

CRASH RATED TYRE KILLER – D100

Swaraj Secutech's tyre killer is a third generation tyre killer whose unique design combines a Fail-Safe Puncture tool and a metallurgy of hardened carbon steel which deflates even third generation run flat tyres (tube-less) effortlessly.

The Spikes have been designed to ensure that tyres of intruding vehicles are punctured irrespective of the direction of approach. It has been crash rated at Horiba MIRA, U.K. wherein all 6 tyres of a 7.2 ton truck were deflated instatenously.

Special care is taken to ensure that the design encompasses the provision of drainage so that accumulated dirt and water can drain out instead of blocking the tyre killer mechanism. Inbuilt hydraulic hand pump gives the flexibility to use the device manually incase of power failure and secure the entrance.


Crash test pictures at MIRA, UK



Pre-Test



Post Test : All tyres deflated immediately


1218434-007

**Commercial in Confidence
Test Summary**

SWJ-TYRE KILLER

| | | |
|--|--|--|
| Manufacturer: Swaraj Securtech PVT LTD Survey No.427 RajpurJulasan Rd Ahmedabad 382705 Amitava@swarajsecutech.com | MIRA Contact: HORIBA-MIRA Ltd Walling Street, Nuneaton Warwickshire, CV10 0TU | HSPI Safety Development Dept HORIBA-MIRA Ltd Walling Street, Nuneaton Warwickshire, CV10 0TU |
|--|--|--|

Test Ref: W0002 Test Date(s): 10th January 2019



This test was Not UKAS Accredited and is not included in the UKAS Accreditation Schedule for this laboratory. Opinions and interpretations expressed herein are outside the scope of HORIBA MIRA Ltd HSPI Test Centre UKAS Accreditation

| Item Reference | SWJ-TYRE KILLER |
|------------------------------|--|
| Item description | Steel spiked hydraulic raising tyre killer |
| Item Height (mm) | 150 (spikes above ground) |
| Item Length (mm) | 4310 |
| Foundation depth/Length (mm) | 350/4912.5 |
| Installation Date | 20/12/2018 |
| Concrete | 34.7 N/mm ² |
| Vehicle | Iveco Eurocargo FJ09 ABN |

| Test Parameters | Driven Test Requirement | Measured Value |
|-----------------------|-------------------------|----------------|
| Test Vehicle | NZA | NZA |
| Test Mass (kg) | 7200 ± 400 | 7240 |
| Impact Speed (km/h) | 32.0 ± 3/-1 | 35* |
| Impact Angle (deg) | 90.0 ± 2.0 | Not Assessed |
| Alignment | Centerline | Not Assessed |
| Equipment orientation | 90° From closed | 90° |

*Using Tacho calibrated speedometer

Test Results Summary
The Swaraj SWJ-Tyre Killer was tested at MIRA Ltd on 10th January 2019. The test was conducted at HORIBA-MIRA test location in the UK. The vehicle was driven at a speed of 35km/h over the installed system by a test engineer. The test was witnessed and filmed by HORIBA-MIRA. All tyres were punctured as intended and the vehicle brought to a controlled halt by the driver.

Prepared By:  Approved By: 

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Date: 17th January 2019

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SPECIFICATIONS

| | |
|----------------------------------|---|
| MODEL NAME/NUMBER | D100H (HYDRAULIC) / D100M (ELECTRO-MECHANICAL) |
| SYSTEM TYPE | ACTIVE 2-WAY SPIKES |
| MECHANISM | ELECTRO-HYDRAULIC / ELECTRO-MECHANICAL |
| SPEED | 1.5 SECOND (CUSTOMIZABLE) |
| RATED HEIGHT | 150 MM |
| RATED LENGTH | 4310MM |
| DISTANCE BETWEEN SPIKES | 100 MM |
| RATED BLOCKING ANGLE | 90 DEGREE OR 60 DEGREE (CUSTOMIZABLE) |
| HOUSING | GALVANIZED MILD STEEL BODY WITH RAL COATING |
| SPIKE MATERIAL | HIGH TENSILE CARBON STEEL |
| SAFETY DEVICES | SAFETY AGAINST VEHICLE: LOOP DETECTOR SAFETY AGAINST HUMAN: PHOTO SENSOR |
| IP RATING | IP 68 |
| MCBF (MEAN CYCLE BEFORE FAILURE) | 10 MILLION OPERATIONS |
| POWER SUPPLY | 230 VAC, 50 Hz/415 VAC 50 Hz |
| DUTY CYCLE | 100% |
| OPERATIVE MODES | PUSH BUTTON, ACCESS CONTROL, REMOTE CONTROL |
| OPERATING TEMPERATURE | -20 °C TO +70 °C |
| POWER FAILURE MODE | MANUAL OPERATION AVAILABLE |
| CERTIFICATIONS | CRASH REPORT FROM HORIBA MIRA, UK; ISO 9001 : 2015 |

Pre- Test Picture



Post- Test Picture



“PROUDLY MADE IN INDIA”