

ALL DOMINION ENERGY EMPLOYEES/CONTRACTORS

Disregard section 4.2 of this equipment manual. Dominion Energy Utah/Wyoming/Idaho does not allow Hot Squeezing.



Model 5045T
3/4" – 2" Steel Pipe Squeezer
Sch. 40 & Sch. 80

Operations Manual with Prints and Parts Listing

**MODEL 5045T
15 TON PIPE SQUEEZER
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1.0 Introduction

This manual is issued as a basic service and maintenance manual covering the Model 5045T, 15 Ton Pipe Squeezer manufactured by Regent Mfg., Inc., 11905 Regentview Avenue, Downey, CA, U.S.A., phone number (562) 862-1174, FAX (562) 861-9624.

To derive maximum service, it is recommended that personnel have a thorough understanding of the equipment before attempting to operate it. It is mandatory that the operating procedures herein be followed.

2.0 Specifications

| | |
|--------------------------|----------|
| Working Load | 15 Tons |
| Working Pressure | 4000 Psi |
| Net Weight | 45 Lbs |
| Crated Weight (Approx.) | 65 Lbs |
| Cu. Ft. Crated (Approx.) | .5 |

3.0 Features

The Regent Model 5045T Flow Stop Pipe Squeezer is used for gas, oil and water line repairs and maintenance.

The Model 5045T will give hot closure of steel pipe, sizes 3/4" through 2", cold closure on steel pipe, sizes 3/4" through 2", and copper pipe 3/4" through 2 1/2" OD. Reopening, both cold and hot, may be accomplished for sizes 3/4" thru 2" by using Kit 5215T with the 5045T.

When used with the Regent Model 5336T, Portable Hand Pump, cold closure can be attained within 60 seconds, and hot closure within 30 seconds. The Regent Model 16803, Air Powered Pump, can also be used with the Model 5045T for hot closure and reopening only. Time required for a hot pinch or reopening using the Model 16803 is approximately 15 seconds.

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3.0 Features (Continued)

Following is a list of typical uses:

- 1) Emergency shut off and repair of ruptured lines and mains.
- 2) Repair of leaks in service lines and mains.
- 3) Relocation of service lines in mains.
- 4) Service connections.
- 5) Permanent closures service for abandoned lines and mains.
- 6) Line and main extensions.

4.0 Operating Procedure

4.1 Cold Procedure:

The following procedure has been established to properly close steel pipe of various sizes. For satisfactory results, adherence to these instructions is necessary.

- 4.1.1 Select pinch location remote from gaseous area.
- 4.1.2 Remove wrappings, coatings and clean pipe.
- 4.1.3 Examine pinch area for location of seam, girth welds, excessive pitting and possible weak spots. Avoid these areas. Make flat weld on seam if it looks weak.
- 4.1.4 Connect hose to squeezer, close release valve on pump, make sure oil reservoir is full and loosen filler plug. Maintain pump level position.
- 4.1.5 Locate squeezer on line (do not position so that seam will be in fold).

CAUTION: IF SEAM STARTS OPENING DURING PINCH, STOP AND WELD ALONG SEAM OR RE-POSITION SQUEEZER AS SAFETY CONDITIONS INDICATE.

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- 4.1.6 Squeeze pipe.
- 4.1.7 On completion of squeeze, had tighten knurled lock ring and open release valve on pump.
- 4.1.8 Support entire weight of squeezer by blocking.
- 4.1.9 Make necessary repairs.
- 4.1.10 Remove squeezer from line, close release valve on pump assembly. Relieve pressure on knurled nut. Run nut to top of piston. Open release valve, allowing ram to retract.
- 4.1.11 Close release valve and filler plug.

4.2 Hot Procedure:

The following procedure has been established to properly close and reopen steel pipe of various sizes. For satisfactory results, adherence to these instructions is necessary.

- 4.2.1 Select pinch location remote from gaseous area.
- 4.2.2 Remove wrappings, coatings and clean pipe.
- 4.2.3 Examine pinch area for location of seam, girth welds, excessive pitting and weak spots. Avoid these areas. Locate pinch approximately 45 degrees from horizontal.
- 4.2.4 Keep threaded fittings and nonferrous joints cool by application of wet rags.
- 4.2.5 Connect hose to squeezer, close release valve on pump and make sure oil reservoir is full and loosen filler plug. Maintain pump in level position.
- 4.2.6 Locate squeezer on line and adjust jaws so that squeezer will slide along pipe.
- 4.2.7 Heat pinch area (equal to 3 to 4 diameters of pipe) to 1700 degrees F.; maintain temperature check with temperature crayon. **DO NOT EXCEED 1700 DEGREES F.** Use visible feather flame adjustment.

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- 4.2.8 Extinguish torch before squeezing.
- 4.2.9 Set squeezer in place, if possible within 45 degrees of horizontal. (Do not position so that seam will be in fold).
- 4.2.10 Squeeze pipe immediately. Should pipe cool, remove squeezer and reheat.

CAUTION: USE JUDGMENT - HOT PIPE MAY EASILY BE CUT IN TWO BY SQUEEZER.

- 4.2.11 Mark pipe with soapstone at guide bar points to assure proper positioning for reopening.
- 4.2.12 Purge pipe to remove any heat scale from reopened section.
- 4.2.13 Clean and wrap reopened area with protective coating.

5.0 To Service Ram "O" Ring (23) and/or Backup Ring (24) Figure 1.

- 5.1 Remove the six (6) retaining rings (37), top tension pins (11), screw (29) and top plate (5).
- 5.2 Remove safety nut (2).
- 5.3 Remove snap ring (18) by inserting a 1/8 rod into the hole provided in the cylinder (18).
- 5.4 Remove bushing (8).
- 5.5 Extract ram (4) using care not to score the cylinder wall.
- 5.6 Replace "O" Ring (23) and/or backup ring (24). Lubricate "O" Ring and/or backup ring prior to installation. Replace backup ring by expanding over bottom of the ram so that the grain side (smooth side) will come in contact with the "O" Ring. The backup ring is installed above the "O" Ring as shown.
- 5.7 Reassemble in reverse order.

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 Figure 1

| FIG. & ITEM NO. | PART NUMBER | DESCRIPTION | UNITS PER ASS'Y |
|-----------------------|----------------------|---|-----------------------|
| 1- | 5045T-B | 15 Ton Pipe Squeezer | Ref. |
| -1 | 915-176 | Nameplate | 1 |
| -2 | 5045T-2 | Safety Nut | 1 |
| -3 | 5045R-31 | Cylinder | 1 |
| -4 | 5045R-32 | Ram | 1 |
| -5 | 5045R-34 | Top Plate | 1 |
| -6 | 5045R-35 | Upper Jaw | 1 |
| -7 | 5045R-36 | Spacer | 4 |
| -8 | 5045R-38 | Cylinder Bushing | 1 |
| -9 | 5045R-39 | Pin | 1 |
| -10 | 5045R-40 | Tension Bar | 4 |
| -11 | 5045R-42 | Tension Bar Pin | 3 |
| -13 | 5484-1A | Lower Jaw | 1 |
| -14 | 5484-1B | Jaw Insert | 1 |
| -15 | 5486-1 | Guide Bar | 2 |
| -18 | 915-150.12-3.40 | Snap Ring | 1 |
| -19 | 916-186-5 | Tension Spring | 2 |
| -20 | 916-186-6 | Tension Spring | 2 |
| -21 | 916-202 | Decal | 1 |
| -22 | 915-DZ | Female Coupler | 1 |
| -23 | MS28775-335 | "O" Ring | 1 |
| -24 | MS35803-335 | Backup Ring | 1 |
| -25 | #6 x 3/8 LG | Drivescrew, (Stl Cad Pl) | 1 |
| -26 | 1/0 x 8 LG | Chain, Safety (Plumber's) | 1 |
| -27 | 3/8-16UNC x 3.00 LG | Capscrew, Hx Hd (Stl Cad Pl) | 2 |
| -28 | 3/8-16UNC x 3 1/4 LG | Capscrew, Hx Hd (Stl Cad Pl) | 2 |
| -29 | 1/4-20UNC x 5/8 LG | Capscrew, Skt Hd (Stl Cad Pl) | 1 |
| -30 | 3/8-16UNC | Hex Nut Self Lkg (Stl Cad Pl) | 4 |
| -31 | 1/4 DIA x 3/4 LG | Roll Pin (Stl Cad Pl) | 2 |
| -32 | 1/4 DIA x 2 1/4 LG | Roll Pin (Stl Cad Pl) | 2 |
| -33 | #2(.098) x 1/8 LG | Drivescrew (Stl Cad Pl) | 2 |
| -34 | 1/4-20UNC x 1/2 LG | Thumb Screw (Stl Cad Pl) | 1 |
| -36 | 3/8 CD-S | Street Elbow 3/8 NPT (Stl Cad Pl) | 1 |
| -37 | 5100-62ZD | Retaining Ring (5/8 Dia Shaft Stl Cad Pl) ... | 6 |
| -38 | 1 1/2 DIA | Key Ring (Stl Nickel Pl) | 1 |

NOTE: Unlisted Item Numbers Are Not Used.

FIGURE 1

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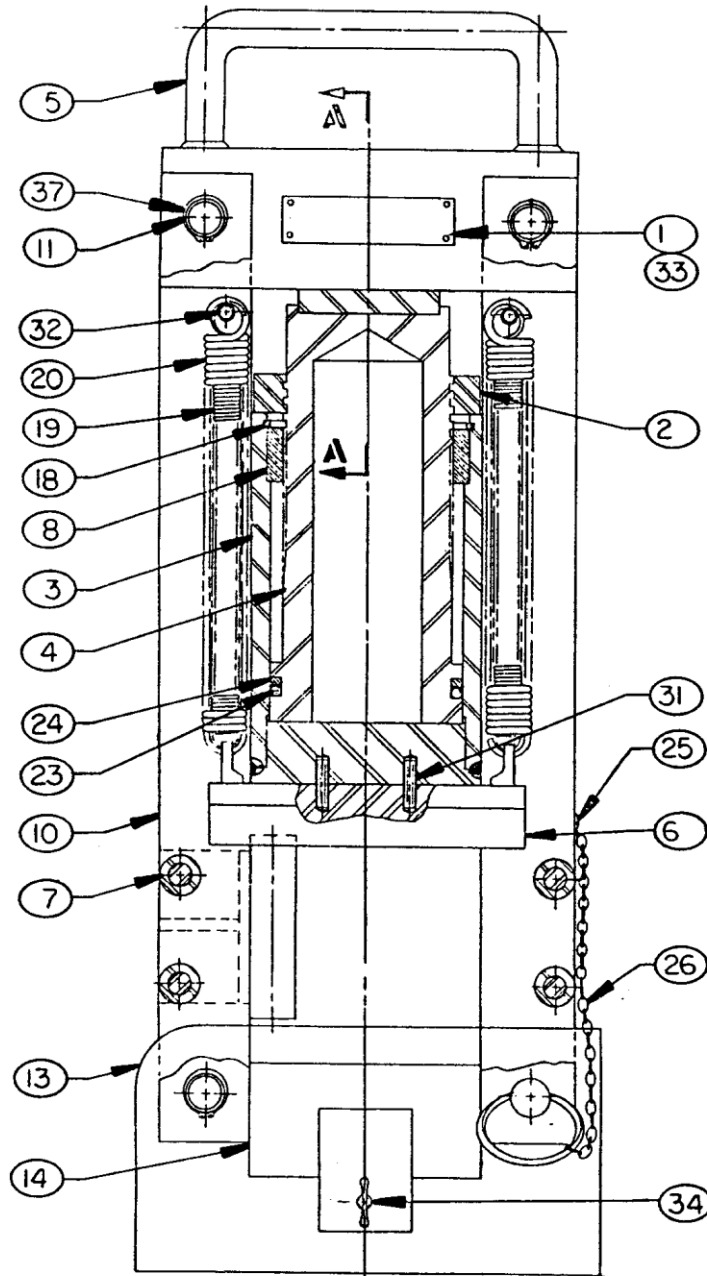
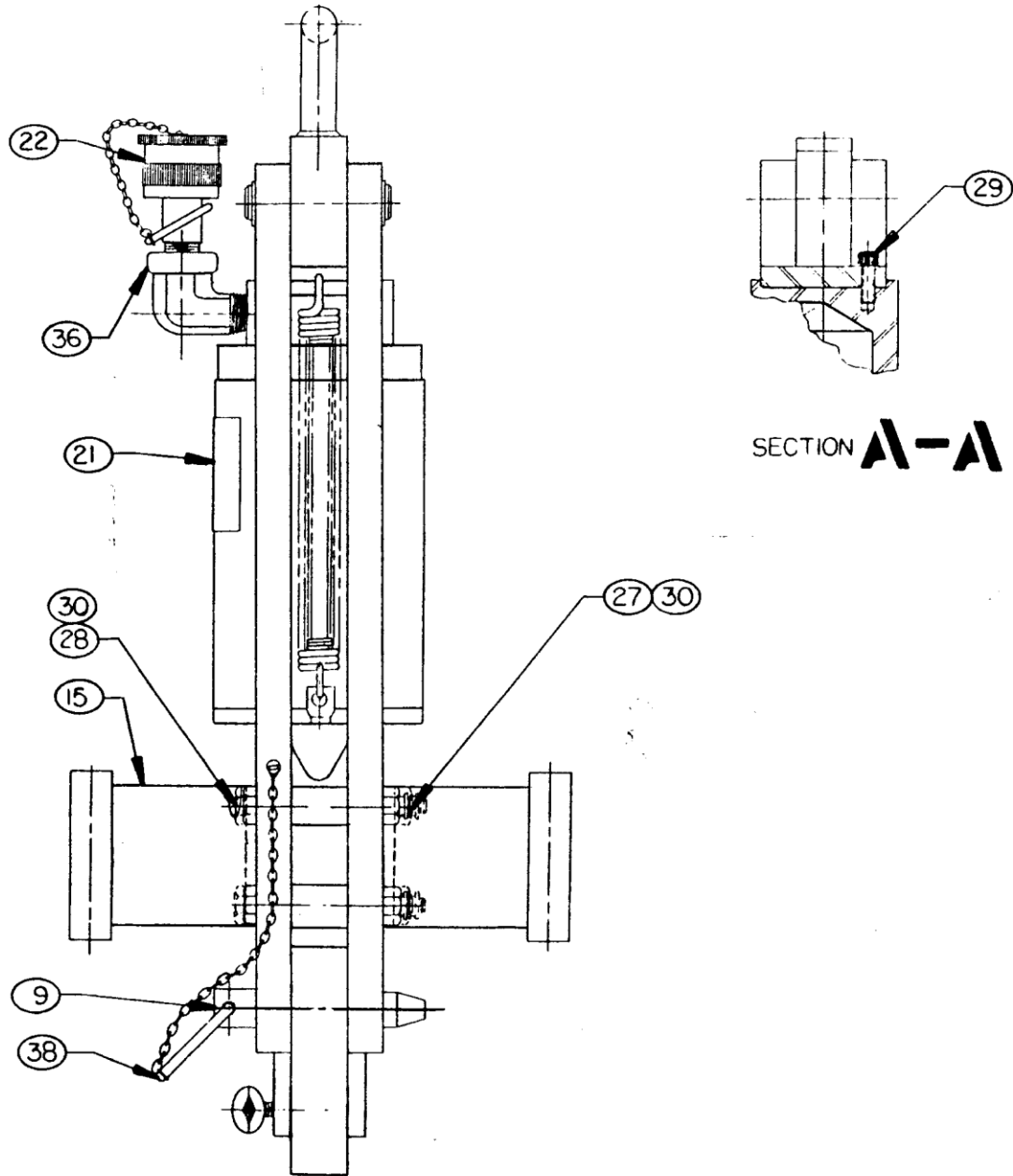


FIGURE 1

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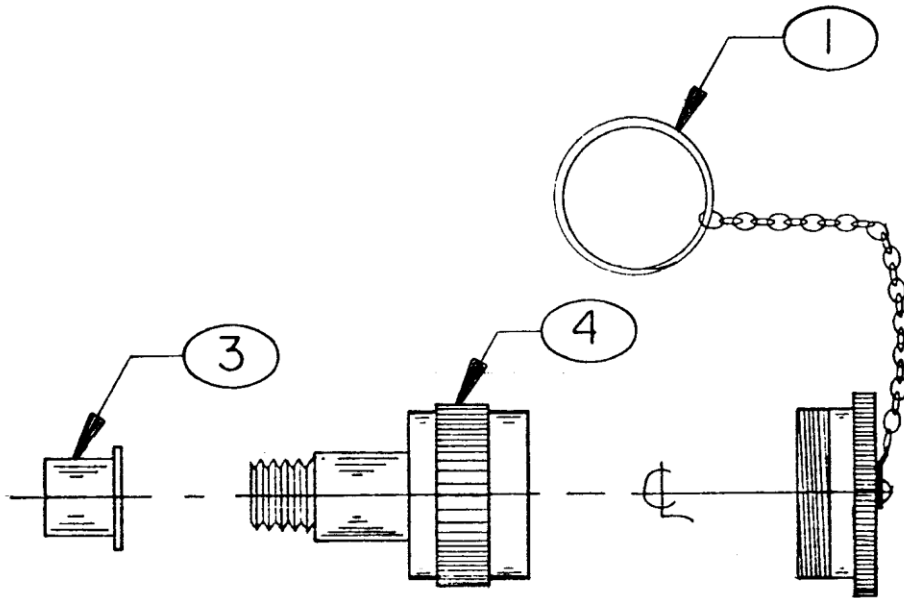
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 Figure 2

| FIG. & ITEM NO. | PART NUMBER | DESCRIPTION | UNITS PER ASS'Y |
|-----------------------|---------------|--|-----------------------|
| 2- | 915-DZ | Female Coupler | Ref. |
| -1 | 915-FV | Dust Cap Assembly | 1 |
| -3 | 3/8 NPT SIZE | Plastic Pipe Plug | 1 |
| -4 | XF-9901-30-11 | Female Coupler (3/8 NPT Power Packer) | 1 |

NOTE: Unlisted Item Numbers Are Not Used.

FIGURE 2

MODEL 5045T
15 TON PIPE SQUEEZER
PART NO. 915-DZ
FEMALE COUPLER
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 Figure 3

| FIG. & ITEM NO. | PART NUMBER | DESCRIPTION | UNITS PER ASS'Y |
|-----------------------|-------------------|---|-----------------------|
| 3- | 915-FV | Dust Cap Assembly | Ref. |
| -1 | 915-517 | Dust Cap | 1 |
| -2 | #2(.098) x .12 LG | Screw, Drive Rd Hd (Stl Cad Pl) | 1 |
| -3 | Com'l | Plumbers Chain (Trad Size 1/0 - 6.0 LG Stl Cad Pl) | 1 |
| -4 | Com'l | Key Ring (1.00 Dia Stl Cad Pl) | 1 |

NOTE: Unlisted Item Numbers Are Not Used.

FIGURE 3

MODEL 5045T
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PART NO. 915-FV
DUST CAP ASSEMBLY
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