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EZ<sup>X</sup>5 - A B C D E F G H J K 9B 9C 9D 9Z

Item	Parts contained in Item	Find Number
A	Valve Body	1
	Pipe Plug	17
B	Seat Ring Retainer	3
C	Seat Ring	9
D	Valve Plug	2
	Groove Pin	8
	Plug Guide	27
	Disc or Disc Seat	29
	Plug Tip	30
	Cap Screw	32
E	Bonnet Gasket	10
	Spiral Gasket	12
	Seat Ring Gasket or Seal Ring	13
	Shim	25
F	Cap Screw or Stud Bolt	15
	Hex Nut	16
G	Stem	7
J	Drive Screw	19
	Nameplate	33
	Wire	34
K	Flow Arrow	18
	Drive Screw	19
9B	Class/Hydro	
9C	Seat Leak per FGS 4L5	
9D	Nameplate Data	
9Z	Partial Assembly	

**ITEM A - VALVE BODY (WITHOUT DRAIN TAPPING=N/TAP) (WITH DRAIN TAPPING=TAP)**

MATL	TEMP ° F	CLASS	CWP PSI	HYDRO PSI/MIN
CI	-100+450	125	200	300/2
		250	500	750/2
LCC	-50+650	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
C5	-20+1100	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
WCC	-20+800	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
CF8M	-325+1000	150	275	450/2
		300	720	1125/2
		600	1440	2250/2
ALY 20	-325+800	150	230	400/2
		300	600	1025/2
		600	1200	2025/2
HAST C	-325+1000	150	290	450/2
		300	750	1125/2
		600	1500	2250/2
MONEL	-325+800	150	230	350/2
		300	600	900/2
		600	1200	1800/2

## FOREIGN MANUFACTURED EN FLANGES (SIZE 100MM)

MATL	TEMP ° F	TEMP°C	PN EN	CWP(BAR)
WCC	-20+800	-29 + 425	PN10/16	16
			PN25/40	40
			PN63	63
			PN100	100
LCC	-50+650	-46 +343	PN10/16	16
			PN25/40	40
			PN63	63
			PN100	100
CF8M	-325+1000	-198 +538	PN10/16	16
			PN25/40	40
			PN63	63
			PN100	100

**ITEM A - VALVE BODY (WITHOUT DRAIN TAPPING=N/TAP) (WITH DRAIN TAPPING=TAP) (CONT)**

INTEGRAL FLANGED BODIES	125B FF		250B RF		SCH 40 BWE		SCH 80 BWE		CL150 RF		CL300 RF	
	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP
	A	A	A	A	A	A	A	A	A	A	A	A
CAST IRON	1	37	2	38	M	M	M	M	M	M	M	M
WCC	M	M	M	M	3	39	5	41	7	43	12	48
LCC	-	-	-	-	-	-	-	-	106	-	107	-
CF8M	M	M	M	M	4	40	6	42	8	44	13	49
ALLOY 20	M	M	M	M	M	M	M	M	9	45	14	50
HAST C	M	M	M	M	M	M	M	M	10	46	15	51
MONEL	M	M	M	M	M	M	M	M	11	47	16	52
C5	M	M	M	M	78	86	79	87	80	88	81	89

	CL600 RF		CL150 RTJ		CL300 RTJ		CL600 RTJ	
	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP	N/TAP	TAP
	A	A	A	A	A	A	A	A
WCC	17	53	22	58	27	63	32	68
LCC	108	-	-	-	-	-	111	-
CF8M	18	54	23	59	28	64	33	69
ALLOY 20	19	55	24	60	29	65	34	70
HAST C	20	56	25	61	30	66	35	71
MONEL	21	57	26	62	31	67	36	72
C5	82	90	83	91	84	92	85	93

DN100, EN1092-1

WITHOUT DRAIN TAPPING

BODY	RF (Type B)				Spigot (Type E)		Recess (Type F)			
	PN 10/16	PN 25/40	PN 63	PN 100	PN 10/16	PN 25/40	PN 10/16	PN 25/40	PN63	PN100
	A	A	A	A	A	A	A	A	A	A
CI	100	-	-	-	-	-	-	-	-	-
WCC	113	101	117	120	-	-	123	126	129	132
CF8M	114	102	118	121	-	112	124	127	130	133
LCC	115	116	119	122	-	109	125	128	131	134

**ITEM B - SEAT RING RETAINER, BUSHING****ITEM C - SEAT RING****ITEM D - VALVE PLUG****ITEM G - STEM****METAL SEAT**

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	NON LUBR FLUID TEMP ° F	LUBR FLUID TEMP ° F	THERMAL EXPANSION LIMIT TRIM/BODY COMB WHERE APPLICABLE	
							BODY	TEMP ° F
CB7CU-1	17-4PH	316	316	316	-150+300	-150+700	CF8M	-150+360 (LUBR)
316	COCR-A	316	316	316	-325+300	-325+700	WCC	-20+640 (LUBR)
							C5	-20+450 (LUBR)
ALY 20 HAST C MONEL CB7CU-1	ALY 20 HAST C K-MONEL 17-4PH	ALY 20 HAST C K-MONEL 416	ALY 20 HAST C K-MONEL 416	ALY 20 HAST C K-MONEL 316	-325+300 -325+400 -325+600 -20+800	-325+300 -325+400 -325+600 -20+800	CF8M	-20+350
HARD FACED SEAT RING HARD FACED SEAT PLUG								
CB7CU-1	17-4PH	316	316	316	-150+300	-150+700	CF8M	-150+360 (LUBR)
316	COCR-A	316	316	316	-325+300	-325+700	WCC	-20+640 (LUBR)
							C5	-20+450 (LUBR)
HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG								
CB7CU-1	17-4PH	316	316	316	-150+450	-150+700	CF8M	-150+360
316	COCR-A	316	316	316	-325+700	-325+700	WCC	-20+640
							C5	-20+450
HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY								
316	COCR-A	316	316	316	-325+800	-325+1100	WCC	-20+640
HARD FACED SEAT & BORE RING HARD FACED SEAT, GUIDE & CONTOUR PLUG								
316	COCR-A	316	316	316	-325+700	-325+700	WCC	-20+640
							C5	-20+450

**COMPOSITION SEAT - TFE DISC**

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	NON LUBR FLUID TEMP ° F	LUBR FLUID TEMP ° F	THERMAL EXPANSION LIMIT TRIM/BODY COMB WHERE APPLICABLE	
							BODY	TEMP ° F
		316 416	316 416	316 316	-100+300 -20+400	-100+400 -20+400	CF8M CF8M	-150+360(LUBR) -20+350
316 ALY 20 HAST C MONEL	COCR-A ALY 20 HAST C K-MONEL	316 ALY 20 HAST C K-MONEL	316 ALY 20 HAST C K-MONEL	316 ALY 20 HAST C K-MONEL	-100+300 -100+300 -100+400 -100+400	-100+400 -100+300 -100+400 -100+400		

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****ITEM G - STEM (CONT)**

## METAL SEAT

					(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI (CANNOT EXCEED C.W.P.)				
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	SHUT-OFF				FLOWING
					2 PORT		4 PORT		ALL PORTS
					1/2 STEM	3/4 STEM	1/2 STEM	3/4 STEM	ALL STEMS
CB7CU-1	17-4PH	316	316	316	300	300	300	300	1500
316	COCR-A	316	316	316	300	300	300	300	1500
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	300	300	267	300	1500
HAST C	HAST C	HAST C	HAST C	HAST C	300	300	273	300	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	800	800	800	800	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	405	912	1500

## HARD FACED SEAT RING

## HARD FACED SEAT PLUG

CB7CU-1	17-4PH	316	316	316	1500	1500	405	912	1500
316	COCR-A	316	316	316	1500	1500	405	912	1500

## HARD FACED SEAT RING

## HARD FACED SEAT &amp; GUIDE PLUG

CB7CU-1	17-4PH	316	316	316	1500	1500	405	912	1500
316	COCR-A	316	316	316	1500	1500	405	912	1500

## HARD FACED SEAT &amp; BORE

## HARD FACED SEAT, GUIDE &amp; CONTOUR PLUG

316	COCR-A	316	316	316	1500	1500	405	912	1500
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## COMPOSITION SEAT - TFE DISC

					(SEAT LOAD NOT CONSIDERED) MAX PRESS DROP PSI/100 DEG F (CANNOT EXCEED C.W.P.)				
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM	SHUT OFF				FLOWING
					2 PORT		4 PORT		ALL PORTS
					1/2 STEM	3/4 STEM	1/2 STEM	3/4 STEM	ALL STEMS
CB7CU-1	17-4PH	316	316	316	1500	1500	405	912	1500
316	COCR-A	316	316	316	1500	1500	405	912	1500
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	1066	1500	267	600	1500
HAST C	HAST C	HAST C	HAST C	HAST C	1091	1500	273	612	1500
MONEL	K-MONEL	K-MONEL	K-MONEL	K-MONEL	1500	1500	423	952	1500
CB7CU-1	17-4PH	416	416	316	1500	1500	405	912	1500

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (EXCEPT FOR BELLOWS SEAL) - 1 1/8" TVL

							LINEAR		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	1	1	13	
316 SST	COCR-A	316 SST	316 SST	316 SST	9	1	1	13	
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	10	2	4	16	
HAST C	HAST C	HAST C	HAST C	HAST C	11	3	5	17	
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	12	4	6	18	
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	7	12	73	78	
HARD FACED SEAT RING									
HARD FACED SEAT PLUG									
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	5	2	14	
316 SST	COCR-A	316 SST	316 SST	316 SST	9	5	2	14	
HARD FACED SEAT RING									
HARD FACED SEAT & GUIDE PLUG									
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	5	3	15	
316 SST	COCR-A	316 SST	316 SST	316 SST	9	5	3	15	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG									
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY									
316 SST	COCR-A	316 SST	316 SST	316 SST	13	5	3	15	
HARD FACED SEAT & BORE RING									
HARD FACED SEAT,GUIDE & CONTOUR PLUG									
316 SST	COCR-A	316 SST	316 SST	316 SST	9	11	76	81	

					EQ %		QUICK OPEN			
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC
MATERIAL					B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	1	7	19	61	67
316 SST	COCR-A	316SST	316SST	316SST	9	1	7	19	61	67
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	10	2	10	22	64	70
HAST C	HAST C	HAST C	HAST C	HAST C	11	3	11	23	65	71
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	12	4	12	24	66	72
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	7	12	74	79	75	80
HARD FACED SEAT RING										
HARD FACED SEAT PLUG										
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	5	8	20	62	68
316 SST	COCR-A	316SST	316SST	316SST	9	5	8	20	62	68
HARD FACED SEAT RING										
HARD FACED SEAT & GUIDE PLUG										
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	5	9	21	63	69
316 SST	COCR-A	316SST	316SST	316SST	9	5	9	21	63	69
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG										
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY										
316 SST	COCR-A	316 SST	316 SST	316 SST	13	5	9	21	63	69
HARD FACED SEAT & BORE RING										
HARD FACED SEAT,GUIDE & CONTOUR PLUG										
316 SST	COCR-A	316SST	316SST	316SST	9	11	77	82	--	--

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (BELLOWS SEAL ONLY) - 1 1/8" TVL

							LINEAR		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	1	103	115	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	1	103	115	
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	1	12	107	119	
HARD FACED SEAT RING									
HARD FACED SEAT PLUG									
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	5	104	116	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	5	104	116	
HARD FACED SEAT RING									
HARD FACED SEAT & GUIDE PLUG									
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	5	105	117	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	5	105	117	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG									
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY									
316 SST	COCR-A	316 SST	316 SST	316 SST	14	5	105	117	
HARD FACED SEAT & BORE RING									
HARD FACED SEAT,GUIDE & CONTOUR PLUG									
316 SST	COCR-A	316 SST	316 SST	316 SST	3	11	106	118	

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (BELLOWS SEAL ONLY) - 1 1/8" TVL (CONT)

							EQ %		QUICK OPEN		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	1	108	120	112	124	
316 SST CB7CU-1 H1150	COCR-A 17-4PH H900	316 SST 416 SST	316 SST 416 SST	316 SST 316 SST	3 1	1 12	108 ---	120 ---	112 ---	124 ---	
HARD FACED SEAT RING											
HARD FACED SEAT PLUG											
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	5	109	121	113	125	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	5	109	121	113	125	
HARD FACED SEAT RING											
HARD FACED SEAT & GUIDE PLUG											
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	5	110	122	114	126	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	5	110	122	114	126	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG											
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY											
316 SST	COCR-A	316 SST	316 SST	316 SST	14	5	110	122	114	126	
HARD FACED SEAT & BORE RING											
HARD FACED SEAT,GUIDE & CONTOUR PLUG											
316 SST	COCR-A	316 SST	316 SST	316 SST	3	11	111	123	---	---	
FULL CAPACITY, 2” TRAVEL											
									QUICK OPEN		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM					1L5000 VSC	1L7500 VSC	
MATERIAL							B	C	D	D	
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	1	6	25	43			
316 SST	COCR-A	316 SST	316 SST	316 SST	3	6	25	43			
ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	ALLOY 20	4	7	28	46			
HAST C	HAST C	HAST C	HAST C	HAST C	5	8	29	47			
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	6	9	30	48			
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	1	14	83	88			
HARD FACED SEAT RING											
HARD FACED SEAT PLUG											
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	1	10	26	44			
316 SST	COCR-A	316 SST	316 SST	316 SST	3	10	26	44			
HARD FACED SEAT RING											
HARD FACED SEAT & GUIDE PLUG											
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	1	10	27	45			
316 SST	COCR-A	316 SST	316 SST	316 SST	3	10	27	45			
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG											
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY											
316 SST	COCR-A	316 SST	316 SST	316 SST	14	10	27	45			
HARD FACED SEAT & BORE RING											
HARD FACED SEAT,GUIDE & CONTOUR PLUG											
316 SST	COCR-A	316 SST	316 SST	316 SST	3	13	--	--			



**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)****METAL SEAT - FULL CAPACITY, 2" TRAVEL (CONT)**

METAL SEAT FULL CAPACITY, 2" TRAVEL (CONT)							LINEAR		EQ %	
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC
MATERIAL					B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	6	31	49	37	55
316 SST	COCR-A	316SST	316SST	316SST	3	6	31	49	37	55
ALLOY 20	ALLOY 20	ALY 20	ALY 20	ALY 20	4	7	34	52	40	58
HAST C	HAST C	HAST C	HAST C	HAST C	5	8	35	53	41	59
MONEL M-35W	K-MONEL	KMONEL	KMONEL	KMONEL	6	9	36	54	42	60
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	1	14	84	89	85	90
HARD FACED SEAT RING										
HARD FACED SEAT PLUG										
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	10	32	50	38	56
316 SST	COCR-A	316SST	316SST	316SST	3	10	32	50	38	56
HARD FACED SEAT RING										
HARD FACED SEAT & GUIDE PLUG										
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	10	33	51	39	57
316 SST	COCR-A	316SST	316SST	316SST	3	10	33	51	39	57
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG										
SPECIAL TACK WELDED SAET RING RETAINER/BUSHING ASSEMBLY										
316 SST	COCR-A	316 SST	316 SST	316 SST	14	10	33	51	39	57
HARD FACED SEAT & BORE RING										
HARD FACED SEAT,GUIDE & CONTOUR PLUG										
316 SST	COCR-A	316SST	316SST	316SST	3	13	86	91	87	92

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)**
**ITEM C - SEAT RING (CONT)**
**ITEM D - VALVE PLUG (CONT)**
**COMPOSITION SEAT - FULL CAPACITY, EQUAL PERCENT, 2" TVL**

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			VSC	
							1L5000	1L7500
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	6	93	98
316SST	COCR-A	316SST	316SST	316SST	3	6	93	98
ALY 20	ALY 20	ALY 20	ALY 20	ALY 20	4	7	94	99
HAST C	HAST C	HAST C	HAST C	HAST C	5	8	95	100
MONEL M-35W	K-MONEL	K-MONEL	K-MONEL	K-MONEL	6	9	96	101
CB7CU-1 H1150	17-4PH H900	416SST	416SST	316SST	1	14	97	102
HARD FACED PLUG GUIDE								
316SST	COCR-A	316SST	316/ COCR-A	316SST	3	6	127	128

**COMPOSITION SEAT - FULL CAPACITY, LINEAR, 2" TVL**

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM				VSC	
								1L5000	1L7500
MATERIAL									B
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	6	129	130	

**COMPOSITION SEAT - FULL CAPACITY, QUICK OPENING, 2 TRAVEL**

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			VSC	
							1L5000	1L7500
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	6	131	132

**METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (EXCEPT FOR BELLOWS SEAL) - VANED SEAT RING  
1 1/8" TVL**

							LINEAR	
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC
MATERIAL	MATL	MATL	MATL	MATL	B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	15	1	13
316 SST	COCR-A	316 SST	316 SST	316 SST	9	15	1	13
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	7	16	73	78
HARD FACED SEAT RING HARD FACED SEAT PLUG								
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	17	2	14
316 SST	COCR-A	316 SST	316 SST	316 SST	9	17	2	14
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG SPECIAL TACK WELDED SEATRING RETAINER/BUSHING ASSEMBLY								
316 SST	COCR-A	316 SST	316 SST	316 SST	13	17	2	14
HARD FACED SEAT RING HARD FACED SEAT & GUIDE PLUG								
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	7	17	3	15
316 SST	COCR-A	316 SST	316 SST	316 SST	9	17	3	15

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (EXCEPT FOR BELLOWS SEAL) - VANED SEAT RING  
1 1/8" TVL (CONT)

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			EQ %		QUICK OPEN		
							1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	15	7	19	61	67	
316 SST	COCR-A	316SST	316SST	316SST	9	15	7	19	61	67	
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	7	16	74	79	75	80	
HARD FACED SEAT RING											
HARD FACED SEAT PLUG											
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	17	8	20	62	68	
316 SST	COCR-A	316SST	316SST	316SST	9	17	8	20	62	68	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG											
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY											
316 SST	COCR-A	316 SST	316 SST	316 SST	13	17	8	20	62	68	
HARD FACED SEAT RING											
HARD FACED SEAT & GUIDE PLUG											
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	7	17	9	21	63	69	
316 SST	COCR-A	316SST	316SST	316SST	9	17	9	21	63	69	

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING, VANED (CONT)****ITEM D - VALVE PLUG (CONT)**

METAL SEAT - RESTRICTED VALVE PLUG 2" PORT (BELLOWS SEAL ONLY) - VANED SEAT RING

1 1/8" TVL

							LINEAR	
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC
MATERIAL					B	C	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	15	103	115
316 SST	COCR-A	316 SST	316 SST	316 SST	3	15	103	115
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	1	16	107	119
HARD FACED SEAT RING								
HARD FACED SEAT PLUG								
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	17	104	116
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	104	116
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG								
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY								
316 SST	COCR-A	316 SST	316 SST	316 SST	14	17	104	116
HARD FACED SEAT RING								
HARD FACED SEAT & GUIDE PLUG								
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	17	105	117
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	105	117

SEAT RING RETAINER							EQ %		QUICK OPEN			
							1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC		
MATERIAL							B	C	D	D	D	D
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	15	108	120	112	124		
316 SST	COCR-A	316 SST	316 SST	316 SST	3	15	108	120	112	124		
CB7CU-1 H1150	17-4PH H900	416 SST	416 SST	316 SST	1	16	---	---	---	---		
HARD FACED SEAT RING												
HARD FACED SEAT PLUG												
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	17	109	121	113	125		
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	109	121	113	125		
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG												
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY												
316 SST	COCR-A	316 SST	316 SST	316 SST	14	17	109	121	113	125		
HARD FACED SEAT RING												
HARD FACED SEAT & GUIDE PLUG												
CB7CU-1 H1150	17-4PH H900	316 SST	316 SST	316 SST	1	17	110	122	114	126		
316 SST	COCR-A	316 SST	316 SST	316 SST	3	17	110	122	114	126		

**ITEM B - SEAT RING RETAINER, BUSHING (CONT)****ITEM C - SEAT RING, VANED (CONT)****ITEM D - VALVE PLUG (CONT)**

## METAL SEAT - VANED SEAT RING - FULL CAPACITY, 2" TVL

							QUICK OPEN		
SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC	
MATERIAL						B	C	D	D
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	1	18	25	43	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	18	25	43	
CB7CU-1 H1150	17-4 H900	416 SST	416 SST	316 SST	1	19	83	88	
HARD FACED SEAT RING									
HARD FACED SEAT PLUG									
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	1	20	26	44	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	20	26	44	
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG									
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY									
316 SST	COCR-A	316 SST	316 SST	316 SST	14	20	26	44	
HARD FACED SEAT RING									
HARD FACED SEAT & GUIDE PLUG									
CB7CU-1 H1150	17-4 H900	316 SST	316 SST	316 SST	1	20	27	45	
316 SST	COCR-A	316 SST	316 SST	316 SST	3	20	27	45	

SEAT RING RETAINER							LINEAR		EQUAL %			
							1L5000 VSC	1L7500 VSC	1L5000 VSC	1L7500 VSC		
BUSHING							SEAT RING	VALVE PLUG	STEM			
MATERIAL							B	C	D	D	D	D
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	18	31	49	37	55		
316 SST	COCR-A	316SST	316SST	316SST	3	18	31	49	37	55		
CB7CU-1 H1150	17-4 H900	416SST	416SST	316SST	1	19	84	89	85	90		
HARD FACED SEAT RING												
HARD FACED SEAT PLUG												
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	20	32	50	38	56		
316 SST	COCR-A	316SST	316SST	316SST	3	20	32	50	38	56		
HARD FACED SEAT RING, HARD FACED SEAT & GUIDE PLUG												
SPECIAL TACK WELDED SEAT RING RETAINER/BUSHING ASSEMBLY												
316 SST	COCR-A	316SST	316SST	316SST	14	20	32	50	38	56		
HARD FACED SEAT RING												
HARD FACED SEAT & GUIDE PLUG												
CB7CU-1 H1150	17-4 H900	316SST	316SST	316SST	1	20	33	51	39	57		
316 SST	COCR-A	316SST	316SST	316SST	3	20	33	51	39	57		

## COMPOSITION SEAT, VANED SEAT RING, FULL CAPACITY, EQUAL PERCENT, 2 INCH TRAVEL

SEAT RING RETAINER	BUSHING	SEAT RING	VALVE PLUG	STEM			1L5000 VSC	1L7500 VSC
					B	C	D	D
CB7CU-1 H1150	17-4PH H900	316SST	316SST	316SST	1	18	93	98
316SST	COCR-A	316SST	316SST	316SST	3	18	93	98
CB7CU-1 H1150	17-4PH H900	416SST	416SST	316SST	1	19	97	102
316SST	COCR-A	316SST	316/HF GUIDE	316SST	3	18	127	128

**ITEM E - GASKET**

SPIRAL WOUND GASKET	FLAT SHEET	TEMP °F	MAXIMUM ΔP (PSI/100° F) SHUT OFF SEAT LOAD NOT CONSIDERED CANNOT EXCEED CWP		E
			2 PORT	4 PORT	
MONEL & PTFE	MONEL/PTFE	-100+300	950	1650	6
HAST C & GRAPHITE	GRAPHITE/SST	-100+1100	710	1070	9
MONEL & GRAPHITE	GRAPHITE/SST	-100+900	710	1070	10
INCONEL & GRAPHITE	GRAPHITE/SST	-325+1100	950	1650	8

**ITEM F - BOLTING**

BOLTING	NUT	CWP (PSI)	HYDRO (PSI/MIN)	TEMP ° F	BODY	TEMP ° F
SAE GRADE 5	-	SAME AS BODY	SAME AS BODY	-20+650		
B7	2H	SAME AS BODY	SAME AS BODY	-50+800		
B8	GRADE 8	1125	1700/2	-425+100		
B7M	2HM	1250	1875/2	-50+800		
B8M CLASS 2	8M	1465	2200/2	-325+800	HAST C	-325+225
					MONEL	-325+450

BODY	TEMP ° F	BOLT	NUT	STD & EXT	BELLOWS SEAL	ENVIRO- SEAL BELLOWS SEAL
				F	F	F
CAST IRON	-20+450	SAE GR 5	-----	1	M	M
WCC	-20+450	B7	2H	2	9	14
		B7M	2HM	5	--	--
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8	--	--
LCC	-20+450	B7	2H	2	9	14
		B7M	2HM	5	--	--
	450+700	B7	2H LUB	6	12	17
		B7M	2HM LUB	8	--	--
CF8M	-325+100	B8	GR8	4	11	16
	-325+450	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
		B7M	2HM	5	--	--
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8	--	--
		B8M CL2	8M LUB	7	13	18
ALLOY 20	-325+400	B8M CL2	8M	3	10	15
	-20+450	B7	2H	2	9	14
		B7M	2HM	5	--	--
	450+800	B7	2H LUB	6	12	17
HAST C	-50+450	B7	2H	2	9	14
		B8M CL2	8M LUB	7	13	18
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8	--	--
MONEL	-325+450	B8M CL2	8M	3	10	15
	-50+450	B7	2H	2	9	14
	450+800	B7	2H LUB	6	12	17
		B7M	2HM LUB	8	--	--



## ITEM G - STEM

## ITEM 9D - NAMEPLATE DATA FOR ENVIRO-SEAL BELLOWS SEAL BONNET

CAPACITY	BONNET STYLE	STEM VSC	STEM	G	9D
FULL	PLAIN	1L5000	316SST	1	N
			ALY 20	2	N
			HAST C	3	N
			K-MONEL	4	N
			NIT 50	34	N
		1L7500	316SST	5	N
			ALY 20	6	N
			HAST C	7	N
			K-MONEL	8	N
			NIT 50	31	N
	EXT STYLE 1	1L5000	316SST	13	N
		1L7500	316SST	15	N
	EXT STYLE 2	1L5000	316SST	14	N
		1L7500	316SST	16	N
RESTRICTED	BELLOWS SEAL	1L5000	316SST	25	N
		1L7500	316SST	26	N
	ENVIRO-SEAL BELLOWS SEAL	ALL	316LSST	N	1
			HAST C	N	2
	PLAIN	1L5000	316SST	9	N
			ALY 20	10	N
			HAST C	11	N
			K-MONEL	12	N
			NIT 50	32	N
		1L7500	316SST	19	N
			ALY 20	20	N
			HAST C	21	N
			K-MONEL	22	N
			NIT 50	33	N
	EXT STYLE 1	1L5000	316SST	17	N
		1L7500	316SST	23	N
	EXT STYLE 2	1L5000	316SST	18	N
		1L7500	316SST	24	N
	BELLOWS SEAL	1L5000	316SST	25	N
		1L7500	316SST	26	N
	ENVIRO-SEAL BELLOWS SEAL	ALL	316LSST	N	1
			HAST C	N	2

**ITEM 9B - CLASS/HYDRO**

STYLE	BODY	CLASS	HYDRO (PSI/MIN)	9B
ASME	CAST IRON	125B	300/2	1
		250B	750/2	2
	WCC, C5, LCC, CF8M	150	450/2	3
		300	1125/2	4
		600	2250/2	5
	ALLOY 20	150	350/2	6
		300	900/2	7
		600	1800/2	8
	MONEL	150	350/2	9
		300	900/2	10
		600	1800/2	11
	HAST C	150	450/2	12
		300	1125/2	13
		600	2250/2	14
EN	CAST IRON	PN 10/16	350 (24 BAR)/2	15
	WCC, CF8M & LCC	PN 10/16	350 (24 BAR)/2	17
		PN 25/40	875 (60 BAR)/2	16
		PN 63	1375 (95 BAR)/2	18
		PN 100	2175 (150 BAR)/2	19

**ITEM 9C – SEAT LEAK TEST PER FGS 4L5**

FLOW	SEAT	CLASS	CHARACTERISTIC	PORT	TRAVEL	VALUE	9C
UP	METAL	IV (SCFH)	QUICK OPENING	2	1 1/8	18.8	1
				4	2	52.7	2
			LINEAR	2	1 1/8	19.3	3
				4	2	50.3	4
			EQUAL PERCENT	2	1 1/8	16.6	5
				4	2	44.9	6
		V AIR TEST(ML/MIN)	ALL	2	1 1/8	9.40	8
				4	2	18.80	9
	COMPOSITION	VI (BUBBLES/MIN)	EQUAL PERCENT	4	2	11	7

**ITEM J - NAMEPLATE**

**J**  
1

**ITEM K - FLOW ARROW**

**K**  
1

**ITEM 9Z - PARTIAL ASSY (NAMEPLATE PAD VALUES)**

ASSEMBLY INCLUDED ITEMS	INDEX CODES	9Z
A,F,J,9B	10004,10005,10006,10008	1

COMPOSITION SEAT ASSEMBLY DRAWING 46A1842  
 ASSEMBLY DRAWING 35A5717  
 GASKET ASSEMBLY DRAWING 16A1943





## Revision Change Record Section for the present Revision

ECRN: 20180325

**Matrix Section:**

Item	Module
9D	1

**Changes**

Change the stem material description from “316SST” to “316LSST” for the “ENVIRO-SEAL BELLOWS SEAL” bonnet.