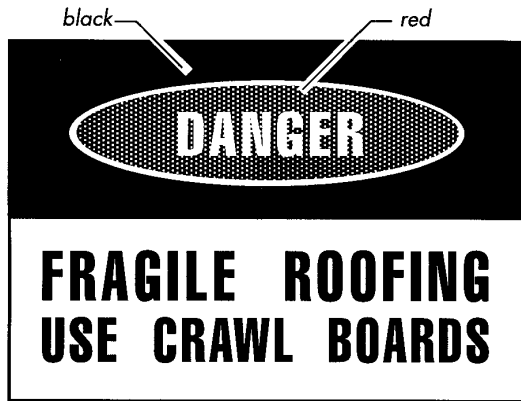


GS 37 WORKING ON FRAGILE ROOFING



INTRODUCTION

Year after year, there are reports of workers falling through roofs that are too fragile to take their weight. Before any roof area is used as a means of access or as a place of work during any operation (whether it be construction, repair, maintenance or demolition) it is essential to identify roofs covered with fragile materials, and all necessary precautions to be taken.

Various fragile materials have been involved in fatal or serious falls. These materials include rusted corrugated metal roofing, translucent plastic sheeting, wired glass, and corrugated asbestos-cement sheeting. Many of these incidents would have been prevented by the use of crawl boards, roof ladders or walkways.

REQUIREMENTS

The Occupational Health, Safety and Welfare Act provides in its Regulations for certain measures to be taken with fragile roofing.

Signs must be fixed to the walls of buildings where access can be made to fragile roofs. Signs should be made of sheet metal or other durable materials of not less than 600 mm by 450 mm, with wording and layout as shown above.

In addition, it is a requirement to provide and maintain adequate, safe walkways or crawl boards. Any person required to be on a roof covered with fragile roofing materials must use the walkways and crawl boards provided.

Workers can be fatally misled by the appearance of some roof coverings which appear more solid than they are, especially if the roofing is discoloured with age or weathering or painting. The false sense of security may be reinforced by the fact that the roof takes substantial distributed load, and therefore gives the impression that it will bear the weight of a worker. But it will not, in fact, carry a concentrated load such as that applied by the heel of a person walking or by a person stumbling and falling. The weight of tools and equipment a worker may be carrying must also be taken into account.

Fragile roofing materials fracture without warning, leaving jagged edges which could cause injury, even though wire mesh may be fitted. Experience has shown that breakages occur so rapidly that people who fall through asbestos cement sheeting have no opportunity of saving themselves.

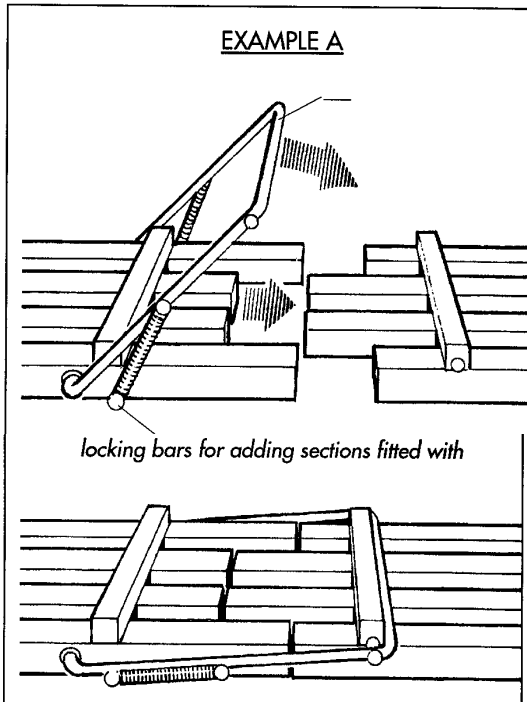
If unsure whether safely mesh is fitted, then consider the roof as unmeshed and dangerous. Once identified, fragile skylights should be meshed. Walking is not permitted on any roof unless crawl boards or grids are laid across the purlins and, where practicable, screwed into position. Where it is necessary to cross the roof, crawl boards **MUST** be used. Alternatively, planks should be laid across the full pitch of the roof and in the box gutters to provide lengthwise access.

It may also be appropriate to consider other types of equipment such as static lines, running lines or inertia reels. These need to be installed by a certified scaffolder or rigger. (See Further Information section).

Appropriate footwear must be worn when working on or near fragile roofs to avoid slipping.

Great care must be taken to ensure that all persons are aware of the dangers of standing or treading on unprotected fragile roofing.

Failure to appreciate the danger could be fatal!



NOTES

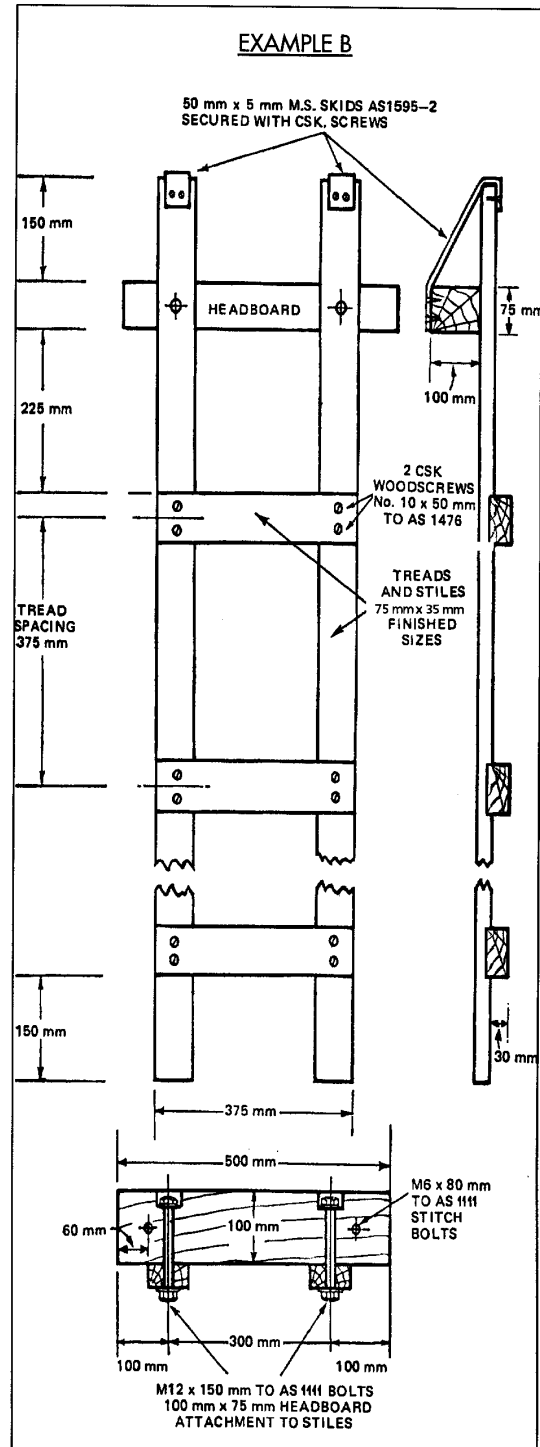
- When working on a 'brittle' roof, a short (say four-tread) roof ladder should be laid from ridges on opposite slope if possible, or alongside, to ease moving of a long roof ladder. Alternatively, two long roof ladders can be used where two persons, one at top and one at bottom, can shift the ladders.
- Ladders must be as short as possible, and may be joined if positively bolted using splice plates (bolts 100mm from ends of stiles).
- Timber must be of not less strength than that specified for Radiata Pine of F8 grade, in accordance with Australian Standard 1490 Visually Stress-Graded Radiata Pine for Structural Purposes.

For further guidance refer to:

AS 2424 Plastic Building Sheets-General Installation Requirements and Design of Roofing Systems.

Guide to Rigging. WorkCover New South Wales, 1995.

Building Code of Australia (BCA)



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