

Date:	No:	Page:
28.03.2025	SB2025-01	1 of 4

Applies to:		Bulletin subject:
WTD	X	Accumulator Refurbishment Kit
SAFETY WINDOWS		
AUTOMATION		
Created by:		KHA
Approved by:		MTM

ACCUMULATOR REFURBISHMENT KIT

PN# 10005162 – Accumulator Refurbishment Kit, BS

PN# 10021649 – Accumulator Refurbishment Kit, SS

PN#10005162 and PN#10021649 contain:
 End cap gas side complete with rupture disk
 End cap oil side complete
 Piston complete
 Non return valve, Nitrogen.



In general, with regards to any amount of operations, IMS recommend to refurbish / replace accumulators after a maximum of 10 years. This can be performed at IMS, by IMS or qualified personell only according to IMS procedure.
 Lead time for complete accumulator is 6-12 weeks.

Date:	No:	Page:
28.03.2025	SB2025-01	2 of 4

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.



Date:	No:	Page:
28.03.2025	SB2025-01	3 of 4

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 through 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.

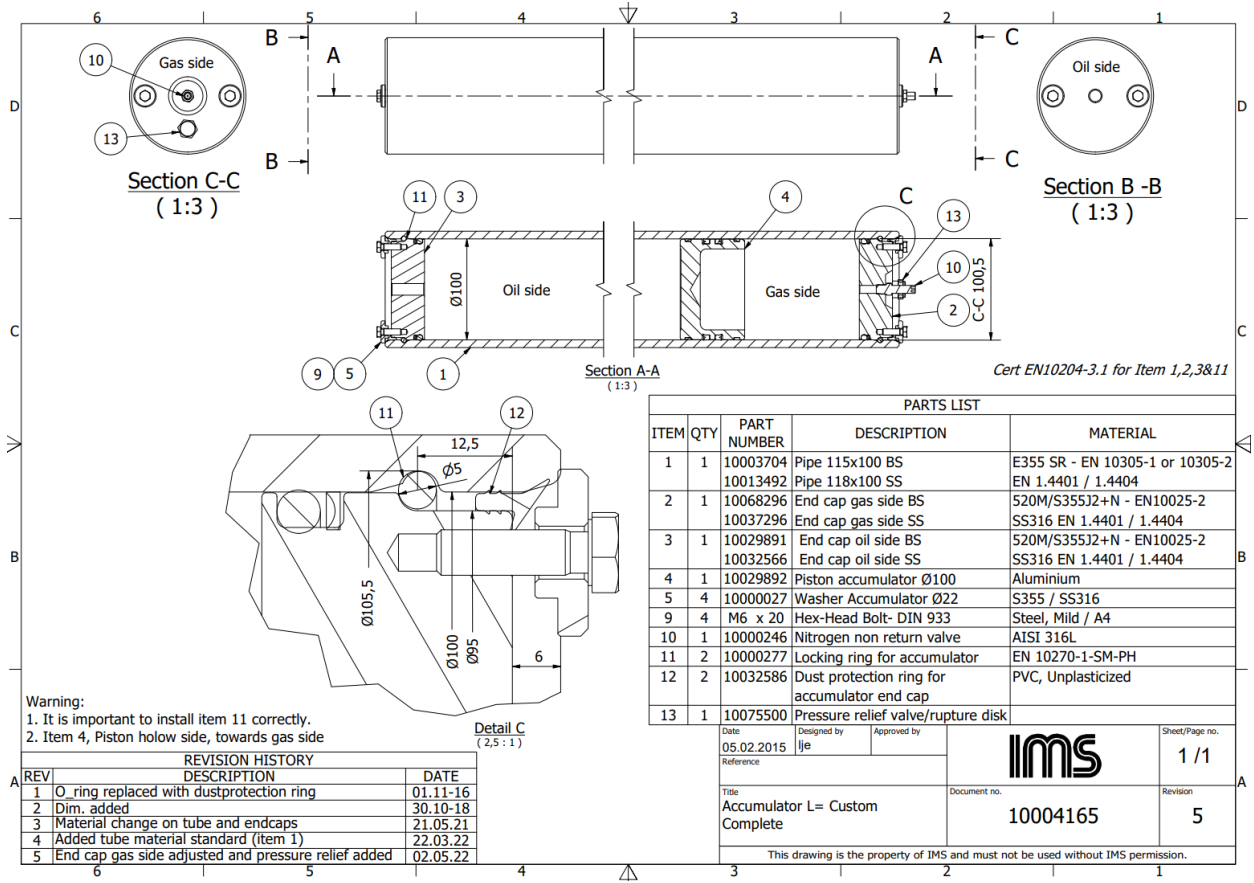
REMEMBER

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.

Date:	No:	Page:
28.03.2025	SB2025-01	4 of 4

Illustration



SAFETY NOTE

We strongly recommend replacing / refurbishing all accumulators prior to 2015 as these are with an outdated seal design and older than the 10 year recommendation. The latest design is significantly more lasting and has been durability tested for more than 160 000 cycles, with no indications of leakage between gas and oil side.

Please also note, that from 2025, the *Accumulator piston and end cap kit* is also fitted with a safety device on the gas side to prevent excess pressure if overheated (fire) as per rule requirement (DNV).

Please contact: service@imstec.no for further information.