

INSTALLATION GUIDE

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Ramlube II RG530 serie

Installation of Ramlube II RG530 series

[RG5310365-UP] [RG5310307-364] [RG5310230-306]

Overview

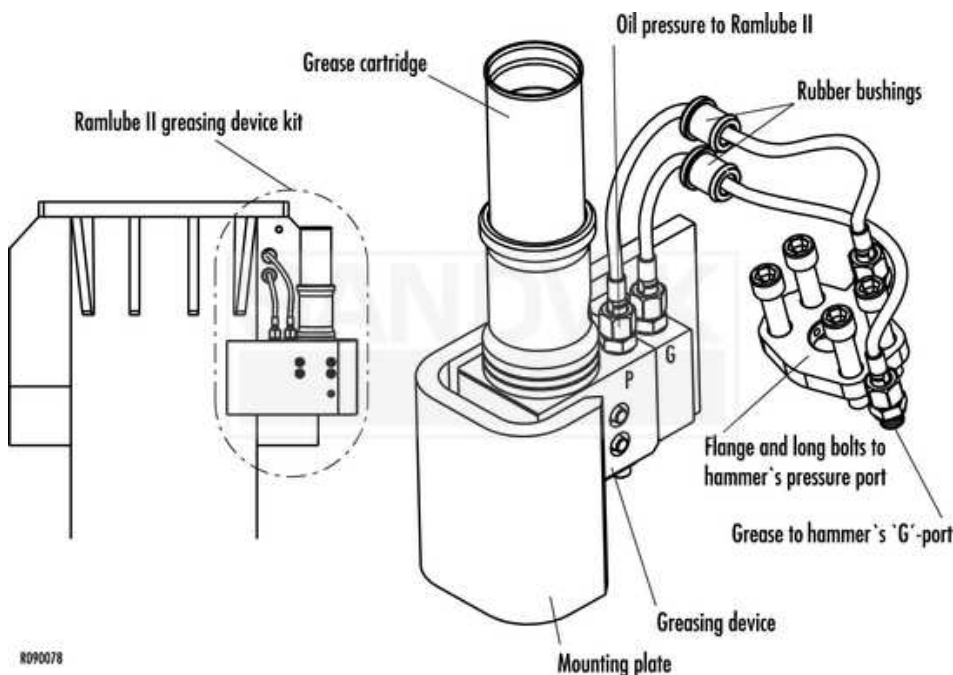
Ramlube II greasing device can be installed to the existing BR2063, BR2064, BR2265, BR2266, BR2268, BR3890, BR4510, BR4511, E 60- and G-series hammers. The kit consists of a greasing device, hoses and a mounting plate tailored for different hammer models.

The greasing device is operated by the hydraulic pressure from the hammer's pressure fitting. The unit is installed to the hammer's housing with a mounting plate and no external electric cables or hydraulic hoses are needed. Ramlube II contains a replaceable 500-gram grease cartridge.

Important notes

- The pressure in hammer oil supply line must drop below 60 bar between hammer impact series. In order to ensure reliable operation of Ramlube II, please note that the hammer return line must be connected directly to the carrier oil tank. If the pressure between impact series stays over 60 bar level (specially in applications where fast repeated impact series occur), an additional pressure discharge valve must be installed to hammer oil supply line. Consult your local Sandvik dealer for further instructions. [For more information, see "Additions to Ramlube II installation instructions, Publ. no. A000131E" in Bulletins.](#)
- Ramlube II is not recommended for underwater applications. Under no circumstances must Ramlube II unit get under water.

See the illustrations below for details.



Safety

General safety

All mechanical equipment can be hazardous if operated without due care or correct maintenance. Most accidents involving machine operation and maintenance are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs.

Because it is impossible to anticipate every possible circumstance that might involve a potential hazard, the warnings in this guide are not all inclusive. If a procedure, tool, working method or operating technique not specifically recommended by manufacturer is used, you must satisfy yourself that it is safe for you and others. You should also ensure that the product will not be damaged or made unsafe by the method of operation or maintenance procedures you choose.

Safety is not just a matter of responding to the warnings. All the time you are working with your attachment you must pay attention to what hazards there might be and how to avoid them. Do not work with the product until you are sure that you control it. Do not start any job until you are sure that you and those around you will be safe.



Warning! Read the following warning messages carefully. They tell you of different hazards and how to avoid them. If proper precautions are not taken you or others could be seriously injured.

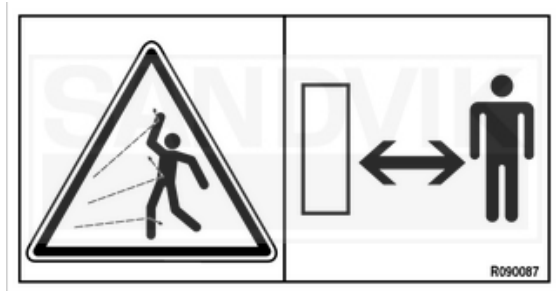
Safety instructions

Manuals

Study this manual and hammer's operator manual before installing, operating or maintaining the product. If there is anything you don't understand, ask your employer or your local dealer to explain it. Keep this manual clean and in good condition.

Study also the operating and maintenance manual of your carrier before operating the attachment.

Flying chips of rock



Protect yourself and your neighbourhood against flying chips of rock. Do not operate the product or carrier if someone is too close.

Keep the cabin windows and doors closed during operation. Window bars are recommended to protect the windows from flying chips of rock.

Equipment limits

Operating the product beyond its design limits can cause damage. It can also be dangerous.

Do not try to enhance the product's performance by unapproved modifications.

Hydraulic fluid

Fine jets of hydraulic fluid at high pressure can penetrate the skin. Do not use your fingers to check for hydraulic fluid leaks. Do not put your face close to suspected leaks. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of hydraulic fluid. If hydraulic fluid penetrates your skin seek medical help immediately.

Hot hydraulic fluid can cause severe injuries.

Hydraulic hoses and fittings

Ensure all hydraulic components will withstand maximum pressure and mechanical stresses caused by operation of the attachment. Consult your local dealer for instructions.

Fire hazard

Most hydraulic fluids are flammable and might ignite when contacting hot surface. Avoid spilling hydraulic fluid to hot surfaces.

Working with the product on certain materials can cause sparks and hot splinters to get loose. These can ignite flammable materials around working area.

Ensure that adequate extinguisher is available.

Hydraulic pressure

Hydraulic fluid at system pressure can injure you. Before disconnecting or connecting hydraulic hoses, stop the carrier engine, operate the controls to release pressure trapped in the hoses and wait ten (10) minutes. During the operation, keep people away from the hydraulic hoses.

There might be pressurized oil trapped inside the product even if it is disconnected from the carrier. Be aware of possible blank firing while greasing or removing and installing hammer tools.

Spare parts

Use only genuine spare parts. The use of other spare part may damage the product.

Equipment condition

Defective equipment can injure you or others. Do not operate equipment which is defective or has missing parts.

Make sure the maintenance procedures in this manual are completed before using the product.

Repairs and maintenance

Do not try to do repairs or any other maintenance work you do not understand.

Modifications and welding

Non-approved modifications can cause injury and damage. Contact your local dealer for advice before modifying the product. Before welding on the product while it is installed on the carrier, disconnect the carrier alternator and battery.

Metal splinters

You can be injured by flying splinters when driving metal pins in and out. Use soft-faced hammer or drifts to remove and fit metal pins, such as pivot pins. Always wear safety glasses.

Technical data

Description	Specification
Lubricant	NLG11 - NLGI2
Operating pressure	120...200 bar (1740...2900 psi)
Grease supply / stroke. <i>For more information, see "Adjustment" in Installation Guide.</i>	Min 20 mm ³ - Max 200 mm ³
Cartridge	500 g (see part list)

Installation

Releasing pressure

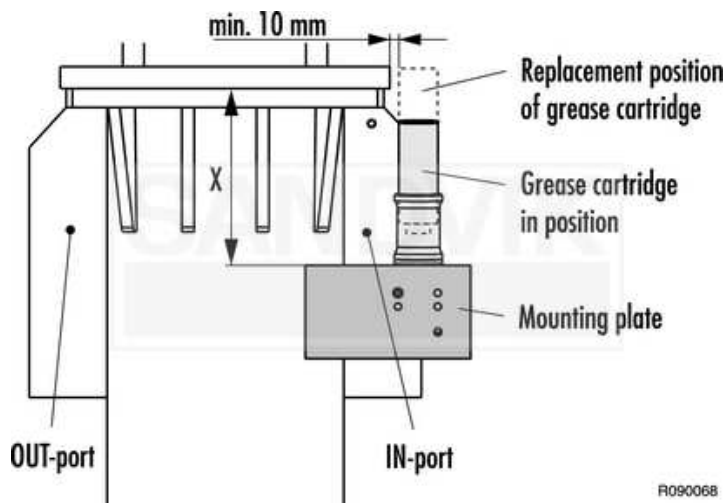


Warning! The hydraulic pressure inside the hammer must always be released before making any adjustments or repairs when the hammer is connected to the carrier. There may also be pressurized oil trapped inside the hammer even if the hammer is disconnected from the carrier. Release the hydraulic pressure according to the following instructions before opening any plugs or valve covers.

1. Stop the carrier engine.
2. Operate boom and hammer controls to release any pressure trapped inside hoses.
3. Wait at least 10 minutes for oil pressure to drop inside the hammer.

Mounting plate

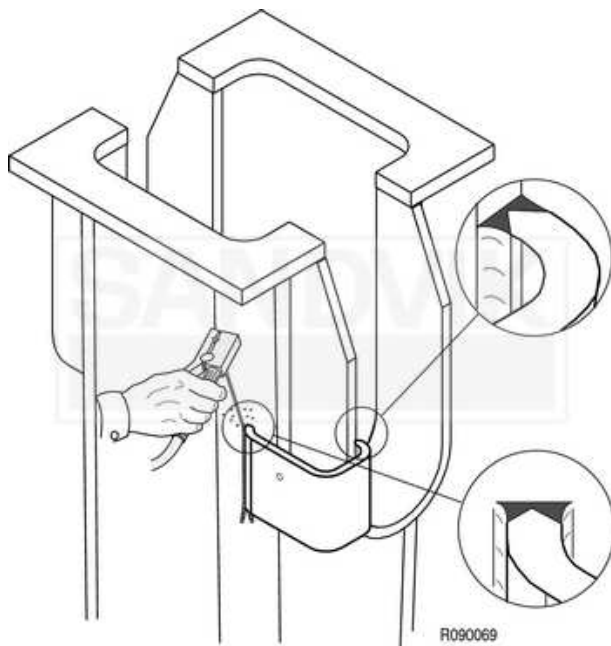
1. Before welding the mounting plate to the housing, fit the greasing device with its mounting plate installed (with two screws) to the hammer's IN-port side.
2. Check that there is enough room to remove the grease cartridge (notice the mounting bracket). See the illustration and the table below for the required dimensions.



R090068

BR2063, BR2064, E 63, E 64	BR2263, BR2266, E 65, E 66 N	BR2568, E 68	G 80 N	BR3890, G 90	BR4510, G 100	BR4511, G 110
X 210	258	280	350	368	368	368

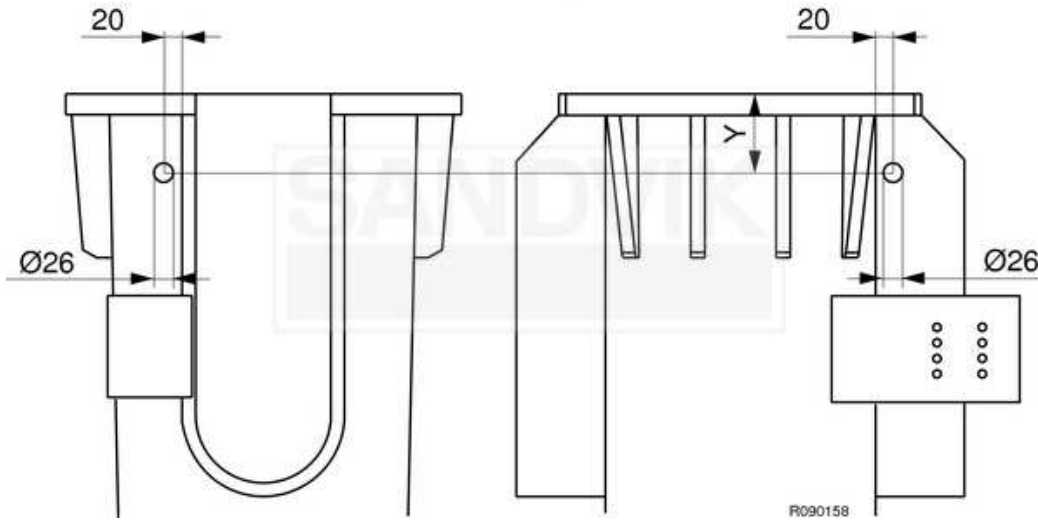
3. Mark the correct positioning of the mounting plate. Remove the greasing device from the plate and perform welding.



R090069

4. Drill D26 mm holes for leading the hoses through the hammer's housing and shoulder plate. For the dimensions, see the illustration and the table below.

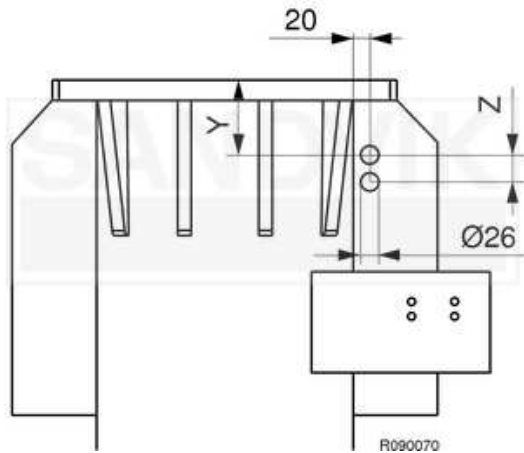
For BR2063, BR2064, E 63 and E 64



BR2063, BR2064, E 63, E 64
Y 100

5. Drill D26 mm holes for leading the hoses through the hammer's shoulder plate. For the dimensions, see the illustration and the table below.

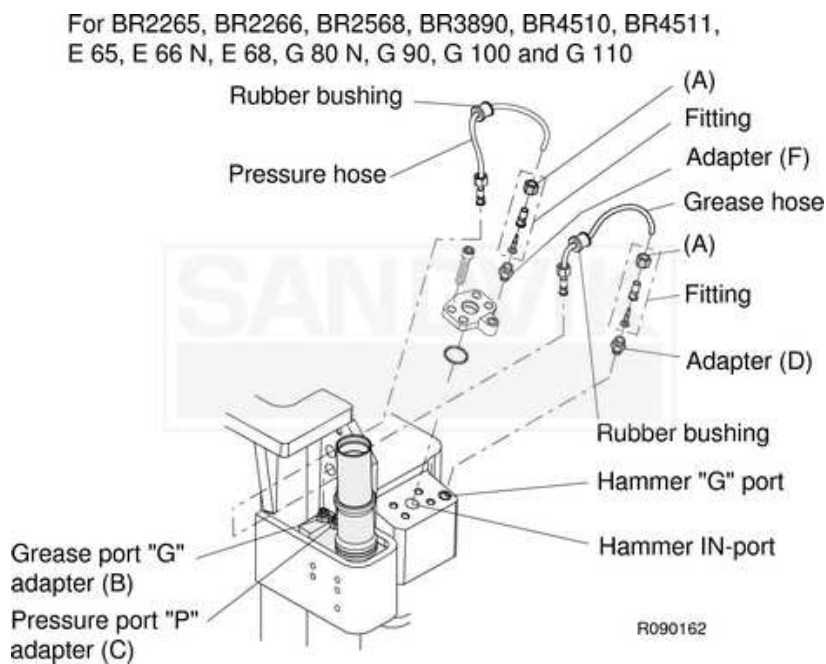
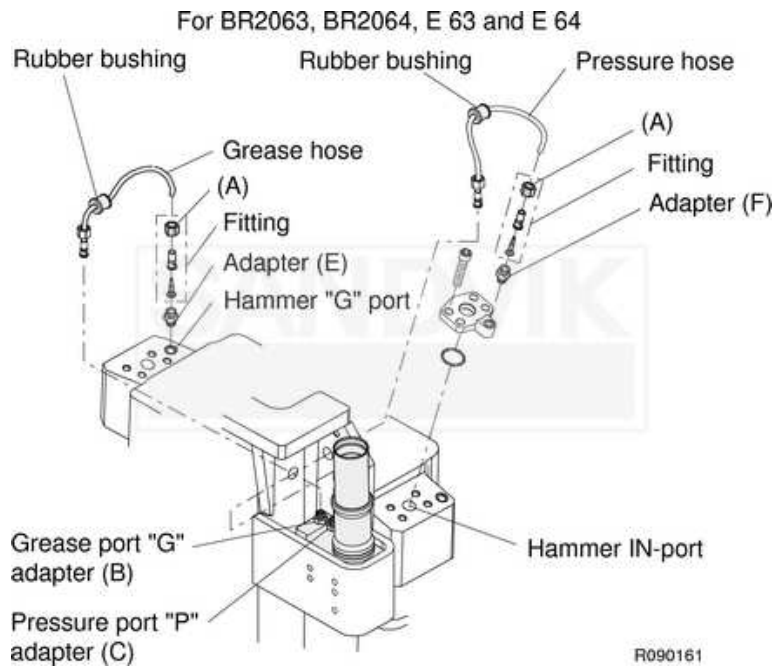
For BR2265, BR2266, BR2568, BR3890, BR4510, BR4511, E 65, E 66 N, E 68, G 80 N, G 90, G 100 and G 110



BR2263, BR2266, E 65, E 66 N BR2568, E 68 G 80 N BR3890, G 90 BR4510, G 100 BR4511, G 110					
Y 89	90	170	184	184	184
Z 30	40	40	40	40	40

Hoses

Ramlube II greasing device kit includes hoses for grease and operating pressure. Because the required hose lengths are specific for each installation, the fittings have been installed at the factory to one hose end only. Please see the instructions below to complete the assembly.

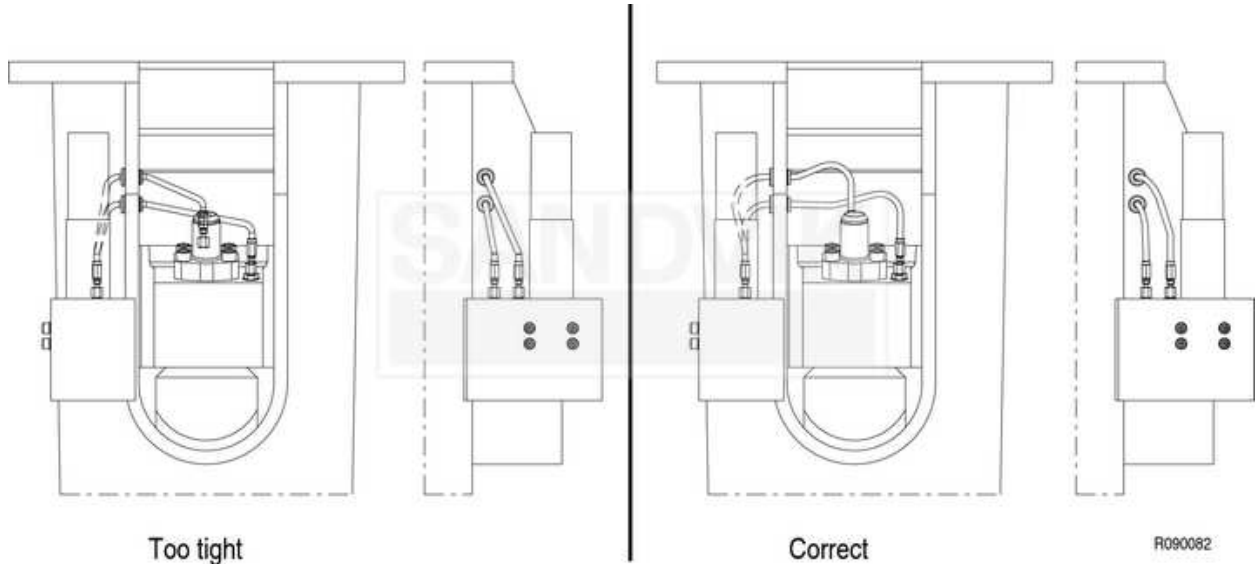


Item	Tightening torque
Nut (A)	40 Nm (30 lbf ft)
Grease adapter in greasing device (B)	50 Nm (37 lbf ft)
Pressure adapter in greasing device (C)	50 Nm (37 lbf ft)
Grease adapter in hammer (D)	50 Nm (37 lbf ft)
Grease adapter in hammer (E)	35 Nm (26 lbf ft)
Pressure adapter in hammer (F)	35 Nm (26 lbf ft)

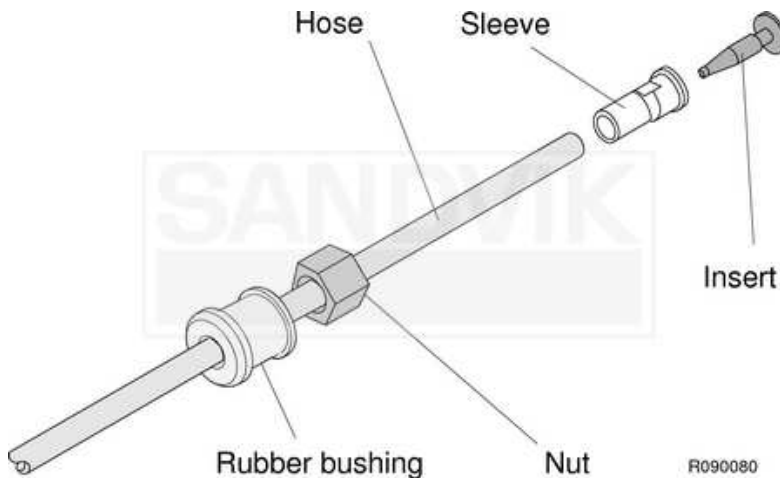
1. Install the oil supply flange and the long bolts (supplied with the kit) to the hammer`s pressure port (IN-port). Install the adapter to the oil supply flange. Replace the hammer`s valve body "G" port flange plug with an adapter supplied with the kit.
2. If removed, install the hammer powercell back to the housing. Install the buffers and lower the mounting bracket to its place. Compress the buffers by tightening the mounting bracket screws.

3. Install the hoses supplied with the kit loosely to the greasing device "P" and "G" ports. Do not tighten them yet. Install the greasing device to its place in the hammer housing with 2 screws.
4. In the BR2063, BR2064, E 63 and E 64 models lead the pressure hose from the greasing device "P" port to the hammer oil supply flange through the housing`s right D26 mm hole. The other models use the upper hole. In the BR2063, BR2064, E 63 and E 64 models lead the grease hose from the greasing device "G" port to the hammer "G" port through the housing`s left D26 mm hole. The other models use the lower hole.
5. Measure and mark the required length for both the hoses.

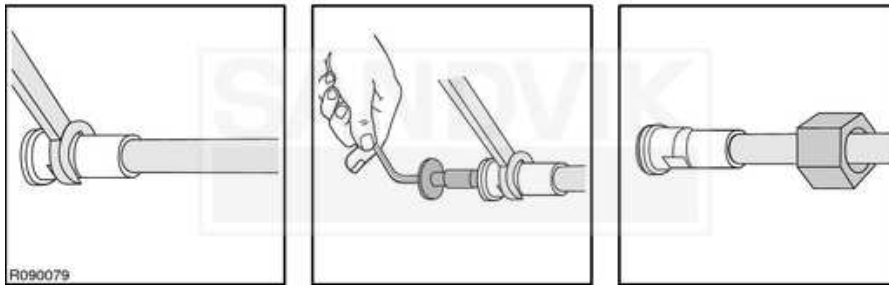
Note: The hoses must not be tight because the powercell moves during hammer operation. Add few centimeters to the measured length. See the illustration below.



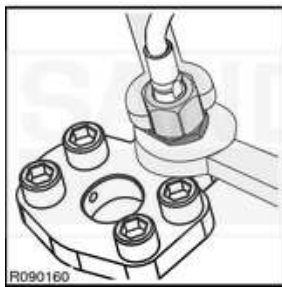
6. Remove the greasing device from the hammer housing and remove the hoses from it.
7. By using a sharp knife, cut the hoses to the appropriate lengths.
8. Lubricate the fitting parts with hydraulic oil.



9. Insert the rubber bushing and the nut to the hose.
10. By using a 12 mm open end spanner, screw the sleeve on the hose as far as it will go. The thread is left-handed. Important: After stopping, turn the sleeve back 1 round.
11. Install the insert and tighten it with a 5 mm allen key. Make sure the hose does not turn inside the sleeve while tightening the insert. Continue until the insert faces the sleeve.



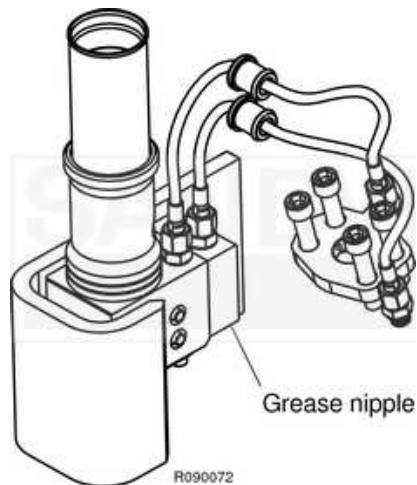
12. Check that there are not blockages in the hoses.
13. Install the hoses to the greasing device and torque the nuts to 40 Nm. Install the greasing device to the hammer housing and torque the screws to 40 Nm.
14. Connect the pressure hose to the oil supply flange and the grease hose to the hammer's "G" port. While tightening the nut to specified torque, hold the adapter in place to prevent the adapter from being tightened too hard.



Start-up

Remove the tool from the hammer.

Prefill the hammer's grease channel by applying tool grease with a grease gun to the grease nipple located on the underside of the greasing device. Continue until some grease appears from the tool bushing's grease holes (use assistant if possible). This may take some time; the capacity of hammer internal grease channel is approximately 500 - 1000 grams. Install the tool.



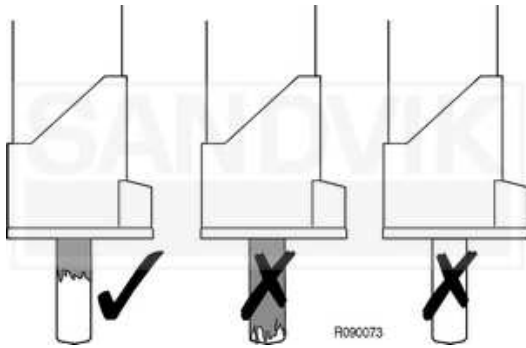
Insert the grease cartridge to the greasing device. [For more information, see "Replacing the grease cartridge" in Installation Guide.](#)

Disconnect the grease hose from the hammer's "G"-port. Operate the hammer with the grease hose disconnected from the valve body. After 10 minutes operation, check that some grease has protruded from the grease hose.

Connect the grease hose to the hammer's "G" port and tighten the nut properly. The unit is now ready for use.

Operation

The tool shank must be greased during operation. Regular visual inspections are required. During operation, some grease should be visible on the upper part of the tool. This indicates that the greasing device is working properly and the adjustment is correct. See the illustration below.

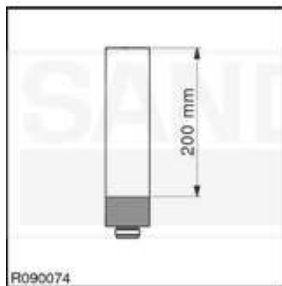


If the tool shank is covered with excessive grease, the lubrication device needs to be adjusted. [For more information, see "Adjustment" in Installation Guide.](#)

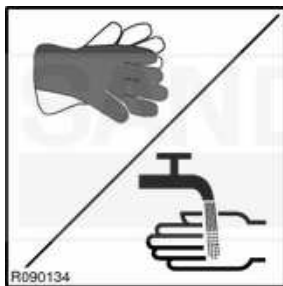
An unlubricated tool shank indicates that the grease supply is too low, the grease cartridge is empty or the greasing device is not working properly. See Ramlube II problems.

Replacing the grease cartridge

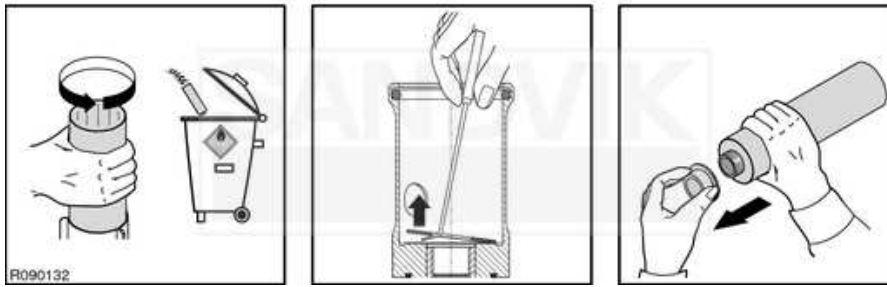
Measure the distance from the top of the grease cartridge. It is recommended to replace the grease cartridge when the distance is more than 200 mm. The grease cartridge is completely empty and has to be replaced when the distance is 210 mm.



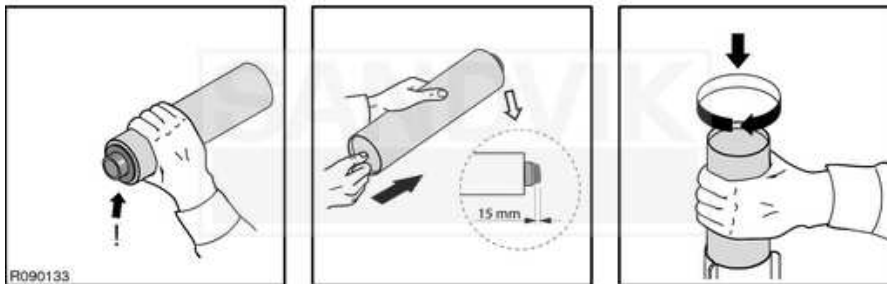
1. Wear gloves when you are handling the grease cartridge. If you get grease onto your skin, wash it away with water.



2. Unscrew and remove the grease cartridge.
3. Dispose the used cartridge appropriately.
Note: The grease cartridge is disposable, it can not be refilled.
4. Check and clean the grease cartridge seat in the cartridge holder. Remove old grease cartridge seal.
5. Remove the protective cap from the new cartridge.



6. Check the grease cartridge seal.
7. Press the cartridge piston with fingers until approximately 15 mm of grease comes out.
8. Insert the cartridge to its place and tighten.

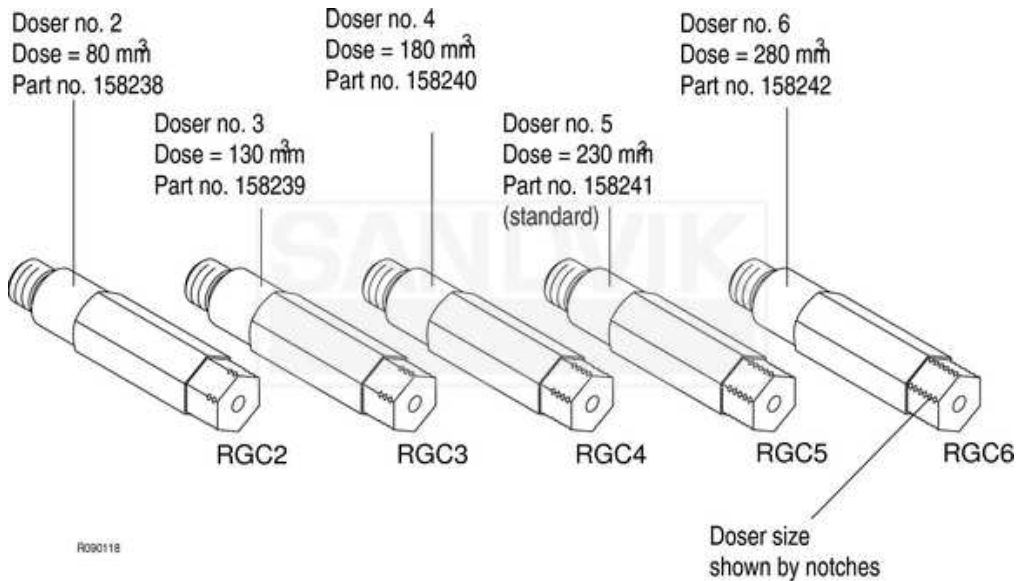


Note: The hammer must not be used without Ramlube II grease cartridge installed under any circumstances. If replacement is not available, keep empty grease cartridge in its place and grease hammer manually by applying tool grease through the grease nipple located on the underside of the greasing device.

Adjustment

The Ramlube II greasing device is always delivered from the factory with a doser no. RGC-5 installed. The Ramlube II kit for BR2265, BR2266, E 65 and E 66 N includes additional no. RGC-3 doser attached to the installation kit.

In applications where more or less grease is required, the adjustment can be done by replacing the doser. See the illustration below for available doser options.



Choosing the doser

Please note that actual amount of grease needed for proper lubrication varies according to:

- hammer size
- application: the amount of grease depends on the number of working cycles within a given time. In practice this means that in the application where the working cycles are short but the quantity is high, a smaller doser can be used.
- wear rate of tool shank and bushing
- condition of tool seal
- operator`s working techniques
- grease quality

Examples of the doser usage in various applications are shown in the table below. Please note that this information is indicative, only.

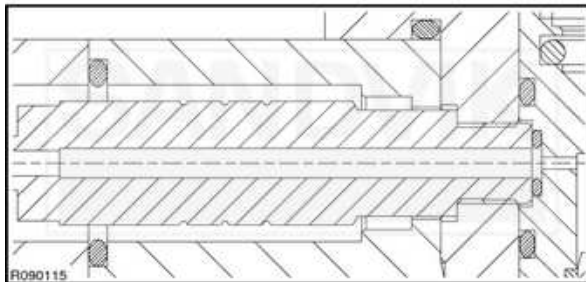
	← SHORT WORKING CYCLES	LONG WORKING CYCLES →	
	Secondary breaking	Demolition work	Primary breaking
BR2265, E 65	Doser no. 2...4	Doser no. 3...5	These hammers are small for primary breaking
BR2266, E 66 N			
BR2568, E 68			
G 80 N			
BR3890, G 90	Doser no. 3...5	Doser no. 5...6	Doser no. 5...6
BR4510, G 100			
BR4511, G 110			

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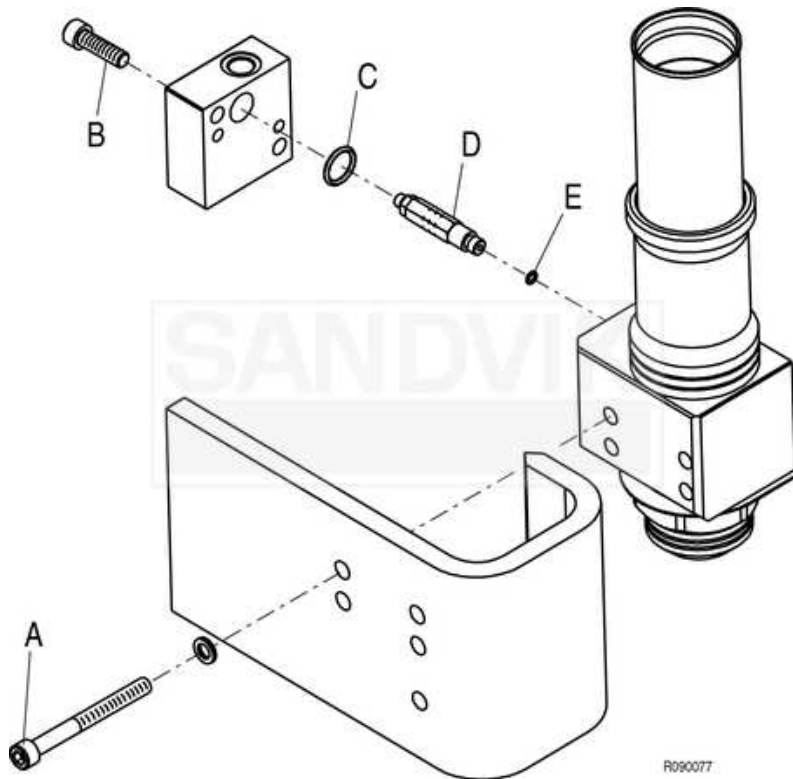
Replacing the doser

It is strongly recommended, that the doser is replaced by an authorized Sandvik service shop.

1. Remove the greasing device from its mounting plate by opening the screws (A), 4 pcs
2. Remove the grease and pressure hoses from the hammer. Plug the hose ends and connections.
3. Open the screws (B), 2 pcs. Remove the cover with an O-ring (C)
4. Loosen and remove the doser (D) with a 13 mm open-end spanner.
5. Check that the small O-ring (E) remains in its position
6. Install the grease cartridge. Prefill the greasing device with grease pressing the piston of the grease cartridge manually.
7. Install the new doser and torque it to 15 Nm.
8. Install the cover with an O-ring (C)



9. Install the screws (B) and torque them to 40 Nm.
10. Install the greasing device to the mounting plate and torque the screws (A) to 40 Nm.



11. Install the hoses to the hammer.

[RG5310307-364](#)

[RG5310230-306](#)

Maintenance

Routine maintenance

Overview

This product is a precision made hydraulic machine. Therefore great care and cleanliness should be taken when handling any of the hydraulic components. Dirt is the worst enemy in hydraulic systems.

Handle the parts carefully and remember to cover any cleaned and dried parts with clean lint-free cloth. Do not use anything other than purpose designed materials for cleaning hydraulic parts. Never use water, paint thinners or carbon tetrachloride.

Components, gaskets and seals in the hydraulic system should be oiled with clean hydraulic oil before assembly.

Troubleshooting

Ramlube II problems RG530 series

Tool does not get enough lubricant

- Wrong doser for the application. The doser must be replaced. Contact your local dealer for more information.
- Cold conditions. Apply grease manually to the grease nipple located on the underside of the greasing device.

Tool gets too much lubricant

- Wrong doser for the application or the doser is defective. The doser must be replaced. Contact your local dealer for more information.

Tool does not get lubricant at all

- Grease cartridge is empty or damaged. Replace the grease cartridge.
- Leak in the grease hose or pressure hose. Inspect the hoses and replace if necessary.
- Grease and pressure hoses are installed backwards. Swap the hoses.
- To continue troubleshooting, disconnect the grease hose from the hammer valve body and operate the hammer. After 10 minutes of operation check if grease has protruded from the grease hose.

Lubrication device is working (while the grease hose is disconnected)

- Leak in hammer lubrication channel. The hammer must be serviced in an authorized Sandvik service shop.
- Hammer lubrication channel is blocked. The hammer must be serviced in an authorized Sandvik service shop.

Lubrication device does not work (while the grease hose is disconnected)

- Remove the lubrication device from the hammer and deliver it for service in an authorized Sandvik service shop.

Further assistance

Further assistance

If further assistance is required, please prepare to answer the following questions before calling your dealer.

- Model and serial number
- Working hours and service history
- Carrier model
- Installation: Oil flow, operating pressure and return line pressure if known
- Application
- Has the product operated normally before

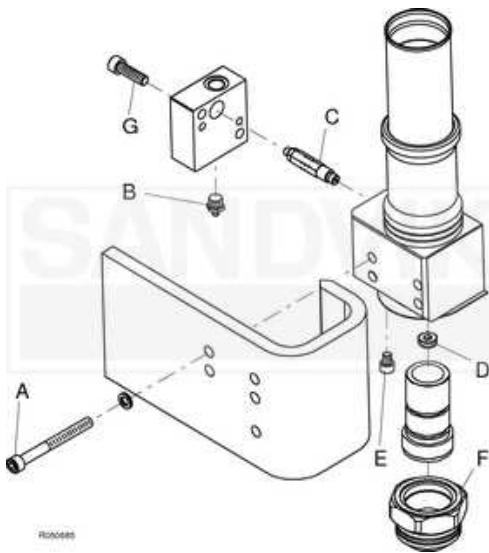
Workshop

Disassembly and assembly

Ramlube II RG530 series

Torques and lubricants

[RG5310365-UP]



Item	Tightening torque
Greasing device screws (A)	40 Nm (30 lbf ft)
Grease nipple (B)	33 Nm (24 lbf ft)
Doser to the body (C)	15 Nm (11 lbf ft)
Check valve to the cylinder (D)	15 Nm (11 lbf ft)
Spring housing lock plate screw (E)	20 Nm (15 lbf ft)
Spring housing (F)	200 Nm (148 lbf ft)
Cover screws (G)	40 Nm (30 lbf ft)

Item	Lubricant
All seals and O-rings	O-ring grease
Threads and lock washers	Thread grease
All parts	Hydraulic oil

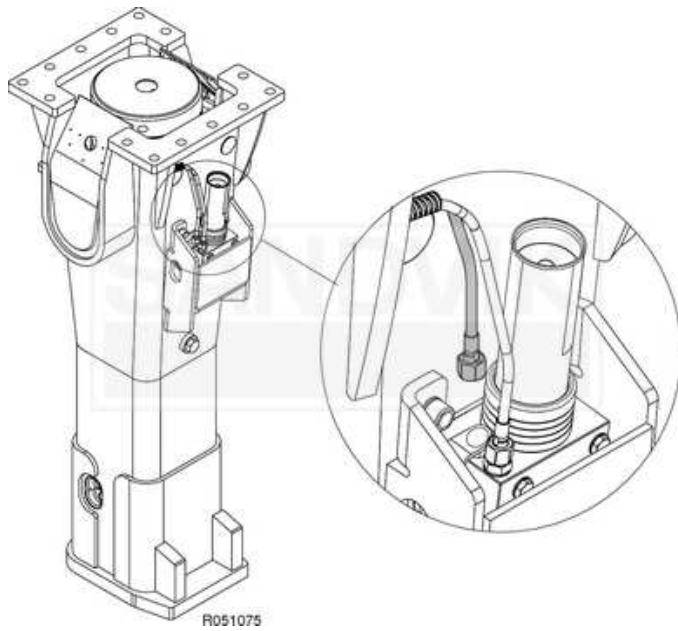
Releasing pressure

Warning! The hydraulic pressure inside the hammer must always be released before making any adjustments or repairs when the hammer is connected to the carrier. There may also be pressurized oil trapped inside the hammer even if the hammer is disconnected from the carrier. Release the hydraulic pressure according to the following instructions before opening any hoses, plugs or valve covers.

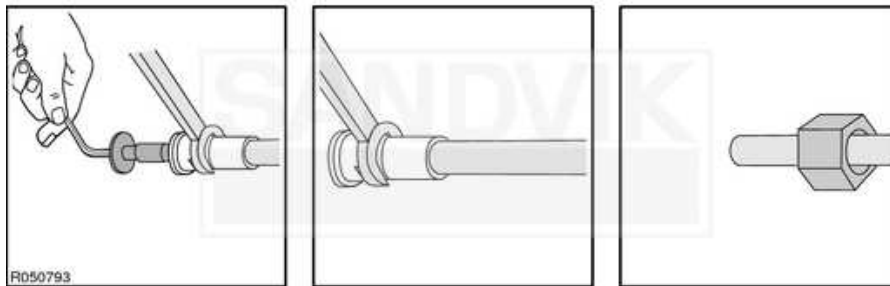
1. Stop the carrier engine.
2. Operate the boom and hammer controls to release any pressure trapped inside the hoses.
3. Wait at least 10 minutes for the oil pressure to drop inside the hammer.

Replacing greasing device hoses

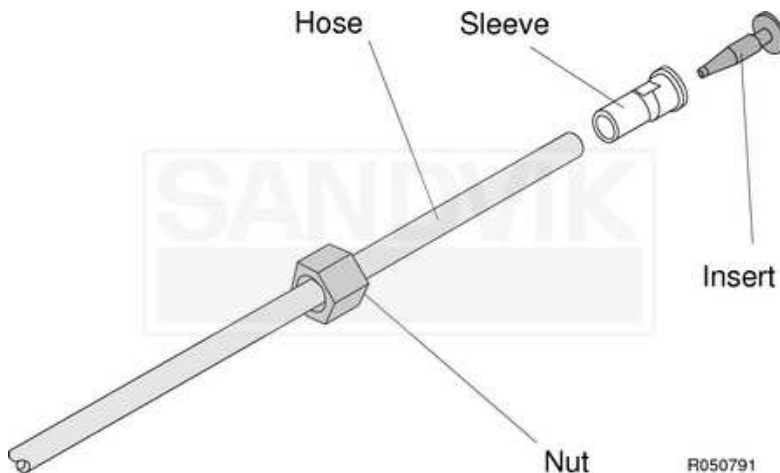
1. Remove the hose assembly by opening the nuts from both ends of the hose.



2. Unscrew the inserts with a 5-mm Allen key and a 12-mm open-ended spanner.
3. Remove the sleeves. The thread is left-handed.
4. Remove the nuts.

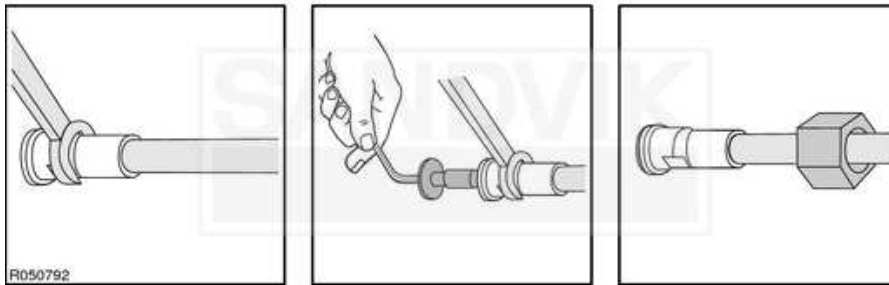


5. Use a sharp knife to cut the new hose to the appropriate length. See the parts manual specification for the correct hose length.
6. Lubricate the coupling parts with hydraulic oil.

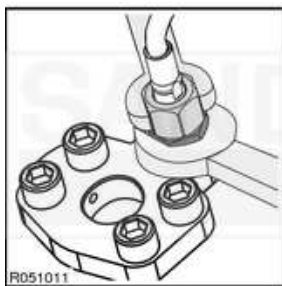


7. Insert the nut on the hose.

8. Use a 12-mm open-ended spanner to screw the sleeve on the hose as far as it will go. The thread is left-handed.
Important: After stopping, turn the sleeve back one (1) round.
9. Install the insert and tighten it with a 5-mm Allen key. Make sure the hose does not turn inside the sleeve while tightening the insert. Continue until the insert rests against the sleeve.



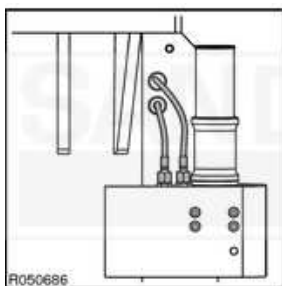
10. Prepare the other end of the hose.
11. Check that there are no blockages in the hose assembly.
12. Install the hose assembly.
13. Connect the hose assemblies. While tightening the nut to the specified torque, hold the adapter in place to prevent the adapter from being tightened too hard.



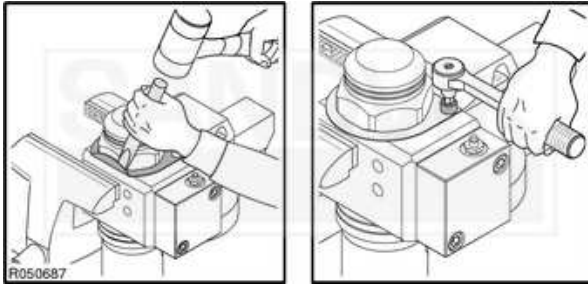
Disassembling greasing device

[RG5310365-UP]

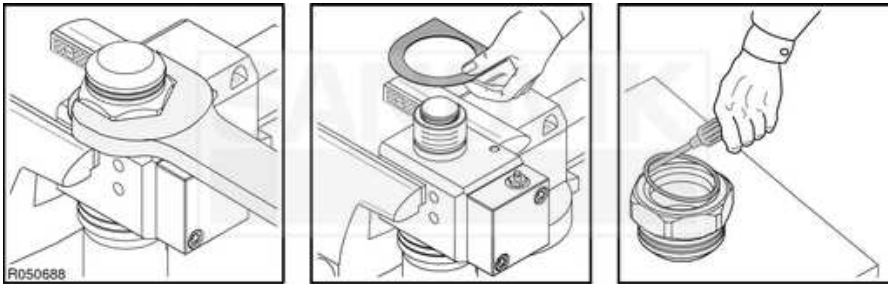
1. Release the pressure inside the hammer according to the instructions above.
2. Remove the grease and pressure hoses from the greasing device.
3. Remove the greasing device from its mounting plate.



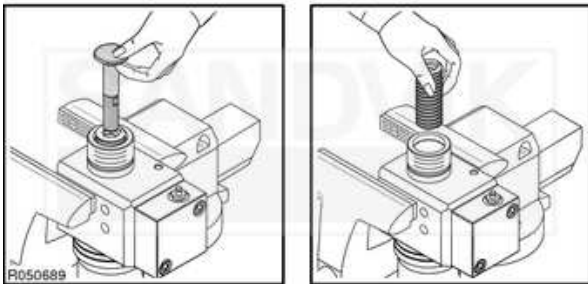
4. Clamp the greasing device in vice.
5. Release the spring housing locking plate by using a hammer and a chisel.
6. Remove the lock plate screw by using an 6 mm allen key.



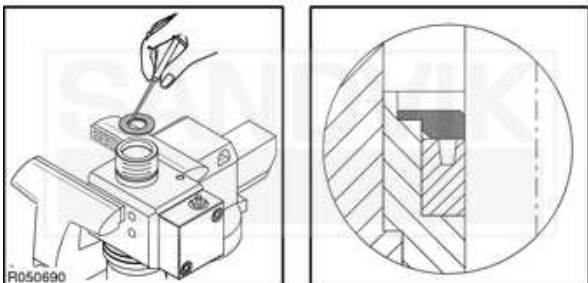
7. Loosen and remove the spring housing by using a 36 mm open end spanner.
8. Remove the spring housing lock plate.
9. Remove the O-ring from the spring housing.



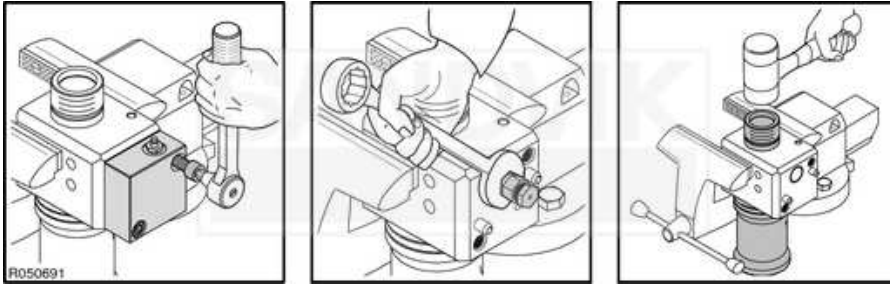
10. Remove the piston and the spring.



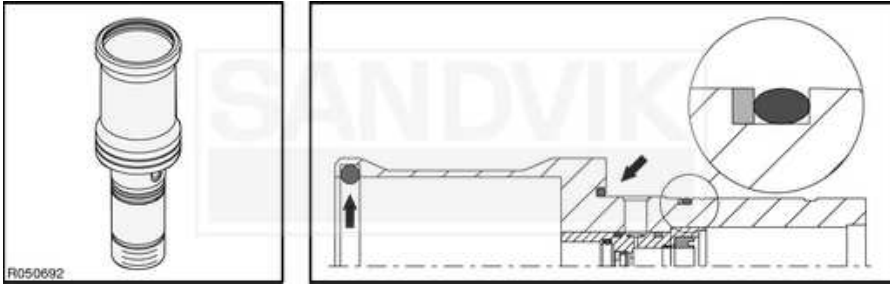
11. Remove the spring support. See the correct installation direction from the detail.



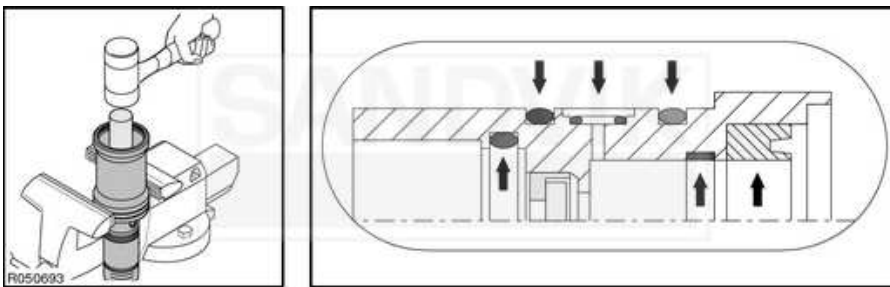
12. Open the cover screws by using an 8 mm allen key. Remove the cover and the O-ring.
13. Remove the doser by using a 13 mm open end spanner.
14. Remove the cartridge holder from the body by using a plastic hammer.



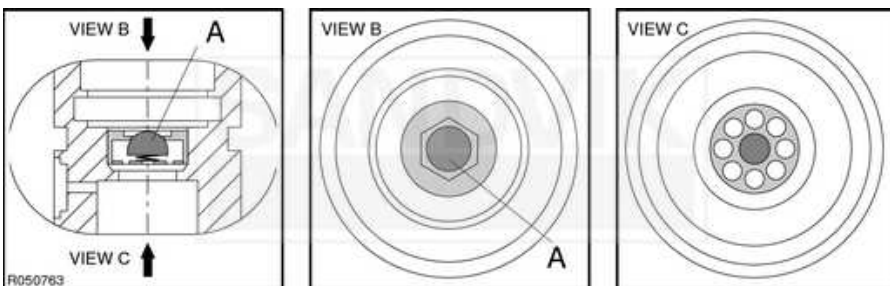
15. Remove the O-rings and the supporting ring from the cartridge holder.



- 16. Clamp the cartridge holder in vice.
- 17. Remove the cylinder by using a D30 mm nylon drift and a plastic hammer.
- 18. Remove the seal, the sealing ring and the O-rings from the cylinder.



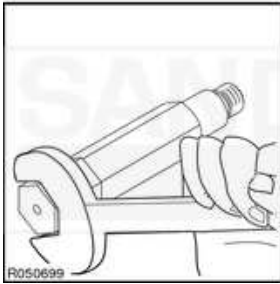
19. Clean the cylinder thoroughly with a suitable solvent. Check that the closing flange (A) moves freely inside the check valve. It is not recommended to remove the check valve if no damages can be found.



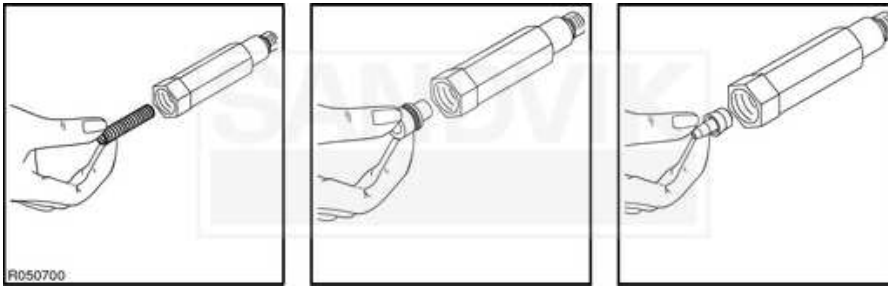
Disassembling doser

[RG5310365-UP]

1. In case of malfunction, the doser can be disassembled for cleaning. Please note that spares for the doser are not available. Worn components means replacement of the doser assembly.
2. Loosen the doser cap nut by using a 12 mm open end spanner. Release the spring force carefully when removing the cap nut.



3. Remove the spring, the spool and the piston.



4. Clean and check the parts carefully. Please note that spares for the doser are not available. Worn components means replacement of the doser assembly.

Assembling doser

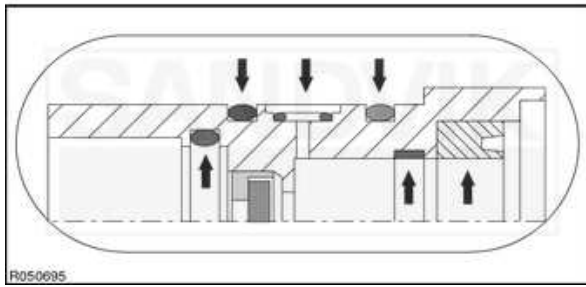
[RG5310365-UP]

1. Install the piston and the spool.
2. Install the spring.
3. Install the doser cap nut. Torque it to 15 Nm.

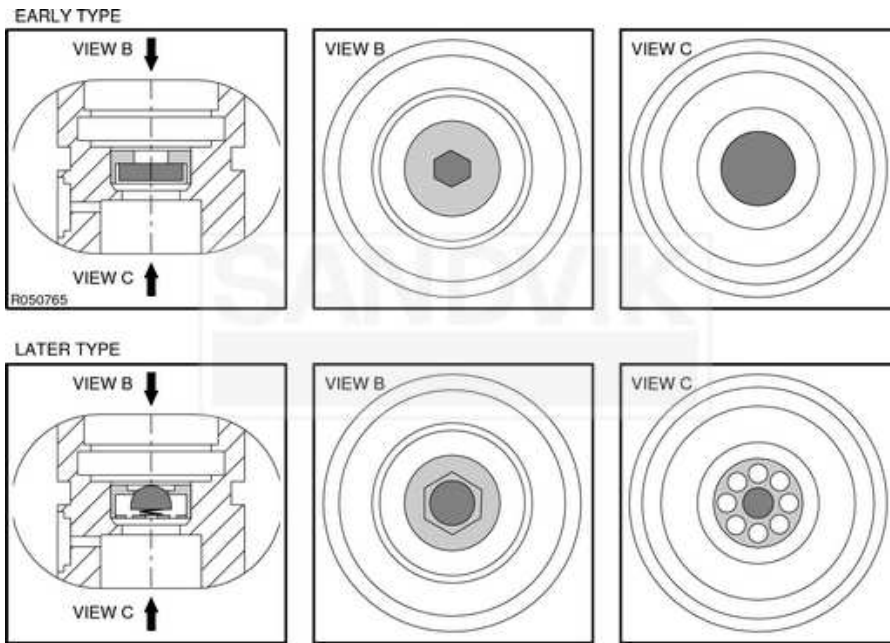
Assembling greasing device

[RG5310184-UP]

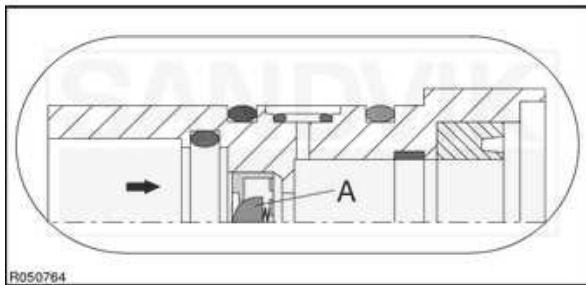
1. Install the O-rings, the sealing ring and the seal into the cylinder.



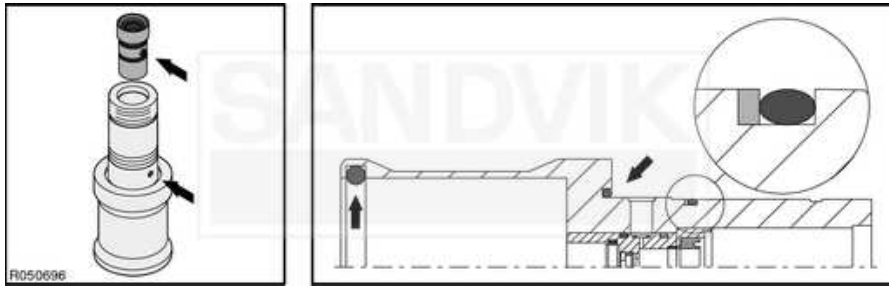
- There are two different designs of check valves in use. It is strongly recommended to install always later type, non-dismountable check valve.



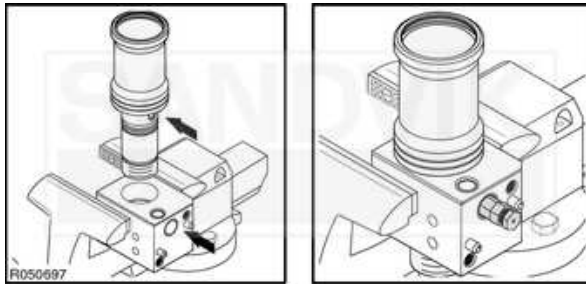
- Later type check valve can be directly installed its place into the cylinder and tighten to the specified torque.



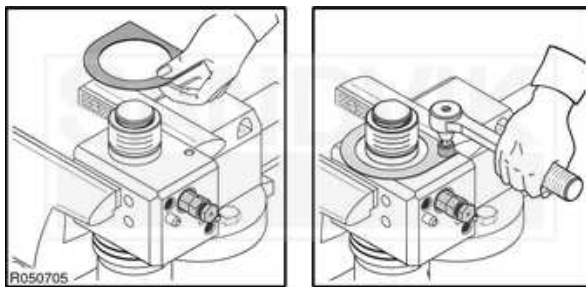
- Drive the cylinder into the cartridge holder by using a D35 mm nylon drift and a plastic hammer. Align the doser sealing surface in the cylinder and the doser hole in the cartridge holder.
- Install the O-rings and the supporting ring to the cartridge holder.



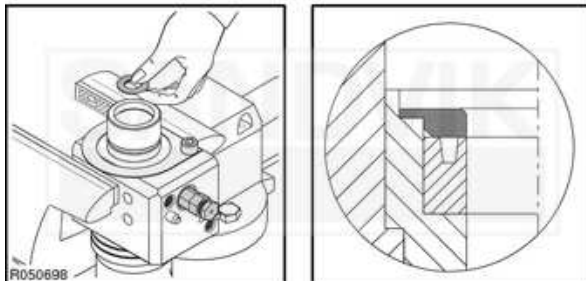
6. Install the cartridge holder to the body. Align the holes for the doser in the cartridge holder and the body.
7. Install the doser, but do not tighten it yet.



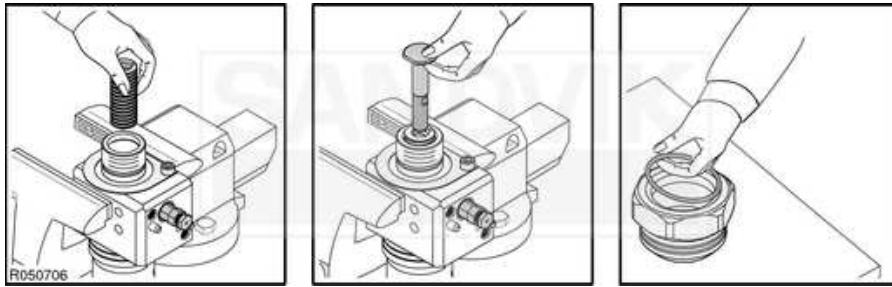
8. Install the spring housing lock plate. Use always a new lock plate.
9. Install the lock plate screw. Torque screw to the specified setting.



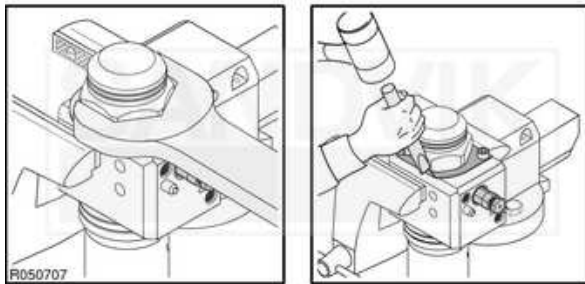
10. Install the spring support to the cartridge holder. See the correct installation direction from the detail.



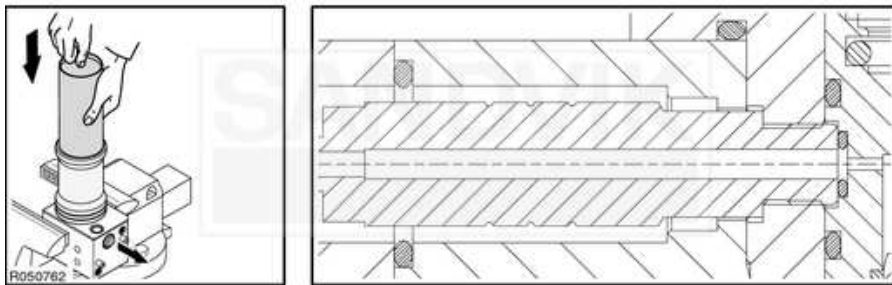
11. Install the spring and the piston to the cartridge holder.
12. Install the O-ring to the spring housing.



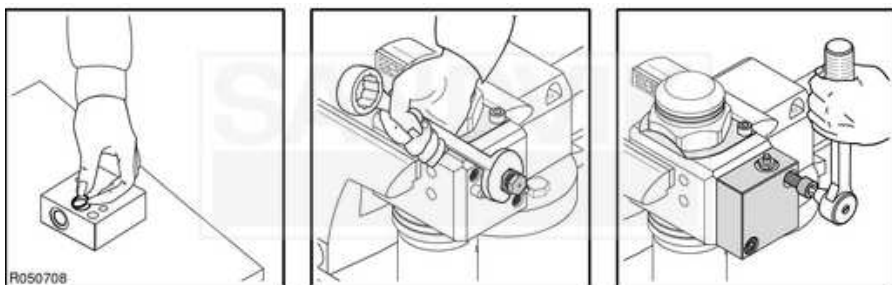
13. Install the spring housing. Torque it to the specified setting.
14. Lock the spring housing by bending the lock plate by using a chisel and a hammer.



15. Remove the doser.
16. Install the new grease cartridge. Prefill the greasing device by pressing the piston of the grease cartridge manually until grease appears from the doser hole. Check that the doser O-ring is in the right position in the cylinder.



17. Install the doser. Torque it to the specified setting.
18. Install the O-ring to the cover.
19. Install the cover. Torque the screws to the specified setting.



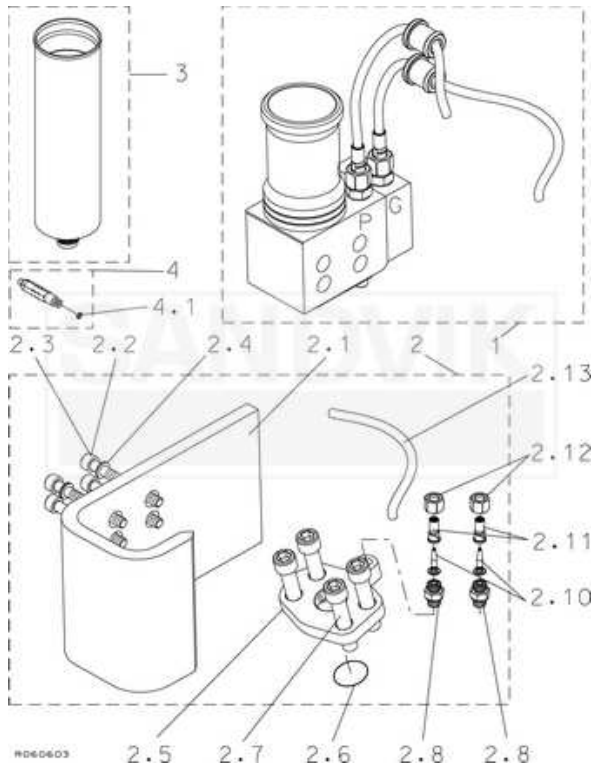
20. Install the greasing device to the mounting plate. Torque the screws to the specified setting.
21. Prefill the hammer's grease channel by applying tool grease with a grease gun to the grease nipple located on the side of the greasing device. Continue until some grease appears from the tool bushing`s grease holes (use assistant if

possible). This may take some time; the capacity of hammer internal grease channel is approximately 500 - 1000 grams.

22. See chapter "start up" for more instructions.

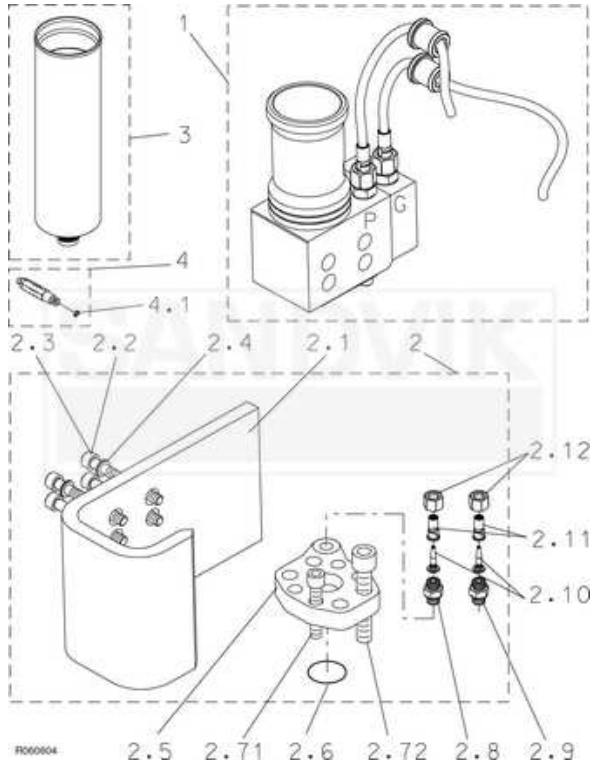
Parts

Ramlube II kit RG530 serie (BR 2063, BR 2064, E 63, E 64) [RG5310365-UP]



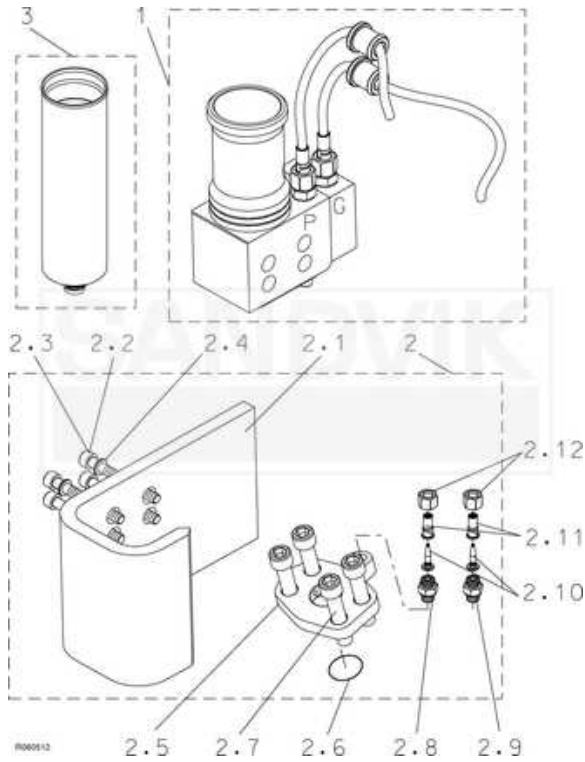
Item	Description	Part no.	Specification	Note	Qty
Kit	Ramlube II kit (incl. parts 1-4)	155193			1
1	Greasing device RG531	154929			1
2	Installation kit (incl. parts 2.1-2.13)	155192			1
2.1	Mounting plate	152976			1
2.2	Hex. socket screw	902486	M10x100-8.8 ISO 4762		4
2.3	Hex. socket screw	91079	M10x40-8.8 ISO 4762		4
2.4	Lock washer	91037	M10 NORD-LOCK		4
2.5	Flange	154404	SAE 1		1
2.6	O-ring	90010	BS 1806 32.92x3.53-NBR 90		1
2.7	Hex. socket screw	91041	M12x60-8.8 ISO 4762		4
2.8	Connector	951294	BSPP 1/4		2
2.10	Insert	153036			2
2.11	Sleeve	153035			2
2.12	Nut	951296			2
2.13	Hose	951572	L=2000		1
3	Grease cartridge	951370	Special tool grease, Ramlube II cartridge		1
4	Doser (incl. part 4.1)	158239	RGC-3		1
4.1	O-ring	950271	D5		1

Ramlube II kit RG530 serie (BR 2265, BR 2266, E 65, E 66 N)
[RG5310365-UP]



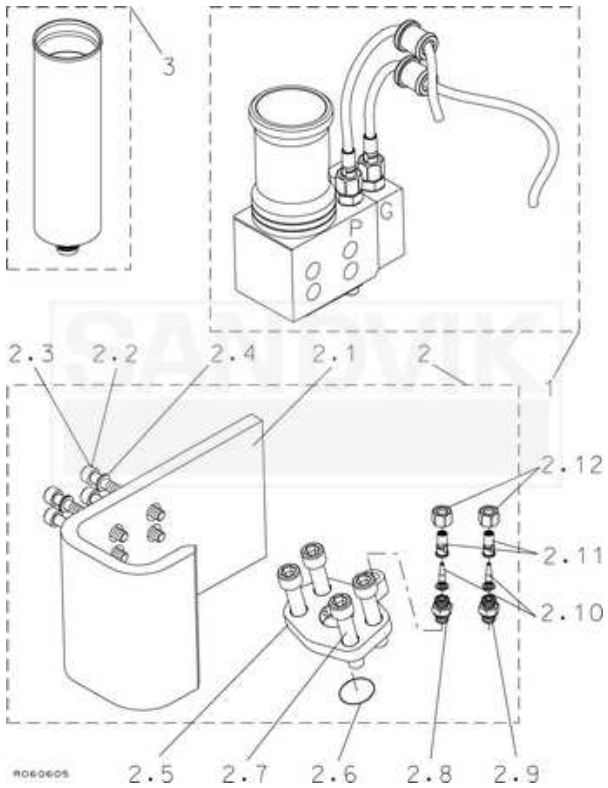
Item	Description	Part no.	Specification	Note	Qty
Kit	Ramlube II kit (incl. parts 1-4)	154933			1
1	Greasing device RG531	154929			1
2	Installation kit (incl. parts 2.1-2.12)	154930			1
2.1	Mounting plate	152149			1
2.2	Hex. socket screw	902486	M10x100-8.8 ISO 4762		4
2.3	Hex. socket screw	91079	M10x40-8.8 ISO 4762		4
2.4	Lock washer	91037	M10 NORD-LOCK		4
2.5	Flange	152334	SAE 1 / SAE 1 1/4		1
2.6	O-ring	90009	BS 1806 37.69x3.53-NBR 90		1
2.71	Hex. socket screw	91041	M12x60-8.8 ISO 4762		4
2.72	Hex. socket screw	903075	M14x70-8.8 ISO 4762		4
2.8	Connector	951294	BSPP 1/4		1
2.9	Connector	951295	BSPP 3/8		1
2.10	Insert	153036			2
2.11	Sleeve	153035			2
2.12	Nut	951296			2
3	Grease cartridge	951370	Special tool grease, Ramlube II cartridge		1
4	Doser (incl. part 4.1)	158239	RGC-3		1
4.1	O-ring	950271	D5		1

Ramlube II kit kit RG530 serie (BR 2568, E 68, G 80 N)
[RG5310100-UP]



Item	Description	Part no.	Specification	Note	Qty
Kit	Ramlube II kit (incl. parts 1-3)	154934			1
1	Greasing device RG531	154929			1
2	Installation kit (incl. parts 2.1-2.12)	154931			1
2.1	Mounting plate	152240			1
2.2	Hex. socket screw	902486	M10x100-8.8 ISO 4762		4
2.3	Hex. socket screw	91079	M10x40-8.8 ISO 4762		4
2.4	Lock washer	91037	M10 NORD-LOCK		4
2.5	Flange	153728	SAE 1 1/4		1
2.6	O-ring	90009	BS 1806 37.69x3.53-NRB 90		1
2.7	Hex. socket screw	903075	M14x70-8.8 ISO 4762		4
2.8	Connector	951294	BSPP 1/4		1
2.9	Connector	951295	BSPP 3/8		1
2.10	Insert	153036			2
2.11	Sleeve	153035			2
2.12	Nut	951296			2
3	Grease cartridge	951370	Special tool grease, Ramlube II cartridge		1

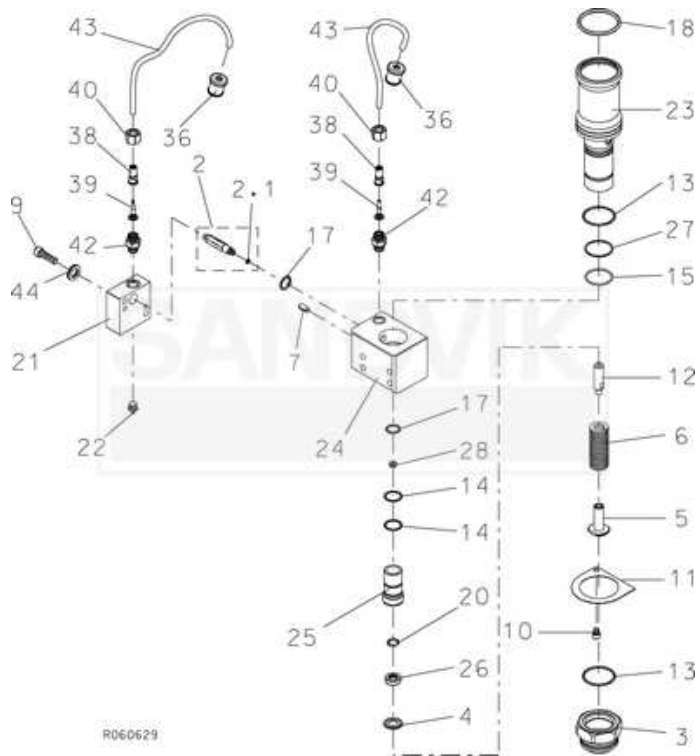
Ramlube II kit RG530 serie (BR 3890, BR 4510, BR 4511, G 90, G 100, G 110)
[RG5310307-UP]



Item	Description	Part no.	Specification	Note	Qty
Kit	Ramlube II kit (incl. parts 1-3)	154935			1
<u>1</u>	Greasing device RG531	154929			1
<u>2</u>	Installation kit (incl. parts 2.1-2.12)	154932			1
<u>2.1</u>	Mounting plate	154387			1
<u>2.2</u>	Hex. socket screw	902486	M10x100-8.8 ISO 4762		4
<u>2.3</u>	Hex. socket screw	91079	M10x40-8.8 ISO 4762		4
<u>2.4</u>	Lock washer	91037	M10 NORD-LOCK		4
<u>2.5</u>	Flange	153728	SAE 1 1/4		1
<u>2.6</u>	O-ring	90009	BS 1806 37.69x3.53-NRB 90		1
<u>2.7</u>	Hex. socket screw	903075	M14x70-8.8 ISO 4762		4
<u>2.8</u>	Connector	951294	BSPP 1/4		1
<u>2.9</u>	Connector	951295	BSPP 3/8		1
<u>2.10</u>	Insert	153036			2
<u>2.11</u>	Sleeve	153035			2
<u>2.12</u>	Nut	951296			2
<u>3</u>	Grease cartridge	951370	Special tool grease, Ramlube II cartridge		1

Ramlube II greasing device RG530 serie

[RG5310365-UP]



Item	Description	Part no.	Specification	Note	Qty
Kit	Greasing device RG531 (incl. parts 1 and 36-43)	154929			1
1	Greasing device RG531 (incl. parts 2-28)	951415			1
2	Doser (incl. part 2.1)	158238	RGC-2 (optional)		1
2	Doser (incl. part 2.1)	158239	RGC-3 (optional)		1
2	Doser (incl. part 2.1)	158240	RGC-4 (optional)		1
2	Doser (incl. part 2.1)	158241	RGC-5 (standard)		1
2	Doser (incl. part 2.1)	158242	RGC-6 (optional)		1
2.1	O-ring	950271	D5	*	1
3	Nut	951409			1
4	Spring support	951412			1
5	Spring guide	951408			1
6	Spring	950257			1
7	Split pin	950275	8x80 ISO 8752		2
9	Hex. socket screw	90592	M10x35-8.8 ISO 4762		2
10	Hex. socket screw	951421	M8x10-8.8 ISO 4762	*	1
11	Lock plate	951410		*	1
12	Piston	150854			1
13	O-ring		D50	*	2
14	O-ring		D25	*	2
15	O-ring		D43	*	1
17	O-ring		D19	*	2
18	O-ring		D62	*	1
20	Guide ring		D16	*	1
21	Gable plate	152025			1
22	Grease nipple	90200	BSP 1/4	*	1
23	Cartridge holder	951794			1
24	Body	951414			1
25	Cylinder	951795			1
26	Seal		D16	*	1
27	Supporting ring		D43	*	1

28	Check valve	951767		1
36	Rubber bushing	152172		2
38	Sleeve	153035		2
39	Insert	153036		2
40	Nut	951296		2
42	Connector	951295	BSPP 3/8	2
43	Hose	951434	L=1000	2
44	Lock washer	91037	M10 NORD-LOCK	8
kit	Seal set for greasing device	152453		1

*) Are included in seal set