## BROWN DAVIS

## **Roll Over Protection (ROPS)**

With over three decades experience and engineering expertise producing motorsport, mining, military, civil and industrial sector Roll Over Protection Structures (ROPS), Brown Davis Automotive are world leaders in roll over safety design, testing, and manufacture. Brown Davis produce effective ROPS solutions for many popular light commercial and 4x4 vehicles. Each ROPS is designed to sustain critically tested impact loads in vertical, longitudinal, and lateral axes with minimal deformation. The Brown Davis testing process is relentless and employs a combination of FEA computer simulated data and in house physical testing using a specially constructed testing rig. Consultation with third party independent engineering specialists, who formalise the test reporting for each model, offering the end user the ultimate in safety and complete confidence in each ROPS system.

Each ROPS design is engineered to exceed the most stringent standards of the worlds major resource companies (eg. Anglo American). Testing is carried out in line with the new RMA International Mining ROPS Protocol (world leading commercial vehicle ROPS safety requirements).



## Only internal dual cab ROPS in the world to meet RMA test protocol

- Innovative rear hoop behind seat reinforcement increases rollover load performance with no effect on load space







Brown Davis ROPS are an internal structure (in-cabin), designed as a complete bolt in assembly that maintains excellent entry/exit clearance and head room. By utilising factory captive thread points, the structure is fastened to the body shell to further enhance the rigidity and overall cabin deformation protection offered by the total structure.

The Toyota Hilux Dual Cab ROPS, is constructed from 350MPa (minimum tensile strength) 44.5mm 2.6mm wall cold drawn tubing which is CNC bent for a precise fit. The Brown Davis designed roll bar tube joiners are CNC machined, and mounting components and brackets are laser cut for high accuracy. Each structure is M.I.G welded to exceed Australian standard AS1554, and powder coated for a durable and attractive surface finish.

Brown Davis ROPS exceed the strength standards and are designed to comply with all the new proposed registration requirements within Australia (eg. LK8 / LH9 in Queensland).



Brown Davis physical test rig

