The **Model "K-1" Snap Latch Setting Tool** is used to mechanically set Model "K-1" Cement Retainers, and Model "K-1" Cement Retainers with Flapper Valves. With only minor modifications, the Model "K-1" Snap Latch Setting Tool can be converted to set Model "N-1" Bridge Plugs, or converted to a Model "NC-1" Mechanical Setting Tool to set Model "NC-1" Bridge Plugs.

## Features

- One trip system. Mechanically sets tool with rotation and upstrain and functions as a stinger for subsequent cementing operations.
- Easily converted to set either Model "K-1" Cement Retainers, Model "N-1" Bridge Plugs, or Model "NC-1" Bridge Plugs.
- "K-1" Snap Latch Setting Tool and "NC-1" Mechanical Setting Tool
- Safe run in. Upper slip is securely locked in place and latch is solidly threaded into the body of the retainer.
- Snap latch feature latches into the retainer with set-down weight and is released with tension.
- Controls retainer valve. The stinger opens the sleeve valve with set-down weight and closes it with upstrain.
- Tubing pressure test is possible with latch sleeve valve retainers by pulling up to close retainer valve prior to snapping out of retainer.

## **Running Procedure**

The Model "K-1" Snap Latch Setting Tool contains a built in Snap-Latch feature which allows the Setting Tool to be latched into the Cement Retainers with set down weight and released with tension after setting and rotationally releasing from the Retainer. This essentially allows the Setting Tool to function as a Snap Latch Stinger Sub which provides an upward stop as the tubing is raised. At this stop the valve (sleeve or flapper) is closed but the Stinger Sub Seal is still in the bore of the Retainer. The work string can be internally pressure tested in this position when setting a Model "K-1" Cement Retainer with Sleeve Valve. Alternate means must be provided to test tubing when running the Flapper Valve Retainer. The Mechanical Set Cement Retainer may be run in the well with the Control Valve in the open position or an Alternate Stinger Sub Body is available for running the valves in the closed position.

This technical manual is the property of Evolution Oil Tools Inc. and is provided to the customer for information purposes only. It is requested that this document not be reproduced in any way, in whole or part or distributed outside the customer's organization without the express written consent of Evolution. The document contains confidential information and is the property of Evolution Oil Tools and all rights are reserved.



## **Specifications**

Casing/Tubing		Tool			Tubing Setting Tools	
OD (in.)	Wt (Ibs/ft)	Size	Seal Bore (in.)	Max OD (in.)	Model "K-1" and "NC-1" Product Family Nos. H40069 and H40066	Setting Sleeve OD (in.)
4-1/2	9.5 - 16.6	1AA		3.593		2 504
5	11.5 - 20.8	1 BB	1.345	3.937	IAA - IDD	5.394
5-1/2	13 - 23	2AA		4.312	2AA	4.312
6	14 - 26	2BB		4.937	2BB	4.938
6-5/8	10.5 - 12	344		5.410	3ΔΔ	
7	32 - 44	JAA	2.000	5.410	JAA	5.375
	17-35	3BB		5.687	3BB	
7-5/8	20 - 39	4AA		6.312	4AA	6.312
8-5/8	24 - 49	5AA		7.125	5AA	7.125
9-5/8	29.3 - 53.5	6AA		8.125	6AA	8.120
10-3/4	60.7 - 81	6BB		9.000	6BB	8.875
	32.75 - 60.7	7AA		9.437	7AA	9.437
11-3/4	60.0 - 83.0	7BB		9.937	7BB	9.930
	38 - 60	8AA		10.437	8AA	10.438
13-3/8	85 - 102	8BB		11.562	8BB	11.562
	48 - 72	9AA		12.000	9AA	12.000
16	109.0 - 146.0	11AA		13.915	11AA	13.900
	55.0 - 84.0	11BB		14.585	11BB	14.570

This technical manual is the property of Evolution Oil Tools Inc. and is provided to the customer for information purposes only. It is requested that this document not be reproduced in any way, in whole or part or distributed outside the customer's organization without the express written consent of Evolution. The document contains confidential information and is the property of Evolution Oil Tools and all rights are reserved.