# 400 Series

**Portable compressor**


People. Passion. Performance.

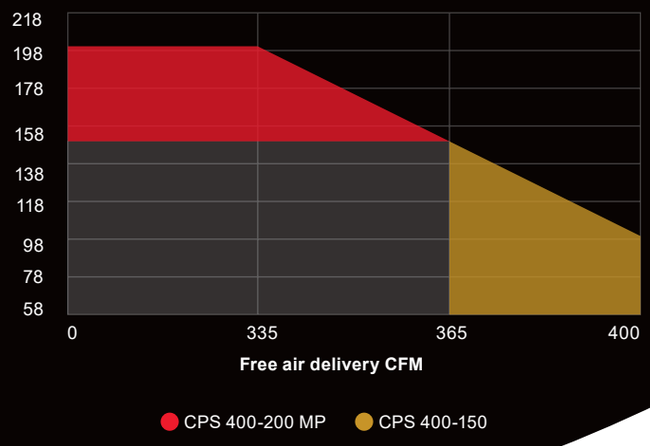
Chicago Pneumatic

# Standard Scope of Supply

The Chicago Pneumatic 400 Series KoD T4F is a single-stage, oil-injected, rotary screw type air compressor, powered by a liquid-cooled, four-cylinder turbocharged diesel engine. The unit consists of an air end, diesel engine with exhaust treatment, cooling circuit, air/oil separation and control systems - all enclosed within a sound dampened Red Rock Canopy enclosure. A range of undercarriage formats, factory and locally installed options are available. Special attention has been given to the overall product quality, user friendliness, ease of serviceability, and economical operation to ensure best in class cost of ownership.

# Pressure and Flow

MP Pressure Adjusted thru Cognitive Electronics TECHNOLOGY




## Available Models

| Available Models | |
|---|---|
| CPS 400 – 150 | single stage – 100 to 150 psi – Kohler engine |
| CPS 400 – 200 MP | single stage – 100 to 200 psi – Kohler engine |

| Features | Benefits |
|---|---|
| Kohler T4F engine | • Meets all current T4F emission regulations.<br>• Integrated exhaust aftertreatment makes T4F integration easy<br>• 3 Year warranty from factory on Kohler Engine |
| Chicago pneumatic Controller XC2003 Pressure Control | • Proven controller for easy operation and diagnostics of the compressor and engine.<br>• Allows operator to view compressor parameters including: Pressure settings, reading engine codes, two programmable service timers, all temperatures and pressures of compressor, fuel levels and consumptions, and load/unload compressor.<br>• Fuel pressure display on the screen |
| Low Fuel Shutdown | • Reduces downtime on site when operator runs out of fuel as there is no longer a need to “re-prime” the fuel system |
| Heavy Duty Single Axle Trailer w/ 15" tires | • Well balanced for safer towing or moving around site<br>• High ground clearance for rough site and road conditions |
| Red Rock Canopy enclosure | • Heavy ¼” double wall polyethylene enclosure<br>• Dent and UV Resistant<br>• Keeps looking new for longer and adds to resale value |
| 110% Spillage Free Containment Frame | • Protects environment from spill/ leaks, avoids costly clean up |

| Options | Benefits |
|---|---|
| Support Mount (Skid) | • Provides a solid foundation for units to remain stationary on the job site. |
| Fork Lift Pockets | • Provides a sturdy lifting point for safe and easy unit mobility via forklifts. |
| Skid Plate Stand | • Provides a front support leg to help keep the unit stationary. |
| Extra Ball Couplings | • Provides towing vehicle flexibility with the additional hitch options. |
| Aftercooler, water separator with UD filters | • Provides cool, dry, clean air for applications where instrument quality air is required. |
| Condensate Flashing | • Keeps a clean environment by evaporating aftercooler filter drainage in the exhaust to prevent oil puddling under the unit. |
| Battery Cut-Off Switch | • Allows the power supply to be cut off from the unit to save battery power when the unit is turned off without the need of tools. |
| Solar Battery Charger | • Ensures a constantly charged battery through clean solar power. |
| Telematics | • Always know the location and condition of the unit from anywhere in the world. |
| Air Inlet Shut-Down Valve | • Automatically shut the engine down by cutting off the inlet air supply during unforeseen over speeding situations. |
| External Fuel Tank Connections | • Connect to an external fuel supply for a larger reserve of fuel. |
| Fire Extinguisher | • Provides the ability to fight small fires no matter the cause. |
| Hose Reel | • Provides preinstalled, long reach hoses that roll up for easy storage and transport. |
| Cold Weather Package | • Features required for reliable cold weather operation.<br>• Including: synthetic compressor oil (Gen Oil) and block heater. |

## Technical data

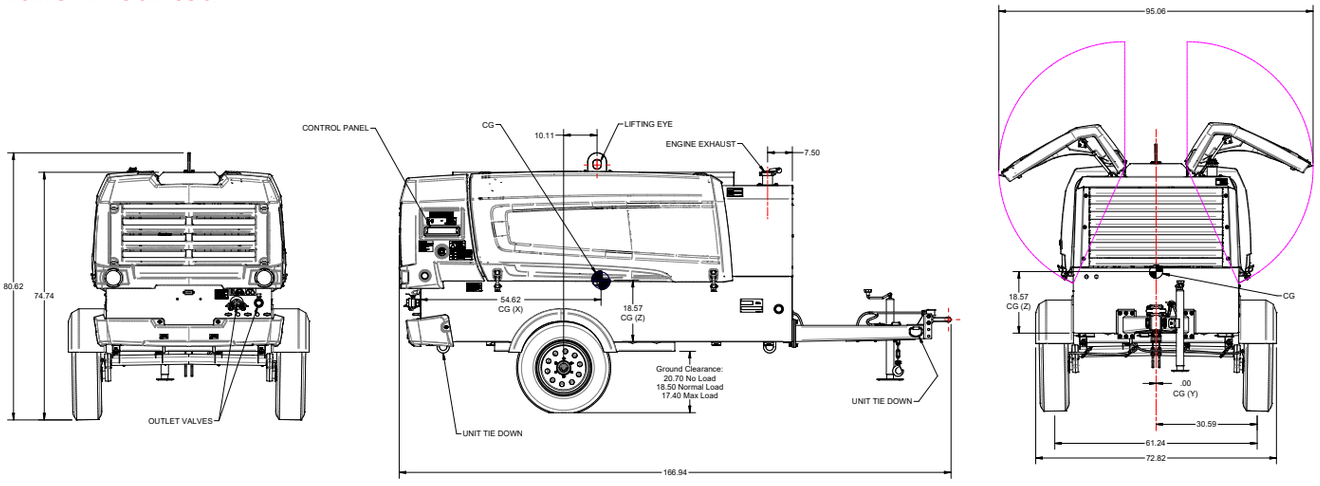
| Compressor | | CPS 400-150 | | CPS 400-200 MP | |
|---|---|---|---|---|---|
| Actual free air delivery1 (FAD) | Cfm | 400 | 375 | 400 | 350 |
| Normal effective working pressure | Psi | 100 | 150 | 100 | 200 |
| Minimum working pressure | Psi | 72 | | 72 | |
| Max. sound pressure level @ 23' (7m) at normal working speed & pressure2 | dB(a) | TBD | | TBD | |
| Compression Stages | | 1 | | 1 | |
| Air Receiver Capacity | US Gal (L) | 11 (41.6) | | 11 (41.6) | |
| Compressor oil capacity | US Gal (L) | 6.7 (25.4) | | 6.3 (25.4) | |
| Approximate air outlet temperature (not aftercooled) | °F (°C) | 200 (93) | | 200 (93) | |
| Air Compressor outlets | | 2 x ¾" & 1 x 1 ½" | | 2 x ¾" & 1 x 1 ½" | |
| Max. ambient temperature without Aftercooler (at sea level)3 | °F (°C) | 122 (50) | | 122 (50) | |
| Maximum altitude | Ft (m) | 12418 (3785) | | 12418 (3785) | |
| Minimum starting temperature / cold weather option | °F (°C) | 4 (-10) / -13 (-25) | | 4 (-10) / -13 (-25) | |

| Engine | Kohler | KDI3404TCR | | |
|---|---|---|---|---|
| Emissions Regulation | US EPA Tier | T4F | | |
| Output at rated speed (2200 rpm) | HP | 134 | | |
| Number of cylinders | | 4 | | |
| Aspiration | | Turbocharged | | |
| Displacement | cu in (L) | 205 (3.36) | | |
| Engine speed (Unloaded) | Rpm | 1500 | | |
| Engine speed (Maximum loaded) | Rpm | 2200 @ 100 PSI | 2066 @ 150 PSI | 1926 @ 100 PSI |
| Engine oil capacity | US Gal (L) | 5.4 (20.4) | | |
| Engine oil required | | Low Ash Oil per API CJ-4, ACEA C9 | | |
| Engine coolant capacity | US Gal (L) | 5.6 (21.3) | | |
| Fuel tank capacity | US Gal (L) | 52 (197) | | |
| Fuel consumption at 0% load | Gal/Hr (L/Hr) | 1.32 (5.00) | | |
| Fuel consumption at 100% load | Gal/Hr (L/Hr) | 5.7 @ 100 PSI | 5.9 @ 150 PSI | 6.14 @ 200 PSI |
| DEF tank capacity | US Gal (L) | 4.5 (17) | | |
| DEF consumption at 100% load | Gal/Hr (L/Hr) | Maximum 10% of the fuel consumption | | |
| Battery Capacity (Cold Cranking Amps4) | A | 1100 | | |

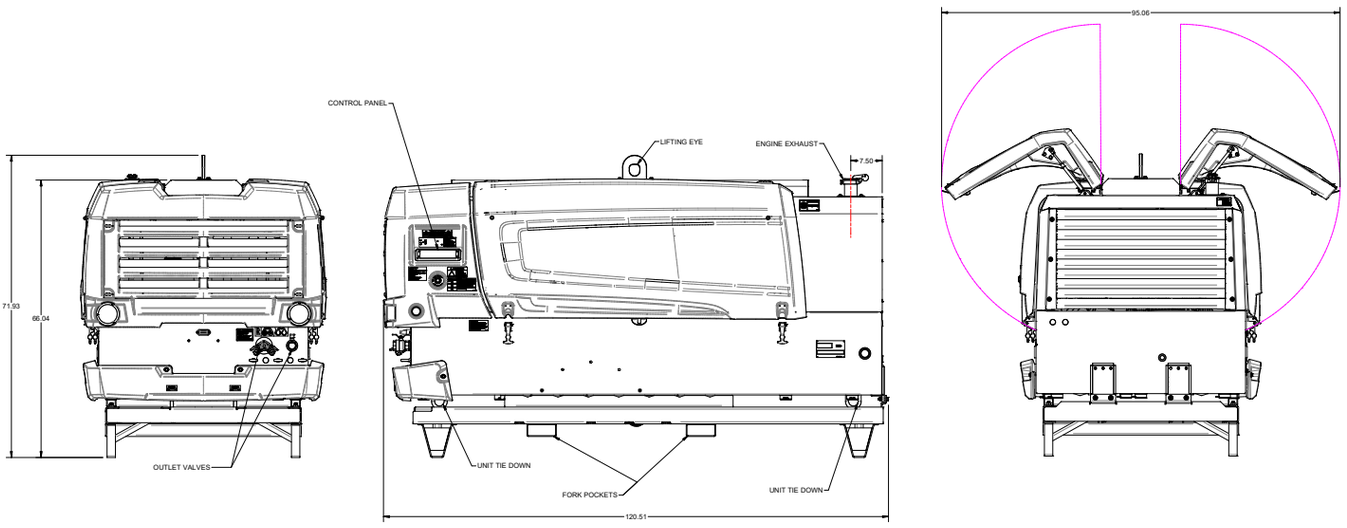
1. According to ISO 1217 ed.3 1996 annex D
2. Measured in accordance with ISO 2151 under free field conditions @ 7m distance
3. Consult Chicago pneumatic for proper de-rating instructions for operation beyond ambient limitations
4. According to DIN 72311

# Dimensions

## Trailer mounted



## Support mounted




## Weight (Wet - Ready-to-operate)

| | | CPS 400-150 | CPS 400-200 |
|---|---|---|---|
| Trailer mounted | lb (Kg) | 4520 (2050) | 4520 (2050) |
| Support mounted | lb (Kg) | 4505 (2043) | 4505 (2043) |

## Dimensions

| | | CPS 400-150 | CPS 400-200 |
|---|---|---|---|
| Trailer mounted (Inches) | L x W x H | 167 x 73 x 81 | 167 x 73 x 81 |
| Support mounted (Inches) | L x W x H | 121 x 59 x 72 | 121 x 59 x 72 |

## Principle Data

### Compressor Element

The quality of a compressor can be measured through the reliability, efficiency and durability of the compressor element used. Through decades of expertise in the design of compressor elements, Chicago pneumatic remains a world leader in designing the most efficient and reliable compressors on the market. With air-end efficiency, maintenance intervals are extended and fuel consumption is reduced.

The 400 Series KoD T4F compressor utilizes Chicago pneumatic 's C106 element and is driven from the diesel engine through a gear box with a rubber disc coupler.

The compressor system comes with Chicago pneumatic Gen Oil compressor oil. The oil cooler comes equipped with a standard thermostatic by-pass valve for superior cold weather operation.

### Compressor System

The compressor system consists of an air filter, air receiver/ oil separator, compressor element, unloader assembly with unloader valve, blow down valve and loading valve.

Economic power consumption is assured by the fully automatic 100%
step-less speed regulator that adapts engine speed to air demand.

### Discharge Outlets

Compressed air is available from 2 x 3/4" claw type (Chicago) outlet valves (CPS 400-200 MP only) and 1 x 1 ½" NPT valve.

### Air/Oil Separator

Air and oil separation is achieved through a centrifugal oil separator combined with a filter element. Separators are available in ASME/CRN approved versions and are stamped accordingly.

Designed for a higher maximum working pressure, the separator is equipped with a ASME pressure relief valve, minimum pressure valve, automatic blow-down valve, and pressure regulator.

The separator features an easily removable lid with no alternatively attached components to provide easy access to the internal filter element.

**Air/Oil Separator Tank:**

| | |
|---|---|
| Volume | 11 US Gal / 42 L |
| Certifications | ASME / CRN |
| MAWP | 261psi @ 266°F |

### Cooling System

The cooling system consists of integrated side-by-side aluminum oil cooler with axial fan to ensure optimum cooling. The cooling system is suitably designed for continuous operation in ambient conditions up to 122°F, with canopy doors closed for the 400 Series KoD T4F.


## Engine

### Kohler 3404TCR 134 HP

Kohler 3404TCR T4F turbo charged four-cylinder, liquid-cooled diesel engine provides sustainable power to operate the compressor continuously at full-load.

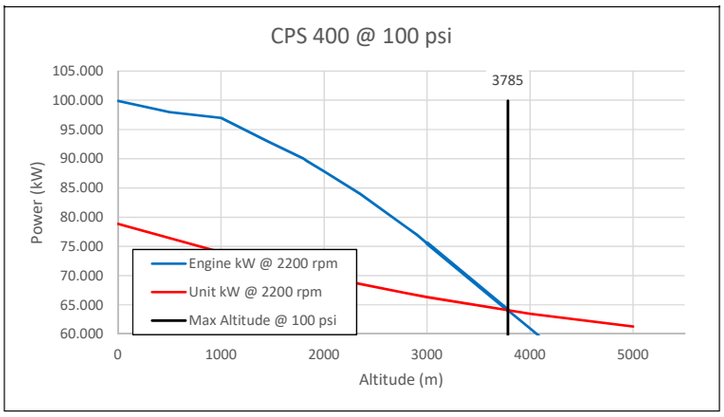
Meets all US EPA and Environment Canada exhaust legislations with Final Tier 4 compliance.

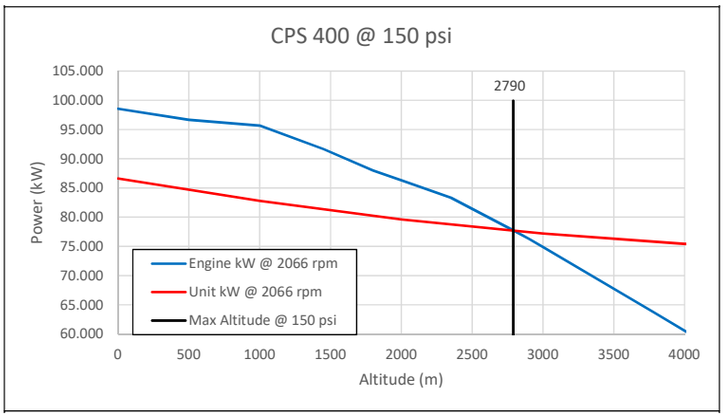
The US EPA engine family is “EJDXL04.5315” and rated at 134hp at 2200 rpm, in accordance to SAE Standard.

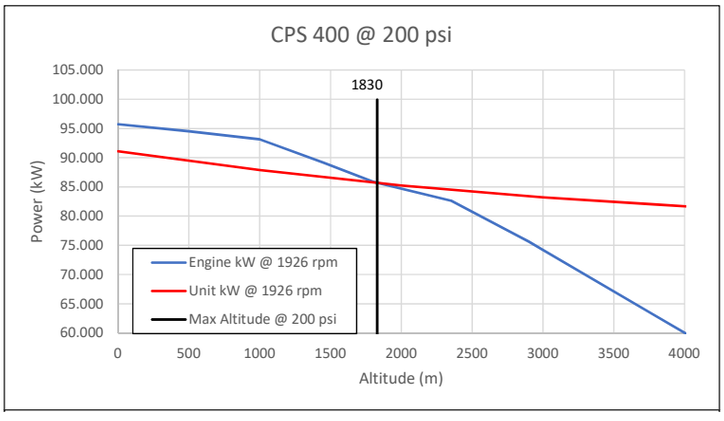
Engine starting capacity at -13°F (-25°C) without the addition of cold start options.

The 52Gal (192L) fuel tank enables operation for over 8 hours at full load and comes standard with a low fuel shutdown at 6%.

The Kohler 3404TCR after treatment consists of a Diesel Oxidization Catalyst (DOC) and a Selective Catalytic Reduction (SCR). The SCR utilizes the temperature of the exhaust to passively regenerate during normal use.



## Electrical System

The 400 Series KoD T4F is equipped with a 12 Volt negative ground electrical starting system.

### Instrumentation

The instrument control panel is located on the back, of the compressor canopy with easy access.

Standard instrument package includes fully diagnostic ECU controller with large 3.5” display. The intuitive Chicago pneumatic XC2003 controller is easy to operate with all functions conveniently at your fingertips. The controller also manages the engine ECU operating system, and a number of safety warnings, shut downs on various parameters (listed below) and full digital pressure control with multi pressure.

# XC2003 Controller Functionality:

### Operational Buttons

- Start and stop of the unit
- View measurements, settings and alarms
- Multi position cursor to navigate menus
- Digital pressure control for CPS 400 - 200 MP

### Compressor measurements displayed

- Running hours
- Fuel level
- Clock
- Battery voltage
- Running hours
- Regulating pressure
- Emergency stop count
- Average fuel consumption
- Minor and major service counters in hours and days

### Engine measurements displayed

- Current fuel rate
- Engine coolant temperature
- Engine oil pressure
- Engine RPM

### Warnings and Shutdowns

- High temperature engine coolant
- High temperature compressor oil
- Engine oil pressure
- Low fuel level
- Low coolant

### Alarms

- View current & historical alarms present
- History of last 20 alarms and events with time and date stamps
- DM1 & DM2: View current engine codes (SPN/FMI)

### Displayed while running

- Hours
- Fuel level
- RPM
- Outlet pressure

- Reset service timers
- Diagnostics for engine ECU
- Language settings
- Unit of measure changes
- Electronic pressure adjustment
- Presetting two (high/low) pressure settings

## Bodywork

HardHat™: Our HardHat™ version comes standard with dual wall, 0.2'' thick, Polyethylene material providing superior corrosion, and UV protection against fading and discoloration. As well as unmatched dent and damage resistance. The canopy is sound attenuated to meet the most current legal noise requirements. A clamshell style hood offers easy service access to all components.

## Undercarriage

The 400 Series KoD compressor is available with two undercarriage alternatives, providing utmost flexibility in installation or towing requirements.

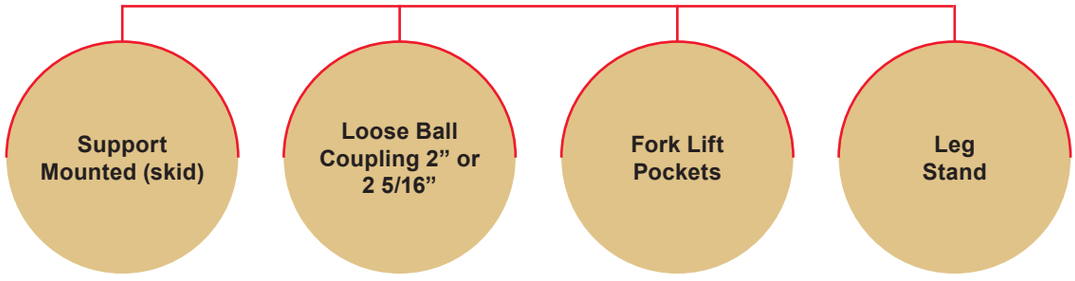
**Single axle trailer setup with:**

- DOT approved light package
- Adjustable height pintle hitch (3" lunette)
- 5,200 lbs torsional axle
- 15" Rims w/ ST225/75D15 8 Ply Tires (weight rating 2,540 lbs @ 65psi)
- Electric trailer brakes as standard (with 7 pin flat blade connector)
- 750lbs Jockey Wheel
  - Tongue weight 415 lbs
  - For later add the tongue weight with toolbox or hose reel

**Fixed support mount with:**

- DOT approved side and rear light reflectors
- Built in forklift pockets

## Undercarriage Options




## Manufacturing & Environmental Standards

The 400 Series KoD T4F is manufactured following stringent ISO 9001 regulations, and a fully implemented Environmental Management System fulfilling ISO 14001 requirements.

Attention has been given to ensure minimum negative impact to the environment.

The 400 Series KoD meets all current EPA and Environment Canada exhaust and noise emission directives.

## Supplied Documentation

The unit is delivered with documentation regarding:

- Hard copies of the Chicago pneumatic operators safety and electronic copies of the instruction manual, Kohler engine manual and parts book available upon request.
- Warranty registration card for Kohler engine and Chicago Pneumatic compressor (Units must be registered upon receipt).
- Test certificate for air delivery pressure and capacity, acc. ISO 1217 (Upon request only).
- Certificate for air/oil separator vessel and safety valve approval, ASME (Upon request only).

## Warranty Coverage

Kohler Engine: Kohler Diesel engines are warranted to be free from defects with regard to materials and workmanship for the period of twelve (12) months from the date of initial startup, prior to the accumulation of 2000 running hours. All Kohler powered air compressors are subject to a 5 year (5,000hr) limited extended warranty. The extended warranty must be registered with Kohler by the original purchaser, at time of purchase, in order to qualify. Please see Kohler's air compressor extended warranty terms, conditions and further details.

Chicago pneumatic Compressor: Warrantied to be free from defects with regard to material and workmanship for the period of eighteen (18) months from date of shipment from the factory, or twelve (12) months from date of initial start-up, whichever occurs first, without limitation of running hours.

Air compressor element assemblies used in Chicago pneumatic portable air compressors, is warranted to be free from defects with regard to materials and workmanship for the period of thirty (30) months from date of shipment from the factory, or twenty four (24) months from date of initial start up, whichever occurs first, without limitation of running hours. Chicago pneumatic service kits including parts and oils (Gen Oil) must be used to maintain warranty. Failure to register warranty upon initial start-up may cause warranty claim delays or rejection of claims.

| **PRODUCT:**<br>**Portable Compressors** | EXTENDED WARRANTY PERIOD*: 24 months from date of end of initial standard warranty term. For the compressor's air system **, the warranty period is an additional 96 months from the end of the 24 month extended warranty term. For the engine, see Footnote 1 below |
|---|---|

*** Requirements for Extended Warranty;**

- Service maintenance must be completed according to published intervals while utilizing genuine Chicago pneumatic /Chicago Pneumatic parts and lubricants. Record of such maintenance must be entered onto Machines Online for the specific serial number and include all required information including date service performed, service interval performed, and part numbers used.
- Oil sample (engine or compressor) to be taken at any time of failure and available upon request
- Oil sample kit part number 9753300442 available for purchase
- Unit must be available for onsite inspection by a representative of Power Technique North America if required
- Unit must be available for transport to a Power Technique North America service center location if required
- Failed components must be retained and available for return and inspection if required

*** Air end system component exclusions: Electrical components (i.e. Sensors, wiring), Perishable items (i.e. Rubber, plastics), Wear and air regulation items (i.e. Check valves, couplings)**

*Note: End users are authorized to complete the required preventative maintenance utilizing genuine parts and lubricants purchased from an authorized dealer. Service maintenance recorded into Machines Online are to be completed by the authorized dealer where products purchased or another authorized dealer after providing proof of purchase for genuine parts and fluids utilized..*

*Note: Equipment/machinery/components/Accessories/parts/items sold by SELLER but not manufactured by SELLER or an affiliate (including but not limited to a Product's engine, alternator, tires, battery, carrier, electrical equipment, and hydraulic transmission, if applicable) are not warranted by SELLER and shall carry whatever warranty (if any) which the manufacturer has conveyed to SELLER to the extent it can be passed on to the purchaser.*

For more information, please contact your CP partner:



Use only Chicago Pneumatic parts. Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability.



Chicago Pneumatic