

26	4	16	4	MM00010005	00-A	ORING Ø2,57X1,78 ISO 005 FKM 80ShA	FKM	1
25	4	0	0	IP04570020	00-A	VALVE NEEDLE CER 212	UNS S17400 H1150 / ASTM A564/A564M-10	2
24	4	8	4	ML03510120	00-A	COIL SPRING Ø5,3x6,3 k7,31	A2-70 / ISO 3506-1	1
23	4	0	0	IP04570010	00-A	VALVE CAP CER 212	UNS S17400 H1150 / ASTM A564/A564M-10	2
22	4	16	4	MJ00026008	00-A	SNAP RING FOR HOLE Ø8	A2-70 / ISO 3506-1	1
21	1	4	1	MM00010110	00-A	ORING Ø9,19x2,62 ISO 110 FKM 80ShA	FKM	1
20	1	4	1	MM02000050	00-A	LIP SEAL 9,6x13,4x5,3	FKM	1
19	4	16	4	MM00010126	00-A	ORING Ø34,59X2,62 ISO 126 FKM 80ShA	FKM	1
18	1	2	1	MB08506012	00-A	HSS SCREW M6x12 ISO 4026	A4-70 / ISO 3506-1	1
17	2	8	2	MM00010211	00-A	ORING Ø20,22X3,53 ISO 211 FKM 80ShA	FKM	1
16	1	0	0	IP04370012	00-E	GROUND CONTACT PLUG CER LOW P-T	1.4028 (X30Cr13) / EN 10088-3	2
15	1	0	0	IA55570010	00-B	GROUND CONTACT PUSHER CAP CER-G 212	-	-
14	1	4	1	IP54570230	00-B	GROUND CONTACT CER-G 212	1.4028+QT850 (X30Cr13) / EN 10088-3	2
13	1	4	1	IA64510000	00-A	LINER SL 212	-	-
12	1	4	1	IP55570082	00-B	ARM INSULATOR CER-G-BHB-AP 212	PEHD 500	2
11	1	4	1	IA64500300	00-A	CORE ROD CER-G 212	-	-
10	1	0	0	IA10570010	00-A	LINER SCREW CER-G-SL 212	-	-
9	1	1	1	IA02570010	00-A	HEAD INSULATOR INSERT CER-G 212	-	-
8	1	1	1	IP30570100	00-B	HEAD INSULATOR INSERT PIN CER-G 212	1.4028 (X30Cr13) / EN 10088-3	2
7	1	4	1	IP55570062	00-A	HEAD INSULATOR CER-G 212	PEHD 500	2
6	1	0	0	MK10504012	00-A	GROOVED PIN Ø4X12 ISO 8741	A4-70 / ISO 3506-1	1
5	1	4	1	IP32570030	00-A	RESILIENT PAD CER-G 212	VMQ	2
4	1	0	0	IP34570200	00-A	BODY CER-G-BHB-AP-SL 212	UNS S17400 H1150D / ASTM A564/A564M-10	2
3	1	0	0	IA10570011	00-A	DTS-R SMK CER-G 212	-	-
2	1	1	1	IP55570050	00-A	INSULATOR CER-G 212	PEEK	3
1	1	0	0	IP54570200	00-A	CORE ROD AXIS CER-G 212	CW612N (CuZn39Pb2) / EN 12164	2
Rep.	Qty.	Qty. Ser.	ML3	Part No.	Rev.	Description	Material	PL

- Gather all of the parts and hand tools you will need to complete the build, the membrane will come pre-crimped from Toulouse. **Clean the body of the CER**



- Take the four valve assemblies (Oring (MM0001000500-A) {26}, valve needle (IP0457002000-A) {25}, spring (ML0351012000-A) {24}, valve cap (IP0457001000-A) {23} and snap ring (MJ0002600800-A) {22}) and place them in the CER body.

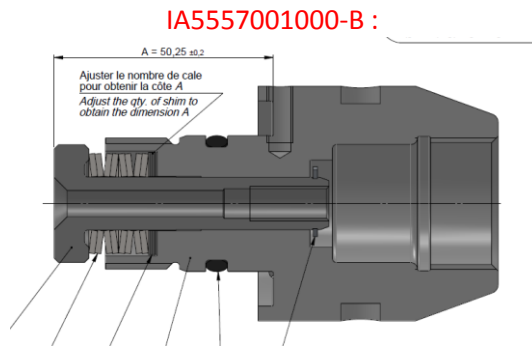




- Take the arm insulator (IP5557008100-B) {12} (PEHD 1000 for Texas job) and place one end over the arm, using a flat head screwdriver, slide the screwdriver between the arm and insulator to get the lip over the other side of the arm. Then use the screwdriver to flatten it back to normal.

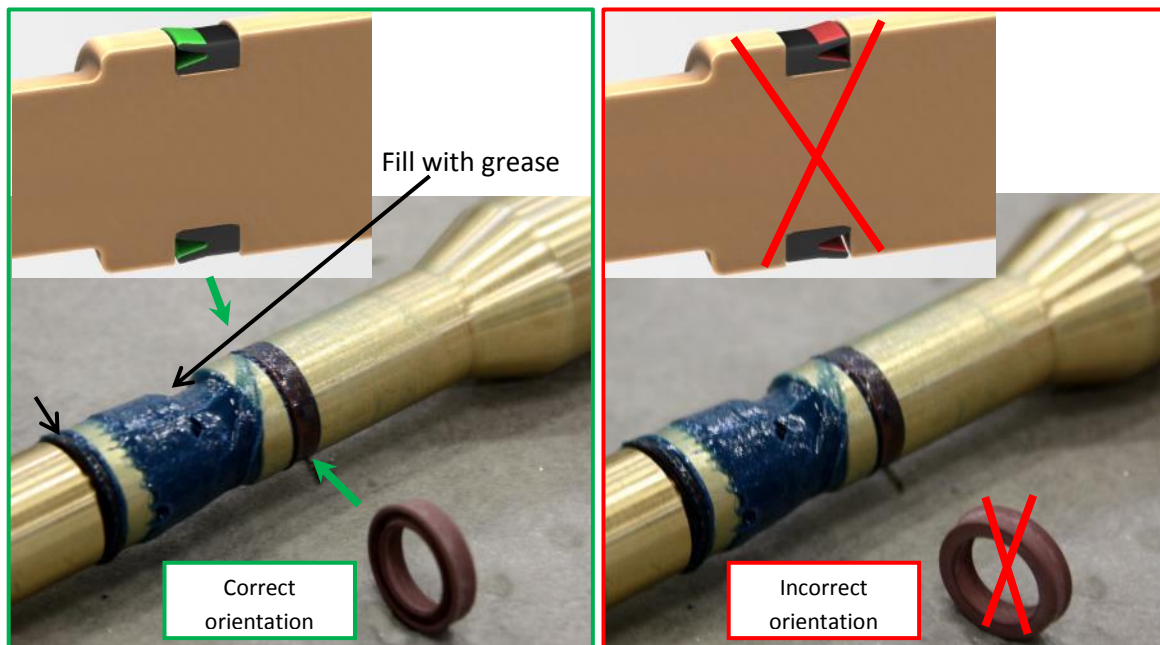


- Take the lower Ground contact support, ground contact, pressure washers and snap ring and assemble, when assembled the length should be 52.0mm +/- 0.2mm. if it is not within range add 0.4mm washer shims until the desired length is reached.

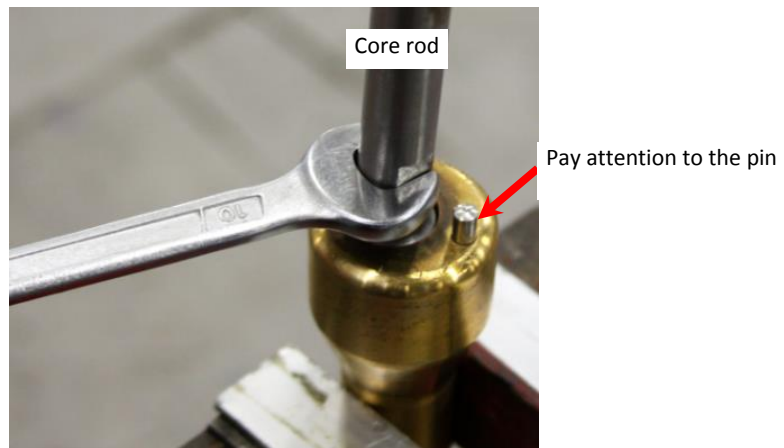
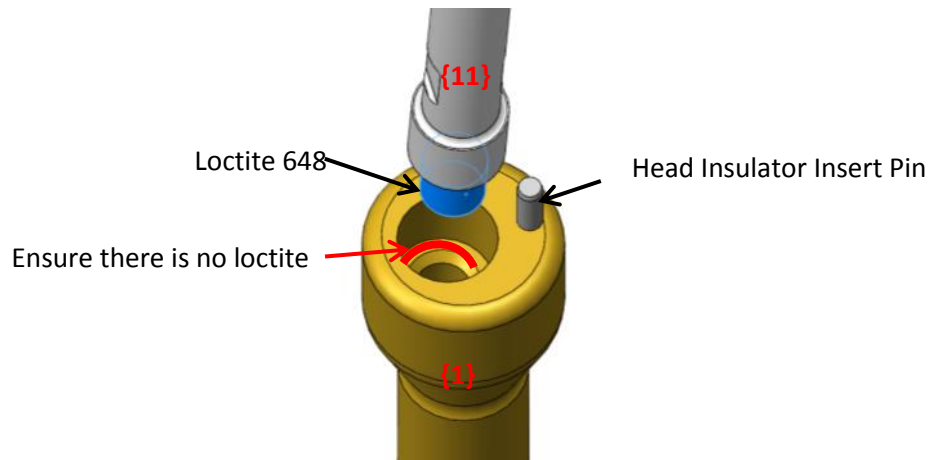


This assembly is already done at TOULOUSE when the two CER were sent to BlueSpark. Who have to check if the length is good (52mm +/-0.2mm)

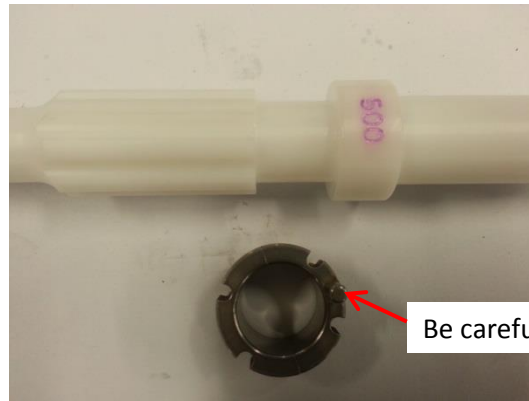
- Take the Core Rod Axis (IP5457020000-A) {1} add the lip seal (MM0200005000-A) {20} first then the Oring (MM0001011000-A) {21} and finally the grease.



- Attach the Core Rod (IA6450030000-A) {11} to the Core Rod Axis (IP5457020000-A) {1} + Head Insulator Insert Pin (IP3057010000-B) {8} with Resilient Pad (IP3257003000-A).



- Take the Head Insulator (IP5557006200-A) {7} (PEHD 500) and attach the jaws (IA0257001000-A {9} + IP3057010000-B {8}).



- Place the nose insulator over the core rod and place the CER insulator over the axle rod. **Be careful the indexation nose insulator.**

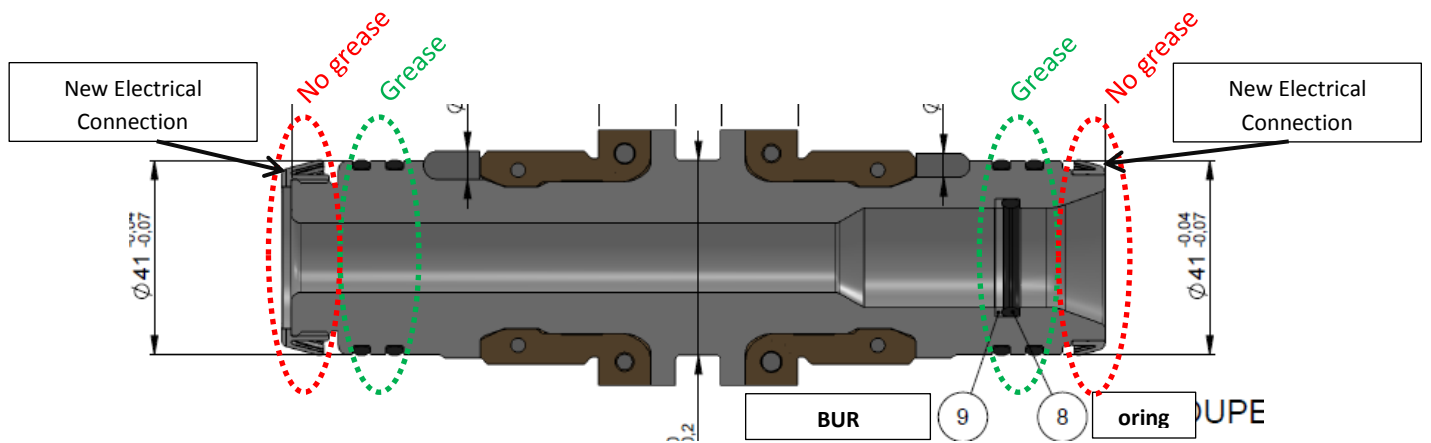


- Place assembly into the CER body. **Be careful the indexation of the jaws.**



- Take the collar install the anti-extrusion ring in the oring groove followed by the oring





- Attach the “new electrical connection” over the end of the collar and hammer on.
- Take the screw on “new electrical connection” add blue lock tight and screw on

This assembly is already done at TOULOUSE when the two CER were sent to BlueSpark

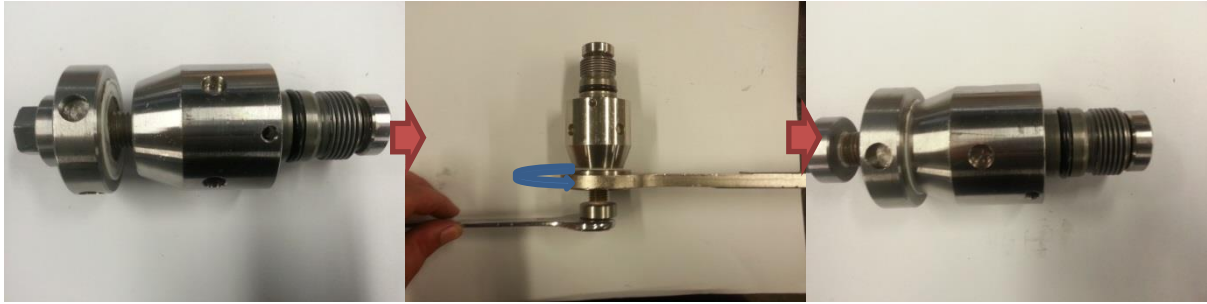
- Attach the collar (DTS-R SMK IA1057001100-A) {3} to the CER body. At the end firmly tighten the screw to lock it.



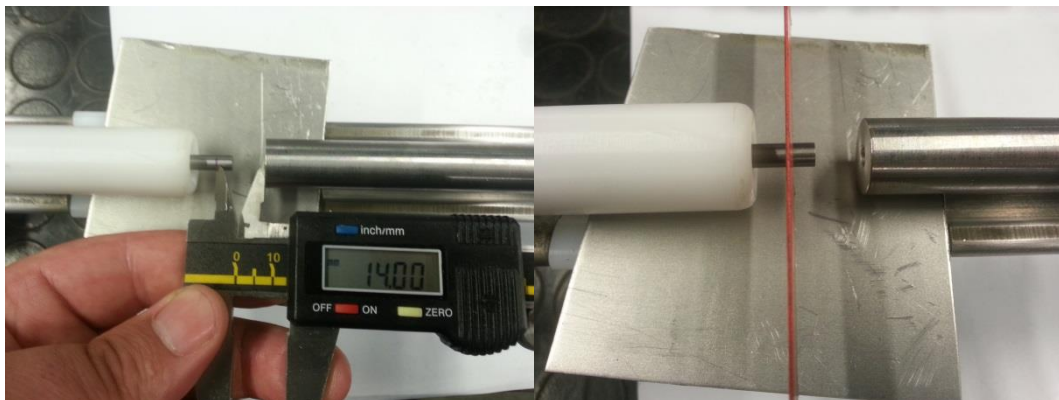
- Place the ground contact (IP5457023000-B) {14} in the bottom of the CER.



- Using the “pushing tool” pre-load the pressure washers attached to Ground Contact Pusher Cap (IA55570010 00-B) {15} then screw (with hands) the support to the bottom of the CER body. **Make sure at the end that the ground contact doesn't move.**



- Measure 14.0mm between the ground contact and core rod and mark the rod to be cut. **Be careful protect the arm insulator with a metal plate (Cutting plate).**



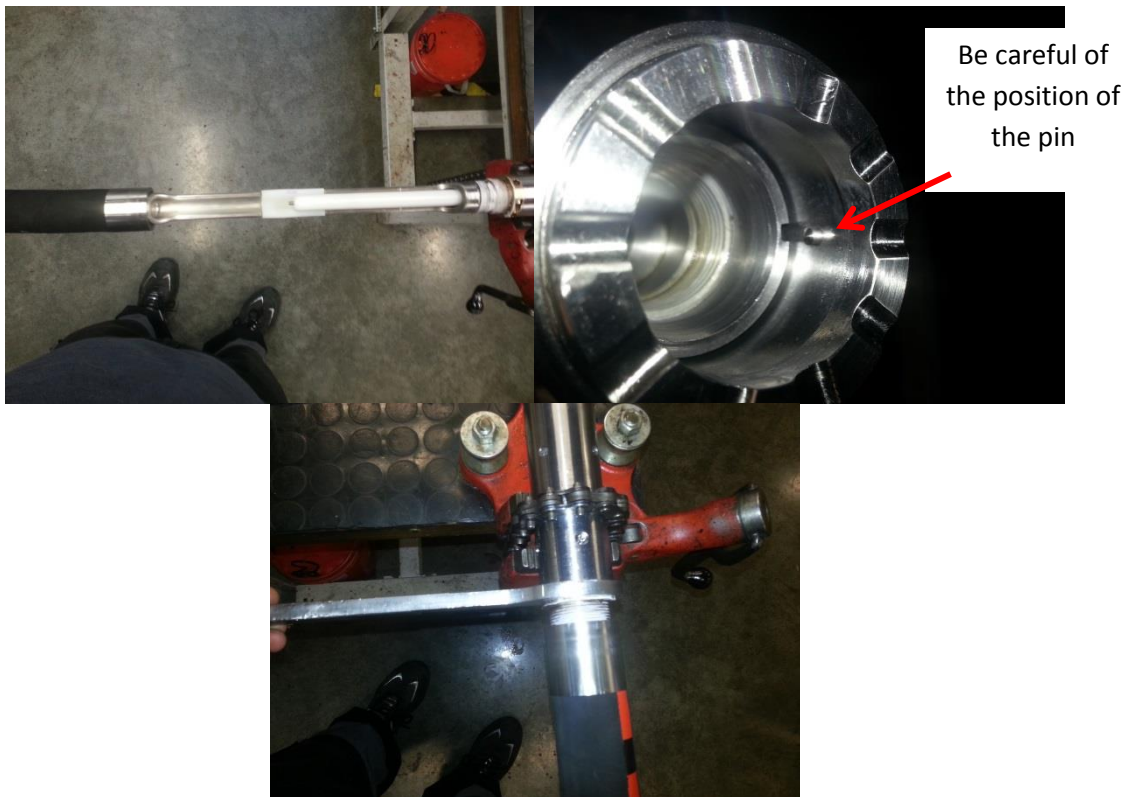
- Cut the rod and measure again, the measurement should be 15.0mm +/- 0.2. if it is not replace rod and cut again. It is advisable to use a file to adjust the gap to 15mm. Clean the nose insulator.



- When the gap is 15.0mm remove the ground contact support and place orings (MM0001012600-A) {19} on CER body with grease.



- Take the Membrane (IA64510000 00-A) {13} and slide it over the CER body and tighten using collar

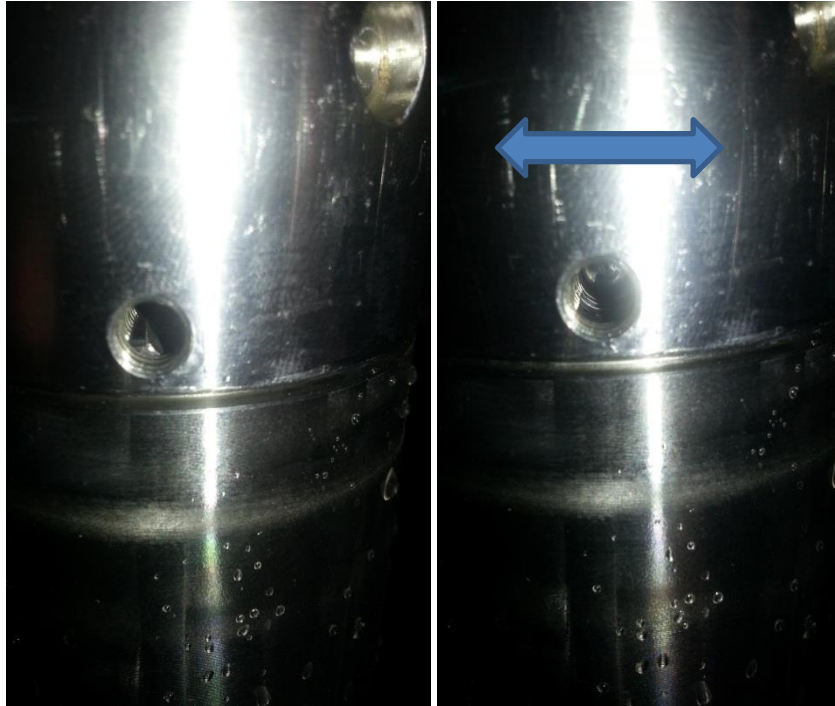


- Fill with water (conductivity 1.5mS/cm) and replace the Ground Contact (IP5457023000-B) {14}. **Be careful the indexation of the Ground Contact.**

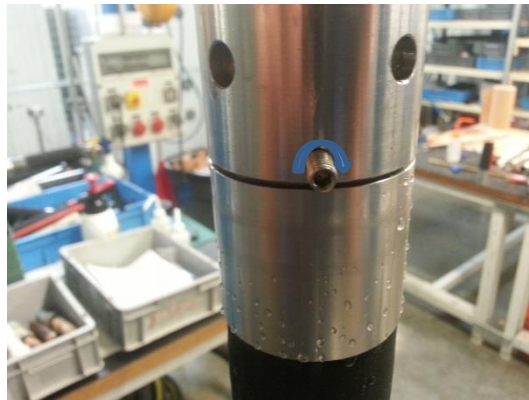


- Attach the Ground Contact Pusher Cap (IA55570010 00-B) {15} (using the “pushing tool” to pre-load) to the bottom of the CER body taking care to line up one of the set screw holes with the appropriate places on the membrane.





- Attach the set screw (MB0850601200-B) {18}, it should go in easily, if not adjust the membrane and try again.



- Remove the “tool pusher” and attach the pressure sub to add pressure to the CER.



- The valves should release water at ~7bar
- If they do not activate release pressure and check for the problem.
- When the pressure test has passed, top up the water and place the bottom cap (Ground Contact Plug Cer IP0437001200-E {16} + Oring MM0001021100-A {17}) onto the Ground Contact Pusher Cap (IA5557001000-B) {15}.



The CER is now ready for service

When you assemble or disassemble the Ground Contact Pusher Cap (IA55570010 00-B) always use the “tool pusher”

For maintenance must be changed:

- All joints
- Arm insulator
- Nose Insulator
- Ground Contact
- Core Rod
- Membrane

For maintenance must be check:

- **New electrical connections**
- **Ground Contact Pusher Cap**