



**D I A M O N D**  
O F F S H O R E

15 September 2011

**Walter Oil & Gas Corporation**  
1100 Louisiana, Suite 200  
Houston, Texas 77002

**Attention: Mr. Paul Rodriguez**

**Subject: Ocean Columbia Certifications**

Dear Mr. Rodriguez,

The attached BOP certifications and shear test data refer to Diamond Offshore's OCEAN COLUMBIA to be used on Walter Oil & Gas' following well:

**Walter Oil & Gas Corporation**  
Well No. 001ST00BP00  
OCS-G 31366  
Eugene Island Block 51

5" 19.5ppF



# Validation Test Report

QUEST Management System      Issued by: Michael Ral Anderson, P. E. - Quality Director      December 16, 2004      T3.7364F - Rev D

Customer Name:	DODI SUB SEA	Job Number:	CC100745/1
Facility Name:	T3 VENTURE	Location:	HOUMA, LA
Person (s) Performing Tests:	RAY GRAVOIS	SHEAR TEST - 5" 19.5FTLB / S-135	
Product Description:	13 5/8" 10K T3 6012 DOUBLE BOP W/ "LBS" BONNET ASSEMBLY TANDEM BOOSTERS # 40488		

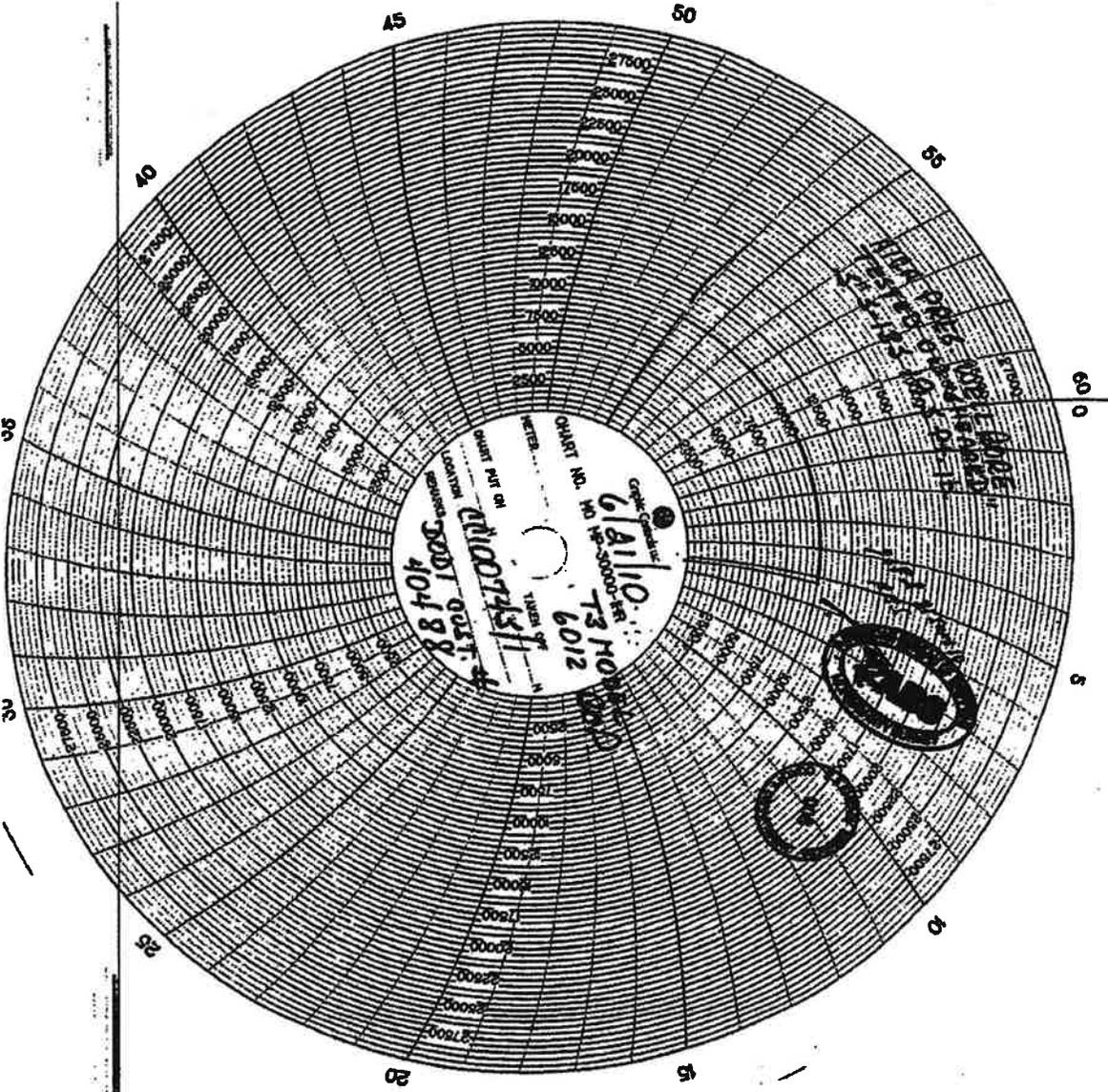
Control Valve Test	Start	Stop	Travel
Bench			
Positioner			
Transducer			

Wellhead Equipment Test Type:	A	B	A	B
Test Date:	6/21/10		6/21/10	
Test Medium:	H2O		H2O	
Test Pressure:	250 PSI		10,000 PSI	
Time Duration:	10 MIN		10 MIN	
Gauge Serial #:	CV6A 3099 DZ		CV6A 3099 EZ	
Calibration Due Date, if Required:	6/10/11		6/10/11	
Allowable Leakage:	-0-		-0-	
Leak Rate:				
Approval Initials:	EC		EC	
Test Type Concerns:	SHEARED AT 2,420 PSI CLOSING HYD. PRESSURE			

Has Product Been Greased?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Product Operate Smoothly?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Site Representative Signature:		Date:	6/22/10
If Present, Customer Representative:		Date:	6-23-10

T3 Energy Controlled Form - Once Printed, Copies Must be Checked Against Master. If Document is Not Current, It Must be Destroyed.

*Bill Wagoner*  
Bill Wagoner  
7-2 June 2010





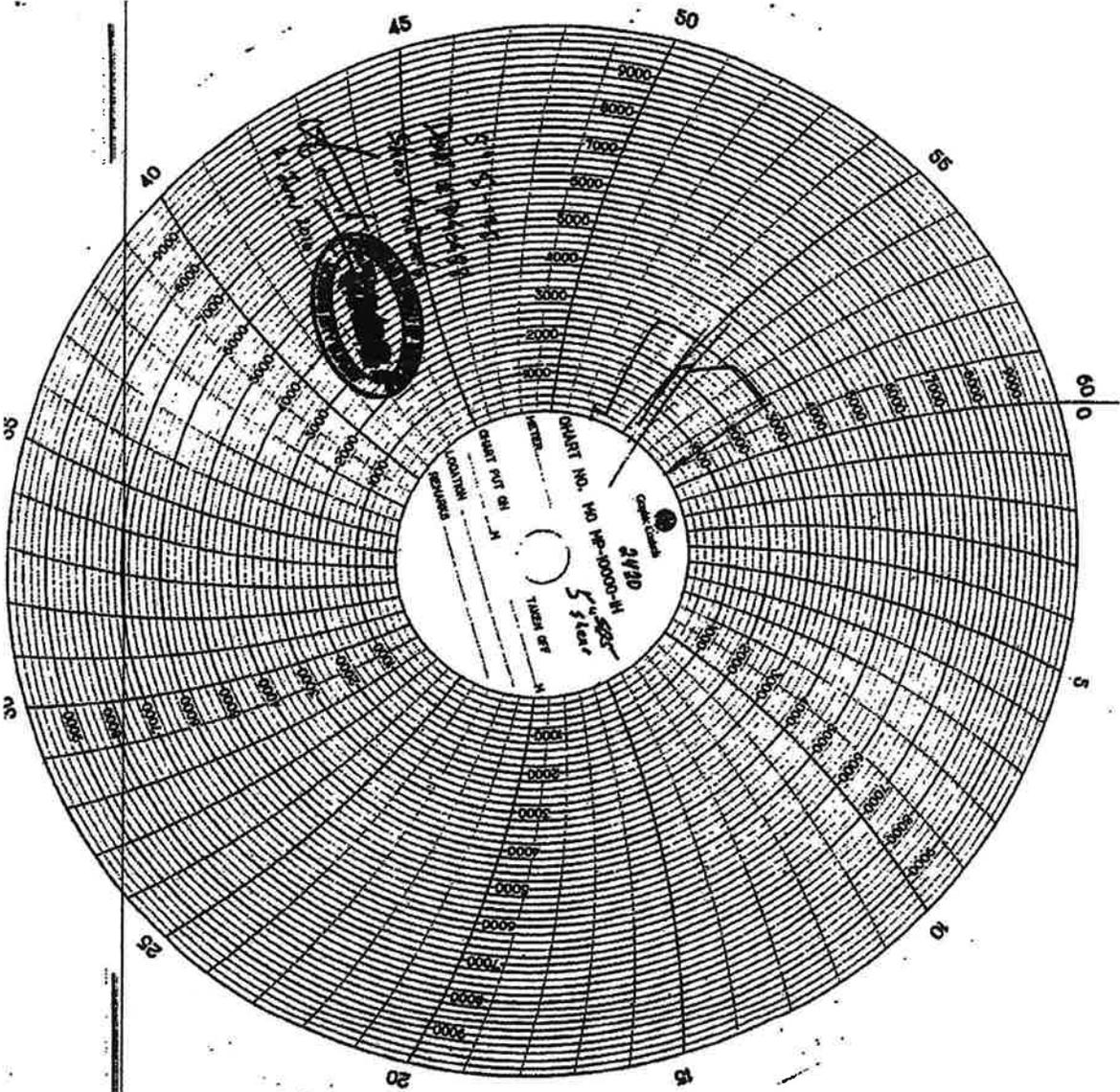


Chart No. 10  
HP-10000-II  
5 ft  
TAPER 1/8"  
CHART PUT OUT BY  
DATE  
LOCATION  
REMARKS

Vertical line on the left side of the chart.

# Projected Shearing Force Data for 6012 Style Ram Type Blowout Preventer



**For Customer Use**

Customer:	_____
Rig:	_____
Date:	_____

**For T3 Energy Services Use**

<u>BOP Data</u>				
Size & Working Pressure: <u>13.62 10000 psi</u>	Ram Type: <u>T3 Model 6012 Style SBR</u>			
Configuration: <u>Large Bore Shear with Tandem Booster</u>	Shearing Factor ( <i>Sf</i> ): <u>0.68</u>			
Maximum Hydraulic Operating Pressure: <u>3000 psi</u>	Shearing Ratio ( <i>Rs</i> ): <u>17.8</u>			
Hydraulic Pressure Area ( <i>Ah</i> ): <u>224 sq in</u>				
<u>Definitions:</u> Shearing Factor ( <i>Sf</i> ) - Factor based on classical physics and emperical data. Shearing Ratio ( <i>Rs</i> ) - Ratio of the hydraulic pressure area of the operating piston vs. the wellbore pressure area of the operating piston.				
<u>Tubular Data</u>				
Size ( <i>ODp</i> )	Weight	Wall ( <i>t</i> )	Grade	Minimum Yield Strength ( <i>Sy</i> )
<u>5"</u>	<u>19.50</u>	<u>0.362"</u>	<u>S-135</u>	<u>135000 psi</u>
Cross Sectional Area of the Pipe: $A_p = (ODp \times t - t^2) \times \pi$				
<u>Estimated Shearing Forces and Hydraulic Operating Pressures to Shear Listed Tubular</u>				
Wellbore Pressure ( <i>Pw</i> ), psi	Operating Pressure ( <i>Ph</i> ), psi	Shearing Force ( <i>Fs</i> ), lbf		
<u>0</u>	<u>2162</u>	<u>484,204</u>		
<u>5,000</u>	<u>2443</u>	<u>547,125</u>		
<u>10,000</u>	<u>2723</u>	<u>610,047</u>		
<u>Equations:</u>	$Ph = \frac{Sf \times Ap \times Sy}{Ah} + \frac{Pw}{Rs}$		$Fs = Ph$	

- The tubular shearing information provided by this document is a project based on empirical data. More accurate projections can be made by conducting specific shearing operations for the tubular in question
- T3 Energy Services Model 6012 ram blowout preventer component and assemblies are manufactured with the intent of being interchangeable with CAMERON Type U components and assemblies.
- Mechanical verification and pressure validation of the assemblies is the responsibility of the group or individual who assembles the finished assembly.

Completed By: Danny Wolfe Date: 17-Jun-10  
Pressure Control Engineering Manager,  
T3 Energy Services

3 1/2" 13.3 ppF



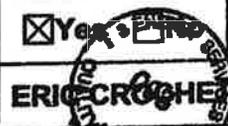
# Validation Test Report

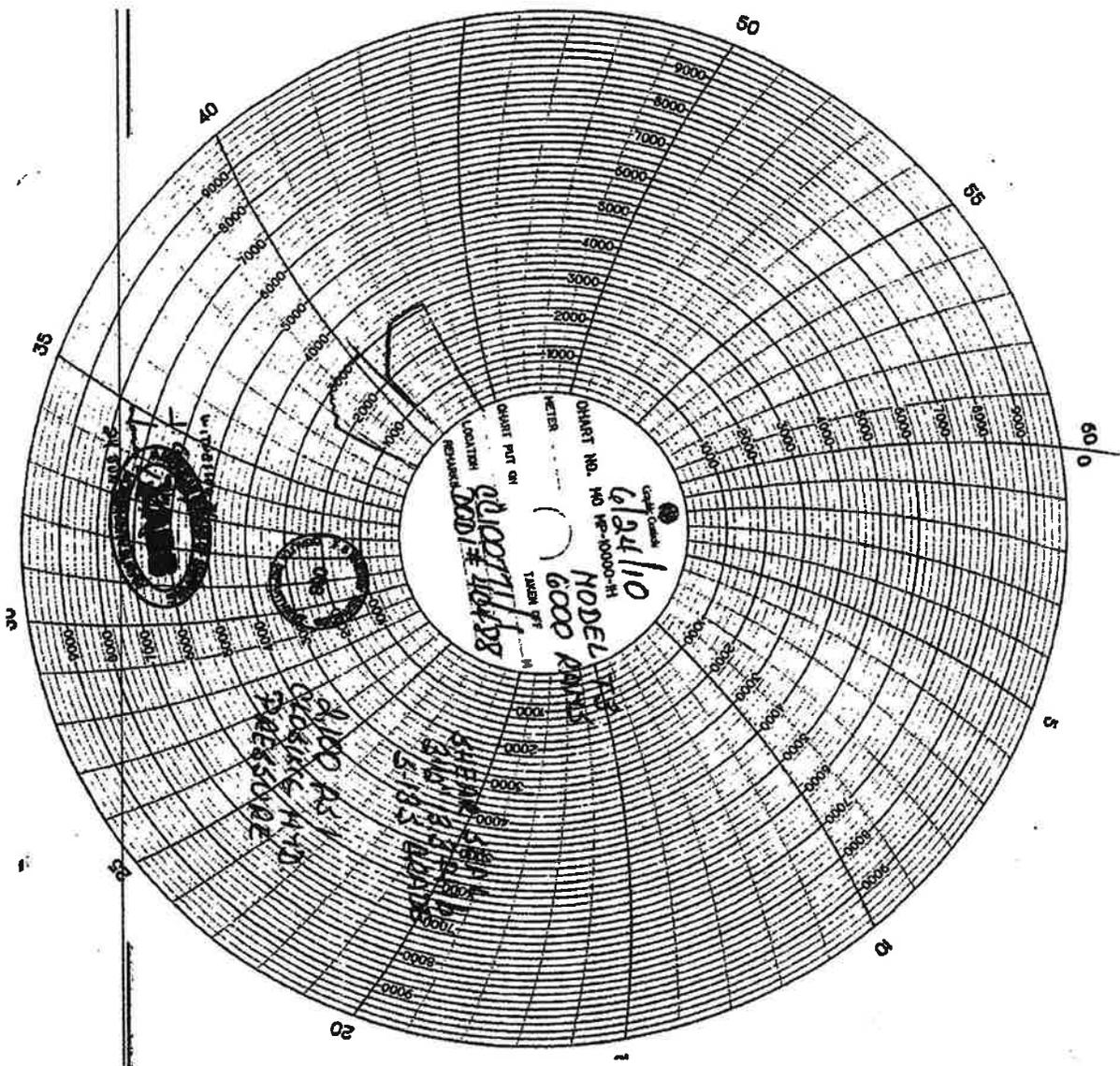
QUEST Management System      Issued by: Michael Rai Anderson, P. E. – Quality Director      December 16, 2004      T3.7364F – Rev D

Customer Name:	DODI SUB SEA	Job Number:	CC100771/1
Facility Name:	T3 VENTURE	Location:	HOUMA, LA
Person (s) Performing Tests:	RAY GRAVOIS	SHEAR TEST-3 1/2"13.3ftlb/S-135	
Product Description:	13 5/8"10K T3 6012 DOUBLE BOP W/ "LBS" BONNET ASSEMBLIES & TANDEM BOOSTERS W/ MODEL 6000 SHEAR RAMS #40488		

Control Valve Test	Start	Stop	Travel
Bench			
Positioner			
Tranducer			

Wellhead Equipment Test Type:	A		B	
	A	B	A	B
Test Date:	6/24/10		6/24/10	
Test Medium:	H2O		H2O	
Test Pressure:	250 PSI		10,000 PSI	
Time Duration:	10 MIN.		10 MIN.	
Gauge Serial #:	CV6A 3099 AP		CV6A 3099 AP	
Calibration Due Date, if Required:	6/10/11		6/10/11	
Allowable Leakage:	-0-		-0-	
Leak Rate:				
Approval Initials:	EC		EC	
Test Type Concerns:	2,100PSI CLOSING PRESSURE REQUIRED TO SHEAR 3 1/2"13.3FTLB/S-135			

Has Product Been Greased?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Product Operate Smoothly?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Site Representative Signature:		Date:	6/24/10
If Present, Customer Representative:		Date:	6-24-10



4100 AS 11  
 6000 RAIN  
 3001 E 100th St





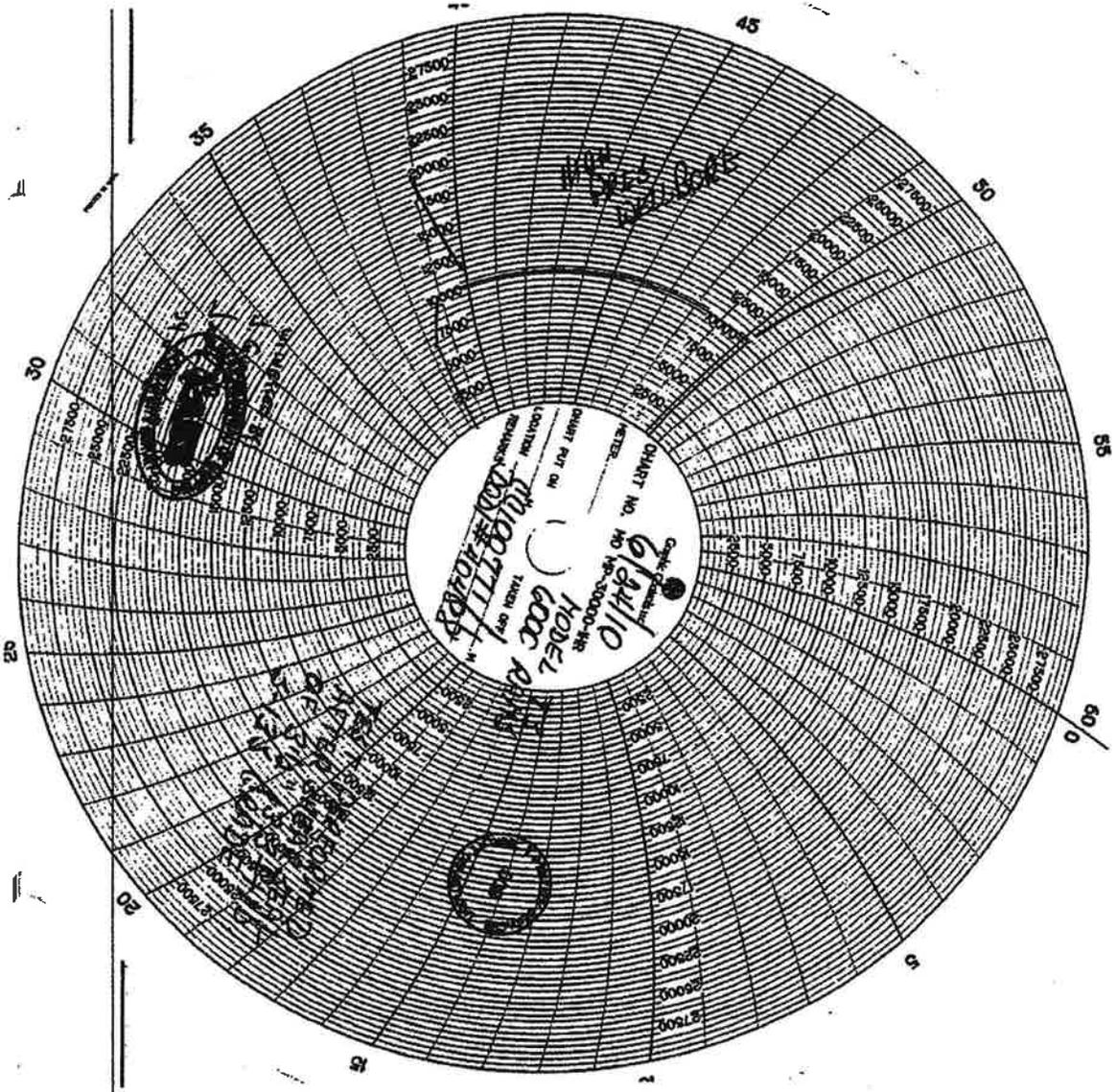


CHART NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
LOCATION \_\_\_\_\_  
REMARKS \_\_\_\_\_  
MAGNETIC \_\_\_\_\_  
MODEL \_\_\_\_\_  
COOL \_\_\_\_\_  
RANGE \_\_\_\_\_  
TERRAIN \_\_\_\_\_  
ELEVATION \_\_\_\_\_  
SOUNDING \_\_\_\_\_  
NO. OF \_\_\_\_\_  
SOUNDING \_\_\_\_\_  
NO. OF \_\_\_\_\_  
SOUNDING \_\_\_\_\_



Handwritten notes and scribbles in the lower-left quadrant of the chart.

Handwritten notes and scribbles in the upper-right quadrant of the chart.

# Projected Shearing Force Data for 6012 Style Ram Type Blowout Preventer



**For Customer Use**

Customer:	_____
Rig:	_____
Date:	_____

**For T3 Energy Services Use**

<u>BOP Data</u>				
Size & Working Pressure:	<u>13.62 10000 psi</u>	Ram Type:	<u>T3 Model 6012 Style SBR</u>	
Configuration:	<u>Large Bore Shear with Tandem Booster</u>	Shearing Factor ( <i>Sf</i> ):	<u>0.68</u>	
Maximum Hydraulic Operating Pressure:	<u>3000 psi</u>	Shearing Ratio ( <i>Rs</i> ):	<u>17.8</u>	
Hydraulic Pressure Area ( <i>Ah</i> ):	<u>224 sq in</u>			
<u>Definitions:</u> Shearing Factor ( <i>Sf</i> ) - Factor based on classical physics and empirical data. Shearing Ratio ( <i>Rs</i> ) - Ratio of the hydraulic pressure area of the operating piston vs. the wellbore pressure area of the operating piston.				
<u>Tubular Data</u>				
Size ( <i>ODp</i> )	Weight	Wall ( <i>t</i> )	Grade	Minimum Yield Strength ( <i>Sy</i> )
<u>3.5"</u>	<u>13.30</u>	<u>0.368"</u>	<u>S-135</u>	<u>135000 psi</u>
Cross Sectional Area of the Pipe: $A_p = (ODp \times t - t^2) \times \pi$				
<u>Estimated Shearing Forces and Hydraulic Operating Pressures to Shear Listed Tubular</u>				
Wellbore Pressure ( <i>Pw</i> ), psi	Operating Pressure ( <i>Ph</i> ), psi	Shearing Force ( <i>Fs</i> ), lbf		
<u>0</u>	<u>1484</u>	<u>332,398</u>		
<u>5,000</u>	<u>1765</u>	<u>395,320</u>		
<u>10,000</u>	<u>2046</u>	<u>458,241</u>		
<u>Equations:</u>	$Ph = \frac{Sf \times Ap \times Sy}{Ah} + \frac{Pw}{Rs}$		$Fs = Ph$	

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- T3 Energy Services Model 6012 ram blowout preventer component and assemblies are manufactured with the intent of being interchangeable with CAMERON Type U components and assemblies.
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