

**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
AND PROFESSIONAL SAFETY LIMITED**

Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	27.APRIL.2024	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	26.APRIL.2025	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-24-APR-HALL-WPS-002	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4128	SAP NO.	12980571	

PROCEDURE

Equipment :	30 INCH SHEAVE BLOCK ASSEMBLY 30 IN-15/32-CABLE
SN:	SHEAVE-4128
SAP NO.	12980571
Ref Standard:	API RP 9B / ASTM E709/ASTM E165
Halliburton Document No:	D01982668, D01026300.

Sheave Wheels & Pins with The following specification.:

QTY:	One
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 06- pages.

Name of Inspector: NAVEED & SHAZAD	Name of Person certifying this report: SAID	Signature & Stamp: ALI Talib HB48903 Date:27-04-2024 Signature
QUALIFICATION: ASNT LEVEL II		
MT & PT & VT & UT		



**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
AND PROFESSIONAL SAFETY LIMITED**

Basra, North Rumaila, Quality Control Yard - Iraq
Tel: +9647810009138 / +9647834964657



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	27.APRIL.2024	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	26.APRIL.2025	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-24-APR-HALL-WPS-002	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4128	SAP NO.	12980571	

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 -01 of 06- pages.

Name of Inspector: NAVEED & SHAZAD	Name of Person authenticating this report: SAID	Signature & Stamp: ALI Talib HB48903 Date:27-04-2024 Signature Haliburton
QUALIFICATION: ASNT LEVEL II		
MT & PT& VT & UT		



**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
AND PROFESSIONAL SAFETY LIMITED**

Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	27.APRIL.2024	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	26.APRIL.2025	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-24-APR-HALL-WPS-002	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4128	SAP NO.	12980571	

Depth Measurements of 30 Inch Sheaves Wheel

SHEAVE NO:	WIRE ROPE DIA:	ACTUAL GROOVE DEPT.	MIN ALLOWABLE GROOVE DEPT	Result
SHEAVE-4128	11.90mm	45.68 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-4128	11.90mm	6.429 mm	6.09 mm	6.307mm	6.545mm	ACCEPTABLE

Remarks:

Detailed reports are attached detailing all readings and results in -01 of 06- pages.

Name of Inspector: NAVEED & SHAZAD	Name of Person authenticating this report: SAID	Signature & Stamp:
QUALIFICATION: ASNT LEVEL II		ALI Talib HB48903 Date:27-04-2024 Signature
MT & PT & VT & UT		



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	27.APRIL.2024	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	26.APRIL.2025	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-24-APR-HALL-WPS-002	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4128	SAP NO.	12980571	

PARTICLES IMAGES



Remarks:

Detailed reports are attached detailing all readings and results in -01 of 06- pages.

Name of Inspector: NAVEED & SHAZAD	Name of Person authenticating this report: SAID	Signature & Stamp: ALI Talib HB48903 Date:27-04-2024 Signature Haliburton
QUALIFICATION: ASNT LEVEL II		
MT & PT & VT & UT		



**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
AND PROFESSIONAL SAFETY LIMITED**

Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	27.APRIL.2024	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	26.APRIL.2025	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-24-APR-HALL-WPS-002	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4128	SAP NO.	12980571	

PARTICLES IMAGES



Remarks:

Detailed reports are attached detailing all readings and results in -01 of 06- pages.

Name of Inspector: NAVEED & SHAZAD	Name of Person authenticating this report: SAID	Signature & Stamp: ALI Talib HB48903 Date:27-04-2024 Signature Haliburton
QUALIFICATION: ASNT LEVEL II		
MT & PT& VT & UT		



**AI TAKAMUL COMPANY FOR ENGINEERING TESTS
AND PROFESSIONAL SAFETY LIMITED**

Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657



30 INCH SHEAVE BLOCK ANNUALLY INSPECTION CERTIFICATE

Customer:	HALLIBURTON (WPS)	Date of Inspection:	27.APRIL.2024	
Location:	Burjesia Halliburton Basra -Iraq	Next Date of Inspection:	26.APRIL.2025	
Type Of Inspection:	EXTENDED MAINTENANCE CHECKS	Report No.:	QC-24-APR-HALL-WPS-002	
Speciation:	API RP 9B / ASTM E709/ASTM E165	Halliburton Document No:	D01982668, D01026300.	
SERIAL NO.	SHEAVE-4128	SAP NO.	12980571	

PARTICLES IMAGES



Remarks:


Detailed reports are attached detailing all readings and results in -01 of 06- pages.

Name of Inspector: NAVEED & SHAZAD	Name of Person authenticating this report: SAID	Signature & Stamp: ALI Talib HB48903 Date:27-04-2024 Signature Haliburton
QUALIFICATION: ASNT LEVEL II		
MT & PT& VT & UT		



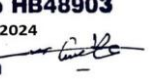


CERTIFICATION OF VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION

Client:	HALLIBURTON WPS	Report No:	QC-24-APR- HALL-WPS-02A
Location:	WPS WORKSHOP	Job Number:	QC-23-04-HALL-038
Inspection Date:	Saturday, April 27, 2024	Next Inspection Date:	Saturday, April 26, 2025
Type Of Inspection:	VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION	Specification:	ASTM E709 , D01026300

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Halliburton Doc</td> <td>Halliburton Doc. D01982668</td> </tr> <tr> <td>UNIT DESCRIPTION:</td> <td>30" SHEAVE BLOCK ASSEMBLY</td> </tr> <tr> <td>UNIT S/N:</td> <td>SHEAVE-4128</td> </tr> <tr> <td>SAP NO:</td> <td>12980571</td> </tr> <tr> <td>WORING LOAD</td> <td>30000 LBS</td> </tr> <tr> <td colspan="2" style="text-align: center;">INSPECTION RESULT :</td> </tr> <tr> <td>VISUAL , THOROUGH EXAMINATION</td> <td>unit fully inspected and found free from deforms, cracks, corrosion & mechanical damage forgn areas inspected</td> </tr> <tr> <td>MAGNETIC PARTICLE INSPECTION</td> <td>and found free from cracks and other defects</td> </tr> <tr> <td>FINAL RESULTS</td> <td>unit found satisfactory and free of defects at the time of inspection</td> </tr> <tr> <td colspan="2">COMMENT:</td> </tr> <tr> <td colspan="2" style="text-align: center;">Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast (MPI Wet Fluorescent inspection Thread With UltraViolet Light)</td> </tr> </table>	Halliburton Doc	Halliburton Doc. D01982668	UNIT DESCRIPTION:	30" SHEAVE BLOCK ASSEMBLY	UNIT S/N:	SHEAVE-4128	SAP NO:	12980571	WORING LOAD	30000 LBS	INSPECTION RESULT :		VISUAL , THOROUGH EXAMINATION	unit fully inspected and found free from deforms, cracks, corrosion & mechanical damage forgn areas inspected	MAGNETIC PARTICLE INSPECTION	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 (MPI Wet Fluorescent inspection Thread With UltraViolet Light)	
Halliburton Doc	Halliburton Doc. D01982668																						
UNIT DESCRIPTION:	30" SHEAVE BLOCK ASSEMBLY																						
UNIT S/N:	SHEAVE-4128																						
SAP NO:	12980571																						
WORING LOAD	30000 LBS																						
INSPECTION RESULT :																							
VISUAL , THOROUGH EXAMINATION	unit fully inspected and found free from deforms, cracks, corrosion & mechanical damage forgn areas inspected																						
MAGNETIC PARTICLE INSPECTION	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 (MPI Wet Fluorescent inspection Thread With UltraViolet Light)																							



EQUIPMENT DETAILS						PERSON DETAILS		REVIEW BY		
EQUIPMENT :	AC/DC HAND Yoke	EQUIPMENT :	Shooting Coil DC	EQUIPMENT :	UV BLACK LIGHT: 3070 μw/cm ²	INSPECTOR NAME: M.Shahzad Ahmed		SENIOR INSPECTOR:	NAVEED HUSSAIN	
S.NO:	201504052	S.NO:	22650	S.NO:	1898977			QUALIFICATION: ASNT LEVEL II MT & PT & VT	SUPERVISOR:	HANI ALI
Cal Due Date:	12.AUG.2024	Cal Due Date:	12.AUG.2024	Cal Due Date:	12.AUG.2024	STAMP & SIGNATURE: 	CLIENT: ALI Talib HB48903 Date:27-04-2024 Signature  Haliburton			
FLUORESCENT 14HF		Magnaflux	Batch No:	220306	EXPIRE DATE:			MARCH,2025		
White Contrast Paint Manufacture:		Magnaflux	Batch No:	220602	EXPIRE DATE:			JUN,2025		
Digital Lux Meter WHITE LIGHT INTENSITY: 3620 Lux/S.NO:2722003		TECHNICAL DETAILS			Black Magnetic Ink Manufacture:7HF Batch No:220605					
Cal Due Date:14.AUG.2024		Wet FLUORESCENT Particle Concentration 14 HF		0.1 to 0.4 ml/100 ml		Batch No:220605				
		Black Magnetic Ink Concentration 7 HF		1.2 to 2.4 ml/100 ml		EXPIRE DATE:		Jul-25		
Original - Client Files			Copy - Area Office		QC/FN/MPI/065 Rev.00 DATED 07 NOV 2021					

CERTIFICATION OF VISUAL THOROUGH EXAMINATION & DYE PENETRANT INSPECTION									
Client:		HALLIBURTON WPS			Report No:		WPS-QC-4-24-02B		
Location:		WPS WORKSHOP			Job Number:		27042024		
Inspection Date:		Saturday, April 27, 2024			Next Inspection Date:		Saturday, April 26, 2025		
Type Of Inspection:		VISUAL , THOROUGH EXAMINATION & DYE PENETRANT INSPECTION (DPI)			Specification:		ASTM E165, D01982668, D01026300		
		Halliburton Doc		Halliburton Doc. D01982668					
		UNIT DESCRIPTION:		30" SHEAVE					
		UNIT S/N:		SHEAVE-4128					
		SAP NO:		12980571					
		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)		forgn 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:		101 °F		WHITE LIGHT INTENSITY:		3510 LUX			
EQUIPMENT DETAILS					PERSONNEL DETAILS			REVIEW BY	
EQUIPMENT :		COMPARATOR BLOCK	EQUIPMENT :		Digital Lux Meter	EQUIPMENT :		INFRARED THERMOMETER	
S.N:		11223	S.N:		2722003	S.N:		201704125	
Cal Due Date:		12,AUG,2024	Cal Due Date:		14,AUG,2024	Cal Due Date:		14,AUG,2024	
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,2024			
Inspector Name:		M. Shahzad			Qualification:		ASNT LEVEL II MT & PT& VT & UT		
Senior Inspector:		NAVEED HUSSAIN			Supervisor:		HANI ALI		
Client:		ALI Talib HB48903 Date:27-04-2024 Signature Halliburton			Signature:				

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