MODEL-T4000

Medium-Duty Transition Truck

OFFICIAL SERVICE GUIDE

Engine:	6.4L V8 Diesel
Power Output:	350 HP @ 3,200 RPM
Torque:	660 lb-ft @ 1,700 RPM
Emissions:	Tier 4 Final with DEF
GVWR:	14,000 - 16,000 lbs
Service Class:	Medium-Duty (Bridge between Light and Medium)

■■ IMPORTANT NOTICE: This service guide contains MODEL-SPECIFIC diagnostic procedures required for warranty claim approval. Generic procedures from other models are NOT acceptable. Failure to follow T4000-specific steps may result in claim denial.

Document Version: 2024.10 | **Effective Date:** October 2024 | **Supersedes:** All previous versions

TABLE OF CONTENTS

Section	Title	Page
1.	P0087: Fuel Rail Pressure Too Low	3
2.	P2002: DPF Efficiency Below Threshold	4
3.	Warranty Requirements Summary	5

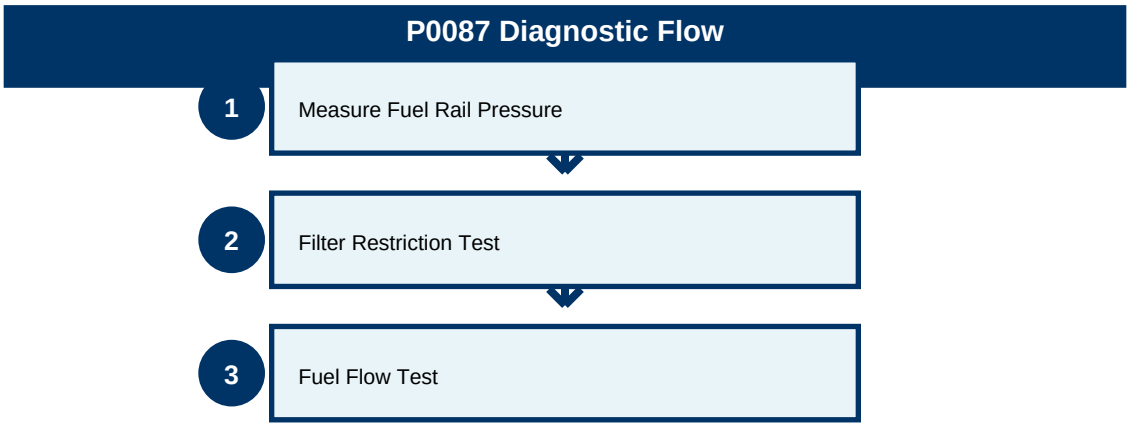
SECTION 1: DIAGNOSTIC PROCEDURE

P0087: Fuel Rail Pressure Too Low

■ CRITICAL FOR T4000: T4000 uses HIGHER pressure than T3000 but LOWER than T5000. Do not confuse specifications.

OVERVIEW

T4000 fuel system operates at intermediate pressure between light-duty and full medium-duty models.



DETAILED DIAGNOSTIC PROCEDURE

STEP 1 **Measure Fuel Rail Pressure**

Connect scan tool. Monitor rail pressure during cranking and running.

■ **SPECIFICATION (T4000):**
T4000 SPECIFICATION: CRANKING: 24,500 PSI minimum (HIGHER than T3000s 23,000 PSI). RUNNING: 24,500-27,500 PSI.

■ **REQUIRED TOOLS:** Scan tool with T4000 parameter file

✓ **EXPECTED RESULT:** Pressure documented and compared to T4000 spec

STEP 2 **Filter Restriction Test**

Install vacuum gauge on filter. Test at idle and 2000 RPM.

■ **SPECIFICATION (T4000):**
T4000: IDLE <1.8 PSI (tighter than T3000s 2.0 PSI). 2000 RPM: <4.5 PSI.

■ **REQUIRED TOOLS:** T4000-FP-GAUGE (different from T3000)

✓ **EXPECTED RESULT:** Restriction within T4000 spec

STEP 3 **Fuel Flow Test**

Measure return line flow at 1500 RPM.

■ **SPECIFICATION (T4000):**
T4000 minimum: 45 GPM (higher than T3000s 40 GPM due to larger injectors).

✓ **EXPECTED RESULT:** Flow meets T4000 requirement

COMPLETE T4000 SPECIFICATIONS

Parameter	Specification
Rail Pressure (Cranking)	24,500 PSI min (NOT 23,000)
Rail Pressure (Running)	24,500-27,500 PSI
Filter Restriction (Idle)	<1.8 PSI (NOT 2.0)
Fuel Flow	Minimum 45 GPM (NOT 40)

■■ WARRANTY CLAIM DOCUMENTATION REQUIREMENTS

- T4000 has DIFFERENT specifications than T3000 and T5000
- Using T3000 specifications on T4000 will result in claim questions
- All pressure and flow values must be compared to T4000-specific requirements
- Document which model procedure was followed (must be T4000-specific)

■ COMMON MISTAKES TO AVOID (T4000):

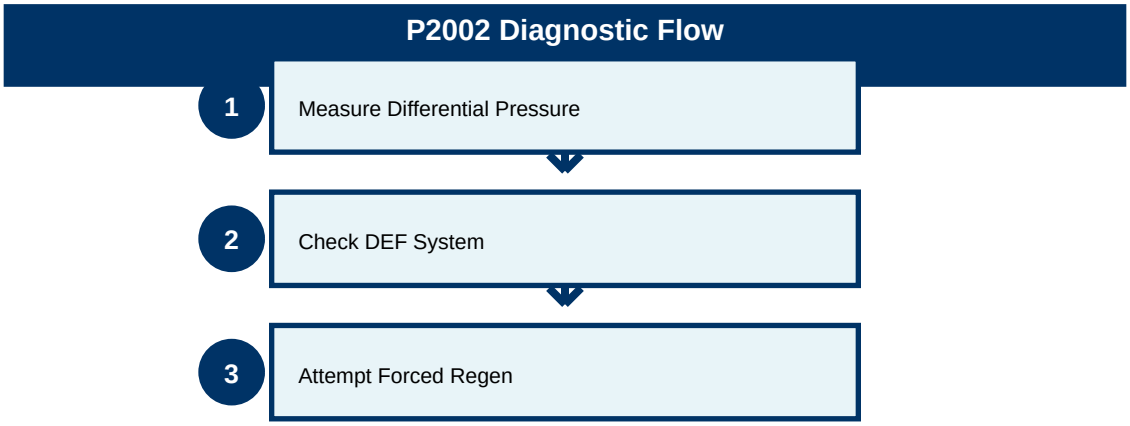
- Using T3000 specifications (pressure too low for T4000)
- Using T5000 specifications (pressure too high for T4000)
- Not identifying this as a transition model with unique specs

SECTION 2: DIAGNOSTIC PROCEDURE

P2002: DPF Efficiency Below Threshold

OVERVIEW

T4000 DPF system is larger than T3000 but smaller than T5000. Specifications differ.



DETAILED DIAGNOSTIC PROCEDURE

STEP 1 **Measure Differential Pressure**

Connect to DPF pressure sensor.

■ **SPECIFICATION (T4000):**
T4000: Normal <2.3 PSI (tighter than T3000s 2.5 PSI). Critical >5.5 PSI.

✓ **EXPECTED RESULT:** Pressure documented

STEP 2 **Check DEF System**

T4000 has DEF system (T3000 does not). Verify DEF level, quality, and pressure.

■ **SPECIFICATION (T4000):**
DEF level >25%. DEF concentration: 32.5% urea. DEF pressure: 85 PSI.

✓ **EXPECTED RESULT:** DEF system verified

STEP 3 **Attempt Forced Regen**

Initiate T4000 forced regen procedure.

■ **SPECIFICATION (T4000):**
T4000 regen: 3 stages. Temperature must reach 1,080-1,220°F (between T3000 and T5000). Duration: 25-35 min.

✓ **EXPECTED RESULT:** Regen documented with T4000 results

COMPLETE T4000 SPECIFICATIONS

Parameter	Specification
Diff Pressure (Normal)	<2.3 PSI (T4000 specific)
Diff Pressure (Critical)	>5.5 PSI
DEF Pressure	85 PSI (T4000)
Regen Temperature	1,080-1,220°F
Regen Duration	25-35 minutes

■■ **WARRANTY CLAIM DOCUMENTATION REQUIREMENTS**

- T4000 is NOT T3000 (T4000 has DEF system, T3000 does not)
- T4000 is NOT T5000 (specifications differ)
- DEF system check is MANDATORY for T4000 (not applicable to T3000)
- Regen temperature and duration must match T4000 specifications

■ COMMON MISTAKES TO AVOID (T4000):

- Forgetting T4000 has DEF system (unlike T3000)

- Using T3000 regen procedure (missing DEF checks)
- Using T5000 regen specs (different temperatures)

WARRANTY REQUIREMENTS SUMMARY

For Model T4000 Warranty Claims:

✓ All diagnostic procedures in this guide are SPECIFIC to the T4000 model

✓ Technician notes must include actual measured values with units (PSI, volts, ohms, etc.)

✓ Using diagnostic procedures from other models on T4000 vehicles is NOT acceptable

✓ Generic statements like 'Replaced part. Cleared code.' will result in claim denial

✓ Post-repair verification testing must be documented

✓ Model-specific tools (where required) must be used and documented

✓ All specifications must be compared against T4000 specifications (not other models)