



China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE
(Registration No. CNAS L5729)

**Calibration Laboratory of Norbar Torque Tools (Shanghai)
Ltd.**

(Legal Entity: Norbar Torque Tools (Shanghai) Ltd.)

7/F., Building 91, No.1122, Qinzhou North Road, Xuhui District, Shanghai,
China

is accredited in accordance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake the service described in the schedule attached to this certificate.

The scope of accreditation is detailed in the attached schedule bearing the same registration number as above. The schedule forms an integral part of this certificate.

Effective Date: 2020-08-18

Expiry Date: 2024-06-25

Signed on behalf of China National Accreditation Service for Conformity Assessment

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CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT

SCHEDULE OF ACCREDITATION CERTIFICATE

NAME: Calibration Laboratory of Norbar Torque Tools (Shanghai) Ltd.

ADDRESS: 7/F., Building 91, No.1122, Qinzhou North Road, Xuhui District, Shanghai, China.

Registration No. CNAS L5729

Accreditation Criteria: ISO/IEC 17025:2017 and relevant requirements of CNAS

Date of Issue: 2018-05-14

Date of Expiry: 2024-06-25

SCHEDULE 5 ACCREDITED CALIBRATION AND MEASUREMENT CAPABILITY SCOPE

Note: The instruments with * represents onsite calibration can be performed.

No	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (<i>k</i> =2)	Note
1	*Torque Wrenchs	Torque	Verification Regulation of Torque Wrenches JJG 707 , Calibration Specification for Torque-angle JJF NBCL 04	(0.1～3000) Nm	<i>U</i> _{rel} =0.40%	
		Torque-angle		(10～180)°	<i>U</i> _{rel} =1.1%	
2	*Torque Multiplier	Torque	Calibration Specification for Torque Multipliers JJF NBCL 02	(200～50000) Nm (3～500) times	<i>U</i> _{rel} =1.8%	
3	Staic Torque Measuring Devices	Torque	Verification Regulation for Staic Torque Measuring Devices JJG 995	(0.04～0.1) Nm	<i>U</i> _{rel} =0.19%	
				(0.1～2) Nm	<i>U</i> _{rel} =0.13%	
				(2～5) Nm	<i>U</i> _{rel} =0.11%	
				(5～7000) Nm	<i>U</i> _{rel} =0.10%	
4	Standard Torque-meter s	Torque	Verification Regulation of Standard Torque-meters JJG 557	(0.04～0.1) Nm	<i>U</i> _{rel} =0.19%	
				(0.1～2) Nm	<i>U</i> _{rel} =0.13%	
				(2～5) Nm	<i>U</i> _{rel} =0.11%	
				(5～7000) Nm	<i>U</i> _{rel} =0.10%	
5	*Calibration Instrument for Torque Wrenches	Torque	Verification Regulation of Calibration Instrument for Torque Wrenches JJG 797	(0.04～0.1) Nm	<i>U</i> _{rel} =0.19%	
				(0.1～2) Nm	<i>U</i> _{rel} =0.13%	
				(2～5) Nm	<i>U</i> _{rel} =0.11%	
				(5～7000) Nm	<i>U</i> _{rel} =0.10%	
6	*Powered Torque Tools	Torque	Calibration Specification for Powered Torque Tools JJF NBCL 01, Calibration Specification for Electric and Pneumatic Torque Wrenches JJF 1610 , Calibration Specification for Torque-angle JJF NBCL 04	(0.1～50000) Nm	<i>U</i> _{rel} =1.5%	Only applicable to tools with continuous torque application
		Tacho		(3～1000) Nm	<i>U</i> =0.1 r/min	
		Torque-angle		(100～10000) Nm	<i>U</i> _{rel} =0.1%	
				(10～180)°	<i>U</i> _{rel} =1.1%	
7	Torque Dispaly	DC V	Calibration Specification for Torque Dispaly JJF NBCL03	(0.5～11)mV	<i>U</i> _{rel} =0.13% ～0.061%	
				50 mV～2 V	<i>U</i> _{rel} =0.35% ～0.9%	
				Excitation voltage measurement (2～5)V	<i>U</i> _{rel} =0.0014%	