Section -A: Ported Carriers

PORTED CARRIER GUN SIZES: 3-1/8", 3-3/8", 4" & 5"

RETRIEVABLE STEEL PORTED GUNS

Retrievable steel hollow carrier "port plug guns" are appropriate for wireline casing and liner perforating carried out before production tubing is run where the labour cost of redressing the carriers is economicly viable.

FEATURES

- 1) Ported tabular steel carriers are retrievable and reusable.
- 2) Explosive components are completely enclosed and isolated from well fluids providing higher reliability than tubing expendable type guns
- 3) Deep penetrating charges and Big-hole charges with favorable shot distribution provide adequate gun performance.
- 4) Charge debris is removed from the well with the carrier.
- 5) No casing damage lateral explosive forces are completely absorbed by the air cushion around the charges and heavy carrier walls.
- 6) Monocable selectivity ballistically actuated switches or two-gun "diode plugs" firing carrier by carrier, from bottom up.

SPECIFICATIONS

Shot Density
 1 to 8 shots per foot
 Phasing
 90 Deg. or 120 Deg.

3) Maximum Gun Length : Limited by cable strength and riser length.

4) Explosive Package Temperature Rating : RDX - 330 Deg. F for 1 Hr

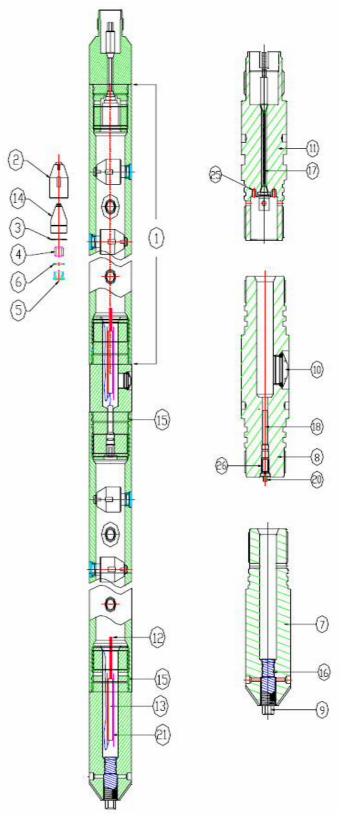
HMX - 380 Deg. F for 1 Hr

5) System Pressure Rating - dependent : Carrier (usually 15,000 to 20,000 psi)

on port plug accepted Port plug Type –

2,000psi, 15,000psi, 20,000psi.

PORTED CARRIER ASSEMBLY (WIRELINE)						
ITEMS	DESCRIPTION					
1	CARRIER, xSPF, 90° or 120° PHASE					
	Carrier Diameter: 3-1/8", 3-3/8", 4", 5"					
	Carrier Length from 3 to 12 FT					
	Shot Density from 1 to 8 SPF					
2	RUBBER JACKET					
3	ALIGNMENT WASHER					
4	ALIGNMENT SLEEVE					
5	PORT PLUG (STEEL, UNGROOVED)					
6	PORT PLUG WASHER					
7	BOTTOM NOSE, W.L					
8	INTERCARRIER, SELECTIVE, W.L					
9	PLUG, BOTTOM NOSE					
10	PLUG, INTERCARRIER SELECTIVE, WITH O-RING					
11	ADAPTOR HEAD, UPPER, W.L					
12	DETCORD					
13	DETONATOR, FLUID DESENSITIZED					
14	CHARGE (Various)					
15	O-RING FOR CARRIER					
16	O-RING FOR PLUG, BOTTOM NOSE					
17	CONTACT ROD ASSEMBLY					
18	DUAL DIODE PLUG					
19	SELECTIVE SWITCH, LC TYPE I (RED)					
20	SELECTIVE SWITCH, LC TYPE II (GREEN)					
21	RUBBER SHIELD					
22	CONNECTOR, INSULATED MALE					
23	SHOCK DISK					
24	TERMINAL RING, INSULATED					
25	SCREW RD HD, 1/4"-20x3/8" BRASS					
26	RETAINER NUT					
27	ADAPTOR HEAD REDRESS KIT, W.L					



Section – B: Charges for Ported Carriers

DEEP PENETRATING and BIG HOLE CHARGES FOR PORTED GUNS

GUN SIZES: 3-1/8", 3-3/8", 4" & 5"

ITEM	DESCRIPTION	EXPL WEIGHT	API SECT 1-TEST CONCRETE TARGET		PACKAGE		
			PEN	E.H.	QTY		
CHARGES							
1	3-1/8" DP 12 gm RDX / HMX PPG Charge	12 gm	16.07"	0.33"	50		
2	3-3/8" DP 16 gm RDX / HMX PPG Charge	16 gm	19.05"	0.39"	50		
3	4" DP 22.7 gm RDX / HMX PPG Charge	22.7 gm	23.43"	0.42"	50		
4	4" BH 22.7 gm RDX / HMX PPG Charge	22 .7gm	23.43"	0.42"	50		
5	5 " DP 37 gm RDX / HMX steel cased Charge 4 Shots per foot.SPF.	37 gm	47.30"	0.47"	30		
6	5 " BH 37 gm RDX / HMX steel cased Charge 4 Shots per foot.SPF.	37 gm	8.50"	0.92"	30		
7	5 " DP 21 gm RDX / HMX steel cased Charge 8 Shots per foot.SPF.	21 gm	22.56"	0.39"	50		
8	5 " BH 21 gm RDX / HMX steel cased Charge 8 Shots per foot.SPF.	21 gm	7.78"	0.75"	50		
HARDWARE							
9	Piston Switch, (Red Wire), 12,000 psi-330 Deg. F.				20		
10	Piston Switch, (Green Wire), 12,000 psi-330 Deg. F.				20		
11	Piston Switch, (Blue Wire), 15,000 psi-400 Deg. F.				10		

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for 1 Hr

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(dependent on port plug accepted) Port plug Type – 2,000psi 15,000psi 20,000psi.