

# **INTER-AMERICAN OIL WORKS, LTD.**

## **OWI**

### **TORQUE CONVERTER**

#### **MODEL C-300-OWI**

## **PARTS MANUAL**

Inter-American Oil Works, Ltd.

P.O. Box 69170

Odessa, TX 79769

(432) 381-5265

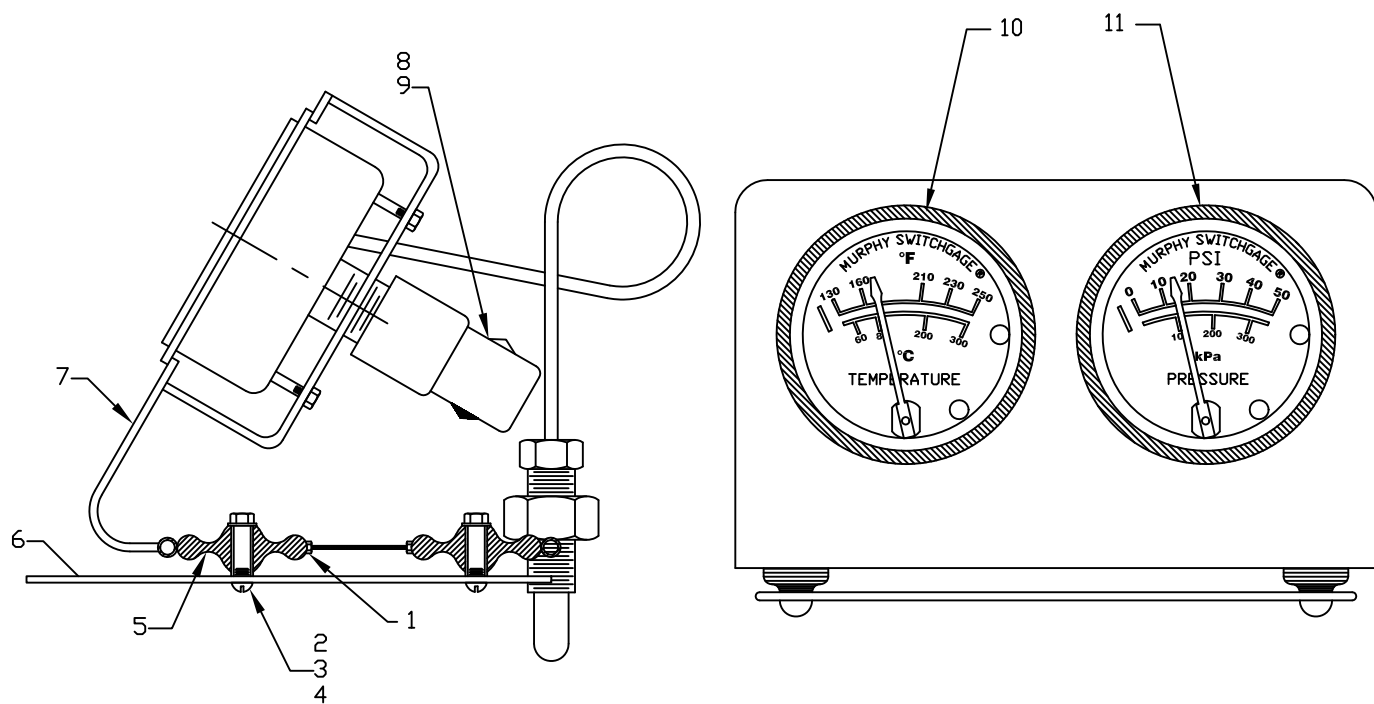
[oilworksinc@oilworksinc.com](mailto:oilworksinc@oilworksinc.com)



\*NOT AFFILIATED WITH NATIONAL-OILWELL\*

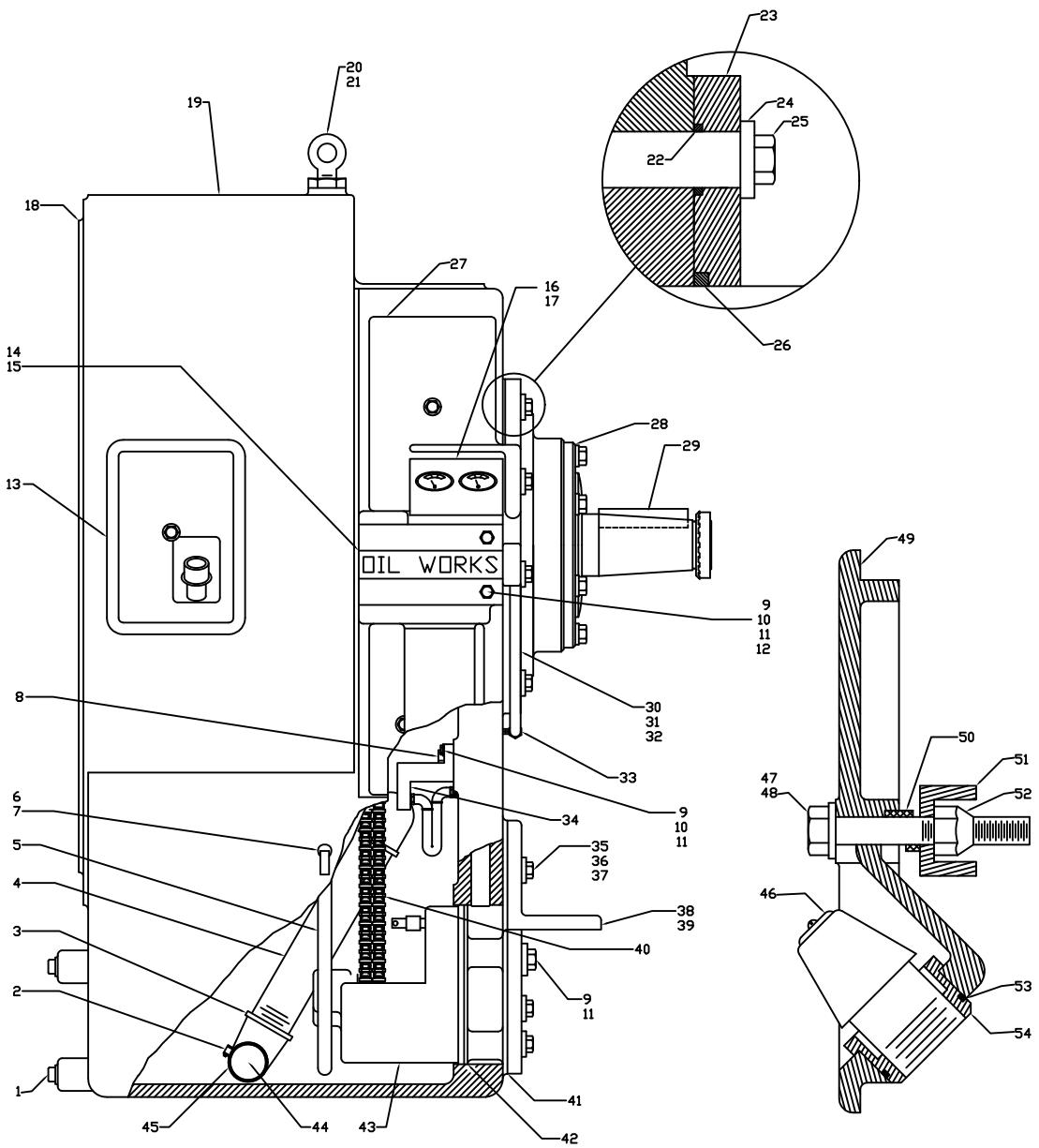
# TABLE OF CONTENTS

Gauge Assembly .....	1
Basic Converter .....	2
Shaft Assembly .....	3
Pressure Control Valve .....	4
Heat Exchanger and Piping .....	5
Desurger and Piping .....	6
C-300-OWI Torque Converter .....	7
Idler Assembly .....	8
Circulating Pump .....	9



ITEM	NOI PART#	OWI PART#	DESCRIPTION	REQ'D
1	7817041	1NA1956	RIVET, 1/8" DIA. LOW DRIVE PIN BLIND	6
2	7051078	1NA3971	SCREW, R.D. HD.	3
3	6330080	1NA1957	NUT, HEX	3
4	7602021	1NA3972	WASHER, STD. SPG.	3
5	7812012	1NA3921	MOUNT, LORD	3
6	2231047	1NA2047	SUB-PLATE, GAGE	1
7	2231039	1NA2039	PLATE, GAGE	1
8	7400240	1NA3942	TUBING, 1/8" X 0.20" WALL X 12" LONG	1
9	7804087	1NA3941	ELBOW	1
10	2230050	1NA3050	GAGE, TEMP	1
11	2230068	1NA3068	GAGE, PRESS.	1



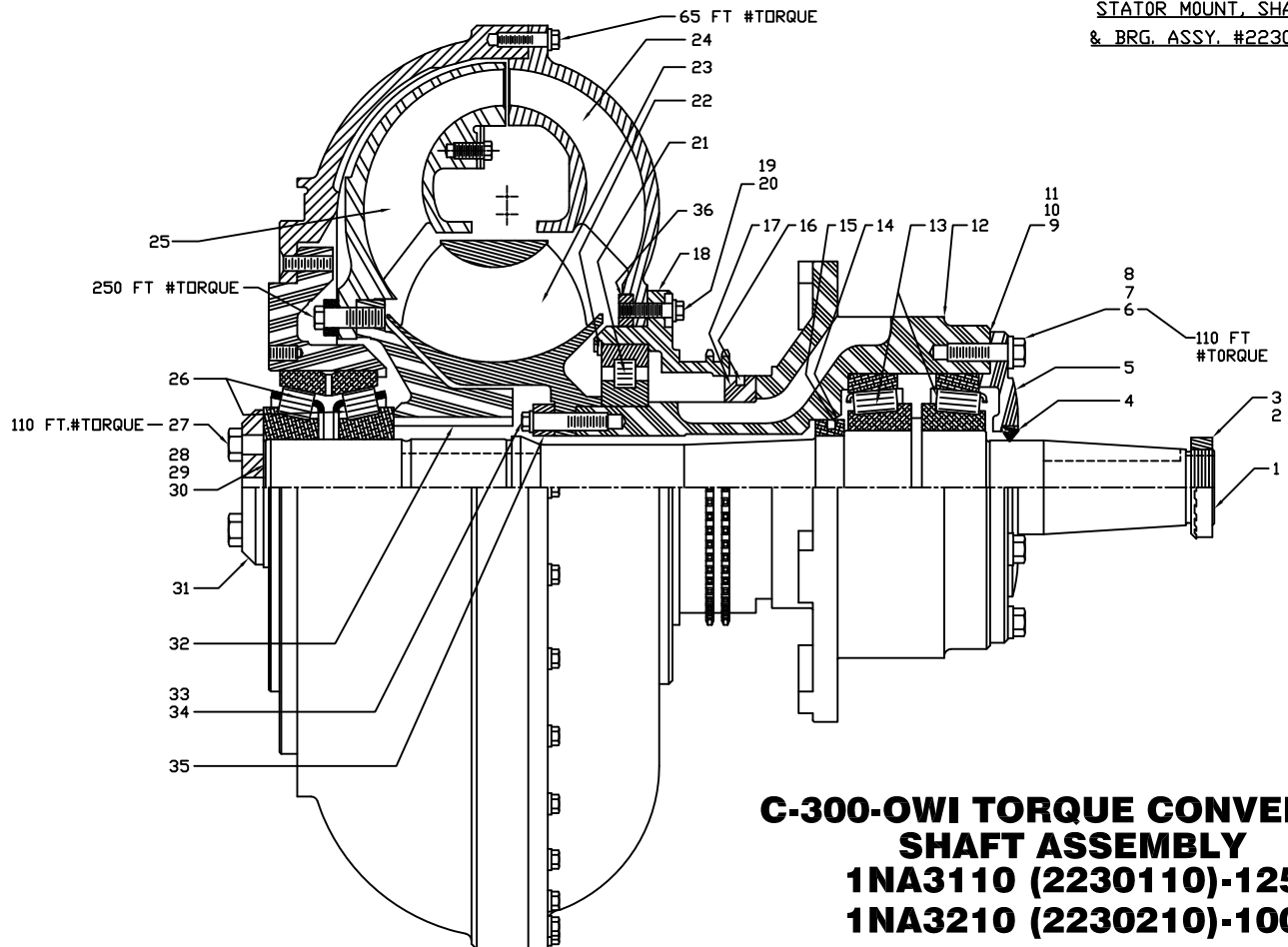


ITEM	NOI	PART #	OWI PART #	DESCRIPTION	REQ'D
1	6873008	INA3973		PLUG, STANDARD SQ. 1"	3
2	7802077	INA1960		CLAMP, HOSE Q5100-M325	3
3	6829016	INA3967		ELBOW, STANDARD M 1ST 90°2"	3
4	6817129	INA3969		NIPPLE, STANDARD PIPE 2" X 13"	1
5	2230089	INA3089		TUBE, DIPSTICK	1
6	2230094	INA3094		DIPSTICK	1
7	2232071	INA1071		ADAPTER, DIPSTICK	1
8	2232072	INA1072		VALVE, SAFETY	1
9	7000306-11	INA3974		SCREW, HEX HEAD CAP 1/2" X 1-3/4" GRADE 5	13
10	7600032	INA3975		WASHER, 1/2" N TYPE A 1.062" O.D.	3
11	7602050	INA1948		WASHER, 1/2" SPACER	13
12	7000321-11	INA3976		SCREW, HEX HEAD CAP 1/2" X 5-1/4" GRADE D	2
13	2230027	INA3027		COVER, FILL	1
14	2230040	INA3040		VALVE, CONTROL	1
15	2230064	INA3064		GASKET, CONTROL VALVE	1
16	2231048	INA2048		GAGE ASSEMBLY	1
17	7000104-11	INA3977		SCREW, HEX HEAD CAP 1/4" X 1/2" GRADE 5	3
18	2230014	INA3014		RING	1
19	G2230099	INA3099		HOUSING	1
20	5504007	INA3975		BOLT, EYE EB-29 7/8" X 2-1/4"	1
21	6320104	INA3979		NUT, HEX. JAM 7/8"	1
22	2410031-210	INA3923		PACKING, RECT.	8
23	2230079	INA3079		RING, SEAL	1
24	7618024	INA3920		WASHER, STAT-0-SEAL 600-0101-3/4"	8
25	7000450-11	INA3980		SCREW, HEX HEAD CAP 3/4" X 4-1/2" GRADE 5	8
26	2410022-454	INA3926		PACKING, O-RING	1
27	2230028	INA3028		COVER, GAGE	1
28	2230110	INA3110		SHAFT ASSEMBLY	1
29	2401290	INA3804		KEY, 1" SQUARE X 4-3/4" RBE.	1
30	2210216	INA3929		STRAINER	1
31	7400440	INA3943		TUBING, STL. 1/4" O.D. X 0.035" WALL X 20"	1
32	7802304	INA3981		CONNECTOR, #7205 X 4 X 4	1
33	7804139	INA3982		ELBOW, #7405 X 4 X 4	1
34	2230055	INA3055		IDLER	1
35	7000481	INA3983		SCREW, HEX HEAD CAP 7/8" X 2"	4
36	7602074	INA3984		WASHER, 7/8" SP. LOCK	4
37	6511216	INA3985		PIN, DOWEL STD. HDN & GRD. 3/4" X 2"	4
38	2230038	INA3038		FOOT, SUPPORT RIGHT	1
39	2230039	INA3039		FOOT, SUPPORT LEFT	1
40	5700022-144	INA3922		CHAIN, RC-40-2-144P	1
41	2230036	INA3036		GASKET PUMP	1
42	2410022-267	INA3925		PACKING, O-RING	1
43	2230020	INA3020		PUMP	1
44	6875016	INA3813		PLUG, STD. COUNTERSUNK 2"	1
45	2230614	INA3614		DESURGER	1
46	2230058	INA3058		BREATHER	1
47	7000312-11	INA3986		SCREW, HEX HEAD CAP 1/2" X 3" GRADE 5	4
48	7618018	INA1919		WASHER, STAT-0-SEAL 600-0101-1/2"	4
49	2230029	INA3029		GASKET, COVER	4
50	2230070	INA3070		SPRING	4
51	2230052	INA3052		LATCH	4
52	6310081	INA3930		NUT, FLEXLOCK 30 FAB13-1/2 -13NC	4
53	2410022-224	INA3924		PACKING, O-RING	1
54	2230035	INA3035		ADAPTER, BREATHER	1
55	2230026	INA3026		COVER	2

NOTE:  
\* = NOT SHOWN

<b>DWG# 100-0678</b>		DATE DRAWN: 10/24/07   JW	<b>OIL WORKS INC.</b>
USED IN: -		EQUIPMENT: TORQUE CONVERTER	ASSEMBLY: OWI C300 TORQUE CONVERTER
TOLERANCE: XX ±.03		MODEL: 300	DESCRIPTION: PART LIST
SHEET 2 OF 9		RATING: -	PART #: -
REF: N/A			





NOTE: THESE PARTS CONSTITUTE  
STATOR MOUNT, SHAFT  
& BRG. ASSY. #2230051

ITEM	NOI	PART#	OVI PART#	DESCRIPTION	REQ'D
1	2230001	1NA3001		SHAFT, OUTPUT	1
2	6304038	1NA3914		NUT, BEARING LOCK	1
3	7610040	1NA3915		WASHER, BEARING LOCK	1
4	YS-4513	1NA3912		SEAL	1
5	2230005	1NA3005		CAP, BEARING	1
6	7000397-11	1NA3987		SCREW, HEX HEAD CAP	6
7	7602058	1NA1946		WASHER, STD. SPG.	6
8	6572416	1NA3931		PIN, STD. SPG.	1
9	2230011	1NA3011		SHIM, FRONT (0.020)	2
10	2230010	1NA3010		SHIM, FRONT (0.007)	2
11	2230009	1NA3009		SHIM, FRONT (0.005)	3
12	2230006	1NA3006		MOUNT, STATOR	1
13	ZT-5009	1NA3905		BEARING	2
14	2230008	1NA3008		CARRIER	1
15	2232047	1NA1047		RING, 5-3/4" SEAL	1
16	2210020	1NA3901		RING, 8" SEAL	1
17	2210032	1NA3812		CARRIER	1
18	2230012	1NA3012		SPROCKET & BEARING BOX	1
19	2400051	1NA3952		SCREW (1/2" X 1-3/4")	8
20	2230019	1NA3019		WASHER	8
21	ZR-6690	1NA3906		BEARING	1
22	1277810	1NA3962		RING, RETAINING	1

23	2230103	1NA3103		STATOR, C-300-125	1
24	2230104	1NA3104		PUMP & DRIVE BELL	1
25	2230105	1NA3105		TURBINE & HUB	1

23	2230203	1NA3203		STATOR, C-300-100	1
24	2230204	1NA3204		PUMP & DRIVE BELL	1
25	2230205	1NA3205		TURBINE & HUB	1

23	2230303	1NA3303		STATOR, C-300-80	1
24	2230304	1NA3304		PUMP & DRIVE BELL	1
25	2230305	1NA3305		TURBINE & HUB	1

23	2230403	1NA3403		STATOR, C-300-64	1
24	2230404	1NA3404		PUMP & DRIVE BELL	1
25	2230405	1NA3405		TURBINE & HUB	1

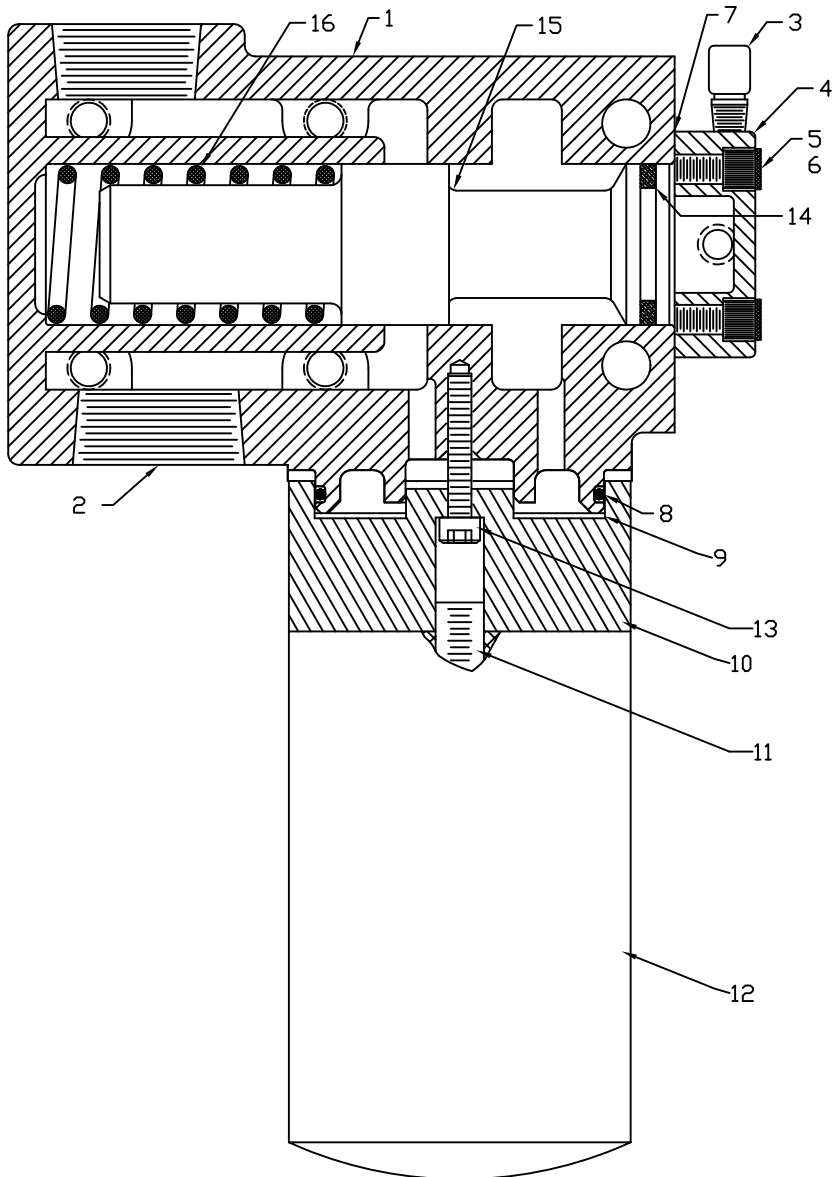
26	ZT-4370	1NA3907		BEARING	2
27	2402680	1NA3960		SCREW (5/8" X 2")	3
28	7300110	1NA3947		SHIM, REAR (0.005)	3
29	7300131	1NA3948		SHIM, REAR (0.007)	3
30	7300112	1NA3949		SHIM, REAR (0.020)	2
31	2230013	1NA3013		PLATE, BEARING RETAINER	1
32	2404049	1NA3803		KEY	1
33	5506616	1NA3950		BOLT, PLACE	8
34	6511014	1NA3963		DOWEL, STANDARD	4
35	2230015	1NA3015		PLATE, RETAINING	1
36	-----	1NA3809		SPROCKET & BEARING BOX ADAPTER	1

**C-300-OVI TORQUE CONVERTER  
SHAFT ASSEMBLY  
1NA3110 (2230110)-125  
1NA3210 (2230210)-100  
1NA3310 (2230310)-80  
1NA3410 (2230410)-64**

DWG# 100-0679	DATE DRAWN: 10/24/07	JW
TOLERANCE	USED IN: -	
XX ±.03	EQUIPMENT: TORQUE CONVERTER	
XX ±.01	MODEL: 300	
XX ±.005	RATING: -	
SHEET 3 OF 9	REF: N/A	

<b>OIL WORKS INC.</b>
ASSEMBLY: OWI C300 TORQUE CONVERTER
DESCRIPTION: PART LIST, SHAFT ASSEMBLY
PART #: -

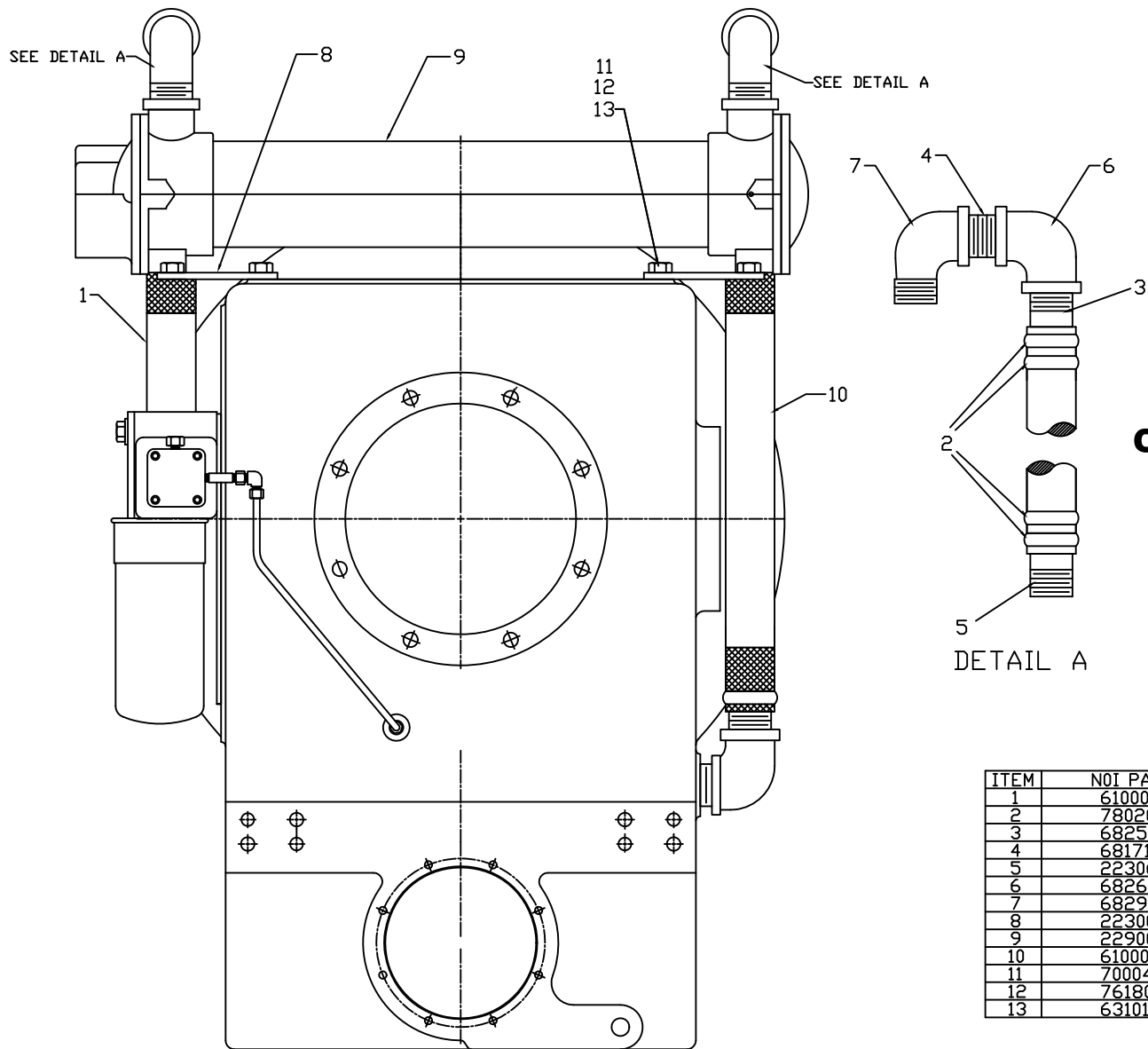




## C-300-OWI TORQUE CONVERTER PRESSURE CONTROL VALVE 1NA3040 (2230040)

ITEM	NOI PART#	OWI PART#	DESCRIPTION	REQ'D
1	2230041	1NA3041	BODY, VALVE	1
2	6875016	1NA3813	PLUG, PIPE 2"	1
3	7804157	1NA3988	ELBOW, 7405 X 2	1
4	2230044	1NA3044	COVER, VALVE	1
5	7612012	1NA3933	WASHER, 5/16" H. COLLER	4
6	70006157	1NA3932	SCREW, SC0. HD. CAP 5/16" X 1"	4
7	2230045	1NA3045	GASKET, VALVE	1
8	2410022-234	1NA3927	"O" RING	1
9	-----	1NA3957	GASKET, SPIN ON ADAPTER	1
10	-----	1NA3807	ADAPTER, SPIN ON	1
11	-----	1NA3808	NIPPLE, SPIN ON ADAPTER	1
12	-----	1NA3928	FILTER, SPIN ON	1
13	-----	1NA3958	SCREW, SPIN ON ADAPTER	1
14	2230046	1NA3046	RING, PISTON	1
15	2230042	1NA3042	SPOOL, VALVE	1
16	2230043	1NA3043	SPRING, VALVE	1
17	6875002	1NA3989	PLUG, PIPE HEX. SOC, 1/4"	4

NOTE: ITEM #17 IS NOT SHOWN



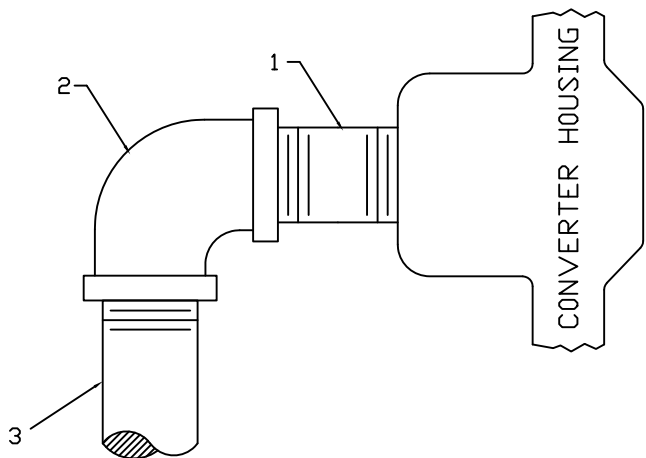
**C-300-FH-OWI TORQUE CONVERTER  
HEAT EXCHANGER & PIPING  
1NA0903 (2290016)**

ITEM	NOI PART#	OWI PART#	DESCRIPTION	REQ'D
1	6100010	1NA3944	HOSE, 2" X 22"	1
2	7802085	1NA3964	CLAMP, BREEZE No.Q5-100-M36S	8
3	6825002	1NA3946	NIPPLE	3
4	6817121	1NA3965	NIPPLE, 2" X 3" STANDARD PIPE	2
5	2230641	1NA3641	NIPPLE	1
6	6826016	1NA3966	ELBOW, 2" 90° STANDARD PIPE	2
7	6829016	1NA3967	ELBOW, 2" STREET	2
8	2230085	1NA3085	SUPPORT, PLATE HEAT EXCHANGER	2
9	2290016	1HE0903	HEAT EXCHANGER, 8" X 36"	1
10	6100010	1NA3945	HOSE, 2" X 35-1/2"	1
11	7000441-11	1NA3963	SCREW, 3/4" X 2-1/4" GRADE 5	4
12	7618024	1NA3920	WASHER, 3/4" STAT-0-SEAL	4
13	6310120	1NA3961	NUT, 3/4" FLEXLOC	4

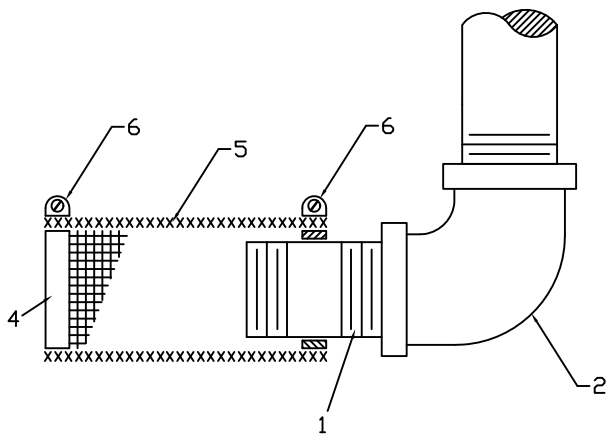
<b>DWG# 100-0681</b>	DATE DRAWN: 10/24/07   JW
TOLERANCE	USED IN: -
XX ±.03	EQUIPMENT: TORQUE CONVERTER
XX ±.01	MODEL: 300
XX ±.005	RATING: -
SHEET 4 OF 9	REF: N/A

<b>OIL WORKS INC.</b>
ASSEMBLY: OWI C300 TORQUE CONVERTER
DESCRIPTION: PART LIST, HEAT EXCHANGER
PART #: -





**C-300-OWI TORQUE CONVERTER  
DESURGER & PIPING  
1NA3997**

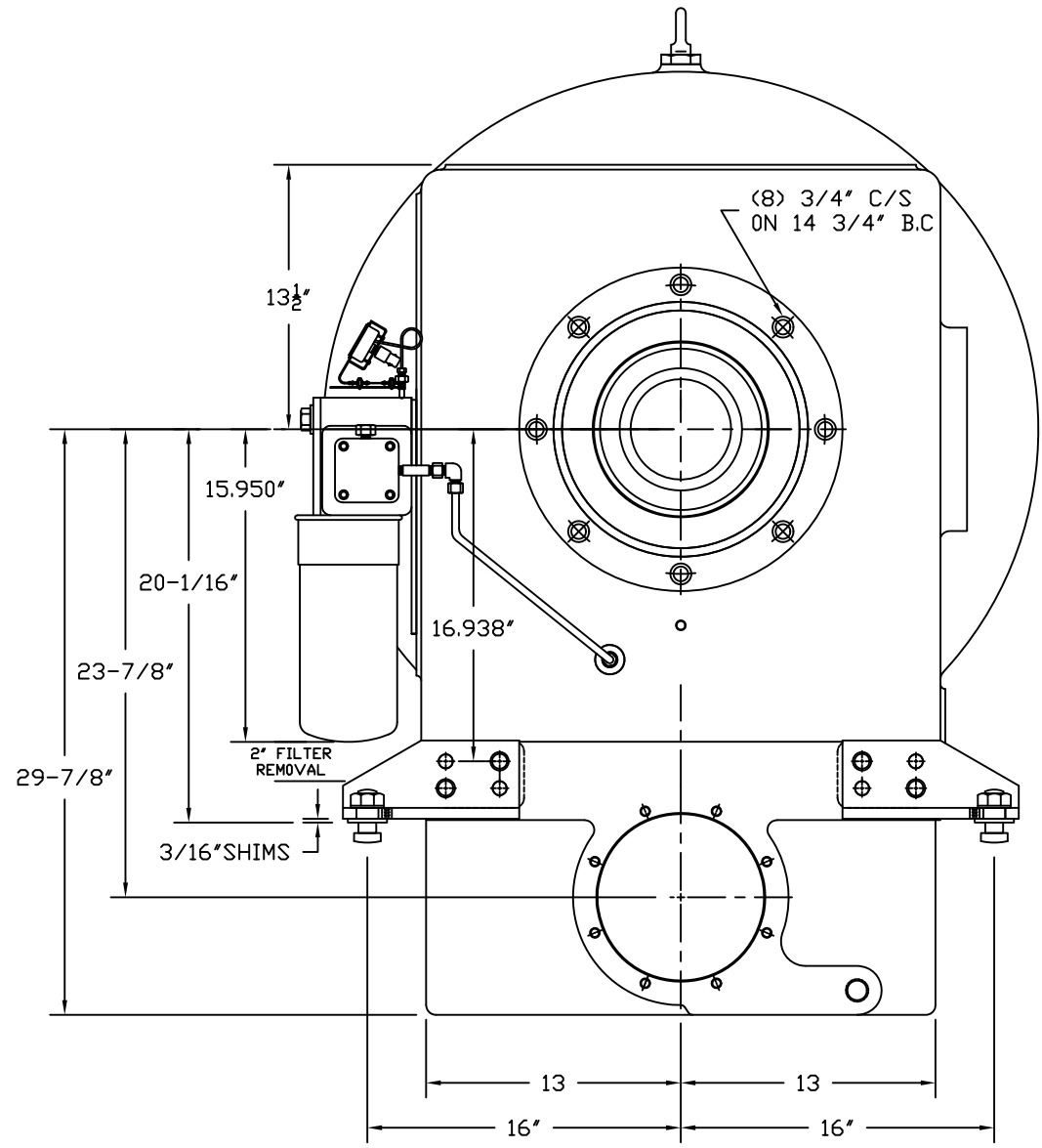
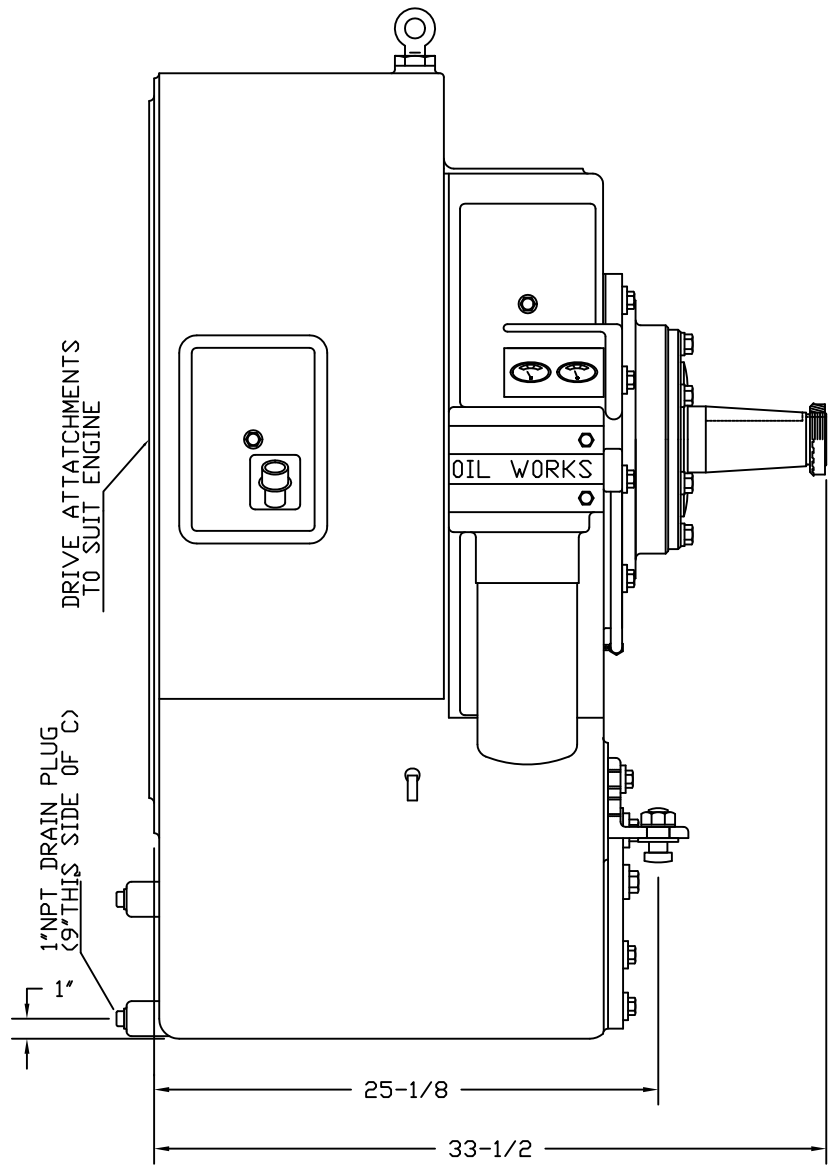


ITEM	NOI PART#	OWI PART#	DESCRIPTION	REQ'D
1	6817121	1NA3965	NIPPLE, 2" X 3" STANDARD PIPE	2
2	6826016	1NA3966	ELBOW, 2" 90° STANDARD PIPE	2
3	6817129	1NA3969	NIPPLE, 2" X " STANDARD PIPE	1
4	6875016	1NA3816	PLUG, 2" PIPE	1
5	2230614	1NA3614	SCREEN	1
6	7802085	1NA3964	CLAMP, BREEZE No. QS-100-M36S	2

DWG# <b>100-0682</b>	DATE DRAWN: 10/24/07   JW
TOLERANCE	USED IN: -
XX ±.03	EQUIPMENT: TORQUE CONVERTER
XX ±.01	MODEL: 300
XX ±.005	RATING: -
SHEET 9 OF 9	REF: N/A

<b>OIL WORKS INC.</b>
ASSEMBLY: OWI C300 TORQUE CONVERTER
DESCRIPTION: PART LIST, DESURGER & PIPING
PART #: -

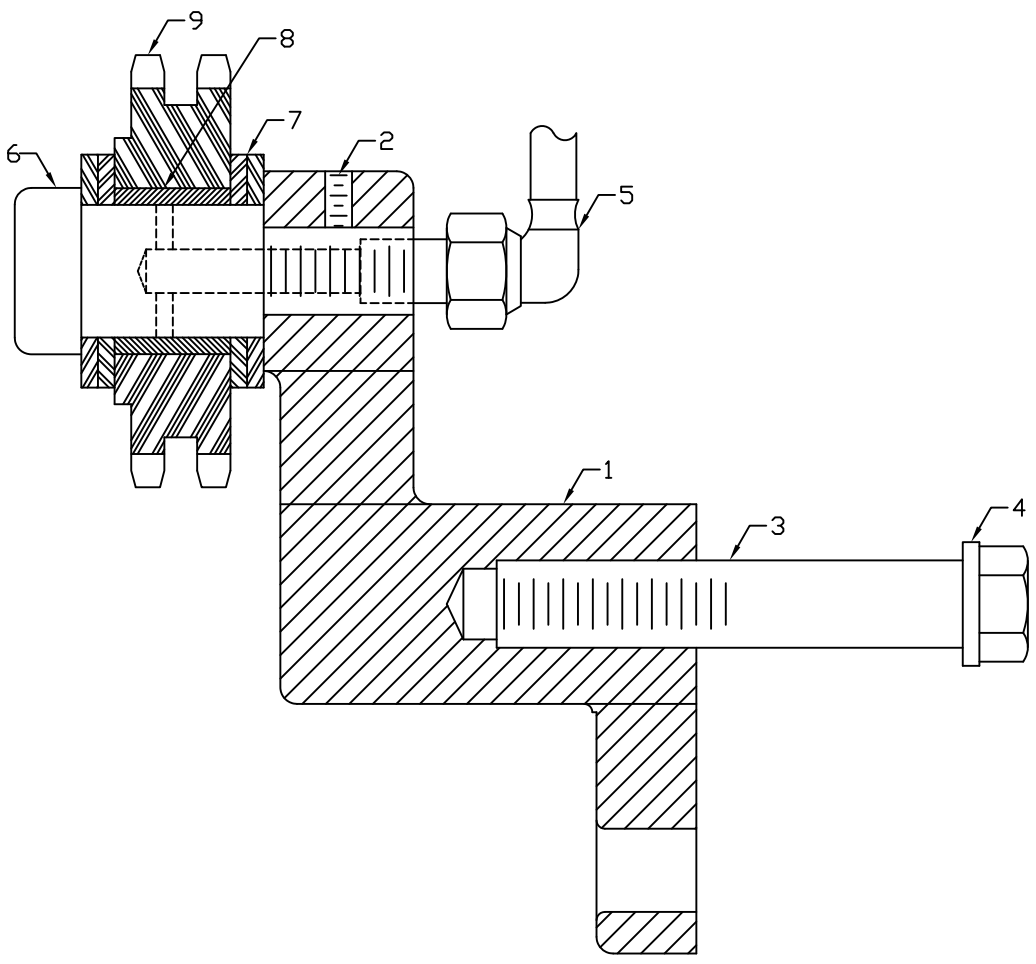




DWG# 100-0683		DATE DRAWN: 10/24/07	JW
TOLERANCE		USED IN: -	
XX ±.03	SHEET 1 OF 9	EQUIPMENT: TORQUE CONVERTER	
XXX ±.01	REF: N/A	MODEL: 300	
XXXX ±.005		RATING: -	

<b>OIL WORKS INC.</b>	
ASSEMBLY:	OWI C300 TORQUE CONVERTER
DESCRIPTION:	LAYOUT DIMENSIONS
PART #:	-





**C-300-OWI TORQUE CONVERTER  
IDLER ASSEMBLY  
1NA3055 (2230055)**

ITEM	NOI	PART#	OWI PART#	DESCRIPTION	REQ'D
1	2231035		1NA2035	CRANK, IDLER	1
2	7029102		1NA3990	SCREW, SOC. DOG. PT. SET	1
3	7000448-11		1NA1929	SCREW, HEX HD. CAP	1
4	7618024		1NA3920	WASHER, STAT-0-SEAL	1
5	2231056		1NA2056	HOSE ASSEMBLY	1
6	2231031		1NA2031	SHAFT, IDLER	1
7	2231034		1NA2034	WASHER, THRUST	4
8	2231033		1NA2033	BUSHING, IDLER	1
9	2230084		1NA3084	SPROCKET, IDLER	1

DWG# 100-0688	DATE DRAWN: 10/24/07   JW
TOLERANCE	USED IN: -
XX ±.03	EQUIPMENT: TORQUE CONVERTER
XXX ±.01	MODEL: 300
XXX ±.005	RATING: -
SHEET 7 OF 9	REF: N/A

**OIL WORKS INC.**  
 ASSEMBLY: OWI C300 TORQUE CONVERTER  
 DESCRIPTION: PART LIST, IDLER ASSEMBLY  
 PART #: -



**C-300-OWI TORQUE CONVERTER  
CIRCULATING PUMP  
1NA3020(2230020)-36T  
1NA3096(2230096)-30T**

ITEM	NOI PART#	OWI PART#	DESCRIPTION	REQ'D
1	6304010	1NA3916	NUT, BEARING LOCK	1
2	7610012	1NA3917	WASHER, BEARING LOCK	1
3	ZT-1123	1NA3909	BEARING	2
4	6910034	1NA3938	RING, RETAINING	2
5	YS-1127	1NA3911	SEAL, OIL	2
6	2230083	1NA3083	SPROCKET-36T	1
	2230095	1NA3095	SPROCKET-30T	1
7	2230024	1NA3024	SHAFT, PUMP	1
8	2230023	1NA3023	CHANNEL, FRONT	1
9	7612014	1NA3991	WASHER, HI-COLLAR	4
10	7006209	1NA3992	SCREW, SOC. HD. CAP	4
11	2230022	1NA3022	CHANNEL, REAR	1
12	2230025	1NA3025	IMPELLER, PUMP	1
13	7600008	1NA3993	WASHER, TYPE-A =8N (0.188 X 0.438 X 0.048)	2
14	2400042	1NA3805	KEY, (1/4" X 1/4" X 1-1/4")	1
15	7178088	1NA3994	SCREW, R.D. H.D. DRIVE (TYPE U = 10" X 3/8")	2
16	2231059	1NA2059	SCREEN	1
17	7000218-11	1NA3995	SCREW, HEX. HD.	2
18	6571620	1NA3996	PIN, ROLL	1
19	7813000	1NA3934	NOZZLE, (SPRAY SYS.)	1
20	2404057	1NA39100	KEY, 1/4" X 1/4" X 3/4"	2
21	7618014	1NA3918	WASHER, STAT-0-SEAL 3/8"	2

