

Donic Independent Engineering Services Unit 3/14 Ardmillan Road Moonee Ponds VIC 3039 (ABN 63 257 734 370) P: 03 9375 1852 M: 0418 360 354 E: donic77@bigpond.net.au

22 May 2023

Mr. Nathan Harrison Metro Crane Services Pty Ltd 65a Owen Street Glendenning NSW 2761

Dear Nathan,

# <u>Re: Engineers Report on Franna Mobile Crane Model MAC25 S/N MAC25 25868</u> <u>D/M 2013 Manufactured by Franna Manufacturers P/L; Road Registration XO 41KF.</u>

### **General**

This is a major inspection report on this unit.

This unit is required to be registered Plant by Worksafe; however, it is subject to inspection to Australian Standards AS 2550. 5 requirements.

#### **Visual Inspection**

The unit was in an assembled condition at the Metro Crane Services Pty Ltd facility and was accessible for inspection.

#### **Routine Maintenance**

The routine maintenance of this mobile crane unit was carried out by Metro Crane Services Pty Ltd and subcontractors and all critical items were inspected and replaced where considered necessary.

The owner must maintain current records / photos of Repairs, Maintenance and Services, which verifies items that have been replaced.

#### Non-Destructive Testing

All high stress welds associated with structural components and main frame were checked and found to have unacceptable defects(cracks) which have been repaired and cleared. Refer to NDT separate report by M Point Services, report No's: 23-1065-1 ET & 23-1065-2 UT.

# **Operational Testing**

The assembled Crane was tested to AS 2550.5 requirements and found to be satisfactory.



# Load Testing

As part of the major inspection, selected load testing is to be carried out in accordance with relevant AS Code procedures:

- (a) At maximum working radius a SWL test followed by 10% overload static load test.
- (b) At maximum line pull at SWL test followed by 10% overload static load test.

This testing verifies the following:

- Verifies that the crane complies with manufacturer's specification.
- Operation and accuracy of load measuring devices.
- Operation of load warning and limiting devices.
- That the braking systems are operating satisfactorily.
- That all other devices are operating satisfactorily over the working range.

# **Summary**

Based on the information provided in relation to the actual Crane loads Vs Design loads and the actual loading frequencies Vs Design frequencies this Crane when assessed to AS1418 criteria falls into the C3/M3/S3 category. The light and moderate load means fatigue aspects are minimal and the Crane life can be safely extended for a further 5 years before reassessment by a competent person. During this period, it is expected that the Crane will continue to be operated safely in accordance with AS2550 and manufacturer's requirements and be routinely serviced by experienced personnel.

From the information provided on this crane the Australian Standard AS2550-5 Crane Safe use recommends that routine maintenance be carried out at 3 monthly intervals with an annual periodical inspection.

Crane classifications	C1	C2	C3	C4	C5	C6	C7	C8
	M1	M2	М3	M4	M5	M6	M7	M8
Working hours per day	≥ 0.5	0.5-1	> 1-2	> 2-4	> 4-8	> 8-16	> 16	> 20
Routine maintenance service weeks	12	12	12	12	8	8	4	4
Periodic third-party inspection. weeks	52	52	52	52	52	52	52	52

#### RECOMMENDED MAXIMUM PERIOD BETWEEN MAINTENANCE / INSPECTION SERVICES

NOTE: Period may be varied dependent on the operating environment, the frequency and intensity of use.

The above Crane Unit is considered satisfactory for continued use to manufacturer's specifications and AS 2550.5 safe use until 5 / 2028, the next major inspection/assessment.

Records going forward are to be continued to be maintained of all maintenance repairs and replacement parts to enable this information to be used and assessed in the next major inspection in 2028.

AS2550.1 & 5 provides more details and guidance in relation to inspection periods and records required.

Yours faithfully

D.C. Nicholls C.P. Eng



RPEQ Registration No. 12498