

# ENB-20, ENB-30, ENB-45 Gas Boosters

## 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](mailto:info@interfacedevices.com)  
[www.interfacedevices.com](http://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**

**Pump Serial Number:** \_\_\_\_\_

### STATEMENT OF WARRANTY

INTERFACE DEVICES, INC. (hereafter, the factory) warrants its 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 its sole discretion, may discharge its 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.**

ENB-20, ENB-30, ENB-45 GAS BOOSTER  
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## 1.0 INSTALLATION

### 1.1 MOUNTING:

The booster comes standard with foot mounting brackets at each end of the pump (for 1/4 inch screws).

The unit may be mounted vertically (wall mount) or horizontally (floor mount).

### 1.2 CONNECTIONS – Refer to drawing P32-0002 on page 5 when connecting the Booster.

Connect FILTERED shop air to the 1/2 npt AIR IN port on the pump (No Air Regulator or Lubricator is required). Maximum inlet drive pressure is 125 psi. (8.5 bar)

Connect your gas source to the ¼ npt GAS IN port. Minimum/Maximum gas inlet pressures are listed below

ENB-20	200-1600 psi
ENB-30	300-2400 psi
ENB-45	400-3600 psi

Connect your high-pressure circuit to the ¼ npt GAS OUT port on the pump.

### 1.3 STARTUP:

Slowly turn on the gas supply to the pump.

Starting with the integral air regulator (on the pump) backed-out all the way, slowly increase the pressure by turning the regulator knob clockwise. The pump will start to cycle and the “OUT” gas pressure will rise.

The pump will stall when circuit pressure reaches the pump ratio (20, 30 or 45) times the regulated air pressure. The pump will maintain this pressure even if there is some circuit leakage. At this time check for and fix any circuit leaks since this only causes unnecessary air/nitrogen consumption and wear and tear on the pump.

**The relief valve on the drive regulator is preset and should never be tampered with.**

## 2.0 MAINTAINENCE:

### 2.1 ROUTINE MAINTAINENCE:

The only routine maintenance required is to re-grease the main air spool (part no. 10659) and the six “T-seals” (part no. 10629) every 6 months.

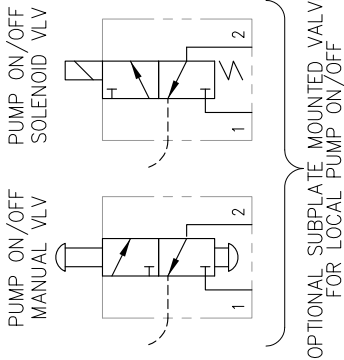
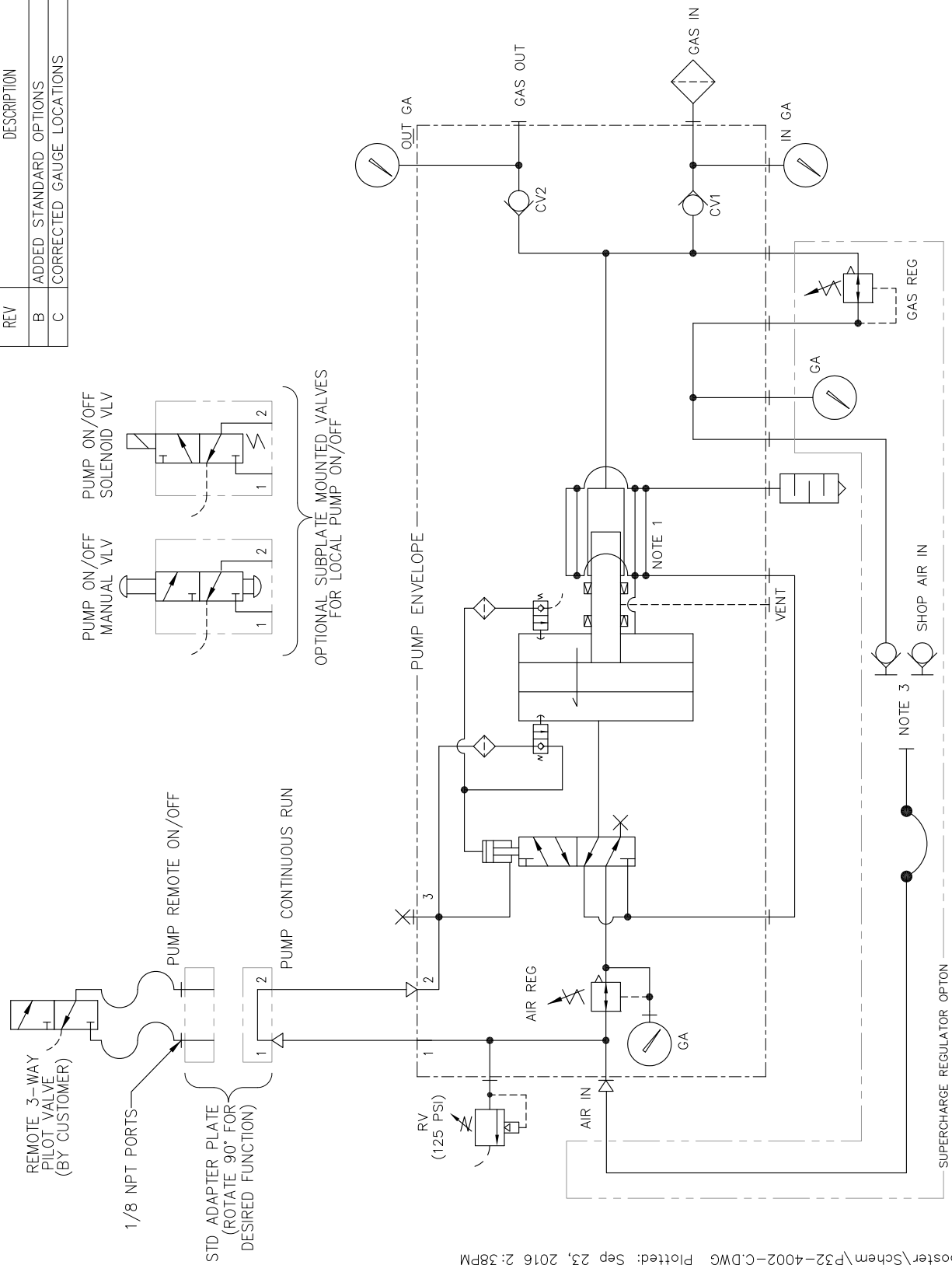
### 2.2 TROUBLESHOOTING GUIDE: See following table on page 4.

AIR & GAS BOOSTER TROUBLESHOOTING GUIDE  
(Refer to enclosed Exploded View Drawing)

SYMPTOM	PROBABLE CAUSE(S)	REMEDY
Pump will not cycle. (Only regulated nitrogen pressure at output)	No air supply to pump.  Pump drive regulator set too low.	Look for and fix.  Increase setting.
Pump will <u>still</u> not cycle (Only regulated nitrogen pressure at output)	Four-way reciprocating valve spool stuck at mid-position.  After trying remedy above, spool still sticks:	Disconnect/Reconnect drive supply (Re-sets air spool to end position.)  Manually push spool to far end with probe through hole in item 14 "Spool Stop Cap" If stuck or requires excessive force, disassemble valve assembly Inspect for contamination or mechanical bind. Repair or replace, lubricate seals with water-proof grease.
Pump makes one cycle, then stops.	Faulty item 2 "2-way air valve" (Broken, leaks or contaminated).	Repair or replace.
Pump cycles constantly when "dead-headed".	External leak at pump or downstream high pressure circuit.  Stuck open or contaminated item 18 "Check Valve" cartridge (2 places).  Internal leak in pump.	Look for and correct.  Clean or replace.  Check all dynamic and static seals and gaskets.

For further assistance call INTERFACE DEVICES, INC. at 203/878-4648.

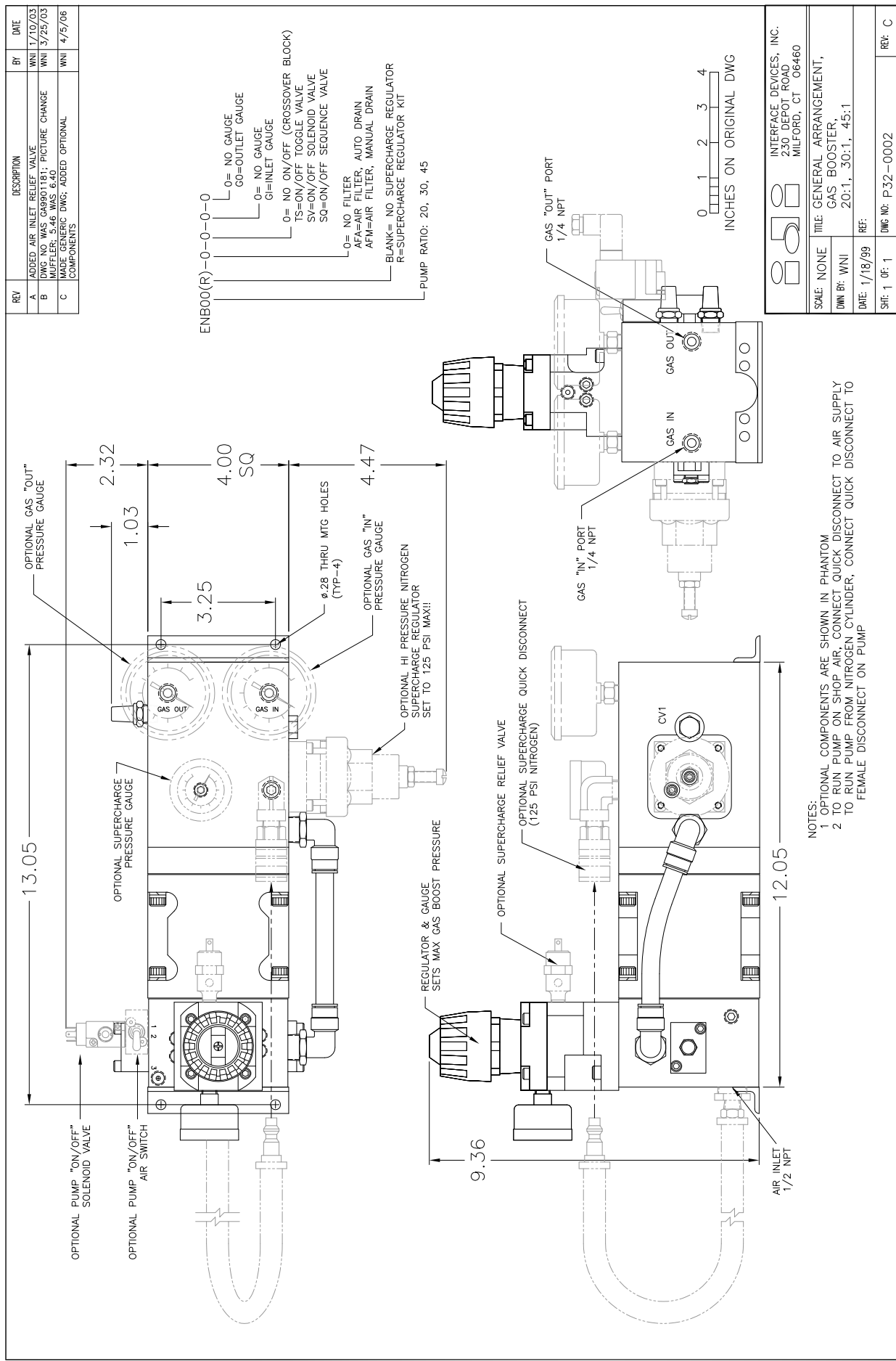
REV	DESCRIPTION	BY	DATE
B	ADDED STANDARD OPTIONS	WNI	4/21/06
C	CORRECTED GAUGE LOCATIONS	WNI	9/23/16



Z:\Programs\Accdwgs\GasBooster\Schem\F32-4002-C.DWG Plotted: Sep 23, 2016 2:38PM

- NOTES:
- 1 COLD EXHAUST AIR IS ROUTED AROUND THE PUMP BORE FOR COOLING
  - 2 ITEMS SHOWN OUTSIDE PUMP ENVELOPE ARE OPTIONS
  - 3 SUPERCHARGE REGULATOR OPTION:  
TO RUN PUMP ON SHOP AIR, CONNECT QUICK DISCONNECT TO AIR SUPPLY  
TO RUN PUMP FROM GAS CYLINDER, CONNECT QUICK DISCONNECT TO FEMALE DISCONNECT ON PUMP

		INTERFACE DEVICES, INC. 230 DEPOT ROAD MILFORD, CT 06460
SCALE: N/A	TITLE: PNEUMATIC SCHEMATIC, SA NITROGEN BOOSTER (AIR POWERED)	
DWN BY: WNI	REF: ENB-20, ENB-30, ENB-45	
DATE: 3/25/03	DWG NO: P32-4002	
SHT: 1 OF: 1	REV: C	



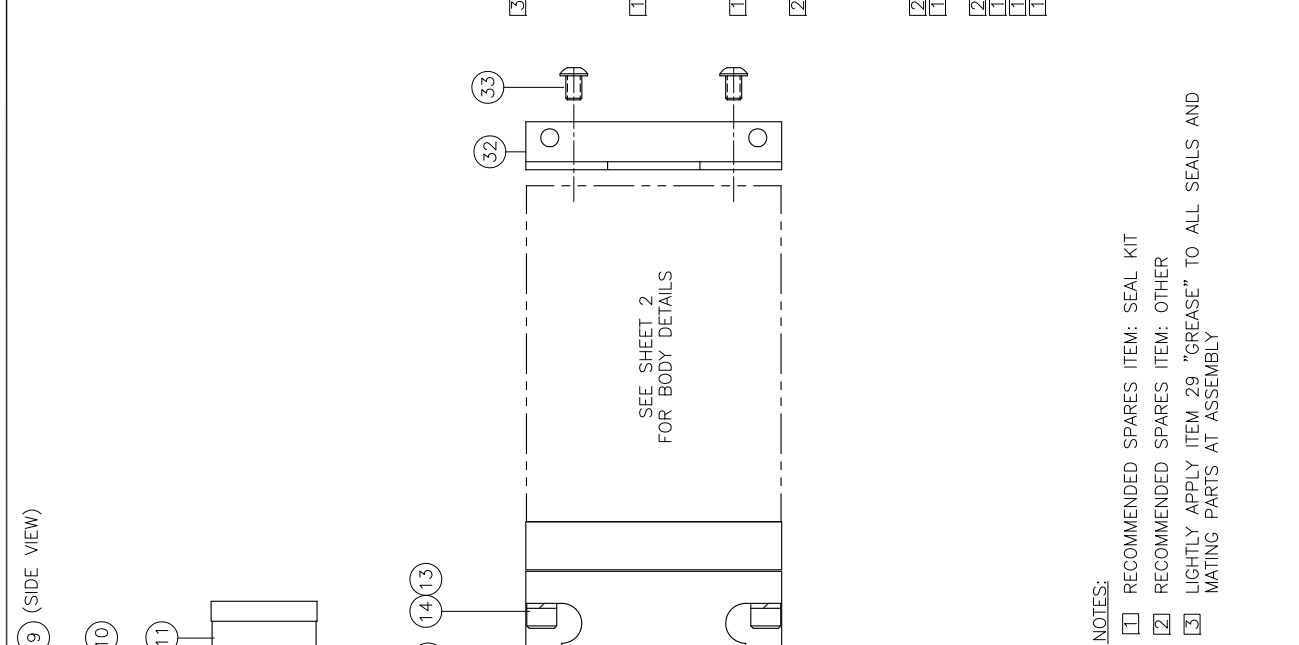
REV	DESCRIPTION	BY	DATE
A	ADDED AIR INLET RELIEF VALVE	WNI	1/10/03
B	DWG NO. WAS GA9001.R1; PICTURE CHANGE MUFFLER: 5.46 WAS 6.40	WNI	3/25/03
C	MADE GENERIC DWG; ADDED OPTIONAL COMPONENTS	WNI	4/5/06

SCALE: NONE	TITLE: GENERAL ARRANGEMENT, GAS BOOSTER
DWG BY: WNI	DATE: 1/18/99
SHEET: 1 OF 1	DWG NO: P.32-0002
REV: C	

- NOTES:
- OPTIONAL COMPONENTS ARE SHOWN IN PHANTOM
  - TO RUN PUMP ON SHOP AIR, CONNECT QUICK DISCONNECT TO AIR SUPPLY
  - TO RUN PUMP FROM NITROGEN CYLINDER, CONNECT QUICK DISCONNECT TO FEMALE DISCONNECT ON PUMP



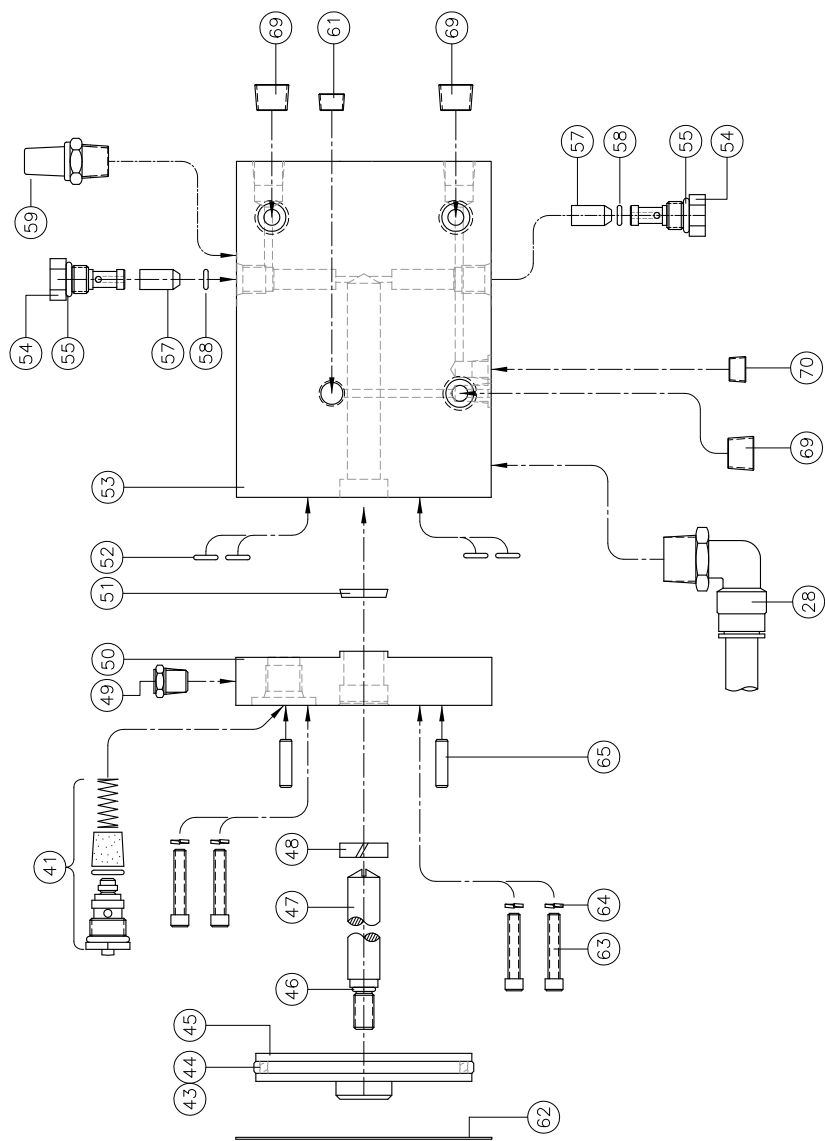
REV	DESCRIPTION	BY	DATE
40			
39			
38			
37			
36			
35			
34			
33	4 1/4-20 x .38 SCREW, BUT HD CAP		
32	2 10262 P00-5801 BRACKET, MOUNTING		
31	1 11753 TEFLON BU RING, -012		
30	1 SO-012P7 O-RING		
29	A/R GREASE, WHT LITHIUM		
28	1 12061 M04-1025 HOSE ASSY		
27			
26			
25			
24	1 10111 P12-5202 BODY, AIR CYLINDER		
23	1 10334 P00-5205 GASKET, AIR BODY		
22	1 10264 BREATHER, 1/8 NPT		
21	2 10-24 x .62 SCREW, SOC HD CAP		
20	1 10299 P00-5208 SPOOL CAP		
19	1 10289 P00-5210 BUSHING, LONG		
18	6 10629 TEE SEAL		
17	5 10273 P00-5209 CAGE		
16	1 10004 P12-5201 AIR CAP HOUSING		
15	1 10017 V04-1005 2-WAY AIR VLV ASSY		
14	4 5/16-18 x 1.75 SCREW, SOC HD CAP		
13	8 10393 LOCK WASHER, 5/16 HI C		
12	4 5/16-18 x 1.00 SCREW, SOC HD CAP		
11	1 10342 M04-1004 AIR GAUGE (0-160 PSI)		
10	2 1/4-20 x .88 SCREW, SOC HD CAP		
9	1 10015 P12-1202 AIR REG ASSY		
8	2 SO-016B7 O-RING		
7	1 10271 P00-5212 BUSHING, SHORT		
6	1 10659 P00-5211 AIR SPOOL		
5	1 SO-111B7 O-RING		
4	1 SO-006B7 O-RING		
3	1 SO-019B7 O-RING		
2	1 10298 P00-5207 PILOT CAP		
1	2 10-24 x 1.00 SCREW, SOC HD CAP		



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	10004 P12-5201	AIR CAP HOUSING
2	1	10017 V04-1005	2-WAY AIR VLV ASSY
3	1	SO-019B7	O-RING
4	1	SO-006B7	O-RING
5	1	SO-111B7	O-RING
6	1	10659 P00-5211	AIR SPOOL
7	1	10271 P00-5212	BUSHING, SHORT
8	2	SO-016B7	O-RING
9	1	10015 P12-1202	AIR REG ASSY
10	2	1/4-20 x .88	SCREW, SOC HD CAP
11	1	10342 M04-1004	AIR GAUGE (0-160 PSI)
12	4	5/16-18 x 1.00	SCREW, SOC HD CAP
13	8	10393	LOCK WASHER, 5/16 HI C
14	4	5/16-18 x 1.75	SCREW, SOC HD CAP
15	1	10004 P12-5201	AIR CAP HOUSING
16	1	10017 V04-1005	2-WAY AIR VLV ASSY
17	5	10273 P00-5209	CAGE
18	6	10629	TEE SEAL
19	1	10289 P00-5210	BUSHING, LONG
20	2	10-24 x .62	SCREW, SOC HD CAP
21	2	10-24 x .62	SCREW, SOC HD CAP
22	1	10299 P00-5208	SPOOL CAP
23	1	10334 P00-5205	GASKET, AIR BODY
24	1	10111 P12-5202	BODY, AIR CYLINDER
25			
26			
27			
28	1	12061 M04-1025	HOSE ASSY
29	A/R		GREASE, WHT LITHIUM
30	1	SO-012P7	O-RING
31	1	11753	TEFLON BU RING, -012
32	2	10262 P00-5801	BRACKET, MOUNTING
33	4	1/4-20 x .38	SCREW, BUT HD CAP



REV	DESCRIPTION	BY	DATE
—	—	—	—



70	2	12280	PIPE PLUG, 1/16 NPT, BRSS
69	3	12095	PIPE PLUG, 1/4 NPT, BRSS
68			
67			
66			
65	2	11772	DOWEL PIN, #3/16 x .62
64	4	10392	LOCK WASHER, 1/4 HI C
63	4	1/4-20 x 1.00	SOC HD CAP SCR
62	1	10334 P00-5205	GASKET, AIR BODY
61	1	12035	PIPE PLUG, 1/8 NPT, BRSS
60			
59	2	10429	MUFFLER, 1/4 NPT
58	4	SO-008P9	O-RING
57	2	11632 M04-1002	CHECK VALVE (2201)
56			
55	2	SO-012P9	O-RING
54	2	11288 P32-5602	PLUG, CV RETAINER
53	1	SEE CHART	BODY, ENB-45
52	7	SO-011B7	O-RING
51	1	SEE CHART	VARISEAL
50	1	SEE CHART	RATIO PLATE
49	2	10264	BREATHER, 1/8 NPT
48	1	SEE CHART	SLYDRING
47	1	SEE CHART	PISTON ROD
46	1	SO-902B7	O-RING
45	1	11167 P09-5201	AIR PISTON
44	1	10377	GLYDE RING
43	1	SO-233B7	O-RING
42			
41	1	10017 V04-1005	2-WAY AIR VLV ASSY

PUMP RATIO	ITEM 47 PISTON	ITEM 48 SLYDRING	ITEM 50 RATIOPLATE	ITEM 51 VARISEAL	ITEM 53 AIR BODY
20:1	11904 P31-5510	10647 M03-1031	11096 P31-5401	11601 M03-1008	11095 P31-5602
30:1	12669 P31-5512	10645 M03-1031	11686 P31-5405	10886 M03-1008	11098 P31-5601
45:1	11906 P32-5502	10369 M03-1031	10553 P32-5401	11597 M03-1008	10116 P32-5601

- NOTES:
- 1 RECOMMENDED SPARES ITEM: SEAL KIT
  - 2 RECOMMENDED SPARES ITEM: OTHER
  - 3 LIGHTLY APPLY ITEM 29 "GREASE" TO ALL SEALS AND MATING PARTS AT ASSEMBLY

SCALE: 1/2	TITLE: ASSEMBLY, GAS BOOSTER
DWG BY: WNI	ENB-20, 30 & 45
DATE: 1/23/14	REF:
SHT: 2 OF: 2	DWG NO: P31-1011
REV: —	REV: —