

Vertical Run Test Summary

Model 1275AC-681 S/N 695

VERTICAL RUN TEST SUMMARY

◆ LUBRICATION

Verified By: Toni Portier Date: 05/02/2014

◆ TOP DRIVE HYDRAULIC PRESSURE SETTINGS

Verified By: Toni Portier Date: 05/02/2014

◆ PLC CALIBRATION

Verified By: Toni Portier Date: N/A

◆ PLC PROGRAM BIT CHECK

Verified By: Toni Portier Date: N/A



◆ VERTICAL RUN TEST – RPM & TORQUE DATA:

RPM	Torque (ft-lb)	Duration (hrs.)	Comments	Date Completed:
130	5000	0.5 hrs.	Leak test and warm up	<u>05/01/2014</u>
130	10,000	0.5 hrs.	20% continuous torque	<u>05/01/2014</u>
130	15,000	0.5 hrs.	30% continuous torque	<u>05/01/2014</u>
130	30,000	4.5 hrs.	60% continuous torque	<u>05/01/2014</u>

Verified By: Toni Portier Date: 05/02/2014

VERTICAL RUN TEST SUMMARY

◆ CONSOLE DRILLER'S RECORDER OUTPUT

Description	Nominal Parameter	Reading
RPM	4-20ma	4-20ma
TORQUE	4-20ma	4-20ma

Verified By: Toni Portier Date: 05/02/2014

◆ A.D.S (PANELVIEW) MESSAGE TEST

Verified By: Toni Portier Date: N/A

◆ PROGRAM INTERLOCKS

Verified By: Toni Portier Date: N/A

◆ TOP DRIVE AIR FLOW (U – TUBE):

Description	Nominal Parameter	Acceptance Criteria	Reading
* Motor bottom Pressure U-Tube	1" to 2" H ² O (by U- Tube)	Maximum " H ² O	N/A H ² O
* Motor Differential Pressure U-Tube		Cfm over 2000	N/A H ² O

Verified By: Toni Portier Date: 05/02/2014

◆ TORQUE TEST:

Maximum Motor Torque: 50,000 ft-lbs
 Maximum Torque Boost: 24,000 ft-lbs
 Maximum Total Connection Torque: 74,000 ft-lbs

 Maximum Brake Holding Torque 50,000 ft-lbs

Verified By: Toni Portier Date: 05/02/2014

VERTICAL RUN TEST SUMMARY

◆ ELECTRICAL CHECKS: (low power)

Current draw: Auxiliary motors

Description	Current Draw	Run Trip Set @
Blower	N/A Amp	N/A Amp
Lube Pump	2.6 Amp	N/A Amp

Verified By: Toni Portier

Date: 05/02/2014

◆ NOISE AND VIBRATION MONITORING

Run the Top Drive at each specified speed for **10 minutes** and record the following:

SPEED	DB reading	LUBE TEMP (After 10 minutes)	LUBE PRESS (After 10 minutes)	COMMENTS (How does it sound?)
<u>80</u> RPM (30% of max)	86.3 db	31.9 °c	90	Satisfactory
<u>160</u> RPM (60% of max)	87.9 db	31.4 °c	90	Satisfactory
<u>265</u> RPM (100% of max)	91.3 db	31.3 °c	90	Satisfactory

Verified By: Toni Portier

Date: 05/02/2014

CANRIG

DRILLING TECHNOLOGY LTD.

CERTIFICATE ON NON-DESTRUCTIVE TESTING


Date: 05/01/2014

It is hereby certified that the product identified on the reverse side of this certificate have been non-destruct tested by certified competent authority in a manner consistent with the regulating test standard listed below, with test results as indicated.

TEST TYPE MAGNETIC PARTICLE ULTRASONIC EXAMINATION RADIOGRAPHIC EXAMINATION

CDTL JOB NO. R0695A

CUSTOMER ORDER NO. 695



Manager, Quality Assurance

MAGNETIC PARTICLE EXAMINATION

S/N: 695
W/O#: R0695A

PO#: 70024501

PART	TRACE CODE	METHOD	RESULT
Spindle @ Split Ring	SPM01522 (Original)	MPI	No Indications
Quill	QLM02530 (New)	MPI	No Indications
Main Bearing Housing	BHM01643 (Original)	MPI	No Indications
Upper Link Support	ULSM01700 (Original)	MPI	No Indications
Outer Sleeve	OSM01582 (Original)	MPI	No Indications
Split Ring	SPRM01698 (New)	MPI	No Indications
Male Half Coupling	MHCM00499 (New)	MPI	No Indications
Mudline	MLM05868 (New)	MPI	No Indications

"Your First Choice for Rigs & Equipment"

H & M Plating Co., Inc.

6035 Plainview * Houston, TX 77087
PH: 713.643.6516 * FAX: 713.643.3307
www.hmplating.com

CERTIFICATE OF CONFORMANCE

DATE: 4/2/2012

CUSTOMER: PACKARD INTERNATIONAL

P.O. #: 0012972

PART / DWG#: DT10071-K

SERIAL#: QLM#02594,02595,02530,02573

QUANTITY: 4

DESCRIPTION: NEW CANRIG 750 TON QUILL

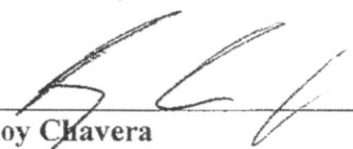
HM WO#: 213643



"Your First Choice for Rigs & Equipment"


Specification: ASTM B 177-01 with plating thickness and dimension and hardness prescribed by the Purchase Order or Drawing.

This is to certify that all services furnished by H & M Plating Co., Inc. were performed in accordance with the H & M Plating Co., Inc. Quality Assurance Manual and are in compliance with the requirements of the above named Purchase Order, or contract where applicable.



Roy Chavera
Expeditor

BHM01643

 <p style="text-align: center;"><i>"Bringing Quality Assurance Home!"</i></p>	Document Type:	NDE Report
	Document Title:	Magnetic Particle Inspection Report
	Document Control No.:	NDE-MPI-01 REV-0

MAGNETIC PARTICLE INSPECTION REPORT

NDE Report # **TECH1037CR**

Customer:	TECHMAR INDUSTRIES LLC.			Location:	TECHMAR FACILITY	Date:	3-17-2014 & 3-19-2014
Contact Name:	BRANDON SHULTZ	DWG #	N/A	PO #	1020	W/O #	1019
Part Description:	750 TON HOUSING	Qty Inspected:	1	CODE/SPECIFICATION	ENQ 707 AP, 80 PSL2		
Type of Inspection Performed:	WET VISIBLE		NDE Procedure		NDE-MPI-01 REV-0		

Yoke- Make/Model:	Parker B317	Serial #	313	AC <input checked="" type="checkbox"/>	DC <input type="checkbox"/>	Cal Due Date	10/1/14
Portable Mag-Make	N/A	Serial #	N/A	AC <input type="checkbox"/>	DC <input type="checkbox"/>	Cal Due Date	10/1/14
Ampere Turns	N/A	Central Conductor	<input type="checkbox"/>	Direct	<input type="checkbox"/>	Coil	<input type="checkbox"/>
Coil Wrap					<input type="checkbox"/>		
Particle Color	SHERWIN (FLUORESCENT)	Particle Batch #	313-H65		Contrast Color	N/A	
Black light intensity	μW/cm ²	@ 15"	White Light intensity	@	Part surface Requiring Inspection		

CALIBRATION BLOCK: 3E LOAD TEST PLATE 10LB SERIAL # 25

Minimum surface temperature during process:	Deg F	Maximum surface temperature during process:	Deg F
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ITEM	QTY	HEAT #	PART # L/P #	DESCRIPTION	RESULTS OF INSPECTION
1	1	N/A	L.P. # BHM 01643 PART # DT-15546	750 TON HOUSING	MT OK
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results




Comments: 100% VT & MT OF COMPLETE HOUSING (FINAL INSPECTION)

This report represents only the materials tested, areas accessible, and IAW with customer's procedures, also it is not indicative of results that may be obtained from similar materials or after an altering manufacturing process. This report shall not be tampered with or reproduced unless by a Managing member of RBC Oilfield Services, LLC

Customer Approval	Sign:	3/19/2014	Level II Technician	Sign:	CHRIS ROBERTSON	3/19/2014
	BRANDON SHULTZ			Print: CHRIS ROBERTSON		

BHM01643

 <p style="text-align: center;"><i>"Bringing Quality Assurance Home!"</i></p>	Document Type:	NDE Report
	Document Title:	Magnetic Particle Inspection Report
	Document Control No.:	NDE-MPI-01 REV-0

MAGNETIC PARTICLE INSPECTION REPORT

NDE Report # TECH1058CR

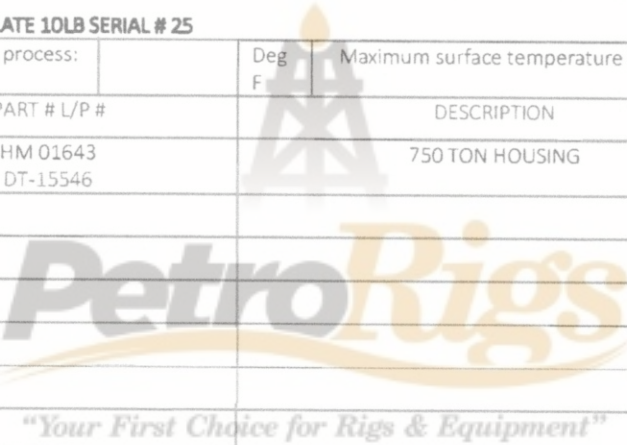
Customer:	TECHMAR INDUSTRIES LLC.		Location:	TECHMAR FACILITY	Date:	3-28-2014	
Contact Name:	BRANDON SHULTZ	DWG #	N/A	PO #	1020	W/O #	1019
Part Description:	750 TON HOUSING		Qty Inspected:	1	CODE/SPECIFICATION	EN3-707 API 8C PSL2	
Type of Inspection Performed:	WET VISIBLE		NDE Procedure	NDE-MPI-01 REV-0			

Yoke- Make/Model:	Parker 8388	Serial #	355	AC	<input checked="" type="checkbox"/>	DC	<input type="checkbox"/>	Cal Due Date	03/27/14	
Portable Mag-Make:	N/A	Serial #	N/A	AC	<input type="checkbox"/>	DC	<input type="checkbox"/>	Cal Due Date	03/28/14	
Ampere Turns	N/A		Central Conductor	<input type="checkbox"/>	Direct	<input type="checkbox"/>	Coil	<input type="checkbox"/>	Coil Wrap	<input type="checkbox"/>
Particle Color	SHERWIN (FLUORESCENT)		Particle Batch #	313-H65		Contrast Color	N/A			
Black light intensity	Choose an item.	μW/cm ²	@ 15"	White Light intensity		@	Part surface Requiring Inspection			

CALIBRATION BLOCK: 3E LOAD TEST PLATE 10LB SERIAL # 25

Minimum surface temperature during process:		Deg F	Maximum surface temperature during process:		Deg F
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ITEM	QTY	HEAT #	PART # L/P #	DESCRIPTION	RESULTS OF INSPECTION
1	1	N/A	L.P. # BHM 01643 PART # DT-15546	750 TON HOUSING	MT-OF
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results
					Results



Comments: 100% VT & MT OF REPAIRED AREAS OF HOUSING (POST- HEAT TREAT)

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Customer Approval	Sign:	3/28/2014	Level II Technician	Sign:	CHRIS ROBERTSON	3/28/2014
	Print: BRANDON SHULTZ			Print: CHRIS ROBERTSON		

BHM01643



Southwest Heat Treat

A Bluewater Thermal Solutions Company

Customer:

TECHMAR INDUSTRIES, LLC
5510 SPRIN STUEBNER
SPRING TX 77389

CERTIFICATION

WORK ORDER NUMBER
3057
CERTIFICATION DATE
03/27/2014

PO Number:	Cust Job #	Reference #:	Cust. WO #	Material:
1033				Customer Material

Quantity	Part Description
1	MAIN HOUSING (DT15546G) (27" TALL x 29 3/4" x 52" LG)

STRESS RELIEVE

STRESS RELV.	STRESS RELV.	COOL
TEMP	TIME	METHOD
1025° F.	3.5 HOURS	AIR

TREATMENT: ALL FURNACES COMPLY WITH RECOMMENDED PROCEDURES OUTLINED IN THE LATEST EDITIONS OF API
TIMES AT TEMPERATURE ARE DETERMINED BY FURNACE THERMOCOUPLE.

MECHANICAL PROPERTIES: UNLESS OTHERWISE STATED, YIELD STRESS IS .2% OFFSET GAGE LENGTH IS 2" FOR 1/2"
BARS OR 1" FOR 1/4" BARS, CHARPY SPECIMENS ARE 10MM X 10MM & IMPACT VELOCITY IS 17FT. PER SECOND.



"Your First Choice for Rigs & Equipment"

Robert Lawrence
Customer Service-Inside Sales

**CANRIG DRILLING TECHNOLOGY LTD.
CERTIFICATE OF CONFORMANCE**

TOP DRIVE MODEL: 1275AC-681

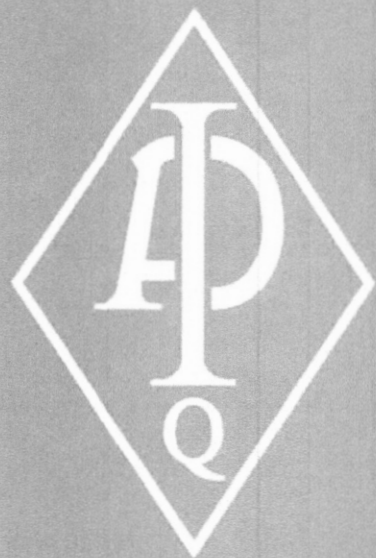
SERIAL NUMBER: 695

*The Top Drive And Related Equipment Has Been Re- Manufactured and Tested In Accordance With
Canrig Quality Acceptance Standards, API Spec 8C, API RP 500B, And Is Certified To
Meet Industry Requirements For Drilling Equipment.*

Date: 05/01/2014

Issued By Canrig Drilling Technology Ltd.





**American
Petroleum
Institute**



2014-072

Certificate of Authority to use the Official API Monogram

License Number: **8C-0079**

ORIGINAL

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CANRIG DRILLING TECHNOLOGY LIMITED

14703 FM 1488

Magnolia, Texas

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