

FAQ

Module-6: Gear trains

1) How do you identify a planetary gear?

A gear whose axis itself is revolving is called a planetary gear. In some epicyclic gear trains, we may find two or more planetary gears.

2) Straight bevel gears are used for low speed application. How do they find application in epicyclic gear train on roving machine?

They were used on old roving machines where the speeds were much lower compared with the present day machines.

3) Is it necessary that only the winding rotational speed be given as planetary input to the epicyclic gear train on roving machine?

No. It depends on the design of gear train by the machine manufacturer.

4) A change gear on the bottom cone pulley shaft in figure 6.9.4 has 27 teeth. Changing one teeth result in around 3.5% speed increment. What is the solution to control roving slackness/stretch if it is less than 3.5%?

For these situations we have to rely on adjusting the inclination of compensating/correction rails. Lesser amount of slackness/stretch can also be controlled by having two change gears incorporated in the gear train (as the practice followed in drafting and twisting gear trains) connecting bottom cone to input gear of epicyclic gear train. This requires modification of gear train. Further, change of gear at the back

of machine is not a good proposition, considering that cans are occupying the space behind the machine.