



Global NCAP: Safer Cars for India Project Euro NCAP: Quadricycle safety campaign



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Global NCAP Technical Director
WP29, Geneva, June 22nd, 2016





Models tested



Renault Kwid



Global NCAP's
Kwid



JAN
2016

APR
2016

MAY
2016



Renault Kwid



Global NCAP's
Kwid



**JAN
2016**

**APR
2016**

**MAY
2016**

Kwid (I)



18,091 units
UNTIL
MEEBBA005G1323780

 **Tested**

Kwid (II)



Est. 25,000 units
FROM
MEEBBA005G1323781

 **Not
Tested**

Kwid (III)



Est. 5,000 units
FROM
MEEBBA005G4350297

 **Asked to
be tested**

Kwid (IV)



FROM
MEEBBA008G5362695

 **Asked to
be tested**

Renault Kwid (I) - NO Airbags



0.00 max. 17.00 - Adult



23.89 max. 49.00 - Child



Front passenger



Driver





ADAC

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OD0916RKW1

OD0916RKW1

Renault Kwid (III) - NO Airbags



0.00 max. 17.00 - Adult



14.85 max. 49.00 - Child



Front passenger



Driver





ADAC

OD1716RKW1

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OD1716RKW1

OD1716RKW1

Renault Kwid (III) – Driver Airbag



0.00 max. 17.00 - Adult



16.63 max. 49.00 - Child



Front passenger



Driver







KWID (I)
DIC 2015



64
Km/h

KWID (III)
APR 2016



64
Km/h



Structural stability is still an issue












RENAULT KWID (I)



Maruti Suzuki Eeco

Research Project: Safer cars for India




















Summary of Results

RESULTS				
 Hyundai EON	✗	☆☆☆☆☆	★★☆☆☆	
 Mahindra Scorpio	✗	☆☆☆☆☆	★★☆☆☆	
 Maruti Suzuki Eco	✗	☆☆☆☆☆	★★☆☆☆	
 Renault Kwid (I)	✗	☆☆☆☆☆	★★☆☆☆	
 Maruti Suzuki Celerio	✗	☆☆☆☆☆	★☆☆☆☆	
 Renault Kwid (III)	✗	☆☆☆☆☆	★★☆☆☆	
 Renault Kwid (III)	✓ ¹	☆☆☆☆☆	★★☆☆☆	

Research Project: Safer cars for India

Summary of Results



RESULTS				
 Hyundai EON	✗	☆☆☆☆☆	☆☆☆☆☆	
 Mahindra Scorpio	✗	☆☆☆☆☆	☆☆☆☆☆	
 Maruti Suzuki Eeco	✗	☆☆☆☆☆	☆☆☆☆☆	
 Renault Kwid (I)	✗	☆☆☆☆☆	☆☆☆☆☆	
 Maruti Suzuki Celerio	✗	☆☆☆☆☆	☆☆☆☆☆	
 Renault Kwid (III)	✗	☆☆☆☆☆	☆☆☆☆☆	
 Renault Kwid (III)	✓1	☆☆☆☆☆	☆☆☆☆☆	
 Volkswagen POLO	✓2	★★★★☆	☆☆☆☆☆	
 Volkswagen POLO	✗	☆☆☆☆☆	☆☆☆☆☆	
 Maruti Suzuki ALTO 800	✗	☆☆☆☆☆	☆☆☆☆☆	
 Ford FIGO	✗	☆☆☆☆☆	☆☆☆☆☆	
 Hyundai i10	✗	☆☆☆☆☆	☆☆☆☆☆	
 Tata NANO	✗	☆☆☆☆☆	☆☆☆☆☆	
 Toyota Etios	✓2	★★★★☆	☆☆☆☆☆	
 Datsun Go	✗	☆☆☆☆☆	☆☆☆☆☆	
 Maruti Suzuki Swift	✗	☆☆☆☆☆	☆☆☆☆☆	

General Conclusions - Recommendations

- ✈ Global NCAP recommends Indian government to adopt Regulation UN94 (frontal crash protection) as mandatory for all cars.
- ✈ Global NCAP strongly recommends a BHARAT NCAP to perform the frontal crash test at 64km/h
- ✈ Global NCAP and its members is ready to assist the Indian Government with technical support



Quadricycle Safety Campaign

2016 Quadricycle Safety Campaign

L7 Category

- Limits to mass and power
- Some capable of 100km/h
- No legislative crash test requirements

Simplified test procedures

- Frontal: 50km/h full width to deformable barrier
- Side: 50km/h 950kg trolley
- Identical to 2014 testing



2016 ★☆☆☆☆

Microcar M.GO Family

Petrol, 4 seat heavy quadricycle



2016 ★☆☆☆☆

Bajaj Qute

Petrol, 4 seat heavy quadricycle



2016 ★☆☆☆☆

Aixam Crossover GTR

Petrol, 4 seat heavy quadricycle



2016 ★☆☆☆☆

Chatenet CH30

Petrol, 2 seat heavy quadricycle



Bajaj Qute

- Test variant:
 - Kerb Mass: 440 kg
 - Max Speed: **70 km/h**
 - EU type approved
- Country of origin:
 - Produced in India
 - Purchased in Turkey

www.globalbajaj.com



Bajaj Qute

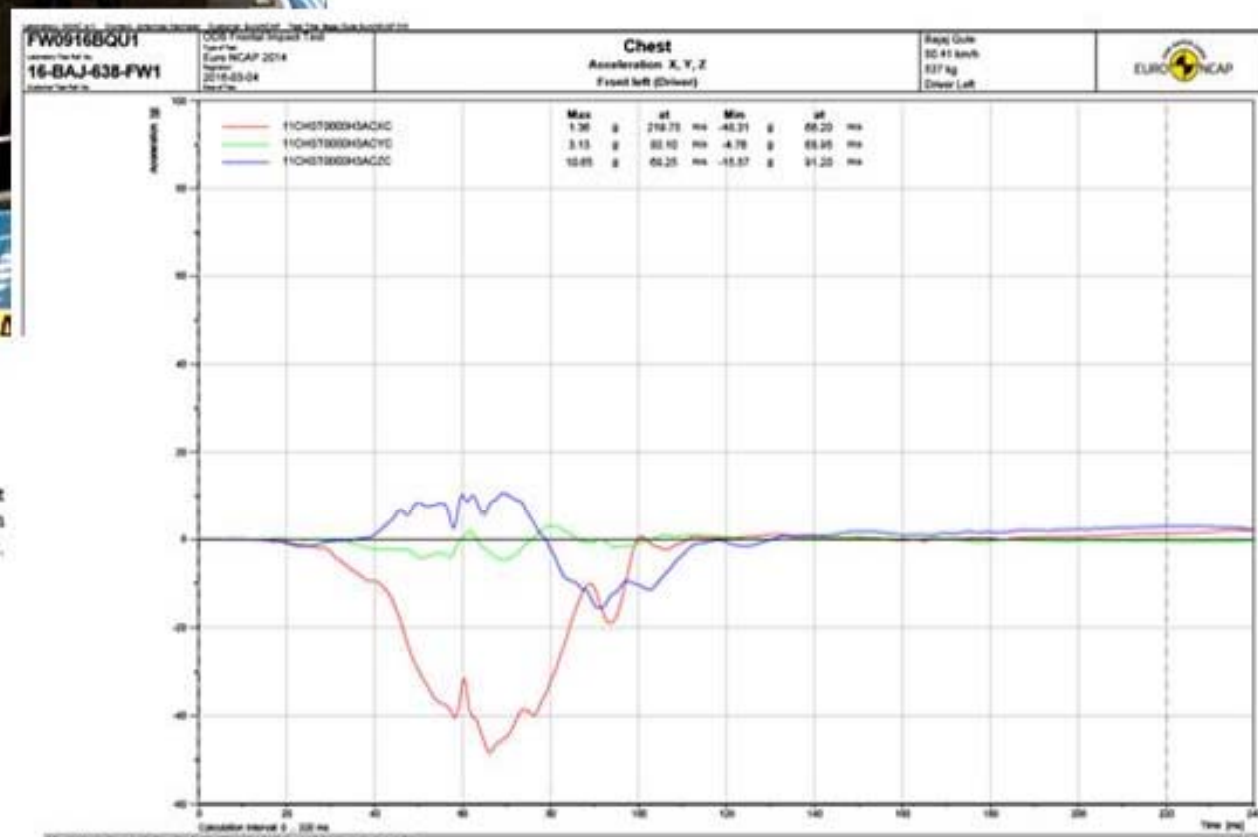


Results

- Rigid steering wheel to chest contact

Chest compression of 49mm

relates to ~50% risk of AIS3+ injuries



3.2 Driver's Chest

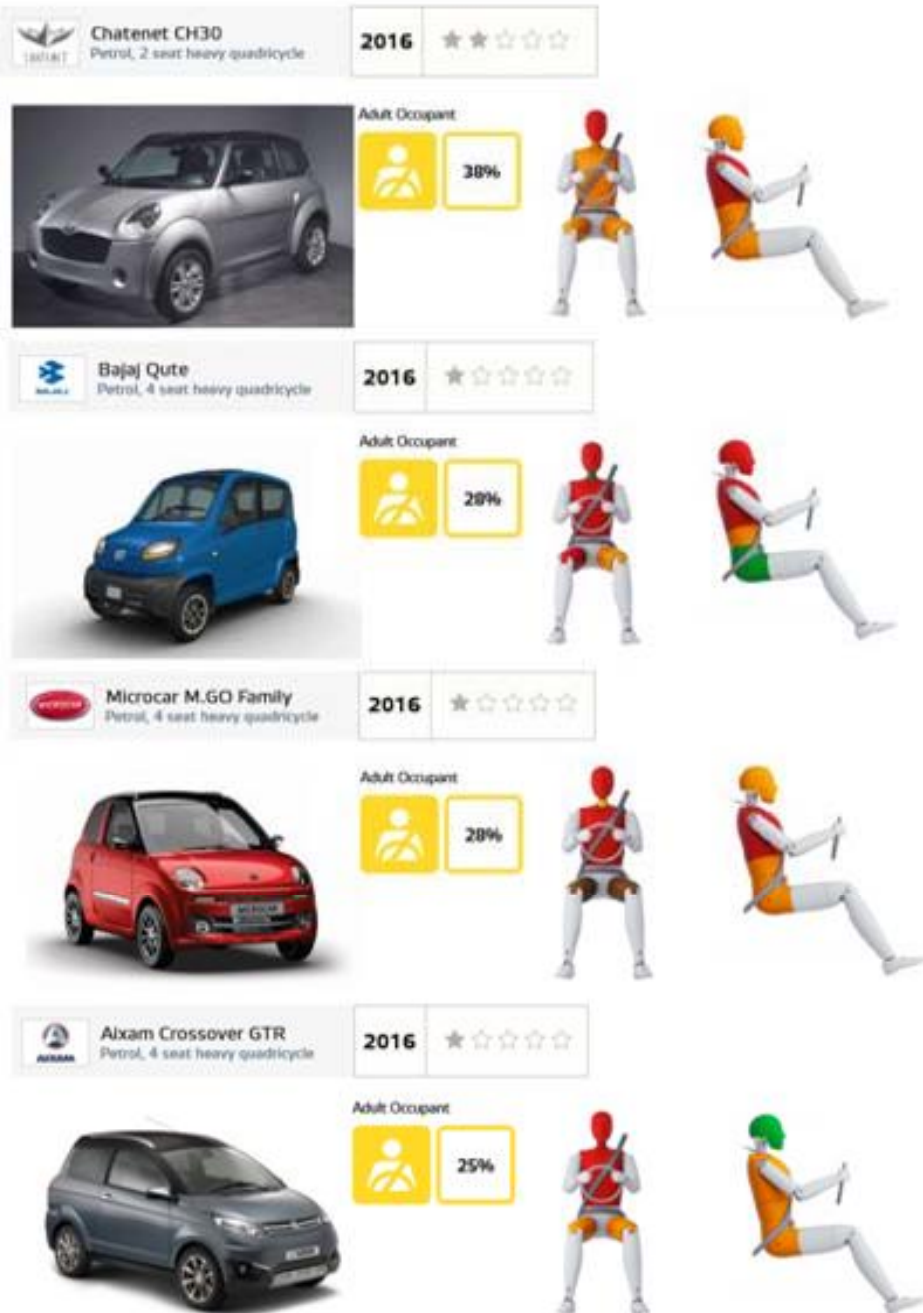
3.2.1 Steering wheel contact

Modifier = -1

From the high speed film and dummy chest traces it appears that the dummy chest contacted the lower section of steering wheel rim at around 60ms. There is no spoke in this area and the wheel did not show any permanent deformation due to the chest contact.



2016 Quadricycle Safety Campaign



- All quadricycles performed poorly
- Fundamental safety concerns
 - Some showed poor structural integrity
 - Dummy readings indicated a high risk of fatal or serious injuries (red body region in illustrations)
- Improvement is not impossible!
 - Urge quadricycle manufacturers to invest in safety
 - Call for greater safety regulation of quadricycles
- Euro NCAP to try to engage more closely with manufacturers

Conclusions

- Quadricycles are ill-equipped to deal with the crash risks to which they would be exposed on a given road as part of normal traffic
- While looks continue to be smarter and more appealing, safety performance remains poor
- L7 regulation does not set realistic safety targets for industry



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Thank you very much

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