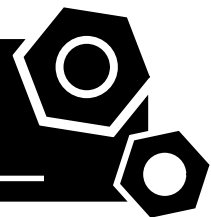


**DIESEL ENGINE DRIVEN
PORTABLE AIR COMPRESSOR
DR900-10**

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- JB/T6430-2002
- JB/T3771-1992
- JB/T4223-2007
- GB/T15487
- ISO 1217
- ISO 2151
- ASME B 19.1-1990

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 45°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters.

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 2 hours performance test of continuous full load.
- Performance test, including flux, pressure, temperature, noise, thermal balance etc.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

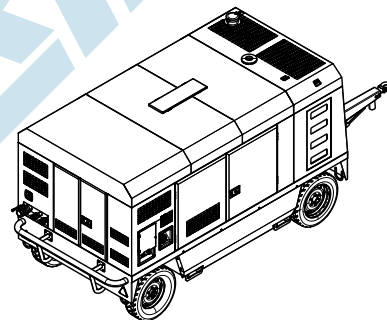
2 General Features

- Cummins engine
- Oil-injection double-screw air compressor
- PLC controller with microprocessor technique
- Suction valve
- Solenoid valve
- Pressure regular valve
- Safety valve
- Minimum pressure valve
- Vent valve
- Shuttle valve

- Oil thermostatic valve
- 50°C radiator
- Lubricating oil radiator
- Double layer air filter of engine
- Double layer air filter of compressor
- Lubricating oil filter
- Vertical air/oil tank (ASME approval)
- Air/oil separator
- Emergency stop button
- Lockable battery isolator switch
- 2x12V/200AH sealed for life maintenance free battery
- Fuel tank for 14 hours running
- Powder coated canopy

3 Equipment Specification

Air Compressor

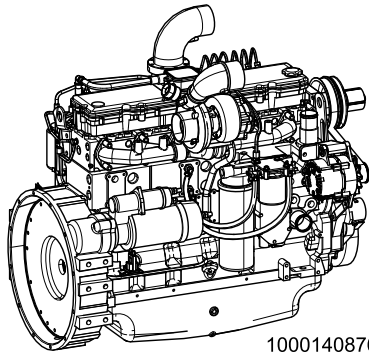


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Model.....	DR900-10
Drive type	Diesel engine driven
Speed under full load.....	2200rpm
Rated flux	912cfm(25.8m ³ /min)
Rated discharge pressure	10bar
Discharge port	2xG1 1/2"+1xG2 1/2"
Total capacity of oil system.....	80L
Lubricating oil type.....	Synthetic oil
Total capacity of coolant system.....	45L
Fuel tank capacity.....	780L
Dry weight.....	5033kg
Dimensions L×W×H.....	6083x2163x2462mm

Note: all pressures in the manual are relative values (compared with atmospheric pressure)

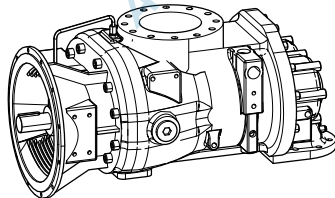
Diesel Engine



1000140876-AP1-A5

Engine Manufacturer/Brand.....	Cummins
Engine Model.....	6LTAA8.9-C360
Dimensions L×W×H.....	1210x919x1116mm
Dry Weigh (approx.)	650Kg
Number of Cylinders.....	6
Bore.....	114mm
Stroke.....	145mm
Displacement.....	8.8L
Compression Ratio.....	16.3
Type of injection.....	Direct injection
Intake System.....	Turbocharged, air-to-air charge cooled
Intake Resistance.....	≤6.0kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	24V
Type of Fuel.....	No.2-ASTM D975
Type of Oil.....	CI-4
Type of Coolant.....	Glycol mixture
Back Pressure.....	≤10.1kPa
Standby Power.....	N/A
Prime Power.....	264kW
Fuel Consumption(100%load).....	222g/kW.h

Compressor

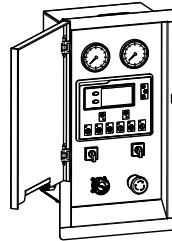


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Structure.....	Oil-injection double-screw
Shaft power.....	180kW
Suction temperature.....	0-40°C
Working pressure.....	≤10bar
Rated speed.....	2200rpm

Speed ratio.....	1.14
Weight.....	564kg

Control Cabinet



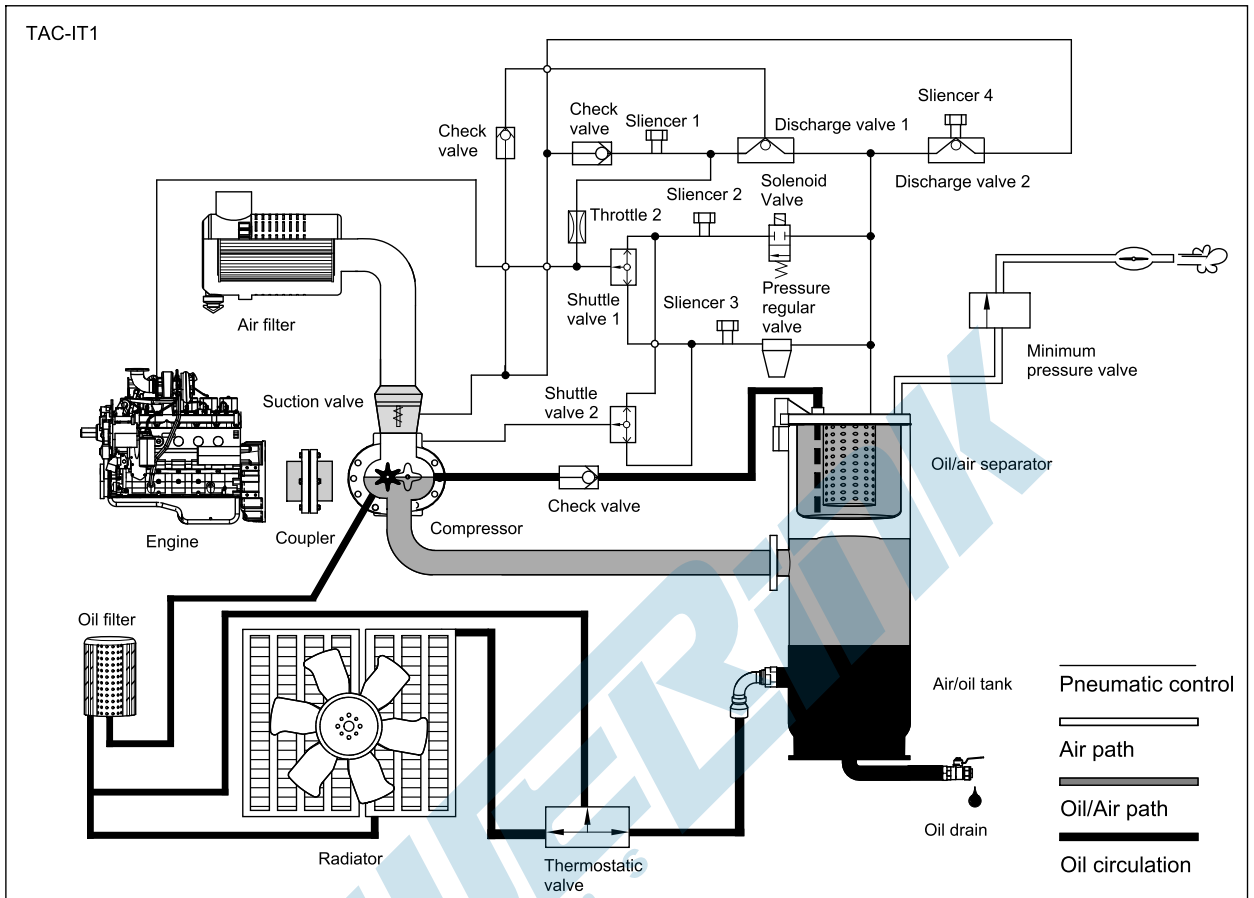
1000138882-AP1-B4

PLC of the machine is an advanced control module based on microprocessor for the automatic control and monitor system of the air compressor, realizing auto start/stop, data measure and alarm protection function. During running the module can accurately measure various parameters, like engine oil pressure, coolant temperature, discharge temperature and pressure etc. and display real values on LCD. When there is any fault, the control module alarms or stops the engine automatically and displays alarm information on LCD.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the air compressor
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like engine oil pressure, discharge temperature and pressure etc.
- Manual and remote work mode selectable
- Real time clock for time and date display, overall runtime display
- Many configurable parameters from control panel

Warning Item	Shutdown Item
High discharge temperature	Emergency stop
High discharge pressure	Failure to start
High coolant temperature	High discharge temperature
Low engine oil pressure	High discharge pressure
Low fuel level	High coolant temperature
Low coolant level	Low engine oil pressure
Ail filter clogged	Low fuel level
Failure to stop	Low coolant level
Battery charge failure	Ail filter clogged
Low battery voltage	
High battery voltage	

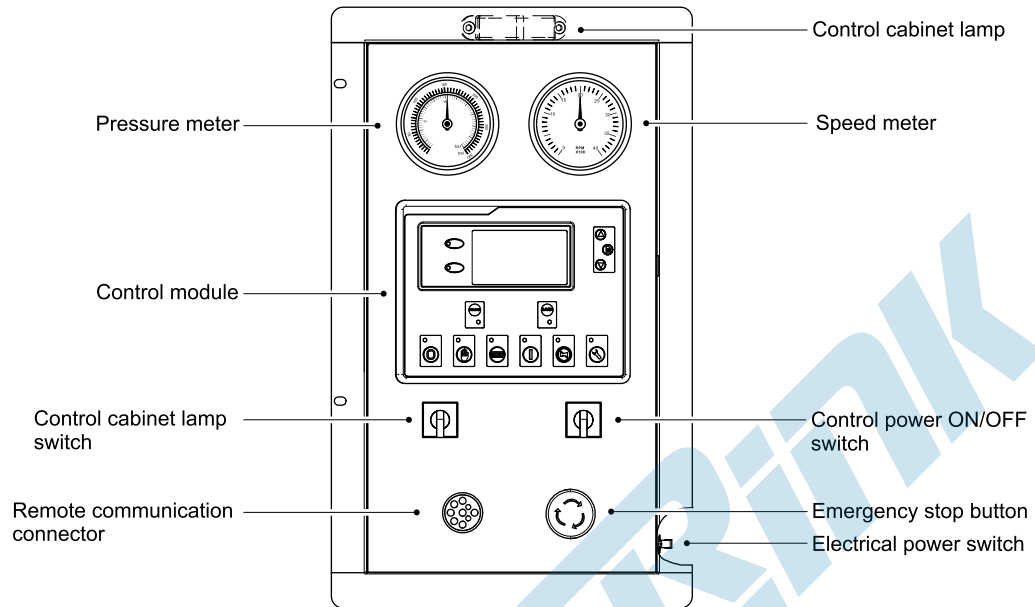
4 Air and Oil Path System



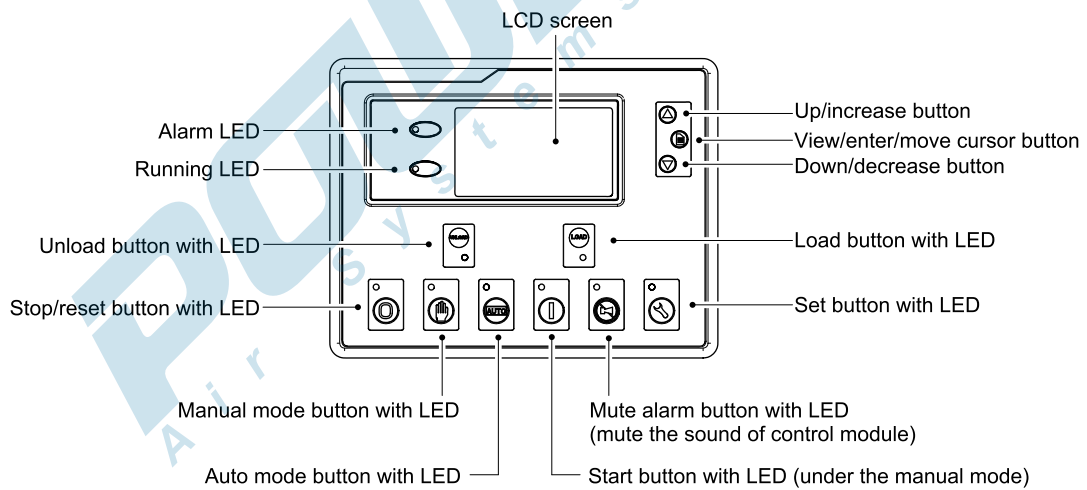
- Suction Valve
Control mode Direct proportion
Working pressure $\leq 10.0\text{bar}$
- Pressure Regular Valve
Working pressure 10.0bar
Pressure setting mode Manual
- Minimum Pressure Valve
Activation pressure 5.0bar
Fully opened pressure $5.0\text{-}5.5\text{bar}$
- Thermostatic Valve
Activation temperature 85°C
Fully opened temperature 100°C
- Air/oil Tank
Working pressure $\leq 10.0\text{bar}$
Activation pressure of safety valve 11.0bar
- Air/oil Separator
Working pressure $\leq 10.0\text{bar}$
Oil residue ratio (approx.) $\leq 3\text{ppm}$

5 Control System

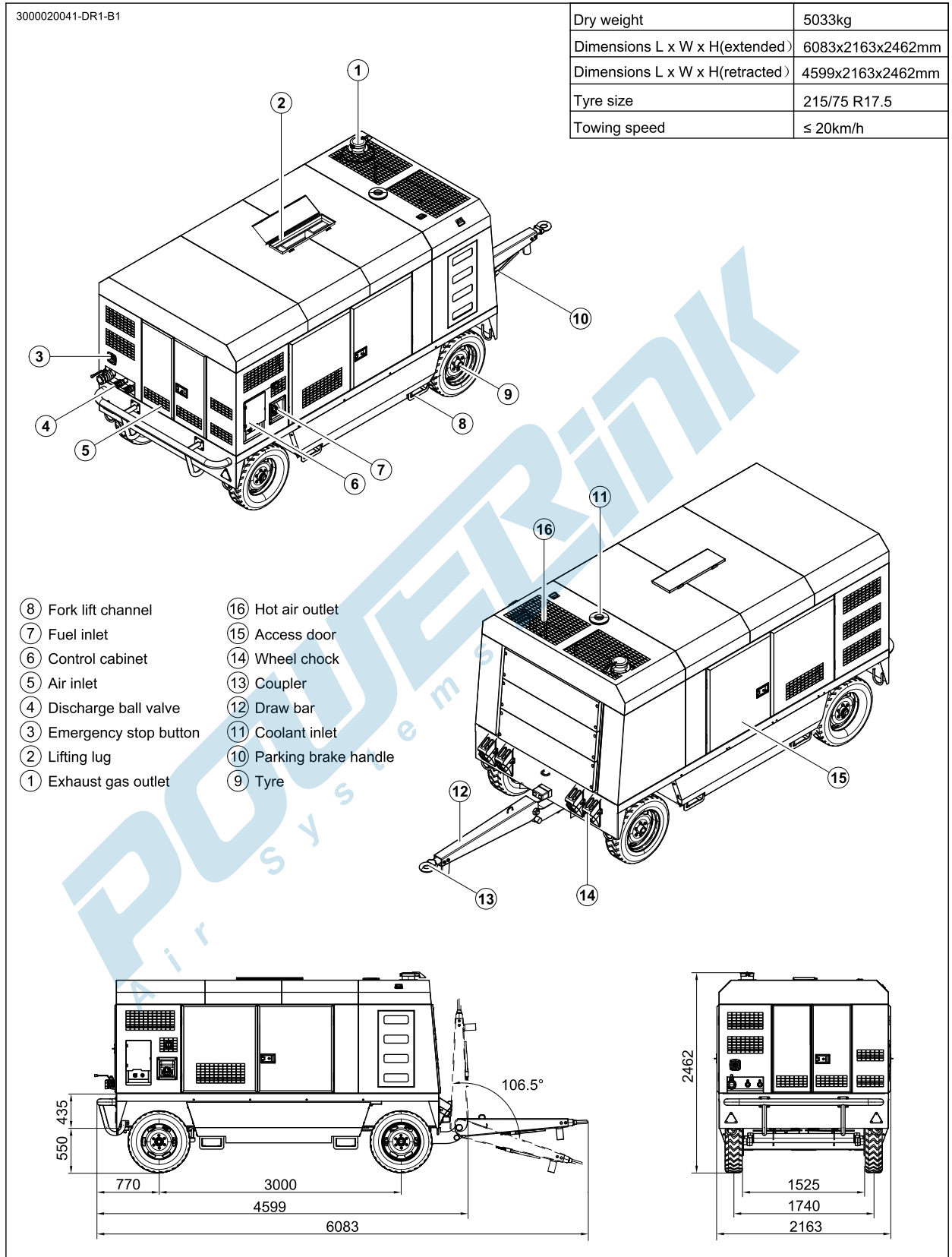
Control Cabinet



Control Module



6 Overall Dimensions



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08.2012

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Air Systems

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