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All States 192587

All States Turbocharger Instruction Manual

For Ford Tractor Models 7000, 7600, 7700

Model Number: 192587

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your All States Turbocharger. This turbocharger is designed as a direct replacement for specific Ford tractor models. Adhering to these instructions will help ensure optimal performance and longevity of the unit.

2. SAFETY INFORMATION

WARNING: Improper installation or maintenance can lead to serious injury or damage to the tractor. Always consult a qualified mechanic for installation if you are not experienced with turbocharger systems.

- Always wear appropriate personal protective equipment, including eye protection and gloves.
- Ensure the tractor engine is completely off and has cooled down before beginning any work.
- Disconnect the battery to prevent accidental starting.
- Be aware of hot surfaces and sharp edges during installation and removal.
- Dispose of old parts and fluids responsibly according to local regulations.

3. COMPATIBILITY AND PACKAGE CONTENTS

3.1 Compatible Tractor Models

- Ford Tractor 7000
- Ford Tractor 7600
- Ford Tractor 7700

This turbocharger replaces Ford OEM Number(s): D0NN6K682A, D0NN6K682AT, 155453, 155453R, SM155453. It also replaces Mfg Number(s): 3LD168.

3.2 Package Contents

The package includes:

- 1 x All States Turbocharger (Model 192587)
- Mounting Gaskets (as shown in images)

4. SETUP AND INSTALLATION

Installation of a turbocharger requires specialized tools and knowledge. It is highly recommended that this procedure be performed by a certified technician.

4.1 Pre-Installation Checks

- Inspect the new turbocharger for any shipping damage.
- Ensure all oil and coolant lines are clean and free of debris.
- Verify that the engine oil and filter are new and correct for your tractor model.
- Check the air intake system for blockages or leaks.

4.2 Installation Steps (General Guide)

1. **Remove Old Turbocharger:** Carefully disconnect and remove the old turbocharger, ensuring all oil and coolant lines are properly capped to prevent contamination.
2. **Clean Mounting Surfaces:** Thoroughly clean all mounting surfaces on the exhaust manifold and downpipe to ensure a proper seal.
3. **Install New Gaskets:** Place the new mounting gaskets provided with the turbocharger.
4. **Mount New Turbocharger:** Carefully position the new turbocharger and secure it with the appropriate bolts, tightening to the manufacturer's specified torque settings.
5. **Connect Oil and Coolant Lines:** Reconnect the oil feed, oil drain, and coolant lines (if applicable). Ensure all connections are secure and free of leaks.
6. **Prime the Turbocharger:** Before starting the engine, disconnect the fuel supply or ignition and crank the engine for 10-15 seconds to allow oil to circulate and prime the turbocharger bearings. This is crucial to prevent dry start damage.
7. **Reconnect Components:** Reconnect the air intake and exhaust components.
8. **Initial Start-up:** Start the engine and let it idle for several minutes. Check for any oil, coolant, or exhaust leaks. Monitor engine oil pressure.



Figure 1: All States Turbocharger (Model 192587) shown with included mounting gaskets. This image displays the main body of the turbocharger, including the compressor and turbine housings, along with the two flat gaskets for installation.



Figure 2: An angled view of the All States Turbocharger, highlighting the compressor inlet and the overall compact design. The mounting flange and a portion of the turbine housing are also visible, along with the gaskets.

5. OPERATING INSTRUCTIONS

Proper operation is key to maximizing the life of your turbocharger.

- **Warm-up:** Allow the engine to warm up sufficiently before applying heavy loads or high RPMs. This ensures proper oil circulation to the turbocharger bearings.
- **Cool-down:** After operating under heavy load or at high speeds, allow the engine to idle for a few minutes before shutting it off. This allows the turbocharger to cool down and prevents oil coking in the bearing housing.
- **Monitor Gauges:** Regularly check the oil pressure and temperature gauges. Any abnormal readings should be investigated immediately.
- **Avoid Sudden Acceleration/Deceleration:** Smooth operation helps reduce stress on the turbocharger components.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and performance of your turbocharger.

- **Oil Changes:** Adhere strictly to the tractor manufacturer's recommended oil change intervals. Use only high-quality engine oil specified for your tractor. Dirty or low oil is a primary cause of turbocharger failure.
- **Oil Filter:** Replace the engine oil filter with every oil change.
- **Air Filter:** Regularly inspect and replace the air filter. A clogged air filter can restrict airflow, causing the turbocharger to work harder and potentially leading to damage.
- **Boost Leaks:** Periodically check all intake and exhaust connections for leaks. Leaks can reduce performance and put undue stress on the turbocharger.
- **Inspect for Play:** During routine maintenance, check the turbocharger shaft for excessive axial or radial play. Any significant play may indicate wear and require professional inspection.



Figure 3: Rear view of the All States Turbocharger, showing the turbine housing and the wastegate actuator mechanism. This perspective is important for understanding exhaust gas flow and boost control.

7. TROUBLESHOOTING

This section outlines common issues and potential solutions. For complex problems, consult a qualified mechanic.

7.1 Loss of Engine Power / Reduced Boost

- **Check for Leaks:** Inspect all intake and exhaust pipes, hoses, and connections for leaks.
- **Air Filter:** Ensure the air filter is clean and not clogged.
- **Wastegate:** Verify the wastegate actuator is functioning correctly and not stuck open.
- **Turbocharger Damage:** Inspect the compressor and turbine wheels for damage or excessive play.

7.2 Excessive Smoke from Exhaust

- **Blue Smoke:** Often indicates burning oil. Check for oil leaks into the exhaust or intake, or worn turbocharger seals.
- **Black Smoke:** Typically indicates incomplete combustion. Check fuel system, air filter, and boost pressure.
- **White Smoke:** Can indicate burning coolant. Check for coolant leaks or head gasket issues.

7.3 Unusual Noises (Whining, Hissing, Grinding)

- **Whining/Hissing:** Often a sign of an air leak in the intake or exhaust system.
- **Grinding/Scraping:** Indicates contact between the compressor/turbine wheel and its housing, suggesting severe turbocharger damage. Shut down the engine immediately and seek professional help.
- **Loose Connections:** Check all mounting bolts and clamps for tightness.



Figure 4: Side view of the All States Turbocharger, illustrating the exhaust inlet and outlet flanges. This view is helpful for understanding the connection points to the tractor's exhaust system.

8. SPECIFICATIONS

- **Brand:** All States
- **Model Number:** 192587
- **Item Weight:** Approximately 18 pounds (8.16 kg)
- **Replaces OEM Part Numbers:** D0NN6K682A, D0NN6K682AT, 155453, 155453R, SM155453
- **Replaces Mfg Part Number:** 3LD168

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided at the time of purchase or contact your authorized All States dealer. Keep your purchase receipt and model number (192587) readily available when seeking support.