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**INSPECTION CERTIFICATE FOR X-OVER**

|  |   |   |  |
|--|---|---|--|
| <b>Client Name:</b>  | HALLIBURTON (TSS)   | Report No.:   | HAL-24-02-MS-TSS-121   |
| Acceptance criteria.   | DS-1, Volume 4 Fifth Edition  | Date of Inspection:   | 10.February.2024   |
| <b>Work Location:</b>  | Burjesia Halliburton Camp Basra - Iraq  | Next Date of Inspection:                                      | <b>09.August.2024</b>  |
| Halliburton Doc. (Visual Procedure D00305796 Revision <b>U</b> ) |   | Halliburton Doc. (MPI Procedure D00976850 Revision <b>D</b> ) |  |
| <b>TEST EQUIPMENT &amp; CONSUMABLE DETAILS</b>                   |   |   |  |
| WHITE CONTRAST WCP-2   | Batch #: 220602 Manufacture: Magnaflux<br>Exp Date: JUN.2025  | TECHNICAL DETAILS   | Wet Visible Continuous   |
| BLACK INK 7HF  | Batch#.220605 Manufacture: Magnaflux<br>Exp Date: JULY.2025   | COIL(1200 AMP-TURNS/IN  | SR#22650 Cal. 15.AUG.2023<br>Cal Due 14.FEB.2024   |
| FLUORESCENT 14HF   | Batch #: 220306 Manufacture: Magnaflux<br>Exp Date: March.2025  | A.C HAND YOKE   | SR#201504048 Cal 15.AUG.2023<br>Cal Due 14.FEB.2024  |
| INTENSITY METER  | SR#R.043943 Cal.15.AUG.2023<br>Cal Due 14.FEB.2024  | UV BLACK LIGHT  | SR#1932401 Cal. 15.AUG.2023<br>Cal Due 14.FEB.2024   |
| LEAD GAGE  | SR#AH07KF0027 GAEMAKER LG-5003<br>CAL.Date. 15.AUG.2023<br>CAL Due Date 14.FEB.2024   | THREAD PROFILE GAGE   | SR#21336 CAL.Date.15. AUG. 2023<br>CAL Due Date.14. FEB. 2024<br>SR#21335 CAL.Date.17. AUG.2023<br>CAL Due Date. 16.FEB.2024 |
| Magnetic Partical Concentration 7 HF                             | 1.2 TO 2.4 ML/100 ML  | UV LIGHT INTENSITY:   | 3038 µw/cm <sup>2</sup>  |
| Magnetic particle concentration fluorescent 14 HF                | 0.1 TO 0.4 ML/100 ML  | WMPT Light Intensity:   | 3520 Lux   |
| <b>MAGNITISUM DIRECTION (LONGITUDENAL)</b>                       |   |   |  |
| METHODOLOGY:   | <ul style="list-style-type: none"> <li>Through Visual inspection</li> <li>Dimensional</li> <li>MPI inspection with Ultraviolet light</li> </ul> |   |  |

| 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 δ(In) | BB ϕ(In) | BB δ(In) | Bevel ϕ(In) | Pin T λ(In) | Box T λ(In) | Overall λ(In) |   |         |
| IB-54      | X-OVER      | 3 7/8 CAS  | 4 1/2 TSH BLUE | Acc.              | Acc. | Acc. | 5"                     | 2 3/4" | -          | -         | -           | 5"     | -        | -        | -        | -        | -           | -           | -           | -             | - | 13 1/2" |



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

|                     |                        |       |                    |     |                          |      |               |       |               |        |                |
|---------------------|------------------------|-------|--------------------|-----|--------------------------|------|---------------|-------|---------------|--------|----------------|
| OD                  | Outside Diameter       | ID    | Inside Diameter    | SRG | Stress Relief Groove     | CB   | Counter Bore  | BB    | Bore Back     | FB     | Float Bore     |
| ∅                   | Diameter               | ∅     | Length             | ∅   | Width                    | ∅    | 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 |
| <b>Colors Code:</b> |                        | White | No Defects         | Red | Crack or Extreme Damage. | Blue | Damage        | Green | Seal Damage   | Yellow | ACFM           |

|                         |                          |                          |                |                    |          |                         |
|-------------------------|--------------------------|--------------------------|----------------|--------------------|----------|-------------------------|
| <b>Inspector Name:</b>  | M.Shabzad Ahmed          | <b>Review By</b>         |                |                    |          |                         |
| <b>Qualification:</b>   | ASNT Level III<br>MPI/VT | <b>Senior Inspector:</b> | Naveed Hussain | <b>Supervisor:</b> | Hani Ali | <b>Customer Name:</b>   |
| <b>Signature:</b>       |                          |                          |                |                    |          |                         |
| Original - Client Files |                          | Copy - Area Office       |                | QC/FN/DJ-PB/029    |          | Rev.00 dated 07.Nov2021 |

