

***COOK/CHILL
100 GAL. HORIZONTAL AGITATOR
TILTING MIXER KETTLE***

***STANDARD REPLACEMENT
PARTS MANUAL, 208 VOLT***

***STANDARD FEATURES
MODEL# HA-MKDL-100-CC-T***

By:

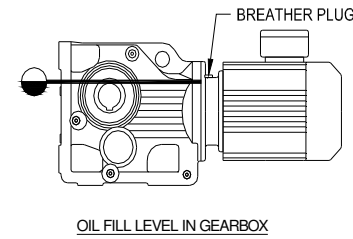
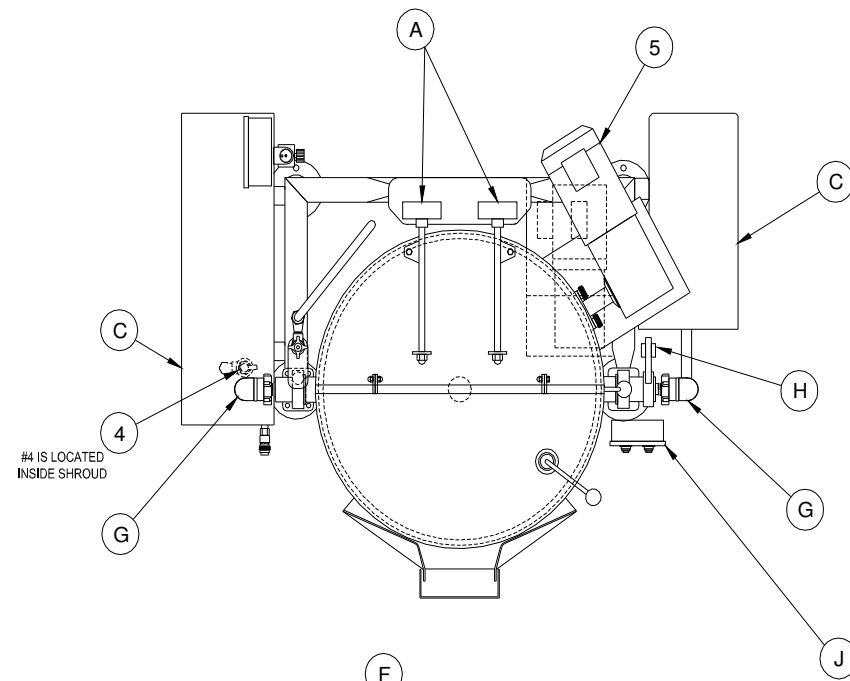
***Cleveland Range, LLC
A Division of the Manitowoc Company***

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**REPLACEMENT PARTS DRAWINGS:
 Basic Tilting Kettle**

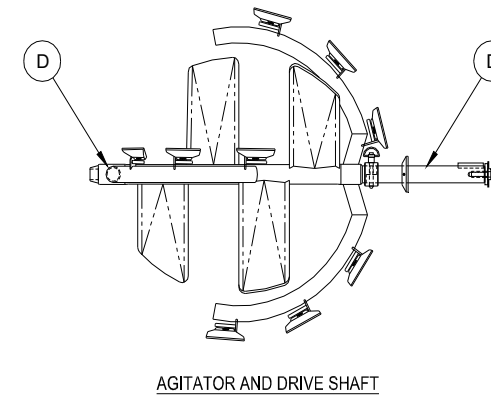
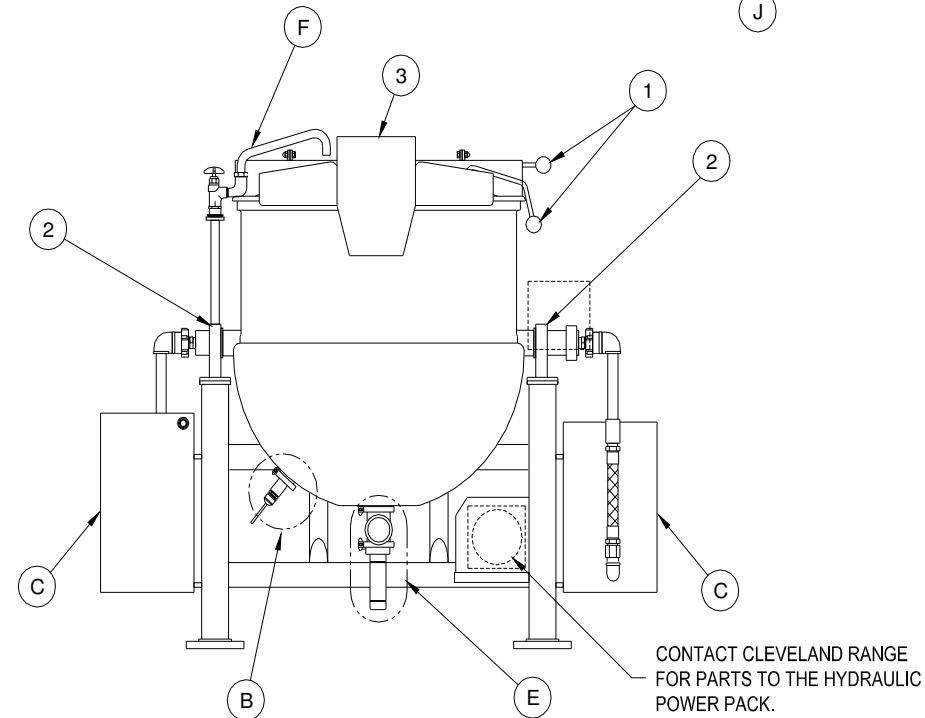


REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	MSP02-000001	RED BALL
2	BGZ03-5000001	BEARING, PILLOW BLOCK (SEE NOTE)
3	1FS00-0000022	POURING DEFLECTOR
4	VAB01-0000007	100 PSI SAFETY VALVE
5	DUH03-0000008	3 HP DRIVE UNIT 208 VOLTS
-	DU903-0000010	ELECTRIC MOTOR 208 VOLTS
* -	DU902-0000027	GEAR BOX

* **REPLACEMENT GEAR BOXES COME WITHOUT OIL. CUSTOMER MUST SUPPLY OIL FOR THE GEAR BOX. (ISO 68 FOOD GRADE OIL OR EQUIV)**

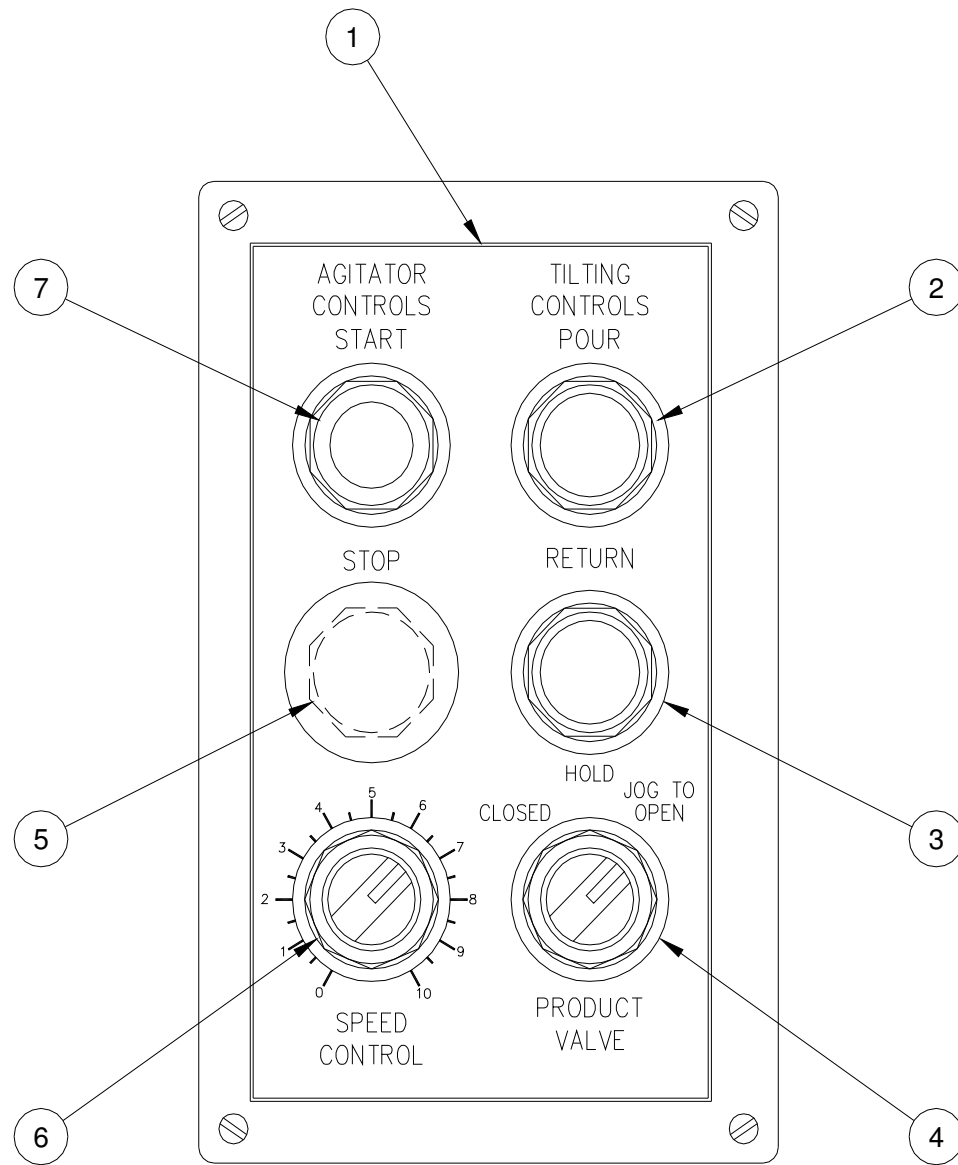
DRAWINGS LIST		
ITEM	DRAWING NO.	DESCRIPTION
A	B600039	HINGE ACTUATOR PARTS LIST
B	B600040	TEMPERATURE SENSOR PARTS LIST
C	B600046	COOK/CHILL PLUMBING PARTS LIST
D	B600044	AGITATOR & DRIVE SHAFT PARTS LIST
E	B600024	OUTLET VALVE PARTS LIST
F	B600045	POTABLE WATER LINE PARTS LIST
G	B600038	BARCO JOINT PARTS LIST
H	B600050	HYD. TILTING CYLINDER PARTS LIST
J	B600049	KETTLE MNTD. BOX PARTS LIST

NOTE:
 1. ITEM #2 THE PILLOW BLOCK BEARING MUST BE PRESSED OUT OF THE EXISTING PILLOW BLOCK AND THE REPLACEMENT BEARING NEEDS TO BE PRESSED IN.



IN ORDER TO MAINTAIN A HIGH QUALITY OF SERVICE:
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 SITE NAME/LOCATION, UNIT SERIAL NUMBER AND UNIT VOLTAGE.
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 3. **OBsolete ITEMS ARE AVAILABLE AS REPLACEMENT PARTS BUT ARE NO LONGER USED IN CURRENT PRODUCTION MODELS.**

Kettle Mounted Control Box



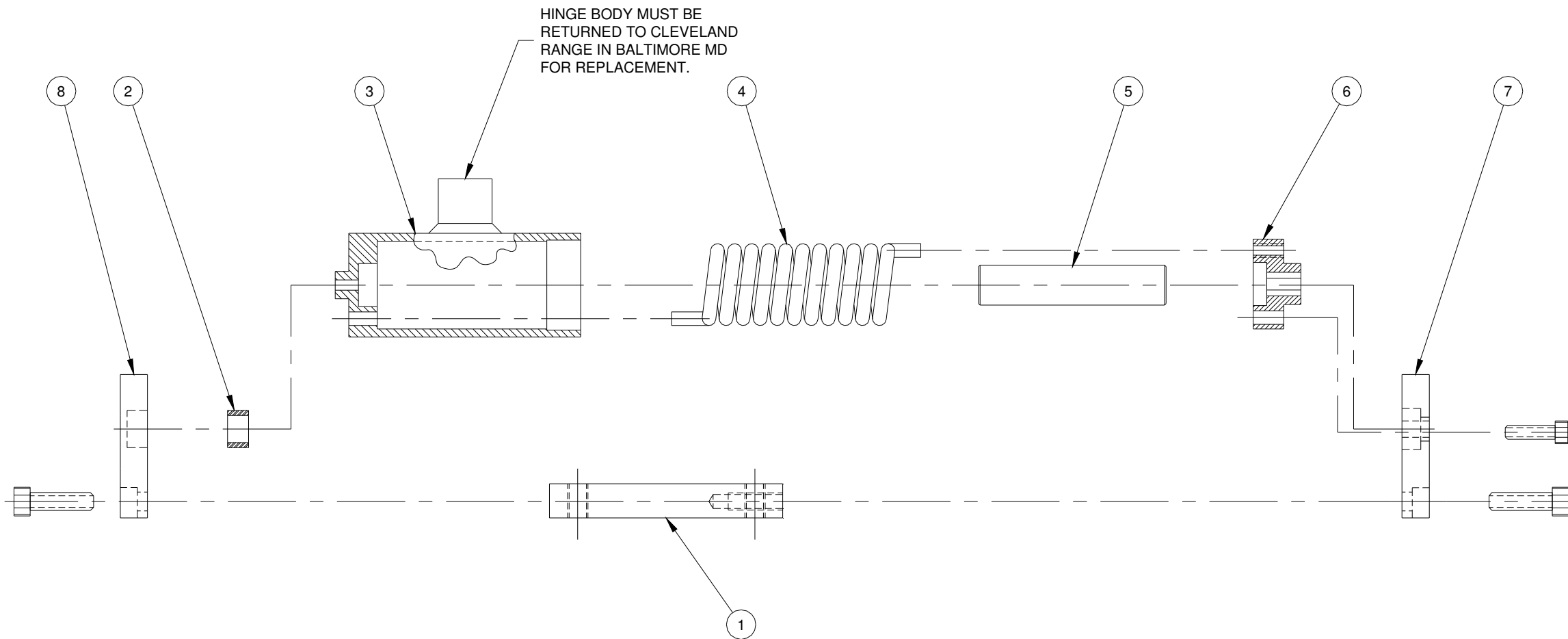
6 BUTTON BOX

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	NPYELLOW00259	6 HOLE NAMEPLATE
2	2EP01-25A0001	YELLOW PUSH BUTTON
3	2EP01-25A0002	BLUE PUSH BUTTON
4	2EP01-25A0022	3 POSITION TURN SWITCH
5	2EP01-25A0014	RED MUSHROOM PUSH BUTTON
6	ELP01-2500002	SPEED CONTROL DIAL
7	2EP01-25A0015	GREEN LIGHTED PUSH BUTTON WITH GUARD
-	ELV00-2400001	REPLACEMENT LIGHT BULB
-	EL955-5500037	REPLACEMENT GUARD

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Cover Actuator

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	FPHINGES00002	BASE PLATE
2	BGZ00-0000001	BEARING
3	FPHINGES00001	BODY (SEE NOTE)
4	MSSPRING00004	SPRING
5	FPHINGES00003	CENTERING ROD
6	BGZ00-0000002	LOCKING HUB & BEARING
7	FPHINGES00004	END PLATE
8	FPHINGES00006	END PLATE



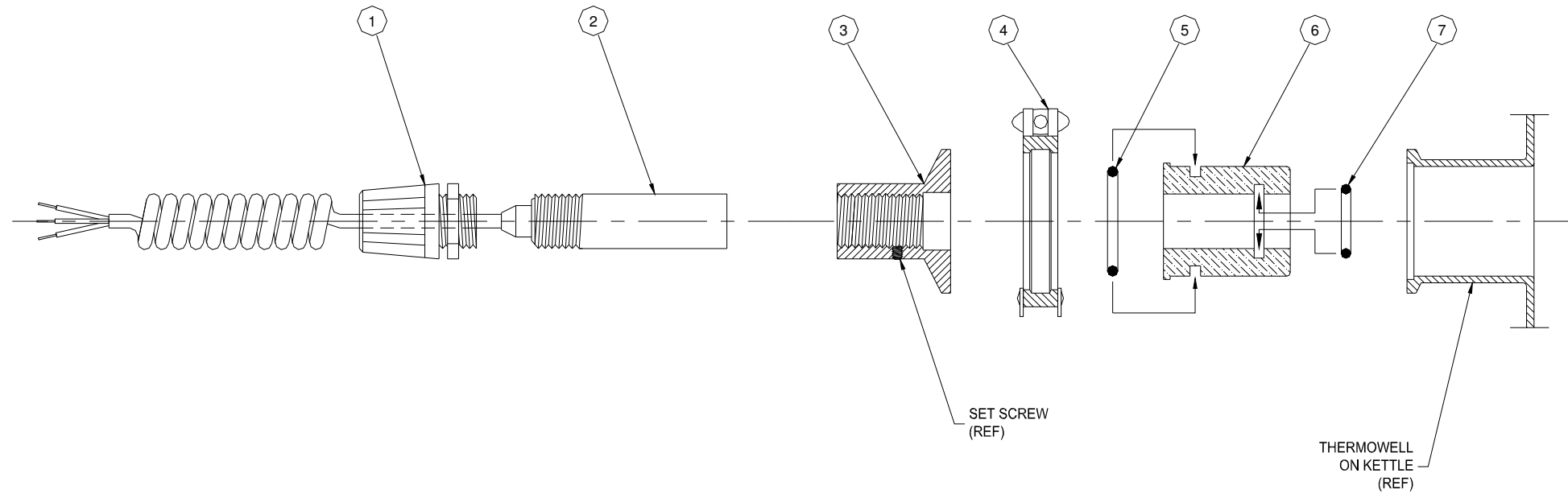
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Drawing #: B600039

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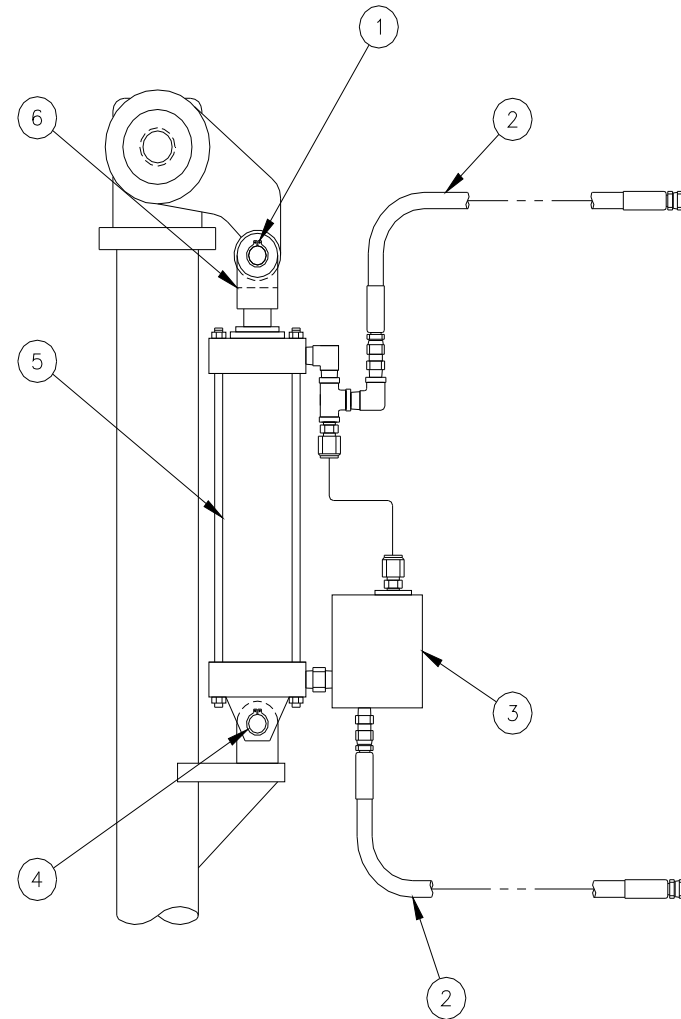
Temperature Sensor

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	ELP00-000050	WIRE RESTRAINT
2	TSENSOR00007	TEMPERATURE SENSOR W/COILED CABLE
3	TSENSOR00001	CAP W/SST SET SCREW
4	DFS02-000002	CLAMP
5	SE3ORING00004	O-RING
6	SRSENSOR00001	SEAL RETAINER
7	SE3ORING00005	O-RING



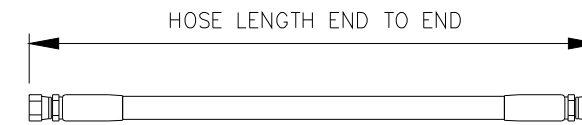
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Hydraulic Tilt Cylinder



ACTUAL FITTING CONFIGURATION MAY VARY SLIGHTLY.

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	HWS00-7500013	TOP PIN WITH SNAP RINGS
* 2	1YD00-3700001	HYDRAULIC HOSE ASSY.
3	HY8VA-0000007	OVER CENTER VALVE
4	HWS00-5000009	BOTTOM PIN WITH SNAP RINGS
5	HYS02-0000003	HYDRAULIC TILTING CYLINDER
6	HYC00-0000013	CLEVIS



* CUSTOMER TO SPECIFY HOSE ASSEMBLY LENGTH.

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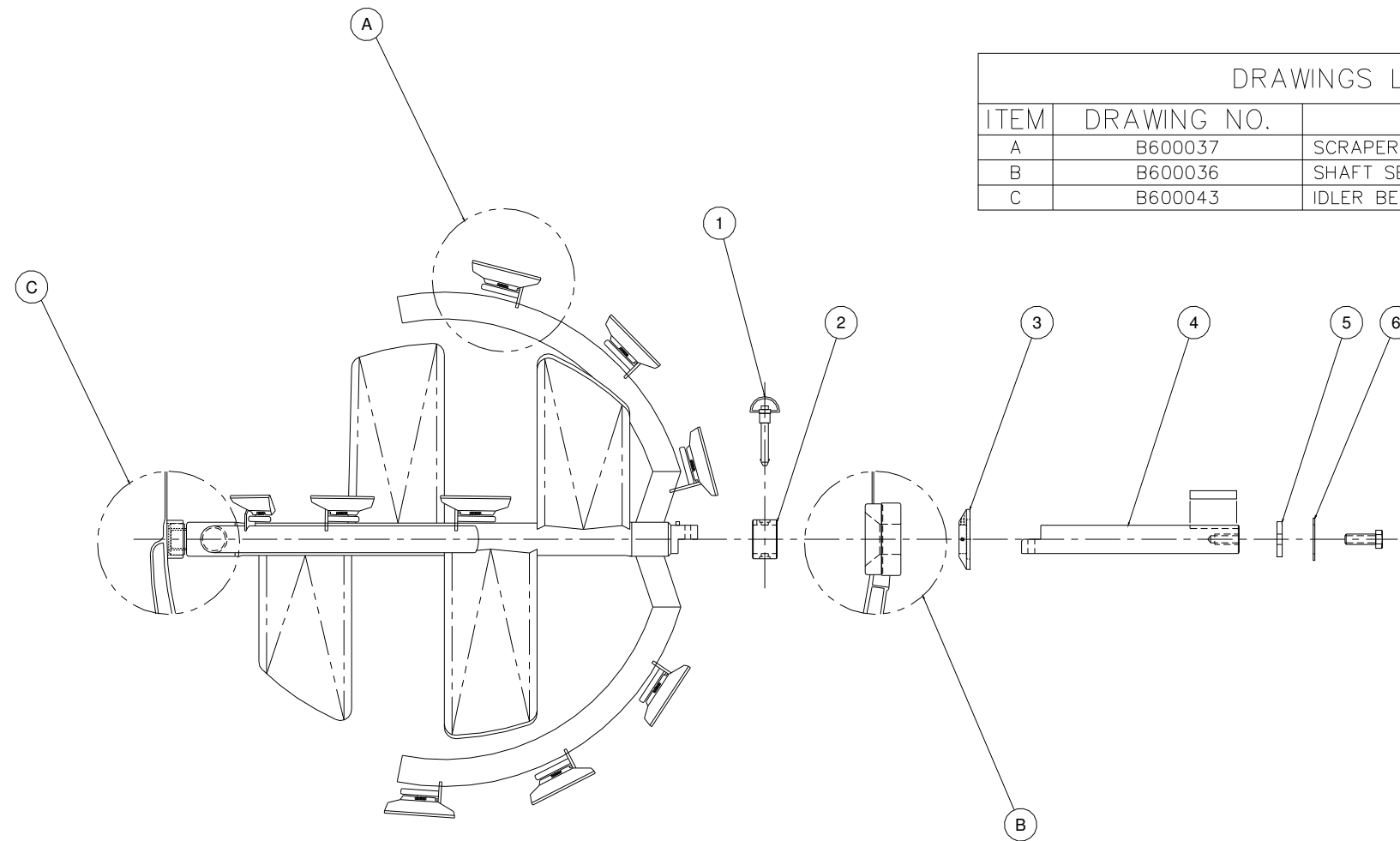
Drawing #: B600050

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Agitator, Standard Idler

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	MSS00-5000001	QUICK RELEASE PIN 100 HAK
2	FAS02-7500004	SHAFT COUPLING 100 HAK
3	1FW05-5000001	MOTOR SEAL PROTECTOR 100 HAK
4	FAS02-0000003	DRIVE SHAFT 100 HAK
5	HWS02-0000003	RETAINING WASHER 100 HAK
6	HWS02-0000004	RETAINING SNAP RING 100 HAK

DRAWINGS LIST		
ITEM	DRAWING NO.	DESCRIPTION
A	B600037	SCRAPER BLADE
B	B600036	SHAFT SEAL
C	B600043	IDLER BEARING, STD.



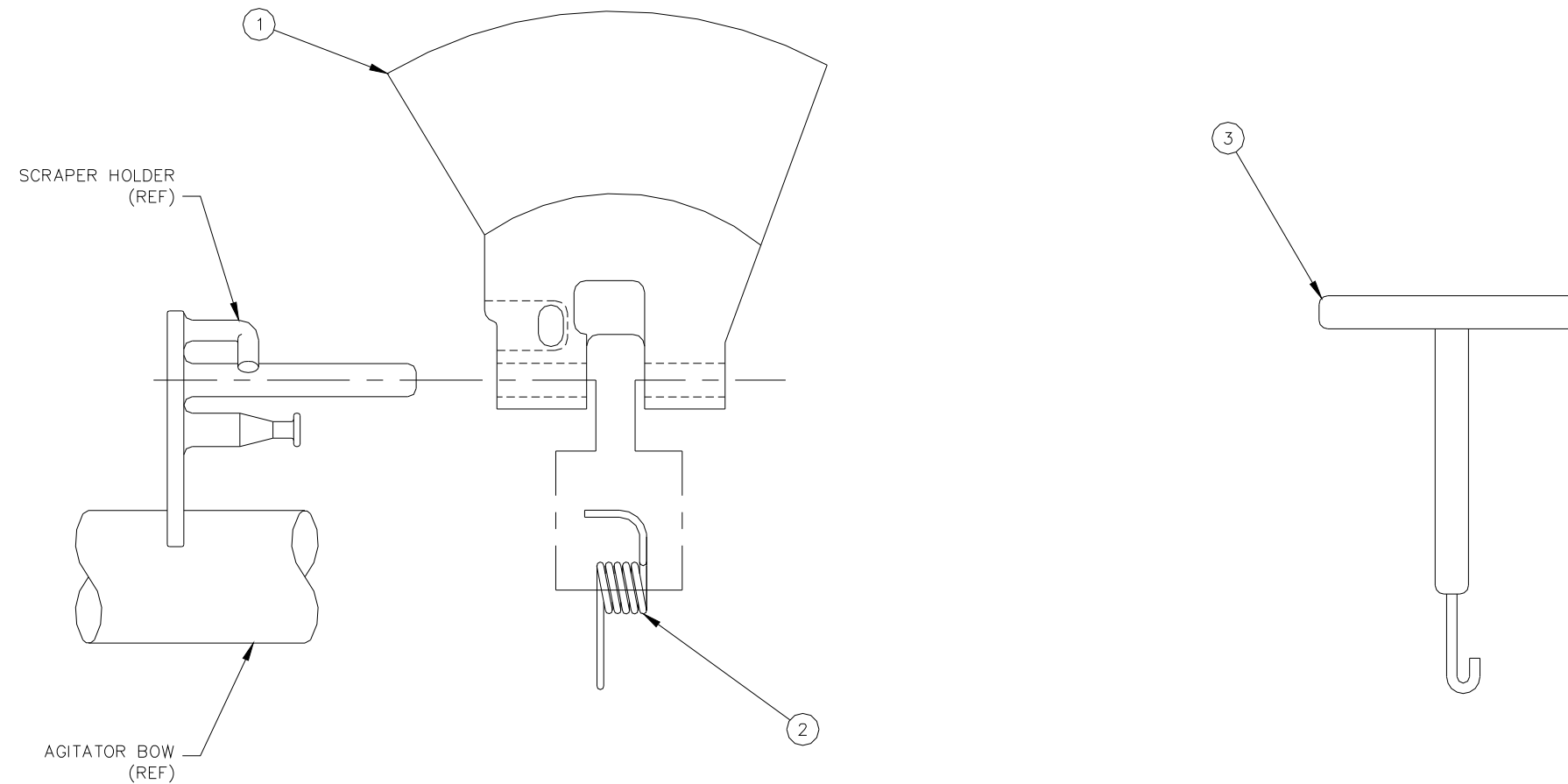
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Drawing #: B600044

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Scraper Blade

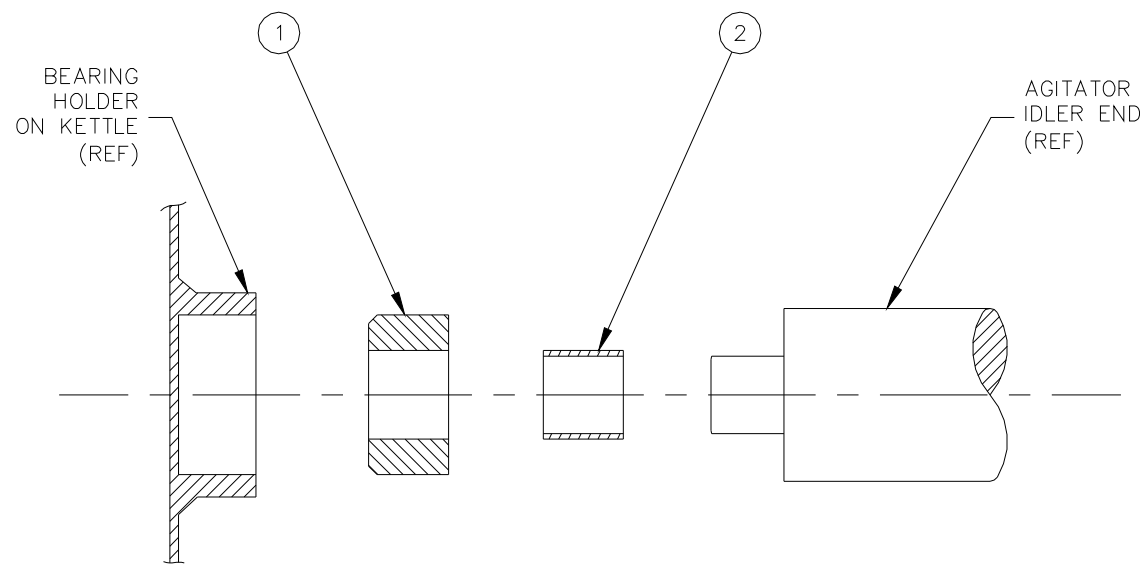
REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	MSW00-7500001	SCRAPER BLADE
2	MSSPRING00002	SPRING
3	TOSPRING00001	SPRING REMOVAL TOOL



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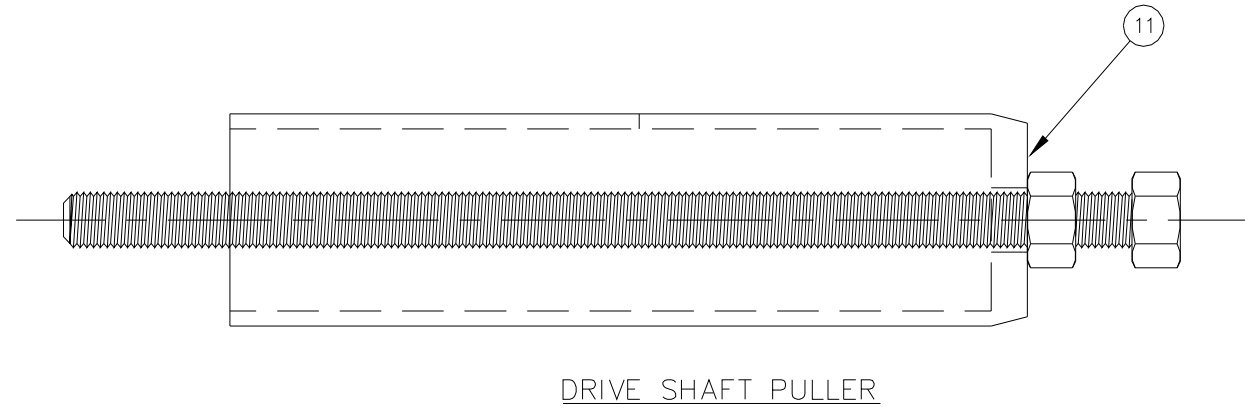
Idler, Standard Design

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	1FK02-2500002	100-HAK IDLER BEARING
2	1FS01-5000004	100-HAK IDLER SLEEVE



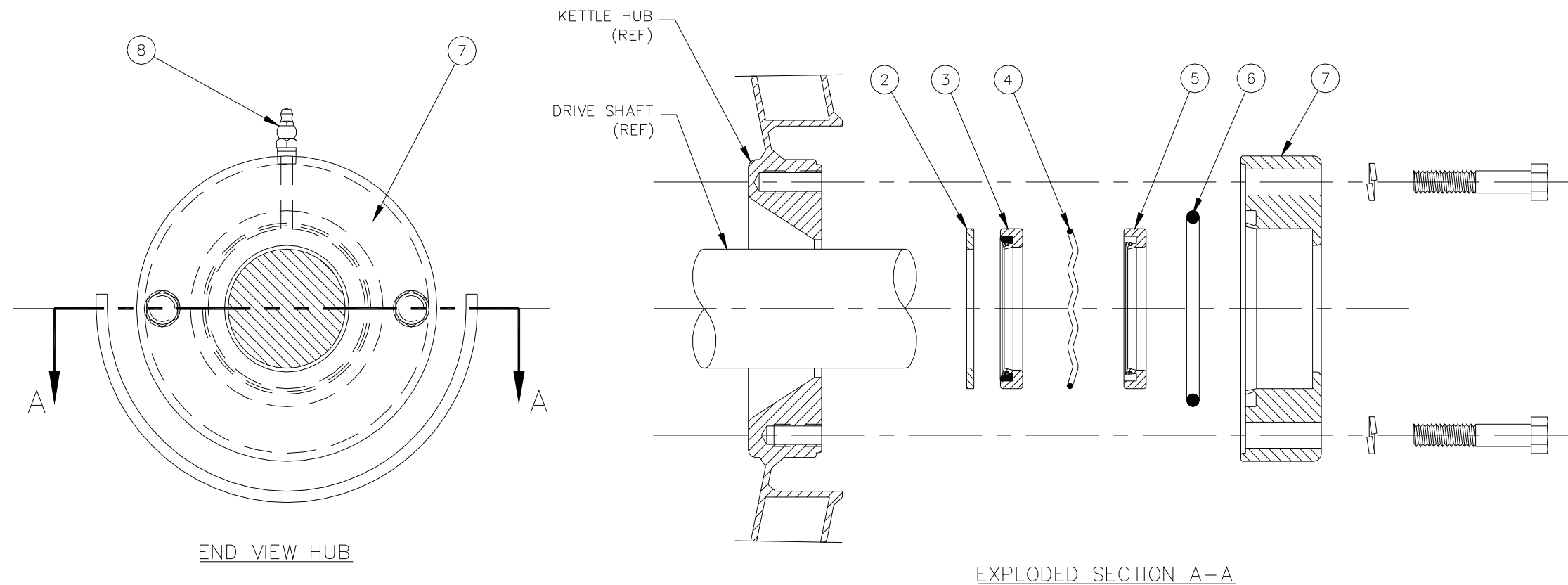
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Drive Shaft Seal



REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
* 1	1H800-0000021	SEAL KIT, REPLACEMENT
2	1FF02-0000001	SEALING RING
3	1FD02-0000001	SILICONE FILLED SEAL
4	1FS02-0000022	SST SPACING RING
5	SEDSEALS00001	SEAL
6	SE30RING00007	O-RING
7	1FS05-0000005	SEAL RETAINER PLATE
8	HWS00-1300001	SST GREASE FITTING
9	MSFLUIDS00001	TUBE FOOD GR. GREASE (NOT SHOWN)
10	1H800-0000005	GREASE GUN (NOT SHOWN)
11	1FS02-0000023	100-HAK DRIVE SHAFT PULLER

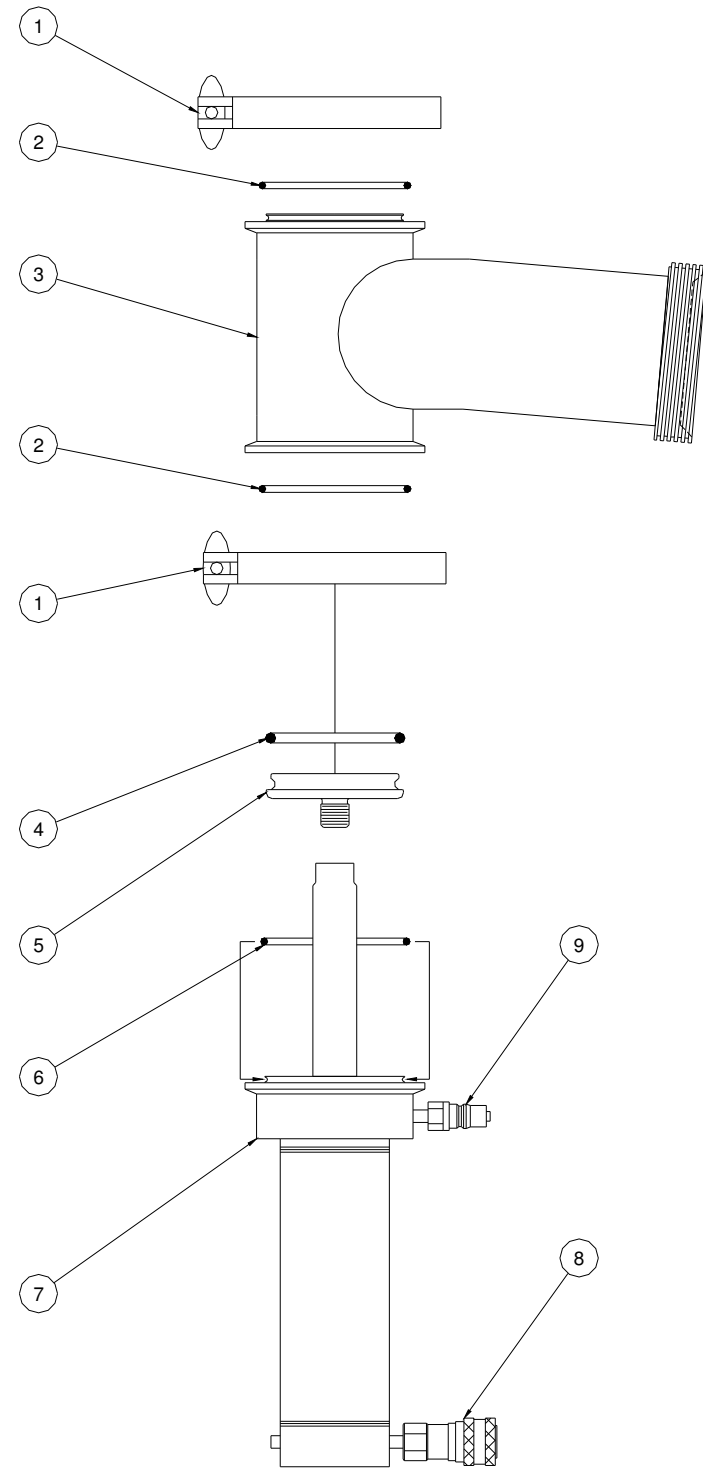
* ITEM #1 CONSISTS OF ITEMS #2-6



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Product Outlet Valve



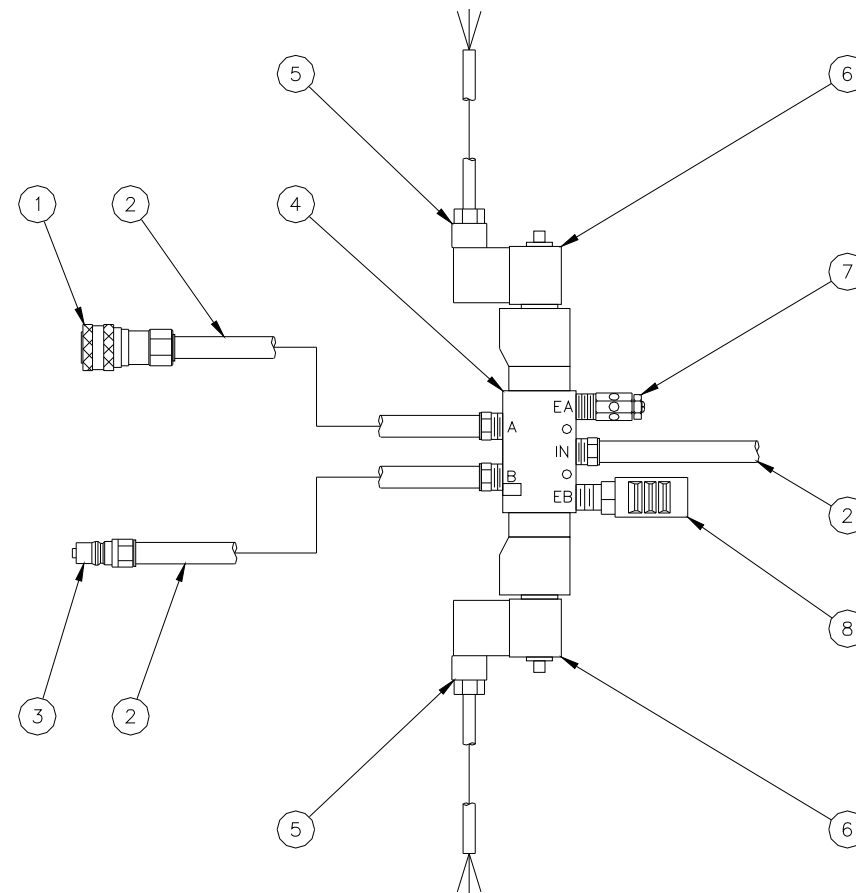
REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	DFS03-0000001	CLAMP
2	SE30-RING00011	O-RING, TEE
3	1FS03-0000006	TEE WITH ACME THREADED END
4	SE3ORING00012	O-RING, PLUNGER HEAD
5	1FS02-7500014	PLUNGER HEAD
6	SE3ORING00042	O-RING, AIR ACTUATOR
7	ARS03-0000001	AIR ACTUATOR
-	SP999-9900100	REPAIR KIT, SEALS & BUSHINGS
8	ARS00-1200003	FEMALE QUICK DISCONNECT SST.
9	ARS00-1200002	MALE QUICK DISCONNECT SST.
10	1FS03-0000007	TEE WITH TRI-CLAMP END (OPTIONAL)

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Air Solenoid, Product Outlet Valve

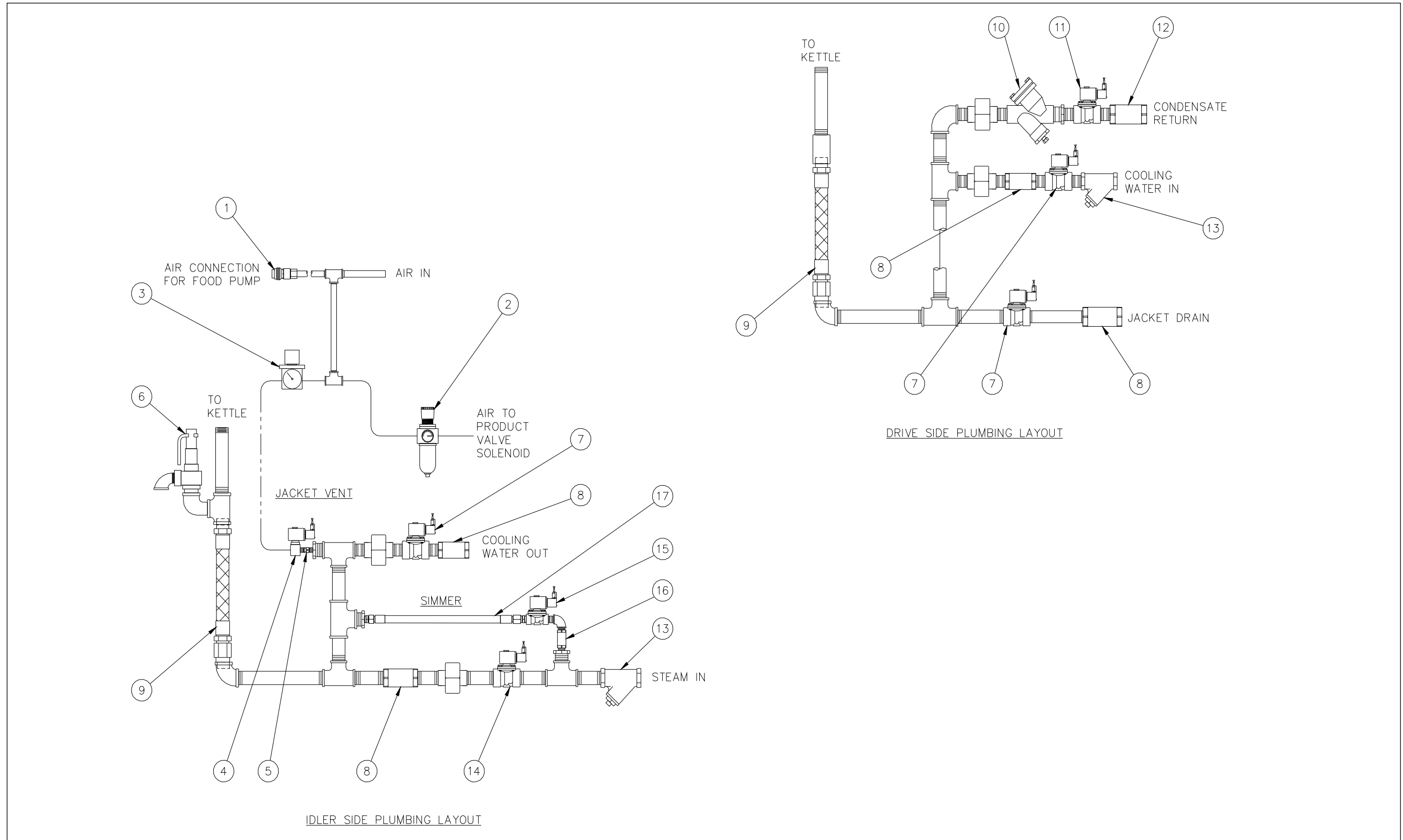
REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	1HB00-1200002	FEMALE QUICK DISCONNECT BRASS
* 2	AR700-2500002	AIR HOSE
3	1HB00-1200001	MALE QUICK DISCONNECT BRASS
4	AR800-2500020	AIR SOLENOID
-	SP999-9900099	REPAIR KIT FOR ITEM #4
5	ELP00-0000047	DIN CONNECTOR
6	SP988-8800036	REPLACEMENT COIL
7	ARB00-2500028	AIR MUFFLER WITH FLOW CONTROL
8	ARP00-2500001	AIR MUFFLER

*CUSTOMER TO SPECIFY HOSE LENGTH
 HOSE SOLD IN FOOT INCREMENTS ONLY.



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Plumbing



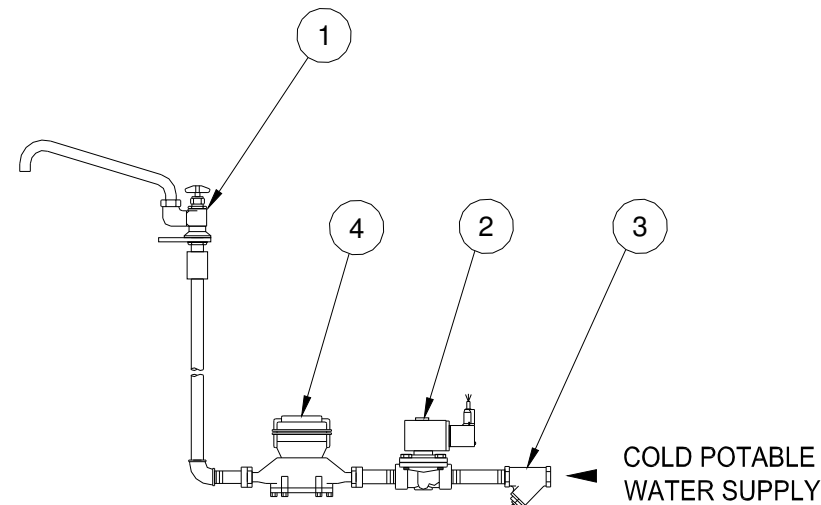
Plumbing – (continued)

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	ARB00-5000001	QUICK DISCONNECT
2	AR800-2500015	AIR FILTER REGULATOR W/O GAUGE
-	AR800-2500004	REPLACEMENT GAUGE FOR ITEM #2
3	AR800-3700002	AIR REGULATOR W/O GAUGE
-	AR800-2500002	REPLACEMENT GAUGE FOR ITEM #3
4	ELB00-2500013	JACKET VENT SOLENOID
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #4
-	SP999-9900064	REPAIR KIT FOR ITEM #4
-	ELP00-0000000	REPLACEMENT DIN CONNECTOR ITEM #4
5	VAB00-2500001	NO-LEAK CHECK VALVE
6	VAB01-0000007	100 PSI SAFETY VALVE
7	ELB01-0000013	COOLING WATER IN/OUT & DRAIN SOL.
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #7
-	SP999-9900005	REPAIR KIT FOR ITEM #7
-	ELP00-0000000	REPLACEMENT DIN CONN. FOR ITEM #7
8	MSB01-0000003	BALL CONE CHECK VALVE
9	PBS01-0000037	14" LONG SST FLEX HOSE
10	MSS00-7500007	STEAM TRAP
-	SP999-9900091	REPAIR KIT FOR ITEM #10
11	ELB00-7500016	CONDENSATE RETURN SOLENOID
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #11
-	SP999-9900007	REPAIR KIT FOR ITEM #11
-	ELP00-0000000	REPLACEMENT DIN CONN. FOR ITEM #11
12	MSB00-7500004	BALL CONE CHECK VALVE
13	MSB01-0000001	STRAINER
-	MSB01-0000004	REPLACEMENT SCREEN FOR ITEM #13
14	ELB01-0000014	STEAM IN SOLENOID
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #14
-	SP999-9900008	REPAIR KIT FOR ITEM #14
-	ELP00-0000000	REPLACEMENT DIN CONN. FOR ITEM #14
15	ELB00-5000016	SIMMER SOLENOID
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #15
-	SP999-9900006	REPAIR KIT FOR ITEM #15
-	ELP00-0000000	REPLACEMENT DIN CONN. FOR ITEM #15
16	MSB00-5000004	BALL CONE CHECK VALVE
17	PBS00-0500015	SIMMER HOSE
20	SP999-9900017	REPAIR KIT, DISCONTINUED STEAM TRAP

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Potable Water Line, Cold Only

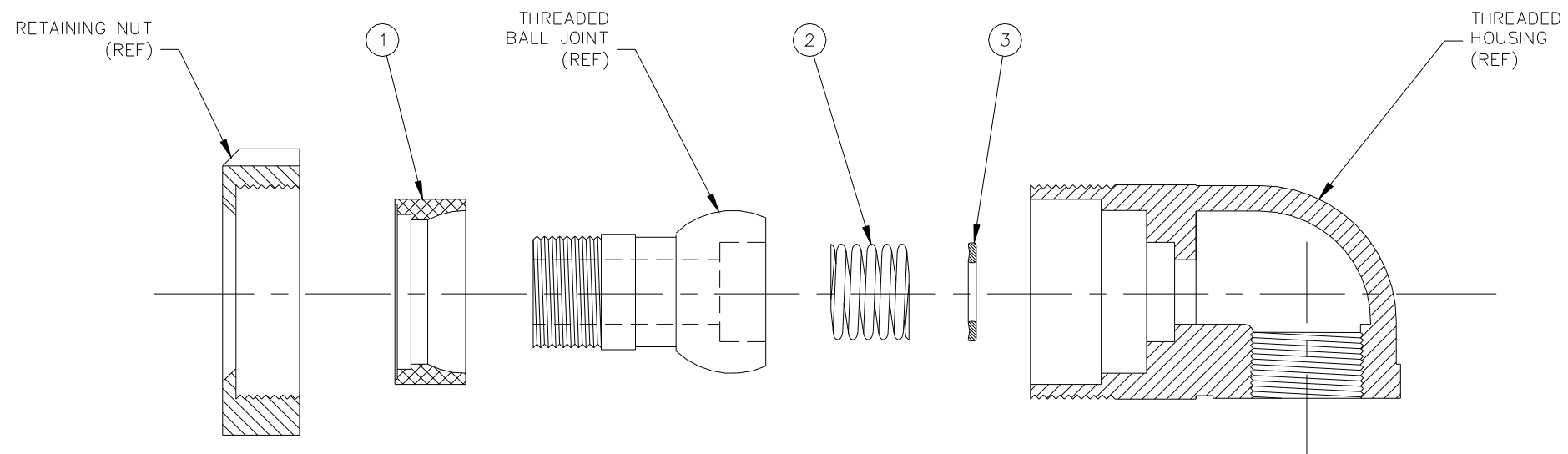
REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	PBB00-7500018	3/4" FILL FAUCET WITH SWING SPOUT
-	PBB00-7500021	3/4" SWING SPOUT
2	ELB00-7500015	POTABLE WATER SOLENOID, 120V
-	SP988-8800002	REPLACEMENT COIL
-	SP999-9900004	REPAIR KIT
-	ELP00-0000000	REPLACEMENT DIN CONNECTOR
3	MSB00-7500001	STRAINER
-	MSB00-7500006	REPLACEMENT SCREEN
4	ELB00-7500017	DIGITAL COLD WATER METER
-	EL8CO-0000073	REPLACEMENT TRANSMITTER



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Swivel Steam Joint

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	SETSEALS00004	TEFLON SEAL
2	MSSPRING00008	SPRING
3	MSSPRING00009	SPRING SEAT
4	MSC01-0000002	1" SWIVEL STEAM JOINT COMPLETE ASSY



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Appendices

Appendix A: Basic Trouble Shooting

Problem	Possible Cause	Remedy
Will not Power ON	1. No input power	1. Check main power disconnect and/or breakers.
	2. Blown Fuses	2. Check fusing and replace accordingly
Will not fill with water	1. No water pressure	1. Ensure the water source is turned on
	2. Valve not opening	2. Check indicator light on solenoid valve, also check corresponding output light on PLC, rebuild or replace if necessary
	3. Level sensor fouled	3. Check/clean/replace level sensor.
Agitator will not rotate	1. Cover or Tilt Sensor (Optional items)	1. Check proximity sensor, adjustment might be required.
	2. Blown Fuses	2. Check for blown fuses
	3. Bad Contactor or Inverter	3. Check and replace if necessary
Will not heat	1. No Steam	1. Check steam supply
	2. Valve not opening	2. Check indicator light on solenoid valve, also check corresponding output light on PLC, rebuild or replace if necessary.
Will not Cool	1. No Cooling water	1. Check cooling water supply
	2. Valves not opening	2. Check indicator light on solenoid valve, also check corresponding output light on PLC, rebuild or replace if necessary.
	3. Circulating pump not running	3. Check fusing and replace accordingly
	4. Clog in cooling line	4. Check inline strainer screens for clogs. Back flush if needed.
Agitator Start Button	1. Not lighting	1. Check Bulb