History of Sewing Machines



1790

Thomas Saint designs machine for sewing leather & canvas

1814

Josef Madersperger presents machine that attempts to combine elements from historic machines. It fails.

1832

Walter Hunt creates first lock stitch sewing machine

1844

John Fisher makes 1st machine that combines all successful elements. Botched his patent.

1851

Isaac Merritt Singer creates his sewing machine using Howe's eye pointed needle. He pays him royalties.

1877

Joseph M Merrow creates first crochet machine Charles Fredrick Wiesenthal awarded patent

for double pointed needle

1804

1755

Stone & Henderson create machine that imitates hand sewing

1829

Barthélemy Thimonnier develops first popular sewing machine. He opens a clothing factory but it's burned down.

1842

John Greenough patents 1st US sewing machine

1845

Elias Howe creates new machine with an eye pointed needle. He sues later copycats for patent infringements.

18508

Sewing Machine War leads to the Sewing Machine Combination

1889

Singer introduces 1st electric sewing machine

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Yi-Tong Ma

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b pressure test procedures when you pressure test the bop system you must conduct a low pressure test and a high pressure test for each bop component excluding test rams and non sealing shear rams you must begin each test by conducting the low pressure test then transition to the high pressure test

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there are two elements to the pre job well site pressure test 1 wireline valve wlv pressure function test the tests should be performed on the test stump prior to rigging up and involves testing the pressure integrity of the wlv and the individual closed ram assemblies and the ram assembly functionality under pressure

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the purpose of bop stack function and pressure testing is to verify the hydraulic integrity of all the components of the bop stack at their rated working pressure in this article we will discuss the function test and pressure test procedure using cup tester

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all elmar wireline pressure control equipment is certified to be manufactured following api6a specifications to inhibitors for the pressure test the pressure test procedure for each assembly is stated on each assembly drawing equipment is stripped down rebuilt with new elastomers including bop ram outer seals and quick

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pressure all bop equipment tests must include a low pressure test of 250 psi before proceeding to the full pressure test test pressure held and recorded for a minimum of five minutes after full pressure has been established represents a satisfactory pressure test ensure rotary bushings are locked if left in place where h2s is present all

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7 31 body pressure test procedure 1 locate the test plug and test cap on to their appropriate ends 2 bleed off all air within the assembly 3 ensure all external surfaces are dry 4 pressure test to test pressure for 3 minutes 5 reduce pressure to zero and repeat test for 15 minutes minimum no leakage acceptable 7 32 bop manifold test

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feb 14 2011 1 prior to supping the well or the first time that bop is installed on the well 2 after repairing or disconnecting of any pressure sealing elements of bop 3 as per mms you can use bop for 21 days 3 weeks before you need to test it

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apr 17 2023 bop test plan bop testing consists of several pressure tests with different valve line ups in order to test all the components of the bop system careful planning is required to ensure all components are tested and in a minimum number of pressure tests in order to ensure efficient execution of drilling operations

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dec 27 2021 bop testing procedures operators must periodically pressure test and function test bop stack components which decreases efficiency of drilling operations bop pressure tests are performed at regular intervals typically ranging from 14 to 30 days as set by local regulatory bodies

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a wireline bop must always be installed between the wellhead and wireline lubricators this bop is a piece of pressure control equipment that can close around the wire and seal off the well pressure below it this enables the pressure to be bleed off above it allowing work or repairs to be carried out on equipment above the bop without pulling

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this unit is a pressure test system intended for pressure testing 5 000 10 000 and 15 000 psi rated pressure control equipment to maximum working pressure before performing intervention work the unit is intended for use in atex zone 1 hazardous environments and complies to norsok regulations

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the scope of irp 13 is to define recommended practices for the selection implementation and maintenance of pressure control equipment for land based wireline operations in canada this includes all types of wireline i e slickline braided line and coated line

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