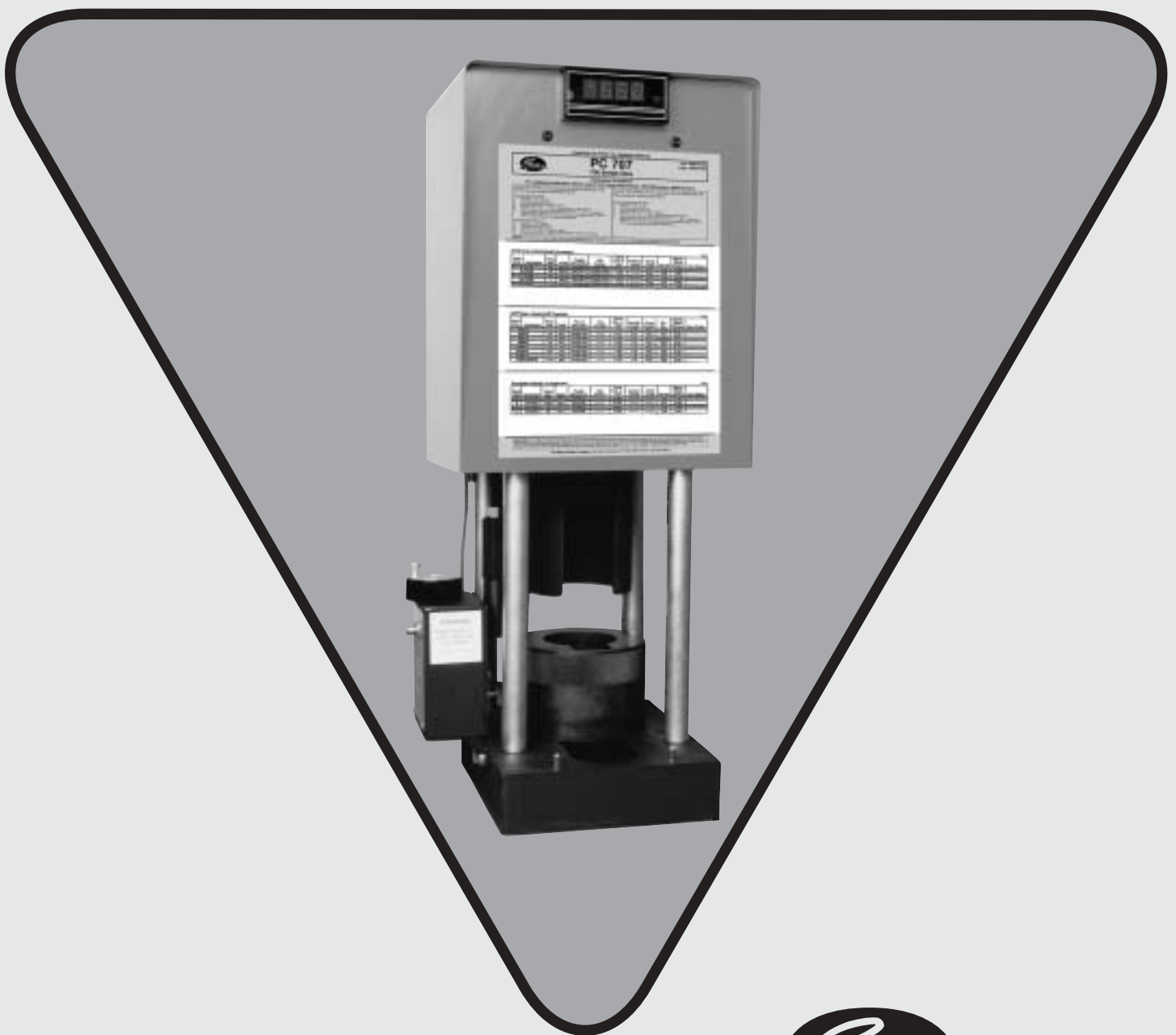


(Ind.) 35019-AG
(Auto.) 428-7300
10/02

Power Crimp[®] 707 Crimper

Safety & Operating Manual



WARNING!

An incorrect hose assembly can rupture or blow apart in use, resulting in serious injury, death, or property damage.

REMEMBER: Others depend on you to make correct assemblies.

FOR SAFETY'S SAKE

USE THIS MACHINE ONLY IF YOU:

1. Receive hands-on **TRAINING** with this Gates crimper and assemblies.
2. Follow current **GATES OPERATING MANUAL** and **CRIMP DATA** for the Gates PC 707 crimper.
3. Use only **NEW (UNUSED GATES)** hose and fittings.
4. Wear **SAFETY GLASSES**.
5. Keep hands clear of moving parts.

NOTE:

Gates recommends only those hose and coupling combinations specified in the Gates Hydraulic Product catalogs. Gates disclaims any liability for any hose assemblies which have not been produced in conformance with Gates assembly recommendations.



Serial No. _____
(Located on base plate in front of left rod.)

Date of Purchase _____

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Specifications

Power Crimp[®] 707 Crimper

Prod. No.:	7480-0043*	Part No.:	77700*
Dimensions:	13" wide x 12" deep x 26-1/2" high		
Weight:	188 lbs.		
Production Rate:	50 assemblies per hour (1/2" I.D. 2-wire straight thread assemblies)		

* Power Crimp 707 crimper can also be ordered wired for 230 volts (Prod. No. 7480-0046, Part No. 77701). Must be used with 230 volt power unit (Prod No. 7481-0028, Part No. 77811).

Electro Power Pump

Prod. No.: 7481-0023 Part No.: 77810
 Power Source: 115 Volt, 15 Amp.,
 1 H.P., 60 Cycles
 Dimensions: 12 " wide x 25" deep x 12" high
 Weight: 70 lbs.
 Maximum Rated Working Pressure: 4900 psi.

Prod. No.: 7481-0028* Part No.: 77811*
 Power Source: 230 Volt, 7.5 Amp.,
 1 H.P., 60 Cycles

* Use only with Power Crimp 707 (Product No. 7480-0046, Part No. 77701), or 230 Volt rewired Power Crimp 707 crimper only.

Note: Do Not operate 115V crimper with a 230V pump. Digital readout will be damaged. See page 11 for additional instructions.

23 Die sets are available for crimping hydraulic and industrial hose from 3/16" through 1 1/4" I.D. A Swager Kit (Prod. No. 7480-0040, Part No. 78081) also is available to swage thermoplastic and C14 Teflon hoses.

PC707 8-Finger Die Sets Available

Description	Product Number	Part Number	Notes
Die Set 721	7482-1217	78943	
Die Set 722	7482-1218	78944	
Die Set 731	7482-0931	78931	
Die Set 732	7482-0932	78932	
Die Set 733	7482-0933	78933	
Die Set 734	7482-0934	78934	
Die Set 735	7482-0935	78935	
Die Set 736	7482-0936	78936	
Die Set 737	7482-0937	78937	
Die Set 739	7482-0939	78939	Must use the No-Notch Die Cone (Prod. No. 7482-0297, Part No. 78747)
Die Set 740	7482-0947	78950	For crimping 6ACA
Die Set 741	7482-0941	74951	For crimping 8ACA
Die Set 742	7482-0942	78952	For crimping 10ACA
Die Set 743	7482-0943	78953	For crimping 12ACA
Die Set 744	7482-0944	78954	For crimping power steering
Die Set 745	7482-0945	78955	For crimping grease fitting
Die Set 746	7482-0946	78956	For crimping miscellaneous (Replaces B die)
Die Set 781	7482-1231	78578	For GL Fittings
Die Set 782	7482-1232	78579	For GL Fittings
Die Set 783	7482-1233	78580	For GL Fittings
Die Set 7C3	7482-1122	78941	For crimping clamp collar (5/8")
Die Set 7C4	7482-1123	78942	For crimping clamp collar (3/4")

CAUTION:

Do not use 720 or 739 die set with notched die cone. May cause damage to die cone.

Setup

1. Remove crimper, back-up ring, two die cones, die magnet, hose assembly, mounting bracket with bolt, jar of Molykote "G" grease, operating manual, crimp data book and crimp decals from shipping carton. Locate serial number on base plate in front of left post and record on Page 1. Be sure to fill out the crimper registration card. (By completing the card and returning it to Gates, you will receive crimp data updates and full warranty coverage.) Remove pump, breather cap and operating manual from its shipping carton.

2. Mount crimper so it overhangs a workbench (as shown in Photo 1). The back of the cutout (in the base plate) should be in line with front of bench. The bench should be 37" to 42" high, stable and of sturdy construction.



PHOTO 1

3. Drill three 3/8" diameter holes as shown in Illustration 1. Connect the mounting bracket to top rear of crimper and to the hole farthest from edge of workbench. Further secure crimper to workbench using the two remaining holes.

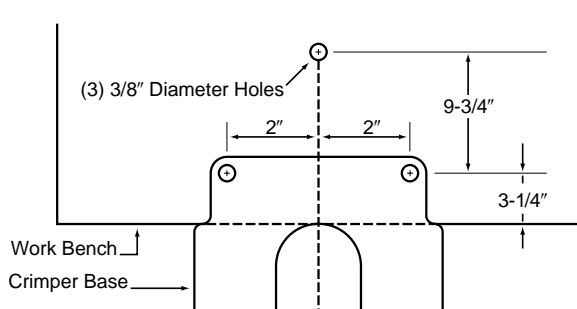


ILLUSTRATION 1

4. When crimper is secured to the workbench, connect hose assembly between crimper and pump.

5. Connect receptacle on short cord of pump to plug on cord of switch box of the crimper. **If plug and receptacle do not match, do not try to connect.** Differences in the plug and receptacle indicate the pump and crimper have different voltages and should not be operated.

Peel and position crimp decal on the shroud according to your preference.



WARNING:

Crimper and pump **voltage must be the same** or digital readout will be damaged.

6. Remove plug from top of pump reservoir and replace with breather cap provided. Check that hydraulic oil is within 1/2" of bottom of plug opening. If needed, add Dextron II ATF or equivalent to reservoir.

7. Verify that switch on pump electrical box is in "OFF" position. Connect pump power cord to a 15 amp (minimum) rated electrical circuit.

8. Move switch on pump electrical box to "ON" position. This will provide power to the pump and crimper.

9. Turn knob on top of crimper switch box to get a setting of 2.00 on the readout. Cycle crimper at least 5 times to bleed air from cylinder and hydraulic system.

PC 707 Calibration Procedure

WARNING:

Make sure area under pusher cup is clear of die cone or die sets.

- 1.** Before initiating calibration procedure, make sure crimper has been cycled five times. To cycle, dial in a setting of 2.00 and run crimper down to shutoff with no die set loaded.
- 2.** Install the "733" die set to calibrate the machine using an 8G MegaCrimp® coupling.
- 3.** Set the digital readout setting to 5.20. (Rotating the knob on top of switch box clockwise will increase the number; counterclockwise will decrease the number. When changing the setting, always move to a higher number then down to the desired setting. Example: To change from 5.00 to 5.20, move dial up to 6.00 then down to 5.20.) The readout figures may jump a number; i.e. 5.20 to 5.19 or 5.21. This will not affect the crimp OD.
- 4.** Insert the coupling into the die set approximately 1/8" below top of die. (See Photo 1.)



PHOTO 1

- 5.** Slide the die cone assembly under the ram until it stops against back locating pins and push the crimp button and hold. Release the button immediately when the pump stops.

- 6.** Remove coupling and measure crimp diameter, which should measure $1.000" \pm .003"$. (See Page 9 for Measuring Crimp Diameter.)
- 7.** If ferrule crimp diameter is not acceptable, adjust actuator rod. (See Photo 2.)
 - a.** To increase crimp diameter – Hold the 1-1/16" actuator rod while loosening the 3/4" lock nut. Rotate the actuator rod clockwise (one full turn of the actuator rod will change crimp diameter approximately 0.024"). Then tighten the lock nut down.
 - b.** To decrease crimp diameter – Hold the 1-1/16" actuator rod while loosening the 3/4" lock nut. Rotate the actuator rod counter clockwise (one full turn of the actuator rod will change crimp diameter approximately 0.024"). Then tighten the lock nut down.

CAUTION:

Do not over-tighten lock nut.



CLOCKWISE
PHOTO 2

- 8.** Repeat steps 3 through 7 to verify correct crimp diameter.

Hose Preparation

CAUTION:

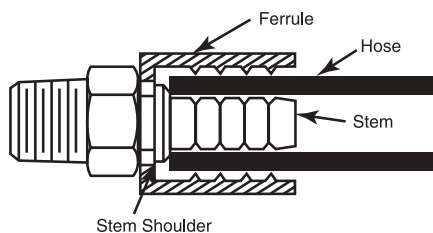
A new hose and end fittings (stem/ferrule) must be used when building a hose assembly. Re-using any component will seriously affect performance and could result in serious injury or property damage.

Two-Piece Couplings

1. Cut hose to desired length.
2. Using Gates Crimp Data Manual #35019 (Ind.), 428-7365 (Auto.), select the correct stem and ferrule. Or, log onto www.gates.com/ecrimp for the latest crimp information on-line.
3. Place ferrule over end of hose. If skiving is required, see instructions in Gates Hand Skiver Manual, #35019-W.



4. Lubricate the first two or three serrations on stem with lightweight oil (SAE 10W).
5. Clamp stem in vise on hex portion, and push hose onto stem. Hose should be flush against stem shoulder (see cutaway drawing).



6. Push ferrule so it rests against hex of stem. Hose and coupling are now ready for crimping.



MegaCrimp® Pre-Assembled Couplings

1. Cut hose to desired length.
2. Using Gates Crimp Data Manual #35019 (Ind.), 428-7365 (Auto.), select the correct MegaCrimp coupling. Or, log onto www.gates.com/ecrimp for the latest crimp information on-line.



3. Place a visible mark on hose cover at the insertion length shown in the crimp data manual.



4. Insert coupling into the hose until the mark lines up with the end of the coupling ferrule.
5. Hose and coupling are now ready for crimping.

NOTE:

See Hose Assembly Guide of the Gates Crimp Data Manual, #35019 (Ind.) and 428-7365 (Auto.) or log onto www.gates.com/ecrimp, for more details.

Operating Instructions

CAUTION:

Not recommended for use below 40°F. Pump damage may occur. If operation is required below 40°F, pump oil reservoir must be heated.

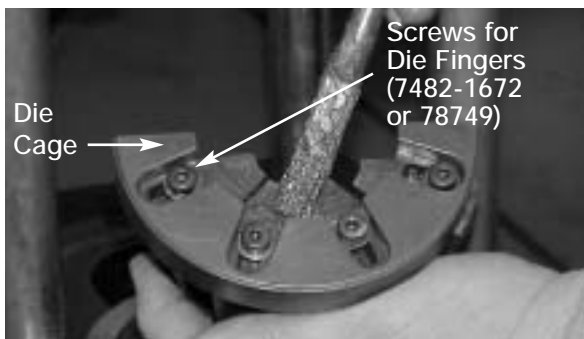
- 1.** Place die back up ring on front of crimper base plate. This back up ring is used with all die sets.



NOTE:

Use No-Notch Die Cone when crimping with 720, 739, and 6PS Die sets. Using a notched cone may cause damage to die cone.

- 2.** Select proper die set for hose and coupling by referring to the Gates Crimp manual, #35019 (Ind.) and 428-7365 (Auto.), or log onto www.gates.com/ecrimp.



- 3.** Using die magnet supplied with crimper, insert proper die set, one half at a time, onto die backup ring.



- 4.** Periodically check bottom of die cage and top surface of die back up ring for cleanliness.

WARNING:

Die cage may break if surfaces are not kept clean.

- 5.** Check screws holding fingers to cage to make sure they are tight. Tighten if necessary. This could affect crimp if loose.

- 6.** Apply a thin layer of Molykote "G" grease to inside working area of die cone. The layer of grease must be redistributed periodically when the area becomes shiny from rubbing on the die fingers.



Operating Instructions (continued)

7. Insert hose assembly through bottom of the crimper base plate up through die fingers.

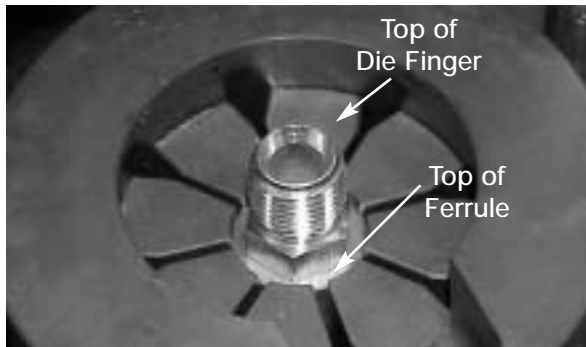
8. Locate top of ferrule or MegaCrimp® coupling approximately 1/8" below top of the die fingers. Place die cone over the die fingers to hold assembly in position.

IMPORTANT:

Be sure the hex of a straight stem or round portion of a bent tube rests against ferrule.

CAUTION:

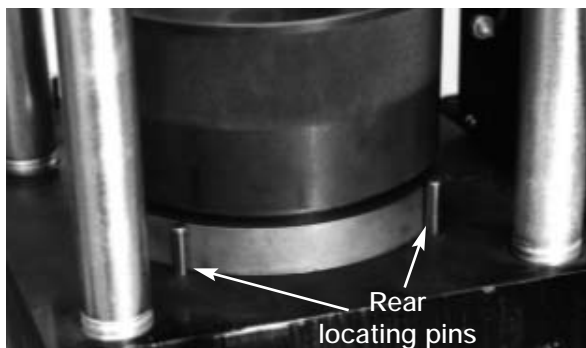
Do not use 720, 739, or 6PS die sets with notched die cone. May cause damage to die cone.



WARNING:

Keep hand out from under ram at all times.

9. Move die cone and backup ring back against BOTH rear locating pins of crimper base plate.



10. The crimp data manual gives approximate digital readout setting for specific hose/coupling combination. Rotating the knob on top of switch box clockwise will increase the setting; counterclockwise will decrease the setting.



11. Turn knob to a setting below the desired setting. Then turn knob back up to the desired setting. (Digital readout numbers may jump a number, e.g., 5.50 to 5.49 or 5.51. This will not affect crimp diameter of the coupling.)

CAUTION:

Always wear safety glasses and
**KEEP HANDS AWAY
FROM MOVING PARTS.**



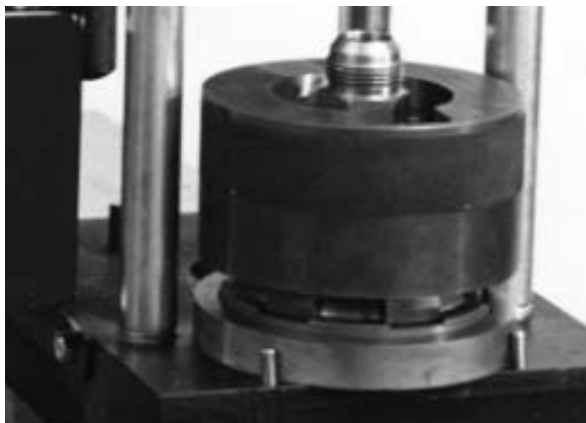
Incorrect

Correct

12. Activate pump by pressing and holding the crimp switch on switch box. The readout light will go out when the crimp switch is pushed in. When actuator rod contacts switch box's microswitch, the power to pump is automatically turned off.

Operating Instructions (continued)

13. When you hear pump shut off, release switch and the ram will move up.



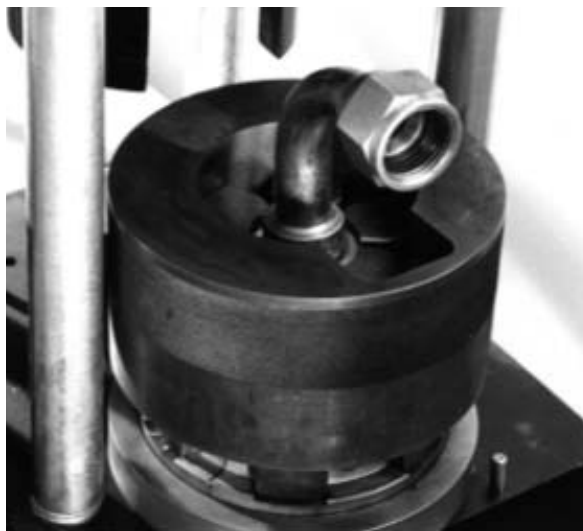
14. Move die cone and backup ring unit all the way forward. Remove assembly by lifting the die cone.

15. Measure crimp diameter. (See Page 9).

16. Check the crimp data chart for correct crimp diameter.

WARNING:

Your measured crimp diameter **MUST** be in tolerance range as listed in the Crimp Data Manual.



17. When crimping bent tube couplings, use the same procedure as crimping straight end couplings. Keep thread end of bent tube forward to clear slot in pusher.

18. To crimp a 45° or 90° block type coupling, follow the same procedure used for the bent tube.

19. Position thread end of coupling into the die cone notch, which must be towards the front of the crimper.

Measuring Crimp Diameter

To properly measure a crimp diameter:

NOTE :

DO NOT measure on top of part number stamps.

When using 21 and 22 Dies

1. Using Gates "21/22" dial calipers (Product No. 7369-1320, Part No. 78217) measure halfway between ridges (Fig. 1). To be sure crimp diameter is being properly measured, mark a crimp flat. Beginning with that flat, count 9 flats to get the diameter. Be sure caliper blades DO NOT touch ridges. (See Photo 3.)

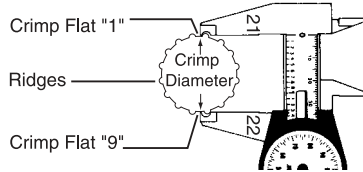


FIG. 1

2. Measure halfway between the ends of crimped portion of the ferrule (Fig. 2).



FIG. 2

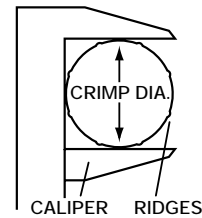


PHOTO 3

3. Should actual crimp diameter not be within recommended crimp tolerance, check calibration of the machine and recalibrate. If the machine is properly calibrated, you may need to make a slight adjustment to the digital readout.

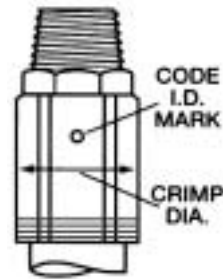
When NOT using 21 and 22 Dies

1. Using Gates dial calipers (Product No. 7369-0320, Part No. 78215) which are notched to clear ridges, measure halfway between ridges (Sketch 1). Be sure caliper fingers DO NOT touch ridges or part number stamps. (See Photo 3.)



SKETCH 1

2. Measure halfway down the crimped portion of the ferrule (Sketch 2).



SKETCH 2

4. To obtain a smaller crimp diameter, change digital readout setting to smaller number. To get a larger crimp diameter, change digital readout setting to a larger number. Changing digital readout number by .05 will change crimp diameter .001". Record new setting on your crimp data chart for future reference.

$$\text{Adjusted Setting} = \left[\left(\frac{\text{Target C.O.D.} - \text{Measured C.O.D.}}{\text{C.O.D.}} \right) \times 50 \right] + \text{Published Approx. Setting}$$

Maintenance

This crimper requires minimal maintenance. However, the following practices are recommended to ensure maximum reliability and service.

1. Lubricate.

Using a small brush and Molykote "G" grease, apply a light coat to the inside surface of the die cone whenever it becomes shiny.

2. Check oil level.

- a. Check the hydraulic oil level in the pump reservoir after each 10 hours of use (see pump operation manual for instructions).
- b. If the oil is more than 1/2" below the top, add Dextron II ATF or equivalent until within 1/2" of the top of the reservoir.

3. Change the oil.

(NOTE: Frequency depends on the pump's general working conditions, severity of use and overall cleanliness.)

- a. For general shop conditions, change oil every 300 hours.
- b. Drain, clean and refill the reservoir per pump operating instructions with Dextron II ATF or equivalent to within 1/2" of the top of the reservoir.

4. Inspect die sets.

- a. Periodically inspect the surfaces of die sets for debris (metal chips, dirt, etc.) or damage.
- b. If debris is present, clean and lightly lubricate. If damaged, replacement is required (see parts list for ordering information).
- c. Check screws holding fingers to cage to make sure they are tight. Tighten if necessary.

5. Inspect hose assembly.

- a. Inspect hose assembly connecting the crimper and pump monthly (more often with severe use).
- b. If hose has any signs of damage, replace immediately. A damaged hose may rupture and cause serious injury.
- c. If hydraulic oil is present on the hose assembly, serious damage may exist. Replace hose assembly immediately.

Power Crimper 707 Conversion from 115V to 230V

The standard PC 707 crimper (P/N 7480-0043/77700) requires a 115V, 15A power source. It is possible to operate the crimper with a 230V, 15A power source. However, a 230V wiring harness must be purchased and the pump must be rewired to use the PC 707 as a 230V machine. If the crimper is not rewired when operated at 230V, the LED digital readout will be damaged. Other problems may also occur if the PC 707 is not operated using the proper power source.

Instructions

- 1.** Purchase a new, 230V wiring harness (Prod. No.: 7482-0498 / Part No.: 78748).
- 2.** Unplug the pump from the power source.
- 3.** Remove the shroud from the PC 707 by removing the two allen screws on the front of the shroud.
- 4.** Replace the old wiring harness between the digital readout meter and the switchbox with the new, 230V wiring harness.
- 5.** Place the shroud on the crimper.
- 6.** Unplug the pump from the crimper switchbox.
- 7.** Rewire the pump for 230V. Note: A 230V pump can be purchased (Prod. No.: 7481-0028 / Part No.: 77811).

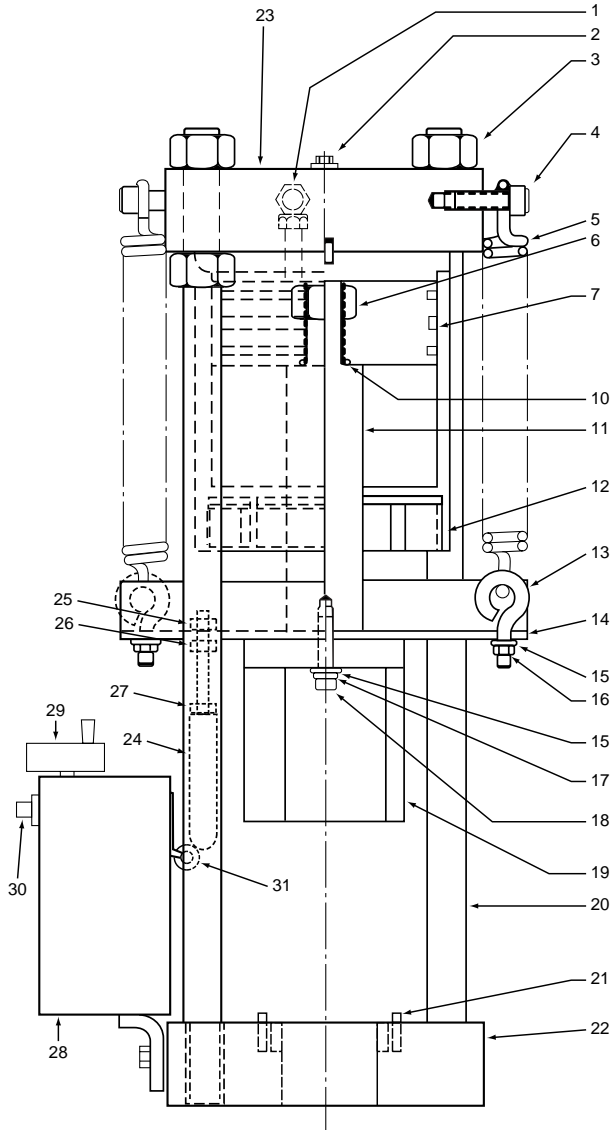
Rewiring the Pump

- A.** Unplug the pump from the wall outlet.
- B.** Remove the coverplate on the end of the motor control box and, per the instructions on back of coverplate, change the motor leads to the 230V configuration.
- C.** Re-install the coverplate on the motor control box.
- D.** Install a new, 230V, 15A male plug on the power cord.
- E.** Check the plug types for the connectors (one from the pump and one from the crimper) between the pump and the switch box. Both plugs should be rated for at least 230V and 15A to be used with a 230V PC 707. If these plugs are not rated to handle 230V and 15A, then replace both plugs with nema L6-15 plugs.

After all the re-wiring is completed and the plug and wire types checked (and changed, if necessary), re-connect the pump to the pump source and the crimper.

Gates Power Crimp® 707 Schematic and Parts List

Crimper Schematic for Serial #B14,000 and above and newer refurbished units.*



KEY NO.	PROD. NO.	PART NO.	DESCRIPTION	QTY.
1	7253-0029	86967	8MB-8FPX Adapter	1
*2	-----	-----	Screw 3/8-16 x Hex HD	1
3	7482-0243	78737	Nut 1-8 Standard Hex (Special-Grade 8)	8
*4	-----	-----	Screw 1/2-13 x 1-1/4 S.H.C.S.	2
5	7482-6959	78751	Return Spring	2
*6	-----	-----	Nut 1-14 w/Nylon Insert	1
7	7482-0105	78718	Piston Seal Kit Assembly	1
10	7482-0147	78732	*O* Ring 1-1/8 O.D. x 1 I.D. (Nitrile)	1
11	7482-0106	78719	Piston Rod	1
12	7482-0109	78722	Piston Rod Guide	1
13	7482-0118	78729	Spring Anchor	2
14	7482-0107	78720	Return Spring Anchor Channel	1
*15	-----	-----	Washer 3/8 Plain	3
*16	-----	-----	Nut 3/8-16 Hex	2
*17	-----	-----	Lockwasher 3/8	1
*18	-----	-----	Screw 3/8-16 x 2-1/4 S.H.C.S.	1
19	7482-0112	78725	Pusher Cup	1
20	7482-0111	78724	Tie Rod	4
*21	-----	-----	Roll Pin 1/4 x 1	4
22	7482-0110	78723	Base Plate (Machine)	1
**	7482-0119	78730	Mounting Bracket	1
23	7482-0116	78728	Cylinder and Top Plate	1
24	7482-0229	78734	Microswitch Actuator Rod	1
*25	-----	-----	Top Actuator Nut (1/2-13)	1
*26	-----	-----	Bottom Actuator Nut (1/2-13)	1
*27	-----	-----	Actuator Locking Nut (1/2-20, new style, only)	1
**	7482-0115	78727	Backup Ring, Large	1
**	7482-0789	78478	Die Cage (includes eight 1/4 x 3/8 socket head shoulder screws with 10-24 thread)	2 halves
**	7482-0919	78758	Washers for Die Fingers	1
**	7482-0297	78747	Die Cone, No Notch	1
**	7482-0239	78737	Die Cone, Notched	1
**	7482-3011	78755	Molykote *G* Grease (3 oz. jar)	1
**	7253-86876	86876	8MB-8FPX90 Adapter	1
**	7482-0289	78745	Hose Assembly PC707	1
**	7482-0283	78742	Shroud only	1
**	7482-0280	78740	Readout Meter	1
**	7482-0291	78746	Die Finger Removal Tool (Magnet)	1
**	7482-1672	78749	Shoulder Screws for Die Fingers	8
SWITCH BOX				
28	7482-0277	78739	Switch Box - Complete with Wiring Harness	1
29	7482-0231	78735	Knob, Switch Box	1
30	7482-0054	78717	Crimp Switch	1
31	7482-0442	78252	Microswitch	1
**	7482-0747	78754	Wiring Harness, Switch Box to Shroud for 115 Volt only	1
**	7482-0498	78748	Wiring Harness, Switch Box to Shroud to convert from 115 to 230 Volt	1
**	35019-FP	-----	Face Plate	1

***NOTE:**

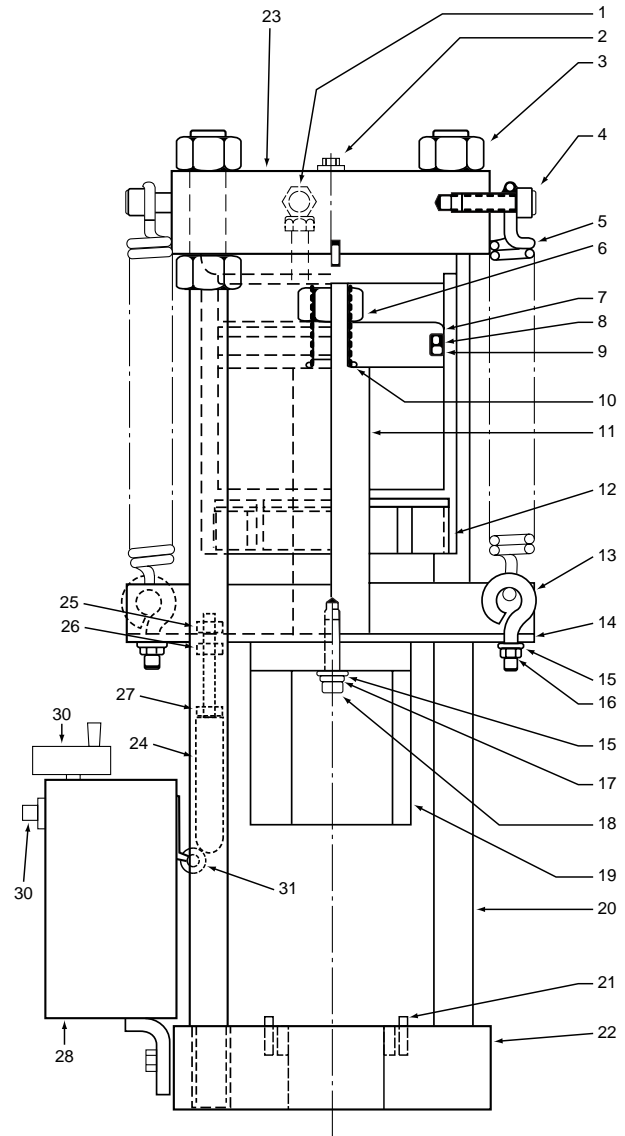
Newer refurbished units have a serial number with a -7R suffix.

*These items can be purchased at most hardware stores-not stocked at Gates.
**Not shown on diagram.

Gates Power Crimp® 707 Schematic and Parts List (continued)

KEY NO.	PROD. NO.	PART NO.	DESCRIPTION	QTY.
1	7253-0220	86322	BMP-8FPX90 Adapter	1
*2	-----	-----	Screw 3/8-16 x Hex HD	1
3	7482-0243	78737	Nut 1-8 Standard Hex (Special-Grade 8)	8
*4	-----	-----	Screw 1/2-13 x 1-1/4 S.H.C.S.	2
5	7482-6959	78751	Return Spring	2
*6	-----	-----	Nut 1-14 w/Nylon Insert	1
7	-----	-----	Piston	1
8	7482-0122	78731	Seal Replacement Kit	1
9	7482-0122	78731	Seal Replacement Kit	1
10	7482-0147	78732	"O" Ring 1-1/8 O.D. x 1 I.D. (Nitrile)	1
11	7482-0106	78719	Piston Rod	1
12	7482-0109	78722	Piston Rod Guide	1
13	7482-0118	78729	Spring Anchor	2
14	7482-0107	78720	Return Spring Anchor Channel	1
*15	-----	-----	Washer 3/8 Plain	3
*16	-----	-----	Nut 3/8-16 Hex	2
*17	-----	-----	Lockwasher 3/8	1
*18	-----	-----	Screw 3/8-16 x 1-1/2 S.H.C.S.	1
19	7482-0112	78725	Pusher Cup	1
20	7482-0111	78724	Tie Rod	4
*21	-----	-----	Roll Pin 1/4 x 1	4
22	7482-0110	78723	Base Plate (Machine)	1
**	7482-0119	78730	Mounting Bracket	1
23	7482-0116	78728	Cylinder and Top Plate	1
24	7482-0229	78734	Microswitch Actuator Rod	1
*25	-----	-----	Top Actuator Nut (1/2-13)	1
*26	-----	-----	Bottom Actuator Nut (1/2-13)	1
*27	-----	-----	Actuator Locking Nut (1/2-20, new style, only)	1
**	7482-0115	78727	Backup Ring, Large	1
**	7482-0114	78726	Die Cage (Does not include six 1/4 x 3/8 socket head shoulder screws with 10-24 thread)	2 halves
**	7482-0919	78758	Washers for Die Fingers	1
**	7482-0297	78747	Die Cone, No Notch	1
**	7482-0239	78737	Die Cone, Notched	1
**	7482-3011	78755	Molykote "G" Grease (3 oz. tube)	1
**	7253-86876	86876	BMB-8FPX90 Adapter	1
**	7482-0289	78745	Hose Assembly PC707	1
**	7482-0283	78742	Shroud only	1
**	7482-0280	78740	Readout Meter	1
**	7482-0291	78746	Die Finger Removal Tool (Magnet)	1
**	7482-1672	78749	Shoulder Screws for Die Fingers	8
SWITCH BOX				
28	7482-0277	78739	Switch Box - Complete with Wiring Harness	1
29	7482-0231	78735	Knob, Switch Box	1
30	7482-0054	78717	Crimp Switch	1
31	7482-0442	78252	Microswitch	1
**	7482-0747	78754	Wiring Harness, Switch Box to Shroud for 115 Volt only	1
**	7482-0498	78748	Wiring Harness, Switch Box to Shroud to convert from 115 to 230 Volt	1
**	35019-FP	-----	Face Plate	1

Crimper Schematic for Non-Refurbished units with Serial #B13,999 and below.



*These items can be purchased at most hardware stores-not stocked at Gates.

**Not shown on diagram.

Trouble Shooting Guide

All equipment is tested for proper performance before it is shipped from the factory. However, if you should experience any difficulties, we recommend you check the guide below to help restore equipment to proper operating standards before contacting Gates customer service.

Problem	Solution
Crimper will not come up to pressure.	<ul style="list-style-type: none">• Check the oil level in pump.• Check operation of pump relief valve. (See pump operation manual.)
Crimping leaves a "bell" or "tail" on ferrule.	<ul style="list-style-type: none">• Check location of ferrule in die fingers before crimping.
Crimping gives wrong crimp diameter.	<ul style="list-style-type: none">• Check for proper die set.• Check for proper hose/ferrule/stem combination.• Check for proper digital readout setting.• Check calibration of crimper.• Change digital readout setting until an acceptable crimp diameter is obtained. (See page 9) Record new setting for future use. <p>NOTE: Published settings are only approximate values. You need to adjust your setting so that the correct crimp diameter is achieved.</p>
Pump will not activate crimper.	<ul style="list-style-type: none">• Check crimp switch on switchbox.• Check electrical connections between pump and crimper and between pump and wall outlet.
Crimping unit is off center under the ram.	<ul style="list-style-type: none">• Make certain die backup ring is completely back against both rear locating pins.
No digital readout, but crimper is operational.	<ul style="list-style-type: none">• Check wiring harness to see if it is connected between switchbox and digital readout. If connected properly, the digital readout is faulty and must be replaced.

Trouble Shooting Guide (continued)

Problem	Solution
A dashed line appears across digital readout meter.	<ul style="list-style-type: none">● Check wiring harness to see if it is connected between switch box and digital readout. If connected properly, switch box is faulty and must be replaced.
Ram will not retract, retracts slowly, or retracts with a “jerky” motion.	<ul style="list-style-type: none">● Carefully remove hose assembly from pump. Fluid is under pressure. Be prepared to catch in a container. If ram retracts normally, without a “jerky” motion, repair or replace relief valve in the pump. If ram does not retract, retracts slowly, or with a “jerky” motion, the piston or piston seals may be damaged or binding. Replace piston seals or piston.
Cylinder is leaking hydraulic fluid.	<ul style="list-style-type: none">● Replace piston seals.
Hose assembly will not fit through base plate of crimper.	<ul style="list-style-type: none">● Check width of the slot in crimper’s base plate. Width should measure at least 2.64”. If not, grind base plate slot to increase width to accommodate –20 MegaCrimp.®
Hose assembly will not fit through die backup ring.	<ul style="list-style-type: none">● Check diameter of hole in the die backup ring. Diameter should measure at least 2.56”. If not, grind die backup ring hole to increase the diameter or replace.
Die cone sticks on die fingers.	<ul style="list-style-type: none">● Check inside of die cone for proper lubrication. Apply a thin layer of Molykote ‘G’ grease to lubricate die cone.
Crimping unit does not fit under ram.	<ul style="list-style-type: none">● Check the distance between bottom of pusher cup and top of base plate. The distance should measure approximately 5.37”.● Check for correct ferrule and die.

NOTES

Two-Year Limited Warranty on Equipment

For two years from the date of shipment of the equipment to the original user, The Gates Rubber Company will, at its option, replace or repair any unit which proves to be defective in material or workmanship, or both, at no cost to the original user of the equipment. Warranty claims require proof of purchase. This is the exclusive remedy. **THERE IS NO OTHER EXPRESS OR IMPLIED WARRANTY. ALL INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO TWO YEARS FROM DATE OF SHIPMENT OF THE EQUIPMENT TO THE ORIGINAL USER. LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES UNDER ANY AND ALL WARRANTIES IS EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW.** Some states do not allow the exclusion of incidental or consequential damages, and some states do not allow limitations on how long an implied warranty lasts, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. For warranty service, contact Service Department, The Gates Rubber Company, 990 S. Broadway, P.O. Box 5887, Denver, Colorado 80217.

IMPORTANT:

Be sure to fill out the crimper registration card included with your equipment. Also include the serial number located on top of the crimper base, front left side. Completing the registration card will assure that you receive crimp data updates and full warranty coverage.

HOW TO ORDER REPAIR PARTS

All parts for the Power Crimp® machine listed in current replacement parts price sheets can be ordered directly from your local Gates Hydraulic Distributor.

When ordering, be sure to include the following information:

- (1) Name of unit shown on front cover.
- (2) Product or part number of parts needed.
- (3) Description of parts needed.
- (4) Serial number of machine.

For selling prices on inventoried parts, refer to Hydraulic Power Crimp Equipment and Parts List Price Schedule. Selling prices for parts not shown in these lists will be furnished upon request, or parts will be shipped at prevailing prices and you will be billed accordingly. For information regarding prices, contact your local Gates representative or The Gates Rubber Company, 990 South Broadway, P.O. Box 5887, Denver, Colorado 80217-5887.

When returning inoperable equipment, contact your local Gates representative for information on where to ship the unit(s).



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