Al TAKAMUL COMPANY FOR ENGINEERING TEST AND PROFESSIONAL SAFETY LIMITED
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INSPECTION CERTIFICATE FOR X-OVER

Client Name:	HALLIBURTON (TSS)	Report No.:	HAL-25-07-MS-DST-003
Acceptance criteria.	DS-1 Volume 4 Fifth Edition & API 5CT	Date of Inspection:	31.JULY.2025
Refrance Standard TSS	ST-GL-HAL-TT-510 REV NO 5.1	Next Inspection Date:	30-JAN-2026
TEST EQUIPMENT & CONSUMABLE DETAILS			
WHITE CONTRAST WCP-2	Batch #: 230408 Manufacture: Magnaflux Exp Date: APRIL,2026	TECHNICAL DETAILS	Wet Visible Continuous
BLACK INK 7HF	Batch#.230604 Manufacture: Magnaflux Exp Date: JUNE.2026	COIL(1200 AMP-TURNS/IN	SR#22650 Cal.09.APR.2025 Cal Due 08.OCT.2025
FLUORESCENT 14HF	Batch #: 230503 Manufacture: Magnaflux Exp Date: MAY.2026	A.C HAND YOKE	SR#201504052 Cal.08.APR.2025 Cal Due 07.OCT.2025
INTENSITY METER	SR# 2722003 Cal.10.APR.2025 Cal Due 09.OCT.2025	UV BLACK LIGHT	SR#87521 Cal.10.APR.2025 Cal Due 09.OCT.2025
Magnetic Partical Concentration 7 HF	1.2 TO 2.4 ML/100 ML	UV LIGHT INTENSITY:	3190 µw/cm²
Magnetic particle concentration flourcent 14 HF	0.1 TO 0.4 ML/100 ML	WMPT Light Intensity:	3680 Lux
MAGNITISUM DIRECTION (LONGITUDENAL)			
METHODOLOGY:	• Through Visual inspection • Dimensional Inspection	•MPI inspection with Ultraviolet light	

Serial No.	Description	Connection		Result Inspection			Dimensional Inspection											
							Pin					Box						Body
		Pin	Box	Pin	Box	Body	OD(In)	ID(In)	Neck ϖ(In)	Pin λ(In)	Bevel ϕ(In)	OD(In)	CB ϕ(In)	CB δ(In)	BB ϕ(In)	BB δ(In)	Bevel ϕ(In)	Overall λ (IN)
DST-XO-08	X-OVER	3 ½" VAM TOP	3 7/8" CAS	Acc.	Acc.	Acc.	5"	2 5/16"	-	-	-	5"	-	-	-	-	-	19 ½"

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

Abbreviations :

OD	Outside Diameter	ID	Inside Diameter	SRG	Stress Relief Groove	CB	Counter Bore	BB	Bore Back	FB	Float Bore
Φ	Diameter	λ	Length	ϖ	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:	Level II MT/PT	Senior Inspector:	NAVEED HUSSAIN	Supervisor:	Hani Ali	Customer Name:	
Signature:						Customer Signature:	

Original - Client Files Copy - Area Office QC/FN/FLS/03 Rev.00 Dated: 07 Nov 2021