

NOTES: 1) THIS DWG. REPRESENTS A SUB-GROUP OF COMPONENTS WITHIN THE SEAKEEPER 16 AND 18 BRAKE SYSTEM BILL OF MATERIAL AND DOES NOT NECESSARILY REPRESENT THE ACTUAL ASSEMBLY PROCEDURE. THIS DWG DOES PROVIDE TECHNICAL INFORMATION REGARDING COMPONENT LOCATION, SUGGESTED HOSE ROUTING, AND FASTENER APPLICATION.

2) WHEN FILLING MANIFOLD WITH OIL, CHARGE TO A STATIC PRESSURE OF 350 PSI.

3) THE 2L ACCUMULATOR, #50300 IS TO BE PRE-CHARGED WITH NITROGEN TO 30 PSI ± 3 PSI

4) BEFORE INSTALLING ITEM 1 TO CYLINDER ROD, CLEAN THREADS ON BOTH COMPONENTS, FREE OF OIL AND DEBRIS. APPLY BLUE THREADLOCKER DURING ASSEMBLY OF THREADS.

5) HOSE CONNECTION PORTS ARE STAMPED ON EACH SIDE OF THE MANIFOLD. SEE TABLE, PORTS UNLESS OTHERWISE SPECIFIED, ALL FITTINGS AND TORQUE SPECIFICATION WILL BE INCLUDED IN THE MANIFOLD ASSEMBLY, #50298-SP

6) THE COLOR STANDARD FOR THE CABLE TIE HOSE MARKERS ARE AS FOLLOWS:

**BLUE** - MANIFOLD PORT ULB LEFT SIDE, URB RIGHT SIDE.  
**YELLOW** - MANIFOLD PORT ULR LEFT SIDE, URR RIGHT SIDE.  
**RED** - MANIFOLD PORT LLB LEFT SIDE, LRB RIGHT SIDE.  
**GREEN** - MANIFOLD PORT LLR LEFT SIDE, LRR RIGHT SIDE.

NOTE: CHAMFER SIDE OF THRUST WASHER FACES INSIDE TOWARDS CYLINDER

DETAIL C  
SCALE 1 : 1

APPLY THIN FILM OF BLACK MOLY GREASE TO INSIDE SURFACE OF BEARINGS PRIOR TO INSERTING CYLINDER TRUNNION SHAFT OR APPLY TO CYLINDER TRUNNION SHAFT DIRECTLY.  
**DO NOT REAM BEARINGS IF TIGHT FIT. INSPECT CYLINDER SHAFT FOR OVERSIZE CONDITION.**  
TRUNNION SHAFT DIAMETER SHOULD MEASURE 1.374/1.375

SECTION B-B  
SCALE 1 : 3

SECTION A-A  
SCALE 1.5 : 1

PORTS				
NAME	SIZE	ABBREVIATION	CABLE TIE COLOR	SIDE/LOCATION
LOWER RIGHT BLIND	SAE #8	LRB	RED	SOLENOID 1.1 RIGHT SIDE
UPPER RIGHT BLIND	SAE #8	URB	BLUE	
UPPER RIGHT ROD	SAE #8	URR	YELLOW	
LOWER RIGHT ROD	SAE #8	LRR	GREEN	
LOWER LEFT BLIND	SAE #8	LLB	RED	SOLENOID 1.2 LEFT SIDE
UPPER LEFT BLIND	SAE #8	ULB	BLUE	
UPPER LEFT ROD	SAE #8	ULR	YELLOW	
LOWER LEFT ROD	SAE #8	LLR	GREEN	
CHARGE PORT	SAE #4	CHG	---	---
ACCUMULATOR	SAE #8	ACC	---	---
PRESSURE SWITCH	SAE #4	PS	---	---
COOL 1-2	NPT 3/8"	C1 & C2	---	---

TOP CYL. REAR PORT,  
URB MANIFOLD PORT

BOTTOM CYL. REAR PORT,  
LRB MANIFOLD PORT

TOP VIEW

BACK VIEW

COVER BOLTS GO HERE

BOTTOM CYL. FRONT PORT,  
LLR MANIFOLD PORT

TOP CYL. FRONT PORT,  
ULR MANIFOLD PORT

- APPLY SILI-THANE 803 MARINE SEALANT FLAT WASHERS  
- APPLY THREADLOCKER TO SCREW THREADS  
- TORQUE EQUALLY TO 120 IN-LBS.

APPLY THREADLOCKER,  
LOC-TITE #273, BLUE TO  
SCREW THREADS. NO SEALANT

FRONT-ISO VIEW

USE STICK-ON COVERS OVER  
CYLINDER BRACE HOLES TO PROTECT  
TRUNNION SHAFT FROM CORROSION.

USE STICK-ON COVERS OVER  
GIMBAL SHAFT HOLES TO PROTECT  
SNAP RING FROM CORROSION.

SEE SHEET 2 OF 2 FOR TORQUE  
SPECIFICATION

38	70054	THREADLOCKER, LOC-TITE #243, BLUE	---	AR	
37	60267	HEX NUT, NYLOK M8-1.2 SS	316 SS	2	
36	60247	HEX HD CAP SCREW M8-1.25 X 40mm LG 316SS	316SS	2	
35	60246	HEX HD CAP SCREW M8-1.25 X 20mm LG. 316SS	316SS	6	
34	60156	FLAT WASHER, 3/4, DELRIN	ACETAL PLASTIC	8	
33	60121	FLAT WASHER, .86" OD X .26" ID X .06" THK	18-8 SS	4	
32	60003	WASHER, FLAT TYPE B NARROW 0.31	316 SS	10	
31	50300	SEAKEEPER 18 ACCUMULATOR, 2L	---	1	
30	50299	SEAKEEPER 18 BRAKE PROPORTIONAL VALVE, ATOS D05, S5 SPOOL, 24VDC WITH DEUTSCH CONNECTOR ROTATED 90DEG TOWARDS 'T' PORTS	---	1	
29	50298	SEAKEEPER 18 BRAKE MANIFOLD, BUCHER HYDRAULICS	N/A	1	
28	50178	SEAKEEPER 16 LEFT SIDE UPPER-LOWER BRAKE CYLINDER, ROUND BODY	---	2	
27	50177	SEAKEEPER 16 RIGHT SIDE UPPER-LOWER BRAKE CYLINDER, ROUND BODY	---	2	
26	50150	SEAKEEPER 16 BRAKE HOSE ASSY, LEFT LOWER CYLINDER EXTEND	---	1	21-1/2"
25	50149	SEAKEEPER 16 BRAKE HOSE ASSY, LEFT UPPER CYLINDER RETRACT	---	2	22-1/2"
24	50148	SEAKEEPER 16 BRAKE HOSE ASSY, LEFT UPPER CYLINDER EXTEND	---	1	22-1/4"
23	50147	SEAKEEPER 16 BRAKE HOSE ASSY, RIGHT LOWER CYLINDER RETRACT	---	2	23-1/4"
22	50146	SEAKEEPER 16 BRAKE HOSE ASSY, RIGHT LOWER CYLINDER EXTEND	---	1	19-3/4"
21	50144	SEAKEEPER 16 BRAKE HOSE ASSY, RIGHT UPPER CYLINDER EXTEND	---	1	18-3/8"
20	50106	ADAPTOR, -8 SAEORB TO -8 JIC M, 90 DEG	ZINC PLTD STEEL	6	
19	50088	ADAPTER, MALE, 45 DEGREE ELBOW	ZINC PLTD STL	2	
18	40522	PLAIN BEARING, BUNTING 1.38 ID X 1.63 OD X 1.0 LG.	BNW COMPOSITE	8	
13	40413	VHB TAPE, 2" OD X 1-3/8" ID X .025 THK.	ARCACRYLIC FOAM	8	
12	40412	COVER, 2" OD X .025 THK, BLACK	POLYETHYLENE	8	
11	40250	SILI-THANE 803 MARINE SEALANT	---	AR	
10	40244	VHB TAPE, 1.38" DIA, .025 THK	ADHESIVE FILM	4	
9	40243	COVER, 1-3/8" DIA. X .06 THK, BLACK	POLYETHYLENE	4	
8	40101	RETAINING RING, INTERNAL, .875	SS	4	
7	12159	SEAKEEPER 18 BRAKE MANIFOLD BRACKET, FRONT	.18 ALUM. SHEET	1	
6	12158	SEAKEEPER 18 BRAKE MANIFOLD BRACKET, REAR	.18 ALUM. SHEET	1	
5	11749	TRUNNION THRUST WASHER, 1.38 X 2.5 X .18	NYLON	8	
4	10657	PTFE BUSHING .875 OD X .750 ID X .63 LG	COMPOSITE	8	
3	10656	PTFE BUSHING .875 OD X .750 ID X 1.00 LG	COMPOSITE	4	
2	10306	BRAKE CRANK PIN	17-4PH	4	
1	10297	BRAKE CYLINDER ROD-END	1018 STEEL	4	
ITEM NO.	PART NO.	DESCRIPTION	MATERIAL	QTY.	NOTE

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NAME:  
SEAKEEPER 16/18 HYDRAULIC  
BRAKE SUB-SYSTEM SERVICE  
REFERENCE

DWG NUMBER  
**12222-SP**

REV. NO. SHEET NO.  
**2** 1 OF 2

WEIGHT - LBS : ---

MATERIAL: ---

DRAWN: WMG 15 OCT 2019

ENG APPR: WHK 18 NOV 2019

PROD APPR: ---

BRAKE SUB-SYSTEM TORQUE SPECS. FOR  
 THE SEAKEEPER 16 AND 18

