

# Safety Training Course of Construction Workers of Specified Trade

## Bamboo Scaffolder, Metal Scaffolder (AS7)

### Key Points

Version: 2023-08



# 1. Introduction - Causes of Accidents

Common causes and accidents for scaffolding

source : CIC

## 1.1 Falling Objects

Improper use on materials and tools

## 1.2 Collapse of Scaffold

Insufficient support, wall ties, overload and, Incorrect procedures for scaffold dismantling

## 1.3 Fall of person from height

Slipping and tripping



source : on.cc



# 2. Bamboo Scaffold

## 2.1 Procedure for scaffold erection

1. Erection, modification and dismantling of bamboo scaffold shall be conducted by **adequately trained workmen with adequate experience** and under **immediate supervision of a competent person**;
2. Clear of scaffold design, location and purpose;
3. According to the requirements of the architectural drawings and in coordination with the access paths on the construction site, ensure unobstructed traffic and select the positions for the main bamboo or cedar pillars. The distance between the shelves and the building should be approximately 850 to 900mm, allowing space for other trades to work;



# 2. Bamboo Scaffold (Cont.)

## 2.1 Procedure for scaffold erection

4. Safety helmet must be worn within the worksite to prevent injuries for falling objects;

5. Safety harness that meets required safety specification is essential for erection or dismantling of scaffold. The safety harness should be securely fastened to anchorage point or independent lifeline.



# 2. Bamboo Scaffold (Cont.)

## 2.1 Procedure for scaffold erection

6. Precautions should be taken when working on the scaffold. Safety shoes should be clear of oil stains to prevent slipping;
7. Workmen should remain inside the scaffold when ascending and descending
8. Apply correct posture when ascending and descending, face the ledger with both hands holding the standard tightly to support the body so as to prevent falling due to bamboo members getting rotten or loose



# 2. Bamboo Scaffold (Cont.)

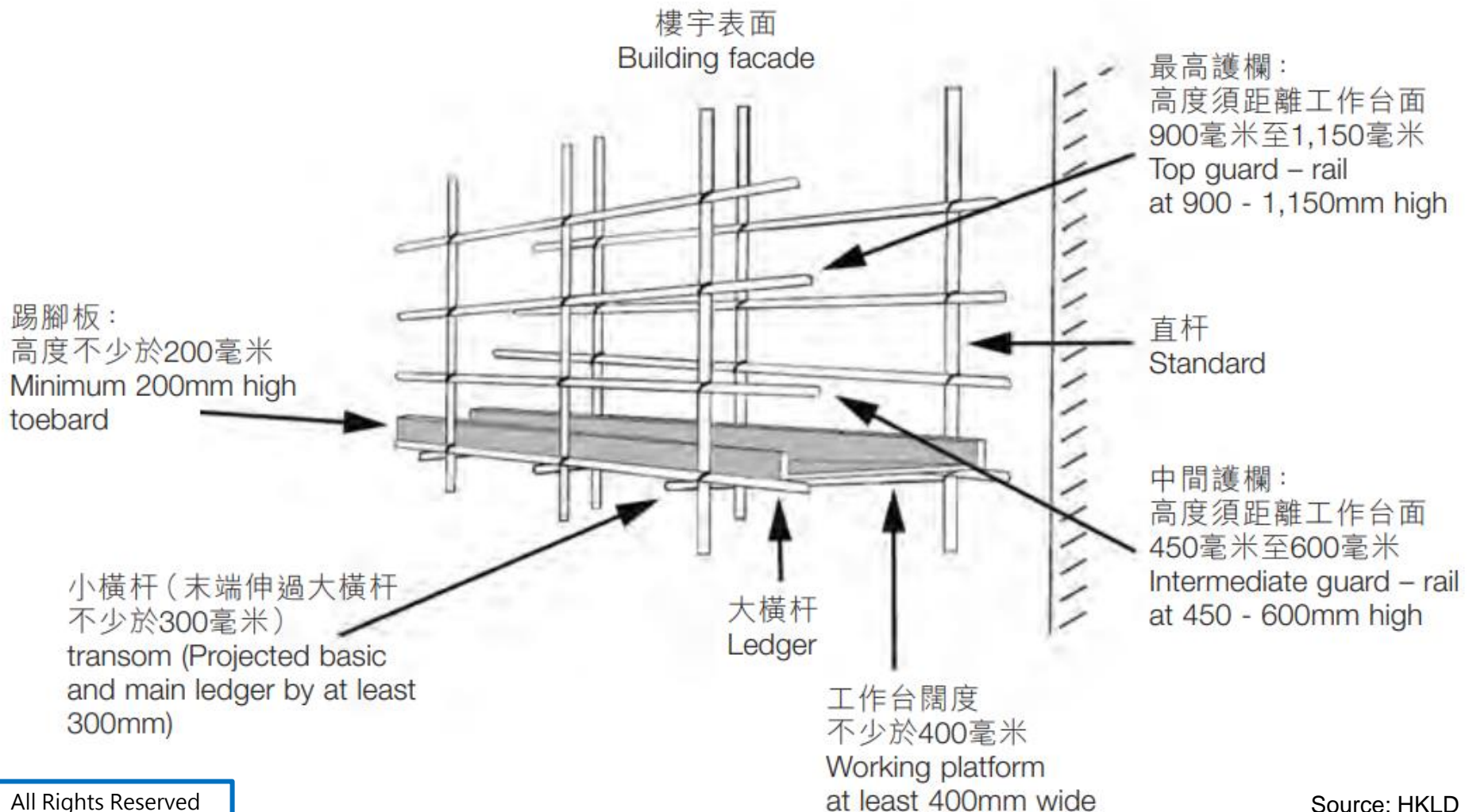
## 2.1 Procedure for scaffold erection

9. When reach the working position on scaffold, stabilize the body before any task;
10. Stay focused and avoid getting distracted when ascending or descending scaffold. No rushing throughout the whole process;
11. Do not play on scaffold. Extra precautions should be taken after raining to prevent slipping due to wet stepping onto bamboo members;
12. Take care of others' safety who are potentially affected by scaffold erection.



# 2. Bamboo Scaffold (Cont.)

## 2.1 Procedure for scaffold erection



# 2. Bamboo Scaffold

## 2.2 Procedure for dismantling

Once the construction project is completed, it becomes necessary to dismantle the scaffolding. Generally, the dismantling process involves working from top to bottom and requires a clear understanding of the load-bearing capacity. Following the "build first, dismantle later; dismantle in reverse order of assembly" procedure is essential. Therefore, before starting the dismantling process, it is crucial to ensure that the scaffolding is properly repaired so that workers can safely climb to the top for dismantling work.

Dismantling work should be conducted by **adequately trained workmen with adequate experience** and under **immediate supervision of a competent person**;

1. Sufficient should be given for scaffold dismantling;
2. Inspection on stability of scaffold before work to ensure the scaffold is in good condition to withstand the dismantling process



Source:  
[http://silverylines.blogspot.com/2013/10/blog-post\\_26.html](http://silverylines.blogspot.com/2013/10/blog-post_26.html)



Source: 職安警示, HKLD



# 2. Bamboo Scaffold (Cont.)

## 2.2 Procedure for dismantling

- All wall ties and additional supports should be securely maintained in their original position. Do not dismantle components that will reduce the stability of the scaffold;
- If dismantling work reaches a stage where supporting components such as wall ties need to be removed, the stability of the scaffold shall be checked. It could be considered installing components in lower position of the supporting components;
- All materials and debris on scaffold should be cleared before dismantling work.



Source:  
[http://silverylines.blogspot.com/2013/10/blog-post\\_26.html](http://silverylines.blogspot.com/2013/10/blog-post_26.html)



Source: 職安警示, HKLD

# 2. Bamboo Scaffold

## 2.3 Guidelines on Safety Enhancement of and Notification Arrangement for Truss-out Bamboo Scaffolds

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### GUIDELINES ON SAFETY ENHANCEMENT OF AND NOTIFICATION ARRANGEMENT FOR TRUSS-OUT BAMBOO SCAFFOLDS

Version 1  
September 2021

[www.cic.hk](http://www.cic.hk)

# 3. Metal Scaffold

## 3.1 Erection / Added / Modification

1. Conducted by adequately trained workmen with adequate experience and under immediate supervision of a competent person;
2. The construction process should generally proceed from bottom to top and from the inside to the outside;
3. The standard of the scaffold should be vertical;
4. Whenever feasible, the work platform should be positioned as close as possible to the walls of the building or structure;
5. Clear the debris on working platform;



# 3. Metal Scaffold

## 3.1 Erection / Added / Modification

6. Do not overload the platform and loading should be even distributed on the platform;
7. No impact to the scaffold;
8. Install effective bracings to stabilize the scaffold
9. Bracings should be extended from bottom to top of scaffold
10. If electrical equipment (e.g. portable electrical tools and lightings) is needed on scaffold, such equipment should be properly designed to prevent hazard of electricity;



Construction Trade Testing Agent - Metal Scaffolder Skilled Trade Test

# 3. Metal Scaffold

## 3.1 Erection / Added / Modification

11. Safety net should be installed to scaffold that are located near pedestrian walkway to prevent falling objects;
12. Proper and safe access and egress should be provided to workmen;
13. No climbing along the standard or external scaffold;



We have to fix these  
Construction Trade Testing Agent - Metal Scaffolder Skilled Trade Test

Source: CIC

# 3. Metal Scaffold

## 3.1 Erection / Added / Modification

14. When a scaffolder or workman has to work in a place **where it is impracticable to erect a safe working platform or to provide safe access and egress, the use of safety nets and safety belt attached to a secure anchorage point or an independent lifeline** throughout the work is required. **Scaffolding members** should not be used for anchorage purpose;
15. Particular attention should be drawn in the manual handling of heavy metal scaffolding components.
16. Scaffolding members should not be used as supports for lifting appliances unless the scaffold has been designed for such purpose .



# 3. Metal Scaffold

## 3.2 Dismantling on metal scaffold

1. Conducted by adequately trained workmen with adequate experience and under immediate supervision of a competent person;
2. Sufficient time should be allowed for the dismantling work to be conducted safely;
3. The scaffold to be dismantled should be checked for its strength and stability beforehand;
4. No components, which endanger the stability of the remaining structure, should be removed. Unless necessary precautions have been taken, all the ties and bracings should remain secured in positions;



Source: OSHC

# 3. Metal Scaffold

## 3.2 Dismantling on metal scaffold

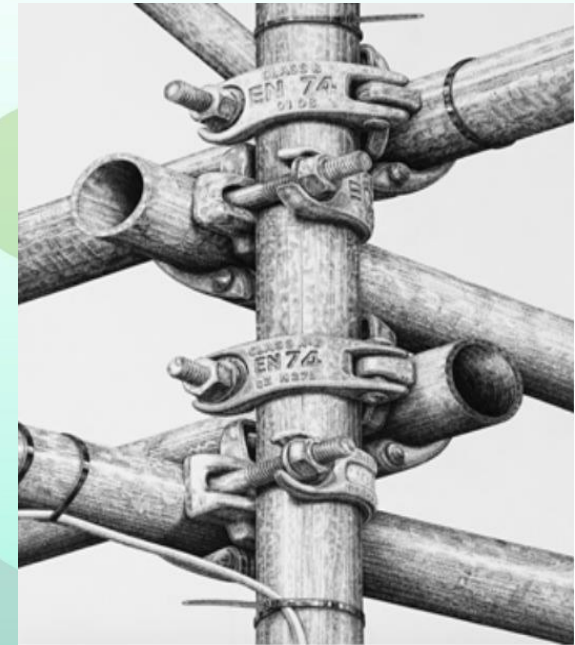
5. If dismantling has reached the stage at which a critical member has to be removed, for example, a tie or a brace, the stability of the structure should be assured by fixing a similar or otherwise adequate member in place lower down before the member to be taken out is removed.;
6. All the stacked materials and debris placed on the scaffold should be removed ;
7. Dismantling sequence should be planned and that sequence of dismantling sections of the scaffold should be logical and determined with due consideration of the scaffolders' safety. Dismantling work should be carried out according to the plan. Because changes may have been made in a scaffold structure during its working life, it is not safe to assume that dismantling can be carried out in the reverse order to the erection. The scaffold, especially its tying and bracing, should be inspected prior to dismantling. Also, the procedure of dismantling should be orderly and planned and should proceed generally from the top in horizontal sections;



# Metal Scaffold

## Dismantling on metal scaffold

8. If the scaffold is defective, it should be made good before dismantling commences.;
9. Scaffolds should not be dismantled in vertical sections from one end towards the other unless special consideration is given to ties and bracings;
10. A scaffold might have been temporarily stabilized during construction by rakers that have been subsequently removed. If the level of the lowest tie point is high, temporary rakers or other structurally adequate means of supports should be built up from the ground to achieve stability of the partly dismantled scaffold;
11. Safe access to and egress from the place of work should be provided for the scaffolders;



Source:

<http://www.crbc.com.hk/Sustainability/HealthSafety/aqs/201910/P020191215751506010068.pdf>

# 3. Metal Scaffold

## 3.2 Dismantling on metal scaffold

12. The scaffold to be dismantled should be fenced off at the ground level/ public area to prevent persons entering the work area and warning notices should be posted up in the vicinity;
13. Steps shall be taken to ensure that scaffolding materials are not thrown, tipped, or shot down from a height where they are liable to cause injury to any person on or near the construction site; and where practicable, properly lowered in a safe manner by means of a lifting appliance or lifting gear (Regulation 49 of the CSSR). Scaffolding materials should include the tubes, the scaffold boards or planks, the metal couplers for scaffolding purposes, etc.;



source: CIC

# 3. Metal Scaffold

## 3.2 Dismantling on metal scaffold

14. All materials should be lowered to the ground and not stored on the scaffold. In the case where the pavement is not to be obstructed and scaffolding materials have to be stored on the lowest lift awaiting collection, this lift should be stiffened and fully braced or propped by rakers, by using the materials recovered from the upper lifts;
15. Every scaffolder involved in the dismantling work at height should wear safety belt attaching to suitable and sufficient anchorage and suitable fixings, for example, the provision of an independent lifeline that extends from an independent anchorage point to which a lanyard of a safety belt is attached using a fall arresting device. Scaffold members should not be used for anchorage purpose. Whenever practicable, safety nets for fall protection of scaffolders should be used. Further reference should be made to the Guidance Notes on Classification and Use of Safety Belts and their Anchorage Systems prepared by the Labour Department.;
16. All the trades on the site should coordinate and collaborate closely with the contractor engaging in scaffold dismantling work regarding the safety precautions necessary during various stages of the work.



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