

Certificate/Serial/Job No: **XB18**

Quality Department: *John Ho*

Quantity	Size (NPS)	Class	Product	Description	Type	SONumber	Line	Sold to	Date
97	4	150	/ 103039	DSI 37XUF	GATE				4/16/2011

Pressure Test: API598	<input checked="" type="checkbox"/> Satisfactory	Shell Pressure: 450 psi 3102.64 kPa	BackSeat: 325 psi 2240.8 kPa	Seat Pressure: 325 psi 2240.8 kPa	Seat Air Pressure: 80 psi 551.58 kPa
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Part	Specif.	HEAT#	Chemical Composition [%]													Mechanical Properties									
			C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	W	Nb	Al	N	Ceq	Tensile [ksi] [MPa]	Yield [ksi] [MPa]	Elong [%]	Reduc [%]	Hard [HB]	Ch.1 [J]	Ch.2 [J]	Ch.3 [J]

XB18 / 51

BODY	ASTM A216 WCB-2008	W 13738	0.205	0.48	0.95	0.031	0.015	0.031	0.050	0.001	0.028	0.004					0.38	80.91	50.90	29.2	56	162							N
BONNET	ASTM A216 WCB-2008	A 9693	0.230	0.47	0.85	0.028	0.017	0.018	0.054	0.010	0.025	0.005				0.025	0.39	75.84	44.95	29	56	154							N
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058							522.9	309.9									N	
																		102.81	74.10	19.6	49	261							N
																		708.85	510.9										

XB18 / 52

BODY	ASTM A216 WCB-2008	A 9183	0.200	0.44	0.91	0.023	0.016	0.031	0.037	0.003	0.029	0.004					0.36	75.69	44.95	29	56	152							N	
BONNET	ASTM A216 WCB-2008	A 9721	0.210	0.41	0.87	0.024	0.014	0.020	0.042	0.004	0.032	0.004				0.053	0.37	75.84	45.10	25	51	157							N	
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058							522.9	311										N	
																		102.81	74.10	19.6	49	261							N	
																		708.85	510.9											

XB18 / 53

BODY	ASTM A216 WCB-2008	W 13670	0.201	0.46	0.98	0.029	0.015	0.021	0.041	0.001	0.033	0.005					0.38	80.33	60.32	28.2	50	171							N	
BONNET	ASTM A216 WCB-2008	A 9358	0.220	0.43	0.87	0.021	0.014	0.011	0.024	0.001	0.024	0.004				0.02	0.37	76.27	45.39	27.0	55.0	154							N	
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058							525.86	313										N	
																		102.81	74.10	19.6	49	261							N	
																		708.85	510.9											

XB18 / 54

BODY	ASTM A216 WCB-2008	A 9169	0.210	0.43	0.86	0.025	0.015	0.022	0.043	0.012	0.028	0.004				0.027	0.37	74.24	43.94	30	56	151							N	
BONNET	ASTM A216 WCB-2008	A 9361	0.210	0.47	0.97	0.026	0.016	0.022	0.075	0.001	0.030	0.005				0.06	0.39	511.87	303										N	
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058							77.14	46.26	26.0	53	157							N	
																		531.86	319										N	
																		102.81	74.10	19.6	49	261							N	
																		708.85	510.9											

XB18 / 55

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BODY	ASTM A216 WCB-2008	W 13728	0.205	0.45	0.91	0.038	0.022	0.025	0.038	0.001	0.035	0.006		0.37	82.80	47.85	29.0	57	161		N	
															570.89	329.9						
BONNET	ASTM A216 WCB-2008	A 9140	0.200	0.40	0.86	0.020	0.013	0.021	0.037	0.001	0.038	0.005		0.027	0.36	74.24	43.50	30.0	57.0	150		N
																511.87	299.9					
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058					102.81	74.10	19.6	49	261		N
																708.85	510.9					

XB18 / 56

BODY	ASTM A216 WCB-2008	W 12667	0.199	0.439	0.920	0.025	0.014	0.034	0.077	0.010	0.032	0.001		0.37	75.26	44.37	25.0	47.0	165		N	
															518.9	305.9						
BONNET	ASTM A216 WCB-2008	A 9198	0.210	0.45	0.88	0.028	0.016	0.022	0.041	0.001	0.032	0.005		0.015	0.37	76.13	45.82	26	53	156		N
																524.9	315.9					
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058					102.81	74.10	19.6	49	261		N
																708.85	510.9					

XB18 / 57

BODY	ASTM A216 WCB-2008	W 12780	0.209	0.44	0.88	0.033	0.009	0.075	0.064	0.001	0.027	0.003		0.37	81.64	48.72	30	55	166		N	
															562.89	335.9						
BONNET	ASTM A216 WCB-2008	A 9325	0.200	0.44	0.88	0.028	0.016	0.021	0.043	0.001	0.033	0.005		0.016	0.36	75.84	44.95	25	52	157		N
																522.9	309.9					
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095					104.55	77.14	18.8	49	257		N
																720.85	531.9					

XB18 / 58

BODY	ASTM A216 WCB-2008	W 13680	0.213	0.43	0.96	0.026	0.015	0.010	0.023	0.001	0.028	0.005		0.38	86.86	57.28	28.4	58	158		N	
															598.88	394.9						
BONNET	ASTM A216 WCB-2008	A 9348	0.230	0.50	0.95	0.024	0.012	0.020	0.038	0.001	0.033	0.004		0.017	0.40	75.84	44.95	29	55	154		N
																522.9	309.9					
WEDGE	ASTM A217 CA15-2007	D 2303	0.11	1.04	0.77	0.014	0.010	0.161	12.51	0.063	0.097					100.49	70.62	19.2	49	260		N
																692.85	486.9					

XB18 / 59

BODY	ASTM A216 WCB-2008	W 13595	0.209	0.43	0.92	0.026	0.011	0.017	0.038	0.001	0.023	0.003		0.37	80.91	53.22	29	62	154		N	
															557.85	366.9						
BONNET	ASTM A216 WCB-2008	A 9715	0.220	0.41	0.91	0.023	0.017	0.025	0.036	0.005	0.031	0.007		0.028	0.39	76.56	45.24	26	53	154		N
																527.86	311.9					
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058					102.81	74.10	19.6	49	261		N
																708.85	510.9					

XB18 / 60

BODY	ASTM A216 WCB-2008	A 9139	0.200	0.40	0.83	0.021	0.011	0.059	0.110	0.001	0.040	0.005		0.04	0.37	75.11	44.52	28	56	153		N
																517.87	307					
BONNET	ASTM A216 WCB-2008	W 13718	0.217	0.45	0.94	0.025	0.017	0.016	0.024	0.001	0.027	0.004		0.38	82.80	54.96	27.8	56	158		N	
																570.89	378.9					
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095					104.55	77.14	18.8	49	257		N
																720.85	531.9					

XB18 / 61

BODY	ASTM A216 WCB-2008	W 13738	0.205	0.48	0.95	0.031	0.015	0.031	0.050	0.001	0.028	0.004		0.38	80.91	50.90	29.2	56	162		N	
															557.85	350.9						
BONNET	ASTM A216 WCB-2008	A 9714	0.200	0.42	0.83	0.024	0.013	0.016	0.031	0.003	0.026	0.005		0.007	0.35	75.84	44.95	27	54	155		N
																522.9	309.9					
WEDGE	ASTM A217 CA15-2007	D 2846	0.11	0.83	0.78	0.028	0.010	0.102	12.59	0.036	0.096					99.76	71.05	20	48	268		N
																687.82	489.9					

XB18 / 62

BODY	ASTM A216 WCB-2008	W 13716	0.195	0.49	0.98	0.033	0.021	0.019	0.032	0.001	0.033	0.005		0.37	83.38	54.96	28.4	54	171		N	
															574.88	378.9						
BONNET	ASTM A216 WCB-2008	A 9694	0.220	0.46	0.80	0.023	0.016	0.023	0.062	0.013	0.022	0.005		0.009	0.37	74.97	44.37	32	57	155		N
																516.9	305.9					

BODY	ASTM A216 WCB-2008	A 9149	0.210	0.44	0.90	0.022	0.014	0.021	0.039	0.001	0.027	0.004		0.02	0.37	73.23	43.50	32	58	153		N
																504.90	299.9					
BONNET	ASTM A216 WCB-2008	W 13727	0.210	0.48	0.98	0.030	0.017	0.018	0.026	0.001	0.028	0.009			0.39	83.38	49.59	29.4	56	171		N
																574.88	341.9					
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058					102.81	74.10	19.6	49	261		N
																708.85	510.9					

XB18 / 71

BODY	ASTM A216 WCB-2008	W 12631	0.204	0.490	0.910	0.029	0.016	0.041	0.079	0.014	0.031	0.001			0.38	77.87	46.11	24.0	37.5	168		N
																536.89	317.9					
BONNET	ASTM A216 WCB-2008	W 13656	0.209	0.41	0.97	0.031	0.020	0.013	0.013	0.001	0.024	0.004			0.38	80.91	50.90	28	55	171		N
																557.85	350.9					
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058					102.81	74.10	19.6	49	261		N
																708.85	510.9					

XB18 / 72

BODY	ASTM A216 WCB-2008	W 13195	0.213	0.44	0.98	0.032	0.015	0.016	0.019	0.001	0.028	0.002			0.38	89.90	59.74	30	46	163		N
																619.84	411.9					
BONNET	ASTM A216 WCB-2008	W 13685	0.210	0.45	0.90	0.035	0.023	0.033	0.078	0.001	0.037	0.006			0.38	84.54	49.01	28.4	55	162		N
																582.88	337.9					
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095					104.55	77.14	18.8	49	257		N
																720.85	531.9					

XB18 / 73

BODY	ASTM A216 WCB-2008	W 12739	0.211	0.510	0.980	0.034	0.019	0.038	0.035	0.022	0.084	0.001			0.39	76.71	46.98	30.0	52.0	164		N
																528.9	323.9					
BONNET	ASTM A216 WCB-2008	A 9355	0.200	0.45	0.88	0.026	0.017	0.021	0.048	0.001	0.025	0.005		0.011	0.36	75.11	44.37	32.0	57	153		N
																517.87	305.9					
WEDGE	ASTM A217 CA15-2007	D 2316	0.10	0.85	0.88	0.010	0.010	0.198	12.28	0.039	0.076					100.78	70.76	18.5	47	259		N
																694.85	487.9					

XB18 / 74

BODY	ASTM A216 WCB-2008	W 13565	0.207	0.50	0.94	0.033	0.017	0.055	0.034	0.001	0.028	0.004			0.38	78.59	54.96	30	56	162		N
																541.86	378.9					
BONNET	ASTM A216 WCB-2008	A 9165	0.200	0.42	0.81	0.021	0.013	0.022	0.039	0.001	0.037	0.006		0.009	0.35	76.27	45.97	27	55	154		N
																525.86	317					
WEDGE	ASTM A217 CA15-2007	D 2323	0.12	1.00	0.86	0.011	0.010	0.196	12.93	0.032	0.049					100.34	71.63	19.2	51	262		N
																691.82	493.9					

XB18 / 75

BODY	ASTM A216 WCB-2008	W 13185	0.200	0.48	1.00	0.039	0.016	0.044	0.081	0.019	0.045	0.006			0.39	85.70	60.90	28	57	162		N
																590.88	419.9					
BONNET	ASTM A216 WCB-2008	A 9359	0.200	0.42	0.81	0.020	0.013	0.016	0.079	0.001	0.021	0.004		0.014	0.35	74.10	43.94	31.0	55	151		N
																510.90	303					
WEDGE	ASTM A217 CA15-2007	D 2846	0.11	0.83	0.78	0.028	0.010	0.102	12.59	0.036	0.096					99.76	71.05	20	48	268		N
																687.82	489.9					

XB18 / 76

BODY	ASTM A216 WCB-2008	W 13688	0.193	0.42	0.86	0.028	0.010	0.030	0.014	0.001	0.042	0.002			0.34	78.59	54.96	27.8	52	166		N
																541.86	378.9					
BONNET	ASTM A216 WCB-2008	A 9720	0.210	0.50	0.97	0.027	0.017	0.020	0.040	0.005	0.031	0.005		0.018	0.39	74.24	43.94	31	58	152		N
																511.87	303					
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058					102.81	74.10	19.6	49	261		N
																708.85	510.9					

XB18 / 77

BODY	ASTM A216 WCB-2007	A 7733	0.215	0.50	0.84	0.024	0.017	0.026	0.039	0.001	0.044	0.004		0.004	0.30	74.82	46.84	27.0	53.0	154		N
																515.87	323					
BONNET	ASTM A216 WCB-2008	A 9339	0.220	0.40	0.87	0.027	0.017	0.019	0.037	0.003	0.023	0.005		0.041	0.38	73.81	43.50	31	58	150		N
																508.90	299.9					

BODY	ASTM A216 WCB-2008	A 8771	0.210	0.48	0.85	0.022	0.016	0.026	0.043	0.001	0.036	0.005	0.035	0.37	74.39	44.23	30	56	152		N	
BONNET	ASTM A216 WCB-2008	W 13703	0.201	0.42	0.97	0.030	0.018	0.018	0.029	0.001	0.034	0.004		0.37	512.90	305						N
WEDGE	ASTM A217 CA15-2007	D 2846	0.11	0.83	0.78	0.028	0.010	0.102	12.59	0.036	0.096				73.95	46.89	28.6	58	173		N	
															509.87	321.9					N	
															99.76	71.05	20	48	268		N	
															687.82	489.9					N	

XB18 / 86

BODY	ASTM A216 WCB-2008	A 9121	0.200	0.42	0.85	0.024	0.017	0.025	0.046	0.003	0.026	0.005		0.36	76.56	45.53	28	55	155		N	
BONNET	ASTM A216 WCB-2008	A 9139	0.200	0.40	0.83	0.021	0.011	0.059	0.110	0.001	0.040	0.005	0.04	0.37	527.86	313.9						N
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095				75.11	44.52	28	56	153		N	
															517.87	307					N	
															104.55	77.14	18.8	49	257		N	
															720.85	531.9					N	

XB18 / 87

BODY	ASTM A216 WCB-2008	W 13694	0.225	0.40	0.87	0.035	0.014	0.017	0.014	0.001	0.026	0.002		0.38	76.85	48.43	29.0	53	166		N	
BONNET	ASTM A216 WCB-2008	A 9325	0.200	0.44	0.88	0.028	0.016	0.021	0.043	0.001	0.033	0.005	0.016	0.36	529.86	333.9						N
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058				75.84	44.95	25	52	157		N	
															522.9	309.9					N	
															102.81	74.10	19.6	49	261		N	
															708.85	510.9					N	

XB18 / 88

BODY	ASTM A216 WCB-2008	W 12523	0.219	0.50	0.98	0.036	0.014	0.022	0.016	0.001	0.027	0.005		0.39	74.24	43.65	26.0	50.0	151		N	
BONNET	ASTM A216 WCB-2008	W 13718	0.217	0.45	0.94	0.025	0.017	0.016	0.024	0.001	0.027	0.004		0.38	511.87	301						N
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095				82.80	54.96	27.8	56	158		N	
															570.89	378.9					N	
															104.55	77.14	18.8	49	257		N	
															720.85	531.9					N	

XB18 / 89

BODY	ASTM A216 WCB-2008	A 9124	0.200	0.41	0.85	0.025	0.016	0.021	0.039	0.005	0.024	0.005	0.004	0.35	74.53	44.52	29	56	153		N	
BONNET	ASTM A216 WCB-2008	W 13681	0.207	0.46	0.96	0.028	0.018	0.014	0.015	0.001	0.029	0.005		0.38	513.87	307						N
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095				82.22	55.54	28.8	54	172		N	
															566.89	382.9					N	
															104.55	77.14	18.8	49	257		N	
															720.85	531.9					N	

XB18 / 90

BODY	ASTM A216 WCB-2008	W 13195	0.213	0.44	0.98	0.032	0.015	0.016	0.019	0.001	0.028	0.002		0.38	89.90	59.74	30	46	163		N	
BONNET	ASTM A216 WCB-2008	A 9339	0.220	0.40	0.87	0.027	0.017	0.019	0.037	0.003	0.023	0.005	0.041	0.38	619.84	411.9						N
WEDGE	ASTM A217 CA15-2007	D 2844	0.09	0.80	0.70	0.027	0.010	0.109	12.42	0.020	0.095				73.81	43.50	31	58	150		N	
															508.90	299.9					N	
															104.55	77.14	18.8	49	257		N	
															720.85	531.9					N	

XB18 / 91

BODY	ASTM A216 WCB-2008	W 13721	0.196	0.44	0.91	0.036	0.019	0.013	0.018	0.001	0.029	0.004		0.36	79.75	49.01	29.6	58	165		N	
BONNET	ASTM A216 WCB-2008	A 9141	0.200	0.40	0.86	0.021	0.011	0.024	0.027	0.001	0.036	0.006	0.054	0.35	549.86	337.9						N
WEDGE	ASTM A217 CA15-2007	D 2847	0.11	0.99	0.74	0.025	0.010	0.129	12.06	0.053	0.058				74.82	44.66	27	54	154		N	
															515.87	307.9					N	
															102.81	74.10	19.6	49	261		N	
															708.85	510.9					N	

XB18 / 92

BODY	ASTM A216 WCB-2008	W 13646	0.193	0.43	0.94	0.033	0.019	0.053	0.022	0.001	0.035	0.004		0.36	85.12	53.80	28	53	163		N	
BONNET	ASTM A216 WCB-2008	A 9362	0.200	0.43	0.85	0.025	0.020	0.020	0.054	0.001	0.033	0.006	0.055	0.36	586.88	370.9						N
															76.13	45.24	26.0	54	153		N	
															524.9	311.9					N	

Heat Treatment Codes:

<i>A</i> : Annealing	<i>AC</i> : Air Cooling	<i>DA</i> : Double Aged	<i>FT</i> : Furnace Treatment	<i>N</i> : Normalizing	<i>OQ</i> : Oil Quenched
<i>Ph-3</i> : Precipitation Hardening	<i>SA</i> : Solution Annealed	<i>SQ</i> : Solution Quenched	<i>ST</i> : Solution Treatment	<i>T</i> : Tempering	<i>WC</i> : Water Cooling
<i>WQ</i> : Water Quenched	<i>WT</i> : Water Quenched/ Tempered			<i>NT</i> : Normalized/Tempered	

Part	Material
BACK SEAT	ASTM A276 410
BODY/BONNET	ASTM A216 WCB
BOLTING	ASTM A193 B7 / ASTM A194 2H
DISC-WEDGE-CLAPPER	ASTM A217 CA15
PACKING	GRAPHITE
SEAT RING	ASTM A105 + Stl.6 Faced
STEM	ASTM A182 F6A Cl. 3
STEM NUT	ASTM A439-D2

Valves Tested per API598

We hereby certify, that the material described above complies with the order requirements.

EC Declaration of Conformity: JEV (Jiangyin Eastern Valve Co. Ltd.), Jiangsu Province, 214423, P.R. China

According to Annex VII of Pressure Equipment Directive 97/23/EC, hereby declare that the products detailed above are in compliance with PED 97/23/EC and have been manufactured in accordance with conformity assessment module B+D as approved Det Norske Veritas Inspection AB as Identification No 0575 (formally 0409). The products may cover Category I, II and III of pressure equipment. For the most specific risks of this equipment, safety and compliance with essential requirements of the Directive has been based on API 600, API598, ASME B16.34, ASME B16.5, ASME B16.10 latest edition.

Undersigned by Liu Jian Qing, representing Jiangyin Eastern Valve company Ltd.:

