

Big C Fabrication

The “SideWinder” Aluminum Casing Alignment Tool

The casing alignment tool with a swivel joint is attached to a cement retainer bottom. A poppet style conversion kit is required when running the alignment tool. This conversion kit also changes the side discharge to a bottom discharge so that the cement slurry will be directed through the alignment tool.

The alignment tool is placed in the well bore and lowered to the separation. The tapered nose of the alignment tool serves to guide the main body into the shifted lower casing. When lowering the tubing this tends to cause the larger close fitting alignment tool to be forced into the lower casing string. This results in the alignment of the two separated casing sections.

Construction

4043 Aluminum is used in the construction of the alignment tool.

Operation

1. Before running the tool in the well, run a full-gauge mill and stiff bottom hole assembly the same size and length as the alignment tool. If the gauging tool cannot pass through, cleanout the spot before you proceed with the alignment tool. **(With a flat bottom mill go in and find the top to the part to assure tubing depth)**
2. After casing is prepared for tool, pick up casing alignment tool and retainer then run tool to the desired depth. Centralize and set alignment tool across the bad casing.
3. When on depth, pump down tubing and break circulation. Pickup two feet and rotate setting tool 8 to 10 rounds. Lower tool two feet and pull into the retainer and set down to assure positive set. Sting back into the retainer, test casing 500-1000 PSI to assure tool is holding established pump rate, mix cement and begin your cementing job
4. A running type squeeze job is recommended. If the squeeze job is unsuccessful, displace the cement and allow 2 to 4 hours of setting time, then attempt another cement job. The cement job must hold the casing in place and keep the wellbore aligned after the alignment tool is drilled out.
5. Pull the setting tool out of the cement retainer and trip out of the hole.
6. Pickup drill bit or mill and drill collars. Trip in hole and begin drilling out cement retainer and alignment tool.



The "SideWinder" down hole

