

Compressor

Designation		XRHS 506 - XRHS 1100 CD6, XRVS 476 - XRVS 1000 CD6
Capacity of compressor oil system	l	75
	US gal	19.8
	Imp gal	16.5
	cu.ft	2.6
Net capacity of air receiver	l	143
	US gal	37.7
	Imp gal	31.5
	cu.ft	5
Capacity of fuel tanks wagon / tandem	l	796 / 538
	US gal	210 / 142
	Imp gal	175 / 119
	cu.ft	27.8 / 19.0
Air volume at inlet grating (approx.) ¹⁾	m ³ /s	14.6
	cfm	3.0 x 10 ⁴

¹⁾ Air required for engine and compressor element cooling, for combustion and for compression.

Compressor dimensions

Designation		All Units
Length	mm	5640
	in	220
Width	mm	2100
	in	81.9
Height	mm	2460
	in	95.9
Weight (ready-to-operate)		See indication on dataplate

4.5 Preventive maintenance schedule for the compressor

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	Daily	50 hours after initial start-up	Every 6 months or 500 hours	Yearly or every 1000 hours
XRHS 506 - XRHS 1100 CD6, XRVS 476 - XRVS 1000 CD6		supplied with unit	2912 4432 05	2912 4432 06
Engine oil level	Check			
Condensate (11)	Drain			
Compressor oil level	Check			
Coolant level	Check			
Air filter vacuator valves	Empty			
Fuel filter water drain	Drain			
ABS vessel drain	Drain			
Electrolyte level and terminals of battery		Check	Check	Check
Tyre pressure		Check	Check	Check
Leaks in air-, oil- or fuel system (13)		Check	Check	Check
Oil cooler			Clean	Clean
Radiator			Clean	Clean
Intercooler			Clean	Clean
Torque of wheel nuts		Check	Check	Check
Brake system (if installed)		Check/Adjust	Check/Adjust	Check/Adjust
Safety valve (10)				Test
Door hinges			Grease	Grease
Towing eye shaft or ball coupling and shaft			Grease	Grease
Bleed-off valve unloader				Replace
Oil stop valve				Clean
Rubber flexibles (13)				Check
Shut-down switches				Check
Pressure drop over oil separator element (2)				Replace
Fan V-belts (3)		Adjust	Adjust	Adjust


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Maintenance schedule	Daily	50 hours after initial start-up	Every 6 months or 500 hours	Yearly or every 1000 hours
Fuel tank			Clean	Clean
Compressor oil (1) (8)				Change
Compressor oil filter (6)		Replace		Replace
Coolant (9) (5)				Analyse
Air filter element (1)				Replace
Engine oil (3) (4)			Change	Change
Engine oil filter (3)			Replace	Replace
Primary fuel filter (AC filter) (7)			Replace	Replace
Fuel prefilter (3) (7)			Replace	Replace
Fuel filter (3) (7)			Replace	Replace
Engine inlet and outlet valves (3) (12)			Adjust	Adjust
Flow restrictor in oil scavenge line				Clean
Inspection by Atlas Copco Service Technician				Inspection


Notes

	<p>1 More frequently when operating in a dusty environment.</p> <p>2 Replace the element when the pressure drop exceeds 0.8 bar (11.6 psi).</p> <p>3 Refer to the engine operation manual.</p> <p>4 500 hours is only valid when using PAROIL 15W40.</p> <p>5 Change coolant every 5 years.</p> <p>6 Use Atlas Copco oil filters, with by-pass valve, as specified in the parts list.</p> <p>7 Replace the fuel filters regularly. Gummed or clogged filters mean fuel starvation and reduced engine performance. The quality of the fuel determines the frequency of renewal.</p> <p>8 See section 4.6 Oil specifications.</p> <p>9 The following part numbers can be ordered from Atlas Copco to check on inhibitors and freezing point:</p> <ul style="list-style-type: none"> • 2913 0028 00 refractometer • 2913 0029 00 pH meter. <p>10 See section 5.3 Safety valve.</p> <p>11 See section 3.3 Before starting.</p> <p>12 The engine inlet and outlet valves need to be adjusted every 3000 hours.</p> <p>13 Replace all rubber flexibles each 6 years, according to DIN 20066.</p>
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	<p>Keep the bolts of the housing, the lifting beam, towbar and axles securely tightened. For torque values see section 8 Technical specifications.</p>
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4.6 Oil specifications


	It is strongly recommended to use Atlas Copco branded lubrication oils for both compressor and engine.
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	Only use synthetic compressor oil.
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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:

Type of lubricant	Compressor	Engine
between -25°C and -10°C	PAROIL S	
between -10°C and +30°C	PAROIL S	PAROIL 15W40
between +30°C and +50°C	PAROIL S68	PAROIL 15W40

	<p>Never mix synthetic with mineral oil.</p> <p>Remark: When changing from mineral to synthetic oil (or the other way around), you will need to do an extra rinse:</p> <p>After doing the complete change procedure to synthetic oil, run the unit for a few minutes to allow good 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, proceed as in normal instruction.</p>
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4.6.1 Compressor oil

Synthetic compressor oil PAROIL S

	Liter	US gal	Imp gal	cu.ft	Order number
can	5	1.3	1.1	0.175	1615 5950 01
can	20	5.3	4.4	0.7	1615 5951 01
barrel	210	55.2	46	7.35	1615 5952 01
container	1000	265	220	35	1604 7422 00

Synthetic compressor oil PAROIL S68

	Liter	US gal	Imp gal	cu.ft	Order number
can	20	5.3	4.4	0.7	1604 7136 00
barrel	210	55.2	46	7.35	1604 7137 00

4.6.2 Engine oil

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 5W30 is a Synthetic ultra high performance diesel engine oil with a high viscosity- index. Atlas Copco PAROIL 5W30 is designed to provide excellent lubrication from start-up in temperatures as low as -25°C (-13°F).

PAROIL 15W40 is a mineral based high performance diesel engine oil with a high viscosity- index. Atlas Copco PAROIL 15W40 is designed to provide a high level of performance and protection in 'standard' ambient conditions as from -15°C (5°F).

Synthetic engine oil PAROIL 5W30

	Liter	US gal	Imp gal	cu.ft	Order number
can	5	1.3	1.1	0.175	1604 6060 00
can	20	5.3	4.4	0.7	1604 6059 00

Mineral engine oil PAROIL 15W40

	Liter	US gal	Imp gal	cu.ft	Order number
can	5	1.3	1.1	0.175	1615 5953 00
can	20	5.3	4.4	0.7	1615 5954 00
barrel	210	55.2	46	7.35	1615 5955 00

4.7 Oil level check

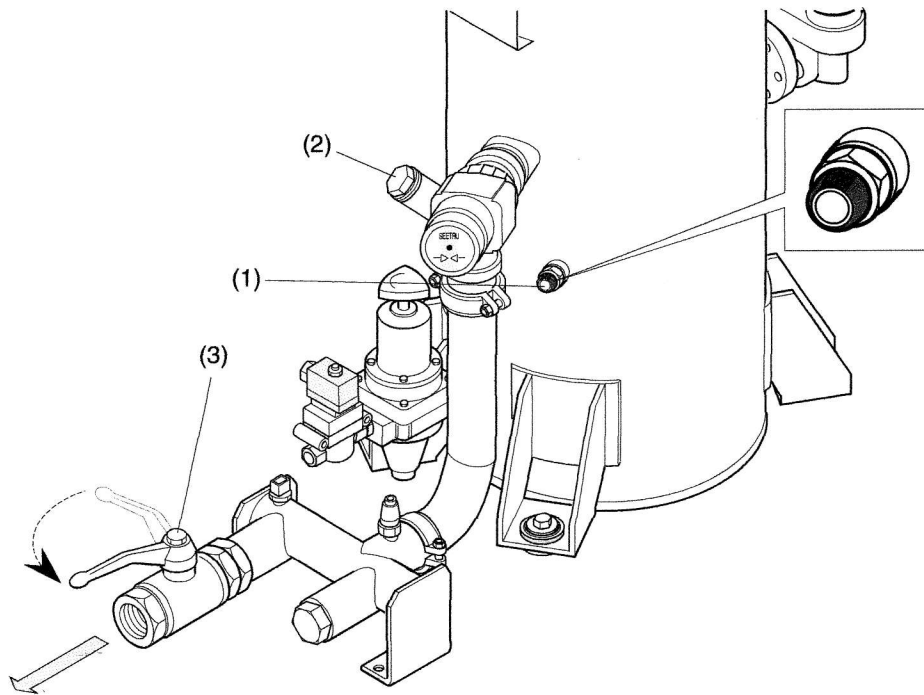
4.7.1 Check engine oil level

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

For intervals, see **4.5 Preventive maintenance schedule for the compressor.**

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

4.7.2 Check compressor oil level



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.



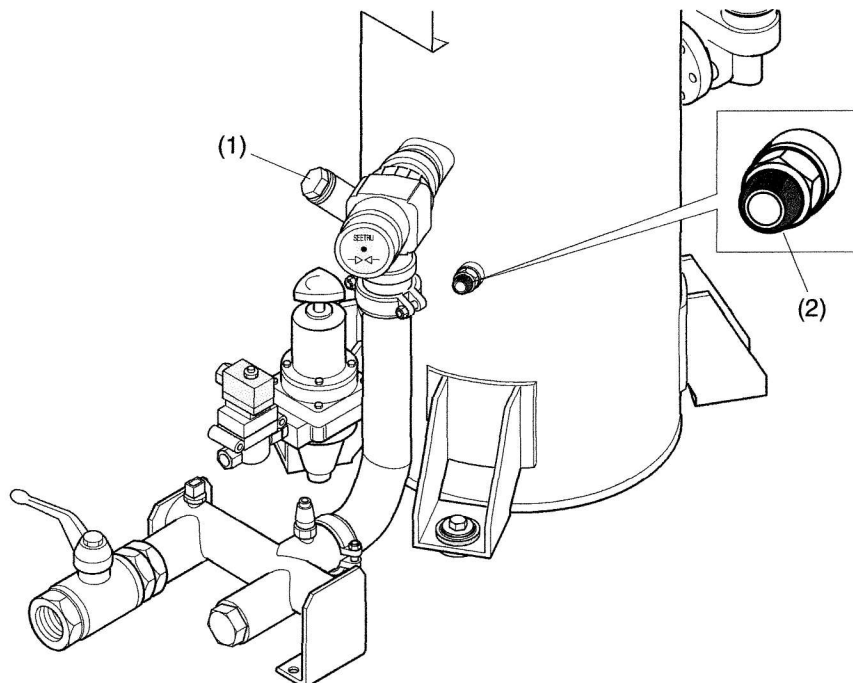
Before removing the oil filler plug (2), ensure that the pressure is released by opening an air outlet valve (3).

4.8 Oil and oil filter change

4.8.1 Engine oil and oil filter change

See section 4.5 Preventive maintenance schedule for the compressor.

4.8.2 Topping up the compressor oil



Topping up 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 10 minutes so that 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).

4.8.3 Compressor oil and oil filter change

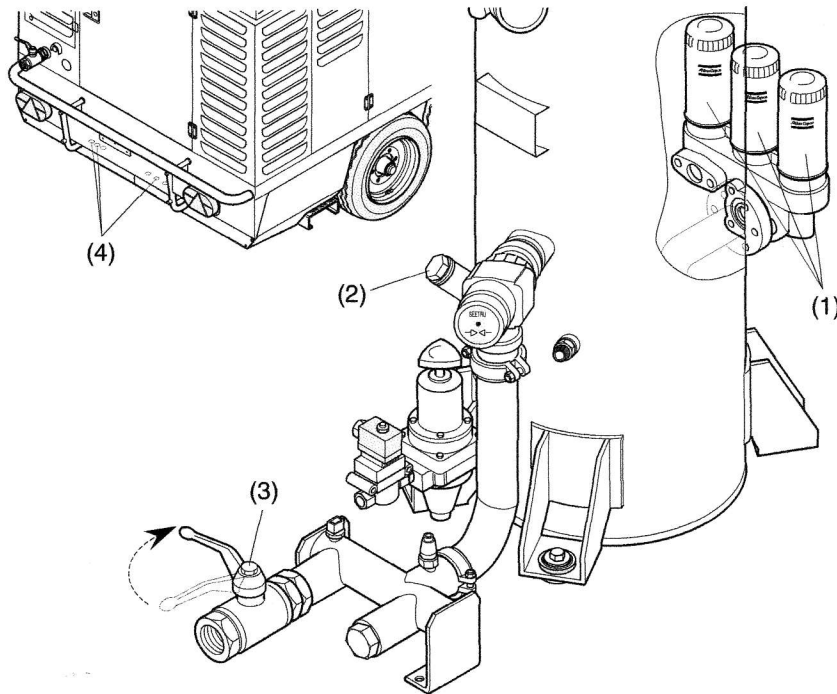
The quality and the temperature of the oil determine the oil change interval.

The prescribed interval is based on normal operating conditions and an oil temperature of up to 100 °C (212 °F) (see section 4.5 Preventive maintenance schedule for the compressor).


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. Screw out the filler plug (2) to speed up draining. After draining, place 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.

4.7 Oil level check

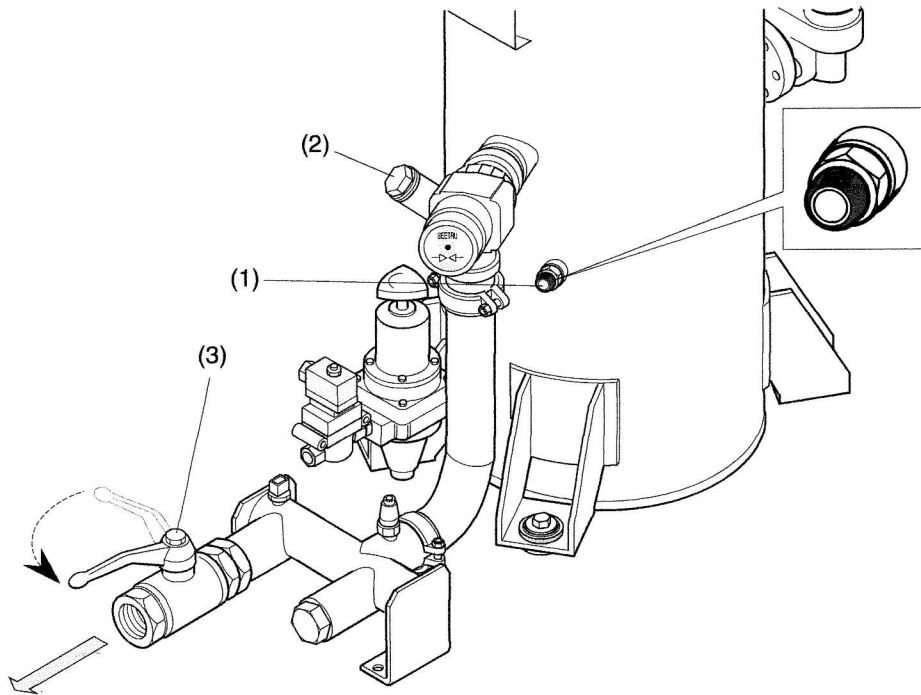
4.7.1 Check engine oil level

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

For intervals, see **4.5 Preventive maintenance schedule for the compressor.**

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

4.7.2 Check compressor oil level



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).