



# PATTERSON SERVICES, INC.

## BOP Information Sheet\*

## CAMERON U BOP Double 11" 10K

### 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" 10K
3	Manufacturer	Cameron
4	Height	55.875" / 1.419 m
5	Weight (Standard)	11,300 lbs. / 5,125.594 kg
6	Weight (with LBT) (LBT ≤ 625 lbs each, 1250 lbs per pair)	12,545 lbs. / 5,690.316 kg
7	Length (bonnets opened)	146.875" / 3.731 m
8	Length (bonnets closed)	96.250" / 2.445 m
9	Length (bonnets closed, LBT installed) (LBT ≤ 17" each, 34" per pair)	130.250" / 3.308 m
10	Length (bonnets opened, LBT installed) (LBT ≤ 17" each, 34" per pair)	180.875" / 4.594 m
11	Bonnet bolt torque (API lube)	7,900 ft.lbs. / 10,711 N'm
12	Bonnet bolt torque (Moly Lube)	4,100 ft.lbs. / 5,559 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 liters
21	Close volume (with LBT installed)	12.2 gal. / 46.182 liters
22	Ram Change rod open faced wrench size	2.000" / 50.800 mm
23	(2) 11" 10K Flange Bolt Diameter x Length	1-3/4" X 15-3/8" / 44.450 mm x 390.525 mm
24	Quantity	16 per flg.
25	Bolt Torque	2,696 ft.lbs. / 3,655 N'm
26	(4) 4-1/16" 10K Flange Outlet-Bolt Diameter x Length	1-1/8" X 8.5" / 28.575 mm x 215.900 mm
27	Quantity	8 per flg.
28	Bolt Torque	686 ft.lbs. / 930 N'm
29	Flange Gasket	BX-158
30	Outlet Gasket	BX-155

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

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2 7/8" thru 10"

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2 9/16" 5M thru 29 1/2" 500 PSI

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3 1/16" 10M thru 21 3/4" 5M

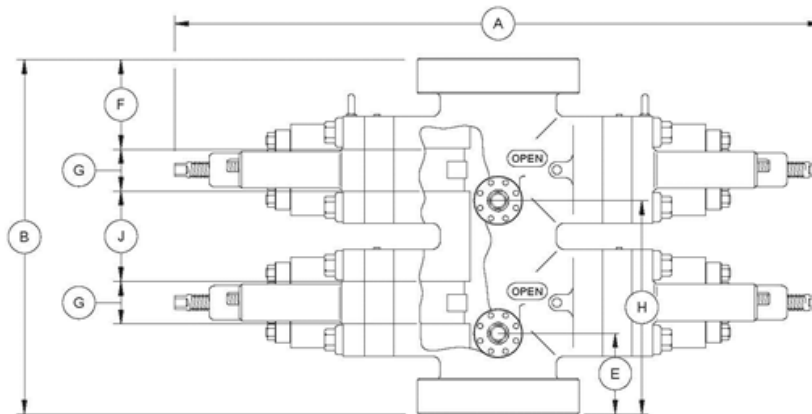
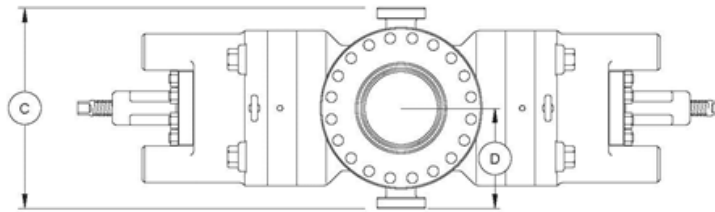
**Valves Manual & Hydraulic**  
12" Ball Valves  
2 1/16" 5M thru 4 1/16" 15M

## SPECIFICATIONS

### DIMENSIONAL DATA

### CAMERON U BOP Double 11" 10K

Size	Pressure rating (PSI)	Vertical Bore (inches)
11"	10,000	11"



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	English Units (lb) Approx. Weight (lb)
96.250	146.875	110.125	150.188	55.875	52.375	25.750	13.125	11.375	13.844	12.094	6.750	33.312	31.562	13.438	11,300.00

#### 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	Metric Units (kg) Approx. Weight (kilos)
2.445	3.731	2.797	3.815	1.419	1.330	654.050	333.375	288.925	351.638	307.188	171.450	846.125	801.675	341.325	5,125.594