

# POWERNAIL® CO.

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## Operation and Maintenance Manual

### MODEL 200 PNEUMATIC POWERNAILER®

For Engineered T&G FLOORING 5/16" TO 9/16"



### WARNING

Read this manual before you use this Nailer. Follow all safety warnings and instructions. If you are uncertain about the operation of the Nailer, call us directly at 1-800-323-1653 for assistance or contact the closest Powernail Dealer for help. Please retain this information for future reference.

07.17.07

## TO PREVENT ACCIDENTAL INJURIES:

Always wear approved front and side **EYE PROTECTION** when operating this Nailer. Others in the work area should also wear front and side **EYE PROTECTION**. Eye protection will help guard against flying nails and debris, which could cause severe eye injury.

**EAR PROTECTION** may be required to prevent hearing damage when there are high noise levels in the work area.

Always **DISCONNECT THE AIR SUPPLY** before making any adjustments, repairing, clearing jams or when the Nailer is not in use.

Never attach the female end of a quick disconnect to the Nailer. This will trap air inside the Nailer and permit it to be discharged. Only the unrestricted male connection should be attached to the Nailer

Use only regulated compressed air, do not use bottled gases of any kind to power this Nailer. Normal air pressure should not exceed 120 psi or damage to the Nailer and seals may occur. Excess air pressure can cause the Nailer to explode.

**THE TRIGGER IS A SAFETY DEVICE** and should only be pulled when the Nailer is in proper position on the work surface and before the plunger is struck with the mallet. Do not tie or tape down the safety trigger as the Nailer could discharge if dropped on the plunger. The Nailer will not fire unless the trigger is pulled before the mallet blow.

Do not use the trigger safety as a lock up for the plunger then rack the wood using the locked up Nailer body. It will severely damage the mechanism and the Nailer.

**DO NOT USE THE METAL END OF THE MALLET TO STRIKE THE PLUNGER**, use the rubber capped end only.

Never place any part of the body in the discharge path of the Nailer when air is connected to the Nailer. Always connect air hose to unloaded Nailer to prevent any accidental discharge from occurring.

Never leave the Nailer unattended while it is connected to an air supply.

## DESCRIPTION

The Powernailer® Model 200 Pneumatic Nailer is the latest model designed to bring Powernail quality to a pneumatic nailer. For those looking for the ease of use of a pneumatic tool, the Powernailer® Model 200—designed for use with only 1-1/2", 1-1/4" and 1" E-Powercleats® nails—provides several distinct advantages.

The Model 200 can nail down 9/16" to 5/16" Engineered tongue and groove hardwood flooring through the use

of easy to change, no mar pads. To use the Model 200, simply snug up the flooring by tapping the front of the Adapter Foot with the rubber cap end of the mallet, pull the safety trigger and tap the plunger with the same rubber capped mallet end and let the Nailer drive and set the nail at the correct 45 degree angle. For a superior pneumatic Nailer, look to the company that has been the industry's quality leader for over 50 years, **POWERNAIL® COMPANY, INC.**

## OPERATION

**Read these instructions carefully before you use the Nailer.**

### WARNING

Whenever air is connected to the Nailer, keep body parts away from the nail discharge path. Disconnect the air line before making adjustments or repairs on the Nailer. Only connect air to unloaded Nailer only to prevent accidental discharge.

Consult the Adapter Pad Chart and sketch for which adapter pad to use with the flooring you are installing. Be sure to measure the required dimensions carefully. We are not responsible for using the wrong Adapter Pad.

### Choosing and adjusting the adapter pad for the Model 200

For a proper flooring installation, it is necessary to adjust

the nail placement to penetrate at the intersection of the tongue and at the vertical edge of the flooring.

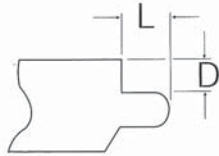
**Always follow the flooring manufacturer's recommendations for nail placement and nail schedules.**

### HOW TO CHOOSE THE PROPER ADAPTER PAD

**STEP ONE:** Measure the depth of the tongue "D" from the top surface of the flooring to the intersection of the tongue and the vertical edge (See figure 1)

**STEP TWO:** Measure the length of the tongue "L" from the tip of the tongue to the vertical edge. (See figure 1)

**STEP THREE:** Match dimensions "D" and "L" to the closest dimensions on the chart to determine which adapter plate to use.



**FIGURE 1**

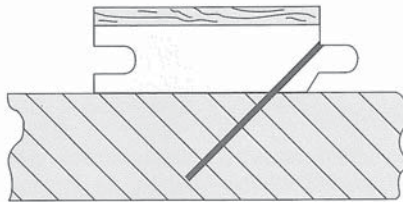
Part #	Pad	"D" Depth	"L" Length
09-200-4001	C-1	1/8-5/32 3.2-4 mm	3/32-1/8 2.4-3.2 mm
09-200-4002	M-1	7/32 5.6 mm	3/32-1/8 2.4-3.2 mm
09-200-4003	B-1	1/8 3.2 mm	3/16 4.8 mm
09-200-4004	U-1	3/16 4.8 mm	3/16 4.8 mm

Other pads not listed are available through your Powernail Dealer

**STEP FOUR:** Set compressor air gauge to 80 psi

Nail down a sample of flooring. Be sure the flooring is from the same lot that is to be used on your current installation.

Nail placement should be at the intersection of the tongue and the vertical edge or per manufacturer's recommendations. SEE FIGURE 2



**FIGURE 2**

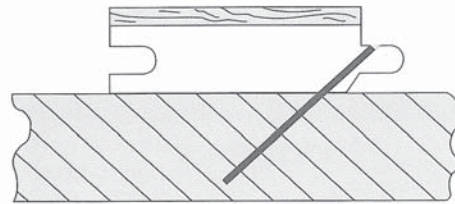
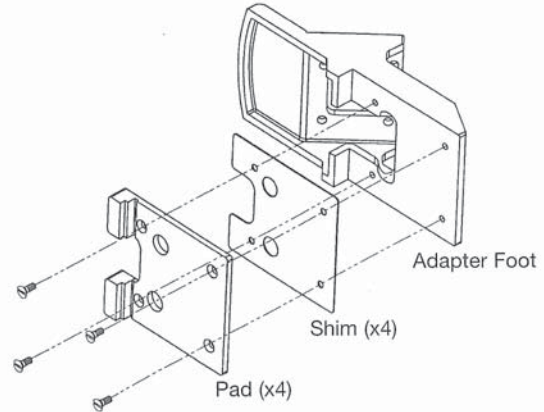
- Correct Air Pressure
- Nail counter sink is flush

**STEP FIVE:** (Adjusting nail placement)

If Nail placement is too far out on the tongue, add a shim and retest Nailer. SEE FIGURE 3

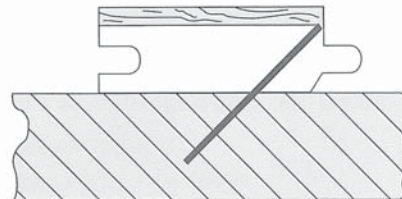
If Nail placement is into the edge, remove a shim and retest nailer. SEE FIGURE 4. If there is no shim to remove, choose another pad.

Add or remove additional shims as needed. (See below)



**FIGURE 3**

- Add Shim
- Improper Pad used
- Damage to Tongue



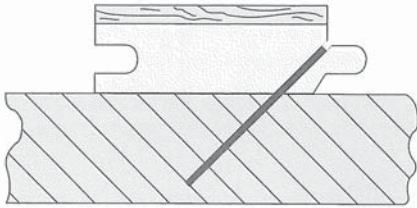
**FIGURE 4**

- Remove Shim
- Improper Pad used
- Damage to Surface or Flooring

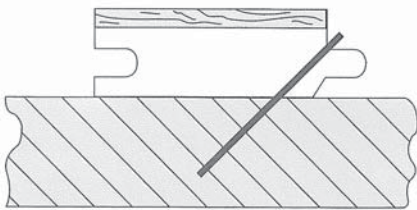
**STEP SIX: (Adjusting Counter Sink)**

To Set countersink, increase or decrease air pressure in 10 psi increments. SEE FIGURE 5 and 6

Correct counter sink is flush to slightly below the wood surface. SEE FIGURE 2

**FIGURE 5**

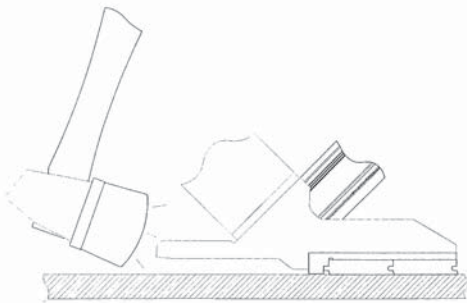
- Air pressure too high
- Nail is counter sunk below Tongue

**FIGURE 6**

- Air pressure is too low
- Nail is not counter sunk

**RACKING WOOD:**

Place the Nailer Adapter Foot on the tongued edge of the flooring strip to be nailed. Be sure the Adapter Foot is pressed tightly against the edge of the flooring strip above the tongue. Be sure flooring strips are assembled tightly and tap the Adapter Foot with the rubber end of the mallet to rack the wood. Pull the Safety Trigger and tap the Nailer Plunger Rubber Cap with the rubber cap end of the Mallet to discharge the Nailer.

**WARNING**

It is not necessary to hit the Nailer hard to activate it. Never hit the Nailer with excessive force or with the metal end of the mallet, this will damage the Nailer.

Never use the Safety Trigger interlock to lock up the plunger and rack the wood with blows to the Nailer body. This will severely damage the safety mechanism and Nailer. This abuse and damage is not covered by the warranty.

Before each use check all screws to be sure they are tight. Shock and vibration can loosen screws. Do not over tighten any screw.

**AIR SUPPLY:**

The air must be clean and dry. Dirty and/or wet air will damage the Nailer. A combination filter-regulator-lubricator is required for proper Nailer performance and should be placed close to the Nailer per manufacturer's recommendations.

Fill the lubricator with Mobil DTE Light Synthetic Hydrocarbon Oil. Adjust the lubricator to the manufacturers' recommendations. Do not over oil the Nailer, as excess oil will be discharged with the spent air and could stain the wood flooring, walls or furnishings. **We will not be responsible for oil stains.**

**WARNING**

Detergent oil is not recommended and may damage the seals. Consult the filter regulator lubricator manufacturer's recommendations for proper operation, settings and unit maintenance.

The air source must continuously deliver 70 to 110 psi and 3-1/2 cubic feet of air per minute to operate the Nailer. Connect a clean air hose and air regulator to the Nailer.

Check for air supply leaks that waste air and starve the Nailer of air thereby reducing its performance.

**LUBRICATION:**

If you do not use an in line lubricator, you must lubricate the Nailer manually. The frequency of lubrication is dependent upon the duty cycle of the Nailer. Continuous duty requires more frequent oiling than intermittent duty.

At least every eight (8) hours place two to four drops of Mobil DTE Light Oil, supplied with your Nailer, into the disconnected air line male connector attached to the Nailer.

**WARNING**

Do not over lubricate the Nailer, excess oil mist or drops will be vented with spent air when over lubricated. Excess oil could stain the wood flooring, walls or furnishings. Dry fire the Nailer, without nails, to purge excess oil, before you begin to nail down flooring. **We will not be responsible for oil stains.** Before storing the Nailer, lubricate and cycle the Nailer in insure internal parts are oil protected from corrosion.



**TO LOAD MODEL 200:**

Place up to one stick (100) of E-Powercleats nails, 1-1/2", 1-1/4" or 1" long into the Nail Channel feed slot. Pull back the spring loaded Nail Pusher over the nails until it contacts the last nail and slowly release the Nail Pusher.

**TO UNLOAD:**

To remove nails from the Nail Channel, pull the two round knobs on the Nail Pusher together. This will clear it from the nail path. Then turn the Nailer over so the nails slide out of the channel.

**WARNING**

Do not use any nails other than Powernail E-Powercleats Nails, which are specifically designed for use in the Model 200 Powernailer. E-Powercleats nails are available in 1-1/2", 1-1/4" and 1" lengths to accommodate 9/16" through 5/16" Engineered T&G hardwood flooring. Contact your Powernail Dealer for E-Powercleats nails.

**PARTS & SERVICE:**

When ordering parts include the part number, part description, Powernailer model and serial number. Be sure to state the quantity of the part(s) required. Contact your Powernail Dealer for the necessary parts or service.

**WARNING**

Never work on the Nailer if the air line is attached. Always disconnect the air line from the Nailer first.

**NAILER DISASSEMBLY:****TO REPLACE RUBBER BUMPER (#29):**

1. Disconnect the air supply
2. Remove the four (4) cap screws holding the Adapter Foot, Foot and Nail Channel assembly to the main Body (see illustration).
3. Pull the Rubber Bumper out of the cylinder bore. Replace the old Bumper if it shows signs of wear or it is split.
4. Reverse these steps to reassemble the Nailer. Be sure to align the Driving Blade with the slot in the Nail Channel Assembly while you reassemble the Nailer. NEVER FIRE THE NAILER WITHOUT THE RUBBER BUMPER INSTALLED, IT WILL DAMAGE THE NAILER.

**TO REPLACE DRIVING BLADE(#15):**

1. Disconnect the air supply
2. Remove the four socket head cap screws holding the Adapter Foot, Foot and Nail Channel Assembly to the body.
3. Remove the Rubber Bumper
4. Pull the Driving Blade with pliers until the Piston is fully

extended outward towards the bottom of the cylinder.

5. Use the 15/16" box wrench supplied to unscrew the Driving Blade Jam Nut and remove it. Hold the Piston from turning while unscrewing the Jam Nut by holding the piston hex with the 1-1/8" box wrench supplied.
6. Push out the 1/4" diameter blade retaining Dowel Pin and remove the broken Driving Blade stub.
7. Install a new Driving Blade in the slot and replace the Dowel Pin. Screw on the retaining Jam Nut using the same tools. If the Jam Nut becomes worn and loose after frequent removals, it should be replaced.
8. Check the fit, there should be some sideways movement between the Driving Blade and the Jam Nut assembly. This is desirable and helps the blade to align itself with the mating parts.
9. Reassemble the components. Be sure to align the Driving Blade with the slot in the Adapter Foot Assembly, it goes in only one way.

**SEAL REPLACEMENT:**

There are 7 seals that may require replacement. We recommend that you have your POWERNAIL Dealer replace the Seals.

**SEAL KIT:**

You may choose to buy a Seal Replacement Kit and replace the seals yourself. It is good practice to replace all seals at one time regardless if only one seal needs replacement.

**SEAL DESCRIPTION & NUMBER:**

1. Piston U cup Lip Seal (#17)
2. Return Cylinder U cup Lip Seal (#18)
3. Piston Rod U cup Lip Seal (#19)
4. Rubber Seat (#28)
5. Plunger Seal Set (#30)
6. Plunger Wiper Seal (#31)
7. Return Cylinder O Ring Gasket (#32)

To change Seals follow these procedures. Be sure the air line is disconnected from the Nailer first before making any repairs. Consult the illustration for the name and location of the following component parts.

**DRIVING BLADE ASSEMBLY REMOVAL:**

1. Disconnect the air supply.
2. Remove Rubber Plunger Cap (#16).
3. Unscrew & remove Body Cap (#2).
4. Push Safety Yoke (#24) aside and unscrew the three #10-32 cap screws holding the Plunger (#11) to the Return Cylinder (#10).

5. Pull the Plunger up and out of the Nailer Body (#1) cavity.
6. Remove the Return Cylinder O-Ring Gasket (#32) located on the top of the Return Cylinder under the Plunger.
7. Turn the Nailer over and remove the four cap screws (#44), that fasten the Adapter Foot and Nail Channel Assembly to the Nailer Body and lift the Assembly off the Body.
8. Remove the Rubber Bumper (#29).
9. Pull the Driving Blade Assembly out of the Nailer Body by pulling on the Driving Blade.
10. Hold the Piston Rod (#8) with an 11/16" socket over its hex end opposite the Piston. **Do not use pliers or a vise anywhere on the metal parts, they can damage the sealing surfaces.**
11. Use the supplied box wrenches to remove the 5/8"-18 Jam Nut (#45). Remove the Dowel Pin (#38) and Driving Blade (#15).
12. Unscrew the Piston from the Piston Rod using the supplied box wrenches and separate the Piston, Piston Rod and Return Cylinder.

#### TO REPLACE THE SEALS:

##### Plunger Seal Set (#30):

1. Remove the Teflon® Seal and its O-ring expander from the Plunger groove using a bent paper clip or pick. Be sure not to scratch the inside walls of the seal groove with the wire hook.
2. Clean out the seal groove. Place a new O-ring into the seal groove by stretching it over the Plunger body. Make sure the O-ring is not twisted in the groove. Place a new Teflon® Seal Ring into the seal groove over the O-ring.
3. Carefully push the Teflon® Seal Ring over the edge of the Plunger with your thumbs and into the groove. Do this as quickly as possible to reduce stretching of the Teflon® Seal Ring. **DO NOT OVER STRETCH THE TEFLON® SEAL RING.** Be sure the Teflon® Seal Ring is centered all around the seal groove and not twisted.
4. Wipe off the Seal surface with a clean rag and lubricate it generously with the supplied lubricant, O-ring grease or petroleum jelly.

##### Rubber Seat (#28):

1. Remove the Cylinder Sleeve (#12). The Cylinder Sleeve would slide out of the Nailer Body when you pull out the Driving Blade.

2. Remove the metal Support Ring (#27) and Rubber Seat from inside the Nailer body. **NOTE THAT THE CHAMFER ON THE INSIDE OF THE RUBBER SEAT FACES THE BOTTOM OF THE NAILER.** Do not reverse the direction of the chamfer when you replace the Rubber Seat.
3. Replace the Rubber Seat, Support Ring and Cylinder Sleeve. Be sure to re install the steel Cylinder Sleeve with the chamfered inside edge facing the **BOTTOM** of the Nailer.

##### Piston U Cup Lip Seal (#17):

1. Remove the old Piston U Cup Lip Seal from the Piston using a bent paper clip or pick, being careful not to scratch the inside walls of the seal groove or the edge of the Piston with the wire hook.
2. Clean out the seal groove. Place a new U-Cup Lip Seal into the groove. Make sure the lip seal is not twisted in the groove and the lips face the top of the Nailer. See the sketch on next page (#17).
3. Carefully wipe off the U Cup Lip Seal surface with a clean rag and lubricate it generously with the supplied lubricant, O-Ring grease or petroleum jelly.

##### Return Cylinder U Cup Lip Seal (#18):

1. Use a bent paper clip or pick to remove the old U Cup Lip Seal from the internal seal groove inside the Return Cylinder. Be careful not to scratch the inside walls of the seal groove with the wire hook.
2. Clean out the seal groove. Place a new U Cup Lip Seal into the groove, be sure it is not twisted in the groove. Be sure the lips are facing the inside of the Return Cylinder as shown in the sketch on next page.

**WARNING** The U-Cup Lip Seals #18 and #19 look alike, but they are different, **DO NOT** mix them up.

3. Carefully wipe off the Lip Seal surface with a clean rag and lubricate it generously with the supplied lubricant, O-Ring grease or petroleum jelly.

##### Piston Rod U-Cup Lip Seal (#19):

1. Remove the old U-Cup Lip Seal from the seal groove with a bent paper clip or pick using care not to scratch the inside walls of the seal groove with the wire hook.
2. Clean out the seal groove and install a new U-Cup Lip Seal. Be sure the Lips are facing the right direction and are not twisted in the groove. See the sketch on next page.

SEAL P/N & LOCATION

#31  
PLUNGER WIPER SEAL  
#09-445-29729

#19  
PISTON ROD U-CUP SEAL  
#09-200-3028  
INSTALL AS SHOWN

#18  
RETURN CYLINDER U-CUP SEAL  
#09-200-3027  
INSTALL AS SHOWN

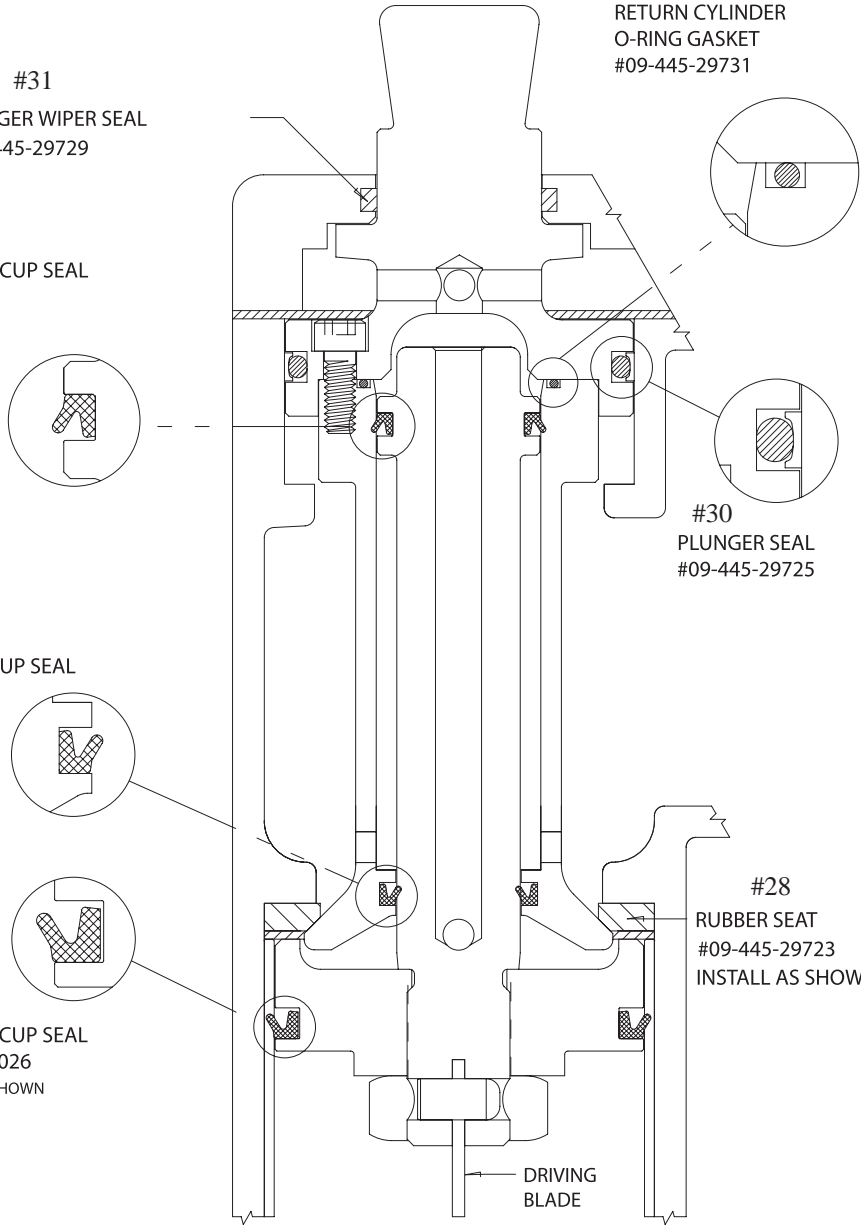
#17  
PISTON U-CUP SEAL  
#09-200-3026  
INSTALL AS SHOWN

#32  
RETURN CYLINDER  
O-RING GASKET  
#09-445-29731

#30  
PLUNGER SEAL  
#09-445-29725

#28  
RUBBER SEAT  
#09-445-29723  
INSTALL AS SHOWN

DRIVING  
BLADE



**WARNING**

The U-Cup Lip Seals #18 and #19 look alike, but they are different, DO NOT mix them up.

3. Carefully wipe off the Lip Seal surface with a clean rag and lubricate it generously with the supplied lubricant, O-Ring grease or petroleum jelly.

**Plunger Wiper Seal (#31):**

1. Use a bent paper clip to pick out the felt Wiper Seal out of its groove in the Body Cap (#2).
2. Clean out the groove and insert a new felt Wiper Seal. Saturate the new felt Wiper Seal with oil.

**Return Cylinder O-Ring Gasket (#32):**

1. Place a new O-Ring Gasket in the groove on top of the Return Cylinder when you reassemble the Driving Blade Assembly.
2. Wipe off the O-Ring Gasket seal surface and lubricate it generously with the supplied lubricant, O-Ring grease or petroleum jelly.

**REASSEMBLING THE NAILER:**

1. Be sure the Rubber Seat, Support Ring and Cylinder are installed in the Body and are facing the correct direction.
2. All seal surfaces must be clean and lubricated generously with the supplied lubricant, O-Ring grease or petroleum jelly. Replace any part that shows signs of wear.
3. Use care when installing the seals into their respective cavities. Be sure the Seals are contained in their groove and do not come out as the parts slide together. Generous cavity lead in chamfers have been provided to help Seal installation.
4. Carefully insert the Piston Rod into the Return Cylinder and screw the Piston onto the rod. Be sure the Piston is facing the correct way, ears up, hex down.

5. Assemble the Driving Blade, Dowel Pin and Jam Nut on to the Piston Rod.
  6. Insert the Driving Blade Assembly up into the bottom of the Nailer Body Cylinder.
  7. Be sure there is a new O Ring Gasket in the top groove of the Return Cylinder.
  8. Insert the Plunger into the top cavity of the Body. Line up the holes and install the three Plunger retaining screws. It is important that the three #10-32 screws are tight or air leakage will occur.
  9. Install the Body Plate.
  10. Position the Safety Yoke into the Plunger Groove.
  11. Install the Body Cap and Plunger Rubber Cap.
  12. Turn the Nailer upside down. Install the Rubber Bumper, Nail Channel Assembly and Adapter Foot. Be sure to align up the Driving Blade with the slot in the Foot before the Nailer is closed up.
- 13. NEVER FIRE THE NAILER WITHOUT THE RUBBER BUMPER INSTALLED, IT WILL DAMAGE THE NAILER BEYOND REPAIR.**
- TO CLEAR A NAIL JAM:**
1. It helps to tap the Driving Blade back to the retracted position before trying to remove a jammed nail. A spare Driving Blade works best for this.
  2. Try to pull the jammed nail out of the gate with a pair of long nose pliers. If this does not work remove the four (4) cap screws holding the Foot, Gate and Nail Channel Assembly together.
  3. Separate the Foot and Gate with a screw driver just enough to clear out the jammed nail.
  4. Put thread locking compound on all screws and reassemble the components.



## Model 200 Parts List

ITEM #	PART NO.	DESCRIPTION	QTY. REQ'D	Key	Assy/Kit
1	09-200-3001	BODY	1	F	
2	09-200-3002	CAP	1	S	
3	09-445-29703.1	HANDLE — SHORT	1	A	A-2
4	09-445-29704	HANDLE — HALF	1	A	A-2
5	09-200-3005	ADAPTER FOOT	1	S	
6	09-200-3006	FOOT	1	S/A	A-3
7	09-200-3008	CHANNEL	1	S/A	A-3
8	09-200-3010	PISTON ROD	1	S/A	A-4
9	09-200-3011	PISTON	1	S/A	A-4
10	09-200-3013	RETURN CYLINDER	1	S/A	A-4
11	09-200-3014	PLUNGER	1	S/A	A-4
12	09-200-3015	CYLINDER SLEEVE	1	S	
13	09-200-3016	GATE	1	S/A	A-3
14	09-200-3017	GATE PLATE	1	S/A	A-3
15	09-200-3018	DRIVING BLADE	1	S/A	A-4
16	09-200-3022	RUBBER CAP	1	S	
17	09-200-3026	PISTON U-CUP SEAL	1	K/S/A	A-1,A-4
18	09-200-3027	RETURN CYLINDER U-CUP SEAL	1	K/S/A	A-1,A-4
19	09-200-3028	PISTON ROD U-CUP SEAL	1	K/S/A	A-1,A-4
20	09-200-3034	PUSHER SPRING	1	S/A	A-3,A-7
21	09-200-3035	SPOOL	2	S/A	A-3,A-7
22	09-445-29832	#10-32 x 3/4" S.H.C.S. (PLUNGER)	3	S/A	A-4
23	09-200-3057	#10-32 x 1/2" F.H. SLOTTED SCREW	4	S	
24	09-445-29707	SAFETY YOKE	1	S	
25	09-200-3019	BODY PLATE (.035" THICK)	1	S	
26	09-44529720	TRIGGER	1	S/A	A-2
27	09-445-29721	SUPPORT RING	1	S	
28	09-445-29723	RUBBER SEAT	1	K/S/A	A-1,A-4
29	09-445-29724	RUBBER BUMPER	1	S	
30	09-445-29725	PLUNGER SEAL SET	1	K/S/A	A-1,A-4
31	09-445-29729	PLUNGER WIPER SEAL	1	K/S/A	A-1,A-4
32	09-445-29731	RETURN CYLINDER O-RING GASKET	1	K/S/A	A-1,A-4
33	09-445-29732.1	TRIGGER CABLE, SHORT	1	S/A	A-2
34	09-445-29733	SAFETY YOKE SPRINGS	2	S	
35	09-445-29735	NAIL PUSHER	1	S/A	A-3,A-7
36	09-445-29735.2	NAIL PUSHER KNOB	1	S/A	A-3,A-7
37	09-445-29739	1/4" x 3/4" DOWEL PIN (TRIGGER)	1	S/A	A-2
38	09-445-29740	1/4" x 1/2" DOWEL PIN (DRV. BLADE)	1	S/A	A-4
39	09-445-29741	1/8" x 5/8" ROLL PIN (GATE)	2	S/A	A-3
40	09-445-29742	1/4-20 x 7/8" S.H.C.S. (HANDLE HALF)	1	S	
41	09-445-29743	1/4-20 x 1" S.H.C.S. (CAP)	4	S	
42	09-445-29744	1/4-20 x 3/4" S.H.C.S. (HANDLE)	5	S	
43	09-445-29745	#10-32 x 1-1/4" S.H.C.S. (KNOB)	1	S/A	A-3,A-7
44	09-445-29747	1/4-20 x 1-1/4" S.H.C.S. (FOOT)	4	S	
45	09-445-29748	5/8-18 JAM NUT (DRV. BLADE)	1	S/A	A-4

KEY: S=Sold Separately, A= Sold as part of assembly, F=Factory replacement only, K=Sold as part of a Kit

*(Model 200 Parts List, continued)*

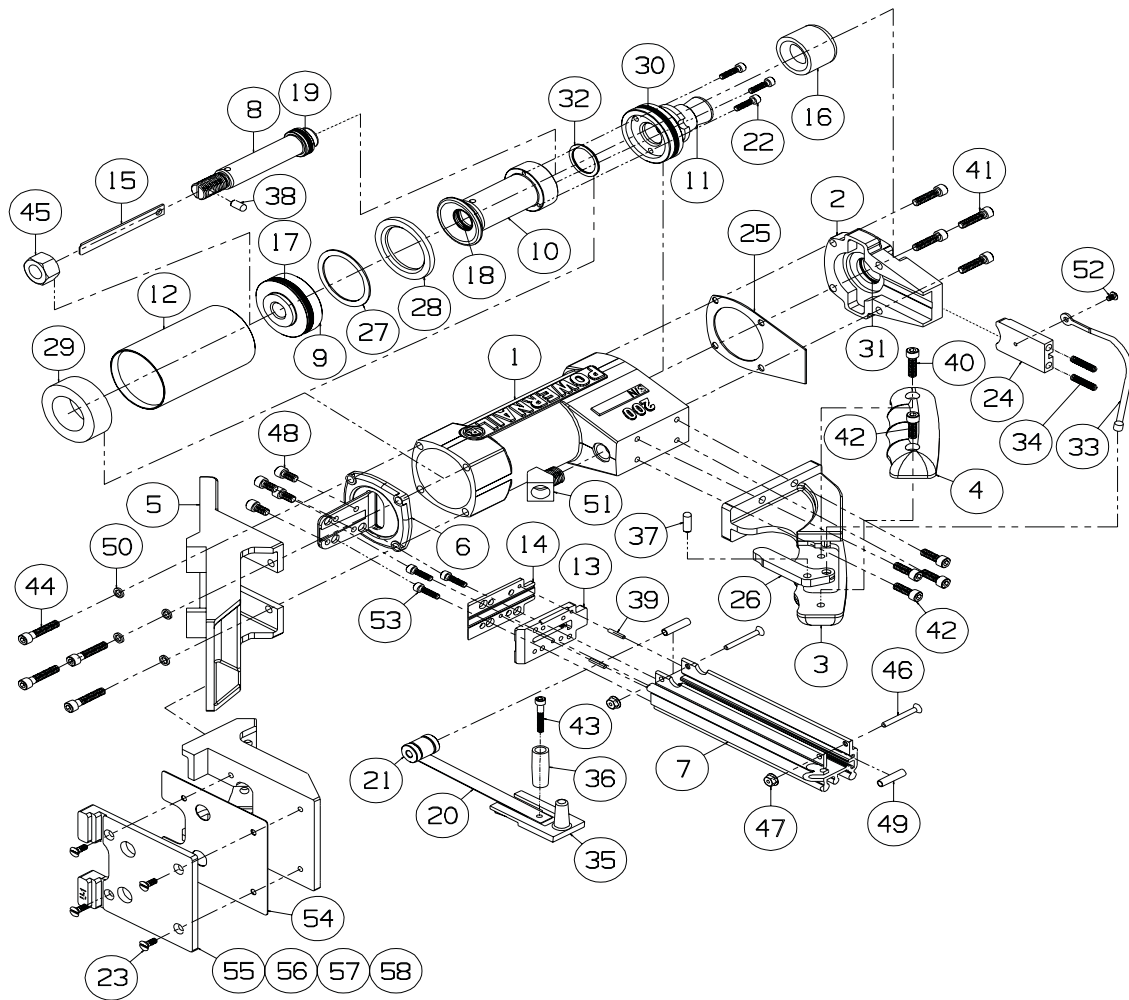
ITEM #	PART NO.	DESCRIPTION	QTY. REQ'D	KEY	Assy/Kit
46	09-445-29750	#8-32 x 1-1/2" F.H.C.S. (SPACER)	2	S/A	A-3
47	09-445-29751	#8-32 LOCK NUT (SPACER)	2	S/A	A-3
48	09-445-29754	#10-32 x 1/2" S.H.C.S. (FOOT)	4	S/A	A-3
49	09-445-29756	1/4" x 1" SPACER (CHANNEL)	2	S/A	A-3
50	09-445-29758	1/4" SPLIT RING LOCK WASHER (FOOT)	4	S	
51	09-445-29759	3/8" NPT 45° STREET ELBOW	1	S	
52	09-445-29760	#8-32 x 1/4" B.H.C.S. (CABLE)	1	S	
53	09-445-29822	#10-32 x 3/4" S.H.C.S. W/PATCH (GATE)	3	S/A	A-3
54	09-200-4000	SHIM	4	S	
55	09-200-4001	C-1 PAD	1	S	
56	09-200-4002	M-1 PAD	1	S	
57	09-200-4003	B-1 PAD	1	S	
58	09-200-4004	U-1 PAD	1	S	

**Model 200 Assemblies, Kits and Accessories**

ITEM	PART NO.	DESCRIPTION	QTY	KEY
A-1	09-200-3058A	SEAL KIT (1 EACH OF ALL SEALS)	1	S
A-2	09-200-3060A	SHORT HANDLE ASSEMBLY	1	S
A-3	09-200-3061A	CHANNEL ASSEMBLY	1	S
A-4	09-200-3064A	DRIVING BLADE ASSEMBLY	1	S
A-5	09-AW-445	ALLEN WRENCH SET	1	S
A-6	09-445-29757A	8 OZ. MOBILE DTE LIGHT OIL	1	S
A-7	09-200-3063A	NAIL PUSHER ASSEMBLY	1	S
A-8	09-445-29765	3/8" X 50 FT. VINYL HOSE WITH FITTINGS	1	S
A-9	09-445-29766	3/8" M & F COUPLING SET	1	S
A-10	09-445-29768	BOX WRENCH	1	S
A-11	09-445-5421	AIR GAUGE	1	S
A-12	09-445-5421R	FILTER/REGULATOR GAUGE	1	S

KEY: S=Sold Separately, A= Sold as part of assembly, F=Factory replacement only, K=Sold as part of a Kit

**POWERNAILER MODEL 200 SCHEMATIC**



## POWERNAILER MODEL 200 TROUBLE SHOOTING CHART

	PROBLEM	POSSIBLE CAUSE	SOLUTION
1	Driving blade does not retract	1. Zero or Low air pressure	Check air supply for 60 psi minimum to 120 psi maximum
		2. Lack of lubrication	Manually lubricate through male air inlet fitting
		3. Excessive dirt inside nailer	Disassemble and clean
		4. Bent or burred driving blade	Replace driving blade
		5. Seals worn out	Replace all seals
		6. U-Cup Lip Seals installed upside down	Replace all seals
2	Driving blade retracts slowly	1. Low air pressure	Turn up air pressure to 60-120 psi max
		2. Bent or burred driving blade	Replace driving blade
		3. Air supply restricted by small orifice	Use 1/4" minimum diameter air fittings
		4. U-Cup Lip Seals installed upside down	Replace all seals
		5. Excessive dirt inside nailer	Disassemble, clean and lubricate
3	Nail is not countersunk	1. Low air pressure	Turn up air pressure to 60-120 psi max
		2. Broken Driving Blade	Replace Driving Blade
		3. Nail hit hard surface	Move from obstruction
		4. Piston U-Cup Lip Seal installed upside down	Replace all seals
		5. Driving blade jam nut came loose	Retighten or replace jam nut
		6. Worn out gate	Replace gate.
4	Nailer leaks air	1. Air supply fittings loose	Tighten all air line fitting connections
		2. Excess air pressure blew out seals	Check air supply for 120 psi maximum—replace all seals
		3. Plunger screws loose	Tighten 3 plunger screws
		4. Cracked or damaged body	Replace body
		5. Seals worn out	Replace all seals
		6. Seals need to be seated	Dry fire Nailer
5	Bottom of nailer cracked off	1. Operated without rubber bumper installed	Replace damaged parts
		2. Excessive air pressure used	Replace damaged parts
6	Nails jam in nailer	1. Not using E-Powercleats nails	Use E-Powercleats nails only
		2. Continued use after a short hit	Clear nail immediately after short hit
		3. Nail pusher damaged or spring broken	Replace nail pusher assembly
		4. Nail channel lose	Tighten nail channel retaining screws
		5. Bent nail stuck in nail guide	Disassemble and clear out bent nail
		6. Hit another set nail or hard object	Move from obstruction
		7. Nail gate worn out	Replace nail gate
7	Plunger locked up—won't move or fire	1. Safety trigger not being depressed	Replace damaged plunger, safety yoke and plunger seal
		2. Lack of lubrication	Manually lubricate through male air inlet fitting