

# CAMERON® Extended Range High Temperature VBR II

Cameron 13-5/8" U™ Type BOPs

## Subject

CAMERON Extended Range High Temperature VBR-II Packers for CAMERON 13-5/8" U Type Blowout Preventers

## Qualification Requirement

API 16A 2nd Edition, Appendix C plus additional pressure hold time at elevated temperatures.

## Purpose

To provide information on qualification test results and new part numbers assigned to 250 °F – 5000 psi Extended Range HT VBR-II packers for the 13-5/8" CAMERON U BOP.

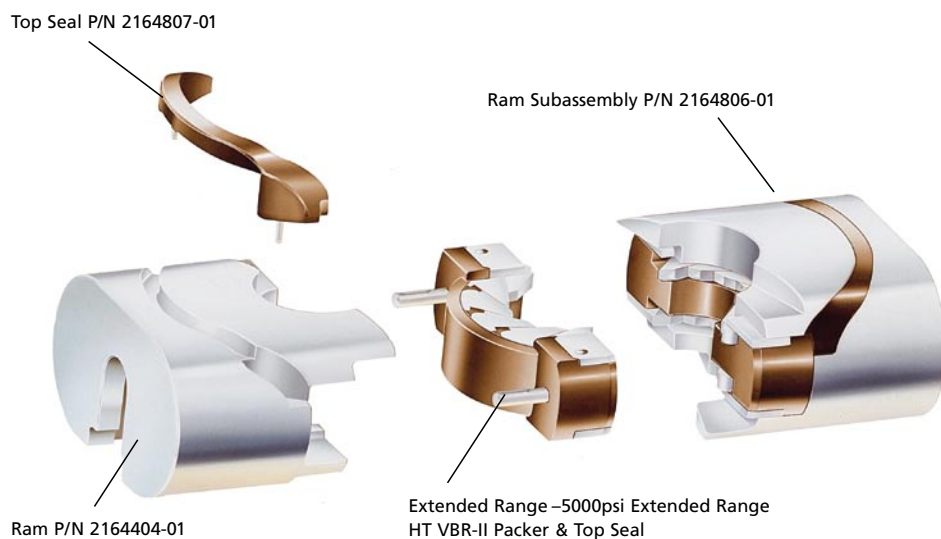
## Test Conditions

BOP Used	CAMERON 13-5/8" 10,000 psi U mounted on a special test stump with internal heating system
Test Fluid	Synthetic hydrocarbon oil (to simulate a mineral oil based drilling mud)
Test Temperatures	250 °F
Test Pressure	5000 psi
Test Durations	API 16A 2nd Edition, Appendix C, one hour pressure hold at 250 °F Cameron Saudi Aramco Requirements: An additional 7 hour pressure hold 250 °F

## Results:

Extended Range HT VBR-II Packers P/N 2164765-01 successfully completed:

1. API 16A, 2nd Edition, Appendix C high temperature verification test requirements for one hour on both 5-7/8" and 3-1/2" pipe mandrels and 250 °F and 5000 psi
2. Cameron Saudi Aramco requirements—an additional 7 hour pressure hold test on both 5-7/8" and 3-1/2" pipe mandrels at 250 °F and 5000 psi Total time at 250 °F and 5000 psi, 16 hours
3. API 16A fatigue test (546 closures and 78 pressure tests) at ambient temperature



## Applicable Part Numbers

BOP SIZE	PRESSURE RATING	DESCRIPTION	PART NUMBER
13-5/8"	5000 psi	Ram subassembly	2164806-01
13-5/8"	5000 psi	Ram	2164404-01
13-5/8"	5000 psi	Ext. Range VBR-II Packer	2164765-01
13-5/8"	5000 psi	HT/SS VBR Top Seal	2164807-01

### Notes:

The Extended Range HT VBR-II packers and HT/SS top seals are molded using CAMLAST™ elastomer, which provides H<sub>2</sub>S resistance up to 35%.

For additional information contact your local Cameron representative.