

## Y1260

### Portable High Pressure Air Compressor



#### Reference conditions

Absolute inlet pressure, bar (psi)	1 (14.5)
Relative humidity, (%)	0
Air inlet temperature, (°C)	20
Normal working pressure, bar (psi)	21 - 35

#### Limitations

Maximum ambient temperature, (°C)	50
Minimum starting temperature, (°C)	-25
Maximum working pressure, bar (psi)	35
Sound power level @ 10m, (dBA)	109
Compressed air connection (BSP)	2"

#### Engine

Engine make	CAT18
Type	C18
Output @ normal shaft speed kW (hp)	429
Fuel consumption at 100% load (l/h)	97.09

#### Dimensions

Length, (mm)	5400
Width, (mm)	2250
Height, (mm)	2510
Weight full fuel tanks, (kg)	8100
Fuel tank capacity, (litres)	975

#### Performance

Working Pressure		Free Air Delivery		
bar(e)	psig	L/s	m <sup>3</sup> /h	cfm
35	507.63	578	2082	1226
30	435.11	623	2246	1322
25	362.60	652	2348	1382

#### Other features

Overspeed Shutdown	Spark Arrestor	Aftercooler
PD Filters	4P Battery Isolator	Fire Suppression System
DrillAirXpert		

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Committed to sustainable productivity

# Atlas Copco Instruction Manual



Instruction Manual  
for Portable Compressors  
English

XRXS 1210  
XRYS 1150  
Y 1200  
Y 1260

Engine C15-C18

*Atlas Copco*



# **Instruction Manual for Portable Compressors**

**XRXS 1210**

**XRYS 1150**

**Y 1200**

**Y 1260**

## **Original instructions**

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[www.atlascopco.com](http://www.atlascopco.com)

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## **Warranty and Liability Limitation**

Use only authorized parts.

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

The manufacturer does not accept any liability for any damage arising for modifications, additions or conversions made without the manufacturer's approval in writing.

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This applies in particular to trademarks, model denominations, part numbers and drawings.

## Preface

*Please read the following instructions carefully before starting to use your compressor.*

*It is a solid, safe and reliable machine, built according to the latest technology. Follow the instructions in this booklet and we guarantee you years of troublefree operation.*

*Always keep the manual available near the machine.*

*In all correspondence always mention the compressor type and serial number, shown on the data plate.*

*The company reserves the right to make changes without prior notice.*

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### CALIFORNIA

#### Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

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# Safety precautions



To be read attentively and acted accordingly before towing, lifting, operating, performing maintenance or repairing the compressor.

## Introduction

The policy of Atlas Copco is to provide the users of their equipment with safe, reliable and efficient products. Factors taken into account are among others:

- the intended and predictable future use of the products, and the environments in which they are expected to operate,
- applicable rules, codes and regulations,
- the expected useful product life, assuming proper service and maintenance,
- providing the manual with up-to-date information.

Before handling any product, take time to read the relevant instruction manual. Besides giving detailed operating instructions, it also gives specific information about safety, preventive maintenance, etc.

Keep the manual always at the unit location, easy accessible to the operating personnel.

See also the safety precautions of the engine and possible other equipment, which are separately sent along or are mentioned on the equipment or parts of the unit.

These safety precautions are general and some statements will therefore not always apply to a particular unit.

Only people that have the right skills should be allowed to operate, adjust, perform maintenance or repair on Atlas Copco equipment.

It is the responsibility of management to appoint operators with the appropriate training and skill for each category of job.

### Skill level 1: Operator

An operator is trained in all aspects of operating the unit with the push-buttons, and is trained to know the safety aspects.

### Skill level 2: Mechanical technician

A mechanical technician is trained to operate the unit the same as the operator. In addition, the mechanical technician is also trained to perform maintenance and repair, as described in the instruction manual, and is allowed to change settings of the control and safety

system. A mechanical technician does not work on live electrical components.

### Skill level 3: Electrical technician

An electrical technician is trained and has the same qualifications as both the operator and the mechanical technician. In addition, the electrical technician may carry out electrical repairs within the various enclosures of the unit. This includes work on live electrical components.

### Skill level 4: Specialist from the manufacturer

This is a skilled specialist sent by the manufacturer or its agent to perform complex repairs or modifications to the equipment.

In general it is recommended that not more than two people operate the unit, more operators could lead to unsafe operating conditions.

Take necessary steps to keep unauthorized persons away from the unit and eliminate all possible sources of danger at the unit.

When handling, operating, overhauling and/or performing maintenance or repair on Atlas Copco equipment, the mechanics are expected to use safe engineering practices and to observe all relevant local safety requirements and ordinances. The following list is a reminder of special safety directives and precautions mainly applicable to Atlas Copco equipment.

These safety precautions apply to machinery processing or consuming air. Processing of any other gas requires additional safety precautions typical to the application and are not included herein.

Neglecting the safety precautions may endanger people as well as environment and machinery:

- endanger people due to electrical, mechanical or chemical influences,
- endanger the environment due to leakage of oil, solvents or other substances,
- endanger the machinery due to function failures.

All responsibility for any damage or injury resulting from neglecting these precautions or by non-observance of

ordinary caution and due care required in handling, operating, maintenance or repair, also if not expressly mentioned in this instruction manual, is disclaimed by Atlas Copco.

The manufacturer does not accept any liability for any damage arising from the use of non-original parts and for modifications, additions or conversions made without the manufacturer's approval in writing.

If any statement in this manual does not comply with local legislation, the stricter of the two shall be applied.

Statements in these safety precautions should not be interpreted as suggestions, recommendations or inducements that it should be used in violation of any applicable laws or regulations.

## General safety precautions

- 1 The owner is responsible for maintaining the unit in a safe operating condition. Unit parts and accessories must be replaced if missing or unsuitable for safe operation.
- 2 The supervisor, or the responsible person, shall at all times make sure that all instructions regarding machinery and equipment operation and maintenance are strictly followed and that the machines with all accessories and safety devices, as well as the consuming devices, are in good repair, free of abnormal wear or abuse, and are not tampered with.
- 3 Whenever there is an indication or any suspicion that an internal part of a machine is overheated, the machine shall be stopped but no inspection covers shall be opened before sufficient cooling time has elapsed; this to avoid the risk of spontaneous ignition of oil vapour when air is admitted.
- 4 Normal ratings (pressures, temperatures, speeds, etc.) shall be durably marked.
- 5 Operate the unit only for the intended purpose and within its rated limits (pressure, temperature, speeds, etc.).



- 6 The machinery and equipment shall be kept clean, i.e. as free as possible from oil, dust or other deposits.
- 7 To prevent an increase in working temperature, inspect and clean heat transfer surfaces (cooler fins, intercoolers, water jackets, etc.) regularly. See the Preventive maintenance schedule.
- 8 All regulating and safety devices shall be maintained with due care to ensure that they function properly. They may not be put out of action.
- 9 Care shall be taken to avoid damage to safety valves and other pressure-relief devices, especially to avoid plugging by paint, oil coke or dirt accumulation, which could interfere with the functioning of the device.
- 10 Pressure and temperature gauges shall be checked regularly with regard to their accuracy. They shall be replaced whenever outside acceptable tolerances.
- 11 Safety devices shall be tested as described in the maintenance schedule of the instruction manual to determine that they are in good operating condition. See the Preventive maintenance schedule.
- 12 Mind the markings and information labels on the unit.
- 13 In the event the safety labels are damaged or destroyed, they must be replaced to ensure operator safety.
- 14 Keep the work area neat. Lack of order will increase the risk of accidents.
- 15 When working on the unit, wear safety clothing. Depending on the kind of activities these are: safety glasses, ear protection, safety helmet (including visor), safety gloves, protective clothing, safety shoes. Do not wear the hair long and loose (protect long hair with a hairnet), or wear loose clothing or jewellery.
- 16 Take precautions against fire. Handle fuel, oil and anti-freeze with care because they are inflammable substances. Do not smoke or approach with naked flame when handling such substances. Keep a fire-extinguisher in the vicinity.

#### **SAFETY DURING TRANSPORT AND INSTALLATION**

When towing, lifting or transporting the compressor in any way, the battery switch must always be in the "OFF" position!

To lift a unit, all loose or pivoting parts, e.g. doors and towbar, shall first be securely fastened.

Do not attach cables, chains or ropes directly to the lifting eye; apply a crane hook or lifting shackle meeting local safety regulations. Never allow sharp bends in lifting

cables, chains or ropes.

Helicopter lifting is not allowed.

It is strictly forbidden to dwell or stay in the risk zone under a lifted load. Never lift the unit over people or residential areas. Lifting acceleration and retardation shall be kept within safe limits.

#### **1 Before towing the unit:**

- ascertain that the pressure vessel(s) is (are) depressurized,
- check the towbar, the brake system and the towing eye. Also check the coupling of the towing vehicle,
- check the towing and brake capability of the towing vehicle,
- check that the towbar, jockey wheel or stand leg is safely locked in the raised position,
- ascertain that the towing eye can swivel freely on the hook,
- check that the wheels are secure and that the tyres are in good condition and inflated correctly,
- connect the signalisation cable and check all lights
- attach the safety break-away cable or safety chain to the towing vehicle,
- remove wheel chocks, if applied, and disengage the parking brake.

- 2 To tow a unit use a towing vehicle of ample capacity. Refer to the documentation of the towing vehicle.
- 3 Never exceed the maximum towing speed of the unit (mind the local regulations).
- 4 Place the unit on level ground and apply the parking brake before disconnecting the unit from the towing vehicle. Unclip the safety break-away cable or safety chain. If the unit has no parking brake or jockey wheel, immobilize the unit by placing chocks in front of and/or behind the wheels. When the towbar can be positioned vertically, the locking device must be applied and kept in good order.
- 5 To lift heavy parts, a hoist of ample capacity, tested and approved according to local safety regulations, shall be used.
- 6 Lifting hooks, eyes, shackles, etc., shall never be bent and shall only have stress in line with their design load axis. The capacity of a lifting device diminishes when the lifting force is applied at an angle to its load axis.
- 7 For maximum safety and efficiency of the lifting

apparatus all lifting members shall be applied as near to perpendicular as possible. If required, a lifting beam shall be applied between hoist and load.

- 8 Never leave a load hanging on a hoist.
- 9 A hoist has to be installed in such a way that the object will be lifted perpendicular. If that is not possible, the necessary precautions must be taken to prevent load-swinging, e.g. by using two hoists, each at approximately the same angle not exceeding 30° from the vertical.
- 10 Locate the unit away from walls. Take all precautions to ensure that hot air exhausted from the engine and driven machine cooling systems cannot be recirculated. If such hot air is taken in by the engine or driven machine cooling fan, this may cause overheating of the unit; if taken in for combustion, the engine power will be reduced.
- 11 Before moving the compressor, switch it off.
- 12 If the warning light on the ABS module or in the vehicle lights up, please contact Atlas copco.

#### **Safety during use and operation**

- 1 When the unit has to operate in a fire-hazardous environment, each engine exhaust has to be provided with a spark arrestor to trap incendiary sparks.
- 2 The exhaust contains carbon monoxide which is a lethal gas. When the unit is used in a confined space, conduct the engine exhaust to the outside atmosphere by a pipe of sufficient diameter; do this in such a way that no extra back pressure is created for the engine. If necessary, install an extractor. Observe any existing local regulations. Make sure that the unit has sufficient air intake for operation. If necessary, install extra air intake ducts.
- 3 When operating in a dust-laden atmosphere, place the unit so that dust is not carried towards it by the wind. Operation in clean surroundings considerably extends the intervals for cleaning the air intake filters and the cores of the coolers.
- 4 Close the compressor air outlet valve before connecting or disconnecting a hose. Ascertain that a hose is fully depressurized before disconnecting it. Before blowing compressed air through a hose or air line, ensure that the open end is held securely, so that it cannot whip and cause injury.
- 5 The air line end connected to the outlet valve must be safeguarded with a safety cable, attached next to the

- valve.
- 6 No external force may be exerted on the air outlet valves, e.g. by pulling on hoses or by installing auxiliary equipment directly to a valve, e.g. a water separator, a lubricator, etc. Do not step on the air outlet valves.
  - 7 Never move a unit when external lines or hoses are connected to the outlet valves, to avoid damage to valves, manifold and hoses.
  - 8 Do not use compressed air from any type of compressor, without taking extra measures, for breathing purposes as this may result in injury or death. For breathing air quality, the compressed air must be adequately purified according to local legislation and standards. Breathing air must always be supplied at stable, suitable pressure.
  - 9 Distribution pipework and air hoses must be of correct diameter and suitable for the working pressure. Never use frayed, damaged or deteriorated hoses. Replace hoses and flexibles before the lifetime expires. Use only the correct type and size of hose end fittings and connections.
  - 10 If the compressor is to be used for sand-blasting or will be connected to a common compressed-air system, fit an appropriate non-return valve (check valve) between compressor outlet and the connected sand-blasting or compressed-air system. Observe the right mounting position/direction.
  - 11 Before removing the oil filler plug, ensure that the pressure is released by opening an air outlet valve.
  - 12 Never remove a filler cap of the cooling water system of a hot engine. Wait until the engine has sufficiently cooled down.
  - 13 Never refill fuel while the unit is running, unless otherwise stated in the Atlas copco Instruction Book (AIB). Keep fuel away from hot parts such as air outlet pipes or the engine exhaust. Do not smoke when fuelling. When fuelling from an automatic pump, an earthing cable should be connected to the unit to discharge static electricity. Never spill nor leave oil, fuel, coolant or cleansing agent in or around the unit.
  - 14 All doors shall be shut during operation so as not to disturb the cooling air flow inside the bodywork and/or render the silencing less effective. A door should be kept open for a short period only e.g. for inspection or adjustment.
  - 15 Periodically carry out maintenance works according to the maintenance schedule.
  - 16 Stationary housing guards are provided on all rotating or reciprocating parts not otherwise protected and which may be hazardous to personnel. Machinery shall never be put into operation, when such guards have been removed, before the guards are securely reinstalled.
  - 17 Noise, even at reasonable levels, can cause irritation and disturbance which, over a long period of time, may cause severe injuries to the nervous system of human beings. When the sound pressure level, at any point where personnel normally has to attend, is:
    - below 70 dB(A): no action needs to be taken,
    - above 70 dB(A): noise-protective devices should be provided for people continuously being present in the room,
    - below 85 dB(A): no action needs to be taken for occasional visitors staying a limited time only,
    - above 85 dB(A): room to be classified as a noise-hazardous area and an obvious warning shall be placed permanently at each entrance to alert people entering the room, for even relatively short times, about the need to wear ear protectors,
    - above 95 dB(A): the warning(s) at the entrance(s) shall be completed with the recommendation that also occasional visitors shall wear ear protectors,
    - above 105 dB(A): special ear protectors that are adequate for this noise level and the spectral composition of the noise shall be provided and a special warning to that effect shall be placed at each entrance.
  - 18 The unit has parts, which may be accidentally touched by personnel, of which the temperature can be in excess of 80 °C (176 °F). The insulation or safety guard, protecting these parts shall not be removed before the parts have cooled down to room temperature.
  - 19 Never operate the unit in surroundings where there is a possibility of taking in flammable or toxic fumes.
  - 20 If the working process produces fumes, dust or vibration hazards, etc., take the necessary steps to eliminate the risk of personnel injury.
  - 21 When using compressed air or inert gas to clean down equipment, do so with caution and use the appropriate protection, at least safety glasses, for the operator as well as for any bystander. Do not apply compressed air or inert gas to your skin or direct an air or gas stream at people. Never use it to clean dirt from your clothes.
  - 22 When washing parts in or with a cleaning solvent, provide the required ventilation and use appropriate protection such as a breathing filter, safety glasses, rubber apron and gloves, etc.
  - 23 Safety shoes should be compulsory in any workshop and if there is a risk, however small, of falling objects, wearing of a safety helmet should be included.
  - 24 If there is a risk of inhaling hazardous gases, fumes or dust, the respiratory organs must be protected and depending on the nature of the hazard, so must the eyes and skin.
  - 25 Remember that where there is visible dust, the finer, invisible particles will almost certainly be present too; but the fact that no dust can be seen is not a reliable indication that dangerous, invisible dust is not present in the air.
  - 26 Never operate the unit at pressures or speeds below or in excess of its limits as indicated in the technical specifications.
  - 27 Do not use aerosol types of starting aids such as ether. Such use could result in an explosion and personal injury.

## Safety during maintenance and repair

Maintenance, overhaul and repair work shall only be carried out by adequately trained personnel; if required, under supervision of someone qualified for the job.

- 1 Use only the correct tools for maintenance and repair work, and only tools which are in good condition.
- 2 Parts shall only be replaced by genuine Atlas copco replacement parts.
- 3 All maintenance work, other than routine attention, shall only be undertaken when the unit is stopped. Steps shall be taken to prevent inadvertent starting. In addition, a warning sign bearing a legend such as "work in progress; do not start" shall be attached to the starting equipment. On engine-driven units the battery shall be disconnected and removed or the terminals covered by insulating caps. On electrically driven units the main switch shall be locked in open position and the fuses shall be taken out. A warning sign bearing a legend such as "work in progress; do not supply voltage" shall be attached to the fuse box or main switch.

- 4 Before dismantling any pressurized component, the compressor or equipment shall be effectively isolated from all sources of pressure and the entire system shall be relieved of pressure. Do not rely on non-return valves (check valves) to isolate pressure systems. In addition, a warning sign bearing a legend such as "work in progress; do not open" shall be attached to each of the outlet valves.
- 5 Prior to stripping an engine or other machine or undertaking major overhaul on it, prevent all movable parts from rolling over or moving.
- 6 Make sure that no tools, loose parts or rags are left in or on the machine. Never leave rags or loose clothing near the engine air intake.
- 7 Never use flammable solvents for cleaning (fire-risk).
- 8 Take safety precautions against toxic vapours of cleaning liquids.
- 9 Never use machine parts as a climbing aid.
- 10 Observe scrupulous cleanliness during maintenance and repair. Keep away dirt, cover the parts and exposed openings with a clean cloth, paper or tape.
- 11 Never weld on or perform any operation involving heat near the fuel or oil systems. Fuel and oil tanks must be completely purged, e.g. by steam-cleaning, before carrying out such operations. Never weld on, or in any way modify, pressure vessels. Disconnect the alternator cables during arc welding on the unit.
- 12 Support the towbar and the axle(s) securely if working underneath the unit or when removing a wheel. Do not rely on jacks.
- 13 Do not remove any of, or tamper with, the sound-damping material. Keep the material free of dirt and liquids such as fuel, oil and cleansing agents. If any sound-damping material is damaged, replace it to prevent the sound pressure level from increasing.
- 14 Use only lubricating oils and greases recommended or approved by Atlas copco or the machine manufacturer. Ascertain that the selected lubricants comply with all applicable safety regulations, especially with regard to explosion or fire-risk and the possibility of decomposition or generation of hazardous gases. Never mix synthetic with mineral oil.
- 15 Protect the engine, alternator, air intake filter, electrical and regulating components, etc., to prevent moisture ingress, e.g. when steam-cleaning.
- 16 When performing any operation involving heat, flames

or sparks on a machine, the surrounding components shall first be screened with non-flammable material.

- 17 Never use a light source with open flame for inspecting the interior of a machine.
- 18 Disconnect –battery-clamp before starting electrical servicing or welding (or turn battery-switch in "off" position).
- 19 When repair has been completed, the machine shall be barred over at least one revolution for reciprocating machines, several revolutions for rotary ones to ensure that there is no mechanical interference within the machine or driver. Check the direction of rotation of electric motors when starting up the machine initially and after any alteration to the electrical connection(s) or switch gear, to check that the oil pump and the fan function properly.
- 20 Maintenance and repair work should be recorded in an operator's logbook for all machinery. Frequency and nature of repairs can reveal unsafe conditions.
- 21 When hot parts have to be handled, e.g. shrink fitting, special heat-resistant gloves shall be used and, if required, other body protection shall be applied.
- 22 When using cartridge type breathing filter equipment, ascertain that the correct type of cartridge is used and that its useful service life is not surpassed.
- 23 Make sure that oil, solvents and other substances likely to pollute the environment are properly disposed of.
- 24 Before clearing the unit for use after maintenance or overhaul, check that operating pressures, temperatures and speeds are correct and that the control and shutdown devices function correctly..

## Tool applications safety

Apply the proper tool for each job. With the knowledge of correct tool use and knowing the limitations of tools, along with some common sense, many accidents can be prevented.

Special service tools are available for specific jobs and should be used when recommended. The use of these tools will save time and prevent damage to parts.

## Specific safety precautions

### Batteries

When servicing batteries, always wear protecting clothing and glasses.

- 1 The electrolyte in batteries is a sulphuric acid solution which is fatal if it hits your eyes, and which can cause burns if it contacts your skin. Therefore, be careful when handling batteries, e.g. when checking the charge condition.
- 2 Install a sign prohibiting fire, open flame and smoking at the post where batteries are being charged.
- 3 When batteries are being charged, an explosive gas mixture forms in the cells and might escape through the vent holes in the plugs. Thus an explosive atmosphere may form around the battery if ventilation is poor, and can remain in and around the battery for several hours after it has been charged. Therefore:
  - never smoke near batteries being, or having recently been, charged,
  - never break live circuits at battery terminals, because a spark usually occurs.
- 4 When connecting an auxiliary battery (AB) in parallel to the unit battery (CB) with booster cables: connect the + pole of AB to the + pole of CB, then connect the - pole of CB to the mass of the unit. Disconnect in the reverse order.

### Pressure vessels

Maintenance/installation requirements:

- 1 The vessel can be used as pressure vessel or as separator and is designed to hold compressed air for the following application:
  - pressure vessel for compressor,
  - medium AIR/OIL,
  - and operates as detailed on the data plate of the vessel:
  - the maximum working pressure ps in bar (psi),
  - the maximum working temperature Tmax in °C (°F),
  - the minimum working temperature Tmin in °C (°F),
  - the capacity of the vessel V in l (US gal).
- 2 The pressure vessel is only to be used for the applications as specified above and in accordance with the technical specifications. Safety reasons prohibit any other applications.
- 3 National legislation requirements with respect to re-inspection must be complied with.
- 4 No welding or heat treatment of any kind is permitted to those vessel walls which are exposed to pressure.
- 5 The vessel is provided and may only be used with the required safety equipment such as manometer, overpressure control devices, safety valve, etc.

- 6 Draining of condensate shall be performed daily when vessel is in use.
- 7 Installation, design and connections should not be changed.
- 8 Bolts of cover and flanges may not be used for extra fixation.

### **Safety valves**

#### Operating & Maintenance

Only trained and technically competent personnel should consider overhaul, re-set or performance testing of safety valves.

The safety valve is supplied with either a lead security seal or crimped cover to deter unauthorised access to the pressure regulation device.

Under no circumstances should the set pressure of the safety valve be altered to a different pressure than that stamped on the valve without the permission of the installation designer.

If the set pressure must be altered then use only correct parts supplied by Atlas copco and in accordance with the instructions available for the valve type.

Safety valves must be frequently tested and regularly maintained.

The set pressure should be periodically checked for accuracy.

When fitted, the compressors should be operated at pressures not less than 75% of the set pressure to ensure free and easy movement of internal parts.

The frequency of tests is influenced by factors such as the severity of the operating environment and aggressiveness of the pressurised medium.

Soft seals and springs should be replaced as part of the maintenance procedure.

Do not paint or coat the installed safety valve (see also Preventive maintenance schedule).

# Leading particulars

## General description

The XRY51150 is a silenced, two-stage, oil-injected screw compressor, built for a nominal effective working pressure of 35 bar (507.5 psi).

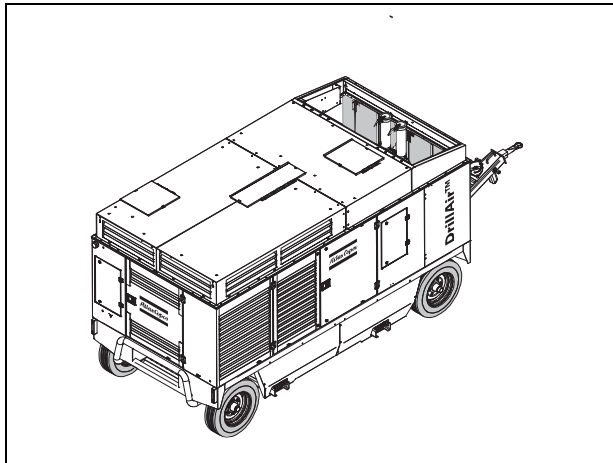
The XRXS1200 is a silenced, two-stage, oil-injected screw compressor, built for a nominal effective working pressure of 30 bar (435.0 psi).

The Y1200 - Y1260 is a silenced, two-stage, oil-injected screw compressor, built for a nominal effective working pressure of 25 bar (362.5 psi).

## Engine

The compressors are driven by a 6 cylinder in-line liquid-cooled diesel engine.

The engine's power is transmitted to the compressor element through a heavy-duty coupling.



## Compressor

The compressor casing houses two screw-type rotors, mounted on ball and roller bearings. The male rotor, driven by the engine, drives the female rotor. The compressor delivers pulsation-free air.

Injected oil is used for sealing, cooling and lubricating purposes.

## Compressor oil system

The oil is boosted by air pressure. The system has no oil pump.

The oil is removed from the air, in the air/oil vessel first by centrifugal force, secondly by the oil separator element.

The vessel is provided with an oil level indicator.

## Regulation

The compressor is provided with a dual pressure electronic regulating system.

The DrillAirXpert variable regulating system gives full control of compressor pressure and flow.

It controls vessel pressure and outlet flow by measuring air pressure and air temperature at several points and steering the air inlet valve, engine speed and blow off valve corresponding the values measured.

## Cooling system

The engine is provided with a liquid-cooler and intercooler and the compressor is provided with an oil cooler (For available options see chapter **Available options**.)

The cooling air is generated by a fan, driven by the engine.

## Safety devices

A thermal shut-down sensor protects the compressor against overheating. The air receiver is provided with a safety valve.

The engine is equipped with low oil pressure and high coolant temperature shut-down sensors.

The electric system is equipped with a 24V main switch.

## Frame and axles

The compressor/engine unit is supported by rubber buffers in a spillage-free frame.

The standard compressor has a towbar with parking brakes.

Optional the compressor can be equipped with a tandem undercarriage with air brakes (EU) for high speed road transport.

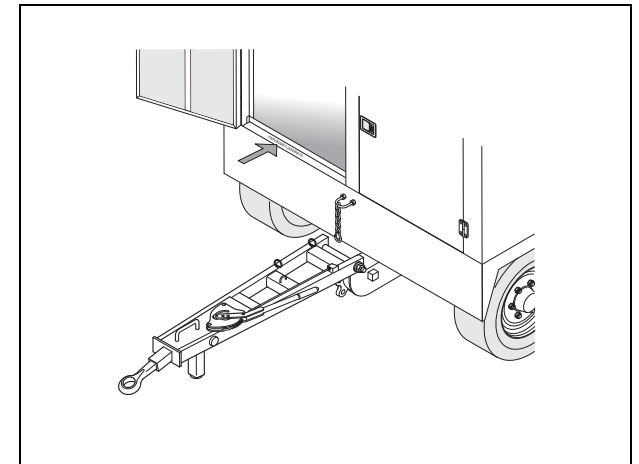
## Bodywork

The bodywork has openings for the intake and outlet of cooling air and hinged doors for maintenance and service operations. The bodywork is internally lined with sound-absorbing material.

## Lifting beam

A lifting beam is accessible when a small door at the top is opened.

## Serial number



The serial number is stamped in at the front of the compressor on the upper edge of the frame behind the right door. It is also mentioned on the data plate and inside the control box.

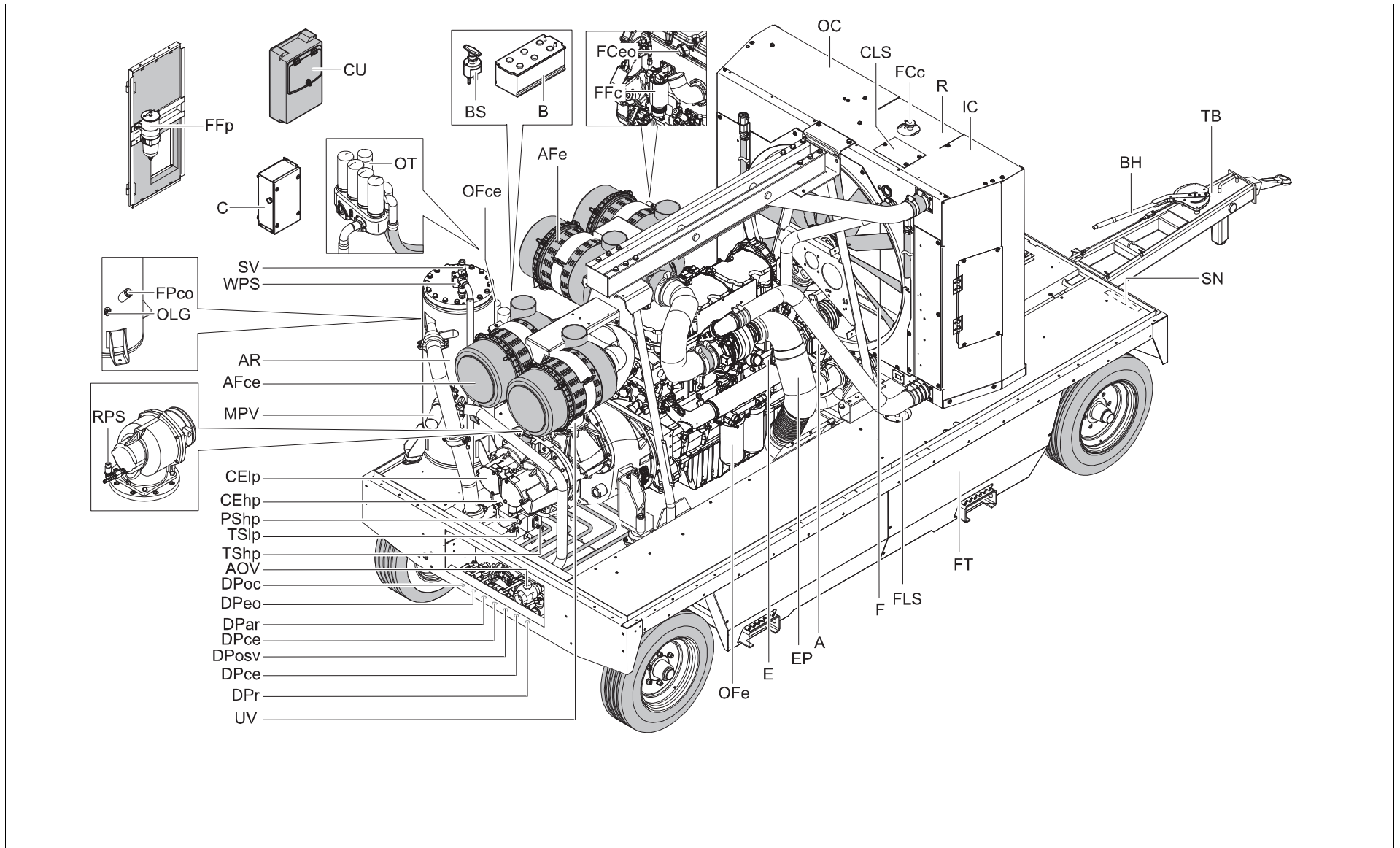
**Control panel**

The control panel grouping the air pressure gauge, control switch etc., is placed at the left hand/ rear end corner.

**Data plate**

The compressor is furnished with a data plate showing the product code, the unit serial number and the working pressure (see chapter Data plate).

# Main parts

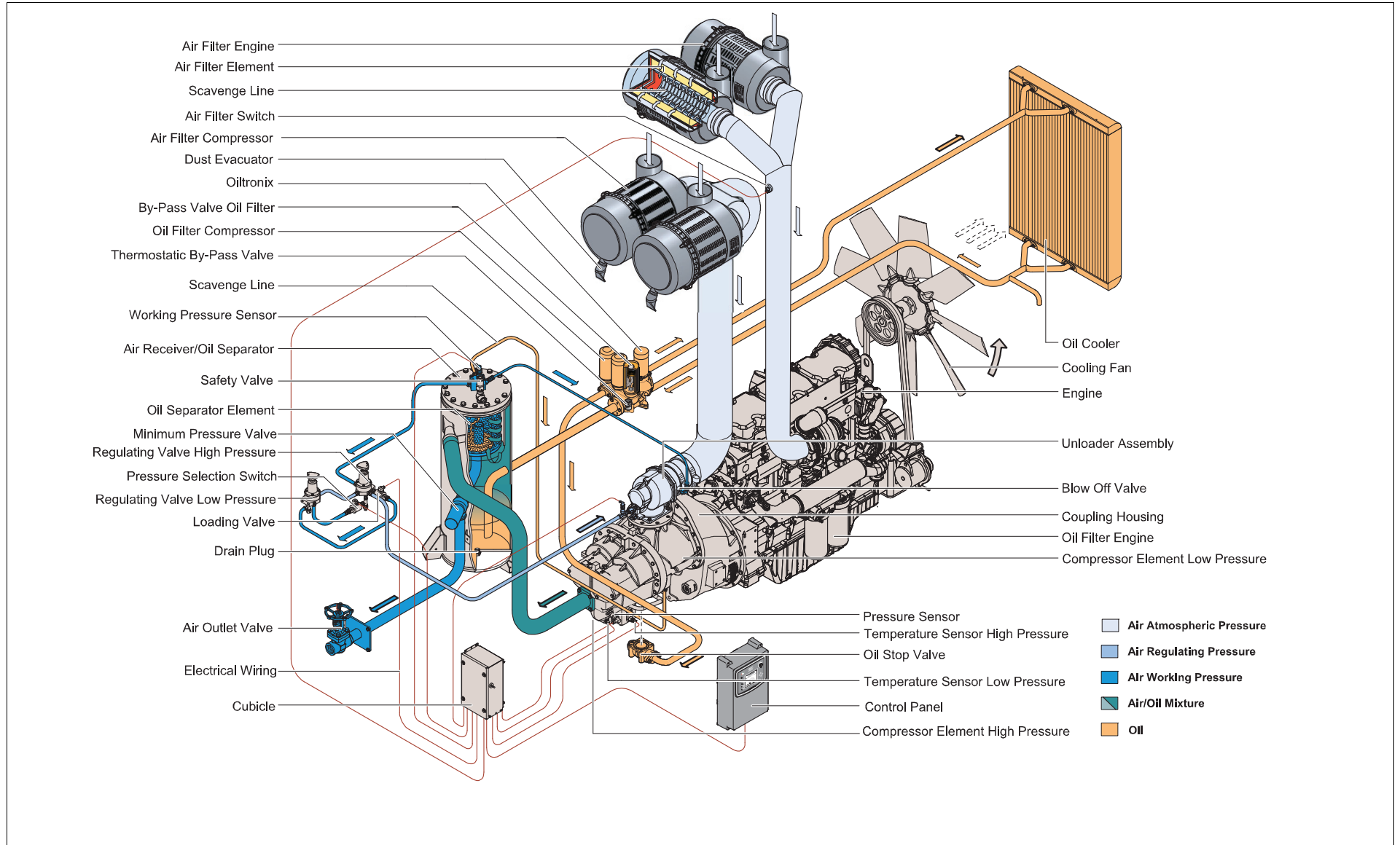


Reference	Name
A	Alternator
AFce	Air Filter (compressor element)
AFe	Air Filter (engine)
AOV	Air Outlet Valves
AR	Air Receiver
B	Battery
BH	Brake Handle
BS	Battery Switch
CElp	Compressor Element (low pressure)
CEhp	Compressor Element (high pressure)
CLS	Coolant Level Switch
C	Cubicler
CU	Control Unit
DPar	Drain Plug Air Receiver
DPce	Drain Plug Compressor Element
DPeo	Drain Plug Engine Oil
DPoc	Drain Plug Oil Cooler
DPosv	Drain Plug Oil Stop Valve
DPr	Drain Plug Radiator
E	Engine
EP	Exhaust Pipe
F	Fan
FCeo	Filler Cap (engine oil)
FCc	Filler Cap (coolant)
FFp	Primary Fuel filter
FFc	Fuel Filter Caterpillar

Reference	Name
FLS	Fuel Level Sensor
FPco	Filler Plug (oil compressor element)
FT	Fuel Tank
IC	Intercooler
MPV	Minimum Pressure Valve
OC	Oil Cooler
OFce	Oil Filter (compressor element)
OFe	Oil Filter (engine)
OLG	Oil Level Gauge
OT	Oiltronix
R	Radiator
SN	Serial Number
SV	Safety Valve
TB	Towbar
WPS	Working Pressure Sensor
PShp	Pressure Sensor High pressure
TSlp	Temp. Sensor Low pressure
TShp	Temp. Sensor High Pressure
RPS	Regulating Pressure Sensor
UV	Unloading Valve



# REGULATING SYSTEM OVERVIEW



## AIR FLOW

Air drawn through the airfilter (AFc) into the compressor element (CE) is compressed. At the element outlet, compressed air and oil pass into the air receiver/oil separator (AR/OS).

A check valve prevents blow-back of compressed air when the compressor is stopped. In the air receiver/oil separator (AR/OS), most of the oil is removed from the air/oil mixture.

The oil collects in the receiver and on the bottom of the separator element.

The air leaves the receiver via a minimum pressure valve (MPV) which prevents the receiver pressure from dropping below the minimum working pressure, even when the air outlet valves are open (specified in section Limitations). This ensures adequate oil injection and prevents oil consumption. The minimum pressure valve (MPV) also functions as a check valve.

## OIL SYSTEM

The lower part of the air receiver (AR) serves as an oil tank.

Air pressure forces the oil from the air receiver/oil separator (AR/OS) through the oil cooler (OC), the oil filters (OFc) and the oil stop valve (OSV) to the compressor element (CE).

When the compressor is stopped and / or there is no pressure in the system, the oil stop valve (OSV) prevents the oil from flowing back into the compressor element.

The thermostatic by-pass valve (TBV) starts opening when the oil temperature is 70°C (158°F).

The compressor element has an oil gallery in the bottom of its casing.

The oil for rotor lubrication, cooling and sealing is injected through holes in the gallery.

Lubrication of the bearings is ensured by oil injected into the bearing housings.

The injected oil, mixed with the compressed air, leaves the compressor element and re-enters the air receiver, where it

is separated from the air as described in section **Air flow**. The oil that collects on the bottom of the oil separator element is returned to the system through a scavenging line (SL), which is provided with a flow restrictor (FR).

The oil filter by-pass valve (BVof) opens when the pressure drop over the filter is above normal because of a clogged filter. The oil then by-passes the filter without being filtered. For this reason, the oil filter must be replaced at regular intervals (see section **Preventive maintenance schedule**).

## CONTINUOUS PNEUMATIC REGULATING SYSTEM

The compressor is provided with a continuous pneumatic regulating system and a blow-off valve (BOV), which is integrated in the unloader assembly (UA). The valve is closed during operation by outlet pressure of the compressor element and opens by air receiver pressure when the compressor is stopped.

When the air consumption increases, the air receiver pressure will decrease and vice versa. This receiver pressure variation is sensed by the regulating valve (RV) which, by means of control air to the unloader assembly (UA), matches the air output to the air consumption. The air receiver pressure is maintained between the pre-selected working pressure and the corresponding unloading pressure.

When starting the compressor, the throttle valve in the unloader assembly (UA) is kept closed via receiver pressure. The compressor element (CE) takes in air and pressure builds up inside the receiver (AR). The throttle valve is closed. The air output is controlled from maximum output (100%) to no output (0%) by:

1. Speed control of the engine between maximum load speed and unloading speed (the output of a screw compressor is proportional to the rotating speed).
2. Air inlet throttling.

If the air consumption is equal to or exceeds the maximum air output, the engine speed is held at maximum load speed and the throttle valve is fully open.

If the air consumption is less than the maximum air output, air receiver pressure increases and the regulating valve supplies control air to throttle valve to reduce the air output and holds air receiver pressure between the normal working pressure and the corresponding unloading pressure. Unloading pressure = normal working pressure + 1 bar (14.5 psi).

When the air consumption is resumed, the blow off valve (BOV) closes and the throttle valve gradually opens the air intake and the electronic speed regulator increases the engine speed.

The construction of the regulating valve (RV) is such that any increase (decrease) of the air receiver pressure above the pre-set valve opening pressure results in a proportional increase (decrease) of the control pressure to the throttle valve and the electronic speed regulator.

Part of the control air is vented into atmosphere, and any condensate discharged, through the vent holes.

# ELECTRIC SYSTEM CIRCUIT DIAGRAM INDEX 9822 0963 68

DWGDESC	SH
INDEX	1
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ENGINE CIRCUIT	3
COMPRESSOR CIRCUIT	4
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OPTIONAL EQUIPMENT	6
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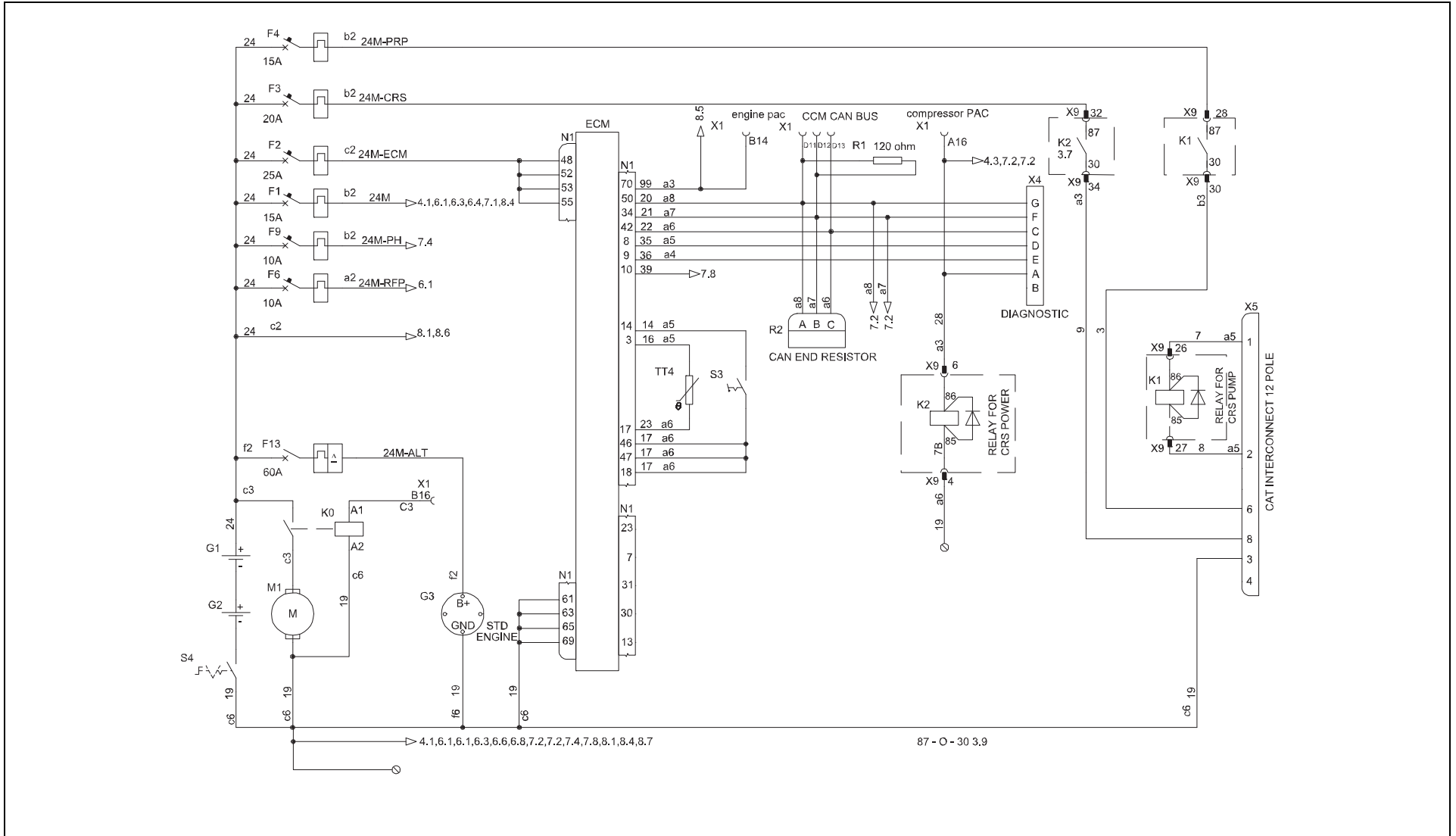
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B1	NAMUR SENSOR	BYPASS			
B2	NAMUR SENSOR	CLOSED			
B3	COMBO SENSOR				
B4	NAMUR SENSOR	BYPASS			
B5	NAMUR SENSOR	CLOSED			
F1	CIRCUIT BREAKER	MAIN			
F10	CIRCUIT BREAKER	10A ROOF ACTUATOR			
F13	CIRCUIT BREAKER	CHARGING ALTERNATOR			
F2	CIRCUIT BREAKER	ENGINE CONTROL MODULE			
F3	CIRCUIT BREAKER	CAT REGENERATION SYSTEM			
F4	CIRCUIT BREAKER	FUEL PRIMING PUMP			
F6	CIRCUIT BREAKER	REFUEL PUMP			
F8	CIRCUIT BREAKER	15A INTERNAL LIGHTS			
F9	CIRCUIT BREAKER	PREHEATER/NORDIC			
G1	BATTERY				
G2	BATTERY				
G3	CHARGING ALTERNATOR				
H10	LIGHT	INTERNAL			
H11	LIGHT	INTERNAL			
H4	FLASHER LIGHT				
H6	HORN				
H7	FLASHER LIGHT				
H8	LIGHT	INTERNAL			
H9	LIGHT	INTERNAL			
K0	SOLENOID	STARTER MOTOR			
K1	RELAY	FUEL PRIMING PUMP			
K10	RELAY	REMOTE CONTROL			
K11	RELAY	ROOF ACTUATOR			
K12	RELAY	MICRO PLC			
K13	RELAY	ETHERSTART			

TAG	DESC1	DESC2	CAT	CATDES	QUERY1
K2	RELAY	COMPRESSOR P.A.C.		C	
K3	RELAY	REFUEL PUMP			
K4	RELAY	AIR SHUT-OFF VALVE			
K5	RELAY	AFTERCOOLER FANS			
K6	RELAY	INTERNAL LIGHTS			
K7	RELAY	INTERNAL LIGHTS			
K8	RELAY	HEATER			
LS1	LEVEL SWITCH	COOLANT LEVEL WARNING			
LS2	LEVEL SWITCH	COOLANT LEVEL SHUTDOWN			
LT1	LEVEL SENSOR	FUEL LEVEL			
M1	STARTER MOTOR				
M3	PUMP	REFUEL PUMP			
M4	FAN	AFTERCOOLER			
M5	FAN	AFTERCOOLER			
M6	PUMP	PREHEATER			
M7	STEPPER MOTOR	OILTRONIX			
M8	MOTOR	ROOF ACTUATOR			
M9	STEPPER MOTOR	AIREXPRT			
N1	CONNECTOR	ENGINE CONTROL MODULE			
PS1	PRESSURE SWITCH	DP AIRFILTER			
PT1	PRESSURE SENSOR	VESSEL PRESSURE			
PT2	PRESSURE SENSOR	REGULATING PRESSURE			
PT3	PRESSURE SENSOR	INTERSTAGE PRESSURE			
PT4	PRESSURE SENSOR	OIL STOP VALVE PRESSURE			
PT5	PRESSURE SENSOR	AFTERCOOLER AIR DISCHARGE PRESSURE			
R1	END RESISTOR	J1939 CANBUS			
R2	END RESISTOR	J1939 CAN BUS			
S10	SWITCH	EMERGENCY STOP			
S11	SWITCH	BATTERY CUT-OFF			
S12	SWITCH	REMOTE EMERGENCY STOP			

TAG	DESC1	DESC2	CAT	CATDES C	QUERY1
S13	SWITCH	BATTERY CUT-OFF			
S2	SWITCH	EXTERNAL FUEL			
S3	SWITCH	FUEL PRIMING PUMP			
S4	SWITCH	BATTERY CUT-OFF			
S5	SWITCH	EMERGENCY STOP			
S6	SWITCH	DUAL PRESSURE			
S8	SWITCH	LIMIT SWITCH			
S9	SWITCH	INTERNAL LIGHTS			
TT1	TEMPERATURE SENSOR	LP ELEMENT TEMPERATURE			
TT2	TEMPERATURE SENSOR	HP ELEMENT TEMPERATURE			
TT3	TEMPERATURE SENSOR	AMBIENT TEMPERATURE			
TT4	TEMPERATURE SENSOR	AMBIENT TEMPERATURE			
TT5	TEMPERATURE SENSOR	AFTERCOOLER AIR DISCHARGE TEMPERATURE			
TT6	TEMPERATURE SENSOR	AIR DISCHARGE TEMPERATURE			
X1	CONNECTOR	XC3003/4003 PRIMARY			
X10A	CONNECTOR	AIR SHUT-OFF VALVE			
X10B	CONNECTOR	PREHEATER			
X10C	CONNECTOR	INTERNAL LIGHTS			
X10D	CONNECTOR	DUAL PRESSURE/PRESET			
X11	REMOTE CONTROL	RECEIVER			
X11	REMOTE CONTROL	RECEIVER			
X11	REMOTE CONTROL	RECEIVER			
X2	CONNECTOR	XC3003/4003 SECONDARY			
X3	CONNECTOR	XC3003/4003 REMOTE			
X4	CONNECTOR	CAT DIAGNOSTIC			
X5	CONNECTOR	CAT INTERCONNECT HARNESS			
X60	CONNECTOR	COSMOS MODULE			
X61	CONNECTOR	COSMOS SATTELITE			
X62	CONNECTOR	COSMOS PC			
X7	CONNECTOR	ROOF ACTUATOR CONTROLLER			

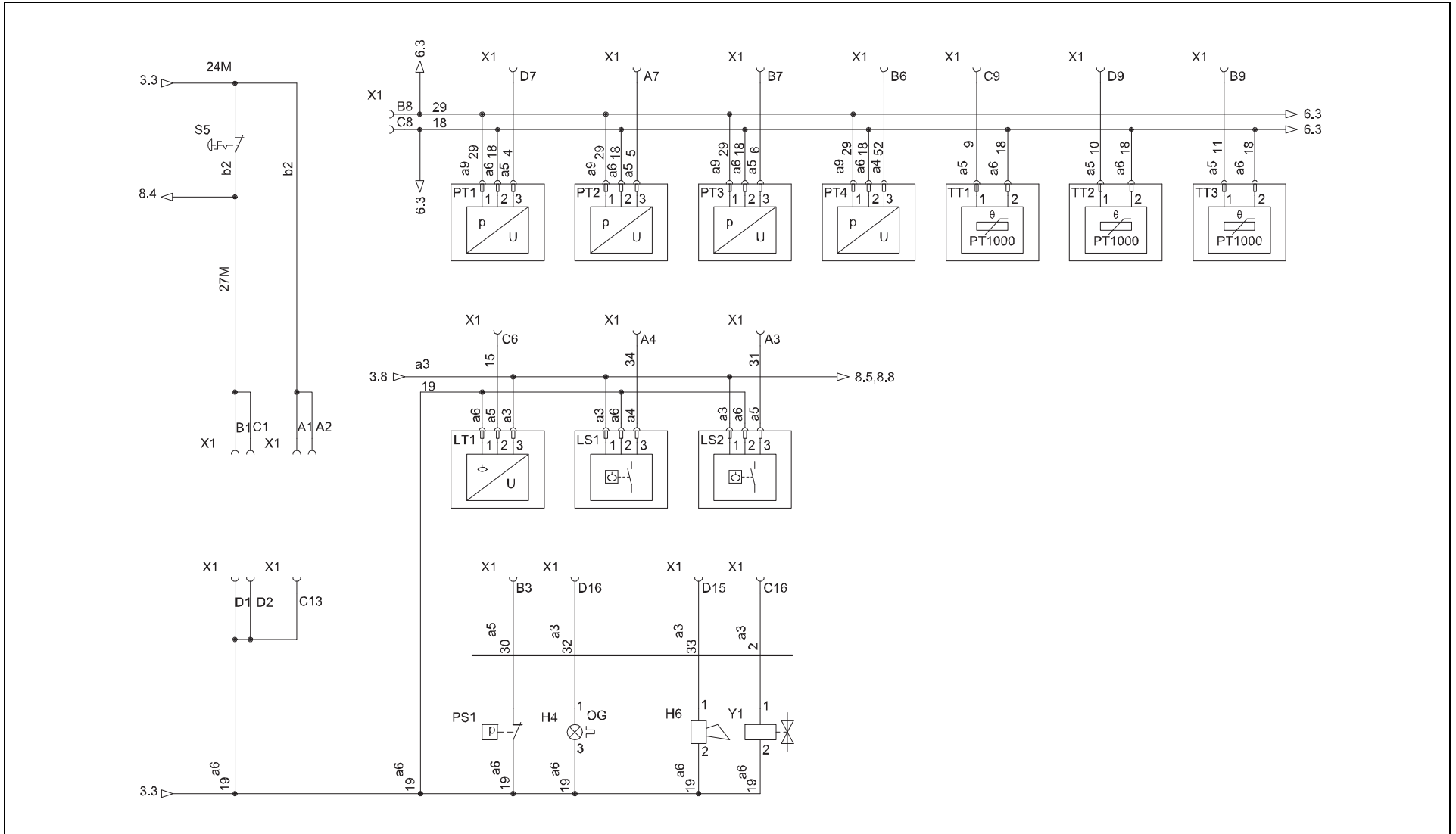
TAG	DESC1	DESC2	CAT	CATDES C	QUERY1
X8	CONNECTOR	LIMIT SWITCH			
X9	CONNECTOR	OPTION BOX			
XPH1	CONNECTOR	COOLANT HEATER			
XPH2	CONNECTOR	TIMER			
Y1	SOLENOID VALVE	LOAD			
Y2	SOLENOID VALVE	BLOW DOWN			
Y4	SOLENOID	ETHERSTART			
Y5	SOLENOID VALVE	AIR SHUT-OFF VALVE			
Y6	SOLENOID	DUAL PRESSET			
Y7	SOLENOID	DUAL PRESSURE			

# SH2 ENGINE CIRCUIT 9822 0963 68





SH3 ENGINE CIRCUIT 9822 0963 28



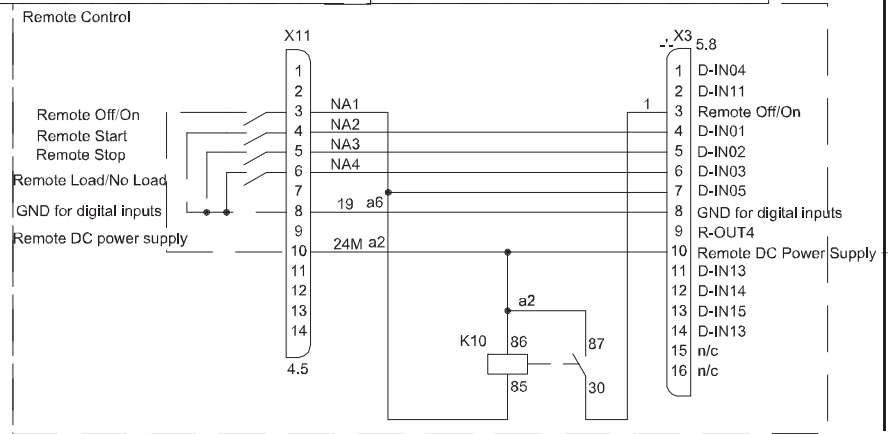
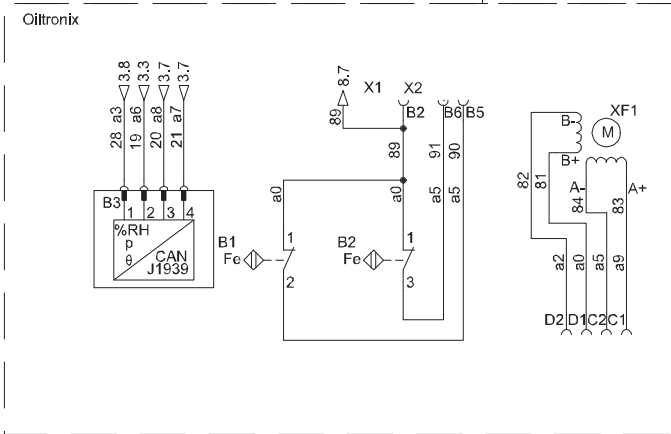
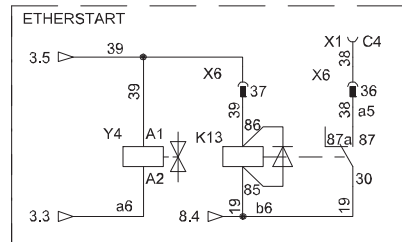
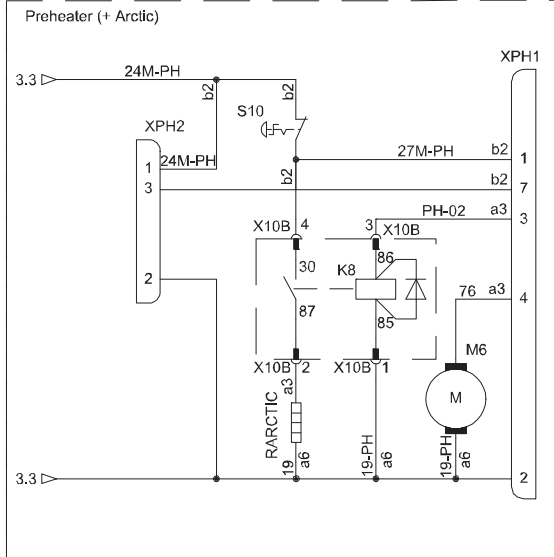
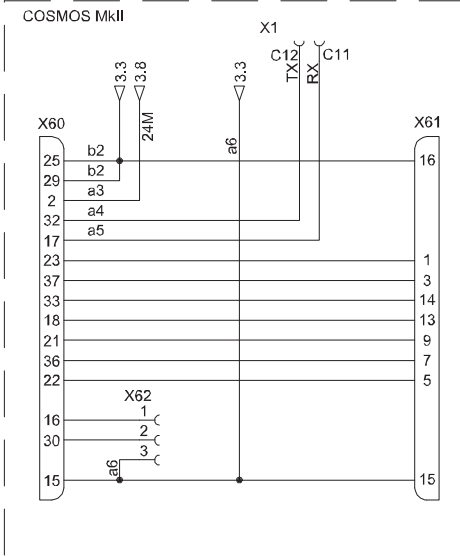






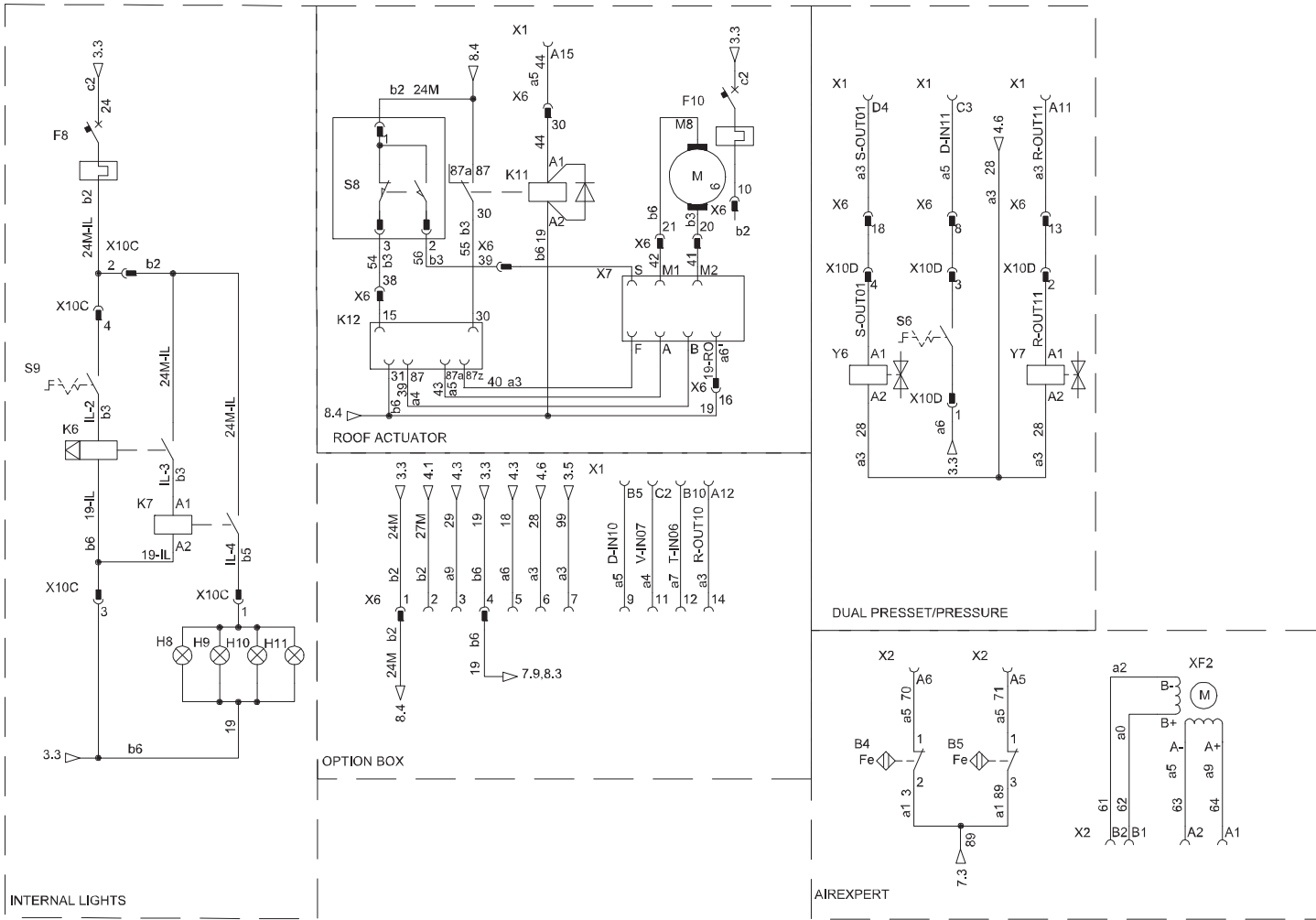
# SH6 OPTIONAL EQUIPMENTS

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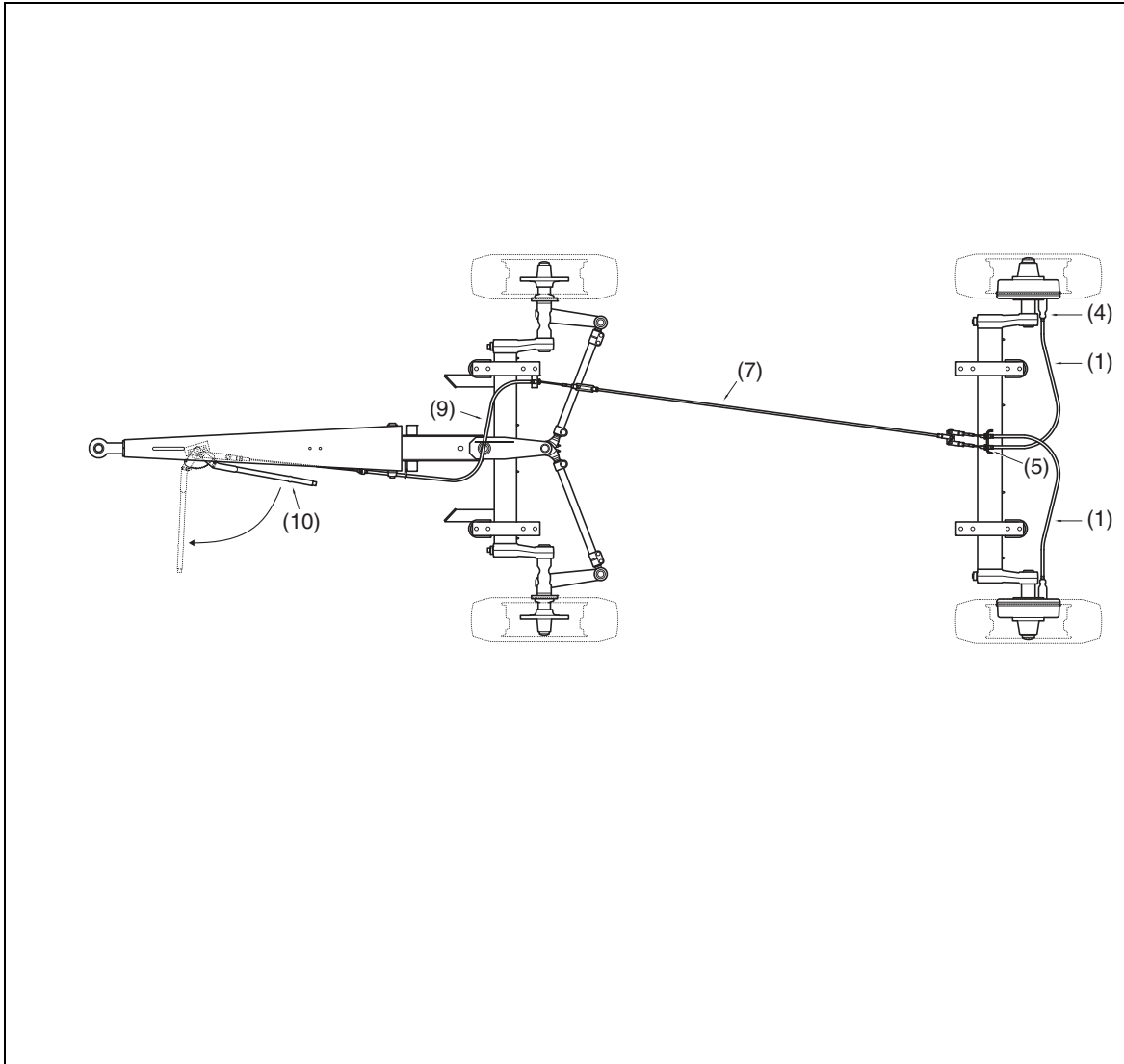
SH7 OPTIONAL EQUIPMENTS

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## Undercarriage

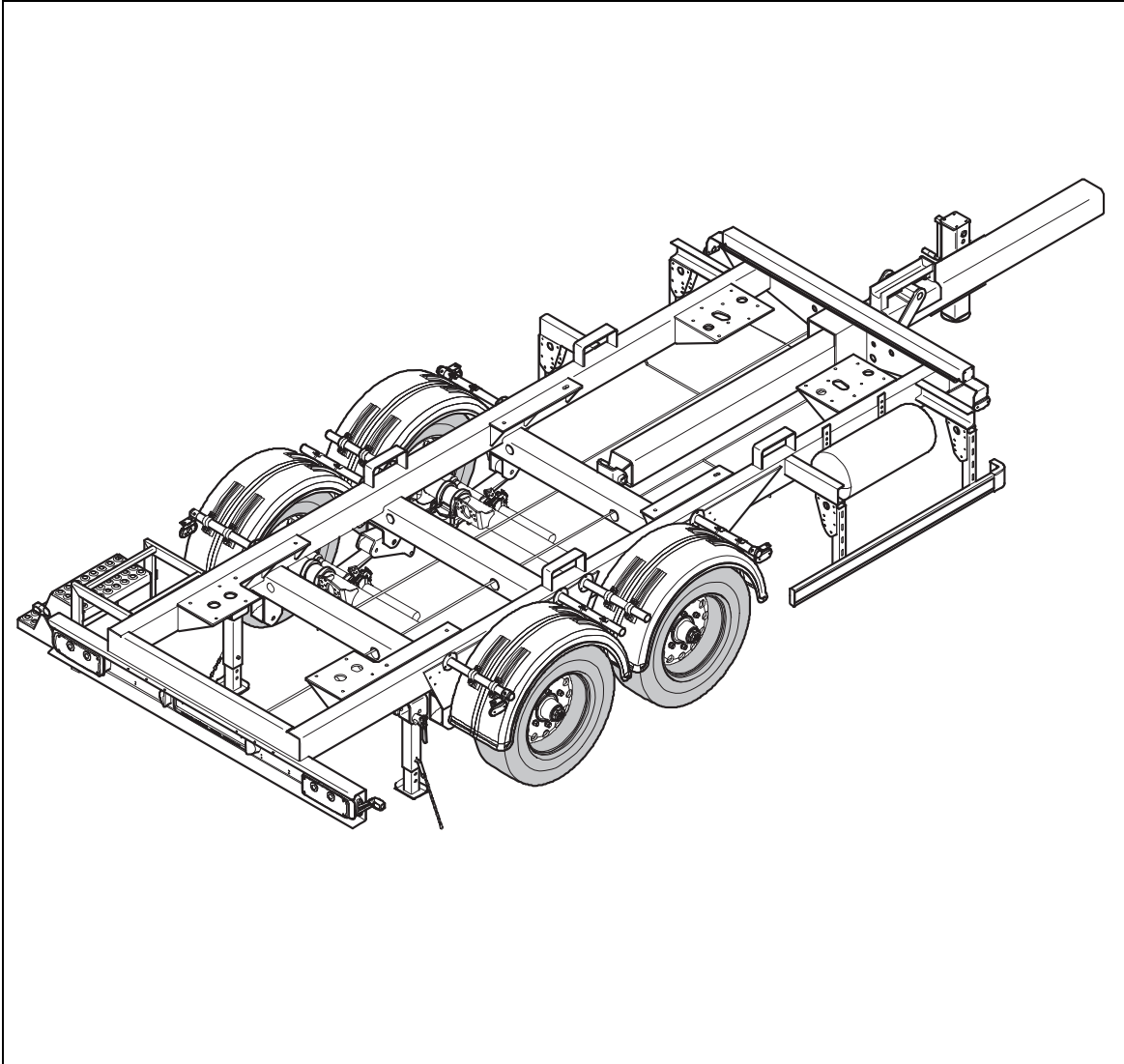
## Wagon



The wagon undercarriage is equipped with a parking brake only. It consists of drum brakes installed on the rear wheels and a lever that is connected through a steel wire linkage to the brakes.

The parking brake is applied by moving a lever (10) in the direction of the arrow

## TANDEM EU



## PRODUCT DESCRIPTION

Compressors with EU tandem undercarriage are intended to be transported hooked up with a truck.

The undercarriage has low-maintenance axles with parabolic suspension and air brakes with ABS and ALB regulator.

The installed cylinders have integrated parking and emergency brakes.

At the rear the undercarriage has two foldable support legs, to be used when the compressor is in position for operation.

For easy access of the control panel a small foldable ladder is installed.

The compressor is to be coupled to an appropriate truck by means of a height-adjustable towing device and towing eye.

The maximum recommended speed for safely towing the compressor is 80 km/h.

## INAPPROPRIATE USE

Transporting people on the compressor.

Exceeding tow bar load and compressor load.

Unauthorised structural undercarriage modifications.

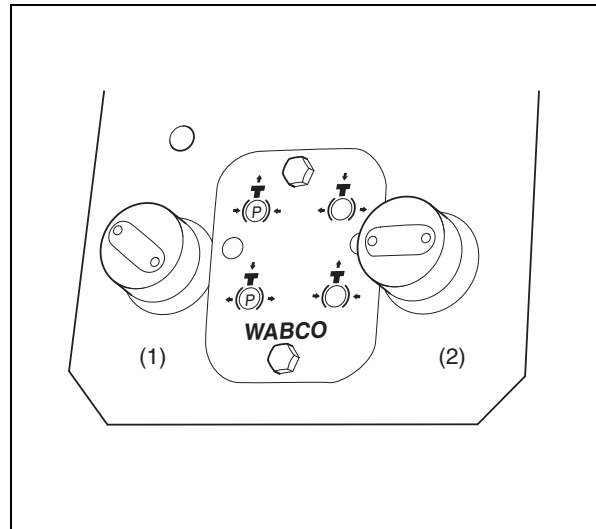
## BRAKE SYSTEM

### Functional Description

The compressor's service brake comes on automatically when uncoupling the feed line from the truck.

When coupling the feed line from the truck, the brake opens automatically once a minimum pressure of 6.5 bar (94.3 psi) has been reached.

### Manual operation of brake system



Reference	Name
1	Spring-loaded brake (Parking)
2	Service brake

#### Spring-loaded parking brake



**Secure the compressor with wheel chocks. If the parking brake is released the spring-loaded brake is released and the compressor can start to move. This can cause injuries and even death.**



**Only activate the parking brake when the brakes are cooled down.**

To activate the parking brake, pull the red button (1) until it snaps into place. To release the parking brake press the button (1). By activating and releasing the parking brake the air pressure in the system drops. When the pressure is less than 5.2 bar (75.4 psi), releasing the brake by pressing the button is not possible anymore. Connect the brake lines to a truck to raise the air pressure.

#### Service brake

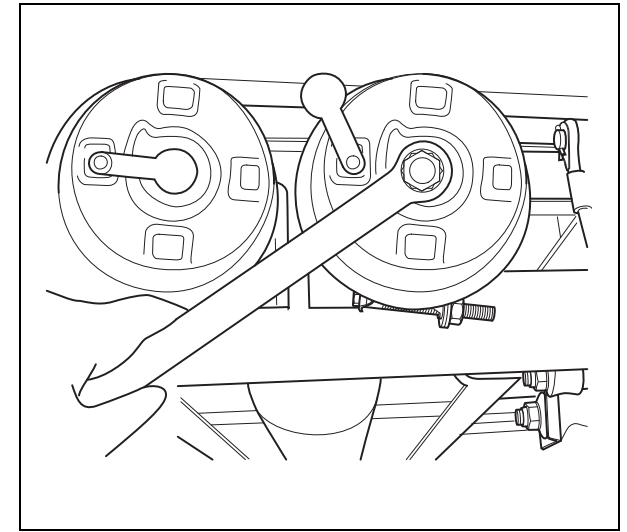
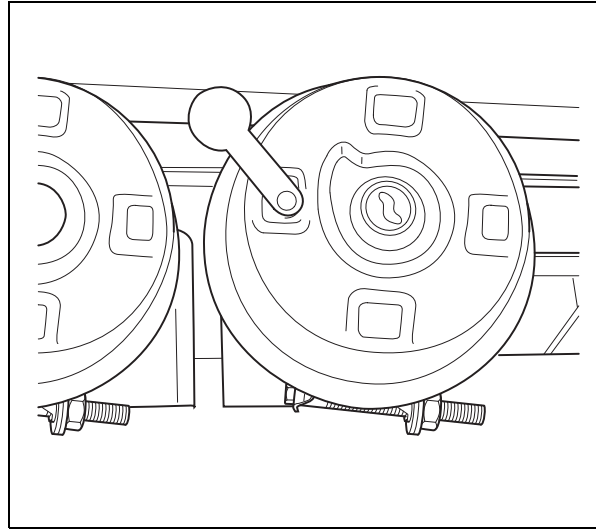
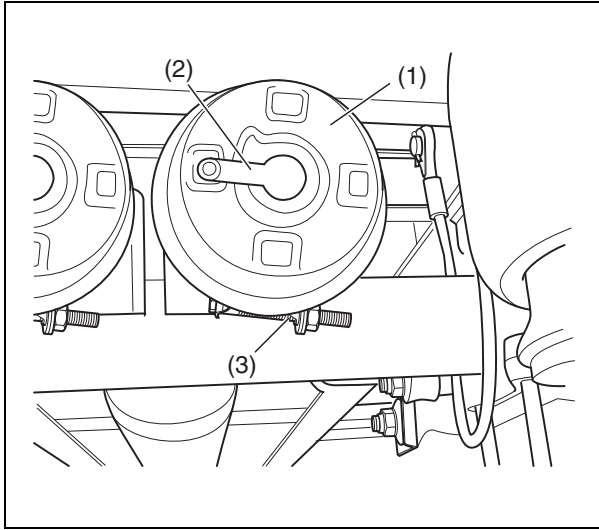


**When the release valve of the service brake is activated whilst the compressor is not properly coupled, the compressor may start moving. As a result of related accidents people may get injured, killed or equipment may be damaged.**



**When driving with an opened release valve, it is only the truck that is braking the compressor. As a result of related accidents people may get injured, killed or equipment may be damaged.**

The brake system is automatically activated when the supply line from the towing vehicle is disconnected. To be able to move the compressor without having to connect the brake lines pull the black button (2) until it snaps into place. To activate the service brake press the button (2)



Reference	Name
1	Brake cylinder
2	Protection cap
3	Threaded bolt

Put the loose thread bolt with the profile at the end in the opening of the spring brake. Turn the thread bolt around approximately 90°. Put the washer and the nut on the thread bolt and tighten them up to the case of the spring brake.

Now using the wrench, tighten the nut and thus compressing the spring and releasing the brake. You must perform this operation on all spring brakes. Deactivate the emergency release before the journey and before you put the pressure on the handbrake back.

To release the spring-loaded parking brake when the air pressure is less than 5.2 bar (75.4 psi) proceed as follows. The procedure has to be executed on each individual brake.

Place wheel chocks. Open the protection cap on the spring. Rotate it to the side. Loosen the nut (wrench size 24) on the threaded bolt. Remove the bolts from the bracket.

## Plug connections (15-pin)













Nr.	Function	Cable cross section	Line colour
1	Left light indicator	1.5 mm <sup>2</sup>	yellow
2	Right light indicator	1.5 mm <sup>2</sup>	green
3	Rear fog light	1.5 mm <sup>2</sup>	blue
4	Ground connection	2.5 mm <sup>2</sup>	white
5	Left rear outline light, license plate illumination	1.5 mm <sup>2</sup>	black
6	Right rear outline light, running light, license plate illumination	1.5 mm <sup>2</sup>	brown
7	Brake light	1.5 mm <sup>2</sup>	red
8	Reversing light	1.5 mm <sup>2</sup>	gray
9	Power supply 24 V	2.5 mm <sup>2</sup>	brown/blue
10	Sensor for brake lining wear indicator	1.5 mm <sup>2</sup>	brown/red
11	Pressure sensor of the spring brake	1.5 mm <sup>2</sup>	yellow/black
12	Lifting axle	1.5 mm <sup>2</sup>	pink
13	Ground connection for data line	2.5 mm <sup>2</sup>	white/black
14	Data line	1.5 mm <sup>2</sup>	purple
15	Data line	1.5 mm <sup>2</sup>	orange











## ABS trailer plug (7-pin)











Nr.	Function	Cable cross section	Line colour
1	Plus terminal solenoid valve KL 30	4 or 6 mm <sup>2</sup>	red
2	Plus terminal electrical system KL 15	1.5 mm <sup>2</sup>	black
3	Minus terminal electrical system KL 31b	1.5 mm <sup>2</sup>	yellow
4	Minus terminal solenoid valve KL 31	4 or 6 mm <sup>2</sup>	brown
5	Warning device	1.5 mm <sup>2</sup>	white
6	CAN HIGH	1.5 mm <sup>2</sup>	white/green
7	CAN LOW	1.5 mm <sup>2</sup>	white/brown



## MARKINGS AND INFORMATION LABELS

	Dangerous outlet gases.
	Danger, hot surface.
	Electrocution hazard.
	Atlas Copco synthetic compressor oil.
	Atlas Copco mineral engine oil.
	Manual.
	Read the instruction manual before working on the battery.
	Reset fuse.
	On / off button.
	Prohibition to open air valves without connected hoses.
	Rotation direction.
	Inlet.

	Outlet.
	Compressor oil drain.
	Read the instruction manual before starting.
	Service every 24 hours.
	Warning! Part under pressure.
	Do not stand on outlet valves.
	Start-Stop indication of switch.
	Do not run the compressor with open doors.
	Lifting permitted.
	Use diesel fuel only.
<b>9.5 bar (138 psi)</b>	Tyre pressure Wagon.
<b>7.5 bar (109 psi)</b>	Tyre pressure Tandem EU.

	Sound power level in accordance with Directive 2000/14/EC (expressed in dB (A)).
	Fork lifting permitted.
	Don't lift here.
	Read the instruction manual before lifting.
	Filler cap coolant.
	Read the instruction manual before topping up with coolant.
	Service point.
	Circuit breaker.
	Do not run the compressor when the baffles are not in the right position.
	ABS braking system, emergency relay valve.

## OPERATING INSTRUCTIONS

### PARKING, TOWING AND LIFTING INSTRUCTIONS

#### MAJOR HAZARDS

Loss of control of the compressor or compressor /tow vehicle combination can result in death or serious injury. The most common causes for loss of control of the compressor are:

- Improper sizing the tow vehicle for the compressor.
- Excessive speed: Driving too fast for the conditions.
- Failure to adjust driving behaviour when towing a compressor.
- Improper or mis-coupling of the compressor to the hitch.
- Improper braking and steering under sway conditions.
- Not maintaining proper tyre pressure.
- Not keeping lug nuts tight.

#### Safety precautions



**The operator is expected to apply all relevant Safety precautions.**



**When towing, lifting or transporting the compressor in any way, the battery switch must always be in the “OFF” position!**

**Also switch off the preheater as this unit is directly connected to the batteries.**

## GENERAL SAFETY INSTRUCTIONS

**For coupling always drive the truck towards the compressor.**

Accidents may be caused when you allow the compressor to move towards the truck. People may get injured or killed and equipment may be damaged.

**Point out to the banksman that he should never be positioned in between the truck and compressor.**

When the banksman is in between the truck and compressor he may be run over.

**Ensure that you pay attention to the proper sequence when coupling the compressed air heads.**

If you change the sequence, the brake is released and the compressor is unbraked. Fatal accidents may occur when the compressor starts rolling.

**Prior to each trip check whether the electrics have been plugged in and whether the lights work.**

If the rear lights are not working other traffic participants cannot see any braking action. Other traffic participants cannot see the compressor in darkness. This may result in injuries or even death.

**Check the connections before each trip.**

When the air pressure is not connected, the compressor cannot brake. This may result in injuries or even death.

**Do not drive diagonally up a slope.**

When driving on slopes in an extremely slanted position the compressor may roll over.

**On coupling check whether the compressor hitch is properly locked.**

When driving and the hitch have not been coupled properly, the hitch may open during the trip resulting in the compressor being uncoupled.

The supply lines get separated and the compressor will perform an emergency stop. Accidents may be the result.

**Check the tyres in accordance with the maintenance chapter.**

Driving with faulty tyres i.e. tyres with excessive pressure may lead to blown tyres during the trip. The compressor will start swerving. Accidents may be the result.

**The national laws applicable to the maximum speed of a car and compressor combination are to be observed.**

When driving at excessive speed the compressor may start swerving and get separated or may also cause the truck to swerve. As a result people may get injured, killed or equipment may be damaged.

**Always replace damaged tow bars or towing eyes by new ones! Welding and structural modifications are not permissible.**

Repairs of the tow bar or towing eye may lead to operational failure. These components are subject to a heavy load, repaired parts will not withstand the pressure.

**Clean line filters in accordance with the maintenance instructions.**

Driving with dirty compressed air filters may result in brake system failure. Fatal accidents may be the result.

**Properly secure the wheel chocks before each trip.**

If the wheel chocks are not properly secured, they may become detached and hurled through the air during the trip. As a result of related accidents people may get injured, killed or equipment may be damaged.

**Always adjust the tow bar height to the truck's coupling height.**

When the height of the tow bar is not adjusted to the truck's coupling height, the compressor will end up in a slanted position. This may result in accidents whereby

people may get injured, killed or equipment may be damaged.

**Secure the support legs crank before each trip.**

If the crank is not secured before the trip, the stand may lower itself during the trip. As a result of related accidents people may get injured, killed or equipment may be damaged.

**When working on the electrics always disconnect the compressor's power supply from the truck.**

If the power supply is not disconnected before working on the electrics you may get injured when touching the leads.

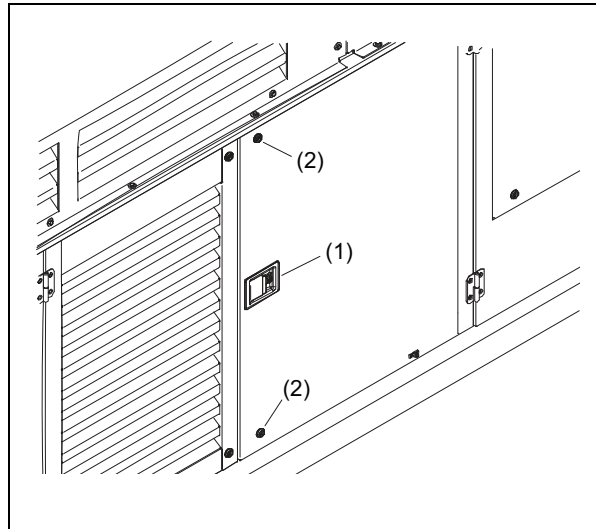
**Do not step on the tow bar.**

When stepping on the tow bar it may fold down due to the additional weight. As a result you may lose your balance and sustain injuries.

**Only operate the parking brake when it is cold.**

Using the parking brake when the brakes are overheated may create tension fields on account of different cooling down speeds which may cause damage to the brake discs.

**HIGH SPEED EU TANDEM**



**Specific safety instructions for units with high speed EU tandem undercarriages.**

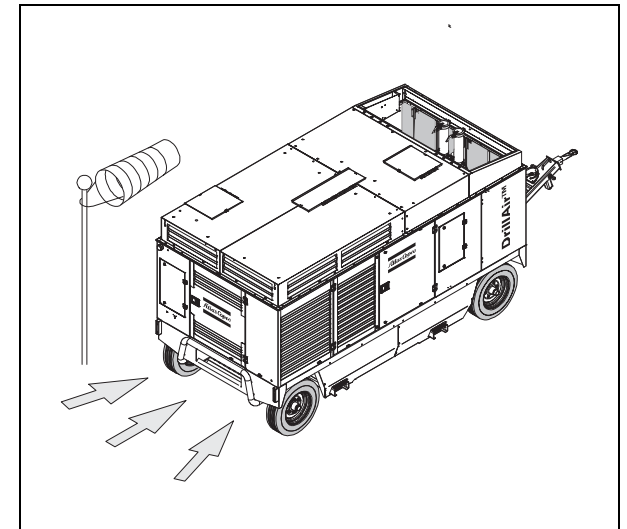


**It must be ensured that the brake system of the unit matches the brake system of the towing vehicle. Have the brake system of the combination (unit-towing vehicle) checked by a certified truck center.**



**When transporting a high speed EU tandem unit hooked up with a truck, be sure to have all doors locked with the key locks (1) as well as the additional door locks (2).**

**PARKING INSTRUCTIONS**

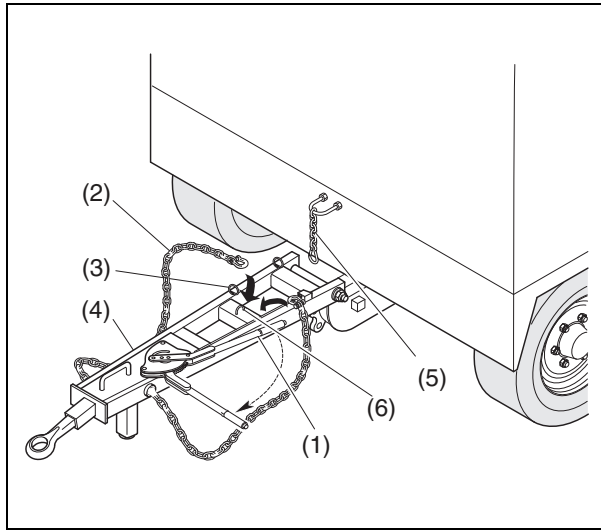


Locate the rear-end of the compressor upwind, away from contaminated wind-streams and walls. Do not obstruct air evacuation from the cooling system. Avoid recirculation of exhaust air from the engine. This can cause overheating and engine power decrease.

**Inspection schedule for Undercarriage EU**

Inspection includes regular checks of individual components and related action based on these checks. Lubricating individual components is also part of regular

## WAGON



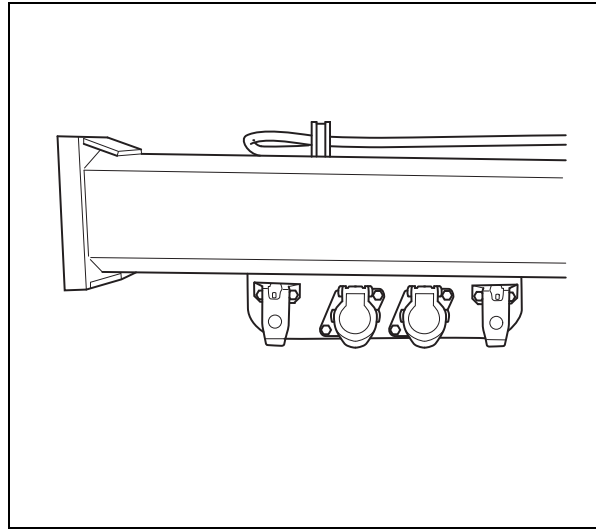
Uncouple vehicle.

Apply parking brake by moving the lever (1) in the direction of the arrow.

Connect the safety chain (2) to the eyes (3) on the towbar (4). You can move the towbar (4) upwards and secure it by connecting the chain (5) to the eye (6).

Place the compressor as level as possible; however, it can be operated temporarily in an out-of-level position not exceeding 15°. If the compressor is parked on sloping ground, immobilize the compressor by placing wheel chocks (available as option) in front of or behind the wheels.

## TANDEM EU

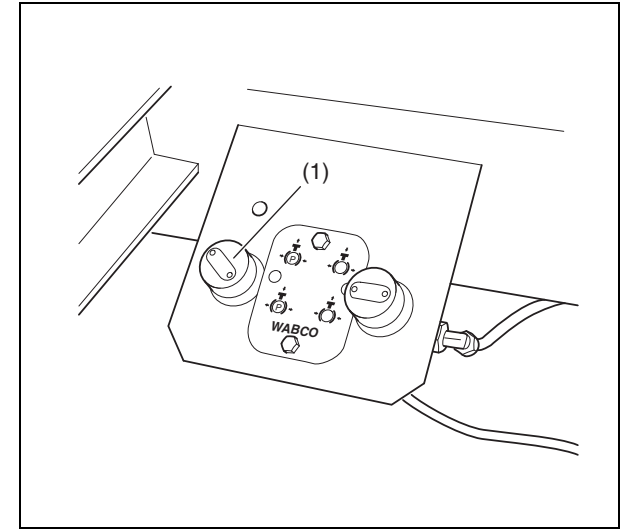


When removing the compressed air hoses, the compressor's service brake is activated automatically. Please pay attention to the sequence in which you disconnect the air lines.

1. Release the compressed air hose for the truck's feed line (red).
2. Release the compressed air hose for the truck's control (yellow).

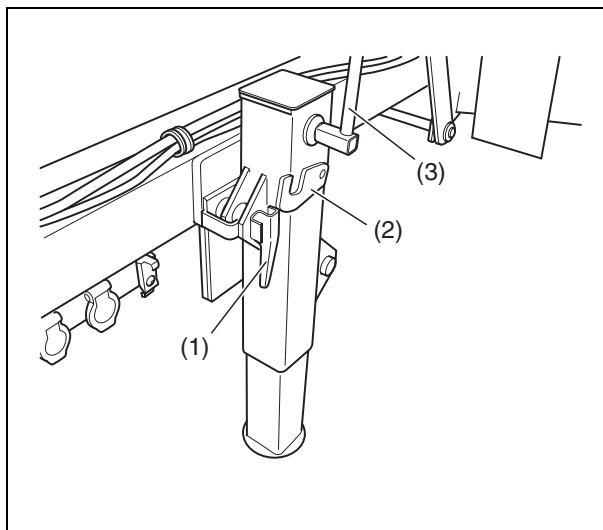
Mount the coupling heads on the brackets on the towbar. For that purpose position the coupling's head with its hole on the button. Turn the coupling's head anticlockwise as far as it will go.

Unplug the ABS and electric plugs. Plug these into the towbar mountings.



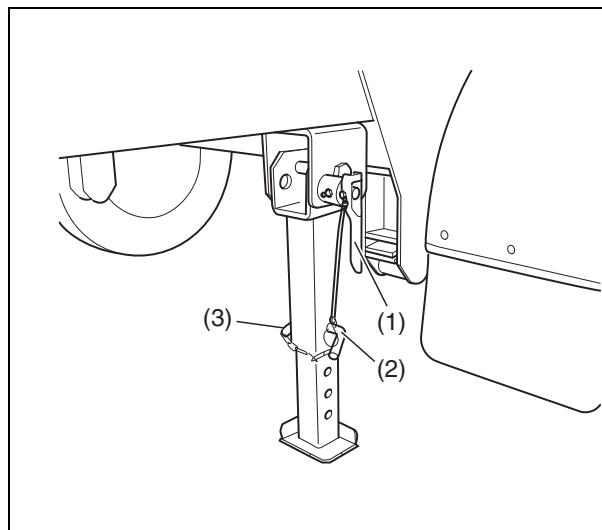
**Only operate the parking brake when it is cold.**

**Using the parking brake when the brakes are overheated may create tension fields on account of different cooling down speeds which may cause damage to the brake discs. High temperatures may result in the brake pads getting stuck. Subsequent release of the brakes may result in the brake pads being ripped off.**



Release the support lock (1), turn the support leg vertically and secure it.

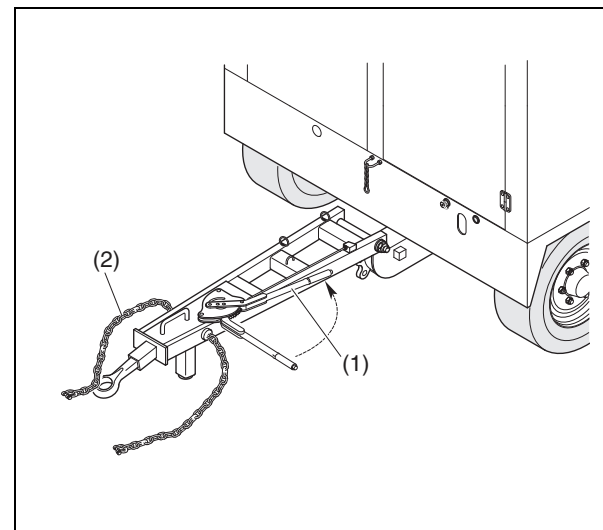
Undo the latch (2) and lower the support leg using the crank (3). Lock the crank with the latch.



Release the support lock (1), turn the support leg vertically and secure it.

Take out the locking pin (2) and lower the support leg as far as possible. Lock the support leg with the pin and secure it with the hairpin spring (3).

## TOWING INSTRUCTIONS



**Before towing the compressor, ensure that the towing equipment of the vehicle matches the towing eye. The height of the towing device of the vehicle must be 815 - 845 mm (31.8 - 33 in).**

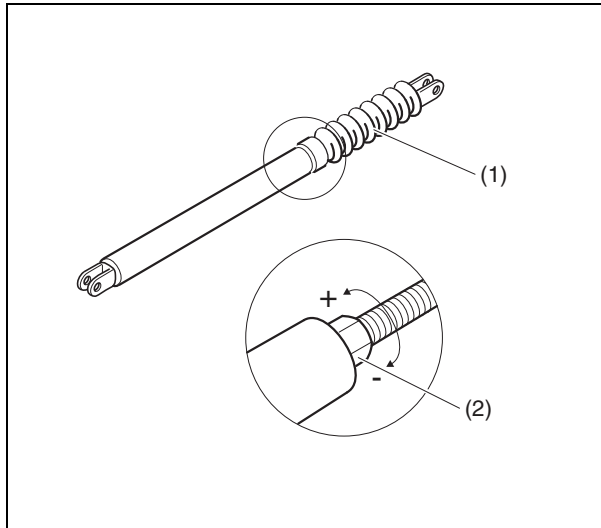
1. Attach the compressor to the towing vehicle.
2. Move hand brake lever (1) in the direction of the arrow till stop and connect the breakaway chain (2) to the towing vehicle.

Never move the compressor with air hoses connected to the air outlet valves.



**Before moving the compressor, switch it off.**

## WAGON



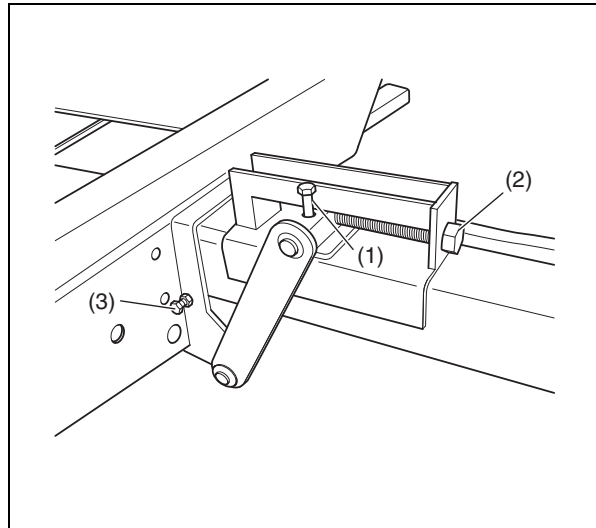
*Towbar levelling*

The towbar of the wagon is equipped with an adjustable spring loaded levelling device.

To adjust:

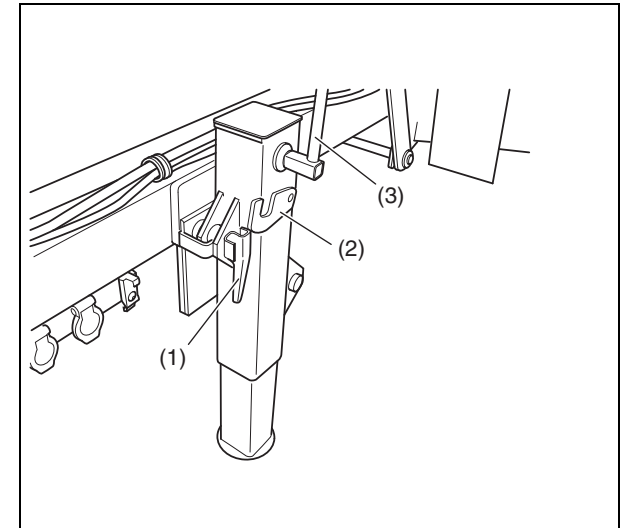
1. Slide back the rubber bellows (1).
2. Turn the nut (2) clockwise to increase the spring load for lifting the towbar; turn the nut (2) counter clockwise to decrease the spring load for lowering the towbar.
3. Slide the bellows (1) over the nut.

## TANDEM EU



**Before towing the compressor, ensure that the towing equipment of the vehicle matches the towing eye.**

Adjust the height of the towing eye if necessary. Loosen the bolts (1) and (3). Adjust the height of the towing eye by turning bolt (2). After adjusting fasten bolts (1) and (3).

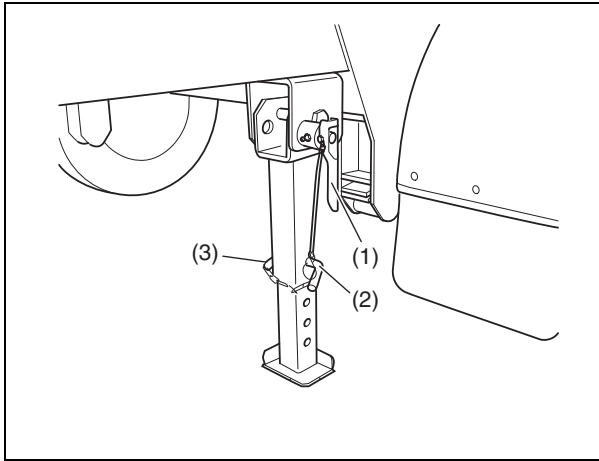


**Ensure that the support leg has been fully raised, and folded upwards prior to each trip. Always secure the crank before each trip.**

When driving without the support leg being completely cranked and raised, the support leg may be ripped off or the crank may become detached and hurled through the air. As a result people may get injured, killed or equipment may be damaged.

After coupling the compressor to the towing vehicle, pull the handbrake of the towing vehicle.

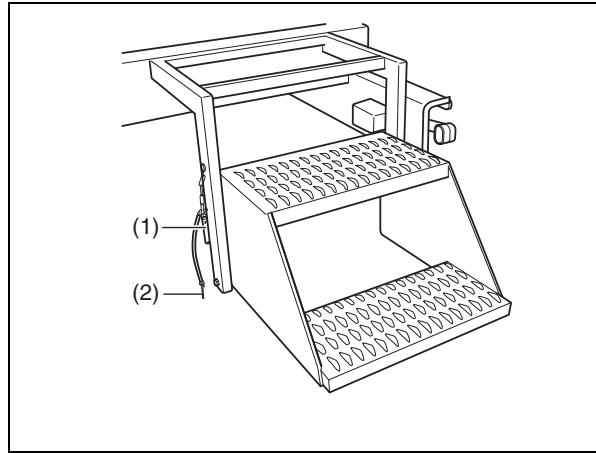
Check whether the compressor has been coupled properly. Undo latch (2) and using the crank (3) raise the support leg. Lock the crank with the latch (2). Release the support lock (1) and turn the support leg in a horizontal position. Secure the support leg with the lock.



**Ensure that the support leg has been fully raised, and folded upwards prior to each trip.**

When driving without the support leg being completely raised, the support leg may be ripped off and hurled through the air. As a result people may get injured, killed or equipment may be damaged.

Remove hairpin spring (3) and take out the pin (2). Slide the leg extension upwards as far as possible and lock it with the pin (2). Secure the pin with the hairpin spring. Release the support lock (1), turn the support leg upwards and secure it in horizontal position with the support lock.



**Ensure that the ladder leg has been fully folded up and secured prior to each trip.**

When driving without the ladder being completely raised, the ladder may be ripped off and hurled through the air. As a result people may get injured, killed or equipment may be damaged.

Fold the ladder upwards and lock it with the pin (1). Secure the pin with the hairpin spring (2).

## Coupling the compressor

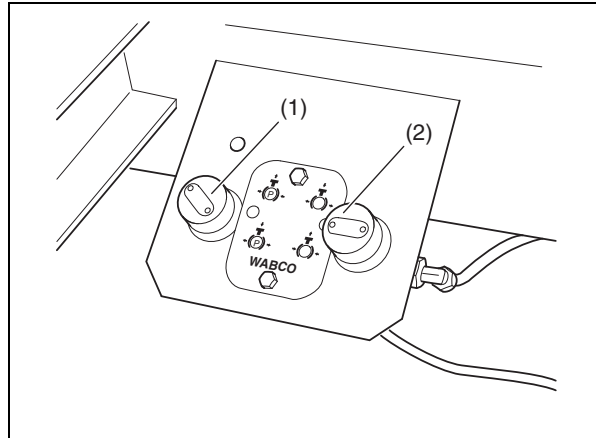
Now connect the compressor's connections to the vehicle. Follow the correct sequence when making the connections.

1. First connect the power supply and the compressor's ABS plug to your vehicle. Secure these by fitting the locking bracket.
2. Clean the sealing surfaces and sealing rings of the coupling's compressed air heads using a clean cloth. Clean these both on the truck and compressor.
3. Connect the compressed air line for the control (yellow).
4. Connect the compressed air line for the feed line (red).

Check whether the connections between the compressor and truck are all properly connected and closed. Remove the wheel chocks from underneath the tyres.

Put these in their designated brackets.

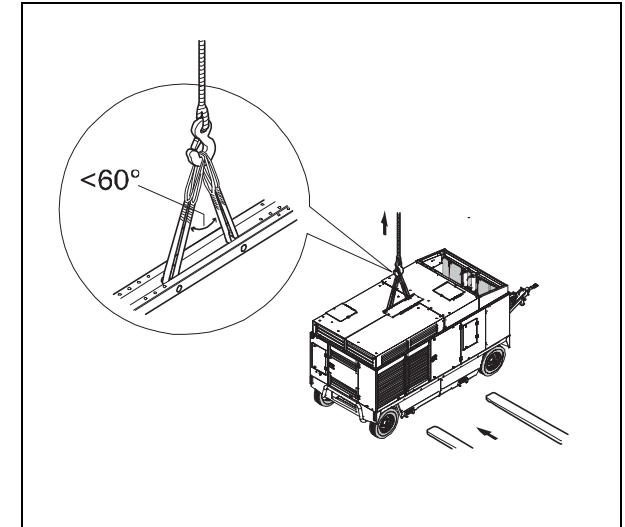
Release the spindle parking brake.



### Check the following before each trip:

- Security of the wheel chocks.
- Plug and socket connections for electrics and compressed air.
- Functioning of light system.
- Functioning of brake system.
- Has the compressor been coupled properly?
- Have the support legs been raised.
- Is the release valve of the service brake (Button (1) pressed) closed?
- Is the parking brake released (Button (2) pressed)?
- Is the ladder folded in properly?

## LIFTING INSTRUCTIONS



To lift the compressor, use a lift truck or crane with sufficient capacity (weight: see indication on **Dataplate**). See to it that the compressor will be lifted vertically and remains level.



**Lifting acceleration and retardation must be kept within safe limits (max.2xg).**

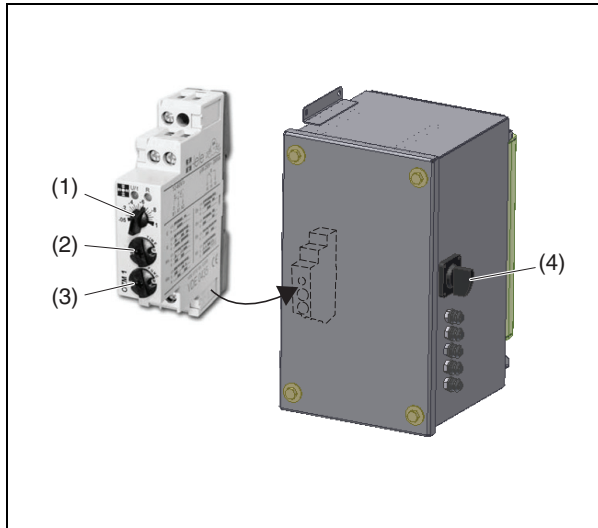
**Helicopter lifting is not allowed.**

**Lifting is not allowed when the unit is running.**

**When hoisting, the apex angle of the hoisting sling is not to exceed a maximum of  $60^\circ$ .**



## INTERNAL LIGHTING



The internal lighting circuit is equipped with a timer. When the internal lighting is switched on with switch (4), the timer is started. After a preset time the internal light will be switched off automatically.

The timer is set by choosing a range with button (2) (default: 1 h) and setting a factor with button (1) (default: 0,2). This results in a lighting time of 12 minutes.



**Do not change the setting of button (3).**

## PREHEATER (OPTION)



**Before performing any maintenance jobs always switch off the preheater and remove the fuse or disconnect the heater from the battery.**

## DESCRIPTION HEATING OPERATION

When switched on the signal lamp in the mini-clock control element is lit. The waterpump starts and after a fixed programme with prerinsing and preheating, combustion air fan, glow plug and fuel dosing pump set combustion going. Once a stable flame has formed, the glow plug is switched off by a timer.

Depending on the heat requirement, the heater will switch between three levels, LARGE, SMALL and OFF (control interval). The temperature thresholds have been fixed programmed in the electronic control device. If the heat requirement at level SMALL is so low that the cooling water temperature reaches 85°C (185°F), the device goes into control interval. This is followed by the fan continuing to run for about 130 sec. The signal lamp will stay lit during the control interval and also the water pump continues to run.

If the heater does not ignite within 90 seconds after fuel pumping has started, the start procedure must be repeated. If the heater once again fails to ignite after 90 seconds a fault shut down is effected.

It is possible to override a fault shut-down by briefly switching the heater off and then on again.



**Do not repeat this more than twice in succession!**

When an emergency stop has to be performed:

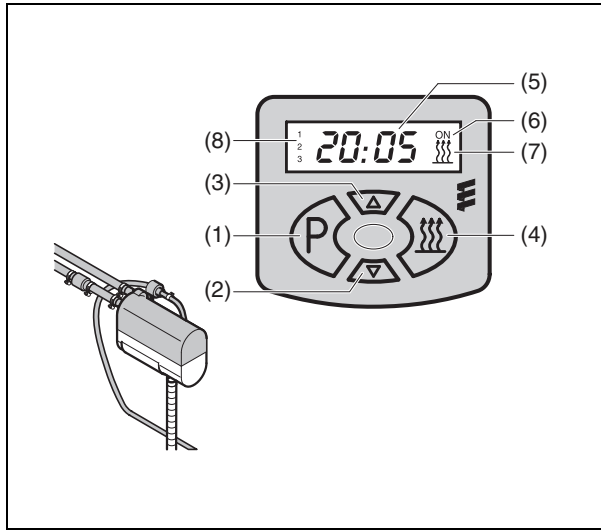
- Switch off the preheater at the control element.
- Remove the fuse or disconnect the heater from the battery.

### **Safety procedure before starting after a longer period of standstill**

- Check whether the fuse is in its place and / or the wiring is connected to the battery.
- Check if all parts are firmly fixed.
- Check the fuel system visually on leaks.

### **Preheater altitude capability**

- Up to 1,500 meters: no restrictions.
- Above 1,500 meters:  
Operation possible for short periods  
Continuous operation NOT possible



Reference	Name
1	Button Mode
2	Button Time down
3	Button Time up
4	Button ON/OFF select pre-set time
5	Time, pre-set time and heating time
6	Symbol pre-set time is active
7	Symbol heating ON
8	Symbol pre-set time 1, 2 or 3

## General

- When no button is pressed the display will return to its default mode - normal time display.
- When setting the time, holding the buttons (2) or (3) pressed, the time will change more rapidly.
- With this mini-clock you can set and activate three pre-set times. Each pre-set time is deactivated after the set heating period has ended. It has to be activated again for each new heating action.

## Settings

### Commissioning

- After connecting the power all symbols in the display will blink. Now the actual time has to be set before the heater can be operated.
- Press button (1); time blinks. Set time with buttons (2) or (3).
- Press button (1); time is displayed, colon blinks.

### Setting the time

- Press button (1) longer than 3 sec.; time blinks. Set with buttons (2) or (3). Briefly press button (1); time is displayed, colon blinks.



**If you do not press the button within 5 seconds the mode is changed to “setting heating period”.**

### Setting the time

- Press button (1) longer than 3 sec.; time blinks. Wait till the display indicates “setting heating period”; heating symbol and time blink. Set heating period (10 to 120 min) using button (2) or (3). Press button (1); time is displayed, colon blinks.

## Setting pre-settings

- By pressing button (1) once, twice or three times you will select pre-set time 1, 2 or 3.
- The display shows e.g. pre-set time 1 and symbol 1. Set the pre-set period with buttons (2) or (3).
- With button (4) you can activate or deactivate the pre-set period. When activated the symbol “ON” appears and the symbol "1, 2 or 3".

## Operation



**The preheating time at -25°C is about 90 minutes.**

### Switching ON the heater

- Press button (4). The heating period lasts minutes. The display shows: remaining heating time and symbol 7.

### Switching OFF the heater

- Press button (4). The heater will run idle for about 3 minutes. The display shows: actual time.

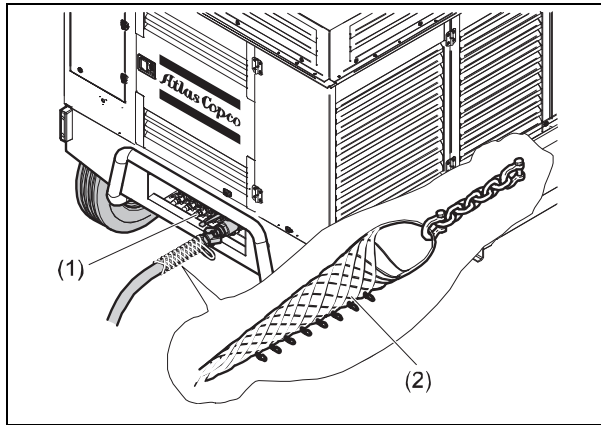
### Continuous operation

- Press and hold button (3), then press button (4); now the heater will be operating till button (4) (heater off) is pressed.

### Activating/ deactivating pre-set time

- Select pre-set time 1, 2 or 3 by pressing button (1).
- Activate the selected time by pressing button (4).
- The display shows: symbol "ON" as well as the selected pre-set time, "1, 2 or 3".

## BEFORE STARTING



1. Before initial start-up, prepare battery for operation if not already done. See section **Recharging a battery**.
2. Check that the draining caps in the spillage-free frame are firmly tightened.
3. With the compressor standing level, check the level of the engine oil. Add oil, if necessary, up to the upper mark on the dipstick. Also check the engine coolant level. Consult the Engine Operation Manual for the type of coolant and type and viscosity grade of the engine oil.
4. Remove the air receiver drain plug (1), see figure, and open the valve to drain possible condensate. Close the valve when oil comes out and reinstall the drain plug. The interval between draining operations may be determined by experience, as the amount of condensate depends on the operating condition.



**Before draining, ensure that the pressure is released.**

5. Check the level of the compressor oil. See section **Check compressor oil level**. The pointer of oil level gauge (OLG) should register in the green range. Add oil if necessary. See section **Compressor oil** for the oil to be used.



**Before removing oil filler plug (FP), ensure that pressure is released by opening an air outlet valve.**

6. Check that the fuel tank contains sufficient fuel. Top up, if necessary. Consult the Engine Operation Manual for the type of fuel.



**Make sure the unit is a level position not exceeding 8° before refueling.**

7. Drain any water and sediment from the fuel filters until clean fuel flows from the drain cock.
8. Empty the dust trap of each air filter (AF). See section **Replacing the filter element and the safety cartridge**.
9. Clogged air filter(s) will be indicated on the display of the control panel, see section **Fault codes**. If indicated, replace the filter elements.
10. Check coolant level in engine coolant top tank integrated in radiator. Top up, if necessary. Consult the Engine Operation Manual for coolant specifications.
11. Attach the air line(s) to the closed air outlet valve(s).
12. Use hoses with suitable pressure rating and fit for the environmental conditions. Always install the pull relief (2), see figure. Inspect hoses and connections daily.



**No external force may be applied to the air outlet valve(s), e.g. by pulling hoses or by connecting equipment directly to the valve(s).**

13. Select fuel supply mode.



**Do not switch the fuel selecting lever when the unit is in operation!**

- Internal supply.  
Move the lever of the fuel selection supply valve upwards.
- External supply.  
Connect the supply and return hose to the fuel nipples at the fuel funnel. Move the lever of the fuel selection supply valve downwards.

# Starting / Stopping

## Safety precautions



Do not disconnect power supply to control box in any way when the control box is switched on. This will cause memory loss.

Do not switch off the circuit breaker when the control box is switched on. This will cause memory loss.

## BATTERY SWITCH

The compressor is equipped with a battery switch.

When the compressor is not in use this switch must always be switched off.

It is not allowed to use the battery switch as an emergency switch or for stopping the compressor.



There is a risk of damaging the control unit when using the battery switch for stopping.

There is also a risk of post boiling and damage to the turbocharger if the engine is switched off without the normal cooldown procedure.

Always first shut off the control unit and wait until the display is dark before switching the battery switch off.



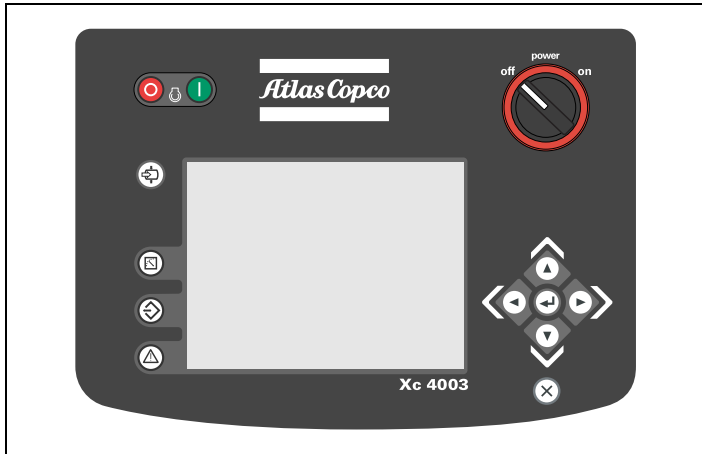
" In specific situations, long period of high load, high altitude,... the SCR system must run for a while after the engine has been switched off to allow it to cool down. The controller monitors if there is a need for cooling down and is kept alive during cooling down until it is safe to switch off the battery switch.




" The battery voltage must remain on for a few seconds after the engine has been switched off so the control units can store values. After 10 prohibited engine shut downs the controller will switch to torque reduction.










Please be aware that the (optional) preheater unit and fire suppression system (optional) are still "live" with the battery switch switched off.

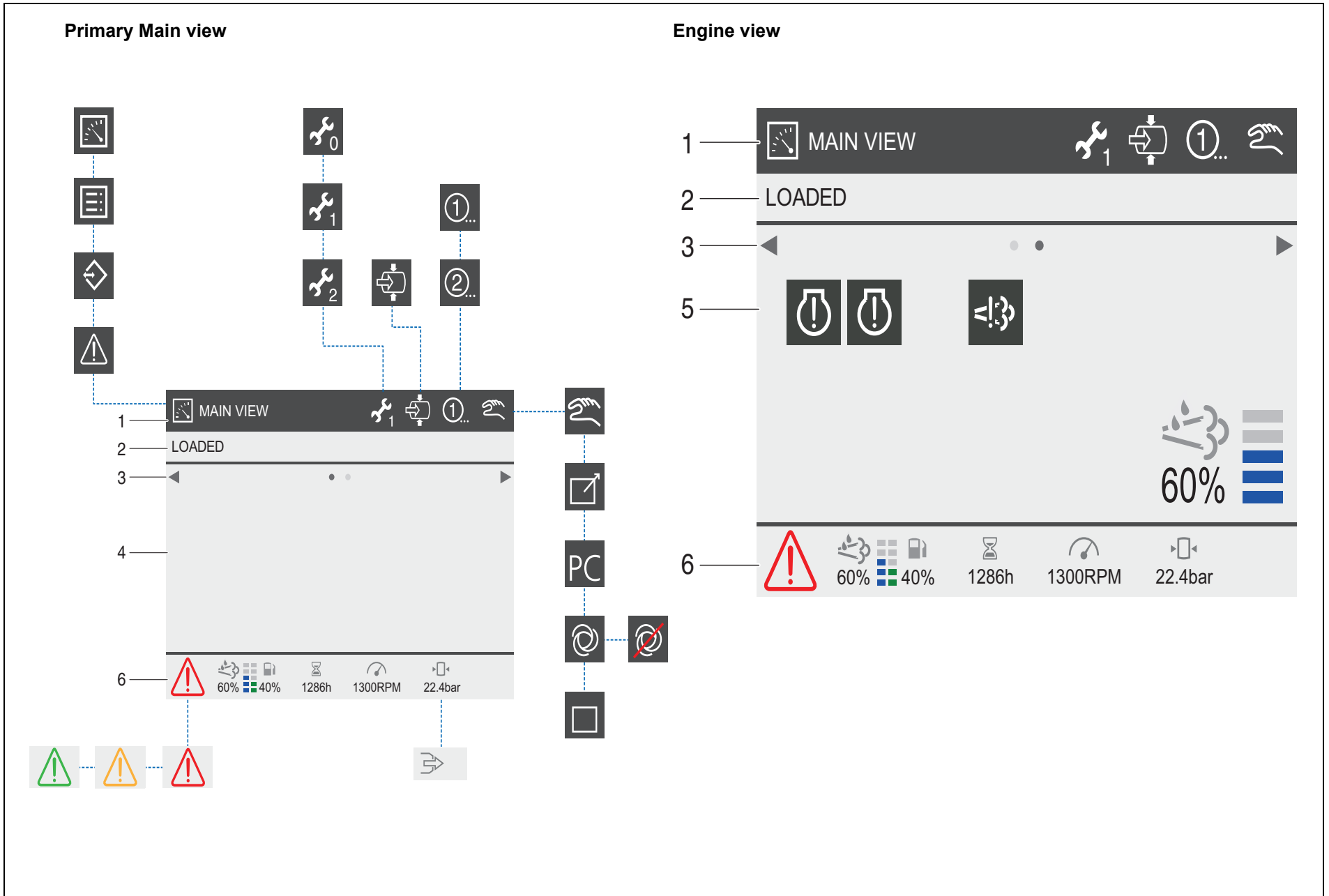
## CONTROL PANEL

















Reference	Name
	Power off / on switch To switch the control panel on and off.
	Start button Pressing this button will start the compressor.
	Stop button Pressing this button will stop the compressor in a controlled way.




Reference	Name
	Load button. Pressing this button will: " initiate the Auto Load function, or commands the compressor to load (depending on actual status). " command the compressor to switch to Not Loaded (when in Load).
	Measurements View button By pressing this button you can toggle between Measurements View and Main View.
	Settings View button By pressing this button you can toggle between Settings View and Main View.
	Alarms View button By pressing this button you can toggle between Alarms View and Main View.
	Navigation buttons These buttons are used to navigate through the display menu's.
	Enter button Confirms/stores the selection/change.
	Back button Moves back one level or ignores the change.









# OVERVIEW ICONS







Reference	Name
1	View, Overhaul, Auto load, Preset and Active operation mode indication
2	Active compressor status
3	Navigation, toggle between main view and engine view
4	Vessel pressure indication or information text
5	Engine information
6	Alarm indication and compressor information
	Main view indication
	Measuring view indication
	Settings view indication
	Alarm view indication
	Maintenance 0 = Initial Overhaul required. 1 = Minor Overhaul required. 2 = Major Overhaul required.

Reference	Name
	Auto Load This icon appears if the Auto Load functionality is enabled, or by means of a parameter setting, or by means of pressing the Load button before the machine is ready to be loaded.
	Preset Depending of which Pressure setting is active, the controller will show its dedicated icon.
	
	Operation Mode Local
	Operation Mode Remote
	Operation Mode PC Control
	Operation Mode Automatic
	Operation Mode Automatic Mode is active, but the Auto Start and Auto Stop function are both inactive.
	Operation Mode Block Mode

Reference	Name
	Engine monitoring is on.
	Diesel exhaust fluid (AdBlue) system monitoring is on.
	Diesel exhaust fluid (AdBlue) tank level The level is indicated for 5 minutes after starting.

Reference	Name
	Active & not-acknowledged Shutdown Alarm.
	Active & not-acknowledged Non-Shutdown Alarm.
	Active & acknowledged Alarm.
	Fuel tank level
	Running hours
	Engine RPM
	Vessel pressure
	Flow

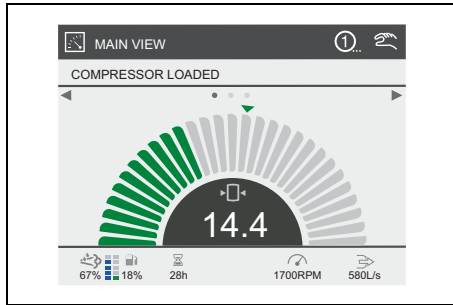
Reference	Name
	Engine warning lamp - amber Steady on: low alarm Flashing slow: medium alarm Flashing fast: high alarm
	Engine shutdown lamp - red Steady on: low alarm Flashing slow: medium alarm Flashing fast: high alarm
	Diesel exhaust fluid (AdBlue) level low lamp Steady on: level is low Flashing: level is very low.
	Engine emission system malfunction lamp Steady on: minor SCR fault Flashing: major SCR fault



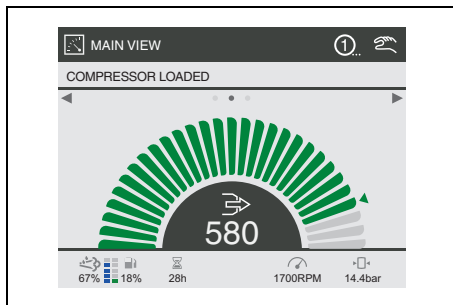
## POSSIBLE VIEWS

There are 3 Main view screens: pressure control screen, flow control screen and engine screen. You can switch between these screens by using the arrow buttons right/left.

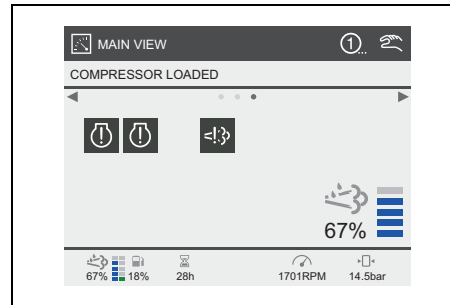
### Pressure control screen



### Flow control screen



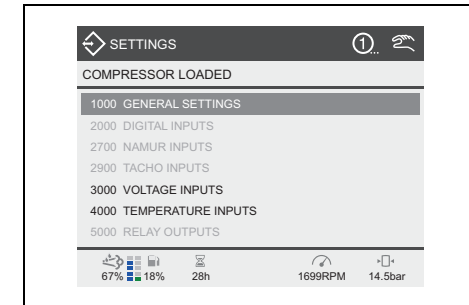
## Engine screen



Main view is the default view. In the main view the operator can view the most important information on the actual compressor operation, like:

- " Active Sequence
- " Vessel pressure
- " Engine rpm
- " Fuel level
- " Running hours
- " Alarm indication
- " Operation mode
- " Pre-set indication
- " Auto load indication
- " Overhaul indication
- " Diesel exhaust fluid (AdBlue) indication

## Settings View



In the settings view the operator can view and change (depending on the authorisation level) various parameters.

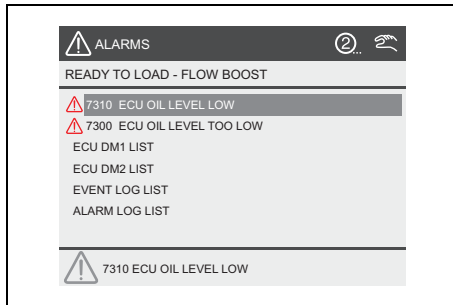
Use the up and down navigation buttons to scroll through the full list of settings.

Use the enter button to enter the selected submenu.

Use the back button to leave the entered (sub)menu.

Menus that are not accessible are grey'd out.

## Alarm View

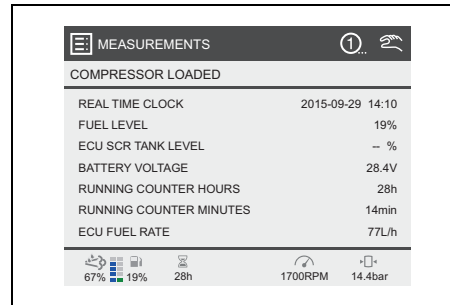


In the alarm view the operator can view the various alarms, actual and history.

Use the up and down navigation buttons to scroll through the full list of alarms.

- " General Alarms
- " Alarm Log
- " DM1 List
- " Event Log
- " DM2 List

## Measurements View



In the measurements view the operator can view up to 100 measured values (depending on the authorisation level).

Use the up and down navigation buttons to scroll through the full list of measurements.

- " Clock
- " Fuel level
- " Battery voltage
- " Running hours
- " Vessel pressure
- " Regulating pressure
- " Emergency stop count
- " Loaded hours
- " Unloaded hours

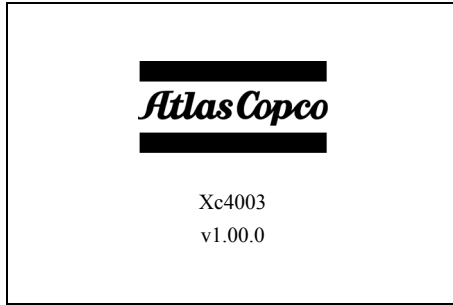
- " Job hours
- " Job loaded hours
- " Average fuel consumption
- " To next minor overhaul days
- " To next minor overhaul hour
- " To next major overhaul days
- " To next major overhaul hour
- " Application version
- " Diesel exhaust fluid (AdBlue) tank level
- " Fuel rate
- " Engine coolant temperature
- " Engine fuel temperature
- " Diesel exhaust fluid (AdBlue) tank temperature
- " Engine oil temperature
- " Engine inlet temperature
- " Engine boost pressure
- " Engine load
- " Engine rpm
- " Rpm setpoint
- " Ambient temperature

## STARTING

Switch on the battery switch.

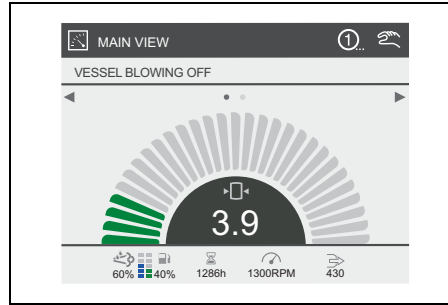
Switch the controller on by switching on the Power button.

The instrument panel will now perform a selftest; the following display will be shown and the controller is initialized:



During initializing all buttons/inputs/outputs/alarms are inactive.

This view will be shown for about 2 seconds, after which the display will show the Main View.



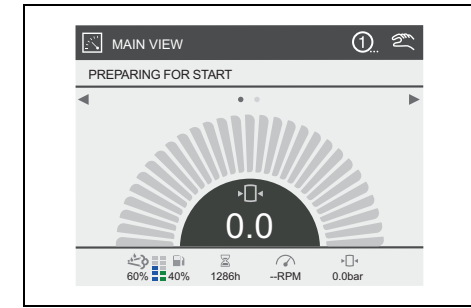
The actual vessel pressure is shown. If the measured vessel pressure is higher than 1.5 bar (typical value), the unit will not start. The vessel pressure has to be lowered by opening the blow down valve. After power up, the vessel pressure normally is low enough to proceed with the starting procedure.



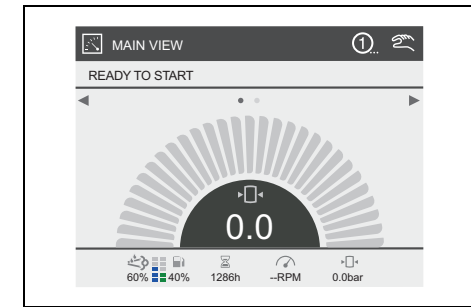
**If the Power button is switched to switch off while the vessel is blowing down, it will not power down for as long as the vessel pressure is higher than 1.5 bar.**



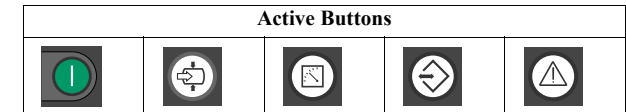
After a start command is given the display will change to



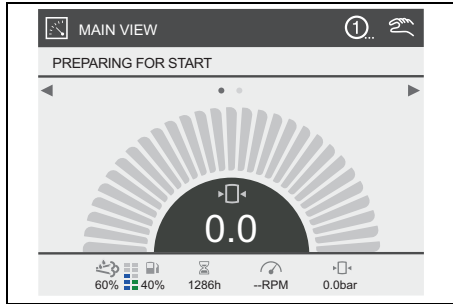
followed by



The machine is now ready to be started and is waiting for a start command.

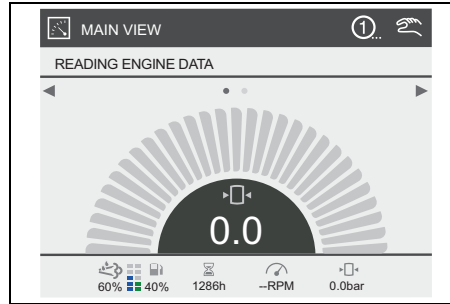


The display will change to



After pressing the Start button the machine will activate its horn and flasher light for 3 seconds (typical value), to notify that it will start.

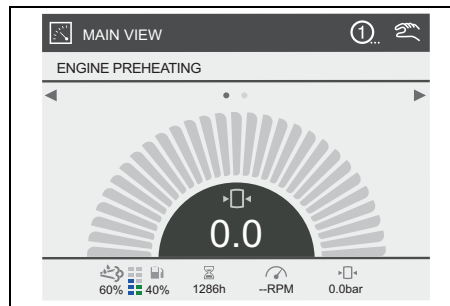
The display will change to



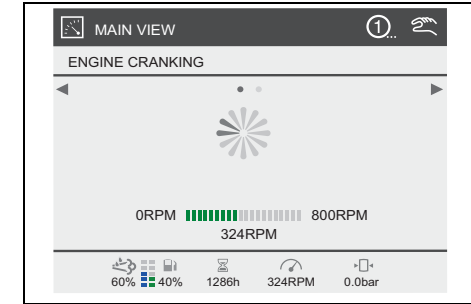
The engine electronics (ECU) will be powered up.

As soon as communication between compressor controller and engine controller is established, the machine will preheat according to the parameters of the engine controller.

When preheat is enabled/needed the display will change to



The engine starts cranking, the display shows

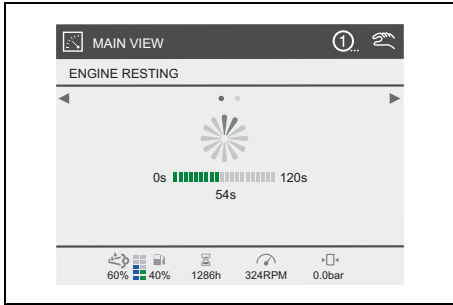


The engine cranks until 800 rpm is reached.

If 800 rpm is not reached within 30 seconds, the starting procedure is cancelled and the engine will rest for some time. (Resting time depends on cranking time).



The display now shows

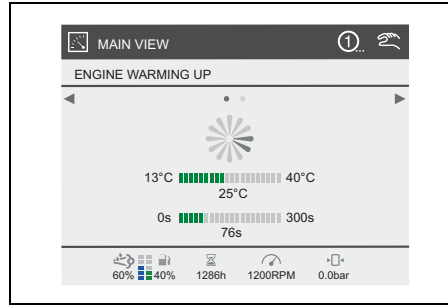


After expiry of the engine resting time a new cranking sequence will start.

Max. starting attempts is 10.

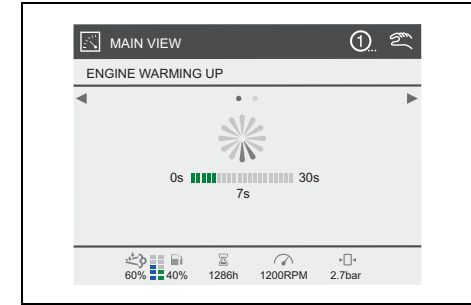
The max. number of starting attempts is machine dependent.

The engine starts running at idle speed. The display shows

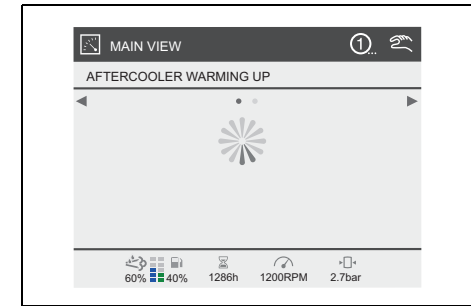


The engine will run at minimum rpm, until the engine's coolant temperature reaches 40°C, with a minimum time of 30 seconds and a maximum time of 300 seconds.

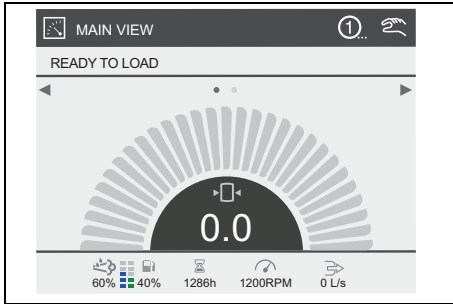
When warming up temperature is reached within 30 seconds the display will show



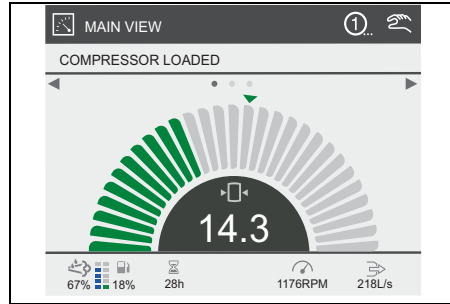
Due to ambient temperature the following screen may appear



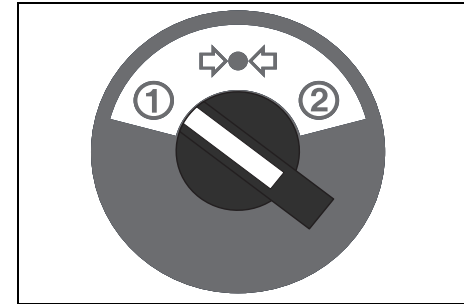
After warming up the machine is ready to be loaded and is waiting for a load command; the display shows



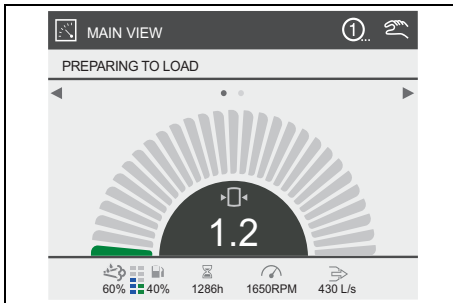
While loading the following display is shown (default display)



**Choose the preset pressure**



Press the load button, the display will show

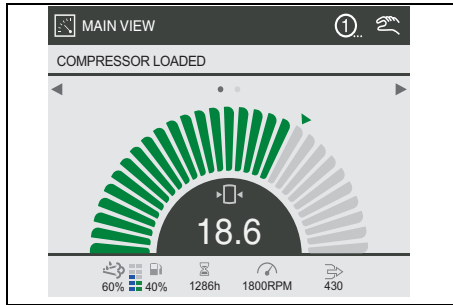


The AirXpert system allows to preset two different pressures. The preset pressure values can be set via the compressor control module and selected by a switch at the right hand side of the compressor.

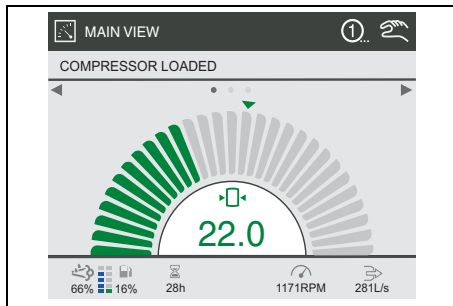
The selected preset pressure will be indicated on the display by ① or ②.

## Set the Pressure Setpoint

When the controller shows the pressure control screen



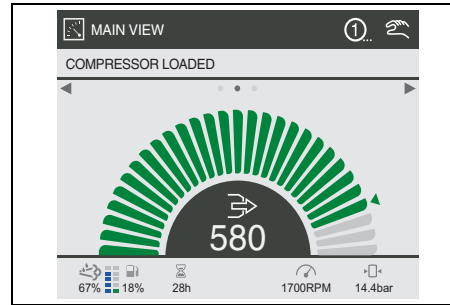
press ENTER for 2 seconds, and the middle section becomes white (setting can be edited)



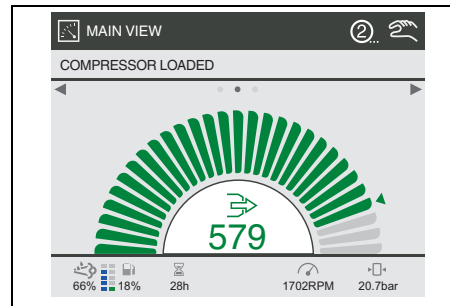
Press the UP/DOWN arrows to set the requested pressure.  
Press ENTER to confirm the new setting. The middle section turns black showing the new setting.  
Press *f* to leave edit mode.

## Set the Flow Setpoint

When the controller shows the flow control screen



press ENTER for 2 seconds, and the middle section becomes white (setting can be edited)



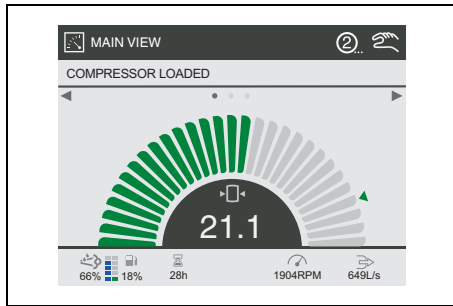
Press the UP/DOWN arrows to set the requested flow.  
Press ENTER to confirm the new setting. The middle section turns black showing the new setting.  
Press *f* to leave edit mode.



**Left and right do not have functions in this screens.**

## Enabling / disabling Dynamic Flow boost (option)

When the controller shows the pressure control screen and the DFB is off

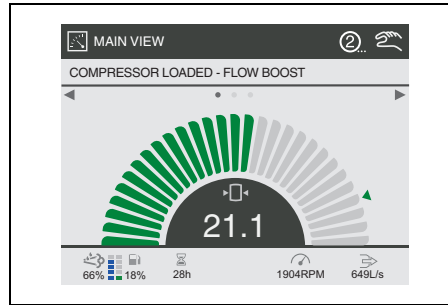


Press the navigation button up or down.

The text “Enable dynamic flow boost?” appears in the middle of the screen. Press Enter to acknowledge or *f* to cancel.

No acknowledgement after 5seconds automatically cancels the action.

The display now shows:



Disabling Dynamic flow boost is done in a similar way as enabling.



## During operation



The doors must be closed during operation and may be opened for short periods for inspection and adjustments only.



Be aware not to touch hot parts when the door is open.



When the engine is running, the air outlet valves (ball valves) must always be in a fully opened or fully closed position.



The bypass valve of the aftercooler may only be used in fully open or fully closed position.

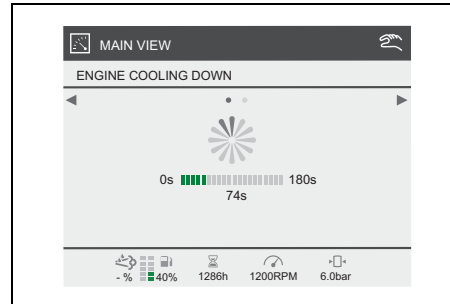
The bypass valve of the aftercooler may NOT be used in an intermediate position.

## Regularly carry out following checks:

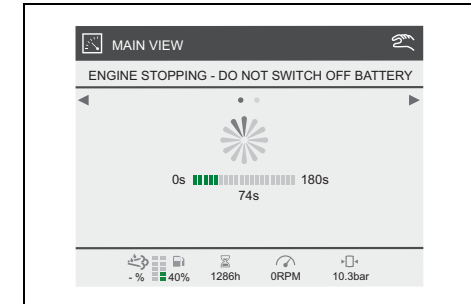
1. Check all measurement views for normal readings.
2. Avoid the engine running out of fuel. Nevertheless, if this happens, fill the fuel tank and prime the fuel system to speed up starting.

## STOPPING

After pressing the Stop button the display will show:



After cooling down the engine the controller does some final checks and the display will show

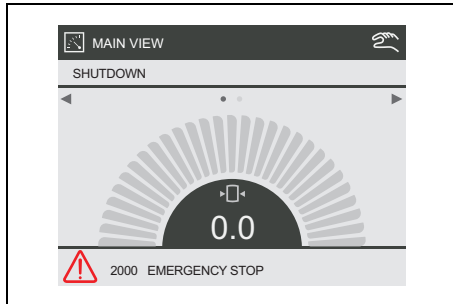


### Important !

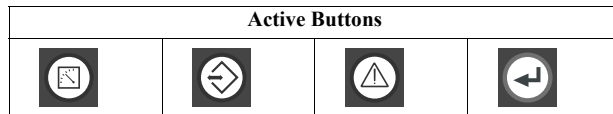
There is a risk of post boiling and damage to the turbocharger if the engine is switched off without cooling.

## SHUTDOWN

When the machine is shutdown due to a critical alarm or an emergency stop the display will show



The ENTER button has to be pressed to acknowledge the shown alarm and to be able to proceed.



## POWER OFF

Switch the controller off by switching the power switch off.

The compressor is equipped with a battery switch.

When the compressor is not in use, this switch must always be switched off.

It is not allowed to use this switch as an emergency switch or for stopping the compressor.

It can damage the controller or the engine's Electronic Control Unit when using the battery switch for stopping.

Always first shut off the controller and wait until the display is dark before switching the battery switch off.

## EMISSION CONTROL

The emission controller monitors the operation. The controller issues a warning if faults occur on the SCR system or if the reductant level in the tank is too low. In the case of some faults, for example if the cooling of the dosing is not working, the torque is reduced.

## REACTIONS

If a fault occurs within 40 hours of operation since the previous fault, the warning lamp will come on.


After 30 minutes of operation after detection of the fault, the warning lamp will flash rapidly and torque will be reduced to 0% (low idling) within 30 minutes.




**If the torque has been reduced to 0% (low idling), the engine control unit does not detect that the SCR system is functioning again.**

**A service technician must then reset the system so that the torque returns to the normal level.**

## REACTION AT LOW DIESEL EXHAUST FLUID (ADBLUE) LEVEL

	Diesel exhaust fluid (AdBlue) level	Reaction
	20%	Warning lamp is constantly lit.
	10%	Warning lamp flashes. Torque is reduced by 1% per minute to 70% of the maximum torque. The engine resumes normal torque after diesel exhaust fluid (AdBlue) has been filled to a level of at least 20%.
	0%	Warning lamp flashes rapidly. Torque is reduced to 0% (low idling) within 2-10 minutes.

## REACTION AT FAULTS IN THE SCR SYSTEM

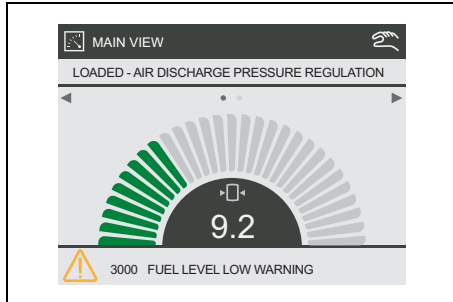
	Incident	Reaction
	Fault detected	Warning lamp is constantly lit.
	30 minutes after fault detection	Warning lamp flashes. Torque is reduced by 1% per minute to 70% of the maximum torque. Once the fault has been remedied and the engine control unit has received an indication that it is working, torque returns to the normal level.
	4 hours after fault detection	Warning lamp flashes rapidly. Torque is reduced to 0% (low idling) within 2-10 minutes.

## SETTINGS

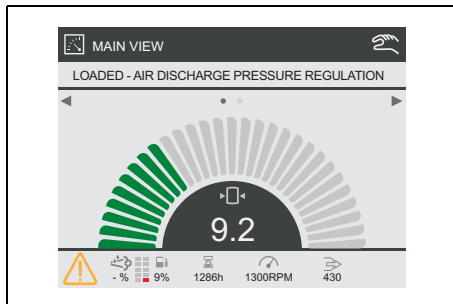
For buttons to be used see section Control panel.

### Acknowledge an Alarm

If an alarm becomes active, for example a Low Fuel Level Warning:



then this alarm can be acknowledged by pressing the Enter button. If the fuel level is still low, the view will change to:



As soon as the fuel level is higher than the warning level, the alarm icon will automatically disappear.

As long as there is an alarm icon in the bottom part of the view, all active acknowledged / un-acknowledged alarms can be seen by pressing the Alarm View button.

Pressing the Alarm View button again, will bring you back to the Main View.

### Set Clock

Press the Settings View button

- " scroll to 1000 GENERAL SETTINGS
- " press Enter
- " scroll to 1290 DATE/TIME
- " Enter the DATE/TIME menu
- " scroll to the parameter you want to change
- " Enter this parameter.

To change the 'RTC Month', scroll to the preferred month and press Enter.

To change any other RTC setting, the red figure is editable.

Scroll up/down and press Enter to change. Use left/right to shift between editable figures.

Now press BACK until you're back in the Main View (or in the menu you require).

### **Set Language**

Press the Settings View button

- " scroll to 1000 GENERAL SETTINGS
- " press Enter
- " scroll to 1300 LANGUAGES
- " Enter the LANGUAGES menu
- " Enter the SETTINGS parameter
- " scroll to the preferred language
- " press Enter.

Now press BACK until you're back in the Main View (or in the menu you require).

### **Set Units**

Press the Settings View button

- " scroll to 1000 GENERAL SETTINGS
- " press Enter
- " scroll to the unit you would like to change:
  - 1340 TEMPERATURE UNITS
  - 1350 PRESSURE UNITS
  - 1360 FUEL FLOW UNITS
  - 1370 AIR FLOW UNITS
- " Enter the preferred menu
- " Enter the SETTINGS parameter
- " scroll to the preferred setting
- " press Enter.

Now press BACK until you're back in the Main View (or in the menu you require).

### **Change Display Settings**

Press the Settings View button

- " scroll to 1000 GENERAL SETTINGS
- " press Enter
- " scroll to 1310 DISPLAY BACKLIGHT
- " Enter the DISPLAY BACKLIGHT menu
- " scroll to the setting you would like to change
- " press Enter.

To change a setting, the red figure is editable. Scroll up/down and press Enter to change. Use left/right to shift between editable figure.

Now press BACK until you're back in the Main View (or in the menu you require).

### **Go To Diagnostics**

Press the Settings View button

- " scroll to 1000 GENERAL SETTINGS
- " press Enter
- " scroll to 1150 DIAGNOSTICS
- " Enter the Diagnostics menu
- " Enter the ENABLE parameter
- " scroll to ON and press Enter.

Now the ECU will get PAC (ignition) and one can perform ECU diagnostics (read DM1 List, DM2 List, ECU values, perform engine diagnostics, ...).

Now press BACK until you're back in the Main View (or in the menu you require).

To leave DIAGNOSTICS, press the Stop button.

### **Set the AutoLoad Function**

Press the Settings View button

- " scroll to 1000 GENERAL SETTINGS
- " press Enter
- " scroll to 1160 AUTO LOAD
- " Enter the FUNCTION menu
- " scroll to AUTO LOAD setting
- " press Enter.

Now the AutoLoad function is active, and as soon as the unit is Ready To Start, the display will show the Auto Load icon.

Now press BACK until you're back in the Main View (or in the menu you require).

## FAULT CODES

There are several parameters that are continuously watched.

When one of these parameters exceeds its specified limit the compressor will react depending the present status of the control box.

Alarmcode	Alarmtext	Failclass	Trigger
1503	INITIAL OVERHAUL REQUIRED	Warning	Xc
1522	MINOR OVERHAUL WITHIN ** h	Warning	Xc
1523	MINOR OVERHAUL WITHIN ** d	Warning	Xc
1524	MINOR OVERHAUL REQUIRED	Warning	Xc
1552	MAJOR OVERHAUL WITHIN ** h	Warning	Xc
1553	MAJOR OVERHAUL WITHIN ** d	Warning	Xc
1554	LOAD PREVENTION - FIRE RISK	Inhibit Load	Xc
1558	COMP. OIL CHANGE WITHIN ** h	Warning	Xc
1559	COMP. OIL CHANGE WITHIN ** d	Warning	Xc
2000	REMOTE EMERGENCY STOP	Warning	Xc
2060	WATER IN FUEL HIGH	Shutdown	Xc
2070	COOLANT LEVEL LOW WARNING	Warning	Xc
2080	COOLANT LEVEL LOW SHUTDOWN	Shutdown	Xc
2090	Dp AIRFILTERS HIGH	Warning	Xc
2752	NAM OILTRONIX BYPASS CIRCUIT	Shutdown After Stop	Xc
2762	NAM OILTRONIX CLOSED CIRCUIT	Shutdown After Stop	Xc
2772	NAM AIRXPRT OPENED CIRCUIT	Shutdown	Xc
2782	NAM AIRXPRT CLOSED CIRCUIT	Shutdown	Xc
3000	FUEL LEVEL LOW WARNING	Warning	Xc
3010	FUEL LEVEL LOW SHUTDOWN	Controlled Stop	Xc
3020	FUEL LEVEL SENSOR CIRCUIT	Warning	Xc
3050	VESSEL PRESSURE HIGH WARNING	Controlled Stop	Xc
3060	VESSEL PRESSURE HIGH SHUTDOWN	Shutdown	Xc
3070	VESSEL PRESSURE SENSOR CIRCUIT	Shutdown	Xc
3150	AIR DISCHARGE PRESSURE HIGH	Warning	Xc
3160	AIR DISCHARGE PRESSURE TOO HIGH	Controlled Stop	Xc
3170	AIR DISCHARGE PRESSURE SENSOR CIRCUIT	Warning	Xc
3320	INLET PRESSURE SENSOR CIRCUIT	Shutdown	Xc

Alarmcode	Alarmtext	Failclass	Trigger
3450	BATTERY LOW ALARM	Indication	Xc
3460	BATTERY HIGH ALARM	Warning	Xc
3660	FIRE RISK - CHECK OILSTOPVALVE	Shutdown	Xc
3670	OILSTOPVALVE PRESSURE ALARM	Inhibit Load	Xc
3680	OSV PRESSURE SENSOR CIRCUIT	Controlled Stop	Xc
3720	INTERSTAGE PRESSURE SENSOR CIRCUIT	Warning	Xc
4000	L.P. ELEMENT TEMPERATURE HIGH	Warning	Xc
4010	L.P. ELEMENT TEMP. ALARM 2	Controlled Stop	Xc
4020	L.P. ELEMENT TEMP. ALARM 3	Shutdown	Xc
4040	L.P. ELEMENT TEMP. SENSOR CIRCUIT	Shutdown	Xc
4070	AMBIENT TEMPERATURE SENSOR CIRCUIT	Warning	Xc
4100	AIR DISCHARGE TEMPERATURE ALARM 1	Warning	Xc
4110	AIR DISCHARGE TEMPERATURE ALARM 2	Controlled Stop	Xc
4120	A.D. TEMPERATURE SENSOR CIRCUIT	Warning	Xc
4150	H.P. ELEMENT TEMPERATURE ALARM 1	Warning	Xc
4160	H.P. ELEMENT TEMPERATURE ALARM 2	Controlled Stop	Xc
4170	H.P. ELEMENT TEMPERATURE ALARM 3	Shutdown	Xc
4190	H.P. ELEMENT TEMP. SENSOR CIRCUIT	Shutdown	Xc
4220	AFTERCOOLER AIR TEMP SENSOR CIRCUIT	Warning	Xc
4230	AFTERCOOLER FREEZING DANGER	Indication	Xc
5200	AIR SHUT OFF	Shutdown	Xc
6190	CHARGE MONITORING FAIL	Indication	Xc
6327	START FAILURE	Shutdown	Xc
6329	STARTER SPEED TOO LOW	Shutdown	Xc
6388	VESSEL PRESSURE TOO LOW TO LOAD	Indication	Xc
6427	RUN FAILURE	Shutdown	Xc
6428	STOP FAILURE	Shutdown	Xc
6590	CHECK COMPRESSOR OIL LEVEL	Shutdown	Xc
6708	DRAINING 1	Warning	Xc
6709	DRAINING 2	Warning	Xc
6749	OILTRONIX FUNCTIONALITY DISABLED	Warning	Xc
6760	OILTRONIX COUPLING FAILURE	Shutdown After Stop	Xc

Alarmcode	Alarmtext	Failclass	Trigger
6769	OILTRONIX COMPONENT FAILURE	Shutdown	Xc
6981	INLET VALVE POS. FAILURE	Shutdown	Xc
7002	ECU COMMUNICATION	Shutdown	Xc
7007	ECU RED LAMP	Shutdown	ECU
7008	ECU AMBER LAMP	Warning	ECU
7009	ECU PROTECT LAMP	Warning	ECU
7010	ECU ENGINE SPEED TOO LOW	Shutdown	Xc
7020	ECU ENGINE SPEED ALARM 2	Shutdown	Xc
7030	ECU ENGINE COOLANT TEMP. ALARM	Controlled Stop	Xc
7050	ECU ENGINE AIR INLET TEMP. ALARM 1	Controlled Stop	Xc
7180	ECU DEF LEVEL LOW	Shutdown	ECU
7190	ECU DEF LEVEL TOO LOW	Warning	ECU
7210	ECU ENGINE SPEED TOO LOW	Warning	ECU
7222	COMBO COMMUNICATION FAILURE	Warning	Xc
7223	COMBO Pa SENSOR WARNING	Warning	Xc
7224	COMBO RHa SENSOR WARNING	Warning	Xc
7225	COMBO Ta SENSOR WARNING	Warning	Xc
7300	ECU OIL LEVEL TOO LOW	Warning	ECU
7310	ECU OIL LEVEL LOW	Warning	ECU

**Details of ECU triggered alarms can be monitored via the ECU DM1 LIST menu**

In case of ECU AMBER LAMP or ECU PROTECT LAMP:

Only possible when engine is running or if Diagnostics Mode is active.

Access the ECU DM1 LIST menu via Alarm View.

In case of ECU RED LAMP:

Do NOT acknowledge the ECU RED LAMP alarm.

DM1 alarms are automatically copied into the Alarm View, and can be read there.

For all ECU triggered alarms, the respective SPN code is shown in the ECU DM1 LIST

A full list of supported SPN codes is provided by the engine manufacturer.

For following alarms, the Xc controller also shows full text next to the SPN code:

ECU - FUEL PRESSURE

ECU - OIL LEVEL

ECU - OIL PRESSURE

ECU - TURBO BOOST PRESSURE

ECU - INTAKE MANIFOLD TEMPERATURE

ECU - COOLANT TEMPERATURE

ECU - COOLANT LEVEL

ECU - AMBIENT AIR TEMPERATURE

ECU - AIR INLET TEMPERATURE

ECU - OIL TEMPERATURE

ECU - ENGINE SPEED

ECU - ELECTRIC POTENTIAL

ECU - INJECTOR 1

ECU - INJECTOR 2

ECU - INJECTOR 3

ECU - INJECTOR 4

ECU - INJECTOR 5

ECU - INJECTOR 6

ECU - INJECTOR 7

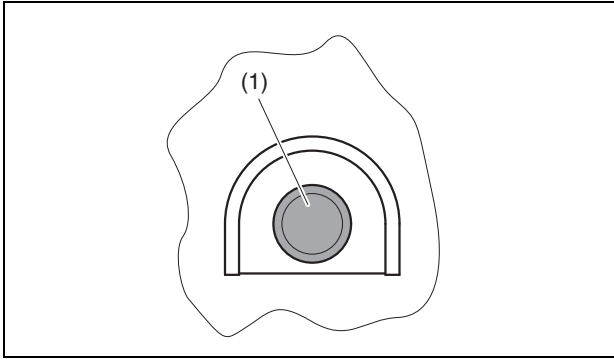
ECU - INJECTOR 8

SCR VESSEL LEVEL

SCR VESSEL TEMPERATURE



## EMERGENCY STOP

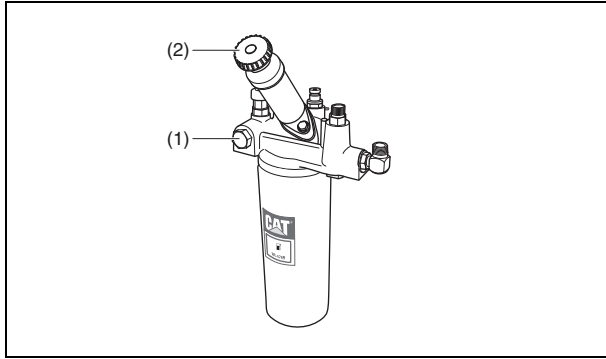


**The emergency stop button is only to be used in emergency situations; not for stopping procedures.**

When an emergency stop button (1) is pressed, power to all outputs is terminated, by the emergency stop itself (hardware) as well as by the software.

When the emergency stop button (1) is pressed the operator can unlock the emergency stop by turning it counter clockwise.

## SPECIFIC START PROCEDURE



Follow this start procedure when the compressor is put in operation for the first time and after running out of fuel or changing the fuel filter.

- Loosen the vent screw (1) on the fuel filter.
- Operate the hand pump (2) at the filter until fuel comes out of the bore for the vent screw, and air is completely removed from the fuel system.
- Fasten the vent screw (1).
- Switch the “ON/OFF” switch to position ”ON”. The instrument panel will now perform a brief selftest.
- Push the start button and the starter motor will automatically try to start the engine.



After cleaning /draining the fuel tanks, the system is filled with air.

Before starting the engine operate the fuelpump on the fuelfilter to fill the fuelsystem. Loosen the vent screw (1) on the fuel filter. Operate the hand pump (2) at the filter until fuel comes out of the bore for the vent screw, and air is completely removed from the fuel system. Fasten the vent screw (1).

When under pressure the engine will start after approximately 10 seconds. If the system is not under pressure, it will take a few minutes until the engine will start.

# Maintenance

## Liability

The manufacturer does not accept any liability for any damage arising from the use of non-original parts and for modifications, additions or conversions made without the manufacturer's approval in writing.

## Service paks

A Service Pak is a collection of parts to be used for a specific maintenance task, e.g. after 50, after 500 and after 1000 running hours.

It guarantees that all necessary parts are replaced at the same time keeping down time to a minimum.

The order number of the Service Paks are listed in the Atlas Copco Parts List (ASL).

## Use of service paks

Service Paks include all genuine parts needed for normal maintenance of both compressor and engine.

Service Paks minimize downtime and keep your maintenance budget low.

Order Service Paks at your local Atlas Copco dealer.

## Service kits

A service kit is a collection of parts to fit a specific repair or rebuilding task.

It guarantees that all necessary parts are replaced at the same time which improves the uptime of the unit.

The order numbers of the Service Kits are listed in the Atlas Copco Parts List (ASL).



**Contact Atlas Copco.**

## Storage

Run the compressor regularly, e.g. twice a week, until warm.

Load and unload the compressor a few times to operate the unloading and regulating components. Close the air outlet valves after stopping.



**If the compressor is going to be stored without running from time to time, protective measures must be taken.**

## Safety precautions



**Before performing any maintenance jobs always put the battery switch in the "OFF" position.**

**Always observe the applicable safety precautions. See section Safety during maintenance and repair.**

**Please note that when the battery switch is off there can still be some parts live!**



**Unauthorised modifications can result in injuries or machine damage.**



**Always keep the machine tidy to prevent fire hazard.**



**Poor maintenance can void any warranty claims.**

## Preventive maintenance schedule

The schedule contains a summary of the maintenance instructions. Read the respective section before taking maintenance measures.

When servicing, replace all disengaged packings, e.g. gaskets, O-rings, washers.

For engine maintenance refer to Engine Operation Manual.

The maintenance schedule has to be seen as a guideline for compressors operating in a dusty environment typical to compressor applications. Maintenance schedule can be adapted depending on application, environment and quality of maintenance.

## Maintenance schedule compressor

To determine the maintenance intervals, use of service hours, or calendar time, whichever occurs first.

Service hours	Daily	50 hrs after initial start-up	Every 250 hrs	Every 500 hrs	Every 750 hrs	Every 1000 hrs	Every 2000 hrs	Yearly
Service pak XRXS1200, XRYs1150, Y1200, Y1260				3002 6071 10		3002 6071 20 3002 6071 30		
<i>For the most important sub assemblies, Atlas Copco has developed service kits that combine all wear parts. These service kits offer you the benefits of genuine parts, save on administration costs and are offered at a reduced price, compared to individual components. Refer to the parts list for more information on the contents of the service kits.</i>								
Drain water from fuel filter	x							
Drain condensate and water from spillage-free frame or catch basin (10)	x							
Empty air filter vacuator valves	x							
Check engine oil level (if necessary top up)	x							
Check compressor oil level (if necessary top up)	x							
Check coolant level	x							
Check/Fill fuel level (3)	x							
Check air intake vacuum indicators	x							
Check function of coolant heater (option)	x							
Check control panel	x							
Check on abnormal noise	x							
Check electrical system cables for wear	x							
Check for leaks in engine-, compressor-, air-, oil-, or fuel system		x		x		x	x	x
Check torque on critical bolt connections		x				x	x	x
Check electrolyte level and terminals of battery		x		x		x	x	x
Check engine (minimum and maximum) speed		x		x		x	x	x
Replace compressor oil filter(s) (5)		x				x	x	x
Inspect/Adjust fan belt		x	x	x	x	x	x	
Hoses and clamps - Inspect/Replace			x	x	x			
Change engine oil (2) (12)			x	x	x	x	x	

<b>Maintenance schedule (hrs)</b> <i>(continuation of page 66)</i>	<b>Daily</b>	<b>50 hrs after initial start-up</b>	<b>Every 250 hrs</b>	<b>Every 500 hrs</b>	<b>Every 750 hrs</b>	<b>Every 1000 hrs</b>	<b>Every 2000 hrs</b>	<b>Yearly</b>
Hoses and clamps - Inspect/Replace			x	x	x	x	x	
Replace engine oil filter (2)			x	x	x	x	x	x
Replace fuel (pre)filters (6)			x	x	x	x	x	x
Adjust engine inlet and outlet valves (2)				x		x	x	x
Drain/Clean fuel tank water and sediments (1)				x		x	x	x
Replace fan belt				x		x	x	x
Clean flow restrictor in oil scavenge line				x		x	x	x
Clean oil cooler(s) (1)				x		x	x	x
Clean radiator (1)				x		x	x	
Clean intercooler (1)				x		x	x	
Inspect starter motor				x		x	x	
Inspect turbocharger				x		x	x	x
Inspect waterpump				x		x	x	x
Check functioning of regulating valve						x	x	x
Test safety valve (9)						x	x	x
Replace bleed-off valve unloader						x	x	x
Check rubber flexibles (11)						x	x	x
Clean after-cooler (option) (1)						x	x	x
Replace DD/PD/QD filter (option)						x	x	x
Clean oil stop valve						x	x	x
Change compressor oil (1) (7)						x	x	x
Replace oil separator element						x	x	x
Clean fuel cooler						x	x	x
Clean crankcase breather filter and check for obstructions						x	x	x
Replace air filter element (1)						x	x	x
Check external fuel connection (option)							x	x
Inspection by Atlas Copco service technician							x	x
Inspect alternator							x	
Analyse coolant (4) (8)							x	
Grease hinges								x
Check/Replace safety cartridge								x
Check emergency stop								x

**Note:**



1. More frequently when operating in a dusty environment.
2. Refer to engine operation manual.
3. After a day's work.
4. Yearly is only valid when using PARCOOL. Change coolant every 5 years.
5. Use Atlas Copco oil filters, with by-pass valve as specified in the parts list.
6. Gummed or clogged filters means fuel starvation and reduced engine performance.
7. See section Oil specifications.
8. The following part numbers can be ordered from Atlas Copco to check on inhibitors and freezing points:
  - 2913 0028 00 : refractometer
  - 2913 0029 00 : pH meter.
9. See section Safety valve.
10. See section BEFORE STARTING.
11. Replace all rubber flexibles every 6 years.

For other specific engine and alternator requirements refer to specific manuals.
12. Samples to be obtained/analysed every 500 hours, starting at 250 hours. (250, 750, 1250,...)



**Keep the bolts of the housing, the lifting eye, the towbar and the axle securely tightened.**  
**Refer to section Technical specifications for the torque values.**

<b>Maintenance schedule (km)</b> <i>(continuation of page 67)</i>	<b>Daily</b>	<b>50 km after initial start-up</b>	<b>Every 500 km</b>	<b>Every 1000 km</b>	<b>Every 2000 km</b>	<b>Yearly</b>
Drain ABS vessel (option)	x					
Check coupling head	x				x	x
Check tyre pressure		x	x	x	x	x
Check height of adjusting facility		x	x	x	x	x
Check torque of wheel nuts		x			x	x
Grease coupling head, tow bar bearings at the housing of the overrun brake		x			x	x
Check brake system (if installed) and adjust if necessary		x			x	x
Oil or grease brake lever and moving parts such as bolts and joints		x			x	x
Check/Adjust lateral play of wheel bearing			x		x	x
Check tyres for uneven wear					x	x
Grease sliding points on height adjusting parts					x	x
Check safety cable for damage					x	x
Check Bowden cable on height adjustable connection device for damage					x	x
Lubricate torsion bar axle trailing arm					x	x
Check hub cap for firm seating					x	x
Change wheel hub bearing grease						x
Check brake lining wear						x

inspections. Inspection intervals depend on usage. Defective parts have to be replaced by original parts.

After 50,000 km i.e. after 12 months of running, the undercarriage of the compressor has to be inspected on its

operational reliability by an expert.

A check of the vehicle's traffic safety is considered to have been completed when an expert's report declaring it free from defects has been submitted in accordance with the laws of the country involved.

The following details refer to normal use of the compressor based on a maximum of 50,000 km per year. Related instructions can be found in the following subsections.

Inspection jobs	After the first			every	
	50 km	500 km or first loaded trip	5,000 km	5,000 km (fortnightly)	10,000 km monthly
Check whether wheel nuts are still tight	x	x	x	x	
Check and if necessary tighten any fixation nuts		x	x	x	
Check tyre pressure and wear and tear			x	x	
Inspect brake system <sup>1)</sup>		x	x	x	
Check brake adjustment i.e. adjust <sup>1)</sup>		x	x	x	
Inspect electrics <sup>2)</sup>					x
Check line filters				x	
Check coupling heads				x	
Lubricate tow bar			x	x	
Grease nipples					x
Check towing eye for wear and tear					x
Check frame for cracks and damage					x

In principle damaged parts have to be repaired or replaced.

Any other inspection jobs have to be carried out regularly by an expert at 6 month intervals.

Inspection list for the expert:

- Brake system
- Wheel bearing
- Axle
- Tyres
- Electrical installations
- Towing eye

<sup>1)</sup>To be performed by skill level 2 Mechanical technician

<sup>2)</sup>To be performed by skill level 3 Electrical technician

## Oil specifications



**It is strongly recommended to use Atlas Copco branded lubrication oils for both compressor and engine.**



**Only use synthetic compressor oil.**

High-quality, mineral, hydraulic or synthesized hydrocarbon oil with rust and oxidation inhibitors, anti-foam and anti-wear properties is recommended. The viscosity grade should correspond to the ambient temperature and ISO 3448, as follows:



**Never mix synthetic with mineral oil.**

**Remark:**

**After a complete change over to synthetic oil (or the other way around), you will need to do an extra rinse:**

**After doing the complete change procedure to synthetic oil, run the unit for a few minutes to allow proper and complete circulation of the synthetic oil.**

**Then drain the synthetic oil again and fill again with new synthetic oil. To set correct oil levels, follow the normal instructions.**

PAROIL from Atlas Copco is the ONLY oil tested and approved for use in all engines built into Atlas Copco compressors and generators.

Extensive laboratory and field endurance tests on Atlas Copco equipment have proven PAROIL to match all lubrication demands in varied conditions. It meets stringent quality control specifications to ensure your equipment will run smoothly and reliably.

The quality lubricant additives in PAROIL allow for extended oil change intervals without any loss in performance or longevity.

PAROIL provides wear protection under extreme conditions. Powerful oxidation resistance, high chemical stability and rust-inhibiting additives help reduce corrosion, even within engines left idle for extended periods.

PAROIL contains high quality anti-oxidants to control deposits, sludge and contaminants that tend to build up under very high temperatures. PAROIL's detergent additives keep sludge forming particles in a fine suspension, instead of allowing them to clog your filter and accumulate in the valve/rocker cover area.

PAROIL releases excess heat efficiently, whilst maintaining excellent bore-polish protection to limit oil consumption.

PAROIL has an excellent Total Base Number (TBN) retention and more alkalinity to control acid formation.

PAROIL prevents Soot build-up

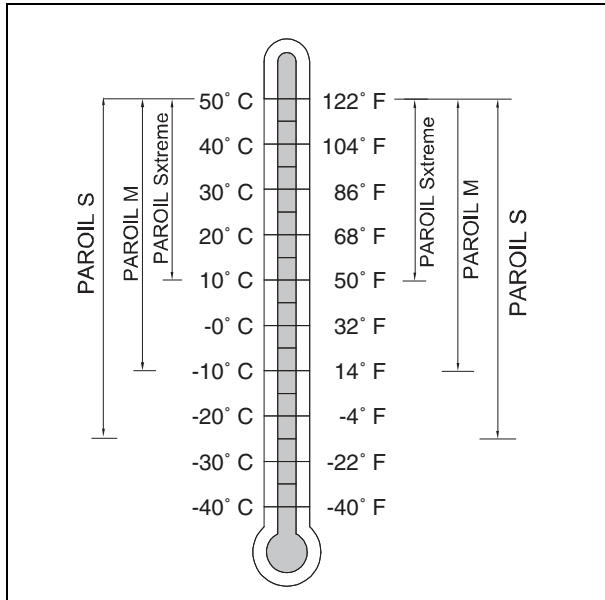
PAROIL is optimized for the latest low emission EURO - 3 & -2, EPA TIER II & III engines running on low sulphur diesel for lower oil and fuel consumption.

PAROIL Extra is a Synthetic ultra high performance diesel engine oil with a high viscosity-index. Atlas Copco PAROIL Extra is designed to provide excellent lubrication from start-up at temperatures as low as -25°C (-13°F).

PAROIL E is a mineral based high performance diesel engine oil with a high viscosity-index. Atlas Copco PAROIL E is designed to provide a high level of performance and protection under 'standard' ambient conditions from -15°C (5°F) onward.



## COMPRESSOR OIL



Choose your compressor oil based on the ambient temperatures in the actual operating area.

## Mineral compressor oil PAROIL M

	Liter	US gal	Order number
CAN	5	1.3	1615 5947 00
CAN	20	5.3	1615 5948 00
BARREL	210	55.2	1615 5949 00

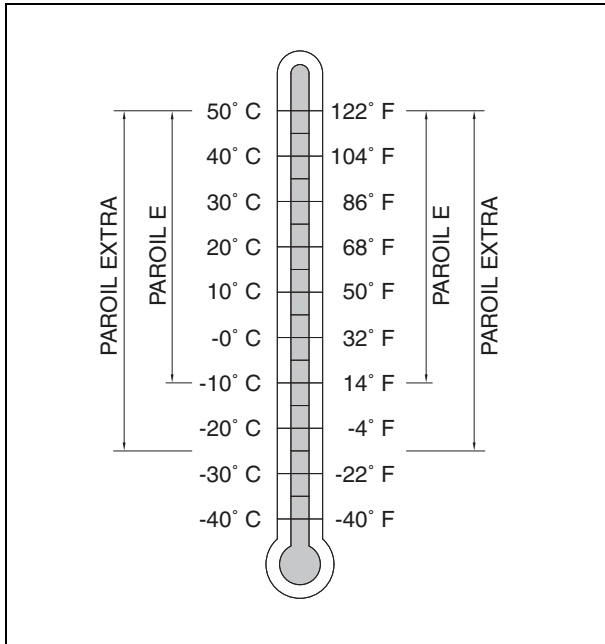
## Synthetic compressor oil PAROIL S

	Liter	US gal	Order number
CAN	5	1.3	1630 0160 00
CAN	20	5.3	1630 0161 00
BARREL	210	55.2	1630 0162 00
CONTAINER	1000	264	1630 0163 00

## Synthetic compressor oil PAROIL S xtreme

	Liter	US gal	Order number
CAN	5	1.3	1630 0180 00
BARREL	210	55.2	1630 0181 00

## ENGINE OIL



Choose your engine oil based on the ambient temperatures in the actual operating area.

### Synthetic engine oil PAROIL E xtra

	Liter	US gal	Order number
can	5	1.3	1630 0135 00
can	20	5.3	1630 0136 00

### Mineral engine oil PAROIL E Mission Green

	Liter	US gal	Order number
can	5	1.3	1630 0471 00
can	20	5.3	1630 0472 00
barrel	210	55.2	1630 0473 00

## Oil level check

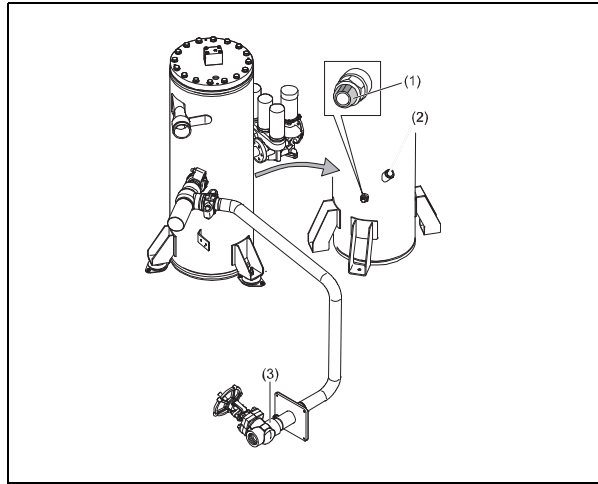
### CHECK ENGINE OIL LEVEL

Also consult the Engine Operation Manual for the oil specifications, viscosity recommendations and oil change intervals.

For intervals, see Preventive maintenance schedule.

Check engine oil level in accordance with the instructions in the Engine Operation Manual and if necessary, top up with oil.

### CHECK COMPRESSOR OIL LEVEL



With the compressor standing horizontal, check the level of the compressor oil.

The pointer of the oil level gauge (1) must register in the upper extremity of the green range. Add oil if necessary.



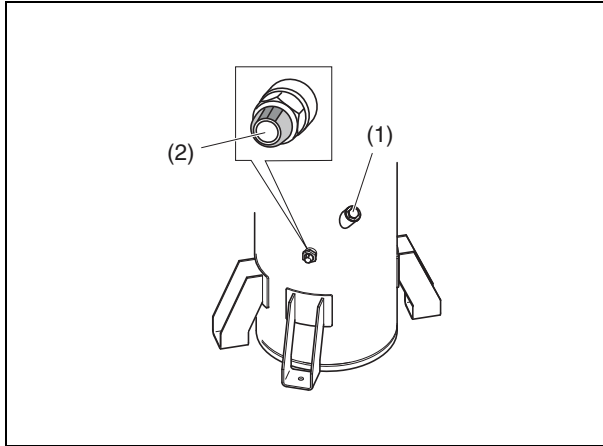
**Before removing the oil filler plug (2), ensure that the pressure is released by opening an air outlet valve (3).**

### OIL AND OIL FILTER CHANGE

#### ENGINE OIL AND OIL FILTER CHANGE

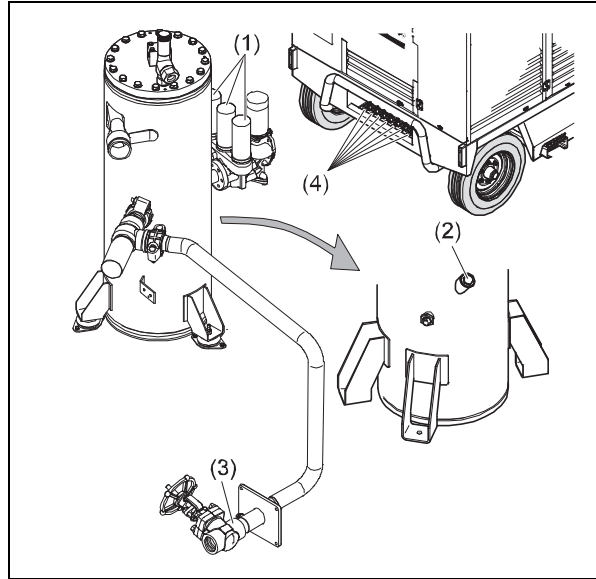
See section **Preventive maintenance schedule**.

## TOPPING UP THE COMPRESSOR OIL



1. Stop the compressor. Wait a few minutes until the pressure is released through the automatic blow-down valve. Make sure that all pressure is released by loosening the filler plug (1) one turn.
2. Wait a few minutes until the oil level is constant.
3. Remove the filler plug (1) and top up with oil until the pointer of the oil level gauge (2) is in the upper part of the green area.
4. Reinstall and tighten the filler plug (1).

## COMPRESSOR OIL AND OIL FILTER CHANGE



The quality and the temperature of the oil determine the oil change interval.

The prescribed interval is based on normal operating conditions and an oil temperature of up to 100 °C (212 °F) (see section Preventive maintenance schedule).

When operating in high ambient temperatures, in very dusty or high humidity conditions, it is recommended to change the oil more frequently.



**In this case, contact Atlas Copco.**

1. Run the compressor until warm. Close the outlet valve(s) (3) and stop the compressor. Wait until the pressure is released through the automatic blow-down valve. Unscrew the oil filler plug (2) one turn. This uncovers a vent hole, which permits any pressure in the system to escape.
2. Drain the compressor oil by removing all relevant drain plugs (4). Catch the oil in a drain pan. Unscrew the filler plug (2) to speed up draining. After draining, reposition and tighten the drain plugs (4).
3. Remove the oil filters (1), e.g. by means of a special tool. Catch the oil in a drain pan.
4. Clean the filter seat on the manifold, taking care that no dirt drops into the system. Oil the gasket of the new filter element. Screw it into place until the gasket contacts its seat, then tighten one half turn only.
5. Fill the air receiver until the pointer of the oil level gauge is in the upper part of the green area. Be sure that no dirt gets into the system. Reinstall and tighten the filler plug.
6. Start the compressor and let it run unloaded for a few minutes.
7. Stop the compressor, wait a few minutes and top up with oil until the pointer of the oil level gauge is in the upper part of the green area.



**Never add more oil. Overfilling results in oil consumption.**

## Compressor Oil Flushing Procedure



**Not respecting compressor oil changing intervals in accordance with the maintenance schedule, can lead to serious problems, including fire hazard! The manufacturer does not accept any liability for damage arising from not following the maintenance schedule or not using genuine parts.**

To avoid problems when changing over to a new type of oil (see table) a special Compressor Oil Flushing Procedure has to be followed. The table is only valid when the replaced oil has not exceeded its lifetime. For more information consult Atlas Copco Service dept.

Aged oil can be recognized best by using an oil sampling analysis program. Indicators for aged oil are strong smell, or contamination such as sludge and varnish inside the oil vessel and oil stop valve or a brownish colour of the oil.

Whenever aged oil is discovered, eg. when changing the oil separator, contact Atlas Copco Service dept. to have your compressor cleaned and flushed.

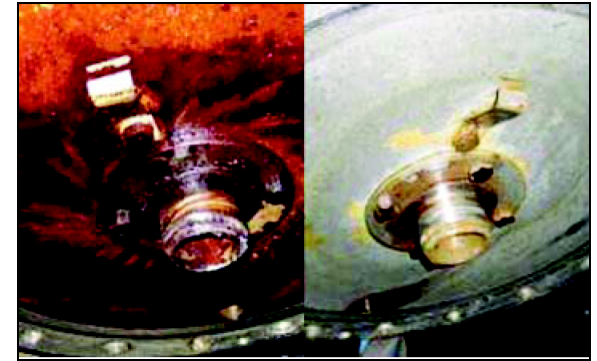
1. First thoroughly drain the system when the oil is warm, leaving as little oil in the system as possible, especially in dead areas, if possible blow out remaining oil by pressurising the oil system. Check the instruction manual for detailed description.
2. Remove the compressor oil filter(s).
3. Open the oil vessel and remove the oil separator element.



**Instructions on replacing the oil separator element are available from Atlas Copco Service dept.**

4. Check the interior of the oil vessel (see pictures). If varnish deposits are discovered, contact Atlas Copco Service dept. and do not continue.
5. Put in a new oil separator, screw on new compressor oil filter(s) and close the oil vessel according to the instructions.
6. Fill the oil vessel with the minimum amount of replacement oil, run the compressor under light load conditions for 30 minutes.

7. Thoroughly drain the system when the oil is warm, leaving as little oil in the system as possible, especially in dead areas, if possible blow out remaining oil by pressurising the oil.
8. Fill the system with the final oil charge.
9. Run the compressor under light load conditions for 15 minutes and check for leakage.
10. Check the oil level and top up if necessary.
11. Collect all waste lubricant used during the flushing process and dispose of it in accordance with the applicable procedures for managing waste lubricant.




*Vessel cover  
contaminated*

*clean*



*Vessel cover  
contaminated*

*clean*

	PAROIL M	PAROIL S	PAROIL S xtreme
PAROIL M	draining *	flushing	flushing
PAROIL S	draining **	draining *	draining
PAROIL S xtreme	draining **	draining	draining *

- \*When changing over to the same oil within the oil changing interval, draining is sufficient
- \*\* Change over not recommended

## Coolant specifications



Never remove the cooling system filler cap while coolant is hot.

The system may be under pressure. Remove the cap slowly and only when coolant is at ambient temperature. A sudden release of pressure from a heated cooling system can result in personal injury from the splash of hot coolant.



It is strongly recommended to use Atlas Copco branded coolant.

The use of the correct coolant is important for proper heat transfer and protection of liquid-cooled engines. Coolants used in these engines must be mixtures of good quality water (distilled or de-ionised), special coolant additives and anti-freeze, if required. Coolant that is not to manufacturer's specification will result in mechanical damage of the engine.

The freezing point of the coolant must be lower than the freezing point that can occur in the area. The difference must be at least 5 °C (9 °F). If the coolant freezes, it may crack the cylinder block, radiator or coolant pump.

Consult the engine's operation manual and follow the manufacturer's directions.



Never mix different coolants and mix the coolant components outside the cooling system

## PARCOOL EG

**PARCOOL EG is the only coolant that has been tested and approved by all manufacturers of engines currently used in Atlas Copco compressors and generators.**

Atlas Copco's PARCOOL EG extended life coolant is the new range of organic coolants purpose-designed to meet the needs of modern engines. PARCOOL EG can help prevent leaks caused by corrosion. PARCOOL EG is also fully compatible with all sealants and gasket types developed to join different materials used within an engine.

PARCOOL EG is a ready to use Ethylene Glycol based coolant, premixed in an optimum 50/50 dilution ratio, for antifreeze protection guaranteed to -40°C (-40°F).

Because PARCOOL EG inhibits corrosion, deposit formation is minimized. This effectively eliminates flow restriction problems through the engine coolant ducts and the radiator, minimizing the risk of engine overheating and possible failure.

It reduces water pump seal wear and has excellent stability when subjected to sustained high operating temperatures.

PARCOOL EG is free of nitride and amines to protect your health and the environment. Longer service life reduces the amount of coolant produced and needing disposal to minimise environmental impact.

## PARCOOL EG

	Liter	US gal	Order number
can	5	1.3	1604 5308 00
can	20	5.3	1604 5307 01
barrel	210	55.2	1604 5306 00

To ensure protection against corrosion, cavitation and formation of deposits, the concentration of the additives in the coolant must be kept to certain limits, as stated by the manufacturer's guidelines. Topping up the coolant with water only, changes the concentration and is therefore not allowed.

Liquid-cooled engines are factory-filled with this type of coolant mixture.

## PARCOOL EG Concentrate

	Liter	US gal	Order number
can	5	1.3	1604 8159 00

## HANDLING PARCOOL EG

PARCOOL EG should be stored at ambient temperatures, while periods of exposure to temperatures above 35 °C (95 °F) should be minimized. PARCOOL EG can be stored for a minimum of 5 years in unopened containers without any effect on the product quality of performance.

PARCOOL EG is compatible with most other coolants based on ethylene glycol, but you only get the benefits of 5 years protection when its used on its own. Exclusive use of PARCOOL EG is recommended for optimum corrosion protection and sludge control.

For simple density-measuring of Ethylene Glycol and Propylene Glycol in general the standard available 'density' measuring devices are used to measure the concentration of EG. In case a device is used to measure EG, no PG can be measured afterwards as a result of the difference in the density. More specific measurements can be done by the use of a refractometer. This device can measure both EG and PG. A mix of both products will be show unreliable results!

Mixed EG coolants with identical glycol type can be measured by use of a refractometer as well as the 'density' system. The mixed coolants will be considered as one product.

The use of distilled water is recommended. If you have exceptionally soft water it would be acceptable, as well. Basically, the engine metals are going to corrode to some extent no matter what water you use, and hard water will encourage the resulting metal salts to precipitate.

PARCOOL EG comes as a pre-mixed coolant to safeguard the quality of the complete product.

It is recommended that topping up of the cooling system is always done with PARCOOL EG.

## Coolant check



**Never remove the cooling system filler cap while coolant is hot.**

**The system may be under pressure. Remove the cap slowly and only when coolant is at ambient temperature. A sudden release of pressure from a heated cooling system can result in personal injury from the splash of hot coolant.**

In order to guarantee the lifetime and quality of the product, thus optimising engine protection, regular coolant-condition-analysis is recommended.

The quality of the product can be determined by three parameters:

### Visual check

- Verify the appearance of the coolant with regard to its colour and make sure that no loose particles are floating around.

### pH measurement

- Check the pH value of the coolant using a pH-measuring device.
- The pH-meter can be ordered from Atlas Copco with part number 2913 0029 00.
- Typical value for EG = 8.6.
- If the pH-level is below 7 or above 9.5, the coolant should be replaced.

## Glycol concentration measurement

- To optimise the unique engine protection features of the PARCOOL EG, the concentration of the Glycol in the water should always be above 33 vol.%.
- Mixtures exceeding a 68 vol.% mix ratio in water are not recommended, as this will lead to high engine operating temperatures.
- A refractometer can be ordered from Atlas Copco with part number 2913 0028 00.



**In case of a mix of different coolant products this type of measuring might provide incorrect values.**

## Topping up/replacing coolant

- Verify whether the engine cooling system is in a good condition (no leaks, clean,...).
- Check the condition of the coolant.
- If the condition of the coolant is no longer up to standard, the complete coolant should be replaced (see section Replacing the coolant).
- Always top-up with PARCOOL EG Concentrate / PARCOOL EG.
- Topping up the coolant with water only, changes the concentration of additives and is therefore not allowed.

## TOPPING UP WITHOUT DRAINING FROM THE COOLING SYSTEM

The quantity of PARCOOL EG Concentrate to be topped up can be estimated with the following formula and/or graph:

### Corrections concentrate in measured system towards 50% volume by using PARCOOL EG Concentrate

PN: 1604 8159 00

**Example:**

Total volume coolant =

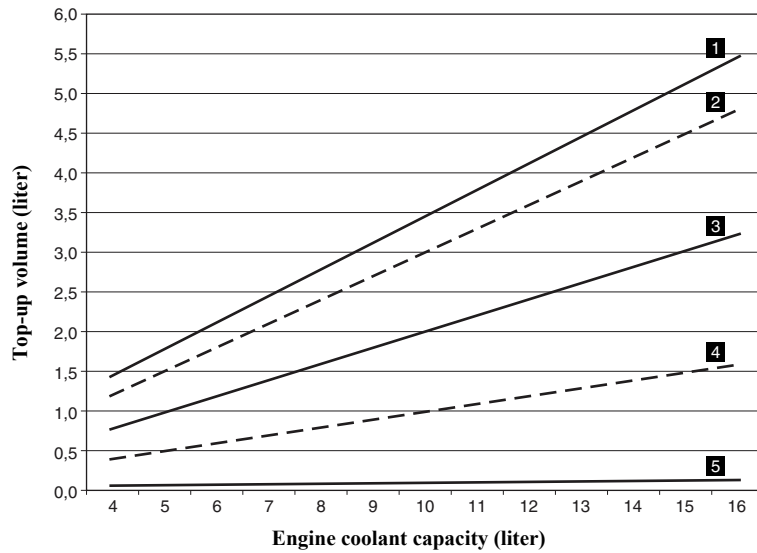
Measured concentration =

$$50 - \frac{33}{17} = 17 \quad * \quad \frac{14}{50} = 4,8 \text{ Liter PARCOOL EG Concentrate}$$

14 Litre  
33 Vol%  
33 = 17 \* 14 / 50 = 4,8

In case of expansion tank at low level, this quantity is to be filled without draining from the cooling system.

**Top-up volume PARCOOL EG Concentrate without drainage**



1. Refractometer indication -20° C (33%)
2. Refractometer indication -22° C
3. Refractometer indication -25° C
4. Refractometer indication -30° C
5. Refractometer indication -36° C



## TOPPING UP AFTER LIMITED QUANTITY DRAINING FROM THE COOLING SYSTEM

The quantity of PARCOOL EG Concentrate to be topped up after draining a calculated volume from the cooling system, can be estimated with the following formula and/or graph:

### Corrections concentrate in measured system towards 50% volume by using PARCOOL EG Concentrate

PN: 1604 8159 00

**Example:**

Total volume coolant =

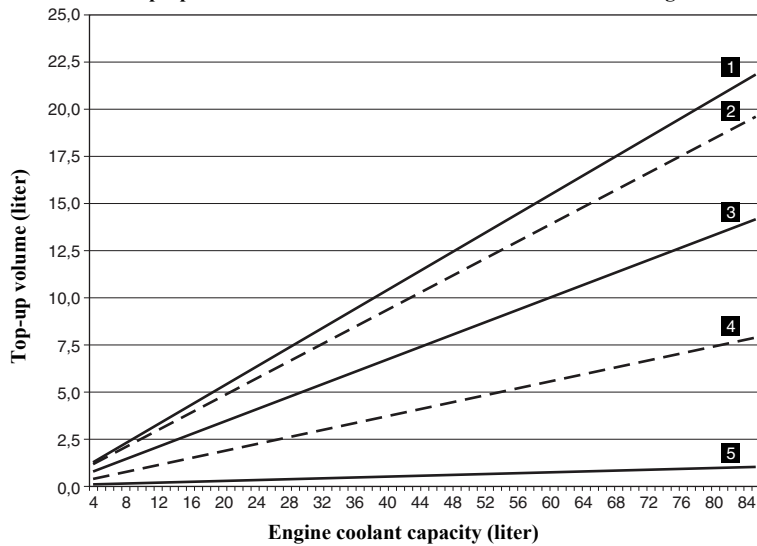
Measured concentration =

$$50 - \frac{33}{33} = 17 \quad * \quad 80 \quad / \quad 67 = 20 \quad \text{Liter PARCOOL EG Concentrate}$$

$100 - 33 = 67$

In case of expansion tank at normal level, this quantity is to be drained from the cooling system.

**Top-up volume PARCOOL EG Concentrate without drainage**



1. Refractometer indication -20° C (33%)
2. Refractometer indication -22° C
3. Refractometer indication -25° C
4. Refractometer indication -30° C
5. Refractometer indication -36° C

## REPLACING THE COOLANT

### Drain

- Completely drain the entire cooling system.
- Used coolant must be disposed of or recycled in accordance with legislation and local regulations.

### Flush

- Flush twice with clean water. Used coolant must be disposed of or recycled in accordance with legislation and local regulations.
- Using the Atlas Copco Instruction book, determine the amount of PARCOOL EG required and pour into the radiator top tank.
- It should be clearly understood that proper cleaning reduces contamination risks.
- In case of "other" coolant residues inside the system, the coolant with the lowest properties influences the quality of the 'mixed' coolant.

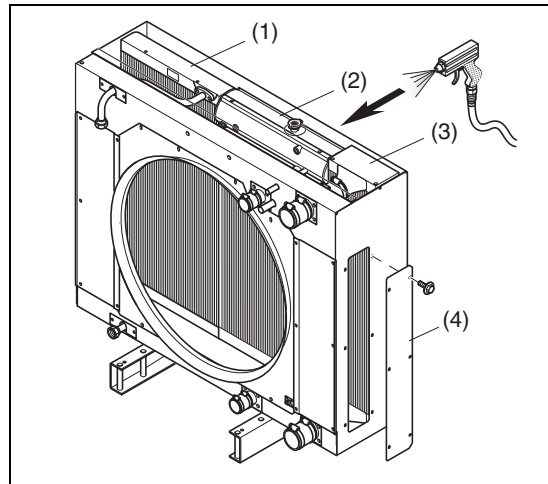
### Fill

- To assure proper operation and the release of trapped air, run the engine until normal engine operation temperature is reached. Turn off the engine and allow to cool.
- Recheck coolant level and add if necessary.



**Caution: do not top up when the engine is hot.**

## Cleaning coolers



Keep the coolers (1), (2) and (3) clean to maintain the cooling efficiency.

Service doors (4) are provided on both sides of the fan cowl to allow easy access to the fan side surface of the coolers.



**Remove any dirt from the coolers with a fibre brush. Never use a wire brush or metal objects.**

Clean by air jet in the direction of the arrow.

Steam cleaning in combination with a cleansing agent may be applied (do not use jet at max. power).



**To avoid damaging the coolers, angle between jet and coolers should be approx. 90°.**

Close the service door(s).



**Protect the electrical and controlling equipment, air filters, etc. against penetration of moisture.**

**Never leave spilled liquids such as fuel, oil, coolant and cleansing agents in or around the compressor.**

## Battery care



**Before handling batteries, read the relevant safety precautions and act accordingly.**

If the battery is still dry, it must be activated as described in section Activating a dry-charged battery.

The battery must be in operation within 2 months from being activated; if not, it needs to be recharged first.

## ELECTROLYTE



**Read the safety instructions carefully.**

Electrolyte in batteries is a sulphuric acid solution in distilled water.

The solution must be made up before being introduced into the battery.



**Always pour the sulphuric acid carefully into the distilled water; never pour the water into the acid.**

## ACTIVATING A DRY-CHARGED BATTERY

- Take out the battery.
- Battery and electrolyte must be at an equal temperature above 10 °C (50 °F).
- Remove cover and/or plug from each cell.
- Fill each cell with electrolyte until the level reaches the mark on the battery. If there is no mark on the battery, the level must be above the plates for at least 10 mm (0.4 in) to 15 mm (0.6 in).
- Rock the battery a few times so that possible air bubbles can escape; wait 10 minutes and check the level in each cell once more; if required, add electrolyte.
- Refit plugs and/or cover.
- Place the battery in the compressor.

## RECHARGING A BATTERY

Before and after charging a battery, always check the electrolyte level in each cell; if required, top up with distilled water only. When charging batteries, each cell must be open, i.e. plugs and/or cover removed.



**Use a commercial automatic battery charger in accordance with the manufacturer's instructions.**

Preferably use the slow charging method and adjust the charge current according to the following rule of thumb:

Battery capacity in Ah divided by 20 gives safe charging current in Amp.

## MAKE-UP DISTILLED WATER

The amount of water evaporating from batteries is largely dependant on the operating conditions, i.e. temperatures, number of starts, running time between start and stop, etc...

If a battery starts to need excessive make-up water, this points to overcharging. Most common causes are high temperatures or a too high voltage regulator setting.

If a battery does not need any make-up water at all over a considerable time of operation, an undercharged battery condition may be caused by poor cable connections or a too low voltage regulator setting.

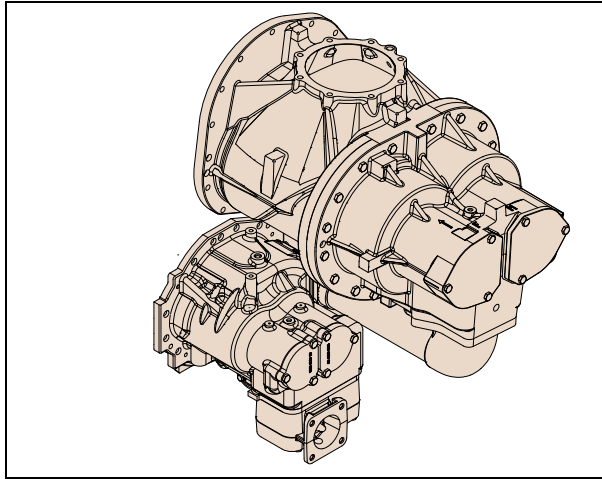
## PERIODIC BATTERY SERVICE

- Keep the battery clean and dry.
- Keep the electrolyte level at 10 to 15 mm above the plates or at the indicated level; top up with distilled water only. Never overfill, as this will cause poor performance and excessive corrosion.
- Record the quantity of distilled water added.
- Keep the terminals and clamps tight, clean, and lightly covered with petroleum jelly.
- Carry out periodic condition tests. Test intervals of 1 to 3 months, depending on climate and operating conditions, are recommended

If doubtful conditions are noticed or malfunctions arise, keep in mind that the cause may be in the electrical system, e.g. loose terminals, voltage regulator maladjusted, poor performance of compressor, etc...

## Compressor element overhaul

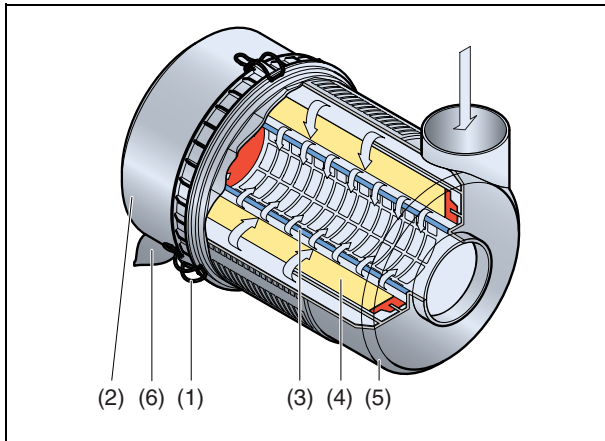
When a compressor element is due for overhaul, it needs to be done by Atlas Copco. This guarantees the use of genuine parts and correct tools with care and precision.



## Servicing procedures

### Air filters engine / compressor

#### MAIN PARTS



- |                     |                   |
|---------------------|-------------------|
| 1. Snap clips (4x)  | 4. Filter element |
| 2. Dust trap cover  | 5. Filter housing |
| 3. Safety cartridge | 6. Vacuator valve |

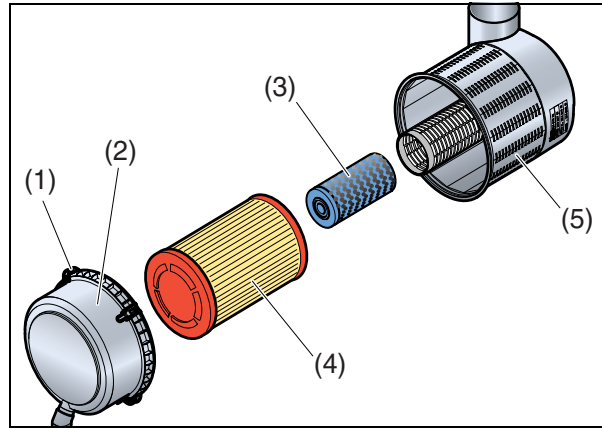


The Atlas Copco air filters are specially designed for the application. The use of non-original air filters may lead to severe damage of the engine and/or compressor element.

#### CLEANING THE DUST TRAP

To remove dust from the dust trap squeeze the vacuator valve (6) several times.

### REPLACING THE FILTER ELEMENT AND THE SAFETY CARTRIDGE



The instructions apply to one air filter and should be repeated for both air filters engine and air filters compressor.

1. Release the snap clips (1) and remove the dust trap cover (2). Clean the inside of the cover.
2. Withdraw the filter element (4) and safety cartridge (3) from the housing (5).  
Discard the filter element when damaged.  
A dirty safety cartridge (3) is an indication of a malfunctioning filter element.



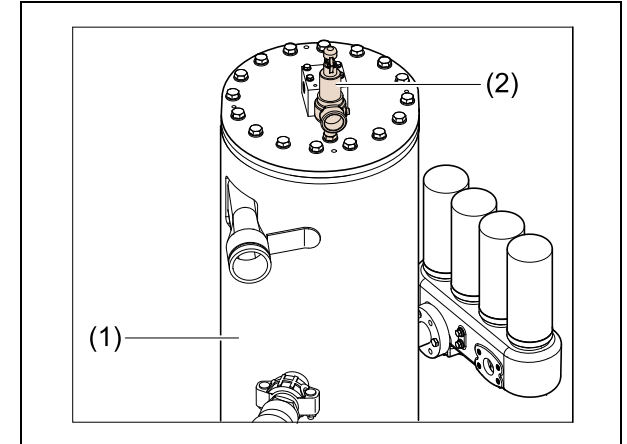
Replace the filter element and the safety cartridge at the same time. New elements should be inspected for tears and punctures before installation.



The safety cartridge cannot be cleaned.

3. Reassemble in reverse order of dismantling.
4. Inspect and tighten all air intake connections.

### AIR RECEIVER



The air receiver (1) is tested according to official standards. Carry out regular inspections in conformity with local regulations.



Daily drain condensate.

## SAFETY VALVE



All adjustments or repairs are to be done by an authorized representative of the safety valve (2) supplier, see section Specific safety precautions.

Following checks must be carried out:

- A check of the opening of the lifting gear, twice a year.  
This can be done by screwing the cap of the valve anti-clockwise.
- An annual check of the set pressure according to local regulations. This check cannot be done on the compressor and must be carried out on a proper test bench.

## Fuel system

### PRIMING INSTRUCTIONS



Fuel leaked or spilled onto hot surfaces or electrical components can cause a fire. To help prevent possible injury, turn the “ON/OFF” switch in position “OFF” when changing fuel filters or water separator elements. Clean up fuel spills immediately.

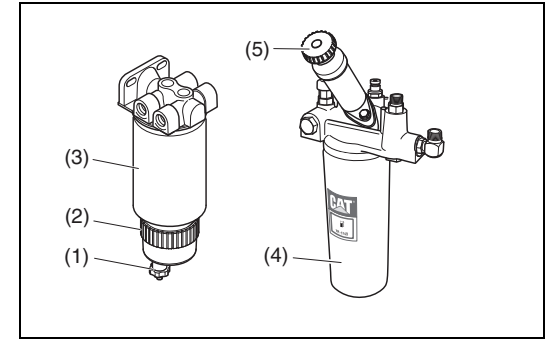
Prime the fuel system in order to fill the fuel filter. Prime the fuel system in order to purge trapped air. The fuel system should be primed under the following conditions:

- Compressor is put in operation for the first time
- Running out of fuel
- Storage
- Replacement of the fuel filter



**Do not loosen the fuel lines at the fuel manifold. The fittings may be damaged and/or a loss of priming pressure may occur when the fuel lines are loosened.**

## Replacing filter elements



### Replacing the filter elements:

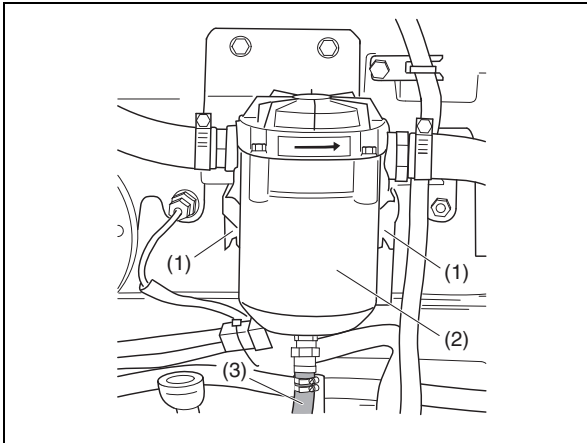
#### Installation instructions:

1. Drain fuel from the bowl.
2. Remove filter (2, 3), filter element (4) and separate bowl (2) from element (3).
3. Apply film of gas oil to new bowl seat.
4. Screw bowl (2) to new element (3) tightly by hand.
5. Apply film of gas oil to new element seals.
6. Screw on filter (2, 3) and filter element (4) tightly by hand.
7. Open head vent and operate pump (5). Close vent when fuel begins to purge.
8. Check for leaks, retighten if necessary.

#### Drain instructions:

1. Open bowl drain valve (1), operate pump (5) and pump water out.
2. Close drain valve (1).

## CLEANING CRANKCASE BREATHER FILTER



1. After switching off the engine, let it cool down for about 30 minutes.
2. Open the clasps (2) and carefully separate the bowl from the head. Be aware that hose (3) is still attached.
3. Take out the wire mesh and clean it in a solvent (diesel fuel).
4. Thoroughly dry the wire mesh with compressed air.
5. Put the wire mesh in the bowl and mount the bowl to the head. Do not twist hose (3).

## MAINTENANCE QUICK ACTION FUEL COUPLINGS

Even with proper selection and installation, quick action coupling life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must be established and followed by the user and must include the following as a minimum:

### Visual inspection of quick action couplings:

Any of the following conditions require immediate shut down and replacement of the quick action coupling:

- Cracked, damaged, or corroded quick action coupling parts.
- Leaks at the fitting, valve or mating seal.
- Broken coupling mounting hardware, especially breakaway clamps.

### Visual inspection all other:

- Leaking seals or port connections.
- Excess dirt build-up on the coupling locking means or on the interface area of either coupling half.
- Defective clamps, guards, and shields.
- Fuel level system and any entrapment.

### Functional test:

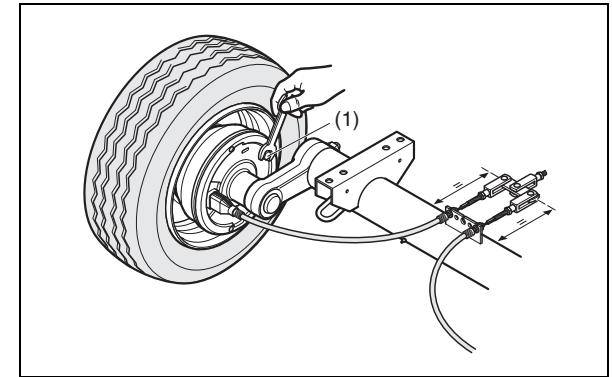
Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks. Personnel must avoid potential hazardous areas while testing and using the system.

### Replacement intervals:

Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage or injury risk.

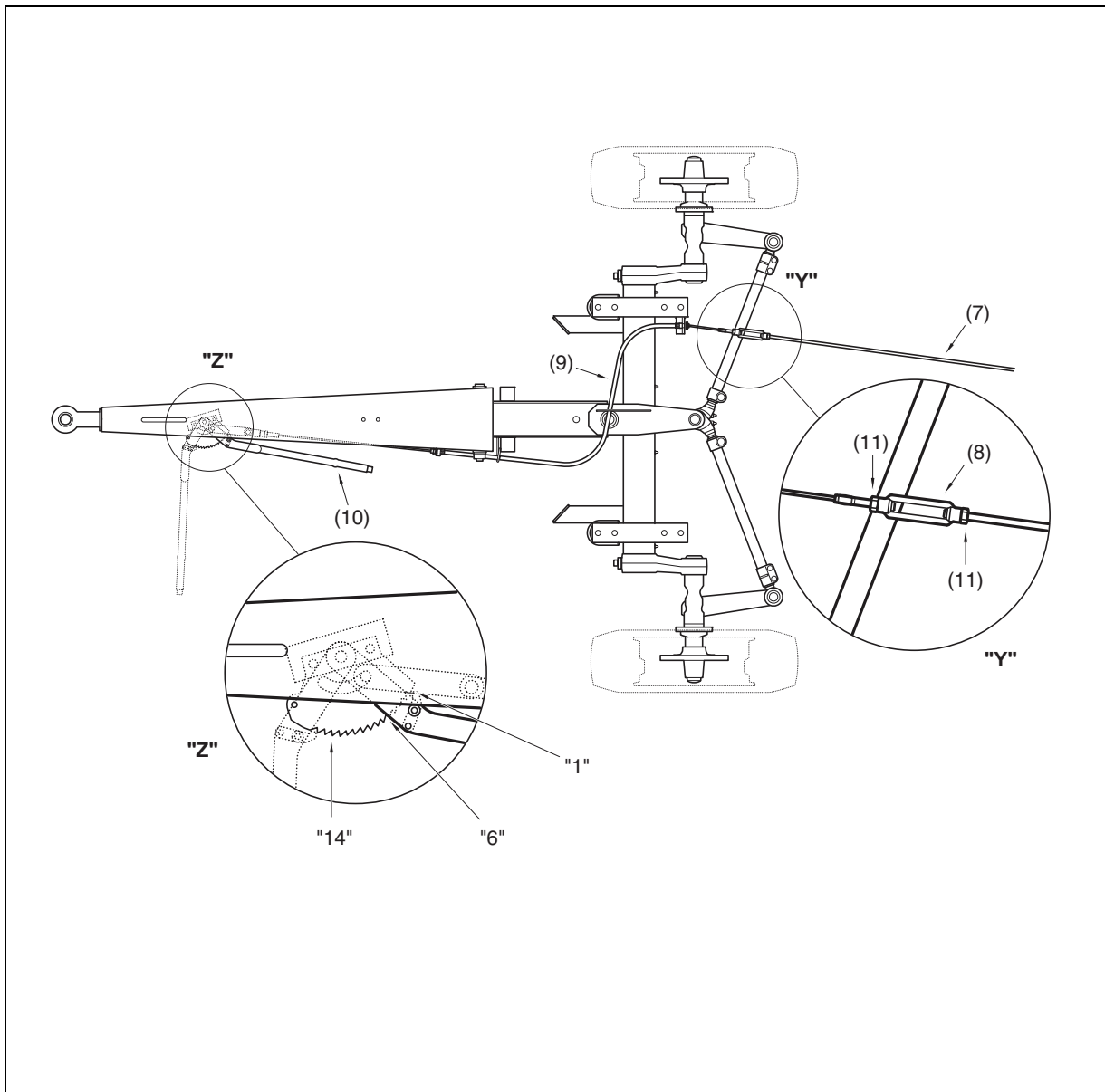
## BRAKE SYSTEM ADJUSTMENT

### BRAKE SHOE ADJUSTMENT WAGON



- Tighten the adjustment nut (1) on the wheel brake with a spanner until the wheel will not rotate in the direction of travel.
- Centre the brake shoes by applying the parking brake several times.
- Turn back the adjustment bolt (1) by approximately one turn, until no braking effect can be felt when the wheel is turned in a forward direction.
- Check the position of the brake equalizer compensator's with the parking brake applied.
- Positioned at right angles to the brake rods = even play on both wheel brakes.
- Re-adjust brakes if necessary.
- As a check, apply the parking brake slightly and check that the braking effect on the wheels (in the direction of travel) is the same on the right and on the left.

## WAGON



### Adjusting the linkage

- The parking brake is adjusted by using the turn-buckle (8). Adjust till the play in the linkage is 1-3 mm (max. 3mm is allowed).
- Apply the parking brake lever several times by hand with a force of 200 to 300 N and put it back into the - not engaged- tooth "1" position. Adjust the turn-buckle (8) as described above.



**Tighten all lock nuts (11) (Torque: 24 Nm).**

### Testing the parking brake

- For testing the parking brake, apply the parking brake lever. Brake power must be reached between the 6th and 14th tooth of the toothed segment ("Z").



## MAINTENANCE UNDERCARRIAGE

### TANDEM EU



Inspections and repair of the axles have to be performed by a skill level 2 truck work shop mechanical technician according to applicable local regulations.



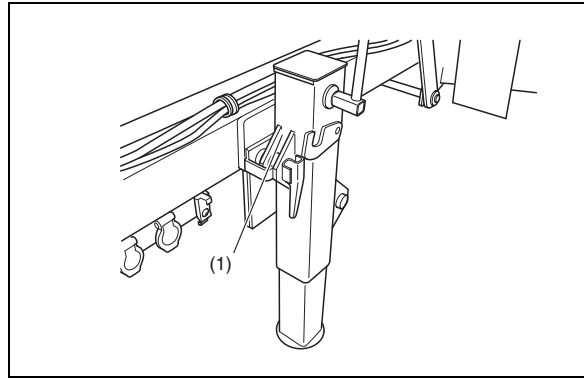
Inspections, adjustment and repair of the brake system have to be performed by a skill level 2 truck work shop mechanical technician according to applicable local regulations.

### Towing eye

Lubricate the towing eye with commercial lubrication grease. The towing eye has to be slightly greased at all times in order to prevent increased wear and tear.

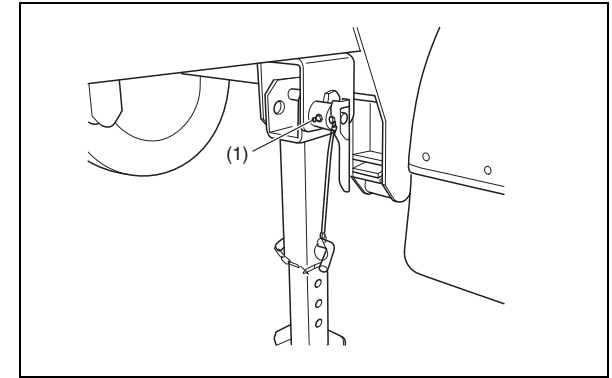
Check the towing eye for wear and tear. Wear and tear of towing eyes with a nominal diameter of 50 mm is restricted to a maximum of 2.5 mm. If this value is exceeded the worn bush of the towing eye has to be exchanged.

### Support leg lubrication point



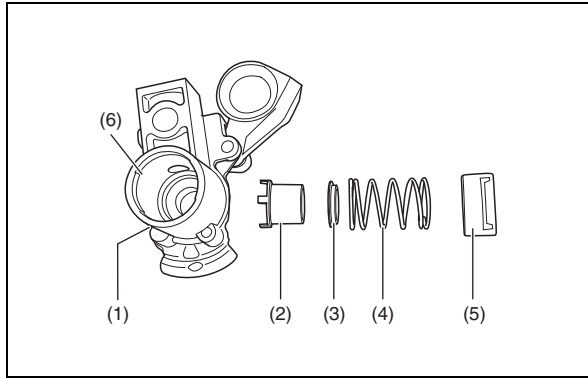
Prior to lubrication please clean the lubrication nipple (1) with a clean cloth. For lubrication purposes use commercial vehicle grease. Lubricate the tow bar using a grease gun on the lubrication nipples.

### Lubrication point of folding supports



Prior to lubrication please clean the lubrication nipple (1) with a clean cloth. For lubrication purposes use commercial vehicle grease. Lubricate the folding supports using a grease gun on the lubrication nipple.

## Cleaning instructions filter element



Open the coupling head by pushing the lid (5) into the housing as far as it will go and turning it by 90° using an Allen key.

Remove the spring (4), the metal ring (3) and filter (2) from the housing.

Clean the housing (1) using a clean cloth.

Clean the filter (2) or replace it if really dirty or damaged.

Check the seal (6). Replace if damaged.

Lubricate the seal (6) with some grease.

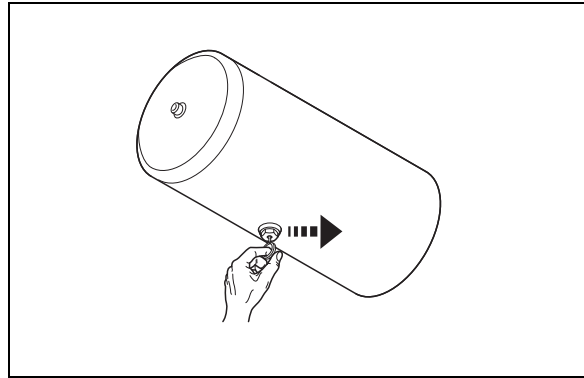
For assembly insert the metal ring (3) into the spring (4) with its side facing down.

Place the filter (2) and filter body inside the spring (4) facing down (Picture: dismantled coupling head).

Transfer the spring (4) back into the housing.

Put the lid (5) on the housing's opening. Push the lid down as far as it will go and lock it using the Allen key and turning it by 90°.

## Cleaning instructions filter element



**Please adhere stringently to the service intervals stated.**

If the system is not regularly drained, water residues may be left inside which in the worse case scenario block the brakes.

To stop the brake system from freezing in winter we recommend you use an anti-freeze agent.

You have to drain all the compressor's brake system compressed air tanks.

The drainage valves can be found in the middle underneath the tanks.

Pull the activation bolt of the drainage valve to the side. Hold the bolt until no more condensation water is coming out. Release the activation bolt. The drainage valve will close.

Defective or leaking valves have to be replaced.

## Tyres

### Tyre check

Check the tyre pressure and tread.

Refer to the table in chapter **Technical specifications**.

### Tyre change

When changing tyres please pay attention to the following.

Take direction of wheel travel into consideration.

Check the tyre pressure.

Prior to fitting the wheel nuts you should oil the threads (do not use oil with molybdenum disulphide additives).

Make sure that the tyres have the same tread.

Secure the compressor against rolling by using the wheel chocks and pulling the parking brake.

Always tighten the wheel nuts crosswise.

## Problem solving

It is assumed that the engine is in good condition and that there is adequate fuel flow to the filter and injection equipment.



**An electrical fault must be traced by an electrician.**

Make sure that the wires are not damaged and that they are clamped tight to their terminals.

For denomination of switches, relays, etc., see **Electric system**.

See also section **Control panel**.



**Have brake faults corrected by your Atlas Copco dealer.**

### COMPRESSOR UNIT

**Problem: Compressor capacity or pressure below normal.**

Possible faults	Corrective actions
Air consumption exceeds capacity of compressor.	Check equipment connected.
Choked air filter elements (AF).	Remove and inspect elements. Clean or replace, if necessary.
Regulating valve (RV) defective.	Have regulating valve removed and inspected by an Atlas Copco Service representative.
Blow down valve stuck in open position.	Check and correct as necessary.
Loading valve (LV) leaking past O-ring.	With compressor running at max. load speed, disconnect hose leading to unloader. If air leaks from the hose, remove and inspect loading valve. Replace damaged or worn O-rings.
Oil separator element clogged.	Have element removed and inspected by an Atlas Copco Service representative.
Air intake throttle valve remains partially closed.	Remove air filters, air intake manifold and throttle valve spring seat. Withdraw the valve and inspect. Replace parts where necessary. Caution: the spring seat is fixed with 4 short and 2 long setscrews: first remove the short screws, then release the spring tension unscrewing the long ones.
Safety valve (SV) leaking.	Remove and inspect. Replace if not airtight after reinstallation.
Blow-off valve leaking.	Remove and inspect. Replace if necessary.

**Problem: Pressure in air receiver rises above maximum and causes safety valve to blow.**

Possible faults	Corrective actions
Regulating valve (RV) opens too late or its ball valve spring is broken.	Have regulating valve removed and inspected by an Atlas Copco Service representative.
Air leaks in regulating system.	Check hoses and their fittings. Stop leaks; replace leaking hoses.
Air intake throttle valve does not close for some reason.	Remove air filters, air intake manifold and throttle valve spring seat. Withdraw the valve and inspect. Replace parts where necessary. Caution: the spring seat is fixed with 4 short and 2 long set screws: first remove the short screws, then release the spring tension unscrewing the long ones.
Minimum pressure valve malfunctioning.	Remove and inspect valve.
Blow-off valve malfunctioning.	Remove and inspect valve.

**Problem: After working some time, the unit stops through a shutdown switch.**

Possible faults	Corrective actions
Engine oil pressure too low.	Refer to the engine instruction manual.
Compressor or engine overheating.	See corrective actions “Compressor overheating”.
Fuel tank contains insufficient fuel.	Fill fuel tank.
Low coolant level.	Top up cooling system.

**Problem: Air and oil mist expelles from air filters immediately after stopping.**

Possible faults	Corrective actions
Check valve at element outlet.	Remove and inspect. Replace if necessary. Replace air filter elements and safety cartridges. Check the oil level and add oil if necessary. Run the compressor for a few minutes, stop and recheck oil level.
Plunger of oil stop valve jammed.	Remove and inspect. Replace if necessary. Replace air filter elements and safety cartridges. Check the oil level and add oil if necessary. Run the compressor for a few minutes, stop and recheck oil level.

**Problem: Compressor overheating.**

Possible faults	Corrective actions
Insufficient compressor cooling.	Locate compressor away from walls; when banked with other compressors, leave space between them.
Oil cooler clogged externally.	Clean oil cooler. Refer to section Cleaning coolers.
Oil cooler clogged internally.	Consult Atlas Copco.
Oil filters clogged.	Replace oil filters.
Oil level too low.	Check oil level. Top up with recommended oil if necessary.
Thermostatic by-pass valve remains stuck in opened position.	Remove valve and check for proper opening and closing. Replace if out of order.
Fan blade(s) broken.	Check and correct if necessary.
Oil stop valve malfunctioning.	Remove and inspect valve.
Oil separator element (OS) clogged.	Have element removed and inspected by an Atlas Copco Service representative.

**Alternator precautions**

1. Never reverse the polarity of the battery or the alternator.
2. Never break any alternator or battery connections while the engine is running.
3. When recharging the battery, disconnect it from the alternator. Before using booster cables to start the engine, be sure of the polarity and connect the batteries correctly.
4. Never operate the engine without the main or voltage sensing cables connected in the circuit.

## UNDERCARRIAGE TANDEM EU

**Malfunction: The compressor is constantly being braked.**

Possible faults	Corrective actions
The parking brake was not released.	Release the parking brake.
The brake system was not properly serviced.	Visit a garage and have your brake system serviced.
Failure of compressed air system.	Visit a garage.
One brake drum is defective.	Visit a garage.

**Malfunction: The brake cannot be released.**

Possible faults	Corrective actions
The compressed air system is leaking and operating pressure is not achieved.	Visit a garage
Feed line pressure is too low.	Connect the compressor to a truck.

**Malfunction: The service brake cannot be released.**

Possible faults	Corrective actions
Feed line pressure is too low.	Connect the compressor to a truck.
One brake drum is defective.	Visit a garage.

**Malfunction: When driving the compressor pulls to the right or the left.**

Possible faults	Corrective actions
The tyre pressure is irregular.	Inflate or deflate until the tyre pressure is regular and in accordance with directions.
The brake of one wheel has not been adjusted properly and is braking.	Visit a garage.

**Malfunction: Whilst driving the compressor starts swerving quickly.**

Possible faults	Corrective actions
The tyre pressure is too high.	Deflate the tyre until you reach normal tyre pressure.
The driving speed is too high and not in accordance with the road conditions.	Slow down.

**Malfunction: The compressor is making flapping noises during driving.**

Possible faults	Corrective actions
Cables or hoses are becoming detached.	Drive to the nearest authorised service centre.
The stand has not been raised and is becoming detached.	Fold up the stand and have it properly fixed again in an authorised service centre.
The spindle parking brake is still activated.	Release the spindle parking brake.

**Malfunction: The towing eye cannot be swung around at all or with great difficulty.**

Possible faults	Corrective actions
The towing eye's bearing is stuck.	Lubricate the towing eye.

**Malfunction: The compressor is squeaking during driving.**

Possible faults	Corrective actions
Insufficient lubrication of greasing points.	Lubricate all greasing points again.
One wheel bearing is defective	Visit a garage.
The spindle parking brake is still activated.	Release the spindle parking brake.

**Malfunction: After being coupled the compressor is not in a horizontal position.**

Possible faults	Corrective actions
Coupling height has not been adjusted properly.	Re-adjust the coupling height.
The stand is still down.	Fold up the stand.

## HEATER

### Problem: Heater does not start when switched on.

Possible faults	Corrective actions
No fuel.	Check fuel level.
Fuse blown.	Check fuse.
Bad electrical contact.	Check electrical wiring.
Blocked air duct or exhaust gas duct.	Check combustion air duct and exhaust gas duct.
Glow plug defective.	Replace glow plug.
Fan motor defective.	Replace fan motor.

### Problem: Flame extinguishes.

Possible faults	Corrective actions
Overheating	Cool down and start again.

### Problem: Heater shuts off.

Possible faults	Corrective actions
Upper or lower voltage limit is reached.	Check power.

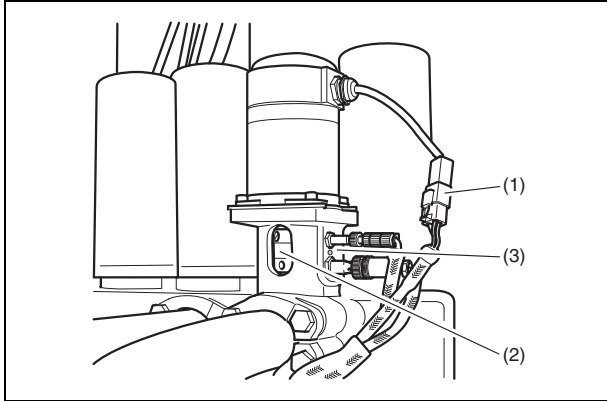
### Problem: Control unit locked.

Possible faults	Corrective actions
Device switched off and on again too many times.	Contact your agent.



## Oiltronix failure

### Manually locking the valve (temporary solution)



Disconnect the connector (1) of the stepper motor, to ensure that the stepper motor does not try to rotate the valve.

Rotate the white coupling of the valve manually until the blind hole (2) in the coupling is in line with the threaded hole (3) in the housing.



**Check the correct position of the blind hole with a  $\varnothing$  4 mm pin.**

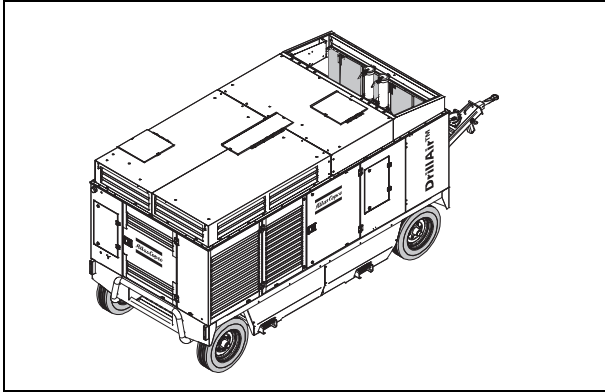
Block the valve by screwing a bolt (M5 x 20) through the housing and in the blind hole in the coupling.



**Contact Atlas Copco for a thorough scan and repair.**

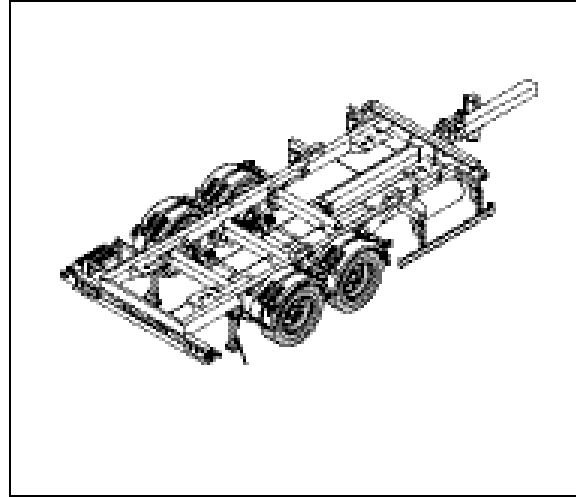
## Available options

### UNDERCARRIAGE WAGON



The undercarriage makes it possible to move the compressor on the site with a truck to the location where it is needed. This option exits of rubber damped axles, four wheels and a tow bar. The wheels are also equipped with brakes operated from the brake handle on the tow bar.

### UNDERCARRIAGE TANDEM EU



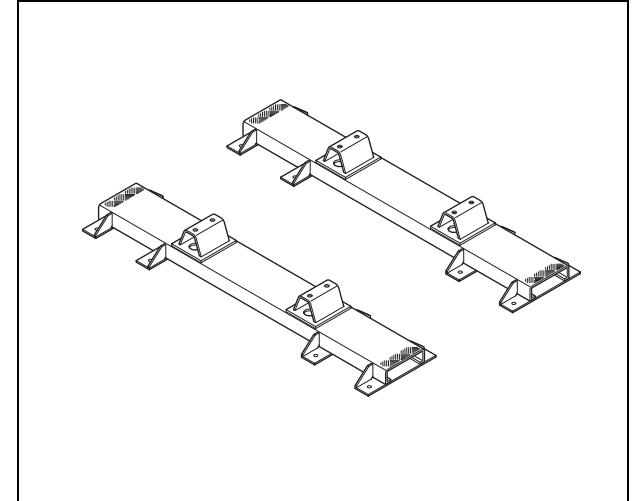
Easy transport & installation; High speed highway transport and easy manoeuvrability. This eliminates the need for having a second truck to transport the compressor, leading to a lower investment cost in the operation and faster job turnover.

Highest reliability; Extra large fuel tanks are provided as standard.

The maximum speed is 90 km/hr (56 mph).

Towing eyes options: DIN or NATO.

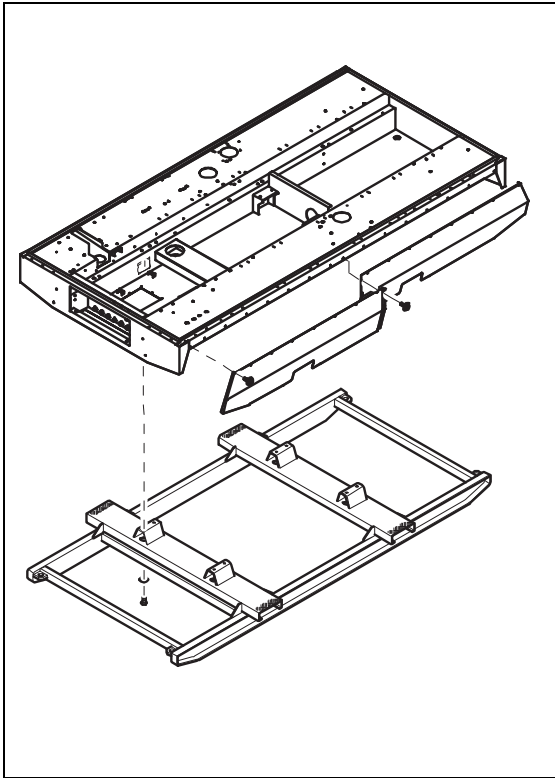
### SUPPORT MOUNTED / LARGE FUEL TANKS



With the option “Support mounted” it is possible to fix the compressor to a truck for more flexibility or to a frame when it is to be used permanently in an installation.

In combination with the support mounted it is also possible to integrate larger fuel tank to get larger intervals between two fuel supply actions.

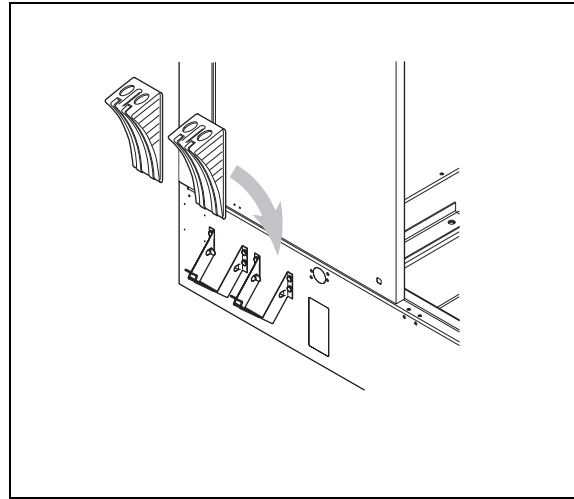
## SKID / LARGE FUELTANKS



The skid is ideal in circumstances where the site is impossible to reach by truck. It allows transportation by crane or fork lift truck. When on the ground it can be pushed into the exact location.

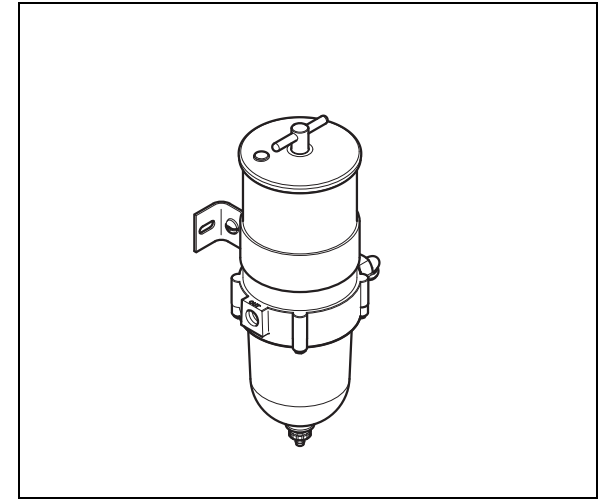
In combination with the skid it is also possible to integrate larger fuel tank to get larger intervals between two fuel supply actions.

## WHEEL CHOCKS



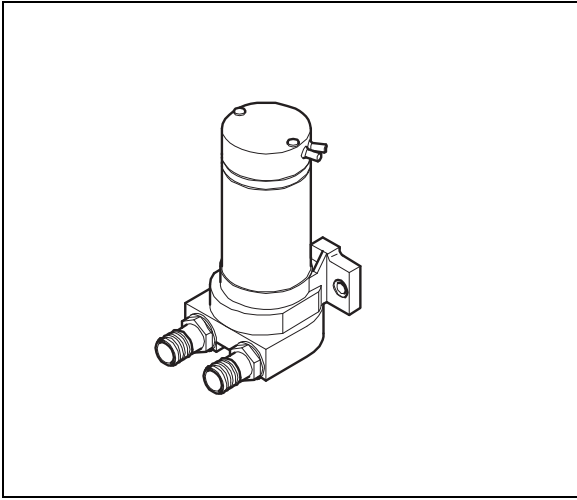
For extra safe parking on slopes.

## ADDITIONAL FUELFILTER



In dusty environments or in situations where the fuel quality is not up to the normal standard, this additional fuel filter gives an extra protection to the fuel/combustion system.

## ELECTRIC REFUEL PUMP

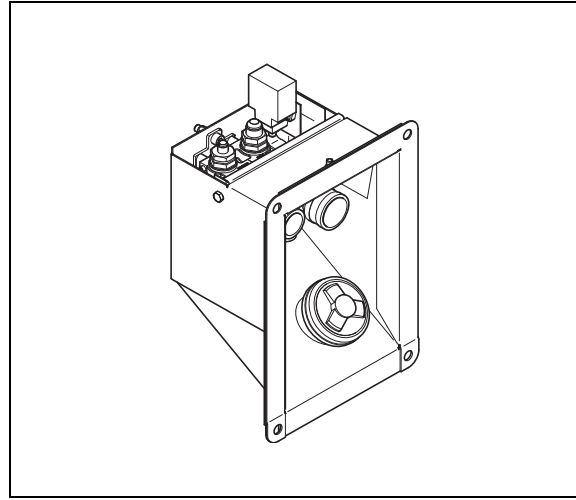


The electric refuel pump makes it easy to refuel the compressor on site when refuelling from tanks or containers. This option also contains a suction hose with strainer.

When switched on the electric refuel pump will be automatically switched off when:

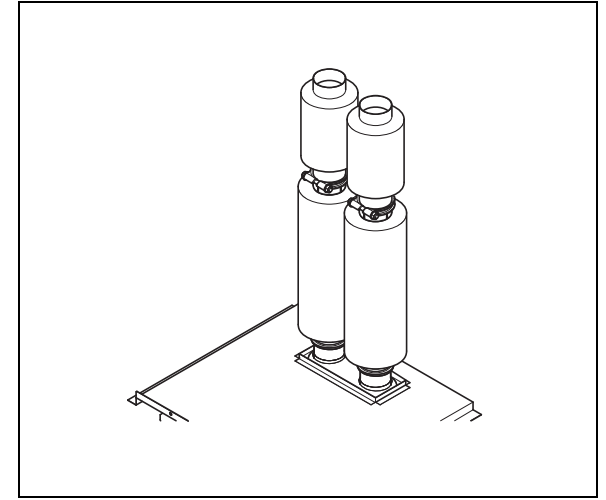
- the tank is full,
- the tank from which is being refuelled is empty.

## EXTERNAL FUEL CONNECTION



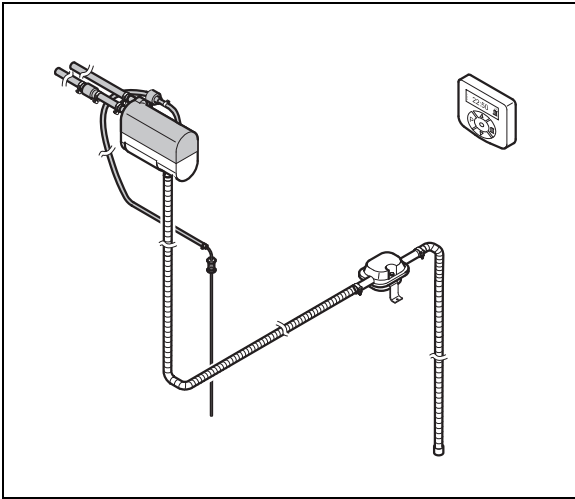
When a compressor is operated on site for a longer period it is advisable to supply the fuel through external fuel connections. When using this option the regular refuelling by tanker it is no more needed. Consequently there is also less risk for contamination when refuelling.

## SPARK ARRESTOR



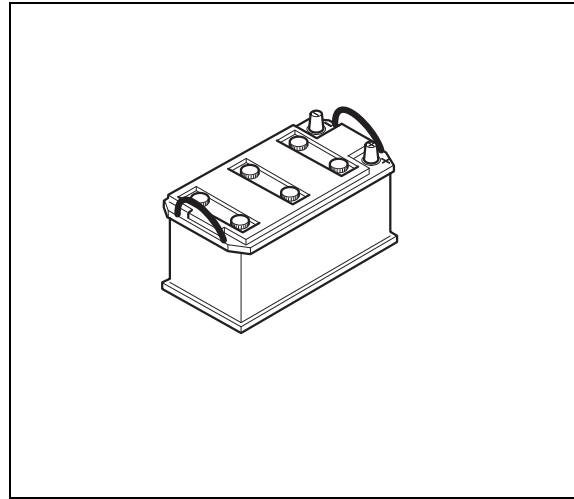
The certified spark arrester is an addition to the exhaust that makes it possible to operate the compressor in hazardous environments like refineries where there is a possibility that inflammable fumes can be released. The spark arrester prevents any hot (burning) particles from getting into the open air.

## PREHEATER



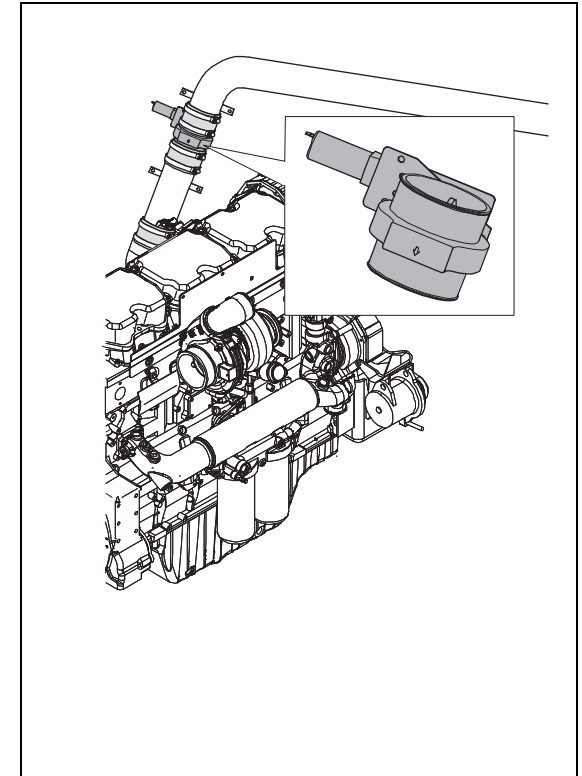
The preheater is a device for preheating the cooling fluid before starting when operating at low temperatures. The engine will start more easy. Additionally the preheater will lengthen the life span of the engine as there are no cold starts.

## COLD WEATHER PACKAGE



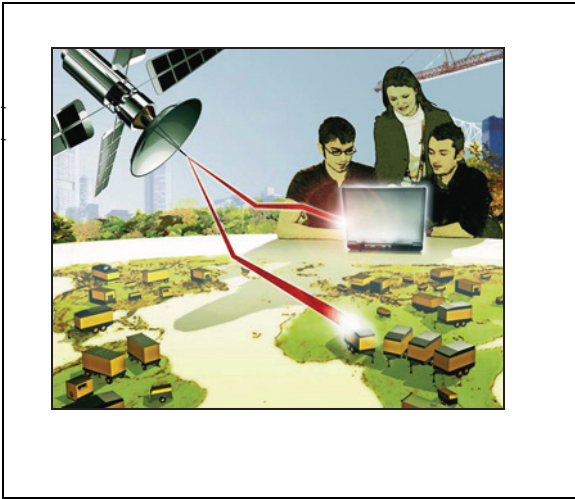
The cold start option consists of larger batteries and a blow off valve to be able to start the engine at temperatures between  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ) and  $-25^{\circ}\text{C}$  ( $-13^{\circ}\text{F}$ ). It also includes a preheater.

## INLET SHUTDOWN VALVE



The inlet shut down valve is a safety device preventing the engine from over speeding when sucking in combustibile fumes. When the engine max. RPM is exceeded a pneumatically controlled solenoid valve closes off the air inlet and the fuel supply to the engine is cut.

## COSMOS REMOTE MONITORING SYSTEM

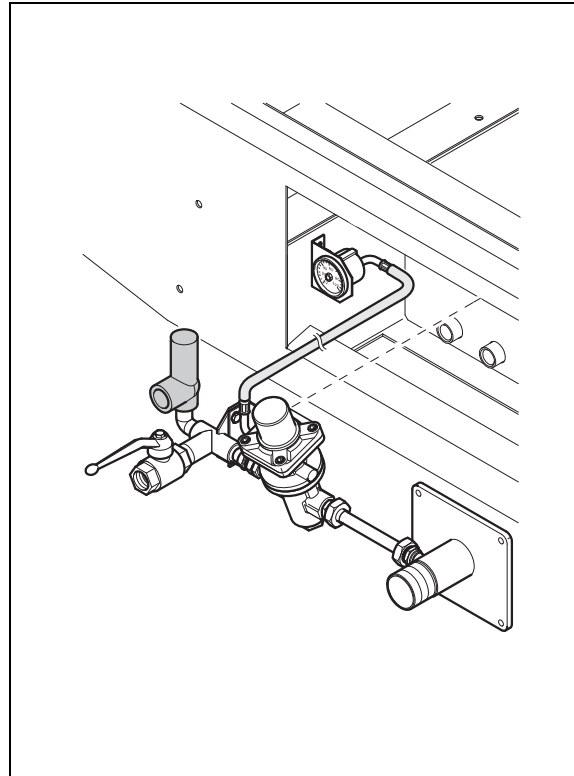


COSMOS allows technicians to arrive at the right location, at the right time, with the right information and service materials so enabling you to give better customer service, more up-time, and more accurate invoicing than previously possible.

COSMOS provides information on:

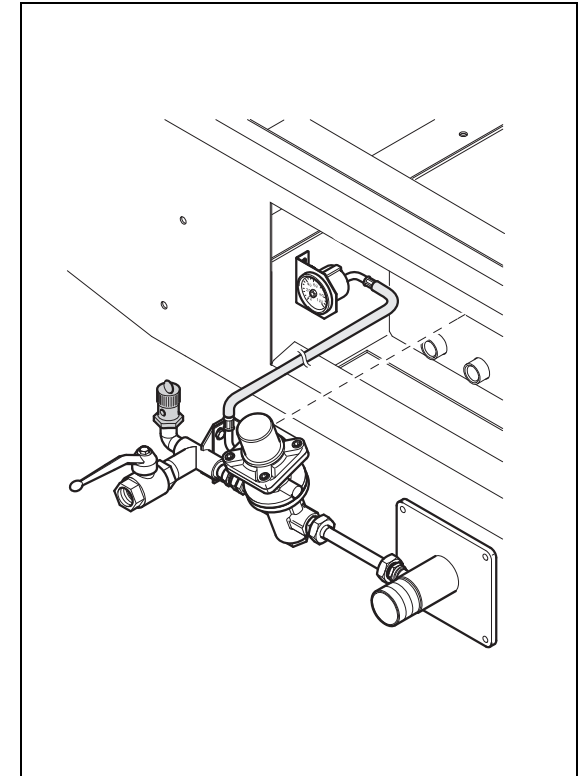
- time to maintenance
- operational history (running hours, fuel levels, events)
- utilization data visualized in usage graphs
- the location of the machine
- all measured values and parameters

## PRESSURE REGULATOR EC



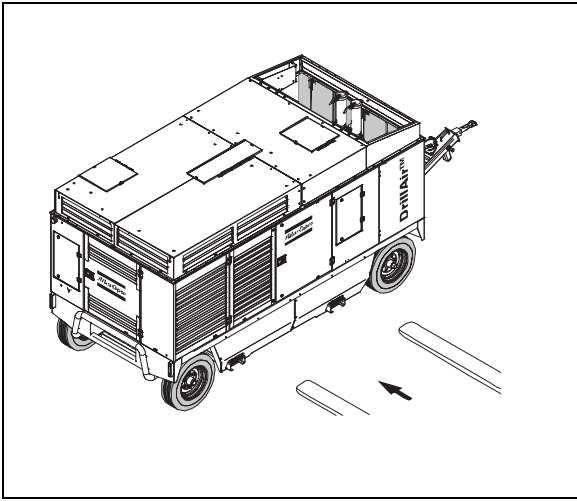
A pressure regulating system according to European standards for reducing the operating pressure. It will limit the operating pressure to 7 bar and allow the operation of hand held pneumatic tools.

## PRESSURE REGULATOR ASME



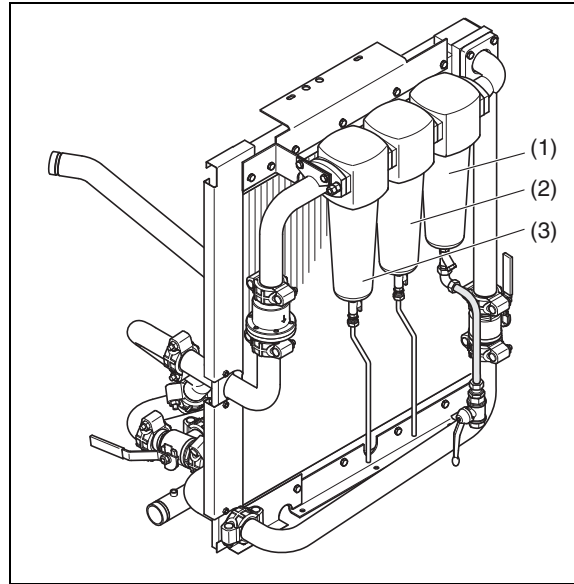
A pressure regulating system according to US standards for reducing the operating pressure. It will limit the operating pressure to 7 bar and allow the operation of hand held pneumatic tools.

## FORK LIFT SLOTS



With fork lift slots the compressor can easily be moved with a fork lift truck on building sites where it is impossible to use a towing truck.

## AFTER-COOLER



available to reduce the outlet air temperature to ambient plus 10°C (18°F) and cut water content to a mere 15%. This performance can be obtained under optimal atmospheric conditions.

When an after-cooler is used in an application where the temperature is critical the air outlet temperature can be monitored by the compressor controller.

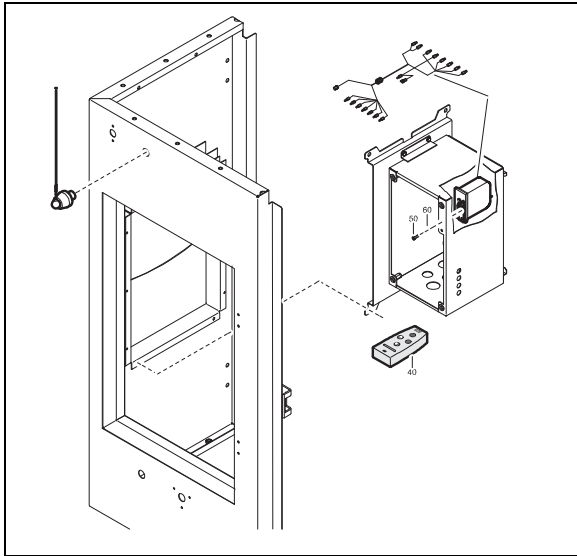
A warning can be set at a value between 0°C and 115°C (=default value) and a shut-down can be set at a value between 0°C and 120°C (= default value). The operator has authority to modify these values so the process can be guarded and kept in a safe condition under all circumstances.

See also table **Fault codes** on page 62.

The installation includes a by-pass over the aftercooler. For applications that demand quality air, a fine filtration unit (2) can be specified with the aftercooler package. This will remove oil and particles down to 0.01 mg/m<sup>3</sup>.

For purer, but not breathing, air, an active charcoal filtration unit (3) can be specified with the aftercooler package. This removes oil and oil vapour content to 0.003 mg/m<sup>3</sup>

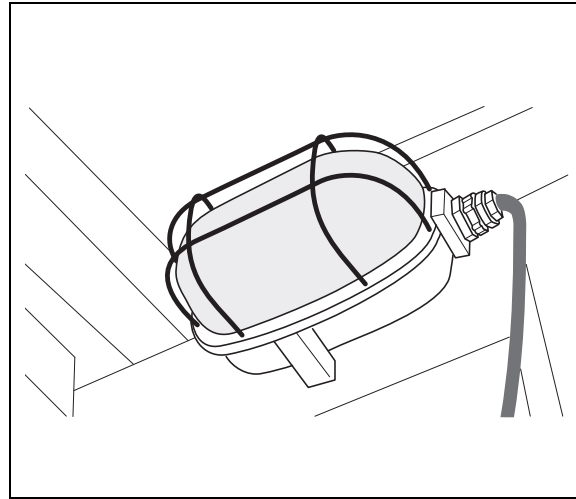
## REMOTE START



The remote start allows the user to start, stop the compressor and switch to load/no load by radio signal.

This is particularly comfortable when the compressor can not be positioned directly at the job site because of blocking by buildings or other obstacles.

## INTERNAL LIGHTING

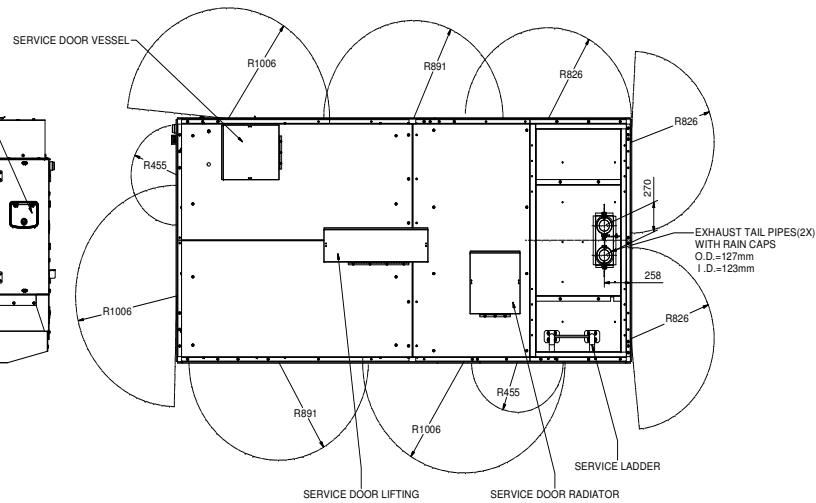
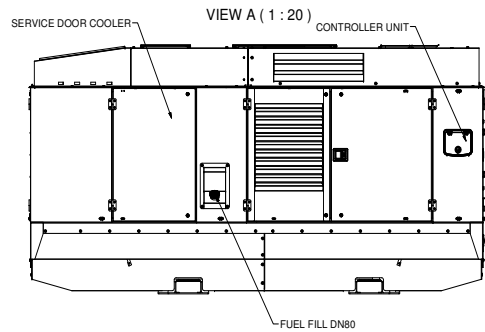
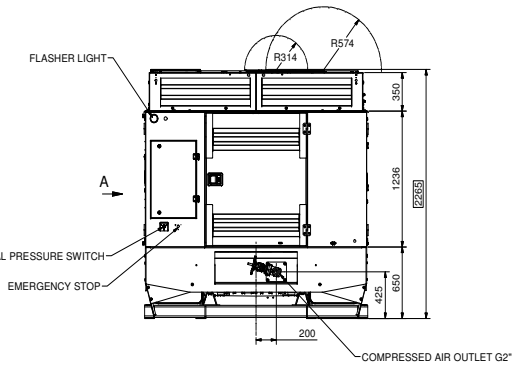
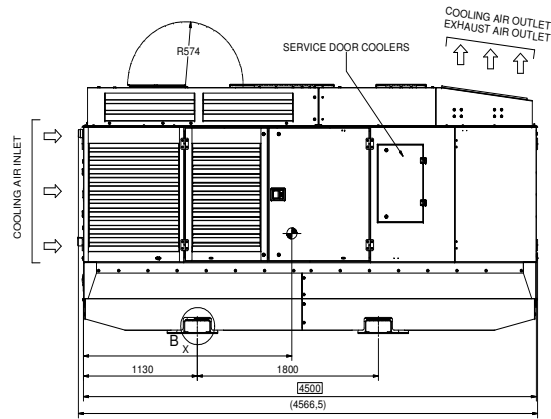
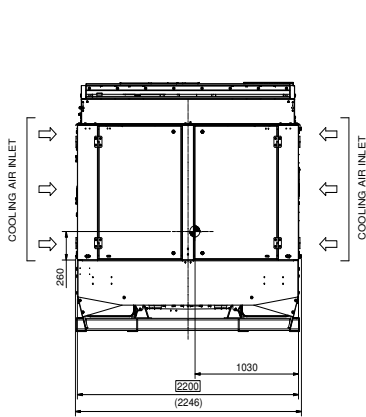
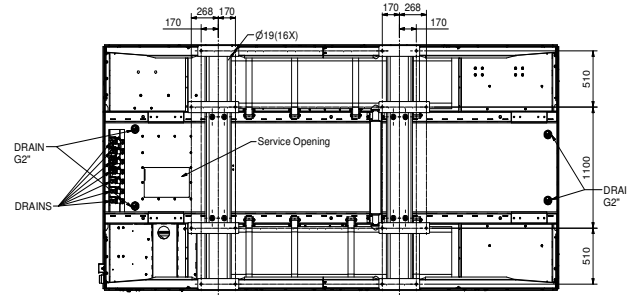
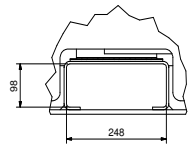


The internal lighting circuit is equipped with a timer. When the internal lighting is switched on, the timer is started. After a preset time the internal light will be switched off automatically.



# DIMENSION DRAWING - 9839 3800 10-01

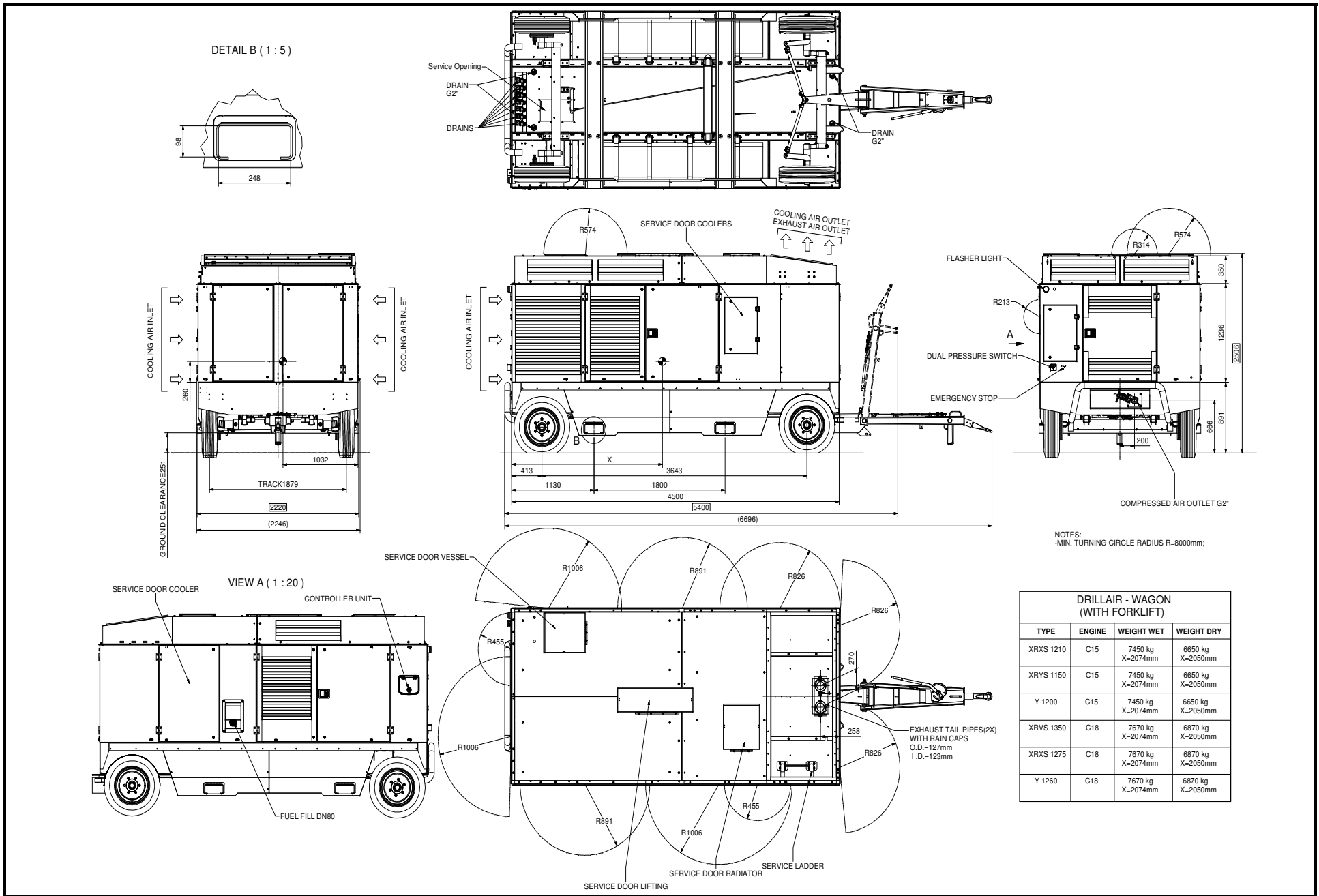
DETAIL B (1 : 5)



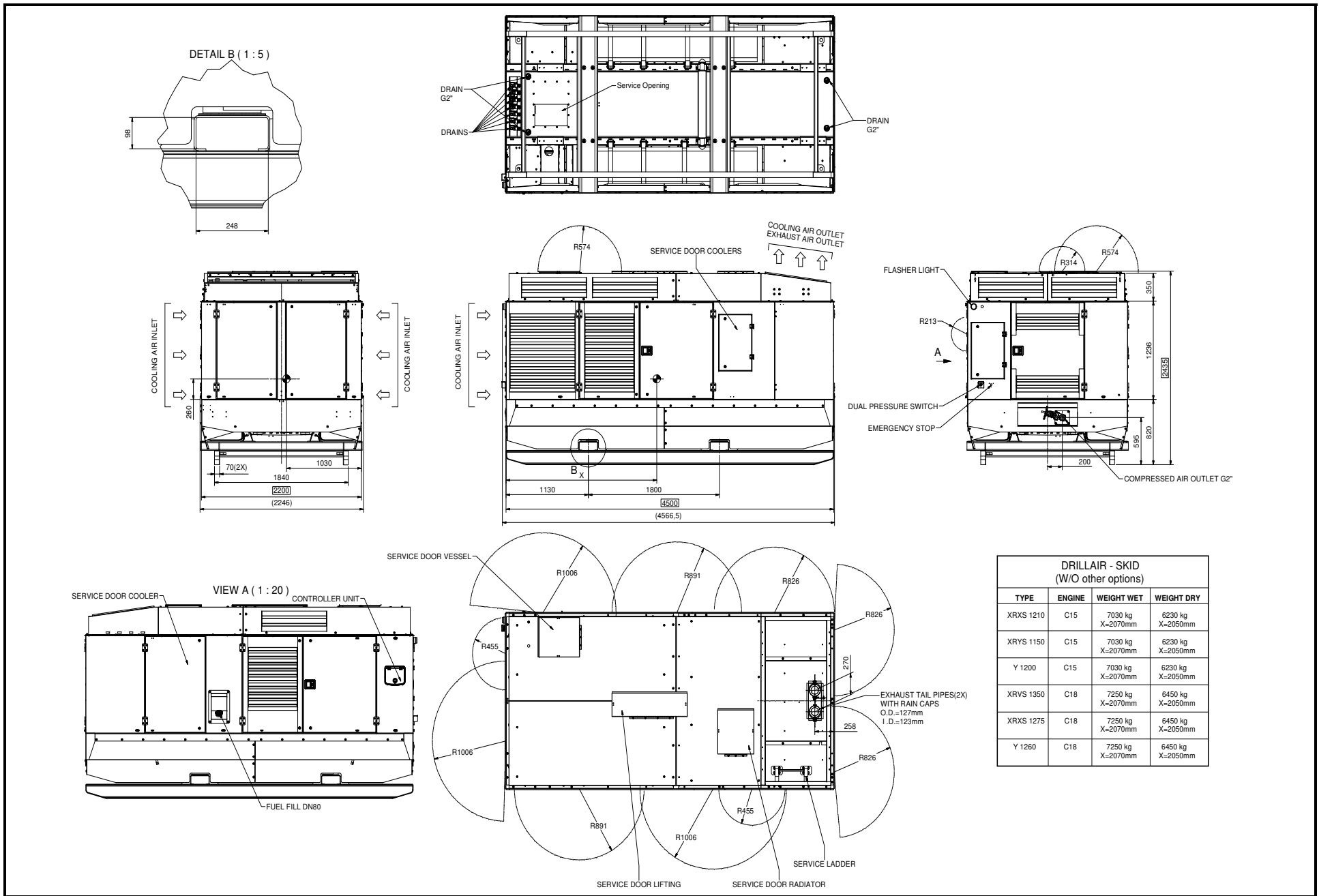
DRILLAIR - SUPPORT MOUNTED (W/O other options)			
TYPE	ENGINE	WEIGHT WET	WEIGHT DRY
XRXS 1210	C15	6800 kg X=2070mm	6000 kg X=2040mm
XRYs 1150	C15	6800 kg X=2070mm	6000 kg X=2040mm
Y 1200	C15	6800 kg X=2070mm	6000 kg X=2040mm
XRVs 1350	C18	7020 kg X=2070mm	6220 kg X=2040mm
XRXS 1275	C18	7020 kg X=2070mm	6220 kg X=2040mm
Y 1260	C18	7020 kg X=2070mm	6220 kg X=2040mm



# DIMENSION DRAWING - 9839 3800 12-01



# DIMENSION DRAWING - 9839 3800 13-01



DRILLAIR - SKID (W/O other options)			
TYPE	ENGINE	WEIGHT WET	WEIGHT DRY
XRXS 1210	C15	7030 kg X=2070mm	6230 kg X=2050mm
XRYS 1150	C15	7030 kg X=2070mm	6230 kg X=2050mm
Y 1200	C15	7030 kg X=2070mm	6230 kg X=2050mm
XRVS 1350	C18	7250 kg X=2070mm	6450 kg X=2050mm
XRXS 1275	C18	7250 kg X=2070mm	6450 kg X=2050mm
Y 1260	C18	7250 kg X=2070mm	6450 kg X=2050mm

# Technical specifications

## TORQUE VALUES

### GENERAL TORQUE VALUES

The following tables list the recommended torques applied for general applications during assembly of the compressor.

#### For hexagon screws and nuts with strength grade 8.8

Thread size	Torque value (Nm / lbf.ft)
M6	8 (6) +/-25 %
M8	20 (15) +/-25 %
M10	41 (30) +/-25 %
M12	73 (54) +/-25 %
M14	115 (85) +/-25 %
M16	185 (137) +/-25 %

#### For hexagon screws and nuts with strength grade 12.9

Thread size	Torque value (Nm / lbf.ft)
M6	14 (10) +/-21 %
M8	34 (25) +/-23 %
M10	70 (52) +/-24 %
M12	120 (89) +/-25 %
M14	195 (144) +/-23 %
M16	315 (233) +/-23 %

### CRITICAL TORQUE VALUES

Assemblies	Torque value (Nm / lbf.ft)
<b>Axles to frame:</b>	
Wheel nuts	270 (200) +10/-0 %
Bolts, front axle/frame	205 (152) +/- 10 %
Bolts, rear axle/frame	205 (152) +/- 10 %
<b>Compressor to frame:</b>	
Bolts, elements/gear casing	46 (34) +/- 10 %
Bolts, elements/support	80 (60) +/- 10 %
Bolts, support/buffer	205 (152) +/- 10 %
Bolts, buffer/frame	80 (60) +/- 10 %
<b>Engine to frame:</b>	
Bolts, engine/support	205 (152) +/- 10 %
Bolts, support/buffer	46 (34) +/- 10 %
Bolts, buffer/frame	23 (17) +/- 10 %
<b>Lifting beams to frame:</b>	
Bolts, lifting beams/yoke (M12)	125 (93) +/- 10 %
Bolts, lifting beams/yoke (M16)	205 (152) +/- 10 %
Bolts, lifting beams/A-Frames	205 (152) +/- 10 %
Bolts, A-Frames/frame	205 (152) +/- 10 %
<b>Hose clamps:</b>	
Pebra hose clamps on all IC/radiator hoses	12 (9) +/- 10 %



Secure the drain cock and tank cap of the fuel tank handtight.

## COMPRESSOR / ENGINE SPECIFICATIONS

### REFERENCE CONDITIONS

Designation		XRXS1210	XRYS1150	Y1200	Y1260
Absolute inlet pressure	bar(e)	1	1	1	1
	psi	14.5	14.5	14.5	14.5
Relative air humidity	%	0	0	0	0
Air inlet temperature	°C	20	20	20	20
	°F	68	68	68	68
Nominal effective working pressure	bar(e)	30	35	35	35
	psi	435	507.5	507.5	507.5

The inlet conditions are specified at the air inlet grating outside the canopy.

### LIMITATIONS

Designation		XRXS1210	XRYS1150	Y1200	Y1260
Minimum effective receiver pressure	bar(e)	15	18	15	15
	psi	217.5	261	217.5	217.5
Maximum effective receiver pressure, compressor unloaded manual	bar(e)	32	37	35	35
	psi	464	536.5	507.5	507.5
Maximum effective receiver pressure, compressor unloaded automax	bar(e)			37	37
	psi			536.5	536.5
Maximum ambient temperature at sea level	without aftercooler	°C	50	50	50
		°F	122	122	122
	with aftercooler	°C	45	45	45
		°F	113	113	113
Minimum starting temperature	°C	-10	-10	-10	-10
	°F	14	14	14	14
Minimum starting temperature, with coldstart equipment	°C	-25	-25	-25	-25
	°F	-13	-13	-13	-13
Altitude capability	see separate curve on page 115				

## PERFORMANCE DATA

At reference conditions, if applicable, and at normal shaft speed, unless otherwise stated.

Designation		XRXS1210	XRYS1150	Y1200	Y1260
With 15bar receiver pressure <sup>1)</sup>					
With 217.5psi receiver pressure					
Engine shaft speed <sup>2)</sup>	r/min			1950	1950
Free air delivery <sup>3)</sup>	l/s			644	688
	cfm			1364	1457
Fuel consumption					
- at 100% FAD <sup>4)</sup>	kg/h			80.1	81.2
	lb/h			176.6	179.0
- at 75% FAD <sup>4)</sup>	kg/h			56.1	59.1
	lb/h			123.7	130.2
- at 50% FAD <sup>4)</sup>	kg/h			43.3	46.1
	lb/h			95.4	101.7
- at 25% FAD <sup>4)</sup>	kg/h			27.7	31.9
	lb/h			61.1	70.2
- at unload	kg/h			19.0	20.0
	lb/h			41.9	44.0
Specific fuel consumption at 100% FAD <sup>4)</sup>	g/m <sup>3</sup>			34.6	32.8
	lb/1000cu ft			2.16	2.05
With 21bar receiver pressure					
With 304.5psi receiver pressure					
Engine shaft speed <sup>2)</sup>	r/min	1750	1850	1950	1950
Free air delivery <sup>3)</sup>	l/s	608	608	634	677
	cfm	1288	1288	1343	1434
Fuel consumption	kg/h	73.1	73.7		
	lb/h	161.1	162.5		
- at 100% FAD <sup>4)</sup>	kg/h			82.1	87.0

<b>Designation</b>		<b>XRXS1210</b>	<b>XRYS1150</b>	<b>Y1200</b>	<b>Y1260</b>
	lb/h			180.9	191.8
- at 75% FAD <sup>4)</sup>	kg/h			62.6	64.3
	lb/h			138.1	141.8
- at 50% FAD <sup>4)</sup>	kg/h			46.8	50.2
	lb/h			103.1	110.6
- at 25% FAD <sup>4)</sup>	kg/h			35.5	37.3
	lb/h			78.2	82.3
- at unload	kg/h			23.9	25.1
	lb/h			52.8	55.4
Specific fuel consumption at 100% FAD <sup>4)</sup>	g/m <sup>3</sup>	33.4	33.7	36.0	35.7
	lb/1000cu ft	2.09	2.10	2.25	2.23
With 25bar receiver pressure					
With 362.5psi receiver pressure					
Engine shaft speed <sup>2)</sup>	r/min	1700	1750	1864	1864
Free air delivery <sup>3)</sup>	l/s	586	566	615	652
	cfm	1243	1199	1303	1382
Fuel consumption	kg/h	73.7	73.1		
	lb/h	162.5	161.2		
- at 100% FAD <sup>4)</sup>	kg/h			80.6	85.8
	lb/h			177.6	189.1
- at 75% FAD <sup>4)</sup>	kg/h			61.2	66.2
	lb/h			134.9	145.9
- at 50% FAD <sup>4)</sup>	kg/h			47.4	51.7
	lb/h			104.4	114.0
- at 25% FAD <sup>4)</sup>	kg/h			36.8	39.6
	lb/h			81.0	87.3
- at unload	kg/h			26.0	32.2
	lb/h			57.4	71.0



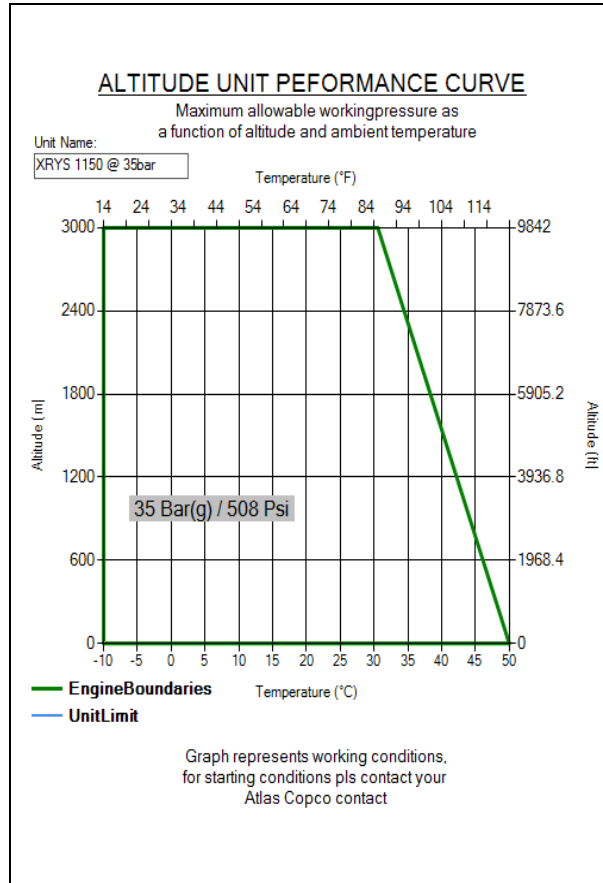
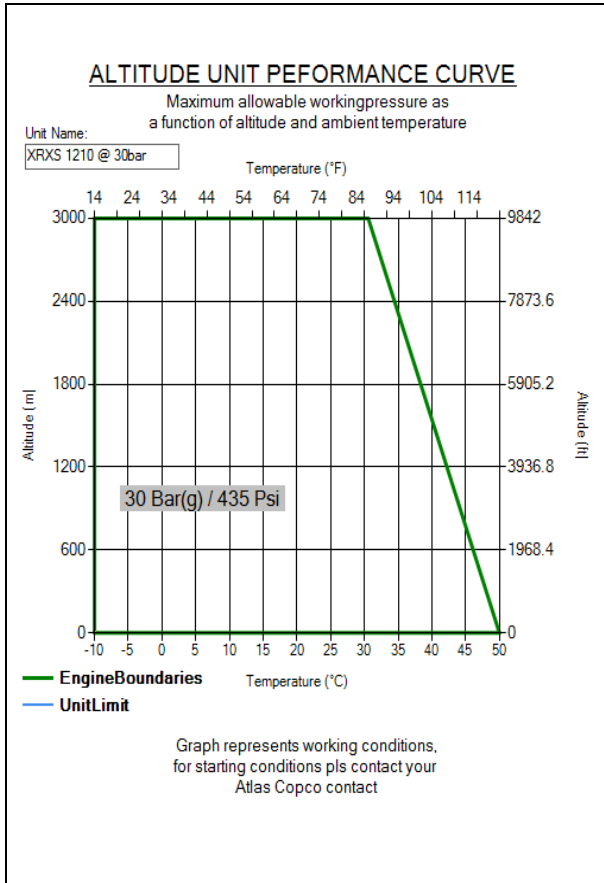
<b>Designation</b>		<b>XRXS1210</b>	<b>XRYS1150</b>	<b>Y1200</b>	<b>Y1260</b>
Specific fuel consumption at 100% FAD <sup>4)</sup>	g/m <sup>3</sup>	34.9	35.9	36.4	36.5
	lb/1000cu ft	2.18	2.24	2.27	2.28
With 30bar receiver pressure With 435.0psi receiver pressure					
Engine shaft speed <sup>2)</sup>	r/min	1650		1757	1757
Free air delivery <sup>3)</sup>	l/s	570		580	625
	cfm	1208		1229	1325
Fuel consumption	kg/h	80.0			
	lb/h	176.4			
- at 100% FAD <sup>4)</sup>	kg/h			77.8	84.9
	lb/h			171.5	187.2
- at 75% FAD <sup>4)</sup>	kg/h			60.0	66.6
	lb/h			132.3	146.9
- at 50% FAD <sup>4)</sup>	kg/h			49.5	54.1
	lb/h			109.1	119.3
- at 25% FAD <sup>4)</sup>	kg/h			39.6	43.8
	lb/h			87.3	96.5
- at unload	kg/h			35.8	37.5
	lb/h			79.0	82.6
Specific fuel consumption at 100% FAD <sup>4)</sup>	g/m <sup>3</sup>	39.0		37.3	37.7
	lb/1000cu ft	2.43		2.33	2.35
With 35bar receiver pressure With 507.5psi receiver pressure					
Engine shaft speed	r/min		1650	1650	1650
Free air delivery	l/s		533	539	580
	cfm		1129	1142	1229
Fuel consumption	kg/h		81.0		
	lb/h		178.6		
- at 100% FAD <sup>4)</sup>	kg/h			80.6	82.6

Designation			XRXS1210	XRYS1150	Y1200	Y1260
		lb/h			177.6	182.1
- at 75% FAD <sup>4)</sup>		kg/h			65.3	65.0
		lb/h			144.0	143.2
- at 50% FAD <sup>4)</sup>		kg/h			55.4	52.3
		lb/h			122.2	115.4
- at 25% FAD <sup>4)</sup>		kg/h			45.7	41.7
		lb/h			100.8	91.9
- at unload		kg/h			43.2	40.3
		lb/h			95.3	88.8
Specific fuel consumption at 100% FAD <sup>4)</sup>		g/m <sup>3</sup>		42.2	41.5	39.6
		lb/1000cu ft		2.63	2.59	2.47
With compressor partial loaded	Engine shaft speed	r/min	1650~1300	1650~1300		
- at 75% FAD <sup>4)</sup>		kg/h	63.2	64.8		
		lb/h	139.3	142.9		
- at 50% FAD <sup>4)</sup>		kg/h	52.8	55.5		
		lb/h	116.4	122.3		
- at 25% FAD <sup>4)</sup>		kg/h	43.8	46.0		
		lb/h	96.6	101.5		
With compressor unloaded	Engine shaft speed	r/min	1300	1300		
	Fuel consumption	kg/h	38.75	40.3		
		lb/h	85.43	88.85		
Typical oil content of compressed air		mg/m <sup>3</sup>	<3	<3	<3	<3
		oz/1000 cu.ft	<0,003	<0,003	<0,003	<0,003
Engine oil consumption (maximum)		g/h	222	222	222	222
		oz/h	7.83	7.83	7.83	7.83
Compressed air temperature at outlet valve	without aftercooler	°C	100	100	100	100
		°F	212	212	212	212
	with aftercooler	°C	35	35	35	35
		°F	95	95	95	95

<b>Designation</b>		<b>XRXS1210</b>	<b>XRYS1150</b>	<b>Y1200</b>	<b>Y1260</b>
Noise level					
- Sound pressure level (Lp), measured according to under free field conditions at 10 m distance	dB(A)	NA	NA	NA	NA
- Sound power level (Lw) complies with					
ISO 3744	dB(A)	109	109	109	109
84/533/EEC and 85/406/EEC limits	dB(A)	NA	NA	NA	NA

# ALTITUDE UNIT PERFORMANCE CURVE

Max. allowable working pressure as a function altitude and ambient temperature.

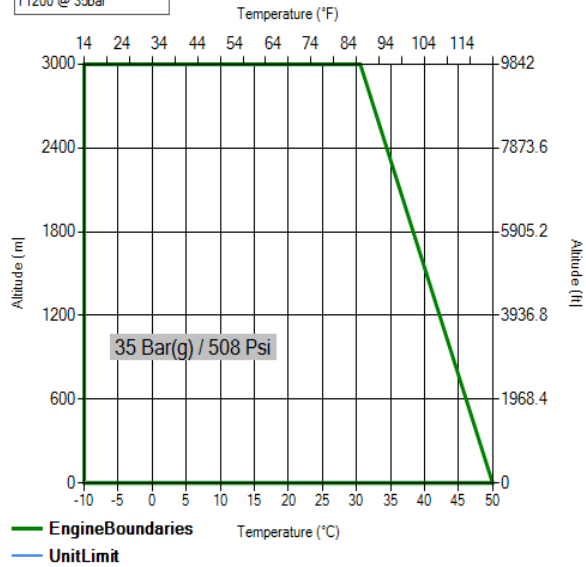


### ALTITUDE UNIT PERFORMANCE CURVE

Maximum allowable working pressure as a function of altitude and ambient temperature

Unit Name:

Y1200 @ 35bar



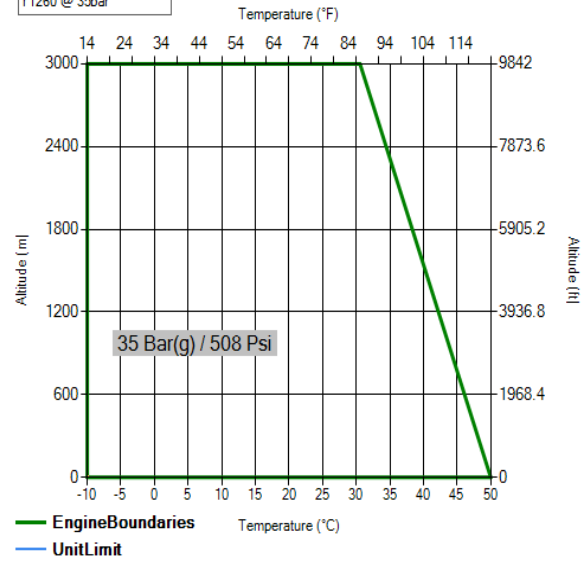
Graph represents working conditions, for starting conditions pls contact your Atlas Copco contact

### ALTITUDE UNIT PERFORMANCE CURVE

Maximum allowable working pressure as a function of altitude and ambient temperature

Unit Name:

Y1260 @ 35bar



Graph represents working conditions, for starting conditions pls contact your Atlas Copco contact

## DESIGN DATA

### Compressor

<b>Designation</b>	
Number of compression stages	2

### Engine

<b>Designation</b>		<b>XRXS1210 XRYs1150 Y1200</b>	<b>Y1260</b>
Make		Caterpillar	Caterpillar
Type		C15	C18
Coolant		Coolant	Coolant
Number of cylinders		6	6
Bore	mm	137.2	145
	in	5.40	5.71
Stroke	mm	171.4	183
	in	6.75	7.20
Swept volume	l	15.2	18.1
	cu.in	928	1105
Output according to SAE J 1995 at normal shaft speed	kW	403	429
	bhp	540	575
- Load factor <sup>1)</sup>	%	95	95

<b>Designation</b>		<b>XRXS1210 XRYs1150 Y1200</b>	<b>Y1260</b>
Capacity of oil sump:			
- Initial fill	l	60	60
	US gal	15.85	15.85
- Refill (max.) <sup>5)</sup>	l	58	58
	US gal	15.32	15.32
Capacity of cooling system	l	52	52
	US gal	13.74	13.74

1) Typical average load factor.

2) With filter change.

## Unit

Designation		<b>XRXS1210 XRYs1150 Y1200</b>	<b>Y1260</b>
Capacity of compressor oil system	l	82	82
	US gal	21.66	21.66
Net capacity of air receiver	l	143	143
	US gal	37.78	37.78
Capacity of fuel tanks wagon / tandem <sup>6)</sup>	l	975	975
	US gal	257.57	257.57
Air volume at inlet grating (approx.) <sup>7)</sup>	m <sup>3</sup> /s	13.9	13.9
	cfm	491	491

1) - At reference conditions. (XRXS1210/XRYs1150)

- with EXPR option (Y1200/Y1260)

2) - With POWERXPRT enabled (XRXS1210/XRYs1150)

- At reference conditions, with manual pressure settings (Y1200/Y1260)

- With automax flow enabled (Y1200/Y1260)

3) Data

Free air delivery is measured according to ISO 1217 ed.3 1996 annex D Tolerance:	<ul style="list-style-type: none"> <li>• +/- 5% 25 l/s (53 cfm) &lt; FAD &lt; 250 l/s (530 cfm)</li> <li>• +/- 4% 250 l/s (530 cfm) &lt; FAD</li> </ul>
The international standard ISO 1217 corresponds to following national standards:	<ul style="list-style-type: none"> <li>• British BSI 1571 part 1</li> <li>• German DIN 1945 Part 1</li> <li>• Swedish SS-ISO 1217</li> <li>• American ANSI PTC9</li> </ul>

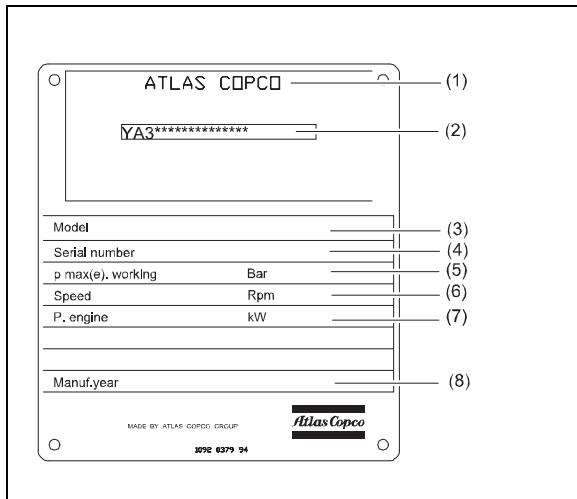
4) Percentage of FAD is based upon the FAD with normal effective working pressure

5) with filter change.

6) Optional large fuel tanks with skid or support mounted: 1520 l

7) Air required for engine and compressor cooling, combustion and for compression

# Dataplate



- 1 Name of the Manufacturer
- 2 Vehicle Identification number
- 3 Compressor Model
- 4 Compressor Serial number
- 5 Working Pressure
- 6 Speed
- 7 Engine Power
- 8 Year Of Manufacture



# Disposal

## General

When developing products and services, Atlas Copco tries to understand, address, and minimize the negative environmental effects that the products and services may have, when being manufactured, distributed, used and disposed.

Recycling and disposal policy are part of the development of all Atlas Copco products. Atlas Copco company standards determine strict requirements.

Material selection, substantial recyclability, disassembly possibilities and separability of materials and assemblies are considered, as well as environmental perils and dangers to health during the recycling and disposal of the unavoidable rates of non- recyclable materials.

Your Atlas Copco compressor consists for the most part of metallic materials, that can be remelted in steelworks and smelting works and are therefore almost infinitely recyclable. The plastic used is labelled; sorting and fractioning of the materials for recycling in the future is foreseen.



**This concept can only succeed with your help. Support us by disposing professionally. By assuring correct disposal of the product you help prevent possible negative consequences for environment and health as a result of inappropriate waste handling.**

**Recycling and re-usage of material help preserve natural resources.**

## Disposal of materials

Dispose of contaminated substances and material separately, in accordance with locally applicable environmental legislation.

Before dismantling a machine at the end of its operating lifetime drain and dispose of all fluids of according the applicable local disposal regulations.

Remove the batteries. Do not throw batteries into the fire (explosion risk) or residual waste. Separate the machine into metal, electronics, wiring, hoses, insulation and plastic parts.

Dispose of all components in accordance with applicable disposal regulations.

Remove spilled fluid mechanically; pick up the rest using an absorbing agent (for example sand, sawdust) and dispose of it in accordance with local disposal regulations. Do not drain into the sewage system or surface water.





**Following documents are provided with this unit:**

- Test Certificate
- EC Declaration of Conformity:

