

ARNOLD'S

2021 Virtual Forage Clinic



Code: Scherer-21



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ARNOLD'S

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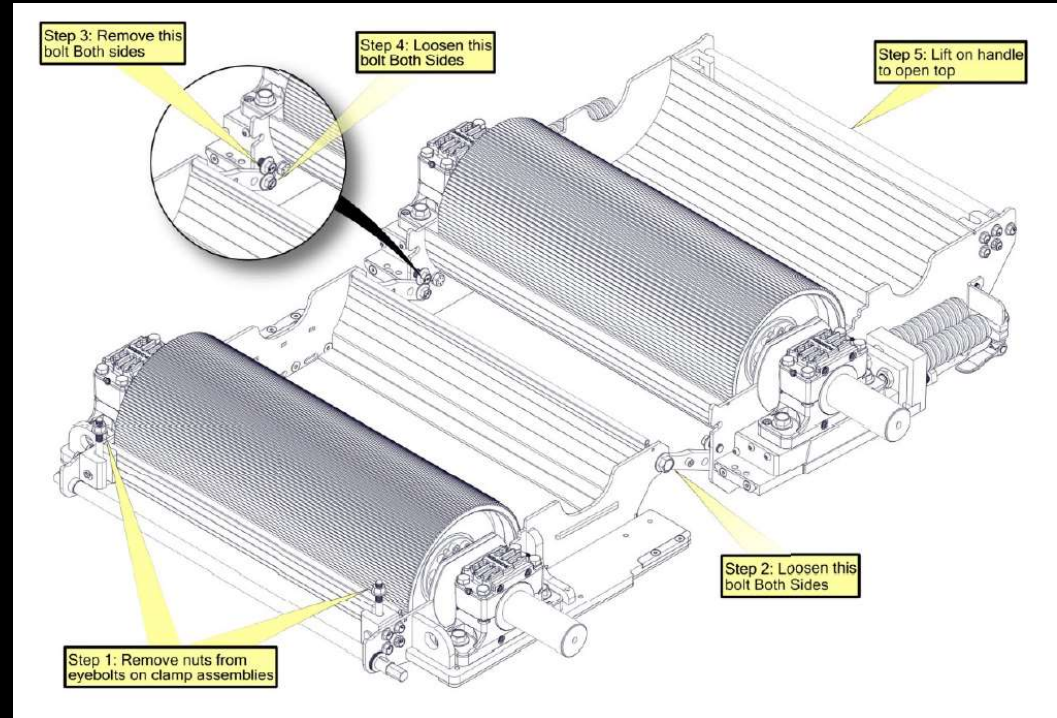
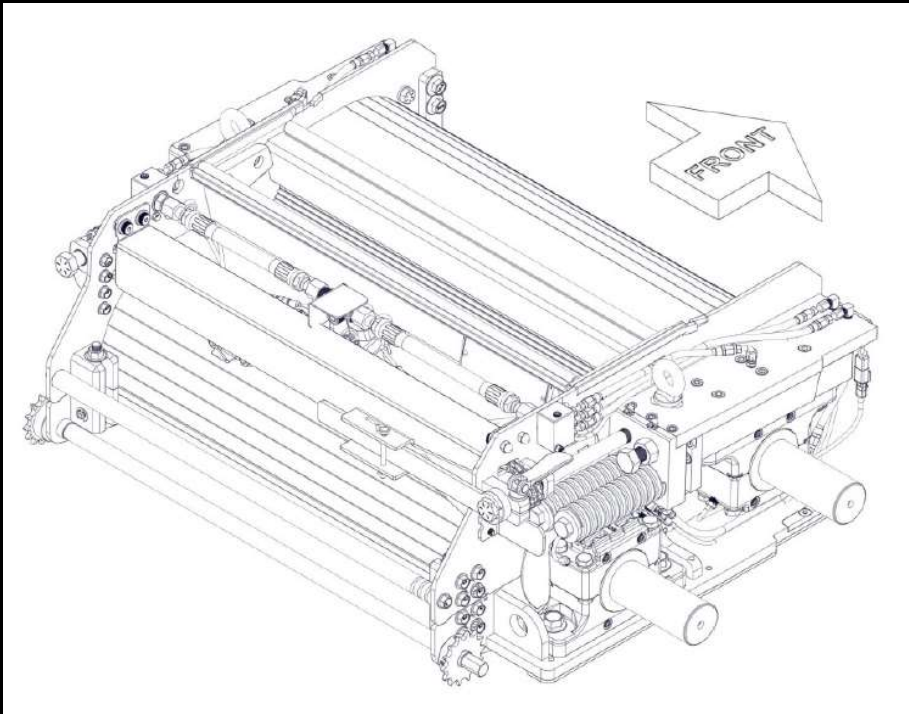
St. Cloud 320-251-2585

Who is Schererer & what do we do?

“We offer grain processing solutions for the forage industry worldwide”



S1080 Processor Opening Instructions



Maintenance Intervals

1) After your Scherer Processor is installed

- Set your roll gap (See “Roll Gap Adjustment” section)
- Pass product through the machine, at least 5 loads under full power.
- Adjust rolls to your processing needs; however, **The Scherer Processor is not intended to be run against the roll stops so adjust accordingly.**
- Check adjustments 5 to 10 hours later to ensure adjustments are holding at your desired position. Check pulley alignment and make sure locking hubs are firmly in place.
- If equipped with air tension kit, check air tension on drive belt and set air pressure according to specific model.
- 7-groove drive: 90 to 95psi

2) 50 Hours

- Grease adjustment bolt zerks on processor (2 pumps)
- Visually inspect for damage to springs, bolts, shafts, pulleys, wiring, oil lines, etc.

3) Annually or every 250 Hours

- Visually inspect for damage to springs, bolts, shafts, pulleys, wiring, oil lines, etc.
- Roll back processor and visually inspect rolls, roll gap, and the overall condition of the processor.
- If roll gap is wider at one end, there is also a possibility that the rolls just need to be adjusted.
- If equipped with Scherer idle components, grease lower idle pulley on drive system, and tension pulley (2 pumps each)



Scherer KP After Season Maintenance



Scherer KP end of Season Maintenance

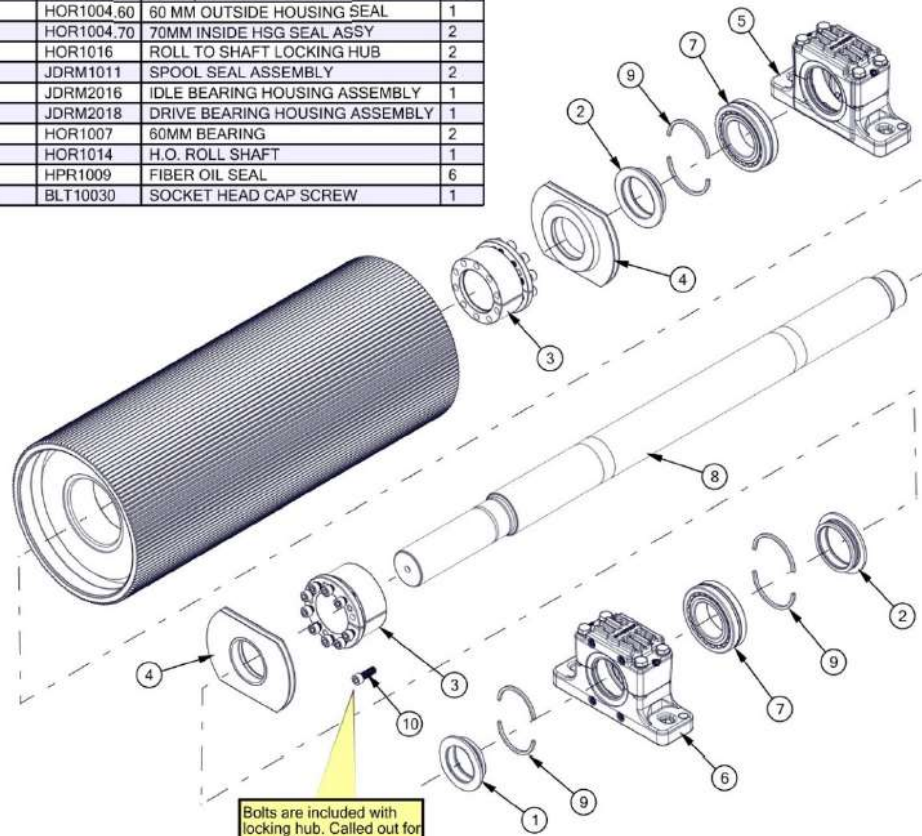
- **End of season maintenance** will help reduce bearing failures and greatly reduce, downtime while harvesting.
- Use air to clean off the Processor.
- If you decide to power wash the processor, **immediately dry the processor and open it to expose bearing housings and rolls after power washing**, there is a good possibility that water penetrated the seals of the bearing and bearing damage would be imminent. After power washing the processor, you can prevent bearing damage by immediately servicing the processor and following the next few steps.
- Remove the tops of the bearing housings with a soft mallet and inspect the condition of the oil and bearing. Be very careful with the mating surfaces of the castings since they are machined surfaces and keep the top half with the bottom half since they are machined as a mating pair and are numbered accordingly.

(Continued from previous page "End of Season Maintenance")

- If contamination is present, the bearing casting needs to be removed and cleaned thoroughly. The oil line and the temp sender should be removed in order to clean the casting. New felt can then be installed. The bearing may also need to be replaced if there is a substantial amount of contamination in the bearing casting. An inspection of the bearing rollers may also help determine if the bearing needs to be replaced.
- If there is no contamination, clean bearing housings and replace the felt seals (HPR1009). (See "End of Year Roll Maintenance" section)
- Make sure all bearings get fresh Scherer KP oil after they have been inspected or changed. (See "End of Year Roll Maintenance" section)
- Inspect spool seal for wear.
- Rolls should be covered with a rust inhibitor to prevent corrosion. Corrosion on rolls may cause rolls to be out of tolerance, leading to vibration.

S1080 Roll Assembly Parts List

Item No.	Part No.	Description	Qty.
1	HOR1004.60	60 MM OUTSIDE HOUSING SEAL	1
2	HOR1004.70	70MM INSIDE HSG SEAL ASSY	2
3	HOR1016	ROLL TO SHAFT LOCKING HUB	2
4	JDRM1011	SPOOL SEAL ASSEMBLY	2
5	JDRM2016	IDLE BEARING HOUSING ASSEMBLY	1
6	JDRM2018	DRIVE BEARING HOUSING ASSEMBLY	1
7	HOR1007	60MM BEARING	2
8	HOR1014	H.O. ROLL SHAFT	1
9	HPR1009	FIBER OIL SEAL	6
10	BLT10030	SOCKET HEAD CAP SCREW	1



Roll Change Instructions

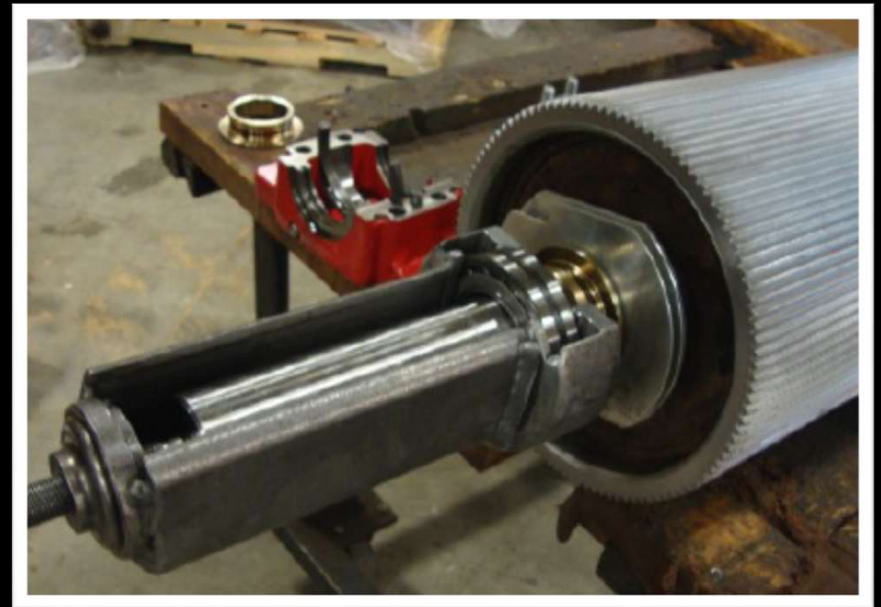
- Take a measurement from the frame to the pulley on the roll to be replaced so you know where to place the pulley on the new roll since the pulley alignment is critical.
- Clean the bolt heads of the locking hub and remove the pulley from the roll that needs to be replaced.
- Open KP as per instructions in section "S1080 Processor Opening Process"
- Disconnect and remove the temp sensors and the oil line fittings from the bearing housings of the roll to be replaced.
- Remove bearing housing bolts (BLT10052)
- Install new roll using bearing housing shear bolts (BLT10015 apply anti-seize) torque - 12 ft-lbs. (16 Nm) to align the bearing housings. The drive side bearing housing will be locked in place, so align the drive side bearing first. The idle side bearing will slide within the bearing housings so the idle side bearing housing will be able to be slid into place and align with the bolt holes after the drive side is in place.
- Install the bearing housing bolts (BLT10052 apply anti-seize) torque - 160 ft-lbs. (217 Nm).
- Close the processor. Reverse steps from section "S1080 Processor Opening Process". Watch oil lines and wires so they don't get pinched between the two KP halves of the frame.
- Install and tighten the top hinge bolts (BLT10016 apply anti-seize) torque - 121 ft-lbs. (164 Nm) and the bottom bolts as well (KMP10047 apply anti-seize) torque 60 ft-lbs. (81 Nm) and (BLT10109) torque 60 ft-lbs. (111 Nm). Install the nuts onto the eye-bolt of the latch blocks (NUT10001) torque 109 ft-lbs. (147 Nm). Snug all hardware before torquing each individual component.
- Install oil fittings and oil lines as well as temp sensors.



To remove the roll bearing, the housing must be disassembled. Remove the 4 bolts on top of the housings. Tap on the feet of the lower housing with a soft mallet to separate the two halves.

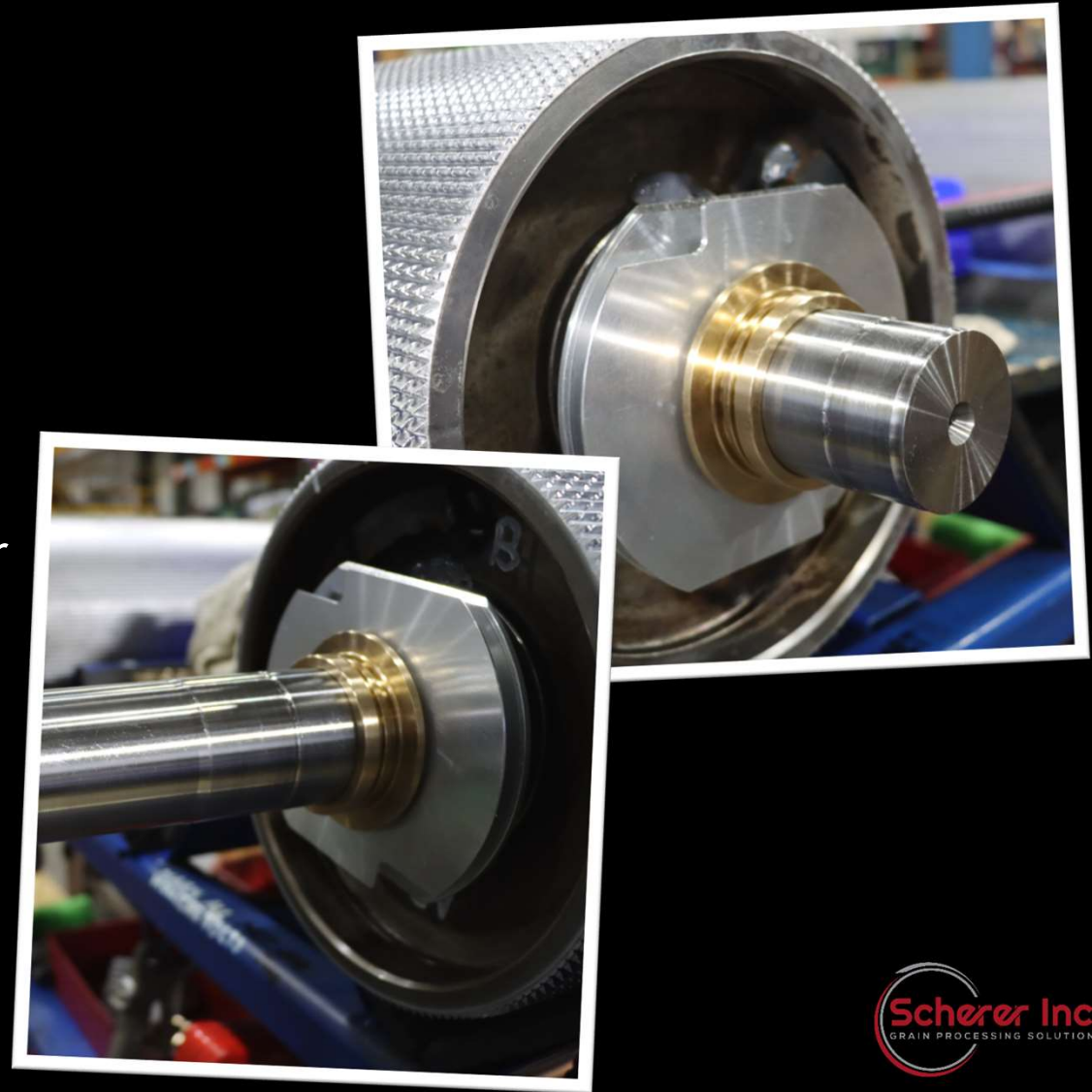
***NOTE*:** *Housings are machined as matched sets. The two halves are engraved to show parity.*

Remove the outer brass seal and then use the bearing removal tool (A0022) to remove the bearing.



Remove inner brass housing seal and aluminum spool seal. Clean and inspect. Replace if any components show improper wear. Apply a small amount of grease and reinstall the inner aluminum spool seal. Install the brass housing seal dry.

NO LUBRICANT!





Using the bearing heater (A0021) heat the bearing to 230 degrees F (110 degrees C). Using proper PPE (Personal Protective Equipment) take the bearing and slide it onto the shaft until it hits the machined step. If the bearing gets jammed, pull the bearing off again with the removal tool (A0022) and re-heat the bearing and install again.




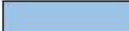
Drive Side: Install outer brass housing seal. Then reassemble bearing housing. Torque the 4 housing bolts to 64.9 Ft-lbs. (88 Nm)

Idle Side: Assemble bearing housing. Torque the 4 housing bolts to 64.9 Ft-lbs. (88 Nm)

Important Torque Specifications

Bottom hinge bolt (BLT10016)	121 Ft-lbs.	164 Nm
Top Hinge bolt (BLT10109)	111 Ft-lbs.	150 Nm
Top Hinge bolt (KMP10047)	60 Ft-lbs.	81 Nm
Latch block mounting hex bolt (BLT10008)	28 Ft-lbs.	38 Nm
Latch block mounting SHCS bolt (BLT10009)	47 Ft-lbs.	63 Nm
Latch block eye-bolt nut (NUT10001)	65 Ft-lbs.	88 Nm
Spring rod (JDTM1003)	220 Ft-lbs.	300 Nm
Spring rod bolt (D1326)	173 Ft-lbs.	285 Nm
Bearing Housing bolt (BLT10000)	65 Ft-lbs.	88 Nm
Bearing housing shear bolt (BLT10015)	12 Ft-lbs.	16 Nm
Bearing housing mounting bolt (BLT10052)	160 Ft-lbs.	217 Nm
Lift handle bolt (BLT10008)	28 Ft-lbs.	38 Nm
Slide bearing cap bolt (BLT10107)	24 Ft-lbs.	32 Nm
Slide bearing cap bolt (BLT10110)	47 Ft-lbs.	63 Nm
Inner slide mounting bolt (BLT10046)	62 Ft-lbs.	84 Nm

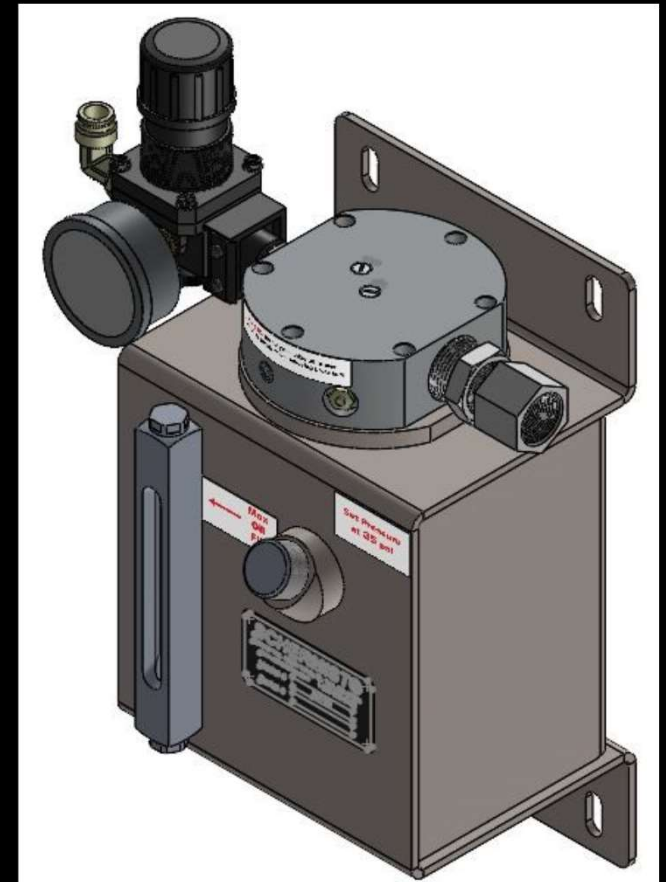
Apply Red Loctite 271 = 

Apply Blue Loctite 242 = 

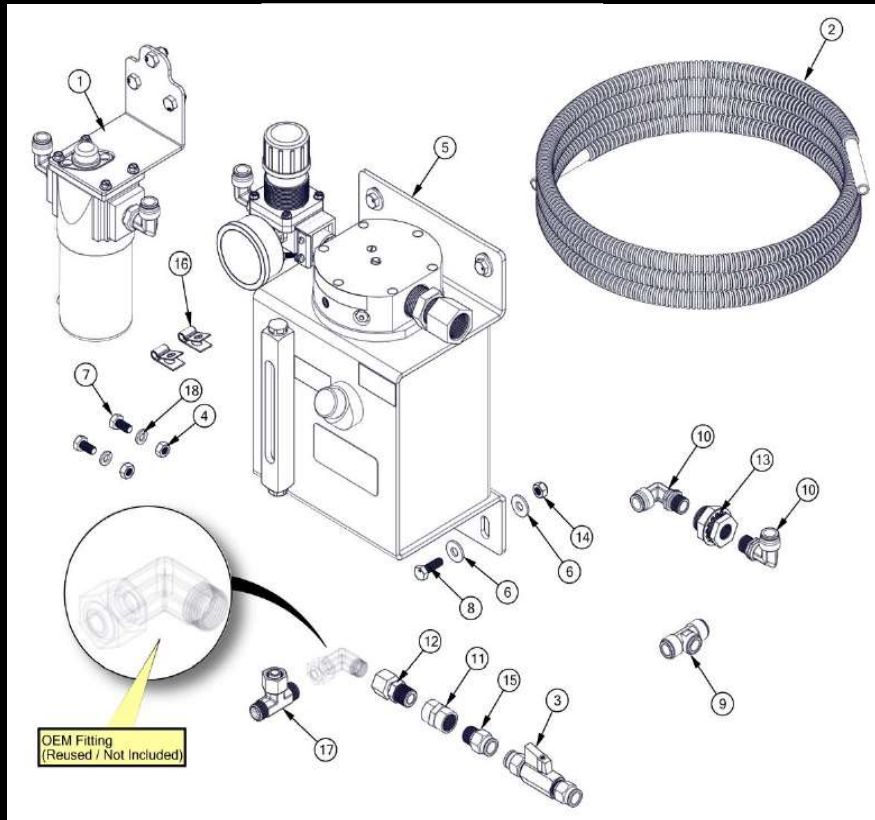
Apply Never Seize = 

Schermist® Operation

- Make sure to maintain an air pressure of 35psi at the Schermist® regulator
- Oil fill is the plug located on the front of the Schermist® reservoir
- Fill with oil until the oil level matches the full mark on the sight glass. **DO NOT OVER-FILL!! SCHERMIST® WILL NOT FUNCTION PROPERLY IF IT IS FILLED ABOVE THE FULL MARK!!**
- Only use Scherer KP oil. It is available from Scherer Inc. in 1-gallon quantities
- In very wet corn conditions, we recommend changing the oil in the bearings every two weeks and at the end of the season. To change the oil, remove the most convenient plug and drain. Refill the bearing housing with .50 oz. of fresh oil
- **At the end of season, remove all water from regulator and air lines to prevent damage from freezing**
- When removing the kernel processor, disconnect the hose from the Schermist® exhaust port and plug the end of the hose to keep dirt out. Also cap off the Schermist® exhaust port and turn off the air supply to the Schermist®.
- **THE SCHERMIST® SYSTEM SHOULD NOT BE PRESSURIZED IF THE EXHAUST PORT IS CAPPED OFF.**



Schermist® Parts List - Air Lubrication



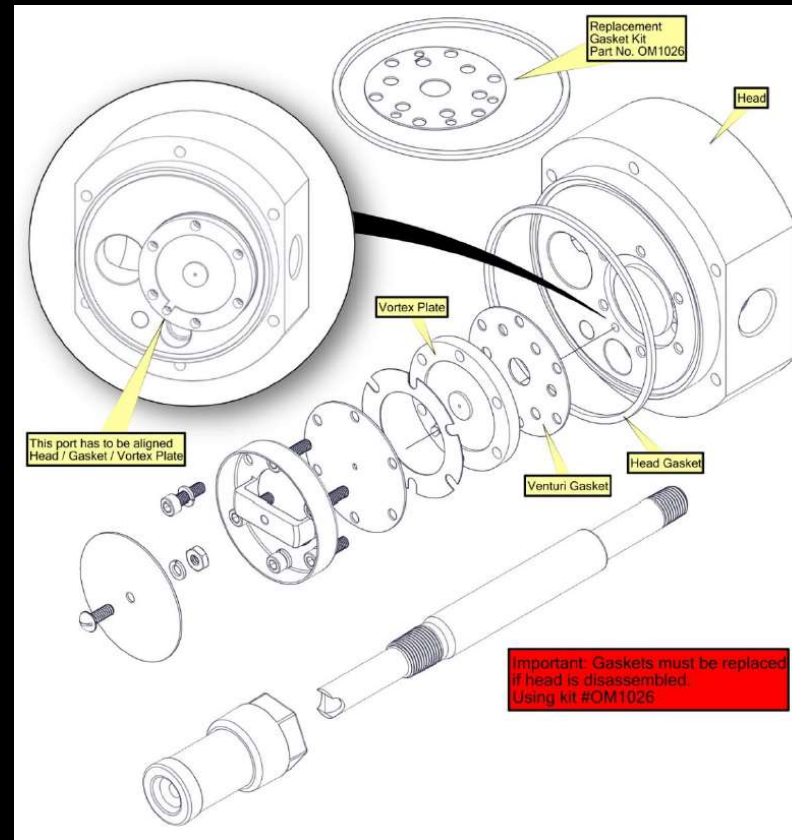
Item No.	Part No.	Description	Qty.
1	HPD1427	FILTER ASSEMBLY	1
2	D1348	12mm HOSE AND LOOM	1
3	HPD1359	12MM VALVE ASSEMBLY	1
4	OM2033	HEX NUT	2
5	OM5021	OIL TANK ASSEMBLY	1
6	B1072	FLAT WASHER	8
7	BLT10042	HEX HEAD BOLT	2
8	BLT10043	HEX HEAD BOLT	4
9	HPD1349	T FITTING	1
10	HPD1420	90° PUSHLOCK	2
11	HPD1422	FEMALE PIPE UNION	1
12	HPD1423	CONVERSION FITTING	1
13	HPD1425	BULKHEAD FITTING	1
14	NUT10009	LOCK NUT	4
15	OM1025	PUSHLOCK FITTING	1
16	SPL10101	TUBE CLAMP	2
17	SPL10111	BRANCH TEE	1
18	WSH10002	LOCK WASHER	2

Part Number ASM10016

Schermist® Head Rebuild

Cleaning Instruction:

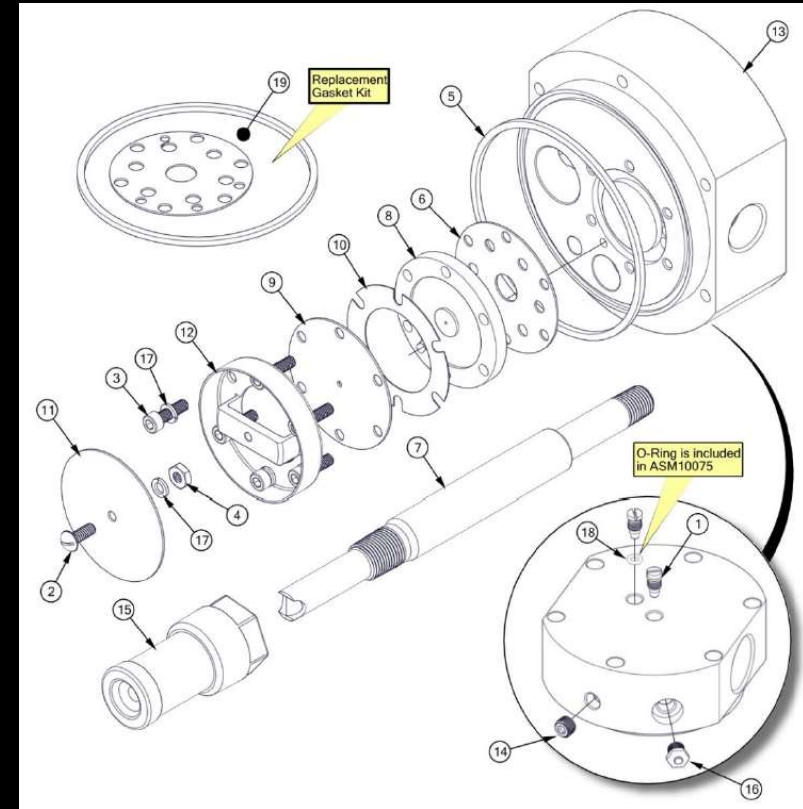
1. After the oil tank head assembly has been removed from the oil tank reservoir, disassemble the parts as shown.
2. Clean all parts in a safe, clean solvent. Air dry after cleaning.
3. **CRITICAL ASSEMBLY FEATURE**
Reassemble the parts as shown above. The oil port hole must align thru all 3 components: Head / Venturi Gasket / Vortex Plate.
4. Reassemble head and torque the 6 screws to 22 in-lbs.
5. Install head gasket when installing the Schermist® head onto the oil reservoir.



Schermist® Head Parts List

Item No.	Part No.	Description	Qty.
1	ASM10075	AIR SCREW ASSEMBLY	2
2	BLT10044	MACHINE SCREW	1
3	BLT10045	SOCKET HEAD CAP SCREW	6
4	NUT10011	MACHINE HEX NUT	1
5	OM1026.2	HEAD GASKET	1
6	OM1109	VENTURI GASKET	1
7	OM1114	STRAINER MNTG TUBE	1
8	OM2002	VORTEX PLATE	1
9	OM2003	MISTER OIL PLATE	1
10	OM2004	OIL PLATE SPACER	1

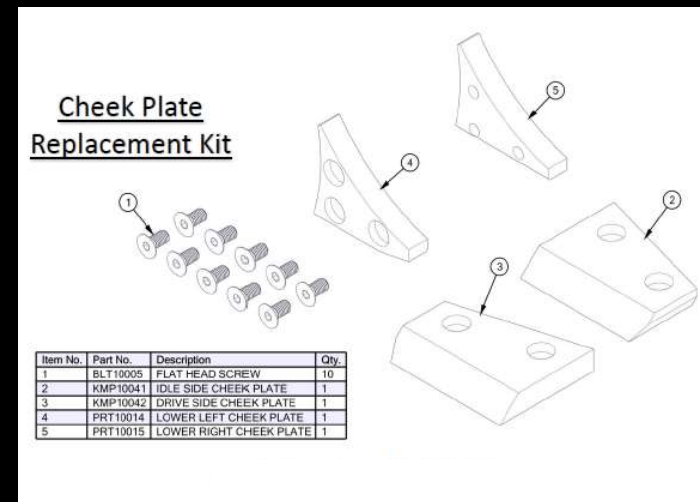
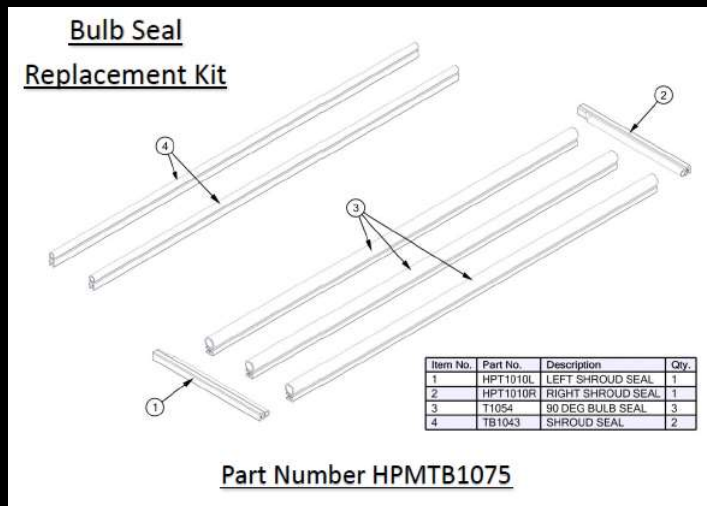
Item No.	Part No.	Description	Qty.
11	OM2008	IMPINGEMENT PLATE	1
12	OM2019	BAFFLE CUP	1
13	OM2027	MISTER HEAD	1
14	R1235	PIPE PLUG	1
15	SPL10045	STRAINER	1
16	SPL10064	RELIEF VALVE	1
17	WSH10006	LOCK WASHER	7
18	SPL10044	O-RING	2
19	OM1026	GASKET KIT	1



Part Number ASM10061

Recommended Annual Replacement Parts

- HPD1411.1 - 1x - Coalescing Filter and O-ring kit
- HPR1009 - 12x - Bearing felt Seals
- 1x - Cheek Plate Replacement Kit
- OM1026 - 1x - Schermist® Gasket Kit
- Inspect & replace bulb seals that are torn (suggest top & shroud seals)



ARNOLD'S

Virtual Forage Clinic



Thank you

Be sure to text, email or call Bob or Randy and let them know you viewed the Scherer presentation and you will be entered in a prize drawing for \$100 Gift Certificates a Big Frig cooler. Give them code: Scherer-21.

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Be sure to text, email or call Bob or Randy and let them know you viewed the Scherer presentation. They will then enter you into our virtual clinic prize drawing. Give them code: Scherer-21.

We are giving away \$100 Scherer parts certificates and a Big Frig cooler.

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