

Description

The High Pressure Time Delay Firing System is used in conjunction with the Pressure Activated Firing Head-High Pressure. The time delay system consists of the time delay hardware, an ignitor, a pyrotechnical time delay fuse, and a firing pin cartridge. The single fuse system allows for a time of 8-9 minutes between the activation of the firing head to the release of the firing head, to the release of the firing pin cartridge into the main percussion detonator. This time interval allows the bleeding off of the pressure used to activate the firing head to establish an underbalance condition or to perform another needed operation pertaining to the perforation of the well. In the event that more time is required, extra fuses can be easily incorporated into the system.

Features and Benefits

Used with a Pressure Activated Firing Head, the Time Delay can be utilized to:

- obtain maximum use of under or overbalanced pressures
- independently perforate selected zones
- reduce costs by allowing the running of multiple guns without using gun spacers
- works in heavy mud systems
- be used in production completions, drillstem testing, and dual completions
- increase operational time by the addition of time delay elements

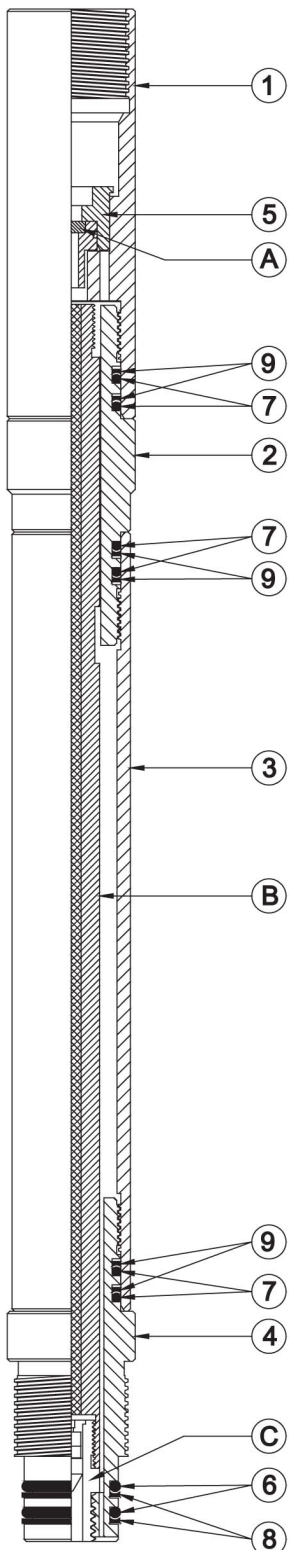
Specifications

OD	1.68 in	43 mm
Make-up Length	17.86 in	454 mm
Max. Temperature ¹	250°F (121°C)	
Max. Hydrostatic HP	25,000 psi	124.1 MPa

¹ The maximum temperature can be increased to 450° (230°C) by substituting the 90 durometer Nitrile O-Rings with 90 durometer Viton O-Rings. Refer to the Time vs temperature chart for Explosives to confirm any explosives requirements.

Note: Explosives sold separately.

Refer to Explosives Information for details and specifications.



Item	Part Number	Qty	Description	Old Part Number
--	TC-040-1688-500	--	Time Delay Hardware Section (HP)	TCP-0503-100H
1	TC-040-0001-400	1	Detonator Housing	TCP-0503-101
2	TC-040-0002-400	1	Connector Sub	TCP-0503-102
3	TC-040-0003-400	1	Housing, Fuse, (Single)	TCP-0503-103
4	TC-040-0004-400	1	Output Adaptor	TCP-0503-104
5	TC-040-0007-400	1	Igniter Support	
6	OOO-N569-214	2	O-Ring, N-90	--
7	OOO-N569-215	6	O-Ring, N-90	--
8	OB-214-1248-4PE	2	Back-up Rings, PEEK	OBU-1248-214
9	OB-215-1308-4PE	6	Back-up Rings, PEEK	OBU-1308-215
--	TC-040-1688-298	--	Hardware Kit, Additional Fuses	TCP-0503-106
--	TC-040-1688-299	--	Redress Kit, TD-HP Hardware (single)	TCP-0503-110
--	MAN-TC-040-1688-500	--	Assembly Manual	MAN-0503-100H

The Explosive Components for this Assembly must be ordered separately

A	DET-3050-550	1	Igniter, TDF	--
B	DET-3050-551	1	Time Delay Fuse	--
C	DET-3050-552	1	Firing Pin Cartridge, TDF	--

Item	Part Number	Qty	Description	Old Part Number
--	TC-040-1688-299	--	Redress Kit, TD-HP Hardware (single)	TCP-0503-110H
5	TC-040-0007-400	1	Igniter Support	TCP-0500-008
6	OOO-N569-214	2	O-Ring, N-90	--
7	OOO-N569-215	6	O-Ring, N-90	
8	OB-214-1248-4PE	2	Back-up Rings, PEEK	OBU-1248-214
9	OB-215-1308-4PE	6	Back-up Rings, PEEK	OBU-1308-215

Item	Part Number	Qty	Description	Old Part Number
--	TC-040-1688-298	--	Hardware Kit, Additional Fuses	TCP-0503-106
2	TC-040-0002-400	1	Connector Sub	TCP-0503-102
--	TC-040-0005-400	--	Additional Fuse Housing	TCP-0503-105
7	OOO-N569-215	4	O-Ring, N-90	--
9	OB-215-1308-4PE	4	Back-up Rings, PEEK	OBU-1308-215