

XAS 1800 CD8 T4F

Portable compressor



Standard Scope of Supply

The Atlas Copco **XAS 1800 CD8 T4F** is a twin single-stage, oil-injected, rotary screw type air compressor, powered by a liquid-cooled, six-cylinder turbocharged diesel engine.

The unit consists of two parallel low pressure air ends, diesel engine with exhaust treatment, cooling circuit, air/oil separation and control systems - all enclosed within a sound dampened steel enclosure.

A range of 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.

Available Models

XAS 1800 CD8 T4F

twin single stage – 100 psi to 200 psi – Caterpillar engine

Features

- Caterpillar T4F engine
- Atlas Copco Controller XC4003
- Spillage Free Containment Frame
- Low Fuel Shutdown
- Heavy Duty Tandem Dual Axle Trailer w/ 15" tires
- FuelXpert™

Benefits

- Meets all current T4F emission regulations.
- Integrated exhaust aftertreatment makes T4F integration easy
- 1 Year standard warranty from factory on Caterpillar Engine (must be registered with Caterpillar to qualify)
- Improved altitude performance with turbo-charged engine
- Versatility of the Xc4003 controller gives you the flexibility to tune your machine to a wider range of applications.
- Machine will match the air flow with the desired operating pressure to maximize output and keep the engine as fuel efficient as possible. In turn it will increase your utilization rate and ROI as it is adaptable to many more applications than a standard machine.
- Protects environment, avoids costly clean up liability
- Reduces downtime on site when operator runs out of fuel as there is no longer a need to "re-prime" the fuel system
- Well balanced for safer towing or moving around site
- High ground clearance for rough site and road conditions
- Reduces fuel consumption to up to -10% at 75% load
- Lowers operational costs, increases project profitability

Optional Features

- Aftercooler, water separator & fine filters
- Cold Weather Package

Benefits

- Provides cool, dry air
- Features required for reliable cold weather operation. Including; synthetic compressor oil and coolant heater.

Technical Data

Compressor

XAS 1800 CD8 T4F

Normal effective working pressure (pre-set 200 psig and 150 psig)	Psi	100	150	200
Actual free air delivery ¹ (FAD) at pre-set pressure setting	Cfm	1800	1700	1400
Maximum effective receiver pressure (compressor unloaded)	Psi		261	
Minimum working pressure	Psi		58	
Max. sound pressure level @ 23' (7m) at normal working speed & pressure ²	dB(a)		76	
Compression Stages			1	
Air Receiver Capacity	US Gal (L)		37,8 (143)	
Compressor oil capacity	US Gal (L)		30 (113.6)	
Approximate air outlet temperature (without / with aftercooler)	°F (°C)		180 (82) / 100(38)	
Air Compressor outlets			2 x 2" NPT (1 x normal air, 1 x after-cooled air)	
Max. ambient temperature (at sea level) ³	°F (°C)		120 (49)	
Maximum altitude	Ft (m)		10000 (3048)	
Minimum starting temperature (without cold weather options)	°F (°C)		14 (-10)	
Minimum starting temperature (with cold weather options)	°F (°C)		-4 (-20)	

Engine

	Caterpillar		C-15	
Emissions Regulation	US EPA Tier		T4F	
US EPA Engine Family			JCPXL15.2HTF	
Output at rated speed (2100 rpm)	HP		540	
Number of cylinders			6	
Aspiration			Turbocharged	
Displacement	cu in (L)		928 (15.2)	
Engine speed (Unloaded)	Rpm		1100	
Engine speed (Maximum loaded)	Rpm	2100	1950	1670
Engine oil capacity	US Gal (L)		15.5 (58.7)	
Engine oil required			Low Ash Oil per API CJ-4, ACEA C9	
Engine coolant capacity	US Gal (L)		25 (94.6)	
Fuel tank capacity	US Gal (L)		240 (908)	
Fuel consumption at 0% loaded idle	Gal/Hr (L/Hr)	9.3 (35.2)	10.2 (38.5)	14.4 (54.5)
Fuel consumption at 25% load	Gal/Hr (L/Hr)	10.2 (38.6)	11.9 (45.0)	13.6 (51.5)
Fuel consumption at 50% load	Gal/Hr (L/Hr)	12.7 (48.1)	13.6 (51.5)	16.1 (60.9)
Fuel consumption at 75% load	Gal/Hr (L/Hr)	15.2 (57.5)	17.8 (67.4)	16.1 (60.9)
Fuel consumption at 100% load	Gal/Hr (L/Hr)	22.0 (83.3)	22.9 (86.7)	21.2 (80.3)
DEF tank capacity	US Gal (L)		12.5 (47.3)	
DEF consumption at 100% load	Gal/Hr (L/Hr)		0.62 (2.3)	
Battery Capacity (Cold Cranking Amps ⁴)	A		2 each 1100	

¹ According to ISO 1217 ed.3 1996 annex D

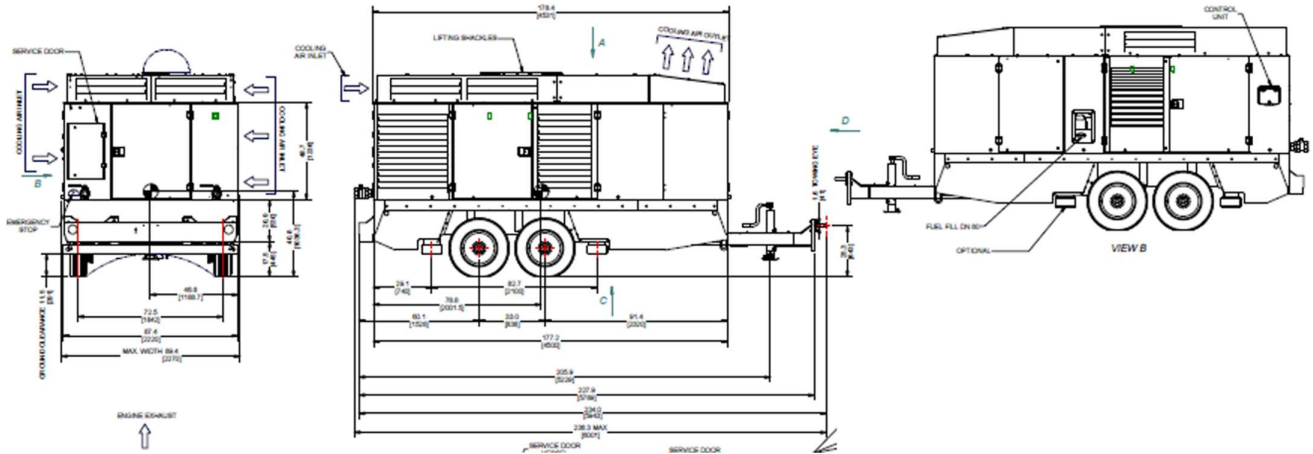
² Measured in accordance with ISO 2151 under free field conditions @ 7m distance

³ Consult Atlas Copco for proper de-rating instructions for operation beyond ambient limitations

⁴ According to DIN 72311

Dimensions

Tandem Axle Trailer Mounted



Weight (Wet - Ready-to-operate)

XAS 1800 CD8 T4F		
Trailer mounted	lb (Kg)	19000 (8618)

Dimensions

XAS 1800 CD8 T4F			
Trailer mounted	Inches (mm)	L x W x H	235 x 88 x 101 (5969 x 2235 x 2565)

Principle Data

Compressor Element

The quality of a compressor can be measured through the reliability, efficiency and durability of the compressor elements used. Through decades of expertise in the design of compressor elements, Atlas Copco 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 XAS 1800 CD8 T4F compressor utilizes two in tandem Atlas Copco's C-series low pressure elements, driven from the diesel engine through a gear box with a fibre disc coupler.

The compressor system comes with Atlas Copco PAR Oil S synthetic compressor oil. The oil cooler comes equipped with a standard thermostatic by-pass valve for superior cold weather lubrication.

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 sealed high pressure safety relief valve, minimum pressure valve, automatic blow-down valve, and pressure regulator.

Air/Oil Separator Tank:

Volume	37.8 US Gal / 143 L
Certifications	ASME / CRN
MAWP	261 psig

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 door closed for the XAS 1800 CD8 T4F.

Compressor Regulating System

The compressor regulating system consists of an air filter, air receiver/oil separator, compressor elements, 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 2" NPT outlet valves, one (1) untreated air & one (1) aftercooled/filtered air

Engine

Caterpillar C-15 Final Tier 4

Caterpillar C-15 T4F turbo charged six-cylinder, liquid-cooled diesel engine provides ample 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 "JCPXL15.2HTF" and rated at 540hp at 2100 rpm, in accordance to SAE Standard for the XAS 1800 CD8 T4F.

Engine starting capacity at 14°F (-10°C) without the addition of cold start options. Cold start options are available up to -4°F (-20°C).

The 236 Gal (893 L) fuel tank enables operation for over 8 hours at full load and comes standard with a low fuel shutdown at 5%.

Emissions Treatment

Caterpillar C-15 T4F engine after treatment consists of a Continuous Emissions Monitoring (CEM), Diesel Oxidization Catalyst (DOC), Diesel Particulate Filter (DPF) and passive Selective Catalytic Reduction (SCR). The SCR utilizes the temperature of the exhaust to passively regenerate during normal use.

Electrical System

The **XAS 1800 CD8 T4F** is equipped with a 24 Volt negative ground electrical starting system.

Instrumentation

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

Standard instrument package includes fully diagnostic ECU controller with large 3.5" display. The intuitive Atlas Copco XC3003 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.

XC4003 Controller Functionality:

- Displayed while running
 - Hours
 - Fuel level
 - RPM
 - Outlet pressure
- 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
- Warnings and Shutdowns
 - High temperature engine coolant
 - High temperature compressor oil
 - Engine oil pressure
 - Low fuel level
- Settings
 - Reset service timers
 - Diagnostics for engine ECU
 - Language settings
 - Unit of measure changes
 - Electronic pressure adjustment
- Operational Buttons
 - Start and stop of the unit
 - View measurements, settings and alarms
 - Multi position cursor to navigate menus
- Engine measurements displayed
 - Fuel consumption per hour tally
 - Engine coolant temperature
 - Engine oil pressure
 - Engine RPM
- 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)



Bodywork

The compressor comes standard with ASTM A653 Galvannealed steel canopy with powder coat paint finish providing excellent corrosion protection. The canopy is sound attenuated to meet the most current legal noise requirements. Large service doors offer easy service access to all components from all sides of the machine.

Undercarriage & Frame

The **XAS 1800 CD8 T4F** compressor is available with two undercarriage alternatives, providing utmost flexibility in installation or towing requirements.

- Tandem dual axle trailer setup with:
 - DOT approved light package
 - Adjustable height pintle hitch (3" lunette)
 - Two (2) each 10,000 lbs torsional axles
 - 15" Rims w/ ST235/75R17,5 8 Ply Tires (weight rating 6005 lbs @ 65psi)
 - Electric trailer brakes as standard (with 7 pin flat blade connector), Electrical brakes optional
 - 10,000 lbs (lift), 12,000 lbs (static) rated jack leg stand, with pad stand

The **XAS 1800 CD8 T4F** has as standard a spillage free containment base frame, to avoid potential fluid leaks to environment.

Factory Options Available

- Aftercooler and Water Separator with fine filters
- Cold Weather Package – 0W40 engine oil, thermostat controlled ether injection
- Special color canopy

Manufacturing & Environmental Standards

The **XAS 1800 CD8 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 **XAS 1800 CD8 T4F** 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 Atlas Copco Operators Safety and Instruction Manual, Atlas Copco Parts Book, Caterpillar Engine Manual and Parts book, as well as electronic copies, available upon request.
- Warranty Registration card for Caterpillar Engine and Atlas Copco 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

Caterpillar Engine: Caterpillar Diesel engines are warranted to be free from defects with regard to material and workmanship for the period of twelve (12) months, with unlimited running hours from the date of invoicing from Atlas Copco or up to twenty-four (24) months and prior to the accumulation of 2000 hours of use, whichever occurs first.

Atlas Copco Compressor: Warranted 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 Atlas Copco 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. Atlas Copco service kits including parts and oils (PAR Oil'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.