



Best Practices

KODIAK Enhanced Perforating Systems™

Date: 09-06-16

Subject: KODIAK Enhanced Perforating Systems™ Best Practices

From: Mike Peveto

To: Owen US All, Owen International All

CAUTION: The KODIAK Enhanced Perforating System™ is a fully integrated oil and gas well perforating system, designed, developed, and manufactured by Owen Oil Tools LP. The various components have been qualified ONLY as a system and are not recommended for use in any other perforating gun system. Prior to use, make sure all components are matched as per catalog pages! Failure to follow this warning could result in catastrophic failure of the carrier.

- Use or request PulsFrac™ computer modeling to take the guess work out of finding the optimal KODIAK system for your scenario.
- It is recommended to run a minimum of 2 feet of KODIAK (4 pellet/ft. in 2-3/4" thru 3-3/8" and 3 pellet/ft. in 4-1/2") for optimum pressure pulse.
- When using select fire switches, down-load the last charge closest to switch and replace with an empty charge case to help protect switches from pressure impact. Part numbers for the respective cases are: 2-3/4" case = CAS-1188-002, 3-1/8" & 3-3/8" case = CAS-1365-002, 4-1/2" case = CAS-1795-001.
- Use the TCP (small hole) inserts TAG-0100-040, which also will help reduce KODIAK pressure impact on switch. This item is included in the Booster Transfer Kits if being run on TCP. For Wireline, order separately with the KODIAK Shipping Assembly.
- **Always run fully loaded KODIAK guns with pellets and charges. The empty volume interferes with the KODIAK process. Damage to carrier is possible.**
- The KODIAK Gun body is modified to withstand the high pressures generated by KODIAK pellets. As stated in the opening statement above, other non-KODIAK gun systems run with KODIAK components are not supported by Owen and the client will be responsible for all liabilities.
- Do not remove the paper wrapper on the KODIAK pellet. This retains manufacturing traceability and any flakes that may come off pellet during handling.
- Re-head cable after each KODIAK or StimGun run.
- Tamp fluid must not be gasified. Gasified fluid will increase gun jump and reduce survivability of the KODIAK guns.
- **Never shoot KODIAK in a dry well.**



KODIAK Enhanced Perforating Systems™

- Do not rush the charge tube pellet-loading process. Damage to loaded tube will occur if care is not taken due to the weight of charges and fragile charge tube.
- Re-count the KODIAK pellets that will be loaded in each gun to avoid missing pellets.
- Keep a minimum of 100 feet of air gap on top of fluid column to help prevent any damage to wellhead for stimulations less than 5,000 feet deep.
- Do not drop or jar KODIAK Gun Assemblies, inside or outside of well. Damage to the special KODIAK tube assembly is possible.
- There are 54 pellets per box of the 2-3/4", 3-1/8", and 3-3/8".
- There are 32 pellets per box of the 4-1/2".
- In vertical wells, do not run KODIAK guns in lengths greater than 7ft in tandem due to possible damage to tube assembly of the next guns in sequence. Shooting out of alignment with scallops is very likely in this scenario; KODIAK tube strips can be compromised because of pellet slots.
- KODIAK guns are now available in 1-ft increments to avoid blank sections in gun bodies.

Notice: Selection of Perforators is listed on each KODIAK catalog page for a reason. Exit hole from carrier is very important. Small exit holes can cause excessive pressure restriction and gun body damage.

KODIAK is a tested and proven system; do not make changes to this system.

If you have any questions or concerns, please do not hesitate to contact your Owen representative.

Sincerely,

Mike Peveto

Owen Oil Tools Division Core Laboratories

Product Line Manager—STIMGUN®—KODIAK Enhanced Perforating Systems™—ZERO-180™

Email: Mike.Peveto@corelab.com

Office: 817-551-0540