Assembly instructions ContiLube® II kit



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# 1 About these Assembly instructions

These Assembly instructions describe how to retrofit a ContiLube<sup>®</sup> II automatic lubrication system to your hydraulic breaker.

You are only allowed to retrofit the hydraulic breakers:

- EC 90T
- EC 100T
- EC 120T
- EC 135T
- EC 140T
- EC 150T
- EC 155T
- EC 165T
- EC 180T

with automatic lubrication system ContiLube<sup>®</sup> II. You are not allowed to retrofit any other machines with the ContiLube<sup>®</sup> II automatic lubrication system than those mentioned above.

The Assembly instructions complement your hydraulic breaker's Safety and operating instructions.

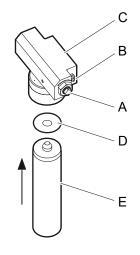
Follow all instructions in the Assembly instructions and in the Safety and operating instructions.

Store these Assembly instructions together with the Safety and operating instructions in the document compartment of the carrier cab.

All symbols, signal words, and designation of the text used in the Assembly instructions are the same as in the Safety and operating instructions.

## 2 Overview

### 2.1 Equipment description



- A. Metering screw
- B. Grease nipple for emergency lubrication
- C. Pump unit
- D. Seal (not included in the ContiLube<sup>®</sup> II kit)
- E. Cartridge (not included in the ContiLube® II kit)

## 2.2 Function

ContiLube<sup>®</sup> II is a self-contained pump unit for delivering high-viscosity pastes such as those used for preference on hydraulic breakers.

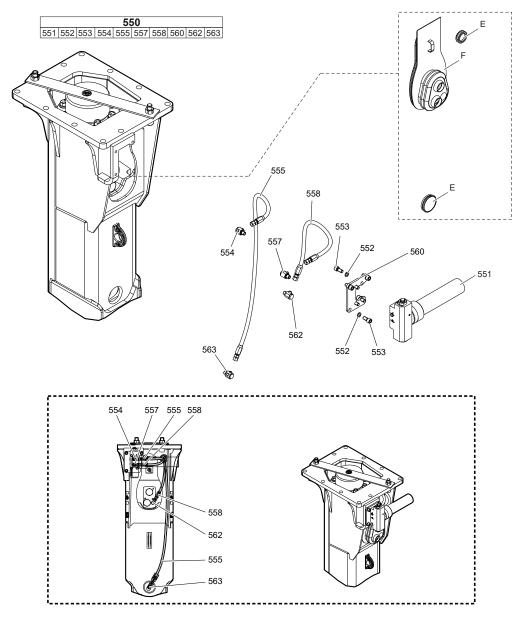
The pump is connected to the percussion unit by two hoses, one from port **»PL«** of the hydraulic breaker to the pump inlet, the other as a grease line from the pump outlet to port **»L«** on the hydraulic breaker.

Each time the hydraulic breaker is switched on, the system pressure from the excavator acts on a feed piston in the pump unit which delivers grease from the cartridge to the lower breaker part through the grease line. When the hydraulic breaker is switched off, the system is depressurised and the feed piston is pushed by a spring back to its starting position. The atmospheric pressure acting on the cartridge from outside causes more grease to be fed into the pump chamber, and the ContiLube<sup>®</sup> II is once again ready for use.

The amount of grease delivered to the lower breaker part depends on how often the hydraulic breaker is switched on and off and on the setting of the metering screw on the pump unit.

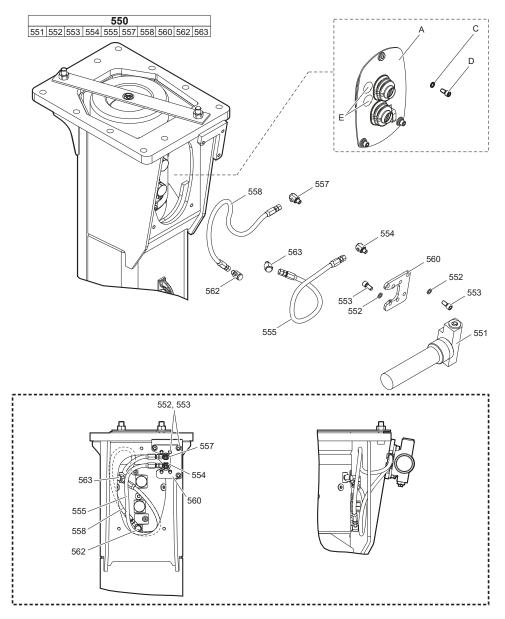
# 3 Spare parts list

## 3.1 EC 90T - ContiLube II kit



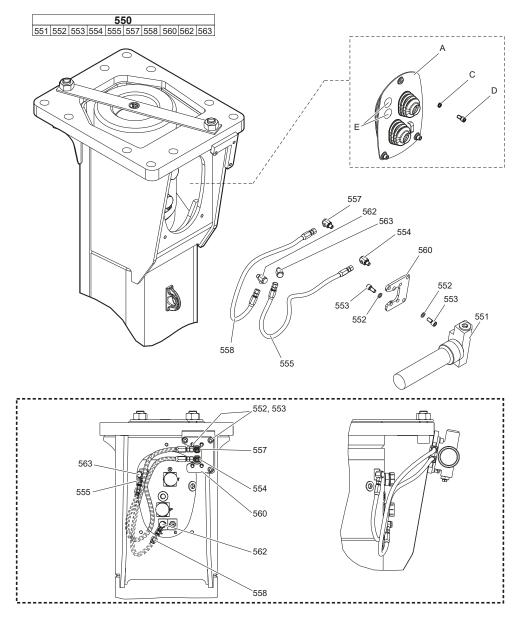
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 1100 mm (43.31 in.)	1	3363 0838 72
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 600 mm (23.62 in.)	1	3363 0838 78
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.2 EC 100T - ContiLube II kit



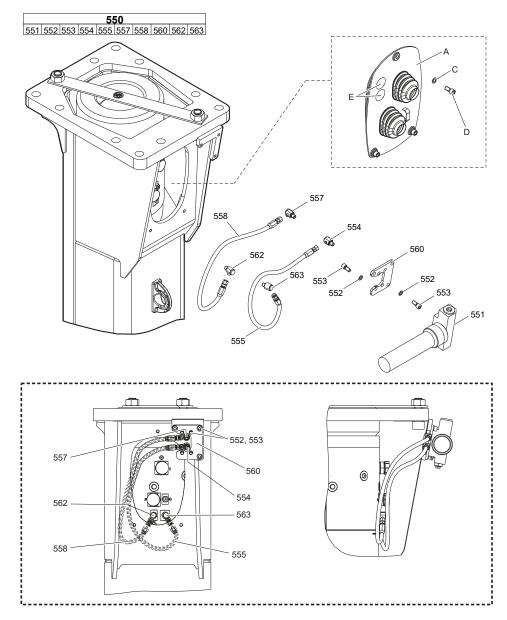
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.3 EC 120T - ContiLube II kit



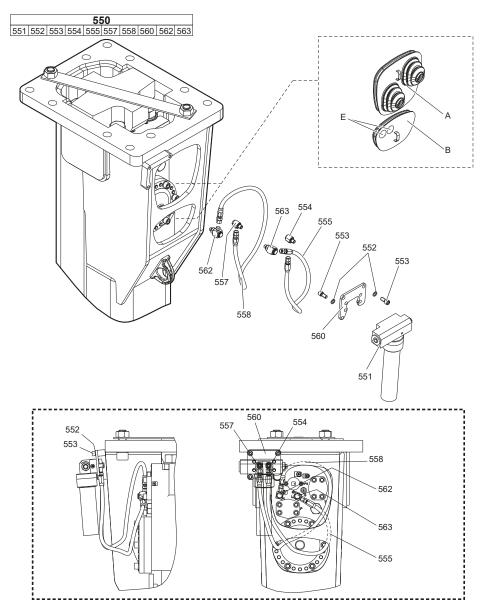
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.4 EC 135T - ContiLube II kit



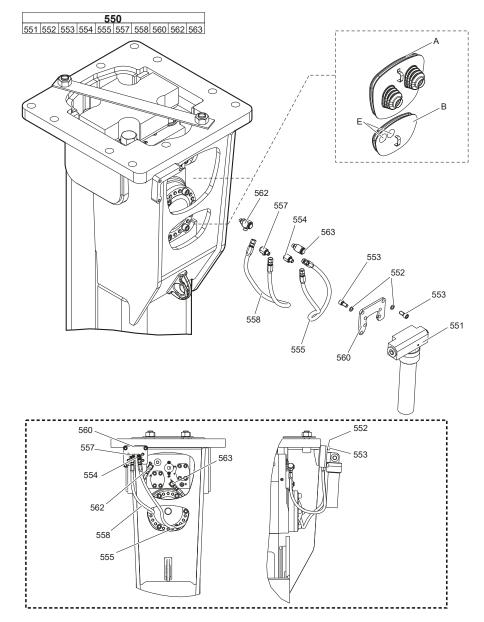
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.5 EC 140T - ContiLube II kit



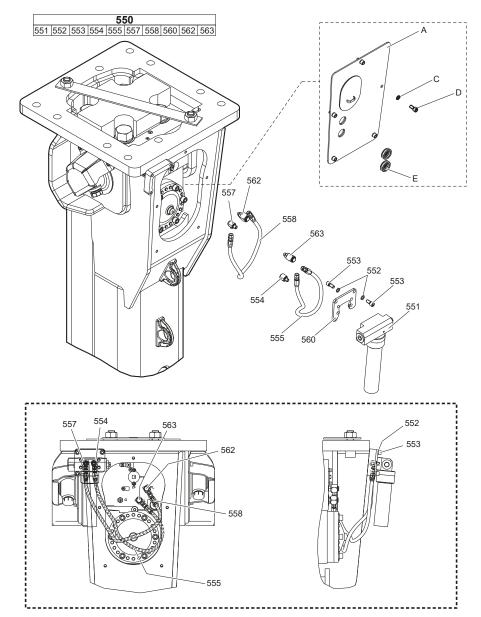
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.6 EC 150T - ContiLube II kit



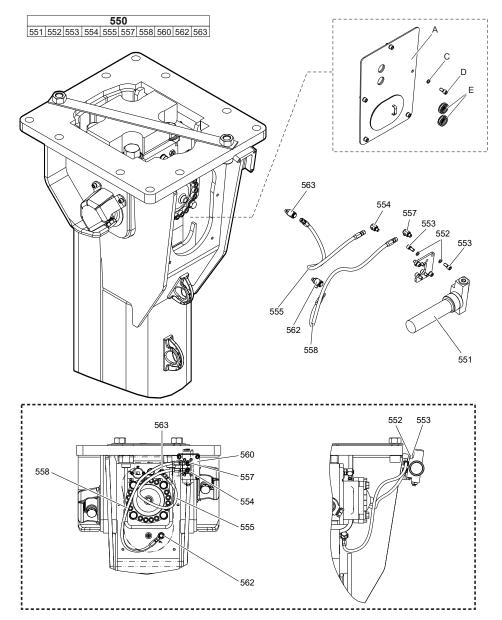
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.7 EC 155T - ContiLube II kit



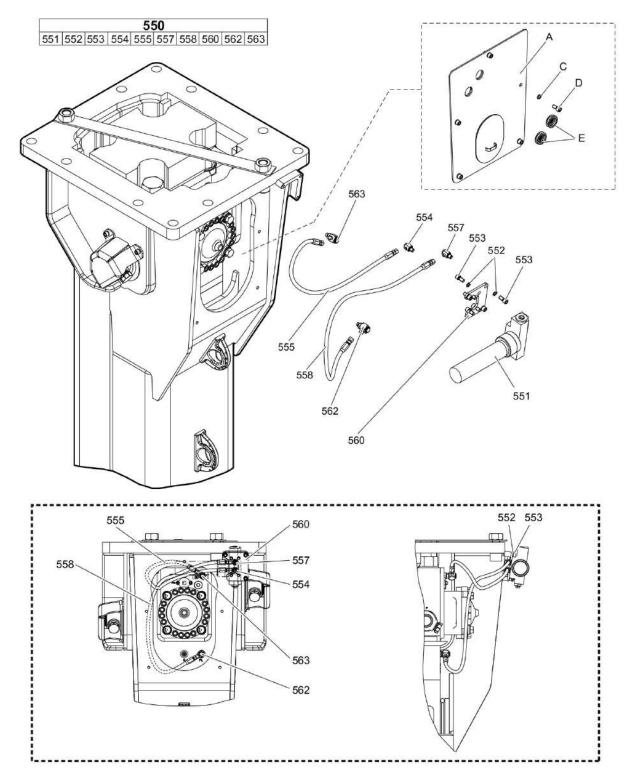
No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.8 EC 165T - ContiLube II kit



No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

## 3.9 EC 180T - ContiLube II kit



No.	Description	Remark	Quantity	Part number
550 (551-563)	ContiLube <sup>®</sup> II kit		1	3363 1178 05
551	ContiLube <sup>®</sup> II		1	3363 0671 23
552	Pair of lock washers		7	3361 8505 96
553	Allen screw		7	3360 1037 50
554	Fitting		1	3363 0662 33
555	Hydraulic hose	Grease line length 800 mm (31.50 in.)	1	3363 0838 73
557	Fitting		1	3363 0662 34
558	Hydraulic hose	Oil line length 750 mm (29.53 in.)	1	3363 0873 94
560	Support		1	3363 1159 28
562	Fitting		1	3363 0871 85
563	Fitting		1	3363 0871 86

# 4 Tightening torques

## 4.1 EC 90T - EC 135T

No.	Description	Tightening torque	Remark
553	Allen screw	85 Nm (63 ft lbs) secure all 4 Allen screws with Loctite 243 screwed in the ContiLube <sup>®</sup> II	Allen key size 10
554	Fitting	45 Nm (33 ft lbs) Loctite 243	Open-ended wrench size 17, 19, 22
555	Grease line	16 Nm (12 ft lbs) Loctite 243	Open-ended wrench size 17
557	Fitting	55 Nm (41 ft lbs) Loctite 243	Open-ended wrench size 19, 22
558	Oil line	42 Nm (31 ft lbs) Loctite 243	Open-ended wrench size 19
562	Fitting	55 Nm (41 ft lbs) Loctite 243	Open-ended wrench size 17, 19, 22
563	Fitting	45 Nm (33 ft lbs) Loctite 243	Open-ended wrench size 17, 19, 22
D	Allen screw	85 Nm (63 ft lbs)	Allen key size 10

## 4.2 EC 140T - EC 180T

No.	Description	Tightening torque	Remark
553	Allen screw	85 Nm (63 ft lbs) secure all 4 Allen screws with Loctite 243 screwed in the ContiLube <sup>®</sup> II	Allen key size 10
554	Fitting	45 Nm (33 ft lbs) Loctite 243	Open-ended wrench size 17, 19, 22
555	Grease line	16 Nm (12 ft lbs) Loctite 243	Open-ended wrench size 17
557	Fitting	55 Nm (41 ft lbs) Loctite 243	Open-ended wrench size 19, 22
558	Oil line	42 Nm (31 ft lbs) Loctite 243	Open-ended wrench size 19
562	Fitting	60 Nm (44 ft lbs) Loctite 243	Open-ended wrench size 19, 22, 27
563	Fitting	50 Nm (37 ft lbs) Loctite 243	Open-ended wrench size 17, 22, 27
D	Allen screw	85 Nm (63 ft lbs)	Allen key size 10

## 5 Assembly

Wear your personal protective equipment described in the Safety and operating instructions of the hydraulic breaker (see chapter Safety instructions).

#### ▲ WARNING Unexpected movement

Sudden movements of the carrier may cause serious injury.

- Secure the carrier such that it cannot move unexpectedly.
- Observe the carrier manufacturer's instructions.

#### A WARNING Hot hydraulic oil squirting out

The hydraulic system is under high pressure. If you loosen hydraulic connections or plugs, hydraulic oil can escape under high pressure. Hydraulic oil escaping can lead to serious injury.

- Switch off the hydraulic attachment and the carrier if you have to loosen connections or plugs in the hydraulic circuits.
- Depressurise the hydraulic system.
- Follow all steps described in the chapter Depressurising the hydraulic system.

#### A WARNING Hot hydraulic oil squirting out

The hydraulic system is under high pressure. Hydraulic oil escaping out can lead to serious injury.

- Immediately switch off the hydraulic attachment and the carrier if you detect any leaks in the hydraulic circuits.
- Do not inspect for possible leaks with your fingers or other parts of the body, but use a piece of cardboard instead, holding it up to the suspected leakage site.
- Examine the cardboard for traces of liquid.
- Depressurise the hydraulic system (see chapter Depressurising the hydraulic system).
- Repair any leaks before operating the hydraulic attachment again.

#### **WARNING Hot parts**

The percussion unit, the working tool, hoses, pipes and fittings become very hot during operation. Touching them may lead to burns.

- Never touch hot parts.
- If you have to carry out activities where you have to touch the parts, wait for them to cool down first.

#### ▲ WARNING Hydraulic oil spills

Spilt hydraulic oil can make a floor slippery. If people slip they can be injured. Hydraulic oil is environmentally harmful and must not penetrate the ground or enter the water table or water supplies.

- Make sure not to spill any hydraulic oil.
- Immediately clean the floor if you have spilt hydraulic oil.
- Observe all safety and environmental protection provisions when handling hydraulic oil.

# ▲ WARNING Skin infections/diseases due to oil and grease

Hydraulic oil and grease can cause rashes (or even eczema) if they come into contact with the skin.

- Avoid all skin contact with hydraulic oil and grease.
- Use a suitable skin protection product.
- Always wear safety gloves when working with hydraulic oil or grease.
- Immediately clean any skin that has been contaminated by oil or grease with water and soap.

NOTICE Environmental pollution due to hydraulic oil

Hydraulic oil is permanently environmentally harmful. Escaped hydraulic oil will lead to groundwater and soil contamination. Organisms may die.

- Collect any hydraulic oil which escapes to avoid environmental pollution. For minor volumes use an absorbing medium (in case of an emergency use soil). In case of major leakages contain the hydraulic oil. It must not drain off and penetrate the ground or enter the water table or water supplies.
- Collect contaminated absorbing medium or soil in a watertight box/container and close it tight.
- Contact an authorized waste management company.
- Dispose of all contaminated material in accordance with the applicable environmental regulations.

# 5.1 Depressurising the hydraulic system

Even when you have switched off the carrier, a considerable residual pressure can still be present in the hydraulic system.

A residual pressure can still be present in the hydraulic breaker even after you have disconnected the quick-release couplings or closed the shut-off valves.

The hydraulic breaker can only be depressurised using the hydraulic system of the carrier, by allowing hydraulic oil to drain to the tank via the return connection. If the hydraulic breaker is fitted with a high-pressure accumulator, it can take longer to relieve the pressure in the hydraulic system to the tank, since a larger volume of oil has to be drained away.

Depending on the type of hydraulic breaker, the internal leaks, the oil temperature, the type of hydraulic oil and the design of the hydraulic installation of the carrier, the time required to relieve the pressure can vary.

Depending on the hydraulic system of the carrier you will have to consider using various measures in order to depressurise the hydraulic system.

**Case 1:** If measurement connections are present in the supply pipe to the hydraulic breaker, with which the depressurised state can be checked using a suitable gage. In order to depressurise the hydraulic breaker you must observe the following steps:

- The hydraulic breaker must be connected to the hydraulic system of the carrier device, i.e. the hydraulic hoses must be connected up and the respective shutoff valves in the supply pipe and in the connection to the tank must be opened.
- 2. Depressurise the hydraulic system according to the manufacturer's safety and operating instructions for the carrier.
- Measure the pressure with a suitable gage at a measurement connection in the supply pipe to the hydraulic breaker.
- 4. If residual pressure is still present, wait until the pressure has been completely relieved.
- 5. When you have made sure that no more pressure is present in the hydraulic system, you must disconnect the hydraulic connection to the carrier. Close the shut-off valves or disconnect the quick-release couplings, so that no hydraulic oil can flow back from the carrier.

Only then you are allowed to carry out work on the hydraulic system of the hydraulic breaker.

**Case 2:** If no facility for measuring the pressure is present in the supply pipe to the hydraulic breaker and the return pipe is connected to the tank without an intermediate valve connection, you must observe the following steps in order to depressurise the hydraulic breaker:

 Ensure that the hydraulic oil in the hydraulic breaker and in the carrier has a temperature of at least 0 °C (32 °F). If necessary, pre-heat it to at least 0 °C (32 °F).

- The hydraulic breaker must be connected to the hydraulic system of the carrier, i.e. the hydraulic hoses must be connected up and the respective shut-off valves in the supply pipe and in the connection to the tank must be opened.
- Depressurise the hydraulic system according to the manufacturer's safety and operating instructions for the carrier.
- 4. You must wait at least another 30 minutes until the pressure has been relieved through leakages.

Only after this period of time will there be no more residual pressure present in the hydraulic system of the hydraulic breaker.

5. When you have made sure that no more pressure is present in the hydraulic system, you must disconnect the hydraulic connection to the carrier. Close the shut-off valves or disconnect the quick-release couplings, so that no hydraulic oil can flow back from the carrier.

Only then you are allowed to carry out work on the hydraulic system of the hydraulic breaker.

**Case 3:** If no facility for measuring the pressure is present in the supply pipe to the hydraulic breaker and the return pipe is connected to the tank via intermediate valves, which for example close off or pressurise the return pipe, you must observe the following steps in order to depressurise the hydraulic breaker:

- The hydraulic breaker must be connected to the hydraulic system of the carrier, i.e. the hydraulic hoses must be connected up and the respective shut-off valves in the supply pipe and in the connection to the tank must be opened.
- Depressurise the hydraulic system according to the safety and operating instructions from the carrier manufacturer, and where appropriate, those of the manufacturer of the hydraulic installation for the attachment.
- 3. When you have made sure that no more pressure is present in the hydraulic system, you must disconnect the hydraulic connection to the carrier device. Close the shut-off valves or disconnect the quick-release couplings, so that no hydraulic oil can flow back from the carrier.

Only then you are allowed to carry out work on the hydraulic system of the hydraulic breaker.

# 5.2 Assembly instructions EC 140T, EC 150T

- Before assembling the ContiLube<sup>®</sup> II you must depressurise the hydraulic system (see chapter **Depressurising the hydraulic system**).
- 1. Remove cover (A) and (B).
- Remove connecting screw from the cylinder cover marked »L«.
- Remove threaded plug from the cylinder cover marked »PL«.
- Fit ContiLube<sup>®</sup> II (551) to the support (560) using Allen screws (553) and pairs of lock washers (552). Tighten Allen screws (553) to the torque required (see chapter **Tightening torques**).
- Tighten fitting (554) to port »L« of ContiLube<sup>®</sup> II (551) to the torque required (see chapter Tightening torques).
- Tighten fitting (557) to port »PL« of ContiLube<sup>®</sup> II (551) to the torque required (see chapter Tightening torques).
- 7. Tighten grease line (555) to fitting (554) to the torque required (see chapter **Tightening torques**).
- 8. Tighten oil line (558) to fitting (557) to the torque required (see chapter **Tightening torques**).
- Fit the support (560) with the ContiLube<sup>®</sup> II with Allen screws (553) and pairs of lock washers (552) to the bracket of the breaker box. Tighten Allen screws to the torque required (see chapter **Tightening torques**).
- 10. Make a hole in each plug (E).
- Push grease line (555) and oil line (558) through the plugs (E). Grease line (555) through the right hole, oil line (558) through the left hole.
- Tighten fitting (563) to the port »L« of the cylinder cover to the torque required (see chapter **Tightening torques**).
- Tighten fitting (562) to the port »PL« of the cylinder cover to the torque required (see chapter Tightening torques).
- 14. Connect grease line (555) to the fitting (563) port »PL«. Tighten grease line (555) to the torque required (see chapter **Tightening torques**).

- 15.Connect oil line (558) to the fitting (562) port»PL«. Tighten oil line (558) to the torque required (see chapter **Tightening torques**).
- 16.Route grease line (555) and oil line (558) as shown on the drawing. I must be ensured that the lines can move freely and are not in contact at any point.
- 17.Fit cover (A) and (B).

## 5.3 Assembly instructions EC 90T - EC 135T

- Before assembling the ContiLube<sup>®</sup> II you must depressurise the hydraulic system (see chapter Depressurising the hydraulic system).
- 1. EC 90T: Remove cover (F).
- 2. Remove plugs (E).
- 3. EC 100T EC 135T: Remove Allen screws (D) and the pairs of lock washers (C).
- 4. Remove plate (A) from the breaker box.
- EC 90T EC 135T: Remove connecting screw from the cylinder cover marked »L«.
- Remove threaded plug from the cylinder cover marked »PL«.
- Fit ContiLube<sup>®</sup> II (551) to the support (560) using Allen screws (553) and pairs of lock washers (552). Tighten Allen screws (553) to the torque required (see chapter **Tightening torques**).
- Tighten fitting (554) to port »L« of ContiLube<sup>®</sup> II (551) to the torque required (see chapter **Tightening torques**).
- Tighten fitting (557) to port »PL« of ContiLube<sup>®</sup> II (551) to the torque required (see chapter Tightening torques).
- 10. Tighten grease line (555) to fitting (554) to the torque required (see chapter **Tightening torques**).
- 11. Tighten oil line (558) to fitting (557) to the torque required (see chapter **Tightening torques**).
- 12. Fit the support (560) with the ContiLube<sup>®</sup> II with Allen screws (553) and pairs of lock washers (552) to the bracket of the breaker box. Tighten Allen screws to the torque required (see chapter **Tightening torques**).

- 13. Make a hole in each plug (E).
- 14.Push grease line (555) and oil line (558) through the plugs (E). Grease line (555) through the lower hole, oil line (558) through the upper hole.
- Tighten fitting (563) to the port »L« of the cylinder cover to the torque required (see chapter **Tightening torques**).
- Tighten fitting (562) to the port »PL« of the cylinder cover to the torque required (see chapter Tightening torques).
- 17.Connect grease line (555) to the fitting (563) port »PL«. Tighten grease line (555) to the torque required (see chapter **Tightening torques**).
- 18. Connect oil line (558) to the fitting (562) port»PL«. Tighten oil line (558) to the torque required (see chapter **Tightening torques**).
- 19. Route grease line (555) and oil line (558) as shown on the drawing. I must be ensured that the lines can move freely and are not in contact at any point.
- 20.EC 100T EC 135T: Fit the plate (A) with Allen screws (D) and pairs of lock washers (C) to the breaker box. Tighten Allen screws to the torque required (see chapter **Tightening torques**).
- 21.EC 90T: Fit cover (F).

## 5.4 Assembly instructions EC 155T - EC 180T

- Before assembling the ContiLube<sup>®</sup> II you must depressurise the hydraulic system (see chapter **Depressurising the hydraulic system**).
- Remove Allen screws (D) and the pairs of lock washers (C).
- 2. Remove plate (A) from the breaker box.
- 3. Remove plugs (E) from the plate (A).
- Remove connecting screw from the cylinder cover marked »L«.
- Remove threaded plug from the cylinder cover marked »PL«.
- Fit ContiLube<sup>®</sup> II (551) to the support (560) using Allen screws (553) and pairs of lock washers (552). Tighten Allen screws (553) to the torque required (see chapter **Tightening torques**).

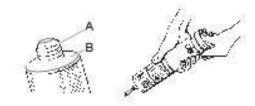
- Tighten fitting (554) to port »L« of ContiLube<sup>®</sup> II (551) to the torque required (see chapter **Tightening torques**).
- Tighten fitting (557) to port »PL« of ContiLube<sup>®</sup> II (551) to the torque required (see chapter Tightening torques).
- 9. Tighten grease line (555) to fitting (554) to the torque required (see chapter **Tightening torques**).
- 10. Tighten oil line (558) to fitting (557) to the torque required (see chapter **Tightening torques**).
- 11. Fit the support (560) with the ContiLube<sup>®</sup> II with Allen screws (553) and pairs of lock washers (552) to the bracket of the breaker box. Tighten Allen screws to the torque required (see chapter **Tightening torques**).
- 12. Make a hole in each plug (E).
- 13. Push grease line (555) and oil line (558) through the plugs (E) and through the plate's holes (A). Grease line (555) through the upper hole, oil line (558) through the lower hole.
- Tighten fitting (563) to the port »L« of the cylinder cover to the torque required (see chapter Tightening torques).
- 15. Tighten fitting (562) to the port »**PL**« of the cylinder cover to the torque required (see chapter **Tightening torques**).
- 16.Connect grease line (555) to the fitting (563) port »PL«. Tighten grease line (555) to the torque required (see chapter **Tightening torques**).
- 17.Connect oil line (558) to the fitting (562) port»PL«. Tighten oil line (558) to the torque required (see chapter **Tightening torques**).
- 18. Push the plugs (E) into the plate (A).
- 19.Route grease line (555) and oil line (558) as shown on the drawing. I must be ensured that the lines can move freely and are not in contact at any point.
- 20. Fit the plate (A) with Allen screws (D) and pairs of lock washers (C) to the breaker box. Tighten Allen screws to the torque required (see chapter **Tightening torques**).

## 6 Operation

Wear your personal protective equipment described in the Safety and operating instructions of the hydraulic breaker (see chapter Safety instructions).

# 6.1 Replacing the lubricant cartridge

- Unscrew and remove the empty lubricant cartridge and the old seal by turning counter clockwise.
- Remove the cover from the new cartridge. Make sure not to damage the sealing cone (A).
- Place the seal (B) on the cartridge.



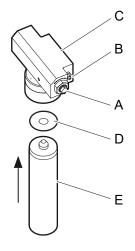
- Use your thumb to push the cartridge piston down until lubricant escapes from the screw thread.
- Screw the cartridge until the stop into the guide hole of the grease pump.

The ContiLube<sup>®</sup> II is ready for use.

## 6.2 ContiLube® II operation

Please remember the following:

- The ContiLube<sup>®</sup> II (C) is self-venting, i.e. the system does not require you to vent it.
- The lubricant level in the transparent cartridge (E) of recyclable PE plastic can always be checked from the cab by looking at the position of the red piston.
- The piston side of the cartridge (E) must never be sealed, otherwise no grease supply will be possible.
- You can change the supply volume by adjusting the metering screw (A), depending on the actual use.
- Tighten the screw clockwise = less grease
- Loosen the screw counter-clockwise = more grease



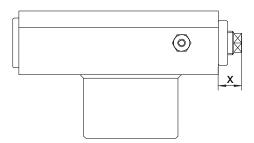
The pump unit (C) must always be sealed to prevent the ingestion of water and dust.

- Use a dust cover or leave the empty cartridge in the pump until a new cartridge is available.
- Check the tightness of the connections of all hoses for the ContiLube<sup>®</sup> II operation once a week.

Emergency lubrication is possible via the grease nipple (B) on the side of the ContiLube<sup>®</sup> II.

## 6.3 Adjustment

The factory setting is 18.6 mm (0.72 in.) (x).



When starting up the unit set the delivery rate so that the working tool receives adequate lubrication.

This will depend both on the kind of grease used and the job involved.

Keep the metering screw setting low (in the minimum range), when performing tunnelling jobs with the hydraulic breaker overhead.

For these applications the grease remains in the lubrication zone for longer than on vertical applications.

Excessive lubrication is indicated by high amounts of grease being scraped off by the working tool.

Insufficient lubrication is indicated by dry and shiny areas on the working tool.

## 6.4 Prefilling the grease line

If the hydraulic breaker has been taken out of use for repairs, it is important before restarting operation that all internal grease bores in the hydraulic breaker from pump unit to the lower breaker part are filled with grease.

If necessary:

- Remove the working tool (see Safety and operating instructions of the hydraulic breaker).
- Fill up the system using a manual grease gun attached to the grease nipple on the pump casing of the automatic lubrication system.
- Check filling. The system is full when grease is seen to emerge directly at the lubrication point.

## 7 Troubleshooting

## 7.1 No grease at lubrication point

Cause	Remedy	Ву
Grease cartridge is empty	Fit new cartridge.	Carrier driver
No pump delivery; no pressurised oil supply No pressure relief in the pump af- ter hydraulic breaker is switched off	Check branch line from hydraulic breaker supply line. Check hydraulic system.	Carrier driver Workshop or Epiroc Customer Center / Business partner in your area
Feed line to lubrication unit leak- ing	Check screw couplings/hose, if necessary replace and tighten correctly.	Carrier driver
Grease line blocked	Check hose, replace if necessary. Perform functional check with hose open.	Carrier driver
The pump on the lubrication unit is drawing in air	Cartridge is loose or thread on cartridge is stripped. Seal- ing cone on cartridge defective or foam seal is missing. Replace defective cartridge or seal.	Carrier driver

## 7.2 Grease delivery too low

Cause	Remedy	Ву
Adjustment screw set too low	Release lock nut, turn adjustment screw counter-clock- wise until required delivery/stroke is achieved. Relock at this setting.	Carrier driver
Incorrect grease type	Clean pump incl. grease line and refill with correct grease.	Carrier driver or work- shop

## 7.3 Grease delivery too high

Cause	Remedy	Ву
Adjustment screw set too high	Release lock nut, turn adjustment screw clockwise until required delivery/stroke is achieved. Relock at this setting.	Carrier driver
Incorrect grease type	Clean pump incl. grease line and refill with correct grease.	Carrier driver or work- shop

# 8 Technical specifications

Туре	ContiLube® II
Service weight	5.4 kg (12 lbs)
Dimensions with grease cartridge Height Width Length	84.5 mm (3.33 in) 193 mm (7.60 in) 305 mm (12.00 in)
Operating pressure, min.	100 bar (1450 psi)
Delivery	0.02 - 0.84 g/stroke
Inside thread on pump body Oil line Grease line	M 14 x 1.5 G 1/4"
Inside diameter Oil line Grease line	6 mm (0.24 in) 6 mm (0.24 in)

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