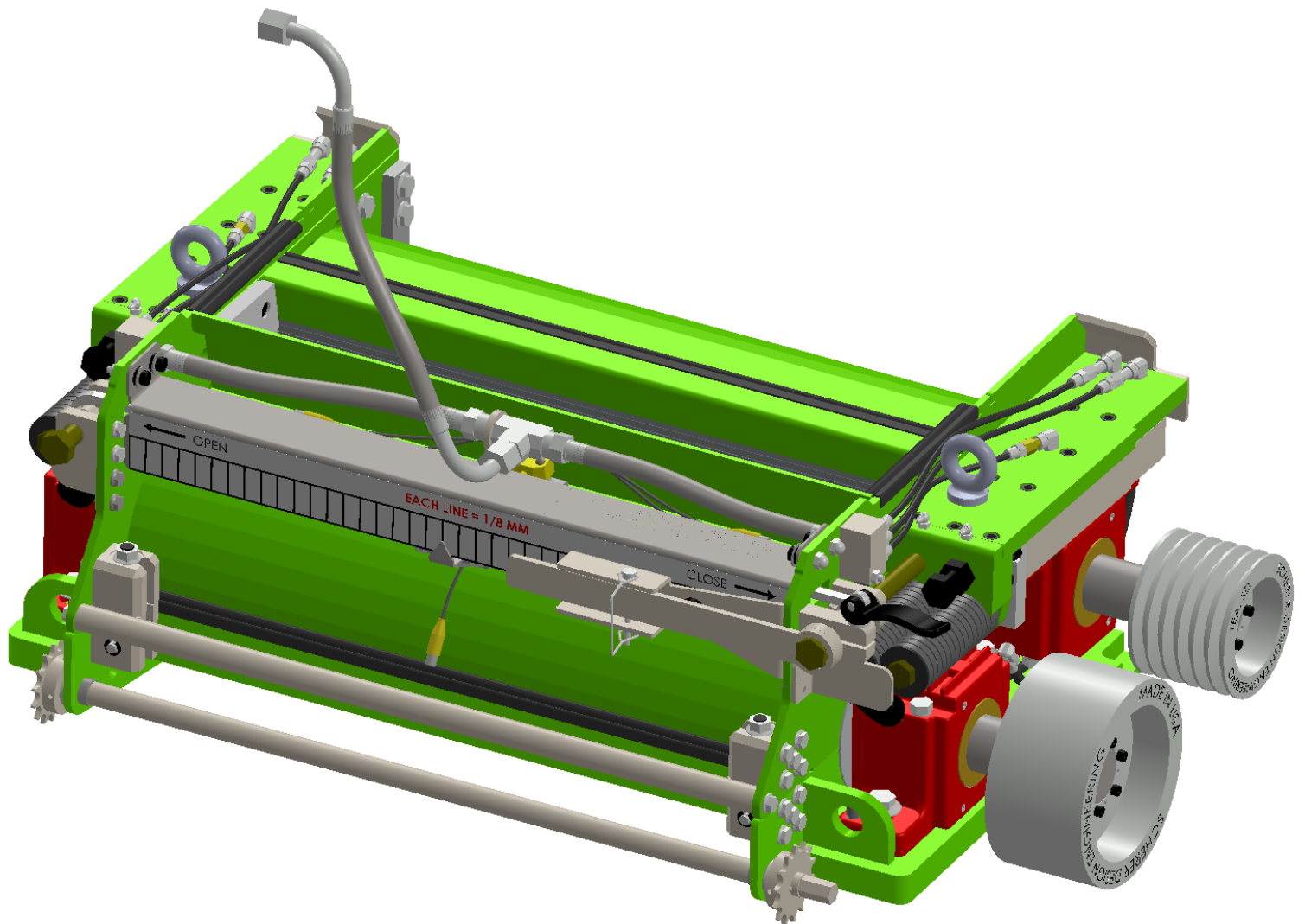


SCHERER **H.D.S** PROCESSOR

U.S. Patent No. 7,681,384



Model Year 2018



46994 Mindy Street • Tea, SD 57064-8113 • 605-368-2659 • 800-883-9790 • www.scherercorrugating.com • FAX 605-368-9737
After hours: Bob (605) 201-1926, Jim (605) 940-6356, Jason (605) 941-3458, Lyndon (605) 941-0502

SCHERER

H.D.S. PROCESSOR

U.S. Patent No. 7,681,384
Other Patents Applied For

OPERATOR'S
AND PARTS MANUAL

SCHERER DESIGN
ENGINEERING, INC.

1-800-883-9790

FOREIGN PATENTS APPLIED FOR

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Introduction

We would like to take this opportunity to thank you and welcome you to the fine group of Scherer Processor owners. You have selected one of the many high quality and precision built processors that Scherer Design Engineering has to offer. Due to the success of the Scherer H.D. and H.P. Processors, we have developed and manufactured the Scherer H.D.S. Processor. Therefore, after years of designing and in-field success, Scherer Design Engineering is proud to offer the 2014 Scherer H.D.S. Processor.

This instruction manual contains specific operating, maintenance, and parts information to help you obtain the most satisfactory performance from your processor. This manual describes how to operate, maintain, and repair your processor.

Proper long-term performance of this equipment is possible only with the cooperation and attention of adequately trained operators and well informed maintenance personnel.

The factory carefully assembled, inspected and tested your processor. Before putting the processor into operation, please read the instruction manual carefully. Study the correct operating procedures and become familiar with the operating process and related machinery.

We are always trying to improve our product as much as possible. If you have any suggestions or concerns about how to make this processor better, feel free to give us a call at any time, your feedback is always welcomed.

The Scherer Design Engineering Team

Safety

Warning: Read and understand all of the following safety messages. Be familiar with general operating and maintenance instructions. Be sure to lock out the power supply before performing any maintenance and adjustments. The person performing the maintenance should be the only one with the ignition key for the cutter.

General Safety Practices,

Always observe safe operating practices around machinery. Most accidents are the result of carelessness or negligence. All rotating machinery is potentially dangerous. Guard and operate rotating machinery as required by applicable laws, regulations and good standard safety practices.

Before doing any maintenance on engine driven machinery, turn off ignition. Remember, the person doing the maintenance or adjustment should be the only one with the ignition key.

Use the proper tools for each maintenance task. Keep hoisting equipment in good condition and **DO NOT** stand under objects being hoisted. Keep a clean work area to ensure workers have good footing.

Inlet/Discharge Opening Hazard

The processor has an inlet and discharge opening. Injury will result if persons or objects fall into the inlet or discharge. A serious hazard exists if a person places their arm or any object into the inlet or discharge area of the processor. **DO NOT** remove protective guards.

Belt Drive Hazard

Be sure that the belt guards are in place before ever operating the processor.

Rotating Rolls Hazard

The rotating rolls are a severe hazard. The rolls turn at high speeds and operate with a grinding action that will pull objects between the rolls. Keep all body parts and all objects out of this area. **DO NOT** insert any part of your body or any tool into the roller area.

Eye Protection

Wear approved safety glasses when working around all equipment. Moving machinery can throw objects unexpectedly.

Head Protection

Wear an approved hard hat while installing the processor into and out of the machine. Falling objects or low overhead can cause serious injury.

Hearing Protection

Under normal operating conditions, this machine does not produce hazardous noise. However, the cutter itself is very noisy when operated at full throttle. Wear approved hearing protection as needed when working around equipment.

Installation

Before lifting the processor into place in the cutter, ensure that the latch blocks are snug, and hinge bolts are tight. Always use the certified lifting chains provided with the processor to lift the processor in and out of the cutter. Never stand under the processor when it is lifted overhead.

You can install the processor from the side or from the top. For ease of installation, remove the cross bar support that is bolted to the floor and to the discharge chute. Place processor in the cutter. If you have removed the cross bar support, please install it back into place at this time.

Slide the processor in the operating position, using the same clamping system that is in place for the original processor. Ensure the latch blocks on the processor are tight.

With the processor ahead and secured into the operating position, you now need to check proper pulley alignment. Do this by laying a straight edge along the main drive pulley and along the processor pulleys. If any adjustment needs to be done, please refer to keyless locking hub torque specifications in the back of this manual.

The roll gap was set at 4 mm and the scale has been marked at the 4 mm setting. Unless the gap has been changed, the roll adjustment should not have to be changed until some product has been run through it.

Install the provided oil mist system that came with your Scherer H.D.S. Processor. Finally, connect the oil mister to the processor, ensuring that the coupler is tight.

Roll Gap Adjustment

Once the processor is installed in the cutter and some product has been run through it, you may need to adjust the roll gap. To do this, you will use the adjustment tool provided. Loosen the adjustment clamp lever on right side adjustment bolt. Rotate the bolt clockwise to open the gap, and counter-clockwise to close the gap. Return the adjustment tool to its original position. **The adjustment tool is also a lock for the roll position.** You will not be able to adjust the rolls closer than 1 mm (.040) because of the factory setting of the roll stops (prevents the rolls from hitting). **The processor is not intended to be run with the slide blocks against the roll stops.** When adjusting, watch pointer move across scale. Use the scale to determine your roll gap. The Processor was set at the factory to 4mm. When the adjustment is complete, make sure that the adjustment clamp lever is hand tightened. After you have a number of hours on your processor you may need to adjust your rolls together to compensate for wear. After a number of adjustments, and the pointer moves onto or near the red marks on scale, the adjustment bolts may become free from tension. If you still need to close your roll gap further you may have to clean behind the bearing slide plates and adjust roll stop bolts to allow for more movement.

LubriMist Maintenance



- Make sure to maintain an air pressure of 35psi at the LubriMist regulator.
- Oil fill is the plug located on the front of the LubriMist reservoir.
- Fill with oil until the oil level matches the full mark on the sight glass. **DO NOT OVERFILL!! LUBRIMIST WILL NOT FUNCTION PROPERLY IF IT IS FILLED ABOVE THE FULL MARK!!**
- We use Chevron Cetus Hypersyn. It is an ISO 32 100% synthetic oil (equivalent to SAE 10 weight). This is called turbine oil by some manufacturers. It is available from Scherer Design in gallon and 5 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 3 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 braided steel hose from the LubriMist exhaust port and plug the end of the hose to keep dirt out. Also cap off the LubriMist exhaust port and turn off the air supply to the LubriMist.
- **THE LUBRIMIST SYSTEM SHOULD NOT BE PRESSURIZED IF THE EXHAUST PORT IS CAPPED OFF.**

LIMITED WARRANTY FOR SCHERER H.D.S. KERNEL PROCESSOR

IT IS EXPRESSLY AGREED THAT THE FOLLOWING WARRANTY IS GIVEN BY SCHERER DESIGN ENGINEERING, INC. IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, **INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE**, AND OF ANY OTHER OBLIGATION OR LIABILITY ON OUR PART OF ANY KIND OR NATURE WHATSOEVER.

No representative of ours has any authority to waive, alter, vary or add to the terms hereof without prior approval in writing, to our customer, signed by an officer of our company. It is expressly agreed that the entire warranty given to the customer is embodied in this writing; that this writing constitutes the final expression of the parties' agreement with respect to warranties; and that it is a complete and exclusive statement of the terms of the warranty.

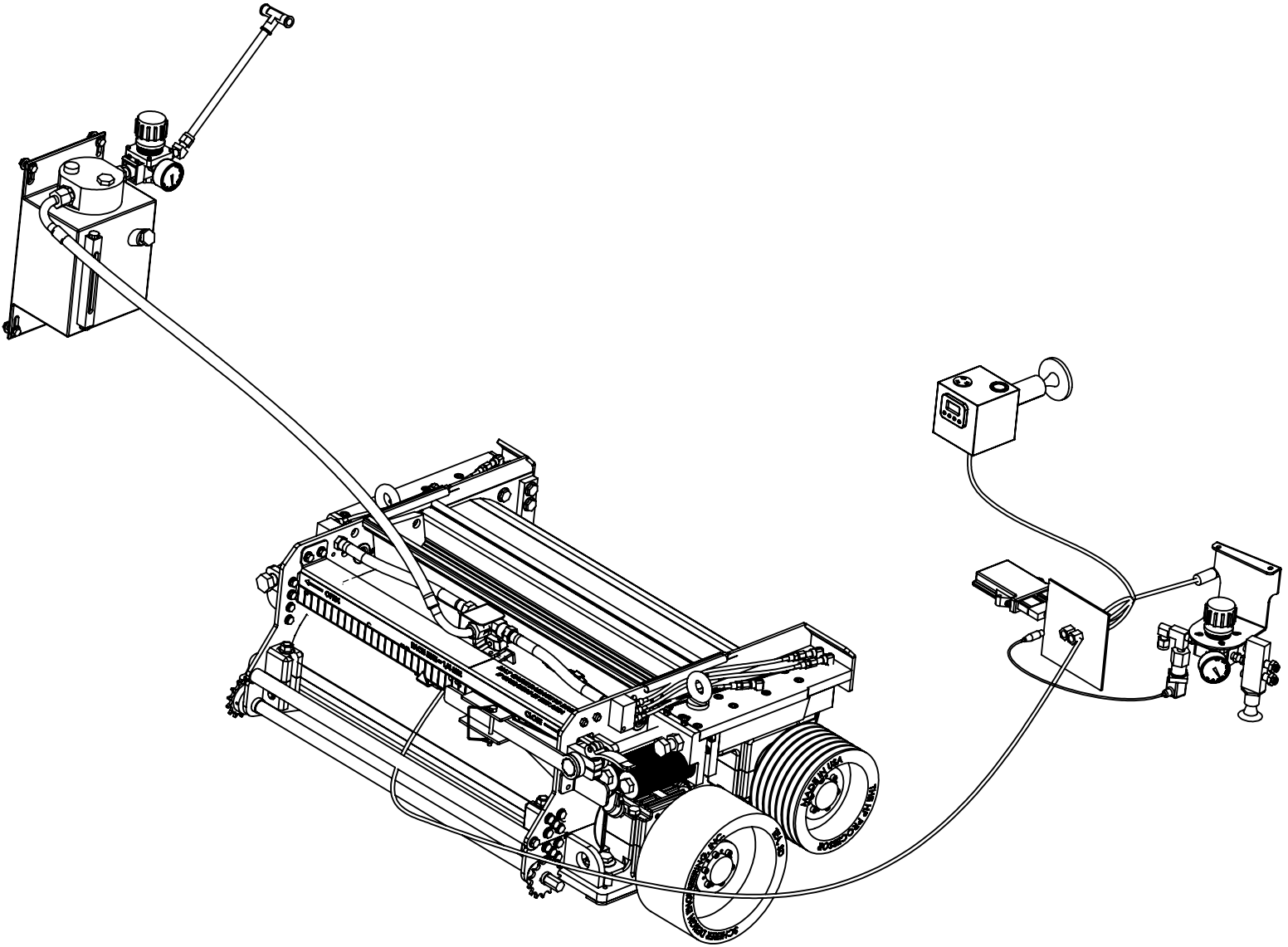
We warrant to our customers that all products manufactured by us will be free from any manufacturing defects at the time of shipment to our customer for a period of one (1) year from the date of shipment. All warranty claims must be submitted to us within ten days of discovery of defects within the warranty period, or shall be deemed waived. As to our products that are proven to have been defective at the time of shipment, and that were not damaged in shipment, the sole and exclusive remedy shall be repair or replacement of the defective parts or repayment of the proportionate purchase price for such products or parts, at our option. Replacement parts shall be shipped free of charge f.o.b. from our factory. This constitutes a full and complete statement of the warranty provided and the product is otherwise deemed to have been accepted AS IS and with all faults.

This warranty shall not apply to any product which has been subject to operator misuse; misapplication, neglect (including but not limited to improper maintenance and storage); accident; improper installation, modification (including but not limited to use of unauthorized parts or attachments), adjustment, repair or lubrication. Misuse also includes, without implied limitation, deterioration in the product or part caused by chemical action, wear caused by the presence of abrasive materials, improper lubrication, and failure to clean the processor area daily and to follow the lubrication instructions which are provided. Identifiable items manufactured by others but installed in or affixed to our product are not warranted by us but, bear only those warranties, express or implied, given by the manufacturer of that item, if any.

Responsibility for proper use, installation, and application of the Scherer H.D.S. Kernel Processor rests solely with customer and it is expressly agreed between the parties that our liability for any damages arising out of or related to this transaction, or the use of our product, whether in contract, tort, or based upon any state or federal claim whatsoever, is exclusively limited to the repair or replacement of the product, or the parts thereof by us, or to a refund of the proportionate purchase price. We will not be liable for any other injury, loss, damage or expense, whether direct or consequential, including but not limited to loss of use, income, profit, production, or increased costs of operation, or spoilage of or damage to material, arising in connection with the sale, installation, use of, inability to use, or the replacement of, or late delivery of, our product.

It is also expressly agreed that any cause of action for breach of any warranty must be brought within one year from the date of the breach. Nothing contained herein shall be deemed to abrogate any legal rights or defenses the Producer may have relative to this product.

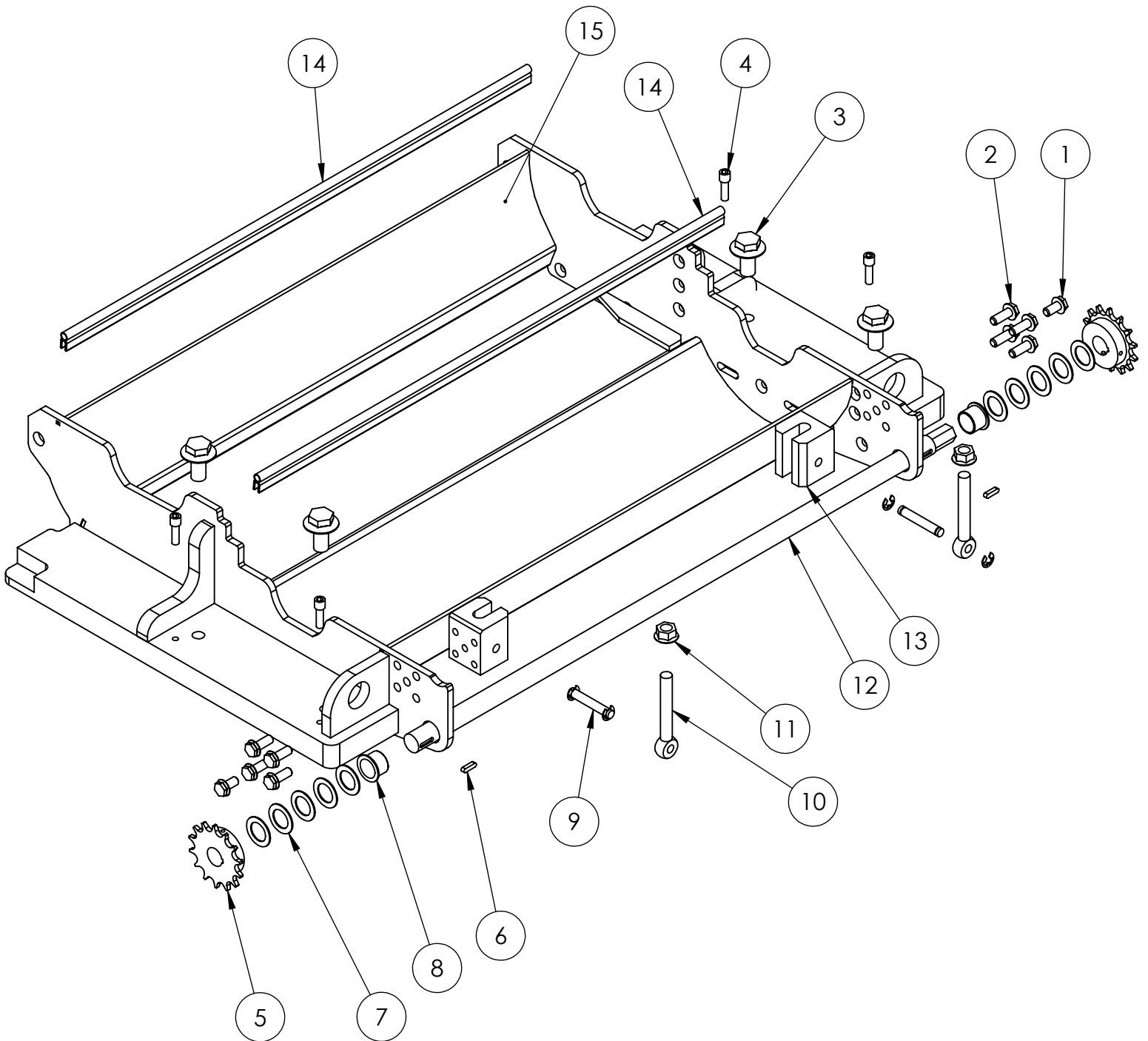
SCHERER H.D.S. PROCESSOR WITH ACCESSORIES



Processor Accessory Parts

A0001	H.D. Bearing Installation and Removal Tool
A0002	H.D. Bearing Removal Driver
A0003	Lift Chain
A0006	1 Gal. Chevron Cetus HyperSyn Oil
A0006.5	5 Gal. Chevron Cetus HyperSyn Oil
A0007	H.D. Track Extension
A0008	Laser Temp. Gun
A0010	H.P. Bearing Removal Tool
A0011	Laser Alignment Tool
A0015-1	Scherer Processor Brochure
A0015-2	HDS Owner's Manual
A0015-3	HP Owner's Manual
A0015-4	HPS Owner's Manual
A0015-5	HPM Owner's Manual
A0015-6	HPMS Owner's Manual
A0017	Dealer Pricing SD Card
A0019	Flash Drive
A0021	SKF Bearing Heater

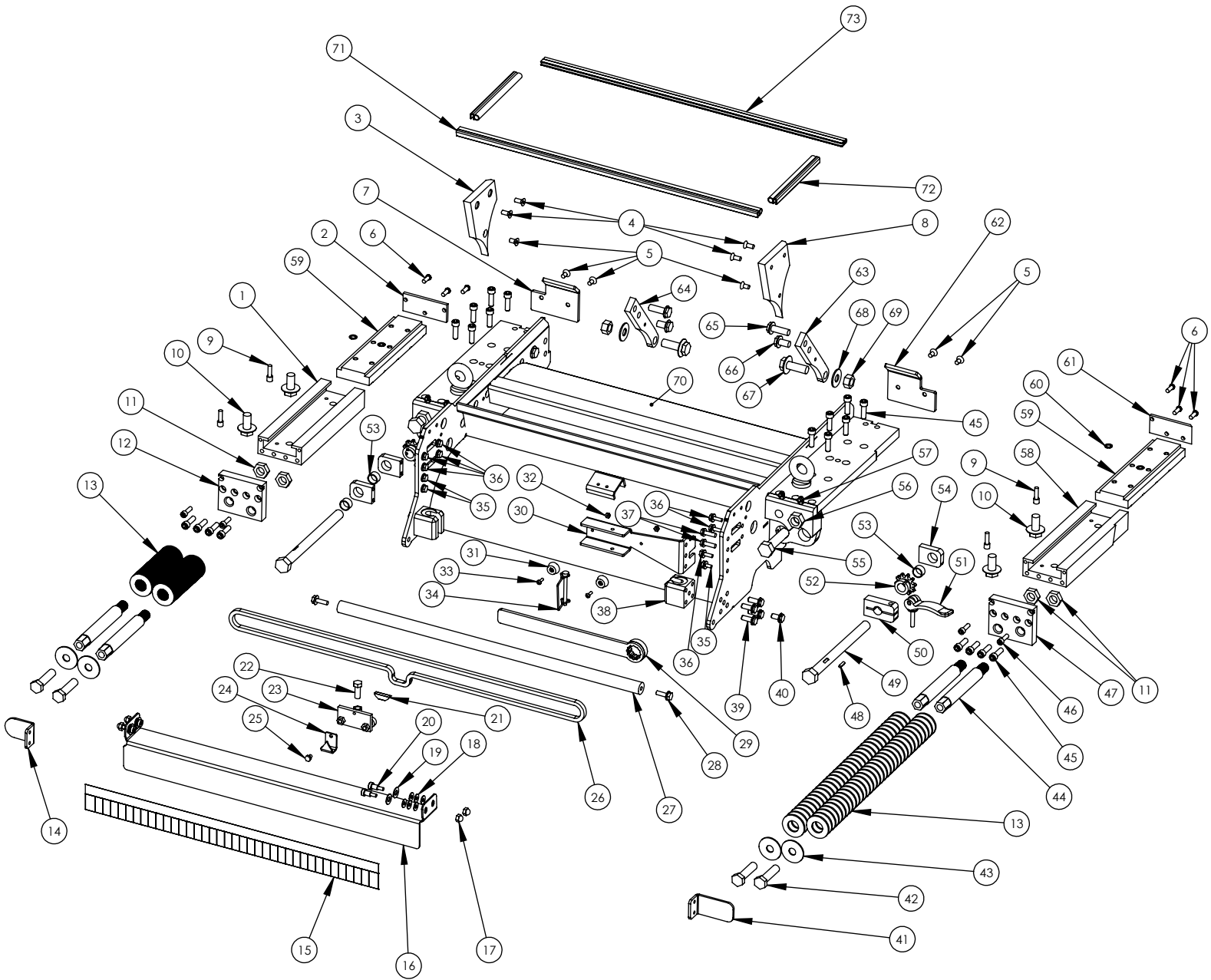
SCHERER H.D.S. PROCESSOR BOTTOM SECTION PARTS



SCHERER H.D.S. PROCESSOR BOTTOM SECTION PARTS LIST

	Part #	Qty.	Description
1	HPST1034.1	2	3/4" Latch Block Bolt
2	HPST1034	8	1" Latch Block Bolt
3	HPTB1010	4	5/8" x 1 1/2" Bearing Housing Bolt
4	TB1008	4	5/16" x 1" Bearing Housing Bolt
5	B1027	2	Position Rod Sprocket
6	B1016	2	Key
7	B1029	10	Position Rod Washer
8	B1030	2	Position Rod Bushing
9	B1036	2	Latch Block Pins with Clips
10	B1037	2	Latch Block Eye Bolt
11	B1038	2	Latch Block Eye Bolt Nut
12	B1039	1	Position Rod
13	HPSB1035	2	Lower Latch Block
14	TB1043	2	Shroud Seal
15	HDSF1000.2	1	Bottom Frame Member

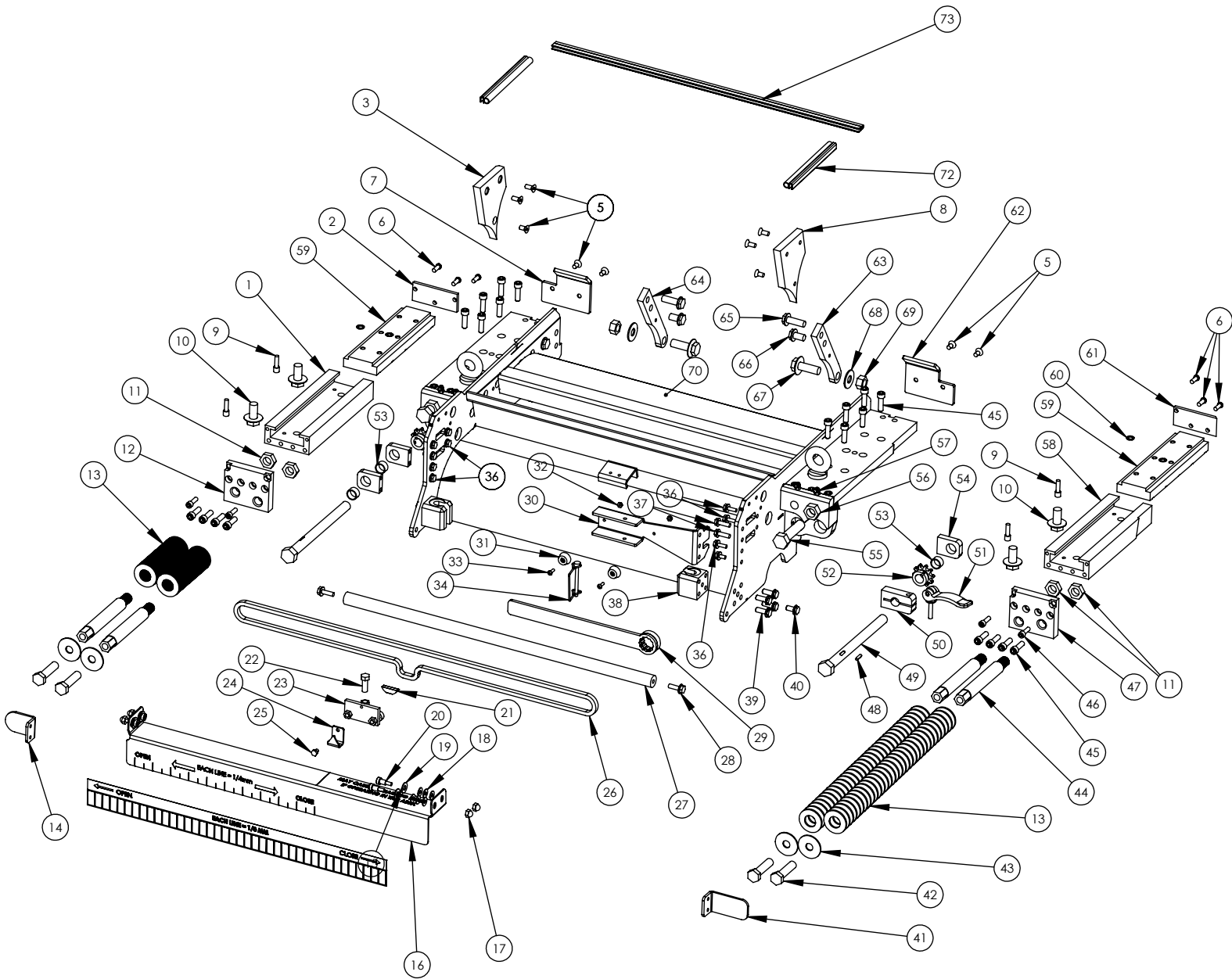
SCHERER H.D.S. PROCESSOR TOP SECTION PARTS



SCHERER H.D.S. PROCESSOR TOP SECTION PARTS LIST

1	HPT1100	1	Left Outer Bearing Slide
2	HPT1002	1	Left Bearing Slide Front Cap
3	HDST1059L	1	Left Cheek Plate
4	HPT1004	4	3/4" Cheek Plate Bolt
5	HPT1065	6	5/8" Cheek Plate Bolt
6	HPT1005	6	Slide Assembly Front Cap Bolt
7	HPT1007	1	Left Roll Over Protection Bracket
8	HDST1059R	1	Right Cheek Plate
9	TB1008	4	5/16" x 1" Bearing Housing Bolt
10	HPTB1010	4	5/8" x 1 1/2" Bearing Housing Bolt
11	HPST1009	4	Spring Rod Jam Nut
12	HPST1063	1	Left Bearing Slide Rear Cap
13	HPST1104	132	Spring Washers
14	HPT1060	1	Left Spring Guard
15	HPST1056	1	Roll Gap Reference Sticker
16	HPT1055	1	Chain Guard
17	HPT1116	4	5/16" Acorn Nut
18	HPT1069	12	Rubber Washer
19	HPT1115	4	10mm Stainless Washer
20	HPT1117	4	3/8" x 1" Shoulder Bolt
21	B1060	1	Chain Tension Bracket Key
22	B1064	1	7/16" x 1 1/4" Bolt
23	B1061	1	Chain Tension Bracket
24	B1053	1	Roll Adjustment Pointer
25	B1065	1	1/4" x 3/8" Bolt
26	HPST1048	1	H.D.S. Adjustment Chain
27	HPST1049	1	H.D.S. Lifting Rod
28	T1058	2	Lifting Rod Bolt
29	HPT1098	1	Roll Adjustment Wrench
30	HPT1097	1	Adjustment Wrench Mount
31	HPT1107	2	Adjustment Wrench Bumper
32	HPT1109	2	Bumper Bolt Nut
33	HPT1108	2	Bumper Bolt
34	HPT1099	1	Adjustment Wrench Pin
35	HPT1066	3	5/16" x 1/2" Serrated Flange Bolt
36	HPT1051	6	5/16" x 3/4" Bolt
37	TB1034	2	Serrated Flange Bolt
38	HPST1057	2	Top Latch Block
39	HPST1034	8	1" Latch Block Bolt
40	HPST1034.1	2	3/4" Latch Block Bolt
41	HPT1113	1	Right Spring Guard
42	B1001	4	Spring Bolt
43	B1002	4	Spring Bolt Washer
44	HPST1003S	4	Spring Rod
45	B1023	20	3/8" x 1 1/4" SHCS
46	B1024	4	5/16" x 1" SHCS
47	HPST1030	1	Right Bearing Slide Rear Cap
48	B1016	2	Key
49	HDST1037	2	H.D.S. Roll Adjustment Bolt
50	HPT1033	1	Adjustment Clamp
51	HPT1031	1	Adjustment Clamp Lever
52	B1067	2	Plated Sprocket
53	HPT1035	3	Adjustment Bolt Bushing
54	HPT1027	3	Adjustment Bolt Guide
55	HPST1025	2	Roll Dead Stop Bolt
56	HPST1025.1	2	Roll Dead Stop Nut
57	HPT1059	4	Grease Zerk
58	HPT1102	1	Right Outer Bearing Slide
59	HPT1104	2	Inner Bearing Slide
60	HPMT1105	2	Inner Slide O-Ring
61	HPT1017	1	Right Bearing Slide Front Cap
62	HDST1016	1	Right Roll Over Protection Bracket
63	HPST1012R	1	Right Hinge
64	HPST1012L	1	Left Hinge
65	HPST1011.2	2	1/2" x 1 1/2" Hinge Bolt
66	HPST1011.1	2	1/2" x 7/8" Hinge Bolt
67	TB1010	2	5/8" x 1 1/2" Hinge Bolt
68	HPST1013	2	Hinge Washer
69	HPST1014	2	Hinge Nut
70	HDSF1000.1	1	Top Frame Member
71	T1054	1	.625 90° Bulb Seal
72	HPT1010	2	90° Bulb Seal
73	TB1043	1	Shroud Seal

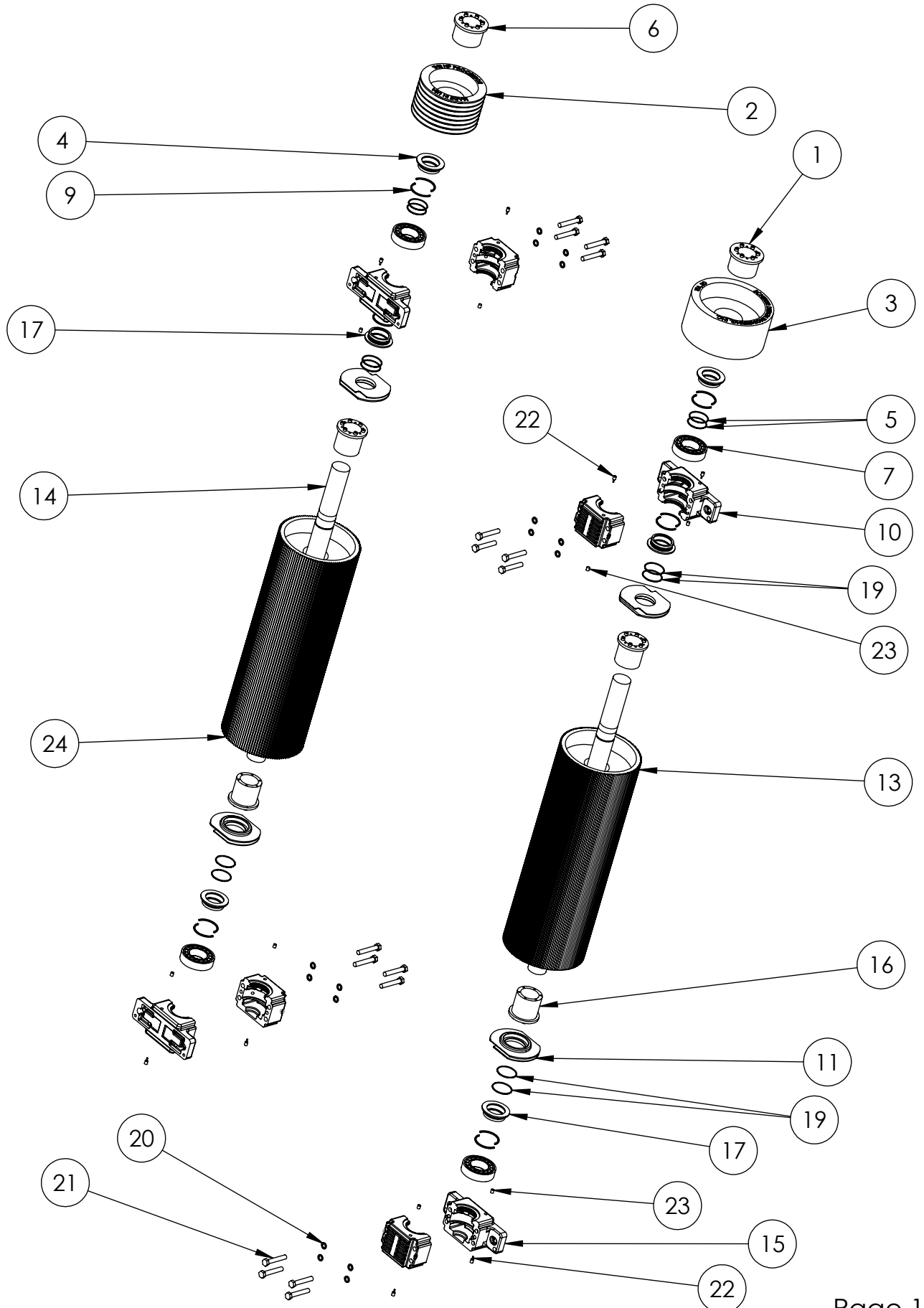
SCHERER H.D.S. PROCESSOR TOP SECTION PARTS



SCHERER H.D.S. TOP SECTION PARTS ASSEMBLIES

	PART #	QTY.	DESCRIPTION
*	HPST1101	1	Complete Left Side Bearing Assembly
HPST1101 INCLUDES THE FOLLOWING PARTS			
1	HPT1100	1	Left Outer Bearing Slide
2	HPT1002	1	Left Bearing Slide Front Cap
6	HPT1005	3	Slide Assembly Front Cap Bolt
59	HPT1104	1	Inner Bearing Slide
60	HPMT1105	1	Inner Bearing Slide O-Ring
46	B1024	2	5/16" x 1" SHCS
45	B1023	4	3/8" x 1 1/4" SHCS
12	HPST1063	1	Left Bearing Slide Rear Cap
*	HPST1103	1	Complete Right Bearing Slide Assembly
HPST1103 INCLUDES THE FOLLOWING PARTS			
6	HPT1005	3	Slide Assembly Front Cap Bolt
45	B1023	4	3/8" x 1 1/4" SHCS
46	B1024	2	5/16" x 1" SHCS
47	HPST1030	1	Right Bearing Slide Rear Cap
58	HPT1102	1	Right Outer Bearing Slide
59	HPT1104	1	Inner Bearing Slide
60	HPMT1105	1	Inner Bearing Slide O-Ring
61	HPT1017	1	Right Bearing Slide Front Cap
*	HDST1059RL	1	H.D.S. Cheek Plate Kit
HDST1059RL INCLUDES THE FOLLOWING PARTS			
3	HDST1059L	1	Left Cheek Plate
5	HPT1065	6	5/8" Cheek Plate Bolt
8	HDST1059R	1	Right Cheek Plate
*	HDSTB1075	1	H.D.S. Bulb Seal Kit
HDSTB1075 INCLUDES THE FOLLOWING PARTS			
72	HPT1010	2	90° Bulb Seal
73	TB1043	3	Shroud Seal
TB1043 ALSO SEALS BETWEEN THE TOP AND BOTTOM FRAME HALVES			

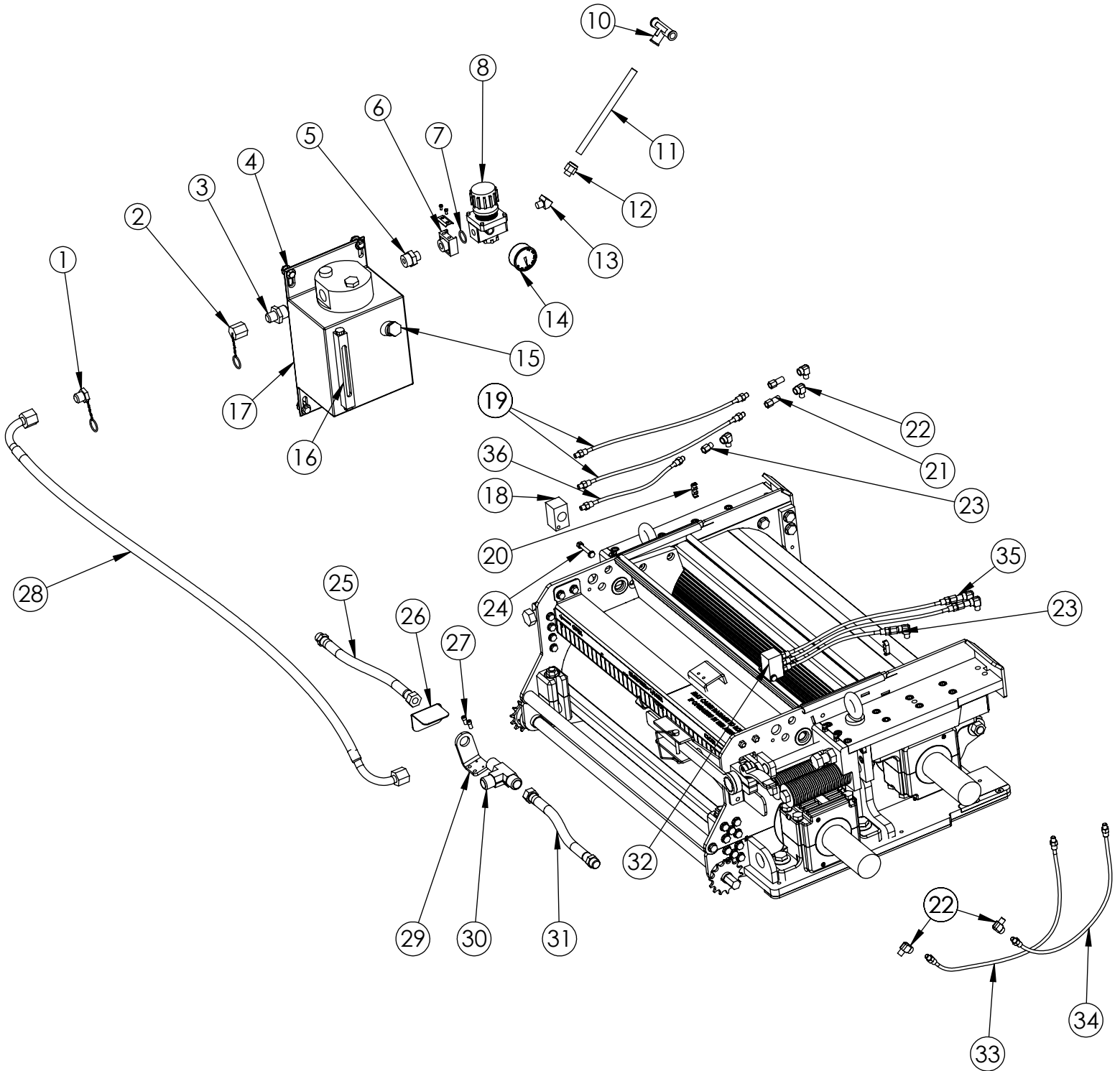
Scherer H.D.S. Processor Roller Parts



SCHERER H.D.S. PROCESSOR ROLL PARTS LIST

	Part #	Qty.	Description
1	HPR1001	1	Flat Pulley Locking Hub
2	HDSR1220	1	6 Groove Pulley
3	HDSR1203	1	6 Groove Smooth Pulley
4	HPR1004-54	2	Outside Housing Seal
5	HPR1005-54	4	Outside Housing Seal O-Rings
6	HDSR1001	1	Groove Pulley Locking Hub
7	HPR1007	4	Roller Bearing
9	HPR1009	12	Fiber Oil Seal
10	HPR1010	2	Drive Side Bearing Housing
11	HPSR1011	4	Spool Seal
13	HDSR1000-120	1	Rear Roll with Shaft
14	HPR1014	2	Roll Shaft
15	HPR1015	2	Idle Side Bearing Housing
16	HPR1016	4	Roll to Shaft Locking Hub
17	HPR1004-187	4	Inside Housing Seal
19	HPR1005-187	8	Inside Housing Seal O-Rings
20	R1231	16	Bearing Housing Lock Washer
21	R1230	16	Bearing Housing Bolt
22	R1236	8	Magnetic Drain Plug
23	R1235	16	Drain Plug
24	HDSR1000-95	1	Front Roll with Shaft
*	HDSR1000-95-C	1	H.D.S. 95 Tooth Roll with Seals, Bearings & Housings
*	HDSR1000-120-C	1	H.D.S. 120 Tooth Roll with Seals, Bearings & Housings
*	HDSR1000-95-C-NH	1	H.D.S. 95 Tooth Roll with Seals and Bearings *No Housings
*	HDSR1000-120-C-NH	1	H.D.S. 120 Tooth Roll with Seals and Bearings *No Housings
**	A0010	1	Bearing Puller *Works with all 494 Series & H.D.S. Processors

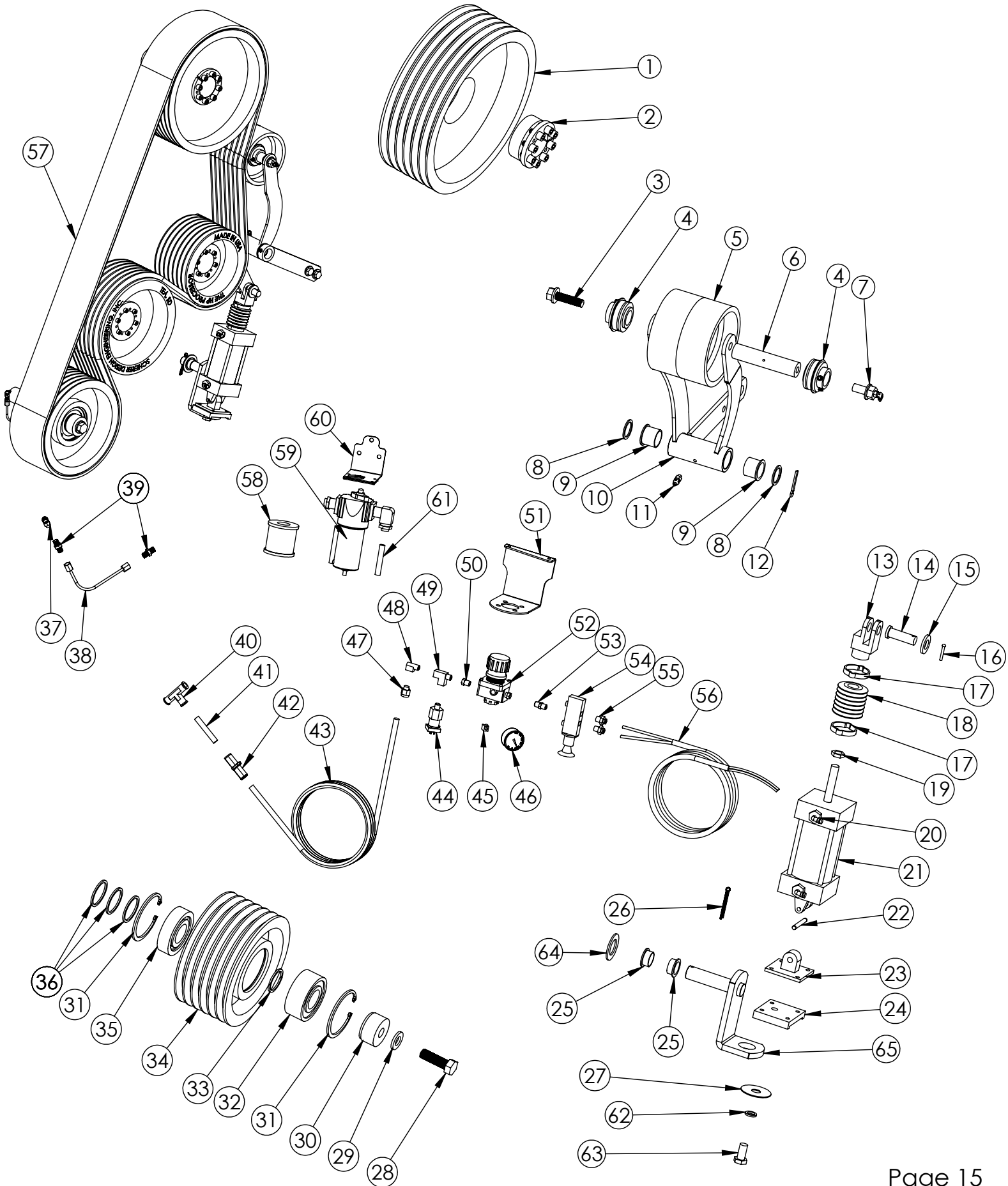
SCHERER H.D.S. PROCESSOR LUBRICATION SYSTEM PARTS



SCHERER H.D.S. PROCESSOR LUBRICATION SYSTEM PARTS LIST

	Part #	QTY.	Description
1	OM-1005	1	Flared Plug
2	OM-1006	1	Flared Cap
3	OM-1008	1	Reducing Fitting
4	HPT-1092	4	Oil Mister Mounting Hardware
5	OM-1022	1	3/4" to 1/2" Reducing Fitting
6	OM-1020	1	Regulator Attachment
7	OM-1020.1	1	Regulator Attachment O-ring
8	OM-1023	1	Air Regulator
10	HPD-1349	1	12-mm Push-Loc Tee
11	OM-1014	1	Air Supply Line
12	OM-1004	1	12mm Push-Loc x 1/4" male
13	OM-1017	1	45 degree fitting
14	OM-1015	1	Regulator Gauge
15	OM-1016	1	Oil Fill Plug
16	OM-1012	1	Sight Glass
17	OM-1000	1	Oil Mist Generator
18	HPT-1080	1	Left Oil Mist Manifold
19	HPG-1117	4	16 3/8" Lubrication Line
20	G-1111	2	Lubrication Line Clip
21	OM-1001L	2	Left Misting Reclassifier
22	HPT-1085	10	1/4 Street Elbow
23	OM-1002	2	Condensing Reclassifier
24	HPT-1091	2	Manifold Mounting Hardware
25	HPG-1121	1	Left Oil Mist Hose
26	HPT-1087	1	Stainless Bulkhead Guard
27	HPT-1093	2	Tee Bracket Mountig Bolt
28	HPG-1122	1	Main Oil Supply Hose
29	HPT-1090	1	Tee Bulkhead Mounting Bracket
30	HPT-1082	1	Bulkhead Tee
31	HPG-1120	1	Right Oil Mist Hose
32	HPT-1081	1	Right Oil Mist Manifold
33	HPG-1102	2	21 3/4" Lubrication Line
34	HPG-1110	2	16 3/4" Lubrication Line
35	OM-1001R	2	Right Mist Reclassifier
36	HPG-1119	2	10 1/8" Lubrication Line

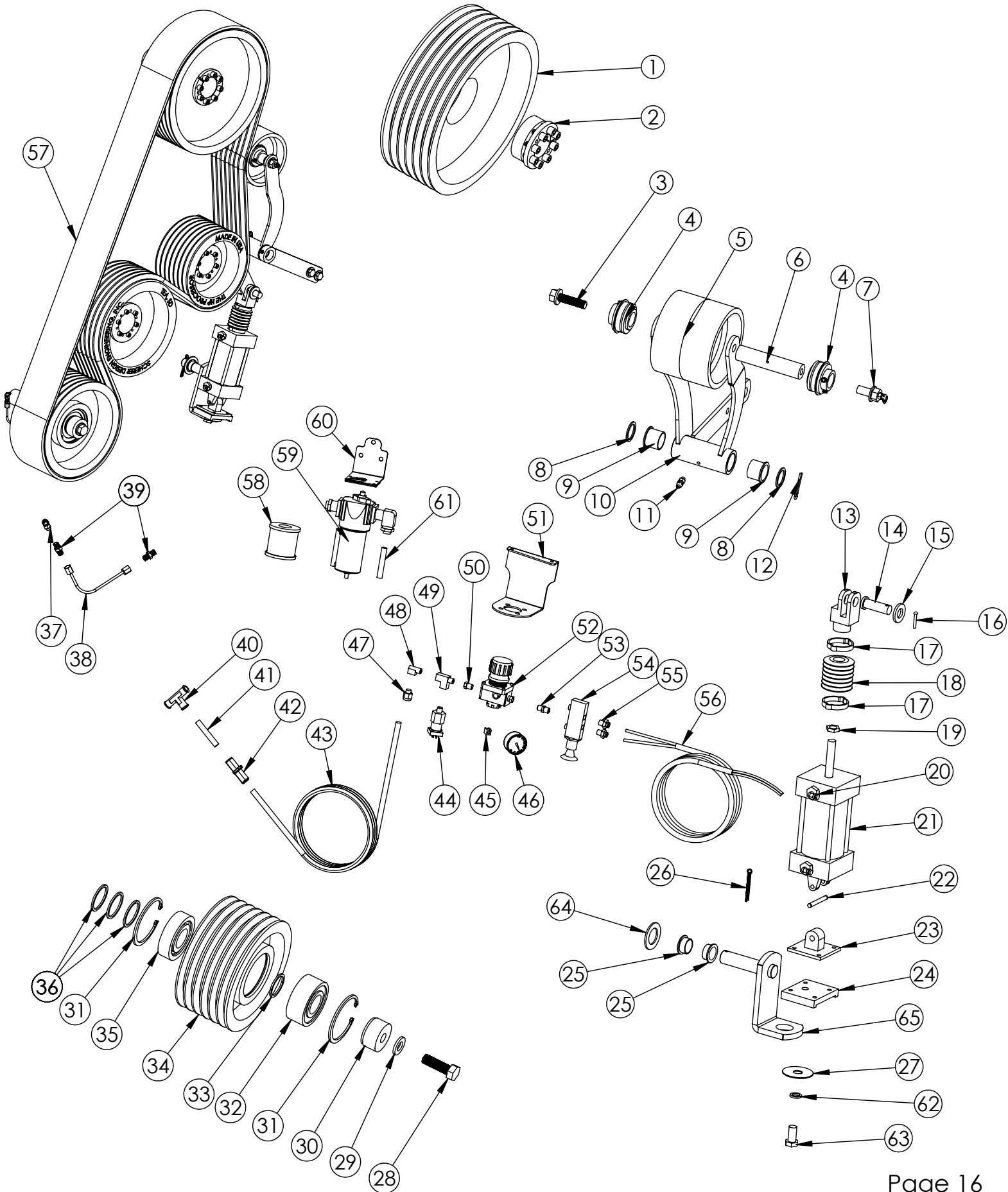
SCHERER H.D.S. PROCESSOR PNEUMATIC TENSION 6-GROOVE DRIVE SYSTEM PARTS



SCHERER H.D.S. PROCESSOR PNEUMATIC TENSION 6-GROOVE DRIVE SYSTEM PARTS LIST

	PART #	QTY.	DESCRIPTION
1	D1301	1	Grooved Main Drive Pulley (For 6 Groove Belt)
2	D1302	1	45mm Locking Hub with Bolts
3	D1303	1	1/2 x 1" Bolt
4	D1304	2	ER16 Bearing
5	D1305	1	Tension Pulley (For 6 Groove Belt)
6	D1308	1	Tension Pulley Shaft (For 6 Groove)
7	D1309	1	1/2 x 1" Bolt with Grease Fitting
8	D1312	4	Tension Arm Washers
9	D1310	2	Tension Arm Bushings
10	HDS1307	1	Tension Arm (For 6 Groove HDS)
11	D1313	1	Tension Arm Grease Zerk
12	D1311	1	Tension Arm Cotter Key
13	HPD1353	1	Pneumatic Cylinder Fork for 6 Groove
14	HPD1314	1	7/16 x 1 1/4" Clevis Pin
15	D1316	1	Clevis Pin Washer
16	D1315	1	Clevis Pin Cotter Key
17	HPD1399	2	Bellow Clips
18	HPD1396	1	Bellow
19	HPD1391	1	1/2-20 Jam Nut
20	HPD1354	2	3/8" Swive Fitting
21	HPD1341	1	4" Pneumatic Tension Cylinder
22	HPD1343	1	Pneumatic Cylinder Pin with Snap Rings
23	HPD1344	1	Pneumatic Cylinder Male Clevis
24	HPD1345	1	Adapter Plate
25	D1323	2	Bracket Bushings
26	D1325	1	Bracket Shaft Cotter Pin
27	D1375	1	Fender Washer
28	D1326	1	16 x 45mm Bolt
29	D1327	1	16mm Washer
30	D1328	1	Idler Shaft Cap for 6 Groove
31	D1329	2	Idler Pulley Snap Ring
32	D1333	1	5307 Double Sealed Bearing
33	D1331	1	Notched Spacing Washer for 6 Groove
34	D1332	1	Idler Pulley (For 6 GrooveBelt)
35	D1330	1	6307 Sealed Bearing
36	D1334	3	Hardened Spacer Rings
37	D1338	1	Grease Fitting
38	D1337	1	Grease Tube
39	D1336	2	Grease Tube Male Adapter
40	HPD1349	1	12mm "T" Fitting
41	HPD1361	1	Short 12mm Hose
42	HPD1359	1	12mm Valve Assembly
43	D1348	1	H.D. Long 12mm Air Hose
44	HPD1370	1	Air Pressure Sensor
45	OM1024	1	135 Degree Elbow
46	OM1015	1	Air Pressure Gauge
47	HPD1358	1	1/4" - 12mm Fitting
48	HPD1402	1	90 Degree Fitting
49	HPD1371	1	Air Pressure Sensor Tee
50	OM1021	2	1/2 to 3/8" Reducing Fitting
51	HPD1403	1	Air Regulator Bracket
52	OM1023	1	Air Pressure Regulator
53	HPD1408	1	3/8" Fitting
54	HPD1407	1	Air Valve
55	HPD1406	2	3/8 to 1/4" Push-Loc Fitting
56	D1352	1	H.D. 1/4" Air Hose Assembly
57	D1335	1	H.D. 6 Groove Banded Drive Belt
58	HPD1411.1	1	Replacement Filter
59	HPD1411	1	Air Cleaner Filter Assembly
60	HPD1414	1	Air Filter Bracket
61	HPD1419	1	12mm Air Cleaner Hose
62	HPT1013	1	1/2" Lock Washer
63	D1377	1	1/2"-13 x 1" Bolt
64	D1324	1	Bracket Shaft Washer
65	D1322	1	Tension System Bracket

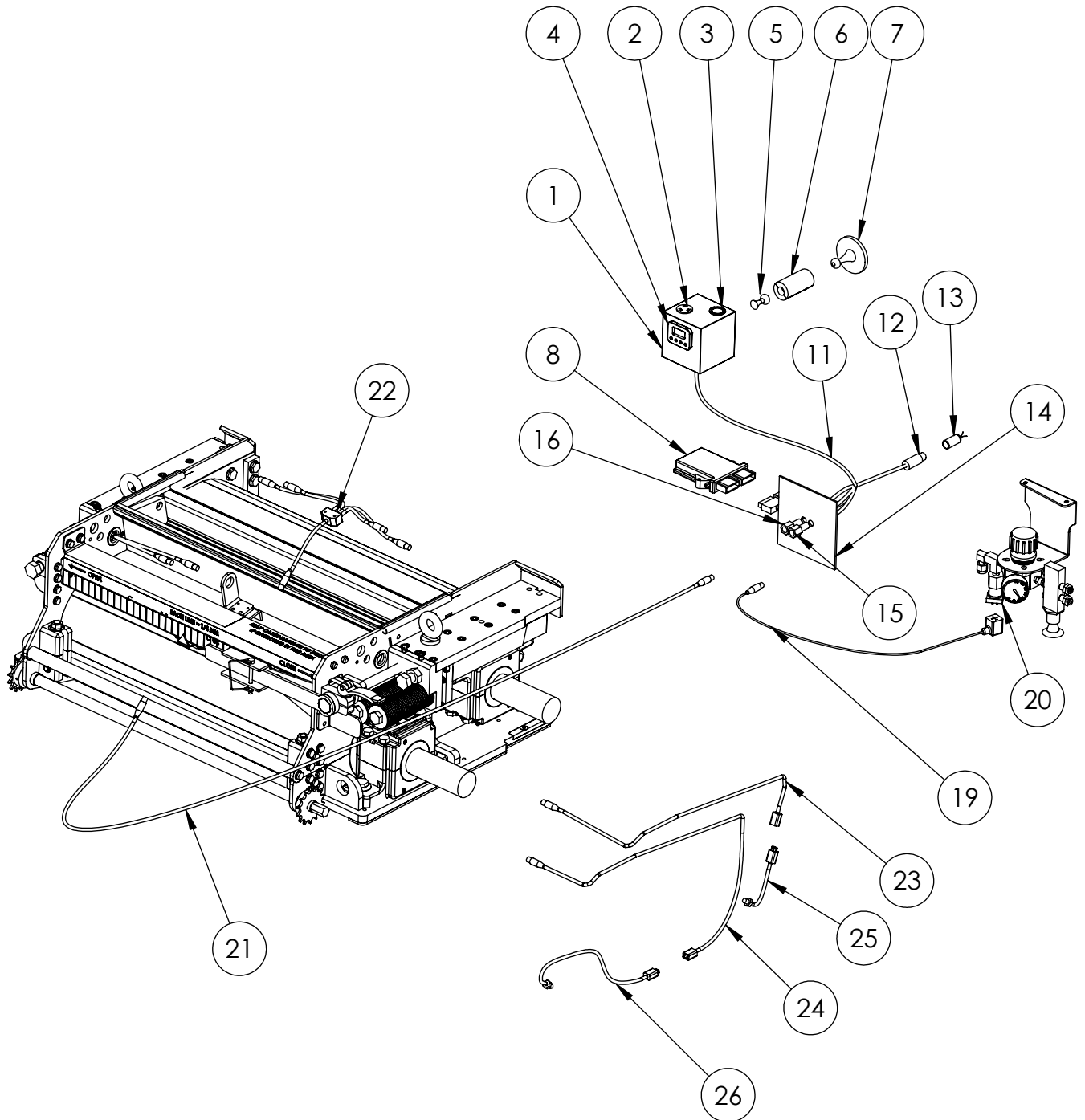
SCHERER H.D.S. PROCESSOR PNEUMATIC TENSION 6-GROOVE DRIVE SYSTEM PARTS



SCHERER H.D.S. PROCESSOR PNEUMATIC TENSION 6-GROOVE DRIVE SYSTEM

	PART #	QTY.	DESCRIPTION
*	HDS1300A	1	Complete H.D.S. Pneumatic Tension Drive Kit
*	HDS1300RA	1	H.D.S Pneumatic Tension Retro Kit for Existing Drive
*	HPD1398	1	Complete 4" Penumatic Cylinder for 6 Groove System
HPD1398 INCLUDES THE FOLLOWING PARTS			
13	HPD1353	1	Pneumatic Cylinder Fork for 6 Groove
17	HPD1399	2	Bellow Clips
18	HPD1396	1	Bellow
19	HPD1391	1	1/2-20 Jam Nut
20	HPD1354	2	3/8" Swive Fitting
21	HPD1341	1	4" Pneumatic Tension Cylinder
*	HPD1410	1	Complete 6 Groove Idler Pulley
HPD1410 INCLUDES THE FOLLOWING PARTS			
31	D1329	2	Idler Pulley Snap Ring
32	D1333	1	5307 Double Sealed Bearing
33	D1331	1	Notched Spacing Washer for 6 Groove
34	D1332	1	Idler Pulley (For 6 GrooveBelt)
35	D1330	1	6307 Sealed Bearing
*	HPD1385	1	H.P. Pressure Regulator and Actuator Assembly
HPD1385 INCLUDES THE FOLLOWING PARTS			
44	HPD1370	1	Air Pressure Sensor
45	OM1024	1	135 Degree Elbow
46	OM1015	1	Air Pressure Gauge
47	HPD1358	1	1/4" - 12mm Fitting
48	HPD1402	1	90 Degree Fitting
49	HPD1371	1	Air Pressure Sensor Tee
50	OM1021	2	1/2 to 3/8" Reducing Fitting
51	HPD1403	1	Air Regulator Bracket
52	OM1023	1	Air Pressure Regulator
53	HPD1408	1	3/8" Fitting
54	HPD1407	1	Air Valve
55	HPD1406	2	3/8 to 1/4" Push-Loc Fitting

Scherer Sentry System



Scherer Sentry System Parts List

	PART #	QTY.	DESCRIPTION
1	PM3024	1	Alarm Enclosure
2	PM3003	1	Audible Alarm
3	PM3002	1	Mute Button
4	PM2002	1	Display Screen
5	PM1008	1	Alarm Enclosure Mount
6	PM1006	1	Enclosure Mounting Arm
7	PM1007	1	Fixed Post Enclosure Mount
8	PM2003	1	XM 500 Control Box
11	PM3028	1	Main Cab Wire Harness
12	PM3001	1	Male Main System Power Plug
13	PM3005	1	Female Main System Power Plug
14	N/A	N/A	Fire Wall of Forage Harvester
15	PM3011	1	8-Pin Power Feed
16	PM3012	1	5-Pin Power Feed
17	PM3021	1	5-Pin Power Splitter
19	PM3020	1	Air Pressure Monitoring Cord
20	PM0011	1	Air Pressure Monitor Switch
21	PM3014	1	Kernal Processor Monitor Cord
22	PM3025	1	Kernal Processor Bearing Monitor Splitter
23	PM3026	2	Short Temp. Monitor Cord
24	PM3027	2	Long Temp. Monitor Cord
25	PM2007	2	Front Temp. Sender Assembly
26	PM2007.1	2	Rear Temp. Senser Assembly

HDS INSTALL

Start by removing the old KP and/or grass chute from the inside of the forage harvester.

Before the install, the inside of the KP compartment should be cleaned out. Make sure to clean on top of the cutting cylinder. Also clean out around the tension arm for the KP belt.

Removal of the front right drive wheel and the guard behind the wheel may also be beneficial; however the install can be done without the removal the wheel.

Remove the clevis pin at the bottom of the shifting linkage as seen in [Figure 1](#). Move the bar off to the side. This allows room to replace the tension bracket later on.



[Figure 1](#)

Remove the spring style tension system and tension bracket. Leave the “L” bracket at the base of the tension spring connected to the forage harvester frame. This will be used to mount the air cylinder later.

Remove the tension pulley from the old tension bracket and mount it on to the new tension bracket provided. The existing hardware will be used.

Mount the base of the air cylinder to the “L” bracket as seen in [Figure 2](#). Make sure to use some Loctite on the bolt along with the flat washer and lock washer provided.



[Figure 2](#)

Install the new tension bracket and use the existing shim washers to get the desired alignment of the pulleys. Connect the tension bracket to the air cylinder with the clevis pin, cotter pin, and washer provided as seen in Figure 3.



Figure 3

Since the HDS Processor is physically larger than the standard KP, there is a hydraulic cylinder that needs to be moved. The hydraulic cylinder opens and closes the knife sharpening door. In order to move this hydraulic cylinder, the bracket that holds it needs to be modified.

Start by removing the clevis pin from the base of the hydraulic cylinder. These clevis pins are typically rusted into the hydraulic cylinder so the head of the clevis pin may need to be cut off. Then use a press to remove the pin from inside the hydraulic cylinder. There is a new clevis pin provided because the new one needs to be longer. If it is still unclear what needs to be done, read through the next few steps.

There is a template provided for modification of the bracket as seen in [Figure 4](#).



[Figure 4](#)

Line up the template with the outside profile of the bracket. Use the provided clevis pin to help hold the position of the template. Make sure to hold the template firmly in place for accurate transfer of hole position. Drill the 4 holes on the left side first as seen in [Figure 4](#). The perforated line is a cut line. Use a sharpie or spray paint to transfer the line to the bracket. Once the left side is done, move the template to the **inside** of the right bracket. The holes for the right side bracket will need to be drilled from the left side. There is not enough room to fit a drill in from the right. After holes have been drilled and the cut line has been marked, it should look similar to [Figure 5](#).



[Figure 5](#)

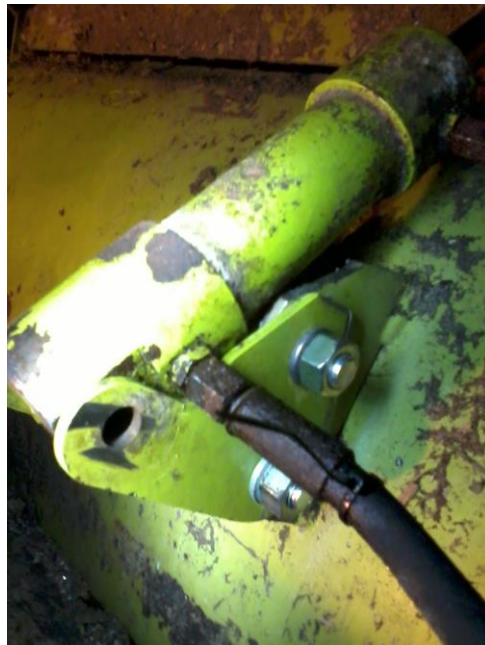
The red lines show where to make additional cuts. These secondary cuts get rid of sharp edges and provide clearance for the hydraulic cylinder.

After all cuts are made, grind or sand off all burrs and sharp edges as seen in [Figure 6](#).



[Figure 6](#)

Check the hydraulic cylinder for clearance after the brackets have been assembled as seen in [Figure 8](#). Some additional cutting or grinding may need to be done. Also check the knife sharpening door to make sure it operates normally. There is enough clearance in the four bolt holes for fine adjustment of the closing position of the knife sharpening door.



[Figure 8](#)

There are four ½" x 1" bolts provided along with lock washers and nuts. Also use provided clevis pin, cotter pin, and flat washer to assemble the brackets as seen in [Figure 7](#). The two loose pieces should be bolted to the outside of the existing bracket on the cutter drum. This allows the hydraulic cylinder clearance for opening and closing.



[Figure 7](#)

Next install the air supply hose. Splice into the main 12mm air line with the "T" provided as seen in [Figure 8](#).



[Figure 8](#)

Attach air filter and ¼ turn valve assembly as seen in [Figure 9](#). There are two 8mm bolts with washers and nuts to attach the air filter assembly.



[Figure 9](#)

Next route the 12 mm air line along the hydraulic lines of the forage harvester on the main drive side of the machine. Feed the line through in the upper corner of the KP compartment and across the front of the transition tower between the accelerator and the spout. Mount the LubriMist as seen in [Figure 10](#) and splice into the 12mm line to supply air to the LubriMist.



[Figure 10](#)

Install air regulator assembly for the KP drive system. Drill two holes and use the Socket Head Cap Screws and flange nuts provided to mount the regulator assembly as seen in [Figure 11](#).



[Figure 11](#)

Connect 12mm supply line and ¼" blue hoses to the regulator assembly as seen in [Figure 12](#).



[Figure 12](#)

Attach the other end of the blue ¼" hoses to the air cylinder as seen in [Figure 13](#). The two hoses can be switched to get the desired position of the actuator.



[Figure 13](#)

Next install the Scherer Sentry System. Find the 8 pin fitting and the 5 pin fitting and install as seen in [Figure 14](#). Make sure the 5 pin "Y" is installed on the interior of the machine.



[Figure 14](#)

15. Use fender washers provided to cover the void of the large grate holes as seen in [Figure](#)



[Figure 15](#)

Next, mount the display and monitor system in the cab of the forage harvester. Mount the display as seen in [Figure 16](#) with provided hardware.



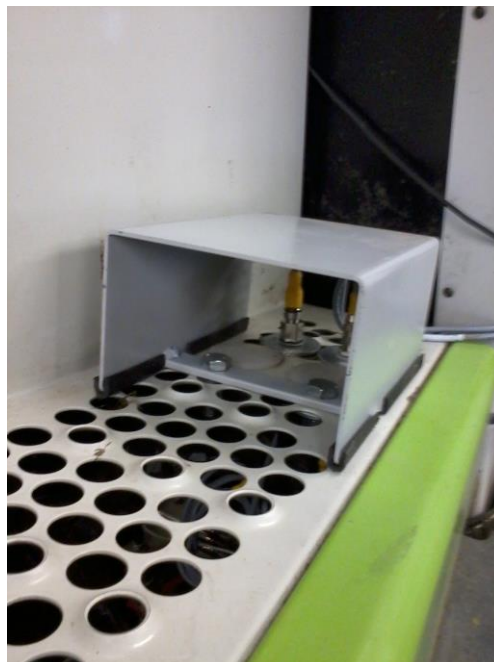
[Figure 16](#)

In the right rear corner of the cab, there is a square tray that can be removed. Under the tray, there is a 12 volt power source to power the Scherer Sentry Monitor system. There is also enough room to place the wiring harness and the XM-500 unit under the tray. Route the monitor cable to the display as desired and route the two grey wires to the 5 pin and 8 pin leads as seen in [Figure 17](#).



[Figure 17](#)

There is a guard to protect the wiring system. Use the guard and hardware provided. Install as seen in [Figure 18](#).



[Figure 18](#)

Finally, install the HDS Processor. Roll it into position and align the pulleys. Pulleys on the processor will need to be torqued to 32ft-lbs once they are aligned with the accelerator pulley and idle pulley. Connect the processor monitoring cable and the air pressure monitor cable.

Start the machine and check for air leaks. Fill the LubriMist with oil and connect the oil line on the processor to the LubriMist.

Once the forage harvester is running and air is available, retract and extend the air cylinder to ensure proper operation.

Install a drive belt and tension it with the pneumatic cylinder. Check for belt clearance in front of the KP and behind the KP.

If there are belt clearance issues, make sure you contact Scherer Design at 800-883-9790.

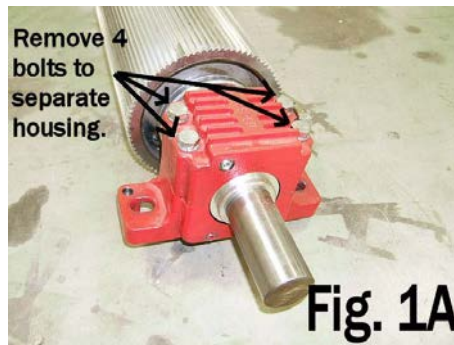
H.D.S. Roll Change Instructions

1. Remove processor from the forage harvester. An air wand will also help keep things clean and free from debris.
2. 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 pulley alignment is critical.
3. Clean the bolt heads of the locking hub and remove the pulley from the roll that needs to be replaced.
4. Loosen the two latch block eye bolts (B1037).
5. Remove the middle hinge bolts (HPST1011.1).
6. Loosen the top hinge bolts (HPST1011.2).
7. Loosen the bottom hinge bolts (HPTB1010).
8. Open processor so the rolls are exposed.
9. Disconnect and remove the temp. senders and the oil line fittings from the bearing castings of the roll to be replaced.
10. Remove bearing housing bolts (TB1008) and (HPTB1010).
11. Remove old roll and clean the bearing casting surface on the frame of the processor from debris.
12. Install new roll and use bearing housing bolts (TB1008) to align the bearing castings and torque to 18 ft/lbs. The drive side bearing casting will be locked in place so align the drive side bearing casting first. The idle side bearing casting will slide in the casting so the idle side bearing casting will be able to be slid into place and align with the bolt holes after the drive side is in place.
13. Install bearing housing bolts (HPTB1010) and torque to 170 ft/lbs.
14. Install oil fittings and oil lines as well at the temp. senders.
15. Close the processor and watch oil lines and wires so they don't get pinched between the two halves of the frame.
16. Install and tighten 1/2" hinge bolts (HPST1011.1 & HPST1011.2) and torque to 70 ft/lbs.
17. Tighten the lower hinge bolt (HPTB1010) and torque to 170 ft/lbs.
18. Tighten latch block eye bolts (B1037) and torque to 65 ft/lbs.

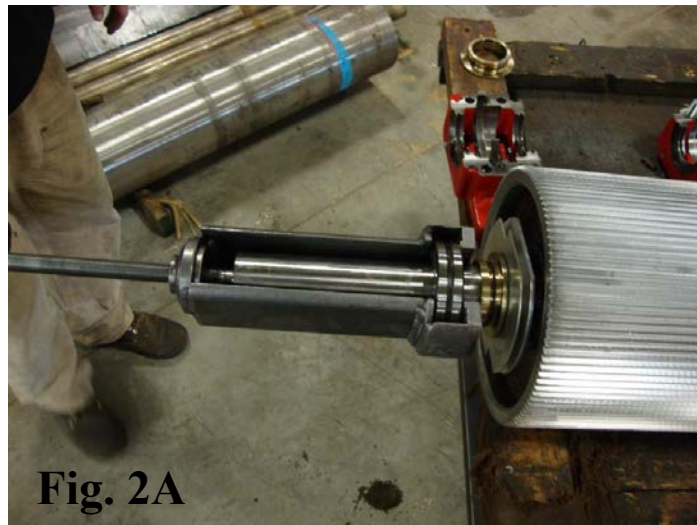
Instructions for H.D.S. Bearing Removal and Installation

Bearing Removal

1. To disassemble housing, in order to remove bearing, remove the 4 bolts on housing as seen in Fig. 1A. Tap on feet of housing with a soft mallet to separate the two halves.
*****Note: Keep the 2 halves of housing together as they are machined in pairs and are numbered accordingly.**



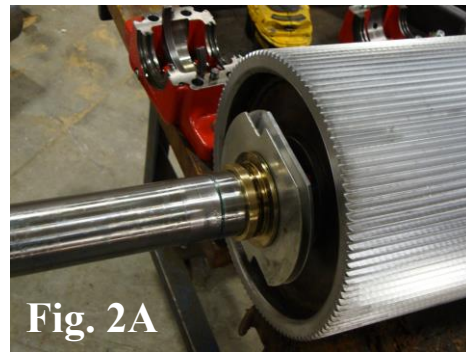
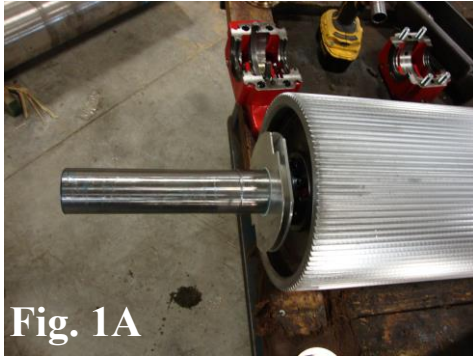
2. To remove bearing, place the bearing removal tool(A1009) over bearing and shaft and remove bearing as shown in Fig. 2A (If there is a snap ring present, be sure to remove it prior to pulling bearing)



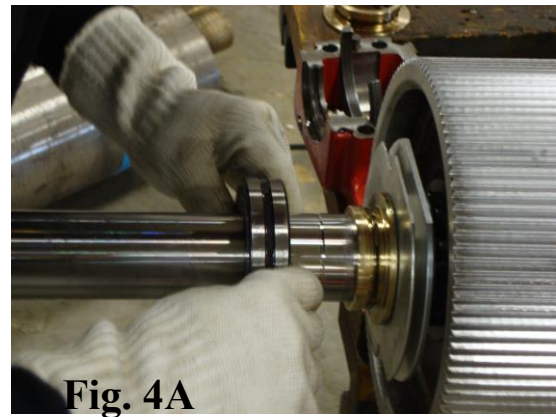
Bearing Installation

Please follow these instructions and SKF Bearing instructions to get the optimum performance from your bearings.

3. Slide on spool seal, hub side in. You can use a small amount of grease on shaft and be sure your spool seal is in good condition (See Fig. 1A).
4. Slide on 2 3/16" bearing housing seal, using grease and making sure 2 "O" rings are in place. (See Fig. 2A).



5. Heat bearing to 230 degrees F. (See Fig. 3A)
6. Slide bearing onto shaft all the way to the relief groove. If the bearing gets jammed, pull the bearing off again with the removal tool and re-heat the bearing. (See Fig. 4A)



Bearing Installation

- Slide on 54 mm bearing housing seal. (Fig. 5A)
- On short end you will not use an outside seal, as the housing end is closed as seen in 9B.

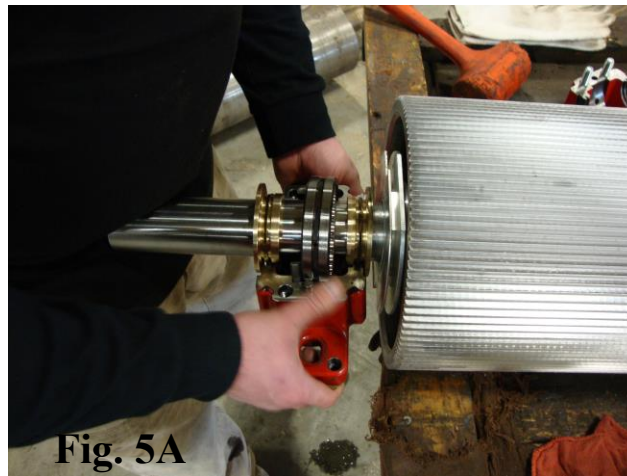


Fig. 5A

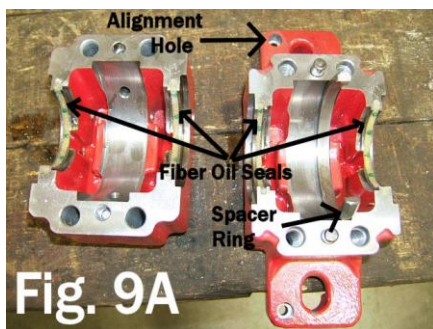


Fig. 9A

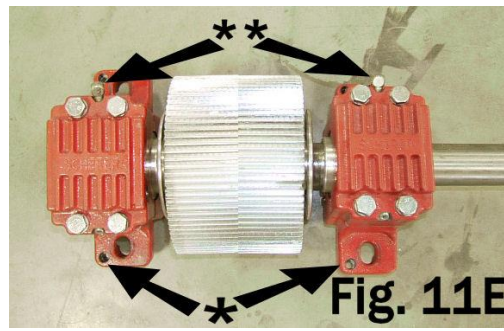
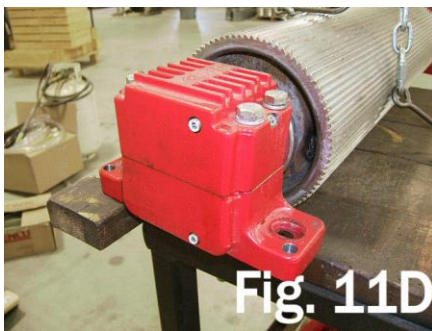
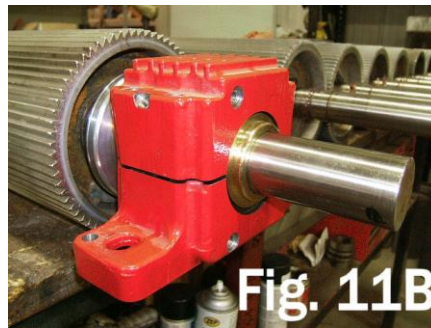
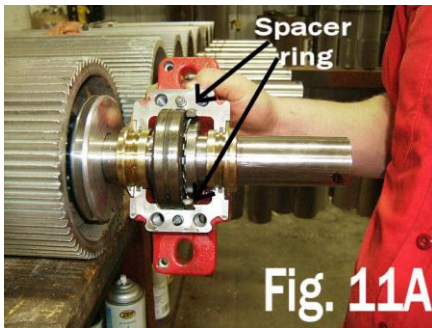


Fig. 9B

- The housings are next. In Drive End Housing, place spacer ring in groove opposite of small alignment hole (See Fig. 9A). In Short End Housing, no spacer ring is required (See Fig. 9B). Install fiber oil seals as shown in Fig. 9A and Fig. 9B. **Install with marked side facing toward roll shaft.** Trim off any excess fiber material with utility knife.

Bearing Installation

10. Bearing housings are machined as matched and numbered pairs. **THE TOP AND BOTTOM OF HOUSING MUST HAVE THE SAME NUMBER.**
11. Install lower housing. Install cap on lower housing by tapping in place with a soft mallet. (See Fig. 11A, 11B & 11E for drive end installation. See Fig. 11C, 11D & 11E for short end install.)



* With Drive End of shaft on right side, be sure alignment hole location corresponds with the location shown

12. Tighten bolts and check for free movement of bearing within the housing. After bolts are tight, on short shaft end, you should be able to slide the entire bearing housing in and out $\frac{3}{8}$ of an inch by hand. **THIS MOVEMENT IS IMPORTANT.**
13. Fill bearing housing with 3 oz. of oil by using a squirt bottle, small funnel, 15 pumps with manual oiler, or whatever method you find suitable. Repeat this with all housings

Common Torque Specs

Bearing Housing Bolt (HPTB1010)	170 ft-lbs	230 N-m
Bearing Housing Bolt (TB1008)	12 ft-lbs	16 N-m
Bearing Housing Bolt (R1230)	75 ft-lbs	100 N-m
Spring Rod (B1003)	220 ft-lbs	300 N-m
Spring Bolt (B1001)	210 ft-lbs	285 N-m
Latch Block Eye Bolt Nut (B1038)	65 ft-lbs	88 N-m
Hinge Bolt (HPT1011)	70 ft-lbs	95 N-m
Idler Pulley Bolt (D1326)	80 ft-lbs	108 N-m
Taper Locking Hub (HPR1001,HPR1016) <small>Page 41</small>	30 ft-lbs	41 N-m

Common H.D. Torque Specs

Bearing Housing Bolt (TB1010)	170 ft-lbs	230 N-m
Bearing Housing Bolt (TB1008)	12 ft-lbs	16 N-m
Bearing Housing Bolt (R1230)	75 ft-lbs	100 N-m
Spring Rod (B1003)	220 ft-lbs	300 N-m
Spring Bolt (B1001)	210 ft-lbs	285 N-m
Latch Block Eye Bolt Nut (B1038)	65 ft-lbs	88 N-m
Hinge Bolt (B1048)	50 ft-lbs	68 N-m
Idler Pulley Bolt (D1326)	80 ft-lbs	108 N-m

Maintenance Intervals

1. After your Scherer Processor is installed

- Set your roll gap (See roll gap adjustment on page 5)
 - 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 desired position. Check pulley alignment and make sure locking hubs are firmly in place.
 - Check air tension on drive belt and set air pressure according to specific model.
 - 6-groove drive: 80 to 85psi
 - 7-groove drive: 90 to 95psi

2. 50 Hours

- Grease adjustment bolt zerks on processor (2 pumps)
- Grease lower idler bearings on drive system (D1338) and tensioner pulley (D1309) 2 pumps each.
- Visually inspect for damage to springs, bolts, shafts, pulleys, wiring, oil lines, etc.

3. 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, this could be an indication of a bearing failure or other unknown problems. There is also a possibility that the rolls just need to be adjusted.

4. End of Season (VERY IMPORTANT)

-End of season maintenance will help reduce bearing failures and greatly reduce down time 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 castings 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 castings 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.

-If there is no contamination, simply remove the old oil and replace the felt seals (HPR1009).

-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.

-Make sure all bearings get 3 oz. of fresh Chevron Cetus HyperSyn ISO 32 oil after they have been inspected or changed.

-Inspect spool seal (HPSR1011) for wear.

-Coalescing Filter

Inspect and/or replace filter element (HPD1411.1) after each season if the machine has one.

TROUBLESHOOTING THE SCHERER SENTRY™

Issue	Cause	Solution
Some bearing temps are reading NO DATA	Wire harness has a loose connection	Make sure all threaded connections (inside firewall, outside firewall, at the processor, and after the splitter) are finger tight.
Low air pressure alarm will not turn off	Too high of setting on air sensor or low system air pressure	Check system air pressure. With the actuator cylinder RETRACTED adjust the belt tensioning pressure up to 120 psi. If there is 120 PSI available the sensor needs adjustment, contact Scherer Design. A temporary fix is to unplug the sensor.
Running a new processor and the bearing temps are above normal operating temp	Bearings are breaking in	New processor bearings need to “break-in”. Normal break-in temps may be up to 200°F. Within 30-40 hours bearing temps should return to normal operating range (120°-175°F).
Some bearing temps are reading NO DATA	Temp sender may be faulty or temp is above 275°	Replace temp sender if faulty.
Display reads “CAN BUS FAILURE”	Bad harness connection between display and XM 500 control module	The XM 500 is mounted in the cabinet under the arm rest. Make sure both plugs are firmly seated in the module. Next, access the back of the display and ensure the plug in firmly seated. If not resolved contact Scherer Design.
Display reads “0.00 H”	Display is set up as “1-up” display	Press ‘Menu’, scroll to highlight ‘GO TO 4-UP DISPLAY’, press ‘Enter’
Display reads in Degrees F	Menu is set to English units	Press ‘Menu’, scroll down to highlight ‘SELECT UNITS’, press ‘Enter’, scroll to highlight your unit of measure, press ‘Enter’, press ‘Menu’ twice to return to 4-up display.

LUBRIMIST INSTALL



- Place LubriMist oiler on the left side of the kernel processor compartment towards the front of the machine as shown.
 - Be sure to place the oiler far enough forward so it is out of the way so the large guard over the feed roll drive can still be removed.
 - This position of the oiler also allows for quick removal of the kernel processor through the top of the chopper.
- Drill four holes to mount the LubriMist to the wall. **BE CAREFUL AND CONSCIOUS OF STEEL HYDRAULIC LINES BEHIND THIS WALL.**

- Splice into the air line that feeds the air cylinder for the kernel processor drive belt. Use the “T” and air line provided.
- Connect oil hose on the kernel processor to the LubriMist.
- Remove plug from the front of the LubriMist reservoir and fill with oil.
- **DO NOT OVERFILL!!!!**
- Overfilling will restrict the mist head and the system will not work properly.
- Start the forage harvester engine and allow the air system to charge.
- **If the system is working properly, you will see what appears to be smoke or fog coming from the bearing housings and the bearing slides.**
- Set the LubriMist regulator to 35 psi.

The regulator also has a water separator. This automatically drains itself periodically. The regulator will freeze and break if it is not drained at the end of season.

INSTALLATION AND REMOVAL INSTRUCTIONS FOR B-LOC™ LOCKING ASSEMBLY SERIES B106 & B103

Thank you for purchasing a **B-LOC™** Keyless Frictional Locking Device. **B-LOC™** keyless connectors provide a high capacity, zero-backlash shaft/hub or coupling connection by means of a mechanical interference fit. Please follow these **INSTALLATION AND REMOVAL INSTRUCTIONS** carefully to ensure proper performance of this **B-LOC™** unit.

ⓘ WARNING ⓘ

When installing or removing **B-LOC™** products, always adhere to the following safety standards:

1. Be sure that all power switches are locked out before installing or removing **B-LOC™** products.
2. Eye protection is required when installing or removing **B-LOC™** products - please wear safety glasses and protective clothing.

INSTALLATION

(Refer to Figure 1)

B-LOC™ Series B103 and B106 Locking Assemblies are supplied lightly oiled and ready for installation. They are self-centering and fit straight-thru hub bores. Note that Series B103 units permit axial hub movement during installation. In contrast, the extended flange on Series B106 units results in an axially fixed hub position during assembly. When reinstalling a used unit, make sure that all slits are aligned. The frictional torque capacity of these devices is based on a coefficient of friction of 0.12 for lightly oiled screw, taper, shaft and bore contact areas.

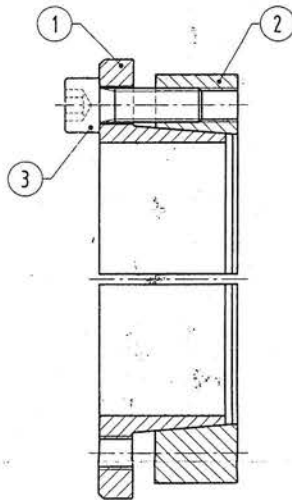


Figure 1

Therefore, it is important **not** to use Molybdenum Disulfide (e.g., Molykote, Never-Seeze or similar lubricants) in any Locking Assembly installation.

1. Make sure that locking screw, taper, shaft and bore contact areas are clean and lightly oiled and that all collar slits are aligned.
2. Loosen all locking screws by a minimum of four (4) turns and transfer at least three (3) screws into push-off threads in order to keep Parts 1 and 2 separated during assembly (see Figure 2).
3. After inserting Locking Assembly into hub bore, relocate locking screws used for separating Parts 1 and 2.
4. Hand tighten locking screws and confirm that collar Item 1 is parallel and in full contact with face of part to be attached to shaft.
5. Use torque wrench and set it approximately 5% higher than specified tightening torque M_A . Tighten locking screws in either a clockwise or counter clockwise sequence (it is not necessary to tighten in a diametrically opposite pattern), using only 1/4 (i.e., 90°) turns for several passes until 1/4 turns can no longer be achieved.
6. Continue to apply overtorque for 1 to 2 more passes. This is required to compensate for a system-related relaxation of locking screws since tightening of a given screw will always relax adjacent screws. Without overtightening, an infinite number of passes would be needed to reach specified tightening torque.

7. Reset torque wrench to specified torque (M_A) and check all locking screws. No screw should turn at this point, otherwise repeat Step 6 for 1 or 2 more passes. It is not necessary to re-check tightening torque after equipment has been in operation.

NOTE: The torque capacity of these units can be increased by approximately 25% by thoroughly cleaning the shaft and Locking Assembly bore of any lubricant. In applications subject to extreme corrosion, the slits in all collars should be sealed with a suitable caulking compound or equivalent. Likewise, push-off threads should be protected from corrosion.

INSTALLATION OF B-LOC™ LOCKING ASSEMBLIES OVER SHAFT KEYWAYS

The Locking Assembly should be positioned so that slits in Locking Assembly collars that contact the shaft are located approximately opposite the keyway. In addition, a locking screw should be centered directly over the keyway.

When tightening locking screws, it is important to follow the installation procedure outlined above, which specifies equal 1/4 turns of each locking screw. Failure to follow these instructions could result in excessive tightening of the screw over the keyway, possibly causing permanent deformation of the Locking Assembly collars. Even after 1/4 turns can no longer be achieved, it is important to continue to use equal turning angles for every screw until the specified tightening torque is reached.

REMOVAL

(Refer to Figure 2)

Prior to initiating the following removal procedure, check to ensure that no torque or thrust loads are acting on the Locking Assembly, shaft or any mounted components.

IMPORTANT! Make sure ends of locking screws used for removal are ground flat and are slightly chamfered to prevent damage to screw and collar threads during push-off.

1. Check to ensure that axial movement of collars - necessary for release of connection - is not restricted. Likewise, ensure that push-off threads are in good condition.
2. Relax all locking screws by approx. four (4) complete turns and transfer screws to all push-off threads located in flange of collar Item 1.
3. Release connection by evenly tightening all push-off screws (not exceeding 1/4 turns) in a diametrically opposite sequence.

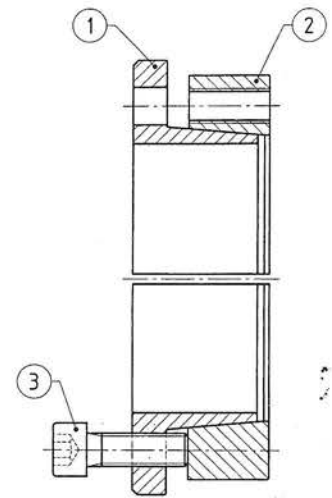


Figure 2

LOCKING SCREW SIZES AND SPECIFIED TIGHTENING TORQUE M_A

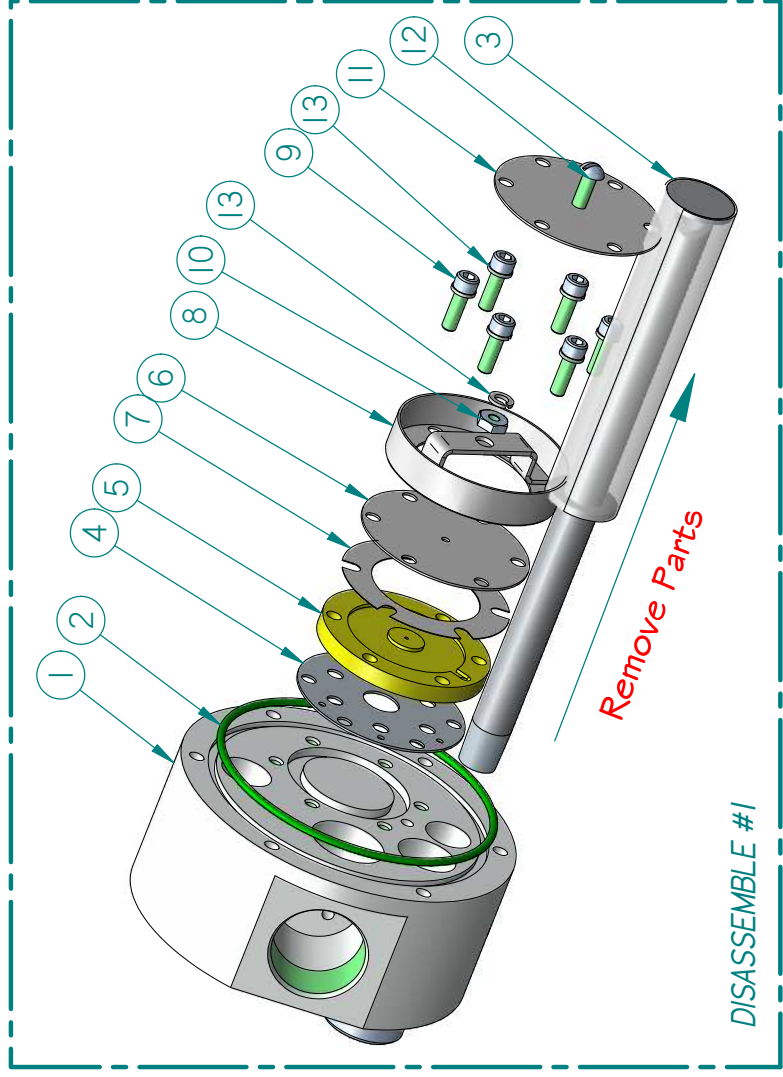
Metric Series	Inch Series	Tightening Torque M_A (ft-lbs)		Hex Key Size (mm)
		B106	B103	
20 x 47 to 40 x 65	3/4 to 1-1/2	12	10	M 6 5
45 x 75 to 65 x 95	1-5/8 to 2-9/16	30	25	M 8 6
70 x 110 to 95 x 135	2-11/16 to 3-3/4	60	50	M 10 8
100 x 145 to 120 x 165	3-15/16 to 4-3/4	105	90	M 12 10
130 x 180 to 200 x 260	4-15/16 to 8	166	135	M 14 12
220 x 285 to 260 x 325		257	219	M 16 14
280 x 355 to 300 x 375		350	290	M 18 14
320 x 405 to 340 x 425		500	420	M 20 17
360 x 455 to 400 x 495		675	560	M 22 17

For technical assistance, please call 1-800-865-7756

B-LOC Corporation 26 Gilbert Street Monroe, NY 10950

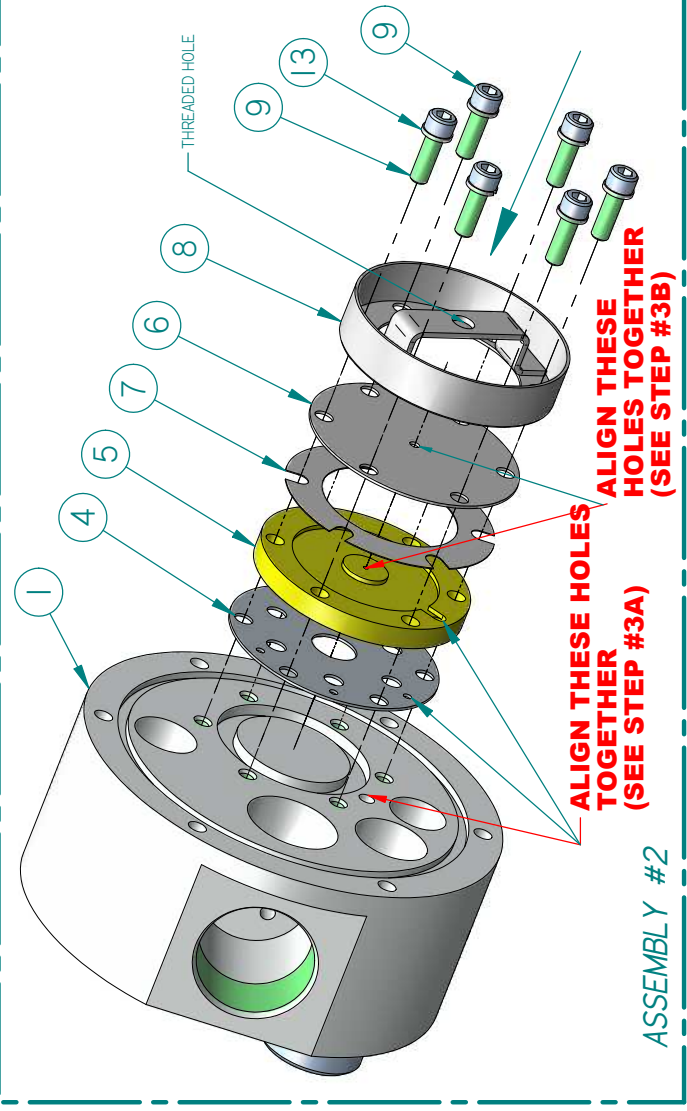


A

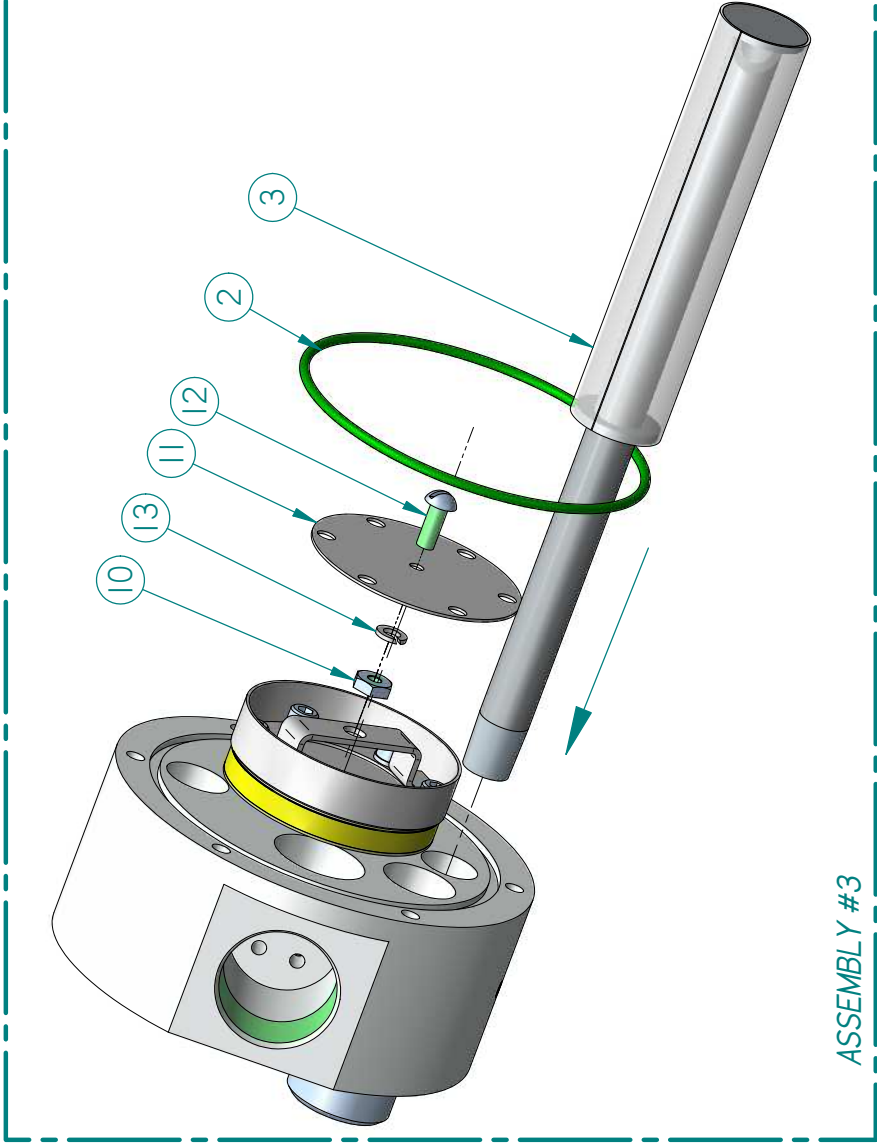


DISASSEMBLE #1

Item Num.	Part	Description	QTY
1	Machine, Mist Head - Aluminum		1
2	77800075	TETRASEAL, MIST HEAD GASKET	1
3		SIPHON TUBE WELDMENT - SHORT	1
4	77500235	GASKET, VORTEX PLATE	1
5		VORTEX, 10-40 B.I. - MIST HEAD	1
6		OIL PLATE; 10 - 40 B.I. MIST HEAD	1
7		SPACER, OIL PLATE - 40 B.I. MIST HEAD	1
8		BAFFLE ASSEMBLY, MIST HEAD ALL B.I.	1
9		SCREW, SOC HD CAP #10-32 x 5/8" ,ANSI B18.3, SS-304	6
10		NUT, HEX #10-24, SS-304	1
11		IMPINGEMENT PLATE; 10 - 40 B.I. MIST HEAD	1
12		SCREW, MACHINE SLOTTED RD HD #10-24 x 1/2" , SS	1
13		Washer, Helical spring lock washer regular No.10	7



ASSEMBLY #2

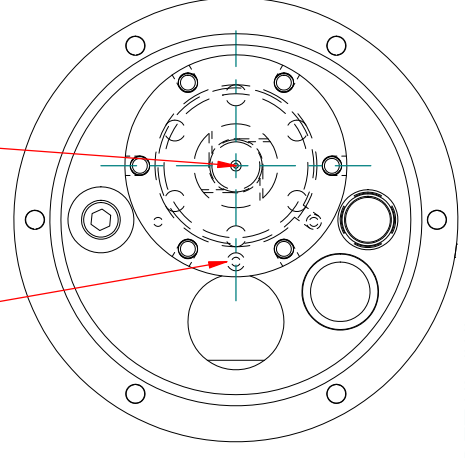


ASSEMBLY #3

REVISIONS					
REV.	DESCRIPTION	CHG	APP	DATE	ECO#
1	MODIFIED CONNECTIONS SIZE	DH	CWE	09/12/2013	N/A

ALIGN OIL PASSAGE HOLES (STEP 3A)

ALIGN CENTER HOLES (STEP 3B)



DETAIL "A"

Cleaning Instruction:

1. After the Mist Head assembly has been removed from the Oil Mist reservoir, disassemble the parts as show in "Disassemble #1".
2. Clean all parts in a safe clean Solvent, and air dry.
- 3a. **Critical Assembly Feature.** Reassemble the parts as show in "Assembly #2", when installing the Vortex plate gasket (item#4), ensure that the oil passage between the machined Mist head (item #1) and the Vortex (item #5) is not blocked by vortex gasket (item #4).
- 3b. **Critical Assembly Feature.** Ensure that the center holes of the Vortex (item #5) and oil plates (item #6) are axially aligned by viewing them through the threaded hole of Baffle assembly (item #8).
4. Once it is aligned, tightening torque (in-lbs) of the 6 screw (item #9) is 22 in-lb.
5. Install the Impingement plate (item #11) as show in "Assembly #3".
6. Install item mist Head gasket #2 when installing the Mist Head onto the oil reservoir.

B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE		ENGINEERING		DATE	
DECIMALS	+/-0.0	DRAWN	DH	09/12/13	
FRACTIONS	+/-1/8"	CHKD	CWE	09/12/13	
ANGULAR	+/-1°	APPRV	CWE	09/12/13	
MATERIALS: ALUM.					

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TITLE
GASKET KIT ASSEMBLY DRAWING
OIL MIST GENERATOR - MIST HEAD ASSEMBLY
MIST HEAD - 40 B.I. - SHORT SUCTION TUBE

SIZE	DWG NO.	REV
B	77770040-GASKET KIT - A	I
SCALE	N/A	SHEET
	www.colfaxcorp.com/tlm	I OF I