



# PATTERSON SERVICES, INC.

## BOP Information Sheet\*

## Cameron U BOP Double 13-5/8" 5K

**Tubing**  
1" thru 4 1/2"

**Drill Pipe**  
2 3/8" thru 5 1/2"

**Heavy Weight  
Drill Pipe**  
2 7/8" thru  
6 5/8"

**Drill Collars**  
2 7/8" thru 10"

**Blow-Out  
Preventers**  
**Annular Type**  
2 9/16" 5M thru  
29 1/2" 500 PSI

**Hydraulic Ram  
Type**  
**Single and Double**  
3 1/16" 10M thru  
21 3/4" 5M

**Valves Manual &  
Hydraulic**  
**12" Ball Valves**  
2 1/16" 5M thru  
4 1/16" 15M

1	BOP Serial #	P-
2	Type	Type "U" Double Ram BOP 13-5/8" 5K
3	Manufacturer	Cameron
4	Height	55.875" / 1.419 m
5	Weight (Standard)	14,800 lbs. / 6,713.167 kg
6	Weight (with LBT) (LBT ≤ 1,050 lbs each, 2,100 lbs per pair)	16,900 lbs. / 7665.711 kg
7	Length (Standard bonnets closed)	112.125" / 2.848 m
8	Length (Standard bonnets opened)	171.500" / 4.356 m
9	Length (bonnets closed, LBT installed) (LBT ≤ 19.750" each, 39.50" per pair)	151.625" / 3.851 m
10	Length (bonnets opened, LBT installed)	211.000" / 5.359 m
11	Bonnet bolt torque (API lube)	6,000 ft.lbs./8,135 N'm
12	Bonnet bolt torque (Moly Lube)	3,300 ft.lbs./4,474 N'm
13	Bonnet bolt (impact socket size)	2-3/4" / 69.850 mm
14	Bonnet bolt (striking wrench size)	1-3/4" / 44.450 mm
15	Hydraulic operating pressure	1,500 PSI / 103.422 bar
16	Max hydraulic pressure	3,000 PSI / 206.844 bar
17	Open and close porting size	1" NPT
18	Open volume/Standard bonnet per cavity	5.5 gal. / 20.820 liters
19	Close volume/Standard bonnet per cavity	5.8 gal. / 21.955 liters
20	Open volume (with LBT installed)	10.5 gal. / 39.747 liters
21	Close volume (with LBT installed)	17.5 gal. / 66.245 liters
22	Ram Change rod open faced wrench size	2-1/4" / 57.150 mm
23	(2) 13-5/8" 5K Flange-Bolt Diameter x Length	1-5/8" x 12-3/4" / 41.275 mm x 323.850 mm
24	Quantity	16 per flange
25	Bolt Torque	2,146 ft.lbs. / 2,909.547 N'm
26	(4) 4-1/16" 5K Flange Outlet-Bolt Diameter x Length	1-1/4" x 8-1/2" / 31.750 mm x 215.900 mm
27	Quantity	8 per flange
28	Bolt Torque	953 ft.lbs. / 1,292 N'm
29	Flange Gasket	BX-160
30	Outlet Gasket	R/RX-39

\* Drawings and information contained herein are for general purposes and are for reference only. Dimensions may vary according to Manufacturer, Year Manufactured, Model or Type.

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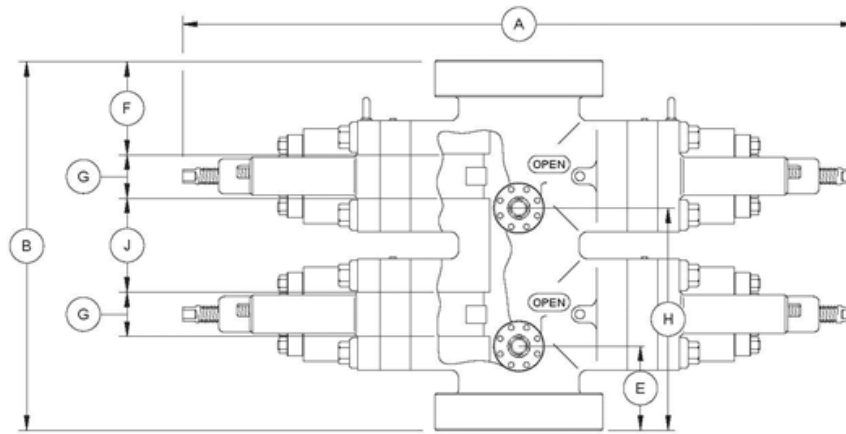
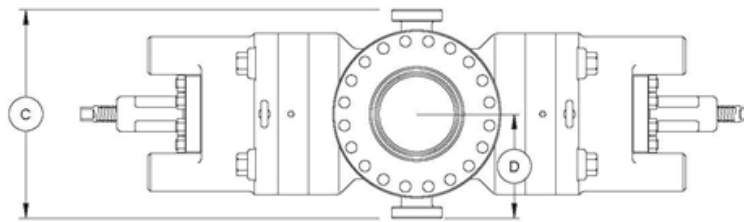
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## SPECIFICATIONS

### DIMENSIONAL DATA

### CAMERON U BOP Double 13-5/8" 5K

Size	Pressure rating (PSI)	Vertical Bore (inches)
13.625"	5,000	13.625"



Double U BOP

The capital letters in the following designations refer to the U BOP dimensional views and dimensional charts shown.

- A-1 Length - bonnets closed, locking screws locked
- A-2 Length - bonnets opened, locking screws unlocked .
- A-3 Length - bonnets closed, with wedgelocks
- A-4 Length - bonnets opened, with wedgelocks
- B-1 Height - flanged
- B-2 Height - clamp hubs
- C Width - no side outlets
- D Centerline of preventer to outlet flange or hub face. **This distance is variable and must be determined per individual specifications.**
- E-1 Centerline of side outlet below rams to bottom flange face
- E-2 Centerline of side outlet below rams to bottom hub face
- F-1 Top of upper ram to top flange face
- F-2 Top of upper ram to top hub face
- G Height of ram
- H-1 Centerline of side outlet between rams to bottom flange face
- H-2 Centerline of side outlet between rams to bottom hub face
- J Top of lower ram to bottom of upper ram

#### English Units (inches)

A-1	A-2	A-3	A-4	B-1	B-2	C	E-1	E-2	F-1	F-2	G	H-1	H-2	J	Approx. Weight (lb)
112.125	171.500	122.688	166.062	55.875	54.000	29.250	11.562	10.625	12.781	11.844	7.500	33.625	32.688	14.562	14,800.00

#### Metric Units (m)

A-1	A-2	A-3	A-4	B-1	B-2	C	E-1	E-2	F-1	F-2	G	H-1	H-2	J	Approx. Weight (kg)
2.848	4.356	3.116	4.218	1.419	1.372	742.950	293.675	269.875	324.637	300.838	190.500	854.075	830.275	369.875	6,713.167