



PATTERSON SERVICES, INC.

BOP Information Sheet*

Cameron U BOP Double 11" 15K

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" 15K
3	Manufacturer	Cameron
4	Height	69.750 " / 1.772 m
5	Weight (Standard)	18,400 lbs. / 8346.100 kilos
6	Weight (with LBT) (LBT ≤ 850 lbs each, 1,700 lbs per pair)	20,100 lbs. / 9117.207 kilos
7	Length (Standard bonnets closed)	124.000 " / 3.150 m
8	Length (Standard bonnets opened)	175.312 " / 4.453 m
9	Length (bonnets closed, LBT installed) (LBT ≤ 19.750" each, 39.5" per pair)	163.500 " / 4.153 m
10	Length (bonnets opened, LBT installed) (LBT ≤ 19.750" each, 39.5" per pair)	214.812 " / 5.456 m
11	Bonnet bolt torque (API lube)	14,500 ft.lbs./19,659 N'm
12	Bonnet bolt torque (Moly Lube)	7,500 ft.lbs./10,169 N'm
13	Bonnet bolt (impact socket size)	3-1/2 " / 88.9 mm
14	Bonnet bolt (striking wrench size)	2-1/4 " / 57.15 mm
15	Hydraulic operating pressure	1500 PSI / 103.422 bar
16	Max hydraulic pressure	3000 PSI / 206.844 bar
17	Open and close porting size	1" NPT
18	Open volume/Standard bonnet per cavity	5.7 gal. / 21.577 liters
19	Close volume/Standard bonnet per cavity	5.8 gal. / 21.955 liters
20	Open volume (with LBT installed)	8.9 gal. / 33.690 liters
21	Close volume (with LBT installed)	15.6 gal. / 59.052 liters
22	Ram Change rod open faced wrench size	2-1/4 " / 57.15 mm
23	(2) 11" 15K Flange-Bolt Diameter & Length	2" x 19-1/2 " / 50.8mm x 495.3 mm
24	Quantity	20 per flange
25	Bolt Torque	4,061 ft.lbs. / 5,506 N'm
26	(4) 4-1/16" 15K Flange Outlet-Bolt Diameter and Length	1-3/8 " x 9-3/4 " / 34.925 mm x 247.65 mm
27	Quantity	8 per flange
28	Bolt Torque	1,281 ft.lbs. / 1,737 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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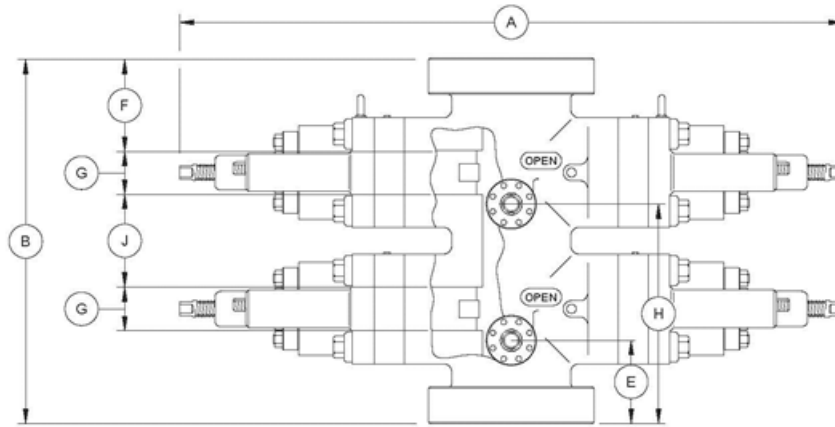
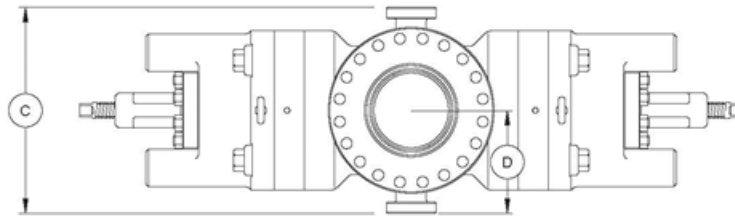
PATTERSON SERVICES, INC.

SPECIFICATIONS

DIMENSIONAL DATA

CAMERON U BOP Double 11" 15K

Size	Pressure rating (PSI)	Vertical Bore (inches)
11"	15,000	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	Approx. Weight (lb)
124.000	175.312	124.500	167.125	69.750	58.812	32.000	16.688	11.219	17.781	12.312	9.250	41.625	36.156	15.688	18,400.00

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)
3.150	4.453	3.162	4.245	1.772	1.494	812.800	423.875	284.963	451.637	312.725	234.950	1,057.250	918.362	398.475	8,346.100

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

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