

DT12 PTO Upfit

TSB-26-052-FTL

Creation Date: 2019-09-13

Last Revision Date: 2026-01-06

Engine or Vehicle Affected:

- ▶ Cascadia
- ▶ New Cascadia

Description of Revisions: This bulletin replaces the version dated 2019-13-09. DDCSN and Power Service Literature references have been removed.

Overview

The DT12 transmission is available with a rear mounted PTO prep option. The option includes all the vehicle wiring and transmission elements needed to support the PTO without the addition of the PTO hardware on the transmission. Check the information in PartsPro MOD 362, to confirm the vehicle being fitted with the PTO was ordered with the prep option.

⚠ Warning: Mounting a PTO to a DT12 transmission is supported only for GHG17 vehicles. Adding a PTO to older models, or current models that were not ordered with PTO or PTO prep, will not work or may function incorrectly. Vehicle and transmission warranty will be affected by installing an unsupported option, and could be dangerous.

The additional hardware needed to complete the installation includes the PTO, a transmission oil pump drive shaft, and a selection of shims. All the required components are available as three separate kits:

- PTO assembly (includes the PTO service part)
- PTO installation kit (includes the bolts, seals, oil pump driveshaft assembly, and oil pump thrust plate)
- Oil pump shim kit (includes the five most common shims required)

🔧 **Note:** Some chassis air system components may also be required.

Installation Information

Transmission

The installation process includes removing the non-PTO oil pump cover and oil pump driveshaft, determining the oil pump shim needed, and installing the PTO. For the procedure, log onto www.DTNACconnect.com and select 'go to secure DTNACconnect.' Under *Search Technical Literature*, select *Detroit Literature Make* and *Transmission Model*, click GO.

Chassis

The wiring is detailed in MOD 885 and in PartsPro for VINs spec'd with PTO and PTO prep.

The air system is detailed in MOD 372, MOD 46D, and in PartsPro for VINs spec'd with PTO. See Table 2 and Table 3 for parts update and BOM reference information on installing the new equipment.

Mechanical

The PTO has length, speed, and pump requirements that need to be well understood by the equipment installer and the customer. Inform the customer of the web-based information available on the DTNAConnect website, and make sure they have access to the *DT12 PTO Installation Guide* (<https://dtnacontent-dtna.prd.freightliner.com/content/dam/public/DDCSN/EngineeringDocs/DT12%20PTO%20Installation%20Guide.p>).

Parameters

The parameters needed to make the PTO function are included in the order specifications, and no changes should be required when the PTO is installed. However, if the customer requires changes to the parameters, refer to *GHG14/GHG17 DDEC13 Electronic Controls Application and Installation* manual on the DTNAConnect website for available options (https://dtnacontent-dtna.prd.freightliner.com/content/dtna-service/it/ddc/en_us/detroit-literature/detroit-a-i-manual/ghg14-17-ddec-electronic-controls-a-i-manual-ddc-svc-man-0127.html?).

Parts

See Table 1, Table 2 and Table 3 for parts that are required to upfit a PTO to a vehicle equipped with the PTO prep option. Parts can be ordered through the PDCs.

Table 1, Transmission Parts

Part Number	Description	Qty.
A 947 260 06 05 or A 947 260 07 05	PTO, DT12, ASSEMBLY (1:1.32 ratio) PTO, DT12, ASSEMBLY (1:1 ratio)	1
A 947 260 24 92 or A 947 260 21 92	SHAFT, OIL PUMP, PTO INST, KIT, DT12 A SHAFT, OIL PUMP, PTO INST, KIT, DT12 B	1
A 389 262 50 56	SHIMS, TRANS OIL PUMP, TOP 5, KIT	1
Optional (used for a driveline output from the PTO)		
A 947 260 04 17 or A 947 260 03 17	FLANGE, SPICER 1300, 89 PTO, KIT FLANGE, SPICER 1400, 89 PTO, KIT	1

Table 1, Transmission Parts

Table 2, Air System Parts (372-C01704 or similar)

Part Number	Description	Qty.
23-13481-000	STRAP-TIE, ANTI-VIB, M6.3, FIR TR	5
48-25855-010	TUBE-NYL 12, 1/4", BLACK	15 ft.
SMCKV2L07 36S	ELB-90, 1/4PC+3/8MPT, GRY	1

D12-28174-000	SCHEM-AIR PP,PTO SUPPLY,DT12	—
D12-28175-000	INSTALL-PTO AIR SUPPLY, DT12	—

Table 2, Air System Parts (372-C01704 or similar)

Table 3, Pressure Protection Parts (46D-D61401 or similar)

Part Number	Description	Qty.
GTD 223 475	VALVE-PRESS PROTECTION, 75 PSI	1
23-14396-003	ELB-90,1/4 PTC X 3/8 MPT	1
23-14396-006	ELB-90,3/8 PTC X 3/8 MPT	1
23-14415-001	PLUG-1/4 PUSH TO CONNECT	1
D12-28174-000	SCHEM-AIR PP,PTO SUPPLY,DT12	—
D12-28175-001	INSTALL-PTO PREP KIT, DT12	—

Table 3, Pressure Protection Parts (46D-D61401 or similar)

VIN Update

Record the changes to the VIN information, using the global annotation tool on PartsPro. Refer to **Parts Technical Bulletin 00-009** for the global annotation procedure, and add a note with the number and name for this bulletin (26-052), so the next location performing service will understand what changes have been made to the vehicle.

Service Parts

Use the information in Fig. [1](#) and Table [4](#) to identify additional parts and service information, beyond what is required for the PTO installation. Since the PTO was not factory installed, this information will not be available in PartsPro by searching the VIN.

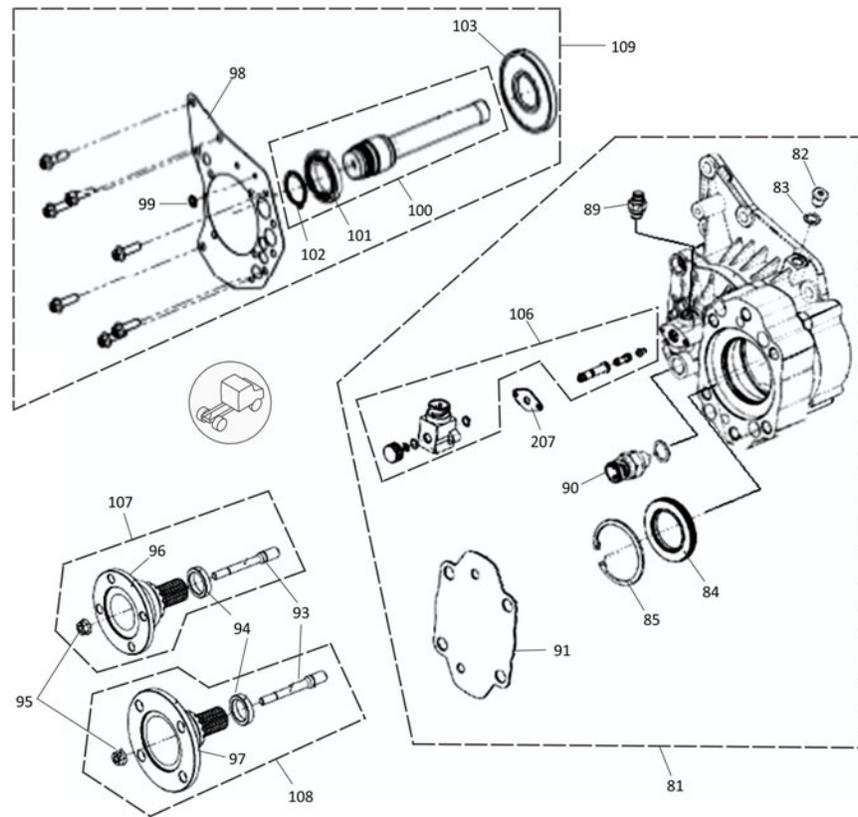
Table 4, Service Parts

Ref No. ¹	Part Number	Description	Qty.
82	004 998 21 50	PLUG (M12X1.5)	1
83	947 267 00 76	SEAL	1
84	029 997 89 45	SEAL-PTO OUTPUT	1
85	013 994 29 41	CIRCLIP-INTERNAL	1
89	947 250 00 54	FITTING-AIR (-4 PTC HOSE)	1
90	947 540 00 97	SWITCH	1
91	000 990 12 80	COVER-FLANGE, SAE B	1
93	947 268 00 27	STUD-DRIVE FLANGE	1

94	016 990 46 82	SPACER-DRIVE FLANGE	1
95	DDE N910112008000	NUT	1
96	947 260 00 55	FLANGE-SPICER 1300	1
97	947 260 01 55	FLANGE-SPICER 1400	1
98	947 264 02 80	GASKET-PTO/TRANS	1
99	029 997 72 45	O-RING-PTO/TRANS	1
100	947 260 26 92	SHAFT, OIL PUMP DRIVE, W/ PTO, DT12 A	1
	947 260 25 92	SHAFT, OIL PUMP DRIVE, W/ PTO, DT12 B	
101	947 260 05 17	BEARING-PTO INPUT	1
102	947 265 00 36	CIRCLIP-EXTERNAL	1
103	947 260 01 52	PLATE-OIL PUMP COVER	1
104	DDE N910143010014	SCREW (M10X35-10.9)	5
106	947 260 13 57	VLV-ELEC, KIT W/ SEALS/ PTO	1
107	947 260 04 17	FLANGE-SPICER 1300, 89 PTO, K	1
108	947 260 03 17	FLANGE-SPICER 1400, 89 PTO, K	1
109	947 260 21 92	SHAFT-OIL PUMP, PTO INST, KIT	1
111	389 262 38 56	SHIM-OIL PUMP	1
129	000912 010219	SCREW SOCKET-HEAD (M10X35, 10.	2
207	947 264 01 07	PNEUMATIC VALVE PLATE	1

1. See Fig. [1](#).

Table 4, Service Parts



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➤ **Note:** Refer to Table 4 for part numbers, descriptions, and quantities.

Fig. 1, Service Parts—PTO (342-C93063 or similar)

Warranty.

This is an informational bulletin only. Warranty does not apply.

Note:

- INSTALL
- F12
- F22
- F16
- F26
- F35
- F36
- Y12

CONTACT INFORMATION

For questions, please create a Service Technical Request using the DTTS Application on the DTNA Portal.

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