

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

INSTALLATION, OPERATION & MAINTENANCE MANUAL

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**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.

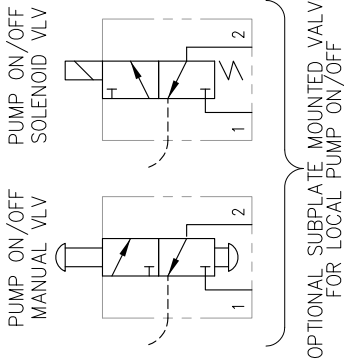
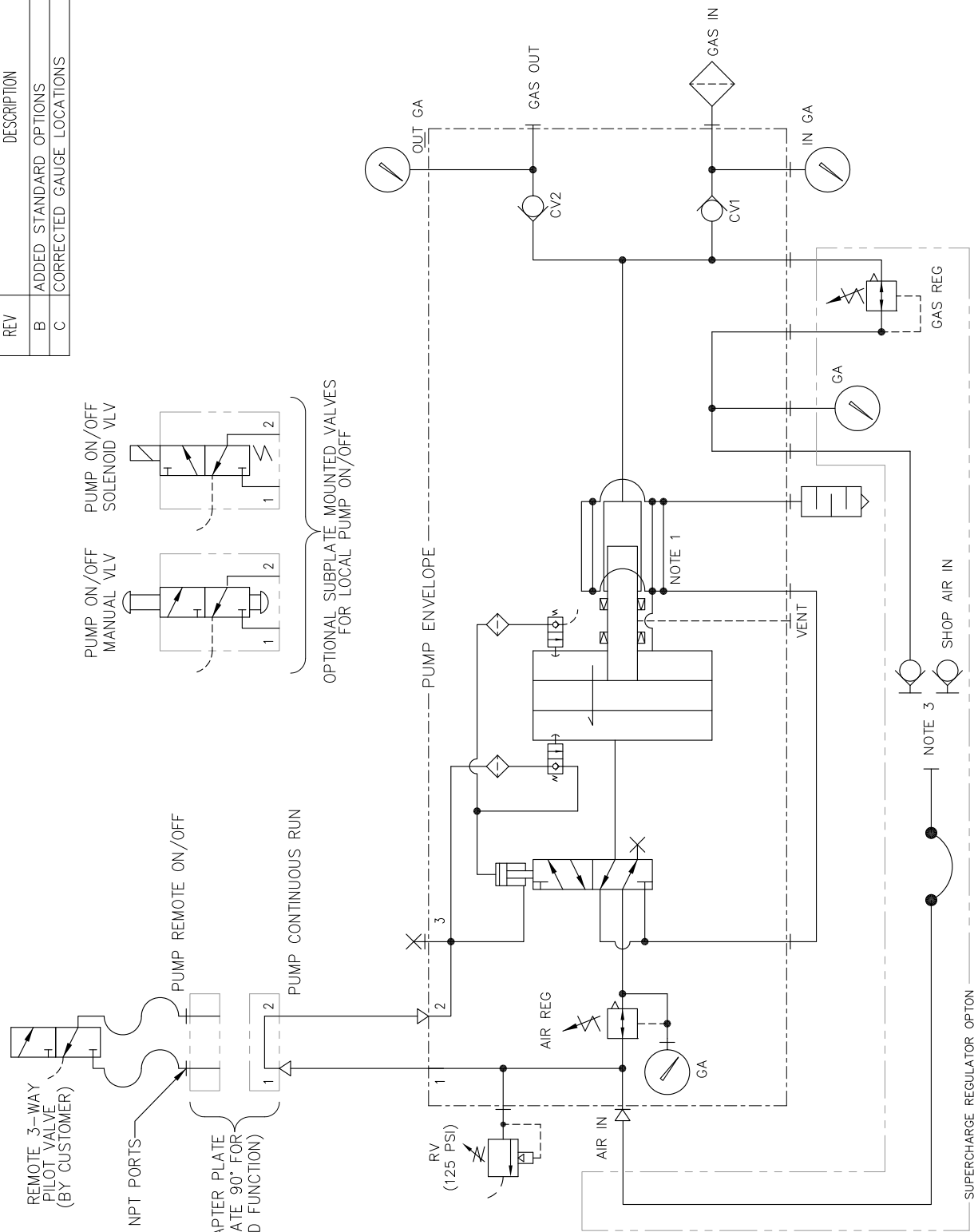
2.2 TROUBLESHOOTING GUIDE: See following table on page 4.

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.

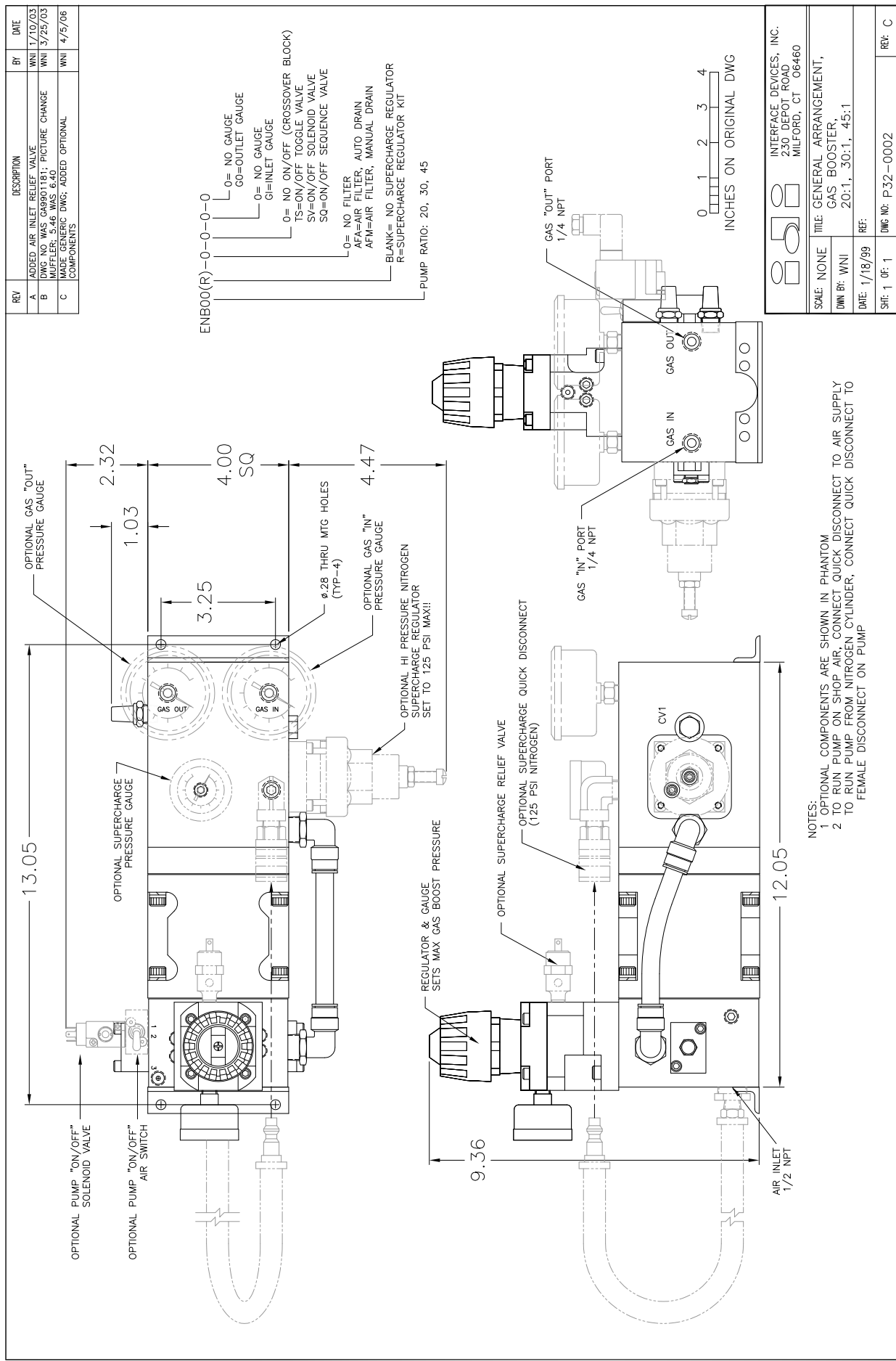
REV	DESCRIPTION	BY	DATE
B	ADDED STANDARD OPTIONS	WNI	4/21/06
C	CORRECTED GAUGE LOCATIONS	WNI	9/23/16



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

		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	

- 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



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

ENB00(R)-0-0-0-0

O= NO GAUGE
 GO=OUTLET GAUGE
 O= NO GAUGE
 GI=INLET GAUGE
 O= NO ON/OFF (CROSSOVER BLOCK)
 TS=ON/OFF TOGGLE VALVE
 SV=ON/OFF SOLENOID VALVE
 SQ=ON/OFF SEQUENCE VALVE
 L= NO FILTER
 AFA=AIR FILTER, AUTO DRAIN
 AFM=AIR FILTER, MANUAL DRAIN
 BLANK= NO SUPERCHARGE REGULATOR
 R=SUPERCHARGE REGULATOR KIT
 PUMP RATIO: 20, 30, 45

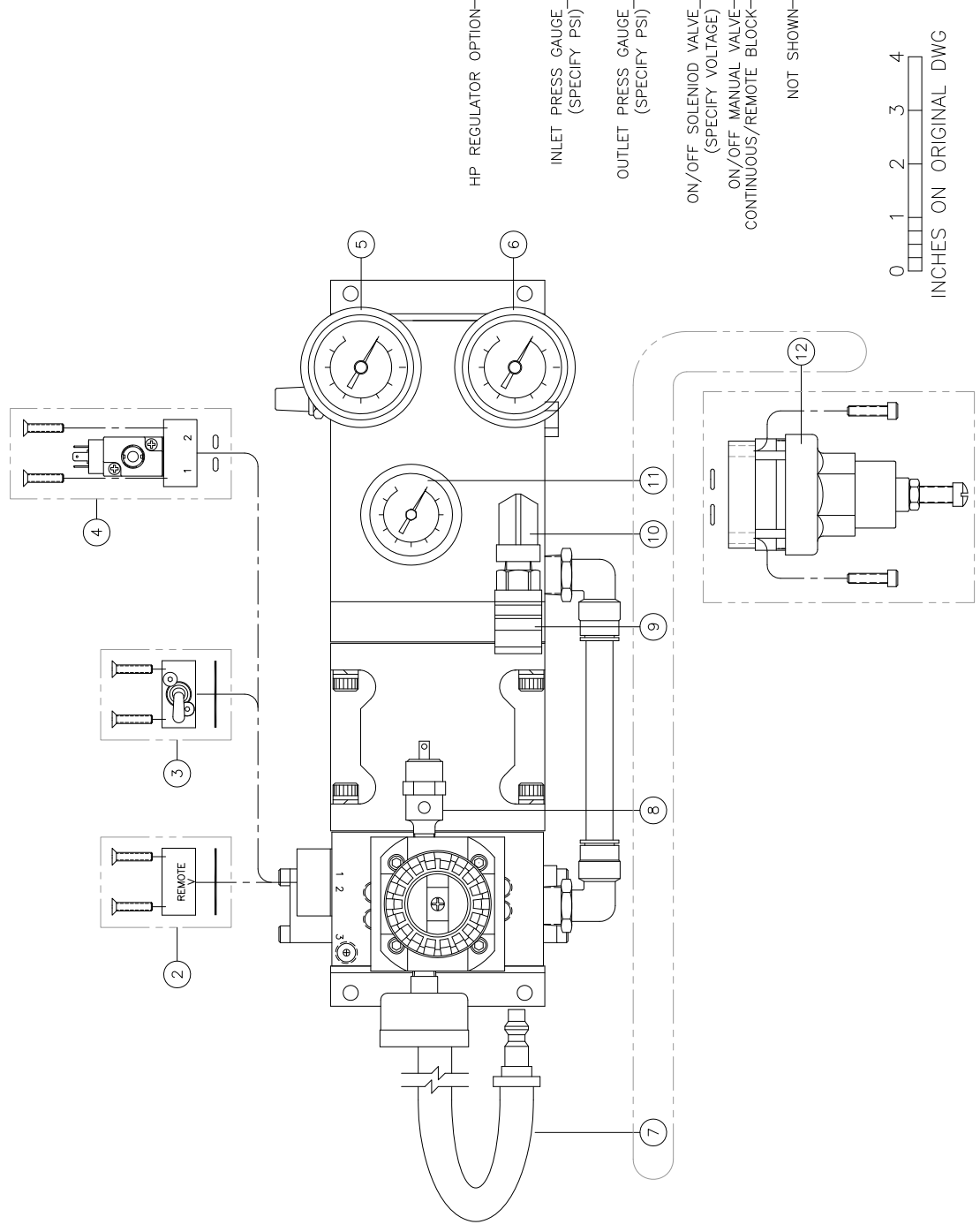


		INTERFACE DEVICES, INC. 230 DEPOT ROAD MILFORD, CT 06460
SCALE: NONE	TITLE: GENERAL ARRANGEMENT, GAS BOOSTER	
DWG BY: WNI	DATE: 1/18/99	
DWG NO: 20-1, 30-1, 45-1	REF:	
SHT: 1 OF: 1	DWG NO: P-32-0002	REV: C

- 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
A	PG 8, P/N CHG ITEM 8, DEL 1, 2, 4, 6, 7, 9	WNI	4/20/11
B	ADD ITEM 11, TMS 19-22, NOW ITEM 21, ASSY;	WNI	1/13/12
C	ITEM 15-13 NOW ITEM 13, ASSY; ADDED (NIST)		
D	RENUMBERED P/L: DEL NIST OPTION; 2K GAUGE WAS 1K GAUGE	WNI	3/15/12
		WNI	1/24/14

NOTES:
1 PARTS SHOWN ARE MOST COMMON OPTIONS
2 THIS DRAWING IS FOR IDENTIFYING
REPLACEMENT PARTS



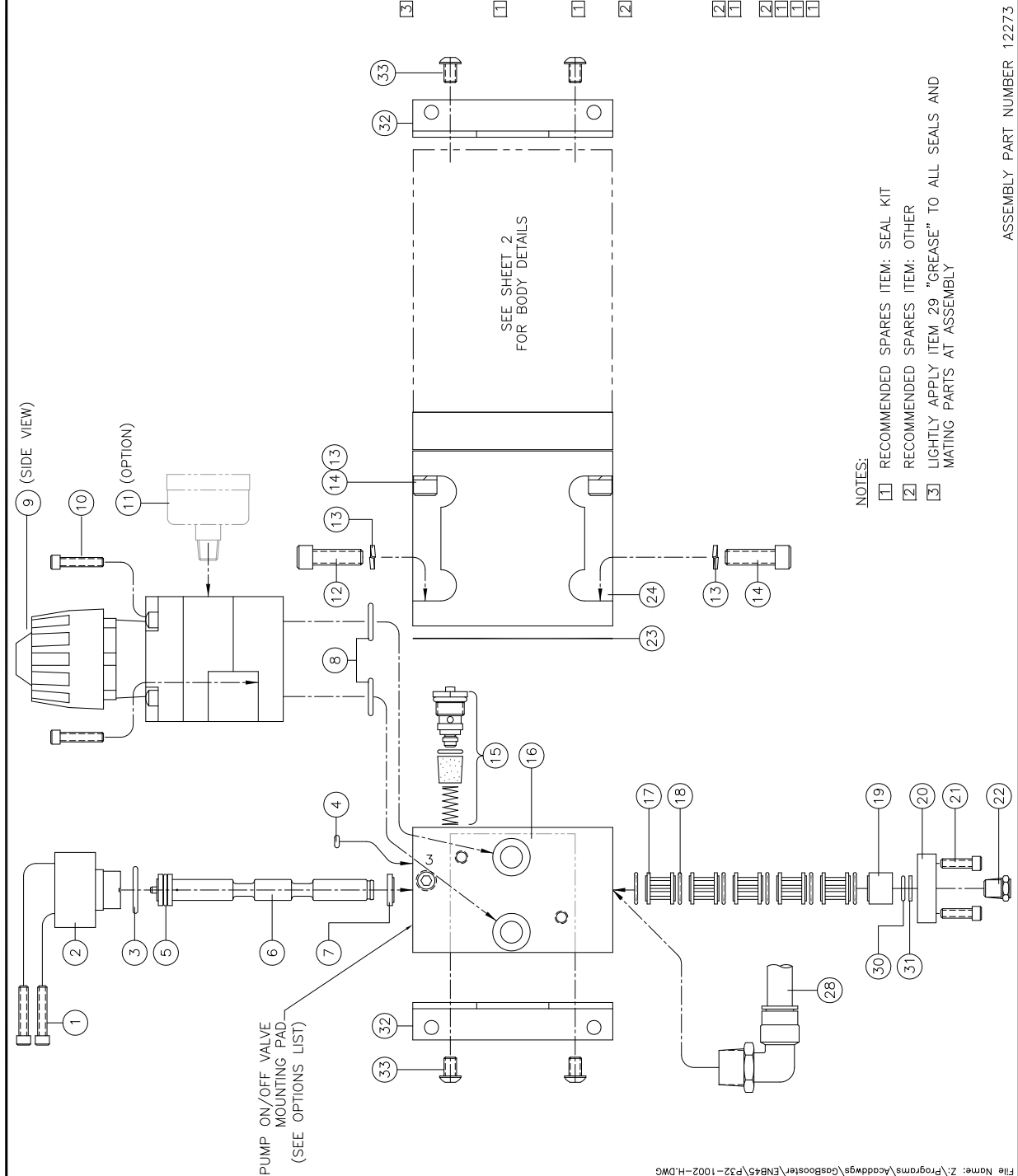
ITEM	QTY	PART NUMBER	DESCRIPTION
12	1	11590 P32-1202	REGULATOR ASSY
11	1	10342 M03-1004	GAUGE, 160 PSI
10	1	12011	SIRET EL, 1/4 NPT, BRSS
9	1	12058	QUICK DISCONNECT
8	1	11236 M04-1006	RELIEF VALVE, 1/8 NPT
7	1	12060	HOSE ASSY
6	1	10353 M03-1011	GAUGE, 5K PSI
		10352 M03-1010	GAUGE, 3K PSI
		10351 M03-1010	GAUGE, 2K PSI
5	1	10353 M03-1011	GAUGE, 5K PSI
		10352 M03-1010	GAUGE, 3K PSI
		10351 M03-1010	GAUGE, 2K PSI
4	1	11918 V04-1003	SOL AIR VALVE, 220VAC
		11836 V04-1003	SOL AIR VALVE, 110VAC
		11835 V04-1003	SOL AIR VALVE, 24VDC
3	1	10743 V04-1001	MAN TOGGLE SWITCH ASSY
2	1	10100 P00-5206	BLOCK ASSY, ADAPTER
1	1	11196 M04-1022	AIR FILTER MANUAL DRAIN
		12051 M04-1022	AIR FILTER, AUTO DRAIN

SCALE: 1/2	TITLE: OPTIONAL COMPONENTS,
DWG BY: WNI	GAS BOOSTER
DATE: 4/17/06	REF: 20:1, 30:1, 45:1
SHEET 1 OF 1	DWG NO: P31-9006

0 1 2 3 4
INCHES ON ORIGINAL DWG

REV	DESCRIPTION	BY	DATE
A	ADDED 30 & 31; PICTURE CHANGE ITEM 6	WNI	10/28/02
B	ADD 37 (RELIEF VALVE); PIC CHANGE ITEM 11	WNI	1/10/03
C	DWG NO WAS XA-ENB451 B; 54 WAS 50-906B7, 57 WAS 2203-C-3-5; 58 WAS SO-012B7 QTY 2	WNI	3/24/03
D	DEL ITEM 66 (1/4 NPT RATIO PLATE MUFFLER)	WNI	4/11/03
E	DEL ITEM 25, 26 & 34 (TOGGLE SWITCH); DEL 37 (RELIEF VALV); ADD 32-33 (MTG BRACKET); DEL 60 (GAUGE); 69 QTY WAS 1	WNI	3/20/06
F	DEL 42; 45 WAS 10477 P00-5203; 46 WAS SO-903B7, 47 WAS 10484 P32-5501	WNI	4/30/08
G	ADD IDI P/N'S; REV O-RING MAT'L	WNI	11/12/12
H	HW 57 WAS 10654 NOW 11632	WNI	7/17/13

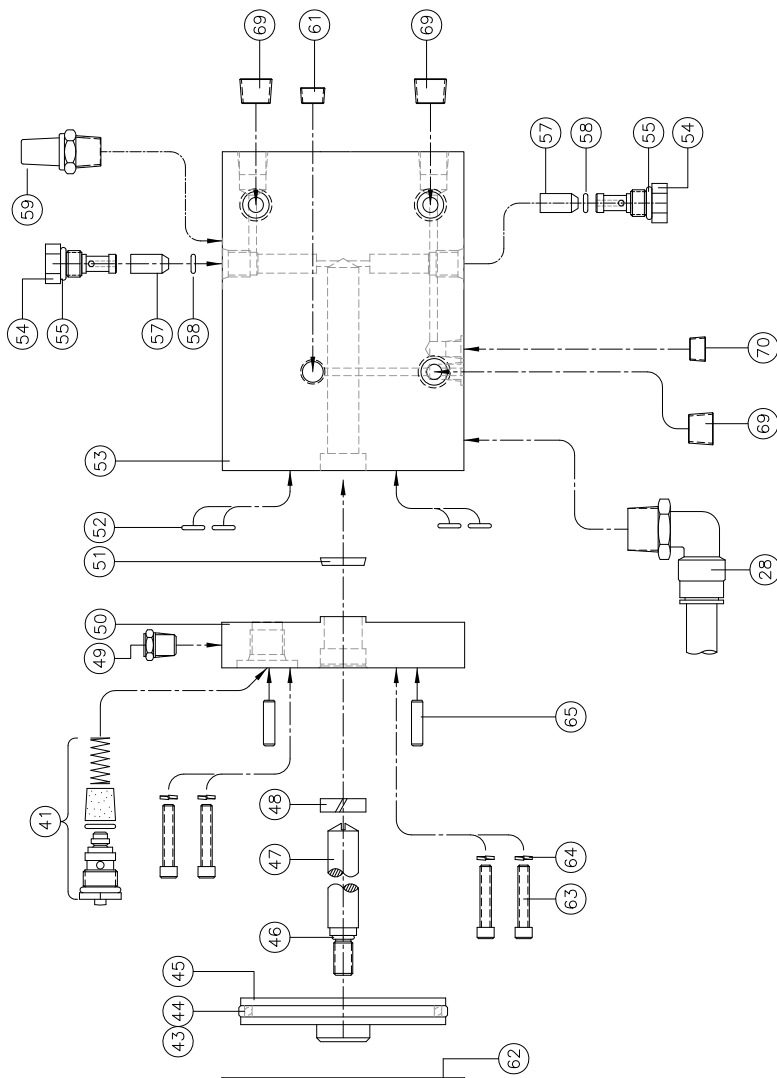
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	10-24 x 1.00	SCREW, SOC HD CAP
2	1	10298 P00-5207	PILOT CAP
3	1	SO-019B7	O-RING
4	1	SO-006B7	O-RING
5	1	SO-111B7	O-RING
6	1	10659 P00-5211	AIR SPOOL
7	1	10271 P00-5212	BUSHING, SHORT
8	2	SO-016B7	O-RING
9	1	10015 P12-1202	AIR REG ASSY
10	2	1/4-20 x .88	SCREW, SOC HD CAP
11	REF	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	10017 P04-1005	2-WAY AIR VLV ASSY
16	1	10004 P12-5201	AIR CAP HOUSING
17	5	10273 P00-5209	CAGE
18	6	10629	TEE SEAL
19	1	10269 P00-5210	BUSHING, LONG
20	1	10299 P00-5208	SPOOL CAP
21	2	10-24 x .62	SCREW, SOC HD CAP
22	1	10264	BREATHER, 1/8 NPT
23	1	10334 P00-5205	GASKET, AIR BODY
24	1	10111 P12-5202	BODY, AIR CYLINDER
25	2	26	
26	2	27	
27	1	12061 M04-1025	HOSE ASSY
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



SCALE: 1/2	TITLE: ASSEMBLY
DWG BY: WNI	ENB-45 BOOSTER
DATE: 2/13/02	REF:
SHEET: 1 OF 2	DWG NO: P-32-1002
REV: H	

ASSEMBLY PART NUMBER 12273

REV	DESCRIPTION	BY	DATE
A	ADDED 30, & 31; PICTURE CHANGE ITEM 6	WNI 10/28/02	
B	ADD 37 (RELIEF VALVE); PIC CHANGE ITEM 11	WNI 1/10/03	
C	DWG NO WAS XA-ENB451 B; 54 WAS 54 6HP50N-S; 55 WAS SO-906B7; 57 WAS 22033-C-3-5; 58 WAS SO-012B7 QTY 2	WNI 3/24/03	
D	DEL ITEM 66 (1/4 NPT RATIO PLATE MUFFLER)	WNI 4/11/03	
E	DEL ITEM 25, 26 & 34 (TOGGLE SWITCH); DEL 37 (RELIEF VLV); ADD 32-33 (MTG BRACKET); DEL 60 (GAUGE); 69 QTY WAS 1	WNI 3/20/06	
F	DEL 42; 45 WAS 10477 P00-5203; 46 WAS SC-903B7; 47 WAS 10484 P32-5501	WNI 4/30/08	
G	ADD IDI P/N'S; REV O-RING MAT'L	WNI 1/12/12	
H	FIN 57 WAS 10654 NOW 11632	WNI 7/7/13	



70	2	12280	PIPE PLUG, 1/16 NPT, BRSS
69	3	12095	PIPE PLUG, 1/4 NPT, BRSS
68			
67			
66	2	11772	DOWEL PIN, #3/16 x .62
65	4	10392	LOCK WASHER 1/4 HI C
64	4	1/4-20 x 1.00S0C	HD CAP SCR
63	4	1/4-20 x 1.00S0C	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	1	11288 P32-5602	PLUG, CV RETAINER
53	1	10116 P32-5601	BODY, ENB-45
52	7	SO-011B7	O-RING
51	1	11597 M03-1008	VARISEAL
50	1	10553 P32-5401	RATIO PLATE
49	2	10264	BREATHER, 1/8 NPT
48	1	10369 M03-1031	ROD BEARING, TEFLON
47	1	11906 P32-5502	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

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

ITEM	QTY	PART NUMBER	DESCRIPTION
			INTERFACE DEVICES, INC. 230 DEPOT ROAD MILFORD, CT 06460
SCALE:	1/2		TITLE: ASSEMBLY, ENB-45 BOOSTER
DWG BY:	WNI		
DATE:	2/13/02	REF:	
SHEET:	2 OF 2	DWG NO:	P-32-1002

ASSEMBLY PART NUMBER 12273

REV: H