

# API 589 Rev. 2 Fire Test Report

*Performed for*

## **J.D. JONES & CO. (P) LTD**

C3/1 Gillander House  
8 NS Road, Kolkata 700 001  
India

<http://www.jdjones.com>



Pacmaan ® NA-701 end-rings with  
Pacmaan ® NA-707 middle rings

5 Stack Packing  
Project Number: 204100  
Dec. 2004



*Performed by*

## **YARMOUTH RESEARCH AND TECHNOLOGY**

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# Yarmouth Research and Technology

## TEST RESULT SUMMARY API STANDARD 589 - SECOND EDITION

Test Number: PN20488

Test Date: 02-Dec-04

<b>Packing Material:</b> Pacmaan Style NA-701 End-Rings / NA-707 Middle Rings		
<b>Packing Manufacturer:</b> JD Jones & Co.		
<b>Test Valve Size:</b> 6" Class 300 Crane Gate Valve - Bonnet Fixture		
<b>Bore Diameter:</b> 1.903		
<b>Stem Diameter:</b> 1.246		
<b>Packing Configuration:</b> 5 rings packing set wih joints staggered Rings individually compressed.		
<b>Packing Compression % of Free Height:</b>	22%	
<b>Packing Gland Bolt Diameter:</b>	5/8	inch

### *Torque on Gland Nuts (ft-lb):*

	Side A	Side B
As Installed:	50	50
After HydroTest:	50	50
After Burn:	20	15

### *Leakage Measurements (ml/min):*

	Actual	Allowable
During two minute pretest hydrotest:	0.0	0
During burn and cooldown:	3.6	60
During low pressure test:	1.0	3
After operating close and open:	5.4	60

### *Packing Qualification:*

This packing does comply with the performance requirements of this standard.

### *Test Conducted and Witnessed by*

  
Matthew J. Wasielewski, P.E.



# Yarmouth Research and Technology

Customer: JD Jones & Co.

Test Date: 02-Dec-04

Product Code: Pacmaan Style NA-701 End-Rings / NA-707 Middle Rings

Project Number: PN20488

## Dimensional Information

Initial Packing Height:	1.495	inches
Stem Diameter:	1.246	inches
Bore Diameter:	1.903	inches
Gland Follower ID:	1.288	inches
Gland Follower OD:	1.863	inches
Gland Follower Length:	0.975	inches
Bottom Bushing ID:	1.290	inches
Bottom Bushing OD:	1.880	inches
Bore Depth with Bushing Installed:	1.450	inches

## Clearances and Finishes

	Actual	Allowable
Between Stem and Follower:	0.042	.040-.060
Between Follower and Bore:	0.040	.040-.060
Between Stem and Bottom Bushing:	0.044	.040-.060
Between Bottom Bushing and Bore:	0.023	-
Stem Surface Roughness (Ra):	12	32 max.
Bore Surface Roughness (Ra):	125	125 max.

## Packing Compression Data

Packing Free Height:	1.495	inches
Packing Compression Amount:	0.328	inches
% Compression:	22%	
Gland adjustment length:	0.692	inches
This height complies with API 600. (.563 minimum)		

## Instrumentation

Version of YRT's Fire-Control 589 Software:	B
Differential Pressure Sensor No.:	PT-60-1
Pressure Gauge Number:	PG-1000-2, PG-2000-1 PT-1000-1, PG-100-1
Thermocouple Type:	K
Were all instruments verified to be calibrated to NIST standards?: Yes	

## Notes

The bonnet and stem were used, but in very good condition.