

**INVENT CAST PVT. LTD.**

F QA 05 (00 / 01.05.16)

Plot No. G - 561, Road 1 - D, Kishan Gate, GIDC Metoda, Dist. Rajkot, Gujarat (India)
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INSPECTION CERTIFICATE

As per EN 10204 3.1

Name of Customer :
L&T Valves Limited
L&T CAMPUS, L&T BYPASS ROAD, MALUMICHAMPPATTI,
POST BAG NO:607-655,
Coimbatore - 641050 (Tamilnadu, INDIA)

TC No. : 749 Date : 31/05/2019
Invoice No. : GT/0547 Date : 31/05/2019

Foundry Logo :

Specification : ASTM A216/A216M-16 Gr.WCB**CHEMICAL ANALYSIS**

Heat No.	C %	Mn %	Si %	S %	P %	Cr %	Ni %	Mo %	Cu %	V %	CE		
Min.													
Max.	0.250	1.000	0.600	0.035	0.035	0.500	0.500	0.200	0.300	0.030	0.430		
K236C	0.200	0.768	0.298	0.012	0.017	0.095	0.063	0.019	0.043	0.011	0.360		
K237C	0.195	0.818	0.322	0.011	0.016	0.109	0.088	0.026	0.057	0.008	0.370		
J205L	0.200	0.860	0.361	0.006	0.020	0.101	0.114	0.025	0.046	0.003	0.380		

MECHANICAL PROPERTIES

Heat No.	YS 0.2 %	YS	TS	El. GL (25mm)	R.A. %	Hardness					Shear Area					Shear Area
	MPa		MPa			BHN										
Min.	250.00		485.00	22.00	35.00											
Max.	--		655.00	--	--	180.00	1	2	3	Avg		1	2	3	Avg	
K236C	483.96		636.33	28.80	52.03	147-153										
K237C	476.69		633.86	33.16	59.51	144-150										
J205L	325.30		519.97	35.92	54.99	143-150										

HEAT TREATMENT DETAILS

HEAT TREATMENT PROCESS - I					HEAT TREATMENT PROCESS - II				HEAT TREATMENT PROCESS - III			
Heat No.	Type of H/T	Soaked Temp. °C	Soaked Time Hrs	Cooling Media	Type of H/T	Soaked Temp. °C	Soaked Time Hrs	Cooling Media	Type of H/T	Soaked Temp. °C	Soaked Time Hrs	Cooling Media
K236C	Normalizing	920	1:30	A/C								
K237C	Normalizing	920	1:30	A/C								
J205L	Normalizing	920	1:30	A/C								

DESPATCH DETAILS

Heat No.	Pouring Date	Die No.	Part Description	Drg. No.	PO Sr. No.	Part No.	PO No.	OA No.	Qty.
K236C	16/03/2019	3540	2" 300# GTV BODY 133	BK0011V Rev.17	1	BK0011V-Y-A1 0CT8	10164157	1121/18-19	11
K237C	16/03/2019	3540	2" 300# GTV BODY 133	BK0011V Rev.17	1	BK0011V-Y-A1 0CT8	10164157	1121/18-19	10
J205L	26/11/2018	3541	2" 300# GATE BONNET 133	BK0012V Rev.9	4	BK0012V-Y-A1 0CR1	10164157	1121/18-19	21

Melting Type : Air Melting Through Electric Induction Furnace
Casting Method : Lost Wax Process
Surface Condition : As cast, shot blasted after Heat Treatment
Visual Inspection : As per MSS SP 55 Type II to XII a 2011
As per TDC 001 Rev.27
Dimensional Inspection : Found as per drawing requirement and inspection report enclosed.
Radiation Check : Casting do not contain radioactive contamination.
Marking :

MTC - REVIEWED & ACCEPTED**20069691 LTV QC**

We confirm that above material was manufactured, sampled, tested and inspected in accordance with PO Requirement & Material Specification
ASTM A216-16 Gr. WCB and was found to meet the requirements. NACE MR0103-2016 & NACE MR0175/ISO 15156 - 2015

Note : MAGNETIC PARTICLE TEST, BEND TEST AS PER IBR-1950 - FOUND SATISFACTORY

(BHARGAV)
Prepared By



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(DHIMANTBHAI)
Approved By

Heat Treatment Abbreviation (Cooling Media) : W/Q - Water Quenched, A/C - Air Cooled, O/Q - Oil Quenched, F/C - Furnace Cooled