

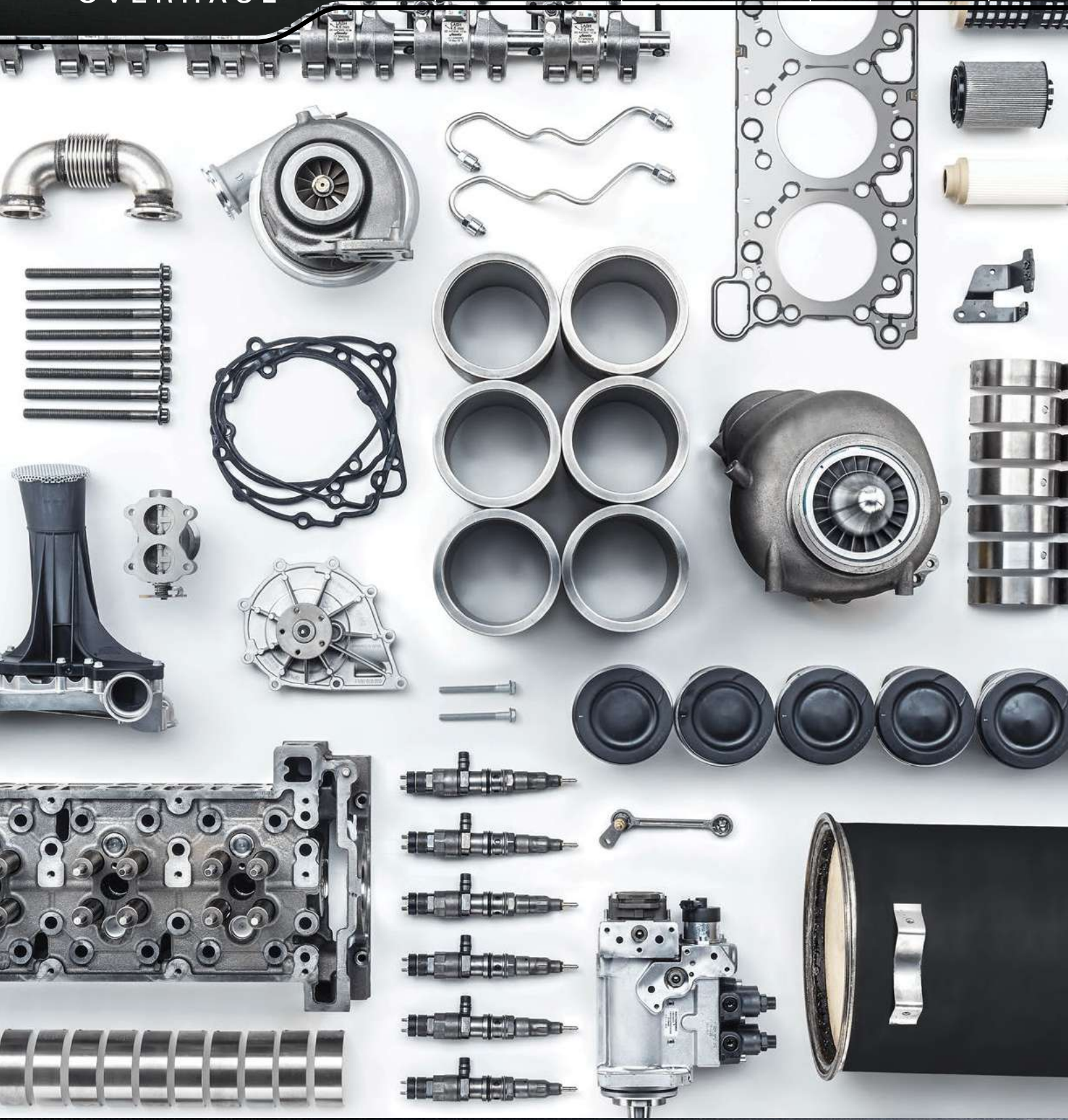
# StepUP

OVERHAUL

DD SERIES

SERIES 60®

MBE 4000



**DETROIT**<sup>™</sup>  
GENUINE PARTS

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# **DEMAND GENUINE.** **DEMAND** **DETROIT.**

## **Why StepUP® Overhaul?**








In the ultra competitive trucking industry, better productivity means greater profits. Your engine plays a vital role in ensuring the success of your business. You need an engine that pulls with strength, uses fuel efficiently and guarantees reliability. StepUP Overhaul gives you four easy-to-understand options for improving the performance of your DD Series, Series 60® or MBE 4000 engine. Each option includes Detroit™ genuine parts, pricing with installation, solid warranty coverage and expert installation by an unrivaled network of authorized Detroit service outlets.

# BENEFITS

## PUT AN END TO:

-  Low Power
-  Poor Fuel Efficiency
-  Hard Starts
-  Rough Idle
-  Blue or White Smoke
-  Low Compression
-  High Oil Consumption
-  Wear Metals in Oil

## BE MORE PRODUCTIVE WITH:

-  Increased Power
-  Improved Fuel Economy
-  Smooth Operation
-  Less Downtime
-  Longer Engine Life
-  Lower Labor Expenses
-  Warranty Protection
-  Best-Performing Service Network

## WARRANTY:

With Detroit genuine parts and factory-backed technicians, each StepUP Overhaul step comes with a nationwide warranty and optional extended coverage.<sup>1</sup>

ITEM	WARRANTY	OPTIONAL EXTENDED COVERAGE
Step 1: Basic Overhaul	Standard parts and labor warranty: 1-year/unlimited-miles on replaced components	N/A
Step 2: Super Overhaul	Standard parts and labor warranty: 1-year/unlimited-miles on replaced components	2-year/200,000-mile Power Protection Plan on replaced and inspected components
Step 3: Complete Overhaul	1-year/100,000-mile Power Protection Plan on required inspected components	
Step 4: Reman 3/4 Engine	2-year/200,000-mile Power Protection Plan on replaced and inspected components	3-year/300,000-mile Power Protection Plan on replaced and inspected components
Step 4: Reman Complete Engine		
Step 4: Reman PowerChoice Engine		

## COVERAGE REQUIREMENTS:

- As of January 1, 2019 there are no age or mileage restrictions for StepUP qualification
- The overhauled engine must be installed in the original chassis
- EGR valve and EGR cooler must be replaced on EGR factory equipped engines
- All work must be performed by an authorized Detroit service outlet

<sup>1</sup> StepUP Overhaul is available on most DD13®, DD15® and DD16®; Series 60 and MBE 4000 engines in on-highway applications. Check with your authorized Detroit service outlet for specific applications.



## STEP 1: BASIC OVERHAUL

*Restore Power Efficiency and Reliability*

- Complete set of six cylinder kits
  - Pistons, rings, pins and bushings
  - Cylinder liners and seals
- Connecting rods
- EGR actuator linkage and nut
- Oil pump<sup>3</sup>
- Oil suction module
- Oil filter
- Oil pan gasket
- Coolant filter<sup>1</sup>
- Fuel line kit
- Fuel filter kit
- Lower-end bearing kit
  - Upper and lower main bearings
  - Connecting rod bearings
  - Thrust washers
- Cylinder head bolt set
- Cylinder head gasket kit
- Block gasket kit
- EGR valve<sup>1,3</sup>
- EGR cooler<sup>1,3</sup>
- Pipe from cooler to valve

**Order separately**

- DPF<sup>1,3</sup>



Steps 1-3 shown

<sup>1</sup> If applicable based on engine model, must be replaced at time of overhaul.

<sup>2</sup> PowerPacks fuel injectors are covered by a 2-year/150,000-mile warranty when installed by an authorized Detroit service outlet. Warranty registration separate from StepUP Overhaul registration for Steps 1 and 2.

<sup>3</sup> New or remanufactured based on availability.

<sup>4</sup> Remanufactured to the original engine content and performance specifications based on VIN.

## STEP 2: SUPER OVERHAUL

*Reinvigorate Performance and Productivity*

Everything in a Step 1: Basic Overhaul PLUS

- Rocker arms<sup>3</sup>
  - Exhaust and intake
- High-pressure fuel pump<sup>3</sup>
- Cylinder head assembly<sup>3</sup>
- Coolant thermostat

## STEP 3: COMPLETE OVERHAUL

*Make Your High-Mileage Engine Run Strong and Long*

Everything in a Step 2: Super Overhaul PLUS

- Turbocharger<sup>3</sup>
- Axial power turbine (DD15 only)
- Axial power turbine gear box (DD15 only)
- Water pump<sup>3</sup>
- PowerPacks™ — a set of six fuel injectors<sup>2,3</sup>

## STEP 4: DETROIT REMAN ENGINE

*Guaranteed to Run Like New*

**Detroit Genuine Parts Remanufactured Engine**

- Remanufactured, not rebuilt, to the latest engineering and design enhancements
- Factory-tested to OEM specifications

### Options

- Reman 3/4 Engine
- Reman Complete Engine
- Reman PowerChoice Engine<sup>4</sup>



<sup>1</sup> If applicable based on engine model, must be replaced at time of overhaul.

<sup>2</sup> PowerPacks fuel injectors are covered by a 2-year/150,000-mile warranty when installed by an authorized Detroit service outlet. Warranty registration separate from StepUP Overhaul registration for Steps 1 and 2.

<sup>3</sup> New or remanufactured based on availability.

<sup>4</sup> Remanufactured to the original engine content and performance specifications based on VIN.

# SERIES 60<sup>®</sup>

## STEP 1: BASIC OVERHAUL

*Restore Power Efficiency and Reliability*

- Complete set of six cylinder kits
    - Piston domes, rings, skirts<sup>3</sup>, pins and bushings
    - Cylinder liners and seals
  - Cam-bearing shell set
  - Cylinder head bolt set
  - Thermostats
  - Overhaul gasket kit
  - Oil pan and rocker cover gaskets
- Order Separately**
- Oil pressure regulator
  - Oil pressure relief valve
  - EGR valve<sup>1,3</sup>
  - EGR cooler<sup>1,3</sup>
  - Lower-end bearing kit
    - Upper and lower main bearings
    - Connecting rod bearings
    - Thrust washers



Steps 1-3 shown

<sup>1</sup> If applicable based on engine model, must be replaced at time of overhaul.  
<sup>2</sup> PowerPacks fuel injectors are covered by a 2-year/150,000-mile warranty when installed by an authorized Detroit service outlet. Warranty registration separate from StepUP Overhaul registration for Steps 1 and 2.  
<sup>3</sup> New or remanufactured based on availability.  
<sup>4</sup> Remanufactured to the original engine content and performance specifications based on VIN.



# SERIES 60<sup>®</sup>

## STEP 2: SUPER OVERHAUL

*Reinvigorate Performance and Productivity*

Everything in a Step 1: Basic Overhaul PLUS

- Cylinder head assembly<sup>3</sup>
- Rocker arms<sup>3</sup>
  - Exhaust and intake

**Optional Components**

- PowerPacks™ — a set of six fuel injectors<sup>2,3</sup>
- Turbocharger<sup>3</sup>
- Fuel pump<sup>3</sup>
- Water pump<sup>3</sup>

## STEP 3: COMPLETE OVERHAUL

*Make Your High-Mileage Engine Run Strong and Long*

Everything in a Step 2: Super Overhaul PLUS

- PowerPacks — a set of six fuel injectors<sup>2,3</sup>
- Turbocharger<sup>3</sup>
- Water pump<sup>3</sup>

**Optional Components**

- Fuel pump<sup>3</sup>

## STEP 4: DETROIT REMAN ENGINE

*Guaranteed to Run Like New*

**Detroit Genuine Parts Remanufactured Engine**

- Remanufactured, not rebuilt, to the latest engineering and design enhancements
- Factory-tested to OEM specifications

**Options**

- Reman 3/4 Engine
- Reman Complete Engine
- Reman PowerChoice Engine<sup>4</sup>



<sup>1</sup> If applicable based on engine model, must be replaced at time of overhaul.

<sup>2</sup> PowerPacks fuel injectors are covered by a 2-year/150,000-mile warranty when installed by an authorized Detroit service outlet. Warranty registration separate from StepUP Overhaul registration for Steps 1 and 2.

<sup>3</sup> New or remanufactured based on availability.

<sup>4</sup> Remanufactured to the original engine content and performance specifications based on VIN.



# MBE 4000

## STEP 1: BASIC OVERHAUL

*Restore Power Efficiency and Reliability*

- Complete set of six cylinder kits
  - Piston domes, rings, skirts<sup>3</sup>, pins and bushings
  - Cylinder liners and seals
- Overhaul gasket kit
- Thermostat kit
- Lower-end bearing kit
  - Upper and lower main bearings
  - Connecting rod bearings
  - Thrust washers
- Cylinder head bolt set
- Fuel line hardware kit
  - Banjo bolts
  - Fuel line washer
- High-pressure fuel lines
- Transfer tubes
- EGR valve<sup>1,3</sup>
- EGR cooler<sup>1,3</sup>



Steps 1-3 shown

<sup>1</sup> If applicable based on engine model, must be replaced at time of overhaul.  
<sup>2</sup> PowerPacks fuel injectors are covered by a 2-year/150,000-mile warranty when installed by an authorized Detroit service outlet. Warranty registration separate from StepUP Overhaul registration for Steps 1 and 2.  
<sup>3</sup> New or remanufactured based on availability.  
<sup>4</sup> Remanufactured to the original engine content and performance specifications based on VIN.

# MBE 4000

## STEP 2: SUPER OVERHAUL

*Reinvigorate Performance and Productivity*

Everything in a Step 1: Basic Overhaul PLUS

- Cylinder head assemblies<sup>3</sup>
- Rocker arms<sup>3</sup>
  - Exhaust and intake

**Optional Components**

- PowerPacks™ — a set of six fuel injectors<sup>2,3</sup>
- Turbocharger<sup>3</sup>
- Fuel pump<sup>3</sup>
- Water pump<sup>3</sup>

## STEP 3: COMPLETE OVERHAUL

*Make Your High-Mileage Engine Run Strong and Long*

Everything in a Step 2: Super Overhaul PLUS

- PowerPacks — a set of six fuel injectors<sup>2,3</sup>
- Turbocharger<sup>3</sup>
- Water pump<sup>3</sup>

**Optional Components**

- Fuel pump<sup>3</sup>

## STEP 4: DETROIT REMAN ENGINE

*Guaranteed to Run Like New*

**Detroit Genuine Parts Remanufactured Engine**

- Remanufactured, not rebuilt, to the latest engineering and design enhancements
- Factory-tested to OEM specifications

**Options**

- Reman 3/4 Engine
- Reman Complete Engine
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<sup>3</sup> New or remanufactured based on availability.

<sup>4</sup> Remanufactured to the original engine content and performance specifications based on VIN.

# DETROIT SUPPORT. ANYWHERE.

- OVER 700 AUTHORIZED DETROIT SERVICE OUTLETS
- REPAIRS PERFORMED BY DETROIT CERTIFIED TECHNICIANS
- UNMATCHED AVAILABILITY OF DETROIT GENUINE PARTS
- COVERAGE THROUGHOUT U.S. AND CANADA

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