

1 How They Work?

Air/Oil Intensifiers convert shop air, up to 100 psi, into hydraulic pressure. Air pressure applied to the air inlet displaces a piston of pre-defined ratio which is transferred to the hydraulic fluid stored within the intensifier housing. It acts as a double acting cylinder with air pressure required to apply and release.

2 Air/Oil Intensifier Sizing:

Model 1780 - 18:1 & Model 1781 - 9:1

Rating of 7.068 cu. in. displacement per stroke.
Can be used with W.C. Branham hydraulic caliper disc brake H491, H493, H962 series AND hydraulic spring applied FS200, FS400, FS500 series.

Caution. Do not exceed the rated maximum pressure of the brake as failure can occur.

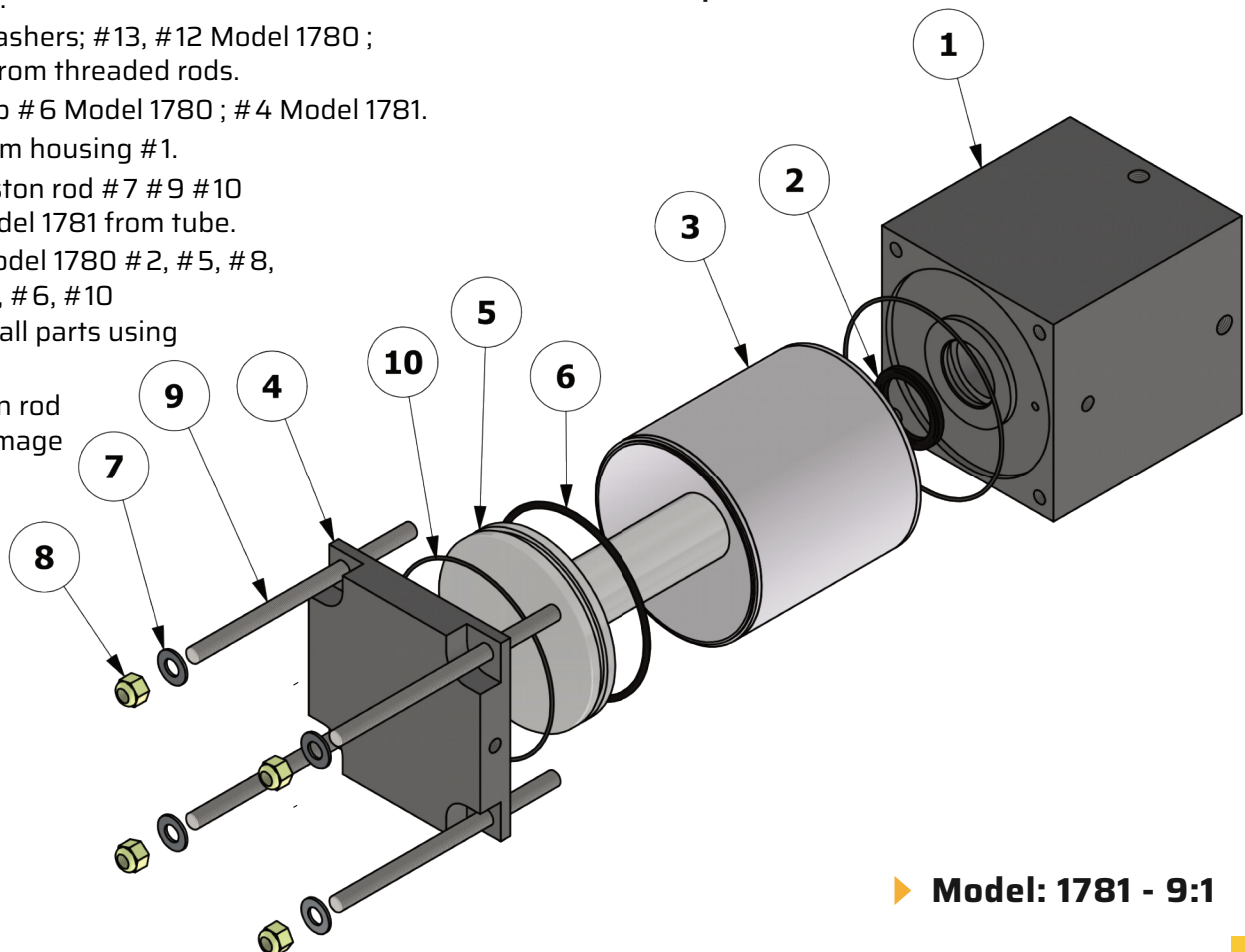
3 Repair - Disassembly:

- Before disassembly confirm that both air and hydraulic pressure has been relieved from the intensifier.
- Dismount intensifier.
- Remove nuts and washers; #13, #12 Model 1780 ; #8, #7 Model 1781 from threaded rods.
- Remove Housing cap #6 Model 1780 ; #4 Model 1781.
- Remove tube #3 from housing #1.
- Remove piston & piston rod #7 #9 #10 Model 1780 ; #5 Model 1781 from tube.
- Remove all seals, Model 1780 #2, #5, #8, #14 ; Model 1781 #2, #6, #10
- Clean and degrease all parts using degreaser solvent.
- Inspect piston, piston rod and tube for any damage or wear.

4 Reassembly:

- Lubricate tube ID, Piston and piston rod OD and all new seals with grade 2 grease compatible with Buna-N seals. Only a light film of grease is required.
- Install all new seals.
- Install tube #3 onto housing #1 with the O-Ring groove end facing end cap Model 1780 #6 ; Model 1781 #4.
- Install piston and piston rod into tube until all seals are engaged. Use care to align seals during installation.
- Install end cap Model 1780 #6 ; Model 1781 #4 onto tube end and use care to align & seat O-ring Model 1780 #8; Model 1781 #10 into end cap. Be sure to align the end cap port location with #1 pressure housing port location.
- Install thread rod assemblies. Use removeable threadlocker like Loctite 242 or equivalent on screw threads. Tighten screws evenly by alternating and torque to 120 in-lbs for Models 1780 and 1781

Remount intensifier then plumb both air and hydraulic lines. Slowly pressurize intensifier and inspect for leaks. Refill, prime and bleed hydraulic side before operation.



► **AIR/OIL INTENSIFIER PARTS LISTING**

					MODEL					MODEL	
					1780	1781				1780	1781
ITEM	PART NO.	DESCRIPTION	QTY	QTY	ITEM	PART NO.	DESCRIPTION	QTY	QTY		
1	1780-4000	Housing, Pressure	1	1	10	1780-4006 ^(B)	Piston, Rod	1	-		
2 ^(A,B)	1780-1000	Seal, X-Ring	1	1		1780-1006 ^(A,B)	O-Ring, Buna-N	-	2		
3	1780-4002	Tube Body	2	1	11	1780-4007	Rod, Threaded	4	-		
4	1780-4001	Housing, Intermediate	1	-	12	4000-1042	Washer, Flat	4	-		
	1780-4003	Housing, Cap	-	1	13	4000-1061	Nut, Nyloc	4	-		
5	4000-1156 ^(A)	O-Ring, Buna-N	1	-	14 ^(A,B)	1780-1006	O-Ring, Buna-N	3	-		
	1780-4004 ^(B)	Piston, Output	-	1							
6	1780-4003	Housing, Cap	1	-							
	1300-1067 ^(A,B)	O-Ring, Buna-N	-	1							
7	1780-4004 ^(B)	Piston, Output	1	-							
	4000-1042	Washer, Flat	-	4							
8	1300-1067 ^(A,B)	O-Ring, Buna-N	2	-							
	4000-1061	Nut, Nyloc	-	4							
9	1780-4005 ^(B)	Piston, Top	1	-							
	1780-4008	Rod, Threaded	-	4							

A Seal Kit

ORDER	1780-9000	18:1
	1781-9000	9:1

B Rebuild Kit

ORDER	1780-9002	18:1
	1781-9002	9:1

► **Model: 1780 - 18:1**

