

Ci Valves and Actuation

MODIFICATION DOCUMENTATION PACKAGE

CI JOB # 174932-7

CUSTOMER PO # 3501250975

VALVE SERIAL # 120969711-1



Ci Valves and Actuation

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Certificate of Compliance



Charbonneau Industries 1619 E. Richey Road Houston, TX 77073 Phone: 281-209-3800

www.ciactuation.com

CERTIFICATE OF COMPLIANCE

This is to certify that the referenced products have been manufactured in accordance with the Ci Valves and Actuation Quality Manual certified to ISO 9001:2015.

We certify that these products were manufactured at the Ci Valves and Actuation facility in Houston, Texas, USA. Items supplied in this shipment covered by this Certification of Compliance have been found to be in accordance with manufacturing, inspection and testing procedures that are applicable to approved drawings and specifications and according to the requirements of the Purchase Order. Results of all chemical and physical tests for pressure containing components, as well as, other evidence of conformance that exhibits acceptability of materials, parts and assemblies are on file and are available for review by the Buyer according to the Purchase Order and specifications.

Charbonneau Industries Job Number: 174932-7

Customer P.O.: 3501250975

Modification: TAPER BORE TO MEET 0.237WT, ADD DRAIN VALVE PER PG&E SPEC, REPLACE STANDARD FITTINGS WITH FLOW WOLF FITTINGS, STANDARD API-6D HYDRO TEST, LOW PRESSURE AIR SEAT TEST

AND EPOXY COATING

Serial Number (s): 120969711-1



Material Test Reports (Valves)

257 Holloway Blvd. Ville Platte, La 70586 Tel +1 337 363 7500 Fax +1 337 363 9701



6/5/2017

CERTIFICATE OF TESTS AND COMPLIANCE

CUSTOMER: CI	ACTUATION			CUST P/O NO.: 585952							
CAMERON SAL	ES ORDER	<i>NO</i> .: ³⁴⁷⁴⁵³⁷		CAMERON .	S/O ITEM	NO.: 600					
VALVE PART NO	O.: CAM-BV			VALVE TRI	M: 216						
✓ CAMERON	■ TOM W	HEATLEY GRO	VE WI	KM 🗏 G4N	$\blacksquare TK$	■ TXT					
VALVE SIZE/PF	RESSURE 4	X 4 " 300 # WE x WE									
VALVE SERIAL	NUMBER(S):									
120969711 -1	-2-3-4-5-6										
TEST PRESSUR	RES (PSI):										
SHELL TEST:	1125	SEAT TEST:	825		AIR T	EST:					
SPECIAL TEST	(IF APPLIC	CABLE):									
DOUBLE BLOC	K AND BLE	EED TEST: 825									

Cameron, a Schlumberger company, certifies that the above listed valve(s) complies with all requirements of product specification API 6D and has/have successfully passed all applicable test in accordance with requirements thereof, including additional customer requirements agreed upon in the above indicated sales order. These results, as retained within our quality management system, have been verified and to the best of our knowledge are true and correct.

Robin Laughlin

Quality Representative

Cameron, a Schlumberger company

Rolin Laughlin





6/5/2017

CERTIFICATE OF COMPLIANCE

CUSTOMER: CI ACTUATION	CUST. P/O NO.: 585952
CAMERON SALES ORDER NO.: 3474537	CAMERON S/O ITEM NO.: 600
VALVE PART NO.: CAM-BV	VALVE TRIM: 216
VALVE SIZE/PRESSURE: 4 × 4 " 300 # WE x WE	
VALVE SERIAL NUMBER(S):	TEMP. RATING: -50 To+ 250
120969711 -1-2-3-4-5-6	

Cameron certifies that the above listed valve (s) comply with and/or have been tested to, all the applicable provisions of API 6D, the purchase order descriptions and specifications and the prequalified material of NACE MR0175 / ISO 15156. Regarding NACE, this certification does not imply or warrant the application of the product in compliance with NACE MR0175 / ISO 15156 service conditions in which the customer/user installs the product.

Robin Laughlin

Quality Representative

Cameron - Valves and Measurement

Rolin Laughlin_

Ball Valve 2"- 12" Assembly Set-Out Report 35809 ID CAM-BV Production Order Number: 120969711 01 Assy Part no: Rev Qty Add Ons lifteyes c02ext wormshaft ext ped lockdev pups coat low temp Valve ut mag dye turn/grind customer witness drain hot vent/seal block SP- 586-10 4x4 WEXWE Size API WP Class 508070-04-06-19 5/30/2017 Sub-Assy Part no Set-out Date rev ECA HN EC B HN Valve SN Sub Assy SN ECA SN EC B SN 120941776-6 16/70562 16/70562 120941776-1 16/70562 2 16/70562 120830273-13 16/70562 16/70562 3 4 120830273-12 16/70562 16/70562 5 120830273-9 16/70562 16/70562 6 120830273-14 16/70562 16/70562 510303-04-10-51 510303-04-10-51 04 Forging A EC PN: **End Connector:** rev 510303-04-10-51 510303-04-10-51 04 Forging BECPN: **End Connector:** rev Comments: T216 6/13/17 Pup-Pipes:

Stamp / Man number:

5/31/2017

Date cleared:

27620

Setout performed by:

Material clearance:

BLafleur

Cleared by:

SCOTT JOHNSON

ID .

7891

Ball Valve 2"-12"Sub Set-Out Reports

Form E-VP-1058C

Sub-Assy Serial NO.	Upper Shell/E	Rev ⁰³	Lower Shell P/N 2014658-03-95	l/Body Rev ⁰³	<i>Pl</i> /N 561303-04-20	ug/Ball 1-26 Rev 01	
20.000	Serial No	Heat No	Serial No	Heat No	Serial No	Heat No	Comments
1	s/n 4510454710-10-124	hn HN24935	s/n 4510460096-10-83	hn 24935	s/n 4510979883-	h/n 429587	SV 1-15
2	s/n 4510454710-10-182	hn HN24935	s/n 4510460096-10-18	hn 24935	s/n 4510979883-	h/n 429587	
3	s/n 4510454710-10-146	hn HN24935	s/n 4510460096-10-12	hn 24935	s/n 4510979883-	h/n 429587	"
4	s/n 4510454710-10-179	hn HN24935	s/n 4510460096-10-59	hn 24935	s/n 4510979883-	h∕n 429587	
5	s/n 4510454710-10-109	hn HN24935	s/n 4510460096-10-102	hn 24935	s/n 4510979883-	h/n 429587	
3	s/n 4510454710-10-99	hn HN24935	s/n 4510460096-10-54	hn 24935	s/n 4510979883-	h/n 429587	
7	s/n 4510454710-10-30 ·	hn HN24935	s/n 4510460096-10-02	hn 24935	s/n 4510979883-	h/n 429587	
3	s/n 4510454710-10-134	hn HN24935	s/n 4510460096-10-64	hn 24935	s/n 4510979883-	h/n 429587	
9	s/n 4510454710-10-64	hn HN24935	s/n 4510460096-10-44	hn 24935	s/n 4510979883-	h/n 429587	
10	s/n 4510454710-10-43	hn HN24935	s/n 4510460096-10-69	hn 24935	s/n 4510979883-	h/n 429587	
11	s/n 4510454710-10-89	hn HN24935	s/n 4510460096-10-58	hn 24935	s/n 4510979883-	h/n 429587	
12	s/n 4510454710-10-115	hn HN24935	s/n 4510460096-10-08	hn 24935	s/n 4510979883-	h/n 429587	
13	s/n 4510454710-10-72	hn HN24935	s/n 4510460096-10-98	hn 24935	s/n 4510979883-	h/n 429587	
14	s/n 4510454710-10-80	hn HN24935	s/n 4510460096-10-106	hn 24935	s/n 4510979883-	h/n 429587	
15	s/n 4510454710-10-107	hn HN24935	s/n 4510460096-10-56	hn 24935	s/n 4510979883-	h/n 429587	
16	s/n 4510454710-10-67	hn HN24935	s/n 4510460096-10-22	hn 24935	s/n 4510979883-	h/n 429587	

Forging Up Shell Part no	2014657-03-95		Forging	Plug Part no:	561303-04-20-26	_	
Forging Lw Shell Part no.	2014658-03-95	·					
Comments:				and the second second second			
Employee	Date completed:	9/21/2016	QA employee	lafleurb	j	Date approved	9/28/201

ID

7891

Ball Valve 2"-12"Sub Set-Out Reports

Form E-VP-1058C

Assy Part No:	508070-04-06-19	Rev:	03	Work order no:	120830	0273	Size:	4	•	
<i>Trim:</i>		Valve .		Qty :	20	Sp(s):				

Sub-Assy	Upper Shell/L	Body	Lower Shell	/Body	Plug/I		
Serial NO.	P/N 2014657-03-95	Rev03	P/N 2014658-03-95	Rev03	P/N 561303-04-20-26	Rev	_
	Serial No	Heat No	Serial No	Heat No	Serial No	Heat No	Comments
17	s/n 4510454710-10-40	hn HN24935	s/n 4510460096-10-24	hn 24935	s/n 4510979883- h/n	429587	
18	s/n 4510454710-10-112	hn HN24935	s/n 4510460096-10-93	hn 24935	s/n 4510979883- h/n	429587	
19	s/n 4510454710-10-158	hn HN24935	s/n 4510460096-10-74	hn 24935	s/n 4510979883- h/n	429587	
20	s/n 4510454710-10-16A	hn HN24935	s/n 4510460096-10-81	hn 24935	s/n 4510979883- h/n	429587	

Forging Up Shell Part no:	2014657-03-95		Forging I	Plug Part no:	561303-04-20-26		
Forging Lw Shell Part no:	2014658-03-95						
Comments:							
Employee	Date completed:	9/21/2016	QA employee	lafleurb	De	ate approved	9/28/2016
			_				

ID

8213

Ball Valve 2"-12"Sub Set-Out Reports

Form E-VP-1058C

Assy Part No:	508070-04-06-19	Rev: 03	Work order no:	12094.	1776	Size :	<u>4"</u>	
<i>Trim:</i>		Valve:	Qty :	20	Sp(s):			

Sub-Assy	Upper Shell/L	Body	Lower Shell	Body (Body	Plug/	Ball	
Suv-Assy Serial NO.	P/N 2014657-03-95	Rev 03	<i>P/N</i> 2014658-03-95	Rev	P/N 561303-04-20-26	Rev	
	Serial No	Heat No	Serial No	Heat No	Serial No	Heat No	Comments
1	s/n 4511187306-10-64	hn 28985	s/n 4511171381-10-177	hn 28985	s/n 4511169945 h/n	n 429587	AS 1-20
2	s/n 4511187306-10-37	hn 28985	s/n 4511171381-10-122	hn 28985	s/n 4511169945- h/s	n 429587	
3	s/n 4511187306-10-63	hn 28985	s/n 4511171381-10-132	hn 28985	s/n 4511169945- h/s	n 429587	
1	s/n 4511187306-10-44	hn 28985	s/n 4511171381-10-143	hn 28985	s/n 4511169945- h/n	n 429587	
j	s/n 4511187306-10-51	hn 28985	s/n 4511171381-10-142	hn 28985	s/n 4511169945- h/s	n 429587	
3	s/n 4511187306-10-38	hn 28985	s/n 4511171381-10-120	hn 28985	s/n 4511169945- h/s	n 429587	
7	s/n 4511187306-10-67	hn 28985	s/n 4511171381-10-173	hn 28985	s/n 4511169945- h/s	n 429587	
3	s/n 4511187306-10-73	hn 28985	s/n 4511171381-10-139	hn 28985	s/n 4511169945- h/s	n 429587	
)	s/n 4511187306-10-62	hn 28985	s/n 4511171381-10-123	hn 28985	s/n 4511169945- h/s	n 429587	
10	s/n 4511187306-10-39	hn 28985	s/n 4511171381-10-124	hn 28985	s/n 4511169945- h/s	n 429587	
	s/n 4511187306-10-55	hn 28985	s/n 4511171381-10-162	hn 28985	s/n 4511169945- h/n	'n 429587	
12	s/n 4511187306-10-52	hn 28985	s/n 4511171381-10-147	hn 28985	s/n 4511169945- h/s	n 429587	
13	s/n 4511187306-10-57	hn 28985	s/n 4511171381-10-115	hn 28985	s/n 4511169945- h/s	'n 429587	
14	s/n 4511187306-10-56	hn 28985	s/n 4511171381-10-116	hn 28985	s/n 4511169945- h/s	'n 429587	
15	s/n 4511187306-10-60	hn 28985	s/n 4511171381-10-119	hn 28985	s/n 4511169945- h/s	n 429587	
16	s/n 4511187306-10-75	hn 28985	s/n 4511171381-10-145	hn 28985	s/n 4511169945- h/s	n 429587	

Forging Up Shell Part no:	2014657-03-95		Forging .	Plug Part no:	561300-04-20-26		
Forging Lw Shell Part no:	2014658-03-95	<u></u>					
Comments:							
Employee	Date completed:	5/1/2017	QA employee	manuelpa		Date approved	5/30/201

ID

8213

Ball Valve 2"-12"Sub Set-Out Reports

Form E-VP-1058C

Assy Part No:

508070-04-06-19

Rev: 03

Work order no: 120941776

Size:

Trim:

Valve:

Qty:

20 Sp(s):

Sub-Assy	Upper Shell/I	Upper Shell/Body		l/Body	Plug/Bai	Plug/Ball		
Serial NO.	P/N 2014657-03-95	Rev 03	P/N 2014658-03-95	Rev 03	P/N 561303-04-20-26	<i>Rev</i> 01		
	Serial No	Heat No	Serial No	Heat No	Serial No	Heat No	Comments	
17	s/n 4511187306-10-40	hn 28985	s/n 4511171381-10-156	hn 28985	s/n 4511169945- h/n	429587		
18	s/n 4511187306-10-79	hn 28985	s/n 4511171381-10-133	hn 28985	s/n 4511169945- h/n	429587		
19	s/n 4511187306-10-72	hn 28985	s/n 4511171381-10-178	hn 28985	s/n 4511169945- h/n	429587		
20	s/n 4511187306-10-02	hn 28985	s/n 4511171381-10-180	hn 28985	s/n 4511169945- h/n	429587		

Forging Up Shell Part no:	2014657-03-95		Forging Plu	g Part no:	561300-04-20-26		
Forging Lw Shell Part no:	2014658-03-95						
Comments:							į
Employee	Date completed:	5/1/2017	QA employee m	anuelpa		Date approved	5/30/2017



INSPECTION TEST CERTIFICATE

UNI EN 10204 3.1



No.130/2017/2

Customer	CAM ENGINEERED VAL - VILLE PLATTE CAMERON								
Purchase Order	4511400690	Our Order	17/170085		Material	A350 LF2 CL.1			
Specification	MS-021239-02-02 R.01, MS-	Rev.10	Standard	ASTM					
Supply condition	Forged, Normalized, Finished	to drawing							
•			•						

	ARTICLE										
Pos.	Qty	Description	Heat no								
30		E/C 4" API 150/600 WE B/M T28 P/N 510303-04-10-51 R.03 Dwg. X-071203-04-10 R.01 Seat Pck BX-001399-04-02 R.04	16/70562								

HEAT TREATMENT											
Type	Heating	Temperature °C	Holding Time h	Cooling							
Normalized		930	1	Air							

	CHEMICAL ANALYSIS (%)													
Steel Maker Riva Acciaio Heat nr. 16/70562 Method of Manufacture EAF														
C % 0.23 max	Mn % 0.6-1.35	Si % 0.15-0.3	P % 0.025 max	S % 0.02 max	Ni % 0.4 max	Cr % 0.3 max	Mo % 0.12 max	Cu % 0.4 max	Al %	Sn %	V % 0.03 max	Т %		
0,1900	1,0500	0,1900	0,0150	0,0100	0,0600	0,1000	0,0100	0,1800	0,0250	0,0090	0,0020			
Nb % 0.02 max	Co %	Ti %	Ca %	Sb %	Pb %	As %	PRE % 0.43 max	C.Eq. % 1 max	Cu+Ni+Cr+V+Mo % Cr+Mo % 0.32 max			⊦Mo %		
0,0030 0,0160 0,4000 0,3520 0,110),1100							

MECHANICAL PROPERTIES Obtained on OTC: Obtained on part: No Yes, heat treated with parts Test Nr. Dia mm Area mm2 Lenght mm Direction L Yield point Tensile Test Reduction Elongation Hardness Test Temp Impact Test On QTC Temp (°C) Values °C Rp 0,2% (N/mm2) R (N/mm2) Dir. Values J A(%) Z (%) Type Type or Part 485-655 275 min 22 min 30 min KV 27 min A,21 min V HB143-197 RT 40-44-49 HB On QTC 339.0 525,0 31,4 56,4 KV -46 155,0 L Lateral expansion

Notes

Grain size

We hereby certify that the results reported on this test report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements. This is a EN 10204 Type 3.1 certificate. COVIS s.r.l is a ISO 9001:2008 certified facility, ref. certificate registration #44 100126915. CERTIFIED TO MEET EN10204/3.1

mm

Visual and dimensional check performed 100%: conforming. These components are verified to be free of radioactive contamination. Heat treatment performed using furnaces calibrated in accordance with API 6D 24th ed., Annex F or API 6A Annex M. Material in acc with NACE MR-01-75 last edition. Charpy impact specimen size: 10x10x55 mm.

By 162333 at 4:18 pm, 4/13/17

Conforming to the Original Certificate nr. 34773 RA - 2160950 FR - 5933 S **MS-021239-02-02 Rev 01**

Date COVIS S.R.L. COVIS S.R.L. Inspectors

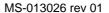
08/03/2017 Prepared by:

NCR



Approved by:







INSPECTION TEST CERTIFICATE

UNI EN 10204 3.1





No.342/2016/1

Customer	CAM ENGINEERED VAL - '	VILLE PLATTE CAMERON		
Purchase Order	4510979883	Our Order 15/150475		Material AISI 4130
Specification	MS-013026 Rev.01		Standard	AISI
Supply condition	Forged, Q+T, Finish machine	d to dwg., ENP		

	ARTICLE										
Pos.	Qty		Description	Heat no							
10	100,00	•	PLUG 4" API 150-600/2000 B/M; 1.5" Stem P/N 561303-04-20-26 Rev.01 Dwg. X-070333-04-20 R.06	429587							

HEAT TREATMENT												
Type	Heating	Temperature °C	Holding Time h	Cooling								
Quenched												
Tempered												

	CHEMICAL ANALYSIS (%)													
Steel Make	er Acciai Safau	erie Berto	li	Heat nr.	429587		Method of Manufacture							
C % 0.27-0.33	Mn % 0.4-1	Si % 0.15-0.3	P % 0.025 max	S % 0.025 max	Ni % 0.5 max	Cr % 0.8-1.15	Mo % 0.15-0.5	Cu % 0.35 max	Al %	Sn %	V % 0.05 max	Т%		
0,3000	0,4800	0,2400	0,0070	0,0020	0,1500	1,0100	0,2000	0,2100			0,0050			
Nb % Co % Ti % Ca %				Sb %	Pb %	As %	PRE %	C.Eq. %						

	MECHANICAL PROPERTIES														
Obtained on part: No					Obtai	ned on Ç		Yes, heat treated with parts							
Test N	lr.	Area mm2	mm2 Lenght mm Direction						L						
Temp	Yield point	Tensile Test	Elongation	Reduction		In	npact Te	st		Hardness Te	st				
°C	Rp 0,2% (N/mm2)	R (N/mm2)	A(%)	Z (%)	Type	Temp (°C	Dir.	Values J	Type	Values	On QTC				
	517 min	690 min	18 min	35 min	KV	-46	L	27min A,21 min V		207-235	or Part				
RT	721,0	780,0	24,4	71,0	KV	-46	L	58-66-62	HB	217,0	On QTC				
Grain size NCR						expansion nm									

Grain size

We hereby certify that the results reported on this test report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements. This is a EN 10204 Type 3.1 certificate. COVIS s.r.l is a ISO 9001:2008 certified facility, ref. certificate registration # 44 100126915.

CERTIFIED TO MEET EN10204/3.1

Visual and dimensional check performed 100%: conforming

These components are verified to be free of radioactive contamination.

NCR

Conforming to the Original Certificate nr. | 2160097FR-1422/2BTT-128840/1ABS

COVIS S.R.L. COVIS S.R.L. **Date**

Prepared by: 22/07/2016



Approved by:



SANKALP ENGINEERING & SERVICES PVT. LTD.

Gat No. 1093/I & 1093/I, Chakan Shikrapur Road, Karandi, T:- Shirur, Dist:- Pune.412208

www.sankalpenggservices.com sales@sesglobal.in

Material Test Certificate EN 10204 Type 3.1

Certificate No. SES/CAM/MCC/ 015/067

Date

June 1, 2015

Customer name & address: CAM ENGINEERED VAL - VILLE PLATTE

Die No:	1357	Heat Code	B5C018	Qty supplied	200 Nos	
Product details	LOWER BODY 4" CLASS 150-600 WITH 1/2" NPT DRAIN PORT	Heat No.	24935	Material grade:	ASTM A350 Gr LF2 Class 1	
Part No.	2014658-03-95 Rev. 01	PO No	4510460096	Line Item	00010	
Melting Pract	MBF/EAF/LF/VD/CCP/RM	Cam. Std.	MS-007039-05 Rev.03	Reduction Ratio	10.80:1	

Product supply condition: Forged , Heat Treated & Machined

Che	mistry					APPROVED
6	Ni %	Nb%	V%	Cu%	C.E.	By 96766 at 3:56 pm, 6/18/15
	-	-	-	-	-	MS-007039-05 REV.03

		C%	Mn%	Si%	P%	S%	Cr%	Mo%	Ni %	Nb%	V%	Cu%	C.E.
Required	Min.	-	-	0.15	-	-	-	-	-	-	-	-	-
	Max	0.21	1.35	0.30	0.030	0.030	0.30	0.12	0.40	0.02	0.05	0.40	0.43
Observed		0.17	1.24	0.25	0.012	0.005	0.018	0.002	0.12	0.0002	0.002	0.01	0.41

0.12	0.40	0.02	0.05	0.40	0.43

				Heat treatmer	nt Process details				
Procedure		-	Quality Plan	-	HT Lot No .	SF - 2803	QTC Type	Sacrificial	
Heat Treatment Fu	rnace	Coutinuo	us Hardening & Temperi	ng Furnace	Temperature Monitori	ng Method		A	

Heat Treatment : Quenched & Tempered

		Austenizing	Soaking	Quenching	Quenchant Temperature	Tempering	Soaking	Cooling
Required	Min.	-	_	Water		-		Air cooling
Required	Max.	-	-	water		-	-	All cooling
Actual		930°C	2 hours	Water	Before = 38°C After = 39°C	680°C	3 hours	Air cooling

Mechanical Properties

	T.S	Y.S	RA%	Elongation %	at		y Impact Te		QTC Hardness HB	Part Hardness HB	Remarks
	Мра	Мра	KA/6	Liongation 78	aı	at -46°C in longitudinal direction- Size- 10 X 10 X 55 mm			Q10 Halulless Hb	Fait Haidiless HB	Remarks
Required	483 - 559	277 Min	30% Min	22% Min	Min. A	Min. Avg. 27J Min. Individual 21J		197 HB Max.	197 HB Max.	Accepted	
Observed	520.59	371.92	72.16	37.96	250	260	266	258.66J	156 HB	156-170 HB	Accepted

NDE Testing

- 1) MPI tested as per ASTM E709 & found ok
- 2) The products supplied are tested for radio active contamination. & found free from radioactive elements.

Conclusion and remarks: The batch complies with the Specification requirements & hence accepted.

Prepared by:

NAME: Sandeep

SIGN:

DATE: June 1, 2015 DEPARTMENT : Q.A.



Approved by :

NAME: M.M.KSHIRSAGAR

SIGN:

June 1, 2015 DATE: DEPARTMENT : Q.A.

SANKRILP

SANKALP ENGINEERING & SERVICES PVT. LTD.

Gat No. 1093/I & 1093/I, Chakan Shikrapur Road, Karandi, T:- Shirur, Dist:- Pune.412208 www.sankalpenggservices.com sales@sesglobal.in

Material Test Certificate EN 10204 Type 3.1

Certificate No. SES/CAM/MCC/ 015/068 Date

June 1, 2015

Customer name & address: CAM ENGINEERED VAL - VILLE PLATTE

Die No:	1356	Heat Code	B5C018	Qty supplied	200 Nos
Product details:	UPPER BODY 4"ANSI150-600T31-FINIS	Heat No.	24935	Material grade:	ASTM A350 Gr LF2 Class 1
Part No.	2014657-03-95 Rev. 01	PO No	4510454710	Line Item	00010
Melting Practice	MBF/EAF/LF/VD/CCP/RM	Cam. Std.	MS-007039-05 Rev.03	Reduction Ratio	10.80:1

Product supply condition: Forged , Heat Treated & Machined

Chemistry

APPROVED

		C%	Mn%	Si%	P%	S%	Cr%	Mo%	Ni %	Nb%	V%	Cu%	C.E.	By 96766 at 3:40 pm, 6/18/15
Required	Min.	-	-	0.15	-	-	-	-	-	-	-	-	-	
required	Max	0.21	1.35	0.30	0.030	0.030	0.30	0.12	0.40	0.02	0.05	0.40	0.43	MS-007039-05 REV.03
Observed		0.17	1.24	0.25	0.012	0.005	0.018	0.002	0.12	0.0002	0.002	0.01	0.41	

Heat treatment Process details

Procedure	-	Quality Plan	-	HT Lot No .	SF - 2803	QTC Type	Sacrificial
Heat Treatment Fun	nace Coutinu	ous Hardening & Temperi	ng Furnace	Temperatu	re Monitoring Method		A

Heat Treatment : Quenched & Tempered

		Austenizing	Soaking	Quenching	Quenchant Temperature	Tempering	Soaking	Cooling
Required	Min.	-		Water		-		Air cooling
Required	Max.	-	-	vvalei		-	-	All Cooling
Actual		930°C	2 hours	Water	Before = 35°C After = 39°C	680°C	3 hours	Air cooling

Mechanical Properties

	T.S	Y.S	RA%	Elongation %	at	Charpy Impact Test at -46°C in longitudinal direction-				Part Hardness HB	Remarks	
	Мра	Мра	10470	Liongation //	aı	at -46°C in longitudinal direction- Size- 10 X 10 X 55 mm			HB	r ait i laiulless i lb	Remarks	
Required	483 - 559	277 Min	30% Min	22% Min	Min. A	Avg. 27J	Min. In	dividual 21J	197 HB Max.	197 HB Max.	Accepted	
Observed	520.59	371.92	72.16	37.96	250	260	266	258.66J	156HB	156-170 HB	Accepted	

NDE Testing

- 1) MPI tested as per ASTM E709 & found ok
- 2) The products supplied are tested for radio active contamination. & found free from radioactive elements.

Conclusion and remarks: The batch complies with the Specification requirements & hence accepted.

Prepared by :

NAME: SANDEEP

SIGN:

DATE: June 1, 2015
DEPARTMENT: Q.A.

Approved by :

NAME: M.M.KSHIRSAGAR

SIGN:

DATE: June 1, 2015
DEPARTMENT: Q.A.



257 Holloway Boulevard Ville Platte, LA 70586-9778 Tel: 337-363-7500

Production Order: 120969711		Seria	ll Number: 1
Part Number: CAM-BV	Rev: 01	V	alve Type: T31
End Connections: WE x WE	<u> </u>	,	Valve Size: 4.00
Bore Type: Full	Ī	,	ANSI Class: 300
Test Date: 6/1/2017	Ī		
Test Type: Test		Overall Val	ve Length: 14.0000 inches
Seat Type: DBB		Ove	rall Result: Pass
Comments:			Tested With Pup Pipe: No
			ested With Extension: No
<u> </u>			
Test Procedure: bx-1200-8-95	ev: <u>12</u>	Test Procedure:	Rev:
	ev:	Test Procedure:	Rev:
Test Procedure: R	ev:	Test Procedure:	Rev:
Test Procedure: R	ev:	Test Procedure:	Rev:
Test Procedure: R	ev:	Test Procedure:	Rev:
Hydro Test			
Tester: 27719 - Salvator Difulco		enter: 75292 - Cam 2-6	
	te: <mark>8/6/2017</mark>	Test Medi	um: Water, Glycol, Rust Inhibitor
Gage #: Due Da			
Gage #: Due Da		5 11 5	,
Low Pressure Body: 1 Min @		Result: Pass Result: Pass	
Hydro Body: 2 Min @ Seat A: 2 Min @		Result: Pass	
Seat B: 2 Min @		Result: Pass	
DoubleBlock: 2 Min @		Result: Pass	
Are Charts Required? No			
Is Cavity Relief Test Required? No			
Is Torque Test Required?			
Is Air Test Required?			
Is Nitrogen Body Test Required? No			
Is Nitrogen Seat Test Required? No			
Is Drift Test Required?			
Is Function Test Required: No			
Shell Test – No visible leakage permitted. Seat Leakage for soft seated valves – No visible le			
Seat leakage for metal seated valves shall be as a	greed upon with the c	customer, reference the a	pplicable test procedure.



257 Holloway Boulevard Ville Platte, LA 70586-9778 Tel: 337-363-7500

Production Order: 120969711		Serial Nu	mber: 2
Part Number: CAM-BV	Rev: 01	Valve	Type: T31
End Connections: WE x WE	= = = = = = = = = = = = = = = = = = =	Valve	e Size: 4.00
Bore Type: Full		ANSI	Class: 300
Test Date: 6/1/2017			
Test Type: Test		Overall Valve Le	ength: 14.0000 inches
Seat Type: DBB		Overall F	esult: Pass
Comments:	-	Teste	ed With Pup Pipe: No
			d With Extension: No
<u> </u>			a With Execusion 140
Test Procedure: bx-1200-8-95	Rev: 12	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Hydro Test			
Tester: 27719 - Salvator Difulco	Workce	enter: 75292 - Cam 2-6	
	Date: 8/6/2017	Test Medium:	Water, Glycol, Rust Inhibitor
Gage #: Due [
Gage #: Due [. —	
Low Pressure Body: 1 Min		Result: Pass	
Hydro Body: 2 Min		Result: Pass	
Seat A: 2 Min		Result: Pass	
Seat B: 2 Min DoubleBlock: 2 Min		Result: Pass	
	@ <u>825</u> PSI	Result: Pass	
Are Charts Required? No			
Is Cavity Relief Test Required? No			
Is Torque Test Required?			
Is Air Test Required?			
Is Nitrogen Body Test Required? No			
Is Nitrogen Seat Test Required? No			
Is Drift Test Required?			
Is Function Test Required:			
Shell Test – No visible leakage permitted.			
Seat Leakage for soft seated valves – No visible	leakage permitted.		
Seat leakage for metal seated valves shall be as	agreed upon with the c	ustomer, reference the applic	able test procedure.



257 Holloway Boulevard Ville Platte, LA 70586-9778 Tel: 337-363-7500

Production Order: 120969711]	Se	erial Number: 3	
Part Number: CAM-BV	Rev: 01		Valve Type: T31	
End Connections: WE x WE	<u> </u>		Valve Size: 4.00	
Bore Type: Full	Ī		ANSI Class: 300	
Test Date: 6/1/2017	Ī			
Test Type: Test	Ī	Overall \	Valve Length: 14.00	00 inches
Seat Type: DBB	j	0	verall Result: Pass	
Comments:	-		Tested With Pup	Pine: No
			Tested With Exten	• ====
<u> </u>			Tested With Exten	
Test Procedure: bx-1200-8-95	v: 12	Test Procedure:		Rev:
Test Procedure: Re	v:	Test Procedure:		Rev:
Test Procedure: Re	v:	Test Procedure:		Rev:
Test Procedure: Re	v:	Test Procedure:		Rev:
Test Procedure: Re	v:	Test Procedure:		Rev:
Hydro Test				
Tester: 27719 - Salvator Difulco		enter: 75292 - Cam 2-6	5	
<u> </u>	e: <mark>8/6/2017</mark>	Test Me	edium: Water, Glyco	l, Rust Inhibitor
Gage #: Due Dat				
Gage #: Due Dat			-	
Low Pressure Body: 1 Min @	40/80 PSI	Result: Pass	<u> </u>	
Hydro Body: 2 Min @ Seat A: 2 Min @	1125 PSI 825 PSI	Result: Pass Result: Pass	╡	
Seat B: 2 Min @	825 PSI	Result: Pass	=	
DoubleBlock: 2 Min @	825 PSI	Result: Pass	=	
	. 51	Resulti Fuss		
Are Charts Required? No				
Is Cavity Relief Test Required? No				
Is Torque Test Required?				
Is Air Test Required?				
Is Nitrogen Body Test Required? No				
Is Nitrogen Seat Test Required? No				
Is Drift Test Required?				
Is Function Test Required: No				
Shell Test – No visible leakage permitted. Seat Leakage for soft seated valves – No visible lea Seat leakage for metal seated valves shall be as ag		ustomer, reference the	e applicable test pro	cedure.



257 Holloway Boulevard Ville Platte, LA 70586-9778 Tel: 337-363-7500

Production Order: 120969711]	S	erial Number: 4	
Part Number: CAM-BV	Rev: 01		Valve Type: T31	
End Connections: WE x WE	<u> </u>		Valve Size: 4.00	
Bore Type: Full			ANSI Class: 300	
Test Date: 6/1/2017]			
Test Type: Test	<u> </u>	Overall	Valve Length: 14.00	00 inches
Seat Type: DBB		(Overall Result: Pass	
Comments:	_		Tested With Pup	Pine: No
			Tested With Exten	• ====
			Tested With Exten	
Test Procedure: bx-1200-8-95	ev: 12	Test Procedure:		Rev:
Test Procedure: Re	ev:	Test Procedure:		Rev:
Test Procedure: Re	ev:	Test Procedure:		Rev:
Test Procedure: Re	ev:	Test Procedure:		Rev:
Test Procedure: Re	ev:	Test Procedure:		Rev:
Hydro Test				
Tester: 27719 - Salvator Difulco		enter: 75292 - Cam 2-	-6	
<u> </u>	e: <mark>8/6/2017</mark>	Test M	1edium: Water, Glyco	l, Rust Inhibitor
Gage #: Due Dat				
Gage #: Due Dat				
Low Pressure Body: 1 Min @	40/80 PSI	Result: Pass	 	
Hydro Body: 2 Min @ Seat A: 2 Min @	1125 PSI 825 PSI	Result: Pass		
Seat A: 2 Min @ Seat B: 2 Min @	825 PSI 825 PSI	Result: Pass Result: Pass		
DoubleBlock: 2 Min @	825 PSI	Result: Pass		
	13.	rtesurer <u>r uss</u>		
Are Charts Required? No				
ls Cavity Relief Test Required? No				
Is Torque Test Required? No				
ls Air Test Required?				
Is Nitrogen Body Test Required? No				
Is Nitrogen Seat Test Required? No				
Is Drift Test Required?				
Is Function Test Required:				
Shell Test – No visible leakage permitted. Seat Leakage for soft seated valves – No visible lea Seat leakage for metal seated valves shall be as ag		customer, reference th	ne applicable test pro	cedure.



257 Holloway Boulevard Ville Platte, LA 70586-9778 Tel: 337-363-7500

Production Order: 120969711		Seria	al Number: 5
Part Number: CAM-BV	Rev: 01	V	′alve Туре: ТЗ1
End Connections: WE x WE	= -		Valve Size: 4.00
Bore Type: Full			ANSI Class: 300
Test Date: 6/1/2017	\neg		
Test Type: Test		Overall Va	ve Length: 14.0000 inches
Seat Type: DBB		Ove	rall Result: Pass
Comments:			Tested With Pup Pipe: No
			ested With Extension: No
		<u>_</u>	ested With Extension. Ivo
Test Procedure: bx-1200-8-95	Rev: 12	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Hydro Test	_		_
Tester: 27719 - Salvator Difulco	Workce	enter: 75292 - Cam 2-6	
	Date: 8/6/2017	Test Med	um: Water, Glycol, Rust Inhibitor
	Date:		
	Date:		
Low Pressure Body: 1 Min		Result: Pass	
Hydro Body: 2 Min		Result: Pass	
Seat A: 2 Min		Result: Pass	
Seat B: 2 Min		Result: Pass	
DoubleBlock: 2 Min	@ 825 PSI	Result: Pass	
Are Charts Required? No			
Is Cavity Relief Test Required? No			
Is Torque Test Required?			
Is Air Test Required?			
Is Nitrogen Body Test Required? No			
Is Nitrogen Seat Test Required? No			
Is Drift Test Required?			
Is Function Test Required:			
Shell Test – No visible leakage permitted.			
Seat Leakage for soft seated valves – No visible	leakage permitted.		
Seat leakage for metal seated valves shall be as	s agreed upon with the c	ustomer, reference the a	pplicable test procedure.



257 Holloway Boulevard Ville Platte, LA 70586-9778 Tel: 337-363-7500

Production Order: 120969711		Seria	ll Number: 6
Part Number: CAM-BV	Rev: 01	V	alve Type: T31
End Connections: WE x WE	=	,	Valve Size: 4.00
Bore Type: Full	Ħ	,	ANSI Class: 300
Test Date: 6/1/2017	╗		
Test Type: Test		Overall Val	ve Length: 14.0000 inches
Seat Type: DBB		Ove	rall Result: Pass
Comments:			Tested With Pup Pipe: No
			ested With Extension: No
<u> </u>			ested With Extension. Ito
Test Procedure: bx-1200-8-95	Rev: 12	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Test Procedure:	Rev:	Test Procedure:	Rev:
Hydro Test			_
Tester: <u>27719 - Salvator Difulco</u>	Workce	nter: 75292 - Cam 2-6	
	ate: <mark>8/6/2017</mark>	Test Medi	um: Water, Glycol, Rust Inhibitor
Gage #: Due D			
Gage #: Due Di			
Low Pressure Body: 1 Min (Result: Pass	
Hydro Body: 2 Min (Result: Pass	
Seat A: 2 Min (Result: Pass	
Seat B: 2 Min (Result: Pass	
DoubleBlock: 2 Min @	ම <u>825</u> PSI	Result: Pass	
Are Charts Required? No			
Is Cavity Relief Test Required? No			
Is Torque Test Required?			
Is Air Test Required?			
Is Nitrogen Body Test Required? No			
Is Nitrogen Seat Test Required? No			
Is Drift Test Required?			
Is Function Test Required:			
Shell Test – No visible leakage permitted.			
Seat Leakage for soft seated valves – No visible l	eakage permitted.		
Seat leakage for metal seated valves shall be as	agreed upon with the c	ustomer, reference the a	pplicable test procedure.



Hydrostatic Test Documentation

API-6D

Customer: Pacific Gas and Electric Co (PG&E) - GAS Line Number: JOB #174932-7 Tag #:

Actuator Type/Size: Valve Type/Size: ball

Actuator Type/Size:			Valve Type/Size: ball	Valve Type/Size: ball		
Technician	QC Tech		Step	Value 1	Value 2	
N/A	Aaron Taylor - 25-02-2021	Valve Manufacturer		cameron		
N/A	Aaron Taylor - 25-02-2021	Valve Model and Valve End Connections		ball		
N/A	Aaron Taylor - 25-02-2021	Valve Size		4		
N/A	Aaron Taylor - 25-02-2021	Valve Rating		300		
N/A	Aaron Taylor - 25-02-2021	Valve Serial/Body		120969711-1		
N/A	Aaron Taylor - 25-02-2021	Shell Test Completed:		YES		
N/A	Aaron Taylor - 25-02-2021	Min Req Test Pressure (PSI)		1125		
N/A	Aaron Taylor - 25-02-2021	Test Pressure (PSI)		1200		
N/A	Aaron Taylor - 25-02-2021	Duration		2min		
N/A	Aaron Taylor - 25-02-2021	Test Medium		WATER		
N/A	Aaron Taylor - 25-02-2021	Test Medium Temp		AMBIENT		
N/A	Aaron Taylor - 25-02-2021	Seat Test Completed:		YES		
N/A	Aaron Taylor - 25-02-2021	Min Req Test Pressure (PSI)		825		
N/A	Aaron Taylor - 25-02-2021	Test Pressure (PSI)		850		
N/A	Aaron Taylor - 25-02-2021	Duration		2min		
N/A	Aaron Taylor - 25-02-2021	Test Medium		WATER		
N/A	Aaron Taylor - 25-02-2021	Test Medium Temp		AMBIENT		
N/A	Aaron Taylor - 25-02-2021	Seat Test Completed:		YES		
N/A	Aaron Taylor - 25-02-2021	Min Req Test Pressure (PSI)		825		
N/A	Aaron Taylor - 25-02-2021	Test Pressure (PSI)		850		
N/A	Aaron Taylor - 25-02-2021	Duration		2min		
N/A	Aaron Taylor - 25-02-2021	Test Medium		WATER		
N/A	Aaron Taylor - 25-02-2021	Test Medium Temp		AMBIENT'		
N/A	N/A	Back Seat Completed:				
N/A	N/A	Min Req Test Pressure (PSI)				
N/A	N/A	Test Pressure (PSI)				
N/A	N/A	Duration				
N/A	N/A	Test Medium				
N/A	N/A	Test Medium Temp				
N/A	Aaron Taylor - 25-02-2021	Gauge SN		89619-04		
N/A	Aaron Taylor - 25-02-2021	Gauge Class		3000		
N/A	Aaron Taylor - 25-02-2021	Gauge Cal. Due Date		3-8-21		
N/A	N/A	Relief Valve Pressure set at:				
N/A	Aaron Taylor - 25-02-2021	Air Seat Test Completed:		yes		
N/A	Aaron Taylor - 25-02-2021	Min Req Test Pressure (PSI)		80		
N/A	Aaron Taylor - 25-02-2021	Test Pressure (PSI)		85		
N/A	Aaron Taylor - 25-02-2021	Duration		2mins		
N/A	Aaron Taylor - 25-02-2021	Test Medium		AIR		
N/A	Aaron Taylor - 25-02-2021	Test Medium Temp		ambient		
N/A	N/A	Double Block and Bleed Test Completed:				
N/A	N/A	Min Req Test Pressure (PSI)				
N/A	N/A	Test Pressure (PSI)				
N/A	N/A	Duration				
N/A	N/A	Test Medium				
N/A	N/A	Test Medium Temp				
N/A	N/A	Actuator Cover/Plugs installed and tightened				
N/A	N/A	Stem Protector Installed				
N/A	Aaron Taylor - 25-02-2021	Flange protectors installed and secured		YES		
N/A	Aaron Taylor - 25-02-2021	Green Tag attached		YES		

N/A	N/A	Paint Defects (Touch up if required)		
N/A	N/A	Visually Inspect for cosmetic issues (grease smudges, handprints present on product, etc.)		
N/A	N/A	Lubelines Greased		
N/A	N/A	Set Check Valve to Valve Working Pressure		
N/A	Aaron Taylor - 25-02-2021	Verification of Line Number	1	
N/A	Aaron Taylor - 25-02-2021	Verification of Valve Left in Open/Close Position (Ball Valves=Open, All Other Valves=Closed)	OPEN	
N/A	Aaron Taylor - 25-02-2021	Valve Is Clean And Cosmetically Acceptable	YES	
N/A	N/A	Check All Connections For Proper Installation Verification		
N/A	N/A	Cavity Test Completed		
N/A	N/A	Chart Recorder Serial Number		
N/A	N/A	Torque Values Verified		



Coating Reports



9216 WINDMILL PARK HOUSTON, TEXAS 77064 PHONE 281 *894 *6900 FAX 281 *955 *1331

Job Number

2054053-02

Certificate of Conformance

To: C.I. ACTUATION 1619 E. RICHEY RD Houston, TX 77073 United States From: Lone Star Corrosion Services

Packing List No:

1514715

Shipping Date:

3/5/2021

Today's Date:

03/05/2021

Revision

PO Number:

730026

Quantity

Shipped Unit

EΑ

Description

4 INCH 300# 4 INCH 300# CAMERON T31

JOB NO: 174932 SN: 120969711-1

PG&E PO: 3501250975

COAT PER EMS-4125 REV 1

This is to certify that the equipment listed above conforms to the guidelines and/or customer specifications requirements.

Manual D



9216 WINDMILL PARK LANE HOUSTON, TEXAS 77064 PHONE 281089406900 FAX 281095501331

oating F													
Work Orde		1053-02					nber: 7300		Tr	Via Date	e: 03/15/2021		
Customer:								21	Due Date: 03/15/2021 SERIAL #				
	QNTY		RIPTION			PART#		100			2		
2	1	4 INCH 300# CAMERON T31 4				SN: 12			120	NO: 174932 20969711-1 E NO: 3501250975			
Specificati	on#	EMS-41	25 REV 1										
	ANUAG		conc en			Cleanin	ng inspected	hv	M	N			
PRE-CLE		d bus	SSPC SP1			Maskin	g Inspected	By:	M				
Masking c	MI			VG QC			rator	-	TPI				
BLAST SP-			.0 2.			V	ICTOR						
Air Quality	Test Re	sults	PASS	P	rofile re	eadings a	re in MILS						
			DFT MIN	DFT MA	V	THINNE	R %	PAINTE	R		DFT AV.		
1ST AMERLO	CK 400		5.0	7.		Trinivio	.1170		JOS	E	6.7		
2 ND													
3 RD													
4 TH													
TOTAL DFT	AVG.		5.0	7.	.0				_		6.7		
Et til Cil			WHITE					No	ote:	All DFT re	eadings are in MILS		
Finish Colo		KO 6000		03 EXP. on 0	06/24/2	2021		Sp	ray	ay Type: Conventional Spray			
DIT ONCO	2.02.22												
Comment	s:												
NOTE: All te	emperatu	re reading	gs and dew p	oint is in °F	and the	e humidit	y readings ar	e %.					
	Wet	Dry	S/T	Humidit	ty	Dew P.	Date	Ti	me	Bate	ch numbers A/B/C		
Blast	53	64	65	48		43	03/04/202	21 10	1000				
1st Coat	54	67	67	41		42	03/04/202	21 11	100	90517	62835/9003775669		
2 nd Coat	1												
3 rd Coat										-			
4 th Coat													
CONANAENIT	c. D! OTT	D TEST H	OLIDAY TEST	ALL ACCEP	TABLE								
COMMISSION	J. DECTIL												
ADHESI	ON TEST	r	TEST 1			TEST :	2		T	TEST 3			
RESULT													
Ma	nuel Ga	rcia		0:	3/05/2	2021	_				ruel García		
Q.A. Print Name					D	ATE				Q./	Q.A. Signature		

