

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

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**INSPECTION CERTIFICATE FOR X-OVER**

<b>Client Name:</b>	<b>HALLIBURTON (HCT)</b>	<b>Report No.:</b>	HAL-25-01-HCT-023
<b>Acceptance criteria.</b>	DS-1 Volume 3 CAT 3-5 Fifth Edition & API 5CT	<b>Date of Inspection:</b>	18.January.2025
<b>Refrance Standard HCT</b>	MAN-GL-HAL-HCT-900 REV NO.6.3	<b>Next Inspection Date:</b>	<b>17.July.2025</b>
		Halliburton Doc. (Visual Procedure D00305796 Revision Y)	
Halliburton Doc. (Dimensional Procedure D00301932 Revision M)		Halliburton Doc. (MPI Procedure D00976850 Revision E)	

**TEST EQUIPMENT & CONSUMABLE DETAILS**

WHITE CONTRAST WCP-2	Batch #: 220602 Manufacture: Magnaflux Exp Date: JUN,2025	TECHNICAL DETAILS	Wet Visible Continuous
BLACK INK 7HF	Batch#.220605 Manufacture: Magnaflux Exp Date: JULY.2025	COIL(1200 AMP-TURNS/IN	SR#22650 Cal.13.OCT.2024 Cal Due 12.APR.2025
FLUORESCENT 14HF	Batch #: 220306 Manufacture: Magnaflux Exp Date: March.2025	A.C HAND YOKE	SR#201504052 Cal.12.OCT.2024 Cal Due 11.APR.2025
INTENSITY METER	SR#R.043943 Cal.14.OCT.2024 Cal Due 13.APR.2025	UV BLACK LIGHT	SR#1898977 Cal.12.OCT.2024 Cal Due 11.APR.2025
LEAD GAGE	SR#AH07KF0027 GAEMAKER LG-5003 Cal.14.OCT.2024 Cal Due 13.APR.2025	THREAD PROFILE GAGE	SR#21336 Cal.14.OCT.2024 Cal Due 13.APR.2025 SR#21335 Cal.14.OCT.2024 Cal Due 13.APR.2025
Magnetic Partical Concentration 7 HF	1.2 TO 2.4 ML/100 ML	UV LIGHT INTENSITY:	3170 μw/cm <sup>2</sup>
Magnetic particle concentration flourcent 14 HF	0.1 TO 0.4 ML/100 ML	WMPT Light Intensity:	3640 Lux

**MAGNITISUM DIRECTION (LONGITUDENAL)**

<b>METHODOLOGY:</b>	<ul style="list-style-type: none"> <li>Through Visual inspection</li> <li>Dimensional Inspection</li> </ul>	<ul style="list-style-type: none"> <li>MPI inspection with Ultraviolet light</li> </ul>
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Serial No.	Description	Connection		Result Inspection			Dimensional Inspection													
		Pin	Box	Pin	Box	Body	Pin					Box					Body			
							OD(In)	ID(In)	Neck ϕ(In)	Pin λ(In)	Bevel ϕ(In)	OD(In)	CB ϕ(In)	CB ϕ(In)	BB ϕ(In)	BB ϕ(In)	Bevel ϕ(In)	Pin T λ(In)	Box T λ(In)	Overall λ (In)
HAH-18354-2	X-OVER	2 7/8" EUE	3 1/2 IF	Acc.	Acc.	Acc.	4 3/4"	2 5/16"	-	-	-	4 3/4"	4 2/32"	5/8"	-	-	4 11/16"	-	-	8 3/8"



**Conclusion:** 01 X-Over was found "Acceptable". At time of Inspection Ready For Use.

**Abbreviations :**

<b>OD</b> Outside Diameter	<b>ID</b> Inside Diameter	<b>SRG</b> Stress Relief Groove	<b>CB</b> Counter Bore	<b>BB</b> Bore Back	<b>FB</b> Float Bore
<b>ϕ</b> Diameter	<b>λ</b> Length	<b>ϖ</b> Width	<b>δ</b> Depth	<b>NP.</b> Not Present	<b>NA.</b> Not Applicable
<b>EGR</b> Elevator Groove Recess	<b>SGR</b> Slip Groove Recess	<b>CR</b> Crack	<b>B</b> Bent	<b>PC</b> Premium Class	<b>RF</b> Reface
<b>GT</b> Galled Thread	<b>TP</b> Thread Pitting	<b>SP</b> Seal Pitting	<b>TD</b> Thread Damage	<b>SD</b> Seal Damage	<b>M</b> Mashed
<b>1</b> 100 % Coating	<b>2</b> 99-71 % Coating	<b>3</b> 70-40 % Coating	<b>4</b> Up to 40 %	<b>5</b> Nil	<b>WT</b> Wall Thickness
<b>Colors Code:</b>	<b>White</b> No Defects	<b>Red</b> Crack or Extreme Damage.	<b>Blue</b> Damage	<b>Green</b> Seal Damage	<b>Yellow</b> ACFM

<b>Inspector Name:</b>	M.Shahzad Ahmed	<b>Review By</b>				
<b>Qualification:</b>	ASNT Level II (MT, PT) 2	<b>Senior Inspector:</b>	NAVEED HUSSAIN	<b>Supervisor:</b>	Hani Ali	<b>Customer Name:</b>
<b>Signature:</b>						<b>Customer Signature:</b>
Original - Client Files		Copy - Area Office		QC/FN/FLS/03 Rev.00	Dated: 07 Nov 2021	

