



GENERAL METHOD OF MOVING LOG CABIN MOBILE HOME

Keops Interlock Log Cabin Mobile Homes are constructed onto a structural timber chassis.

The chassis comprises long beams in full lengths of structural timber that span the full width of the cabin. Both walls are supported on the same length of beam.

The structural beams are all tied together by a side member that is slightly taller in height and contains the sides of the cabin within the extremes of the beam lengths.

The structural timber chassis serves as would a pallet under a machine for example.

It is the structural chassis that needs to be lifted with the cabin upon it and it is the structural chassis that provides support to the cabin whilst in transit straddling a vehicle flat bed trailer.

The structural timber chassis beams are spaced at 500 mm centres along the length of the Mobile Home cabin, i.e. if the Mobile Home is 10 metres long there will be a minimum of 21 structural beams. Thus the weight of the cabin can be shared by the total number of beams and by this method each beam is operating well within its stress and deflection capability.

In lifting, by crane, it is preferred to attach the lifting rig to the ridge beam of the cabin. This is a position on the centre of gravity and avoids any risk of crushing the sides of the cabin by the crane chains. Eye bolts can easily be screwed into the ridge beam in preparation for the lift.

To ensure the lift occurs at the structural chassis rather than at the roof, the cabin ridge beam is tied to the chassis by tensioned steel wire ties. Every structural beam under the cabin will be linked to the ridge beam through a tensioned wire. Eye bolts are easily screwed into each beam and the ridge beam in preparation for the lift.

The pull out strength of the eye bolts selected far exceeds the actual tension being subjected to due to the load being equally distributed.

There are various lifting rigs available but one that incorporates a levelling facility by adjustable motor driver winches is preferred. An alternative is to connect the Rolled Steel "I" section beam directly to the cabin ridge beam.



The Mobile Home Log Cabin is not anchored to the ground. It is only connected by services which shall be disconnected before lifting.

It is acknowledged that some timber framing type structures suffer from “racking” effects and may distort longitudinally during a lifting process. In contrast, the log cabin type structure does not suffer the same racking effects. Indeed such a deficiency can be totally disregarded for log cabins.

The log cabin type structures once assembled provide excellent resistance to distortion during a lift. It can be shown that the long walls of log cabins can be considered as very deep beams in themselves which will not deflect significantly as to be damaging to the structure. Additionally, there is added stiffening influence from the longitudinal roof beams and the structural chassis side member. Furthermore, the method of load transfer is balanced to ensure no part of the Mobile Home receives a disproportionate amount of lift.

In transit a typical 13.6 m trailer will accommodate 26 tonnes. A typical Mobile Home 13.0 m in length and max. width will weigh approx. 10 tonnes, so well within the capacity of the trailer.

A Mobile Home will be wider than the trailer but the structural chassis beam members are effectively “built in” under the cabin on the trailer and cantilever beyond the trailer sides to support the sides of the cabin.

There may be a slight deflection of the cantilevered beams, but due to the balanced spread of load all beams will deflect a similar amount and therefore no differential deflection is created that might otherwise be detrimental to the integrity of the structure.

Once onboard, the Mobile Home shall be suitably strapped to the flat bed trailer.

In transit the Mobile Home may be subjected to wind forces and combined effects of wind and snow. The structural analysis of such conditions in a static situation can be applied to the Mobile Home in transit and demonstrates structural integrity during the move.

Offloading is a reverse procedure.