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This document applies to:		Internal use:	External use:	X
Applies to:		Bulletin subject:		
WTD	X	ACCUMULATOR UPGRADE		
SAFETY WINDOWS				
AUTOMATION				
Created by:		VML		
Approved by:		KRM / GDA		

## ACCUMULATOR UPGRADE KIT

PN# 10005162 – Accumulator Upgrade Kit, BS

PN# 10021649 – Accumulator Upgrade Kit, SS

### IMPORTANT ACCUMULATOR UPGRADE

IMS has taken an important product improvement of accumulators for our WTD.

PN#10005162 and PN#10021649 contain:

- ✓ End cap gas side complete
- ✓ End cap oil side complete
  - ✓ Piston complete
- ✓ Non return valve, Nitrogen.

**It's very important to change all the parts to upgrade accumulator to our latest standard!**



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## 1 Warning

**This is high pressure system and requires special attention and only qualified personnel should perform service on accumulator. The consequences of wrong service could be fatal and risk of injury.**

The accumulator is normally charged to more than 140bar and is therefore extremely dangerous. After bleeding the accumulated oil, the pressure on the gas side should be 60bar - 70bar (please see hydraulic drawing for correct pressure). The manometer is on the oil side and does not tell the pressure on the gas side. The pressure on the gas side must also be relieved to 0bar before any service.

NOTE: This document is only an advice and IMS does not bear any responsibility for the work carried out.

## 2 Accumulator service step by step advice:

The hydraulic accumulator is located in the doorframe, one or two pieces.



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1. Remove the door cover from coaming.
2. Make sure the electric power for the pump motor is switched off (Switch F1 inside motor starter coil.)
3. Empty the accumulated oil by opening / closing / opening the door until the door does stop and the hydraulic pressure gauge shows "0".
4. Bleed the nitrogen pressure. Remove the cap on the nitrogen gas valve pos. 10 and bleed the gas trough the valve. When the gas flow goes down and the accumulator seems empty there might still be some gas left. Unscrew carefully the valve insides (not the valve body) by special valve tool for a complete discharge of gas.
5. Dismount the screws pos. 9 and remove the gasket pos. 8.  
Push (might be necessary to use a rubber-hammer) pos. 2 approximately 20mm and remove the locking ring pos. 11.  
You can now pull out pos. 2 and replace the end cap.

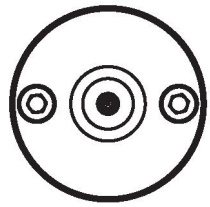
Same procedure for the other end cap. To remove the piston use something that do not make any damages inside the accumulator pipe for pushing it out before replacement (like a wooden piece or steel protected with rubber) and remember to put the piston in same way.

**Remounting:** Before assembling the accumulator, proceed with careful cleaning and use grease on the gasket to prevent damage during remounting. Remounting is to be done in the opposite direction as described dismounting. Be very careful during mounting for not damaging the seals.

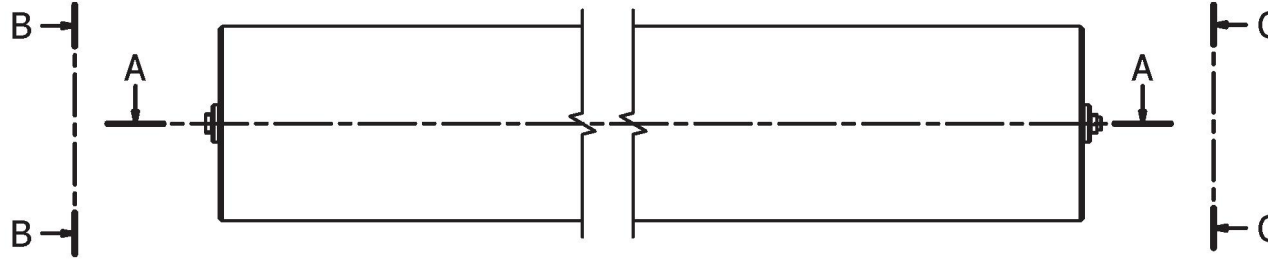
### **REMEMBER**

**Replace all parts in the kit at the same time.**

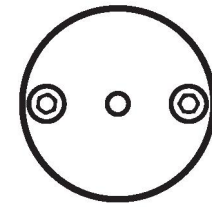
6. Check carefully that all parts that have been removed are remounted and fit the accumulator into the door again.
7. Refilling nitrogen: Connect charging equipment on nitrogen bottle, and then connect on top of the accumulator to the gas valve. Pre-charge the accumulator, see user manual in hydraulic attachment drawing. Check for leakage with soapsuds.
8. The hydraulic unit is now ready for operation. Activate the push button F1 inside the motor starter box. The pump will start charging the hydraulic accumulator. Check for leakage when charging oil.



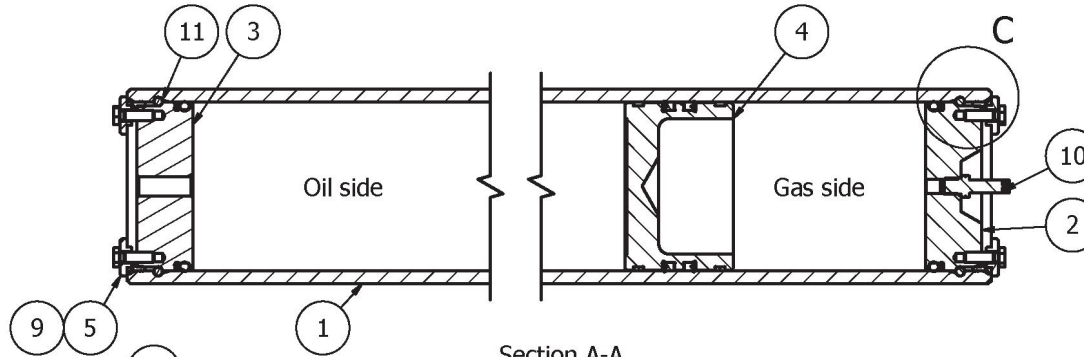
Section C-C  
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Section A-A  
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Section B-B  
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Warning:

1. It is important to install item 11 correctly.
2. Item 4, Piston hollow side, towards gas side

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	10003704	Accumulator pipe
2	1	10029890	End cap gas side
3	1	10029891	End cap oil side
4	1	10029892	Piston accumulator Ø100
5	4	10000027	Washer Accumulator Ø22
9	4	DIN 933 - M6 x 20	Hex-Head Bolt
10	1	10000246	Nitrogen non return valve
11	2	10000277	Locking ring for accumulator
12	2	10032586	Dust protection ring for accumulator end cap

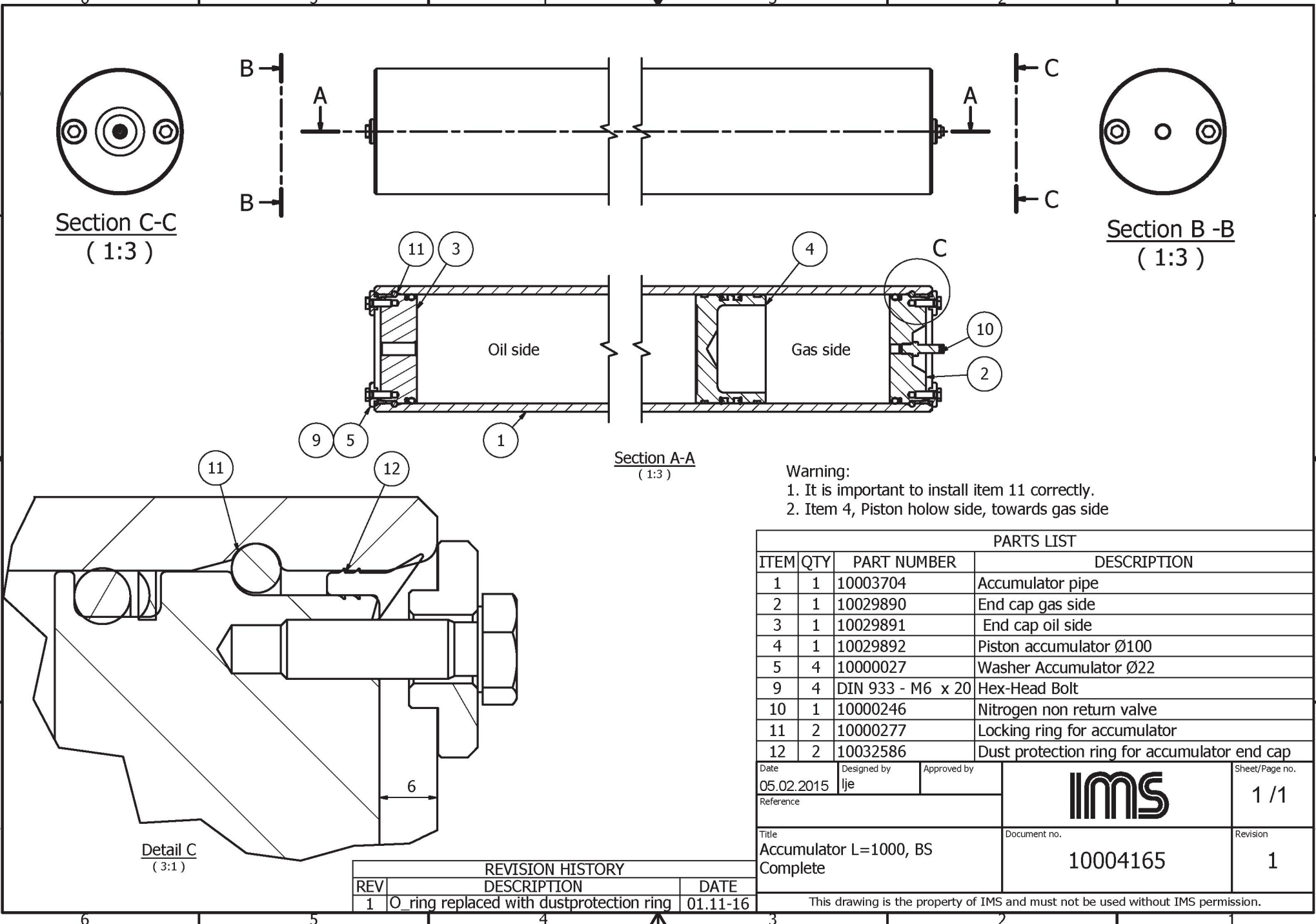
Date 05.02.2015	Designed by lje	Approved by		Sheet/Page no. 1 / 1
Reference				Revision 1

Title Accumulator L=1000, BS Complete	Document no. 10004165	Revision 1
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REVISION HISTORY

REV	DESCRIPTION	DATE
1	O ring replaced with dustprotection ring	01.11-16

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Detail C  
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