

M-TEST (Mackay) Pty. Ltd. A.C.N. 010 691 906
A.B.N. 35 010 691 906
for INSPECTION AND NON-DESTRUCTIVE TESTING

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SB
24th March, 2023
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INSPECTION REPORT NO. M23-9255

CLIENT: **Golding Contractors Pty. Ltd.**

CLIENT CONTACT: Mr. D. Logan

ORDER NO.: 4500442825

MACHINE IDENTIFICATION: **Hitachi EX3600 Excavator EX0043**

SUBJECT: Inspection and non-destructive testing of Hitachi EX3600 excavator EX0043 boom and stick at Broadlea Coal Mine.

DATE OF TEST: 10th March, 2023

INSPECTOR: Mr. M. J. Shields

TEST DATA:
Test Equipment - Krautkramer/GE USM35XS Flaw Detector
Krautkramer/GE MB4SE SWB 70° & 45° 2E Transducers
Electro-Spect 240V AC Bridge Magnet
8901W White Background/800/3 Black Magnetic Ink
Test Method - A.S.3978 (2003) MTP-101
A.S.1171 (1998) MTP-102
A.S.2207 MTP-104 UMA2 & UMB2
Demagnetised - No
Material Specification/Type - Not specified / Carbon steel is client supplied information
Couplant - Ardrex 800/3
Sizing Method - LSE
Acceptance/Rejection Criteria - Report all cracks and discontinuities detected
Surface Condition - Painted. Conforms to A.S.2207 Clause 3.3
Limitations of Test - Client nominated components only.



Accredited for compliance with ISO/IEC 17025 (11513) - testing & ISO/IEC 17020 (11634)
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports
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RESULTS OF EXAMINATION

VT - Visual Testing

MT - Magnetic Particle Testing

UT - Ultrasonic Testing

HITACHI EX3600 EXCAVATOR EX0043

SECTION C: MAIN FRAME (VT/MT/UT)

Cracks detected. Refer to Defect Table for locations and lengths.

SECTION D: BOOM EXTERNAL (VT/MT/UT)

Cracks detected. Refer to Defect Table for locations and lengths.

SECTION E: BOOM INTERNAL (VT)

No Access.

SECTION F: STICK ATTACHMENT EXTERNAL (VT/MT/UT)

Cracks detected. Refer to Defect Table for locations and lengths.

SECTION G: STICK INTERNAL (VT)

No Access.

RESULTS OF EXAMINATION

VT - Visual Testing

MT - Magnetic Particle Testing

UT - Ultrasonic Testing

HITACHI EX3600 EXCAVATOR EX0043 CONT'D**DEFECT TABLE**

Defect No.	Location	Defect Details		Figure No.
		Type	Length (mm) / Description	
C1	Main Frame Right Hand Side	Crack	35	C1
C2	Main Frame Right Hand Side	Cracks	80 & 440	C1
C3	Main Frame Right Hand Side	Crack	80	C1
C4	Main Frame Right Hand Side	Crack	173	C1
C5	Main Frame Right Hand Side	Crack	22	C1
C6	Main Frame Left Hand Side	Crack	90	C1
C7	Main Frame Left Hand Side	Crack	160	C1
D1	Boom Left Hand Side	Possible Crack	-	D1
D2	Boom Left Hand Side (Inboard side from hoist cylinder)	Wear	-	D1
D3	Boom Left Hand Side (Inboard side from previous repair)	Cracks	-	D1
F1	Stick	Crack	185 through 50mm plate	F1
F2	Stick	Crack	80	F1
F3	Stick (Inboard)	Crack	100	F1

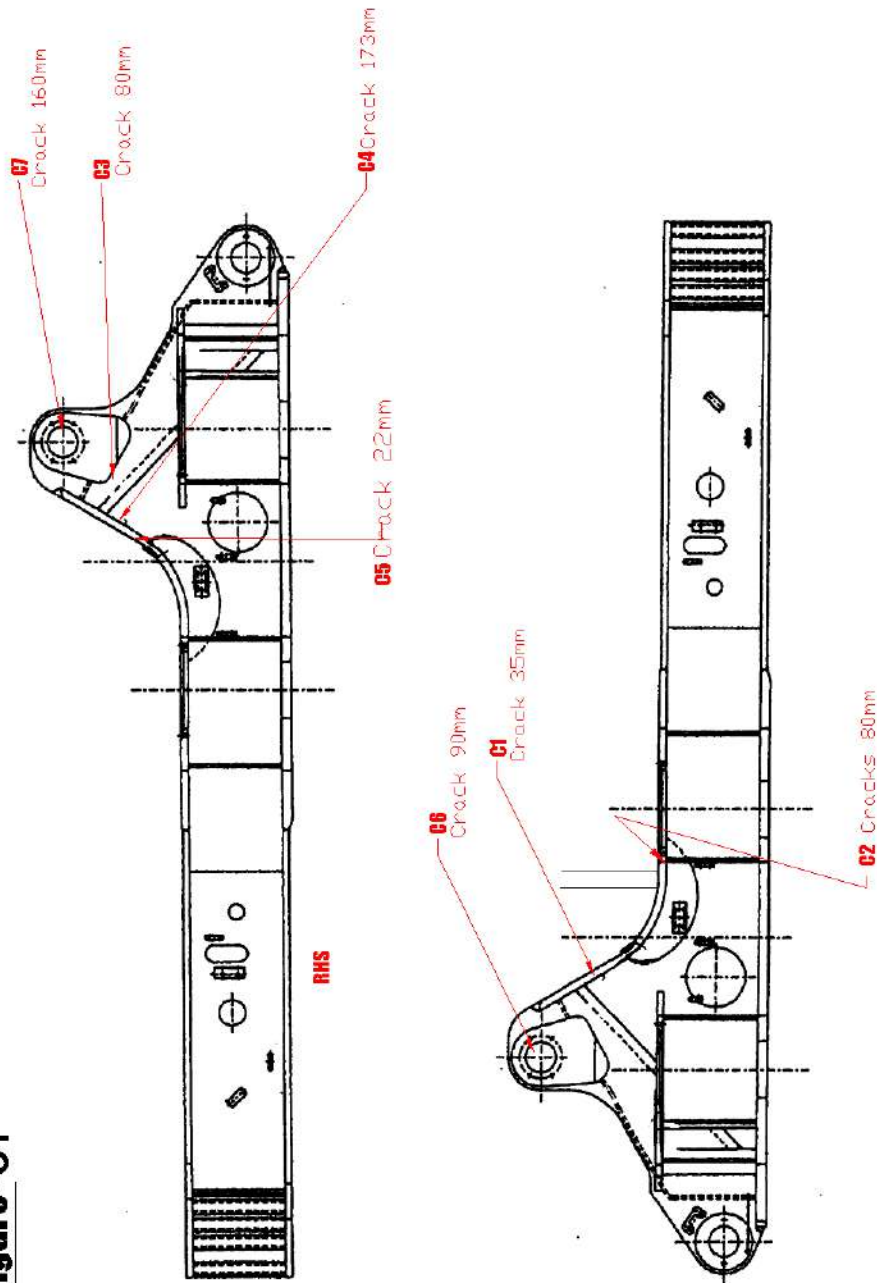

M. J. SHIELDS

Inspector

Att..



Figure-C1

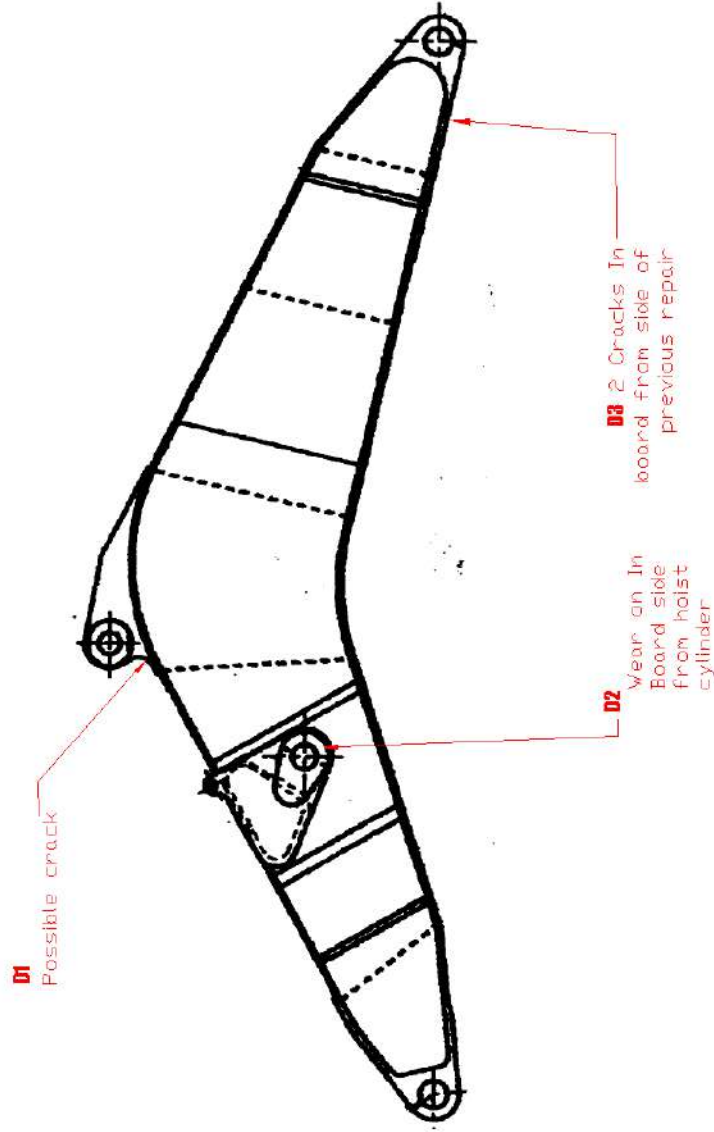


MODEL: 3600 EX0043
MACHINE: HITACHI

MAIN FRAME LEFT HAND SIDE

NOT TO SCALE

Figure- D1



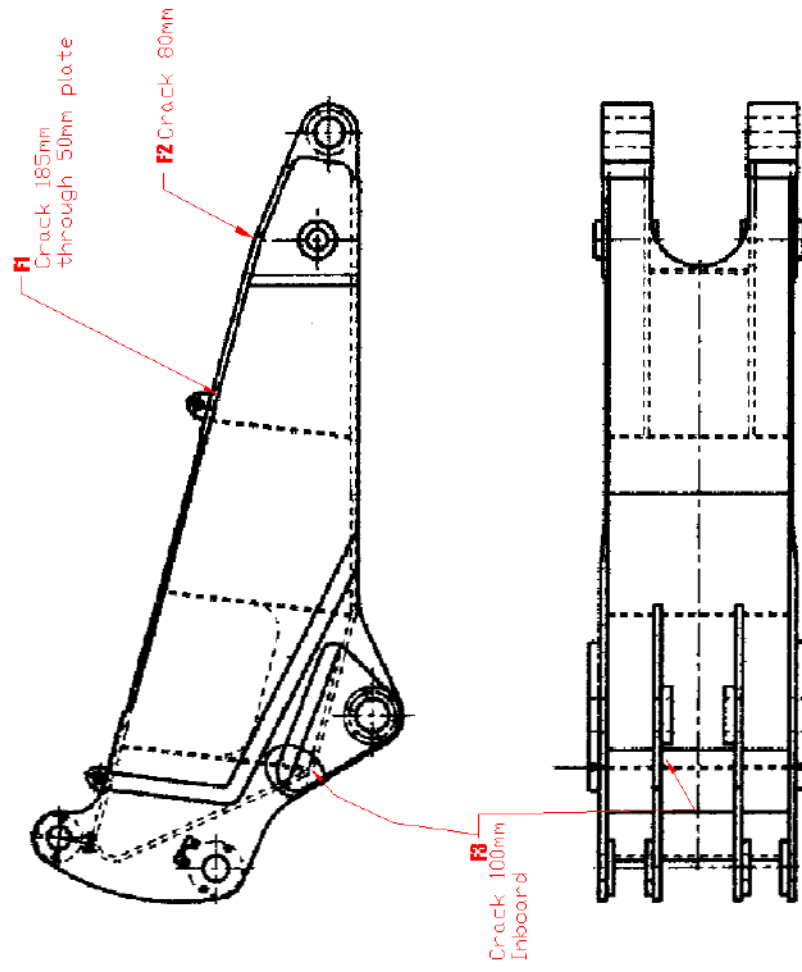
MODEL: 3600 EX0043
MACHINE: HITACHI

LEFT HAND SIDE BOOM EXTERNAL

NOT TO SCALE



Figure- F1



MODEL: 3600 EX0043
MACHINE: HITACHI

STICK EXTERNAL

NOT TO SCALE

DEFECT NO. C1



DEFECT NO. C2



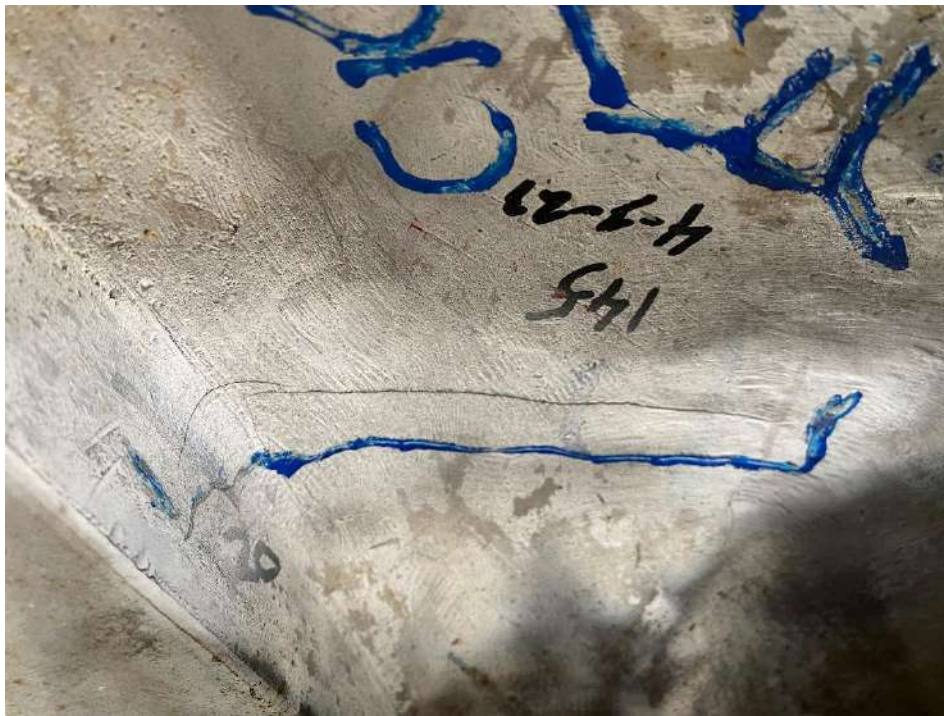
DEFECT NO. C2



DEFECT NO. C3



DEFECT NO. C4



DEFECT NO. C5



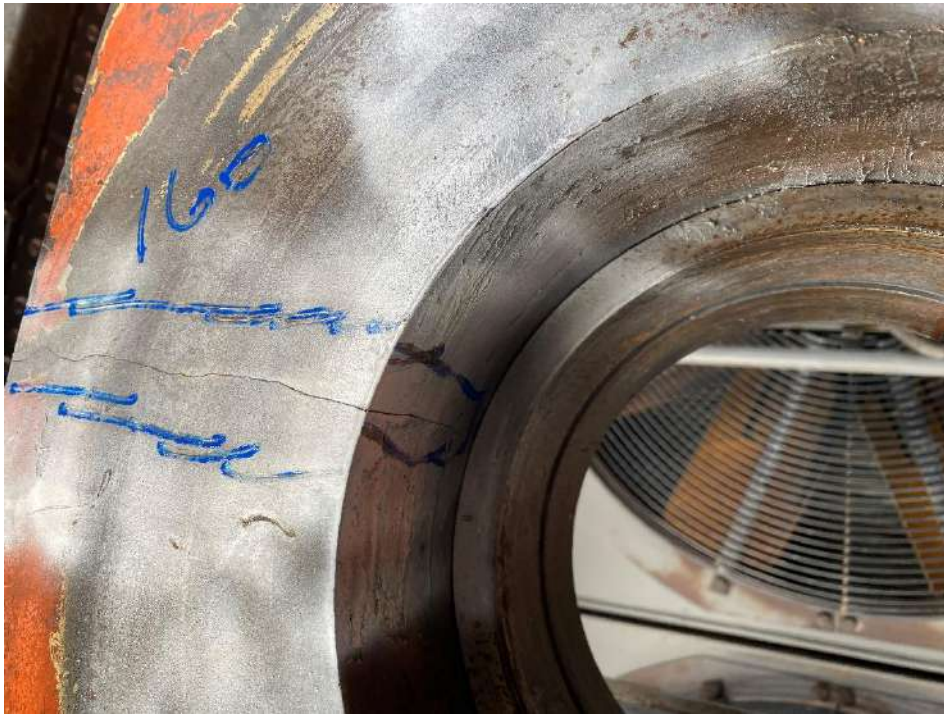
DEFECT NO. C6



DEFECT NO. C7



DEFECT NO. C7



DEFECT NO. D1



DEFECT NO. D2



DEFECT NO. F2



DEFECT NO. F1



DEFECT NO. F3



TERMS OF REPORT

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