

Chelsea PTO Quality Issue

TSB-26-059-FTL

Creation Date: 2026-06-22

Engine or Vehicle Affected:

- ▶ Business Class M2-Plus
- ▶ Business Class M2
- ▶ 108SD Plus/114SD Plus
- ▶ 108SD/114SD
- ▶ 112SD and Coronado
- ▶ New Cascadia
- ▶ Cascadia
- ▶ 5th Generation Cascadia

Described Condition

Vehicles operating in cold ambient conditions may experience unintended Power Takeoff (PTO) output rotation due to cold transmission oil. This behavior is common across many PTO models in very low temperatures and typically subsides once the transmission oil reaches operating temperature. However, certain Chelsea PTO models manufactured in 2025 may exhibit this condition at higher temperatures than normally expected. Depending on the equipment driven by the PTO, this condition may present a minor to moderate operational concern. Between January 2025 and November 2025, Chelsea 281, 890, and 892 series PTOs were produced using two different bearing designs. Units equipped with one of these bearing designs may exhibit unintentional output rotation at temperatures up to 32°F (0°C). To address this condition, Chelsea has released an updated solenoid valve cap and published additional technical guidance in document PTO-TEC-185-1. Vehicles built between January 2025 and December 2025 with factory-installed PTOs, as well as customer-installed PTOs purchased after January 2025, may be equipped with these units. Uninstalled dealer inventory may also be affected. For in-vehicle units, follow the Inspection procedure below to determine whether the PTO may contain the affected bearing design. If required, proceed with the Repair procedure to verify the bearing type and reassemble the PTO using the appropriate cover. For uninstalled PTOs, refer to Chelsea document PTO-TEC-185-1 for inspection and installation guidance.

👉 **Note:** If bearing inspection indicates that a new solenoid valve cap is required, order the solenoid valve cap kit, which includes the cap gasket and bolts. If a new cap is not required, only a replacement gasket is needed. Parts are available through authorized parts distribution channels or directly from Chelsea. See Table [1](#).

Parts Required

Table 1, Parts Required

DTNA (Chelsea) Part Numbers	Part Descriptions	Quantity (if required)
CHL 330176 12X (330176-12X)	12VDC ELECTRIC SHIFT INSTALLATION KIT	1
CHL 22 P 112 (22-P-112)	PTO-VALVE CAP GASKET	1

Table 1, Parts Required

Procedure

Inspection

Note: If both the PTO model and serial numbers are not included in the range provided in this document, the following information is not applicable or covered.

1. ☐ Locate the Chelsea PTO identification tag. See Fig. 1.



2. ☐ Inspect the identification tag to determine if the PTO is part of the suspect population. Is the PTO the correct model, and is the serial number included in the affected range?

- a. ☐ If yes, continue with the next step.

- b. ☐ If no, the following information is not applicable. Customers with similar symptoms to those described should contact Chelsea directly for technical assistance.

3. ☐ Inspect the solenoid valve cap for a green dot or the casting number 357, which indicate the inspection and other required work has already been completed or is not needed. See Fig. 2. Is there a green dot, or casting number 357 on the bearing cap?

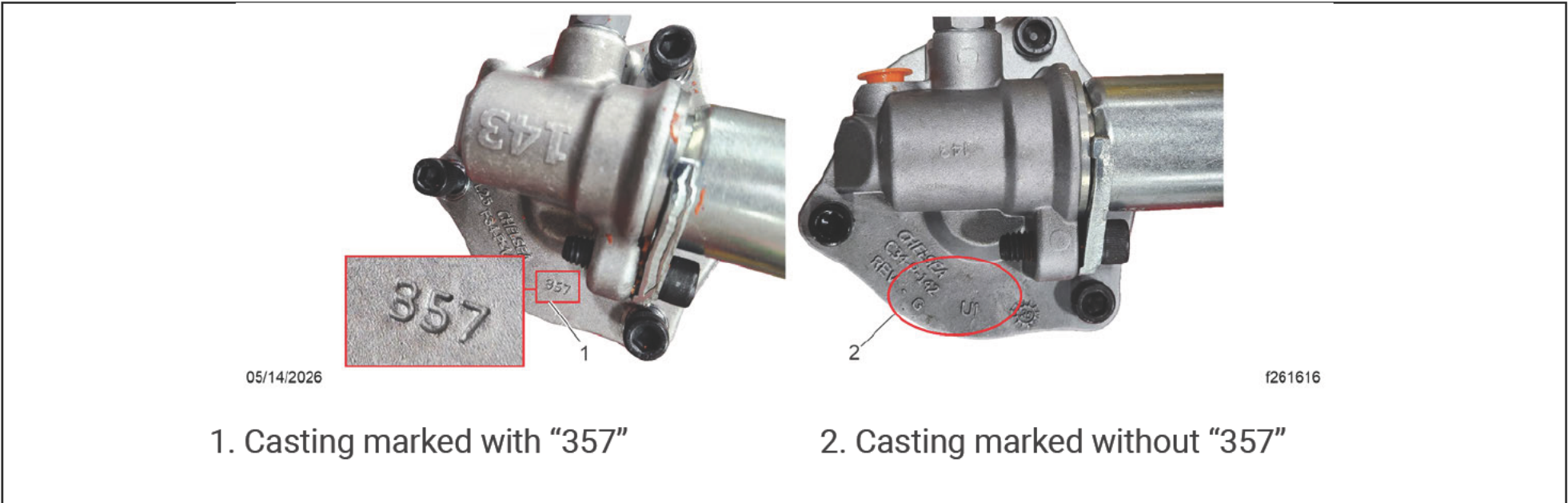


Fig. 3, New Casting with and without “357” Marking

a. ☐ If no, continue with the Repair Steps.

b. ☐ If yes, no additional work is needed.

Repair

4. ☐ For top-mounted PTOs, it may be required to remove the right-hand (RH) cab access steps, cab-mounted quarter fender, and the downpipe between the turbo and the Aftertreatment System (ATS) to access the PTO. For instructions see the applicable vehicle workshop manual.

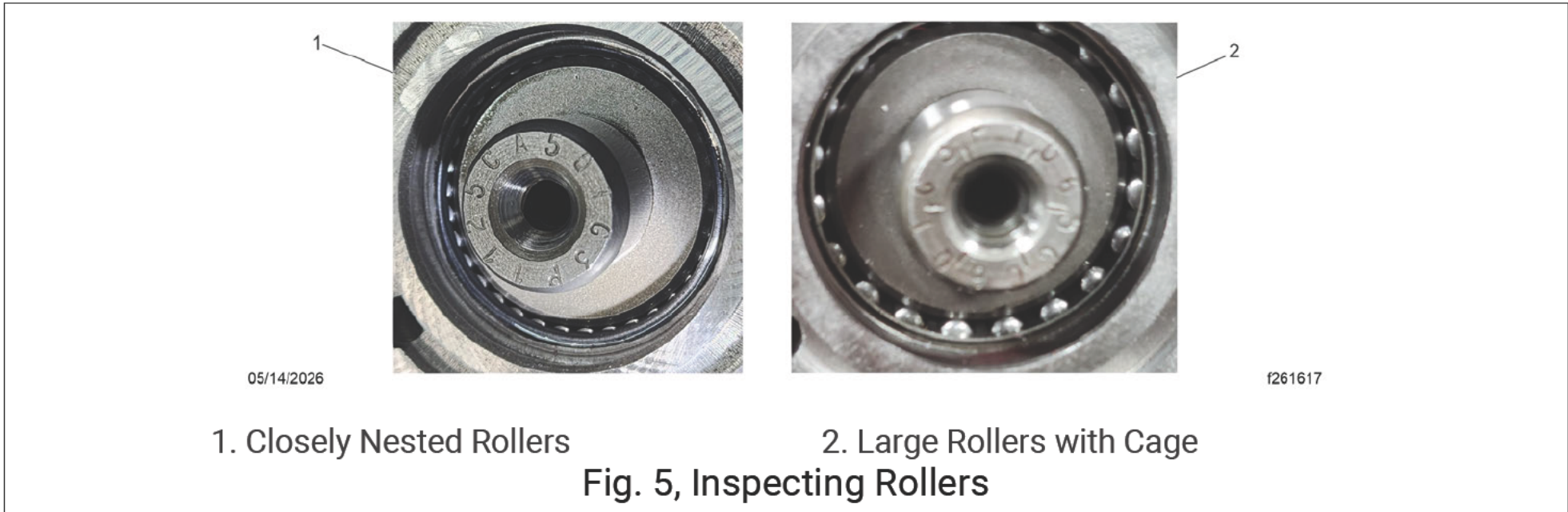
5. ☐ Remove any air or electrical harness connections from the solenoid valve. See Fig. 4.



Note: A small amount of transmission oil may drain from the cap port.

6. ☐ Remove the three fasteners holding the solenoid valve cap to the PTO.

7. ☐ Inspect the needle elements of the bearing. Bearings with larger rollers separated by a cage do not require the new cap. Are the bearing rollers small and nested close together?



a. ☐ If yes, install the new valve cap kit.

b. ☐ If no, use the original valve cap.

8. ☐ Clean any residue from the sealing surfaces of the valve cap and PTO housing.

9. ☐ Install the valve cap gasket.

10. ☐ If the cap is being replaced, transfer the pressure switch and air fitting to the new cap.

a. ☐ Remove the pressure switch and air fitting from the original cap.

b. ☐ Install the pressure switch and tighten to 11 lbf•ft (15 N•m).

c. ☐ Install the air fitting and tighten to 11 lbf•ft (15 N•m).

11. ☐ Install the appropriate solenoid valve cap, as determined in the bearing inspection, and tighten the fasteners to 26 lbf•ft (35 N•m).

12. ☐ Mark the valve cap with a dot of green paint.

13. ☐ Install any air or electrical harness connections.

14. ☐ For top-mounted PTOs, install the parts removed for access using the published instructions in the applicable vehicle workshop manual.

Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply.

See Table 2 for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the Service Bulletin # field.

Table 2, OWL VMRS Codes and Labor Allowance

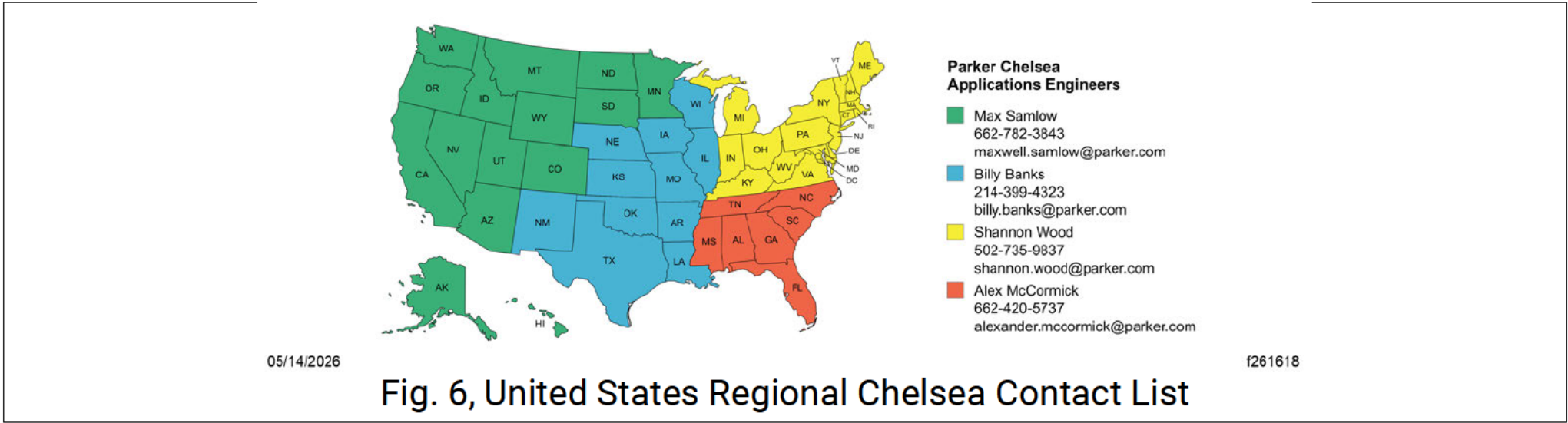
Primary Failed Part	Component Code	Cause Code	Correction Code	SRT Code	Description	Hours
PTO ASSEMBLY - COMPLETE	056-001-001	11-Binds /Sticks	24- Repair	362-5001A	PTO CHELSEA, INSPECT	0.1
PTO ASSEMBLY - COMPLETE	056-001-001	11-Binds /Sticks	24- Repair	362-5001B	CAP, BEARING, ONE SIDE-MOUNT CHELSEA PTO, R/R OR R/I	0.5
PTO ASSEMBLY - COMPLETE	056-001-001	11-Binds /Sticks	24- Repair	362-5001C	CAP, BEARING, ONE TOP-MOUNT CHELSEA PTO, R/R OR R/I	1.5
PTO ASSEMBLY - COMPLETE	056-001-001	11-Binds /Sticks	24- Repair	362-5001D	CAPS, BEARING, TWO SIDE-MOUNT CHELSEA PTO, R/R OR R/I	1.0

Primary Failed Part	Component Code	Cause Code	Correction Code	SRT Code	Description	Hours
PTO ASSEMBLY - COMPLETE	056-001-001	11-Binds /Sticks	24- Repair	342-5001E	CAPS, BEARING, ONE SIDE-MOUNT & ONE TOP-MOUNT CHELSEA PTO, R/ROR R/I	2.0

Table 2, OWL VMRS Codes and Labor Allowance

Extended Warranty Coverage

If the PTO is outside of the vehicle warranty coverage, or was installed by the customer, warranty coverage may still be available for PTOs within this population. Warranty coverage confirmation is required. U.S. customers may contact regional support staff based on location, email: *chd_support@support.parker.com*, or call 1-888-744-8785. Canadian customers may email: *pcd.insidesales@support.parker.com* to create a customer service ticket.



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