



# PATTERSON SERVICES, INC.

## BOP Information Sheet\*

## CAMERON U BOP Double 11" 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 11" 5K
3	Manufacturer	Cameron
4	Height	54.500" / 1.384 m
5	Weight (Standard)	10,200 lbs. / 4626.642 kg
6	Weight (with LBT)	N/A
7	Length (bonnets closed)	96.250" / 2.445 m
8	Length (bonnets opened)	146.875" / 3.731 m
9	Length (bonnets closed, LBT installed)	N/A
10	Length (bonnets opened, LBT installed)	N/A
11	Bonnet bolt torque (API lube)	4,200 ft.lbs. / 5,694 N'm
12	Bonnet bolt torque (Moly Lube)	2,300 ft.lbs. / 3,118 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	3.4 gal. / 12.870 liters
19	Close volume/Standard bonnet per cavity	3.5 gal. / 13.249 liters
20	Open volume (with LBT installed)	6.8 gal. / 25.741 kg
21	Close volume (with LBT installed)	12.2 gal. / 46.182 kg
22	Ram Change rod open faced wrench size	2.000" / 50.800 mm
23	(2) 11" 5K Flange-Bolt Diameter & Length	1-7/8" x 14 1/4" / 47.625 mm x 361.950 mm
24	Quantity	12 per flange
25	Bolt Torque	3,332 ft.lbs. / 4,517 N'm
26	(4) 4-1/16" 5K Flange Outlet-Bolt Diameter and 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	R/RX-54
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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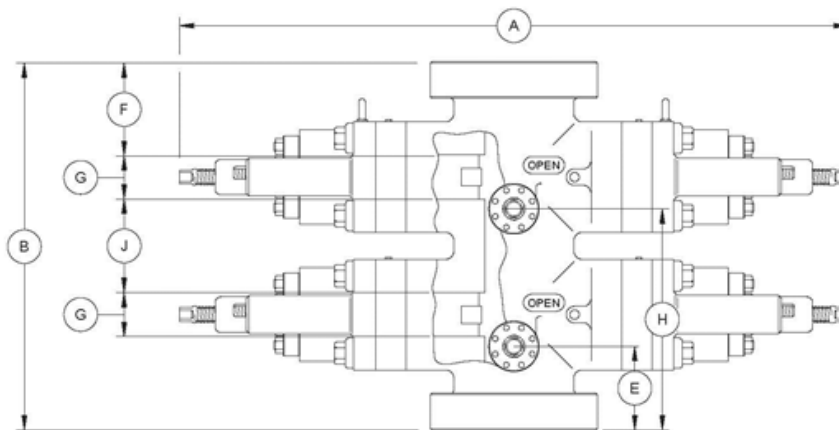
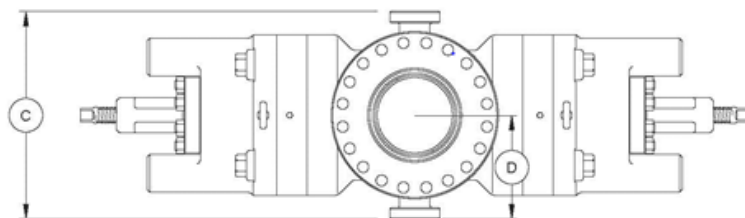
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## SPECIFICATIONS

### DIMENSIONAL DATA

### CAMERON U BOP Double 11" 5K

Size	Pressure rating (PSI)	Vertical Bore (inches)
11"	5,000	11"



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	English Units (lb) Approx. Weight (lb)
96.250	146.875	110.125	150.188	54.500	49.500	25.125	12.438	9.938	13.156	10.656	6.750	32.625	30.125	13.438	10,200.00

#### Metric Units (m)

Metric Units (m)						Metric Units (mm)						Metric Units (kg)			
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)
2.445	3.731	2.797	3.815	1.384	1.257	638.175	315.925	252.425	334.162	270.662	171.450	828.675	765.175	341.325	4,626.642

#### 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

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