



The Right Connection®

25 Ton Ram Operating Instructions

Section 3

External Swaging of Cam & Groove



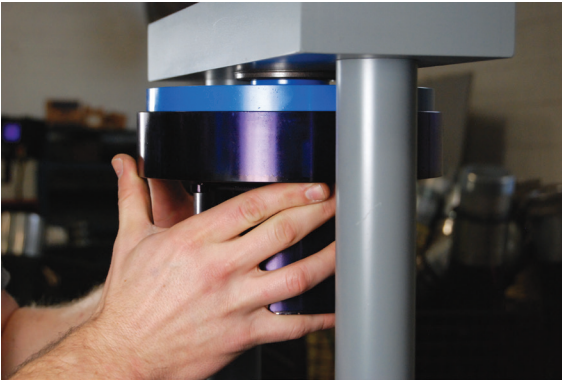
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1



Before you begin, make sure the ram is fully re-traced, and remove the **25PUSH400** (also referred to as the pusher hat) from the main pusher plate, if installed on the ram.

2



Insert Die Holders into the Die Bed Plate as follows:

- a) **DH9-004** - Master Die Holder to hold all of the other die holders.
- b) **DH9-004-1** - Die Holder for 4" I.D. hoses only.
- c) **DH6-003** - Die Holder for 1 ¼" - 3" I.D. hose dies (fits into **DH9-004**).
- d) **DH3-001** - Die Holder for ¼" - 1" I.D. hose dies (**DH6-003** and **DH9-004** also required).

Secure the Die Holders with the tie down bars supplied

3

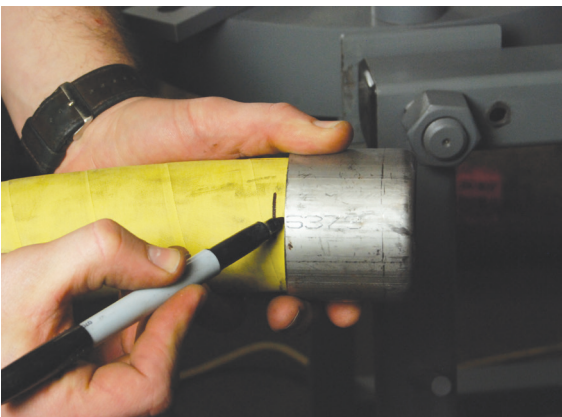


Accurately measure the hose O.D. with a diameter tape. Each end of the hose should be measured to guarantee the correct ferrule and die selection.

Select the proper ferrule and die based upon the hose free O.D. just measured, from the die chart.

Make sure the hose end is cut square. If the hose is to be static grounded, follow hose manufacturers procedure for proper static grounding.

4

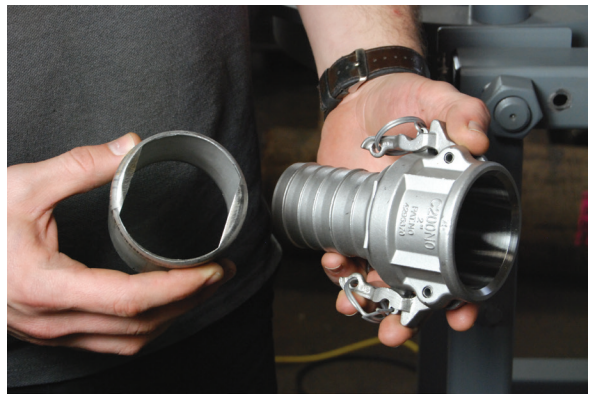


Measure the collar thickness of the stem. Slide the ferrule onto the hose. Place a mark on the hose at the end of the ferrule. Move the ferrule from the mark just made towards the end of the hose the distance of the collar thickness just measured. Place a second mark on the hose at the end of the ferrule.

5a

Note: When using the notched stem and ferrule system these guidelines must be followed:

- A. Before stem insertion, assemble the ferrule onto the stem by sliding the turned over portion of the ferrule past the notched sections of the stem collar. Rotate the ferrule 90° (¼ turn).
- B. Before starting the swaging process, make sure that the turned over portion of the ferrule and the collar are fully engaged.
- C. For "C" style couplings (requiring spacer rings), make sure that the two ring halves meet over the turned over portion of the ferrule which should be under the cam arms.



5b

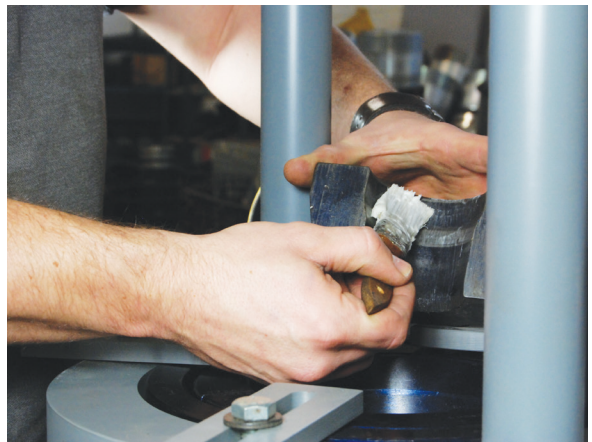
Lubricate the Hose I.D. and the O.D. of the coupling shank with Dixon® lubricant or equivalent. Insert the cam and groove fitting with ferrule onto the hose until the ferrule is even with the mark closest to the hose end. This is the second mark made on the hose.



6a

For "C" Style couplings requiring spacer rings:

- a. Lubricate the inside of the die halves with Crisco® (recommended) or a high viscosity oil or heavy duty grease.

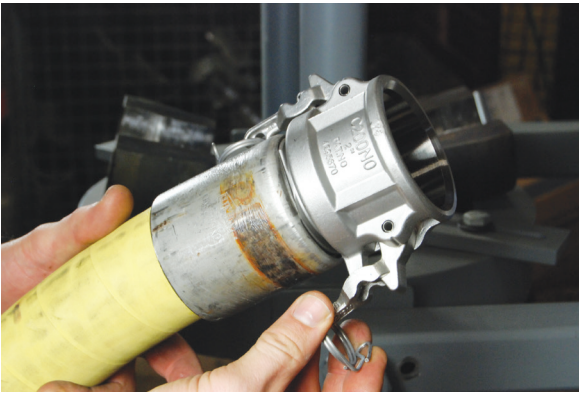


6b

- b. Lubricate the outside of the ferrule with Crisco® (recommended) or a high viscosity oil or heavy duty grease.



6c



c. Release the cam arms.

6d



d. Remove the gasket from the coupler.

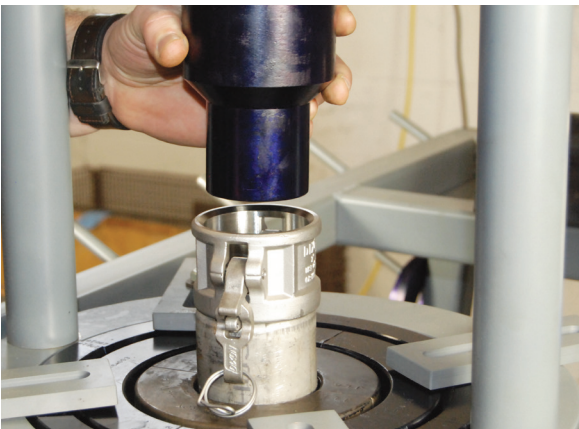
6e
6f



e. Bring the hose and coupling assembly up through the base of the die bed.
Note: One or both cam arms may close going through the die bed. If this happens, release the cam arms.

f. Put the selected die into the die bed.

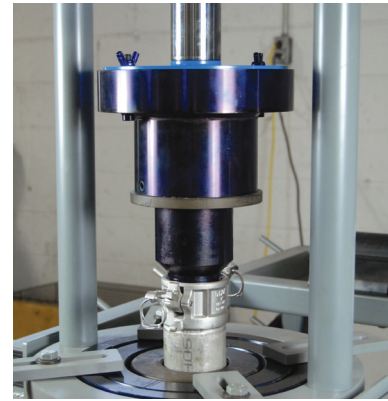
6g



g. Insert the proper pusher into the coupler (reference the chart at the end of this section for proper pusher selection).

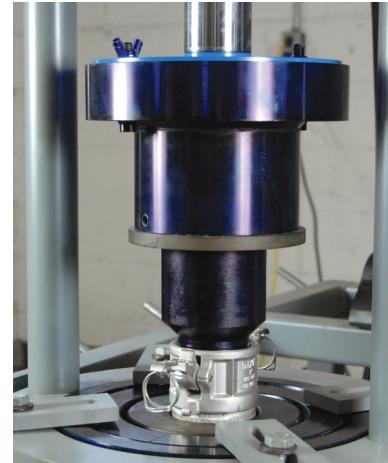
6h
6i

- h. Bring the assembly down into the opening of the die.
- i. Jog the ram cylinder down until it meets the pusher.



6j

- j. Hold the "on" button down (or depress the foot pedal) and continue the swage process. Release the "on" button (or foot pedal).



6k-end

- k. Lift the hose assembly up and remove the pusher, spacer rings and the die halves from the die bed.
- l. Lower the hose through the die bed and wipe off the excess lubricant.
- m. Re-install the gasket.



7a

For "E" Style couplings follow steps 1-5 then:

- a. Lubricate the inside of the die halves with Crisco® (recommended) or a high viscosity oil or heavy duty grease.



7b



- b. Lubricate the outside of the ferrule with Crisco® (recommended) or a high viscosity oil or heavy duty grease.

7c-d



- c. Bring the hose and coupling assembly up through the base of the die bed.
- d. Put the selected die into the die bed.

7e-f



- e. Install the proper pusher over the adapter (reference the chart at the end of this section for proper pusher selection).
- f. Bring the assembly down into the opening of the die.

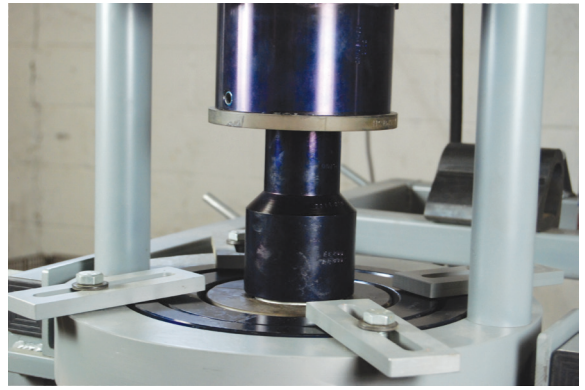
7g



- g. Jog the ram cylinder down until it meets the pusher. Make sure that the cylinder plate contacts the pusher flush.

7h

h. Holding the hose and coupling up against the pusher hold the "on" button down (or depress the foot pedal) until the ferrule enters the opening of the die. Once the ferrule has entered the die and started to be reduced (approximately 1/3 of the way) it will no longer need the operator to keep it seated into the pusher. Continue the swage process until the pusher meets the die face. Release the "on" button (or foot pedal).



7i

i. Lift the hose assembly up and remove the pusher, and die halves from the die bed.

Note: If the gauge reads 10,000 PSI before swaging is complete, stop. The ferrule or die used for that hose end may be incorrect. Contact Dixon® for further assistance.



Pushers and Spacer Rings For Cam & Groove

Size	Description	Part Number
1"	Type "E" pusher Type "C" pusher	<i>RE100PUSH</i> <i>RC100PUSH</i>
1½"	Type "E" pusher Type "C" pusher Spacer ring	<i>RE150PUSH</i> <i>RC150PUSH</i> (2 pieces) <i>150CGSPACE</i>
2"	Type "E" pusher Type "C" pusher	<i>D011-018</i> <i>D011-018</i>
3"	Type "E" pusher Type "C" pusher	<i>25PUSH300E</i> <i>D011-018</i>
4"	Type "E" pusher Type "C" pusher	<i>25PUSH400E</i> <i>25PUSH400C</i>

Note: Spacer rings are to be used with Type "C" couplings **ONLY**.
DO NOT use spacer rings with Type "E" couplings, or bodily injury may result.

Dixon® recommends that all hose assemblies be tested as recommended by the Association for Rubber Products Manufacturer's (ARPM) ARPMINC.com.