

Description

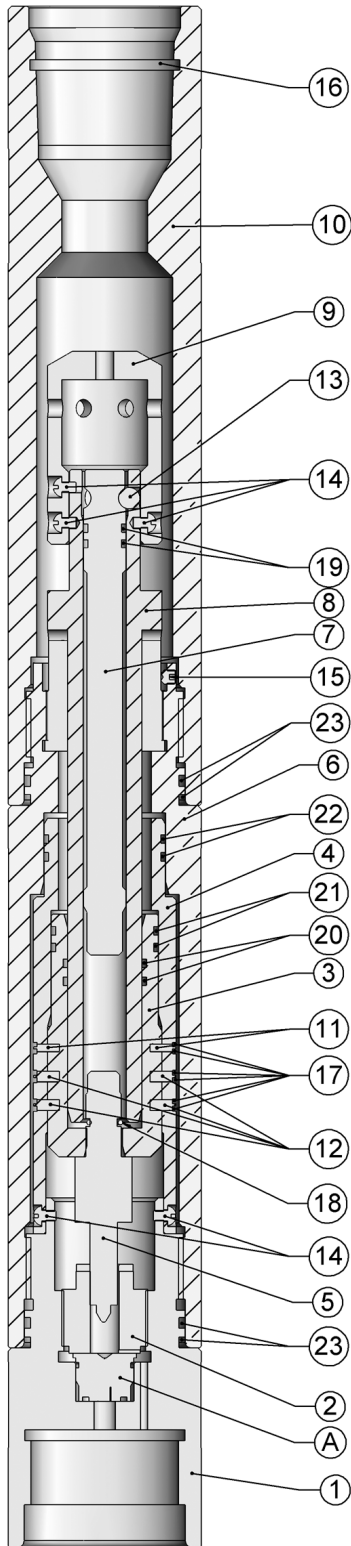
The Top Dual Redundant Firing System (TDRFS) is designed to be run on top of a TCP gun string. This firing head contains dual methods to fire the CP Initiator and detonate the perforating gun string. The dual firing methods are achieved by integrating an Impact Firing head into a pressure activated firing head. This redundancy provides operators with a choice to detonate the gun string as well as a backup method in case an activation method fails to detonate the system. The pressure activated firing section is composed of a piston and sleeve assembly utilizing precision shear pin technology with a maximum 5% variance in detonation pressure. When the predetermined shear pressure is exceeded, the shear sleeve forces the firing pin into the CP Initiator and detonates the gun string. The mechanical impact section is composed of a hydraulically driven firing rod retained in position with steel balls. When the drop bar impacts the retainer cap the balls are allowed to retract which allows pressure to force the firing rod into the firing pin and detonates the gun string.

Features and Benefits

- Compact and rugged design
- Provides redundancy to ensure detonation of the TCP gun string
- Utilizes precision shear pin technology
- May be run with standard Gun Top Subs
- Operating Range: Maximum of 20,000 psi. (137.9MPa)
- May be used in conjunction with the 6 minute Time Delay System

Specifications

TOOL DIAMETER	3.375 IN	86 MM
Overall Length	27 in	685.8 mm
Tensile Rating	95,933 lbf	42,673 daN
Pressure Rating	20,000 psi	137.9 MPa
Top Thread	2-3/8 EUE	
Bottom Thread	2.750 Acme GO Thread	
Min. Hydrostatic Pressure (Drop Bar)	750 psi (5.2 MPa)	
Min. Pinning Pressure (Press Activated)	2000 psi (13.8 MPa)	



ITEM	PART NUMBER	QTY.	DESCRIPTION
	TC-027-3375-000		Top Dual Redundant Firing System
1	TC-027-0000-000	1	Body, Detonator
2	TC-027-0001-000	1	Retainer, Detonator
3	TC-027-0002-000	1	Shear Sleeve, Inner
4	TC-027-0003-000	1	Shear Sleeve, Outer
5	TC-027-0004-000	1	Firing Pin, Detonator
6	TC-027-0005-000	1	Housing, Pressure
7	TC-027-0006-000	1	Firing Rod
8	TC-027-0007-000	1	Stem, Center
9	TC-027-0008-000	1	Retainer Cap
10	TC-027-0009-000	1	Housing, Top /2-3/8 EUE
11	SF-010-0130-045	8	Shear Pins, .130 Dia.
12	SF-010-0189-045	16	Shear Pins, .187 Dia.
13	ST-040-0375-000	3	Retaining Balls
14	PF-030-019F-025B	5	Screws, Round Head, Brass
15	PF-001-025F-025	1	Set Screw
16	MI-305-2375-000	1	API Seal Ring, 2-3/8 EUE
17	OOO-N569-035	6	O-Rings, Nitrile 90
18	OOO-N569-111	1	O-Rings, Nitrile 90
19	OOO-N569-113	2	O-Rings, Nitrile 90
20	OOO-N569-125	2	O-Rings, Nitrile 90
21	OOO-N569-131	2	O-Rings, Nitrile 90
22	OOO-N569-135	2	O-Rings, Nitrile 90
23	OOO-N569-230	4	O-Rings, Nitrile 90
A	51-6956-4	1	CLCP Initiator
	MAN-TC-027		Assembly Manual
*	TC-027-3375-099		Redress Kit

TC-027-3375-199 Redress Kit, High Temp. (Viton O-Rings)

Note: Explosives sold separately.

Refer to Explosives information for details and specifications.

ITEM	PART NUMBER	QTY.	DESCRIPTION
*	TC-027-3375-099		Redress Kit
11	SF-010-0130-045	8	Shear Pins, .130 Dia.
12	SF-010-0189-045	16	Shear Pins, .187 Dia.
13	ST-040-0375-000	3	Retaining Balls
14	PF-030-019F-025B	5	Screws, Round Head, Brass
15	PF-001-025F-025	1	Set Screw
16	MI-305-2375-000	1	API Seal Ring, 2-3/8 EUE
17	OOO-N569-035	6	O-Rings, Nitrile 90
18	OOO-N569-111	1	O-Rings, Nitrile 90
19	OOO-N569-113	2	O-Rings, Nitrile 90
20	OOO-N569-125	2	O-Rings, Nitrile 90
21	OOO-N569-131	2	O-Rings, Nitrile 90
22	OOO-N569-135	2	O-Rings, Nitrile 90
23	OOO-N569-230	4	O-Rings, Nitrile 90