नाम
Name : _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

अनुक्रमांक
Roll No : _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

प्राप्तांक
Marks Awarded :

पाठ्यक्रम
Course : _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

दिनांक
Date : _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

अनुदेशक के आद्यक्षर
Instructor Initial :

## STUDY OF RODDING RUN

The point roding generally used is of two types:

a. Solid roding 33mm. (1¼") dia. / in lengths of 5500 mm (18 feet) with stamped coupling ends).
b. Tubular roding 33mm. dia (1¼") dia. (22mm./1") bore in lengths of 5500mm. (18 feet) with stamped couplings ends.

A roding transmission is supported at intervals on "Guide Roller Assemblies". The maximum distance between supports is:

1. Solid roding 2.2.M(7') on straight and 1.85M (6') on curves.
2. Tubular roding on straight and on curves1.85M (6') .

The materials required for a guide roller assembly are:

a) Roller Trestle (either 2 way or 4 way)
b) Roller stands (quantity=No. of rodings to be supported plus one).
c) Top rollers
d) Bottom rollers
e) Top roller pins
f) Split pits 5x75mm. (¼"x3") (Quantity=No. of roller stands).
g) Hex. Head nuts and bolts 12x37mm. (½x1½") (Quantity=Nos. per roller stand).

Where more than 4 rodings run alongside each other trestles can be bolted adjacent to each other by means of 12x40mm. (½ x 1¾") Hex. Heads nuts and bolts.

Whenever an additional roding is to be added to an already existing roding transmission, economy in cost, labour and time can be achieved by making use of a trestle extension. The trestle extension is bolted on to the side of the trestle by means of 12x40mm. (1/2 x 1 ¾") hex. Head nuts and bolts. Each trestle extension can accommodate one roding run only. Each trestle can have a maximum of two-trestle extension only one bolted to each of its two sides.

When rodings are run alongside the track, precautions have to be observed –

a) The minimum distance from nearest rod to nearest track centre is 1905 mm. (6'3") BG and 1370mm. (4'6") MG.

b) The maximum height of roller stands above rail level is 64mm. (2½"). Where rodings cross under the track:

i) The top of the rod should clear the underside of rail by at least 25mm. (1").
ii) Not more than 3 rodings should pass between two sleepers.
iii) Where a series of track crossings have to be made each group must not be less than two sleepers apart.
iv) No roding joint should be located under the rail.
v) No roding should be passed under a rail joint.

While fixing cranks and compensators:

a) The centre line of the rod should pass through the centre of the joints pin when the crank or compensator is in "N" or "R" position.

b) The throw of the crank or compensator should be equally distributed on either side of its mid-position.

c) Cranks and compensators should be located on the trackside, leaving the field side clear for future additions of roding.

d) Crank and compensators should be at least 900mm. (3 feet) away from the nearest guide roller assembly. Where offset is to be given in a solid rod, it should be noted that the maximum permissible offset is 90mm. (3 1/2").

The height of the roding running alongside of the track should preferably be such that the top roller should be at rail level. If the roding is too much above rail level then crossing of roding beneath the track will involve a large amount of offset. It is too much below rail level, then obstruction due to ballast, etc., will cause frequent failures.

For running a rodding transmission, the following procedure may adopted :-

a) Choose the proposed route judiciously.

b) Check up each rodding length of 5.5M (18") to ensure that the coupling ends are not twisted and that the rod is in straight alignment.

c) Lay the rodding end to end, along the choosen route.

d) Mark off location trestles of prescribed intervals keeping in mind that the distance between a trestle and lug eye joint or roding joint is not less than 300mm. (12") with the lever in mid- position.

e) Dig pits for the trestles, bury each trestle and complete each guide roller assembly after placing the roding in position.

1. What are the types of point roding generally used?

2.What is the minimum distance, at which roding can be laid from nearest track.

a) B.G. b) M.G.

3.What are the precautions to be observed while running roding under track?

4. What is the maximum height at which the roller stands can be fixed adjacent to track?

5.Give the maximum distance at which the rods are to be supported.

| | On straight alignment | On Curves |
|---|---|---|
| a) Solid roding | | |
| b) Tubular roding | | |

6.What are the precautions to be observed while fixing cranks and compensators in roding run?

7.What is the maximum permissible offset in roding and what is to be observed?

8.Types of roller trestle available.

i)

ii)

9.Draw the sketch of a trestle extension and explain its use.

10.Give the list of materials required for a guide roller assembly 2-way.

11.What is the easiest method to run the point roding

12.What size of bolts and nuts are used for joining rods?

**14.** At what height you would prefer to run the main run of roding by the side of track and indicate the reasons for your choice.

Date; Signature of trainee