



VALVE TEST CERTIFICATE / CERTIFICATE OF CONFORMANCE

EF

Certificate No. : 120306-13

PAGE: 1 OF 4

VALVE INFORMATION

S.O.#P.O.#	13325 / P424400	S.O. ITEM #	240
VALVE TYPE	TRUNNION BALL VALVE	MODEL NUMBER	EB10F063TA02E3FG40
SIZE	10"	SERIAL NUMBER	12030613 01 TO 02
CLASS	600	QUANTITY	2

VALVE DETAIL

BODY/ADAPTER	ASTM A350 LF2	BALL	ASTM A350 LF2+ENP
STEM	ASTM A350 LF2+ENP	TRUNNION	ASTM A350 LF2+ENP
SEAT INSERT	MOLON	SEAT	ASTM A350 LF2+ENP
SEALS	GRAPHITE	O-RINGS	HNBR
BOLTS	A320 L7M	NUTS	A194 7M

VALVE DESIGN CODE

DESIGN CODE:	<u>ASME B16.34</u>	YES	DESIGN CODE:	<u>ASME B16.5</u>	YES
	<u>API 6D / ISO 14313</u>	YES		<u>API 607 Rev 5</u>	YES
	<u>ASME B16.10</u>	YES		<u>CSA Z662 Region 3</u>	YES
	<u>API 608</u>	YES			
	<u>CSA Z245.15</u>	YES		<u>NACE MR0175/ISO 15156</u>	YES

VALVE TEST RESULTS

TEST PERFORMED	CODE	HYDRO SHELL	HYDRO SEAT	AIR SEAT	BACK SEAT	
PRESSURE- PSI/ MPA /BAR		MPA/PSI	MPA/PSI	MPA/PSI	MPA/PSI	-
TEST PRESSURE	API 6D	15.6/2250	11.4/1650	0.55/80	-	-
DURATION (MINUTES MIN.)	API 6D	5	5	5	-	-
TEST RESULTS		PASS	PASS	PASS	-	-
DIMENSIONAL CHECK	B16.10	PASS	-	-	-	-
VISUAL	MSS-SP-55	PASS	-	-	-	-

We certify all valves indicated in this certificate are manufactured, inspected and tested in accordance with standards noted.

DATE: July 3, 2017



Ping Zhu

Bay K, 1423 45 Avenue NE, Calgary, Alberta, T2E 2P3



Bay K, 1423 45 Avenue NE, Calgary, Alberta, T2E 2P3

EF

TRACEABILITY SHEET

Certificate No. : 120306-13

PAGE 2 OF 4

SERIAL NO.	BODY HEAT #	ADAPTER HEAT #	BALL HEAT #	STEM HEAT #	TRUNNION HEAT#	BOLTING HEAT#	NUT HEAT#
1	12030613-01	L2396	L2396	L0410	L2023	L3317	16401881
2	12030613-02	L2396	L2396	L0410	L2023	L3317	16401881
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							

DATE: 3/Jul/17



Bay K, 1423 45 Avenue NE, Calgary, Alberta, T2E 2P3

EF

MATERIAL TEST REPORT - EN10204 3.1

Certificate No. : 120306-13

PAGE 4 OF 4

MECHANICAL PROPERTIES

Component	Material	Heat-No.	Yield strength ksi (MPA)	Tensile strength ksi (MPA)	Elongation (%)	Reduction of area (%)	Impact Value (J) @ -46 deg C		Hardness BHN
							≥22	≥30	
	A 350 LF2 class REV 11	Requirements	≥36 (≥250)	70 to 95 (485 to 655)	≥22	≥30	≥20		≤197
BODY	LF2	L2396	335	523	32	73	89	88	156
ADAPTER	LF2	L2396	335	523	32	73	89	88	156
BALL	LF2	L0410	325	512	32	76	44	37	156
STEM	LF2	L2023	307	535	29	59	50	62	152
TRUNNION	LF2	L3317	411	595	30	68	40	59	167
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---

Component	Material	Heat-No.	Yield strength ksi (MPA)	Tensile strength ksi (MPA)	Elongation (%)	Reduction of area (%)	Impact Value (J) @ -73 deg C		Hardness BHN
							≥18	≥20	
STUDS	A320 L7M REV 11	Requirements	≥80 (≥550)	≥100 (≥690)	≥18	≥20	≥27		≤235
NUTS	A194 7M REV 10a	Requirements	---	---	---	---	---		159-235
STUDS	B7M	16401881	752	654	23	61	61	53	220
NUTS	2HM	16401881	---	---	---	---	51	46	198

HEAT TREATMENT STATUS (IF APPLICABLE)

LF2: Quenched 900°C, 2 hours minimum, cooling in water, tempered to 620°C, 2 hours minimum, cooling in air.

#N/A

L7M: Quenched to 870°C, 1 hours minimum, cooling in oil, tempered to 730°C, 2 hours minimum, cooling in air.

7M: Quenched to 870°C, 1 hours minimum, cooling in oil, tempered to 750°C, 1.75 hours minimum, cooling in air.

We certify all materials are manufactured inspected and tested in accordance with material specification.

Ping Zhu
July 3, 2017

