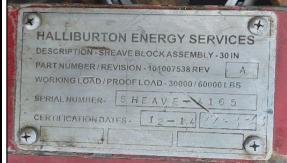


AI TAKAMUL COMPANY FOR ENGINEERING TESTS
AND PROFESSIONAL SAFETY LIMITED
Basra, North Rumaila, Quality Control Yard - Iraq

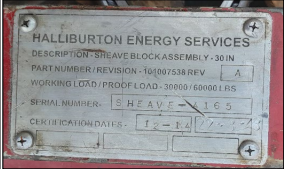


CERTIFICATION OF VISUAL THOROUGH EXAMINATION & DYE PENETRANT INSPECTION																			
Client:		HALLIBURTON (WPS)			Report No:		QC-23-08-WPS-001												
Location:		HALLIBURTON WORKSHOP WPS			Job Number:		-												
Date:		22.AUG.2023			Next Inspection Date:		21.AUG.2024												
Type Of Inspection:		VISUAL , THOROUGH EXAMINATION & DYE PENETRANT INSPECTION (DPI)			Specification:		ASTM E165, ST-GL-HAL-WPS-1705												
 					Halliburton Doc		Halliburton Doc. D01982668												
					UNIT DESCRIPTION:		30" SHEAVE												
					UNIT S/N:		SHEAVE-4165												
					SAP NO:		12768835												
					WORKING LOAD		30000 LBS												
					INSPECTION RESULT :														
					VISUAL , THOROUGH EXAMINATION				Above Item fully inspected and found freedom from deforms, cracks, corrosion & mechanical damage										
					DYE PENETRANT INSPECTION (DPI)				Grooves areas inspected and found freedom from cracks and other defects										
					FINAL RESULTS				Above Item found satisfactory and free of defects at the time of inspection										
					TECHNICAL DETAILS														
TECHNIQUE 2 - TYPE II VISIBLE, METHOD 'A' WATER -WASHABLE																			
PENETRANT DWELL TIME:		30 minutes		DEVELOPER DWELL TIME:		15 minutes													
Test Part Temperature:		114 °F		WHITE LIGHT INTENSITY:		3550 LUX													
EQUIPMENT DETAILS						PERSONNEL DETAILS		REVIEW BY											
EQUIPMENT :		COMPARATOR BLOCK		EQUIPMENT :		Digital Lux Meter		EQUIPMENT :		INFRARED THERMOMETER		INSPECTOR NAME:		RAO SOHAIL		SENIOR INSPECTOR:		NAVEED HUSSAIN	
S.N:		11223		S.N:		2722003		S.N:		201704125		QUALIFICATION:		ASNT LEVEL II MT & PT& VT & UT		SUPERVISOR:		HANI ALI	
Cal Due Date:		14,FEB,2024		Cal Due Date:		16,FEB,2024		Cal Due Date:		16,FEB,2024		SIGNATURE:				CLIENT:		ALI Talib HB48903 Date: 23-08-2023 Signature Halliburton	
Red Penetrant Manufacture:		Magnaflux		Batch No:		220511		EXPIRE DATE:		May,2025									
Developer Manufacture:		Magnaflux		Batch No:		220302		EXPIRE DATE:		March,2025									
WATER PRESSURE		30 PSI		P. GAUGE		SSR825		DUE CAL DATE:		18,AUG,2023									

Original - Client Files Copy - Area Office QC/FN/DPI/NDT/022 Rev.00 Dated: 07 Nov 2021

CERTIFICATION OF VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION

Client:	HALLIBURTON	Report No:	QC-23-08-WPS-001A
Location:	HALLIBURTON WORKSHOP WPS	Job Number:	-
Date:	22.AUG.2023	Next Inspection Date:	21.AUG.2024
Type Of Inspection:	VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION	Specification:	ASTM E709 , ST-GL-HAL-WPS-1705

	
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Halliburton Doc	Halliburton Doc. D01982668
UNIT DESCRIPTION:	30" SHEAVE BLOCK ASSEMBLY
UNIT S/N:	SHEAVE-4165
SAP NO:	12768835
WORKING LOAD	30000 LBS

INSPECTION RESULT :	
VISUAL , THOROUGH EXAMINATION	unit fully inspected and found free from deforms, cracks, corrosion & mechanical damage
MAGNETIC PARTICLE INSPECTION	forgn areas inspected and found free from cracks and other defects
FINAL RESULTS	unit found satisfactory and free of defects at the time of inspection

COMMENT:

Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast



EQUIPMENT DETAILS						PERSON DETAILS		REVIEW BY	
Equipment:	ASTM Test Block	Equipment:	UV BLACK LIGHT:2940 $\mu\text{w}/\text{cm}^2$	Equipment:	AC/DC Yoke PERMANET HAND MAGNATIC	INSPECTOR NAME:		SENIOR INSPECTOR:	NAVEED HUSSAIN
S.No:	1657	S.No:	1932401	S.No:	201504048 USA PYO-019CM (PY-02)	RAO SOHAIL			
Cal Due Date:	14.FEB.2024	Cal Due Date:	14.FEB.2024	Cal Due Date:	14.FEB.2024	QUALIFICATION:		SUPERVISOR:	HANI ALI
FLUORESCENT 14HF		Magnaflux	Batch No:	220306	EXPIRE DATE:	MARCH,2025	STAMP & SIGNATURE:	CLIENT:	ALI Talib HB48903 Date: 23-08-2023 Signature Halliburton
Whie Contrast Paint Manufacture:		Magnaflux	Batch No:	220602	EXPIRE DATE:	JUN,2025			
Digital Lux Meter	TECHNICAL DETAILS				Black Magnetic Ink Manufacture:7HF				
WHITE LIGHT INTENSITY:					Batch No:220605				
3550 Lux/S.No:2722003	Wet FLUORESCENT Particle Concentration 14 HF		0.1 to 0.4 ml/100 ml		Batch No:220605				
16.FEB.2024	Black Magnetic Ink Concentration 7 HF		1.2 to 2.4 ml/100 ml		EXPIRE DATE:		Jul-25		

Original - Client Files Conv - Area Office OC/EN/MPI/065 Rev.00 DATED 07 NOV 2021



Address: Noth Rumaila, Al Takamul Yard
Contact: +9647810009138

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	22.AUG.2023	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	21.AUG.2024	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-23-08-WPS-001B	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4165	SAP NO	12768835	

PROCEDURE

Equipment :	30 INCH SHEAVE BLOCK ASSEMBLY 30 IN-15/32-CABLE
SN:	SHEAVE-4165
SAP NO:	12768835
Ref Standard:	API RP 9B / ASTM E709/ASTM E165
Halliburton Document No:	D01982668, D01026300.

Sheave Wheels & Pins with The following specification:.

QTY:	01
Inspection Frequency:	Annually
Rated Capacity:	30000 LBS
Wire Rope Diameter:	15/32"
Sheaves Size :	30 Inch

Remarks:

Detailed reports are attached detailing all readings and results in -01 of 05- pages.

Inspector:	RAO SHAHIL	Supervisor:	HANI ALI
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ALI Talib HB48903

Date: 23-08-2023

Signature
Haliburton



**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
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Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	22.AUG.2023	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	21.AUG.2024	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-23-08-WPS-001B	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4165	SAP NO	12768835	

PROCEDURE

- The Products Have Been Inspected and Found Them Conformable to Relevant

- 01- Wash thoroughly to remove all of the dirt and mud.
- 02- Does not direct high pressure spray onto the face of bearings to prevent water displacing of the grease.
- 03- Make a visual inspection, check for no evidence of corrosion, cracks or fractures on the wheel frame that undermine its operational capabilities or safety. Inspect the cable groove all around the sheave wheel.
- 04- Using the Sheave Gauge and using as reference the Sheave Groove Inspection guidelines D01026300 determine if the groove is in specifications. If worn too much, it will begin to wear the cable unevenly. The sheave should be changed if this is the case.
- 05- Check that the nameplate is intact and legible.
- 06- Rotate sheave freely and crack for wobble. Any excessive play could indicate a worn or damaged bearing. This must be repaired by replacing the sheave wheel, bearing assembly or the shaft.
- 07- Check the operation of the Guard Door (30")
- 08- Rotate clevis swivel to ensure operation.
- 09- Check the bolts and frame for damage.
- 10- Mount – Clevis – Finished- sheave – 30 Inch performed Dye penetrant / Magnetic Particle Inspection. Replace if it fails the dye penetrant / MPI Testing.
- 11- Visually Inspect Locknut, Clevis, Shaft, 30 IN Sheave for any cracks or corrosion or ware.
- 12- Visually inspect shaft- Clevis- Threaded-Sheave-30 IN for cracks, corrosion or bending

INSPECTION RESULT

**** Visual, MPI & DPT was carried out on the available critical areas of the Sheaves & Pins and found Accept at the time of inspection**

Remarks:

Detailed reports are attached detailing all readings and results in -02 of 05- pages.

Inspector:	RAO SHAIL	Supervisor:	HANI ALI
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ALI Talib HB48903

Date: 23-08-2023

Signature
Haliburton



**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
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30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	22.AUG.2023	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	21.AUG.2024	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-23-08-WPS-001B	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4165	SAP NO	12768835	

Depth Measurements of 30 Inch Sheaves Wheel

SHEAVE NO:	WIRE ROPE DIA:	ACTUAL GROOVE DEPT.	MIN ALLOWABLE GROOVE DEPT	Result
SHEAVE-4165	11.90mm	45.90 mm	15.827 mm	ACCEPTABLE

Radius Measurements of 30 Inch Sheaves Wheel

SHEAVE NO:	WIRE ROPE DIA:	ACTUAL GROOVE RADIUS.	GROOVE RADIUS MINI WORN.	GROOVE RADIUS MINI NEW.	GROOVE RADIUS MAXI.	Result
SHEAVE-4165	11.90mm	6.429 mm	6.09 mm	6.307mm	6.545mm	ACCEPTABLE

Remarks:

Detailed reports are attached detailing all readings and results in -03 of 05- pages.



Inspector:	RAO SHAHIL	Supervisor:	HANI ALI
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ALI Talib HB48903

Date: 23-08-2023

Signature
Haliburton



AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

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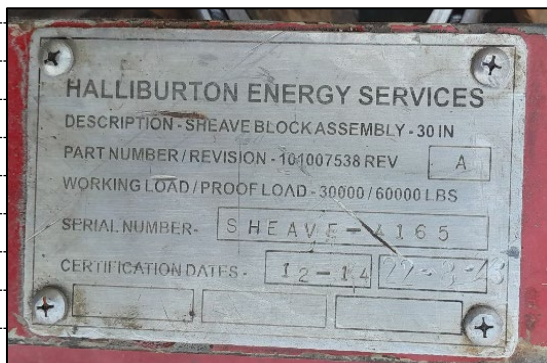
Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	22.AUG.2023	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	21.AUG.2024	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-23-08-WPS-001B	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4165	SAP NO	12768835	

Pictorial



Remarks:

Detailed reports are attached detailing all readings and results in -04 of 05- pages.

Inspector: RAO SHAIL

Supervisor:

HANI ALI



ALI Talib HB48903

Date: 23-08-2023

Signature
Haliburton



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	22.AUG.2023	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	21.AUG.2024	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-23-08-WPS-001B	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4165	SAP NO	12768835	

Pictorial



Remarks:

Detailed reports are attached detailing all readings and results in -05 of 05- pages.

Inspector:

RAO SOHAIL

Supervisor:

HANI ALI



ALI Talib HB48903

Date: 23-08-2023

Signature
 Haliburton

