


This MotoCAP safety rating applies to:

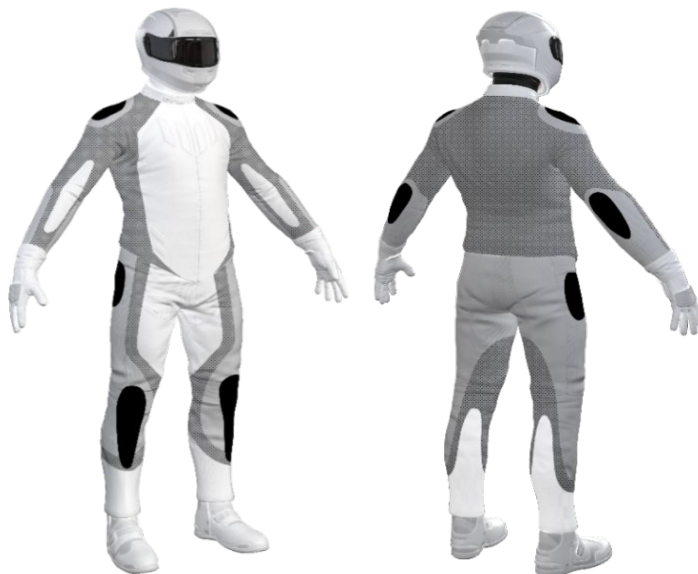
Brand	Harley Davidson
Model	Triple Vent system WP Worden
Type	Jacket - Textile
Date purchased	18 January 2022
Sizes tested	L and XL
Test garment gender	Female
Style	All Purpose
RRP	\$459.00





Test Results Summary	Rating	Score
MotoCAP Protection Rating	★	22.3
Abrasion	2/10	1.46
Burst	10/10	1500
Impact	1/10	0.0
MotoCAP Breathability Rating	★	0.235
Moisture Vapour Resistance	-	87.1
Thermal Resistance	-	0.342
Water resistance	9/10	1.7

This garment is not fitted with impact protectors. Pockets are provided at the shoulders, elbows and back for fitting aftermarket impact protectors. Adding elbow and shoulder impact protectors would improve the protection levels of this garment. There are zipped vents in the sides, arms and back to allow controlled airflow movement through the garment. The breathability rating is based on tests of the garment's materials when all vents are closed. The breathability of this product may be better when the vents can be opened.

Jacket and Pants - Crash Impact Risk Zones

This diagram is a pictorial representation of the crash impact risk Zones.



Zone 1	Zone 2	Zone 3	Zone 4
			
High risk of abrasion High risk of impact	High risk of abrasion	Medium risk of abrasion	Low risk of abrasion

Removable liners

Thermal liner	<input type="checkbox"/>
Water resistant liner	<input type="checkbox"/>

Removable impact protection

	Pockets	Armour
Elbow	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Shoulder	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Back	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Abrasion Resistance

The jacket was tested for abrasion resistance in accordance with MotoCAP test protocols. The diagram below is a visual indication of the likely abrasion performance of the materials in each zone calculated from the data in the table below. The colour coding is based on the worst performing material in each zone.



Abrasion Resistance Performance

Abrasion rating	2/10
Abrasion score	1.46

Determining Criteria	Area	Good	Acceptable	Marginal	Poor
High abrasion risk	Zone 1 & 2	> 5.6	3.0 - 5.6	1.3 - 2.9	< 1.3
Medium abrasion risk	Zone 3	> 2.5	1.8 - 2.5	0.8 - 1.7	< 0.8
Low abrasion risk	Zone 4	> 1.5	1.0 - 1.5	0.4 - 0.9	< 0.4

Individual Abrasion Resistance Results: - The table below shows the test results for time to abrade through all layers of the materials. Calculated for each sample by Zone, type and area coverage of each material as a proportion of that Zone. Abrasion times are capped at a maximum of 10.00s.

Abrasion time for each test (seconds)

Zone 1 & 2	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	
Material A	60%	10.00	10.00	10.00	10.00	10.00	7.09	9.52	G
Material B	40%	0.86	1.85	1.84	0.64	0.88	1.09	1.19	P
Zone 3	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	
Material C	15%	1.84	3.97	2.16	2.03			2.50	A
Material B	85%	0.86	1.85	1.84	0.64	0.88	1.09	1.19	M
Zone 4	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	
Material C	15%	1.84	3.97	2.16	2.03			2.50	G
Material B	85%	0.86	1.85	1.84	0.64	0.88	1.09	1.19	A

Details of materials used in jacket

Material A	Quilted leather shell, water resistant layer and fabric inner liner
Material B	Fabric shell, water resistant layer and fabric inner liner
Material C	Leather shell, water resistant layer and fabric inner liner

Burst Strength

The jacket was tested for burst strength in accordance with MotoCAP test protocols. The diagram below illustrates the burst strength results in terms of the likely performance of the garment in an impact and is a pictorial representation of the data from the table below.



Burst Strength Performance

Burst rating	10/10
Burst score	1500

Determining Criteria	Unit	Good	Acceptable	Marginal	Poor
Burst strength	(kPa)	> 1000	800 - 1000	500 - 799	< 500

Individual Burst Strength Results: - The table below shows the burst pressure in kilopascals (kPa) for each sample tested by Zone and the average result for each zone.

Burst pressure for each seam (kPa)

Area	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	
Zones 1 & 2	1859	1083	1295	2004	1029	1754	1504	G
Zones 3 & 4	1532	1426	1424	1395	1617	1528	1487	G

Impact Protection

The jacket was tested for impact protection and coverage in accordance with MotoCAP test protocols. The diagram below is a visual indication of the likely performance of each impact protector calculated from the data in the table below. The colour coding is based on the worst performing score for average or maximum force for each impact zone. Areas shaded black are not considered for impact protection ratings.



Impact Protection Performance

Impact rating	1/10
Impact score	0.0

Determining Criteria	Unit	Good	Acceptable	Marginal	Poor*
Impact force	(kN)	< 15	15 - 24	25 - 30	> 30

* Poor may also indicate that no impact protector, or impact protector pocket is present in the garment

Individual Impact Protector Results: - The table below shows the test results for each strike on each impact protector in kilonewtons (kN) and their area of coverage as a proportion (%) of the Zone. Individual strike results are capped at a maximum of 50kN.

Impact protector type	Elbow	Shoulder
Average force (kN)	P	P
Maximum force (kN)	P	P
Coverage of Zone 1 area	0%	0%
Coverage of Zone after displacement	0%	0%

Individual Impact Protector Results: - The table below shows the test results for each strike on individual impact protectors in kilonewtons (kN) and the position of the strike. Individual strike results are capped at a maximum of 50kN.

Force transfer for each impact strike (kN)

Impact protector type	Elbow	No impact protector present			Shoulder	No impact protector present		
Strike location	Centre	Mid	Edge		Centre	Mid	Edge	
Impact Protector 1								
Impact Protector 2								
Impact Protector 3								

Breathability

The jacket was tested for breathability following the MotoCAP test protocols. The table below shows the moisture vapour resistance and the thermal resistance values obtained.

Without removable liners

Breathability rating	★
Breathability score	0.235

With water-resistant liner

Breathability rating	N/A
Breathability score	N/A

Moisture Vapour Resistance - R_{et} (kPa.m ² /W)	1	2	Average
Without removable liners	87.0	87.3	87.1
With water-resistant liner	N/A	N/A	N/A
Thermal Resistance - R_{ct} (K.m ² /W)	1	2	Average
Without removable liners	0.340	0.343	0.342
With water-resistant liner	N/A	N/A	N/A

Water spray and rain resistance

This jacket is advertised as water-resistant, and so has been tested for water spray and rain resistance according to the MotoCAP test protocols. The table below shows the water absorbed (ml) and the wetting proportion (%) of the garment and undergarments due to water absorption.

	Water absorbed by garment		Water absorbed by underwear	
	Volume (ml)	Percentage (%)	Volume (ml)	Percentage (%)
Jacket 1	293	18%	5	2%
Jacket 2	315	19%	4	1%
Average	304	19%	5	2%

Location of wetting

There was no visible wetting to the cotton underwear for either jackets tested.

Assessment Details.

Brand	Harley Davidson
Model	Triple Vent system WP Worden
Type	Jacket - Textile
Date purchased	18 January 2022
Tested by	AMCAF, Deakin University
Report approved by	MotoCAP Chief Scientist
Garment test reference	J20T41
Rating first published	March 2022
Rating updated	18 March 2022