ISSUED BY: CALIBRATION MAINTENANCE & REPAIR LTD

DATE OF ISSUE: 18 October 2021 CERTIFICATE NUMBER: 1118000





0654



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Approved Signat	
Electronically A	Authorised Document
☐ P K CLARK ☐ R J WADE ☐ M A FROST	☐ J FRYER ☐ M FOY
☑ M S PARDOE	

#### **CUSTOMER**

DJB LABCARE LTD UNIT 12 HOWARD WAY CROMWELL BUSINESS CENTRE NEWPORT PAGNELL BUCKINGHAMSHIRE MK16 9QS UNITED KINGDOM MANUFACTURER STANDARD

DESCRIPTION TACHOMETER OPTICAL

MODEL AT-6

SERIAL No. 12078389

IDENT No. UNKNOWN

DATE RECEIVED 15 OCTOBER 2021

DATE OF CALIBRATION 18 OCTOBER 2021

ORDER No. NS23416

#### **INSTRUMENT CONDITION**

Adjustments Made No Repairs Made No

## **ENVIRONMENT**

The instrument was placed in the Laboratory environment for a minimum period of 4 hours prior to calibration.

The ambient conditions were: 22°C ± 3°C and 45% RH ± 15% RH.

#### **STABILITY**

The results contained in this Certificate refer to the measurements made at the time of test and not to the instrument's ability to maintain calibration.

## **PROCEDURE**

Measurements were performed in accordance with the in house Laboratory procedure No.1053

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2, providing a coverage probability of approximately 95 %. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

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UKAS ACCREDITED CALIBRATION LABORATORY No. 0654

INSTRUMENTS USED EQUIPMENT

Agilent 33220A Trimble A002206.G1 SERIAL No MY44025316 13431078 **CERTIFICATE No CAL DUE** 

M3198 30 Sep 2022 M2988 08 Sep 2023

#### Notes:

Results relate only to the items calibrated.

## **Measurement Uncertainties**

These are our best measurement capabilities with the listed test equipment, any uncertainties shown on the result sheet take in to account the resolution of the instrument being calibrated.

Parameter	Range	Uncert	ainty	Parameter	Range	Uncertainty
Revolutions Per Minute	6RPM to 600RP	PM	0.064RPM			
	600RPM to 6000	0RPM	0.065RPM			
	6000RPM to 120	0000RPM	0.066RPM			

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Parameter	Range	Uncertainty	Parameter	Range	Uncertainty
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**RESULT SHEET 1053-NC-UKAS: STANDARD AT-6 OPTICAL TACHOMETER** 

# **AS FOUND**

**BATTERY REPLACED: NO** 

The Revolution Per Minute (RPM) was simulated using a precision Frequency Generator with an attached optical light source.

#### **RPM**

Range	Simulated	Indicated	Units	Indicated Deviation	Measurement Uncertainty ±
2 to	600.000	600.0	RPM	0.000	0.064
99999RPM	1000.00	1000	RPM	0.00	0.58
	2500.00	2500	RPM	0.00	0.58
	5000.00	5000	RPM	0.00	0.58
	7500.00	7500	RPM	0.00	0.58
	10000.00	10000	RPM	0.00	0.58
	14999.46	15000	RPM	0.54	0.58
	19999.14	20000	RPM	0.86	0.58
	24998.76	25000	RPM	1.24	0.58
	29998.44	30000	RPM	1.56	0.58

Manufacturer stated Accuracy: ±(0.05%+1 digit)

## **COMMENTS:**

TEST ENGINEER: J Fryer DATE: 18th October 2021

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