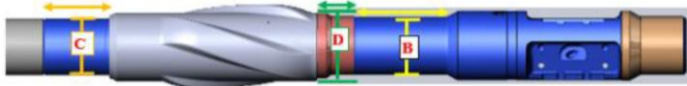
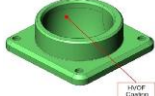


CERTIFICATION OF VISUAL THOROUGH EXAMINATION & DYE PENETRANT INSPECTION

Customer:	HALLIBURTON SPERRY DRILLING	Date Of Service :	Saturday, May 11, 2024
Work Location:	Burjesia Halliburton Base Basra - IRAQ	Report No:	QC-24-HAL-SP-BJS-DPI-NDT-BULID-016
Acceptance Creater :	DS-1 Volume 4- 5th Edition	Work Order:	326591425
HAL DOCUMENTS :	D01860184 Rev I (Visual Procedure D00305796 Revision U) (LPI Procedure D00976849 Revision E)	6 3/4" STEERING HEAD :	13187173
TYPE OF INSPECTION	VISUAL , THOROUGH EXAMINATION & DYE PENETRANT INSPECTION (DPI)		
DESCRIPTION:	6-3/4" PAD PDC		
STEERING HEAD PARTICLES IMAGES			
TECHNICAL DETAILS			
TECHNIQUE 2 - TYPE II VISIBLE, METHOD 'A' WATER - WASHABLE			
PENETRANT DWELL TIME:	30 minutes	DEVELOPER DWELL TIME:	15 minutes
Test Part Temperature:	68 °F	WHITE LIGHT INTENSITY:	3625 LUX
Test Equipment & Consumable Details			
COMPARATOR BLOCK	SR#11223 CAL DUE: 12,AUG,2024	Digital Lux Meter	SR#2722003 CAL DUE: 15,AUG,2024
INFRARED THERMOMETER	SR#201704125 CAL DUE: 15,AUG,2024	PRESSURE GAUGE WATER PRESSURE 30 PSI	SR# SSR825 CAL DUE: 18,AUG,2024
Red Penetrant Manufacture:	Magnaflux	Batch No: 220511	EXPIRE DATE :May,2025
Developer Manufacture:	Magnaflux	Batch No: 220302	EXPIRE DATE :March,2025
Serial Number	13255954	STEERING PAD	Serial Number 4513423962-2-13
Serial Number	13255902		Serial Number 4513624275-1-78
Serial Number	13583479		Serial Number 4513624275-1-72
CONDITION	ACCEPTABLE		CONDITION ACCEPTABLE
Serial Number	13560047	BORE	Serial Number 4514239571-1-113
Serial Number	4513611638-1-90		Serial Number 4514238571-1-123
Serial Number	14128531		Serial Number 4514238571-1-183
CONDITION	ACCEPTABLE		CONDITION ACCEPTABLE
Upper lateral pad Serial Number	4513609057-1-213	LATERAL PAD	Serial Number 13212592
Serial Number	4513611250-1-89		Serial Number 13211860
Serial Number	4513410774-1-38		Serial Number 4513417857-1-200
Lower lateral pad Serial Number	4515821253-1-119		Serial Number 4513417857-1-195
Serial Number	4514090780-2-46		Serial Number 4513417857-1-18
Serial Number	4514095760-1-74		Serial Number 4513605945-3-36
CONDITION	ACCEPTABLE		CONDITION ACCEPTABLE
Serial Number	4514402900-1-23	SEAL GLAND	ONLINE TRACEABILITY
Serial Number	4514402900-1-29		
Serial Number	4514402900-1-19		
CONDITION	ACCEPTABLE		
REMARKS:	All Parts Mentioned above were found "Acceptable" At time of Inspection & Ready to Use,		
Inspector Name:	M Shauzad Ahmed	Review By	
Qualification:		Senior Inspector:	Naveed Hussain
Signature:		Supervisor:	Hani Ali
		Customer Name Signature:	
Original - Client Files		Copy - Area Office	
		QC/FN/DPI/NDT/022 Rev.00 Dated: 07 Nov 2021	

AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

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



6 3/4" STEERING HEAD COLLAR INSPECTION CERTIFICATE

Client Name:	SPERRY DRILLING	Report No.:	HAL-TUB-24-DPI-NDT-1740
Acceptance criteria:	DS-1 Volume 4- 5th Edition (ClassA1)	Date of Inspection:	13 APRIL 2024
Halliburton Doc.	D01860184 (Revision I)	Halliburton WORK ORDER	326591425
Work Location:	Burjesia Halliburton Camp Basra – Iraq	Halliburton Doc. (Visual Procedure D00305796 Revision U)	
Halliburton Doc. (Dimensional Procedure D00301932 Revision L) Halliburton Doc. (Cold work Procedure D00685901 Revision W)		Halliburton Doc. (LPI Procedure D00976849 Revision E)	

TEST EQUIPMENT & CONSUMABLE DETAILS

PENETRANT SKL-WP2	Batch #:220511 Exp: May,2025 Manufacture: Magnaflux	DEVELOPER SKD-S2	Batch #:220302 Exp. March,2025 Manufacture: Magnaflux
TECHNICAL DETAILS	TECHNIQUE 2 - TYPE II VISIBLE, METHOD 'A' WATER – WASHABLE		
LEAD GAGE	SR#AH07KF0027 GAEMAKER LG-5003 CAL.Date.13. FEB. 2024 CAL Due Date.12. AUG. 2024	THREAD PROFILE GAGE	SR#21336 CAL.Date.13. FEB. 2024 CAL Due Date.12. AUG. 2024 SR#21335 CAL.Date.15. FEB. 2024 CAL Due Date.14. AUG. 2024
PENETRANT DWELL TIME:	30 Minutes	DEVELOPER DWELL TIME:	15 Minutes
Test Part Temperature:	88 °F	White Light Intensity:	3540 lux
INFRARED THERMOMETER	201704125	CAL DUE DATE.	14. AUG. 2024
Digital Lux Meter	2722003	CAL DUE DATE.	14. AUG. 2024
WATER PRESSURE	30 PSI	COMPARATOR BLOCK	SR#11223 CAL.Date. 13. FEB.2024 CAL Due Date. 12. AUG. 2024
Methodology:	• Through Visual inspection • Dimensional 3 • Dye Penetrant Inspection		

Serial No.	Description	Connection		Result of Inspection			Dimensional 3 Inspection												
		Box	Box	Box	Box	Body	Box						Box						Body
							OD(In)	CB ϕ(In)	CB δ(In)	Bevel ϕ(In)	BB ϕ(In)	BB λ(In)	OD(In)	CB ϕ(In)	CB δ(In)	BB ϕ(In)	BB δ(In)	Bevel diaϕ(In)	Overall λ(In)
13187173	6-3/4" STEERING HEAD COLLAR	4 ½ REG	5-1/2 FH	Acc.	Acc.	Acc.	6 3/4"	4 11/16	20/32	6 3/16"	...	...	6 3/4	5 7/8	20/32	----	---	6 11/16	83 3/8"



Conclusion	6-3/4" STEERING HEAD COLLAR Was Found "Acceptable" at Time of Inspection Ready For Use NOTE: Performed Cold Work On both Connection
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OD	Outside Diameter	ID	Inside Diameter	SRG	Stress Relief Groove	CB	Counter Bore	BB	Bore Back	FB	Float Bore
φ	Diameter	λ	Length	σ	Width	δ	Depth	NP.	Not Present	NA.	Not Applicable
EGR	Elevator Groove Recess	SGR	Slip Groove Recess	CR	Crack	B	Bent	PC	Premium Class	RF	Reface
GT	Galled Thread	TP	Thread Pitting	SP	Seal Pitting	TD	Thread Damage	SD	Seal Damage	M	Mashed
1	100 % Coating	2	99-71 % Coating	3	70-40 % Coating	4	Up to 40 %	5	Nil	WT	Wall Thickness
Colors Code:		White	No Defects	Red	Crack or Extreme Damage.	Blue	Damage	Green	Seal Damage	Yellow	ACFM

Inspector Name:	M.Shahzad Ahmed	Review By					
Qualification:	ASNT Level II (MT, UT, VT, ET)	Senior Inspector:	Naveed Hussain	Supervisor:	Hani Ali	Customer Name:	
Signature:						Customer Signature:	
Original - Client Files		Copy - Area Office	QC/FN/IC/008	Rev.00	Dated 07 NOV 2021		

