

Service manual



ROTATOR

XR 400



IMPORTANT!

Read through the service manual carefully and make sure that you understand the content before starting the service.

GENERAL

This service manual has been produced inhouse Indexator and can show the special tools and equipment that are used in the production. Alternative equipment can also be used.

Vi are constantly improving our products and reserve the right to make design changes without introducing them on products that have already been delivered. The same applies to maintenance and other service operations.

The service manual contains instructions for repairing and maintaining your product for long life and faultless operation. Before starting repair work on the rotator, read through the manual thoroughly in order to understand its content. Casual or incorrect actions may result in serious or even life-threatening injury.

Servicing work may only be done by personnel familiar with Indexator products.
For major renovation work, trained personnel should be contacted.

SAFETY

In addition to the recommendations in this service manual, every country(nation) has its own safety regulations. If the recommendations in the manual differs from the regulations in your country, you must observe your national regulations.

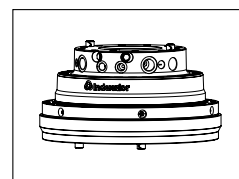
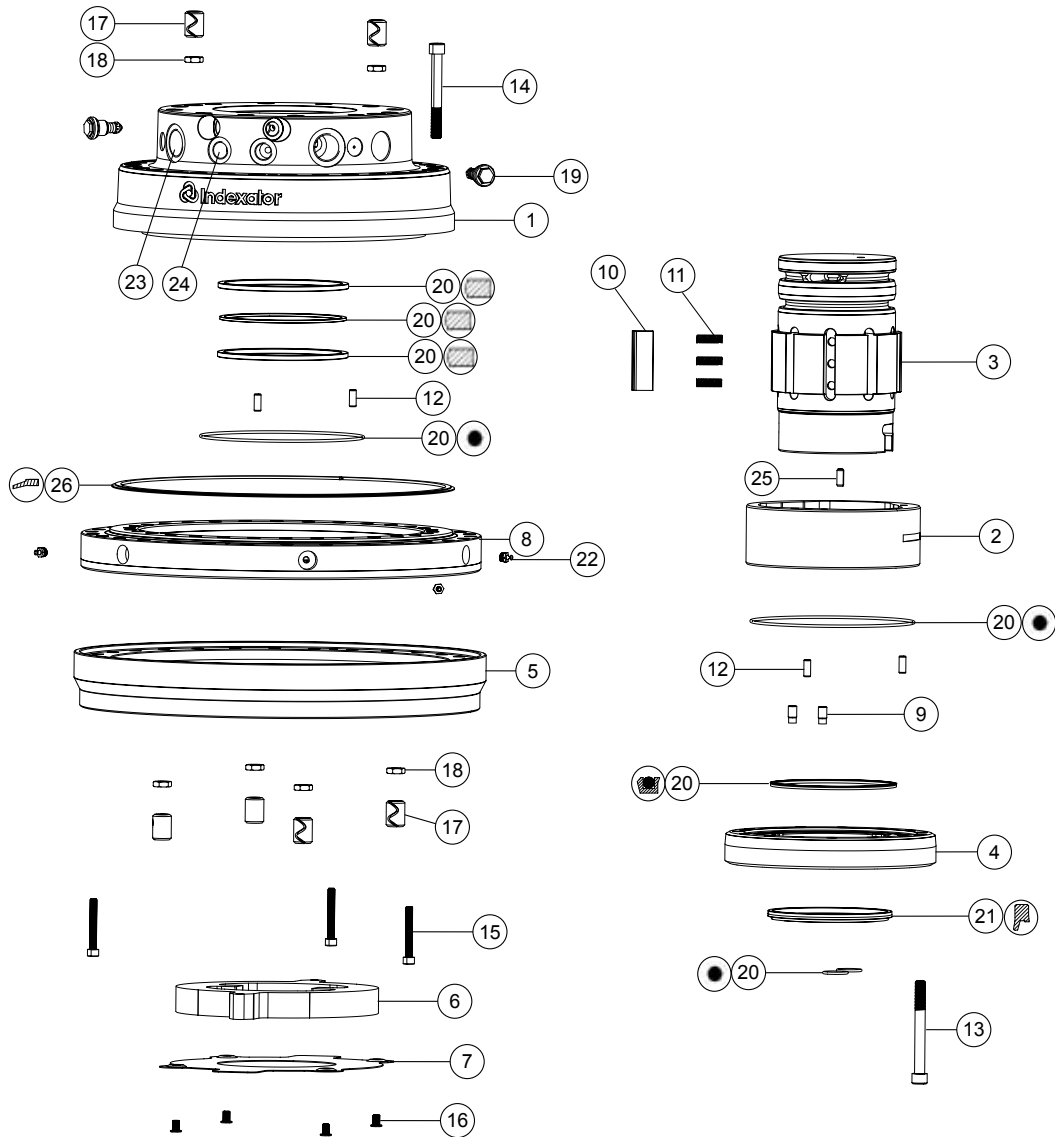
Use the necessary safety equipment for the task, for example safety shoes, gloves, safety glasses and ear protection. Use gloves as protection against oil, grease and other noxious substances.



DESCRIPTION

XR is a compact rotator with grapple- and rotation function. C models has an extra function for central greasing. That function is describes as a notification "only C model" in the servicemanual.

COMPONENTS



1049428
2018 04 09

RESERVDELAR SPARE PARTS

8400003 XR 400

Pos	Detalj nr	Ant	Beskrivning	Description	Anm	Åtdragn mom
	8400 003		Rotator XR 400	Rotator XR 400		
1	6002 763R	1	Stator övre	Stator plate upper	Incl pos. 19, 23, 24	
2	8000 811R	1	Statorring	Stator frame		
3	6002 903	1	Rotor	Rotator shaft	from s/n 1605754-	
	6002 573	1	ER Rotor	ER Rotator shaft	s/n 1514713 - 1605753	
4	6005 165R	1	Stator nedre	Stator lower	from s/n 1605754 -	
	8100 111	1	ER Stator nedre	ER Stator lower	s/n 1514713 - 1605753	
5	6002 663R	1	Fästplatta	Lower link		
6	8100 118	1	Transmission	Transmission		
7	8100 119	1	Bottenplåt	Bottom plate		
8	8100 165R	1	Svängkranslager	Slewing bearing	Incl pos. 22, 26	
9	5011 107	2	Käglor	Restrictors		
10	5011 160	9	Vinge	Vane		
11	5006 030	27	Fjäder	Spring		
12	1019 900	4	Spännstift	Pin	8x20	
13	1010 677	15	Skruv	Screw	M12x110	120 Nm
14	1079 094	30	Skruv	Screw	M12x100	120 Nm
15	1070 564	3	Skruv	Screw	M8x60	33 Nm
16	1070 556	4	Skruv	Screw	M8x12	33 Nm
17	1066 851	6	Pinne	Tubular pin	22x30	
18	1074 574	6	Mutter	Nut	M12	
19	6002 565	2	Tryckbegr ventil	Relief valve	28 MPa (R, R)	40 Nm
20	6003 706	1	Tätningssats	Seal kit	XR400	
21	1300 234	1	Tätning avstrykare	Wiper seal	from s/n 1605754 -	
	1078 922	1	ER Tätning avstrykare	ER Wiper seal	s/n 1514713 - 1605753	
22	1018 258	6	Smörjnippel	Grease nipple	M8x1	
23	1078 021	2	Propp	Plug	ED G1	
24	5001 384	2	Propp	Plug	ED G1/2	
25	1070 408	1	Pinne	Pin	FRP 8x20	
26	6005 146	1	Tätningssats lager	Seal kit bearing		

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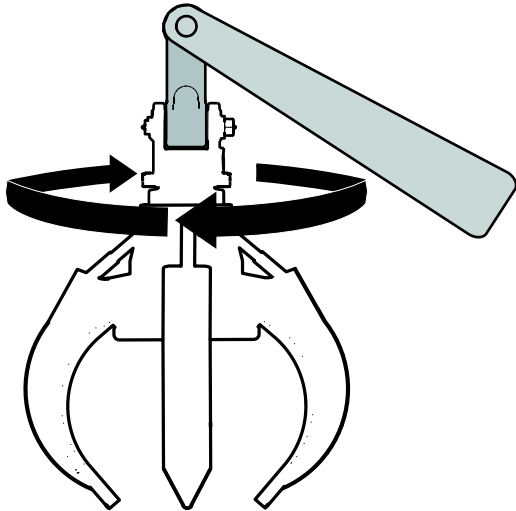
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E-mail: rotator@indexator.com, www.indexator.com

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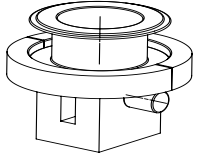

TO PROLONG THE LIFE TIME:

Every 40 hours rotate 10 rounds.

 **40h**  **x 10**



RECOMMENDED TOOLS

PART. NO	DESCRIPTION	QTY	
1077 106	Glide seal remover	1 st	
8000 581	Vane compressor	1 st	
4000 828	Assembly tool motor	1 st	
3122 155	Tool motor	1 st	

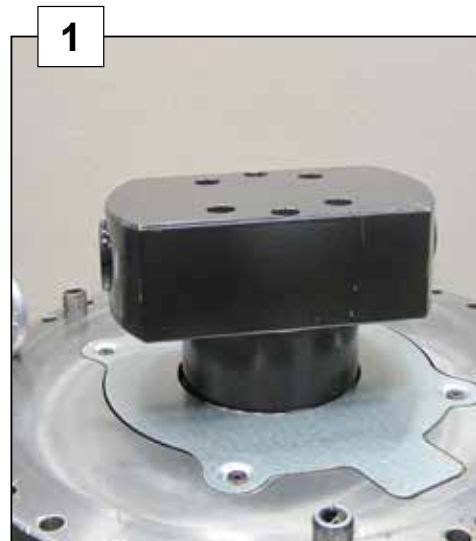
CONTENTS

This service manual describes:

Changing seals..... page 6-23
Changing seal on slewing bearing..... page 24-27

CHANGING SEALS

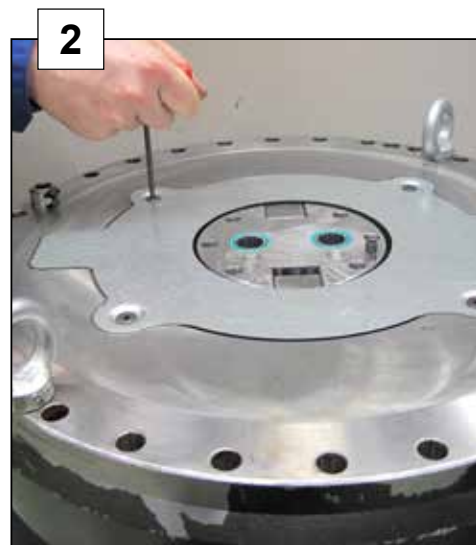
Put the rotator upside down and remove the manifold block.



WARNING! If the rotator is normally positioned the transmission can fall down if the bottom plate is loosened!



Remove the bottom plate by loosen 4 pcs of M8x12 screws.



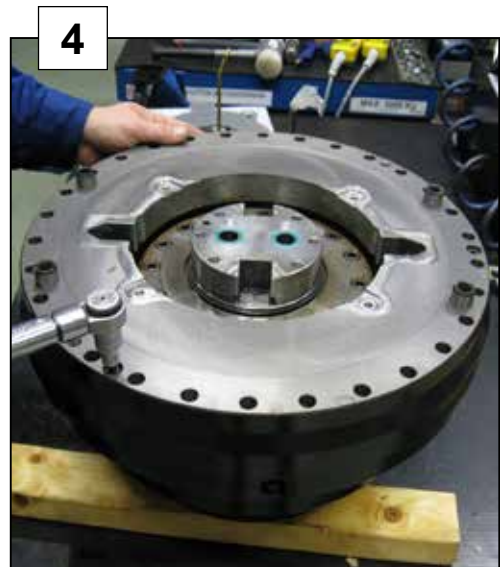
Lift up the transmission. Use 2 pcs of M10 screws to create a good grip and prevent any risk of injury.



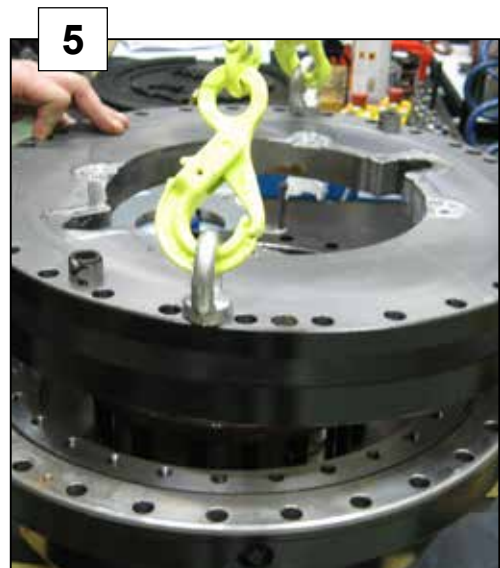
NOTE! Risk of injury!



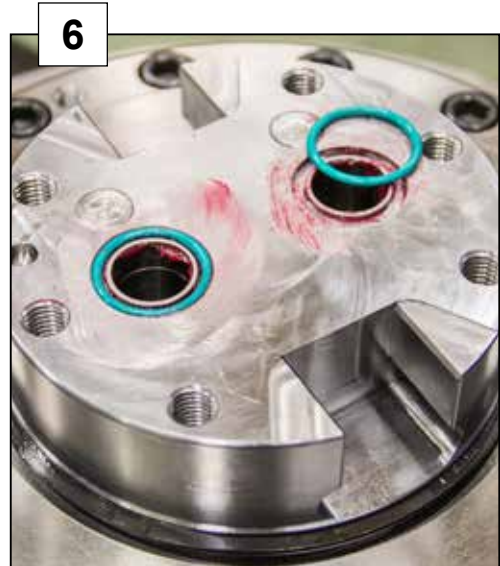
Remove 3 pcs of M8x60 screws in the lower link.



Lift off the lower link.



Remove the o-rings from the rotator shaft.



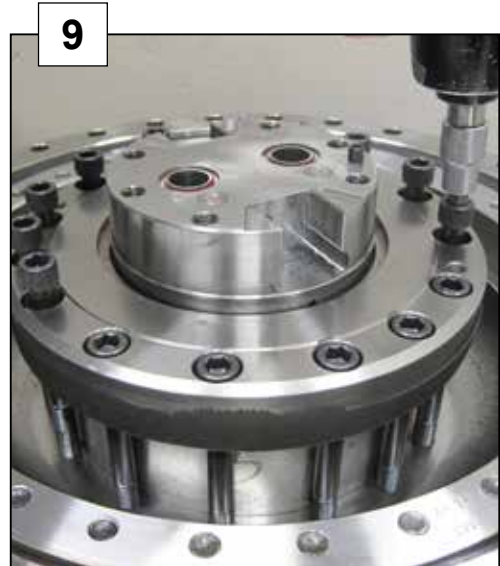
Only for C model.
Remove the o-ring for the c-channel on the rotator shaft.



Remove wiper seal.



Remove 15 pcs M12x110 screws to loosen the motor part.



Disassemble the stator lower by carefully bending from two directions.
Note! Important to get it straight up.



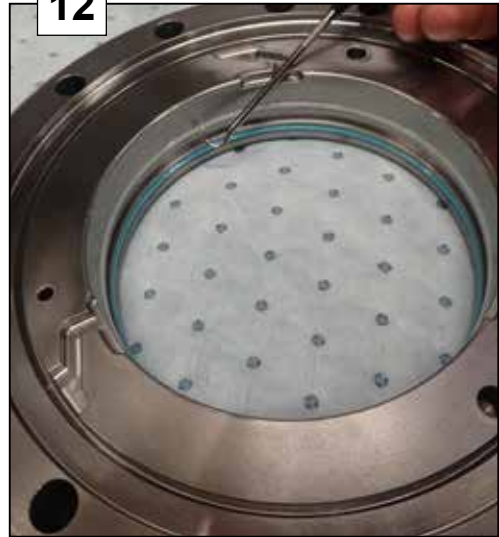
Remove the seal in stator lower.



Only for C model.

Remove the two seals in stator lower.

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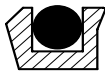


Clean the seal seats in stator lower thoroughly, using cotton buds and oil for example.

13



Assemble a new seal in stator lower.



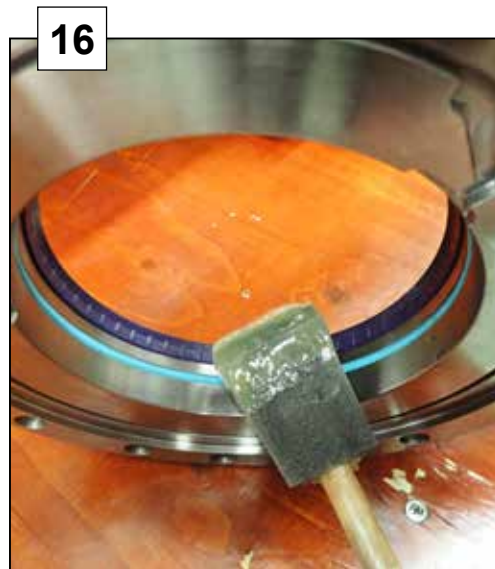
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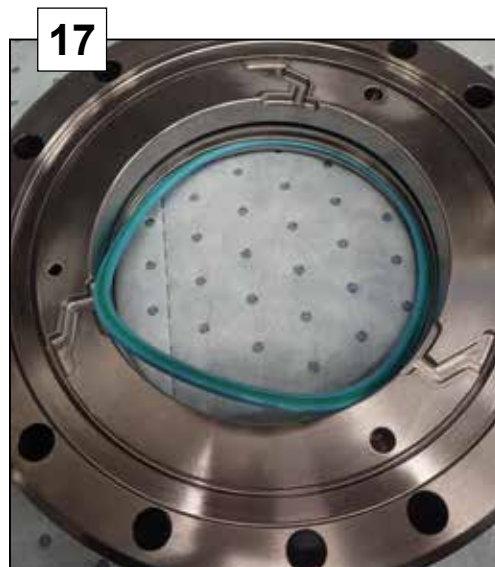
If needed change the wiper seal in stator lower.



Lubricate the new seals.



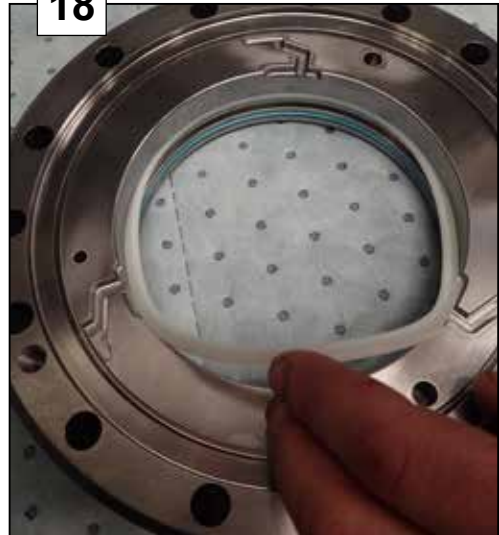
Only for C model.
Assemble a new seal in stator lower.



Only for C model.

Assemble a new seal in stator lower.

18



Only for C model.

Lubricate the new seals.

19



Remove the o-ring from the stator frame.

Clean the seal seat.

Lubricate the new seal and install it.

20



Only for C model.

Remove the o-ring for the c-channel on the stator frame.

Clean the seal seat.

Lubricate the new seal and install it.

21



Assemble stator lower on the motor part.

Make sure that the holes in stator lower aligns with the dowel pins in the stator frame.

Knock - with care - the stator lower the whole way down with a plastic mallet.

22



Assemble the tool, for holding the motor parts together, on the motor.

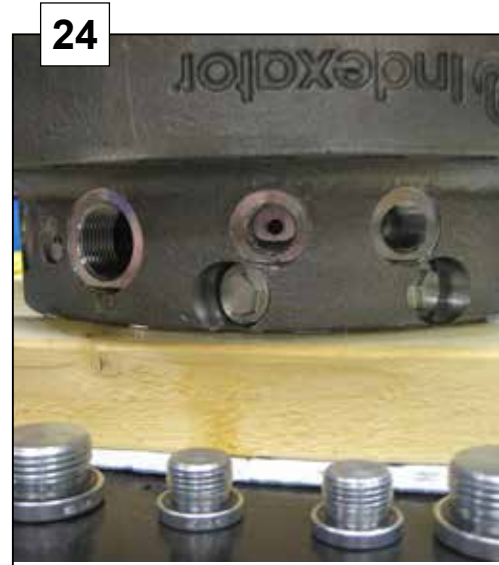
Part no. 3122155



23



Disassemble the plugs/fittings from the grapple- and rotation inlets. That will make it easier to lift the motor off.



Lift the motor off from stator upper.



Remove the o-ring in stator upper.



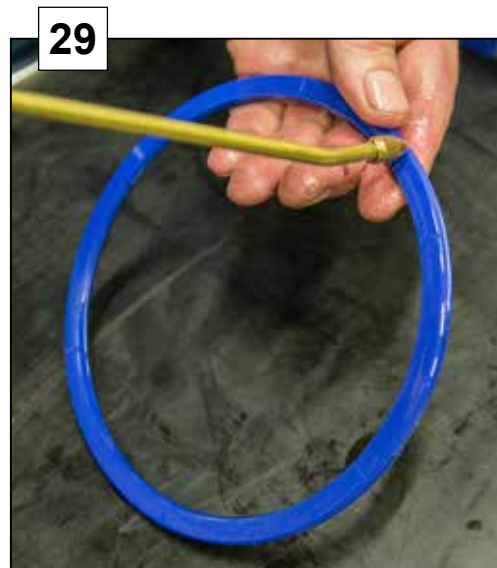
Remove the three seals in stator upper.



Clean the seal seats in stator upper.



Lubricate the new seals.



Assemble the three new seals in stator upper in the order:
blue-white-blue.



Lubricate the new o-ring.



Assemble the new o-ring in stator upper.



Only for C model.

Remove the o-ring for the c-channel in stator upper.

Clean the seal seat.

Lubricate the new seal and install it.



Make sure that the dowel pins are assembled.



To make the reassembly of the motor easier, make a mark on the outside of the stator frame where the holes for the dowel pins are positioned.



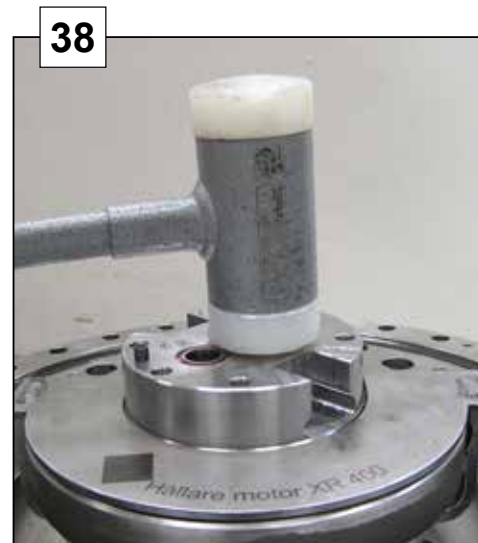
Make a mark inside stator upper where the dowel pins are assembled.



Position the motor according to the aligned marks.



Assemble the motor by knocking it down carefully with a plastic mallet.
Important that the dowel pins are in the right positions!
It can be of some help to position the motor if one of the M12 screws is put in its hole.



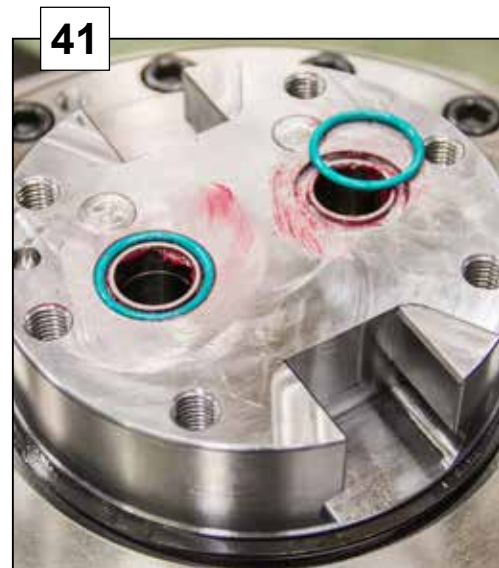
Assemble 15 pcs M12x110 screws.
Crosswise tightening.



Torque the screws 120 Nm.



Assemble new seals on the rotator shaft.



Only for C model.

Clean the seal seat and assemble a new o-ring for the c-channel on the rotator shaft.

42



Assemble the wiper seal between rotator shaft and stator lower. For s/n before 1605714.

Lubricate the new seals.

Note! The "flat" side upwards, the "lip" downwards.



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Assemble the plugs/fitings for grapple and rotation in stator upper.

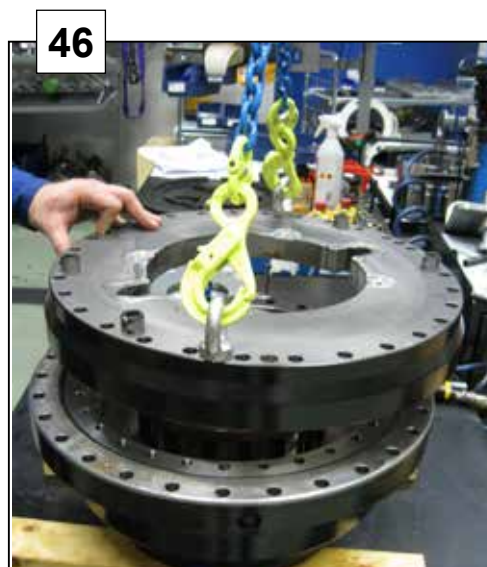
44



Position the lower link so that the three M8 holes aligns with three threaded holes on the slewing bearing.



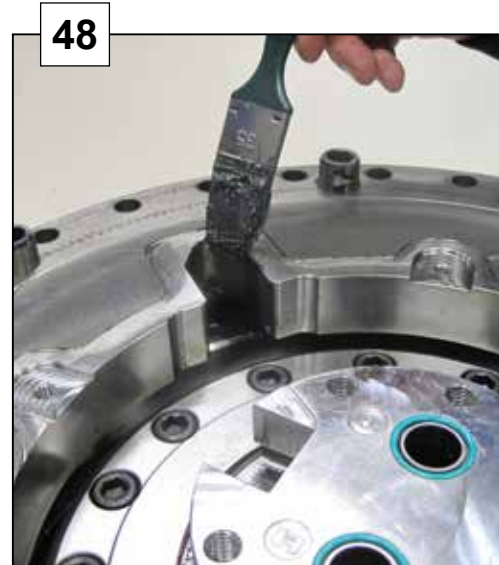
Assemble the lower link.



Assemble 3 pcs M8x60 screws.
Torque 33 Nm



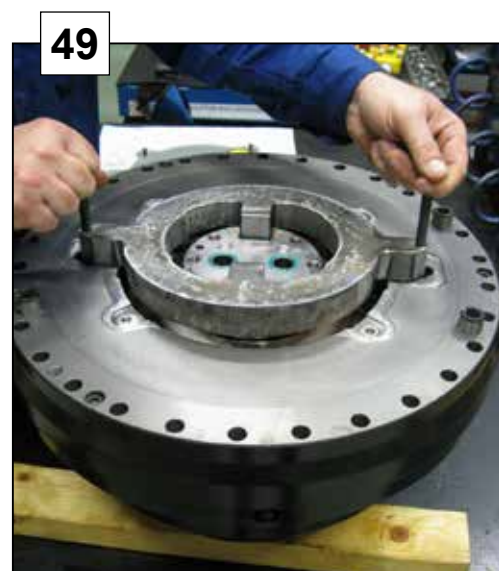
If needed grease the recesses for the transmission in the lower link and on the shaft.



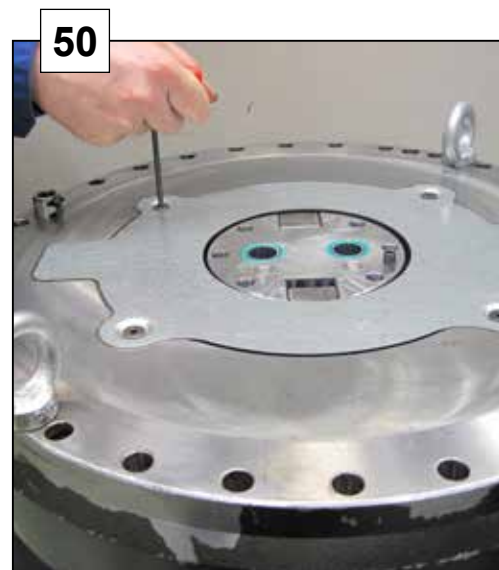
Assemble the transmission.
Use 2 pcs of M10 screws to create a good grip and prevent any risk of injury.



NOTE! Risk of injury!



Assemble the bottom plate with 4 pcs M8x12 screws.
Torque 33 Nm.



Assemble the manifold block or the protective cover with 6 pcs of screws M12.



Test of the rotator function.
Attach the rotation ports (R, R) in stator upper to a hydraulic powerpack.
Run for 20 seconds in each direction.

Maximum oil flow: 35 l/min



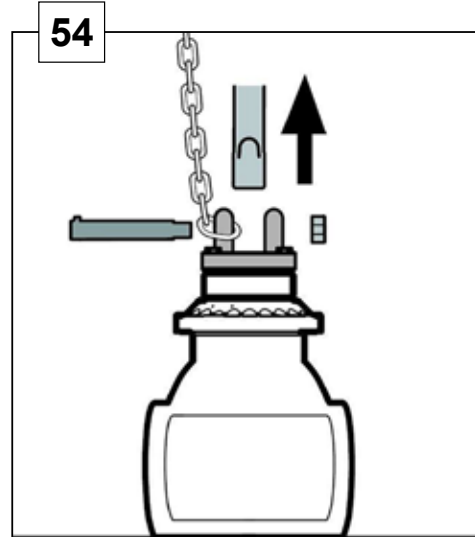
Pressure test of the grapple function.
Attach the grapple ports (G, G0) in stator upper to a hydraulic powerpack.
Pressurize to 20 MPa for 20 seconds.

Note! The grapple outlets (G, G0) on the manifold block have to be sealed by steel plugs before testing!



CHANGING SEAL ON SLEWING BEARING

Detach the rotator from the link.
Secure the rotator and tool so it will not cause any danger!



Identify the slewing bearing:

⦿ Two "dots" => seal kit bearing number 6005146



Remove the seal from the slewing bearing.



Dry the surface of the slewing bearing clean with paper.
Clean the seal groove.



Important! Do not stretch the new seal more than necessary to enter the rotator.



Position the seal with the "lip" against the slewing bearing.



Make sure that the seal gets into the groove on the slewing bearing correctly.
Assembly can be made by hand.



Inspect that all parts of the seal is seated in the groove on the whole round.



Correct positioned seal.



Assemble back the rotator and the link.

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