



**CPS 185**  
**Kohler USA**  
Portable compressor



People. Passion. Performance.



# Standard Scope of Supply

The Chicago Pneumatic **CPS 185 – 100** is a single-stage oil-injected rotary screw type air compressor, powered by a liquid-cooled, three-cylinder diesel engine.

The unit consists of an air end, diesel engine, cooling circuit, air/oil separation and control systems - all enclosed within a Redrock™ polyethylene shell.

Unique features – 110% fluid containment, internal toolbox, external lifting eye, new easy to use controller XC1004.

## Available Models

Available Models	
CPS 185 – 100	single stage - 100 psi – Kohler engine

Standard Features	Benefits
Latest screw technology	• In combination with Kohler T4F engine gives best efficiency in it's class for operating two 90 lbs. breakers.
110% Spillage Free Containment Frame	• Protects environment from spill/leaks and avoids costly clean-up.
Xc1004 controller	• Easy to use, one controller to regulate the entire machine.
Heavy Duty Single Axle Trailer w/ 13" tires	• Well balanced with torsion bar for safer towing or moving around site.
Internal toolbox	• Large enough to fit a 90 lb. hammer while safely stored inside the lockable compressor enclosure.
Spin on type compressor oil separator	• Less than one hour service with no special tools required.
Redrock™ Enclosure	• Heavy double wall polyethylene enclosure. • Dent and UV Resistant • Maintains appearance for long time thus adding resale value.
External lifting bale	• Easy access to lift on/off a trailer or as an alternative to towing to move unit.

Optional Features	Benefits
Extended Draw bar with hose reel	• Conveniently keeps all hoses in the same place and great for municipal bids. Options for 50" or 100" single hose or dual hose reels.
Safety cartridge	• Offers extra filtration, safer operations, and provides an option to change the air filter without stopping the machine
Undercarriage variants and add-ons	• Electric brakes, jockey wheel, frame D Rings, support mount, and several types of loose ball couplings (2 5/16", 2" and 2" bulldog).
OSHA valve	• OSHA compressed air safety shut-off valves immediately shut off the air supply should the volume of air flowing through the valve exceed a preset value. (For example: when an air hose breaks)
FleetLink	• FleetLink is an intelligent system that helps optimize fleet usage; reduce maintenance cost, ultimately saving time and money. (SMARTBOX)
Battery Disconnect	• Prevents battery from being drained / power loss when machine is not being used.
Cold weather package	• Features required for starting at -13°F and cold weather operations includes: 120V block heater, and synthetic compressor oil.
Solar Battery Charger	• Provides an option to have a solar battery charger.
15" Wheel and Tire	• Provides additional ground clearance.
Support Mount	• Removes running gear (Tires, fenders, axle and drawbar) and can be lifted with a Hi-Low
External Toolbox	• Added space for storage.
In – line Lubricator	• Shipped loose. To be installed as close to the tool as possible.

## Technical Data with C90 Compressor Element

Compressor	Units	CPS 185 KoD with C90 Element
Actual free air delivery <sup>1</sup> (FAD)	Cfm	180
Normal effective working pressure	Psi	100
Maximum unloading pressure	Psi	125
Minimum working pressure	Psi	72
Compression Stages		1
Air Receiver Capacity	US Gal (L)	4.76 (18.0)
Compressor oil capacity	US Gal (L)	2.5 (9.7)
Approximate air outlet temperature	°F (°C)	200 (93)
Air Compressor outlets		(X2) ¾"
Max. ambient temperature (at sea level) <sup>3</sup>	°F (°C)	122 (50)
Maximum altitude	ft (m)	9842 (3000)
Minimum starting temperature (without cold weather options)	°F (°C)	14 (-10)
Minimum starting temperature (with cold weather options)	°F (°C)	-13 (-25)

Engine	Kohler	KDI 1903 TCR
Emissions Regulation	US EPA	Tier 4 Final
US EPA Engine Family		NKHXL02.5TCR
Output at rated speed (2500 rpm) <sup>4</sup>	HP	49
Number of cylinders		3
Aspiration		Turbocharged
Displacement	cu in (L)	114 (1.861)
Engine speed (Unloaded)	Rpm	1800
Engine speed (Maximum loaded)	Rpm	2500
Engine oil capacity	US Gal (L)	2.35 (8.9)
Engine coolant capacity	US Gal (L)	2.6 (9.9)
Fuel tank capacity	US Gal (L)	22.3 (101.7)
Fuel consumption at 100% load	Gal/Hr. (L/Hr.)	2.21 (8.37)
Fuel consumption at 75% load	Gal/Hr. (L/Hr.)	2.18 (8.25)
Fuel consumption at 50% load	Gal/Hr. (L/Hr.)	1.69 (6.40)
Fuel consumption at 25% load	Gal/Hr. (L/Hr.)	1.69 (6.40)
Fuel consumption at 0% load	Gal/Hr. (L/Hr.)	1.18 (4.47)
Electrical System (Negative Ground)	V	12
Battery Capacity (Cold Cranking Amps <sup>5</sup> )	A	725

1. According to ISO 1217 ed.3 1996 annex D

2. Measured in accordance with ISO 2151 under free field conditions @ 7m distance

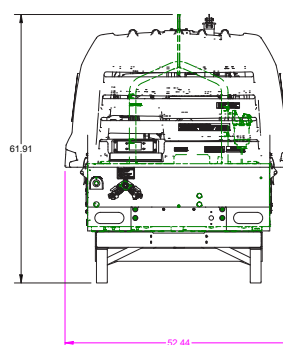
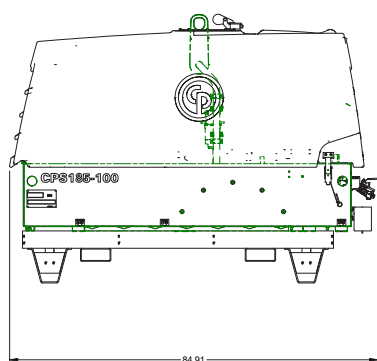
3. Consult Chicago Pneumatic for proper de-rating instructions for operation beyond ambient limitations

4. Horsepower limited by Engine ECU

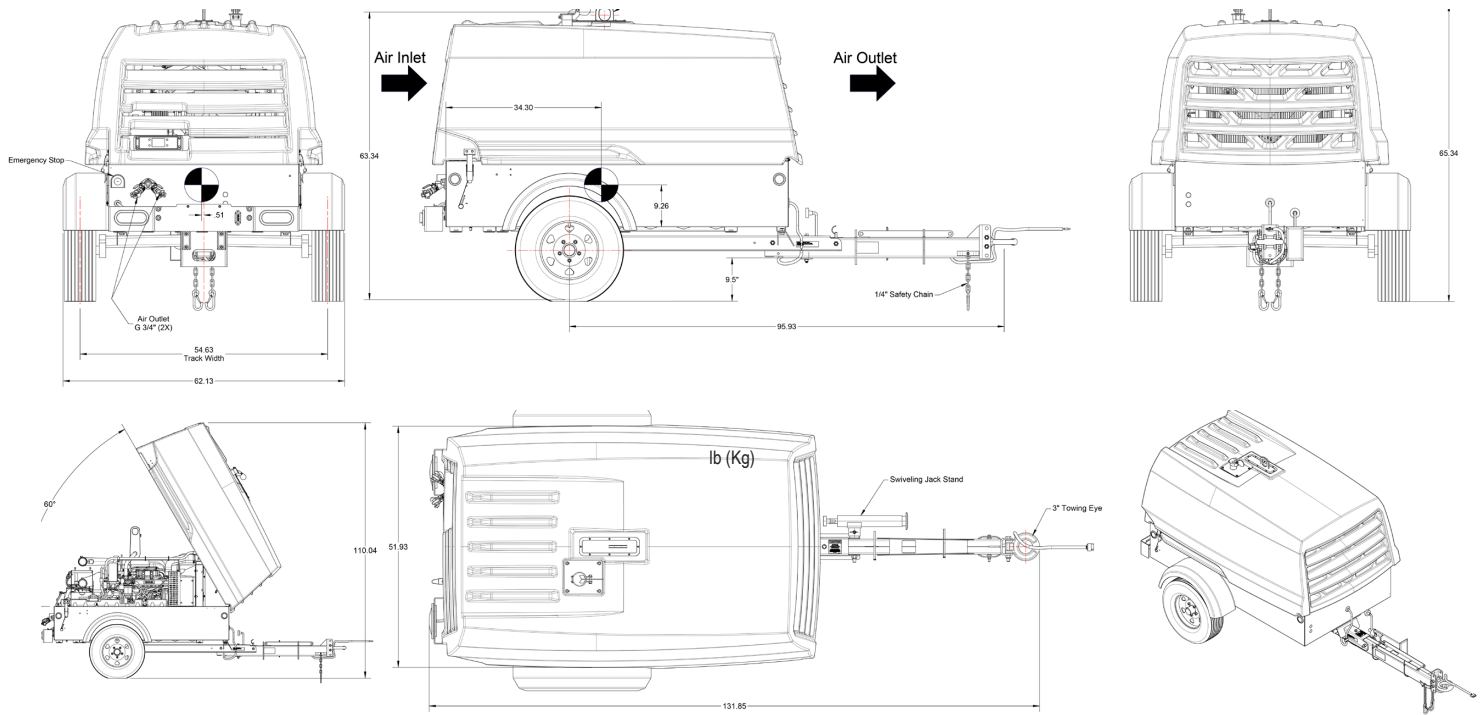
5. According to DIN 72311

## Dimensions

### Support mounted



## Trailer mounted - Redrock™ Version



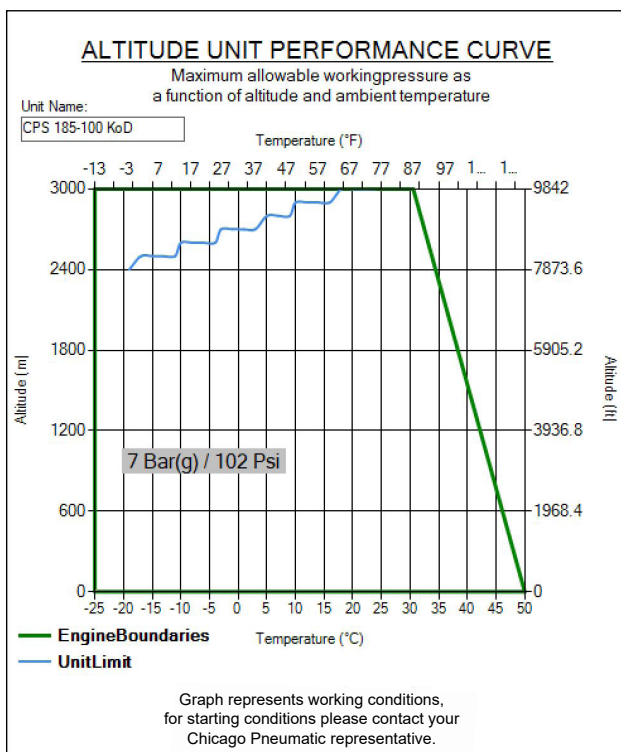
## Weight (Wet - Ready-to-operate)

		CPS 185 Kohler
Trailer mounted	lb (Kg)	2110 (957)
Support mounted	lb (Kg)	TBD

## Dimensions

		CPS 185 Kohler
Trailer mounted - Inches (m)	L x W x H	131.85 (3.35) x 62.13 (1.58) x 65.34 (1.66)
Support mounted - Inches (m)	L x W x H	84.91 (2.16) x 52.44 (1.33) x 61.91 (1.57)

## CPS 185



## Principle Data

### Compressor Element

The CPS 185 – 100 compressor utilizes the new C90 element coupled to a diesel engine.

Inlet air is filtered through a heavy-duty two-stage air filter.

---

### Air/Oil Separator

Air and oil separation is achieved through a centrifugal compressor oil separator with a spin on type filter element for easy maintenance. Separators are ASME/CRN approved versions and are stamped accordingly.

The separator is equipped with a sealed high-pressure safety relief valve, sonic nozzle, automatic blow-down valve, and pressure regulator.

Easy to service in less than one hour, no special tools required, and up to 1000 hour or 2 years compressor service interval.

#### Air/Oil Separator Tank:

Volume	4.76 US Gal / 18 L
Certifications	ASME / CRN
MAWP	261psi @ 248°F

---

### Cooling System

The cooling system consists of integrated side-by-side aluminum oil cooler with axial fan to ensure optimum cooling. A guard for operator safety protects the fan and has an access port on both sides of the fan box for easy cleaning

The cooling system is suitably designed for continuous operation in ambient conditions up to 122°F, with the canopy closed.

---

### Compressor Regulating System

Consists of air receiver/oil separator, compressor element, blow down valve, and pressure safety 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" outlet valves, with claw type (Chicago) coupling.

---

### Storage Compartment

The compressor has a built in open top toolbox compartment. Toolbox dimension is: 34"L x 7.4" W x 11" H.

---

### Safety Features

The compressor has many safety features: Pressure safety valve, emergency shut down button, low fuel shut down, high temperature engine coolant, high temperature compressor oil and engine oil pressure.

## Engine

### Kohler KDI 1903 TCR

Kohler KDI 1903 is a turbocharged, three-cylinder, liquid-cooled diesel engine that provides ample power to operate the compressor continuously at full-load.

Meets all US EPA and Environment Canada exhaust legislations with Tier 4 Final compliance. The US EPA engine family is NKHXL02.5TCR. The engine utilizes a DOC to meet Tier 4 Final emissions. All functionality of the engine and exhaust after treatment are controlled automatically on the XC1004 controller.

Engine output at rated speed, in accordance to SAE Standard, is 49hp at 2500 rpm, as limited by the engine ECU.

The engine has the capability to start the compressor to 14°F (-10°C) with standard glow-plug aid. Cold start options are available for up to -13°F (-25°C).

The 22.375 Gal. (102L) fuel tank is sufficiently sized to operate the unit for 8.6 hours at full-load condition.



## Electrical System

The CPS 185 Kohler 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 an operating pressure gauge, and fully diagnostic ECU controller with large 3.5" display. The intuitive XC1004 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 and shut downs on various parameters (listed below).

## XC1004 Controller Functionality:



### Displayed while running

- Hours
- RPM
- Outlet pressure



### Operational Buttons

- Start and stop of the unit
- View measurements, settings, and alarms
- Graphical representations of the alarms



### Compressor measurements displayed

- Running hours
- Battery voltage
- Running hours
- Regulating pressure
- Minor and major service counters in hours and days
- Compressor element temperature



### Warnings and Shutdowns

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



### Settings

- Reset service timers
- Diagnostics for engine ECU
- Unit of measure changes



### Engine measurements displayed

- Engine coolant temperature
- Engine oil pressure
- Engine RPM



### Alarms

- View current & historical alarms present
- DM1: View current engine codes (SPN/FMI)





## Bodywork

The compressor is delivered in the Redrock™ version.

Redrock™: Our Redrock™ version comes standard with dual wall, Polyethylene material that provides superior corrosion, and UV protection against fading and discoloration. It is a clamshell style hood offers easy service access to all components and is unmatched for dent and damage resistance.

## Undercarriage

The CPS 185 Kohler compressor is available with undercarriage alternatives, providing utmost flexibility in installation or towing requirements.

### Single axle trailer setup with:

- US DOT/Federal MVSS 49CFR571 approved light package 4 pin RV plug.
- Adjustable height pintle hitch (3" lunette)
- External lifting eye
- 13" Rims w/ ST175 / 80D13 Tires for trailer use
- Trailer brakes not standard (can be added as option)
- Heavy Duty torsion axle rated at 2,500lbs
- Safety chains
- Screw jack leveling
- Single point lifting structure

### Undercarriage options:

- Loose Ball Coupling 2 5/6"
- Loose Ball Coupling 2"
- Loose Ball Coupler 2" Bulldog
- Skid Mount
- Electric Brake
- 15" Rims and tire

## Manufacturing & Environmental Standards

The CPS 185 – 100 is manufactured following stringent ISO 9001 regulations and by a fully implemented Environmental Management System fulfilling ISO 14001 requirements.

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

The CPS 185 – 100 meets all current US EPA, CARB and Environment Canada exhaust and noise emission directives.



## Supplied Documentation

The unit is delivered with documentation regarding:

- Chicago Pneumatic Operators Safety and Instruction Manual, electronic copies are available upon request.
- Certificate for air/oil separator vessel and safety valve approval, ASME/CRN Chicago Pneumatic Parts Book (Upon request only).

## Warranty Coverage

**Kohler Engine:** Three (3) years / 2,000 hours of operation (whichever occurs first) & Major Component Warranty (MCW) for three (3) years / 3,000 hours (whichever occurs first) warranty from Kohler Engine America. Unit must be registered directly with Kohler upon receipt to be eligible for warranty. Failure to register warranty upon initial startup may cause warranty claim delays or rejection of claim by Kohler.

**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 startup, whichever occurs first, without limitation of running hours. Chicago Pneumatic service kits including parts and oils (GENOIL's) must be used to maintain warranty. Failure to register warranty upon initial start-up may cause warranty claim delays or rejection of claims.

**Extended Warranty Programs:** Programs are available; please contact your local sales representative for more info.

*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.

0000 0000 00 © 2022 Chicago Pneumatic. Subject to technical modifications.