

NorthStar 4592900

NorthStar Air Compressor Pump Instruction Manual

Model: 4592900

Brand: NorthStar

1. INTRODUCTION AND PRODUCT OVERVIEW

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your NorthStar Air Compressor Pump, Model 4592900. This 1-stage, 2-cylinder pump is designed for reliable performance in various applications.

Key Features:

- Full cast iron pump construction for extended service life.
- V-style cylinder design for superior cooling efficiency.
- Pump head made of FC35 Grade cast iron for durability.
- Floating-type Swedish steel valves for prolonged valve life.
- Operates at a slower RPM, contributing to cooler running temperatures and increased longevity.
- Low Vibration Technology (LVT) for smooth operation.
- One-piece cast iron crankcase with bearings on both ends of the crankshaft for superior support.
- Produces 13.7 CFM at 90 PSI.
- Maximum pressure of 130 PSI.
- 100% duty cycle.
- 10.5-inch diameter oversized flywheel for cooler operation.
- Heavy cast iron flywheel provides extra momentum.
- Step-type piston rings ensure optimal compression.
- Sight glass for convenient oil level monitoring.
- Replaceable crank journals and wrist pin journal/needle bearings.
- Two-piece connecting rods for enhanced serviceability.



Figure 1: Main view of the NorthStar Air Compressor Pump.

2. SAFETY INFORMATION

Read and understand all safety warnings and instructions before operating this air compressor pump. Failure to follow these instructions may result in electric shock, fire, and/or serious injury.

General Safety Warnings:

- **Work Area Safety:** Keep the work area clean and well-lit. Cluttered or dark areas invite accidents.
- **Electrical Safety:** Ensure the power source (motor) is properly grounded and rated for the pump's requirements (e.g., 100 Volts). Do not expose the pump to rain or wet conditions.
- **Personal Safety:** Always wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, and gloves. Do not overreach; maintain proper footing and balance at all times.
- **Product Use and Care:** Do not force the pump. Use the correct pump for your application. Disconnect the power source before making any adjustments, changing accessories, or storing the pump.
- **Maintenance:** Maintain the pump according to the instructions in this manual. Keep all guards and safety features in place and in working order.

- **Hot Surfaces:** The pump and associated components can become very hot during operation. Avoid contact with hot surfaces to prevent burns.
- **Pressurized Air:** Never direct compressed air at people or animals. Always wear eye protection when using compressed air.

3. SETUP AND INSTALLATION

Proper setup is crucial for the performance and longevity of your air compressor pump. This pump requires a separate motor (4 HP electric or 5.5 HP gas) and a single A-groove belt for operation.

Installation Steps:

1. **Mounting:** Securely mount the air compressor pump to a stable, level surface or air tank. Ensure adequate ventilation around the pump.
2. **Motor Connection:** Connect the appropriate 4 HP electric or 5.5 HP gas motor to the pump. Ensure the motor's horsepower rating meets or exceeds the pump's requirements.
3. **Belt Installation:** Install a single A-groove belt between the motor pulley and the pump's flywheel. Ensure proper belt tension; it should be tight enough to prevent slippage but not so tight as to cause excessive strain on bearings.
4. **Air Intake:** Ensure the air intake filters are clean and securely attached.
5. **Oil Fill:** Before first use, fill the crankcase with the recommended compressor oil to the proper level, indicated by the sight glass. Refer to the Maintenance section for oil specifications.
6. **Electrical Connection (if applicable):** If using an electric motor, ensure it is correctly wired to a 100 Volt power source and properly grounded according to local electrical codes.
7. **Pressure Line Connection:** Connect the 5/8-inch compression outlet to your air tank or system.



Figure 2: Side view illustrating the belt drive and motor connection area.



Figure 3: Close-up of the air intake filters, which should be kept clean.

4. OPERATING INSTRUCTIONS

Once properly installed and filled with oil, your NorthStar Air Compressor Pump is ready for operation.

Starting the Pump:

1. Ensure all connections are secure and the oil level is correct.
2. Turn on the power to the motor. The pump will begin to build air pressure.
3. Monitor the pressure gauge (if connected to a tank with one) to ensure it reaches the desired operating pressure, up to a maximum of 130 PSI.

During Operation:

- The pump is designed for a 100% duty cycle, meaning it can run continuously.
- The V-style cylinder orientation and oversized flywheel contribute to cooler operation, but always ensure adequate airflow around the pump.
- Listen for any unusual noises or vibrations. The Low Vibration Technology (LVT) ensures smooth operation; excessive vibration may indicate an issue.

Stopping the Pump:

1. Turn off the power to the motor.
2. If connected to an air tank, drain any accumulated moisture from the tank after each use.

5. MAINTENANCE

Regular maintenance is essential to ensure the long life and optimal performance of your NorthStar Air Compressor Pump.

Daily/Before Each Use:

- **Check Oil Level:** Verify the oil level using the sight glass. Add recommended compressor oil if necessary.
- **Inspect Air Filters:** Ensure air intake filters are clean and free of debris. Clean or replace if clogged.
- **Check for Leaks:** Inspect all air lines and connections for leaks.

Monthly/Every 50 Hours of Operation:

- **Change Oil:** Replace the compressor oil with the recommended type.
- **Inspect Belt:** Check the A-groove belt for wear, cracks, or proper tension. Adjust or replace as needed.
- **Clean Cooling Fins:** Ensure the cylinder cooling fins are free of dust and debris to maintain efficient cooling.

Annual/Every 200 Hours of Operation:

- **Inspect Valves:** Check the floating-type Swedish steel valves for wear or damage. Replace if necessary.
- **Inspect Piston Rings:** Verify the condition of the step-type piston rings for optimal compression.
- **Check Bearings and Journals:** Inspect crank journals, wrist pin journal, and needle bearings for wear. These components are replaceable for extended pump life.
- **Connecting Rods:** The two-piece connecting rods can be rebuilt for superior serviceability; inspect their

condition.



Figure 4: The oil sight glass allows for quick viewing of the oil level.



Figure 5: The valve plate, housing the Swedish steel valves, is a critical component for air compression.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your air compressor pump. For problems not listed here, contact customer support.

Common Issues and Solutions:

Problem	Possible Cause	Solution
Pump does not start or runs slowly.	Insufficient motor power; loose or worn belt; low voltage (for electric motor).	Ensure motor meets specifications; check and adjust belt tension or replace; verify power supply.
Pump builds pressure slowly or not at all.	Clogged air filters; worn piston rings; faulty valves; air leaks in system.	Clean or replace air filters; inspect and replace piston rings; inspect and replace valves; check all connections for leaks.

Problem	Possible Cause	Solution
Excessive noise or vibration.	Loose mounting bolts; worn bearings; unbalanced flywheel; worn belt.	Tighten mounting bolts; inspect and replace bearings; check flywheel for damage; inspect and replace belt.
Oil leakage.	Loose drain plug; damaged seals or gaskets; overfilled oil.	Check and tighten drain plug; inspect and replace seals/gaskets; ensure oil level is correct.
Overheating.	Insufficient ventilation; clogged cooling fins; low oil level.	Ensure adequate airflow; clean cooling fins; check and correct oil level.

<h2>7. SPECIFICATIONS</h2>	
Detailed technical specifications for the NorthStar Air Compressor Pump, Model 4592900.	
Specification	Value
Brand	NorthStar
Model Name	4592900
Part Number	2762973
Pump Type	1-Stage, 2-Cylinder
Air Flow Capacity	13.7 Cubic Feet Per Minute (CFM) at 90 PSI
Maximum Pressure	130 PSI
Duty Cycle	100%
Required Electric Motor Horsepower	4 HP
Required Gas Motor Horsepower	5.5 HP
Voltage (for electric motor)	100 Volts
Flywheel Diameter	10.5 inches
Belt Type	Single A-groove
Compression Outlet	5/8 inch
Item Weight	53.2 Pounds
Product Dimensions	16"L x 16"W x 16"H
Color	Black
Special Feature	Low Vibration Technology (LVT)
Recommended Uses	Air Brushing, Drilling, Nailing, Spraying

8. WARRANTY AND SUPPORT

Warranty Information:

This NorthStar Air Compressor Pump is covered by a warranty of **12 months for parts** and **12 months for labor** from the date of purchase. Please retain your proof of purchase for warranty claims. The warranty covers defects in materials and workmanship under normal use and service.




The warranty does not cover damage resulting from misuse, abuse, accident, neglect, unauthorized repairs or alterations, or failure to perform recommended maintenance.




Customer Support:

For technical assistance, parts, or warranty inquiries, please contact NorthStar customer support. Refer to the contact information provided with your product packaging or visit the official NorthStar website for current support details.

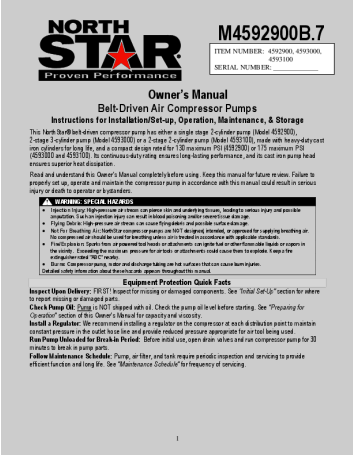
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Related Documents - 4592900

	NorthStar Belt-Driven Air Compressor Pumps Owner's Manual Comprehensive owner's manual for NorthStar Belt-Driven Air Compressor Pumps, covering installation, setup, operation, maintenance, and storage for models 4592900, 4593000, and 4593100.
	NorthStar M157598BG.1 Hot Water Pressure Washer Owner's Manual Comprehensive owner's manual for the NorthStar M157598BG.1 2-Gun Hot Water Pressure Washer. Covers setup, operation, maintenance, safety, and troubleshooting for this 4000 PSI / 7 GPM machine.
	Northstar 10 kW Radar Installation Manual: Marine Navigation System Setup Guide Detailed installation manual for the Northstar 10 kW Radar system, covering setup, wiring, calibration, and troubleshooting for Northstar 6000i, 6100i, and 8000i marine navigation systems.

 <p>Owner's Manual</p> <p>60-Gallon Electric Air Compressor</p>	<p>NorthStar 60-Gallon Electric Air Compressor Owner's Manual</p> <p>Comprehensive owner's manual for the NorthStar 60-Gallon Electric Air Compressor (Model NSLC3706056), covering safety, operation, installation, maintenance, troubleshooting, and parts. Includes technical specifications and warranty information.</p>
 <p>Owner's Manual</p> <p>Electric Portable Air Compressor</p> <p>100PSI 6.0A 200V 50/60 Hz Single Phase 1500 Watts 1.5HP</p>	<p>NorthStar Electric Portable Air Compressor Owner's Manual</p> <p>Comprehensive owner's manual for NorthStar Electric Portable Air Compressors, covering installation, operation, maintenance, and troubleshooting for models 25653, 25654, and 106694.</p>
 <p>Limited Warranty</p>	<p>NorthStar Limited Warranty Information</p> <p>Details the limited warranty terms and conditions for NorthStar products, covering equipment and engine warranties, exclusions, and claim procedures.</p>

Documents - NorthStar – 4592900



[NorthStar Belt-Driven Air Compressor Pumps Owner's Manual](#)

Comprehensive owner's manual for NorthStar Belt-Driven Air Compressor Pumps, covering installation, setup, operation, maintenance, and storage for models 4592900, 4593000, and 4593100.

lang:en score:46 filesize: 1.2 M page_count: 26 document date: 2020-08-11



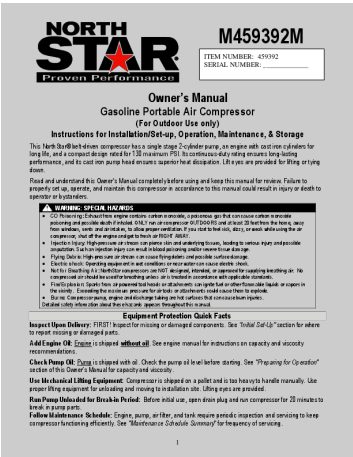
[\[pdf\] User Manual Owner's Manual Instructions](#)

Product Manual for Belt Driven Air Compressor Pumps Tech slider NorthStar Pump 1 Stage 2 Cylinder 13 7 CFM @ 90 PSI 4592900 m northerntool images manuals |||

M4592900C ITEM NUMBER: **4592900**, 4593000, 4593100 SERIAL NUMBER:

Owner s Manual Belt-Driven Air Compressor Pumps Instructions for Installation/Set-up, Operation, Maintenance, Storage This NorthStar belt-driven compressor pump has either a single stage 2-cylinder pump Model **4592900** , ...

lang:en score:45 filesize: 1.19 M page_count: 26 document date: 2022-01-11



[\[pdf\]](#) User Manual Owner's Manual Instructions

PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Northern Tool Owner s

Manual Gasoline Portable Air Compressor For Outdoor Use only Instructions for Installation Set up

Operation Maintenance Storage This NorthStar® belt driven compressor has a single stage 2 cylinder

underpump an engine with cast iron cylinders long life and compact design rated 130 maximum PSI Its

continuous duty rating 459392 assets northerntool products 459 documents manuals |||

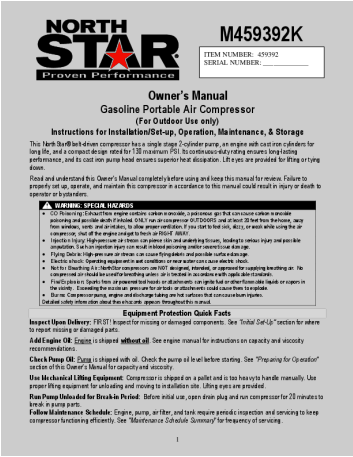
M459392M ITEM NUMBER: 459392 SERIAL NUMBER: _____ Owner s

Manual Gasoline Portable Air Compr ... Ion Tank 1 2 29 788999 NorthStar Decal,

Narrow 1 1 30 789001 NorthStar Label, Round 1 1 31 **4592900** Air Compressor Pump

1 1 32 802033 Handle 1 2 33 780834 Belt, A50 1 2 34 34737 1/4 ...

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[\[pdf\]](#) User Manual Owner's Manual Instructions

PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Keep this manual for

reference and review ATTENTION Rental Companies Private Owners who loan equipment to others! All

persons whom you rent air compressor must have access read owner s with the at all times advise will

operate machine it See engine instructions on capacity viscosity recommendations Check Pump Oil is

shipped oil pump level before starting 459392 northerntool images manuals m

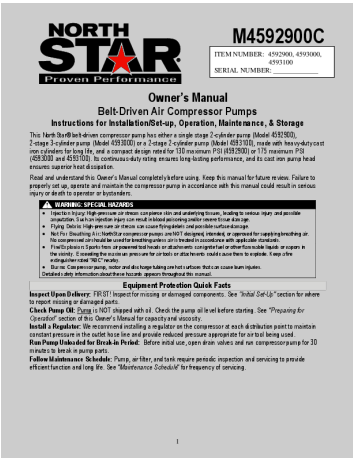
M459392K ITEM NUMBER: 459392 SERIAL NUMBER: _____ Owner s

Manual Gasoline Portable Air Compr ... 87 20 Gallon Tank 1 29 788999 NorthStar

Decal, Narrow 1 30 789001 NorthStar Label, Round 1 31 **4592900** Air Compressor

Pump 1 32 802033 Handle 1 33 780834 Belt, A50 1 34 34737 1/4 Compressi...

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Product Manual for Belt Driven Air Compressor Pumps Tech sleder 4593100 assets northerntool products

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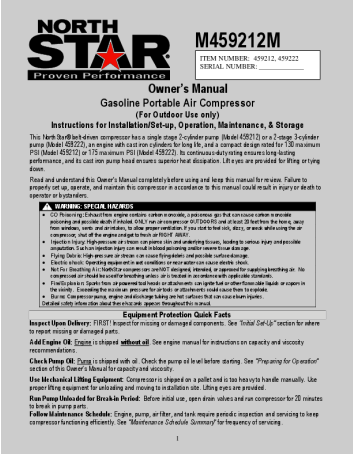
M4592900C ITEM NUMBER: **4592900**, 4593000, 4593100 SERIAL NUMBER:

_____ Owner s Manual Belt-Driven Air Compressor Pumps Instructions for

Installation/Set-up, Operation, Maintenance, Storage This NorthStar belt-driven

compressor pump has either a single stage 2-cylinder pump Model **4592900** , ...

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[\[pdf\]](#) User Manual Owner's Manual Instructions Specifications

PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Owner s Manual Gasoline

Portable Air Compressor For Outdoor Use only Instructions for Installation Set up Operation Maintenance

Storage 459222 northerntool images manuals Keep this manual reference and review ATTENTION

Rental Companies Private Owners who loan equipment to others! All persons whom you rent air

compressor must have access read owner with the at all times advise will operate machine it 459212 5

Specifications MODEL Model FLOW OUTPUT Max Pressure Rating 130 PSI 175 Volume @ 90PSI 13 7

CFM 14 9 Receiver Capacity 8 gal m

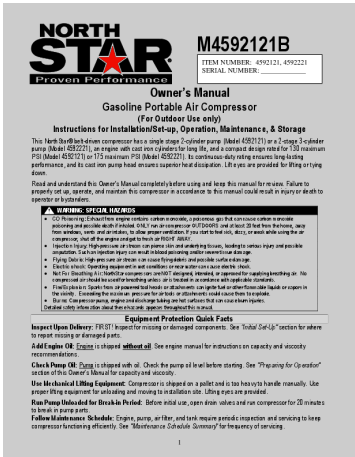
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Owner s Manual Gasoline Portable A ... rd Cover 6 799801 Belt Guard 780833 Belt,

A54 7 788565 Belt, A58 8 789026 Belt Guard Bracket 9 **4592900** Air Compressor

4593000 Pump 10 789001 Pump Decal 11 780773 Quick Connect 12 780894 2 ...

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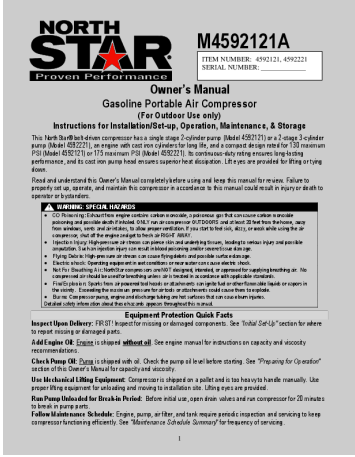
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Owner s Manual Gasoline Portabl ... 7 780833 Belt, A54 4592121 1 788565 Belt, A58

4592221 1 8 789026 Belt Guard Bracket All 1 9 **4592900** Air Compressor Pump

4592121 1 4593000 4592221 1 10 789001 Pump Decal All 1 11 780773...

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PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Product Manual NorthStar

Gas Powered Air Compressor Kohler CH395 OHV Engine 8 Gallon Twin Tank 14 9 CFM @ 90 PSI

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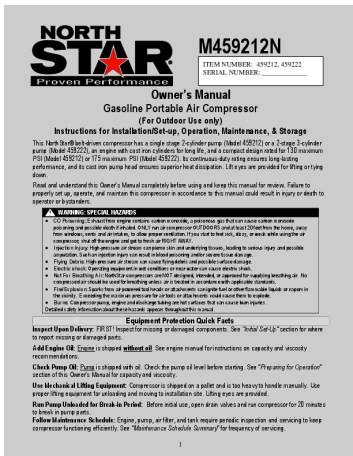
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Owner s Manual Gasoline Portabl ... 1 780833 Belt, A54 7 788565 Belt, A58 4592121

1 4592221 1 8 789026 Belt Guard Bracket All 1 9 **4592900** Air Compressor 4593000

Pump 4592121 1 4592221 1 10 789001 Pump Decal All 1 11 780773 Qu...

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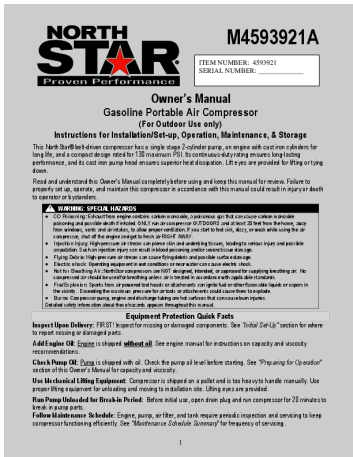


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PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Product Manual NorthStar Gas Powered Air Compressor Honda GX270 OHV Engine 8 Gallon Twin Tank 14 9 CFM @ 90 PSI 459222 m northerntool images manuals |||

M459212N ITEM NUMBER: 459212, 459222 SERIAL NUMBER: _____

Owner s Manual Gasoline Portable A ... d Cover 6 799801 Belt Guard 7 780833 Belt, A54 788565 Belt, A58 8 789026 Belt Guard Bracket 9 **4592900** Air Compressor 4593000 Pump 10 789001 Pump Decal 11 780773 Quick Connect 12 780894 2 ... lang:en **score:33** filesize: 2.29 M page_count: 32 document date: 2022-01-11

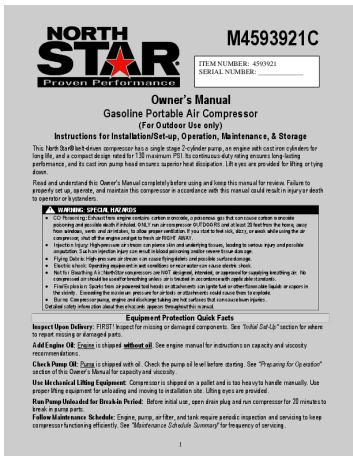


[pdf] User Manual Owner's Manual Instructions

PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Product Manual NorthStar Portable Gas Powered Air Compressor Kohler 177cc OHV Engine 20 Gallon Horizontal Tank 13 7 CFM @ 90 PSI 4593921 m northerntool images manuals |||

M4593921A ITEM NUMBER: 4593921 SERIAL NUMBER: _____ Owner s

Manual Gasoline Portable Air Com ... 34724 5/8 Compression Nut 2 30 789001 NorthStar Label, Round 1 10 788396 Unloader Tube 1 31 **4592900** Air Compressor Pump 1 11 34937 Right Compression Fitting 1 32 802033 Handle 1 13 804... lang:en **score:30** filesize: 1.95 M page_count: 28 document date: 2022-04-11



[pdf] User Manual Owner's Manual Instructions Diagram

PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Northern Tool Upon receipt

inspect air compressor for missing or damaged parts Verify that it is the you ordered See Component

Identification section of this manual a diagram and its components For contact Product Support at 1 800

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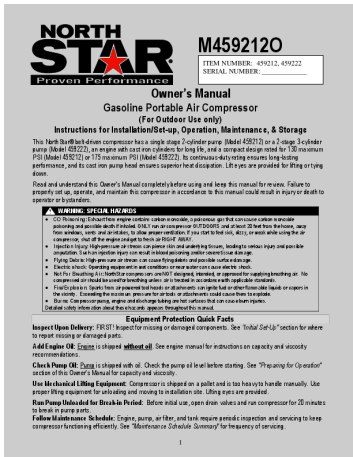
M4593921C ITEM NUMBER: 4593921 SERIAL NUMBER: _____ Owner s

Manual Gasoline Portable Air Com ... 87 20 Gallon Tank 1 29 788999 NorthStar

Decal, Narrow 1 30 789001 NorthStar Label, Round 1 31 **4592900** Air Compressor

Pump 1 32 802033 Handle 1 33 780834 Belt, A50 1 34 34737 1/4 Compressi...

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PRODUCT MANUAL FOR NORTHSTAR AIR COMPRESSOR Jamie Sleder Northern Tool 6 Component

Identification 1 Pneumatic Tires Keep tire pressure at 30 PSI for easy movement 2 Unloader Vents

discharge air to atmosphere in start stop operation 3 Lifting Eyes May also be used as tie down locations

4 Discharge Tube Carries from pump safety check valve and then the storage tank 459222 assets

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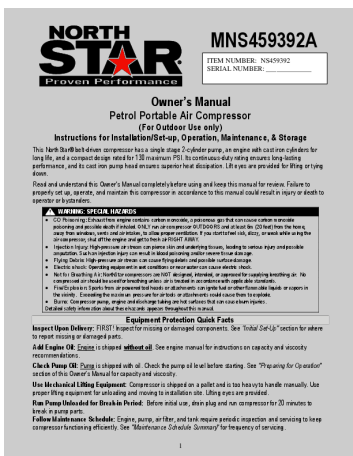
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Owner s Manual Gasoline Portable A ... d Cover 6 799801 Belt Guard 7 780833 Belt,

A54 788565 Belt, A58 8 789026 Belt Guard Bracket 9 **4592900** Air Compressor Pump

4593000 10 789001 Pump Decal 11 780773 Quick Connect 12 780894 2 ...

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[pdf] User Manual Owner's Manual Instructions

Jamie Sleder MNS459392A Kincrome 6 Component Identification 1 Pneumatic Tires Keep tire pressure at

30 PSI for easy movement 2 Unloader Vents discharge air to atmosphere in start stop operation 3 Lifting

Eyes May also be used as tie down locations 4 Discharge Tube Carries from pump safety check valve

and then the storage tank NS459392 kincrome au documents |||

MNS459392A ITEM NUMBER: NS459392 SERIAL NUMBER: _____

Owner s Manual Petrol Portable Air Com ... Ion Tank 1 1 29 795118 NorthStar Decal,

Narrow 1 1 30 789001 NorthStar Label, Round 1 2 31 **4592900** Air Compressor Pump

1 2 32 788118 Handle 1 21 16 780854 Unloader 17 82040 Hex Nut ...

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