



PATTERSON SERVICES, INC.

BOP Information Sheet*

Cameron U BOP Double 13-5/8" 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 13-5/8" 15K
3	Manufacturer	Cameron
4	Height	81.750" / 2.076 m
5	Weight (Standard)	43,250 lbs. / 19617.870 kg
6	Weight (with LBT) (LBT ≤ 700 lbs each, 1,400 per pair)	44,650 lbs. 20252.899 kg
7	Length (Standard bonnets closed)	139.000" / 3.531 m
8	Length (Standard bonnets opened)	214.375" / 5.445 m
9	Length (bonnets closed, LBT installed) (LBT ≤ 21.50" each, 43" per pair)	182.000" / 4.623 m
10	Length (bonnets opened, LBT installed) (LBT ≤ 21.50" each, 43" per pair)	257.375" / 6.537 m
11	Bonnet bolt torque (API lube)	25,500 ft.lbs. / 34,573 N'm
12	Bonnet bolt torque (Moly Lube)	13,000 ft.lbs. / 17,626 N'm
13	Bonnet bolt (impact socket size)	4-5/8" / 117.475 mm
14	Bonnet bolt (striking wrench size)	N/A
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	10.4 gal. / 39.368 liters
19	Close volume/Standard bonnet per cavity	10.6 gal. / 40.125 liters
20	Open volume (with LBT installed)	16.0 gal. / 60.567 liters
21	Close volume (with LBT installed)	27.7 gal. / 104.856 liters
22	Ram Change rod open faced wrench size	2-3/4" / 69.850 mm
23	(2) 13-5/8" 15K Flange-Bolt Diameter x Length	2-1/4" x 21-1/4" / 57.150 mm x 539.750 mm
24	Quantity	20 per flange
25	Bolt Torque	5,822 ft.lbs. / 7,893 N'm
26	(4) 4-1/16" 15K Flange Outlet-Bolt Diameter x Length	1-3/8" x 9-3/4" / 34.925 mm x 247.650 mm
27	Quantity	8 per flange
28	Bolt Torque	1,281 ft.lbs. / 1,737 N'm
29	Flange Gasket	BX-159
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.

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Patterson Services, Inc. makes no representation about, and is not responsible or liable for the accuracy or reliability of the data, described herein. Nothing contained in this document shall be considered a recommendation for any use that may infringe patent rights, or an endorsement of any particular material, equipment, service, or other item. The properties listed in this document are not specification. They are provided as information only and in no way modify, amend, enlarge or create any specification or warranty.





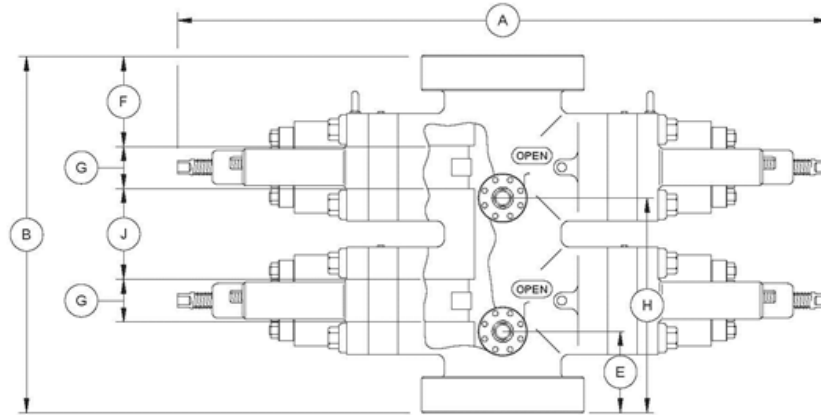
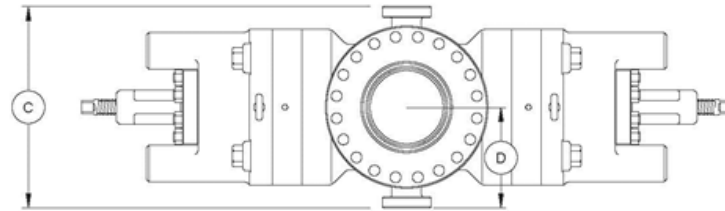
PATTERSON SERVICES, INC.

SPECIFICATIONS

DIMENSIONAL DATA

CAMERON U BOP Double 13-5/8" 15K

Size	Pressure rating (PSI)	Vertical Bore (inches)
13.625"	15,000	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)

English Units (lbs)

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)
139.000	214.375	152.250	205.500	81.750	70.125	39.500	21.375	15.500	22.844	7.000	8.000	49.438	43.562	20.062	43,250.00

Metric Units (m)

Metric Units (mm)

Metric Units (kgs)

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)
3.531	5.445	3.867	5.220	2.076	1.781	1,003.300	542.925	393.700	580.238	177.800	203.200	1,255.725	1,106.475	509.575	19,617.870

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