing the Companion Flange



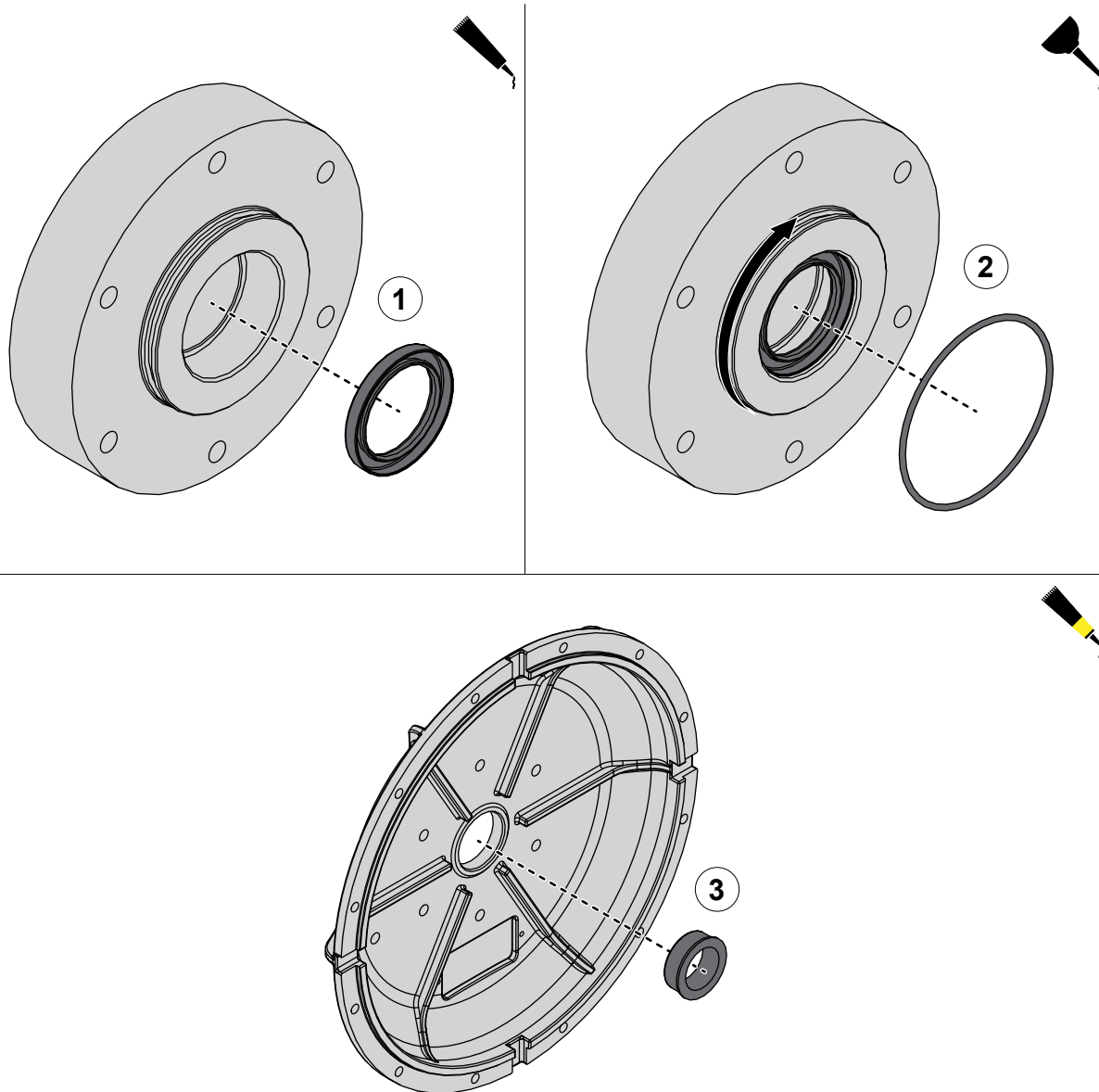
Use the illustrations and instructions to install the companion flange.

- 1 Apply extreme pressure assembly lubricant to the drive shaft, then install the companion flange onto the shaft.
- 2 Install the lock nut and washer onto the shaft.



425 ft-lb
576 N·m

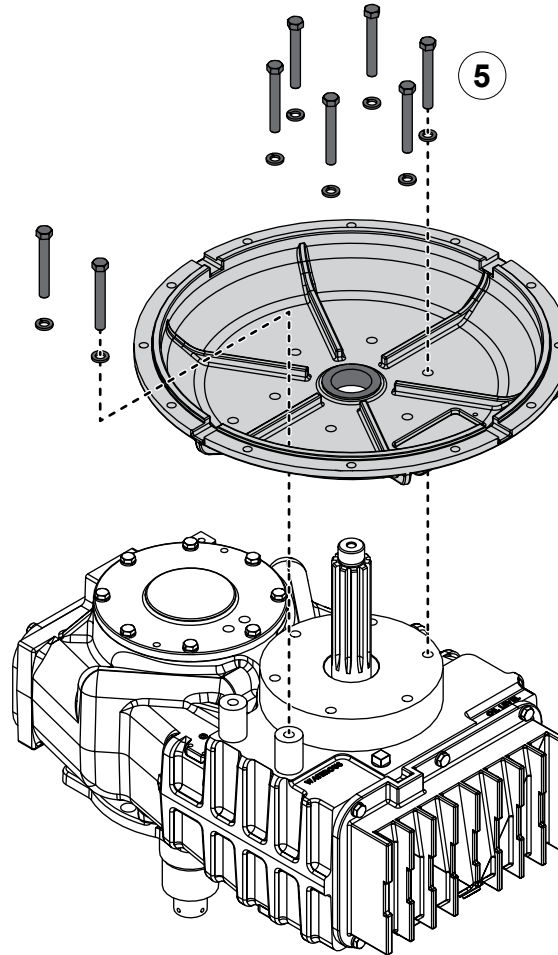
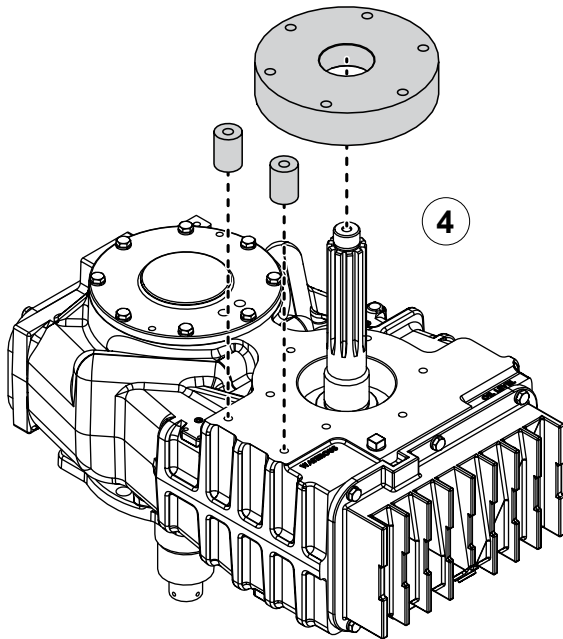
Installing the Bellhousing Adapter



Use the illustrations and instructions to install the bellhousing adapter.

- 1 Apply sealant around the oil seal, then install it into the adapter.
- 2 Apply lubricant to the O-ring groove, then install the O-ring into the groove.
- 3 Apply extreme pressure assembly lubricant to the bushing, then press it into the bellhousing adapter.

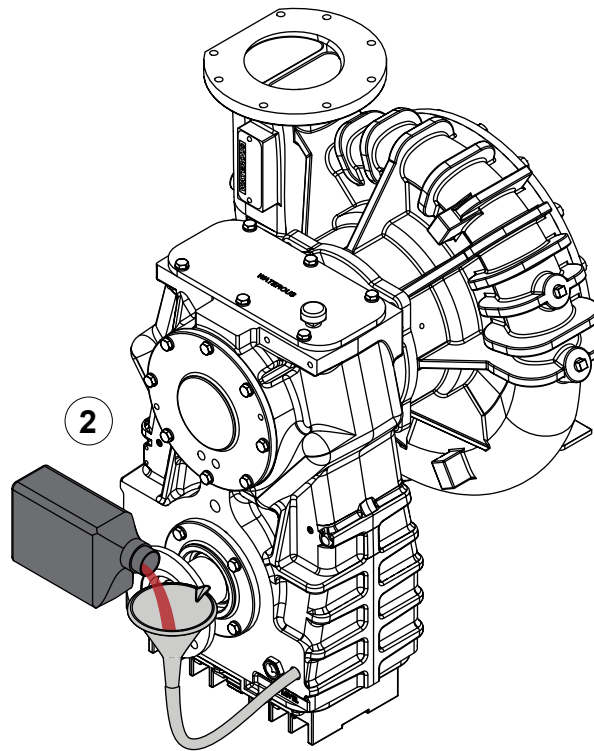
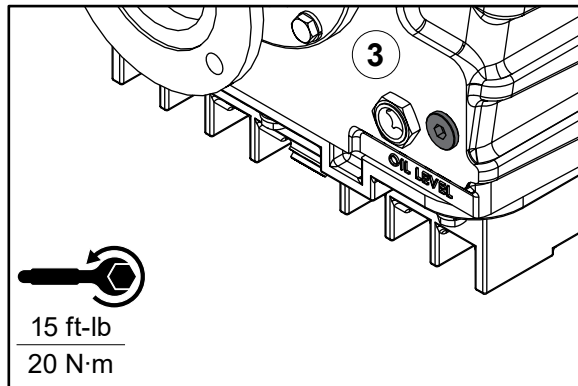
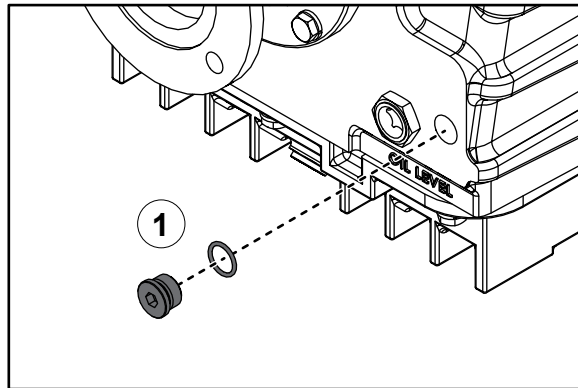
Installing the Bellhousing Adapter



Use the illustrations and instructions to install the bellhousing adapter.

- 4 Install the adapter spacer onto the drive shaft, then position the remaining spacers over the holes in the case.
- 5 Apply threadlocker to the bolts, then use the mounting hardware to secure the bellhousing to the case.

Adding Lubricant to the Transmission



Use the illustrations and instructions to add lubricant to the PTO. Use automatic transmission fluid (ATF) that meets the requirements of DEXRON III or MERCON V.

- 1 Remove the oil fill plug.
- 2 Add lubricant until it reaches halfway up the oil level sight plug.

Note: After pouring some lubricant into the case, allow it to settle before adding more to avoid over-filling.

- 3 Securely install the oil fill plug.

Note: Make sure that you do not over-tighten the plug.

WATEROUS

Waterous Company
125 Hardman Avenue South
South Saint Paul, MN 55075
(651) 450-5000
waterousco.com