

HT# 62889

CO# 4702



Frisa Forjados SA, de C.V.

Valentin G. Rivero No. 127 Los Treviño
C.P. 66350
Tels- +52(81) 8153-0321, 8153-0302
Fax: +52(81) 8336-2153
Sta. Catarina, N.L., México

CERTIFIED COMPANY
ISO 9001: 2015

Material Test Report No.684125

Rev. 1

Certificate per: **EN 10204:2004 3.1**

Client: **SAMUEL, SON & CO., LIMITED**

Spec: **A182/A182M Grade F316/316L Rev. 18**

Pag. 1/2

Qty	Date	P.O. Number	Part No.	Job Order
2	08/11/2018	W67256C	3982	556264
Description Forged Disc 34.000" X 0.000" X 6.550" .MELTING PRACTICE: EAF AOD .SERIAL NUMBER NOTE: 01, 02 .LINE ITEM: 1				

HEAT: 62889 (2/2) PCS

CHEMICAL ANALYSIS

HEAT No.		C %	Mn %	P %	S %	Si %	Ni %	Cr %	Mo %
62889	Ladle	0.01000	1.73000	0.03000	0.00040	0.44000	10.46000	16.73000	2.12000
Supplier		N %							
ITA	Ladle	0.06200							

Hardness (HBW) PCS	
	Hardness
	169
	169

HEAT TREATMENT

Quantity	Heat Treat Lot No.	Heat Treatment	Temp. (°F)	Time at Temp (Hrs)	Cooling Medium	Quench. M. Temp. (°F)
2 PCS	553242	Solution annealed	1922	5.00	Water	

Heat: 62889

Track ID: 254/002-18

MECHANICAL PROPERTIES

TENSILE TEST

Orientation	Position	Location	Heat Treat Lot No.	Yield Strength (PSI)	Tensile Strength (PSI)	Elong. (%)	A.R. (%)	Temp Tens °F	Post Welding HT		
									Temp °F	Time	Cycle
Long	1/4 T		549524	40300	80400	64	82	77			

Heat: 62889

HARDNESS HBW QTC

Orientation	Position	Location	Heat Treat Lot No.	Point	Hardness	Post Welding HT		
						Temp °F	Time	Cycle
Long	1/4 T		549524		147			
Long	1/4 T		549524		151			

WE HEREBY CERTIFY THAT ALL TEST RESULTS AND PROCESS INFORMATION CONTAINED HEREIN ARE CORRECT AND TRUE AS CONTAINED IN THE RECORDS OF THE COMPANY AND MEET THE PURCHASE ORDER / SPECIFICATIONS REQUIREMENTS.

NO WELDING REPAIRS IS ALLOWED AND USED IN FRISA ALL MATERIALS ARE MERCURY FREE

CER F-001-3

Gloria Carolina Lugo Perez

QUALITY ASSURANCE ENGINEER



Frisa Forjados SA, de C.V.

Valentin G. Rivero No. 127 Los Treviño
C.P. 66350
Tels- +52(81) 8153-0321, 8153-0302
Fax: +52(81) 8336-2153
Sta. Catarina, N.L. , México

CERTIFIED COMPANY
ISO 9001: 2015

Material Test Report No.684125

Rev. 1

Certificate per: EN 10204:2004 3.1

Client: SAMUEL, SON & CO., LIMITED

Spec: A182/A182M Grade F316/316L Rev. 18

Pag. 2/2

Qty	Date	P.O. Number	Part No.	Job Order
2	08/11/2018	W67256C	3982	556264
Description Forged Disc 34.000" X 0.000" X 6.550" .MELTING PRACTICE: EAF AOD .SERIAL NUMBER NOTE: 01, 02 .LINE ITEM: 1				

OBSERVATIONS

- . FORGING RATIO: 9.3 TO 1
- . QTC SIZE (4 X 4 X 12)
- . TENSILE TEST: 0.500" DIAMETER SPECIMEN AND 2.0" GAUGE LENGTH
- . FURNACE CALIBRATED AND SURVEYED PER API 6A ANNEX M 20th EDITION REQUIREMENTS
- . HARDNESS ON TEST SPECIMEN IS REPRESENTED BY TWO VALUES.
- . FURNACE TEMPERATURE MONITORING AND RECORDING METHOD: AIR THERMOCOUPLE
- . TESTING ACCORDING TO ASTM A370 REV.17
- . NACE MR0175 / ISO 15156-3

WE HEREBY CERTIFY THAT ALL TEST RESULTS AND PROCESS INFORMATION CONTAINED HEREIN ARE CORRECT AND TRUE AS CONTAINED IN THE RECORDS OF THE COMPANY AND MEET THE PURCHASE ORDER / SPECIFICATIONS REQUIREMENTS.

NO WELDING REPAIRS IS ALLOWED AND USED IN FRISA ALL MATERIALS ARE MERCURY FREE

CER F-001-3

Gloria Carolina Lugo Perez

QUALITY ASSURANCE ENGINEER