INTELLIGENT ENGINEERING

03 8324 0246
sales@intelengineering.com.au
www.intelligentengineering.com.au
20 Oldham Rd Epping VIC 3076

The Use of Non-Approved "Corner Jacks"

Purpose

This document provides technical clarification regarding the installation and use of **Corner Jacks (and similar high-capacity lifting jacks)** in place of the supplied Corner stabilisers on caravans fitted with an Intelligent Engineering chassis. It outlines design intent, structural limitations, and the resulting impact on warranty coverage.

Background

Corner Jacks are heavy-duty lifting devices capable of raising **up to 1,800 kg per jack**. These units are sometimes installed as replacements for standard caravan stabiliser legs at each corner of the van.

This practice introduces loading conditions that the chassis corners and associated mounting points were **not designed to withstand**.

Stabiliser Legs – Design Intent

Factory-fitted stabiliser legs are designed **only to stabilise** a caravan while parked.

Key characteristics of stabiliser legs:

- Intended to reduce "rocking" when stationary
- **Not designed for lifting the caravan (e.g., for wheel removal)**
- Typical maximum load rating: **approximately 220 kg per leg**
- Not engineered to carry uneven or direct lifting loads

Using stabiliser legs (or their mounting locations) **as lifting points exceeds their design limits** and can result in structural damage.

Chassis Design and Approved Jacking Points

Intelligent Engineering chassis are manufactured with **dedicated jacking points** specifically designed for lifting operations such as wheel or brake servicing.

Approved jacking locations:

- Positioned **directly behind the wheel**
- Reinforced to support lifting loads
- Designed to protect the main chassis rails and structural integrity

Lifting the caravan from any other location is not approved.

INTELLIGENT ENGINEERING

03 8324 0246
sales@intelengineering.com.au
www.intelligentengineering.com.au
20 Oldham Rd Epping VIC 3076

Technical Concerns with Corner Jack Installations

Installing high-capacity corner jacks in place of stabiliser legs creates serious structural risks.

- **Excessive Load Capacity**

Some corner jacks are known to apply loads of up to **1,800 kg at a single corner**, which is **far beyond** the structural load capacity of the chassis corner sections.

- **Structural Deformation Risk**

Using even **one rear corner jack** while the caravan remains hitched to a tow vehicle can:

  - Twist or bend the **main chassis rails**
  - Introduce stress into wall structures
  - Cause damage to internal cabinetry, body panels, doors, windows, seals, and joints.

- **Incorrect Load Path**

The caravan chassis is not engineered to support **full or partial vehicle lifting from its corners**. Doing so forces loads into areas not designed to distribute load safely.

Warranty Implications

Intelligent Engineering **does not approve** the installation or use of corner jacks (or similar lifting devices):

- In place of stabiliser legs
- Attached to existing stabiliser leg brackets
- Mounted at chassis corners for lifting purposes

Important Notice

If such modifications are installed:

- **Chassis warranty coverage will be void**
- Any damage resulting from lifting, twisting, or overloading at the corners will **not be covered**
- Repair costs arising from this type of use become the responsibility of the caravan owner

03 8324 0246
sales@intelengineering.com.au
www.intelligentengineering.com.au
20 Oldham Rd Epping VIC 3076

Recommendations

To prevent structural damage and maintain warranty coverage:

- Use **only designated jacking points** when lifting the caravan
- Use stabiliser legs **for stabilising only**, never lifting
- Contact Intelligent Engineering for advice before installing any aftermarket lifting equipment
- Seek professional guidance if unsure about safe lifting or support methods

Further Information

For clarification on approved lifting procedures or suitable stabilising systems, please contact Intelligent Engineering **Technical Support**.