

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

FIT Pacific, Inc. Tsukuba Technical Center 3-20-1 Tokodai, Tsukuba, Ibaraki, Japan 300-2635

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Mechanical Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Initial Accreditation Date:

Issue Date:

Expiration Date:

May 28, 2011

May 24, 2024

June 30, 2026

Tracy Szerszen President Accreditation No.:

Certificate No.:

69511

L24-391

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver Rd., Suite 1325 Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com



Issue: 05/2024

Certificate of Accreditation: Supplement

FIT Pacific, Inc. Tsukuba Technical Center

3-20-1 Tokodai, Tsukuba, Ibaraki, Japan 300-2635 Contact Name: Nobuo Edakawa Phone: 029-848-0331

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Mechanical F	Hybrid-III 95th, 50th,	Head Drop Test Stand	HIII Dummy Calibration	Acceleration:
	5 th , 10YO, 6YO, 3YO,	(TS-1)	Procedure(TT-ID-TM10001)	$0 \text{ m/s}^2 \text{ to } 2 942 \text{ m/s}^2$
	CRABI	Acceleration Meter	On basis of:	(0 g to 300 g)
	Head Drop Test		-49 CFR Part 572 – Subpart	Unimodal Oscillation:
	1		E, N, O, P, R	0 % to 17 %
	÷.		-SAE EA-26: User's Manual	Temperature:
			for the Hybrid III 95th Test	19 °C to 26 °C
			Dummy Engineering Aid	Humidity:
			(EA-26)	10 % to 70 %
			- SAE Úser's Manual H III	
			10YO Test Dummy	
		All	Engineering Aid(EA-34)	,
	Side Impact Dummy		Calibration Procedure	Acceleration:
	ES-1, ES-2/2re,	A55295.9	(TT-ID-TM10002) and	147 m/s ² to 1 471 m/s ²
	SID-IIs (SBL-C&D)	ACCEPTA	SID-II s Calibration	(15 g to 150 g)
	Head Drop Test	Acceptance	Procedure	Unimodal Oscillation:
	1		(TT-ID-TM-10003)	0 % to 15 %
		ASSESSED	On basis of:	Temperature:
			-49 CFR(Part 572) –	20.6 °C to 22.2 °C
я			Subpart U, V	Humidity:
		ASSESSED	-ECE Addendum 94:	10 % to 70 %
			Regulation 95	
			-User's Manual-ES-2 50th	
	All All		Percentile Side Impact Crash	-
	A CO		Test Dummy	
	A 1990		-EuroNCAP TRANS-WP29	
	Hybrid-III 95 th , 50 th ,	Neck Pendulum Test	HIII Dummy Calibration	Velocity:
	5 th , 10YO, 6YO, 3YO,	Stand (TS-2)	Procedure	0.80 m/s to 6.22 m/s
	CRABI	Phototube,	(TT-ID-TM-10001)	Acceleration:
8	Neck Extension Test	Acceleration Meter,	On basis of:	$0 \text{ m/s}^2 \text{ to } 215.7 \text{ m/s}^2$
		Angle Gauge,	-49 CFR(Part 572) –	(0.0 g to 22.0 g)
		Load Cell	Subpart E, N, O, P, R	Time: 0 ms to 174 ms
			-SAE User's Manual HIII	Angle: 70.0° to 114.0°
			95th Test Dummy	Moment:
			Engineering Aid(EA-26)	0 Nm to 84 Nm
			-SAE User's Manual HIII	Temperature:
			10YO Test Dummy	20.6 °C to 22.2 °C
			Engineering Aid(EA-34)	Humidity: 10 % to 70 %



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Mechanical F	Hybrid-III 95 th , 50 th ,	Neck Pendulum Test	HIII Dummy Calibration	Velocity:
	5 th , 10YO, 6YO, 3YO,	Stand (TS-2)	Procedure	1.20 m/s to 7.13 m/s
	CRABI	Phototube,	(TT-ID-TM-10001)	Acceleration:
	Neck Flexion Test	Acceleration Meter,	On basis of:	$0 \text{ m/s}^2 \text{ to } 284.4 \text{ m/s}^2$
		Angle Gauge,	-49 CFR Part 572 –	(0.0 g to 29.0 g)
		Load Cell	Subpart E, N, O, P, R	Time: 34 ms to 128 ms
			-SAE User's Manual HIII	Angle: 64° to 92°
			95th Test Dummy	Moment:
			Engineering Aid(EA-26)	0 Nm to 130 Nm
			-SAE User's Manual HIII	Temperature:
			10YO Test Dummy	20.6 °C to 22.2 °C
		A.	Engineering Aid(EA-34)	Humidity: 10 % to 70 %
	Side Impact Dummy	ASS.	Euro SID Calibration	Velocity:
	ES-1, ES-2/2re	ATTEN	Procedure	5.95 m/s to 6.15 m/s
	Lumbar Flexion Test	ACCORDA	(TT-ID-TM-10002)	Acceleration:
		ASSESSED	On basis of:	$0 \text{ m/s}^2 \text{ to } 334.4 \text{ m/s}^2$
		100000	-49 CFR(Part 572) –	(0 g to 34.1 g)
		A CONTRACT	Subpart U	Deceleration:
	-		-ECE Addendum 94:	0 m/s to 6.5 m/s
		A 100 C 100	Regulation 95	Time: 0 ms to 31.8 ms
			-User's Manual – ES-2	Angle: 0° to 55°
			50th Percentile Side Impact	Moment:
	A		Crash Test Dummy	37 Nm to 57 Nm
			-Euro NCAP TRANS-WP29	Temperature:
	ASS			20.6 °C to 22.2 °C
				Humidity: 10 % to 70 %
	Side Impact Dummy		Euro SID Calibration	Velocity:
	ES-1, ES-2/2re,		Procedure	3.3 m/s to 5.63 m/s
	SID-II s (SBL-C&D)		(TT-ID-TM-10002),	Acceleration:
	Neck Flexion Test		SID-IIs Calibration Procedure	$0 \text{ m/s}^2 \text{ to } 362.8 \text{ m/s}^2$
	Acceptance		(TT-ID-TM-10003)	(0 g to 37 g)
			On basis of:	Deceleration:
			-49 CFR Part 572 –	0 m/s to 6.4 m/s
			Subpart U, V	Time: 0 ms to 60 ms
			-ECE Addendum 94:	Angle: 46° to 82°
		0	Regulation 95	Moment:
			-User's Manual – ES-2	36 Nm to 44 Nm
			50 th Percentile Side Impact	Temperature:
			Crash Test Dummy	20.6 °C to 22.2 °C
			-Euro NCAP_TRANS-WP29	Humidity: 10 % to 70 %





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Mechanical F	Hybrid-III 95 th , 50 th ,	Knee Impact Test	HIII Dummy Calibration	Velocity:
	5 th , 10YO, 6YO	Stand (TS-3)	Procedure(TT-ID-TM-10001)	2.07 m/s to 2.13 m/s
	Knee Impact Test	Phototube,	On basis of:	Force: 2.0 N to 6.0 N
	•	Accelerometer,	-49 CFR(Part 572)—	Temperature:
		Load Cell,	Subpart E, N, O	19 °C to 26 °C
		Displacement Gauge	-SAE User's Manual H III 95 th	Humidity: 10 % to 70 %
			Test Dummy Engineering	,
			Aid(EA-26)	
			-SAE User's Manual H III	
			10YO Test Dummy	
			Engineering Aid(EA-34)	
	Hybrid-III 95 th , 50 th , 5 th	A	HIII Dummy Calibration	Velocity:
	Knee Slider Test		Procedure(TT-ID-TM-10001)	2.70 m/s to 2.80 m/s
		A STA	On basis of:	Force:
		ASSESSED	-SAE User's Manual HIII 50th	1.26 kN to 3.10 kN
		A THE COLUMN	Test Dummy Engineering	Displacement:
			Aid(EA-23)	10 mm to 18.3 mm
			-SAE User's Manual HIII 5th	Temperature:
			Test Dummy Engineering	19 °C to 26 °C
	4		Aid(EA-25)	Humidity: 10 % to 70 %
		ASSESSED 1	-SAE User's Manual HIII 95th	•
			Test Dummy Engineering Aid	
			(EA-26)	
			-J2876 HIII 50th Low Speed	~
	A S		Ball Knee Slider Test	
	Hybrid-III 95th, 50th,	Thorax Impact Test	HIII Dummy Calibration	Velocity:
	5 th , 10YO, 6YO, 3YO,	Stand (TS-4)	Procedure(TT-ID-TM-10001)	4.90 m/s to 6.83 m/s
	CRABI	Phototube,	On basis of:	Force: 680 N to 5 900 N
	Thorax Impact Test	Accelerometer,	-49 CFR(Part 572) —	Displacement:
		Load Cell,	Subpart E, N, O, P, R	12.5 mm to 76.0 mm
	Allertant	Displacement Gauge	-SAE User's Manual H III 95 th	Hysteresis:
			Test Dummy Engineering	65 % to 85 %
		į.	Aid(EA-26)	Temperature:
			-SAE User's Manual H III	20.6 °C to 22.2 °C
			10YO Test Dummy	Humidity: 10 % to 70 %
	4		Engineering Aid(EA-34)	
			-J2878 HIII 5th Low Speed	,
			Thorax Impact Test	





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Mechanical F	Side Impact Dummy	Thorax Impact Test	Euro SID Calibration	Velocity:
	ES-1, ES-2/2re,	Stand (TS-4)	Procedure(TT-ID-TM-10002),	4.20 m/s to 4.59 m/s
	SID-II s (SBL-C&D)	Phototube,	SID-IIs Calibration Procedure	Acceleration:
	Shoulder Impact Test	Accelerometer,	(TT-ID-TM-10003)	73.5 m/s ² to 186.3 m/s ²
	505	Load Cell,	On basis of:	(7.5 g to 19 g)
		Displacement Gauge	-49 CFR(Part 572)—	Force: 1.6 kN to 2.4 kN
			Subpart U, V	Displacement:
			-ECE Addendum 94:	27 mm to 39 mm
			Regulation 95	Temperature:
			-User's Manual – ES-2	20.6 °C to 22.2 °C
			50 th Percentile Side Impact	Humidity: 10 % to 70 %
		A	Crash Test Dummy	
			-Euro NCAP_TRANS-WP29	
	Side Impact Dummy	A 988 \	Euro SID Calibration	Velocity:
	ES-1, ES-2/2re,	A	Procedure(TT-ID-TM-10002),	4.20 m/s to 6.84 m/s
	SID-II s (SBL-C&D)		SID-IIs Calibration Procedure	Acceleration:
	Thorax Impact Test		(TT-ID-TM-10003)	68 m/s ² to 470 m/s ²
	(With Arm and		On basis of:	(7 g to 48 g)
	Without Arm)		-49 CFR(Part 572) —	Force: 1.8 kN to 6.2 kN
			Subpart U, V	Displacement:
		AND -	-ECE Addendum 94:	23 mm to 51 mm
			Regulation 95	Temperature:
			-User's Manual – ES-2	20.6 °C to 22.2 °C
			50th Percentile Side Impact	Humidity: 10 % to 70 %
	A S		Crash Test Dummy	
	A		-Euro NCAP_TRANS-WP29	
	Side Impact Dummy		Euro SID Calibration	Velocity:
	ES-1, ES-2/2re,		Procedure(TT-ID-TM-10002),	3.9 m/s to 6.4 m/s
a .	SID-II s (SBL-C&D)		SID-IIs Calibration Procedure	Acceleration:
	Abdominal Impact Test		(TT-ID-TM-10003)	49 m/s ² to 157 m/s ²
			On basis of:	(5 g to 16 g)
			-49 CFR (Part 572) —	Force: 1.3 kN to 9.5 kN
			Subpart U, V	Time: 8.5 ms to 13 ms
			-ECE Addendum 94:	Displacement:
			Regulation 95	33 mm to 56 mm
			-User's Manual – ES-2	Temperature:
-			50 th Percentile Side Impact	20.6 °C to 22.2 °C
		,	Crash Test Dummy	Humidity: 10 % to 70 %
			-Euro NCAP_TRANS-WP29	





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Mechanical F	Side Impact Dummy	Thorax Impact Test	Euro SID Calibration	Velocity:
	ES-1, ES-2/2re,	Stand (TS-4)	Procedure(TT-ID-TM-10002),	4.2 m/s to 6.84 m/s
	SID-II s (SBL-C&D)	Phototube,	SID-IIs Calibration Procedure	Acceleration:
	Pelvis Impact Test	Accelerometer,	(TT-ID-TM-10003)	333 m/s ² to 588 m/s ²
		Load Cell,	On basis of:	(34 g to 60 g)
		Displacement Gauge	-49 CFR(Part 572)—	Force: 1.04 kN to 7.2 kN
			Subpart U, V	Time: 9.9 ms to 15.9 ms
			-ECE Addendum 94:	Temperature:
			Regulation 95	20.6 °C to 22.2 °C
			-User's Manual – ES-2	Humidity: 10 % to 70 %
			50 th Percentile Side Impact	
		A	Crash Test Dummy	
			-Euro NCAP_TRANS-WP29	
	Side Impact Dummy		SID-IIs Calibration	Velocity:
	SID-II s (SBL-D)	A	Procedure(TT-ID-TM-10003)	4.2 m/s to 4.4 m/s
	Iliac Wing Impact Test	ARREST	On basis of:	Acceleration:
		Aller	-49 CFR(Part 572) – Subpart V	274 m/s ² to 441 m/s ²
				(28 g to 45 g)
		ATTEMPT		Force: 4.1 kN to 5.1 kN
				Temperature:
				20.6 °C to 22.2 °C
				Humidity: 10 % to 70 %
	BioRID-II		Bio RID-II Dummy	Velocity:
	Mini Sled Test		Calibration Procedure	4.7 m/s to 4.8 m/s
			(TT-ID-TM-10004)	Acceleration:
			On basis of:	117.6 m/s ² to 1 755.4 m/s ²
			Denton BioRID-II Users	(12.0 g to 179.0 g)
			Manual	Force: 4.70 kN to 5.20 kN
				Time: 4.0 ms to 24.0 ms
				Temperature:
				19.0 °C to 25.0 °C
	9.		*	Humidity: 10 % to 70 %





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Mechanical ^F	Hybrid-III 95 th , 5 th , 10YO, 6YO, 3YO Torso Flexion Test	Torso Flexion Test Stand (TS-5) Load Cell, Angle Gauge	HIII Dummy Calibration Procedure(TT-ID-TM-10001) On basis of: -49 CFR(Part 572) — Subpart N, O, P -SAE User's Manual H III 95 th Test Dummy Engineering Aid (EA-26) -SAE User's Manual H III 10YO Test Dummy Engineering Aid(EA-34)	Angular Velocity: 0.5 °/s to 1.5 °/s Force: 130 N to 550 N Angle: 0.0° to 45.5° Temperature: 20.6 °C to 22.2 °C Humidity: 10 % to 70 %
	Hybrid-III 50 th , 5 th Hip Range Motion Test	Hip Range Motion Test Stand (TS-6) Load Cell, Angle Gauge	HIII Dummy Calibration Procedure(TT-ID-TM-10001) On basis of: -49 CFR(Part 572)— Subpart E -SAE User's Manual H III 5 th Test Dummy Engineering Aid (EA-25)	Angle: 0° to 50° Moment: 0 Nm to 203 Nm Angular Velocity: 5 °/s to 10 °/s Temperature: 19 °C to 26 °C Humidity: 10 % to 70 %
	Side Impact Dummy ES-1, ES-2/2re Damper Module Test	Drop Tower Test Stand (TS-7) Phototube, Accelerometer, Displacement Gauge	Euro SID Calibration Procedure(TT-ID-TM-10002) On basis of: -49 CFR(Part 572)— Subpart U -ECE Addendum 94: Regulation 95 -User's Manual — ES-2 50th Percentile Side Impact Crash Test Dummy -Euro NCAP_TRANS-WP29	Velocity: 0.98 m/s to 4.10 m/s Displacement: 10.0 mm to 51.0 mm Temperature: 20.6 °C to 22.2 °C Humidity: 10 % to 70 %





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Accreditation is granted to the facility to perform the following testing:

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Mechanical F	Hybrid-III 50 th –	Foot Impact Test Stand	HIII Dummy Calibration	Velocity:
	Eurofoot	(TS-8)	Procedure(TT-ID-TM-10001)	4.3 m/s to 4.5 m/s
	Lower Foot Heel	Phototube,	On basis of:	Acceleration:
	Impact Test	Accelerometer,	ECE Addendum 93:	2 402 m/s ² to 3 383 m/s ²
	***	Load Cell	Regulation 94	(245 g to 345 g)
				Temperature:
				19 °C to 25 °C
				Humidity: 10 % to 70 %
	Hybrid-III 50 th –		¥	Velocity:
	Eurofoot			6.6 m/s to 6.8 m/s
	Upper Foot Impact			Moment:
	Test	A.		95 Nm to 145 Nm
		A80.		Temperature:
		A		19 °C to 25 °C
		ACCIONA		Humidity: 10 % to 70 %
_	Hybrid-III 50 th –	ARRIVE	<u> </u>	Velocity:
	Eurofoot	1		6.6 m/s to 6.8 m/s
	Heel Impact with Shoe			Force: 2.8 N to 3.8 N
	Test			Temperature:
				19 °C to 25 °C
				Humidity: 10 % to 70 %

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer F would mean that the laboratory performs this testing at its fixed location.

