# 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: ATT:

DATE: 26/05/2023 FAX N°: VIA MAIL
CONTACT NAME: Y/REF:
Page (01) of (40) including this page COPY:

SUBJECT: INVITATION TO BID N° PP 2023/287

SUPPLY OF 14 LOTS OF VARIOUS SPARE PARTS

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

#### SUPPLY OF 14 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 13 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 <u>Second internal sealed envelope shall:</u>
- \* 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.
- <u>The outer sealed envelope containing the 2 internal sealed envelopes shall</u> be sent by registered mail or by courier to the following address so as to arrive as soon as possible but no later than, 13 June 2023 and indicate only:

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/2023/287
SUPPLY OF 14 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 Ex-Works
- 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

# LOT01: Spare Parts for Rotary Table (\*)

Description	Reference	QTY
GASKET	21-090-160	1
SHIM SET	21-106-064	2
OIL RETAINER GASKET	21-090-164	2
SEAL RETAINING RING	45-804-193	2
HOLD DOWN RING SEAL	21-030-176	2
	GASKET SHIM SET OIL RETAINER GASKET SEAL RETAINING RING	GASKET       21-090-160         SHIM SET       21-106-064         OIL RETAINER GASKET       21-090-164         SEAL RETAINING RING       45-804-193

# LOT02: Spare parts for Compressor BOGE S40-3 S/N: 5071463

Item	Description	Reference	QTY
1	CLAPET D'ASPIRATION	2420088671P	2
2	HUILE BOGE 3000/20 LT	599020900P	3
3	COURROIE	586000937P	9
4	ELECTROVANNE	644006101P	2

# LOT03:Spare Parts for Travelling Block AMERICAN BLOCK B60F500 S/N 112037

Item	Description	Reference	QTY
1	Taper Roller bearing	107-0025	6
2	Seal	125-0025	12

# Lot04:Unit Switch

Item	Description	Reference	QTY
1	Unit Switch 2NO/2NC	186-8166	8
	See the link:		
	https://ie.rs-online.com/web/p/limit-switches/1868166		

# Lot05:Hydraulic Pump

Item	Description	Reference	QTY
1	PUMP HYDRAULIC (P/N : COMMERCIAL HYDRAULIC	483305-015	1
	PARKER/		
	P76B178BYOW27-7COW27-COP15-1)		

LOT06: Spare parts for OTECO MUD GUARD			
Item	Description	Reference	QTY
1	SIDE SEAL.	MG-602	2
2	NUTS AND BOLTS F/STDE SEAL SET	MG607	2
3	PIPE WIPPER 17" x3"1/2	251170-135	6
4	PIPE WIPPER 17" x5"	251170-150	6

	LOT07: WABCO air valve parts		
Item	Description	Reference	QTY
1	2-HA-2Z PILOTAIR VALVE WITH BLACK COATED COVER	R431005014	2
	AND HUB		
2	VALVE ASSEMBLY	275242	1
3	CONTROL AIR VLVE H-2-FX(0-125PSI)	P50494-0003	1
4	FOOT THROTTLE H1	P50208-0001	1
5	PILOT AIR VALVE (2HA-1R)	P59331	1

	Lot08: Vertical cabinet air conditioner 48000 BTU Cold			
Item	Description	Ref	QTY	
1	Vertical cabinet air conditioner 48000 BTU Cold Technical specification: -Vertical cabinet air conditioner - Supply voltage 220-230V/60 Hz -Nominal power in cooling: 48000 BTU -Dimension of the cabinet: Max height: 200 cm, max width: 100 cm, -class 2, -R410 gas type			
	See the following link: https://www.okorder.com/p/floor-standing-air-condition-units- 48000btu-220230v-60hz_233099.html			

# LOT09: Spare parts for Pneumatic Kelly Spinner Weatherford model KS1500AB, S/N: 39754344-01, Year/Month:2011/12 (\*\*)

Item	Description	Reference	QTY
1	SEQUENCE VALVE	122686-001	2
2	STARTER REPART KIT	125409-077	2
3	FACET DRIVE ASSY FOR RH MOTOR	124905-71	1
4	FACET DRIVE ASSY FOR LH MOTOR	124905-074	1
5	OIL SEAL	114843-001	2
6	O-RING	190256-718	1
(**)fa	or references: See the attached file in the end of the inquiry		

	LOT10: Spare parts for Air Pump Techni Fi	low 1500-3300	
Item	Description	Reference	QTY
1	KIT DE REPARATION VANNE D AIR	24K860	2
2	KIT DE RECONSTRUCTION DE PARTIE CENTRALE	24K850	2
3	KIT ENSEMBLE DE VANNE PILOTE	24K366	2
4	KIT MEMBRANE EN DEUX PIECES	24K905	2
5	KIT SIEGES	24K929	1
6	KIT DE BILLES DE CLAPETS ANTI-RETOUR	24K943	1

Item	Description	Reference	QTY
1	SENSOR	84882	2
2	GAUGE FILTER	83418	1
3	TORQUE METER	77562-2	1

LO	LOT12: Spare parts for DOOSAN forklift model: D160S-5 Serial Number: P4-00218			
Item	Description	Reference	QTY	
1	PARKING BRAKE SUPPORT	110958-00317	1	
2	Air cleaner element -safety -DFA147203	A147203	2	
3	Fuel element engine - 65-12503-5016	BF1258	8	
4	FUEL FILTER	A653528	5	
5	BRAKE VALVE ASSY	A142733	1	

# LOT13: Spare parts for Air winch ARGANI TN28-160 Code 9015728 Serial Number 12-1427 Year 2012 (\*\*\*\*)

Item	Description	Reference	QTY
1	DEFORMATION TRANSDUCER	63012002	1
2	TENSION SPRING	61602014	2
3	CABLE GRIP ROLLER	30702044	1
4	HYDRAULIC MOTOR	62101062	1
5	RETAINING RING DIN 472	60401004	1
6	QUADRING	60305001	1
7	BALL BEARING	60201005	1
8	O-RING	60304005	1
9	RETAINING RING	60502015	2
10	PLASTIC PLUG	61802002	1
11	TRAVEL LIMIT CABLE GRIP ROLLER	30702043	1
12	O-RING	60301001	1
13	TRAVEL LIMIT MICRO-SWITCH	63007005	1
14	PARBAK RING	61701001	1
15	O-RING	60302003	2
16	ROLLER	60208005	53
17	DIVIDER PLATE	60801004	8
18	BRAKE PLATE	60801011	7
19	BALL BEARING	60201004	1
20	RETAINING RING DIN 471	60402001	2
21	METAL PLUG	61801005	2
22	WASHER	61001002	2
23	THIMBLE	10610009	1
24	RETAINING RING DIN 471	60402007	1
25	BALL BEARING	60201002	1
26	OIL SEAl	60902017	1
27	O-RING	60302036	1
28	RETAINING RING	60502003	1
29	O-RING	60302009	1
30	PARBAK RING	61701003	1
31	O-RING	60302010	1
32	BELLEVILLE SPRING	61601015	2
33	BEARING EXTERNAL RING	11010220	1
34	ROLLER HOUSING	30810001	2
35	ROLLER HOUSING	11610047	1
36	OIL SEAL	60902010	1
37	BRAKE HOUSING RING	11010382	1
38	O-RING	60302011	1
39	PARBAK RING	61701023	1
(****	See photo of the nameplate in the end of the inquiry and the link: w	www.tmawinches.com	•

# LOT14: Spare parts for Air Winch ARGANI TMV2-64-3 Code 90120103 S/Number 12-0570 Model TMV2-64F3 Year 2012 (\*\*\*\*\*)

Item	Description	Reference	QTY
1	HYDRAULIC MOTOR (ITEM 9)		1
2	O-RING ( ITEM 14)		1
3	OIL SEAL (ITEM 30)		1
4	RETAINING RING DIN 472 ( ITEM 31)		1
5	RETAINING RING DIN 471 ( ITEM 32)		1
6	RETAINING RING DIN 472 ( ITEM 33)		1
7	RETAINING RING DIN 471 ( ITEM 39)		1
8	RETAINING RING DIN 471 ( ITEM 43)		1
9	O-RING( ITEM 44)		1
10	RETAINING RING ( ITEM 46)		1
11	BALL BEARING (ITEM 47)		1
12	RETAINING RING DIN 471 ( ITEM 48)		1
13	RING (ITEM 51)		1
14	OIL SEAL (ITEM 52)		1
15	BALL BEARING (ITEM 68)		1
16	O-RING (ITEM 70)		1
17	DRUM HUB RING ( ITEM 71)		1
18	RETAINING RING ( ITEM 03)		2
19	SPRING (ITEM 04)		2
20	RETAINING RING DIN 472 ( ITEM 06)		1
21	O-RING ( ITEM 07)		1
22	PARBAK ( ITEM 10)		1
23	QUADRING ( ITEM 11)		1
24	DIVIDER PLATE ( ITEM 13)		9
25	BRAKE PLATE (ITEM 14)		4
26	O-RING (ITEM 15)		1
27	BALL BEARING (ITEM 17)		1
28	THRUST RACE (ITEM 19)		1
29	PARBAK ( ITEM 22)		1
<i>30</i>	QUADRING ( ITEM 23)		1
31	O-RING ( ITEM 26)		1
(****	*)See photo of the nameplate in the end of the inquiry and the li	nk: www.tmawinches.com	

# ATTACHMENT B

# UNPRICED TECHNICAL OFFER

LOT01: Spare Parts for Rotary Table

OM : DDER'S FULL NAME:  DRESS:  LEPHONE N° :  X N°:  NTACT NAME:			TO: COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPROT TUNIS - TUNISIA		
	D 4 (T) D	ORMA INVOIC	CE N°:		
ITEM	QTY	<u></u>	DESCRIPTION		
		Detailed des	ecription of the EUIPEMENT		
<i>NAME :</i>		<u>AUTHORIZED</u>	SIGNATURE :		
TITLE :	······		DATE:		
TITLE :			DATE:		

LOT02: Spare parts for Compressor BOGE S40-3

OM: DDER'S FULL NAM DRESS: LEPHONE N°: X N°: DNTACT NAME:		
	DATE	:
ITEM	QTY	DESCRIPTION
		Detailed description of the EUIPEMENT
	<u></u>	<u>AUTHORIZED SIGNATURE</u>
NAME :		<i>SIGNATURE</i> :
TITLE :		DATE :
	Γ	COMPANY STAMP

LOT03: Spare Parts for Travelling Block AMERICAN BLOCK B60F500 S/N 112037

TE :	ICE N°:
	DESCRIPTION
Detailed de	escription of the EUIPEMENT
<u>AUTHORIZEI</u>	D SIGNATURE  SIGNATURE:
	DATE:
COMPAN	NY STAMP
	AUTHORIZE

LOT04: Unit Switch

FROM:

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

TO:

DDER'S FULL NAM DDRESS: LEPHONE N° : X N°: DNTACT NAME:			COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPROT TUNIS - TUNISIA		
	PRO-FO DATE	ORMA INVOIO :	CE N°:		
ITEM	QTY		DESCRIPTION		
		Detailed des	cription of the EUIPEMENT		
	4	AUTHORIZED	SIGNATURE		
NAME :			SIGNATURE :		
TITLE :	•••••		DATE:		
	Γ	COMPAN	Y STAMP		
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LOT05: Hydraulic Pump

FROM:

# PRO-FORMA INVOICE FORMAT USING YOUR COMPANY LETTER HEAD

*TO*:

ADDRESS: TELEPHONE N° : TAX N°:	NAME:	
	DATE	:
ITEM	QTY	DESCRIPTION
		Detailed description of the EUIPEMENT
	•	<u>AUTHORIZED SIGNATURE</u>
NAME :		<i>SIGNATURE</i> :
TITLE :		DATE :
		COMPANY STAMP

LOT06: Spare parts for OTECO MUD GUARD

POM: DDER'S FULL NAME: DDRESS: DEPHONE N°: DNTACT NAME:  PRO-FORMA INVO DATE :			TUNIS - TUNISIA  OICE N°:	
	DATE	:		
ITEM	QTY		DESCRIPTION	
		Detailed des	scription of the EUIPEMENT	
		<u>AUTHORIZED</u>		
<i>NAME</i> :	••••••		SIGNATURE:	
TITLE :			DATE:	
	٢	COMPAN	Y STAMP	
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LOT07: WABCO air valve parts

OM : DDER'S FULL NAM DRESS: LEPHONE N° : X N°: NTACT NAME:	PRO-F	
	DATE	<i>:</i>
ITEM	QTY	DESCRIPTION
		Detailed description of the EUIPEMENT
		<u>AUTHORIZED SIGNATURE</u>
NAME :	······································	SIGNATURE:
TITLE :	••••••	DATE:
		COMPANY STAMP
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LOT08: Vertical cabinet air conditioner 48000 BTU Cold

OM : DDER'S FULL NAM DRESS: LEPHONE N° : X N°: NTACT NAME:	PRO-FO	······································	TO: COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPRO TUNIS - TUNISIA OICE N°:		
	DATE	:			
ITEM	QTY		DESCRIPTION		
		Detailed desc	ription of the EUIPEMENT		
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NAME :			SIGNATURE:		
TITLE :			DATE:		
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	Γ	COMPANY	STAMP		
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LOT09: Spare parts for Pneumatic Kelly Spinner Weatherford model KS1500AB, S/N: 39754344-01, Year/Month:2011/12

OM : DDER'S FULL NAME: DRESS: LEPHONE N° : X N°: NTACT NAME:		   FORMA INVOI	TO: COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPATUNIS - TUNISIA  OICE N°:		
ITEM	QTY		DESCRIPTION		
HIEW	QII	Detailed des	Scription of the EUIPEMENT		
		<u>AUTHORIZED</u>	<u> SIGNATURE</u>		
NAME :	•••••		SIGNATURE:		
TITLE :	•••••		DATE:		
	_				
	ſ	COMPAN	Y STAMP		
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LOT10: Spare parts for Air Pump Techni Flow 1500-3300

DDER'S FULL NAME:			COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPROT TUNIS - TUNISIA CE N°:
ITEM	QTY		DESCRIPTION
		Detailed des	scription of the EUIPEMENT
	4	<u>AUTHORIZED</u>	<u>O SIGNATURE</u>
NAME :			SIGNATURE:
NAME : TITLE :			SIGNATURE :  DATE :

LOT11: Spare parts for Top Drive VARCO BJ TDS 3H

DDER'S FULL NAME: DRESS: LEPHONE N° : X N°: NTACT NAME:		
ITEM	QTY	DESCRIPTION
		Detailed description of the EUIPEMENT
<i>NAME</i> :		AUTHORIZED SIGNATURE  SIGNATURE:
VAME:		DATE :
111LE:		
111LE:		

LOT12: Spare parts for DOOSAN Forklift

OM : ODER'S FULL NAME:  DRESS:  LEPHONE N° :  X N°:  NTACT NAME:			TO: COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPROT TUNIS - TUNISIA		
	PRO-FO DATE	ORMA INVOIO :	CE N*:		
ITEM	QTY		DESCRIPTION		
		Detailed des	scription of the EUIPEMENT		
NAMF •		<u>AUTHORIZED</u>			
<i>NAME : TITLE :</i>		<u>AUTHORIZED</u>	SIGNATURE		
		<u>AUTHORIZED</u>	SIGNATURE :		

LOT13: Spare parts for Air Winch TN28-160

DDER'S FULL NAME: DRESS: LEPHONE N° : X N°: NTACT NAME:		
ITEM	QTY	DESCRIPTION
		Detailed description of the EUIPEMENT
<i>NAME:</i>		AUTHORIZED SIGNATURE  SIGNATURE:
TITLE :	•••••	DATE :

LOT14: Spare parts for Air Winch TMV2-64-3

OM : DDER'S FULL NAME:  DRESS:  LEPHONE N° :  X N°:  NTACT NAME:			TO: COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT 2035 CHARGUIA II ARIANA – L'AEROPROT TUNIS - TUNISIA		
	PRO-FO DATE	ORMA INVO. :	ICE N°:		
ITEM	QTY		DESCRIPTION		
		Detailed de	escription of the EUIPEMENT		
<i>NAME:</i>		<u>AUTHORIZE</u>	<u>D SIGNATURE</u> SIGNATURE:		
TITLE :			DATE:		

# ATTACHMENT C

# PRICED FINACIAL OFFER

LOT01: Spare Parts for Rotary Table

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 INVOIDATE :	CE N*:		
ITEM	QTY	DATE .  DESCRIPTION	UNIT PRICE	EXTENDED PRICE	
11237	211	Detailed description of the EQUIPMENT	CIVITARICE	EATENDEDTRICE	
TOTAL MA	TERIAL	VALUE EX-WORKS			
CHARGES	S( PACK	ING, HANDLING , ETC)			
TOTAL EX	-WORK	S			
- DELIVERY - TERMS OF - VALIDITY	F PAYME F OF BIL	AND GROSS WEIGHT:	ENT: Preferably 02 weeks to ( NST DOCUMENT ROM BID CLOSING DATE):		
		<u>AUTHORIZEI</u>	<u>D SIGNATURE</u>		
NAME : SIGNATURE :					
TITLE :	••••••	·····	DATE :		
		COMPAN	Y STAMP:		

LOT02: : Spare parts for Compressor BOGE S40-3

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 INVOI DATE :	(CE N°:		
ITEM	QTY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE	
		Detailed description of the EQUIPMENT			
TOTAL MA	TERIAL	VALUE EX-WORKS			
CHARGES	( PACK	ING, HANDLING , ETC)			
TOTAL EX	-WORK	5			
- DELIVERY - TERMS OF - VALIDITY	F PAYME F OF BIL	AND GROSS WEIGHT:	NST DOCUMENT FROM BID CLOSING DATE):		
		<u>AUTHORIZE</u>	D SIGNATURE		
NAME :			SIGNATURE:		
TITLE :			DATE :		
		COMPAN	VY STAMP :		

LOT03: Spare Parts for Travelling Block AMERICAN BLOCK B60F500 S/N 112037

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-FO DATE	ORMA INVOI :	CE N*:	•••••		
ITEM	QTY	DESCI	RIPTION	UNIT F	PRICE	EXTENDED PRICE	
		Detailed description	on of the				
TOTAL MA	TERIAL	VALUE EX-WORKS		•			
CHARGES	C PACK	ING, HANDLING , E	TC)				
TOTAL EX	-WORKS	5					
- DELIVERY - TERMS OF - VALIDITY	Y FROM I F PAYME Y OF BIL	ENT : NET 30 DAYS/ O ( TO BE NOT LESS T	KNOWLEDGEM CASH AGAIN THAN 90 DAYS F	ENT: Preferably 02	OATE ) :		
			<u>AUTHORIZE</u>	D SIGNATURE			
<i>NAME</i> :				SIGNATURE :	SIGNATURE:		
TITLE :				DATE :	••••••••••••••••••••••••••••••••••••••		
			COMPAN	Y STAMP :			

LOT04: Unit Switch

FROM: BIDDER'S FULL NAME: ADDRESS: TELEPHONE N°: FAX N°: CONTACT NAME:			DE FORAGE 19 RUE DE L'A CHARGUIA II	COMPAGNIE TUNISIENNE			
		PRO-FORMA INV DATE :	OICE N* :	····			
ITEM	QTY	DESCRIPTION	UNIT PR	RICE EXTENDED PRICE	Œ		
		Detailed description of the EQUIPMENT					
TOTAL MA	TERIAL	VALUE EX-WORKS	·				
CHARGES	( PACK	ING, HANDLING , ETC)					
TOTAL EX	-WORK	S					
- DELIVERY - TERMS OF - VALIDITY	Y FROM A F PAYME Y OF BIL	AND GROSS WEIGHT:	EEMENT: Preferably 01 w AINST DOCUMENT YS FROM BID CLOSING DA	TE):			
		<u>AUTHORI</u> .	ZED SIGNATURE				
NAME :	•••••		SIGNATURE :	SIGNATURE:			
TITLE :			DATE :	DATE :			
		СОМЕ	PANY STAMP :				

LOT05: Hydraulic Pump

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 INVO DATE :	OICE N* :	···		
ITEM	QTY	DESCRIPTION	UNIT PR	ICE EXTENDED PRICE		
		Detailed description of the EQUIPMENT				
TOTAL MA	TERIAL	VALUE EX-WORKS				
CHARGES	S( PACK	ING, HANDLING , ETC)				
TOTAL EX	-WORK	S				
- DELIVERY - TERMS OF CONTROL - VALIDITY	Y FROM A F PAYME Y OF BIL	AND GROSS WEIGHT:	MENT: Preferably 01 we INST DOCUMENT FROM BID CLOSING DAT	TE):		
		<u>AUTHORIZI</u>	ED SIGNATURE			
<i>NAME</i> :	NAME : SIGNATURE :					
TITLE :			DATE :			
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LOT06: : Spare parts for OTECO MUD GUARD

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LOT07: WABCO air valve parts

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LOT08: Vertical cabinet air conditioner 48000 BTU Cold

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LOT09: Spare parts for Pneumatic Kelly Spinner Weatherford model KS1500AB, S/N: 39754344-01, Year/Month:2011/12

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LOT10: Spare parts for Air Pump Techni Flow 1500-3300

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LOT11: Spare parts for Top Drive VARCO BJ TDS 3H

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LOT12: Spare parts for DOOSAN Forklift

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LOT13: Spare parts for Air Winch TN28-160

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LOT14: Spare parts for Air Winch TMV2-64-3

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# 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:

# 7-1Packing 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 penalities will be applied

### Marking

Each parcel shall be clearly marked to mention the following:

# COMPAGNIE TUNISIENNE DE FORAGE 19 RUE DE L'ARTISANAT – CHARGUIA II

# L'AEROPORT – 2035 ARIANA

### **TUNISIA**

#### PURCHASE ORDER N°

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  $L \times W \times H$  (length  $\times W$  width  $\times W$  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 incorterms 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 unproper 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.

# **WEATHERFORD POWER EQUIPMENT**

MODEL KS1500AB
PNEUMATIC KELLY SPINNER
INSTALLATION, OPERATION
AND MAINTENANCE
KS1500AB Part Number 122561-001

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This manual describes the function, installation, operation and maintenance of the Weatherford pneumatic kelly spinner. In this section, the functions of the kelly spinner and system specifications are described.

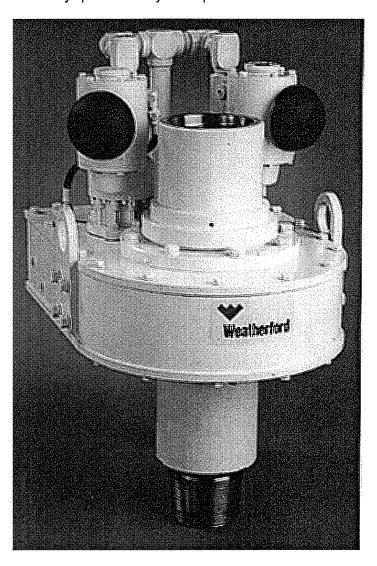


Figure 1-1 Model KS1500AB

The Weatherford kelly spinner is a motor-driven, bidirectional spinner designed for in-string mounting between the swivel and kelly.

Mounting is accomplished through 6 5/8-inch API regular left-hand box and pin drillpipe threads on the sub.

Power is supplied by pneumatic motors operated by pneumatic engage/disengage controls.

The clutching mechanism and throttle are controlled by a single valve handle located on the driller's console (See Figure 3-1).

In neutral position the gears are disengaged, allowing the sub to rotate without back-driving the gear train.

# **SPECIFICATIONS**

### **POWER SOURCE**

The Weatherford kelly spinner is designed to be powered by either a pneumatic power source.

Optimum pneumatic power is 6 cfs at 100 psig. Minimum recommended pneumatic pressure is 80 psig.

Note that pressure supplied is directly related to the maximum torque output of the unit. Flow rate is directly related to the output speed of the kelly spinner.

# SPECIFICATION SUMMARY

Kelly spinners are available from the factory in configurations other than the standard models illustrated. Consult the factory for special applications and specifications.

	Model KS1500AB
Connection	6 5/8" API regular left hand box and pin
Body Size (inches)*	20 x 27.4
Maximum output torque (ft-lb)** at pressure noted	825 at 90 psi
Maximum rpm at flow rate noted	160 at 4 cfs
Weight, less turnbuckles (lb)*	835

<sup>\*</sup> Dimensions and weights are nominal and will vary slightly from kelly spinner to kelly spinner.

# Table 1-2 Weatherford Kelly Spinner Specifications

<sup>\*\*</sup>Torque values quoted are minimum acceptable values used in testing each new kelly spinner. Values will vary with condition.

# **EQUIPMENT CONSIDERATIONS**

The kelly spinner is designed to become a part of the drill string. The kelly spinner sub is provided with a 6 5/8" API regular left-hand box connection to mate with the swivel and a 6 5/8" API regular left-hand end to mate with the kelly.

Installation of the pneumatic kelly spinner, Model KS1500AB, is shown in Figure 2-1.

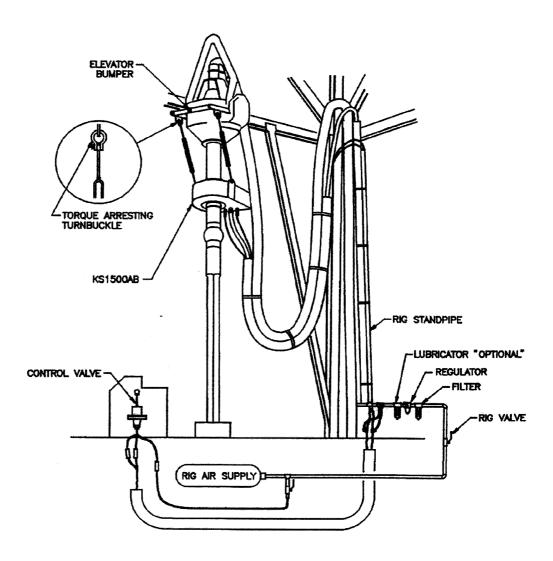


Figure 2-1
Installation of Model KS 1500 AB

# INSTALLING THE KELLY SPINNER

The pneumatic kelly spinner is designed to be located between the swivel kelly in the drill string.

With the kelly resting on the rotary table drive bushings, stab the pin end of

the kelly spinner sub into the upper end of the kelly. Make up the

connection tightly by hand. Then stab the swivel into the kelly spinner box end and make up tightly by hand. Torque both connections to 50,000 ft-lb. If required, weld turnbuckle attachments to the swivel elevator bumper as shown in Figure 2-1. Complete rig up instructions can be found in Section 7.

### **CAUTION:**

Properly ground swivel prior to welding. Use a welding procedure approved for swivel repair.

Install torque arresting turnbuckles between swivel connections and kelly spinner case. Adjust turnbuckle length to allow the kelly spinner to rotate through an arc of approximately 6 inches.

# **MODEL KS1500AB**

The hose gooseneck is to be installed in the derrick structure approximately 50 to 55 feet above the rig floor and is to be connected to a 2-inch standpipe assembled from clean, new pipe rated for 250 psig minimum service. The standpipe is to run to a height of 3 to 5 feet above the rig floor, where the filter and shutoff valve are located. Since the KS1500AB air motors will operate without lubrication, a lubricator is optional.

#### **HAND VALVE**

Install the hand valve on the driller's console in a convenient position. Connect the valve to rig air supply and run 1/4-inch control lines to the master control valve and kelly spinner (See Figure 2-1).

# **CONNECTING THE POWER SOURCE**

#### **MODEL KS1500AB**

The Model KS1500AB utilizes a 1 1/4-inch air hose rated to 250 psig minimum operating pressure. With all the hoses installed in the hose sack, connect the hose to the gooseneck, and with the loose end secured against "whipping," "blow-out" each hose for 60 seconds. Attach each hose to the kelly spinner. Force the connectors together while rotating the fitting.

#### WARNING:

# BE SURE CONNECTIONS ARE TIGHT.

With installation of hoses and valves complete, perform a preoperation test according to the instruction in Section 3. If the direction of rotation of the kelly spinner is not correct, switch the 1/4-inch control hose connections at the driller's console.

Install the hose sack with strapping as shown in Figures 2-1.

### Section 3

# **OPERATION**

Before operating the unit, the operator should become thoroughly familiar with the operating controls. Then, before initial operation and daily thereafter, he should make the operational checks described in this section. The location of the manual control valve is illustrated in Figure 2-1 for the Model KS1500AB. Functions of the controls are described in Figure 3-1.

# PREOPERATING CHECKS

After installing the system, check to be sure that all necessary adjustments are made and that the system is functioning correctly. Before attempting operation, verify that personnel understand proper operation of the kelly spinner and the safety requirements. Ensure that all lines and equipment associated with hanging and securing the kelly spinner are of adequate size and in good condition.

The power unit output pressure must be properly adjusted. Refer to the instruction manual on the power unit and perform the output pressure adjustment procedure for the required pressure.

# OPERATIONAL CHECKOUT

Before starting a new job, perform the following operations and be sure the kelly spinner operates correctly. See Figure 3-1.

- 1. Push the control valve lever forward and verify that the gears engage and that the kelly spinner rotates.
- 2. Pull the control valve lever back and verify that the gears engage and that the kelly spinner rotates in opposite direction.
- 3. Place the control valve lever in the center position and verify that no rotation occurs. (Gears disengaged.)

#### **INITIAL OPERATIONS**

After the kelly spinner is transported to the job site, placed in operating position and connected with the power unit as described in Section 2, proceed as follows:

- 1. Be sure the shifting lever and throttle handle on the power unit are in neutral position.
- 2. Start the power unit, if applicable.
- 3. Perform an operational check and make any required adjustments before continuing.

Weatherford KS1500AB 6/94 dc Section 3 Page 1

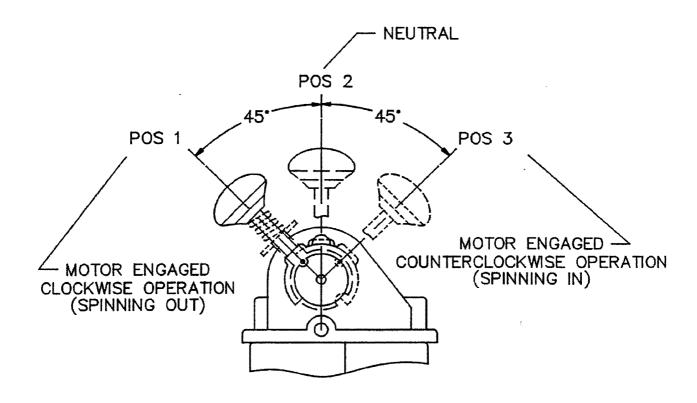
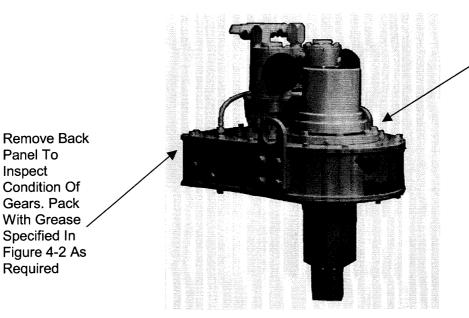


Figure 3-1
Operating Controls for Pneumatic Kelly Spinner

# **MAINTENANCE**

Servicing the kelly spinner consists of inspection, lubrication, test and adjustments. Should servicing reveal requirements for repairs, refer to the appropriate procedures in "Troubleshooting, Repair and Overhaul" and "Testing" (Sections 5 and 6).



Lubricate Upper And Lower Main Bearings At Zerk Fittings. Two (2) Places

Figure 4-1
Inspection and Lubrication Points

### **INSPECTION**

Figure 4-1 illustrates the points that should be inspected as outlines in this section.

#### **ALL EQUIPMENT**

Inspect the unit and its accessories for obvious damage, evidence of leaks, etc. Refer to the overhaul procedures for removal and replacement of any faulty parts.

#### LUBRICATION

Model KS1500AB does not require a lubricator. If a lubricator is used, check the lubricator on the pneumatic system daily. Fill the lubricator with #10 pneumatic oil to the indicated level.

Grease the upper and lower main bearing and pack gears per instructions in this section.

# MONTHLY MAINTENANCE

Make the following check and take appropriate action.

- 1. Check shifting operation, as described in "Operational Checkout" in Section 3 once each month.
- 2. Check all fasteners for tightness once each month.
- 3. Inspect the internal gears every 6 to 12 months (Figure 4-1).
- 4. Check for corrosion in top and bottom bearings and inside case every 6 months.

#### **GREASE ZERKS**

At the beginning of each job and once every operating day thereafter, use a grease gun to lubricate the main bearing at the 2 grease zerks. In general, be liberal with grease. Over-greasing will do no harm, whereas greasing too little can result in excessive wear of the main bearings.

WARNING: DISABLE POWER SOURCE BEFORE SERVICING BY DISCONNECTING BOTH HOSES TO THE MOTOR OR OTHER SUITABLE MEANS.

Gear Grease *	Keystone Company 29X Light or equivalent
Bearing Grease*	Texaco Marfax Multi-purpose No. 2 or equivalent
<ul> <li>Specifications are named or cold, consult Weatherford en</li> </ul>	for average conditions. For applications involving extreme heat gineering for recommendations.

# Table 4-2 **Recommended Lubricants**

### **GEAR GREASE**

To pack the kelly spinner with grease, refer to Figures 4-1 and 4-2 as follows:

WARNING: PACKING THE GEARS WHILE THE POWER UNIT IS OPERATING IS EXTREMELY DANGEROUS. FAILURE TO OBSERVE PROPER PRECAUTION IN MAINTAINING THIS UNIT COULD RESULT IN SERIOUS INJURY.

- Disable the kelly spinner by both of the following methods: 1. Disconnect power from the power unit electrical motor or turn off diesel engine as applicable. Set the control lever to neutral position. Disconnect the pneumatic pressure line from the motor at the hose connector.
- Pack the unit with the specified gear grease (Figure 4-2) by liberally 2. applying grease through the back opening of the case. (Figure 4-1).

#### TROUBLESHOOTING, REPAIR AND OVERHAUL Section 5

Correct any problems encountered with the kelly spinner as recommended in Table 5-1.

Symptom	Probable Cause	Corrective Action
, , ,	Power unit pressure not set high enough	Refer to instruction manual of power unit
	Faulty valve or motor	Repair or replace valve or motor.
	Restriction in hydraulic or	
	pneumatic lines to power unit	Check connections and lines for restrictions and obstructions.
Motor runs but unit does not rotate	Low air pressure	Verify air pressure is at recommended minimum.
	Faulty shifting mechanism	Check shifting mechanism and repair as necessary. Check for broken gear and replace as necessary.
Unit rotates slowly	Air flow rate too low	Check power unit or air system.
	Motor Wear	Check motor.
Rotates when control lever is in neutral	Faulty control valve	Replace control valve.
Motor leaks	Faulty shaft seal	Replace motor seal.

# Table 5-1

	Troubleshooting
REPAIR	In general, repair consists of replacing worn or broken parts. When a part is determined to be faulty through either inspection or an operational check, remove the part and replace it with a new one according to the instructions in Section 7. The component parts are illustrated and identified in that section of the manual. After any major repair, the kelly spinner should be serviced as described in "Maintenance" (Section 4).
OVERHAUL	Overhaul consists of disassembling the kelly spinner, examining each part, replacing any worn or damaged parts and then reassembling the kelly spinner. All damaged or worn parts are to be replaced with identical parts as identified in Section 7.
DISASSEMBLY	Disassemble the kelly spinner only to the extent required for necessary part replacement and/or overhaul. To disassemble the kelly spinner, follow the exploded illustrations in the illustrated parts lists (Section 7).
REASSEMBLY	Reassemble the component parts in the reverse order of disassembly.  Service and adjust according to the maintenance instructions in Section 4

and test according to testing procedures described in Section 6.

# TEST RECOMMENDATIONS

A preparation test of the Weatherford kelly spinner is recommended subsequent to motor replacement or repair, control valve replacement or repair, and major parts replacement.

During the testing operations, the operator should listen for unusual noises or grinding and watch for misalignment or erratic operation.

### **FREE RUN TEST**

During the run test, the kelly spinner should be run for 15 minutes at both "make" and "break" positions. If anything out of the ordinary is suspected, stop and investigate before proceeding.

To perform the free run test, "crack" the throttle handle until the rotary attains approximately 10 rpm and hold for two minutes while observing rotary action and listening for any unusual noise. Slowly move the throttle handle to full open position and hold for two minutes. Return the throttle handle to a slightly open position and hold for two minutes. Return the throttle handle to neutral position and repeat the test procedure for the opposite direction of rotation. Should a problem be indicated during the free run test, correct the problem and repeat the test to assure that the corrective action was effective.

WARNING: UNDER NO CIRCUMSTANCES SHOULD THE THROTTLE HANDLE BE TIED OR IN ANY WAY SECURED IN AN OPERATING POSITION.

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#### **ASSEMBLY, DISASSEMBLY AND PARTS** Section 7

The kelly spinner is designed to be assembled and disassembled with normally available mechanics' tools. No special tools are required. As with any piece of equipment, the mechanic must familiarize himself with the equipment and nomenclature to avoid improper assembly and damage to the kelly spinner. Do not disassemble the kelly spinner or any subassembly further than necessary to accomplish the required maintenance.

WARNING: DO NOT ATTEMPT TO PERFORM ANY ADJUSTMENT, REPAIR OR DISASSEMBLY WITH THE KELLY SPINNER CONNECTED TO A POWER SOURCE.

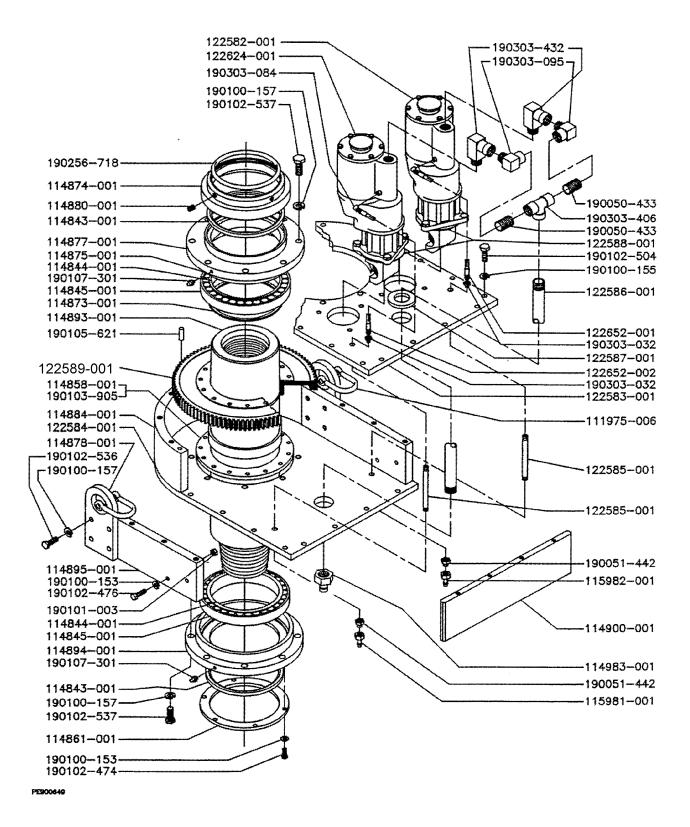


Figure 7-1 Model KS1500AB

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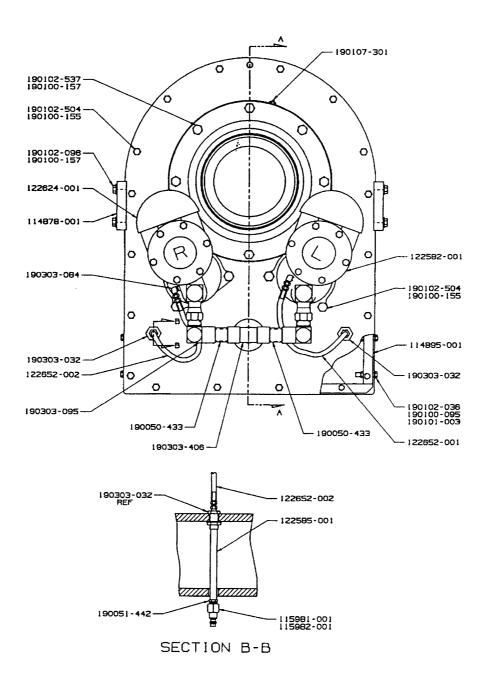
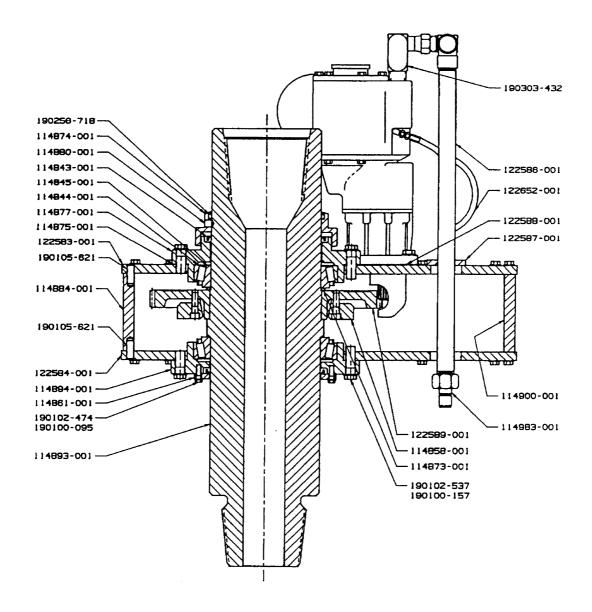


Figure 7-2 Model KS1500AB

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SECTION A-A

Figure 7-3 Model KS1500AB

Weatherford KS1500AB 6/94 dc

Part Number	Description	Qty
122588-001	Motor spacer	2
190107-301	Fitting, lubrication 1/8 P.T.	2
190101-003	Nut, hex 3/8-16	4
190102-476	Bolt, hx hd 3/8-16 UNC X 1.50	4
190120-536	Bolt, hx hd 5/8-11 UNC X 1.50	8
114878-001	Bracket, hanger	2
114895-001	Side plate	2
114900-001	Back plate	1
114880-001	Screw, set 1/2"-13 X .62	3
190105-621	Pin, dowel .50 DIA. X 1.50	6
115982-001	Nipple, male Q.C. 3/8 (blue)	1
190256-718	O-ring	1
122587-001	Plate, cover	1
190100-155	Washer, lock hel spring 1/2"	42
190102-504	Capscrew, hx hd 1/2"-13 X 1.50"	42
122585-001	Pipe, steel 1/4"	2
190100-153	Washer, lock hel spring 3/8"	10
190102-474	Capscrew, hx hd 3/8"-16 X 1.0"	6
190100-157	Washer, lock hel spring 5/8"	24
190102-537	Capscrew, hx hd 5/8"-11 X 1.75"	16
114875-001	Shim set	1
190303-084	Elbow 90° street 1/4"	2
190051-442	Bushing, reduced 3/8" - 1/4"	2
115981-001	Nipple, male Q.C. 3/8" (gray)	1
122586-001	Pipe, steel 1-1/4"	1
190303-032	Connector, anchor	2
114983-001	Plug, coupling 1- 1/4"	2
122652-002	Hose, 1/4 SW NPT M/M (gray) 10-3/4"	1
122652-001	Hose, 1/4 SW. NPT M/M (blue) 15-3/4"	1
190050-433	Nipple, 1-1/4" x close	2
190303-432	Elbow, 90° pipe swivel 1-1/4"	2
190303-406	Adapter, tee 1-1/4"	1
190303-400	Adapter, 90° elbow 1-1/4"	2
114873-001	Spacer, bearing-sub	1
114893-001	Sub. 26/0 LG.	<del>-  </del>
114861-001	Cover, plate-seal	<del>-  </del>
114894-001	Carrier, bearing cup-lower	1
114589-001	Gear, ring	1
114858-001	Connection, friction	1
114843-001	Seal, oil	2
114844-001	Cone, tapered bearing	2
114845-001	Cup, tapered bearing Cup, tapered bearing	2
114877-001	Carrier, bearing cup-upper	1
114877-001	Cover, bearing cup-upper Cover, bearing cup carrier	1
122583-001	Deck, top	1
122582-001	Air, starter, motor left	
114884-001	Side plate, curved	1
122624-001	Air starter, motor right	1
122584-001	Deck, bottom	1
111975-006	Shackle, 5 ton	2
190103-905	Bolt, sckt hd 7/16-15 x 1.50"	15
130103-303	DOIL, SURL 110 1/10-10 X 1.00	Πο

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Figure 7-4 Model KS1500AB

Part Number	Description	One Year Operation	Two Year Operation
122686-001	Sequencing valve assembly	2	4
125409-077	Starter repair kit	2	4
124905-004	Bearing	2	8
124905-033	Bearing	4	8
124905-084	Drive shaft assembly	2	4
124905-071	Facet drive assembly for RH motor	1	2
124905-074	Facet drive assembly for LH motor	1	2
114843-001	Oil seal	2	4
190256-718	O-Ring	1	2

Figure 7-5
Recommended Spares for Model KS1500AB

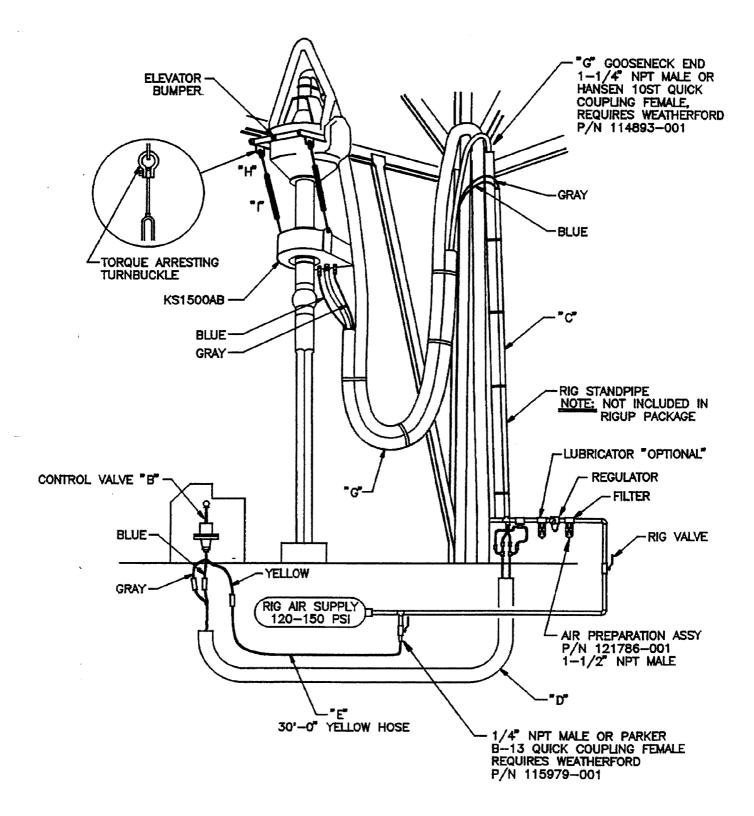


Figure 7-6 Model KS1500AB

#### NOTE:

The Kelly Spinner must be properly installed to achieve maximum performance. For rated torque and speed an air supply of 100 psi at 240 scfm is required.

# **INSTALLATION** (See Figure 7-6)

1. Install new clean 2-inch air stand pipe parallel to mud standpipe from gooseneck down to height of approximately 3 feet above rig floor. Include a 1-1/4" x 1-1/4" tee on lower end of stand pipe and plug run end.

NOTE: All pipe, fittings, valves and hoses utilized must be rated to a minimum of <u>250</u> psi working pressure.

- 2. Install gooseneck above standpipe by attaching with reducer bushing.
- 3. Install air filter, regulator, and lubricator, if supplied, by connecting to lower end of standpipe as shown. Install 2" shut-off valve between filter and air tank.
- 4. Install Control Valve "B" at driller's console.
- 5. Install Hose Bundle "C" in mast by strapping to mast or standpipe. Connect the gray hose and the blue hose to the corresponding color couplings of Hose Bundle "G".

NOTE: Fittings on color coded hoses and valves are selected to prevent improper connection.

6. At rig floor end, connect one end of air hose of Bundle "D" to mating colors of air hoses in Bundle "C". Connect the 6 foot blue and gray hose that are attached to the dump valve adjacent to the air line regulator to the 1/4" tees found at the standpipe end of Hose Bundle "D".

NOTE: Hose Bundles are tagged with terminal end identification.

- 7. Connect the other end of air hoses in Bundle"D" to mating colored pigtails extending from Control Valve "B".
- 8. Connect one end of 1/4" hose "E" (yellow) to yellow hose extending from Control Valve "B". Connect the opposite end of "E" to the rig air supply system as shown.
- 9. Install Kelly Spinner in the drill string as follows:
  - a. If new installation, weld two torque arresting connectors "H" to bottom of swivel elevator bumper as shown.

CAUTION: Properly ground swivel prior to welding. Use a welding procedure approved for swivel repair.

- b. With the upper end of the Kelly resting on the rotary table drive busing, stab the 6 5/8" left hand pin of the Kelly Spinner Sub into the upper end of the kelly. Make up the connection by hand until shouldered.
- c. Stab the swivel pin into the 6-5/8" kelly box connection and make up by hand until shouldered.
- d. Torque both connections to 50,000 lb.ft minimum.
- e. Install torque arresting turnbuckles "I" between Kelly Spinner and swivel as shown. Adjust turnbuckles to allow circular portion of spinner 6" of rotation.
- 10. Hoist the end of Hose Bundle "G" (labeled "G" gooseneck), to the level of gooseneck and connect the 1/4" air hoses by making up the quick disconnects.
- 11. Connect the 1/4" hose to the upper end of the hoses in Hose Bundle "C", maintain color coding.
- 12. Open the air supply shut off valve and actuate 60 seconds to blow out one 1-1-4" air hose. Actuate Control Valve "B" in the opposite direction for 60 seconds to blow out the other air hose. Pour 1 pint of clean SAE 10 weight oil to each hose.

#### **CAUTION:**

Secure free end of each hose while blowing out to prevent whipping. Failure to secure the free end of hoses can result in injury to personnel and/or equipment damage.

- 13. At the opposite end of the Hose Bundle "G", connect both 1-1/4" air hose to air motors by making up the connector.
- 14. Connect 1/4" hose to proper connections on the Kelly Spinner.
- 15. Secure hose bundle "G" to rotary hose using the straps provided.
- 16. Fill the air line lubricator, if provided, with SAE 10 lubricating oil, and check to assure that lubricator valve is open. Operate handle of Control Valve "B" and check for direction of rotation. If the opposite direction of rotation is desired reverse the 1/4" air hose to air motors.

#### NOTE:

Control Valve "B" maybe equipped with a neutral position latch. To operate lift up on washer (latch) while moving valve handle.

#### Unit is now ready for operation.

#### Rig Up/Rig Down

- Rig down of Kelly spinner to facilitate rig moves is accomplished in reverse order. Disassemble hoses only as necessary for the rig move.
- 2. Rig up is accomplished as noted under installation. Procedures for new installations are skipped.

# **Transportation/Storage**

- 1. Install thread protectors on pin and box end of Kelly Spinner sub. protect open ends of hoses and fittings from damage.
- 2. Store hoses in coils or extended. Insure that hoses are not crimped, collapsed or exposed to damage from adjacent parts.
- 3. Store Kelly Spinner and hoses in a clean dry place for transport and storage.

NOTE:

An optional transport/storage skid for the Kelly Spinner and hoses is available from Weatherford.

Part Number	<b>Description</b>	Qty
114964-001	Turnbuckle 1 x 18	2
114983-001	Plug, coupline 1-1/4 x 1	1
115503-001	Mounting eye, turnbuckle	2
115504-001	Gooseneck, 1-1/4"	1
115517-001	Strap, 30" canvas-w/buckle	10
190051-468	Bushing, reducer 2"	1
122471-001	Union hammer 2" 1000 psi	1
122564-001	Hose assy, bundle "D" 50'	1
122565-001	Hose assy, bundle "C" 50'	1
122570-000	Instructions, Installation KS1500	1
190101-001	Nutm hex 1/4-20 UNC-2B	4
190100-151	Washer, lock hvy 1/4"	4
190102-443	Capscrew, 1/4"-20 UNC x 62" hex head	4
122566-003	Hose assy bundle "G" 60'	1
122607-001	Bracket, valve mounting	1
111975-006	Shackle, 3/4" w/screw pin	2
121786-002	Assy, air prep w/exh valve	1
122633-001	Hose assy, bundle "E" 30'	1

Figure 7-7 Model KS1500AB Rig Up Materials List

Part Number	Description	Qty
124905-014	Seal, end plate	2
124905-017	Seal, piston	1
124905-020	Seal, bearing plate	1
124905-023	Seal, exhaust adapter	1
124905-028	Seal, drive housing	2
124905-048	Seal, piston	1
124905-054	Ring, actuator piston	1
124905-056	Seal, drive housing	1
124905-057	Seal, bearing retainer	1
124905-058	Seal, actuator piston	1
124905-059	Seal, sleeve adapter	1
124905-060	Seal, end plate	1
124905-061	Seal, valve seal	1
124905-062	Seal, seal support	1
124905-063	Seal, piston	1
124905-064	Seal, airfoil	1
124905-067	Bearing guide, act. piston	1
124905-078	O-ring sizing guage/instructions	1
124905-079	Gasket, gear case	1
124905-080	Airfoil	1
124905-081	Airfoil seal retainer	1
124905-082	Seal, support assembly	1
124905-083	Seal, end plate	3
124905-085	Seal, piston	1
124905-086	Seal, sequencing stop	1
124905-088	Blade, rotor	5

Table 7-8 Starter Repair Kit P/N 124905-077

Part Number	Description	Qty
124905-040	Airfoil assembly, seq. valve	1
124905-064	Seal, airfoil	1
124905-062	Seal, support	1
124905-082	Seal support assembly	1
124905-048	Seal, piston	1
124905-085	Seal, piston	1
124905-017	Seal, piston	1
124905-042	Ring, retaining	1
124905-063	Seal, piston	1
124905-086	Seal, seq. stop	1
124905-050	Screw, seal support	2

Table 7-9
Relay Lubricator Repair Kit P/N 124905-026

Part Number	Description	Qty
124905-088	Blade, rotor	5
124905-025	Shaft jack tool	1

Table 7-10
Rotor Blades Replacement Kit P/N 124905-089



