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15 March 2021

Mr. Tim Lane Kaboom Concrete Pumping P/L 6 Derwent Street Sippy Downs QLD 4556

Dear Tim,

Re: Engineers Report on Putzmeister Concrete Placing Equipment

Model 47M S/N 170603403 D/M 2012 Inspection to AS2550.15,

AS1418: 1 & 15 Truck Mounted; QLD Road Reg: TBA

# <u>General</u>

This is a major inspection report on the Concrete Placing Equipment unit in accordance with Australian Standards AS1418.15 and AS2550.15 to assess the operation, maintenance and repair of this item of equipment and its suitability for continued operation under the existing conditions and loadings.

This Concrete Placing Equipment unit is required to be an item of Registered Plant as in required by Statutory Authority OHS Acts and regulations, but it is required to be kept and operated in a safe manner to reduce the likelihood of a serious accident occurring.

# Visual Inspection

The above unit was inspected on site at the 747 Pumicistone Road, Caboolture QLD facility in accordance with AS2550.15 Safe use, 3532 hours indicated.

# **Routine Maintenance & Servicing**

This CPU unit has been serviced and routine maintenance carried out continuously during the past few years and includes replacement hydraulic hoses, hydraulic ran seals, new concrete placing pipes and other miscellaneous items as required.

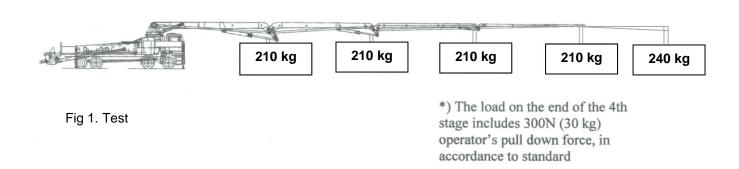
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# **Summary of Test Report**

#### 1. TEST LOAD

The boom testing has carried out with accordance to AS 1418.15 – 1994 (Section 14). The mass test loads are equivalent to the 1.25 times to the operating load. It has been applied as shoe on Fig 1.



#### 2. OPERATION TESTS

<u>Operational tests</u> have demonstrated the capability of the concrete placing equipment and it has confirmed properly function's all systems, in accordance to AS 1418.15-1994, Section 14.

<u>Creep tests:</u> All hydraulic systems for boom manipulation are tested on creep at maximum loaded and maximum stretched arms in order to affirm reliability of these systems.

<u>Crack tests:</u> Visual inspection of boom, arms, linkages outriggers, pedestal and all structural components was carried out while under load.

#### 3. STABILITY TEST

The test has carried out with accordance to AS 1418.15 – 1994 (Section 14).

At these testing conditions the concrete placing equipment supported on outriggers is complied with the static stability test.

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# Non-Destructive Testing

All high stress welds associated with structural components and main frame were checked and found to have no unacceptable defects.

Refer to NDT separate report by ESANDT report No's: ET7852-KCP21 & UT6790-KCP21.

## **Operational Testing**

The Truck Mounted Concrete Placing Unit was operationally tested to AS 2550.15 requirements and found to be satisfactory.

## **Summary**

Based on the information provided in relation to the actual Concrete Placing Unit Loads Vs Design loads and the actual loading frequencies Vs Design frequencies this CPU when assessed to AS1418 criteria falls into the C3/M3/S3 category. The light and moderate loads mean fatigue aspects are minimal and crane life can be safely extended for a further 6 years before reassessment by a competent person. <a href="During this period">During this period</a>, it is expected that the CPU will continue to be operated safely in accordance with AS2550 and manufacturers requirements and be routinely serviced by experienced personnel.

# RECOMMENDED MAXIMUM PERIOD BETWEEN MAINTENANCE / INSPECTION SERVICES AS PER AS2550.1.2011

Crane classifications	C1	C2	СЗ	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

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

The above CPU is considered satisfactory for continued use to manufactures specifications and AS2550.15 safe use until 3 / 2027 the next major inspection / assessment. Third party annual inspection is also required.

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 2027. AS2550.1 & 15 provides more details and guidance in relation to inspection periods and records required.

Yours faithfully

DE CHE

D.C. Nicholls C.P. Eng



RPEQ Registration No. 12498

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