

## INSPECTION SERVICES AND ENGINEERING CERTIFICATION

PHONE: 780.870.1547 EMAIL: operations@indexndt.ca Head Office Mail: P.O. Box 10524, Lloydminster, AB T9V 3A6

### INSPECTION REPORT


<b>EQUIPMENT LOCATION:</b>	Lloydminster, Alberta				<b>NDT PROCEDURE#:</b>	INSP-001			
<b>EXAMINATION COVERAGE:</b>	RANDOM:	5%	10%	25%	50%	75%	100%	X	
<b>ACCEPTANCE CRITERIA:</b>	CSA W59	ISO 9927-1		CAOEC RP		OTHER:		X	
<b>INSPECTION METHOD:</b>	VT	X	UT	X	MT WET FLOURESCENT	X	MT WET BLACK		MT DRY RED
<b>EQUIPMENT INFO:</b>	BLACK LIGHT MAKE - INOVA				LIGHT METER # 1822158		MAG COIL # RC1-30120121		

<b>CLIENT:</b>	K&S Power Tongs	<b>UNIT/RIG:</b>	KSV013
<b>EQUIPMENT:</b>	Volant Tool	<b>MAKE/MODEL:</b>	Volant CRTi3-7.0
<b>REPORT#:</b>	IDX-3212	<b>SERIAL NUMBER:</b>	KSV013

### EQUIPMENT PHOTOS



### INSPECTION RESULTS

<b>ACCEPTABLE:</b>	X	<b>REJECTED:</b>	<b>DATE OF INSPECTION:</b>	April 5, 2023
<b>TECHNICIAN:</b>		<b>COMMENTS:</b>		
		<b>Part:</b> Mandrel- 82306-03-3J8936-01 Cage- 82856-3J8490-01 Upper Cam - 102349-3J8221-01 Lower Cam - 104338-3J8227-01 Cam Latch - 102348-3J8220-05 Cam Int - 102351-3J6522-15 Die- 80987-02-4395A20-09 Die- 80987-02-4022B07-09 Die- 80987-02-4395A20-12 Die- 80987-02-4395A20-11 Die- 80987-02-4022B07-08		
		<b>Serial#:</b> 82306-03-3J8936-01 82856-3J8490-01 102349-3J8221-01 104338-3J8227-01 102348-3J8220-05 102351-3J6522-15 80987-02-4395A20-09 80987-02-4022B07-09 80987-02-4395A20-12 80987-02-4395A20-11 80987-02-4022B07-08		
		<b>MANDREL THICKNESS:</b> 1.319"/ 1.315"/ 1.317"/ 1.319"/ 1.322"		
		<b>REPAIRS:</b> NA		

### QUALITY ASSURED INSPECTIONS FOR QUALITY ASSURED BUSINESSES

"Except as provided herein, Index NDT Inspections Ltd. makes no warranty, express or implied with respect to the mechanical or other conditions of the equipment inspected by us. Index NDT Inspections Ltd. shall only be responsible in the event of damage resulting directly from their inspection, and in no event, shall the liability of Index NDT Inspections Ltd. exceed the cost of inspection." Our organization assumes only the responsibility of locating defects in the inspected components and welds made accessible at the time of inspection. All equipment should be cleaned to allow access to all welds and critical components. It is of the utmost importance that the unit's owner be aware that excessive coating over 10 mils can severely mask the detection of discontinuities while utilizing standard inspection techniques. We are not responsible for the mechanical or other conditions assembled condition except at customer's request.

INCLUSION P-POROSITY IUC-INTERNAL UNDERCUT EUC-EXTERNAL UNDERCUT S-SLAG C-CRACK IP-INCOMPLETE PENETRATION NF-NON-FUSION CR-CRACK PH-PIN HOLE D-DISCONTINUITY

# Certificate of Testing

Volant Oil Tools Inc.  
4110 56 Avenue NW  
Edmonton AB T6B 3R8  
Canada  
t +1 780.490.5185  
f +1 780.437.2187  
info@volantproducts.ca  
www.volantproducts.ca



## Load Testing

### Test Parameters

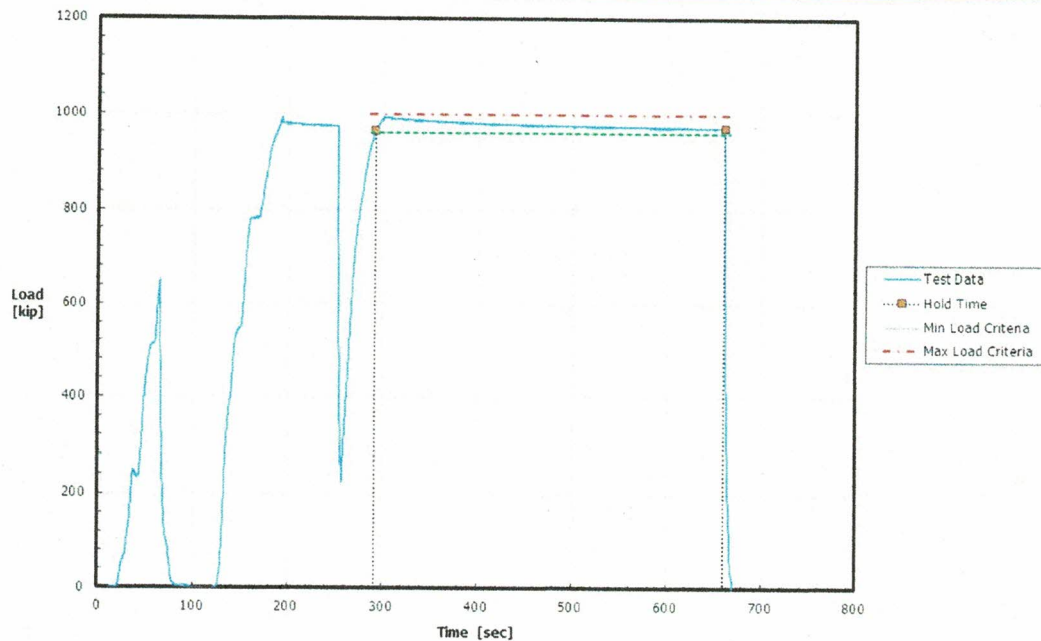
Target Test Load: 960 kips Minimum Hold Time: 300 s

### Test Summary

Test Components									Test Equipment	
Part Number	Part Name	Serial Number	Passed	Procedure	Actual Test Load	Hold Time	Test ID	Test Date	Identifier	Calibration Due
82306-03	Mandrel, CRTi2-7.0, 320T, 4.5IF, SR2	3J00008936-01	Passed	102870	962 kips	369 s	L01-001569	Dec 23, 2021	VLF-01	Feb 28, 2023

Test Approved By: Steven Hargreaves Test Approved On: Thursday, December 23, 2021

### Test Graph for L01-001569



### DELAYED USE

Date of 1st Use: Jan 16, 2022  
Job #: 23849  
Signed By: [Signature]

This is to certify that the equipment listed was tested in accordance with the referenced Procedure(s) to meet the Proof testing requirements of API-8C, 5th Edition

Signed: Steven Hargreaves,  
Manager, Quality Assurance,  
Volant Oil Tools Inc.

Date: Jan 7, 2022



ISO 9001  
Quality



## MAGNETIC PARTICLE TESTING REPORT - 306611

CLIENT: **VOLANT OIL TOOLS (MAIN)**  
**4110 56 Avenue**  
**Edmonton, Alberta T6B 3R8**

DATE: **January 4, 2022**  
INVOICE #:  
JOB #: **3J8936**  
P.O. #: **3PO12070**

EQUIPMENT OWNER: **VOLANT OIL TOOLS**  
LOCATION: **EDMONTON, AB**

WORK ORDERS: **45895**

### TECHNIQUE DETAILS

PROCEDURE #: **MTP-01 REV 7**  
TEST METHOD: **ASTM E709 (2015)**  
ACCEPTANCE STANDARD: **API 8C (5TH ED) (2014) 8.4.7.2 / 8.4.7.3 & 8.4.7.4 / VOLANT SPEC.40068 REV.A**

### EQUIPMENT

Manufacturer: <b>PARKER CONTOUR PROBE</b>	Type: <b>B300</b>	Serial #: <b>27685</b>
Last Calibration: <b>Jan-04-2022</b>	Calibration Due: <b>Jan-05-2022</b>	
Manufacturer: <b>REL</b>	Type: <b>C4-NOMAD</b>	Serial #: <b>18052202</b>
Last Calibration: <b>Jan-04-2022</b>	Calibration Due: <b>Jan-05-2022</b>	
Manufacturer: <b>WI</b>	Type: <b>W-PT</b>	Serial #: <b>1029</b>
Last Calibration: <b>Sep-08-2015</b>	Calibration Due: <b>Sep-08-2025</b>	
Manufacturer: <b>MAGNAFLUX</b>	Type: <b>UV LIGHT METER</b>	Serial #: <b>120382</b>
Last Calibration: <b>Jun-08-2021</b>	Calibration Due: <b>Jun-08-2022</b>	
Manufacturer: <b>WI</b>	Type: <b>COIL</b>	Serial #: <b>90928</b>
Last Calibration: <b>Jan-04-2022</b>	Calibration Due: <b>Jan-05-2022</b>	

MAGNETIZING METHOD: ☒ AC ☐ DC ☒ Continuous ☒ Residual ☒ Yoke ☒ Coil  
MAGNETIC PARTICLES: ☒ Wet ☒ Fluorescent ☐ Non-Fluorescent  
☐ Dry Color: **FLUORESCENT GREEN**

Manufacturer: **SERM** Type: **FLUXO 14AM** Batch/Lot #: **5W53W2**  
LIGHT SOURCE: ☐ Halogen 250W ☐ Incandescent 100W ☒ Maglite 6 Volt Serial: **RC666**  
SURFACE CONDITION: ☐ Bare Metal ☐ Ground ☒ Machined ☐ Blasted ☐ Painted ☐ Welded ☐ Loose Scale Removed  
MATERIAL TYPE: **CS** MATERIAL THICKNESS: **VARIOUS** SURFACE TEMP: **23.0°C**

### ITEMS TESTED

WET FLUORESCENT MAGNETIC PARTICLE TESTING WAS PERFORMED ON THE FOLLOWING ITEMS:

**MANDREL ,CRTi 2-7.0,320 TON, 4.5IF,SR2**

PART NAME	SERIAL #	Accept	Reject
(2) MANDRELS	82306-03-3J8936-01,02	✓	

### TEST RESULTS & COMMENTS

NO RELEVANT INDICATIONS WERE DETECTED AT TIME OF TESTING.

BLACK LIGHT INTENSITY AT INSPECTION SURFACE WAS GREATER THAN 1200 MICRO WATTS.

Continued on next page . . .

### SIGNATURES

\* Client representative's signature indicates acceptance of the reports and results. Nortech Advanced NDT Ltd. is liable for examination costs only.

CLIENT REPRESENTATIVE\* (PRINT/SIGN) JADE NGUYEN /  
Technician (PRINT) Ryan Cherwoniak

CGSB: 2

CGSB REG#: 13189

SNT-TC-1A: II

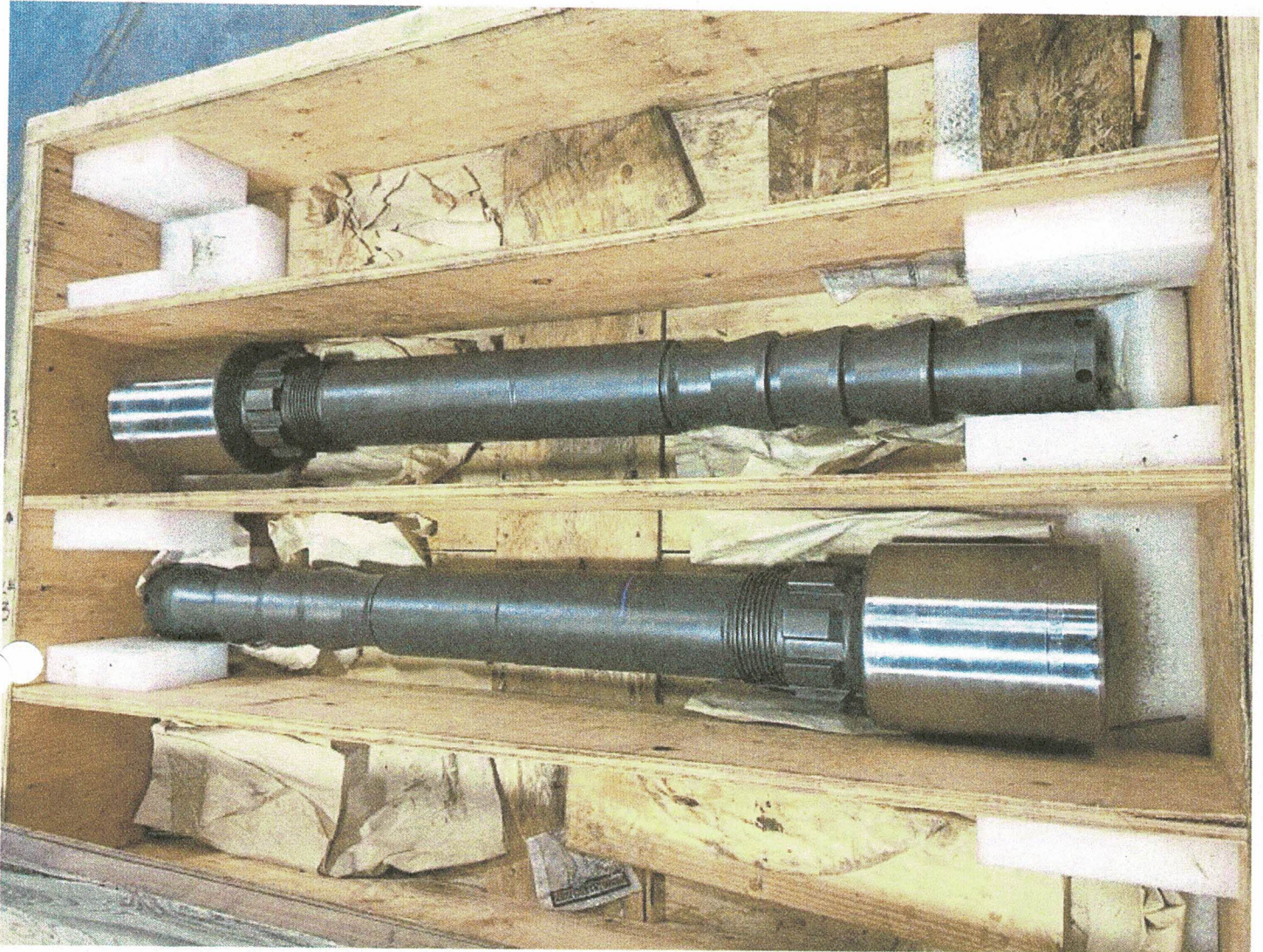
Technician (SIGN)

*[Signature]*



## MAGNETIC PARTICLE TESTING REPORT - 306611

### MANDRELS



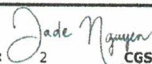
### SIGNATURES

\* Client representative's signature indicates acceptance of the reports and results. Nortech Advanced NDT Ltd. is liable for examination costs only.

CLIENT REPRESENTATIVE\* (PRINT/SIGN) JADE NGUYEN /

Technician (PRINT) Ryan Cherwoniak

CGSB: 2



CGSB REG#:

13189

SNT-TC-1A:

II

Technician (SIGN)

