

SAFETY COMPLIANCE TESTING FOR FMVSS No. 218 MOTORCYCLE HELMETS

Brand: LEATT
Model: ADV 9.5
Tested Size: XS (53-54 cm)

Prepared For:

Leatt Corporation
12 Kiepersol Crescent,
Atlas Gardens Business Park,
Cape Farms, Cape Town,
7550, ZA



Issue Date: 28 December 2023

Final Report: 904.14552.006

Tested By:

Taicang ACT Sporting Goods Testing Co., Ltd.
No. 35 Zhenghe Road,
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Jiangsu Province, China 215412
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Contract File No.: 904.14552

Test File: 006

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28
SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 27 December 2023



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PURPOSE OF COMPLIANCE TEST

Purpose:

The purpose of this test was to determine if the motorcycle helmets supplied by:

Xiamen Terrific Composite Technology Co., Ltd.

Met the requirements of

Federal Motor Vehicle Safety Standard No. 218: Motorcycle Helmets effective May 13, 2013.

All samples received were in good condition and appropriate for these tests.

Test Procedure:

This test was performed following TP-218-07 and ACT Lab Helmet Cadex Testing Manual 2.3



HELMET DATA

HELMET BRAND NAME: LEATT

HELMET MODEL DESIGNATION: ADV 9.5

HELMET MANUFACTURER: XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

HELMET SIZE: XS (53-54 cm)

HELMET COVERAGE: Partial: Full: Complete: X

HELMET POSITIONING INDEX: 45 mm

SHELL MATERIAL: Carbon Fiber and Other Composite Materials

LINER MATERIAL: Expanded Polystyrene

BUCKLE DESCRIPTION: Fidlock

HELMET	A Ambient	B Low Temp	C High Temp	D Water Immersed	E Spare
SHELL COLOR/PATTERN	Carbon	Carbon	Carbon	Carbon	Carbon
WEIGHT (grams)	1119	1131	1127	1118	1390
MONTH & YEAR OF MANUFACTURE	TBD	TBD	TBD	TBD	TBD

Reviewed by: John Bogler

COMMENTS:

1. All helmets were received in undamaged condition and were appropriate for testing.
2. Weights listed above for helmets A-D are as tested with visor and face shield removed.
3. Weight for helmet E is complete with all components in place.
4. ACT determined the HPI information prior to testing.

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SUMMARY OF TEST RESULTS

INDICATE Pass or Fail

HELMET	A	B	C	D
TEST	AMBIENT	LOW TEMP	HIGH TEMP	WATER IMMERSED
IMPACT	Pass	Pass	Pass	Pass
PENETRATION	Pass	Pass	Pass	Pass
RETENTION	Pass	Pass	Pass	Pass

INDICATE Pass or Fail

TEST	PASS/FAIL
PERIPHERAL VISION	Pass
PROJECTIONS	Pass
LABELING	*Pass

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.

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SELECTION OF APPROPRIATE HEADFORM

Paragraph S6.1- If the helmet size designation falls into more than one of three size ranges, it shall be tested on each appropriate headform.

HELMET SIZE DESIGNATION	HEADFORM SIZE
Less than or equal to 6-3/4 (European Size 54)	SMALL
Greater than 6-3/4, but less than or equal to 7-1/2 (European Size 60)	MEDIUM
Greater than 7-1/2 (European 60)	LARGE

COMMENTS:

The manufacturer marked the helmet with its corresponding discrete size: XS (53-54 cm), Headform Size: DOT SMALL.

CONDITIONING FOR TESTING — Paragraph S6.4 — The protective headgear shall be conditioned for not less than 4 hours and no more than 24 hours, in the specified environmental condition shown below, prior to test.

Ambient Conditions	16°C to 26°C (61°F to 79°F); 30% to 70% Relative Humidity
Low Temperature	-15°C to -5°C (5°F to 23°F)
High Temperature	45°C to 55°C (113°F to 131°F)
Water Immersion	16°C to 26°C (61°F to 79°F)

The maximum time during which the protective headgear may be out of the conditioning environment shall not exceed 4 minutes. It must then be returned to the conditioned environment for a minimum of 3 minutes for each minute or portion of a minute in excess of 4 minutes out of the conditioning environment or 12 hours, whichever is less, prior to resumption of testing.

AVERAGE LAB TEMPERATURE : 22 °C ; AVERAGE LAB HUMIDITY : 57 %

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IMPACT ATTENUATION

Helmet ID	Condition	Impact #	Impact Location	Anvil	Drop Height (cm)	Velocity (m/sec)	Duration at 150G (ms)	Duration at 200G (ms)	Peak Acc. (g)	Pass/Fail
904.14552.006-A	Ambient	1	LF SIDE	FLAT	192.0	5.9979	1.41	0.00	165.5	Pass
904.14552.006-A	Ambient	2	LF SIDE	FLAT	192.0	6.0022	2.50	0.00	178.9	Pass
904.14552.006-A	Ambient	3	REAR	FLAT	192.0	6.0367	0.00	0.00	148.9	Pass
904.14552.006-A	Ambient	4	REAR	FLAT	192.0	6.0115	0.62	0.00	169.7	Pass
904.14552.006-A	Ambient	5	FRONT	HEMI	145.0	5.2011	0.00	0.00	105.1	Pass
904.14552.006-A	Ambient	6	FRONT	HEMI	145.0	5.2049	0.00	0.00	118.5	Pass
904.14552.006-A	Ambient	7	RT SIDE	HEMI	145.0	5.1899	0.00	0.00	126.8	Pass
904.14552.006-A	Ambient	8	RT SIDE	HEMI	145.0	5.2191	0.00	0.00	124.0	Pass
904.14552.006-B	Cold	1	LF SIDE	FLAT	192.0	5.9812	0.35	0.00	151.7	Pass
904.14552.006-B	Cold	2	LF SIDE	FLAT	192.0	5.9877	1.97	0.00	167.8	Pass
904.14552.006-B	Cold	3	REAR	FLAT	192.0	6.0206	0.00	0.00	149.9	Pass
904.14552.006-B	Cold	4	REAR	FLAT	192.0	5.9513	0.27	0.00	151.2	Pass
904.14552.006-B	Cold	5	FRONT	HEMI	145.0	5.1959	0.00	0.00	102.4	Pass
904.14552.006-B	Cold	6	FRONT	HEMI	145.0	5.1997	0.00	0.00	110.7	Pass
904.14552.006-B	Cold	7	RT SIDE	HEMI	145.0	5.1420	0.00	0.00	128.6	Pass
904.14552.006-B	Cold	8	RT SIDE	HEMI	145.0	5.1559	0.00	0.00	133.7	Pass
904.14552.006-C	Hot	1	LF SIDE	FLAT	192.0	5.9854	0.84	0.00	154.9	Pass
904.14552.006-C	Hot	2	LF SIDE	FLAT	192.0	5.9886	2.10	0.00	167.8	Pass
904.14552.006-C	Hot	3	REAR	FLAT	192.0	6.0252	0.00	0.00	138.8	Pass
904.14552.006-C	Hot	4	REAR	FLAT	192.0	6.0272	0.48	0.00	160.5	Pass
904.14552.006-C	Hot	5	FRONT	HEMI	145.0	5.2247	0.00	0.00	109.7	Pass
904.14552.006-C	Hot	6	FRONT	HEMI	145.0	5.1944	0.00	0.00	127.7	Pass
904.14552.006-C	Hot	7	RT SIDE	HEMI	145.0	5.1093	0.00	0.00	125.4	Pass
904.14552.006-C	Hot	8	RT SIDE	HEMI	145.0	5.1501	0.00	0.00	138.8	Pass
904.14552.006-D	Wet	1	LF SIDE	FLAT	192.0	6.0130	0.42	0.00	154.0	Pass
904.14552.006-D	Wet	2	LF SIDE	FLAT	192.0	5.9969	2.79	0.00	177.1	Pass
904.14552.006-D	Wet	3	REAR	FLAT	192.0	6.0321	0.22	0.00	151.7	Pass
904.14552.006-D	Wet	4	REAR	FLAT	192.0	6.0312	0.30	0.00	155.4	Pass
904.14552.006-D	Wet	5	FRONT	HEMI	145.0	5.1990	0.00	0.00	101.0	Pass
904.14552.006-D	Wet	6	FRONT	HEMI	145.0	5.1906	0.00	0.00	113.0	Pass
904.14552.006-D	Wet	7	RT SIDE	HEMI	145.0	5.2452	0.00	0.00	110.7	Pass
904.14552.006-D	Wet	8	RT SIDE	HEMI	145.0	5.1436	0.00	0.00	117.6	Pass

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PENETRATION

Paragraph S5.2 and S7.2

WEIGHT OF STRIKER: 2.95 to 3.06 kg (6 pounds, 8 ounces to 6 pounds, 12 ounces)

POINT OF STRIKER: Radius = 0.5 ± 0.1 mm (0.02 ± 0.004 in.), included angle of $60^\circ \pm 0.5^\circ$, hardness minimum of 60 Rockwell "C" Scale and a cone height of not less than 3.8 ± 0.038 cm (1.5 ± 0.015 in.).

HEIGHT OF FALL: 300 cm $\pm$ 1.5 cm, measured from the tip of the striker point to the outer surface of the mounted protective headgear.

FAILURE CRITERION: When tested, the protective headgear shall be failed if the penetrator has made an indentation in the headform.

TEST	HELMET	TEST LOCATION	PASS	FAIL	CONDITIONS
1	A	Crown	X		AMBIENT
2	A	Rear Right	X		AMBIENT
3	B	Crown	X		LOW TEMPERATURE
4	B	Rear Right	X		LOW TEMPERATURE
5	C	Crown	X		HIGH TEMPERATURE
6	C	Rear Right	X		HIGH TEMPERATURE
7	D	Crown	X		WATER IMMERSED
8	D	Rear Right	X		WATER IMMERSED

COMMENT: Photographs of penetration test locations are found in Appendix C.

RETENTION SYSTEM

Paragraph S5.3 and S7.3

REQUIREMENTS:

READING	APPLIED LOAD
INITIAL	22.68 kg, + 4.54 kg, - 0 kg (50.0 lbs., + 10 lbs., - 0 lbs.)
FINAL	136 kg, + 0 kg, - 2.3 kg (300.0 lbs., + 0 lbs., - 5 lbs.)

ELONGATION NOT TO EXCEED 2.54 cm (1.0 INCH) AFTER LOAD INCREASE

HELMET	CONDITIONS	ELONGATION cm
A	AMBIENT	1.41
B	LOW TEMPERATURE	1.59
C	HIGH TEMPERATURE	1.52
D	WATER IMMERSED	1.22

PERIPHERAL VISION

CONFIGURATION - Paragraph S5.4 - Helmet shall provide a minimum peripheral vision of 105° to each side of the midsagittal plane. The brow opening shall be at least 2.54 cm (1 inch) above all points in the basic plane that are within the angles of peripheral vision.

	REQUIREMENTS	TEST RESULTS
PERIPHERAL VISION	> 105°	Pass
BROW OPENING	> 2.5 cm (1 inch)	Pass

PROJECTIONS

Paragraph S5.5

REQUIREMENTS:

PROJECTION	REQUIREMENT
Internal rigid	None
External rigid	Operational, shall not protrude more than 5 mm

TEST RESULTS:

PROJECTION	PRESENT	HEIGHT (mm)
Internal	None	Not Applicable
External	Vent Cover Operation Switch	3.83 mm

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LABELING

S5.6.1 *Labeling* - Each helmet shall be permanently and legibly labeled, in a manner such that the label(s) can be easily read without removing padding or any other permanent part, with the following:

Required Information	Content/Format	Permanent
Manufacturer's name	Pass	*Pass
Discrete size	Pass	*Pass
Month and year of manufacture	Pass	*Pass
Instructions to the purchaser as follows:	-----	-----
"Shell and liner constructed of (identify type(s) of materials)."	Pass	Pass
"Helmet can be seriously damaged by some common substances without damage being visible to the user."	Pass	Pass
"Apply only the following: (Recommended cleaning agents, paints, adhesives, etc., as appropriate.)"	Pass	Pass
"Make no modifications."	Pass	Pass
"Fasten helmet securely."	Pass	Pass
"If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy it and replace it."	Pass	Pass

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.

LABELING

S5.6.2 Certification. Each helmet shall be labeled permanently and legibly with a label, constituting the manufacturer's certification that the helmet conforms to the applicable Federal motor vehicle safety standards, that is separate from the label(s) used to comply with S5.6.1, and complies with paragraphs (a) through (c) of this section. (a) Content, format, and appearance. The label required by paragraph S5.6.2 shall have the following content, format, and appearance:

Required Certification Information	Content/Format	Permanent
The symbol "DOT," horizontally centered on the label, in letters not less than 0.38 inch (1.0 cm) high.	*Pass	*Pass
The term "FMVSS No. 218," horizontally centered beneath the symbol DOT, in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The word "CERTIFIED," horizontally centered beneath the term "FMVSS No. 218," in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The precise model designation horizontally centered above the symbol DOT, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
The manufacturer's name and/or brand, horizontally centered above the model designation, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
All symbols, letters and numerals shall be in a color that contrasts with the background of the label.	*Pass	
No information, other than the information specified in subparagraph (a), shall appear on the label.	*Pass	
The label shall appear on the outer surface of the helmet and be placed so that it is centered laterally with the horizontal centerline of the DOT symbol located a minimum of 1 inch (2.5 cm) and a maximum of 3 inches (7.6 cm) from the bottom edge of the posterior portion of the helmet.	*Pass	

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.2. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.



TEST DATA

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Technician: Wille Wang

Test Date: 27 December 2023

Uni-Axial Calibration

Helmet Manufacturer :TERRIFIC
Address :

Testing Laboratory :Taicang ACT Lab
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu Province,
China 215412

Laboratory Technician name Wille

M.E.P. Pad Model1 MEP

Laboratory Temperature22deg C

Laboratory Humidity57%

Selected Filter Frequency1000 Hz

Acc. sensitivity (axis Z) :10.59mV/G

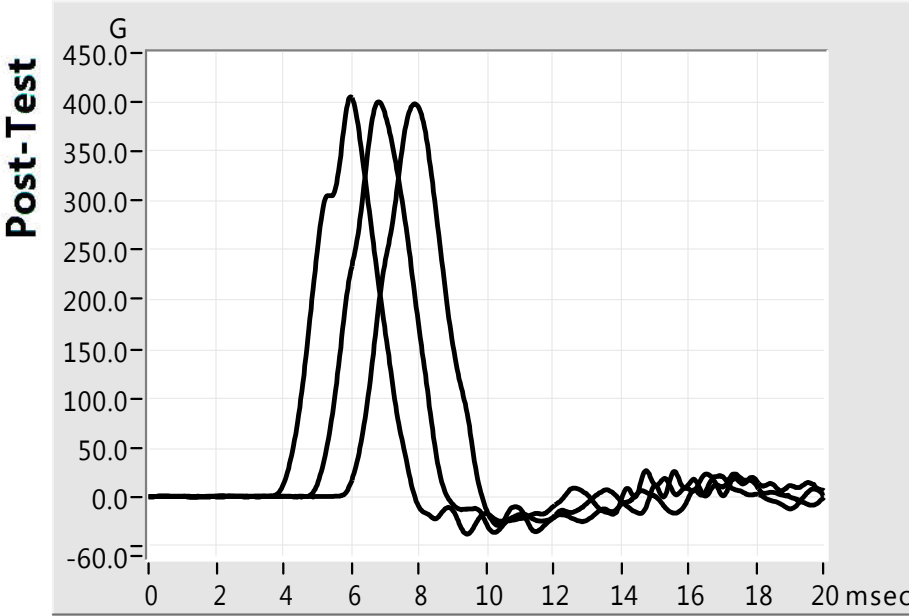
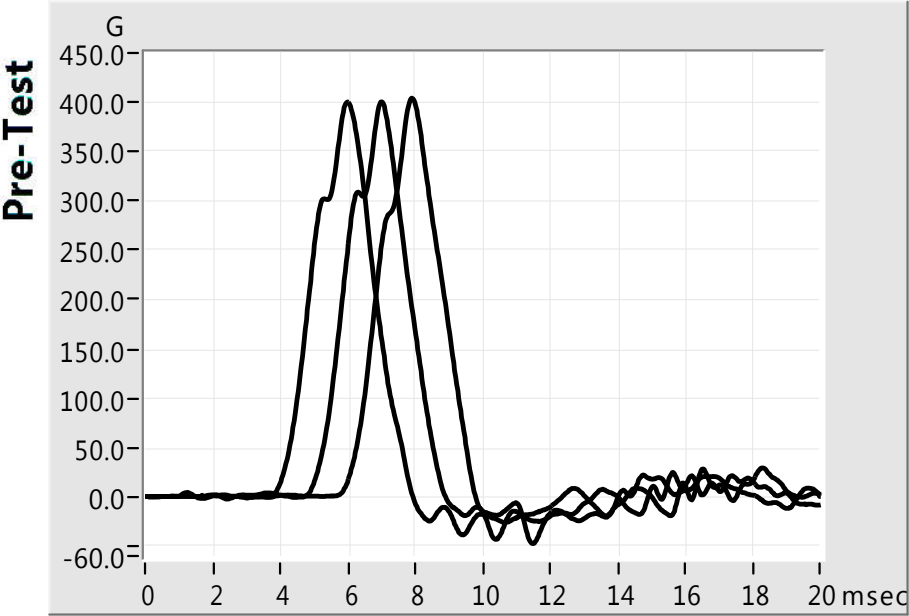
Acc. sensitivity (axis X) :10.01mV/G

Acc. sensitivity (axis Y) :9.99mV/G

Drop Device :Spherical Impactor (Uni-Axial)

Drop mass assembly :3.544kgTime gate flag height :25.55mm

Calibration peak :402.5G +/-22.50G



	Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
Pre-Test	1	400.2	3428	4.6205	115.0	MEP	2.36	2.01	0/0	2023-12-27	08:46:03	2.7	Pass
	2	400.2	3392	4.5820	115.0	MEP	2.40	2.03	0/0	2023-12-27	08:47:05	3.5	Pass
	3	403.9	3376	4.5876	115.0	MEP	2.42	2.05	0/0	2023-12-27	08:48:07	3.4	Pass
Post-Test	1	405.3	3462	4.6139	115.0	MEP	2.40	2.04	0/0	2023-12-27	11:41:20	2.9	Pass
	2	400.2	3534	4.6178	115.0	MEP	2.41	2.05	0/0	2023-12-27	11:42:22	2.8	Pass
	3	397.9	3459	4.6049	115.0	MEP	2.36	1.99	0/0	2023-12-27	11:43:26	3.0	Pass

Curve impact #2 : shift of 1ms
Curve impact #3 : shift of 2ms

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

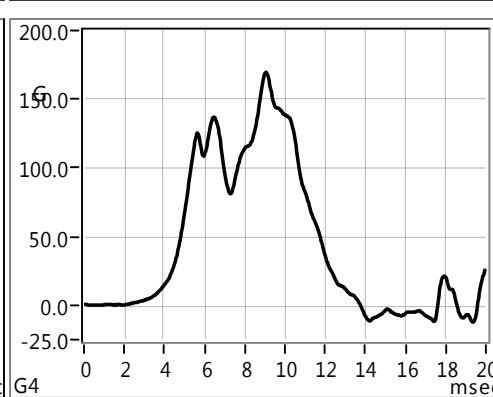
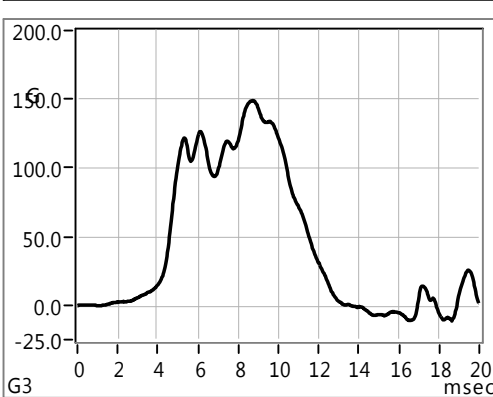
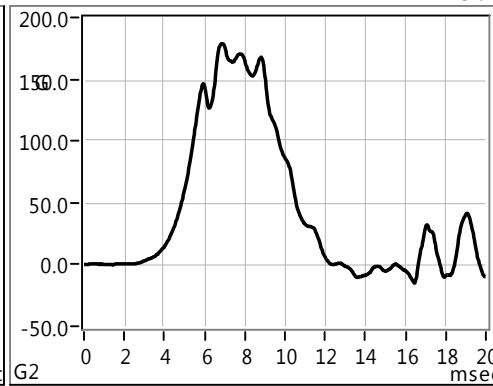
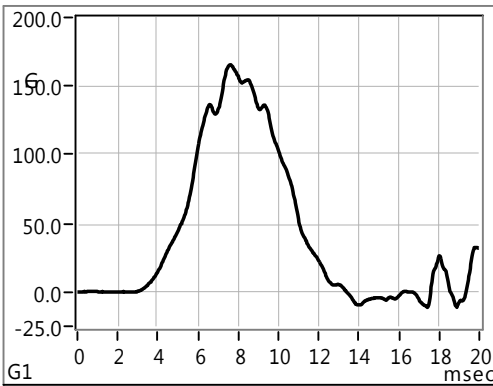
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer : TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5
Color : Carbon
Size : XS(53-54CM)
Weight : 1119.00 g
Manufacturing Date : 27 Dec 2023
Standard Request : FMVSS 218
Identification Code : 904.14552.006-A
Headform Model : D.O.T.
Headform Size : A D.O.T
Conditioning : Ambient
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : 1650 Hz
Maximum Peak G's authorized : 400 G
Maximum Peak m/s² authorized : 3923 m/s²
Drop mass assembly : 3.544 kg
Time gate flag height : 25.55 mm
Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	165.5	923	5.9979	192.0	FLAT	1.41	0.00	LF SIDE	2023-12-27	08:56:17	2.3	Pass
2	178.9	1154	6.0022	192.0	FLAT	2.50	0.00	LF SIDE	2023-12-27	08:56:22	2.2	Pass
3	148.9	897	6.0367	192.0	FLAT	0.00	0.00	REAR	2023-12-27	09:11:06	1.6	Pass
4	169.7	956	6.0115	192.0	FLAT	0.62	0.00	REAR	2023-12-27	09:11:12	2.0	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

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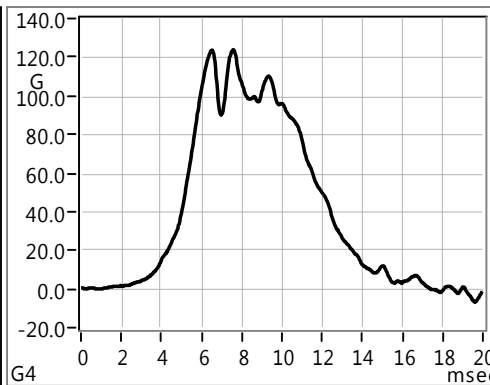
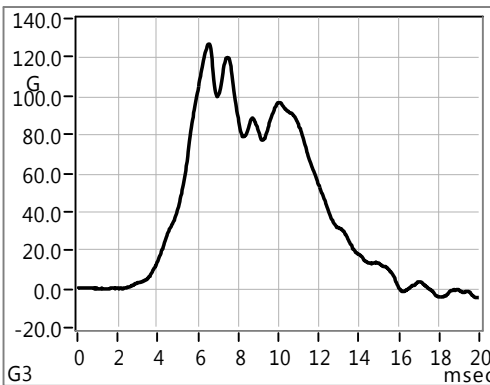
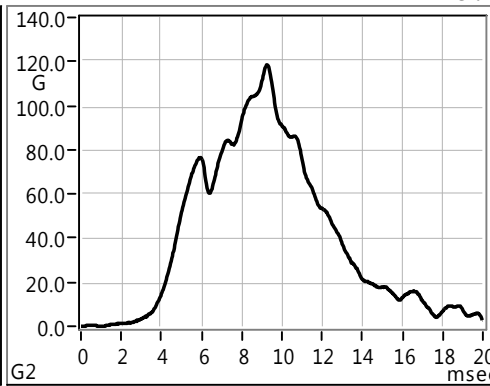
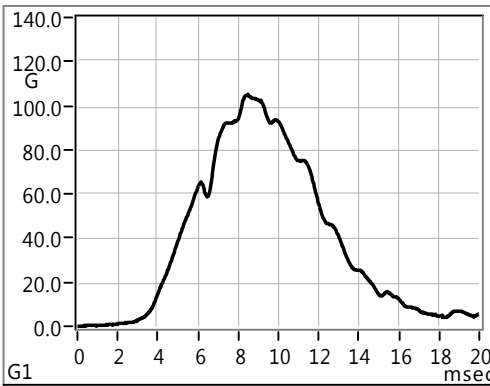
Helmet Manufacturer : TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XS(53-54CM)

Weight : 1119.00 g

Manufacturing Date : 27 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.006-A

Headform Model : D.O.T.

Headform Size : A D.O.T

Conditioning : Ambient

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 3.544 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	105.1	402	5.2011	145.0	HEMI	0.00	0.00	FRONT	2023-12-27	09:17:42	2.5	Pass
6	118.5	432	5.2049	145.0	HEMI	0.00	0.00	FRONT	2023-12-27	09:17:47	2.4	Pass
7	126.8	525	5.1899	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-27	09:29:11	2.7	Pass
8	124.0	572	5.2191	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-27	09:29:16	2.1	Pass

Testing Laboratory : Taicang ACT Lab

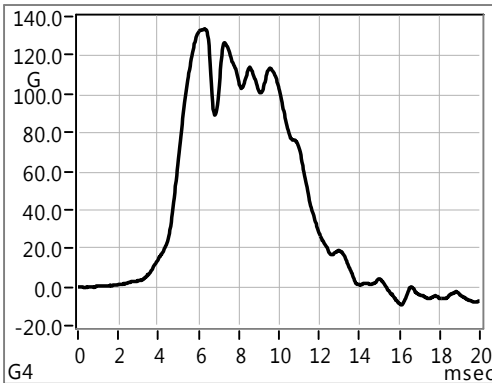
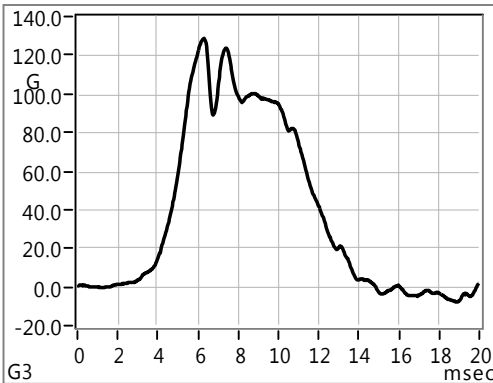
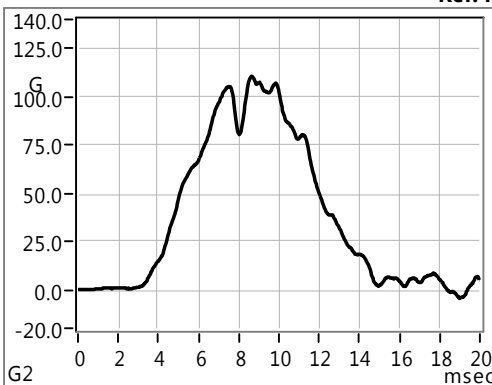
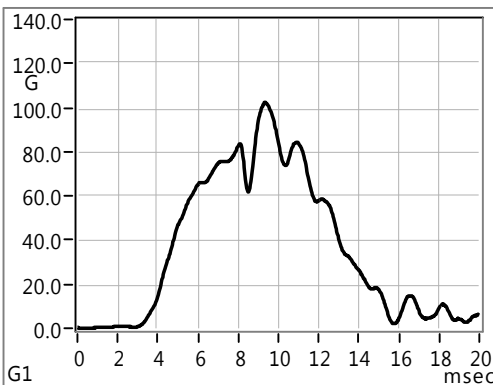
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Batch Number :

Ref. P.O. Number :

Model : ADV9.5

Color : Carbon

Size : XS(53-54CM)

Weight : 1131.00 g

Manufacturing Date : 27 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.006-B

Headform Model : D.O.T.

Headform Size : A D.O.T

Conditioning : Cold

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s2 authorized : 3923 m/s2

Drop mass assembly : 3.544 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

[illegible]

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

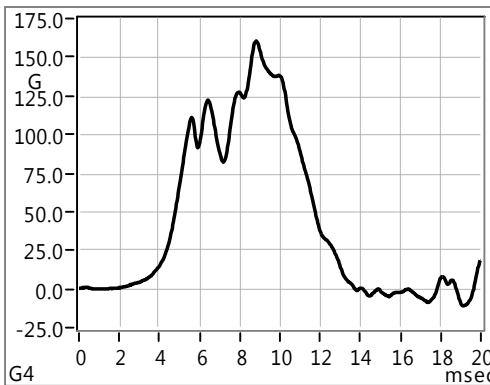
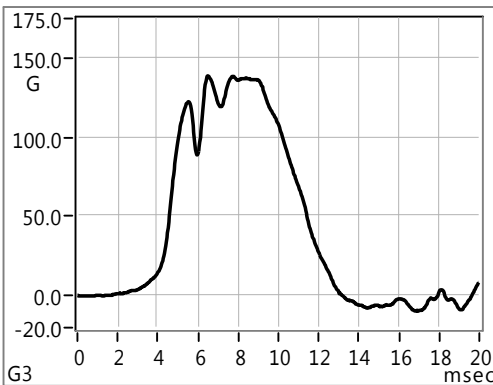
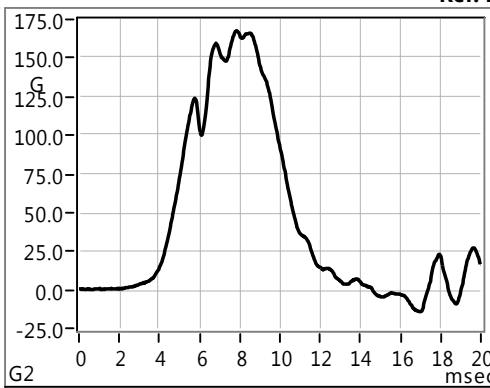
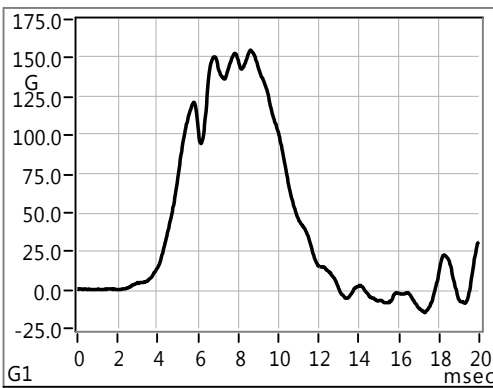
Helmet Manufacturer : TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XS(53-54CM)

Weight : 1127.00 g

Manufacturing Date : 27 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.006-C

Headform Model : D.O.T.

Headform Size : A D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s2 authorized : 3923 m/s2

Drop mass assembly : 3.544 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	154.9	957	5.9854	192.0	FLAT	0.84	0.00	LF SIDE	2023-12-27	09:03:33	2.5	Pass
2	167.8	1081	5.9886	192.0	FLAT	2.10	0.00	LF SIDE	2023-12-27	09:03:38	2.4	Pass
3	138.8	919	6.0252	192.0	FLAT	0.00	0.00	REAR	2023-12-27	09:06:27	1.8	Pass
4	160.5	887	6.0272	192.0	FLAT	0.48	0.00	REAR	2023-12-27	09:06:33	1.8	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

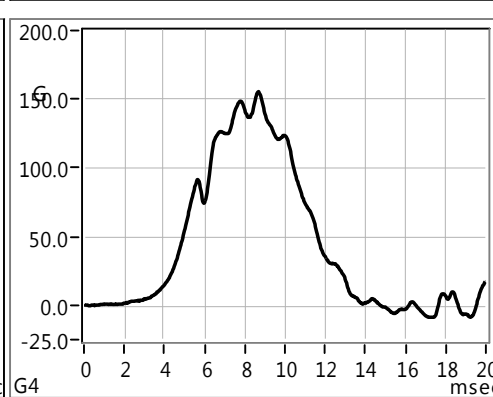
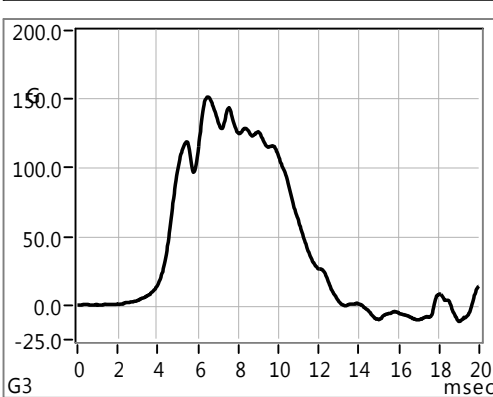
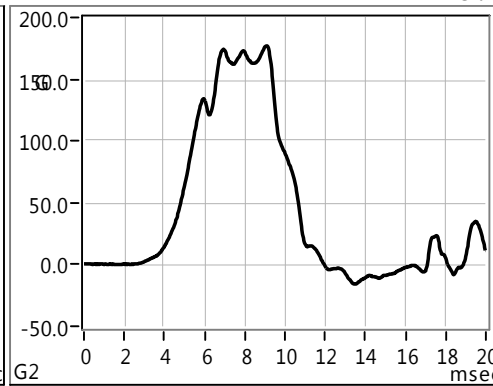
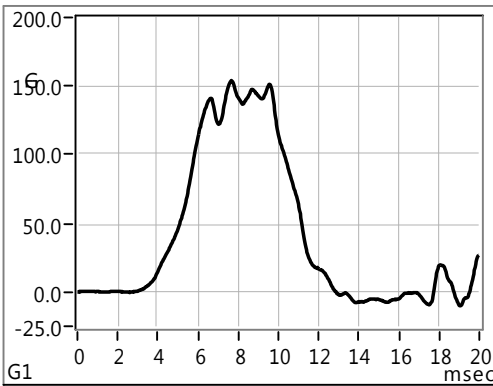
Helmet Manufacturer : TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XS(53-54CM)

Weight : 1118.00 g

Manufacturing Date : 27 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.006-D

Headform Model : D.O.T.

Headform Size : A D.O.T

Conditioning : Wet

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 3.544 kg

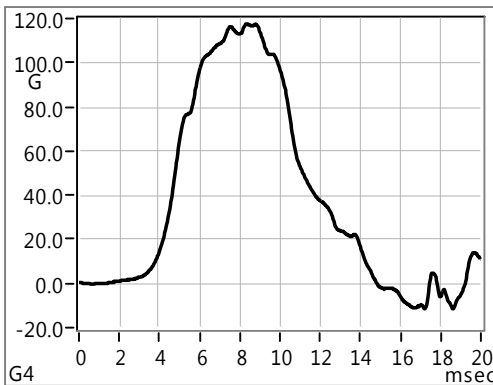
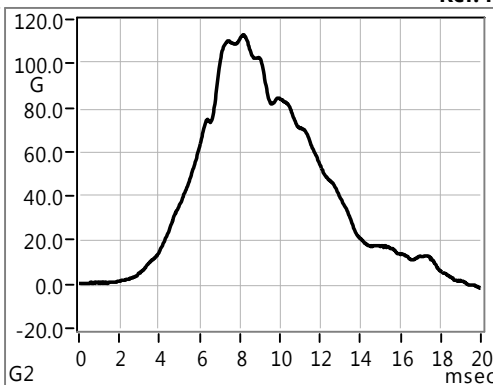
Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	154.0	946	6.0130	192.0	FLAT	0.42	0.00	LF SIDE	2023-12-27	08:58:38	2.0	Pass
2	177.1	1227	5.9969	192.0	FLAT	2.79	0.00	LF SIDE	2023-12-27	08:58:45	2.3	Pass
3	151.7	924	6.0321	192.0	FLAT	0.22	0.00	REAR	2023-12-27	09:13:07	1.7	Pass
4	155.4	868	6.0312	192.0	FLAT	0.30	0.00	REAR	2023-12-27	09:13:13	1.7	Pass

**Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412**

Laboratory Technician name : Wille
Batch Number :
Ref. P.O. Number :



Model : ADV9.5
Color : Carbon
Size : XS(53-54CM)
Weight : 1118.00 g
Manufacturing Date : 27 Dec 2023
Standard Request : FMVSS 218
Identification Code : 904.14552.006-D
Headform Model : D.O.T.
Headform Size : A D.O.T
Conditioning : Wet
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : 1650 Hz
Maximum Peak G's authorized : 400 G
Maximum Peak m/s2 authorized : 3923 m/s2
Drop mass assembly : 3.544 kg
Time gate flag height : 25.55 mm
Acc. sensibility (axis Z) : 10.59

[illegible]

DOT Auto – Test results

Laboratory

Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

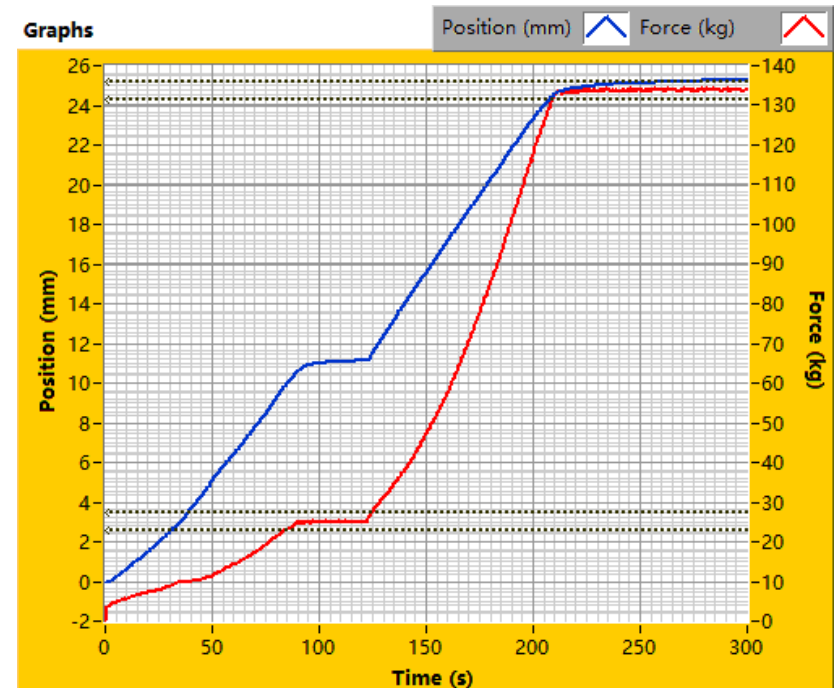
Sample

Model ADV9.5
 Color CARBON
 Size XS(53-54CM)
 Weight 1119
 Manufacturer TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.006-A

Graphs



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#41	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	14.1	Pass			

DOT Auto – Test results

Laboratory

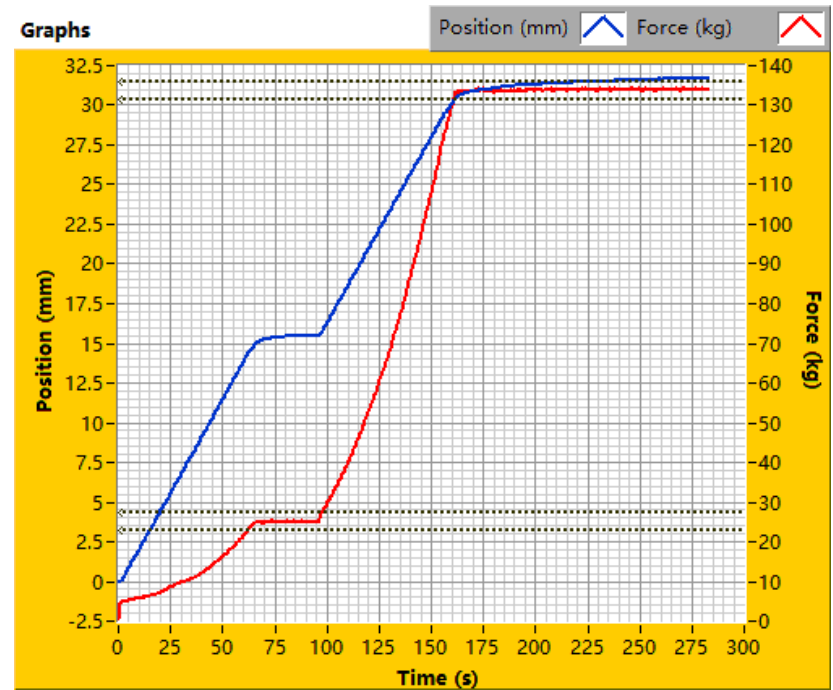
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV9.5
 Color CARBON
 Size XS(53-54CM)
 Weight 1131
 Manufacturer TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.006-B



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#42	[01/01/01 00:00:00]	NO	Valid	22.7	30.0	136.0	120.0	15.9	Pass			

DOT Auto – Test results

Laboratory

Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

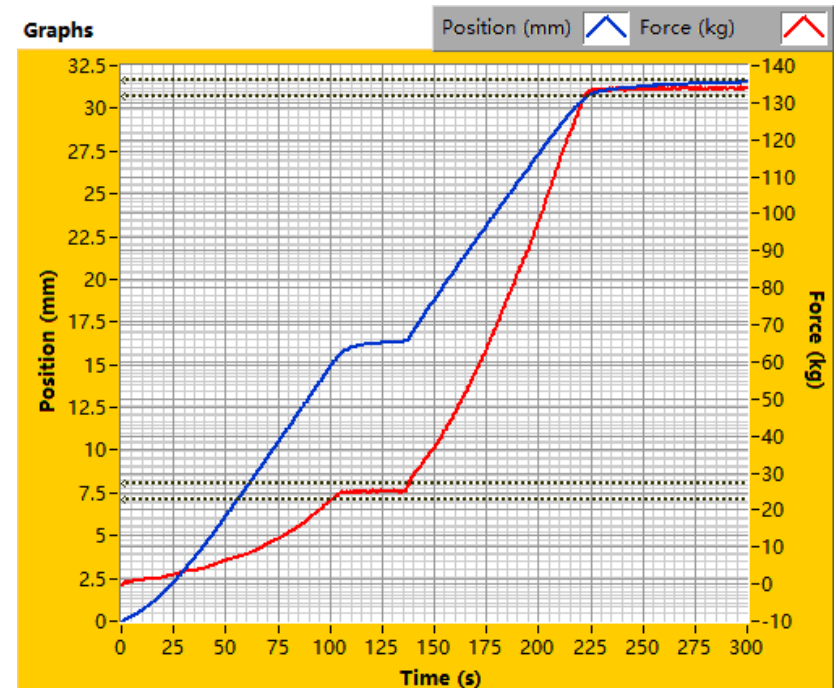
Sample

Model ADV9.5
Color CARBON
Size XS(53-54CM)
Weight 1127
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.006-C

Graphs



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#43	[01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	15.2	Pass			

DOT Auto – Test results

Laboratory

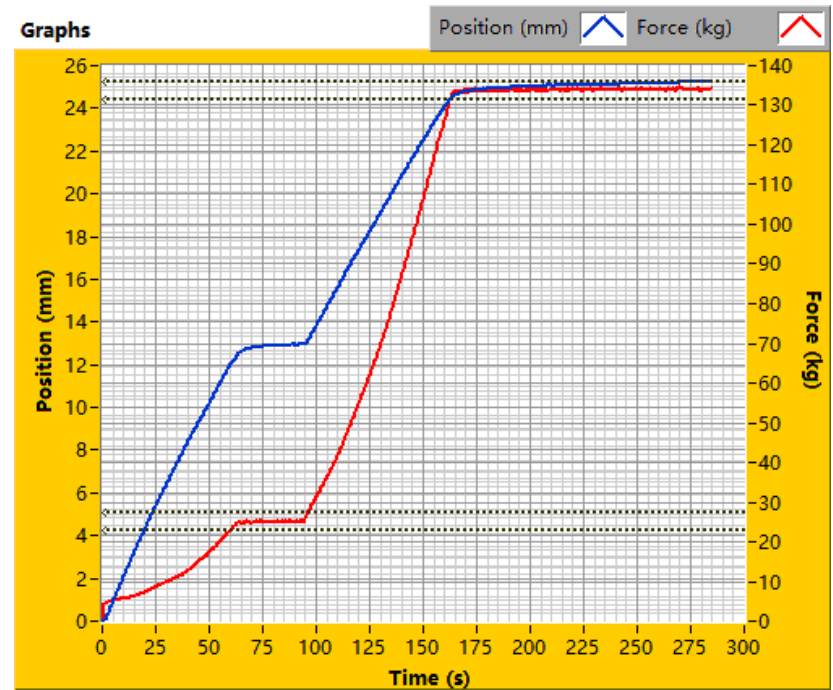
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV9.5
 Color CARBON
 Size XS(53-54CM)
 Weight 1118
 Manufacturer TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.006-D



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#44	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	12.2	Pass			

APPENDIX A

INTERPRETATIONS OR DEVIATIONS FROM FMVSS 218

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.
2. S6.4 Conditioning: Excess water on the water immersed sample was allowed to drip off before testing to prevent water damage to test equipment.

APPENDIX B

Contract File No.: 904.14552

Test File: 006

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

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Technician: Wille Wang

Test Date: 27 December 2023



EQUIPMENT LIST AND CALIBRATION SCHEDULES

EQUIPMENT LIST						
Asset Tag	Location	Description of part	Model Number	Serial Number	Verification Interval	Next Verification
H1001	Helmet Room	Fixture	Yellow Tower - 1000_00_MIMAT	NA	NA	NA
H1002	Helmet Room	Fixture	Green Tower - Series 2000	NA	NA	NA
H1011	Helmet Room	Instrument	Impact Machine System DX3000 - Green tower	NA	NA	NA
H1013	Helmet Room	Instrument	CPSC/ASTM Dynamic Strength Charge Amplifier - ATA2001 (Backup)	J72863	Yes	Daily
H1015	Helmet Room	Fixture	CPSC/ASTM Positional Stability Fixture	NA	1 year	4/27/2024
H1017	Helmet Room	Fixture	DOT Retention System Machine - SB033	NA	1 year	4/27/2024
H1034	Helmet Room	Environmental chamber	Water Immersion Container	NA	NA	NA
H1043	Helmet Room	Headform	ISO/EN960 A Partial Headform (Impact)	4272	1 year	5/5/2024
H1044	Helmet Room	Headform	ISO/EN960 C Partial Headform (Impact)	6938	1 year	5/5/2024
H1045	Helmet Room	Headform	ISO/EN960 E Partial Headform (Impact)	4146	1 year	5/5/2024
H1046	Helmet Room	Headform	ISO/EN960 J Partial Headform (Impact)	4148	1 year	5/5/2024
H1047	Helmet Room	Headform	ISO/EN960 M Partial Headform (Impact)	4131	1 year	5/5/2024
H1048	Helmet Room	Headform	ISO/EN960 O Partial Headform (Impact)	4151	1 year	5/5/2024
H1049	Helmet Room	Headform	DOT Small (Impact)	5178	1 year	5/5/2024
H1050	Helmet Room	Headform	DOT Medium (Impact)	5179	1 year	5/5/2024
H1051	Helmet Room	Headform	DOT Large (Impact)	5190	1 year	5/5/2024
H1052	Helmet Room	Drop Mass	CPSC/ASTM Spherical Impactor	NA	1 year	5/5/2024
H1054	Helmet Room	Drop Mass	ASTM/SNELL Chin Bar Impactor	NA	1 year	5/5/2024
H1055	Helmet Room	Anvil	CurbStone - CPSC/ASTM	NA	1 year	5/5/2024
H1056	Helmet Room	Anvil	Cylindrical	NA	1 year	5/5/2024
H1059	Helmet Room	Anvil	Triangular Hazard	NA	1 year	5/5/2024
H1060	Helmet Room	Anvil	Hemispherical - Yellow tower	NA	1 year	5/5/2024
H1062	Helmet Room	Anvil	Flat - Yellow tower	C240812-01	1 year	5/5/2024
H1066	Helmet Room	Fixture	Penetration Magnetic Carriage	NA	1 year	6/25/2024
H1091	Helmet Room	Fixture	40° Up Vision Angle Block	NA	1 year	5/6/2024
H1092	Helmet Room	Clamp	Split Ring Clamp - 119g	NA	1 year	5/6/2024
H1093	Helmet Room	Clamp	Split Ring Clamp - 210g	NA	1 year	5/6/2024
H1094	Helmet Room	Clamp	Split Ring Clamp - 378g	NA	1 year	5/6/2024
H1095	Helmet Room	Clamp	Split Ring Clamp - 451g	NA	1 year	5/6/2024
H1096	Helmet Room	Clamp	Split Ring Clamp - 505g	NA	1 year	5/6/2024
H1097	Helmet Room	Clamp	Split Ring Clamp - 597g	NA	1 year	5/6/2024
H1098	Helmet Room	Clamp	Split Ring Clamp - 1158g	NA	1 year	5/6/2024
H1099	Helmet Room	Anvil	Flat - Green tower	NA	1 year	5/6/2024
H1100	Helmet Room	Anvil	Hemispherical - Green tower	NA	1 year	5/6/2024
H1101	Helmet Room	Headform	DOT Small (Reference)	NA	1 year	4/27/2024
H1102	Helmet Room	Headform	DOT Medium (Reference)	NA	1 year	4/27/2024
H1103	Helmet Room	Headform	DOT Large (Reference)	NA	1 year	4/27/2024
H1105	Helmet Room	Drop Mass	Aluminum Ball Stem - Green tower	NA	1 year	5/6/2024
H1106	Helmet Room	Drop Mass	Steel Ball Stem	NA	1 year	5/6/2024
H1107	Helmet Room	Drop Mass	Magnesium Ball Stem	NA	1 year	5/6/2024
H1123	Helmet Room	Fixture	CPSC/ASTM Roll Off Headform Base Fastened Plate	NA	NA	NA
H1126	Helmet Room	Drop Mass	Complete Pistol Grip - Green tower	NA	1 year	5/6/2024
H1127	Helmet Room	Headform	ISO/EN 960 C Full Headform (Reference)	6947	1 year	4/27/2024
H1128	Helmet Room	Headform	DOT Small (Penetration)	NA	1 year	4/27/2024
H1129	Helmet Room	Headform	DOT Medium (Penetration)	NA	1 year	4/27/2024
H1130	Helmet Room	Headform	DOT Large (Penetration)	NA	1 year	4/27/2024
H1143	Helmet Room	Fixture	DOT Brow Opening 1 Inch Block	NA	1 year	4/28/2024
H1146	Helmet Room	Fixture	DOT Penetration Height Stick	NA	1 year	6/25/2024
H1149	Helmet Room	Mass	Testing Area Preload Ballast	NA	1 year	4/28/2024
H1150	Helmet Room	Drop Mass	10kg Positional Stability Drop Mass	NA	1 year	4/28/2024
H1178	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower	NA	1 year	5/6/2024
H1179	Helmet Room	Drop Mass	Aluminum Ball Stem - Yellow tower	NA	1 year	5/6/2024
H1189	Helmet Room	Drop Mass	DOT Penetration Striker Tip	070622-03	1 year	6/25/2024
H1196	Helmet Room	Fixture	DOT Retention Machine Static Load - SB033 (New)	NA	1 year	4/28/2024
H1197	Helmet Room	Fixture	DOT Retention LVDT Calibration Block	NA	1 year	11/9/2024
H1204	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower (Backup)	120122-07	1 year	5/6/2024
H1205	Helmet Room	Drop Mass	Ball Stem - Yellow tower (Backup)	NA	1 year	5/6/2024
H1213	Helmet Room	Fixture	CPSC/ASTM Dynamic Retention Strength Fixture	NA	1 year	4/28/2024
H1229	Helmet Room	Fixture	Penetration Tube	NA	1 year	6/25/2024
H1230	Helmet Room	Fixture	Penetration Headform Mount Holder	NA	NA	NA

Contract File No.: 904.14552

Test File: 006

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Technician: Wille Wang

Test Date: 27 December 2023



CALIBRATED MEASUREMENT DEVICES

Asset Tag	Description of part	Model Number	Measuring Range	Accuracy	Serial Number	Last Calibrated On	Calibration Due On
H1003	Instrument	Velocity Gate - Yellow tower	0-8.5m/s	±0.0001m/s	HVTG120120810-1	10/4/2023	10/3/2024
H1004	Instrument	Velocity Gate - Green tower	0-8.5m/s	±0.0001m/s	HVTG120090331-1	1/26/2023	1/25/2024
H1006	Instrument	Accelerometer PCB 353B18 - Yellow & Green tower	±500g	±0.1%	131607	1/26/2023	1/25/2024
H1007	Instrument	Accelerometer PCB 353B18 - Green tower	±500g	≤1%	86079	10/2/2023	10/1/2024
H1009	Fixture	Digital Tape 16' - Yellow tower	0-5.5m	±0.1cm	5027526	11/27/2023	11/26/2024
H1010	Instrument	CCS PC4300 - Green tower	±500g	±0.1%	CCS120090331-1	1/26/2023	1/25/2024
H1012	Instrument	CPSC/ASTM Dynamic Strength LVDT - C20101007753 (Backup)	2 Inch	±0.1%	C20101007753	11/22/2023	11/21/2024
H1014	Instrument	DOT Retention System LVDT - LWE-200	0-200mm	±0.05%	2002572	11/22/2023	11/21/2024
H1025	Fixture	Electronic Scale - BT-6	0-6kg	±0.1g	12230126	6/26/2023	6/25/2024
H1026	Fixture	Laser Table - SB005	0-450mm, 0-20°	±1mm, ±1°	TLTV2KB-20090403-1	11/22/2023	11/21/2024
H1030	Environmental chamber	Oven #1 - 92*9240MBE	0-200°C	±0.1°C	8285	6/26/2023	6/25/2024
H1031	Environmental chamber	Oven #2 - DHG-9426	0-200°C	±0.1°C	1503338018	11/22/2023	11/21/2024
H1032	Environmental chamber	Freezer #1 - DW-25W300	-30~-10°C	±0.1°C	BE062100N00B29578VMO	6/26/2023	6/25/2024
H1033	Environmental chamber	Freezer #2 - DW-50W225	-30~-10°C	±0.1°C	F8LMJ	11/22/2023	11/21/2024
H1036	Fixture	Hygrothermograph #1 - TH-602F	-30~60°C, 0-100%	±1°C	3238	6/27/2023	6/26/2024
H1057	Anvil	Edge	NA	NA	NA	11/26/2023	11/25/2026
H1058	Anvil	Equestrian Hazard	NA	NA	NA	11/26/2023	11/25/2026
H1061	Anvil	Skate Blade	NA	NA	NA	11/26/2023	11/25/2026
H1063	Fixture	Digital tape - 5m	0-5m	±0.1mm	78223	11/27/2023	11/26/2024
H1064	Instrument	CCS PC4400 - Yellow tower	±500g	±0.1%	CCS120120810-1	1/26/2023	1/25/2024
H1070	Instrument	DOT Retention System Load Cell - 9363-B10-300-20T1	0-300lb	±0.1kg	80310843	6/26/2023	6/25/2024
H1072	Fixture	Hygrothermograph #4 - TH600B	-20~100°C, 0-100%	±1°C	Q/MDS001-2017-2	6/27/2023	6/26/2024
H1073	Fixture	Height Gauge	0-500mm	±0.01mm	8811213838273610	11/22/2023	11/21/2024
H1075	Fixture	Digital Level - SPI TRONIC Pro 360	0-360°	±0.1°	31-038-3	11/27/2023	11/26/2024
H1076	Instrument	Calorifier - CN-111	18-35°C	±0.1°C	NA	11/23/2023	11/22/2024
H1077	Fixture	ACT Tape	0-1.5m	±1mm	NA	11/27/2023	11/26/2024
H1117	Fixture	Helmet Internal Circumference Measure Tool	49-62cm	±1mm	NA	11/26/2023	11/25/2024
H1172	Fixture	Height Measurement Rod #6	600±5mm	±1mm	032216-02	6/24/2022	6/23/2025
H1174	Anvil	MEP Pad	NA	NA	021921-01	2022 yearly	2023 yearly
H1180	Instrument	CPSC/ASTM LVDT & Sensor Box	2 Inch	±0.1%	04140748-001	11/22/2023	11/21/2024
H1184	Instrument	Accelerometer PCB 353B18 - Yellow tower	±500g	≤1%	LW226664	10/2/2023	10/1/2024
H1190	Environmental chamber	Oven - KH-120A	5-250°C	±0.1°C	2201-020	11/22/2023	11/21/2024
H1193	Fixture	I-square	150*100mm	±1mm	SJT-43008	11/27/2023	11/26/2024
H1194	Fixture	Triangular Ruler	190mm	±1mm	SJT-43111	11/27/2023	11/26/2024
H1198	Instrument	LVDT Volfa LWE-200 (Head) - DOT Retention	0-200mm	±0.05%	NA	3/10/2023	3/9/2024
H1199	Instrument	LVDT Volfa LWE-200 - DOT Retention Machine	0-200mm	±0.05%	NA	3/10/2023	3/9/2024
H1200	Instrument	VPG load cell - 9363-B10-500-20T1 - DOT Retention Machine	0-500lb	±0.1kg	90139705	3/10/2023	3/9/2024
H1210	Fixture	Peripheral Vision	105° Both sides	105°	NA	4/27/2023	4/26/2026
H1214	Instrument	DOT Retention System LVDT (Head) - LWE-200	0-50mm	±0.05%	27008-10	4/28/2023	4/27/2024
H1216	Fixture	Digital Vernier Caliper - GLA13S	0-300mm	0-200mm: ±0.03mm; 200-300mm: ±0.04mm	K23D014332	5/17/2023	5/16/2024

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Technician: Wille Wang

Test Date: 27 December 2023

APPENDIX C

PHOTOGRAPHS

Contract File No.: 904.14552

Test File: 006

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Technician: Wille Wang

Test Date: 27 December 2023



Impact attenuation test apparatus and data acquisition equipment



Retention system test apparatus



DOT headforms (S, M, L) with flat and hemispherical anvils



Penetration test apparatus with adjustable base



High temperature conditioning chamber



High temperature conditioning chamber



Water immersion equipment



Low temperature conditioning chambers











	PRODUCTION #	XXXXXXXXXX
	MFG DATE	2023.XX
	MODEL	ADV 9.5
	SIZE	XS (53-54cm)
	WEIGHT	XXXXg +/-50g

WARNING	USE AT YOUR OWN RISK. PLEASE READ THE OWNERS MANUAL BEFORE USE. NO HELMET CAN PROTECT THE USER AGAINST ALL FORESEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. FASTEN HELMET SECURELY. HELMET CAN BE SERIOUSLY DAMAGED BY COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO THE USER SUCH AS: GASOLINE, PAINT, ADHESIVES, CLEANING AGENTS OR BY EXCESSIVE HEAT. MAKE NO MODIFICATIONS TO THE HELMET. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY IT AND REPLACE IT. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.
	ADV 9.5 MADE IN CHINA BY XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

WARNING

NO HELMET CAN PROTECT THE USER AGAINST ALL FORSEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. READ OWNERS MANUAL BEFORE USE. FOR ADEQUATE PROTECTION, THIS HELMET MUST FIT CLOSELY AND BE SECURELY ATTACHED. MAKE NO MODIFICATIONS. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY AND REPLACE IT. HELMET CAN BE SERIOUSLY DAMAGED BY SOME COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO USER SUCH AS: GASOLINE, PETROL, PAINT, ADHESIVES, OR CLEANING AGENTS OR BY EXCESSIVE HEAT. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. COMFORT PADDING CAN BE HAND WASHED AND AIR DRIED. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

Model: ADV 9.5 Made in China by XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

XS
53-54

LEATT
ADV 9.5
DOT
FMVSS No. 218
CERTIFIED

NOTICE

1. The report is not effective without the signature of the person(s) authorizing the report (ACT Lab's authorized signatory is John A. Bogler (President)).
2. The report is not valid if altered.
3. Claims have to be made within 15 days after receipt of this report.
4. The results of this test report relate only to the items tested.
5. The results apply to the samples as received.
6. For reports that contain results from external test service providers: Results from external test service providers are supplied by the customer and can affect validity of results.
7. The results of this test report apply ASTM E29:2022 - Rounding Method, unless otherwise requested or noted within the report.
8. Decision rule applied according to "ILAC-G8:09/2019 - Guidelines on the Reporting of Compliance with Specification".

END OF REPORT

Contract File No.: 904.14552

Test File: 006

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

40 of 40

Technician: Wille Wang

Test Date: 27 December 2023

SAFETY COMPLIANCE TESTING FOR FMVSS No. 218 MOTORCYCLE HELMETS

Brand: LEATT
Model: ADV 9.5
Tested Size: S (55-56 cm)

Prepared For:

Leatt Corporation
12 Kiepersol Crescent,
Atlas Gardens Business Park,
Cape Farms, Cape Town,
7550, ZA



Issue Date: 27 December 2023

Final Report: 904.14552.007

Tested By:

Taicang ACT Sporting Goods Testing Co., Ltd.
No. 35 Zhenghe Road,
Ludu Town, Taicang City, Suzhou,
Jiangsu Province, China 215412
www.act-lab.com

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This laboratory 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 (refer joint ISO-ILAC-IAF Communiqué dated April 2017.) The Joint Communiqué is available on publications and resources page of the ILAC website at <http://www.ilac.org>. Accreditation listing and certificate can be found at <http://www.iasonline.org>.

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Terry Liu

Test Date: 26 December 2023



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PURPOSE OF COMPLIANCE TEST

Purpose:

The purpose of this test was to determine if the motorcycle helmets supplied by:

Xiamen Terrific Composite Technology Co., Ltd.

Met the requirements of

Federal Motor Vehicle Safety Standard No. 218: Motorcycle Helmets effective May 13, 2013.

All samples received were in good condition and appropriate for these tests.

Test Procedure:

This test was performed following TP-218-07 and ACT Lab Helmet Cadex Testing Manual 2.3

**HELMET DATA**HELMET BRAND NAME: LEATTHELMET MODEL DESIGNATION: ADV 9.5HELMET MANUFACTURER: XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.HELMET SIZE: S (55-56 cm)HELMET COVERAGE: Partial: _____ Full: _____ Complete: XHELMET POSITIONING INDEX: 50 mmSHELL MATERIAL: Carbon Fiber and Other Composite MaterialsLINER MATERIAL: Expanded PolystyreneBUCKLE DESCRIPTION: Fidlock

HELMET	A Ambient	B Low Temp	C High Temp	D Water Immersed	E Spare
SHELL COLOR/PATTERN	Carbon	Carbon	Carbon	Carbon	Carbon
WEIGHT (grams)	1116	1089	1127	1099	1397
MONTH & YEAR OF MANUFACTURE	TBD	TBD	TBD	TBD	TBD

Reviewed by: John Bogler

COMMENTS:

1. All helmets were received in undamaged condition and were appropriate for testing.
2. Weights listed above for helmets A-D are as tested with visor and face shield removed.
3. Weight for helmet E is complete with all components in place.
4. ACT determined the HPI information prior to testing.

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Terry Liu

Test Date: 26 December 2023

SUMMARY OF TEST RESULTS

INDICATE Pass or Fail

HELMET	A	B	C	D
TEST	AMBIENT	LOW TEMP	HIGH TEMP	WATER IMMERSED
IMPACT	Pass	Pass	Pass	Pass
PENETRATION	Pass	Pass	Pass	Pass
RETENTION	Pass	Pass	Pass	Pass

INDICATE Pass or Fail

TEST	PASS/FAIL
PERIPHERAL VISION	Pass
PROJECTIONS	Pass
LABELING	*Pass

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.

SELECTION OF APPROPRIATE HEADFORM

Paragraph S6.1- If the helmet size designation falls into more than one of three size ranges, it shall be tested on each appropriate headform.

HELMET SIZE DESIGNATION	HEADFORM SIZE
Less than or equal to 6-3/4 (European Size 54)	SMALL
Greater than 6-3/4, but less than or equal to 7-1/2 (European Size 60)	MEDIUM
Greater than 7-1/2 (European 60)	LARGE

COMMENTS:

The manufacturer marked the helmet with its corresponding discrete size: S (55-56 cm), Headform Size: DOT MEDIUM.

CONDITIONING FOR TESTING — Paragraph S6.4 — The protective headgear shall be conditioned for not less than 4 hours and no more than 24 hours, in the specified environmental condition shown below, prior to test.

Ambient Conditions	16°C to 26°C (61°F to 79°F); 30% to 70% Relative Humidity
Low Temperature	-15°C to -5°C (5°F to 23°F)
High Temperature	45°C to 55°C (113°F to 131°F)
Water Immersion	16°C to 26°C (61°F to 79°F)

The maximum time during which the protective headgear may be out of the conditioning environment shall not exceed 4 minutes. It must then be returned to the conditioned environment for a minimum of 3 minutes for each minute or portion of a minute in excess of 4 minutes out of the conditioning environment or 12 hours, whichever is less, prior to resumption of testing.

AVERAGE LAB TEMPERATURE : 22 °C ; AVERAGE LAB HUMIDITY : 57 %

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Terry Liu

Test Date: 26 December 2023

**IMPACT ATTENUATION**

Helmet ID	Condition	Impact #	Impact Location	Anvil	Drop Height (cm)	Velocity (m/sec)	Duration at 150G (ms)	Duration at 200G (ms)	Peak Acc. (g)	Pass/Fail
904.14552.007-A	Ambient	1	LF SIDE	FLAT	192.0	6.0039	0.00	0.00	141.1	Pass
904.14552.007-A	Ambient	2	LF SIDE	FLAT	192.0	6.0467	1.97	0.00	166.0	Pass
904.14552.007-A	Ambient	3	REAR	FLAT	192.0	6.0072	0.00	0.00	147.5	Pass
904.14552.007-A	Ambient	4	REAR	FLAT	192.0	5.9896	1.63	0.00	156.8	Pass
904.14552.007-A	Ambient	5	FRONT	HEMI	145.0	5.2334	0.00	0.00	81.6	Pass
904.14552.007-A	Ambient	6	FRONT	HEMI	145.0	5.2118	0.00	0.00	100.1	Pass
904.14552.007-A	Ambient	7	RT SIDE	HEMI	145.0	5.2465	0.00	0.00	96.4	Pass
904.14552.007-A	Ambient	8	RT SIDE	HEMI	145.0	5.2160	0.00	0.00	118.5	Pass
904.14552.007-B	Cold	1	LF SIDE	FLAT	192.0	5.9988	0.00	0.00	141.6	Pass
904.14552.007-B	Cold	2	LF SIDE	FLAT	192.0	6.0348	2.16	0.00	171.1	Pass
904.14552.007-B	Cold	3	REAR	FLAT	192.0	6.0049	0.00	0.00	142.0	Pass
904.14552.007-B	Cold	4	REAR	FLAT	192.0	5.9960	1.48	0.00	163.7	Pass
904.14552.007-B	Cold	5	FRONT	HEMI	145.0	5.2027	0.00	0.00	83.9	Pass
904.14552.007-B	Cold	6	FRONT	HEMI	145.0	5.2056	0.00	0.00	103.3	Pass
904.14552.007-B	Cold	7	RT SIDE	HEMI	145.0	5.2091	0.00	0.00	96.4	Pass
904.14552.007-B	Cold	8	RT SIDE	HEMI	145.0	5.2876	0.00	0.00	108.8	Pass
904.14552.007-C	Hot	1	LF SIDE	FLAT	192.0	5.9937	0.00	0.00	137.9	Pass
904.14552.007-C	Hot	2	LF SIDE	FLAT	192.0	5.9948	1.04	0.00	160.5	Pass
904.14552.007-C	Hot	3	REAR	FLAT	192.0	6.0166	0.00	0.00	139.2	Pass
904.14552.007-C	Hot	4	REAR	FLAT	192.0	6.0259	0.67	0.00	154.0	Pass
904.14552.007-C	Hot	5	FRONT	HEMI	145.0	5.1900	0.00	0.00	53.9	Pass
904.14552.007-C	Hot	6	FRONT	HEMI	145.0	5.1866	0.00	0.00	66.9	Pass
904.14552.007-C	Hot	7	RT SIDE	HEMI	145.0	5.2234	0.00	0.00	77.5	Pass
904.14552.007-C	Hot	8	RT SIDE	HEMI	145.0	5.2068	0.00	0.00	94.1	Pass
904.14552.007-D	Wet	1	LF SIDE	FLAT	192.0	6.0139	0.00	0.00	136.0	Pass
904.14552.007-D	Wet	2	LF SIDE	FLAT	192.0	6.0161	0.76	0.00	154.5	Pass
904.14552.007-D	Wet	3	REAR	FLAT	192.0	6.0147	0.00	0.00	130.9	Pass
904.14552.007-D	Wet	4	REAR	FLAT	192.0	5.9647	0.00	0.00	145.2	Pass
904.14552.007-D	Wet	5	FRONT	HEMI	145.0	5.2056	0.00	0.00	79.3	Pass
904.14552.007-D	Wet	6	FRONT	HEMI	145.0	5.2005	0.00	0.00	100.5	Pass
904.14552.007-D	Wet	7	RT SIDE	HEMI	145.0	5.2041	0.00	0.00	95.0	Pass
904.14552.007-D	Wet	8	RT SIDE	HEMI	145.0	5.2590	0.00	0.00	106.0	Pass

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Terry Liu

Test Date: 26 December 2023

PENETRATION

Paragraph S5.2 and S7.2

WEIGHT OF STRIKER: 2.95 to 3.06 kg (6 pounds, 8 ounces to 6 pounds, 12 ounces)

POINT OF STRIKER: Radius = 0.5 ± 0.1 mm (0.02 ± 0.004 in.), included angle of $60^\circ \pm 0.5^\circ$, hardness minimum of 60 Rockwell "C" Scale and a cone height of not less than 3.8 ± 0.038 cm (1.5 ± 0.015 in.).

HEIGHT OF FALL: 300 cm $\pm$ 1.5 cm, measured from the tip of the striker point to the outer surface of the mounted protective headgear.

FAILURE CRITERION: When tested, the protective headgear shall be failed if the penetrator has made an indentation in the headform.

TEST	HELMET	TEST LOCATION	PASS	FAIL	CONDITIONS
1	A	Crown	X		AMBIENT
2	A	Rear Right	X		AMBIENT
3	B	Crown	X		LOW TEMPERATURE
4	B	Rear Right	X		LOW TEMPERATURE
5	C	Crown	X		HIGH TEMPERATURE
6	C	Rear Right	X		HIGH TEMPERATURE
7	D	Crown	X		WATER IMMERSED
8	D	Rear Right	X		WATER IMMERSED

COMMENT: Photographs of penetration test locations are found in Appendix C.

RETENTION SYSTEM

Paragraph S5.3 and S7.3

REQUIREMENTS:

READING	APPLIED LOAD
INITIAL	22.68 kg, + 4.54 kg, - 0 kg (50.0 lbs., + 10 lbs., - 0 lbs.)
FINAL	136 kg, + 0 kg, - 2.3 kg (300.0 lbs., + 0 lbs., - 5 lbs.)

ELONGATION NOT TO EXCEED 2.54 cm (1.0 INCH) AFTER LOAD INCREASE

HELMET	CONDITIONS	ELONGATION cm
A	AMBIENT	1.98
B	LOW TEMPERATURE	1.60
C	HIGH TEMPERATURE	1.48
D	WATER IMMERSED	1.58

PERIPHERAL VISION

CONFIGURATION - Paragraph S5.4 - Helmet shall provide a minimum peripheral vision of 105° to each side of the midsagittal plane. The brow opening shall be at least 2.54 cm (1 inch) above all points in the basic plane that are within the angles of peripheral vision.

	REQUIREMENTS	TEST RESULTS
PERIPHERAL VISION	> 105°	Pass
BROW OPENING	> 2.5 cm (1 inch)	Pass

PROJECTIONS

Paragraph S5.5

REQUIREMENTS:

PROJECTION	REQUIREMENT
Internal rigid	None
External rigid	Operational, shall not protrude more than 5 mm

TEST RESULTS:

PROJECTION	PRESENT	HEIGHT (mm)
Internal	None	Not Applicable
External	Vent Cover Operation Switch	3.83 mm

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Terry Liu

Test Date: 26 December 2023

LABELING

S5.6.1 *Labeling* - Each helmet shall be permanently and legibly labeled, in a manner such that the label(s) can be easily read without removing padding or any other permanent part, with the following:

Required Information	Content/Format	Permanent
Manufacturer's name	Pass	*Pass
Discrete size	Pass	*Pass
Month and year of manufacture	Pass	*Pass
Instructions to the purchaser as follows:	-----	-----
"Shell and liner constructed of (identify type(s) of materials)."	Pass	Pass
"Helmet can be seriously damaged by some common substances without damage being visible to the user."	Pass	Pass
"Apply only the following: (Recommended cleaning agents, paints, adhesives, etc., as appropriate.)"	Pass	Pass
"Make no modifications."	Pass	Pass
"Fasten helmet securely."	Pass	Pass
"If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy it and replace it."	Pass	Pass

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.

LABELING

S5.6.2 Certification. Each helmet shall be labeled permanently and legibly with a label, constituting the manufacturer's certification that the helmet conforms to the applicable Federal motor vehicle safety standards, that is separate from the label(s) used to comply with S5.6.1, and complies with paragraphs (a) through (c) of this section. (a) Content, format, and appearance. The label required by paragraph S5.6.2 shall have the following content, format, and appearance:

Required Certification Information	Content/Format	Permanent
The symbol "DOT," horizontally centered on the label, in letters not less than 0.38 inch (1.0 cm) high.	*Pass	*Pass
The term "FMVSS No. 218," horizontally centered beneath the symbol DOT, in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The word "CERTIFIED," horizontally centered beneath the term "FMVSS No. 218," in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The precise model designation horizontally centered above the symbol DOT, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
The manufacturer's name and/or brand, horizontally centered above the model designation, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
All symbols, letters and numerals shall be in a color that contrasts with the background of the label.	*Pass	
No information, other than the information specified in subparagraph (a), shall appear on the label.	*Pass	
The label shall appear on the outer surface of the helmet and be placed so that it is centered laterally with the horizontal centerline of the DOT symbol located a minimum of 1 inch (2.5 cm) and a maximum of 3 inches (7.6 cm) from the bottom edge of the posterior portion of the helmet.	*Pass	

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.2. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.



TEST DATA

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Terry Liu

Test Date: 26 December 2023

Uni-Axial Calibration

Helmet Manufacturer :TERRIFIC
Address :

Testing Laboratory :Taicang ACT Lab
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu Province,
China 215412

Laboratory Technician name Wille

M.E.P. Pad Model1 MEP

Laboratory Temperature22deg C

Laboratory Humidity57%

Selected Filter Frequency1000 Hz

Acc. sensitivity (axis Z) :10.59mV/G

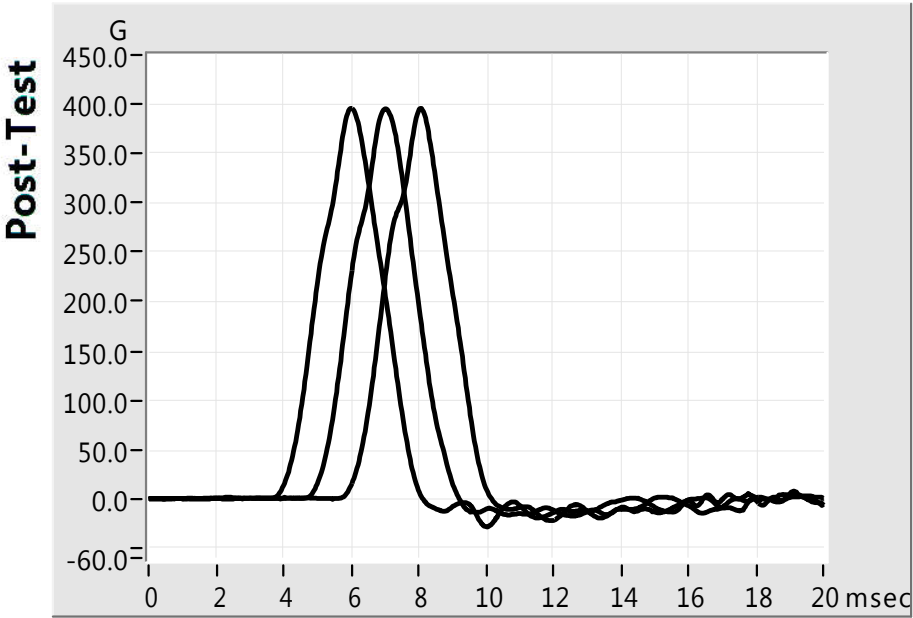
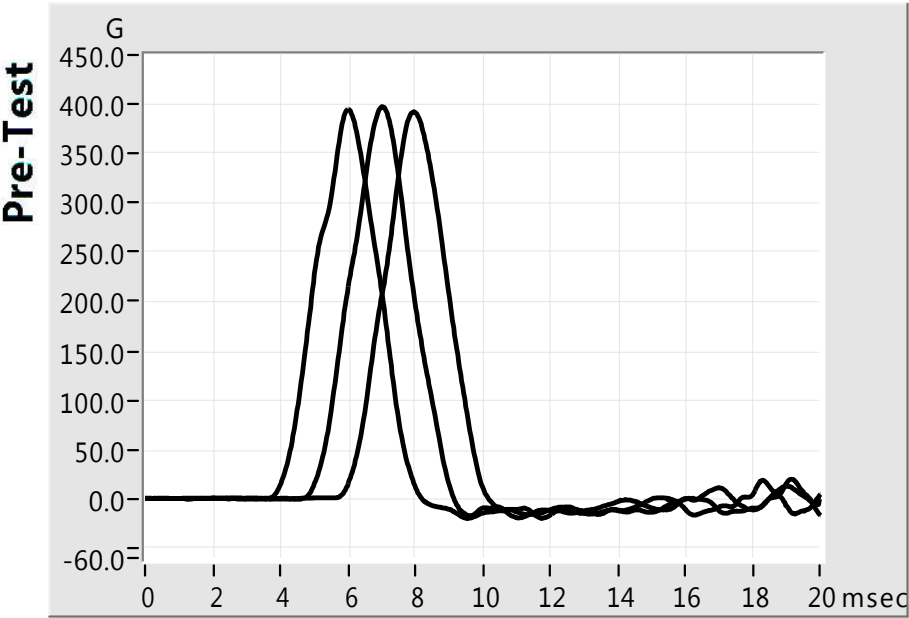
Acc. sensitivity (axis X) :10.01mV/G

Acc. sensitivity (axis Y) :9.99mV/G

Drop Device :Spherical Impactor (Uni-Axial)

Drop mass assembly :5.028kgTime gate flag height :25.55mm

Calibration peak :402.5G +/-22.50G



	Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
Pre-Test	1	394.7	3541	4.7751	120.0	MEP	2.50	2.13	0/0	2023-12-26	13:07:08	1.6	Pass
	2	397.4	3561	4.6804	120.0	MEP	2.48	2.04	0/0	2023-12-26	13:08:17	3.5	Pass
	3	392.4	3575	4.7538	120.0	MEP	2.49	2.05	0/0	2023-12-26	13:09:20	2.0	Pass
Post-Test	1	395.6	3547	4.6643	120.0	MEP	2.50	2.11	0/0	2023-12-26	16:19:37	3.9	Pass
	2	395.1	3593	4.6453	120.0	MEP	2.46	2.09	0/0	2023-12-26	16:20:47	4.2	Pass
	3	395.6	3517	4.6933	120.0	MEP	2.52	2.12	0/0	2023-12-26	16:21:53	3.3	Pass

Curve impact #2 : shift of 1ms
Curve impact #3 : shift of 2ms

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

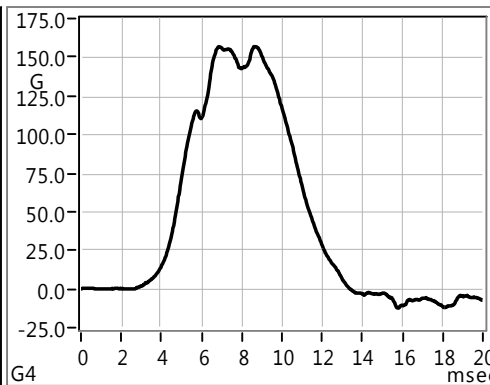
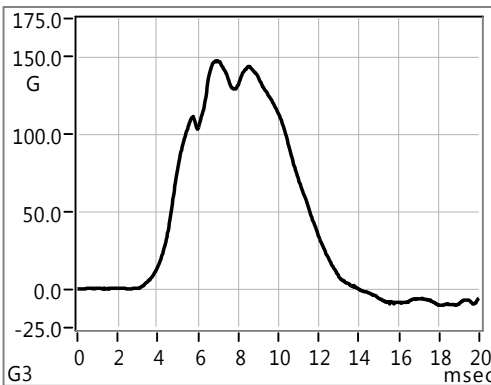
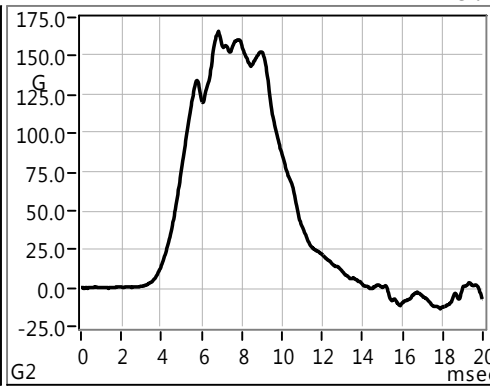
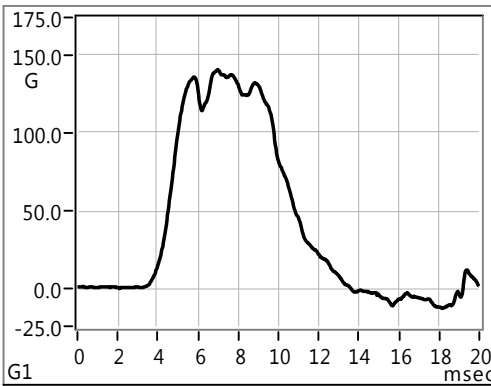
Helmet Manufacturer :TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : S(55-56CM)

Weight : 1116.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.007-A

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Ambient

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	141.1	895	6.0039	192.0	FLAT	0.00	0.00	LF SIDE	2023-12-26	13:19:57	2.2	Pass
2	166.0	1086	6.0467	192.0	FLAT	1.97	0.00	LF SIDE	2023-12-26	13:20:10	1.5	Pass
3	147.5	967	6.0072	192.0	FLAT	0.00	0.00	REAR	2023-12-26	13:39:31	2.1	Pass
4	156.8	1119	5.9896	192.0	FLAT	1.63	0.00	REAR	2023-12-26	13:39:35	2.4	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

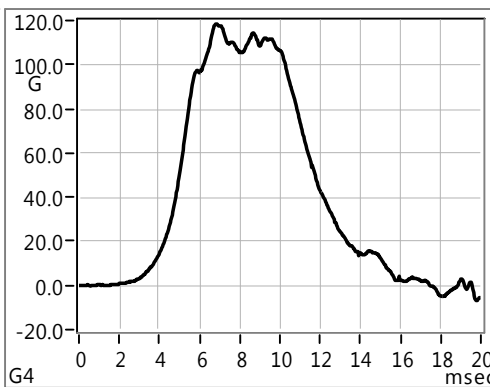
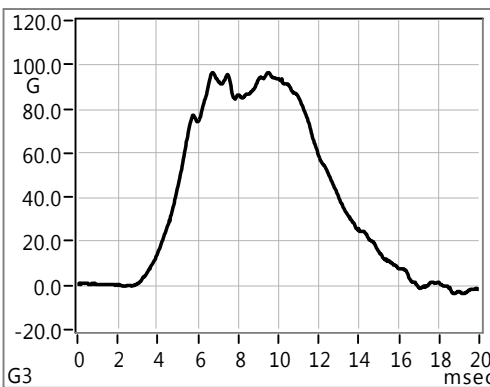
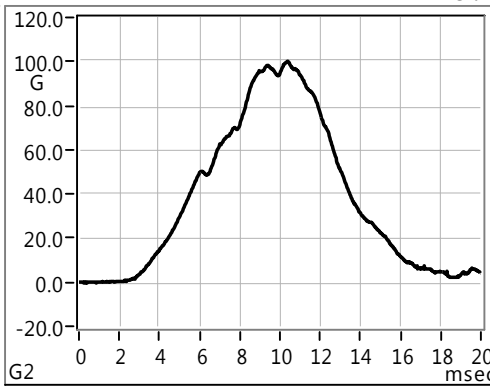
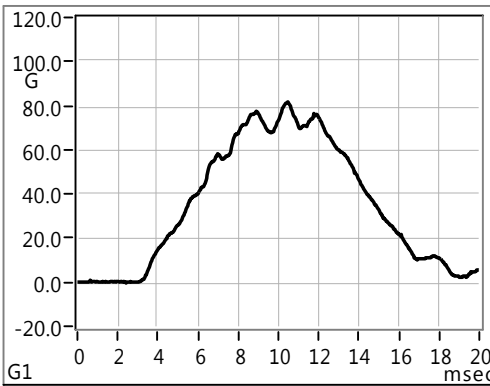
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5
Color : Carbon
Size : S(55-56CM)
Weight : 1116.00 g
Manufacturing Date : 26 Dec 2023
Standard Request : FMVSS 218
Identification Code : 904.14552.007-A
Headform Model : D.O.T.
Headform Size : C D.O.T
Conditioning : Ambient
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : 1650 Hz
Maximum Peak G's authorized : 400 G
Maximum Peak m/s² authorized : 3923 m/s²
Drop mass assembly : 5.028 kg
Time gate flag height : 25.55 mm
Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	81.6	280	5.2334	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	13:44:55	1.9	Pass
6	100.1	382	5.2118	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	13:45:00	2.3	Pass
7	96.4	455	5.2465	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	13:53:29	1.6	Pass
8	118.5	628	5.2160	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	13:53:32	2.2	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

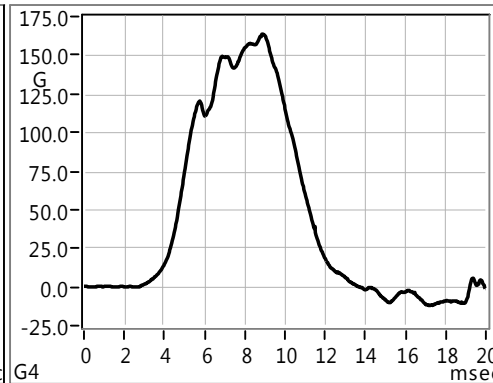
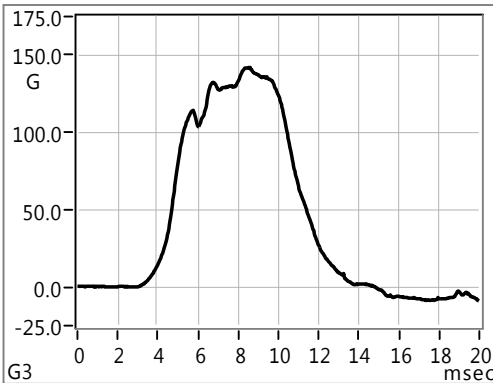
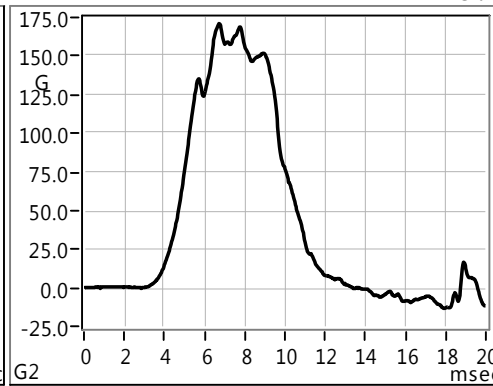
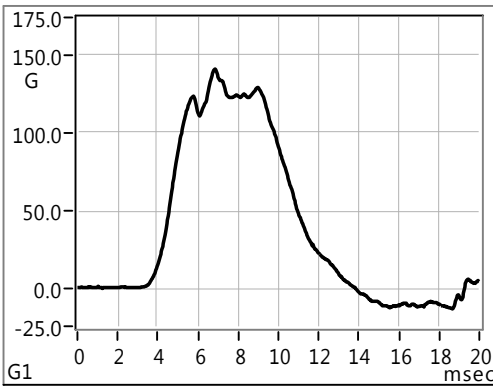
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : S(55-56CM)

Weight : 1089.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.007-B

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Cold

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s2 authorized : 3923 m/s2

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	141.6	801	5.9988	192.0	FLAT	0.00	0.00	LF SIDE	2023-12-26	13:28:28	2.2	Pass
2	171.1	1149	6.0348	192.0	FLAT	2.16	0.00	LF SIDE	2023-12-26	13:28:38	1.7	Pass
3	142.0	953	6.0049	192.0	FLAT	0.00	0.00	REAR	2023-12-26	13:38:06	2.1	Pass
4	163.7	1121	5.9960	192.0	FLAT	1.48	0.00	REAR	2023-12-26	13:38:12	2.3	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

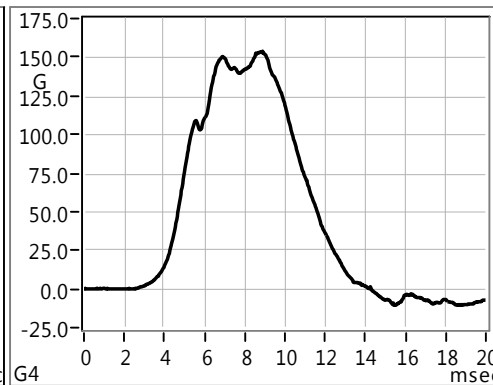
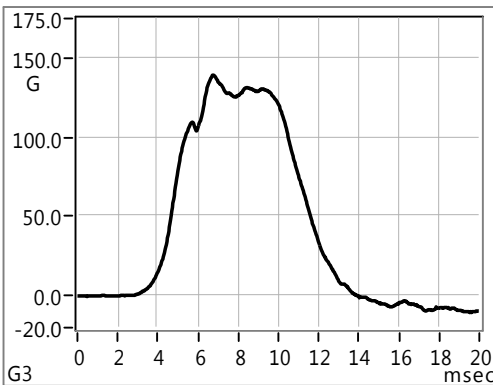
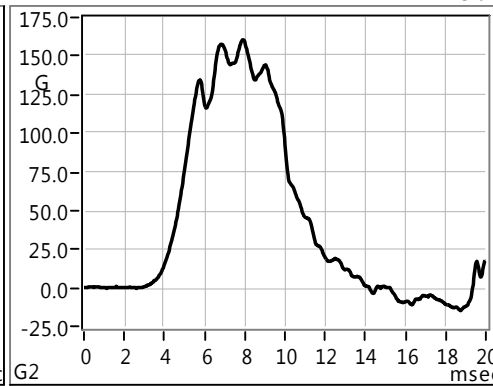
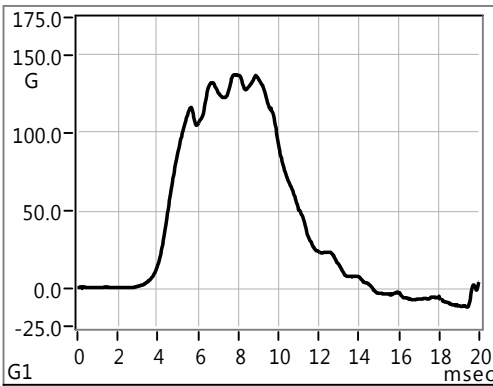
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : S(55-56CM)

Weight : 1127.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.007-C

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	137.9	823	5.9937	192.0	FLAT	0.00	0.00	LF SIDE	2023-12-26	13:31:03	2.3	Pass
2	160.5	1040	5.9948	192.0	FLAT	1.04	0.00	LF SIDE	2023-12-26	13:31:10	2.3	Pass
3	139.2	927	6.0166	192.0	FLAT	0.00	0.00	REAR	2023-12-26	13:35:41	2.0	Pass
4	154.0	1074	6.0259	192.0	FLAT	0.67	0.00	REAR	2023-12-26	13:35:47	1.8	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

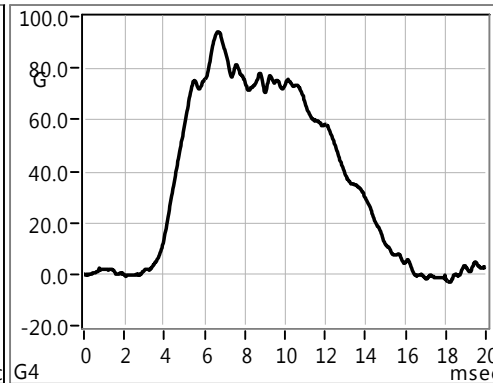
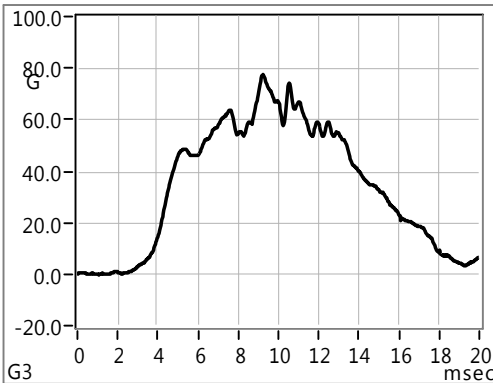
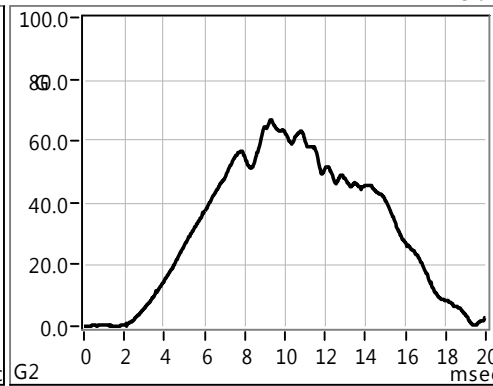
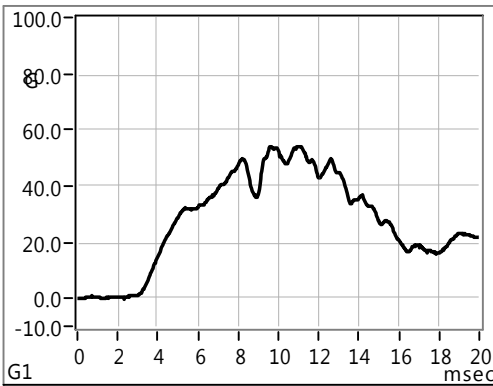
Helmet Manufacturer :TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : S(55-56CM)

Weight : 1127.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.007-C

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s2 authorized : 3923 m/s2

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	53.9	115	5.1900	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	13:51:27	2.7	Pass
6	66.9	184	5.1866	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	13:51:32	2.7	Pass
7	77.5	228	5.2234	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	13:54:59	2.1	Pass
8	94.1	339	5.2068	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	13:55:04	2.4	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

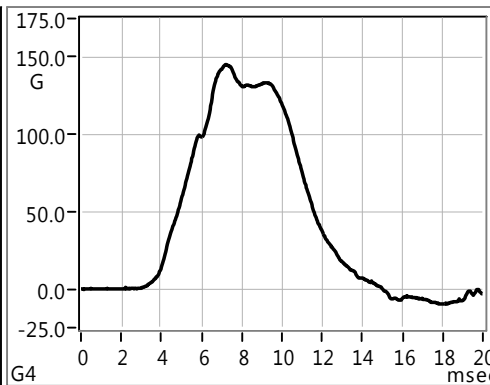
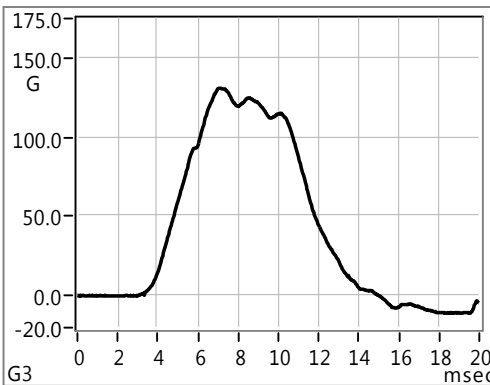
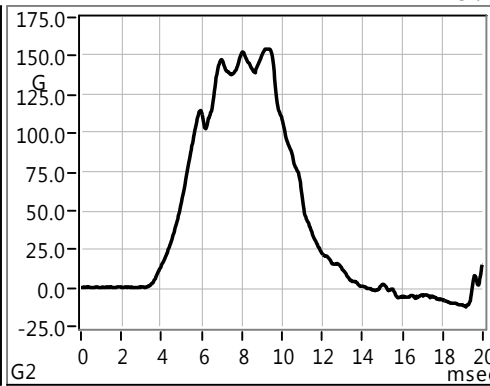
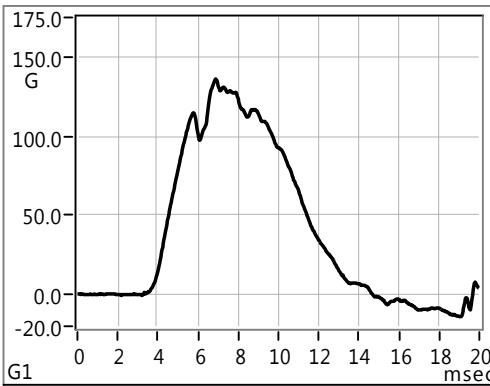
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : S(55-56CM)

Weight : 1099.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.007-D

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Wet

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	136.0	728	6.0139	192.0	FLAT	0.00	0.00	LF SIDE	2023-12-26	13:24:54	2.0	Pass
2	154.5	960	6.0161	192.0	FLAT	0.76	0.00	LF SIDE	2023-12-26	13:25:06	2.0	Pass
3	130.9	782	6.0147	192.0	FLAT	0.00	0.00	REAR	2023-12-26	13:40:58	2.0	Pass
4	145.2	894	5.9647	192.0	FLAT	0.00	0.00	REAR	2023-12-26	13:41:07	2.8	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

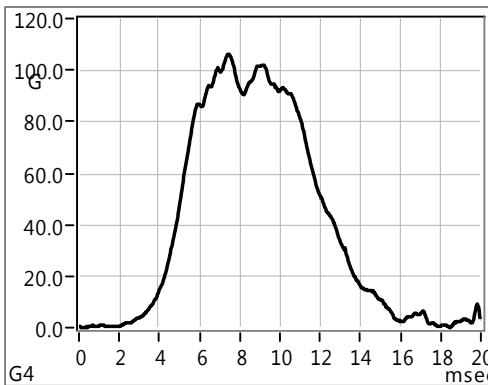
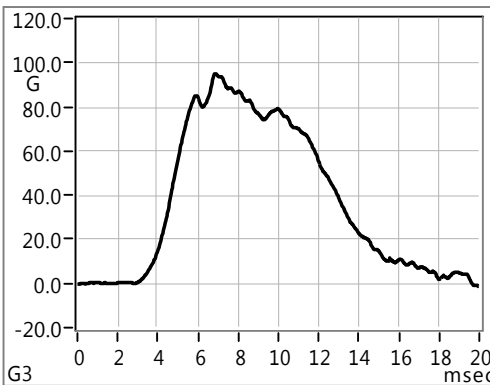
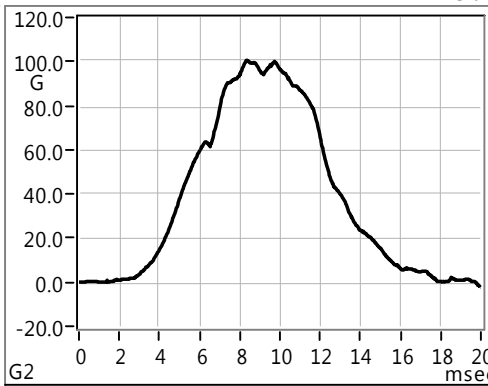
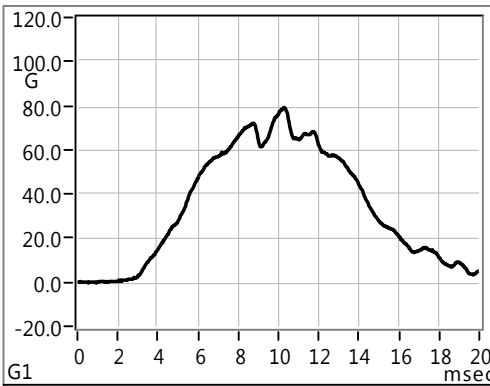
Helmet Manufacturer :TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : S(55-56CM)

Weight : 1099.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.007-D

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Wet

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	79.3	247	5.2056	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	13:46:10	2.4	Pass
6	100.5	424	5.2005	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	13:46:14	2.5	Pass
7	95.0	381	5.2041	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	13:54:16	2.4	Pass
8	106.0	500	5.2590	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	13:54:20	1.4	Pass

DOT Auto – Test results

Laboratory

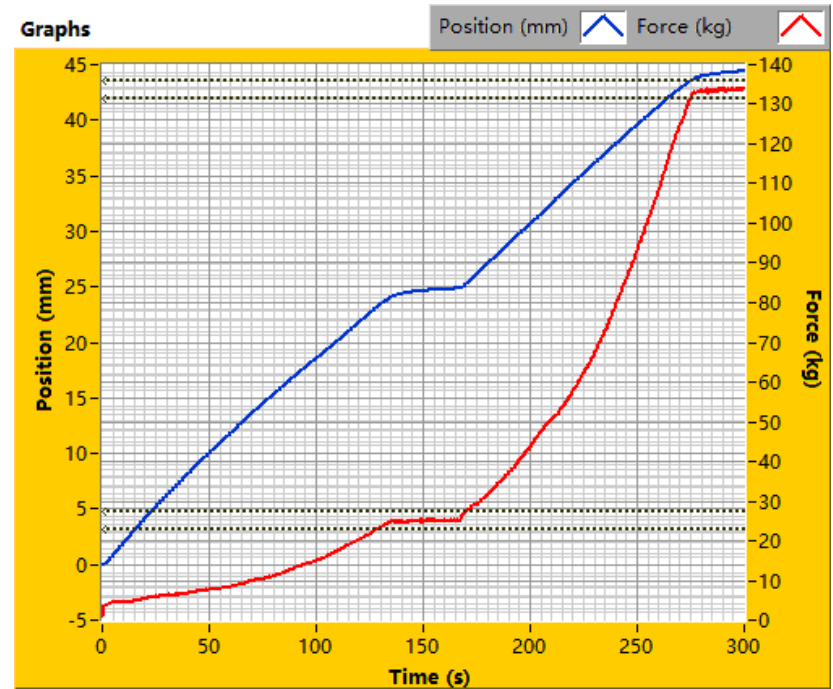
Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

Sample

Model ADV9.5
Color CARBON
Size S(55-56CM)
Weight 1116
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.007-A



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#25	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	19.8	Pass			

DOT Auto – Test results

Laboratory

Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

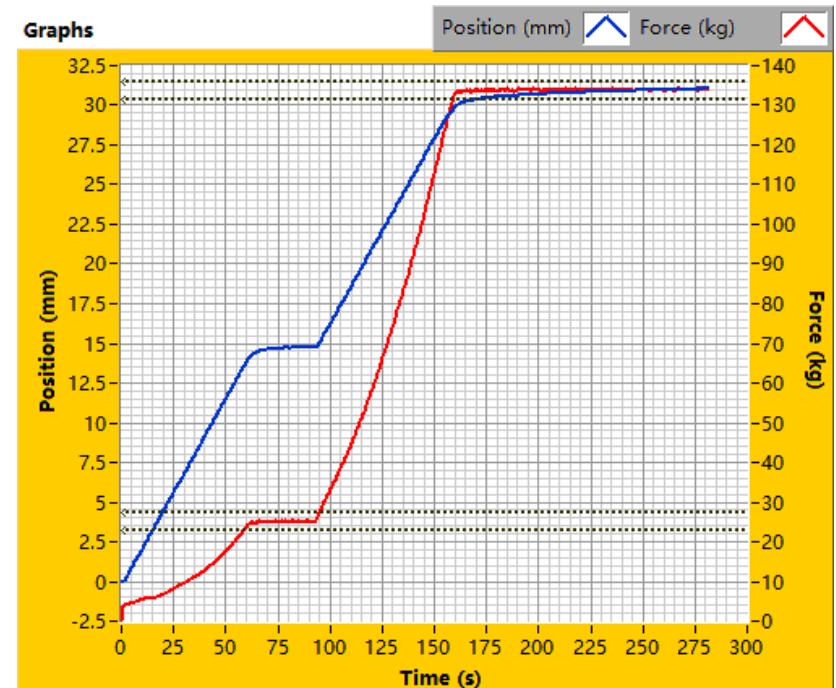
Sample

Model ADV9.5
Color CARBON
Size S(55-56CM)
Weight 1089
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.007-B

Graphs



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#26	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	16.0	Pass			

DOT Auto – Test results

Laboratory

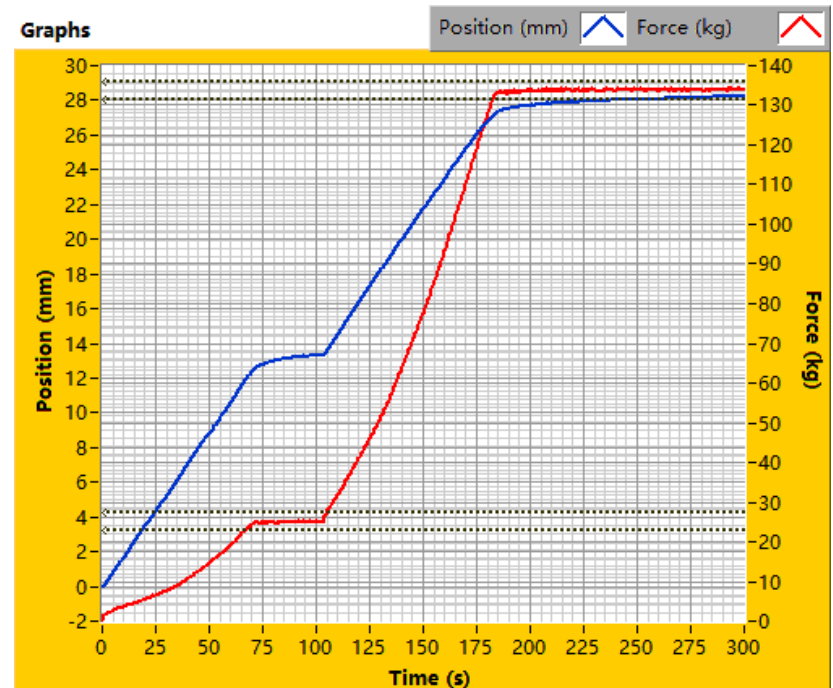
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV9.5
 Color CARBON
 Size S(55-56CM)
 Weight 1127
 Manufacturer TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.007-C



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#27	[01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	14.8	Pass			

DOT Auto – Test results

Laboratory

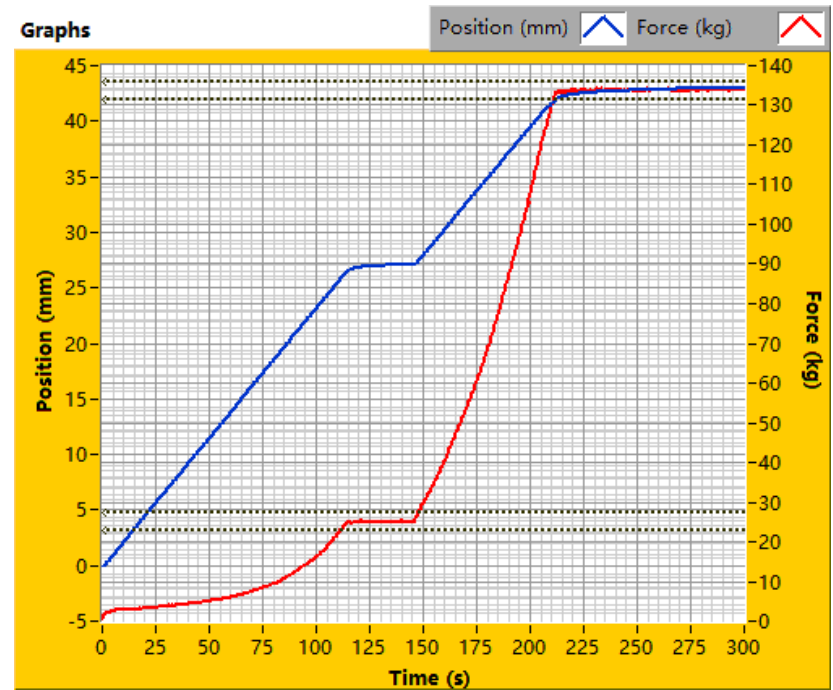
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV9.5
 Color CARBON
 Size S(55-56CM)
 Weight 1099
 Manufacturer TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.007-D



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#28	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	15.8	Pass			

APPENDIX A

INTERPRETATIONS OR DEVIATIONS FROM FMVSS 218

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.
2. S6.4 Conditioning: Excess water on the water immersed sample was allowed to drip off before testing to prevent water damage to test equipment.

APPENDIX B

Contract File No.: 904.14552

Test File: 007

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

28 of 40

Technician: Terry Liu

Test Date: 26 December 2023



EQUIPMENT LIST AND CALIBRATION SCHEDULES

EQUIPMENT LIST						
Asset Tag	Location	Description of part	Model Number	Serial Number	Verification Interval	Next Verification
H1001	Helmet Room	Fixture	Yellow Tower - 1000_00_MIMAT	NA	NA	NA
H1002	Helmet Room	Fixture	Green Tower - Series 2000	NA	NA	NA
H1011	Helmet Room	Instrument	Impact Machine System DX3000 - Green tower	NA	NA	NA
H1013	Helmet Room	Instrument	CPSC/ASTM Dynamic Strength Charge Amplifier - ATA2001 (Backup)	J72863	Yes	Daily
H1015	Helmet Room	Fixture	CPSC/ASTM Positional Stability Fixture	NA	1 year	4/27/2024
H1017	Helmet Room	Fixture	DOT Retention System Machine - SB033	NA	1 year	4/27/2024
H1034	Helmet Room	Environmental chamber	Water Immersion Container	NA	NA	NA
H1043	Helmet Room	Headform	ISO/EN960 A Partial Headform (Impact)	4272	1 year	5/5/2024
H1044	Helmet Room	Headform	ISO/EN960 C Partial Headform (Impact)	6938	1 year	5/5/2024
H1045	Helmet Room	Headform	ISO/EN960 E Partial Headform (Impact)	4146	1 year	5/5/2024
H1046	Helmet Room	Headform	ISO/EN960 J Partial Headform (Impact)	4148	1 year	5/5/2024
H1047	Helmet Room	Headform	ISO/EN960 M Partial Headform (Impact)	4131	1 year	5/5/2024
H1048	Helmet Room	Headform	ISO/EN960 O Partial Headform (Impact)	4151	1 year	5/5/2024
H1049	Helmet Room	Headform	DOT Small (Impact)	5178	1 year	5/5/2024
H1050	Helmet Room	Headform	DOT Medium (Impact)	5179	1 year	5/5/2024
H1051	Helmet Room	Headform	DOT Large (Impact)	5190	1 year	5/5/2024
H1052	Helmet Room	Drop Mass	CPSC/ASTM Spherical Impactor	NA	1 year	5/5/2024
H1054	Helmet Room	Drop Mass	ASTM/SNELL Chin Bar Impactor	NA	1 year	5/5/2024
H1055	Helmet Room	Anvil	CurbStone - CPSC/ASTM	NA	1 year	5/5/2024
H1056	Helmet Room	Anvil	Cylindrical	NA	1 year	5/5/2024
H1059	Helmet Room	Anvil	Triangular Hazard	NA	1 year	5/5/2024
H1060	Helmet Room	Anvil	Hemispherical - Yellow tower	NA	1 year	5/5/2024
H1062	Helmet Room	Anvil	Flat - Yellow tower	C240812-01	1 year	5/5/2024
H1066	Helmet Room	Fixture	Penetration Magnetic Carriage	NA	1 year	6/25/2024
H1091	Helmet Room	Fixture	40° Up Vision Angle Block	NA	1 year	5/6/2024
H1092	Helmet Room	Clamp	Split Ring Clamp - 119g	NA	1 year	5/6/2024
H1093	Helmet Room	Clamp	Split Ring Clamp - 210g	NA	1 year	5/6/2024
H1094	Helmet Room	Clamp	Split Ring Clamp - 378g	NA	1 year	5/6/2024
H1095	Helmet Room	Clamp	Split Ring Clamp - 451g	NA	1 year	5/6/2024
H1096	Helmet Room	Clamp	Split Ring Clamp - 505g	NA	1 year	5/6/2024
H1097	Helmet Room	Clamp	Split Ring Clamp - 597g	NA	1 year	5/6/2024
H1098	Helmet Room	Clamp	Split Ring Clamp - 1158g	NA	1 year	5/6/2024
H1099	Helmet Room	Anvil	Flat - Green tower	NA	1 year	5/6/2024
H1100	Helmet Room	Anvil	Hemispherical - Green tower	NA	1 year	5/6/2024
H1101	Helmet Room	Headform	DOT Small (Reference)	NA	1 year	4/27/2024
H1102	Helmet Room	Headform	DOT Medium (Reference)	NA	1 year	4/27/2024
H1103	Helmet Room	Headform	DOT Large (Reference)	NA	1 year	4/27/2024
H1105	Helmet Room	Drop Mass	Aluminum Ball Stem - Green tower	NA	1 year	5/6/2024
H1106	Helmet Room	Drop Mass	Steel Ball Stem	NA	1 year	5/6/2024
H1107	Helmet Room	Drop Mass	Magnesium Ball Stem	NA	1 year	5/6/2024
H1123	Helmet Room	Fixture	CPSC/ASTM Roll Off Headform Base Fastened Plate	NA	NA	NA
H1126	Helmet Room	Drop Mass	Complete Pistol Grip - Green tower	NA	1 year	5/6/2024
H1127	Helmet Room	Headform	ISO/EN 960 C Full Headform (Reference)	6947	1 year	4/27/2024
H1128	Helmet Room	Headform	DOT Small (Penetration)	NA	1 year	4/27/2024
H1129	Helmet Room	Headform	DOT Medium (Penetration)	NA	1 year	4/27/2024
H1130	Helmet Room	Headform	DOT Large (Penetration)	NA	1 year	4/27/2024
H1143	Helmet Room	Fixture	DOT Brow Opening 1 Inch Block	NA	1 year	4/28/2024
H1146	Helmet Room	Fixture	DOT Penetration Height Stick	NA	1 year	6/25/2024
H1149	Helmet Room	Mass	Testing Area Preload Ballast	NA	1 year	4/28/2024
H1150	Helmet Room	Drop Mass	10kg Positional Stability Drop Mass	NA	1 year	4/28/2024
H1178	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower	NA	1 year	5/6/2024
H1179	Helmet Room	Drop Mass	Aluminum Ball Stem - Yellow tower	NA	1 year	5/6/2024
H1189	Helmet Room	Drop Mass	DOT Penetration Striker Tip	070622-03	1 year	6/25/2024
H1196	Helmet Room	Fixture	DOT Retention Machine Static Load - SB033 (New)	NA	1 year	4/28/2024
H1197	Helmet Room	Fixture	DOT Retention LVDT Calibration Block	NA	1 year	11/9/2024
H1204	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower (Backup)	120122-07	1 year	5/6/2024
H1205	Helmet Room	Drop Mass	Ball Stem - Yellow tower (Backup)	NA	1 year	5/6/2024
H1213	Helmet Room	Fixture	CPSC/ASTM Dynamic Retention Strength Fixture	NA	1 year	4/28/2024
H1229	Helmet Room	Fixture	Penetration Tube	NA	1 year	6/25/2024
H1230	Helmet Room	Fixture	Penetration Headform Mount Holder	NA	NA	NA

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Test Date: 26 December 2023



CALIBRATED MEASUREMENT DEVICES

Asset Tag	Description of part	Model Number	Measuring Range	Accuracy	Serial Number	Last Calibrated On	Calibration Due On
H1003	Instrument	Velocity Gate - Yellow tower	0-8.5m/s	±0.0001m/s	HVTG120120810-1	10/4/2023	10/3/2024
H1004	Instrument	Velocity Gate - Green tower	0-8.5m/s	±0.0001m/s	HVTG120090331-1	1/26/2023	1/25/2024
H1006	Instrument	Accelerometer PCB 353B18 - Yellow & Green tower	±500g	±0.1%	131607	1/26/2023	1/25/2024
H1007	Instrument	Accelerometer PCB 353B18 - Green tower	±500g	≤1%	86079	10/2/2023	10/1/2024
H1009	Fixture	Digital Tape 16' - Yellow tower	0-5.5m	±0.1cm	5027526	11/27/2023	11/26/2024
H1010	Instrument	CCS PC4300 - Green tower	±500g	±0.1%	CCS120090331-1	1/26/2023	1/25/2024
H1012	Instrument	CPSC/ASTM Dynamic Strength LVDT - C20101007753 (Backup)	2 Inch	±0.1%	C20101007753	11/22/2023	11/21/2024
H1014	Instrument	DOT Retention System LVDT - LWE-200	0-200mm	±0.05%	2002572	11/22/2023	11/21/2024
H1025	Fixture	Electronic Scale - BT-6	0-6kg	±0.1g	12230126	6/26/2023	6/25/2024
H1026	Fixture	Laser Table - SB005	0-450mm, 0-20°	±1mm, ±1°	TLTV2KB-20090403-1	11/22/2023	11/21/2024
H1030	Environmental chamber	Oven #1 - 92*9240MBE	0-200°C	±0.1°C	8285	6/26/2023	6/25/2024
H1031	Environmental chamber	Oven #2 - DHG-9426	0-200°C	±0.1°C	1503338018	11/22/2023	11/21/2024
H1032	Environmental chamber	Freezer #1 - DW-25W300	-30~-10°C	±0.1°C	BE062100N00B29578VMO	6/26/2023	6/25/2024
H1033	Environmental chamber	Freezer #2 - DW-50W225	-30~-10°C	±0.1°C	F8LMJ	11/22/2023	11/21/2024
H1036	Fixture	Hygrothermograph #1 - TH-602F	-30~60°C, 0-100%	±1°C	3238	6/27/2023	6/26/2024
H1057	Anvil	Edge	NA	NA	NA	11/26/2023	11/25/2026
H1058	Anvil	Equestrian Hazard	NA	NA	NA	11/26/2023	11/25/2026
H1061	Anvil	Skate Blade	NA	NA	NA	11/26/2023	11/25/2026
H1063	Fixture	Digital tape - 5m	0-5m	±0.1mm	78223	11/27/2023	11/26/2024
H1064	Instrument	CCS PC4400 - Yellow tower	±500g	±0.1%	CCS120120810-1	1/26/2023	1/25/2024
H1070	Instrument	DOT Retention System Load Cell - 9363-B10-300-20T1	0-300lb	±0.1kg	80310843	6/26/2023	6/25/2024
H1072	Fixture	Hygrothermograph #4 - TH600B	-20~100°C, 0-100%	±1°C	Q/MDS001-2017-2	6/27/2023	6/26/2024
H1073	Fixture	Height Gauge	0-500mm	±0.01mm	8811213838273610	11/22/2023	11/21/2024
H1075	Fixture	Digital Level - SPI TRONIC Pro 360	0-360°	±0.1°	31-038-3	11/27/2023	11/26/2024
H1076	Instrument	Calorifier - CN-111	18-35°C	±0.1°C	NA	11/23/2023	11/22/2024
H1077	Fixture	ACT Tape	0-1.5m	±1mm	NA	11/27/2023	11/26/2024
H1117	Fixture	Helmet Internal Circumference Measure Tool	49-62cm	±1mm	NA	11/26/2023	11/25/2024
H1172	Fixture	Height Measurement Rod #6	600±5mm	±1mm	032216-02	6/24/2022	6/23/2025
H1174	Anvil	MEP Pad	NA	NA	021921-01	2022 yearly	2023 yearly
H1180	Instrument	CPSC/ASTM LVDT & Sensor Box	2 Inch	±0.1%	04140748-001	11/22/2023	11/21/2024
H1184	Instrument	Accelerometer PCB 353B18 - Yellow tower	±500g	≤1%	LW226664	10/2/2023	10/1/2024
H1190	Environmental chamber	Oven - KH-120A	5-250°C	±0.1°C	2201-020	11/22/2023	11/21/2024
H1193	Fixture	I-square	150*100mm	±1mm	SJT-43008	11/27/2023	11/26/2024
H1194	Fixture	Triangular Ruler	190mm	±1mm	SJT-43111	11/27/2023	11/26/2024
H1198	Instrument	LVDT Volfa LWE-200 (Head) - DOT Retention	0-200mm	±0.05%	NA	3/10/2023	3/9/2024
H1199	Instrument	LVDT Volfa LWE-200 - DOT Retention Machine	0-200mm	±0.05%	NA	3/10/2023	3/9/2024
H1200	Instrument	VPG load cell - 9363-B10-500-20T1 - DOT Retention Machine	0-500lb	±0.1kg	90139705	3/10/2023	3/9/2024
H1210	Fixture	Peripheral Vision	105° Both sides	105°	NA	4/27/2023	4/26/2026
H1214	Instrument	DOT Retention System LVDT (Head) - LWE-200	0-50mm	±0.05%	27008-10	4/28/2023	4/27/2024
H1216	Fixture	Digital Vernier Caliper - GLA13S	0-300mm	0-200mm: ±0.03mm; 200-300mm: ±0.04mm	K23D014332	5/17/2023	5/16/2024

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APPENDIX C

PHOTOGRAPHS

Contract File No.: 904.14552

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Impact attenuation test apparatus and data acquisition equipment



Retention system test apparatus



DOT headforms (S, M, L) with flat and hemispherical anvils



Penetration test apparatus with adjustable base













	PRODUCTION #	XXXXXXXXXX
	MFG DATE	2023.XX
	MODEL	ADV 9.5
	SIZE	S (55-56cm)
	WEIGHT	XXXXg +/-50g

WARNING

USE AT YOUR OWN RISK. PLEASE READ THE OWNERS MANUAL BEFORE USE. NO HELMET CAN PROTECT THE USER AGAINST ALL FORESEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. FASTEN HELMET SECURELY. HELMET CAN BE SERIOUSLY DAMAGED BY COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO THE USER SUCH AS: GASOLINE, PAINT, ADHESIVES, CLEANING AGENTS OR BY EXCESSIVE HEAT. MAKE NO MODIFICATIONS TO THE HELMET. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY IT AND REPLACE IT. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

ADV 9.5

MADE IN CHINA BY XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

WARNING

NO HELMET CAN PROTECT THE USER AGAINST ALL FORSEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. READ OWNERS MANUAL BEFORE USE. FOR ADEQUATE PROTECTION, THIS HELMET MUST FIT CLOSELY AND BE SECURELY ATTACHED. MAKE NO MODIFICATIONS. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY AND REPLACE IT. HELMET CAN BE SERIOUSLY DAMAGED BY SOME COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO USER SUCH AS: GASOLINE, PETROL, PAINT, ADHESIVES, OR CLEANING AGENTS OR BY EXCESSIVE HEAT. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. COMFORT PADDING CAN BE HAND WASHED AND AIR DRIED. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

Model: ADV 9.5 Made in China by XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

S

55-56

LEATT

ADV 9.5

DOT

**FMVSS No. 218
CERTIFIED**

NOTICE

1. The report is not effective without the signature of the person(s) authorizing the report (ACT Lab's authorized signatory is John A. Bogler (President)).
2. The report is not valid if altered.
3. Claims have to be made within 15 days after receipt of this report.
4. The results of this test report relate only to the items tested.
5. The results apply to the samples as received.
6. For reports that contain results from external test service providers: Results from external test service providers are supplied by the customer and can affect validity of results.
7. The results of this test report apply ASTM E29:2022 - Rounding Method, unless otherwise requested or noted within the report.
8. Decision rule applied according to "ILAC-G8:09/2019 - Guidelines on the Reporting of Compliance with Specification".

END OF REPORT

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Technician: Terry Liu

Test Date: 26 December 2023

SAFETY COMPLIANCE TESTING FOR FMVSS No. 218 MOTORCYCLE HELMETS

Brand: LEATT
Model: ADV 9.5
Tested Size: L (59-60 cm)

Prepared For:

Leatt Corporation
12 Kiepersol Crescent,
Atlas Gardens Business Park,
Cape Farms, Cape Town,
7550, ZA



Issue Date: 10 November 2023

Final Report: 904.14552.002

Tested By:

Taicang ACT Sporting Goods Testing Co., Ltd.
No. 35 Zhenghe Road,
Ludu Town, Taicang City, Suzhou,
Jiangsu Province, China 215412
www.act-lab.com

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This laboratory 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 (refer joint ISO-ILAC-IAF Communiqué dated April 2017.) The Joint Communiqué is available on publications and resources page of the ILAC website at <http://www.ilac.org>. Accreditation listing and certificate can be found at <http://www.iasonline.org>.

Contract File No.: 904.14552

Test File: 002

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Technician: Wille Wang

Test Date: 03 November 2023



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PURPOSE OF COMPLIANCE TEST

Purpose:

The purpose of this test was to determine if the motorcycle helmets supplied by:

Xiamen Terrific Composite Technology Co., Ltd.

Met the requirements of

Federal Motor Vehicle Safety Standard No. 218: Motorcycle Helmets effective May 13, 2013.

All samples received were in good condition and appropriate for these tests.

Test Procedure:

This test was performed following TP-218-07 and ACT Lab Helmet Cadex Testing Manual 2.3

**HELMET DATA**HELMET BRAND NAME: LEATTHELMET MODEL DESIGNATION: ADV 9.5HELMET MANUFACTURER: XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.HELMET SIZE: L (59-60 cm)HELMET COVERAGE: Partial: _____ Full: _____ Complete: XHELMET POSITIONING INDEX: 50 mmSHELL MATERIAL: Carbon Fiber and Other Composite MaterialsLINER MATERIAL: Expanded PolystyreneBUCKLE DESCRIPTION: Double D-Rings

HELMET	A Ambient	B Low Temp	C High Temp	D Water Immersed	E Spare
SHELL COLOR/PATTERN	Carbon	Carbon	Carbon	Carbon	Carbon
WEIGHT (grams)	1186	1196	1198	1221	1480
MONTH & YEAR OF MANUFACTURE	TBD	TBD	TBD	TBD	TBD

Reviewed by: John Bogler

COMMENTS:

1. All helmets were received in undamaged condition and were appropriate for testing.
2. Weights listed above for helmets A-D are as tested with visor and face shield removed.
3. Weight for helmet E is complete with all components in place.
4. ACT determined the HPI information prior to testing.

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Technician: Wille Wang

Test Date: 03 November 2023

SUMMARY OF TEST RESULTS

INDICATE Pass or Fail

HELMET	A	B	C	D
TEST	AMBIENT	LOW TEMP	HIGH TEMP	WATER IMMERSED
IMPACT	Pass	Pass	Pass	Pass
PENETRATION	Pass	Pass	Pass	Pass
RETENTION	Pass	Pass	Pass	Pass

INDICATE Pass or Fail

TEST	PASS/FAIL
PERIPHERAL VISION	Pass
PROJECTIONS	Pass
LABELING	*Pass

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.

SELECTION OF APPROPRIATE HEADFORM

Paragraph S6.1- If the helmet size designation falls into more than one of three size ranges, it shall be tested on each appropriate headform.

HELMET SIZE DESIGNATION	HEADFORM SIZE
Less than or equal to 6-3/4 (European Size 54)	SMALL
Greater than 6-3/4, but less than or equal to 7-1/2 (European Size 60)	MEDIUM
Greater than 7-1/2 (European 60)	LARGE

COMMENTS:

The manufacturer marked the helmet with its corresponding discrete size: L (59-60 cm), Headform Size: DOT MEDIUM.

CONDITIONING FOR TESTING — Paragraph S6.4 — The protective headgear shall be conditioned for not less than 4 hours and no more than 24 hours, in the specified environmental condition shown below, prior to test.

Ambient Conditions	16°C to 26°C (61°F to 79°F); 30% to 70% Relative Humidity
Low Temperature	-15°C to -5°C (5°F to 23°F)
High Temperature	45°C to 55°C (113°F to 131°F)
Water Immersion	16°C to 26°C (61°F to 79°F)

The maximum time during which the protective headgear may be out of the conditioning environment shall not exceed 4 minutes. It must then be returned to the conditioned environment for a minimum of 3 minutes for each minute or portion of a minute in excess of 4 minutes out of the conditioning environment or 12 hours, whichever is less, prior to resumption of testing.

AVERAGE LAB TEMPERATURE : 22 °C ; AVERAGE LAB HUMIDITY : 57 %

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IMPACT ATTENUATION

Helmet ID	Condition	Impact #	Impact Location	Anvil	Drop Height (cm)	Velocity (m/sec)	Duration at 150G (ms)	Duration at 200G (ms)	Peak Acc. (g)	Pass/Fail
904.14552.002-A	Ambient	1	LF SIDE	FLAT	192.0	5.9949	0.78	0.00	160.5	Pass
904.14552.002-A	Ambient	2	LF SIDE	FLAT	192.0	5.9954	2.56	0.00	175.7	Pass
904.14552.002-A	Ambient	3	REAR	FLAT	192.0	6.0108	0.00	0.00	123.6	Pass
904.14552.002-A	Ambient	4	REAR	FLAT	192.0	6.0100	2.51	0.00	178.9	Pass
904.14552.002-A	Ambient	5	FRONT	HEMI	145.0	5.3093	0.00	0.00	89.0	Pass
904.14552.002-A	Ambient	6	FRONT	HEMI	145.0	5.3880	0.00	0.00	95.0	Pass
904.14552.002-A	Ambient	7	RT SIDE	HEMI	145.0	5.2240	0.00	0.00	108.4	Pass
904.14552.002-A	Ambient	8	RT SIDE	HEMI	145.0	5.2615	0.00	0.00	108.8	Pass
904.14552.002-B	Cold	1	LF SIDE	FLAT	192.0	5.9858	0.82	0.00	164.6	Pass
904.14552.002-B	Cold	2	LF SIDE	FLAT	192.0	5.9891	3.23	0.00	187.2	Pass
904.14552.002-B	Cold	3	REAR	FLAT	192.0	5.9765	1.98	0.00	169.7	Pass
904.14552.002-B	Cold	4	REAR	FLAT	192.0	6.0133	1.98	0.00	178.9	Pass
904.14552.002-B	Cold	5	FRONT	HEMI	145.0	5.2094	0.00	0.00	100.1	Pass
904.14552.002-B	Cold	6	FRONT	HEMI	145.0	5.1842	0.00	0.00	112.0	Pass
904.14552.002-B	Cold	7	RT SIDE	HEMI	145.0	5.2092	0.00	0.00	114.8	Pass
904.14552.002-B	Cold	8	RT SIDE	HEMI	145.0	5.2040	0.00	0.00	137.9	Pass
904.14552.002-C	Hot	1	LF SIDE	FLAT	192.0	6.0088	0.60	0.00	152.2	Pass
904.14552.002-C	Hot	2	LF SIDE	FLAT	192.0	5.9836	2.58	0.00	175.7	Pass
904.14552.002-C	Hot	3	REAR	FLAT	192.0	5.9882	2.16	0.00	163.2	Pass
904.14552.002-C	Hot	4	REAR	FLAT	192.0	5.9934	2.14	0.00	172.4	Pass
904.14552.002-C	Hot	5	FRONT	HEMI	145.0	5.2397	0.00	0.00	84.8	Pass
904.14552.002-C	Hot	6	FRONT	HEMI	145.0	5.2368	0.00	0.00	106.0	Pass
904.14552.002-C	Hot	7	RT SIDE	HEMI	145.0	5.2353	0.00	0.00	96.8	Pass
904.14552.002-C	Hot	8	RT SIDE	HEMI	145.0	5.2012	0.00	0.00	101.9	Pass
904.14552.002-D	Wet	1	LF SIDE	FLAT	192.0	6.0119	1.17	0.00	158.1	Pass
904.14552.002-D	Wet	2	LF SIDE	FLAT	192.0	6.0008	2.56	0.00	174.3	Pass
904.14552.002-D	Wet	3	REAR	FLAT	192.0	5.9843	1.22	0.00	156.8	Pass
904.14552.002-D	Wet	4	REAR	FLAT	192.0	5.9967	2.15	0.00	173.4	Pass
904.14552.002-D	Wet	5	FRONT	HEMI	145.0	5.2082	0.00	0.00	77.0	Pass
904.14552.002-D	Wet	6	FRONT	HEMI	145.0	5.1985	0.00	0.00	89.0	Pass
904.14552.002-D	Wet	7	RT SIDE	HEMI	145.0	5.2116	0.00	0.00	110.2	Pass
904.14552.002-D	Wet	8	RT SIDE	HEMI	145.0	5.2005	0.00	0.00	122.6	Pass

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Technician: Wille Wang

Test Date: 03 November 2023

PENETRATION

Paragraph S5.2 and S7.2

WEIGHT OF STRIKER: 2.95 to 3.06 kg (6 pounds, 8 ounces to 6 pounds, 12 ounces)

POINT OF STRIKER: Radius = 0.5 ± 0.1 mm (0.02 ± 0.004 in.), included angle of $60^\circ \pm 0.5^\circ$, hardness minimum of 60 Rockwell "C" Scale and a cone height of not less than 3.8 ± 0.038 cm (1.5 ± 0.015 in.).

HEIGHT OF FALL: 300 cm $\pm$ 1.5 cm, measured from the tip of the striker point to the outer surface of the mounted protective headgear.

FAILURE CRITERION: When tested, the protective headgear shall be failed if the penetrator has made an indentation in the headform.

TEST	HELMET	TEST LOCATION	PASS	FAIL	CONDITIONS
1	A	Crown	X		AMBIENT
2	A	Rear Right	X		AMBIENT
3	B	Crown	X		LOW TEMPERATURE
4	B	Rear Right	X		LOW TEMPERATURE
5	C	Crown	X		HIGH TEMPERATURE
6	C	Rear Right	X		HIGH TEMPERATURE
7	D	Crown	X		WATER IMMERSED
8	D	Rear Right	X		WATER IMMERSED

COMMENT: Photographs of penetration test locations are found in Appendix C.

RETENTION SYSTEM

Paragraph S5.3 and S7.3

REQUIREMENTS:

READING	APPLIED LOAD
INITIAL	22.68 kg, + 4.54 kg, - 0 kg (50.0 lbs., + 10 lbs., - 0 lbs.)
FINAL	136 kg, + 0 kg, - 2.3 kg (300.0 lbs., + 0 lbs., - 5 lbs.)

ELONGATION NOT TO EXCEED 2.54 cm (1.0 INCH) AFTER LOAD INCREASE

HELMET	CONDITIONS	ELONGATION cm
A	AMBIENT	1.59
B	LOW TEMPERATURE	1.13
C	HIGH TEMPERATURE	1.20
D	WATER IMMERSED	0.88

PERIPHERAL VISION

CONFIGURATION - Paragraph S5.4 - Helmet shall provide a minimum peripheral vision of 105° to each side of the midsagittal plane. The brow opening shall be at least 2.54 cm (1 inch) above all points in the basic plane that are within the angles of peripheral vision.

	REQUIREMENTS	TEST RESULTS
PERIPHERAL VISION	> 105°	Pass
BROW OPENING	> 2.5 cm (1 inch)	Pass

PROJECTIONS

Paragraph S5.5

REQUIREMENTS:

PROJECTION	REQUIREMENT
Internal rigid	None
External rigid	Operational, shall not protrude more than 5 mm

TEST RESULTS:

PROJECTION	PRESENT	HEIGHT (mm)
Internal	None	Not Applicable
External	Vent Cover Operation Switch	3.83 mm

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Technician: Wille Wang

Test Date: 03 November 2023

LABELING

S5.6.1 *Labeling* - Each helmet shall be permanently and legibly labeled, in a manner such that the label(s) can be easily read without removing padding or any other permanent part, with the following:

Required Information	Content/Format	Permanent
Manufacturer's name	Pass	*Pass
Discrete size	Pass	*Pass
Month and year of manufacture	Pass	*Pass
Instructions to the purchaser as follows:	-----	-----
"Shell and liner constructed of (identify type(s) of materials)."	Pass	Pass
"Helmet can be seriously damaged by some common substances without damage being visible to the user."	Pass	Pass
"Apply only the following: (Recommended cleaning agents, paints, adhesives, etc., as appropriate.)"	Pass	Pass
"Make no modifications."	Pass	Pass
"Fasten helmet securely."	Pass	Pass
"If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy it and replace it."	Pass	Pass

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.

LABELING

S5.6.2 Certification. Each helmet shall be labeled permanently and legibly with a label, constituting the manufacturer's certification that the helmet conforms to the applicable Federal motor vehicle safety standards, that is separate from the label(s) used to comply with S5.6.1, and complies with paragraphs (a) through (c) of this section. (a) Content, format, and appearance. The label required by paragraph S5.6.2 shall have the following content, format, and appearance:

Required Certification Information	Content/Format	Permanent
The symbol "DOT," horizontally centered on the label, in letters not less than 0.38 inch (1.0 cm) high.	*Pass	*Pass
The term "FMVSS No. 218," horizontally centered beneath the symbol DOT, in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The word "CERTIFIED," horizontally centered beneath the term "FMVSS No. 218," in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The precise model designation horizontally centered above the symbol DOT, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
The manufacturer's name and/or brand, horizontally centered above the model designation, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
All symbols, letters and numerals shall be in a color that contrasts with the background of the label.	*Pass	
No information, other than the information specified in subparagraph (a), shall appear on the label.	*Pass	
The label shall appear on the outer surface of the helmet and be placed so that it is centered laterally with the horizontal centerline of the DOT symbol located a minimum of 1 inch (2.5 cm) and a maximum of 3 inches (7.6 cm) from the bottom edge of the posterior portion of the helmet.	*Pass	

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.2. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.



TEST DATA

Contract File No.: 904.14552

Test File: 002

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 04 September 2023 Rev.27

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 03 November 2023

Uni-Axial Calibration

Helmet Manufacturer **XIAMEN TERRIFIC**

Address :

Testing Laboratory Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu Province,
China 215412

Laboratory Technician name Wille

M.E.P. Pad Model 1 MEP

Laboratory Temperature 22 deg C

Laboratory Humidity 57 %

Selected Filter Frequency 1000 Hz

Acc. sensitivity (axis Z) : 10.59 mV/G

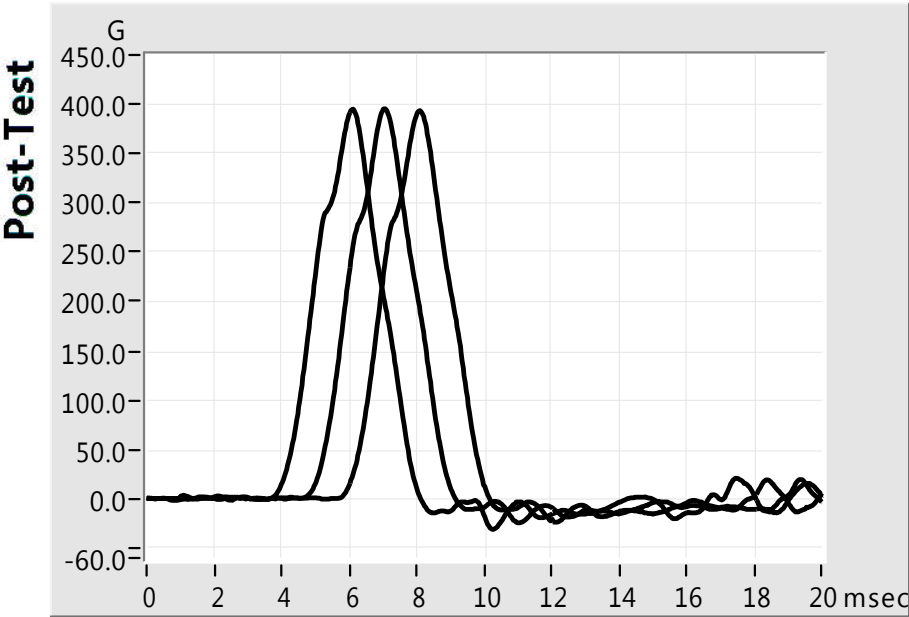
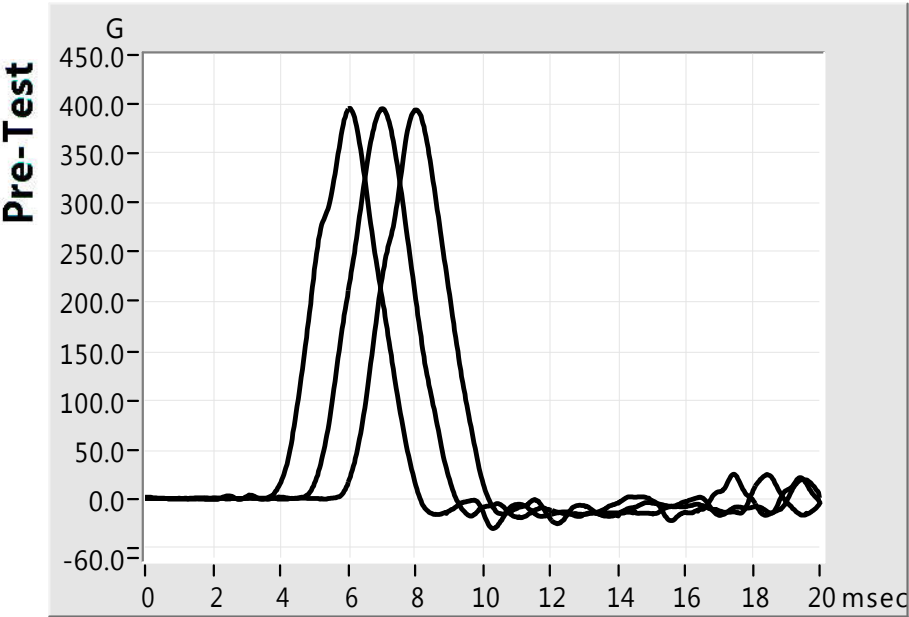
Acc. sensitivity (axis X) : 10.01 mV/G

Acc. sensitivity (axis Y) : 9.99 mV/G

Drop Device : Spherical Impactor (Uni-Axial)

Drop mass assembly : 5.028 kg Time gate flag height : 25.55 mm

Calibration peak : 402.5 G +/- 22.50 G



	Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
Pre-Test	1	395.6	3561	4.7440	120.0	MEP	2.54	2.13	0/0	2023-11-03	08:48:15	2.2	Pass
	2	395.1	3619	4.7413	120.0	MEP	2.49	2.06	0/0	2023-11-03	08:49:17	2.3	Pass
	3	393.8	3574	4.7056	120.0	MEP	2.52	2.13	0/0	2023-11-03	08:50:19	3.0	Pass
Post-Test	1	394.7	3521	4.6836	120.0	MEP	2.58	2.14	0/0	2023-11-03	11:54:31	3.5	Pass
	2	395.1	3513	4.6577	120.0	MEP	2.57	2.16	0/0	2023-11-03	11:55:32	4.0	Pass
	3	393.3	3519	4.7414	120.0	MEP	2.57	2.15	0/0	2023-11-03	11:56:34	2.3	Pass

Curve impact #2 : shift of 1ms
Curve impact #3 : shift of 2ms

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

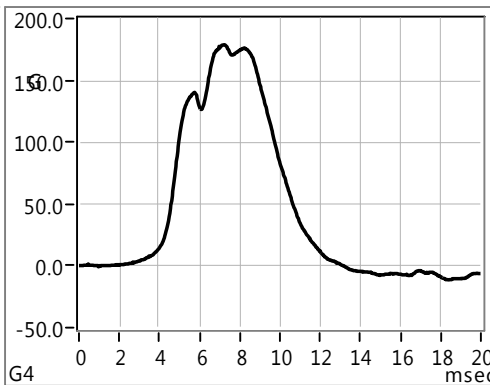
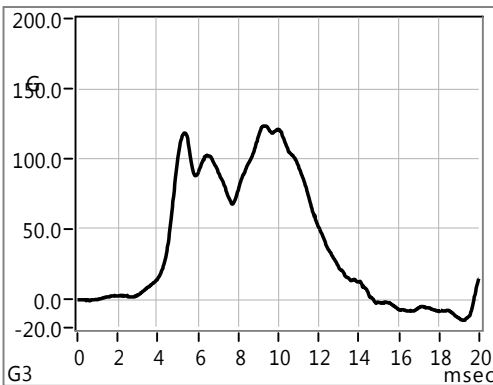
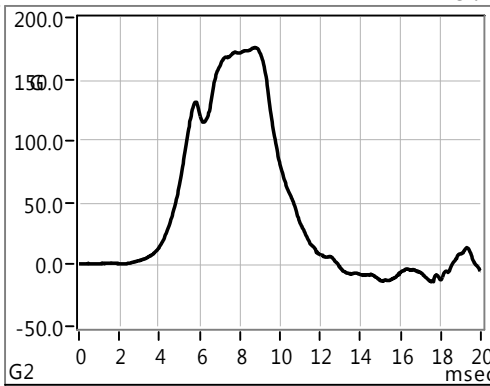
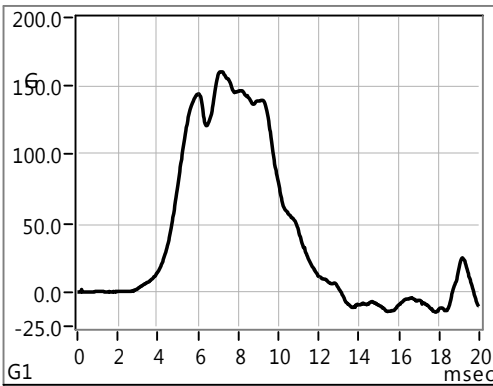
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : L(59-60CM)

Weight : 1186.00 g

Manufacturing Date : 03 Nov 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.002-A

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Ambient

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	160.5	1040	5.9949	192.0	FLAT	0.78	0.00	LF SIDE	2023-11-03	08:58:26	2.3	Pass
2	175.7	1202	5.9954	192.0	FLAT	2.56	0.00	LF SIDE	2023-11-03	08:58:31	2.3	Pass
3	123.6	646	6.0108	192.0	FLAT	0.00	0.00	REAR	2023-11-03	09:02:44	2.1	Pass
4	178.9	1339	6.0100	192.0	FLAT	2.51	0.00	REAR	2023-11-03	09:02:49	2.1	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

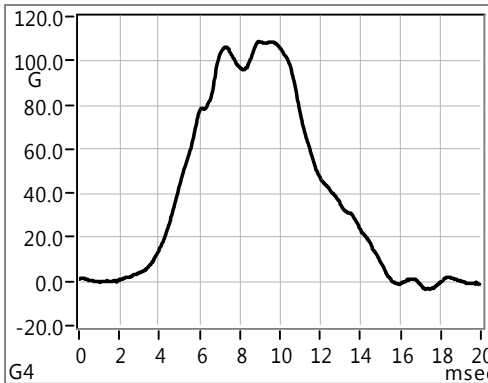
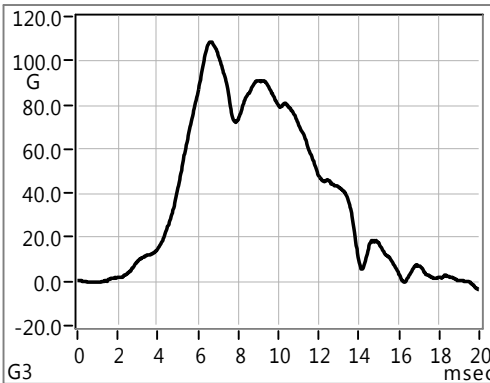
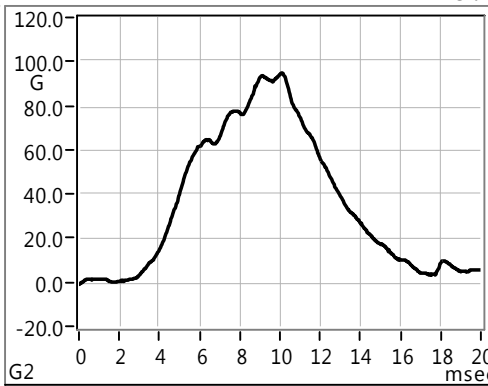
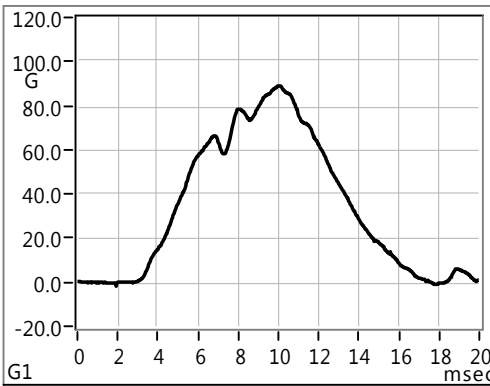
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : L(59-60CM)

Weight : 1186.00 g

Manufacturing Date : 03 Nov 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.002-A

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Ambient

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	89.0	305	5.3093	145.0	HEMI	0.00	0.00	FRONT	2023-11-03	09:09:09	0.4	Pass
6	95.0	335	5.3880	145.0	HEMI	0.00	0.00	FRONT	2023-11-03	09:09:14	-1.0	Pass
7	108.4	403	5.2240	145.0	HEMI	0.00	0.00	RT SIDE	2023-11-03	09:16:00	2.0	Pass
8	108.8	499	5.2615	145.0	HEMI	0.00	0.00	RT SIDE	2023-11-03	09:16:05	1.3	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

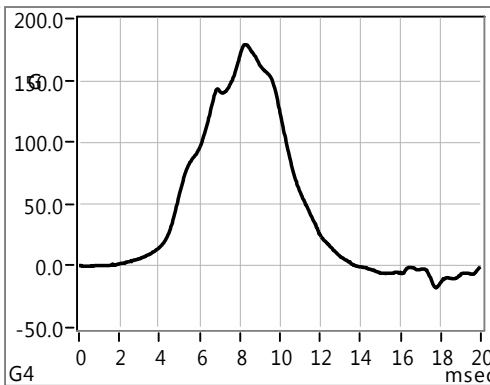
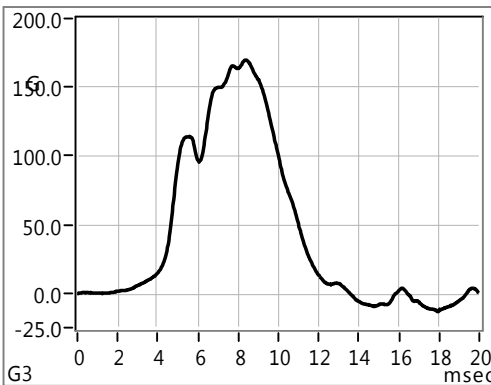
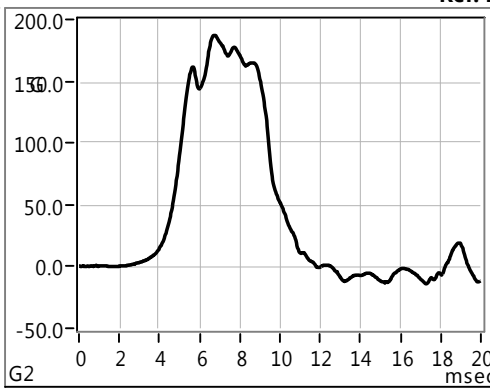
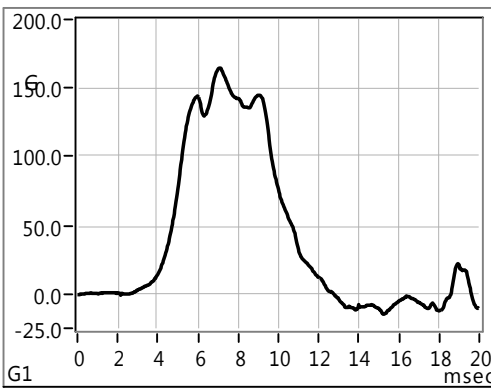
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5
Color : Carbon
Size : L(59-60CM)
Weight : 1196.00 g
Manufacturing Date : 03 Nov 2023
Standard Request : FMVSS 218
Identification Code : 904.14552.002-B
Headform Model : D.O.T.
Headform Size : C D.O.T
Conditioning : Cold
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : 1650 Hz
Maximum Peak G's authorized : 400 G
Maximum Peak m/s² authorized : 3923 m/s²
Drop mass assembly : 5.028 kg
Time gate flag height : 25.55 mm
Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	164.6	1044	5.9858	192.0	FLAT	0.82	0.00	LF SIDE	2023-11-03	09:00:00	2.5	Pass
2	187.2	1347	5.9891	192.0	FLAT	3.23	0.00	LF SIDE	2023-11-03	09:00:06	2.4	Pass
3	169.7	1107	5.9765	192.0	FLAT	1.98	0.00	REAR	2023-11-03	09:04:57	2.6	Pass
4	178.9	1091	6.0133	192.0	FLAT	1.98	0.00	REAR	2023-11-03	09:05:04	2.0	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

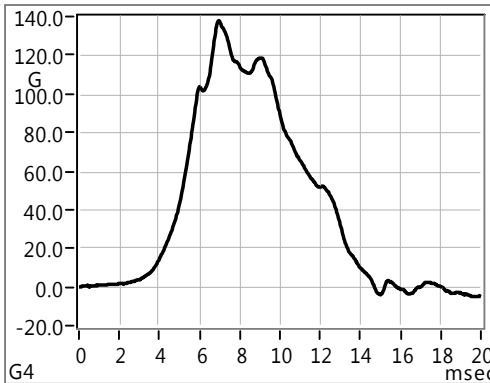
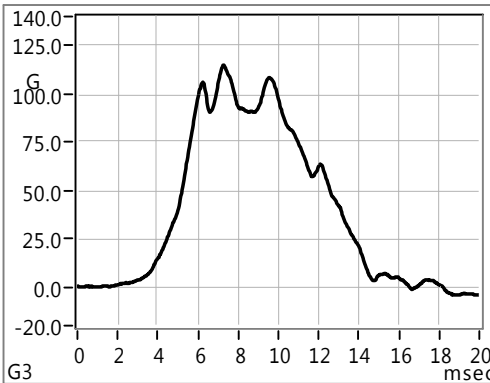
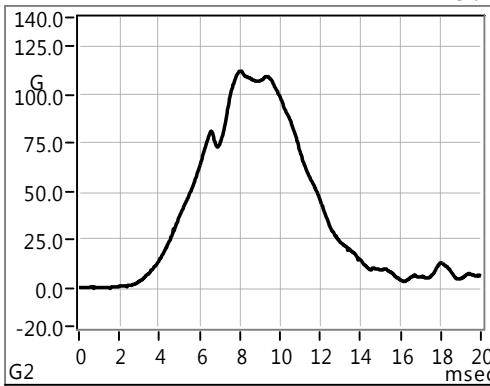
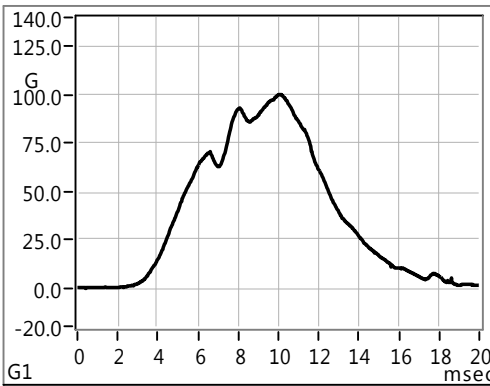
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : L(59-60CM)

Weight : 1196.00 g

Manufacturing Date : 03 Nov 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.002-B

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Cold

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	100.1	389	5.2094	145.0	HEMI	0.00	0.00	FRONT	2023-11-03	09:11:13	2.3	Pass
6	112.0	436	5.1842	145.0	HEMI	0.00	0.00	FRONT	2023-11-03	09:11:17	2.8	Pass
7	114.8	510	5.2092	145.0	HEMI	0.00	0.00	RT SIDE	2023-11-03	09:15:03	2.3	Pass
8	137.9	625	5.2040	145.0	HEMI	0.00	0.00	RT SIDE	2023-11-03	09:15:06	2.4	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

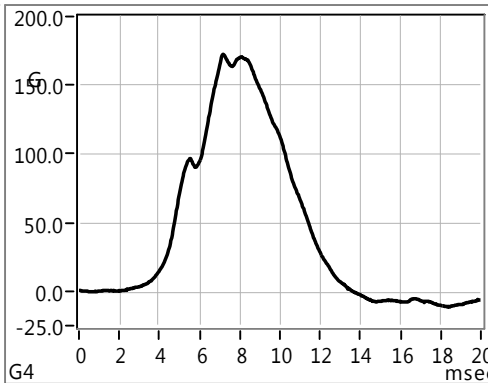
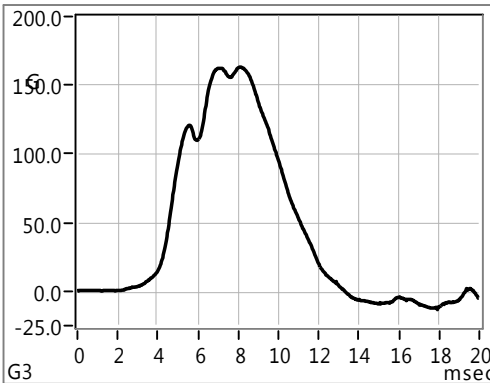
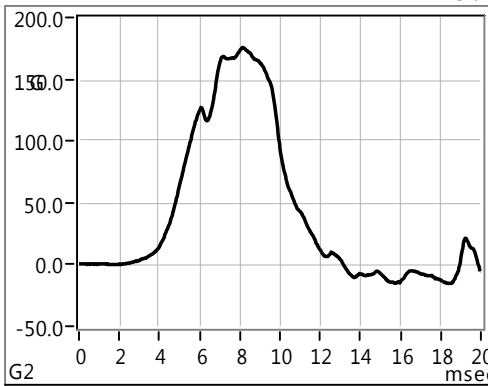
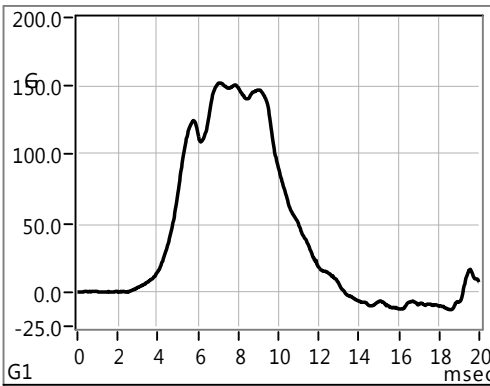
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : L(59-60CM)

Weight : 1198.00 g

Manufacturing Date : 03 Nov 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.002-C

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	152.2	991	6.0088	192.0	FLAT	0.60	0.00	LF SIDE	2023-11-03	09:00:54	2.1	Pass
2	175.7	1184	5.9836	192.0	FLAT	2.58	0.00	LF SIDE	2023-11-03	09:00:59	2.5	Pass
3	163.2	1096	5.9882	192.0	FLAT	2.16	0.00	REAR	2023-11-03	09:06:39	2.4	Pass
4	172.4	1106	5.9934	192.0	FLAT	2.14	0.00	REAR	2023-11-03	09:06:45	2.3	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

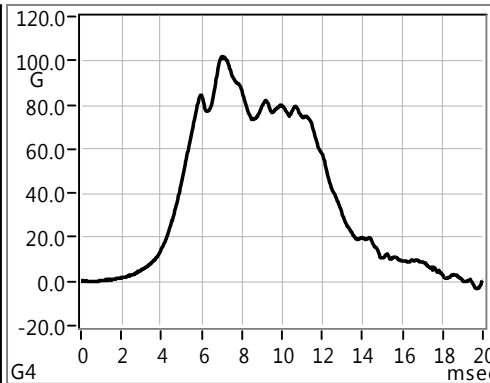
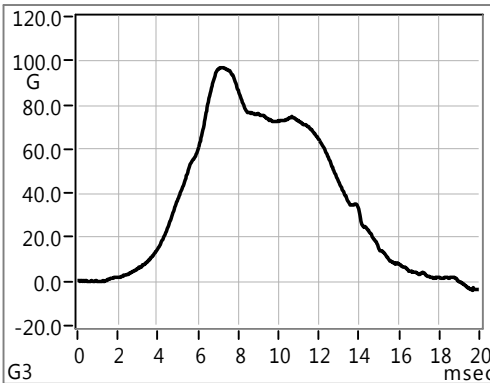
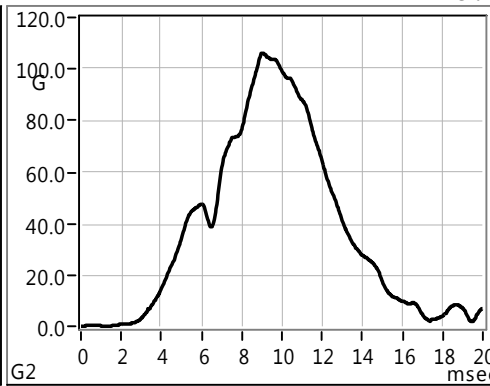
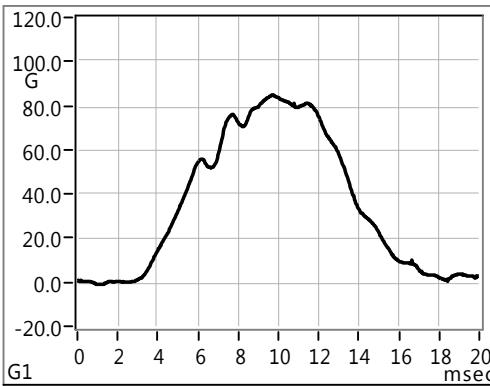
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : L(59-60CM)

Weight : 1198.00 g

Manufacturing Date : 03 Nov 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.002-C

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	84.8	324	5.2397	145.0	HEMI	0.00	0.00	FRONT	2023-11-03	09:12:22	1.7	Pass
6	106.0	362	5.2368	145.0	HEMI	0.00	0.00	FRONT	2023-11-03	09:12:28	1.8	Pass
7	96.8	348	5.2353	145.0	HEMI	0.00	0.00	RT SIDE	2023-11-03	09:14:17	1.8	Pass
8	101.9	381	5.2012	145.0	HEMI	0.00	0.00	RT SIDE	2023-11-03	09:14:21	2.5	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

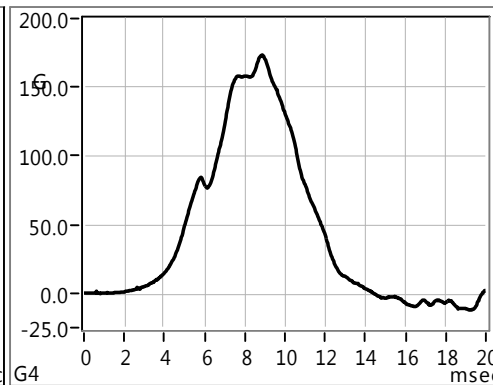
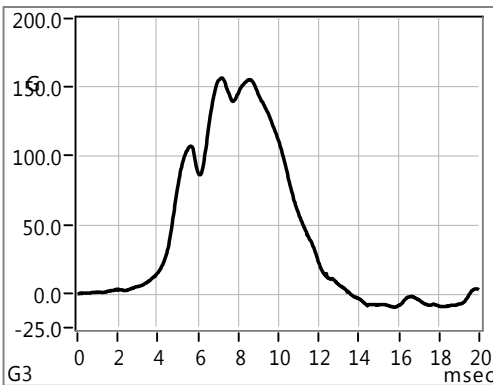
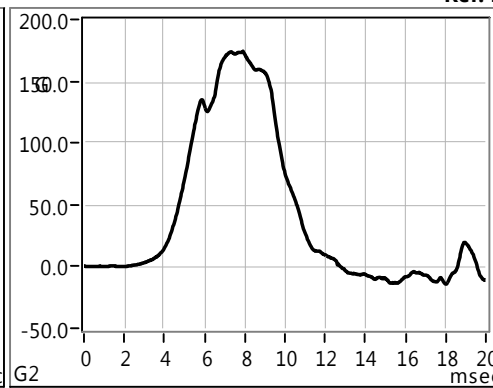
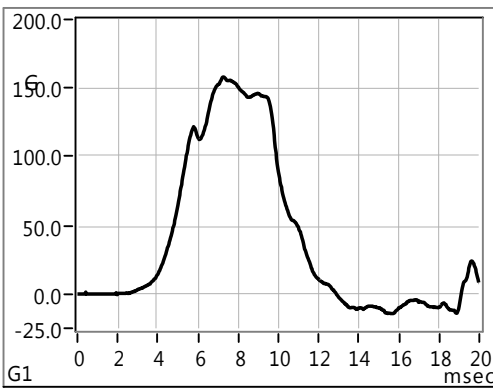
Helmet Manufacturer : XIAMEN TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : L(59-60CM)

Weight : 1221.00 g

Manufacturing Date : 03 Nov 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.002-D

Headform Model : D.O.T.

Headform Size : C D.O.T

Conditioning : Wet

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 5.028 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	158.1	1019	6.0119	192.0	FLAT	1.17	0.00	LF SIDE	2023-11-03	08:59:07	2.0	Pass
2	174.3	1194	6.0008	192.0	FLAT	2.56	0.00	LF SIDE	2023-11-03	08:59:12	2.2	Pass
3	156.8	976	5.9843	192.0	FLAT	1.22	0.00	REAR	2023-11-03	09:03:57	2.5	Pass
4	173.4	1014	5.9967	192.0	FLAT	2.15	0.00	REAR	2023-11-03	09:04:05	2.3	Pass

DOT Auto – Test results

Laboratory

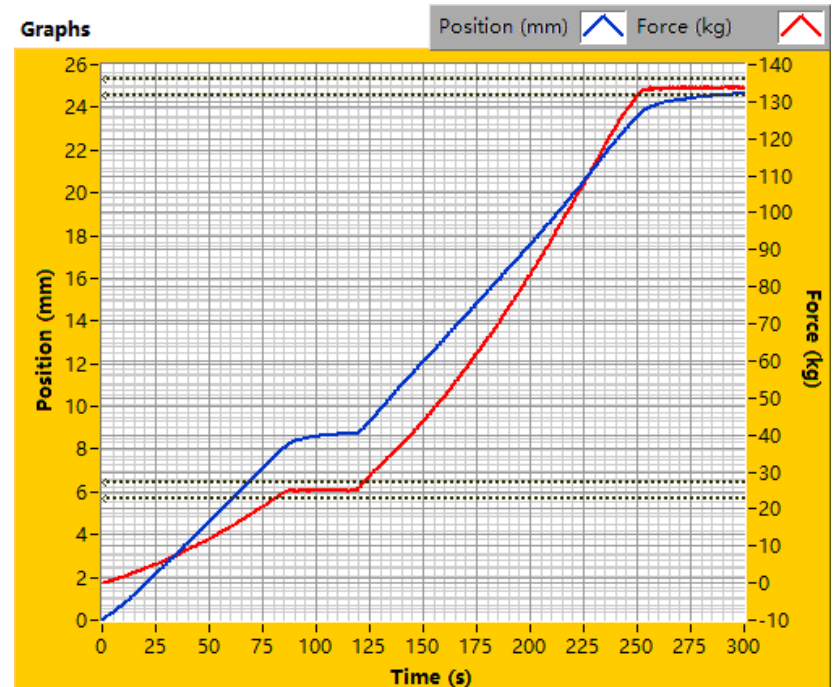
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV 9.5
 Color CARBON
 Size L(59-60CM)
 Weight 1186
 Manufacturer XIAMEN TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.002-A



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail		
Test#24	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	15.9	Pass		

DOT Auto – Test results

Laboratory

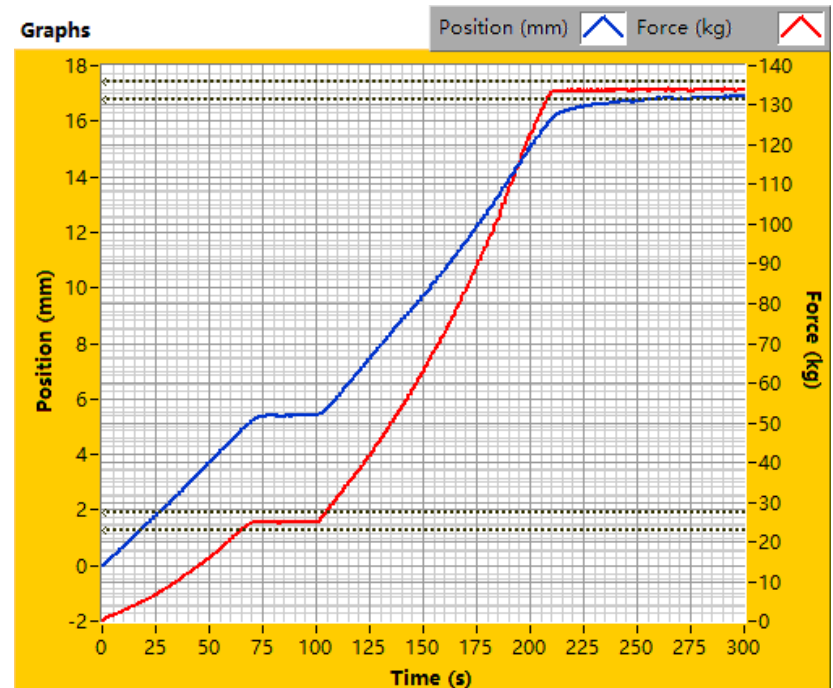
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV 9.5
 Color CARBON
 Size L(59-60CM)
 Weight 1196
 Manufacturer XIAMEN TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.002-B



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2 (mm)	Pass/Fail		
Test#25	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	11.3	Pass		

DOT Auto – Test results

Laboratory

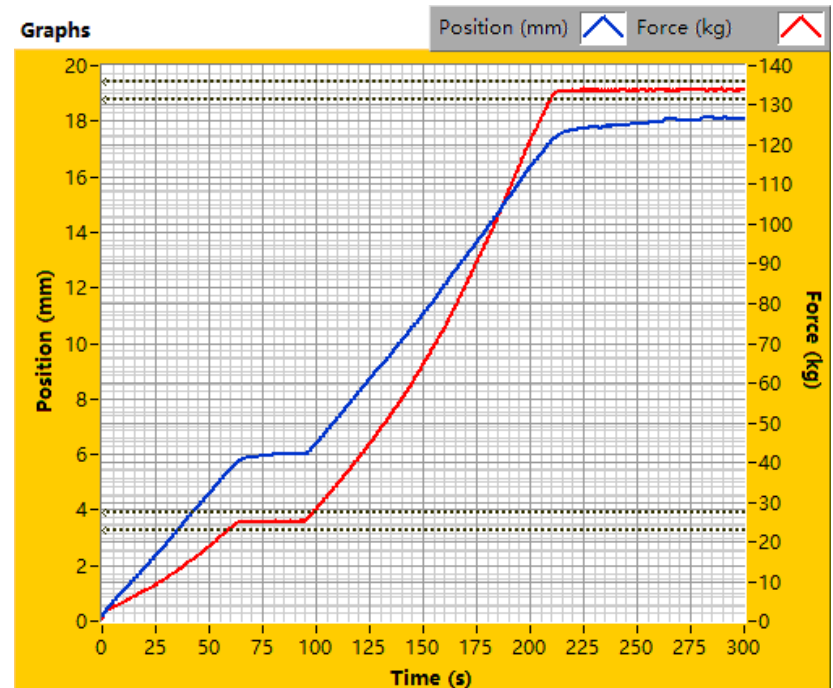
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV 9.5
 Color CARBON
 Size L(59-60CM)
 Weight 1198
 Manufacturer XIAMEN TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.002-C



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2 (mm))	Pass/Fail		
Test#26	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	12.0	Pass		

DOT Auto – Test results

Laboratory

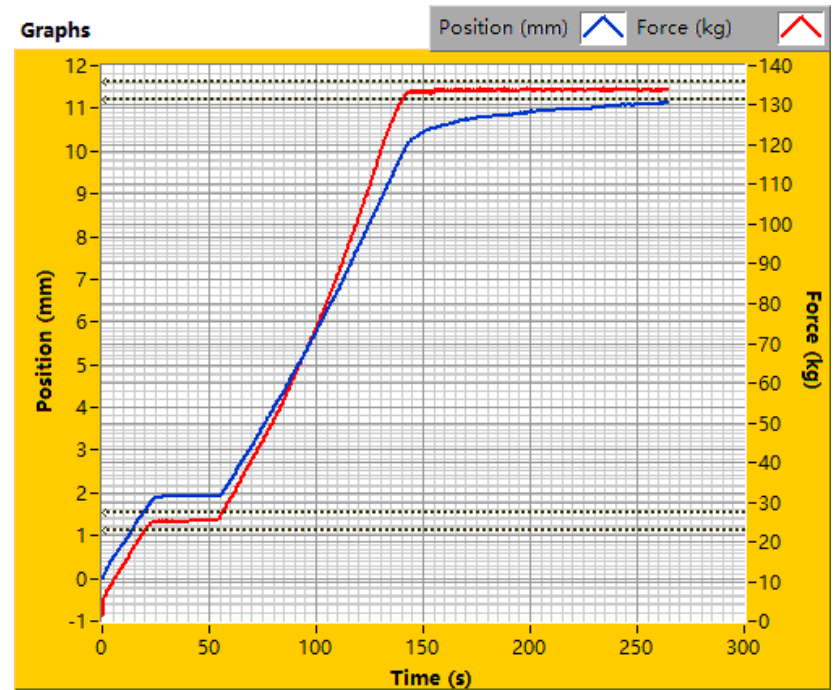
Laboratory ACT Lab
 Technician Wille
 Temperature 22
 Humidity 57

Sample

Model ADV 9.5
 Color CARBON
 Size L(59-60CM)
 Weight 1221
 Manufacturer XIAMEN TERRIFIC
 Manuf. Date TBD

Infos

Standard FMVSS No.218
 Comment 904.14552.002-D



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail		
Test#27	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	8.8	Pass		

APPENDIX A

INTERPRETATIONS OR DEVIATIONS FROM FMVSS 218

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.
2. S6.4 Conditioning: Excess water on the water immersed sample was allowed to drip off before testing to prevent water damage to test equipment.

APPENDIX B

Contract File No.: 904.14552

Test File: 002

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 04 September 2023 Rev.27

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 03 November 2023



EQUIPMENT LIST AND CALIBRATION SCHEDULES

EQUIPMENT LIST						
Asset Tag	Location	Description of part	Model Number	Serial Number	Verification Interval	Next Verification
H1001	Helmet Room	Fixture	Yellow Tower - 1000_00_MIMAT	NA	NA	NA
H1002	Helmet Room	Fixture	Green Tower - Series 2000	NA	NA	NA
H1011	Helmet Room	Instrument	Impact Machine System DX3000 - Green tower	NA	NA	NA
H1013	Helmet Room	Instrument	CPSC/ASTM Dynamic Strength Charge Amplifier - ATA2001 (Backup)	J72863	Yes	Daily
H1015	Helmet Room	Fixture	CPSC/ASTM Positional Stability Fixture	NA	Yes	4/27/2024
H1017	Helmet Room	Fixture	DOT Retention System Machine - SB033	NA	Yes	4/27/2024
H1034	Helmet Room	Environmental chamber	Water Immersion Container	NA	NA	NA
H1043	Helmet Room	Headform	ISO/EN960 A Partial Headform (Impact)	4272	Yes	5/5/2024
H1044	Helmet Room	Headform	ISO/EN960 C Partial Headform (Impact)	6938	Yes	5/5/2024
H1045	Helmet Room	Headform	ISO/EN960 E Partial Headform (Impact)	4146	Yes	5/5/2024
H1046	Helmet Room	Headform	ISO/EN960 J Partial Headform (Impact)	4148	Yes	5/5/2024
H1047	Helmet Room	Headform	ISO/EN960 M Partial Headform (Impact)	4131	Yes	5/5/2024
H1048	Helmet Room	Headform	ISO/EN960 O Partial Headform (Impact)	4151	Yes	5/5/2024
H1049	Helmet Room	Headform	DOT Small (Impact)	5178	Yes	5/5/2024
H1050	Helmet Room	Headform	DOT Medium (Impact)	5179	Yes	5/5/2024
H1051	Helmet Room	Headform	DOT Large (Impact)	5190	Yes	5/5/2024
H1052	Helmet Room	Drop Mass	CPSC/ASTM Spherical Impactor	NA	Yes	5/5/2024
H1054	Helmet Room	Drop Mass	ASTM/SNELL Chin Bar Impactor	NA	Yes	5/5/2024
H1055	Helmet Room	Anvil	CurbStone - CPSC/ASTM	NA	Yes	5/5/2024
H1056	Helmet Room	Anvil	Cylindrical	NA	Yes	5/5/2024
H1059	Helmet Room	Anvil	Triangular Hazard	NA	Yes	5/5/2024
H1060	Helmet Room	Anvil	Hemispherical - Yellow tower	NA	Yes	5/5/2024
H1062	Helmet Room	Anvil	Flat - Yellow tower	C240812-01	Yes	5/5/2024
H1066	Helmet Room	Fixture	Penetration Magnetic Carriage	NA	Yes	6/25/2024
H1091	Helmet Room	Fixture	40° Up Vision Angle Block	NA	Yes	5/6/2024
H1092	Helmet Room	Clamp	Split Ring Clamp - 119g	NA	Yes	5/6/2024
H1093	Helmet Room	Clamp	Split Ring Clamp - 210g	NA	Yes	5/6/2024
H1094	Helmet Room	Clamp	Split Ring Clamp - 378g	NA	Yes	5/6/2024
H1095	Helmet Room	Clamp	Split Ring Clamp - 451g	NA	Yes	5/6/2024
H1096	Helmet Room	Clamp	Split Ring Clamp - 505g	NA	Yes	5/6/2024
H1097	Helmet Room	Clamp	Split Ring Clamp - 597g	NA	Yes	5/6/2024
H1098	Helmet Room	Clamp	Split Ring Clamp - 1158g	NA	Yes	5/6/2024
H1099	Helmet Room	Anvil	Flat - Green tower	NA	Yes	5/6/2024
H1100	Helmet Room	Anvil	Hemispherical - Green tower	NA	Yes	5/6/2024
H1101	Helmet Room	Headform	DOT Small (Reference)	NA	Yes	4/27/2024
H1102	Helmet Room	Headform	DOT Medium (Reference)	NA	Yes	4/27/2024
H1103	Helmet Room	Headform	DOT Large (Reference)	NA	Yes	4/27/2024
H1105	Helmet Room	Drop Mass	Aluminum Ball Stem - Green tower	NA	Yes	5/6/2024
H1106	Helmet Room	Drop Mass	Steel Ball Stem	NA	Yes	5/6/2024
H1107	Helmet Room	Drop Mass	Magnesium Ball Stem	NA	Yes	5/6/2024
H1123	Helmet Room	Fixture	CPSC/ASTM Roll Off Headform Base Fastened Plate	NA	NA	NA
H1126	Helmet Room	Drop Mass	Complete Pistol Grip - Green tower	NA	Yes	5/6/2024
H1127	Helmet Room	Headform	ISO/EN 960 C Full Headform (Reference)	6947	Yes	4/27/2024
H1128	Helmet Room	Headform	DOT Small (Penetration)	NA	Yes	4/27/2024
H1129	Helmet Room	Headform	DOT Medium (Penetration)	NA	Yes	4/27/2024
H1130	Helmet Room	Headform	DOT Large (Penetration)	NA	Yes	4/27/2024
H1143	Helmet Room	Fixture	DOT Brow Opening 1 Inch Block	NA	Yes	4/28/2024
H1146	Helmet Room	Fixture	DOT Penetration Height Stick	NA	Yes	6/25/2024
H1149	Helmet Room	Mass	Testing Area Preload Ballast	NA	Yes	4/28/2024
H1150	Helmet Room	Drop Mass	10kg Positional Stability Drop Mass	NA	Yes	4/28/2024
H1178	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower	NA	Yes	5/6/2024
H1179	Helmet Room	Drop Mass	Aluminum Ball Stem - Yellow tower	NA	Yes	5/6/2024
H1189	Helmet Room	Drop Mass	DOT Penetration Striker Tip	070622-03	Yes	6/25/2024
H1196	Helmet Room	Fixture	DOT Retention Machine Static Load - SB033 (New)	NA	Yes	4/28/2024
H1197	Helmet Room	Fixture	DOT Retention LVDT Calibration Block	NA	Yes	11/9/2024
H1204	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower (Backup)	120122-07	Yes	5/6/2024
H1205	Helmet Room	Drop Mass	Ball Stem - Yellow tower (Backup)	NA	Yes	5/6/2024
H1213	Helmet Room	Fixture	CPSC/ASTM Dynamic Retention Strength Fixture	NA	Yes	4/28/2024
H1229	Helmet Room	Fixture	Penetration Tube	NA	Yes	6/25/2024
H1230	Helmet Room	Fixture	Penetration Headform Mount Holder	NA	NA	NA

Contract File No.: 904.14552

Test File: 002

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 04 September 2023 Rev.27

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 03 November 2023



CALIBRATED MEASUREMENT DEVICES							
Asset Tag	Description of part	Model Number	Measuring Range	Accuracy	Serial Number	Last Calibrated On	Calibration Due On
H1003	Instrument	Velocity Gate - Yellow tower	0-8.5m/s	±0.0001m/s	HVTG120120810-1	10/4/2023	10/3/2024
H1004	Instrument	Velocity Gate - Green tower	0-8.5m/s	±0.0001m/s	HVTG120090331-1	1/26/2023	1/25/2024
H1006	Instrument	Accelerometer PCB 353B18 - Yellow & Green tower	±500g	±0.1%	131607	1/26/2023	1/25/2024
H1007	Instrument	Accelerometer PCB 353B18 - Green tower	±500g	≤1%	86079	10/5/2022	10/4/2023
H1009	Fixture	Digital Tape 16' - Yellow tower	0-5.5m	±0.1cm	5027526	11/24/2022	11/23/2023
H1010	Instrument	CCS PC4300 - Green tower	±500g	±0.1%	CCS120090331-1	1/26/2023	1/25/2024
H1012	Instrument	CPSC/ASTM Dynamic Strength LVDT - C20101007753 (Backup)	0-50mm	±0.1mm	C20101007753	11/22/2022	11/21/2023
H1014	Instrument	DOT Retention System LVDT - LWE-200	0-100mm	±0.1mm	2002572	11/22/2022	11/21/2023
H1025	Fixture	Electronic Scale - BT-6	0-6kg	±0.1g	12230126	6/26/2023	6/25/2024
H1026	Fixture	Laser Table - SB005	0-450mm, 0-20°	±1mm, ±1°	TLTV2KB-20090403-1	11/22/2022	11/21/2023
H1030	Conditioning	Oven #1 - 92*9240MBE	0-200°C	±0.1°C	8285	6/26/2023	6/25/2024
H1031	Conditioning	Oven #2 - DHG-9426	0-200°C	±0.1°C	1503338018	11/22/2022	11/21/2023
H1032	Conditioning	Freezer #1 - DW-25W300	-30~-10°C	±0.1°C	BE062100N00B29578VMO	6/26/2023	6/25/2024
H1033	Environmental chamber	Freezer #2 - DW-50W225	-30~-10°C	±0.1°C	F8LMJ	11/22/2022	11/21/2023
H1036	Fixture	Hygrothermograph #1 - TH-602F	-30~60°C, 0-100%	±1°C	3238	6/28/2023	6/27/2024
H1057	Anvil	Edge	NA	NA	NA	10/27/2020	10/26/2023
H1058	Anvil	Equestrian Hazard	NA	NA	NA	10/27/2020	10/26/2023
H1061	Anvil	Skate Blade	NA	NA	NA	10/27/2020	10/26/2023
H1063	Fixture	Digital tape - 5m	0-5m	±0.1mm	78223	11/24/2022	11/23/2023
H1064	Instrument	CCS PC4400 - Yellow tower	±500g	±0.1%	CCS120120810-1	1/26/2023	1/25/2024
H1070	Instrument	DOT Retention System Load Cell - 9363-B10-300-20T1	0-300lb	±0.1kg	80310843	6/26/2023	6/25/2024
H1072	Fixture	Hygrothermograph #4 - TH600B	-20~100°C, 0-100%	±1°C	Q/MDS001-2017-2	6/27/2023	6/26/2024
H1073	Fixture	Height Gauge	0-500mm	±0.01mm	8811213838273610	11/22/2022	11/21/2023
H1074	Fixture	Digital Vernier Caliper - SJ-455615	0-150mm	±0.01mm	455615	11/22/2022	11/21/2023
H1075	Fixture	Digital Level - SPI TRONIC Pro 360	0-360°	±0.1°	31-038-3	11/24/2022	11/23/2023
H1076	Instrument	Calorifier - CN-111	18-35°C	±0.1°C	NA	11/25/2022	11/24/2023
H1077	Fixture	ACT Tape	0-1.5m	±1mm	NA	11/24/2022	11/23/2023
H1117	Fixture	Helmet Internal Circumference Measure Tool	49-62cm	±1mm	NA	11/24/2022	11/23/2023
H1172	Fixture	Height Measurement Rod #6	600±5mm	±1mm	032216-02	6/24/2022	6/23/2025
H1174	Anvil	MEP Pad	NA	NA	021921-01	2022 yearly report	2023 yearly report
H1180	Instrument	CPSC/ASTM LVDT & Sensor Box	2 Inch	±0.1mm	04140748-001	11/22/2022	11/21/2023
H1184	Instrument	Accelerometer PCB 353B18 - Yellow tower	±500g	≤1%	LW226664	10/5/2022	10/4/2023
H1190	Environmental chamber	Oven - KH-120A	5-250°C	±0.1°C	2201-020	11/22/2022	11/21/2023
H1193	Fixture	I-square	150*100mm	±1mm	SJT-43008	11/24/2022	11/23/2023
H1194	Fixture	Triangular Ruler	190mm	±1mm	SJT-43111	11/25/2022	11/24/2023
H1198	Instrument	LVDT Volfa LWE-200 (Head) - DOT Retention	0-150mm	±1mm	NA	3/10/2023	3/9/2024
H1199	Instrument	LVDT Volfa LWE-200 - DOT Retention Machine	0-150mm	±1mm	NA	3/10/2023	3/9/2024
H1200	Instrument	VPG load cell - 9363-B10-500-20T1 - DOT Retention Machine	0-500lb	±0.1kg	90139705	3/10/2023	3/9/2024
H1210	Fixture	Peripheral Vision	105° Both sides	105°	NA	4/27/2023	4/26/2026
H1214	Instrument	DOT Retention System LVDT (Head) - LWE-200	0-50mm	±0.1mm	27008-10	4/28/2023	4/27/2024
H1216	Fixture	Digital Vernier Caliper - GLA13S	0-300mm	±0.03mm; ±0.04mm	K23D014332	5/17/2023	5/16/2024

Contract File No.: 904.14552

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SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 03 November 2023

APPENDIX C

PHOTOGRAPHS

Contract File No.: 904.14552

Test File: 002

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 04 September 2023 Rev.27

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Technician: Wille Wang

Test Date: 03 November 2023



Impact attenuation test apparatus and data acquisition equipment



Retention system test apparatus



DOT headforms (S, M, L) with flat and hemispherical anvils



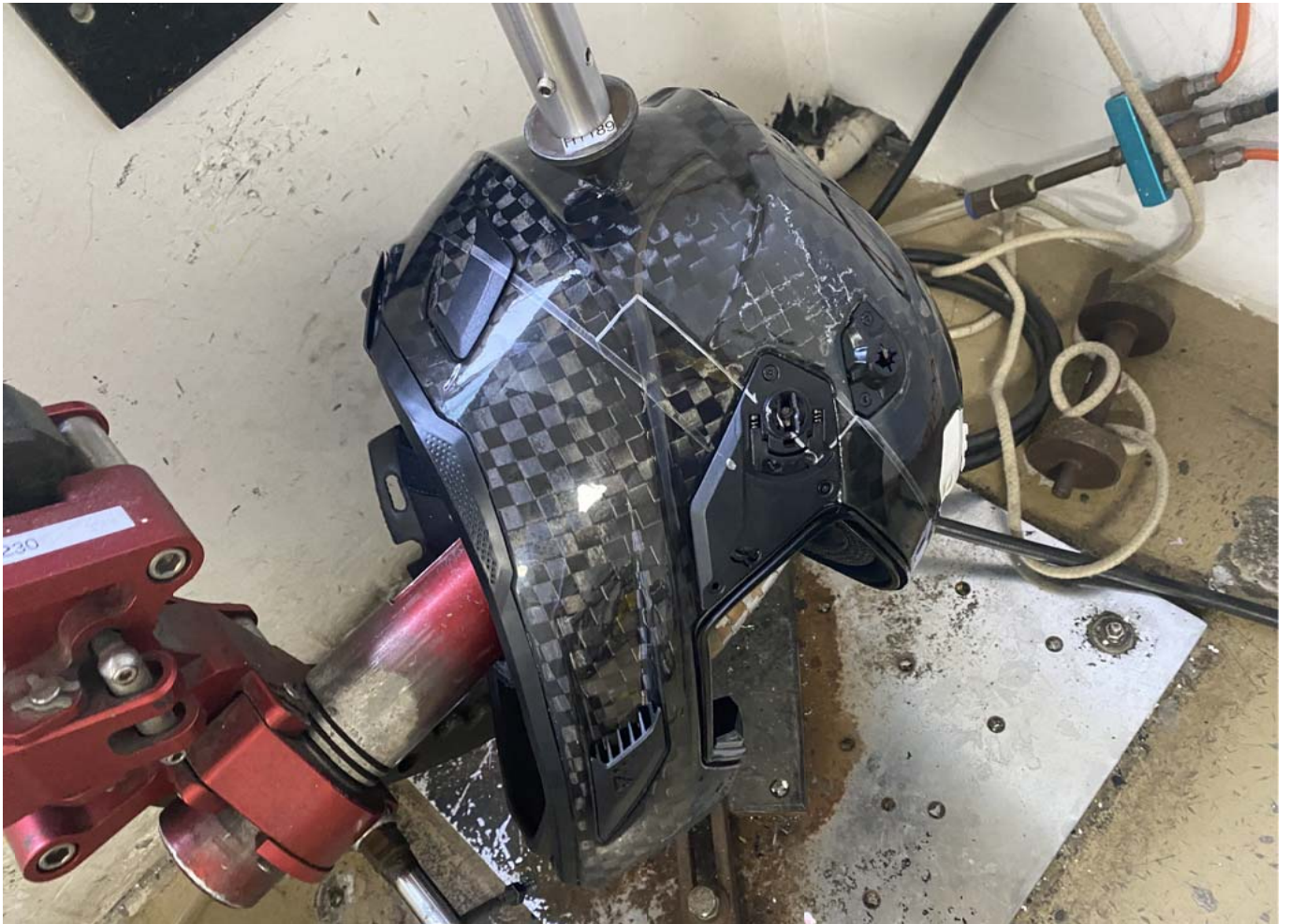
Penetration test apparatus with adjustable base













PRODUCTION #	XXXXXXXXXX
MFG DATE	2024.XX
MODEL	ADV 9.5
SIZE	L (59-60cm)
WEIGHT	XXXXg +/-50g

WARNING

USE AT YOUR OWN RISK. PLEASE READ THE OWNERS MANUAL BEFORE USE. NO HELMET CAN PROTECT THE USER AGAINST ALL FORESEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. FASTEN HELMET SECURELY. HELMET CAN BE SERIOUSLY DAMAGED BY COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO THE USER SUCH AS: GASOLINE, PAINT, ADHESIVES, CLEANING AGENTS OR BY EXCESSIVE HEAT. MAKE NO MODIFICATIONS TO THE HELMET. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY IT AND REPLACE IT. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

ADV 9.5

MADE IN CHINA BY XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

WARNING

NO HELMET CAN PROTECT THE USER AGAINST ALL FORSEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. READ OWNERS MANUAL BEFORE USE. FOR ADEQUATE PROTECTION, THIS HELMET MUST FIT CLOSELY AND BE SECURELY ATTACHED. MAKE NO MODIFICATIONS. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY AND REPLACE IT. HELMET CAN BE SERIOUSLY DAMAGED BY SOME COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO USER SUCH AS: GASOLINE, PETROL, PAINT, ADHESIVES, OR CLEANING AGENTS OR BY EXCESSIVE HEAT. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. COMFORT PADDING CAN BE HAND WASHED AND AIR DRIED. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

Model: ADV 9.5 Made in China by XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

L

59-60

LEATT

ADV 9.5

DOT

**FMVSS No. 218
CERTIFIED**

NOTICE

1. The report is not effective without the signature of the person(s) authorizing the report (ACT Lab's authorized signatory is John A. Bogler (President)).
2. The report is not valid if altered.
3. Claims have to be made within 15 days after receipt of this report.
4. The results of this test report relate only to the items tested.
5. The results apply to the samples as received.
6. For reports that contain results from external test service providers: Results from external test service providers are supplied by the customer and can affect validity of results.
7. The results of this test report apply ASTM E29:2022 - Rounding Method, unless otherwise requested or noted within the report.
8. Decision rule applied according to "ILAC-G8:09/2019 - Guidelines on the Reporting of Compliance with Specification".

END OF REPORT

Contract File No.: 904.14552

Test File: 002

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 04 September 2023 Rev.27

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

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Technician: Wille Wang

Test Date: 03 November 2023

SAFETY COMPLIANCE TESTING FOR FMVSS No. 218 MOTORCYCLE HELMETS

Brand: LEATT
Model: ADV 9.5
Tested Size: XXL (63-64 cm)

Prepared For:

Leatt Corporation
12 Kiepersol Crescent,
Atlas Gardens Business Park,
Cape Farms, Cape Town,
7550, ZA



Issue Date: 27 December 2023

Final Report: 904.14552.008

Tested By:

Taicang ACT Sporting Goods Testing Co., Ltd.
No. 35 Zhenghe Road,
Ludu Town, Taicang City, Suzhou,
Jiangsu Province, China 215412
www.act-lab.com

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This laboratory 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 (refer joint ISO-ILAC-IAF Communiqué dated April 2017.) The Joint Communiqué is available on publications and resources page of the ILAC website at <http://www.ilac.org>. Accreditation listing and certificate can be found at <http://www.iasonline.org>.

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28
SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 26 December 2023



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PURPOSE OF COMPLIANCE TEST

Purpose:

The purpose of this test was to determine if the motorcycle helmets supplied by:

Xiamen Terrific Composite Technology Co., Ltd.

Met the requirements of

Federal Motor Vehicle Safety Standard No. 218: Motorcycle Helmets effective May 13, 2013.

All samples received were in good condition and appropriate for these tests.

Test Procedure:

This test was performed following TP-218-07 and ACT Lab Helmet Cadex Testing Manual 2.3

**HELMET DATA**HELMET BRAND NAME: LEATTHELMET MODEL DESIGNATION: ADV 9.5HELMET MANUFACTURER: XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.HELMET SIZE: XXL (63-64 cm)HELMET COVERAGE: Partial: _____ Full: _____ Complete: XHELMET POSITIONING INDEX: 55 mmSHELL MATERIAL: Carbon Fiber and Other Composite MaterialsLINER MATERIAL: Expanded PolystyreneBUCKLE DESCRIPTION: Fidlock

HELMET	A Ambient	B Low Temp	C High Temp	D Water Immersed	E Spare
SHELL COLOR/PATTERN	Carbon	Carbon	Carbon	Carbon	Carbon
WEIGHT (grams)	1257	1285	1228	1262	1561
MONTH & YEAR OF MANUFACTURE	TBD	TBD	TBD	TBD	TBD

Reviewed by: John Bogler

COMMENTS:

1. All helmets were received in undamaged condition and were appropriate for testing.
2. Weights listed above for helmets A-D are as tested with visor and face shield removed.
3. Weight for helmet E is complete with all components in place.
4. ACT determined the HPI information prior to testing.

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 26 December 2023

SUMMARY OF TEST RESULTS

INDICATE Pass or Fail

HELMET	A	B	C	D
TEST	AMBIENT	LOW TEMP	HIGH TEMP	WATER IMMERSED
IMPACT	Pass	Pass	Pass	Pass
PENETRATION	Pass	Pass	Pass	Pass
RETENTION	Pass	Pass	Pass	Pass

INDICATE Pass or Fail

TEST	PASS/FAIL
PERIPHERAL VISION	Pass
PROJECTIONS	Pass
LABELING	*Pass

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

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Technician: Wille Wang

Test Date: 26 December 2023

SELECTION OF APPROPRIATE HEADFORM

Paragraph S6.1- If the helmet size designation falls into more than one of three size ranges, it shall be tested on each appropriate headform.

HELMET SIZE DESIGNATION	HEADFORM SIZE
Less than or equal to 6-3/4 (European Size 54)	SMALL
Greater than 6-3/4, but less than or equal to 7-1/2 (European Size 60)	MEDIUM
Greater than 7-1/2 (European 60)	LARGE

COMMENTS:

The manufacturer marked the helmet with its corresponding discrete size: XXL (63-64 cm),
Headform Size: DOT LARGE.

CONDITIONING FOR TESTING — Paragraph S6.4 — The protective headgear shall be conditioned for not less than 4 hours and no more than 24 hours, in the specified environmental condition shown below, prior to test.

Ambient Conditions	16°C to 26°C (61°F to 79°F); 30% to 70% Relative Humidity
Low Temperature	-15°C to -5°C (5°F to 23°F)
High Temperature	45°C to 55°C (113°F to 131°F)
Water Immersion	16°C to 26°C (61°F to 79°F)

The maximum time during which the protective headgear may be out of the conditioning environment shall not exceed 4 minutes. It must then be returned to the conditioned environment for a minimum of 3 minutes for each minute or portion of a minute in excess of 4 minutes out of the conditioning environment or 12 hours, whichever is less, prior to resumption of testing.

AVERAGE LAB TEMPERATURE : 22 °C ; AVERAGE LAB HUMIDITY : 57 %

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 26 December 2023



IMPACT ATTENUATION

Helmet ID	Condition	Impact #	Impact Location	Anvil	Drop Height (cm)	Velocity (m/sec)	Duration at 150G (ms)	Duration at 200G (ms)	Peak Acc. (g)	Pass/Fail
904.14552.008-A	Ambient	1	LF SIDE	FLAT	192.0	6.0388	0.67	0.00	154.5	Pass
904.14552.008-A	Ambient	2	LF SIDE	FLAT	192.0	6.0120	2.33	0.00	171.5	Pass
904.14552.008-A	Ambient	3	REAR	FLAT	192.0	6.0279	0.00	0.00	142.9	Pass
904.14552.008-A	Ambient	4	REAR	FLAT	192.0	6.0118	1.91	0.00	164.1	Pass
904.14552.008-A	Ambient	5	FRONT	HEMI	145.0	5.2025	0.00	0.00	88.1	Pass
904.14552.008-A	Ambient	6	FRONT	HEMI	145.0	5.2017	0.00	0.00	101.0	Pass
904.14552.008-A	Ambient	7	RT SIDE	HEMI	145.0	5.2086	0.00	0.00	106.5	Pass
904.14552.008-A	Ambient	8	RT SIDE	HEMI	145.0	5.2050	0.00	0.00	109.7	Pass
904.14552.008-B	Cold	1	LF SIDE	FLAT	192.0	6.0129	1.10	0.00	157.7	Pass
904.14552.008-B	Cold	2	LF SIDE	FLAT	192.0	6.0360	3.03	0.00	190.9	Pass
904.14552.008-B	Cold	3	REAR	FLAT	192.0	6.0348	0.44	0.00	154.0	Pass
904.14552.008-B	Cold	4	REAR	FLAT	192.0	6.0408	2.75	0.00	165.1	Pass
904.14552.008-B	Cold	5	FRONT	HEMI	145.0	5.2076	0.00	0.00	84.8	Pass
904.14552.008-B	Cold	6	FRONT	HEMI	145.0	5.2139	0.00	0.00	96.4	Pass
904.14552.008-B	Cold	7	RT SIDE	HEMI	145.0	5.2266	0.00	0.00	90.4	Pass
904.14552.008-B	Cold	8	RT SIDE	HEMI	145.0	5.2192	0.00	0.00	104.7	Pass
904.14552.008-C	Hot	1	LF SIDE	FLAT	192.0	6.0521	0.71	0.00	154.0	Pass
904.14552.008-C	Hot	2	LF SIDE	FLAT	192.0	6.0390	0.84	0.00	152.6	Pass
904.14552.008-C	Hot	3	REAR	FLAT	192.0	6.0186	0.00	0.00	122.6	Pass
904.14552.008-C	Hot	4	REAR	FLAT	192.0	6.0128	0.14	0.00	150.8	Pass
904.14552.008-C	Hot	5	FRONT	HEMI	145.0	5.2351	0.00	0.00	81.1	Pass
904.14552.008-C	Hot	6	FRONT	HEMI	145.0	5.2130	0.00	0.00	90.4	Pass
904.14552.008-C	Hot	7	RT SIDE	HEMI	145.0	5.1975	0.00	0.00	88.5	Pass
904.14552.008-C	Hot	8	RT SIDE	HEMI	145.0	5.2300	0.00	0.00	108.4	Pass
904.14552.008-D	Wet	1	LF SIDE	FLAT	192.0	6.0064	1.24	0.00	156.8	Pass
904.14552.008-D	Wet	2	LF SIDE	FLAT	192.0	6.0097	1.25	0.00	156.8	Pass
904.14552.008-D	Wet	3	REAR	FLAT	192.0	6.0558	0.00	0.00	132.8	Pass
904.14552.008-D	Wet	4	REAR	FLAT	192.0	6.0430	0.77	0.00	154.0	Pass
904.14552.008-D	Wet	5	FRONT	HEMI	145.0	5.2091	0.00	0.00	71.0	Pass
904.14552.008-D	Wet	6	FRONT	HEMI	145.0	5.2176	0.00	0.00	103.3	Pass
904.14552.008-D	Wet	7	RT SIDE	HEMI	145.0	5.2772	0.00	0.00	87.1	Pass
904.14552.008-D	Wet	8	RT SIDE	HEMI	145.0	5.2174	0.00	0.00	112.5	Pass

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 26 December 2023

PENETRATION

Paragraph S5.2 and S7.2

WEIGHT OF STRIKER: 2.95 to 3.06 kg (6 pounds, 8 ounces to 6 pounds, 12 ounces)

POINT OF STRIKER: Radius = 0.5 ± 0.1 mm (0.02 ± 0.004 in.), included angle of $60^\circ \pm 0.5^\circ$, hardness minimum of 60 Rockwell "C" Scale and a cone height of not less than 3.8 ± 0.038 cm (1.5 ± 0.015 in.).

HEIGHT OF FALL: 300 cm $\pm$ 1.5 cm, measured from the tip of the striker point to the outer surface of the mounted protective headgear.

FAILURE CRITERION: When tested, the protective headgear shall be failed if the penetrator has made an indentation in the headform.

TEST	HELMET	TEST LOCATION	PASS	FAIL	CONDITIONS
1	A	Crown	X		AMBIENT
2	A	Rear Right	X		AMBIENT
3	B	Crown	X		LOW TEMPERATURE
4	B	Rear Right	X		LOW TEMPERATURE
5	C	Crown	X		HIGH TEMPERATURE
6	C	Rear Right	X		HIGH TEMPERATURE
7	D	Crown	X		WATER IMMERSED
8	D	Rear Right	X		WATER IMMERSED

COMMENT: Photographs of penetration test locations are found in Appendix C.

RETENTION SYSTEM

Paragraph S5.3 and S7.3

REQUIREMENTS:

READING	APPLIED LOAD
INITIAL	22.68 kg, + 4.54 kg, - 0 kg (50.0 lbs., + 10 lbs., - 0 lbs.)
FINAL	136 kg, + 0 kg, - 2.3 kg (300.0 lbs., + 0 lbs., - 5 lbs.)

ELONGATION NOT TO EXCEED 2.54 cm (1.0 INCH) AFTER LOAD INCREASE

HELMET	CONDITIONS	ELONGATION cm
A	AMBIENT	2.02
B	LOW TEMPERATURE	1.63
C	HIGH TEMPERATURE	1.50
D	WATER IMMERSED	1.55

PERIPHERAL VISION

CONFIGURATION - Paragraph S5.4 - Helmet shall provide a minimum peripheral vision of 105° to each side of the midsagittal plane. The brow opening shall be at least 2.54 cm (1 inch) above all points in the basic plane that are within the angles of peripheral vision.

	REQUIREMENTS	TEST RESULTS
PERIPHERAL VISION	> 105°	Pass
BROW OPENING	> 2.5 cm (1 inch)	Pass

PROJECTIONS

Paragraph S5.5

REQUIREMENTS:

PROJECTION	REQUIREMENT
Internal rigid	None
External rigid	Operational, shall not protrude more than 5 mm

TEST RESULTS:

PROJECTION	PRESENT	HEIGHT (mm)
Internal	None	Not Applicable
External	Vent Cover Operation Switch	3.83 mm

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 26 December 2023

LABELING

S5.6.1 *Labeling* - Each helmet shall be permanently and legibly labeled, in a manner such that the label(s) can be easily read without removing padding or any other permanent part, with the following:

Required Information	Content/Format	Permanent
Manufacturer's name	Pass	*Pass
Discrete size	Pass	*Pass
Month and year of manufacture	Pass	*Pass
Instructions to the purchaser as follows:	-----	-----
"Shell and liner constructed of (identify type(s) of materials)."	Pass	Pass
"Helmet can be seriously damaged by some common substances without damage being visible to the user."	Pass	Pass
"Apply only the following: (Recommended cleaning agents, paints, adhesives, etc., as appropriate.)"	Pass	Pass
"Make no modifications."	Pass	Pass
"Fasten helmet securely."	Pass	Pass
"If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy it and replace it."	Pass	Pass

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.

LABELING

S5.6.2 Certification. Each helmet shall be labeled permanently and legibly with a label, constituting the manufacturer's certification that the helmet conforms to the applicable Federal motor vehicle safety standards, that is separate from the label(s) used to comply with S5.6.1, and complies with paragraphs (a) through (c) of this section. (a) Content, format, and appearance. The label required by paragraph S5.6.2 shall have the following content, format, and appearance:

Required Certification Information	Content/Format	Permanent
The symbol "DOT," horizontally centered on the label, in letters not less than 0.38 inch (1.0 cm) high.	*Pass	*Pass
The term "FMVSS No. 218," horizontally centered beneath the symbol DOT, in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The word "CERTIFIED," horizontally centered beneath the term "FMVSS No. 218," in letters not less than 0.09 inches (0.23 cm) high.	*Pass	
The precise model designation horizontally centered above the symbol DOT, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
The manufacturer's name and/or brand, horizontally centered above the model designation, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	*Pass	
All symbols, letters and numerals shall be in a color that contrasts with the background of the label.	*Pass	
No information, other than the information specified in subparagraph (a), shall appear on the label.	*Pass	
The label shall appear on the outer surface of the helmet and be placed so that it is centered laterally with the horizontal centerline of the DOT symbol located a minimum of 1 inch (2.5 cm) and a maximum of 3 inches (7.6 cm) from the bottom edge of the posterior portion of the helmet.	*Pass	

COMMENT:

- S5.6 Labeling: *Client has supplied digital artwork for section 5.6.2. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.



TEST DATA

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

Technician: Wille Wang

Test Date: 26 December 2023

Uni-Axial Calibration

Helmet Manufacturer :TERRIFIC
Address :

Testing Laboratory :Taicang ACT Lab
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu Province,
China 215412

Laboratory Technician name Wille

M.E.P. Pad Model1 MEP

Laboratory Temperature22deg C

Laboratory Humidity57%

Selected Filter Frequency1000 Hz

Acc. sensitivity (axis Z) :10.59mV/G

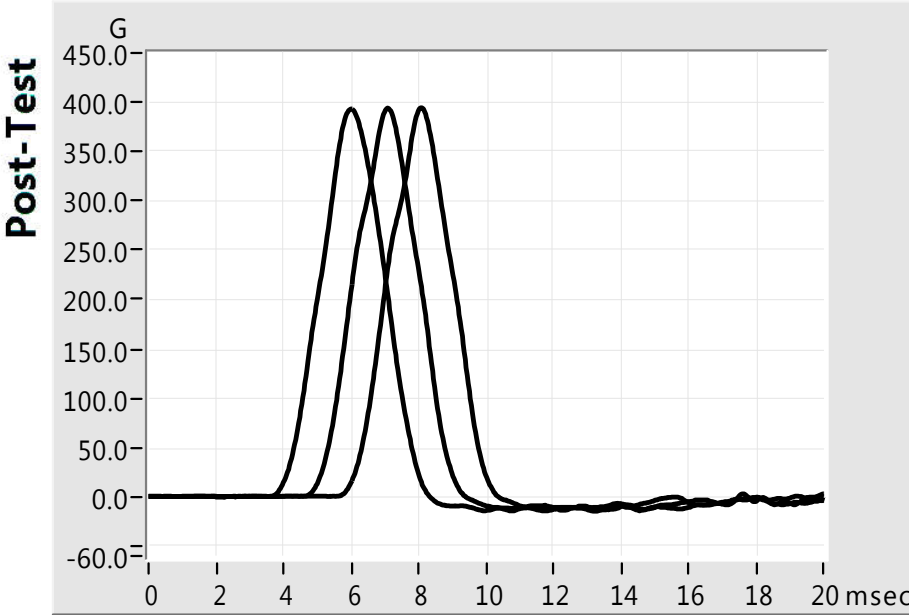
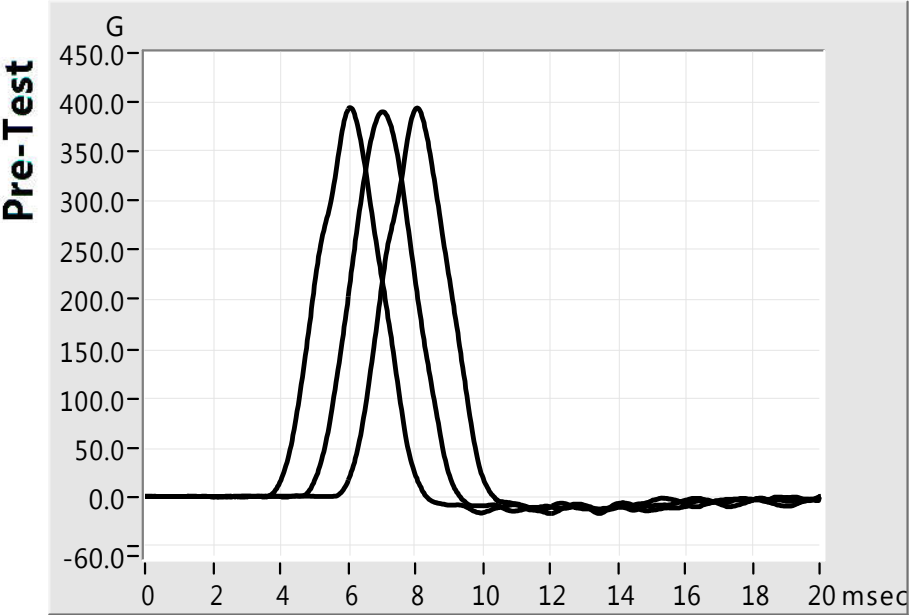
Acc. sensitivity (axis X) :10.01mV/G

Acc. sensitivity (axis Y) :9.99mV/G

Drop Device :Spherical Impactor (Uni-Axial)

Drop mass assembly :6.080kgTime gate flag height: 25.55mm

Calibration peak :402.5G +/- 22.50G



	Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
Pre-Test	1	394.2	3562	4.8104	123.0	MEP	2.56	2.15	0/0	2023-12-26	08:48:30	2.1	Pass
	2	390.1	3702	4.8792	123.0	MEP	2.50	2.07	0/0	2023-12-26	08:49:32	0.7	Pass
	3	393.8	3588	4.8501	123.0	MEP	2.56	2.15	0/0	2023-12-26	08:50:34	1.3	Pass
Post-Test	1	392.8	3663	4.8517	123.0	MEP	2.53	2.11	0/0	2023-12-26	10:54:47	1.2	Pass
	2	393.8	3620	4.8618	123.0	MEP	2.55	2.17	0/0	2023-12-26	10:55:48	1.0	Pass
	3	394.2	3586	4.8268	123.0	MEP	2.56	2.17	0/0	2023-12-26	10:56:52	1.7	Pass

Curve impact #2 : shift of 1ms
Curve impact #3 : shift of 2ms

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

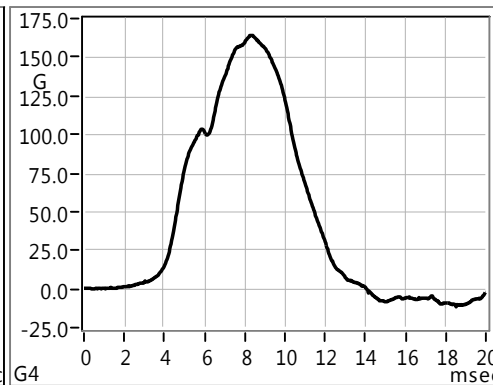
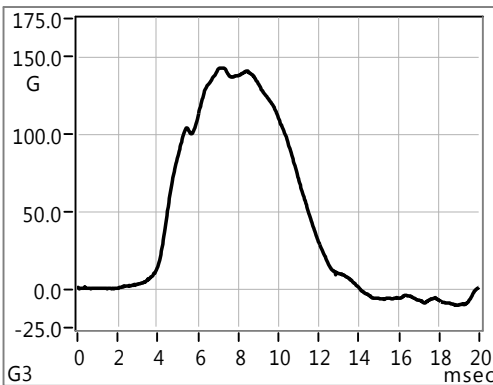
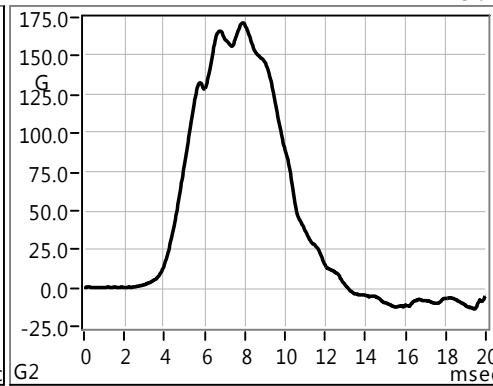
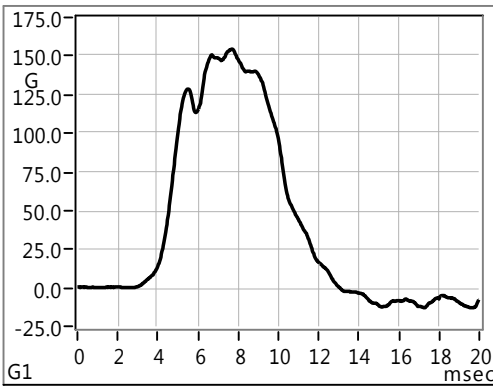
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XXL(63-64CM)

Weight : 1257.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.008-A

Headform Model : D.O.T.

Headform Size : D D.O.T

Conditioning : Ambient

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s2 authorized : 3923 m/s2

Drop mass assembly : 6.080 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	154.5	1039	6.0388	192.0	FLAT	0.67	0.00	LF SIDE	2023-12-26	09:01:23	1.6	Pass
2	171.5	1186	6.0120	192.0	FLAT	2.33	0.00	LF SIDE	2023-12-26	09:01:31	2.0	Pass
3	142.9	961	6.0279	192.0	FLAT	0.00	0.00	REAR	2023-12-26	09:14:31	1.8	Pass
4	164.1	1073	6.0118	192.0	FLAT	1.91	0.00	REAR	2023-12-26	09:14:38	2.0	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

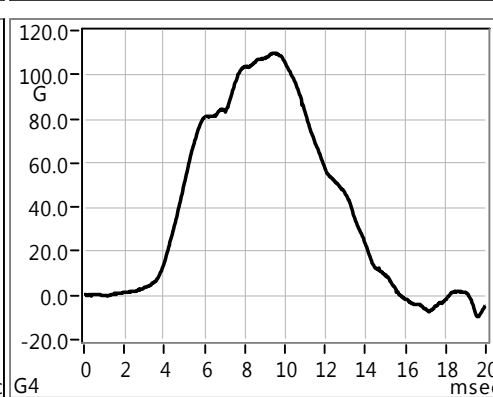
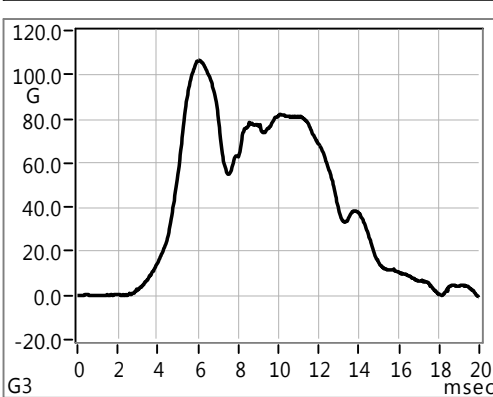
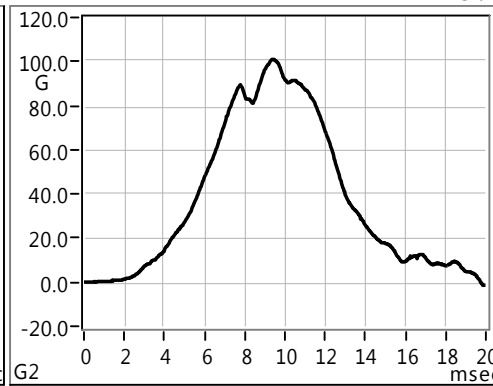
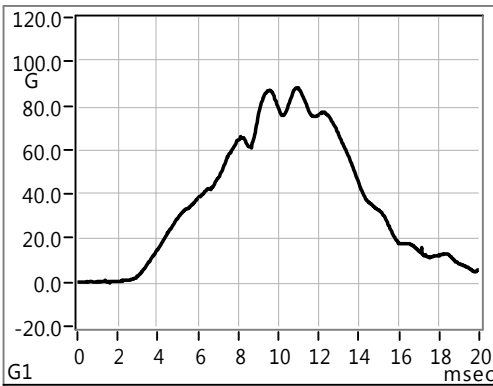
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5
Color : Carbon
Size : XXL(63-64CM)
Weight : 1257.00 g
Manufacturing Date : 26 Dec 2023
Standard Request : FMVSS 218
Identification Code : 904.14552.008-A
Headform Model : D.O.T.
Headform Size : D D.O.T
Conditioning : Ambient
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : 1650 Hz
Maximum Peak G's authorized : 400 G
Maximum Peak m/s2 authorized : 3923 m/s2
Drop mass assembly : 6.080 kg
Time gate flag height : 25.55 mm
Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	88.1	297	5.2025	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	09:19:32	2.4	Pass
6	101.0	384	5.2017	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	09:19:42	2.5	Pass
7	106.5	412	5.2086	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	09:27:14	2.3	Pass
8	109.7	526	5.2050	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	09:27:19	2.4	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

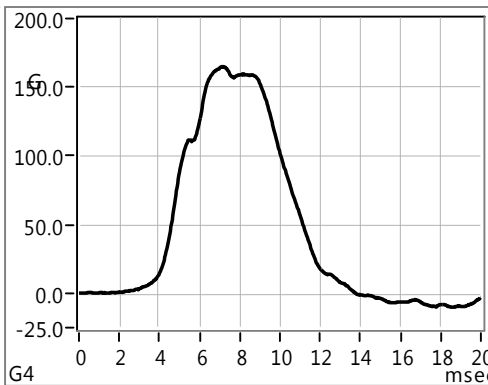
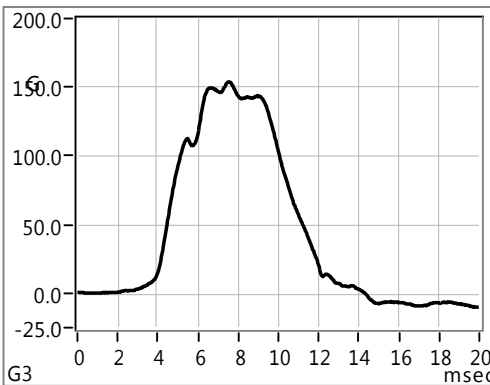
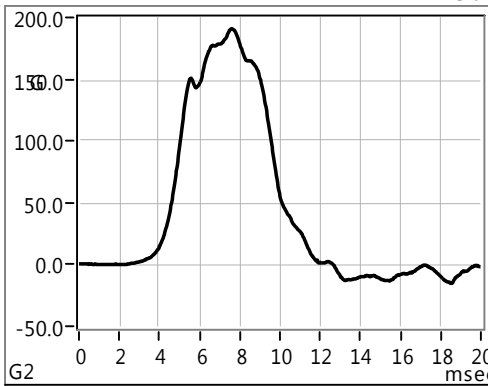
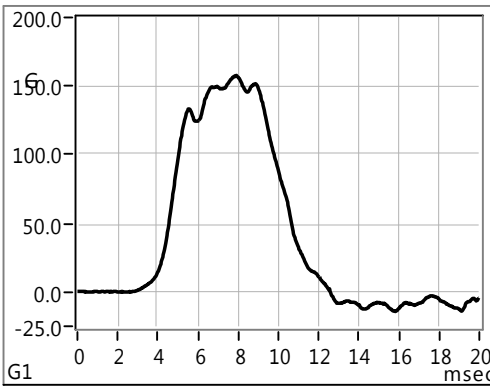
Helmet Manufacturer :TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XXL(63-64CM)

Weight : 1285.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.008-B

Headform Model : D.O.T.

Headform Size : D D.O.T

Conditioning : Cold

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 6.080 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	157.7	1099	6.0129	192.0	FLAT	1.10	0.00	LF SIDE	2023-12-26	09:04:26	2.0	Pass
2	190.9	1424	6.0360	192.0	FLAT	3.03	0.00	LF SIDE	2023-12-26	09:04:32	1.6	Pass
3	154.0	1042	6.0348	192.0	FLAT	0.44	0.00	REAR	2023-12-26	09:12:15	1.7	Pass
4	165.1	1199	6.0408	192.0	FLAT	2.75	0.00	REAR	2023-12-26	09:12:28	1.6	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

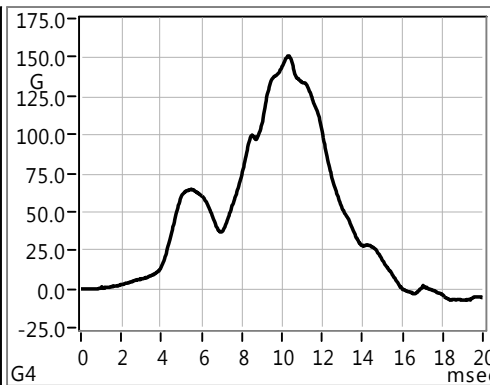
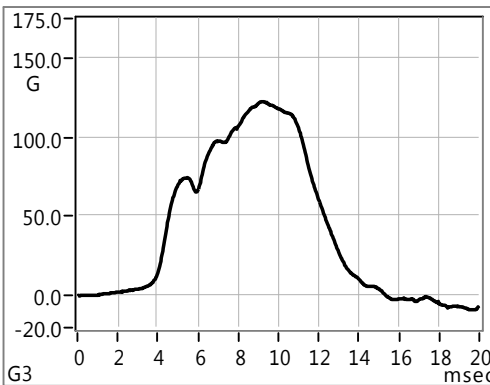
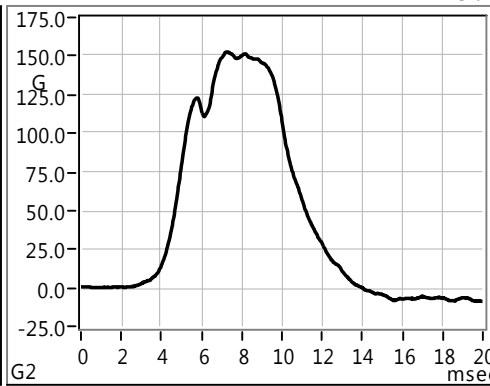
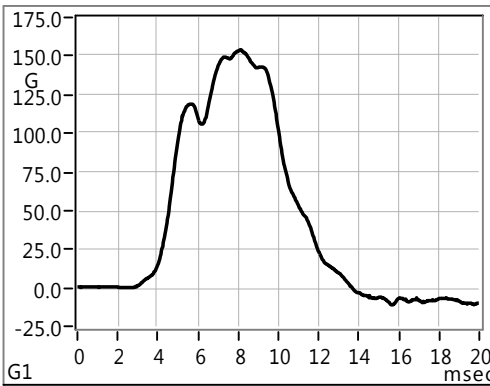
Helmet Manufacturer :TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XXL(63-64CM)

Weight : 1228.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.008-C

Headform Model : D.O.T.

Headform Size : D D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s2 authorized : 3923 m/s2

Drop mass assembly : 6.080 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	154.0	1011	6.0521	192.0	FLAT	0.71	0.00	LF SIDE	2023-12-26	09:06:01	1.4	Pass
2	152.6	1044	6.0390	192.0	FLAT	0.84	0.00	LF SIDE	2023-12-26	09:06:06	1.6	Pass
3	122.6	679	6.0186	192.0	FLAT	0.00	0.00	REAR	2023-12-26	09:08:40	1.9	Pass
4	150.8	675	6.0128	192.0	FLAT	0.14	0.00	REAR	2023-12-26	09:08:50	2.0	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

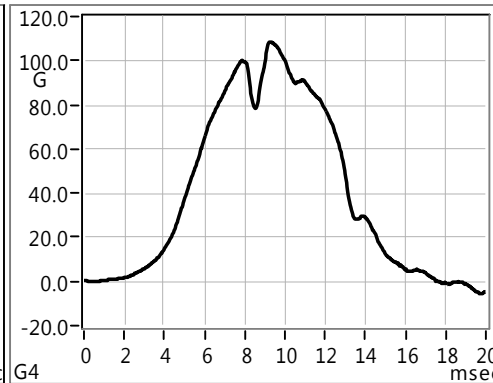
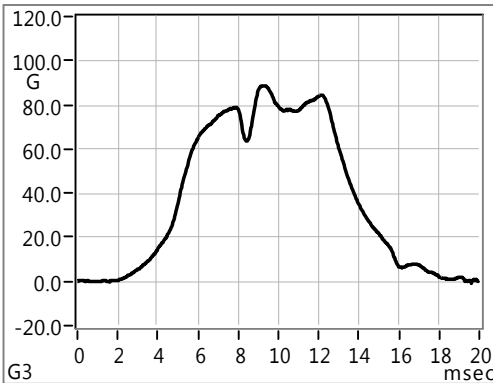
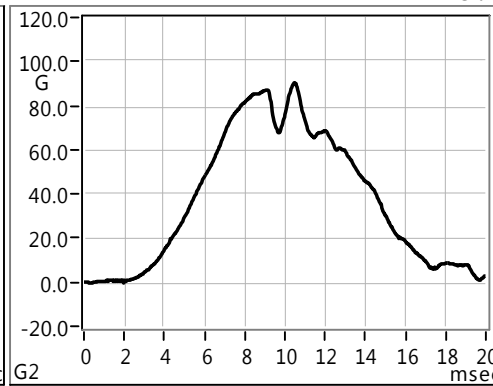
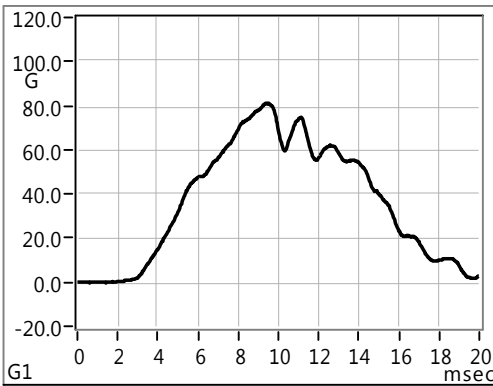
Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

Helmet Manufacturer :TERRIFIC
Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XXL(63-64CM)

Weight : 1228.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.008-C

Headform Model : D.O.T.

Headform Size : D D.O.T

Conditioning : Hot

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 6.080 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
5	81.1	279	5.2351	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	09:24:00	1.8	Pass
6	90.4	328	5.2130	145.0	HEMI	0.00	0.00	FRONT	2023-12-26	09:24:06	2.2	Pass
7	88.5	382	5.1975	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	09:29:51	2.5	Pass
8	108.4	492	5.2300	145.0	HEMI	0.00	0.00	RT SIDE	2023-12-26	09:29:56	1.9	Pass

Impact Uni-Axial

Testing Laboratory : Taicang ACT Lab

Address : No.605 Shanghai Road, Ludu Town,
Taicang City, Suzhou, Jiangsu
Province, China 215412

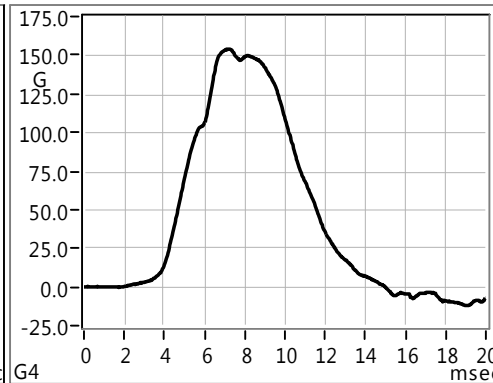
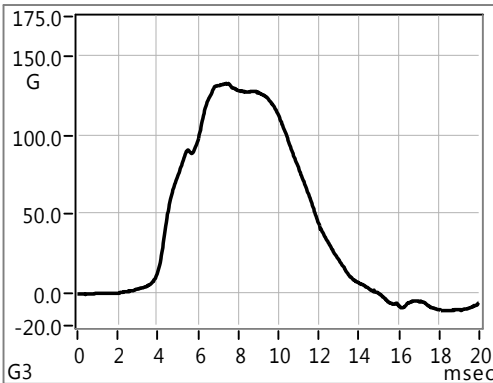
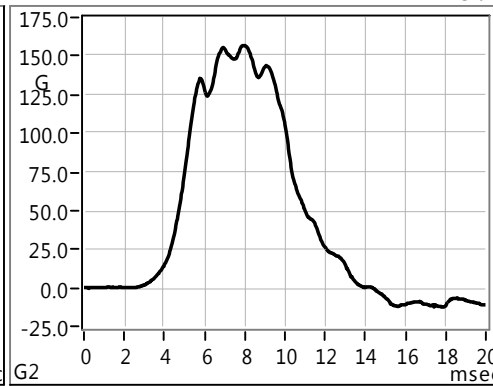
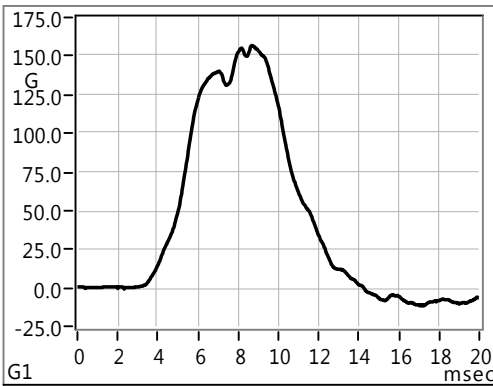
Helmet Manufacturer :TERRIFIC

Address :

Laboratory Technician name : Wille

Batch Number :

Ref. P.O. Number :



Model : ADV9.5

Color : Carbon

Size : XXL(63-64CM)

Weight : 1262.00 g

Manufacturing Date : 26 Dec 2023

Standard Request : FMVSS 218

Identification Code : 904.14552.008-D

Headform Model : D.O.T.

Headform Size : D D.O.T

Conditioning : Wet

Laboratory Temperature : 22 deg C

Laboratory Humidity : 57 %

Selected Filter Frequency : 1650 Hz

Maximum Peak G's authorized : 400 G

Maximum Peak m/s² authorized : 3923 m/s²

Drop mass assembly : 6.080 kg

Time gate flag height : 25.55 mm

Acc. sensibility (axis Z) : 10.59

Impact #	Peak Acc.(G)	HIC	Velocity IN (m/sec)	Drop Height (cm)	Anvil type	Delta T 150G (msec)	Delta T 200G (msec)	Position	Test Date	Test Time	Friction (%)	PASS or FAIL
1	156.8	1008	6.0064	192.0	FLAT	1.24	0.00	LF SIDE	2023-12-26	09:02:46	2.1	Pass
2	156.8	1078	6.0097	192.0	FLAT	1.25	0.00	LF SIDE	2023-12-26	09:02:53	2.1	Pass
3	132.8	831	6.0558	192.0	FLAT	0.00	0.00	REAR	2023-12-26	09:16:19	1.3	Pass
4	154.0	1018	6.0430	192.0	FLAT	0.77	0.00	REAR	2023-12-26	09:16:32	1.5	Pass

DOT Auto – Test results

Laboratory

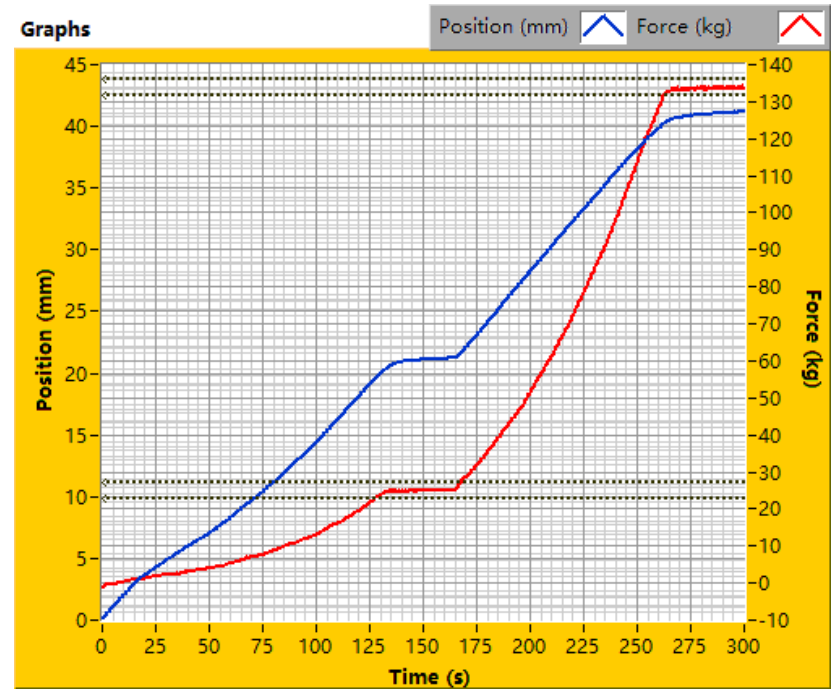
Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

Sample

Model ADV9.5
Color CARBON
Size XXL(63-64CM)
Weight 1257
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.008-A



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2 (mm)	Pass/Fail			
Test#17	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	20.2	Pass			

DOT Auto – Test results

Laboratory

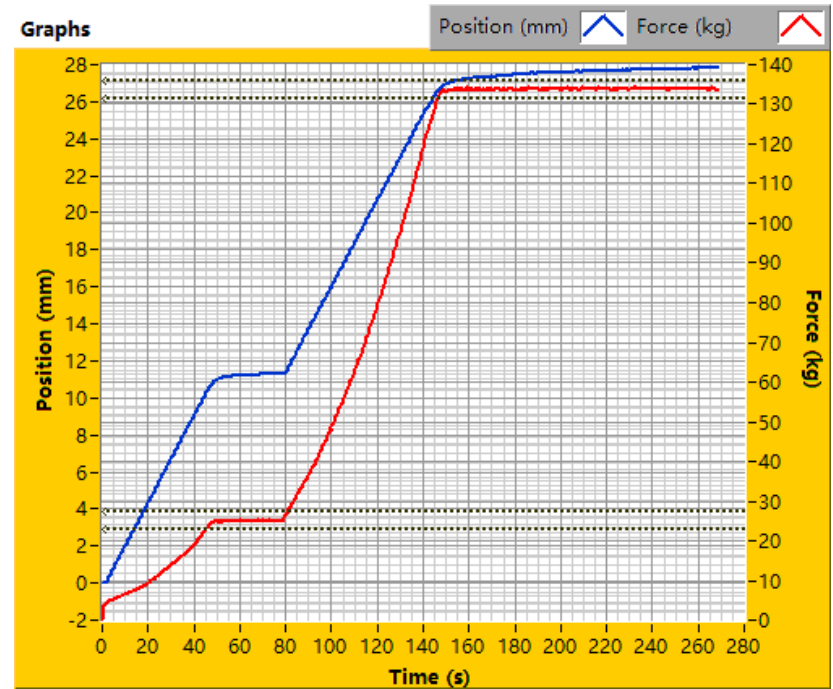
Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

Sample

Model ADV9.5
Color CARBON
Size XXL(63-64CM)
Weight 1285
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.008-B



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del2) (mm)	Pass/Fail			
Test#18	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	16.3	Pass			

DOT Auto – Test results

Laboratory

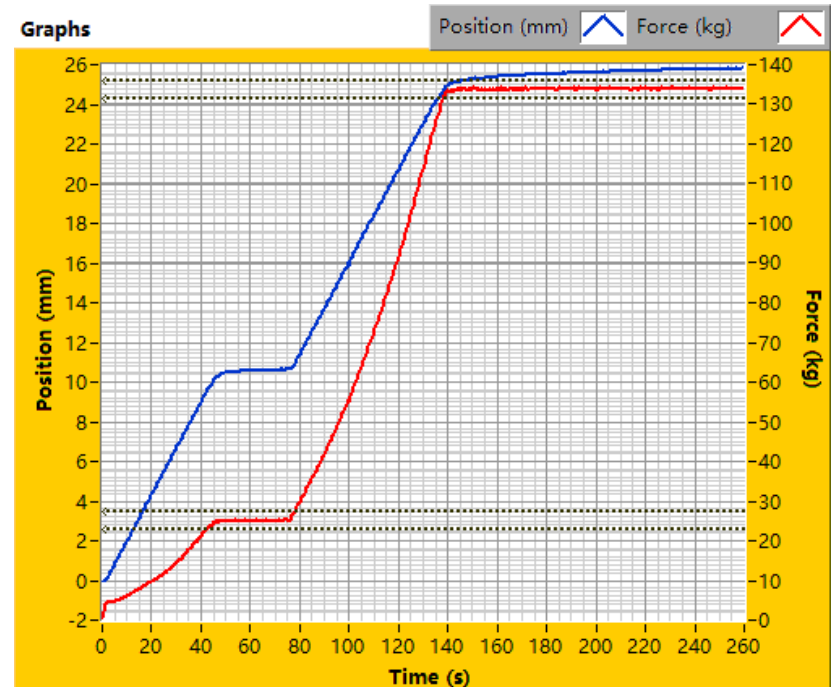
Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

Sample

Model ADV9.5
Color CARBON
Size XXL(63-64CM)
Weight 1228
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.008-C



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del2) (mm)	Pass/Fail			
Test#19	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	15.0	Pass			

DOT Auto – Test results

Laboratory

Laboratory ACT Lab
Technician Wille
Temperature 22
Humidity 57

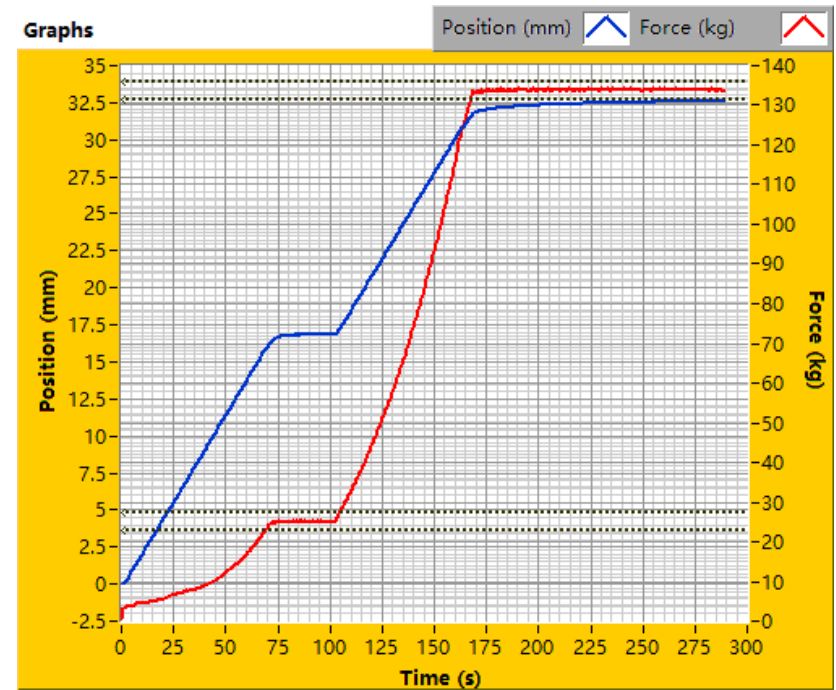
Sample

Model ADV9.5
Color CARBON
Size XXL(63-64CM)
Weight 1262
Manufacturer TERRIFIC
Manuf. Date TBD

Infos

Standard FMVSS No.218
Comment 904.14552.008-D

Graphs



Results

Test	Time Data D/M/Y h:m:s	DL ?	Status	Tar1 (Kg)	Tar1 (S)	Tar2 (Kg)	Tar2 (S)	Delta(Del.1 to Del.2) (mm)	Pass/Fail			
Test#20	01/01/01 00:00:01	NO	Valid	22.7	30.0	136.0	120.0	15.5	Pass			

APPENDIX A

INTERPRETATIONS OR DEVIATIONS FROM FMVSS 218

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.
2. S6.4 Conditioning: Excess water on the water immersed sample was allowed to drip off before testing to prevent water damage to test equipment.

APPENDIX B

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

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Technician: Wille Wang

Test Date: 26 December 2023



EQUIPMENT LIST AND CALIBRATION SCHEDULES

EQUIPMENT LIST						
Asset Tag	Location	Description of part	Model Number	Serial Number	Verification Interval	Next Verification
H1001	Helmet Room	Fixture	Yellow Tower - 1000_00_MIMAT	NA	NA	NA
H1002	Helmet Room	Fixture	Green Tower - Series 2000	NA	NA	NA
H1011	Helmet Room	Instrument	Impact Machine System DX3000 - Green tower	NA	NA	NA
H1013	Helmet Room	Instrument	CPSC/ASTM Dynamic Strength Charge Amplifier - ATA2001 (Backup)	J72863	Yes	Daily
H1015	Helmet Room	Fixture	CPSC/ASTM Positional Stability Fixture	NA	1 year	4/27/2024
H1017	Helmet Room	Fixture	DOT Retention System Machine - SB033	NA	1 year	4/27/2024
H1034	Helmet Room	Environmental chamber	Water Immersion Container	NA	NA	NA
H1043	Helmet Room	Headform	ISO/EN960 A Partial Headform (Impact)	4272	1 year	5/5/2024
H1044	Helmet Room	Headform	ISO/EN960 C Partial Headform (Impact)	6938	1 year	5/5/2024
H1045	Helmet Room	Headform	ISO/EN960 E Partial Headform (Impact)	4146	1 year	5/5/2024
H1046	Helmet Room	Headform	ISO/EN960 J Partial Headform (Impact)	4148	1 year	5/5/2024
H1047	Helmet Room	Headform	ISO/EN960 M Partial Headform (Impact)	4131	1 year	5/5/2024
H1048	Helmet Room	Headform	ISO/EN960 O Partial Headform (Impact)	4151	1 year	5/5/2024
H1049	Helmet Room	Headform	DOT Small (Impact)	5178	1 year	5/5/2024
H1050	Helmet Room	Headform	DOT Medium (Impact)	5179	1 year	5/5/2024
H1051	Helmet Room	Headform	DOT Large (Impact)	5190	1 year	5/5/2024
H1052	Helmet Room	Drop Mass	CPSC/ASTM Spherical Impactor	NA	1 year	5/5/2024
H1054	Helmet Room	Drop Mass	ASTM/SNELL Chin Bar Impactor	NA	1 year	5/5/2024
H1055	Helmet Room	Anvil	CurbStone - CPSC/ASTM	NA	1 year	5/5/2024
H1056	Helmet Room	Anvil	Cylindrical	NA	1 year	5/5/2024
H1059	Helmet Room	Anvil	Triangular Hazard	NA	1 year	5/5/2024
H1060	Helmet Room	Anvil	Hemispherical - Yellow tower	NA	1 year	5/5/2024
H1062	Helmet Room	Anvil	Flat - Yellow tower	C240812-01	1 year	5/5/2024
H1066	Helmet Room	Fixture	Penetration Magnetic Carriage	NA	1 year	6/25/2024
H1091	Helmet Room	Fixture	40° Up Vision Angle Block	NA	1 year	5/6/2024
H1092	Helmet Room	Clamp	Split Ring Clamp - 119g	NA	1 year	5/6/2024
H1093	Helmet Room	Clamp	Split Ring Clamp - 210g	NA	1 year	5/6/2024
H1094	Helmet Room	Clamp	Split Ring Clamp - 378g	NA	1 year	5/6/2024
H1095	Helmet Room	Clamp	Split Ring Clamp - 451g	NA	1 year	5/6/2024
H1096	Helmet Room	Clamp	Split Ring Clamp - 505g	NA	1 year	5/6/2024
H1097	Helmet Room	Clamp	Split Ring Clamp - 597g	NA	1 year	5/6/2024
H1098	Helmet Room	Clamp	Split Ring Clamp - 1158g	NA	1 year	5/6/2024
H1099	Helmet Room	Anvil	Flat - Green tower	NA	1 year	5/6/2024
H1100	Helmet Room	Anvil	Hemispherical - Green tower	NA	1 year	5/6/2024
H1101	Helmet Room	Headform	DOT Small (Reference)	NA	1 year	4/27/2024
H1102	Helmet Room	Headform	DOT Medium (Reference)	NA	1 year	4/27/2024
H1103	Helmet Room	Headform	DOT Large (Reference)	NA	1 year	4/27/2024
H1105	Helmet Room	Drop Mass	Aluminum Ball Stem - Green tower	NA	1 year	5/6/2024
H1106	Helmet Room	Drop Mass	Steel Ball Stem	NA	1 year	5/6/2024
H1107	Helmet Room	Drop Mass	Magnesium Ball Stem	NA	1 year	5/6/2024
H1123	Helmet Room	Fixture	CPSC/ASTM Roll Off Headform Base Fastened Plate	NA	NA	NA
H1126	Helmet Room	Drop Mass	Complete Pistol Grip - Green tower	NA	1 year	5/6/2024
H1127	Helmet Room	Headform	ISO/EN 960 C Full Headform (Reference)	6947	1 year	4/27/2024
H1128	Helmet Room	Headform	DOT Small (Penetration)	NA	1 year	4/27/2024
H1129	Helmet Room	Headform	DOT Medium (Penetration)	NA	1 year	4/27/2024
H1130	Helmet Room	Headform	DOT Large (Penetration)	NA	1 year	4/27/2024
H1143	Helmet Room	Fixture	DOT Brow Opening 1 Inch Block	NA	1 year	4/28/2024
H1146	Helmet Room	Fixture	DOT Penetration Height Stick	NA	1 year	6/25/2024
H1149	Helmet Room	Mass	Testing Area Preload Ballast	NA	1 year	4/28/2024
H1150	Helmet Room	Drop Mass	10kg Positional Stability Drop Mass	NA	1 year	4/28/2024
H1178	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower	NA	1 year	5/6/2024
H1179	Helmet Room	Drop Mass	Aluminum Ball Stem - Yellow tower	NA	1 year	5/6/2024
H1189	Helmet Room	Drop Mass	DOT Penetration Striker Tip	070622-03	1 year	6/25/2024
H1196	Helmet Room	Fixture	DOT Retention Machine Static Load - SB033 (New)	NA	1 year	4/28/2024
H1197	Helmet Room	Fixture	DOT Retention LVDT Calibration Block	NA	1 year	11/9/2024
H1204	Helmet Room	Drop Mass	Complete Pistol Grip - Yellow tower (Backup)	120122-07	1 year	5/6/2024
H1205	Helmet Room	Drop Mass	Ball Stem - Yellow tower (Backup)	NA	1 year	5/6/2024
H1213	Helmet Room	Fixture	CPSC/ASTM Dynamic Retention Strength Fixture	NA	1 year	4/28/2024
H1229	Helmet Room	Fixture	Penetration Tube	NA	1 year	6/25/2024
H1230	Helmet Room	Fixture	Penetration Headform Mount Holder	NA	NA	NA

Contract File No.: 904.14552

Test File: 008

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Technician: Wille Wang

Test Date: 26 December 2023



CALIBRATED MEASUREMENT DEVICES

Asset Tag	Description of part	Model Number	Measuring Range	Accuracy	Serial Number	Last Calibrated On	Calibration Due On
H1003	Instrument	Velocity Gate - Yellow tower	0-8.5m/s	±0.0001m/s	HVTG120120810-1	10/4/2023	10/3/2024
H1004	Instrument	Velocity Gate - Green tower	0-8.5m/s	±0.0001m/s	HVTG120090331-1	1/26/2023	1/25/2024
H1006	Instrument	Accelerometer PCB 353B18 - Yellow & Green tower	±500g	±0.1%	131607	1/26/2023	1/25/2024
H1007	Instrument	Accelerometer PCB 353B18 - Green tower	±500g	≤1%	86079	10/2/2023	10/1/2024
H1009	Fixture	Digital Tape 16' - Yellow tower	0-5.5m	±0.1cm	5027526	11/27/2023	11/26/2024
H1010	Instrument	CCS PC4300 - Green tower	±500g	±0.1%	CCS120090331-1	1/26/2023	1/25/2024
H1012	Instrument	CPSC/ASTM Dynamic Strength LVDT - C20101007753 (Backup)	2 Inch	±0.1%	C20101007753	11/22/2023	11/21/2024
H1014	Instrument	DOT Retention System LVDT - LWE-200	0-200mm	±0.05%	2002572	11/22/2023	11/21/2024
H1025	Fixture	Electronic Scale - BT-6	0-6kg	±0.1g	12230126	6/26/2023	6/25/2024
H1026	Fixture	Laser Table - SB005	0-450mm, 0-20°	±1mm, ±1°	TLTV2KB-20090403-1	11/22/2023	11/21/2024
H1030	Environmental chamber	Oven #1 - 92*9240MBE	0-200°C	±0.1°C	8285	6/26/2023	6/25/2024
H1031	Environmental chamber	Oven #2 - DHG-9426	0-200°C	±0.1°C	1503338018	11/22/2023	11/21/2024
H1032	Environmental chamber	Freezer #1 - DW-25W300	-30~-10°C	±0.1°C	BE062100N00B29578VMO	6/26/2023	6/25/2024
H1033	Environmental chamber	Freezer #2 - DW-50W225	-30~-10°C	±0.1°C	F8LMJ	11/22/2023	11/21/2024
H1036	Fixture	Hygrothermograph #1 - TH-602F	-30~60°C, 0-100%	±1°C	3238	6/27/2023	6/26/2024
H1057	Anvil	Edge	NA	NA	NA	11/26/2023	11/25/2026
H1058	Anvil	Equestrian Hazard	NA	NA	NA	11/26/2023	11/25/2026
H1061	Anvil	Skate Blade	NA	NA	NA	11/26/2023	11/25/2026
H1063	Fixture	Digital tape - 5m	0-5m	±0.1mm	78223	11/27/2023	11/26/2024
H1064	Instrument	CCS PC4400 - Yellow tower	±500g	±0.1%	CCS120120810-1	1/26/2023	1/25/2024
H1070	Instrument	DOT Retention System Load Cell - 9363-B10-300-20T1	0-300lb	±0.1kg	80310843	6/26/2023	6/25/2024
H1072	Fixture	Hygrothermograph #4 - TH600B	-20~100°C, 0-100%	±1°C	Q/MDS001-2017-2	6/27/2023	6/26/2024
H1073	Fixture	Height Gauge	0-500mm	±0.01mm	8811213838273610	11/22/2023	11/21/2024
H1075	Fixture	Digital Level - SPI TRONIC Pro 360	0-360°	±0.1°	31-038-3	11/27/2023	11/26/2024
H1076	Instrument	Calorifier - CN-111	18-35°C	±0.1°C	NA	11/23/2023	11/22/2024
H1077	Fixture	ACT Tape	0-1.5m	±1mm	NA	11/27/2023	11/26/2024
H1117	Fixture	Helmet Internal Circumference Measure Tool	49-62cm	±1mm	NA	11/26/2023	11/25/2024
H1172	Fixture	Height Measurement Rod #6	600±5mm	±1mm	032216-02	6/24/2022	6/23/2025
H1174	Anvil	MEP Pad	NA	NA	021921-01	2022 yearly	2023 yearly
H1180	Instrument	CPSC/ASTM LVDT & Sensor Box	2 Inch	±0.1%	04140748-001	11/22/2023	11/21/2024
H1184	Instrument	Accelerometer PCB 353B18 - Yellow tower	±500g	≤1%	LW226664	10/2/2023	10/1/2024
H1190	Environmental chamber	Oven - KH-120A	5-250°C	±0.1°C	2201-020	11/22/2023	11/21/2024
H1193	Fixture	I-square	150*100mm	±1mm	SJT-43008	11/27/2023	11/26/2024
H1194	Fixture	Triangular Ruler	190mm	±1mm	SJT-43111	11/27/2023	11/26/2024
H1198	Instrument	LVDT Volfa LWE-200 (Head) - DOT Retention	0-200mm	±0.05%	NA	3/10/2023	3/9/2024
H1199	Instrument	LVDT Volfa LWE-200 - DOT Retention Machine	0-200mm	±0.05%	NA	3/10/2023	3/9/2024
H1200	Instrument	VPG load cell - 9363-B10-500-20T1 - DOT Retention Machine	0-500lb	±0.1kg	90139705	3/10/2023	3/9/2024
H1210	Fixture	Peripheral Vision	105° Both sides	105°	NA	4/27/2023	4/26/2026
H1214	Instrument	DOT Retention System LVDT (Head) - LWE-200	0-50mm	±0.05%	27008-10	4/28/2023	4/27/2024
H1216	Fixture	Digital Vernier Caliper - GLA13S	0-300mm	0-200mm: ±0.03mm; 200-300mm: ±0.04mm	K23D014332	5/17/2023	5/16/2024

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Technician: Wille Wang

Test Date: 26 December 2023

APPENDIX C

PHOTOGRAPHS

Contract File No.: 904.14552

Test File: 008

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Technician: Wille Wang

Test Date: 26 December 2023



Impact attenuation test apparatus and data acquisition equipment



Retention system test apparatus



DOT headforms (S, M, L) with flat and hemispherical anvils



Penetration test apparatus with adjustable base



High temperature conditioning chamber



High temperature conditioning chamber



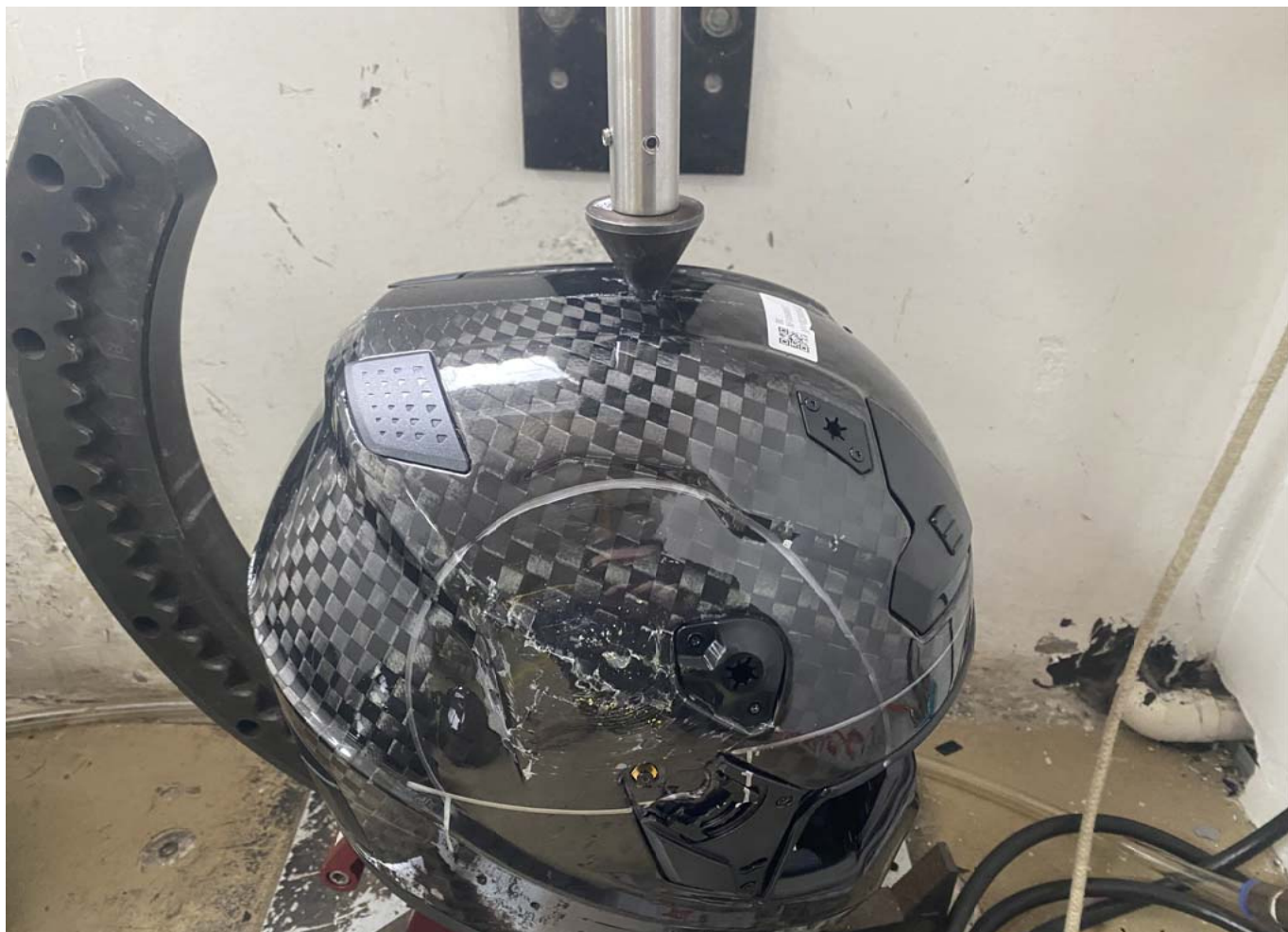
Water immersion equipment



Low temperature conditioning chambers











	PRODUCTION #	XXXXXXXXXX
	MFG DATE	2023.XX
	MODEL	ADV 9.5
	SIZE	XXL (63-64cm)
	WEIGHT	XXXXg +/-50g

WARNING

USE AT YOUR OWN RISK. PLEASE READ THE OWNERS MANUAL BEFORE USE. NO HELMET CAN PROTECT THE USER AGAINST ALL FORESEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. FASTEN HELMET SECURELY. HELMET CAN BE SERIOUSLY DAMAGED BY COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO THE USER SUCH AS: GASOLINE, PAINT, ADHESIVES, CLEANING AGENTS OR BY EXCESSIVE HEAT. MAKE NO MODIFICATIONS TO THE HELMET. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY IT AND REPLACE IT. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

ADV 9.5

MADE IN CHINA BY XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

WARNING

NO HELMET CAN PROTECT THE USER AGAINST ALL FORSEEABLE IMPACTS. SERIOUS INJURY OR DEATH MAY OCCUR WHILST WEARING A HELMET. READ OWNERS MANUAL BEFORE USE. FOR ADEQUATE PROTECTION, THIS HELMET MUST FIT CLOSELY AND BE SECURELY ATTACHED. MAKE NO MODIFICATIONS. IF HELMET EXPERIENCES A SEVERE BLOW, RETURN IT TO THE MANUFACTURER FOR INSPECTION, OR DESTROY AND REPLACE IT. HELMET CAN BE SERIOUSLY DAMAGED BY SOME COMMON SUBSTANCES WITHOUT DAMAGE BEING VISIBLE TO USER SUCH AS: GASOLINE, PETROL, PAINT, ADHESIVES, OR CLEANING AGENTS OR BY EXCESSIVE HEAT. APPLY ONLY THE FOLLOWING: MILD SOAP AND WATER FOR CLEANING. COMFORT PADDING CAN BE HAND WASHED AND AIR DRIED. SHELL CONSTRUCTED OF CARBON FIBER AND OTHER COMPOSITE MATERIALS AND LINER CONSTRUCTED OF EXPANDED POLYSTYRENE.

Model: ADV 9.5 Made in China by XIAMEN TERRIFIC COMPOSITE TECHNOLOGY CO., LTD.

XXL

63-64

LEATT

ADV 9.5

DOT

**FMVSS No. 218
CERTIFIED**

NOTICE

1. The report is not effective without the signature of the person(s) authorizing the report (ACT Lab's authorized signatory is John A. Bogler (President)).
2. The report is not valid if altered.
3. Claims have to be made within 15 days after receipt of this report.
4. The results of this test report relate only to the items tested.
5. The results apply to the samples as received.
6. For reports that contain results from external test service providers: Results from external test service providers are supplied by the customer and can affect validity of results.
7. The results of this test report apply ASTM E29:2022 - Rounding Method, unless otherwise requested or noted within the report.
8. Decision rule applied according to "ILAC-G8:09/2019 - Guidelines on the Reporting of Compliance with Specification".

END OF REPORT

Contract File No.: 904.14552

Test File: 008

Control Document: Official ACT FMVSS No.218 Report Template TP-07 CN 30 November 2023 Rev.28

SharePoint/GlobalResourceLibrary/Reporting/ReportTemplates/Helmets/FMVSS No.218

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Technician: Wille Wang

Test Date: 26 December 2023