

# COMPAGNIE TUNISIENNE DE FORAGE

19 RUE DE L'ARTISANAT CHARGUIA II – 2035 L'AEROPORT-ARIANA TUNISIA

FAX N°(216-70) 836 568/837 041 PHONE N°(216-70) 837 322

## FAX MESSAGE

**FROM : C.T.F**

**FAX REF :**

**DATE : 09/06/2023**

**CONTACT NAME :**

**Page (01 ) of (13) including this page**

**TO :**

**ATT: :**

**FAX N° : VIA MAIL**

**Y/REF :**

**COPY :**

**SUBJECT : INVITATION TO BID N° PP 2023/350  
SUPPLY OF 02 LOTS OF VARIOUS SPARE PARTS**

*Compagnie Tunisienne de Forage, (CTF) is now seeking competitive bids for the Supply of :*

### **SUPPLY OF 02 LOTS OF VARIOUS SPARE PARTS**

*To this purpose you are hereby invited to submit your best prices and delivery in full compliance with the following terms and conditions.*

*Bidders can submit for one lot or more.*

#### **A - SCOPE OF WORK :**

*Spare parts must be in compliance with technical specifications as detailed in attachment A.*

#### **B – DELIVERY REQUIREMENT**

*The delivery of each lot as indicated in attachment C shall be considered as a technical criteria. In case of late delivery a delay penalty of 1‰ per day of the total amount of the purchase order to be applied provided that such penalties will not exceed 5% of the total purchase order.*

#### **C - ACKNOWLEDGEMENT:**

*You are kindly requested to acknowledge receipt of this inquiry by return fax or email.*

#### **D - BID CLOSING DATE:**

*Bids must be sent to CTF head office as soon as possible but no later than 14 June 2023 as per bid submission instructions hereinafter.*

#### **E- FORM OF BIDS:**

*Bids shall be in the form of pro forma invoices as per the formats shown under attachments B and C and shall include all requested details.*

**F – VALIDITY:**

Bids shall be valid for a period of at least 90 days from bid closing date.

**G/ BID SUBMISSION PROCEDURE :**

Bids shall be submitted by one of the ways listed under articles **G1** and **G2** : The bidder is free to choose the appropriate way :

**G-1- IN A SEALED OPAQUE ENVELOPE AS FOLLOWS:**

Within this sealed opaque envelope bidder shall include the following **two (02) separate internal sealed envelopes**:

**- The first internal sealed envelope shall:**

\* Indicate:

- **"envelope N°1 "UNPRICED Technical offer"**

- Tenderer's name and address

\* Contain:

- The **Unpriced Technical offer** (in the format shown in **Attachment B**) duly signed dated and stamped.

- Any technical information related to the proposed Spare Parts.

**- The Second internal sealed envelope shall:**

\* Indicate:

- **"envelope N°2 "PRICED" Financial offer"**

- Tenderer's name and address

\* Contain:

- The **Priced Financial offer** (as per the format provided under **attachment C**) duly signed dated and stamped.

**- The outer sealed envelope containing the 2 internal sealed envelopes shall** be sent by registered mail or by courier to the following address so as to arrive as soon as possible but no later than, **14 June 2023**.

**COMPAGNIE TUNISIENNE DE FORAGE  
19 RUE DE L'ARTISANAT CHARGUIA II  
2035 ARIANA - TUNISIA  
ATT : PRESIDENT OF THE TENDER BOARD  
"DO NOT OPEN"  
INQUIRY N° PP/2023/350  
SUPPLY OF 02 LOTS OF VARIOUS SPARE PARTS**

**G-2- BY E-MAIL TO:** ***closed.bids@ctf.com.tn*** as per the pro forma provided under **attachment B and C**

**H - CONTACTS:**

*Any further information or clarification required during the bidding period to aid bidder in the preparation of his bid shall be requested in writing by fax addressed to:*

**COMPAGNIE TUNISIENNE DE FORAGE  
FAX N° (216-70) 837 041 – 836 568  
ATT : TENDER BOARD**

**I - SPECIAL NOTES:**

- I.1- By written notice, CTF may modify the inquiry terms and conditions in any aspect by way of clarification, addition, deletion or otherwise, prior to bid closing date.*
- I.2- CTF shall be under no obligation to accept the lowest or any bid submitted hereunder and CTF shall not be held liable for any expenses incurred in the preparation or submittal of bids or any subsequent discussion and/or negotiation.*
- I.3– The financial offers and after the correction of possible errors of calculation, will be classed from the lowest bidder to the highest bidder and CTF will select the best offer which meets CTF technical.*
- I.4-Bidders are requested to quote for only FCA*
- I.5-Certificate of conformance to be supplied in case P.O is placed.*

**BEST REGARDS,**

**C.T.F.**

**PROCUREMENT & MARKETING MANAGER**

**ATTACHMENT A**  
**TECHNICAL SPECIFICATIONS OF THE REQUESTED PARTS**

<b>LOT01: Spare Parts for BOP Single 11"X5000 SHENKAI SK16111 (*)</b>			
<b>Item</b>	<b>Description</b>	<b>Reference</b>	<b>QTY</b>
1	ORING	38.5X3.55	2
2	RETAINER RING 140	GB/T893.1	4
3	BACK UP RING	2C09.07	4
4	SEAL FOR PISTON ROD	2C09.08	4
5	SUPPORTING GLAND COVER	2C09.18	4
6	ORING	87.5X3.55	8
7	ORING	97.5X3.55	8
8	U SEAL	H513	4
9	SECONDARY PACKING	EM09-1	2
10	U SEAL	Ø76.1X92.08X14.27/15.72	4
11	ORING	77.5X5.3	4
12	FLOATING SEAL SKELETON	2C09.06.00	6
13	BACK UP RING ( RAM /BONNET )	C663-22 (Ø80X88.6X1.7)	8
14	ORING	GB3452.1 (112X7)	4
15	ORING	GB3452.1 (103X5.3)	4
16	BACK UP RING ( RAM /BONNET )	C663-22 (115X126.6X2.5)	4
17	BACK UP RING	C663-22(Ø64X72.6X1.7)	8
18	BACK UP RING (FLANGE/PISTON )	C663-22(Ø48X56.6X1.7)	4
19	GUIDE RING	2C01.45	4
20	ORING (INTERMEDIATE/ OPEING CLOSING PISTON)	GB3452.1 (65X5.3)	4
21	O-RING (INT FLANGE / BONNET)	GB/T3452.1(307X7)	4
22	BACK UP RING (INT FLANGE / BONNET)	C633-22(305X316.6X2.5)	4
23	PISTON SEAL	GM-120712	4
24	SEAL RING AND TAIL ROD	H601- Ø76.2X92.08X14.27/15.72	4
25	SEALING GLAND	2C05.05	4
26	SEAL PLUG	2C05.04	4
27	TOP SEAL	2C06.08A.03	6
28	FRONT SEAL 2"3/8	2C06.08C.02	2
29	O-RING	G3452.1(77.5X5.3)	6
30	ORING (BODY/PISTON)	GB3452.1 ( 47.5X5.3)	4
(*)NB: :- OEM parts are required -To provide COC as per 16A & API QMS Attached:-COC of the BOP in the end of the inquiry			

<b>LOT02: Spare parts for accumulator FKQ640-6 SHANKAI SN 12-74(**)</b>			
<b>Item</b>	<b>Description</b>	<b>Reference</b>	<b>QTY</b>
<b>1</b>	<b>REPAIR KIT FOR 34ZS 21-25 CONTROL VALVE</b>		<b>8</b>
<b>2</b>	<b>THREE POSITION -FOUR WAY CONTROL VALVE</b>	<b>34ZS21-25</b>	<b>6</b>
<b>3</b>	<b>REPAIR KIT FOR 24ZS 21-25 CONTROL VALVE</b>		<b>2</b>
<b>4</b>	<b>TWO POSITION -THREE WAY CONTROL VALVE</b>	<b>24ZS21-25</b>	<b>1</b>
<b>5</b>	<b>MANIFOLD RELIEF VALVE</b>	<b>Y40-20</b>	<b>1</b>
<b>6</b>	<b>RELIEF VALVE</b>	<b>Y25-20</b>	<b>1</b>
<b>7</b>	<b>REPAIR KIT FOR TRIPLEX PUMP MODEL QB21-80</b>		<b>2</b>
<b>8</b>	<b>REPAIR KIT FOR MANUEL OPERATED REGULATOR MODEL JYS21-25</b>		<b>2</b>
<b>9</b>	<b>REPAIR KIT FOR AIR OPERATED AND MANUEL REGULATOR MODEL JYS21-25</b>		<b>2</b>
<b>10</b>	<b>OIL FILTER</b>	<b>WF11B-16TG1"</b>	<b>2</b>
<b>11</b>	<b>3-POSITION AND 4-WAY OPERATED VALVE</b>	<b>34XR6Y-L8F</b>	<b>10</b>
<b>12</b>	<b>HIGH PRESSEUR BALL VALVE ( WITH UNLOADING)</b>	<b>31.5MPA-Z1 1/2"</b>	<b>16</b>
<b>13</b>	<b>ACCUMULATOR INFLATABLE CHECK VALVE</b>	<b>NXQ1-L40/31.5/H-CQF</b>	<b>20</b>
<b>14</b>	<b>ACCUMULATOR SKIN CAPSULE</b>	<b>40L</b>	<b>20</b>
<b>15</b>	<b>SHOCKPROOF PRESSURE GAUGE (AXIAL M20X1.5)</b>	<b>YB100BF (0-25MPA)</b>	<b>5</b>
<b>16</b>	<b>PROPORTIONAL PRESSUER GAUGE</b>	<b>Y-100ZT (0-40MPA)</b>	<b>10</b>
<b>17</b>	<b>QUICK CONNECTOR</b>	<b>NPT 1" 5000 PSI</b>	<b>50</b>
<b>18</b>	<b>ACTIONNEUR PNEUMATIQUE</b>	<b>RT035DA</b>	<b>1</b>
<b>19</b>	<b>PNEUMATIC PRESSURE TRANSMITTER</b>	<b>YPQ-40</b>	<b>2</b>
<b>20</b>	<b>EX PRESSEUR SWITCH</b>	<b>YTK-02E</b>	<b>2</b>
<b>21</b>	<b>EXPLOSION PROOF ELECTRON BELL</b>	<b>BAL-24D</b>	<b>1</b>
<b>22</b>	<b>MAGNETIC LIQUIDE LEVEL CONTROLLER</b>	<b>UHZ-58</b>	<b>1</b>
<b>23</b>	<b>EXLOSION PROOF PLUG &amp; SOCKET</b>	<b>BAC15/10</b>	<b>2</b>
<b>24</b>	<b>CIRCUIT BREAKER 60A</b>	<b>MCCB ABS 63B</b>	<b>1</b>
<b>(**)NB: :-OEM parts are required</b> <b>-To provide COC for all parts as per API-16D</b> <b>-Provide API Monogram 16D</b> <b>Attached: - Certificate of Origin in the end of the inquiry</b> <b>-Certificate of Product Quality in the end of the inquiry</b>			

# ATTACHMENT B

## UNPRICED TECHNICAL OFFER

LOT01: Spare Parts for BOP Single 11"X5000 SHENKAI SK16111

### PRO-FORMA INVOICE FORMAT USING YOUR COMPANY LETTER HEAD

FROM :

BIDDER'S FULL NAME: .....

ADDRESS: .....

TELEPHONE N° : .....

FAX N°: .....

CONTACT NAME: .....

TO:

COMPAGNIE TUNISIENNE

DE FORAGE

19 RUE DE L'ARTISANAT 2035

CHARGUIA II ARIANA – L'AEROPROT

TUNIS - TUNISIA

PRO-FORMA INVOICE N° : .....

DATE : .....

ITEM	QTY	DESCRIPTION
		Detailed description of the EQUIPEMENT

#### AUTHORIZED SIGNATURE

NAME : .....

SIGNATURE : .....

TITLE : .....

DATE : .....

COMPANY STAMP

## UNPRICED TECHNICAL OFFER

LOT02: Spare parts for accumulator FKQ640-6 SHANKAI SN 12-74

### PRO-FORMA INVOICE FORMAT USING YOUR COMPANY LETTER HEAD

**FROM :**  
**BIDDER'S FULL NAME:** .....  
**ADDRESS:** .....  
**TELEPHONE N° :** .....  
**FAX N°:** .....  
**CONTACT NAME:** .....

**TO:**  
**COMPAGNIE TUNISIENNE**  
**DE FORAGE**  
**19 RUE DE L'ARTISANAT 2035**  
**CHARGUIA II ARIANA – L'AEROPROT**  
**TUNIS - TUNISIA**

**PRO-FORMA INVOICE N° :** .....

**DATE :** .....

ITEM	QTY	DESCRIPTION
		Detailed description of the EQUIPEMENT

#### AUTHORIZED SIGNATURE

**NAME :** .....

**SIGNATURE :** .....

**TITLE :** .....

**DATE :** .....

**COMPANY STAMP**

# ATTACHMENT C

## PRICED FINACIAL OFFER

LOT01: Spare Parts for BOP Single 11"X5000 SHENKAI SK16111

### PRO-FORMA INVOICE FORMAT USING YOUR COMPANY LETTER HEAD

FROM :  
BIDDER'S FULL NAME: .....  
ADDRESS: .....  
TELEPHONE N° : .....  
FAX N°: .....  
CONTACT NAME: .....

TO:  
COMPAGNIE TUNISIENNE  
DE FORAGE  
19 RUE DE L'ARTISANAT 2035  
CHARGUIA II ARIANA – L'AEROPROT  
TUNIS - TUNISIA

PRO-FORMA INVOICE N° : .....

DATE : .....

ITEM	QTY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
		Detailed description of the EQUIPMENT		
TOTAL MATERIAL VALUE EX-WORKS				.....
CHARGES( PACKING, HANDLING , ETC ...)				.....
TOTAL FCA				

- MANUFACTURER NAME OF EACH ITEM: ONLY OEM PARTS ARE ACCEPTED
- COUNTRY OF ORIGIN : .....
- COUNTRY OF EMBARKATION : .....
- ESTIMATED NET AND GROSS WEIGHT : .....
- DELIVERY FROM DATE OF ORDER ACKNOWLEDGEMENT : Preferably 03 weeks to 04 weeks..
- TERMS OF PAYMENT : NET 30 DAYS/ CASH AGAINST DOCUMENT
- VALIDITY OF BID ( TO BE NOT LESS THAN 90 DAYS FROM BID CLOSING DATE ) : .....
- GENERAL TERMS AND CONDITIONS : .....

#### AUTHORIZED SIGNATURE

NAME : .....

SIGNATURE : .....

TITLE : .....

DATE : .....

COMPANY STAMP :

## PRICED FINACIAL OFFER

LOT02: Spare parts for accumulator FKQ640-6 SHANKAI SN 12-74

### PRO-FORMA INVOICE FORMAT USING YOUR COMPANY LETTER HEAD

**FROM :**

**BIDDER'S FULL NAME:** .....

**ADDRESS:** .....

**TELEPHONE N° :** .....

**FAX N°:** .....

**CONTACT NAME:** .....

**TO:**

**COMPAGNIE TUNISIENNE**

**DE FORAGE**

**19 RUE DE L'ARTISANAT 2035**

**CHARGUIA II ARIANA – L'AEROPROT**

**TUNIS - TUNISIA**

**PRO-FORMA INVOICE N° :** .....

**DATE :** .....

ITEM	QTY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
		Detailed description of the EQUIPMENT		
TOTAL MATERIAL VALUE EX-WORKS				.....
CHARGES( PACKING, HANDLING , ETC ...)				.....
TOTAL FCA				

- **MANUFACTURER NAME OF EACH ITEM: ONLY OEM PARTS ARE ACCEPTED**
- **COUNTRY OF ORIGIN :** .....
- **COUNTRY OF EMBARKATION :** .....
- **ESTIMATED NET AND GROSS WEIGHT :** .....
- **DELIVERY FROM DATE OF ORDER ACKNOWLEDGEMENT : Preferably 03 weeks to 04 weeks.**
- **TERMS OF PAYMENT : NET 30 DAYS/ CASH AGAINST DOCUMENT**
- **VALIDITY OF BID ( TO BE NOT LESS THAN 90 DAYS FROM BID CLOSING DATE ) :** .....
- **GENERAL TERMS AND CONDITIONS :** .....

**AUTHORIZED SIGNATURE**

**NAME :** .....

**SIGNATURE :** .....

**TITLE :** .....

**DATE :** .....

**COMPANY STAMP :**

## ***ATTACHMENT D***

### ***MAIN TERMS AND CONDITIONS***

## **ATTACHMENT D**

### **MAIN TERMS AND CONDITIONS**

*A Purchase Order will be issued to the successful bidders based on the following main terms and conditions*

**1/ Purchase Order Prices**

*Purchase Order prices are inclusive of all rights, duties and taxes applicable outside Tunisia and related to the supply of Each lot including all costs related to packing, handling, shipping and delivery .*

**2/ Prices validity :**

*The prices of the Purchase Order, shall remain firm throughout delivery and not subject to any revision.*

**3/ Payment:**

*Payment will be made by wire transfer to the supplier's designated Bank account no later than 30 days from date of receipt of invoice.*

**4/ Payment of subcontractors:**

*Subcontractors are paid directly by the supplier; CTF will not assume any liability in case supplier does not pay his subcontractors.*

**5/ Conformity:**

*The SPARE PARTS shall be in conformity with the technical specifications set forth in attachment A and in supplier's quote.*

*CTF reserves the right to call on experts or technicians of it's choice to examine, control and test the SPARE PARTS in view of their acceptance.*

*In the event SPARE PARTS turn out not to be in conformity , expert fees will be at supplier's cost even in case of replacement of the rejected SPARE PARTS .*

*Accordingly supplier will not be entitled to make any claim of what ever nature as a result of incurring above costs.*

**6/ Delivery:**

*Delivery will be as stated in supplier's bid and the resulting Purchase Order.*

*Such delivery shall be respected and no delays will be allowed except as provided under article 10 (Force Majeure).*

**7/ Packing and Transport:**

**7-1 Packing and marking:**

➤ **Packing:**

*Supplier shall pack the SPARE PARTS adequately in such a manner as to prevent any damages during transport from ex-works .*

*Packing shall be adequate to provide good conservation during handling, bad weather etc... supplier shall bear the full responsibility for damages resulting from improper packing of material.*

*The packaging must be only in cardboard or in wood boxes instead of plastic packing otherwise penalties will be applied*

➤ **Marking**

*Each parcel shall be clearly marked to mention the following:*



*Packing shall be marked to show the following informations:*

- *Supplier's name and address.*
- *Parcel number in X/N form (the numerator will indicate the sequential number of the parcel and de denominator the total number of parcels).*
- *Gross weight of each parcel.*
- *Dimension of each parcel in form L x W x H (length x width x height)*
- *Special marking as required for specific material such as fragile , Top , Bottom etc....*

**7-2 Insurance coverage :**

*CTF will be responsible for insurance coverage of the risks involved in transport of the SPARE PARTS from port of loading or F.O.T (if delivery by truck) to port of unloading in accordance with the provision of incoterms 2000 or latest edition of ICC*

*However supplier shall be responsible for packing, handling and loading of the SPARE PARTS on the vessel or truck.*

**8/ Loss, Damages, Rejected Material**

**8.1 Loss, damages:**

*Supplier is required to replace as soon as possible at his costs and expenses (including all costs involved from ex-works to CTF designated delivery site) any missing items or non conformity of part or the totality of the items*

*All expenses, fees and taxes of what ever nature and – notwithstanding their amounts- incurred in making such replacements as provided in this article will be at supplier's cost.*

**8.2 Rejected material**

*Any material rejected by CTF shall be replaced by supplier at his sole cost and expenses and without compensation, as soon as possible but no later than Seven (07) days from date of rejection notification.*

**9/ Guarantee:**

*Supplier shall guarantee the SPARE PARTS against any hidden defect, fabrication or materials defects for a period of 12 months from date of first usage or 18 months from shipping date (as stated in the bill of lading or CMR whichever comes first).*

*This guarantee shall also cover any and all costs related to travel of personnel, packing and shipment incurred when replacing or repairing defective material weather at a designated location or at CTF Base.*

*During the guarantee period, supplier shall make any repairs requested by CTF. However, he can request to be reimbursed in case he determines that such repairs are not covered by the guarantee or are due to CTF improper usage or handling of the SPARE PARTS*

#### **10/ Force Majeure**

*Neither party will be considered as failing to meet it's contractual obligations in case such failure is delayed, hindered or prevented by a case of force majeure .*

*Force majeure is defined as any unpredictable, irresistible event beyond the concerned party control which prevents him from meeting part or all of his obligations setforth in the present contract.*

*Strikes of supplier's personnel will not be considered as case of force majeure.*

*In the event delivery of the SPARE PARTS complete with accessories will be partially or totally hampered due to a case of force majeure, supplier shall advise CTF within **Three (03) days** by formal notification of the commencement and end of force majeure as well as the likely consequences on the fulfillment of this contractual obligation.*

*He shall also provide CTF with credible evidence of the existence and duration of the case of force majeure. CTF reserves the right to evaluate the reasons hampering the fulfillment of supplier's contractual obligations and to decide whether they are among force majeure cases or not.*

*Time required to fulfill supplier's contractual obligations will be extended by the number of days required to overcome the force majeure case. Should the force majeure case exceeds **Ten (10) days**; CTF reserves the right to cancel the Purchase Order by written notice (fax or e-mail).*

#### **11/ Disputes And Conflicts**

*Any disputes related to the interpretation or the execution of the present contract –unless settled amicably by the parties- shall be settled by the competent Tunisian court.*



# 产品质量档案

## PRODUCT QUALITY DOCUMENT

产品型号

Product Model 11"-5000Psi

产品名称 单闸板防喷器

Product Name Single Ram BOP

产品编号

Product No. SK16111

报告日期

Report Date \_\_\_\_\_

上海神开石油设备有限公司

Shanghai Shenkai Petroleum Equipment Co., Ltd

Company Name : Shanghai Shenkai Petroleum Equipment Co.,Ltd.  
 Address : No.1769 Puxing Road, Minhang District, Shanghai, China  
 Phone : 021-54332841



## Certificate of Conformance New Manufacture

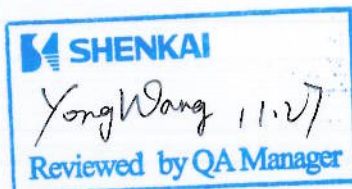
Certificate number : SK16111  
 Valid from : 2016.11.27

General		
Customer Name	SAKSON	
Customer Address	39th, Floor, JBC 1, P.O.Box:454907 JLT,Dubai,UAE	
Customer Purchase Order number	16000001	
COC History	Certificate Number	Issue Date
Original Certificate of Conformance	SK16111	2016.11.27

Original Equipment History		
Equipment Type/Description/Rating	11"-5000Psi Single Ram BOP	
Original Equipment Manufacturer Name	Shanghai Shenkai Petroleum Equipment Co., Ltd,	
Original Date of Manufacturing	2016.11.27	
Original OEM Job order / Purchase Order number	SKF16W-126	
OEM Assembly Serial Number	SK16111	
API Monogram/Marking (Yes / No)	Yes	
Temp rating (min/max)	T20 (-29°C—121°C)	
H2S	Rated for H2S Service	
Applicable Engineering codes and Standards		Revision / Edition
API-16A, Specification for Drill Through Equipment		3 <sup>rd</sup> edition
API-6A, Specification for Wellhead and Christmas Tree Equipment		20 <sup>th</sup> edition
ISO-15156 part 1, 2 and 3 (NACE MR-0175), H2S resistance		2009 edition
API-Q1 Quality Control and Assurance		9 <sup>th</sup> edition
Notes on Scope of Certification	The Ram Bop is in compliance with the latest edition of NACE MR0175	

Quality Control and Quality Assurance	Yes
Full material traceability (mill certificate with heat number composition, material properties and total number of heat treatments) available for all components.	Yes
Welding Product Specifications (WPS) and Welding Product Qualification Records (WPQR) meet or exceed applicable international and / or Class Society standards.	Yes
Scope of Work verified	Yes
Certification required with API Monogram	Yes

Approved By :  
 Qualification :  
 Date :



Company Name : Shanghai Shenkai Petroleum Equipment Co.,Ltd.  
 Address : No.1769 Puxing Road, Minhang District, Shanghai, China  
 Phone : 021-54332841



## Certificate of Conformance New Manufacture

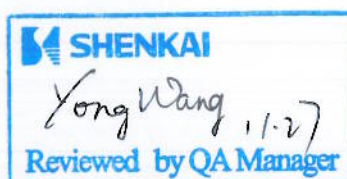
Certificate number : SKF3422  
 Valid from : 2016.11.27

General		
Customer Name	SAKSON	
Customer Address	39th, Floor, JBC 1, P.O.Box:454907 JLT,Dubai,UAE	
Customer Purchase Order number	16000001	
COC History	Certificate Number	Issue Date
Original Certificate of Conformance	SKF3422	2016.11.27

Original Equipment History			
Equipment Type/Description/Rating		2-3/8" Ram Assembly	
Original Equipment Manufacturer Name		Shanghai Shenkai Petroleum Equipment Co., Ltd,	
Original Date of Manufacturing		2016.11.27	
Original OEM Job order / Purchase Order number		SKF16W-126	
OEM Assembly Serial Number		SKF3422	
Temp rating (min/max)		T20 (-29℃—121℃)	
H2S		Rated for H2S Service	
Applicable Engineering codes and Standards		Revision / Edition	Issue Date
API-16A, Specification for Drill Through Equipment		3 <sup>rd</sup> edition	2004.12.3
API-6A, Specification for Wellhead and Christmas Tree Equipment		20 <sup>th</sup> edition	2011.4.1
ISO-15156 part 1, 2 and 3 (NACE MR-0175), H2S resistance		2009 edition	2009.10.15
API-Q1 Quality Control and Assurance		9 <sup>th</sup> edition	2014.6.1
Notes on Scope of Certification	The Ram Bop is in compliance with the latest edition of NACE MR0175		

Quality Control and Quality Assurance	Yes
Full material traceability (mill certificate with heat number composition, material properties and total number of heat treatments) available for all components.	Yes
Welding Product Specifications (WPS) and Welding Product Qualification Records (WPQR) meet or exceed applicable international and / or Class Society standards.	Yes
Scope of Work verified	Yes

Approved By :  
 Qualification :  
 Date :



上海神开石油设备有限公司

SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

金属材料化学成分检测报告

METALLIC MATERIAL CHEMICAL COMPOSITION TEST REPORT

送验部门 Sender	外协部 Outsource Department	试样材料 Sample Material	25CrNiMo	炉号 Heat-lot	142-0230							
检测设备 Test Equipment	光谱仪 Metals Analyzer ■Spectro TEST □Spectro MAXx	热处理状态 Heat-treatment State	■正火/normalizing □退火/annealing	检测日期 Test Date	2016-9-30							
试样编号 Sample No.	16-0152	试验温度 Test Temperature	25℃	报告签发日期 Date reported	2016-9-30							
试验标准 Test Standard	■GB/T 4336 碳素钢和中低合金钢火花放电原子发射光谱仪/Standard test method for spark discharge atomic emission spectrometric analysis of carbon and low-Alloy steel □GB/T 11170 不锈钢 多元素含量的测定火花放电原子发射光谱仪/Stainless steel—determination of multi-element contents—Spark discharge atomic emission spectrometric method											
验收准则 Acceptance Criteria	□SK/QHSEW-01-41 防喷器承压及控压铸钢件技术条件/Specification for pressure containing/controlling parts casting ■SK/QHSEW-01-42 防喷器承压及控压锻件技术条件/Specification for pressure containing/controlling parts forging ■ANSI/API 16A /ISO 13533/GB/T 20174 石油和天然气工业钻井和采油设备钻井通道设备 Petroleum and natural gas industries —drilling and production equipment—drill-through equipment ■NACE MR 0175 油田设备用抗硫化物应力腐蚀开裂的金属材料 Sulfide stress cracking resistant metallic materials for oilfield equipment											
元素 Element	C	Mn	Si	S	P	Cr	Ni	Mo				
要求值 Requirements	0.25-0.30	0.70-0.90	0.20-0.40	≤0.015	≤0.025	0.40-0.70	0.40-0.70	0.15-0.25				
实测 Measured value	0.26	0.89	0.26	0.005	0.007	0.69	0.65	0.25				
单位 (%重量百分含量) Unit (% weight percent)												
结论 Conclusion	S/N:142-0230 11"-5000Psi 壳体/Shell 符合 API 16A/ ISO 13533、GB/T20174、NACE MR 0175 和 SK/QHSEW-01-42 要求。 Accord with API 16A/ISO 13533, GB/T 20174, NACE MR 0175 and SK/QHSEW-01-42.											
备注 Remark	保存部门: 质量部, 保存期限为 10 年; Saved by Quality Dept. For a period of 10 years; 本报告仅对来样负责; 部分复制报告无效。 This report is valid only for the Samples, partly using this report will not be allowed.											
检验: Tested by:	张青磊			审核: Checked by:			陈伟良			批准: Approved by:		朱克兵



No.: SK/QHSEWR-01-91-04 (A0)

上海神开石油设备有限公司  
SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO.LTD  
金属材料机械性能检测报告  
METAL MATERIAL MECHANICAL PROPERTIES TEST REPORT

客户名称 Customer	外协部 Outsource Department	试样名称 Sample Name	φ10mm 拉伸试样 10×10×55mm 冲击试样 φ10mm Tensile Test Piece 10×10×55mm Impact Specimen		试样编号 Sample No.	2016-0124		
试样材料 Sample Material	25CrNiMo	试样热处理状态 Heat-treatment State	调质 Quenching and Tempering		试样炉号 Heat-lot	142-0230		
试样取样方向 Sample Direction	纵向 Longitudinal Direction	检测设备 Test Equipment	SUNS UTM5305 电子万能试验机/Electronic universal tensile testing machine SUNS PTM2200D1 摆锤式冲击试验机/Charpy pendulum impact test device		检测条件 Test Conditions	GB/T 228A <sub>224</sub>		
检测温度 Test Temperature	20℃	检测日期 Test Date	2016-10-27		报告签发日期 Date Reported	2016-10-27		
检测标准 Test Standard	GB/T-228/ISO 6892 金属材料室温拉伸试验方法 Metallic materials – Tensile testing – Part 1: Method of test at room temperature ASTM A370 钢产品力学性能的试验方法和定义 Standard Test Methods and Definitions for Mechanical Testing of Steel Products							
验收准则 Acceptance Criteria	□SK/QHSEW-01-41 防喷器承压及控压铸钢件技术条件/Specification for pressure containing/controlling parts casting ■SK/QHSEW-01-42 防喷器承压及控压锻件技术条件/Specification for pressure containing/controlling parts forging ■ANSI/API 16A /ISO 13533/GB/T 20174 石油和天然气工业 钻井和采油设备 钻井通道设备 Petroleum and natural gas industries—drilling and production equipment—drill-through equipment ■NACE MR 0175 油田设备用抗硫化物应力腐蚀开裂的金属材料 Sulfide stress cracking resistant metallic materials for oilfield equipment							
检测项目 Test Item	规定塑性延伸强度 0.2%Yield Strength (MPa)	抗拉强度 Tensile Strength (MPa)	断面收缩率 Reduction of Area (%)	伸长率 Elongation (%)	冲击值 Impact Value (J)			硬度 Hardness
					温度等级 Temperature Rating T-20			平均值 Average value
要求值 Requirements	≥517	≥655	≥35	≥18.0	≥27			≥27
实测值 Tested Value	591	731	76	21.5	123	137	138	133
结论 Conclusion	S/N:142-0230 11"-5000Psi 壳体/Shell 符合 SK/QHSEW-01-42、ANSI/API 16A /ISO 13533、GB/T 20174、NACE MR 0175。 Accord with SK/QHSEW-01-42, ANSI/API 16A /ISO 13533, GB/T 20174, NACE MR 0175.							
备注 Remark	保存部门:质量部 保存期限为 10 年; Retention period of 10 years in Quality Dept. 本报告仅对来样负责; 部分复制报告无效 This report is valid only for the Samples, partly using this report will not be allowed.							
检测: Tested by:	庄伟敏		审核: Checked by:	陈良		批准: Approved by:	朱克兵	

盖章 Stamp

地址:上海市浦星公路 1769 号  
No. 1769, Pu Xing Rd

第 1 页, 共 1 页  
page 1 of 1

上海神开石油设备有限公司  
SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD  
金属材料化学成分检测报告  
METALLIC MATERIAL CHEMICAL COMPOSITION TEST REPORT

送验部门 Sender	外协部 Outsource Department	试样材料 Sample Material	25CrNiMo	炉号 Heat-lot	DJ16-8037						
检测设备 Test Equipment	光谱仪 Metals Analyzer ■Spectro TEST □Spectro MAXx	热处理状态 Heat-treatment State	■正火/normalizing □退火/annealing	检测日期 Test Date	2016-9-18						
试样编号 Sample No.	16-0145	试验温度 Test Temperature	25℃	报告签发日期 Date reported	2016-9-18						
试验标准 Test Standard	■GB/T 4336 碳素钢和中低合金钢火花放电原子发射光谱仪/Standard test method for spark discharge atomic emission spectrometric analysis of carbon and low-Alloy steel □GB/T 11170 不锈钢 多元素含量的测定火花放电原子发射光谱仪/Stainless steel—determination of multi-element contents—Spark discharge atomic emission spectrometric method										
验收准则 Acceptance Criteria	□SK/QHSEW-01-41 防喷器承压及控压铸钢件技术条件/Specification for pressure containing/controlling parts casting ■SK/QHSEW-01-42 防喷器承压及控压锻件技术条件/Specification for pressure containing/controlling parts forging ■ANSI/API 16A /ISO 13533/GB/T 20174 石油和天然气工业钻井和采油设备钻井通道设备 Petroleum and natural gas industries —drilling and production equipment—drill-through equipment ■NACE MR 0175 油田设备用抗硫化物应力腐蚀开裂的金属材料 Sulfide stress cracking resistant metallic materials for oilfield equipment										
元素 Element	C	Mn	Si	S	P	Cr	Ni	Mo			
要求值 Requirements	0.25-0.30	0.70-0.90	0.20-0.40	≤0.015	≤0.025	0.40-0.70	0.40-0.70	0.15-0.25			
实测 Measured value	0.26	0.76	0.26	0.005	0.008	0.48	0.52	0.19			
单位 (%重量百分含量) Unit (% weight percent)											
结论 Conclusion	S/N:DJ16-8037-1、DJ16-8037-2 11"-5000Psi 侧门/Side door 符合 API 16A/ ISO 13533、GB/T20174、NACE MR 0175 和 SK/QHSEW-01-42 要求。 Accord with API 16A/ISO 13533, GB/T 20174, NACE MR 0175 and SK/QHSEW-01-42.										
备注 Remark	保存部门: 质量部, 保存期限为 10 年; Saved by Quality Dept. For a period of 10 years; 本报告仅对来样负责; 部分复制报告无效。 This report is valid only for the Samples, partly using this report will not be allowed.										
检验: Tested by:	张青磊			审核: Checked by:			批准: Approved by:			朱克兵 质检部	

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No.: SK/QHSEWR-01-91-04 (A0)

上海神开石油设备有限公司  
SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO.LTD  
金属材料机械性能检测报告  
METAL MATERIAL MECHANICAL PROPERTIES TEST REPORT

客户名称 Customer	外协部 Outsource Department	试样名称 Sample Name	φ10mm 拉伸试样 10×10×55mm 冲击试样 φ10mm Tensile Test Piece 10×10×55mm Impact Specimen		试样编号 Sample No.	2016-0126	
试样材料 Sample Material	25CrNiMo	试样热处理状态 Heat-treatment State	调质 Quenching and Tempering		试样炉号 Heat-lot	DJ16-8037	
试样取样方向 Sample Direction	纵向 Longitudinal Direction	检测设备 Test Equipment	SUNS UTM5305 电子万能试验机/Electronic universal tensile testing machine SUNS PTM2200D1 摆锤式冲击试验机/Charpy pendulum impact test device		检测条件 Test Conditions	GB/T 228A <sub>224</sub>	
检测温度 Test Temperature	20℃	检测日期 Test Date	2016-10-27		报告签发日期 Date Reported	2016-10-27	
检测标准 Test Standard	GB/T-228/ISO 6892 金属材料室温拉伸试验方法 Metallic materials – Tensile testing – Part 1: Method of test at room temperature ASTM A370 钢产品力学性能的试验方法和定义 Standard Test Methods and Definitions for Mechanical Testing of Steel Products						
验收准则 Acceptance Criteria	□SK/QHSEW-01-41 防喷器承压及控压铸钢件技术条件/Specification for pressure containing/controlling parts casting ■SK/QHSEW-01-42 防喷器承压及控压锻件技术条件/Specification for pressure containing/controlling parts forging ■ANSI/API 16A /ISO 13533/GB/T 20174 石油和天然气工业 钻井和采油设备 钻井通道设备 Petroleum and natural gas industries —drilling and production equipment—drill-through equipment ■NACE MR 0175 油田设备用抗硫化物应力腐蚀开裂的金属材料 Sulfide stress cracking resistant metallic materials for oilfield equipment						
检测项目 Test Item	规定塑性延伸强度 0.2%Yield Strength (MPa)	抗拉强度 Tensile Strength (MPa)	断面收缩率 Reduction of Area (%)	伸长率 Elongation (%)	冲击值 Impact Value (J)		硬度 Hardness
					温度等级 Temperature Rating T-20	平均值 Average value	
要求值 Requirements	≥517	≥655	≥35	≥18.0	≥27		HBW 210-234
实测值 Tested Value	526	675	77	22.5	57	38 46	47 211
结论 Conclusion	S/N:DJ16-8037-1、DJ16-8037-2 11"-5000Psi 侧门/Side door 符合 SK/QHSEW-01-42、ANSI/API 16A /ISO 13533、GB/T 20174、NACE MR 0175。 Accord with SK/QHSEW-01-42, ANSI/API 16A /ISO 13533, GB/T 20174, NACE MR 0175.						
备注 Remark	保存部门:质量部 保存期限为 10 年; Retention period of 10 years in Quality Dept. 本报告仅对来样负责; 部分复制报告无效 This report is valid only for the Samples, partly using this report will not be allowed.						
检测: Tested by:	庄伟敏		审核: Checked by:	陈伟良		批准: Approved by:	朱克兵

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## 上海神开石油设备有限公司

## SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

## 超声波检测报告

## ULTRASONIC INSPECTION REPORT

送验部门: 制造部/外协部

Sender: MFG./Outsourcing Dept.

检测日期: 2016-11-10

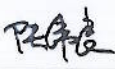

Test Date:

报告编号: 2016-11-10-1U

Report No.:

报告日期: 2016-11-10

Reporting Date:

产品型号/名称 Model/ Description	闸板防喷器 Ram BOP	零件图号/名称 Part No/ Description 炉号/追溯号 Heat-lot/SN	C46.02A01.01 壳体 Shell 142-0230	材料 Material	25CrNiMo
热处理状态 Heat-treatment State	Quenching and Tempering 调质	仪器型号 Instrument Code	CST-2600	检测标准 Inspecting Standard	ASME A388
频率 Frequency	2MHz/ 1MHz	探头型号 Probe Code	MB2S B2S/ 9*9K1	探伤方法 Inspection Method	<input checked="" type="checkbox"/> 纵波直探头 Longitudinal Waves Normal Probe <input type="checkbox"/> 横波斜探头 Transverse Wave Angle Probe
灵敏度 Sensitivity	Φ3.2/ 基准灵敏度 Reference sensitivity+6dB	表面补偿 Surface Compensation	6dB	耦合剂 Couplet	机油 Machine Oil
表面状态 Surface State	精加工 Ra6.3 (machined) 打磨至 Ra 12.5μm Polish to Ra 12.5μm	试块 Block	工件大平底 Large flat / 矩形槽试块 Rectangular groove block	检测区域 Detection Area	整体 Body
验收准则 Acceptance criteria	<input checked="" type="checkbox"/> SK/QHSEW-02-6.8、SK/QHSEW-02-6.12 <input checked="" type="checkbox"/> ANSI/API 16A 3 <sup>rd</sup> /ISO 13533:2001、GB/T20174-2006。				
缺陷描述 Deficiency Description	未发现超标缺陷。There was no deficiency.				
检测结论 Conclusion	<input checked="" type="checkbox"/> 可接受 / Acceptable		<input type="checkbox"/> 不可接受/ Rejectable		
报告者/Reporter: (NDT Level II)			校核者/Checker: (NDT Level II)		

保存部门: 质管部

Department: \_Quality \_Dept.\_

保存期限: 10 年 Keeping

Storage Life: 10 years

## 上海神开石油设备有限公司

## SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

## 超声波检测报告

## ULTRASONIC INSPECTION REPORT

送验部门: 制造部/外协部

Sender: MFG./Outsourcing Dept.

检测日期: 2016-11-11

Test Date:

报告编号: 2016-11-11-1U

Report No.:

报告日期: 2016-11-11

Reporting Date:

产品型号/名称 Model/ Description	闸板防喷器 Ram BOP	零件图号/名称 Part No/ Description 炉号/追溯号 Heat-lot/SN	2C09.04.01 中间法兰 /Intermediate flange DJ16-8037-1 DJ16-8037-2	材料 Material	25CrNiMo
热处理状态 Heat-treatment State	Quenching and Tempering 调质	仪器型号 Instrument Code	CST-2600	检测标准 Inspecting Standard	ASME A388
频率 Frequency	2MHz	探头型号 Probe Code	MB2S B2S/	探伤方法 Inspection Method	<input checked="" type="checkbox"/> 纵波直探头 Longitudinal Waves Normal Probe <input type="checkbox"/> 横波斜探头 Transverse Wave Angle Probe
灵敏度 Sensitivity	Φ3.2	表面补偿 Surface Compensation	6dB	耦合剂 Couplet	机油 Machine Oil
表面状态 Surface State	精加工 Ra6.3 (machined) 打磨至 Ra 12.5μm Polish to Ra 12.5μm	试块 Block	工件大平底 Large flat /	检测区域 Detection Area	整体 Body
验收准则 Acceptance criteria	<input checked="" type="checkbox"/> SK/QHSEW-02-6.8、SK/QHSEW-02-6.12 <input checked="" type="checkbox"/> ANSI/API 16A 3 <sup>rd</sup> /ISO 13533:2001、GB/T20174-2006。				
缺陷描述 Deficiency Description	未发现超标缺陷。There was no deficiency.				
检测结论 Conclusion	<input checked="" type="checkbox"/> 可接受 / Acceptable		<input type="checkbox"/> 不可接受/ Rejectable		
报告者/Reporter: <u>陈伟良</u> (NDT Level II)         校核者/Checker: <u>戴培华</u> (NDT Level II)					

保存部门: 质管部

Department: \_Quality \_Dept.\_

保存期限: 10 年 Keeping  
Storage Life: 10 years

## 上海神开石油设备有限公司

## SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

## 磁粉检测报告

## MAGNETIC PARTICLE EXAMINATION REPORT

送验部门: 制造部/外协部

Sender: MFG./Outsourcing Dept.

检测日期: 2016-11-10

Test Date:

报告编号: 2016-11-10-1M

Report No.:

报告日期: 2016-11-10

Reporting Date:

产品型号/名称 Model/ Description	闸板防喷器 Ram BOP	零件图号/名称 Part No/ Description 炉号/追溯号 Heat-lot/SN	C46.02A01.01 壳体 Shell 142-0230	材料 Material	25CrNiMo
热处理状态 Heat-treatment State	Quenching and Tempering 调质	仪器/型号 Instrument/ Model	MY-2	检测标准 Inspecting Standard	ISO 10893-5
磁粉 Magnetic Particle	HD-YN 荧光磁粉 Fluorescent Wet Method Particles	<input type="checkbox"/> 磁化电流 Magnetization electrical current <input checked="" type="checkbox"/> 提升力 Lifting force	>45N	磁化方法 Magnetization Method	交流连续法 AC. Continuity Method
检测区域 Detection Area	可探区域 Available Area	表面状态 Surface State	精加工 Ra 3.2 Machined to Ra 3.2	试片 Gauge	A1-30/100 试片 A1-30/100Gauge
验收准则 Acceptance criteria	<input checked="" type="checkbox"/> SK/QHSEW-02-6.9、SK/QHSEW-02-6.12。 <input checked="" type="checkbox"/> ANSI/API 16A 3 <sup>rd</sup> /ISO 13533:2001、GB/T20174-2006。				
缺陷描述 Deficiency Description	未发现超标缺陷。There was no deficiency.				
检测结论 Conclusion	<input checked="" type="checkbox"/> 可接受 / Acceptable		<input type="checkbox"/> 不可接受/ Rejectable		
报告者/Reporter: (NDT Level II)			校核/Checker: (NDT Level II)		

保存部门: 质管部

Keeping Department: \_Quality\_Dept.\_

保存期限: 10年 质检部

Storage Life: \_10\_years\_

## 上海神开石油设备有限公司

## SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

## 磁粉检测报告

## MAGNETIC PARTICLE EXAMINATION REPORT

送验部门: 制造部/外协部

Sender: MFG./Outsourcing Dept.

检测日期: 2016-11-11

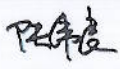

Test Date:

报告编号: 2016-11-11-1M

Report No.:

报告日期: 2016-11-11

Reporting Date:

产品型号/名称 Model/ Description	闸板防喷器 Ram BOP	零件图号/名称 Part No/ Description 炉号/追溯号 Heat-lot/SN	2C09.04.01 中间法兰 /Intermediate flange DJ16-8037-1 DJ16-8037-2	材料 Material	25CrNiMo
热处理状态 Heat-treatment State	Quenching and Tempering 调质	仪器/型号 Instrument/ Model	MY-2	检测标准 Inspecting Standard	ISO 10893-5
磁粉 Magnetic Particle	HD-YN 荧光磁粉 Fluorescent Wet Method Particles	<input type="checkbox"/> 磁化电流 Magnetization electrical current <input checked="" type="checkbox"/> 提升力 Lifting force	>45N	磁化方法 Magnetization Method	交流连续法 AC. Continuity Method
检测区域 Detection Area	可探区域 Available Area	表面状态 Surface State	精加工 Ra 3.2 Machined to Ra 3.2	试片 Gauge	A1-30/100 试片 A1-30/100Gauge
验收准则 Acceptance criteria	<input checked="" type="checkbox"/> SK/QHSEW-02-6.9、SK/QHSEW-02-6.12。 <input checked="" type="checkbox"/> ANSI/API 16A 3 <sup>rd</sup> /ISO 13533:2001、GB/T20174-2006。				
缺陷描述 Deficiency Description	未发现超标缺陷。There was no deficiency.				
检测结论 Conclusion	<input checked="" type="checkbox"/> 可接受 / Acceptable		<input type="checkbox"/> 不可接受/ Rejectable		
报告者/Reporter: (NDT Level II)			校核/Checker: (NDT Level II)		

保存部门: 质管部

Keeping Department: \_Quality \_Dept.\_

保存期限: 10年

Storage Life: \_10\_ years

## 上海神开石油设备有限公司

## SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

## 渗透检测报告

## LIQUID PENETRANT EXAMINATION REPORT

送验部门: 制造部/外协部

Sender: MFG./Outsourcing Dept.

检测日期: 2016-11-10

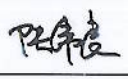

Test Date:

报告编号: 2016-11-10-1P

Report No.:

报告日期: 2016-11-10

Reporting Date:

产品型号/名称 Model/ Description	闸板防喷器 Ram BOP	零件图号/名称 Part No/ Description 炉号/追溯号 Heat-lot/SN	C46.02A01.01 壳体 Shell 142-0230	材料 Material	ER-347/ 25CrNiMo
热处理状态 Heat-treatment State	Quenching and Tempering 调质	探伤方法 Inspection Method	着色渗透法 Dye Penetrant Inspection	检测标准 Inspecting Standard	ASTM E165
渗透时间 Dwell Time	10 分 min	显像时间 Developing Time	10 分 min	渗透剂 Penetrant Type	HD 系列 HD Serier
试块类型 Block Type	B 型 B Type	探伤区域 Detection Area	垫环槽及 磁粉不可探部位 RingGroove& MT.UntouchedAreas	检测温度 Testing Temperature	15°C
验收准则 Acceptance criteria	<input checked="" type="checkbox"/> SK/QHSEW-02-6.10、SK/QHSEW-02-6.12。 <input checked="" type="checkbox"/> ANSI/API 16A 3 <sup>rd</sup> /ISO 13533:2001、GB/T20174-2006。				
缺陷描述 Deficiency Description	未发现超标缺陷。There was no deficiency.				
检测结论 Conclusion	<input checked="" type="checkbox"/> 可接受 / Acceptable		<input type="checkbox"/> 不可接受/ Rejectable		
报告者/Reporter: (NDT Level II)			校核/Checker: (NDT Level II)		

保存部门: 质管部

Keeping Department: \_Quality\_Dept.\_

保存期限: 10 年

Storage Life: \_10\_years\_



## 上海神开石油设备有限公司

## SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD

## 渗透检测报告

## LIQUID PENETRANT EXAMINATION REPORT

送验部门: 制造部/外协部

Sender: MFG. /Outsourcing Dept.

检测日期: 2016-11-11

Test Date:

报告编号: 2016-11-11-1P

Report No.:

报告日期: 2016-11-11

Reporting Date:

产品型号/名称 Model/ Description	闸板防喷器 Ram BOP	零件图号/名称 Part No/ Description 炉号/追溯号 Heat-lot/SN	2C09.04.01 中间法兰 /Intermediate flange DJ16-8037-1 DJ16-8037-2	材料 Material	625/ 25CrNiMo
热处理状态 Heat-treatment State	Quenching and Tempering 调质	探伤方法 Inspection Method	着色渗透法 Dye Penetrant Inspection	检测标准 Inspecting Standard	ASTM E165
渗透时间 Dwell Time	10 分 min	显像时间 Developing Time	10 分 min	渗透剂 Penetrant Type	HD 系列 HD Serier
试块类型 Block Type	B 型 B Type	探伤区域 Detection Area	垫环槽及 磁粉不可探部位 RingGroove& MT.UntouchedAreas	检测温度 Testing Temperature	15℃
验收准则 Acceptance criteria	<input checked="" type="checkbox"/> SK/QHSEW-02-6.10、SK/QHSEW-02-6.12。 <input checked="" type="checkbox"/> ANSI/API 16A 3 <sup>rd</sup> /ISO 13533:2001、GB/T20174-2006。				
缺陷描述 Deficiency Description	未发现超标缺陷。There was no deficiency.				
检测结论 Conclusion	<input checked="" type="checkbox"/> 可接受 / Acceptable		<input type="checkbox"/> 不可接受/ Rejectable		
报告者/Reporter: (NDT Level II)	陈伟良 校核/Checker: (NDT Level II) 戴培华				

保存部门: 质管部

Keeping Department: \_Quality \_Dept.\_

保存期限: 10 年

Storage Life: \_10\_ years

质检部



神开

SHENKAI

# 产品试压报告

## Product Pressure Test Report

产品型号:

Product Model FZ28-35U

产品名称 单闸板防喷器

Product Name Single Ram BOP

产品编号:

Product No. SK16111

上海神开石油设备有限公司

Shanghai Shenkai Petroleum Equipment Co., Ltd

单闸板防喷器出厂试验记录表  
Single Ram BOP Delivery Test Record

ZJQ/SK2.7-02

产品型号

Product model FZ28-35U





产品编号

Product no. SK16111

试验日期

Date tested 2016-11-25

试验项目 Test items	检验要求 Acceptance criteria		开腔压力 Opening pressure /MPa		关腔压力 Closing pressure /MPa		试验压力 Wellbore pressure /MPa		稳压时间 Holding time /min		试验结果 Test result	
			要求值 Required value	实测值 Actual value	要求值 Required value	实测值 Actual value	要求值 Required value	实测值 Actual value	要求值 Required Value (≥)	实测值 Actual value		
静水压强试验 Hydrostatic proof test	壳体、侧门及连接螺栓无裂纹或明显残余变形，无渗漏为合格。 No crack, obvious residual deformation or leakage on shell, side door and closure bolts.	第一次 1st	--	--	--	--	52.5	54.12	3	3	合格 OK	
		第二次 2nd	--	--	--	--	52.5	54.09	15	15	合格 OK	
液控部分强度试验 Hydraulic operating chamber test	各密封部位无渗漏为合格。 No leakage on each sealing parts.	第一次 1st	31.5	33.5	--	--	--	--	3	3	合格 OK	
		第二次 2nd	31.5	33.7	--	--	--	--	15	15	合格 OK	
		第一次 1st	--	--	31.5	34.3	--	--	3	3	合格 OK	
		第二次 2nd	--	--	31.5	34.5	--	--	15	15	合格 OK	
液动关闭密封性能试验 Sealing properties test with hydraulic closure	胶芯等密封部位无渗漏为合格。 No leakage on each sealing parts.	封 23/8" 管柱	低压 Low pressure	--	--	≤10.5	10.2	1.4~2.1	1.57	10	10	合格 OK
		23/8" Drill pipe in BOP	高压 High pressure	--	--	≤10.5	10.5	35	36.87	10	10	合格 OK

试验项目 Test items	检验要求 Acceptance criteria			开腔压力 Opening pressure /MPa		关腔压力 Closing pressure /MPa		试验压力 Wellbore pressure /MPa		稳压时间 Holding time /min		试验结果 Test result
				要求值 Required value	实测值 Actual value	要求值 Required value	实测值 Actual value	要求值 Required value	实测值 Actual value	要求值 Required Value (≥)	实测值 Actual value	
锁紧装置密封性能试验 Ram-locking system test 手动 locking【√】 液动 Hydraulic automatic locking【 】	胶芯等密封部位无渗漏为合格。 No leakage on each sealing parts.	封 23/8" 管柱 23/8" Drill pipe in BOP	低压 Low pressure	--	--	--	--	1.4~2.1	1.91	10	10	合格 OK
			高压 High pressure	--	--	--	--	35	36.92	10	10	合格 OK
通径试验 Drift test	通径规在不施加外力作用下通过为合格。 The drift mandrel shall pass the bore without being forced.			通径规直径 278.77mm。 Diameter of drift mandrel is 10.975in. 通径试验人 								合格 OK
装配人  Assembler                试验人  Tester                检验员  Inspector												
壳体炉号      侧门炉号 Shell heat-lot      142-0230      Side door heat-lot      DJ16-8037-1      DJ16-8037-2												

保管部门：质管部

保管期限：10 年

Keeping Department: Quality Dept.

Storage Life: 10 year

# 上海神开石油设备有限公司

## 产品试压报告单

产品型号: FZ28-35U

产品编号: SK16111

试压标准: API-16A

产品名称: 单闸板防喷器

试压方式: 自动试压

试压类型: 强度试验

壳体追溯号: 142-0230

侧门追溯号1: DJ16-8037-1

侧门追溯号2: DJ16-8037-2

试压设备: 德国G300型气动泵

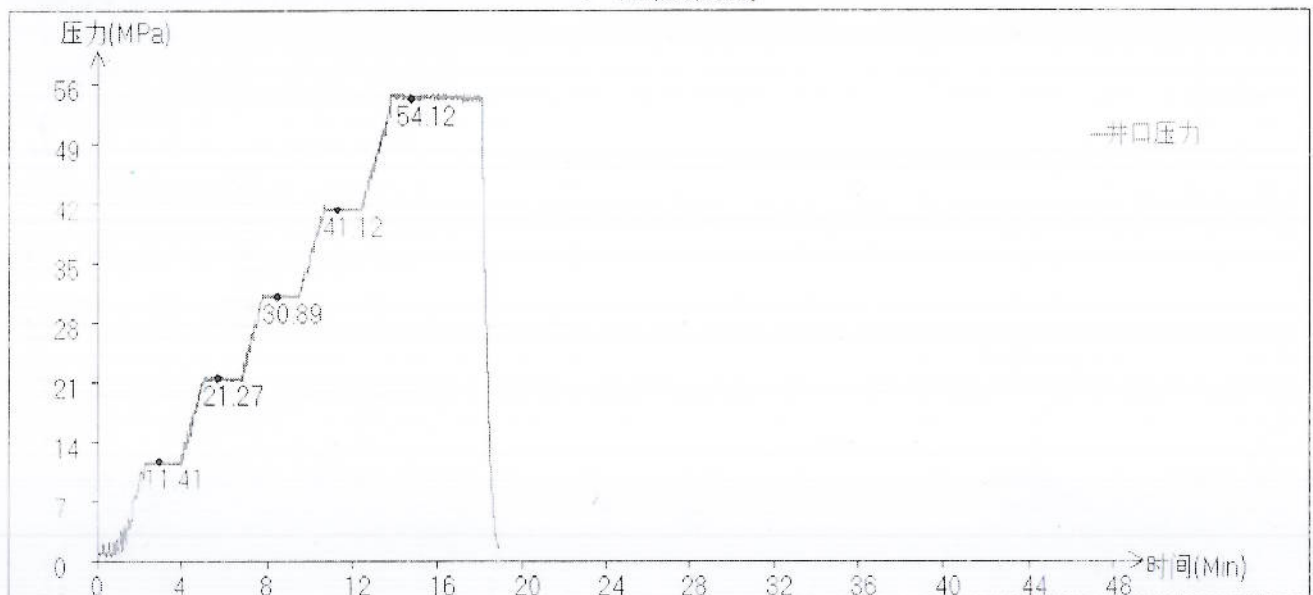
压力传感器编号: 0911005

### 试压过程

段号	段压	最大段压	最小段压	压差	稳压时间	段号	段压	最大段压	最小段压	压差	稳压时间
1	11.41	11.41	11.27	0.14	1.00	4	41.12	41.12	41.05	0.07	1.00
2	21.27	21.27	21.20	0.07	1.00	5	54.12	54.12	54.05	0.07	3.01
3	30.89	30.89	30.82	0.07	1.00						

说明: 压力单位为MPa, 时间单位为分钟

### P-t试压曲线



试验结论:

合格

开始时间: 2016-11-20 15:26

完成时间: 2016-11-20 15:45

装配员:

李桂平

试验员:

董佳波

检验员:

王君

# 上海神开石油设备有限公司

## 产品试压报告单

产品型号: FZ28-35U

产品编号: SK16111

试压标准: API-16A

产品名称: 单闸板防喷器

试压方式: 自动试压

试压类型: 强度试验

壳体追溯号: 142-0230

侧门追溯号1: DJ16-8037-1

侧门追溯号2: DJ16-8037-2

试压设备: 德国G300型气动泵

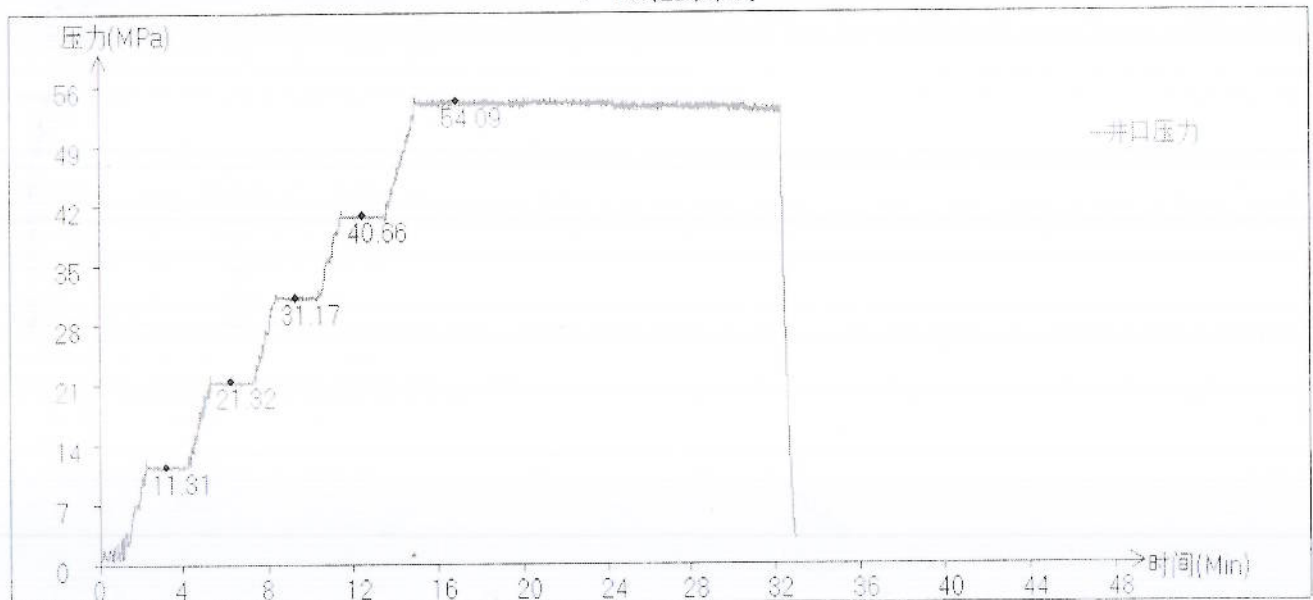
压力传感器编号: 0911005

### 试压过程

段号	段压	最大段压	最小段压	压差	稳压时间	段号	段压	最大段压	最小段压	压差	稳压时间
1	11.31	11.31	11.24	0.07	1.00	4	40.66	40.66	40.66	0.00	1.00
2	21.32	21.32	21.11	0.21	1.01	5	54.09	54.09	53.89	0.40	15.01
3	31.17	31.17	31.09	0.08	1.00						

说明 压力单位为MPa, 时间单位为分钟

### P-t试压曲线



试验结论

合格

开始时间: 2016-11-20 15:52

完成时间: 2016-11-20 16:25

装配员: 钱林平

试验员: 曹佳波

检验员: 王军

# 上海神开石油设备有限公司

## 油缸试压报告单

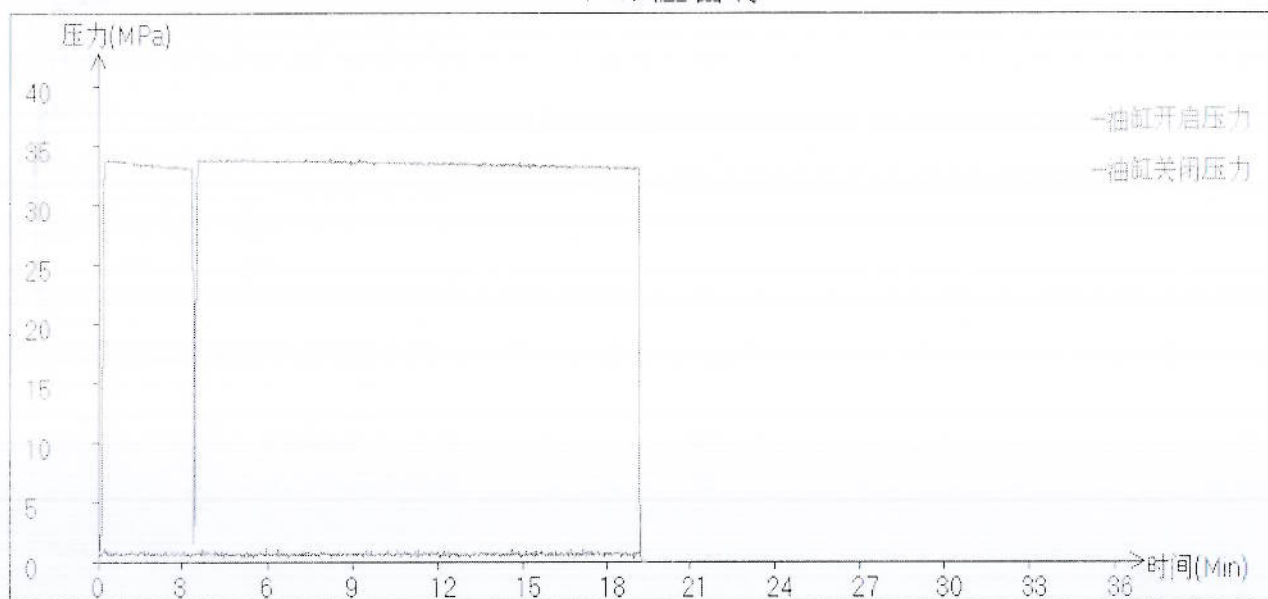
产品型号: FZ28-35U	产品编号: SK16111	试压标准: API-16A
产品名称: 单闸板防喷器	试压方式: 自动试压	试压类型: 性能试验
闸板类型: 半封	试压设备: 油缸实验设备	壳体追溯号: 142-0230
侧门追溯号1: DJ16-8037-1	侧门追溯号2: DJ16-8037-2	

### 试压过程

油缸开启压力:	<u>33.5</u>	MPa	保压时间:	<u>3.2</u>	Min
油缸关闭压力:	<u>0.0</u>	MPa	保压时间:	<u>0.0</u>	Min
油缸开启压力:	<u>33.7</u>	MPa	保压时间:	<u>15.3</u>	Min
油缸关闭压力:	<u>0.0</u>	MPa	保压时间:	<u>0.0</u>	Min

说明: 压力单位为MPa, 时间单位为分钟

### P-t试压曲线



试验结论

合格

开始时间: 2016-11-21 09:42

完成时间: 2016-11-21 10:02

装配员:

代程平

试验员:

董佳波

检验员:

王君健

# 上海神开石油设备有限公司

## 油缸试压报告单

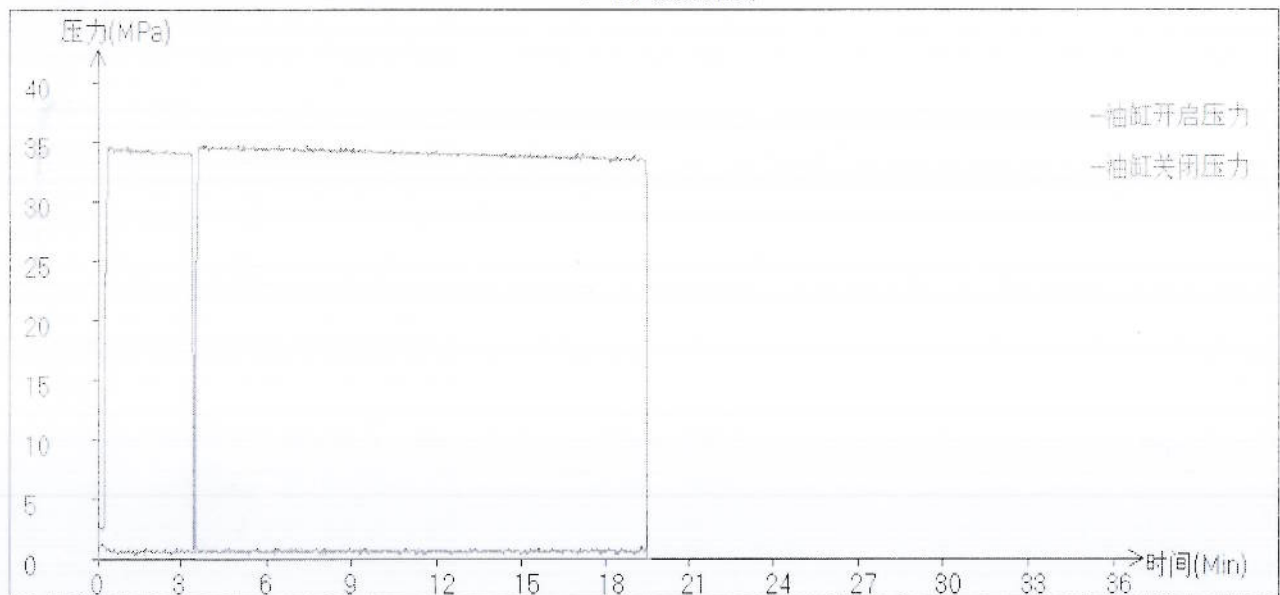
产品型号: FZ28-35U	产品编号: SK16111	试压标准: API-16A
产品名称: 单闸板防喷器	试压方式: 自动试压	试压类型: 强度试验
闸板类型: 半封	试压设备: 油缸实验设备	壳体追溯号: 142-0230
侧门追溯号1: DJ16-8037-1	侧门追溯号2: DJ16-8037-2	

### 试压过程

油缸开启压力:	0.0	MPa	保压时间:	0.0	Min
油缸关闭压力:	34.3	MPa	保压时间:	3.2	Min
油缸开启压力:	0.0	MPa	保压时间:	0.0	Min
油缸关闭压力:	34.5	MPa	保压时间:	15.6	Min

说明 压力单位为MPa, 时间单位为分钟

### P-t试压曲线



试验结论: 合格

开始时间: 2016-11-21 10:03 完成时间: 2016-11-21 10:23

装配员: 钱桂平 试验员: 黄佳波 检验员: 王启林

# 上海神开石油设备有限公司

## 产品试压报告单

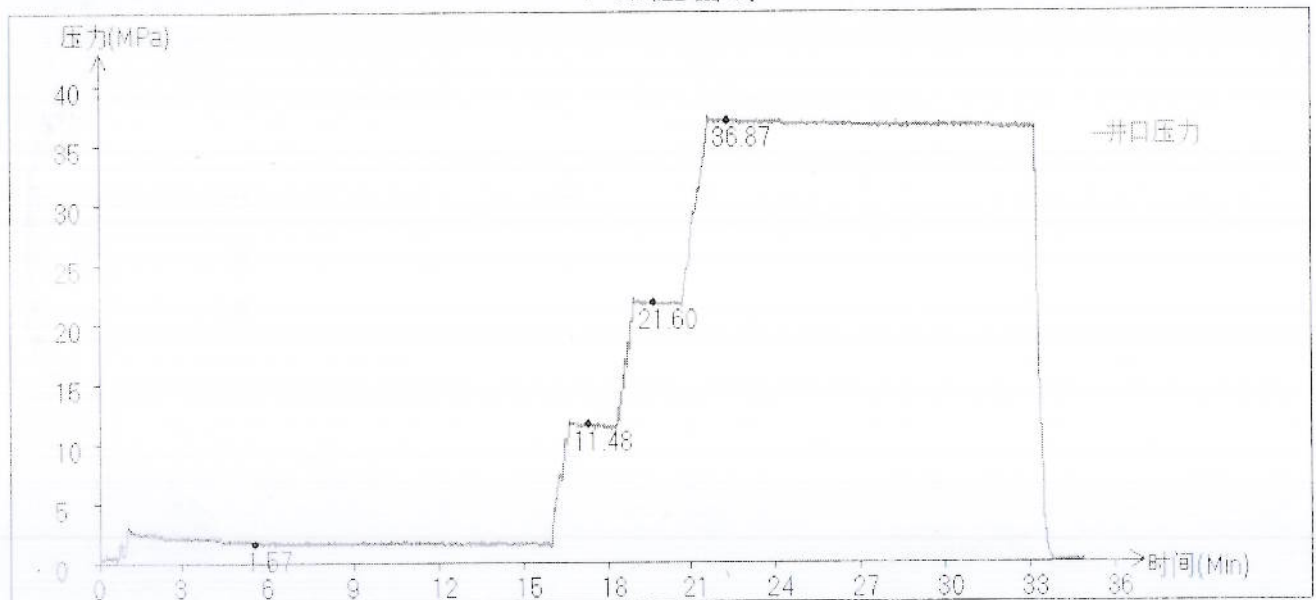
产品型号: FZ28-35U      产品编号: SK16111      试压标准: API-16A      产品名称: 单闸板防喷器  
 试压方式: 自动试压      试压类型: 性能试验      关闭/锁紧方式: 液动关闭      闸板类型: 半封  
 模拟钻杆尺寸: 2 3/8英寸      壳体追溯号: 142-0230      侧门追溯号1: DJ16-8037-1      侧门追溯号2: DJ16-8037-2  
 试压设备: 德国G300型气动泵      胶      芯: SKF3422  
 压力传感器编号: 0911005

### 试压过程

段号	段压	最大段压	最小段压	压差	稳压时间	段号	段压	最大段压	最小段压	压差	稳压时间
1	1.57	1.57	1.53	0.04	10.48	3	21.60	21.60	21.60	0.00	1.00
2	11.48	11.48	11.37	0.11	1.00	4	36.87	36.87	36.44	0.43	10.01

说明 压力单位为MPa, 时间单位为分钟

### P-t试压曲线



试验结论:

合格

开始时间: 2016-11-25 15:03

完成时间: 2016-11-25 15:38

装配员:

代程平

试验员:

黄佳波

检验员:

王君伟

# 上海神开石油设备有限公司

## 产品试压报告单

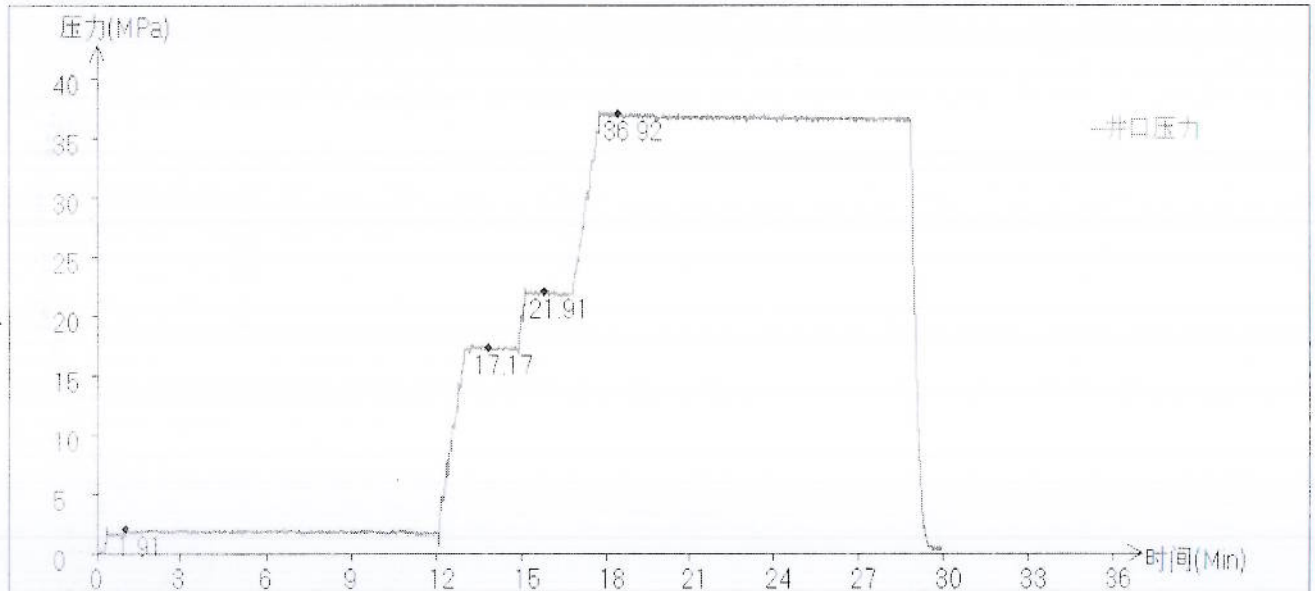
产品型号: FZ28-35U      产品编号: SK16111      试压标准: API-16A      产品名称: 单闸板防喷器  
 试压方式: 自动试压      试压类型: 性能试验      关闭/锁紧方式: 手动锁紧      闸板类型: 半封  
 模拟钻杆尺寸: 2 3/8英寸      壳体追溯号: 142-0230      侧门追溯号1: DJ16-8037-1      侧门追溯号2: DJ16-8037-2  
 试压设备: 德国G300型气动泵      胶      芯: SKF3422  
 压力传感器编号: 0911005

### 试压过程

段号	段压	最大段压	最小段压	压差	稳压时间	段号	段压	最大段压	最小段压	压差	稳压时间
1	1.91	1.91	1.56	0.35	11.00	3	21.91	21.91	21.84	0.07	1.01
2	17.17	17.17	17.10	0.07	1.00	4	36.92	36.92	36.54	0.38	10.01

说明 压力单位为MPa, 时间单位为分钟

### P-t试压曲线



试验结论: 合格

开始时间: 2016-11-25 15:39      完成时间: 2016-11-25 16:09

装配员: 任程平      试验员: 黄佳波      检验员: 王华林

## Product Test Report

Product Type: FZ28-35U

Product No: SK16111

Test Standard: API-16A

Product Name: Single Ram BOP

Test Method: Automatic

Test Type: Strength

Shell SN: 142-0230

Sidedoor1 SN: DJ16-8037-1

Sidedoor2 SN: DJ16-8037-2

Test Equipment: German G300 Gas Pump

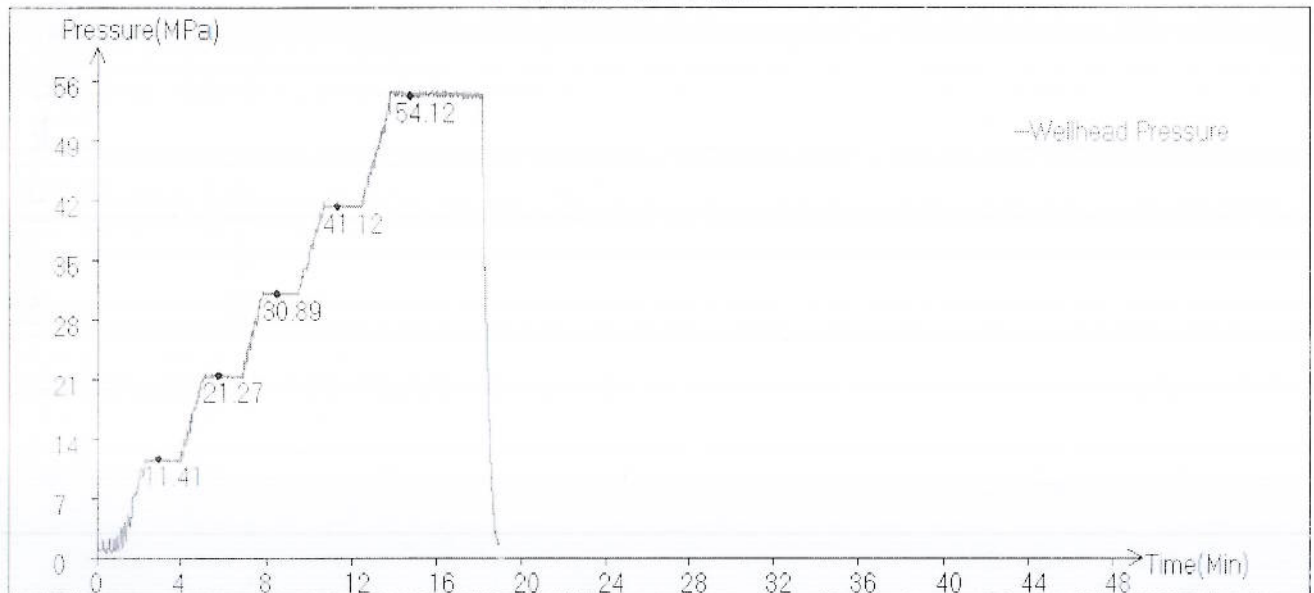
Pressure Transducer No: 0911005

## Pressure Test Process

No	Test Press	Max	Min	Diff	Keep Time	No	Test Press	Max	Min	Diff	Keep Time
1	11.41	11.41	11.27	0.14	1.00	4	41.12	41.12	41.05	0.07	1.00
2	21.27	21.27	21.20	0.07	1.00	5	54.12	54.12	54.05	0.07	3.01
3	30.89	30.89	30.82	0.07	1.00						

Pressure Unit: MPa, Time Unit: Min

## P-t Pressure Curve



Test Result

Qualified

Start Time: 2016-11-20 15:26

End Time: 2016-11-20 15:45

Assembler:

Tester:

Inspector:

# Shanghai ShenKai Petroleum Equipment Co.,Ltd

## Product Test Report

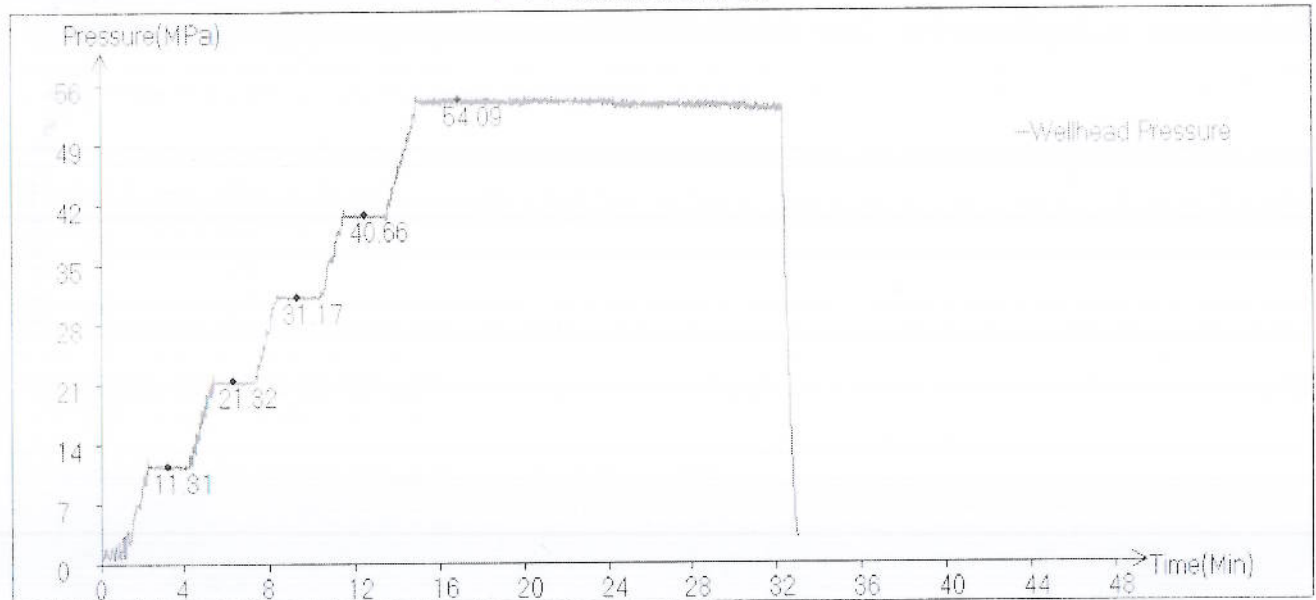
Product Type: FZ28-35U	Product No: SK16111	Test Standard: API-18A
Product Name: Single Ram BOP	Test Method: Automatic	Test Type: Strength
Shell SN: 142-0230	Sidedoor1 SN: DJ16-8037-1	Sidedoor2 SN: DJ16-8037-2
Test Equipment: German G300 Gas Pump	Pressure Transducer No: 0911005	

### Pressure Test Process

No	Test Press	Max	Min	Diff	Keep Time	No	Test Press	Max	Min	Diff	Keep Time
1	11.31	11.31	11.24	0.07	1.00	4	40.66	40.66	40.66	0.00	1.00
2	21.32	21.32	21.11	0.21	1.01	5	54.09	54.09	53.69	0.40	15.01
3	31.17	31.17	31.09	0.08	1.00						

Pressure Unit: MPa, Time Unit: Min

### P-t Pressure Curve



Test Result

*Qualified*

Start Time: 2016-11-20 15:52

End Time: 2016-11-20 16:25

Assembler:

*[Signature]*

Tester:

*[Signature]*

Inspector:

*[Signature]*

## Cylinder Test Report

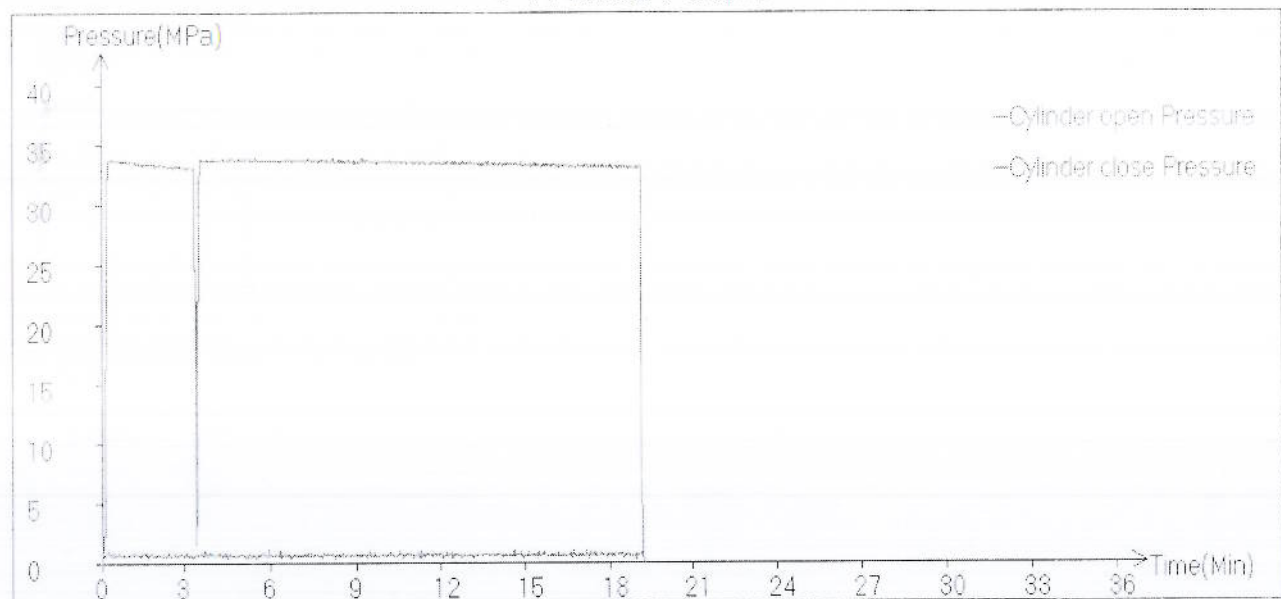
Product Type: FZ28-35U	Product No: SK18111	Test Standard: API-16A
Product Name: Single Ram BOP	Test Method: Automatic	Test Type: Cylinder Strength
Ram Type: Pipe Ram	Test Equipment: Cylinder TE	Shell SN: 142-0230
Sidedoor1 SN: DJ16-8037-1	Sidedoor2 SN: DJ16-8037-2	

## Pressure Test Process

Cylinder open Pressure:	<u>33.5</u>	MPa	Keep Time:	<u>3.2</u>	Min
Cylinder close Pressure:	<u>0.0</u>	MPa	Keep Time:	<u>0.0</u>	Min
Cylinder open Pressure:	<u>33.7</u>	MPa	Keep Time:	<u>15.3</u>	Min
Cylinder close Pressure:	<u>0.0</u>	MPa	Keep Time:	<u>0.0</u>	Min

Pressure Unit: MPa, Time Unit: Min

## P-t Pressure Curve



Test Result

*Qualified*

Start Time: 2016-11-21 09:42

End Time: 2016-11-21 10:02

Assembler:

*陈桂平*

Tester:

*黄佳波*

Inspector:

*王林林*

# Cylinder Test Report

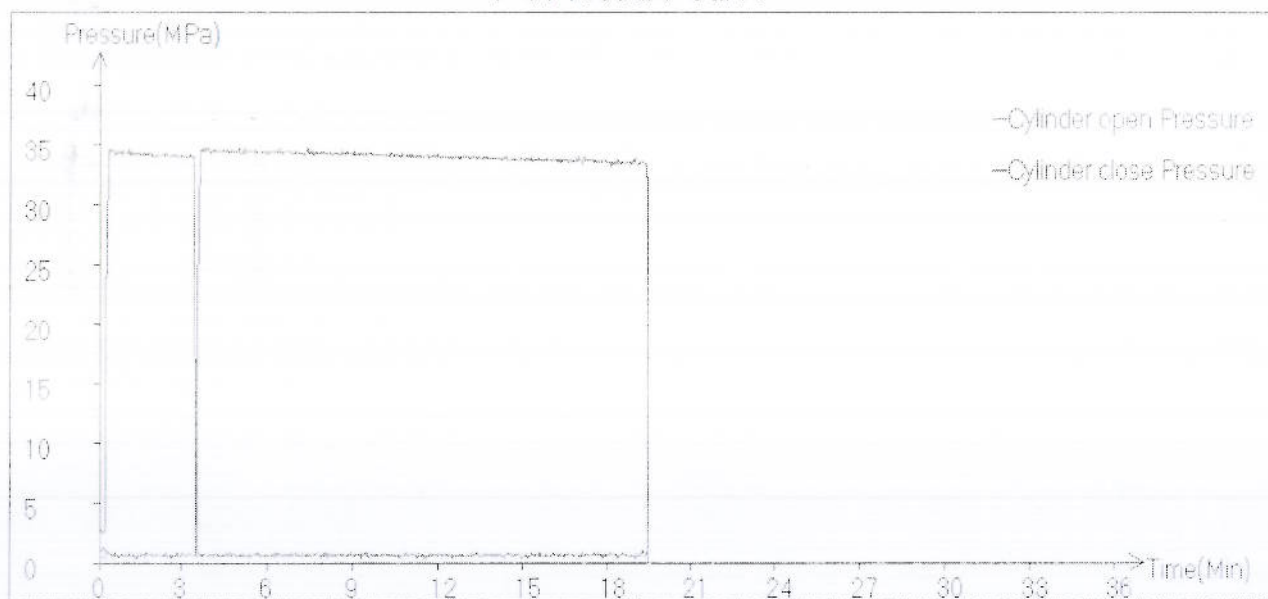
Product Type: FZ28-35U	Product No: SK16111	Test Standard: API-16A
Product Name: 单闸板防喷器	Test Method: Automatic	Test Type: Cylinder Strength
Ram Type: Pipe Ram	Test Equipment: Cylinder TE	Shell SN: 142-0230
Sidedoor1 SN: DJ16-8037-1	Sidedoor2 SN: DJ16-8037-2	

## Pressure Test Process

Cylinder open Pressure:	<u>0.0</u>	MPa	Keep Time:	<u>0.0</u>	Min
Cylinder close Pressure:	<u>34.3</u>	MPa	Keep Time:	<u>3.2</u>	Min
Cylinder open Pressure:	<u>0.0</u>	MPa	Keep Time:	<u>0.0</u>	Min
Cylinder close Pressure:	<u>34.5</u>	MPa	Keep Time:	<u>15.6</u>	Min

Pressure Unit: MPa, Time Unit: Min

## P-t Pressure Curve



Test Result:

*Qualified*

Start Time: 2016-11-21 10:03

End Time: 2016-11-21 10:23

Assembler:

*王程平*

Tester:

*黄佳波*

Inspector:

*王程平*

# Shanghai ShenKai Petroleum Equipment Co.,Ltd

## Product Test Report

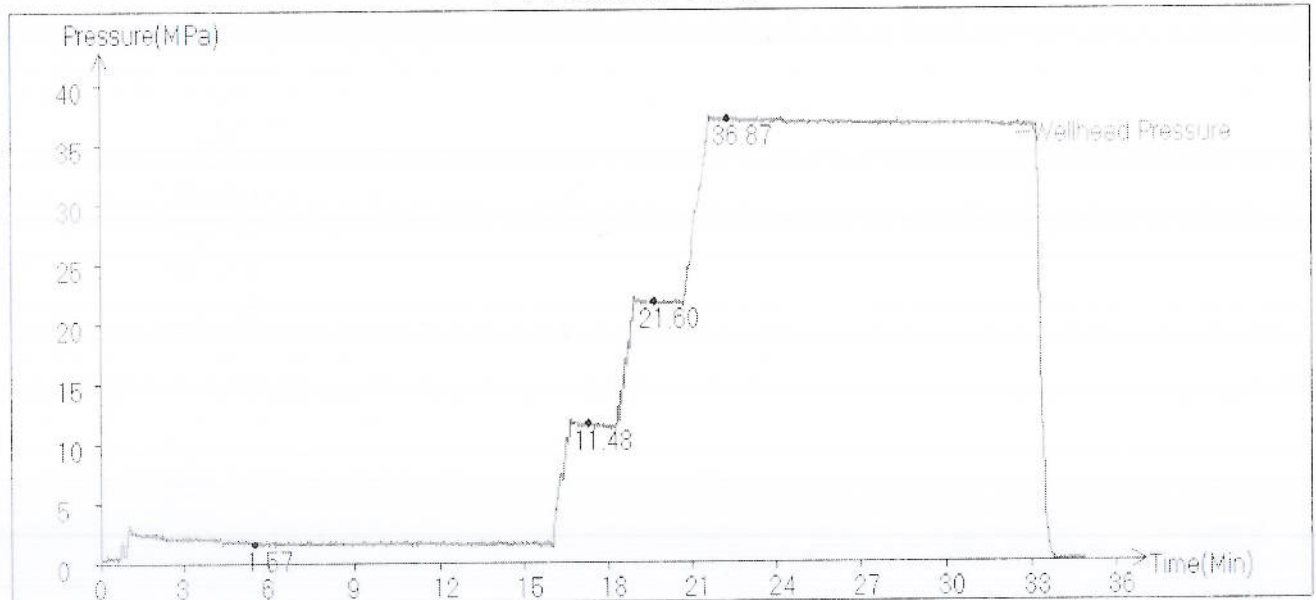
Product Type: FZ28-35U      Product No: SK16111      Test Standard: API-16A      Product Name: Single Ram BOP  
 Test Method: Automatic      Test Type: Characteristic      Lock Method: Hydraulic      Ram Type: Pipe Block  
 Drillpipe Dia.: 2 3/8 Inch      Shell SN: 142-0230      Sidedoor1 SN: DJ16-8037-1  
 Sidedoor2 SN: DJ16-8037-2      Test Equipment: German G300 Gas Pump      Packer No: SKF3422  
 Pressure Transducer No: 0911005

### Pressure Test Process

No	Test Press	Max	Min	Diff	Keep Time	No	Test Press	Max	Min	Diff	Keep Time
1	1.57	1.57	1.53	0.04	10.48	3	21.60	21.60	21.60	0.00	1.00
2	11.48	11.48	11.37	0.11	1.00	4	36.87	36.87	36.44	0.43	10.01

Pressure Unit: MPa, Time Unit: Min

### P-t Pressure Curve



Test Result:

*Qualified*

Start Time: 2016-11-25 15:03

End Time: 2016-11-25 15:38

Assembler:

*[Signature]*

Tester:

*[Signature]*

Inspector:

*[Signature]*

# Shanghai ShenKai Petroleum Equipment Co.,Ltd

## Product Test Report

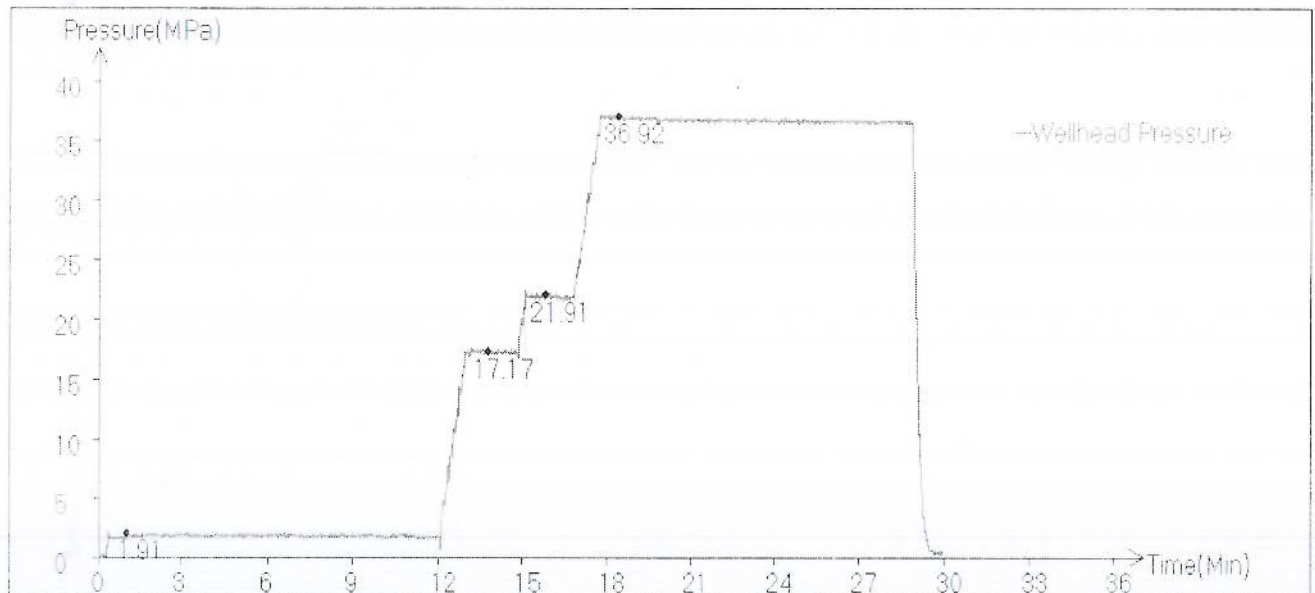
Product Type: FZ28-35U      Product No: SK16111      Test Standard: API-16A      Product Name: Single Ram BOP  
 Test Method: Automatic      Test Type: Characteristic      Lock Method: Manual      Ram Type: Pipe Block  
 Drillpipe Dia: 2 3/8 Inch      Shell SN: 142-0230      Sidedoor1 SN: DJ16-8037-1  
 Sidedoor2 SN: DJ16-8037-2      Test Equipment: German G300 Gas Pump      Packer No: SKF3422  
 Pressure Transducer No: 0911005

### Pressure Test Process

No	Test Press	Max	Min	Diff	Keep Time	No	Test Press	Max	Min	Diff	Keep Time
1	1.91	1.91	1.56	0.35	11.00	3	21.91	21.91	21.84	0.07	1.01
2	17.17	17.17	17.10	0.07	1.00	4	36.92	36.92	36.54	0.38	10.01

Pressure Unit: MPa, Time Unit: Min

### P-t Pressure Curve



Test Result:

*Qualified*

Start Time: 2016-11-25 15:39

End Time: 2016-11-25 16:09

Assembler: *何林平*

Tester: *黄佳波*

Inspector: *王君峰*



# 合格证

## Certificate of Product Quality

产品性能、设计、材料、试验和检验符合合同规定的技术条件，防喷器类产品符合ANSI/API 16A:2004 第三版/ISO 13533:2001、GB/T 20174:2006规范，防喷器控制装置类产品符合API 16D:2004 第二版、SY/T 5053.2:2007规范，产品合格同意出厂。

The performance, design, materials, testing and inspection of products conform to the requirements of contracts, blowout preventers products comply with ANSI/API 16A:2004 Third Edition /ISO 13533:2001 and GB/T 20174:2006 standard, control system for blowout preventers comply with API 16D:2004 Second Edition, SY/T 5053.2:2007, and are approved for delivery.

产品名称: 地面防喷器控制装置  
Product Name: Control System for Surface-mounted BOP Stack

产品型号: FKQ640-6  
Product Type

数量: 1  
Quantity

产品编号: 12-74  
Serial No

出厂日期: 2012-10-11  
Release Date

检验员: 王春根  
Inspector

质检专用章:  
Inspection Stamp



上海神开石油设备有限公司  
SHANGHAI SHENKAI PETROLEUM EQUIPMENT CO., LTD.

# ORIGINAL

<b>1. Exporter</b> Shanghai SK petroleum equipment Co.,Ltd. No.1769 Puxing road, Shanghai 201114 China Phone:+86-21-64293625   Fax:+86-21-34030004		Certificate No. <b>CCPIT 123421587</b>  12C3100A4260/00057 <b>CERTIFICATE OF ORIGIN</b> <b>OF</b> <b>THE PEOPLE'S REPUBLIC OF CHINA</b>		
<b>2. Consignee</b> SAKSON EGYPT PETROLEUM FREE ZONE CO. S.A.E C/O 20 RUE CHENOUA HYDRA ALGER Tel: 213 21484350 Fax: 213 21609103 Contract No.:SC-4016860-12		<b>5. For certifying authority use only</b>  		
<b>3. Means of transport and route</b> FROM SHANGHAI CHINA TO ALGERIA ORAN BY SEA				
<b>4. Country / region of destination</b> ALGERIA				
<b>6. Marks and numbers</b>  N/M	<b>7. Number and kind of packages; description of goods</b> ONE (1 ) BOX OF Accumulator System *****	<b>8. H.S.Code</b>  84123900	<b>9. Quantity</b>  1SET	<b>10. Number and date of invoices</b>  1210004 OCT. 23, 2012
<b>11. Declaration by the exporter</b> The undersigned hereby declares that the above details and statements are correct, that all the goods were produced in China and that they comply with the Rules of Origin of the People's Republic of China.  		<b>12. Certification</b> It is hereby certified that the declaration by the exporter is correct.  		
Place and date, signature and stamp of authorized signatory		Place and date, signature and stamp of certifying authority		