FAQ's

Why storing timber properly is important?

Failing to store and handle timber and wood-based products properly is one of the major sources of cost spikes on a building project. When these items spoil, it can lead to financial penalties and delays - particularly when dealing with specialised products where getting replacements delivered can take a significant amount of time.

By putting in a little effort in the preparation stages and making sure the timber is handled and stored in the right way - all sorts of issues and problems and the consequent cost escalation and time delays in the future is avoided.

Common Issues

Failing to take proper care of your wood at any stage of the construction process can result in damage, but some of the most common issues include:

- Splits
- Decay
- Discolouration
- Shrinking or expansion due to changes in the wood's moisture content
- Corrosion of metal components.

In some cases, builders will focus their efforts on timber material that's set to be exposed to the elements and neglect wood that won't see the light of day in the finished fixture. This is a false economy and to ensure your project goes off without a hitch, you need to provide equal care to each and every timber component.

Explain the technique of stacking timber on site?

Following practice should be observed when stacking timber on site -

- Store the timbers in stacks upon well treated and even surfaced beams sleepers or brick pillars so as to be above the ground level by at least 150 mm.
- Store members of different length and material separately.
- Materials of equal length are piled together in layers with wooden battens, called crossers, separating one layer from another.
- If crossers are not available, smaller section of the available structural timber can be used in their place.
- Provide an air space of about 25 mm between adjacent members.
- Place the longer pieces in bottom layer and shorter pieces in the top layer, but keep one end of the stack in true vertical alignment.
- Suitable width and height of a stack are recommended to be about 1.5 m to 2.0m.
- Distance between adjacent stacks is recommended to be at least 450 mm.
- Protect the stacks from hot dry winds, direct sun and rain.
- It is recommended to place heavy weight, such as metal rails or large section of wood, on top of the stack to prevent distortion or warping of the timber in the stack.
- If it is required to store the timber for about an year or more, then coat the ends of all members with coaltar, aluminum leaf paints, micro crystalline wax; to prevent end cracking in the material.

What are the different types of defects in a timber?

Defects in timber are either;

1. Natural: defects that may be present in the growing tree.
2. Artificial: defects caused by the seasoning, conversion and felling process;
3. Biological: defects caused due to attack of insects or fungus causing disease of timber.

Knots, shakes, wind cracks and upsets are defects caused by natural forces. Knots are the hardened stumps of broken or sawn branches, which can weaken or disfigure the surface of timber. Shakes are cracks in the timber caused by excessive heat, frost or twisting due to wind. Wind cracks are the cracks that appear on the outside of a log due to the shrinkage of the exterior surface. Upsets are defects in the grain caused by excessive compression or crushing of the tree when it is young.
Twisting, cupping, bowing are defects caused by defective seasoning and conversion. Twisting occurs when constriction causes the edges of a piece of timber to move out of parallel. Cupping is when the timber dries out in a curved shape. Bowing is a warp along the length of the face of the wood.
Rot and insect damage are biological defects. Rot most often occurs due to the presence of fungi in the timber. Insects weaken the timber because they eat the wood.

Explain few of the defects in timber caused due to natural/internal factors.
Defects due to Natural Forces: The following defects are caused by natural forces:

1. Knots
2. Shakes
3. Wind cracks
4. Upsets
5. Burls
6. Chemical stains
7. Rindgalls
8. Twisted fibres

Few of the above mentioned defects are explained below:
KNOTS: When a tree grows, many of its branches fall and the stump of these branches in the trunk is covered. In the sawn pieces of timber the stump of fallen branches appear as knots. Knots are dark and hard pieces. Grains are distorted in this portion. If the knot is intact with surrounding wood, it is called live knot. If it is not held firmly it is dead knot.

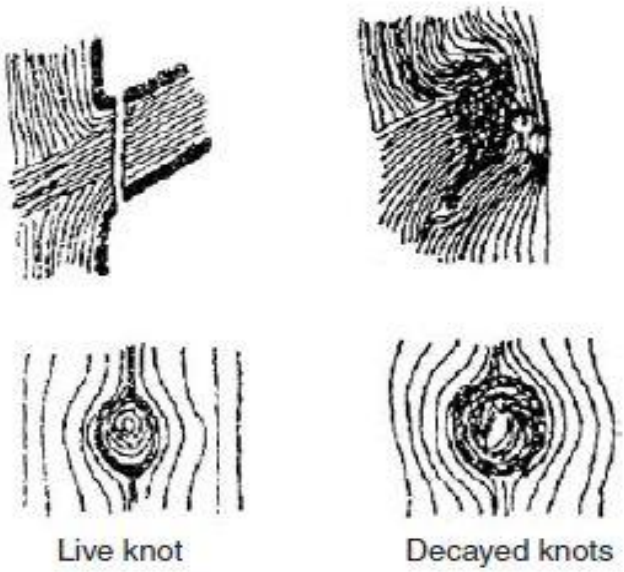

Fig. 1.9. Knots

SHAKES: The shakes are cracks in the timber which appear due to excessive heat, frost or twisting due to wind during the growth of a tree. Depending upon the shape and the positions shakes can be classified as star shake, cup shake, ring shakes and heart shakes.

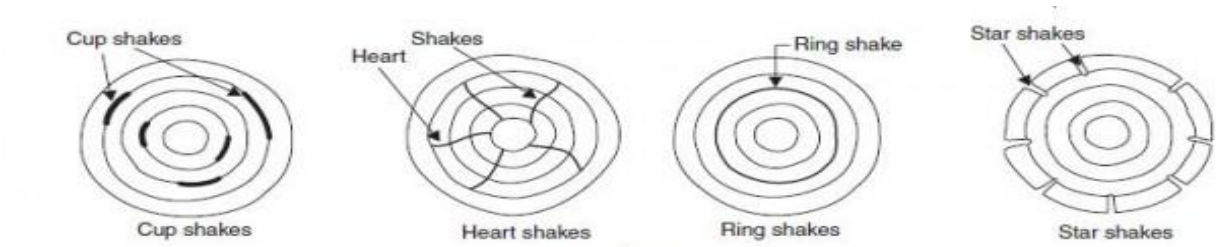

Fig. 1.10. Shakes

WIND CRACKS: These are the cracks on the outside of a log due to the shrinkage of the exterior surface. They appear as shown in following fig

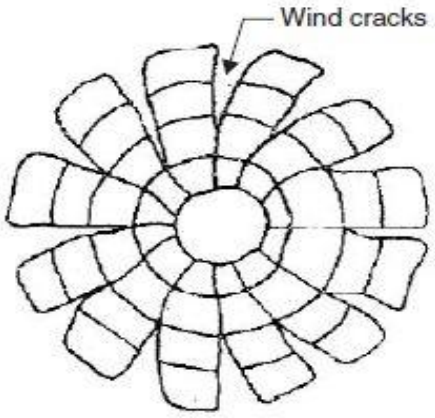

Fig. 1.11. Wind cracks

UPSETS: Figure 1.12 shows a typical upset in a timber. This type of defect is due to excessive compression in the tree when it was young. Upset is an injury by crushing. This is also known as rupture.

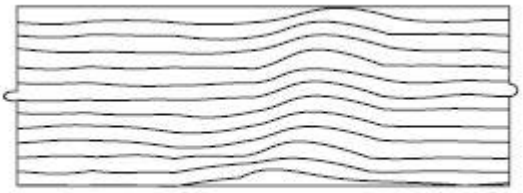
Fig. 1.12. Upset

Explain the diseases in timber.

Fungi are minute microscopic plant organism.

They grow in wood if moisture content is more than 20°C and exposed to air. Due to fungi attack rotting of wood, takes place. Wood becomes weak and stains appear on it.

Beetles, marine borers and termites (white ants) are the insects which eat wood and weaken the timber. Some woods like teak have chemicals in their compositions and resist such attacks. Other woods are to be protected by chemical treatment.