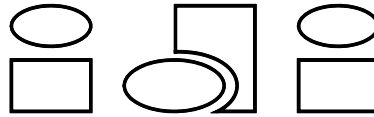


THE TASQ™ LINE INTENSIFIER PUMP

INSTALLATION, OPERATION & MAINTENANCE MANUAL



INTERFACE DEVICES, INC. 230 Depot Road, Milford, CT 06460
Ph: (203) 878-4648, Fx: (203) 882-0885, E-mail: info@interfacedevices.com
www.interfacedevices.com

**IMPORTANT! FILE THIS MANUAL IN A SAFE PLACE FOR FUTURE SERVICE & PARTS NEEDS
ALWAYS REFERENCE THE SERIAL NUMBER FOR SERVICE & PARTS REQUESTS**

STATEMENT OF WARRANTY

INTERFACE DEVICES, INC. (hereafter, the factory) warrants it's products to be free from defects in material and workmanship under normal use and service for a period of one (1) year from date of shipment from the factory. Any defect discovered after the warranty period has expired will be deemed to be outside the above coverage. No goods claimed to be under warranty shall be accepted for return unless authorized by the factory beforehand.

Upon discovery of a defect (other than freight damage) or a shortage of an item received in the original factory container, the purchaser shall, within (10) calendar days, deliver notice of the defect or shortage. Damaged freight claims must be placed with the freight carrier and will not be honored by the factory. If after due investigation of a claim of defect or shortage is found valid, the factory, at it's sole discretion, may discharge it's entire obligations to the purchaser by either repair or replacement of the defective product or component and for shortages by furnishing a replacement of the missing quantity (FOB, factory).

This express warrantee supersedes and is in lieu of all other remedies and warranties, including the implied warranties of merchantability and fitness for a particular purpose, and liability for negligence. **IN NO EVENT SHALL THE FACTORY BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL LOSSES, EXPENSES OR DAMAGES INCLUDING DAMAGES FOR PERSONAL INJURY OR COMMERCIAL LOSS.**

1.0 INTRODUCTION	PAGE
A. The TASQ Line Pump	3
B. TASQ Reservoir Versions.....	3
2.0 INSTALLATION AND OPERATION	
A. Installation.....	3
B. Check List	3
C. Reservoir Filling and Draining	4
D. Start-up & Bleeding the System	4
3.0 MAINTENANCE AND SERVICE	
A. General	4
B. Trouble Shooting Guide.....	5
4.0 GENERAL ASSEMBLY	
A. Mounting the Air Body.....	5
B. Mounting the Air Cap.....	6
5.0 WARRANTY STATEMENT	6
6.0 DRAWINGS	
Pneumatic Schematic.....	7
Hydraulic Schematic.....	8
General Arrangement-Self Contained Reservoir	9
Pump Assembly 5:1 through 45:1.....	10
Pump Assembly 60:1	12
Seal Kits (All Models).....	14

SECTION 1.0: INTRODUCTION

- A. The TASQ Line pumps are a single ratio, single acting pump. All ratios are rated at 0.60 peak hydraulic horsepower at a maximum air consumption of 9 SCFM.
- B. TASQ pumps are furnished with an integral, self-contained reservoir having a capacity of 40, 60, 80 or 120 cubic inches. Reservoirs can be installed so that the two supplied site gages can be viewed from any side. Standard installation has site gages facing the regulator side of the pump as shown in the General Arrangement Drawing.

SECTION 2.0: INSTALLATION AND OPERATION

A. INSTALLATION

- 1. Self Contained Reservoir version: Drill the four mounting holes on the intended vertical mounting surface per the dimensions shown on the enclosed "General Arrangement-Self Contained Reservoir" Drawing. Mount the pump using four (4) 1/4" fasteners.

B. CHECK LIST

Before operating the unit, complete the following checklist to assure proper and safe operation:

- 1. All hydraulic components (fittings, hoses, valves, etc.) shall be rated at, or above the maximum operating pressure of the power unit.
- 2. Inlet air pressure must not exceed 150 psig (10 bar). Normal range of supply air pressure shall be not less than 50 and not over 100 psig (4-7 bar).
- 3. All air supply fittings and lines shall be of non-corrosive materials and of pipe size adequate for the pump.
- 4. Air supply must be free of contaminants and an air filter must be installed as closely as possible to the pump.
- 5. Air lubrication must NOT be used.
- 6. At initial startup, the air regulator MUST be turned out completely counter-clockwise (CCW) before the supply air source is turned on.

C. RESERVOIR FILLING AND DRAINING

It is recommended that a light grade hydraulic oil be used. (Mobil DTE 24[®], Shell Tellus 32[®], or equivalent) Consult your distributor or the manufacturer if your application requires other than light viscosity petroleum based fluids recommended above.

Remove vent/filler cap. Pour clean oil through a strainer into reservoir until full as indicated in the upper bulls-eye. Replace vent/filler cap. Top-off the reservoir after the system has been bled (Sec. D, below).

Note: The self-contained reservoir may be drained in the future via the “B” cylinder port.

D. START-UP & BLEEDING THE SYSTEM

Once all the above requirements are met and the reservoir is full, make sure the air regulator is completely turned out counterclockwise (CCW) before connecting the air supply. Slowly turn in the air regulator clockwise (CW) until the pump just begins to reciprocate. Alternately extend and retract the cylinder(s), bleeding the lines at the stroked end of each cylinder.

SECTION 3.0: MAINTENANCE AND SERVICE

A. GENERAL

1. Upon receipt of the pump, inspect the assembly thoroughly. If physical damage is evident, do not operate the unit. Consult your distributor or the manufacturer for replacement parts or corrective action.
2. TASQ Series pumps are designed to be virtually maintenance free as long as the air supply and hydraulic oil are contaminant free. However, it is recommended that the air cycling valve spool and seals be greased every six months or annually, depending on usage. Refer to items 4 through 43 on the enclosed “Pump Assembly” drawings.

B. TROUBLE SHOOTING GUIDE

If a problem arises with the unit, the following guide should help to make an accurate diagnosis and offer a proper remedy:

SYMPTOM	CORRECTIVE ACTION
Pump will not cycle after extended no-flow period.	<ul style="list-style-type: none"> • Check that supply air pressure exceeds 50 psi. • Check that Air Cap valve spool is not stuck in mid position; if so, disconnect and reconnect the air supply to reset the spool to its default position.
Pump brings system up to normal operating pressure but "chugs" intermittently.	<ul style="list-style-type: none"> • Check all system components for leaks, including valve or cylinder that may be bypassing internally. • If symptom is coupled with evidence of fluid leakage from the air cap muffler, then internal rod seals are worn excessively; repair/replace without delay to prevent internal damage to the pump (Note: This condition is always caused by contaminated oil).
Pump will not cycle Pump "short" cycles	<ul style="list-style-type: none"> • Air limit valve in Air Cap failed. Replace. • Air limit valve in Hydraulic Body failed. Replace.
Pump cycles but does not generate pressure.	<ul style="list-style-type: none"> • Pump is airbound; check fluid reservoir level and bleed. • Pump internal check valves are jammed with foreign material; remove and clean; be sure that reservoir does not contain any foreign material.
Pump Air Cap leaking air continuously.	<ul style="list-style-type: none"> • Leak from muffler; spool valve seals worn or contaminated; clean/replace seals. • Leak from 4-way air valve cap; stem seals worn or contaminated; clean/replace cap.

SECTION 4.0: GENERAL ASSEMBLY

This section is provided to a general overview for all the service needs of the TASQ Series pumps. An exploded view with Bill of Materials of all parts is included at the back of this manual.

The general assembly of all TASQ Series Pumps consists of three major sub-assemblies: AIR CAP, AIR BODY, and HYDRAULIC BODY. It is most efficient if each of these three components is entirely sub-assembled prior to final assembly.

A. MOUNTING THE AIR BODY TO THE HYDRAULIC BODY

Slip one air body gasket over the air piston and align to the edges with the hydraulic body. Apply a thin film of waterproof grease to the bore of the Air Body and lay atop the piston with chamfered bore edge down. Holding the Air Body and piston with both hands, "squeeze" the body over the air piston seal and wiggle down until contact is made with the body gasket.

Insure that the twin locating pins remain in place during the above to assure proper alignment between the ratio plate and the air body.

B. MOUNTING THE AIR CAP TO THE AIR BODY

Be sure the Air Cap is fully sub-assembled before mounting it to the Air Body. Place another air body gasket on the Air Body and align to the edges. Place the Air Cap on the Air Body with the Air Regulator adjusting knob in plane with the DO-3 pad on the hydraulic body.

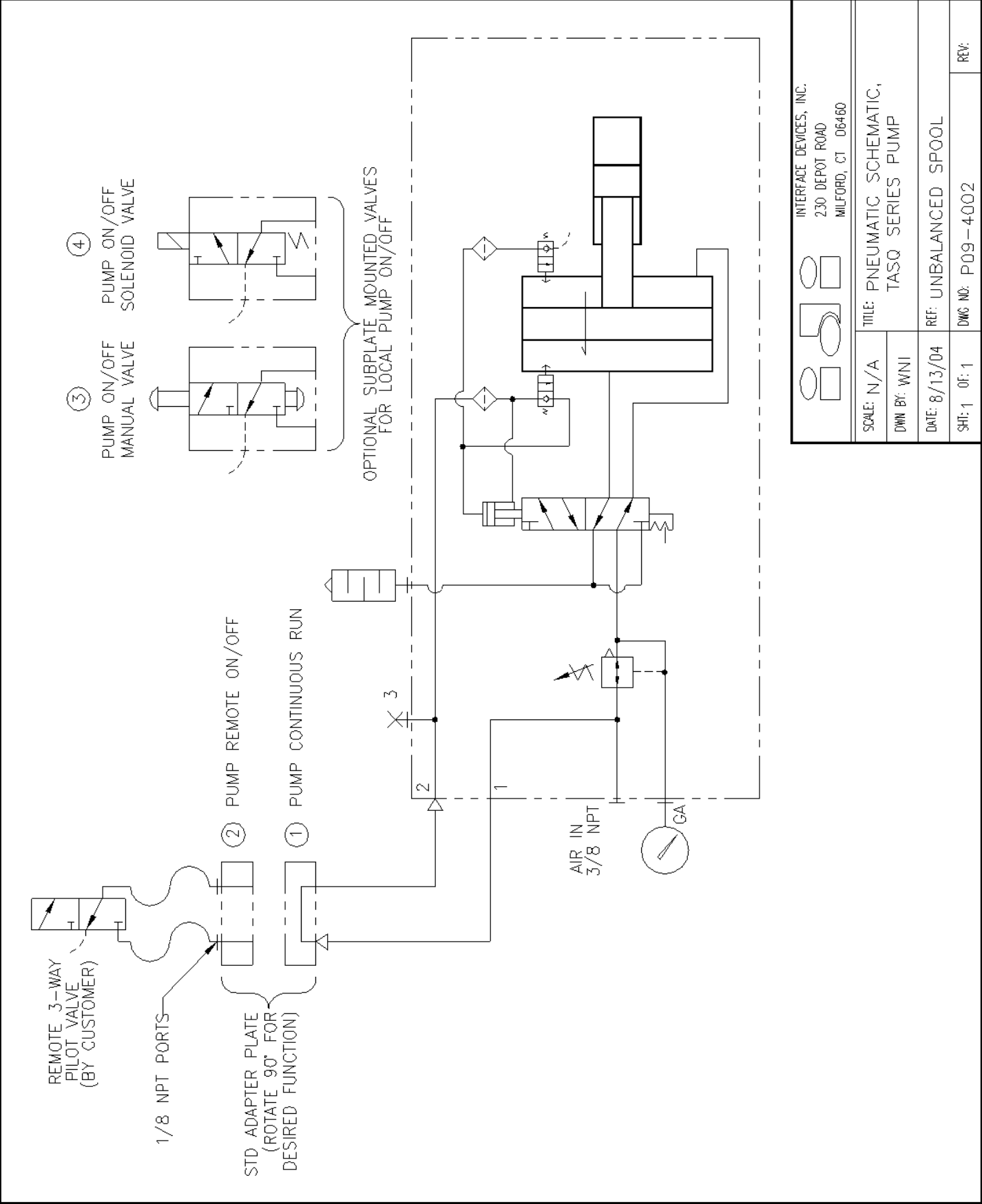
- C. Install the four (4) 5/16 x 4.5 socket head cap screws (with lock washers) through the air cap and air body and thread into the hydraulic body. Cross torque all four cap screws to 11 ft. lbs.

SECTION 5.0: WARRANTY STATEMENT

INTERFACE DEVICES, INC. (hereafter, the factory) warrants it's products to be free from defects in material and workmanship under normal use and service for a period of one (1) year from date of shipment from the factory. Any defect discovered after the warranty period has expired will be deemed to be outside the above coverage. No goods claimed to be under warranty shall be accepted for return unless authorized by the factory beforehand.

Upon discovery of a defect (other than freight damage) or a shortage of an item received in the original factory container, the purchaser shall, within (10) calendar days, deliver notice of the defect or shortage. Damaged freight claims must be placed with the freight carrier and will not be honored by the factory. If after due investigation of a claim of defect or shortage is found valid, the factory may discharge it's entire obligations to the purchaser by either repair or replacement of the defective product or component and for shortages by furnishing a replacement of the missing quantity (FOB, factory).

This express warrantee supersedes and is in lieu of all other remedies and warranties, including the implied warranties of merchantability and fitness, and liability for negligence. **IN NO EVENT SHALL THE FACTORY BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL LOSSES, EXPENSES OR DAMAGES.**



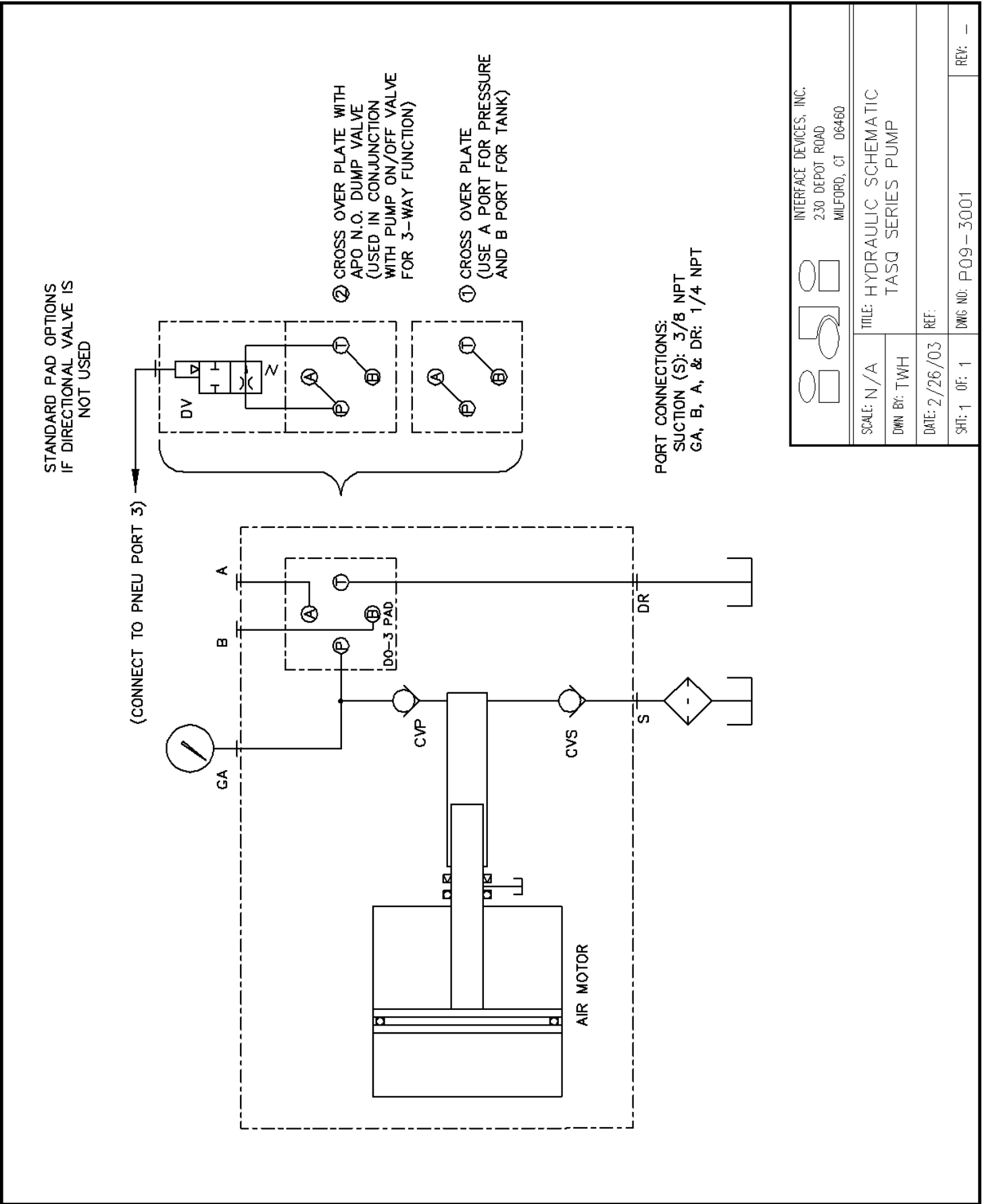
INTERFACE DEVICES, INC.
230 DEPOT ROAD
MILFORD, CT 06460

SCALE: N/A
DWN BY: WNI

TITLE: PNEUMATIC SCHEMATIC,
TASQ SERIES PUMP

DATE: 8/13/04
SHT: 1 OF: 1

REF: UNBALANCED SPOOL
DWG NO: P09-4002
REV:

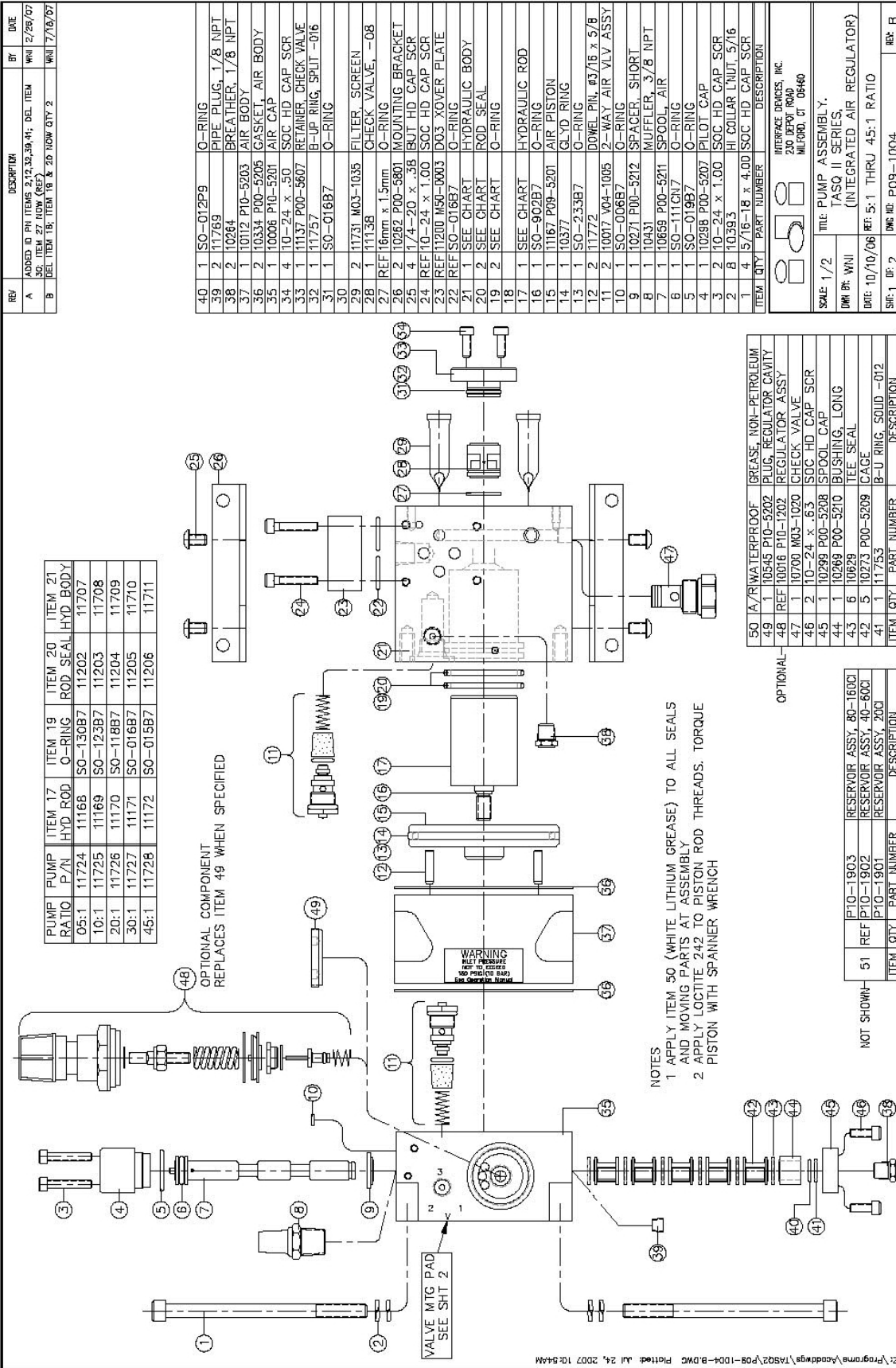


INTERFACE DEVICES, INC.
230 DEPOT ROAD
MILFORD, CT 06460

SCALE: N/A
DWN BY: TWH

DATE: 2/26/03
REF:

SHT: 1 OF: 1
DWS NO: P09-3001
REV: -



REV	DESCRIPTION	BY	DATE
A	ISSUED IN PH ITEMS 2,12,33,39,44; DEL ITEM 30. ITEM 27 NOW (REF)	WHI	12/28/07
B	DEL ITEM 1B; ITEM 1B & 215 NOW QTY 2	WHI	7/18/07

ITEM QTY	PART NUMBER	DESCRIPTION
40	1 SO-012P9	O-RING
39	2 11769	PIPE PLUG, 1/8 NPT
38	2 10264	BREATHER, 1/8 NPT
37	1 10112 P10-5203	AIR BODY
36	2 10334 P00-5206	GASKET, AIR BODY
35	1 10006 P10-5201	AIR CAP
34	4 10-24 x .50	SOC HD CAP SCR
33	1 11137 P00-5607	RETAINER, CHECK VALVE
32	1 11757	B-U RING, SPLIT -016
31	1 SO-016B7	O-RING
30		
29	2 11731 M03-1035	FILTER, SCREEN
28	1 11138	CHECK VALVE, -08
27	REF 16mm x 1.5mm	O-RING
26	2 10262 P00-5801	MOUNTING BRACKET
25	4 17/4-20 x .58	BUT HD CAP SCR
24	REF 10-24 x 1.00	SOC HD CAP SCR
23	REF 11200 M90-0003	D03 XOVER PLATE
22	REF SO-016B7	O-RING
21	1 SEE CHART	HYDRAULIC BODY
20	2 SEE CHART	ROD SEAL
19	2 SEE CHART	O-RING
18		
17	1 SEE CHART	HYDRAULIC ROD
16	1 SO-902B7	O-RING
15	1 11167 P08-5201	AIR PISTON
14	1 10377	GL-ID RING
13	1 SO-233B7	O-RING
12	2 11772	DOWEL PIN, #3/16 x 5/8
11	2 10017 M04-1005	2-WAY AIR VLV ASSY
10	1 SO-006B7	O-RING
9	1 10271 P00-5212	SPACER, SHORT
8	1 10431	MUFFLER, 3/8 NPT
7	1 10659 P00-5211	SPOOL, AIR
6	1 SO-111CN7	O-RING
5	1 SO-019B7	O-RING
4	1 10298 P00-5207	PILOT CAP
3	2 10-24 x 1.00	SOC HD CAP SCR
2	8 10393	HI COLLAR I/NUJ, 5/16
1	4 5/16-18 x 4.00	SOC HD CAP SCR

ITEM QTY	PART NUMBER	DESCRIPTION
50	A/WATERPROOF GREASE, NON-PETROLEUM	
49	1 10945 P10-5202	PLUG, REGULATOR CAVITY
48	REF 10016 P10-1202	REGULATOR ASSY
47	1 10700 M03-1020	CHECK VALVE
46	2 10-24 x .63	SOC HD CAP SCR
45	1 10299 P00-5208	SPOOL CAP
44	1 10269 P00-5210	BUSHING, LONG
43	6 10629	TEE SEAL
42	5 10273 P00-5209	CAGE
41	1 11753	B-U RING, SOLID -012

ITEM QTY	PART NUMBER	DESCRIPTION
51	P10-1903	RESERVOIR ASSY, 80-160CI
REF	P10-1902	RESERVOIR ASSY, 40-60CI
P10-1901		RESERVOIR ASSY, 20CI

ITEM QTY	PART NUMBER	DESCRIPTION
50	A/WATERPROOF GREASE, NON-PETROLEUM	
49	1 10945 P10-5202	PLUG, REGULATOR CAVITY
48	REF 10016 P10-1202	REGULATOR ASSY
47	1 10700 M03-1020	CHECK VALVE
46	2 10-24 x .63	SOC HD CAP SCR
45	1 10299 P00-5208	SPOOL CAP
44	1 10269 P00-5210	BUSHING, LONG
43	6 10629	TEE SEAL
42	5 10273 P00-5209	CAGE
41	1 11753	B-U RING, SOLID -012

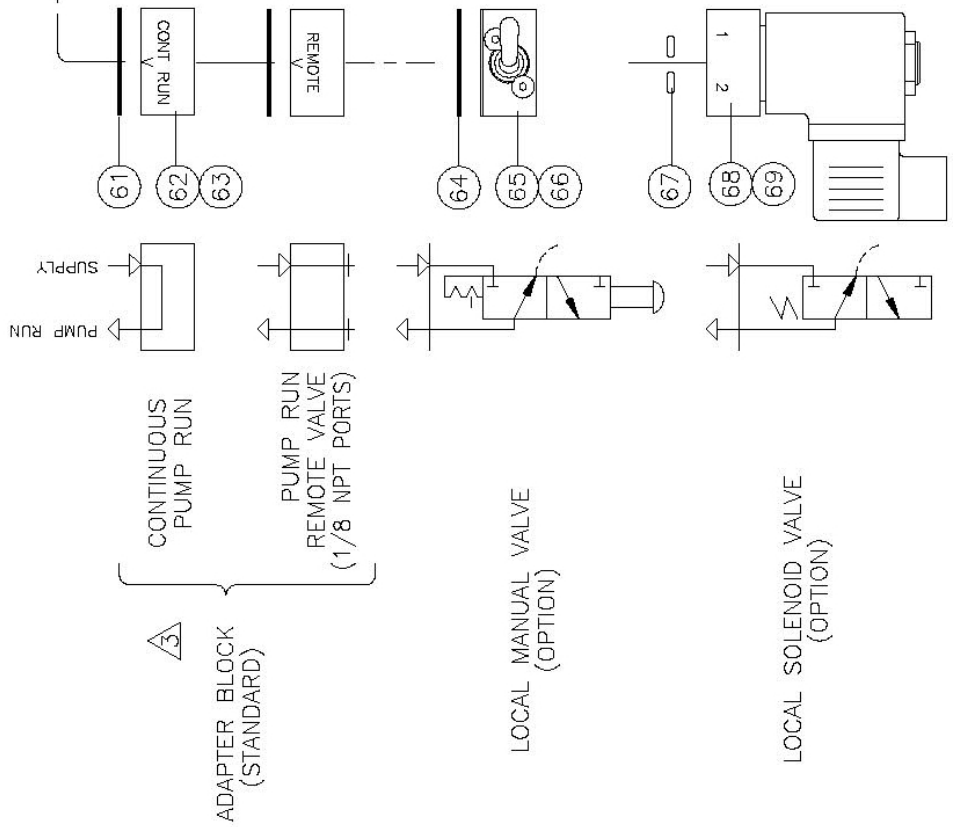
ITEM QTY	PART NUMBER	DESCRIPTION
51	P10-1903	RESERVOIR ASSY, 80-160CI
REF	P10-1902	RESERVOIR ASSY, 40-60CI
P10-1901		RESERVOIR ASSY, 20CI

ITEM QTY	PART NUMBER	DESCRIPTION
50	A/WATERPROOF GREASE, NON-PETROLEUM	
49	1 10945 P10-5202	PLUG, REGULATOR CAVITY
48	REF 10016 P10-1202	REGULATOR ASSY
47	1 10700 M03-1020	CHECK VALVE
46	2 10-24 x .63	SOC HD CAP SCR
45	1 10299 P00-5208	SPOOL CAP
44	1 10269 P00-5210	BUSHING, LONG
43	6 10629	TEE SEAL
42	5 10273 P00-5209	CAGE
41	1 11753	B-U RING, SOLID -012

REV	DESCRIPTION	BY	DATE
A	ITEMS 61-69 NOW (REF)	WNI	2/26/07
B	DEL ITEM 18; ITEM 19 & 20 NOW QTY 2	WNI	7/18/07

NOTES

- 1 PORT 3 IS COMMON TO PORT 2.
CONNECT PORT 3 TO REMOTE AIR PILOT OPERATED HYDRAULIC RELEASE VALVE
- 2 MOUNTING SCREWS AND GASKET/O-RINGS ARE FURNISHED FOR EACH OPTION
- 3 ROTATE ADAPTER BLOCK TO MATCH "V" STAMPED ON AIR CAP FOR THE DESIRED FUNCTION



VOLTAGE	ITEM 38 P/N
110 VAC	10727
24 VDC	10728

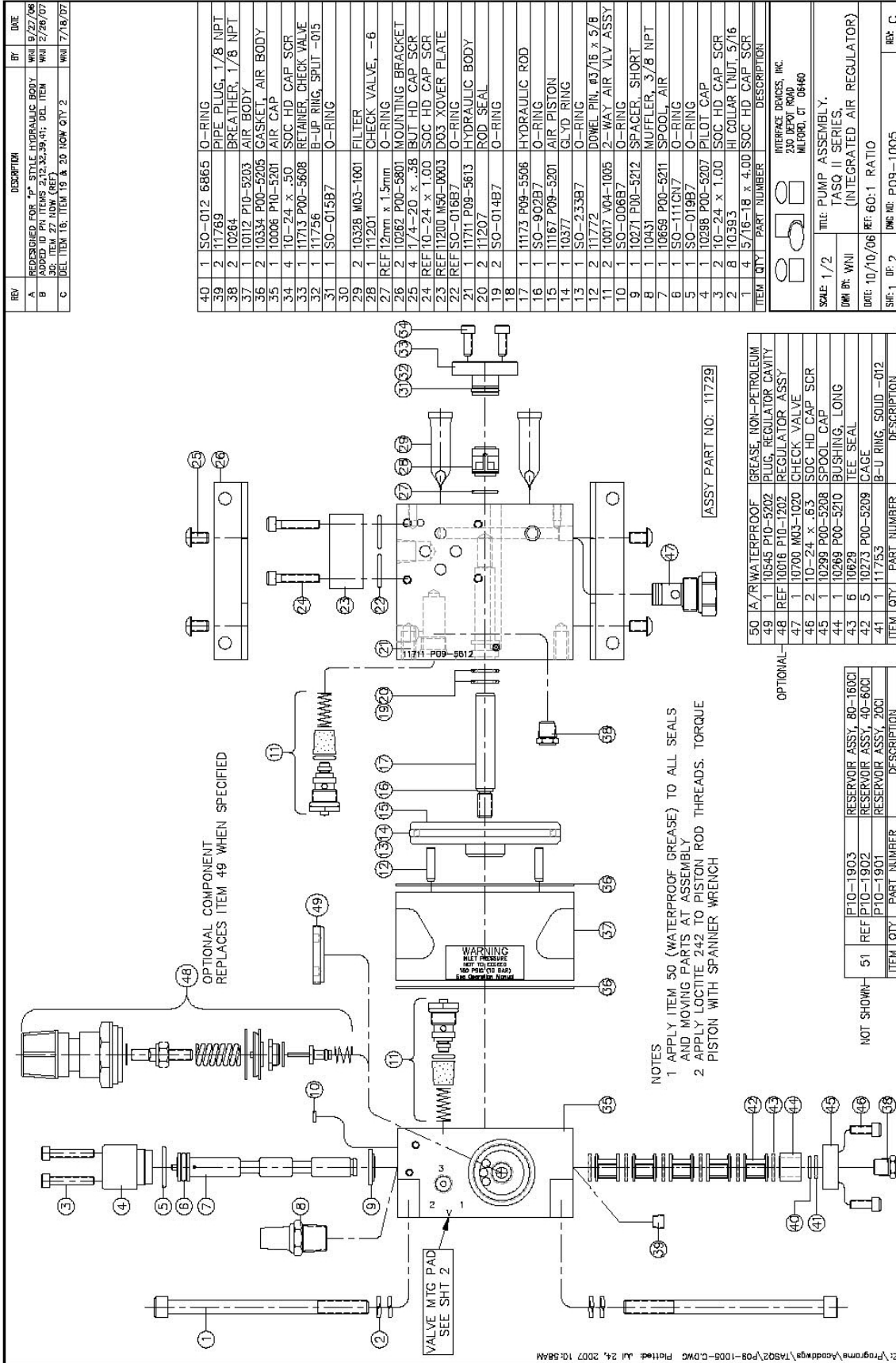
ITEM	QTY	PART NUMBER	DESCRIPTION
70			
69	REF	M4 x 20	SCREW, FLAT HEAD
68	REF	SEE CHART	SOL AIR VALVE
67	REF	IS0-006B7	O-RING
66	REF	M4 x 20	SCREW, FLAT HEAD
65	REF	10449	MAN TOGGLE SWITCH
64	REF	10333	GASKET
63	REF	M4 X 20	SCREW, FLAT HD
62	REF	10100	BLOCK, ADAPTER
61	REF	10333	GASKET

INTERFACE DEVICES, INC.
230 DEPOT ROAD
MILFORD, CT 06460

SCALE: 1/2
DWN BY: WNI
DATE: 10/10/06
SHT: 2 OF 2

TITLE: PUMP ASSEMBLY.
TASQ SERIES,
(INTEGRATED AIR REGULATOR)

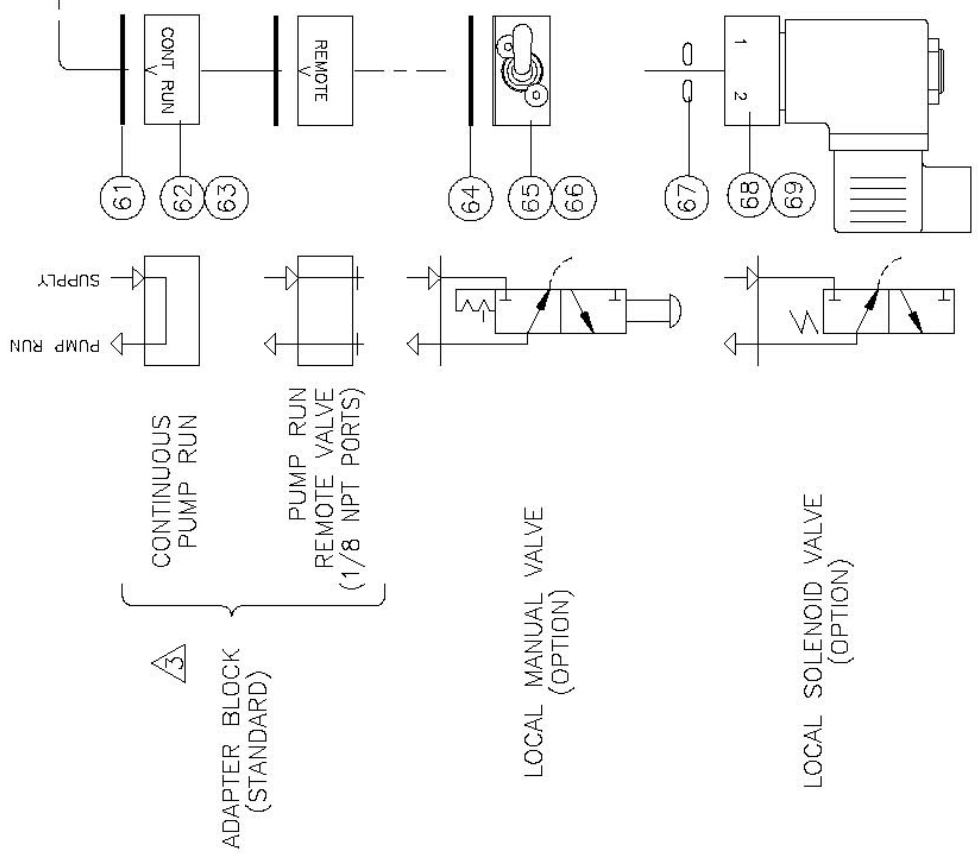
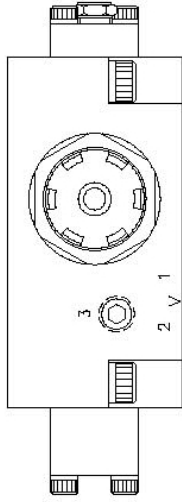
REF: 5:1 THRU 45:1 RATIO
DWG NO: P09-1004
REV: B



REV	DESCRIPTION	BY	DATE
A	REDESIGNED FOR "P" STYLE HYDRAULIC BODY	WNI	9/27/06
B	ITEMS 61-69 NOW (REF)	WNI	2/26/07
C	DEL. ITEM 18; ITEM 19 & 20 NOW QTY 2	WNI	7/18/07

NOTES

- 1 PORT 3 IS COMMON TO PORT 2.
CONNECT PORT 3 TO REMOTE AIR PILOT OPERATED HYDRAULIC RELEASE VALVE
- 2 MOUNTING SCREWS AND GASKET/O-RINGS ARE FURNISHED FOR EACH OPTION
- 3 ROTATE ADAPTER BLOCK TO MATCH "V" STAMPED ON AIR CAP FOR THE DESIRED FUNCTION



VOLTAGE	ITEM	38	P/N
110 VAC			10727
24 VDC			10728

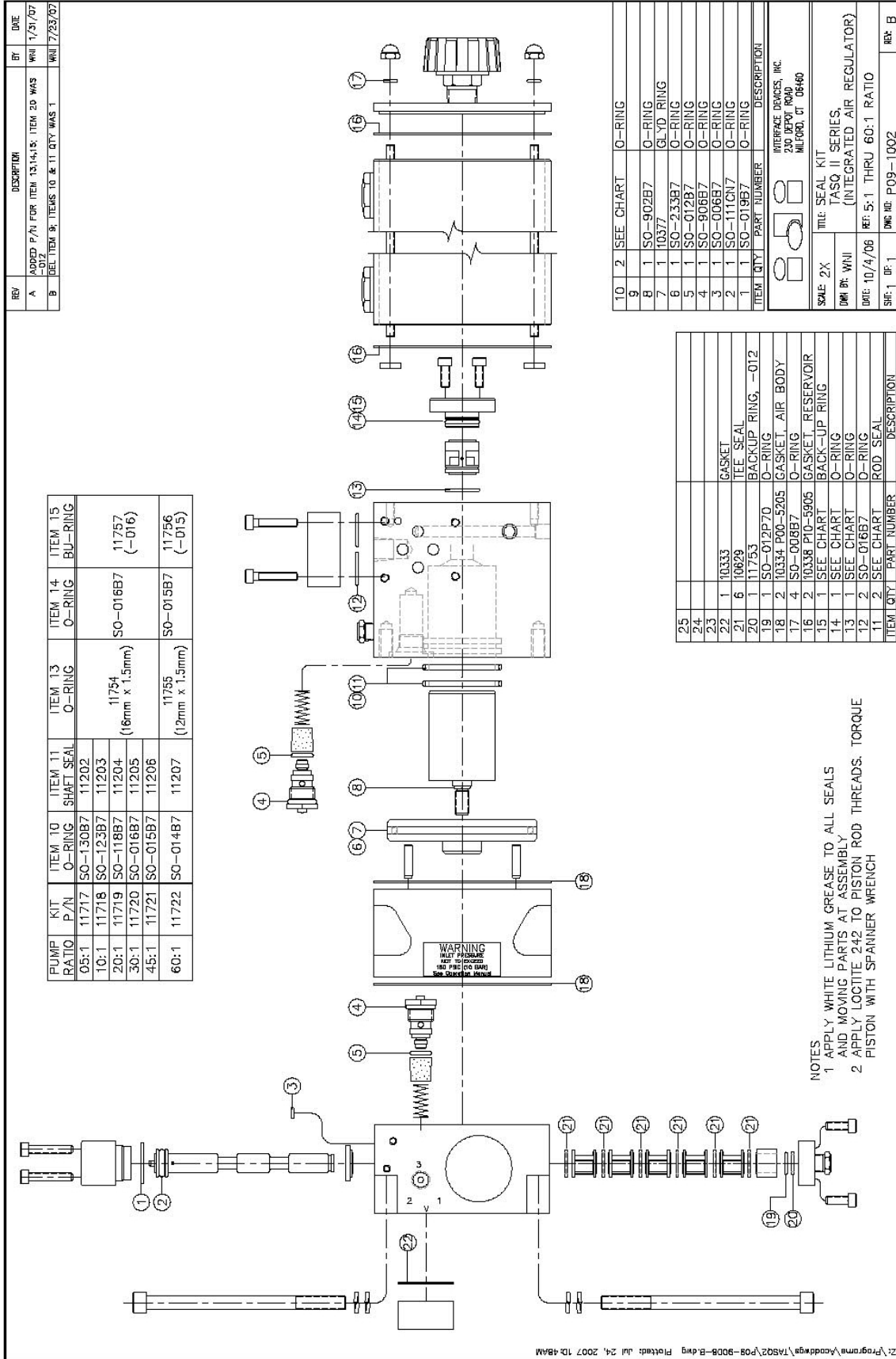
ITEM	QTY	PART NUMBER	DESCRIPTION
70			
69	REF	M4 x 20	SCREW, FLAT HEAD
68	REF	SEE CHART	SOL AIR VALVE
67	REF	SO-006B7	O-RING
66	REF	M4 x 20	SCREW, FLAT HEAD
65	REF	10449	MAN TOGGLE SWITCH
64	REF	10333	GASKET
63	REF	M4 X 20	SCREW, FLAT HD
62	REF	10100	BLOCK, ADAPTER
61	REF	10333	GASKET

INTERFACE DEVICES, INC.
230 DEPOT ROAD
MILFORD, CT 06460

SCALE: 1/2
TITLE: PUMP ASSEMBLY.
TASQ II SERIES,
(INTEGRATED AIR REGULATOR)

DWG BY: WNI
DATE: 10/10/06
REF: 60:1 RATIO

SHT:2 OF:2
DWG NO: P09-1005
REV: C



PUMP RATIO	KIT P/N	ITEM 10 O-RING	ITEM 11 SHAFT SEAL	ITEM 13 O-RING	ITEM 14 O-RING	ITEM 15 BU-RING
05:1	11717	SO-130B7	11202			
10:1	11718	SO-123B7	11203			
20:1	11719	SO-118B7	11204	11754 (16mm x 1.5mm)	SO-016B7	11757 (-016)
30:1	11720	SO-016B7	11205			
45:1	11721	SO-015B7	11206			
60:1	11722	SO-014B7	11207	11755 (12mm x 1.5mm)	SO-015B7	11756 (-015)

ITEM	QTY	PART NUMBER	DESCRIPTION
10	2	SEE CHART	O-RING
9	1	SO-902B7	O-RING
8	1	10377	GLYD RING
7	1	SO-233B7	O-RING
6	1	SO-012B7	O-RING
5	1	SO-906B7	O-RING
4	1	SO-006B7	O-RING
3	1	SO-111C17	O-RING
2	1	SO-019B7	O-RING

ITEM	QTY	PART NUMBER	DESCRIPTION
25			
24			
23	1	10333	GASKET
22	1	10829	TEE SEAL
21	6	11753	BACKUP RING, -012
20	1	SO-012P70	O-RING
19	2	10334 P00-5205	GASKET, AIR BODY
18	4	SO-008B7	O-RING
17	2	10338 P10-5905	GASKET, RESERVOIR
16	1	SEE CHART	BACK-UP RING
15	1	SEE CHART	O-RING
14	1	SEE CHART	O-RING
13	2	SO-016B7	O-RING
12	2	SEE CHART	ROD SEAL
11	2	SEE CHART	ROD SEAL

NOTES
 1 APPLY WHITE LITHIUM GREASE TO ALL SEALS AND MOVING PARTS AT ASSEMBLY
 2 APPLY LOCTITE 242 TO PISTON ROD THREADS. TORQUE PISTON WITH SPANNER WRENCH

SCALE: 2X
 TITLE: SEAL KIT
 TMSQ II SERIES
 (INTEGRATED AIR REGULATOR)
 DATE: 10/4/06
 REF: 5:1 THRU 60:1 RATIO
 DWG NO: P09-1002
 REV: B