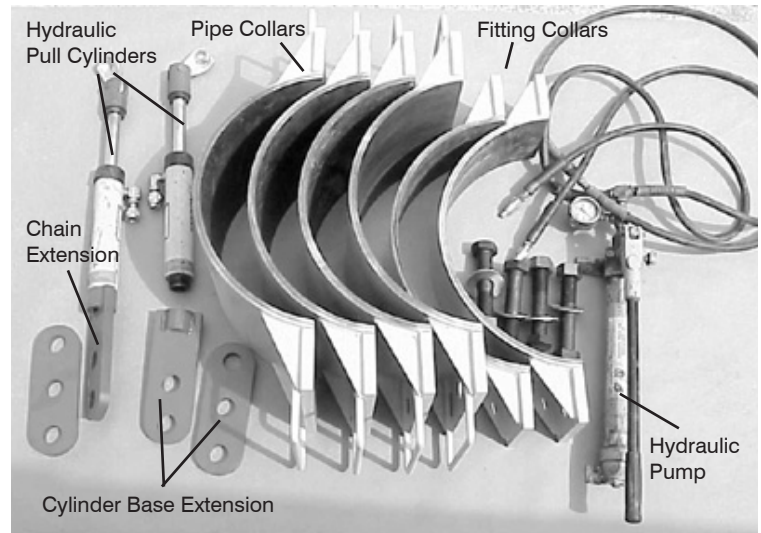


18"-42" Come-Along Operating Instructions

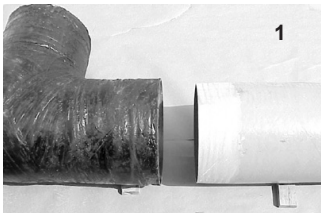
Come-Along Kit Contents:

- 4 rubber-lined wide collars for pipe
- 2 rubber-lined narrow collars for fittings
- 2 hydraulic pull cylinders with chain hook
- 2 cylinder base extensions
- 2 chain extensions
- 2 six-foot chains
- 1 hydraulic pump with gauge and hoses
- 1 dead blow hammer, 5.5 lb.



Procedure For Come-Along Use (Come-Along Set Up)

1. Align pipe horizontally and laterally allowing enough space to apply adhesive to both the bell and the spigot.



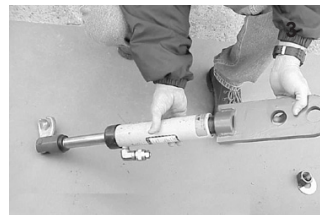
2. For pipe to fittings, place the narrow collars around the bell of the fitting and one set of wide collars on the pipe approximately three to five feet behind the machined spigot. For pipe to pipe joints, place one set of wide collars behind the coupling and the other set of wide collars around the pipe approximately two to four feet behind the machined spigot.



3. Screw the hydraulic cylinders into the cylinder bolt extensions.

Warning: Be sure connection is securely tightened. Loose connections could cause separation and result in severe injury to the user.

4. Place the hydraulic cylinder units between collars on either the bell or spigot. Push the 1/4" x 7" bolts through the appropriate holes; middle hole for fittings and outside hole for pipe. Tighten bolts.



5. Place the chain extensions between the opposite set of collars, push 1/4" x 7" bolts through hole and tighten.

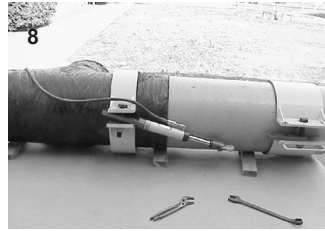
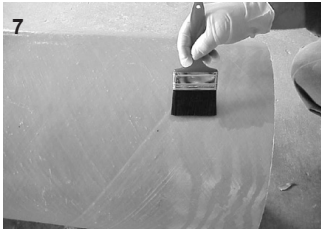


6. Connect the hydraulic pump hose to the connectors on each cylinder. Tighten until hand tight.

Joint Set Up

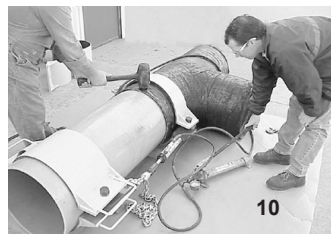
7. Make sure both bonding surfaces are clean and freshly machined or sanded; apply adhesive.

8. Slide the spigot into the bell as far as possible.



9. Connect the chain. Pull up on each side (simultaneously) to start pulling the joint together. Reconnect each chain tightly.

10. Using the hydraulic pump, slowly raise the pressure according to Table 1 while vibrating the joint (short hard blows) on all sides with the supplied dead blow hammer. Keep maximum pressure on the joint until it is locked up.



11. Positive lock-up has been obtained if the pressure drop is less than 300 psig after three solid blows with the hammer.

12. If lock up cannot be obtained, check to see that the cylinders have not bottomed out.

Table 1

18" - 42" Hydraulic Come Along Pressures ⁽¹⁾				
Pipe Sizes	16 Bar		25 Bar	
	in	psig	psig	MPa
18	2,300	15.8	3,200	22.1
20	2,500	17.2	3,200	22.1
24	3,000	20.7	3,200	22.1
30	3,000	20.7	-	-
36	3,300	22.8	-	-
42	5,000	34.5	-	-

⁽¹⁾ Only for BRC 46 cylinders

Precautions

1. Be sure the gauge has not been damaged and is working properly.

2. Inspect chains for damage before each use.

3. Be sure threaded connections are securely tightened.

Warning: Exceeding the recommended pressures or exceeding maximum gauge pressure may cause damage to equipment or pipe and could result in personal injury to user.

Note: Installer assumes the risk for personal injury or property damage if instructions are not followed. NOV Fiber Glass Systems shall not be liable in tort or in contract for any loss or injury sustained by customer or others involved in the installation of our products.

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TLS6619 June 2015