

Blowout Preventer Hose

The Blowout Preventer System is the equipment installed at the wellhead to prevent the escape of pressure either in the annular space between the casing and drill pipe or in an open hole (i.e., hole with no drill pipe) during drilling-completion operations. The blowout preventer is located beneath the rig at the land's surface on land rigs or at the water's surface on jack-up or platform rigs and on the seafloor for floating offshore rigs.

The BOP Hydraulic Hose is a critical component to the Blowout Preventer System. NRP-Jones is a leader in the Oilfield Industry, offering our **FireFlex BOP Hose**. This specially designed hose meets the requirements of both EUB (Alberta Energy and Utilities Board) and Lloyds. **FireFlex BOP Hose** is available in either 3,000 psi or 5,000 psi working pressure in sizes 3/8" through 2". The special red rubber cover provides the flexibility needed on a Blowout Preventer System and at the same time is flame resistant.

EUB Alberta Energy and Utilities Board
 St. Albert Field Centre 30 St. Winston Churchill Ave. St. Albert, Alberta T8N 2A2 Tel: 780

November 16, 2005

Nephi Rubber Products Corp. (NRP-Jones)
 255 West 1100 North
 Nephi, Utah 84648

FIRE RESISTANT SHEATHING REQUIREMENTS FOR HYDRAULIC BLOWOUT PREVENTER (BOP) HOSES

The EUB requirements for adequate fire resistant sheathing for hydraulic BOP hoses is within 7m of the well is outlined in Section 6 - BOP Control System of EUB Directive 36. "Adequate fire-resistant sheathing is defined as a hose assembly (includes and fittings) that can withstand a minimum of 5 minutes of 700° C flame temperature at maximum working pressure without failure."

Based on the information you provided and our previous discussions the BOP hose that NRP manufactures meets these minimum requirements.
 If you have any further questions regarding this matter please call me at (780) 460-3809.

Sincerely,



Paul Saultier
 Provincial Coordinator Drilling and Servicing
 Alberta Energy and Utilities Board

NRP-JONES A822 FIRE-FLEX 3000 BOP 4Q05 MADE IN USA

Fire-Flex 3000 BOP Hose

Part Number	Hose ID (inches)	Hose OD (inches)	Rated WP (psi)	Minimum Bend Radius (inches)	Weight Per Foot (lbs)
A822-06	3/8	.90	3,000	6	.51
A822-08	1/2	1.04	3,000	9	.62
A822-12	3/4	1.32	3,000	12	.88
A822-16	1	1.61	3,000	15	1.30
1822-20	1-1/4	2.10	3,000	18	2.30
1822-24	1-1/2	2.41	3,000	22	2.95
1822-32	2	2.90	3,000	27	3.69

Application: Flexible piping used to control BOP's (Blowout Preventers) associated valves that control well pressure during drilling operations

Tube: Black, oil resistant Nitrile (NBR)

Reinforcement: Multiple plies of high tensile steel wire

Cover: Red, specially compounded, fiber glass impregnated, flame resistant rubber

Temperature: -40°F to +212°F (-40°C to +100°C)

Branding: "NRP-JONES A822 FIRE-FLEX 3000 BOP Made in the USA"

Fittings: Skive type; see crimp specifications for part number

Fire-Flex 5000 BOP Hose

Part Number	Hose ID (inches)	Hose OD (inches)	Rated WP (psi)	Minimum Bend Radius (inches)	Weight Per Foot (lbs)
A825-06	3/8	.90	5,000	6	.51
A825-08	1/2	1.04	5,000	9	.64
1825-12	3/4	1.54	5,000	12	1.50
1825-16	1	1.79	5,000	15	1.97
1825-20	1-1/4	2.21	5,000	18	3.06
1825-24	1-1/2	2.54	5,000	22	3.98
1825-32	2	3.05	5,000	27	5.83

Application: Flexible piping used to control BOP's (Blowout Preventers) associated valves that control well pressure during drilling operations

Tube: Black, oil resistant Nitrile (NBR)

Reinforcement: Multiple plies of high tensile steel wire

Cover: Red, specially compounded, fiber glass impregnated, flame resistant rubber

Temperature: -40°F to +212°F (-40°C to +100°C)

Branding: "NRP-JONES A825 FIRE-FLEX 5000 BOP Made in the USA"

Fittings: Skive type; see crimp specifications for part number