

Maintenance of Bridges - *

3.4.2

Bridges ~~are~~ may require ^{periodic maintenance.} ~~the bridges are well designed~~
Normally the service life expectancy of a bridge is about 70 years for the superstructure and 100 years for the sub structure.

"The art of upkeeping the bridge components in good condition to keep the bridge in best serviceable order for a longer period is known as bridge maintenance".

The bridge maintenance are mainly of two types. -

- (1) Routine maintenance
- (2) Special (In depth) maintenance

① Routine maintenance - "The maintenance work which is carried out regularly on the basis of routine inspection is known as routine maintenance".

This type of maintenance is carried out annually.
Routine maintenance of bridges includes the following maintenance jobs -

- (i) Proper functioning of weep holes and other drainage ~~see~~ devices.
- (ii) Proper functioning of bearing and expansion joints.
- (iii) Repairs of piers and abutments for signs of scour.
- (iv) clearing of obstructions causing scour in the channel.
- (v) Detection and rectification of water leakage through the bridge floor.
- (vi) Maintenance of water proofing coats.
- (vii) " " wearing coat of the bridge floor.
- (viii) " " Kerbs, railing of parapet walls of the bridge.
- (ix) Careful examination of steel structures for corrosion, development of cracks and their treatment as suggested by the bridge engineer.

* The art of keeping the bridge components in good condition to keep the bridges in best serviceable order for a longer period.

2) Special (In depth) maintenance - "The maintenance of work which is carried out after certain period on the basis of detailed inspection is called special maintenance."

This type of maintenance is carried out, once in 3 to 5 years.

Special maintenance of bridges includes the following maintenance jobs -

- (i) Repair to formation of cracks, ~~dey~~ developed in Rec piers and abutments.
- (ii) Repairs to exposed reinforcement due to disintegration of concrete.
- (iii) Repairs to breaking of surfaces as a result of using brick or stones of insufficient strength.
- (iv) Any such repair of special character like preventive measure for excessive scours ~~causing under~~