

X(A,R)(H,V) 946-1066 Cd

Portable compressor



Standard Scope of Supply

The Atlas Copco **X(A,R)(H,V) 946-1066 Cd** is a package of two oil-injected asymmetrical rotary screw type air compressors, powered by two liquid-cooled, six cylinder turbocharged inter-cooled diesel engines.

The unit consists of elements, diesel engines, cooling, air/oil separation and control systems - all enclosed within a standard 20ft ISO – CSC – DNV compliant container, which offers safe handling onshore and offshore, in transport and during installation.

TwinAir™ is especially designed to offer you the highest volume of compressed air per square meter and to be the most robust, versatile and safety enhanced air supply unit on the market. An offshore version offers additional features and extra options, to meet special offshore needs.

Available Models

XAH 1066 Cd	single stage -12 bar - Caterpillar engine
XRV 946 Cd	two stage -25 bar - Caterpillar engine

Features

- A maximum free air delivery of 1058 l/s.
- Access controls for each engine are separate.
- Controls including external fuel connections and emergency stop buttons.
- CSC certification.
- Spark arrester
- Large service access doors.
- Door latches with locks and door safe-hooks.
- Air outlets.
- Two CAT C13 engines. 328 kW each for a combined total of 656 kW output.
- Standard ISO dimension 20-foot container with forklift slots and lifting eyes.
- Storage space.
- Coatings.

Benefits

- Makes TwinAir™ the compressor with the highest airflow per square meter.
- Option to run at half the maximum flow if desired.
- Readily accessible.
- Makes it easily and legally transportable as container cargo.
- Prevents hot particles leaving the exhaust pipes in sensitive environments.
- Easy to clean internal components.
- For better security and to avoid inadvertent closure.
- On the two short sides of the container.
- The pressure options range from 12 bar to 25 bar.
- Makes it easy to move around, and can be stored to 3 high (standard unit).
- For parts and small tool equipment.
- High specification paint finishes for corrosion protection.

Features

- Maintenance service kits.
- Spillage free skid frame.
- Double ceiling roof.
- Centralized service drains
- Overspeed protection / Engine intake shutdown.

Benefits

- Give all the necessary parts for servicing in one convenient kit.
- To protect the environment from inadvertent spills.
- For separation of cold intake and hot outlet air.
- For fast and easy drainage at service intervals.
- Prevents engine overrun.

Technical Data

		XAH 1066	XRV 946
Compressor - EC		Cd	Cd
Normal effective working pressure	bar	12	25
Actual free air delivery ¹	l/s	1042	920
Actual free air delivery with after cooler ¹	l/s	1022	900
Max. sound power level (Lw) ²	dB(A)	110	110
Max. sound pressure level at 7 m (Lp)	dB(A)	82	82
Oil Capacity	l	80	75
Max. ambient temperature	°C	48	48
Max. ambient temperature with aftercooler	°C	43	43
Air Compressor outlets		2 x 3"	2 x 3"
Maximum altitude	m	3000	3000
Minimum starting temperature	°C	-10	-10
Engine			
Caterpillar		C13 ATAAC	C13 ATAAC
Number of cylinders		6	6
Output at rated speed	kW	317.8	317.8
Swept volume	l	12.5	12.5
Engine speed (nominal)	r/min	1600	1600
Engine speed (unloaded)	r/min	1200	1200
Capacity oil system	l	44	44
Capacity of fuel tank	l	1600	1600
Fuel consumption at 0% load	kg/h	62	60.4
Fuel consumption at 25% load	kg/h	72.2	69.2
Fuel consumption at 50% load	kg/h	78.2	78.4
Fuel consumption at 75% load	kg/h	90	94
Fuel consumption at 100% load	kg/h	117.8	124.2

		XAH 1066	XRV 946
Compressor - NON EC		Cd	Cd
Normal effective working pressure	bar	12	25
Max. sound power level (Lw) ²	dB(A)	110	110
Max. sound pressure level at 7m (Lp)	dB(A)	82	82
Oil Capacity	l	80	75
Max. ambient temperature	°C	48	48
Max. ambient temperature with after cooler	°C	43	43
Air Compressor outlets		2 x 3"	2 x 3"
Maximum altitude	m	3000	3000
Minimum starting temperature	°C	-10	-10

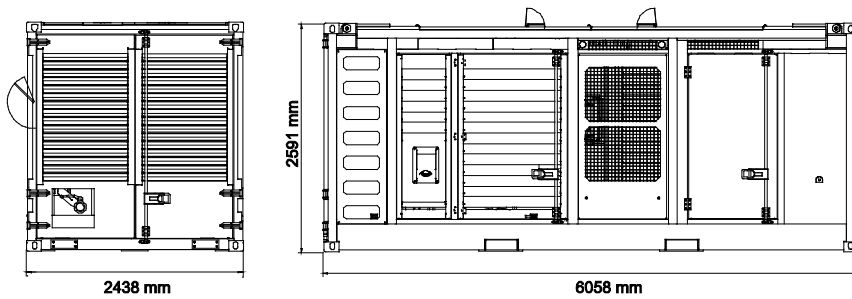
X(A,R)(H,V) 946-1066 Cd – Product Reference

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		Cd	Cd
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¹ according to ISO 1217 ed.3 1996 annex D

² according to 2000/14/EC, 84/533/EEC and 85/406/EEC limits

Dimensions



Weight (Ready-to-operate)

		XAH 1066	XRV 946
	kg	Cd	Cd
Standard		14500	15000

Options – standard TwinAir™ options

COSMOS™

Our innovative Comprehensive Service and Maintenance System guarantees that you know where your machine is, and when it should be serviced.

Inlet shutdown valve

Prevents over-speeding of engine when a combustible gas is taken in. Requirement for refinery environments.

FuelXpert™

FuelXpert™, with its electronic control module, regulates engine speed and air inlet with a view to optimizing fuel consumption for each working condition. Importantly when the air demand is lower than the output, the system ensures the right capacity for the application.

Oiltronix™

The electronic controlled oil temperature system extends the lifetime of air-ends, compressor components, oil and the oil-separator. This is achieved by eliminating the formation of condensate in the compressed air circuit.

Spark Arrester (standard in offshore version)

Spark arrester prevents hot particles leaving the exhaust pipes in sensitive environments.

- Aftercooler with Waterseparator (standard in offshore version)
- Pre-heater
- Cold Start
- Sump Pump with Quick connects

Options – offshore TwinAir™ options

COSMOS™

Our innovative Comprehensive Service and Maintenance System guarantees that you know where your machine is, and when it should be serviced.

Yellow alert

External hard wired emergency stop connection.

Stainless steel fuel lines

Enhanced fuel line safety.

External fuel connection with fuel cut-off

Continuous running by providing diesel from external tanks. The fuel cut off valve is an optional feature for extra safety in event of need to close down fuel intake.

- Stainless Steel Fuel Lines
- Battery Box
- Rubber Boots on Electrics
- T-clamps on hose connections

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, the result is the production of most efficient and reliable compressors on the market. When the screw element is efficient- durability excels, maintenance intervals increase and fuel consumption goes down.

Air/Oil Separator

Air and oil separation is achieved through a centrifugal oil separator combined with a filter element. Separators are available in CE, ASME, or SQL 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 nozzle, automatic blow-down valve, and pressure regulator.

Cooling System

The cooling system consists of an integrated side-by-side aluminium oil cooler with axial fan to ensure optimum cooling. The cooling system is suitably designed for continuous operation in ambient conditions up to +50°C, with all canopy doors closed.

Compressor Regulating System

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

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

Discharge Outlets

Compressed air is available from 2 x 3" outlet valve.

Engine

Caterpillar C13 ACERT

COM III/Tier 3 compliant six -cylinder, liquid-cooled diesel engine provides ample power to operate the compressor continuously at full-load.

Engine output at rated speed, in accordance to SAE Standard, is 328kW at 1600 rpm.

The engine has the capability to start the compressor to -10°C without the addition of a cold start aid. Cold start options are available for up to -25°C.

The fuel tank is sufficiently sized to operate the unit for minimum of 8 hours at full-load condition.

Electrical System

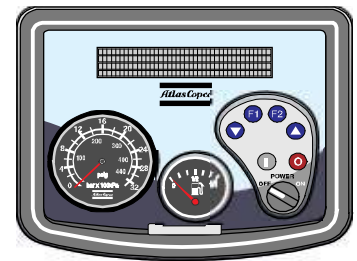
The **X(A,R)(H,V) 946-1066 Cd** is equipped with a 24 Volt negative ground electrical starting system.

Instrumentation

The 2 instrument control panel are located on the side of the compressor canopy, with a protective metal cover for safety and protection.

Standard instrument package includes a multi-functional control / scroll pad, operating pressure gauge, and 4-line LCD operations & diagnostic display with 400 lines of machine performance data.

Starting is achieved with a three position switch for ease of operation.



Safety Devices

The compressor is standard equipped with safety devices for the compressor and the engine. The unit will be completely turned off should:

- Engine oil temperature rise too high
- Engine oil pressure drop too low
- Outlet temperature of the compressed air go outside a specified range
- Low fuel level

The starter motor is also protected against overloading from operating for an excessive period or when the engine is running.

Bodywork

The compressor is delivered as standard in a zincor coated steel standard 20-foot container with powder coat paint finish providing excellent corrosion protection. The canopy is sound attenuated to meet the most current legal noise requirements. Wide doors provide complete service access to all components.

The offshore variant offers additional features such as a corrugated roof, a galvanized bottom plate and DNV certification.

Manufacturing & Environmental Standards

The **X(A,R)(H,V) 946-1066 Cd** 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 minimum negative impact to the environment.

The **X(A,R)(H,V) 946-1066 Cd** meets all current EU exhaust and noise emission directives.

Supplied Documentation

The unit is delivered with certificates regarding:

- Test certificate for air delivery pressure and capacity, acc. ISO 1217
- Certificate for air/oil separator vessel and safety valve approval (CE/ASME)
- Declaration of conformity (for CE variants only)
- Operating and instruction manual
- Spare parts manual

Warranty Coverage

For our standard warranty conditions and options to extend, please check your local Atlas Copco representative.