To:
 Don Bannon

 From:
 Institute Calibration Laboratory

Date: May 14, 2009

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Subject: Returned Equipment

The equipment described below is return "as is" for the reason, indicated. If we can be of further assistance, please contact the Institute Calibration Laboratory, Ext. 5215.

Unit Received: April 30, 2009 Work Requested: Scheduled calibration

Manufacturer: Snap-On Model QDRIVER2 Description: Torque Screwdriver

Serial Number: 1001200319 Asset Number: User ID Number: N/A

Reason for return without calibration or repair:

- (X) Requested by the owning organization
- () Required accessories or items listed in remarks not provided by customer.
- () Lack of technical data
- () Parts are no longer available
- () Lack of support by manufacturer
- () Other

Remarks: The unit is reading out of tolerance and is being returned to the customer "as is" for further evaluation.

1/1/2 Walt Hill, Manager

Institute Calibration Laboratory Ext. 4929

NOTICE

Cost Center:DIV20Mail Stop:B51Customer:DON BANNONManufacturer/Model:SNAP-ON / QDRIVER2Description:TORQUE SCREWDRIVERSerial Number:1001200319Asset Number:010443Supplier or Calibration Procedure:TORQUE TOOLS - 29 NOV 2007Work Order:303087551

The above instrument was received for service on April 30, 2009 and found not to meet calibration procedure specifications, or as specified by the cost center. As-found readings are provided in the attached measurement report, or as noted in remarks below, for your review to determine if the instrument is out of tolerance for project requirements and processing in accordance with your cost center quality policy.

Please call extension 5215 if you have any questions or need additional information.

Remarks:

NOTICE

Southwest Research Institute Calibration Laboratory Measurement Report

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Work Order: Asset No: Serial No:	303087551 010443 1001200319	Mfr: Model: Type:	Snap-On Jel: Qdriver2 e: Torque Screwdriver 100 in•oz		Technician: Type Data: Cal Date:	JRG Found-left 14-May-09	
Remarks: Calibrated (Clockwise Only.				1		
Function/Range	Test Point	TI Reading	Difference	+/- Limit	+/- Uncertainty	Result	% Limit
Torque Clockwise	in•oz	in•oz	in•oz	in•oz	in•oz		
	18.73	20.0	1.3	1.2	0.53	Fail?	108%
	16.20	20.0	3.8			Fail	317%
	18.13	20.0	1.9			Fail	158%
	18.14	20.0	1.9			Fail	158%
	18.49	20.0	1.5			Fail	125%
	18.24	20.0	1.8			Fail	150%
	18.70	[′] 20.0	1.3			Fail?	108%
	18.37	20.0	1.6			Fail	133%
	19.04	20.0	1.0			Pass?	83%
	18.60	20.0	1.4			Fail?	117%
	17.74	20.0	2.3			Fail	192%
	18.42	20.0	1.6			Fail	133%
	58.02	60.0	2.0	3.6	0.55	Pass	56%
	55.97	60.0	4.0			Fail	111%
	60.85	60.0	-0.9			Pass	25%
	57.12	60.0	2.9			Pass	81%
	56.43	60.0	3.6			Pass?	100%
	55.29	60.0	4.7			Fail	131%
	58.80	60.0	1.2			Pass	33%
	57.09	60.0	2.9			Pass	81%
	56.82	60.0	3.2			Pass	89%
	54.56	60.0	5.4			Fail	150%
	58.03	60.0	2.0			Pass	56%
	56.88	60.0	3.1			Pass	86%
	104.71	100.0	-4.7	6.0	0.60	Pass	78%
	102.08	100.0	-2.1			Pass	35%
	105.35	100.0	-5.3			Pass	88%
	103.43	100.0	-3.4			Pass	57%
	105.75	100.0	-5.8			Pass?	97%
	103.02	100.0	-3.0			Pass	50%
	106.03	100.0	-6.0			Pass?	100%
	103.06	100.0	-3.1			Pass	52%
	105.27	100.0	-5.3			Pass	88%
	104.35	100.0	-4.3			Pass	72%
	106.11	100.0	-6.1			Fail?	102%
	102.14	100.0	-2.1			Pass	35%
		END	OF REPORT				

Explanation of Measurement Report Results

"When statements of compliance (Pass/Fail) are made, the uncertainty of measurement shall be taken into account". Reference ISO/IEC 17025:2005, 5.10.4.2

This explanation is provided to you because the instrument submitted for calibration has one or more of the following results.

<u>Result</u>

Pass – measured value or test is within the \pm limit, in tolerance, with a confidence level of 95 percent.

Pass? – measured value is *within* the \pm limit, but by a margin less than half of the uncertainty interval and has a confidence level of less than 95 percent of being in tolerance. Adjustment is made and the measurement is repeated. If adjustment or repair is not possible or fails to improve the results, then the customer must determine in or out of tolerance.

Fail? – measured value is *outside* the \pm limit, but by a margin less than half of the uncertainty interval and is reported as out of tolerance but it is not possible to state this with a 95 percent confidence level. Adjustment is made and the measurement is repeated. If adjustment or repair is not possible or fails to improve the results, then the customer must determine if out of tolerance action is necessary.



Fail – measured value is *outside* the \pm limits with a 95 percent confidence level. Adjustment is made and the measurement is repeated for As-left data. If adjustment or repair is not possible or fails to improve the results, then the customer must determine if the measured value is in compliance for the intended use.

<u>%Limit</u>

Adjustment is made, if possible, when the measured value is equal to or greater than 70 percent of the \pm limit.

Type Data

Found-left All test points and measurements were in tolerance and no adjustments or repairs were necessary.

- As-found One or more test points or measurements were other than Pass or exceeded 70 percent of the \pm limit and adjustment or repairs were necessary.
- As-left Results of all test points and measurements after adjustment or repair.

Uncertainty

Best estimate of the dispersion of the measured value that could be contributed by the; standard, environment, repeatability of the measurement process, characterizes of the instrument being calibrated (i.e. resolution) etc.

Please call extension 5215 for questions or additional information.

Memo

Joe Greagrey

From:Don Bannon [dbannon@cnwra.swri.edu]Sent:Thursday, May 14, 2009 12:20 PMTo:'Joe Greagrey'

Subject: RE: Request to Proceed Letter

Yeah Joe, we're going to take this tool off line.

I will pick it up sometime soon and find a replacement tool.

If you happen to be familiar with this tool and know of similar models that do the same job and come through the Cal. Lab., I am open to suggested models. No obligato on your part, though.

--Don

From: Joe Greagrey [mailto:joseph.greagrey@swri.org] Sent: Thursday, May 14, 2009 11:00 AM To: don.bannon@swri.org Subject: Request to Proceed Letter

Institute Calibration Laboratory Memorandum

May/14/2009

To: Don Bannon Div20, ext. 5118

From: Joe Greagrey Institute Calibration Laboratory

Subject: Review of Work Request Number 303087551

The work you requested is pending your response. Please review the information provided and respond with your approval or further instructions for work to proceed. Return a signed copy via mail to Cal Lab Bldg 64, FAX (522-4834) or reply to this email. If you have questions please call extension 5215.

Unit Received: April 30, 2009 Work Requested: Calibration Manufacturer: Snap-On Model: Qdriver2 Description: Torque Screwdriver Serial Number: 1001200319 Asset Number: 010443 User ID:

Cause of Review: The torque screwdriver is out of tolerance and can't be adjusted to meet specifications. The unit requires repair or replacement. Please let me know how you want to proceed.

If no reply is received within 15-working days this unit will be returned as-is without further action.

 Approved ()
 Disapproved return unit as-is ()
 Date:

 5/14/2009

Memo

Instructions ()

Authorized by _____ Print or Type Name

Signature

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Thank you for your timely response,

Institute Calibration Laboratory Ext.: 5215 Fax: 522-4834