



SOUTHWEST RESEARCH INSTITUTE®

6220 Culebra Road, P.O. Drawer 28510
Institute Quality Systems
Institute Calibration Laboratory
Phone: 210-522-5215 Fax 210-522-4834



Certificate of Calibration

Submitted By: DIV20

Address: B57

Contact: DON BANNON

Manufacturer Model: SNAP-ON QDRIVER2

Description: TORQUE SCREWDRIVER

Serial No: 1001200319

Asset No: 010443

Procedure: TORQUE HAND TOOLS - 7 APR, 2006

Work Order: 303068994

Date Issued: May 1, 2006

Calibration Date: May 1, 2006

***Calibration Due:** Nov 1, 2006

Calibration Location: Bldg. 64

Environment: Temp. 68.0°F Hum. 42 %RH

****Data Type:** FOUND-LEFT

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 1999, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. **Found/Left = adjustment and/or repair was not required, As Left = adjusted and/or repaired was required. The client has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance. See Remarks or attached Measurement Report with the same Work Order number for data.

Reported uncertainty calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM) and represents an expanded uncertainty with a coverage factor of k=2 to approximate a 95% confidence level.

Remarks: Cal'd clockwise only

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
007010	08803	CDI	1001-0-TTTP	TORQUE TRANSDUCER	May 22, 06

Reviewed by: blt () jrg () pwc (x) wgh ()

Metrology Technician

m:\a2la1.rpt Rev date August 15, 2005

Measurements by: Joe Greagrey

Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303068994	Mfr:	Snap-On	Technician:	JRG
Asset No:	010443	Model:	QDRIVER2	Cal Date:	01-May-06
Serial No:	1001200319	Type:	Torque Screwdriver		
Remarks:	Cal'd clockwise only				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Torque Clockwise	oz-in	oz-in	oz-in	oz-in	oz-in	Result
	20.0	20.5	0.5	1.2	0.20	Pass
	20.0	20.6	0.6	1.2	0.20	Pass
	20.0	20.5	0.5	1.2	0.20	Pass
	20.0	20.9	0.9	1.2	0.20	Pass
	20.0	20.6	0.6	1.2	0.20	Pass
	20.0	20.3	0.3	1.2	0.20	Pass
	20.0	20.2	0.2	1.2	0.20	Pass
	20.0	20.6	0.6	1.2	0.20	Pass
	20.0	20.4	0.4	1.2	0.20	Pass
	20.0	20.6	0.6	1.2	0.20	Pass
	20.0	20.7	0.7	1.2	0.20	Pass
	20.0	19.8	-0.2	1.2	0.20	Pass
	60.0	62.0	2.0	3.6	0.60	Pass
	60.0	60.6	0.6	3.6	0.60	Pass
	60.0	60.5	0.5	3.6	0.60	Pass
	60.0	60.8	0.8	3.6	0.60	Pass
	60.0	61.6	1.6	3.6	0.60	Pass
	60.0	60.6	0.6	3.6	0.60	Pass
	60.0	60.8	0.8	3.6	0.60	Pass
	60.0	61.8	1.8	3.6	0.60	Pass
	60.0	60.3	0.3	3.6	0.60	Pass
	60.0	62.0	2.0	3.6	0.60	Pass
	60.0	61.9	1.9	3.6	0.60	Pass
	60.0	61.1	1.1	3.6	0.60	Pass
	100.0	103.0	3.0	6.0	1.0	Pass
	100.0	102.9	2.9	6.0	1.0	Pass
	100.0	102.6	2.6	6.0	1.0	Pass
	100.0	102.7	2.7	6.0	1.0	Pass
	100.0	102.6	2.6	6.0	1.0	Pass
	100.0	103.0	3.0	6.0	1.0	Pass
	100.0	102.6	2.6	6.0	1.0	Pass
	100.0	102.5	2.5	6.0	1.0	Pass
	100.0	102.5	2.5	6.0	1.0	Pass
	100.0	103.3	3.3	6.0	1.0	Pass
	100.0	102.2	2.2	6.0	1.0	Pass
	100.0	104.0	4.0	6.0	1.0	Pass

END OF REPORT