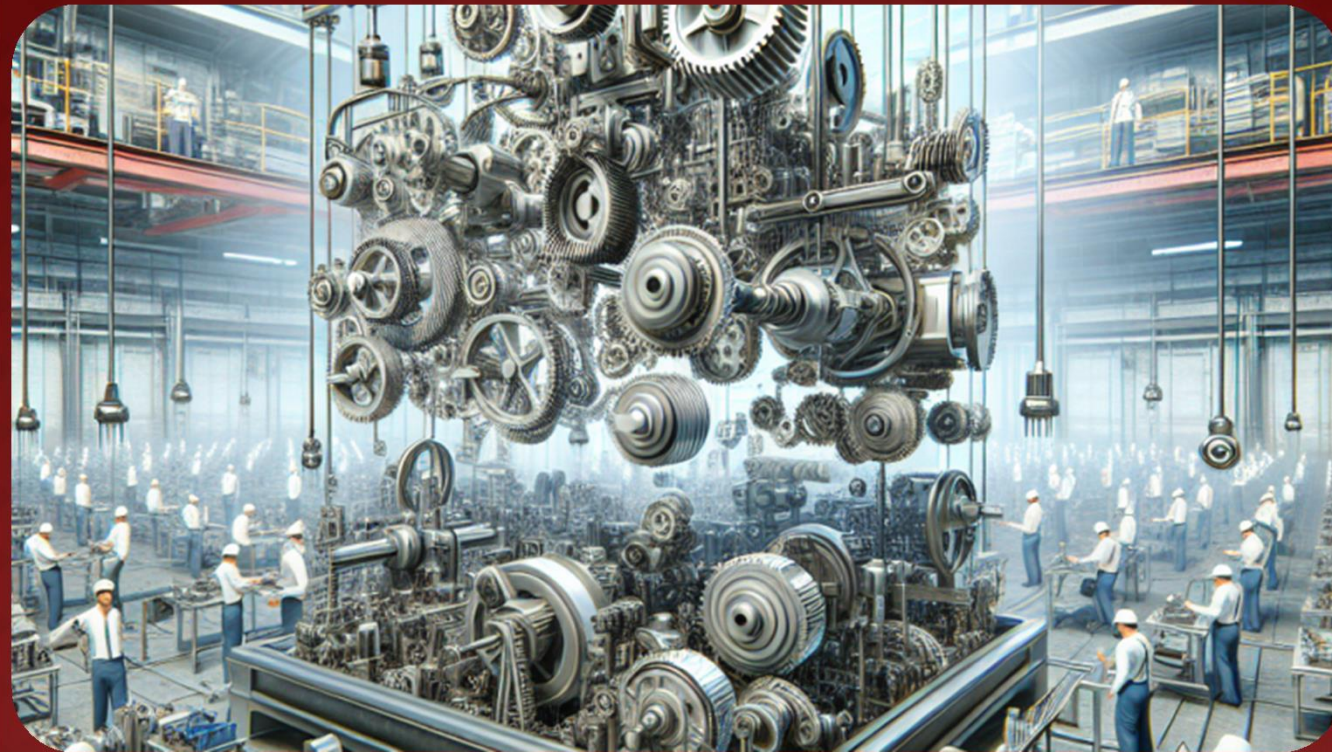




23MET204 MECHANICS OF MACHINES



INVERSIONS OF DOUBLE SLIDER CRANK MECHANISM

Presented by

B.Balamurali
AP/MECH



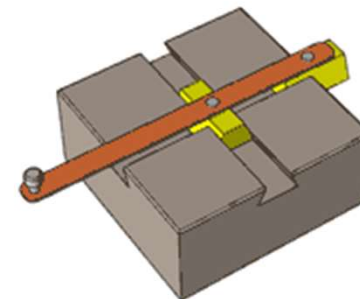
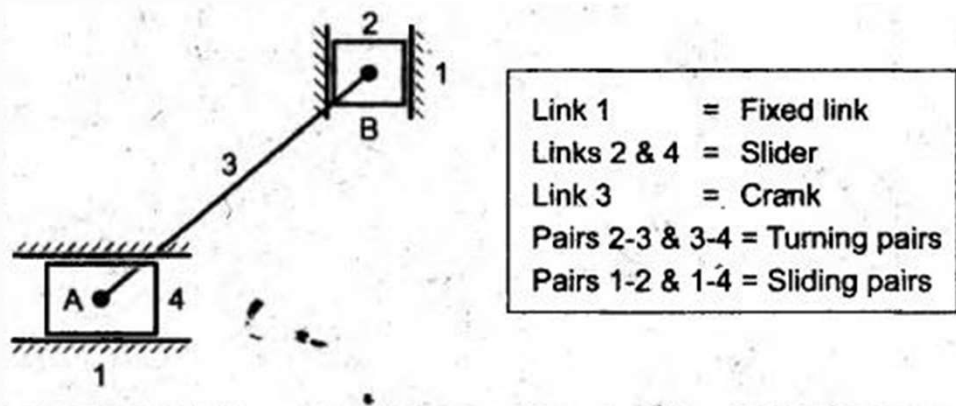
RECAP !!!

INVERSIONS OF DOUBLE SLIDER CRANK MECHANISM

Double Slider Crank Mechanisms - A double slider crank chain consist of two sliding pairs and two turning pairs. There are two sliders and one crank.

The four links of double slider crank chain are :

1. **Frame** : The fixed link is known as frame.
2. **Slider** : A link that reciprocates is called as slider.
3. **Crank**: A link that makes complete revolutions is called as crank.
4. **Slider** : A link that reciprocates is called as slider.



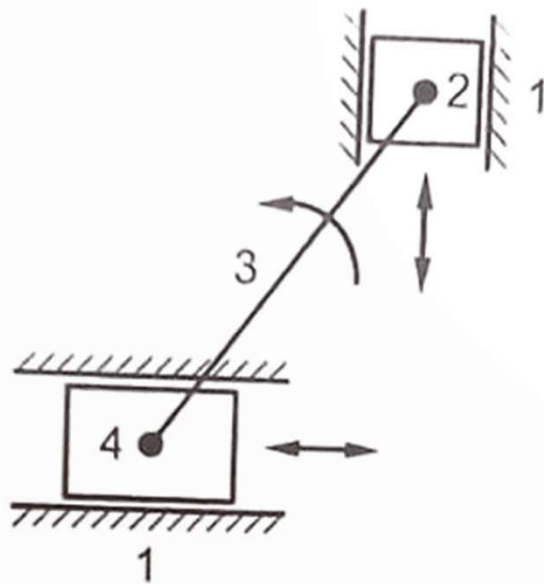
INVERSIONS OF DOUBLE SLIDER CRANK MECHANISM

First Inversion :

Link 1 – Fixed;

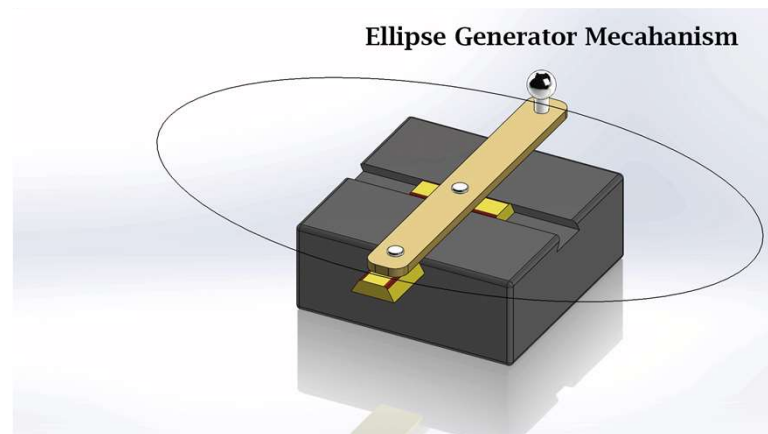
Link 2 & 4 – Reciprocates;

Link 3 – Rotates;



Practical Applications :

- Elliptical Trammel



INVERSION OF DOUBLE SLIDER CRANK MECHANISMS

Second Inversion :

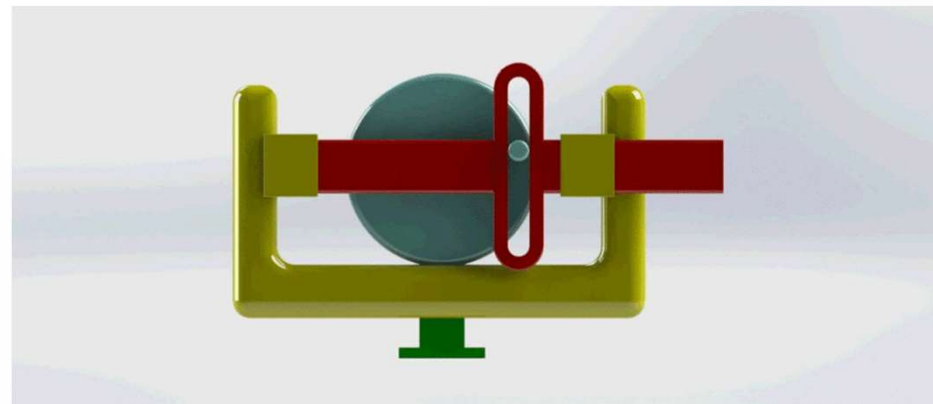
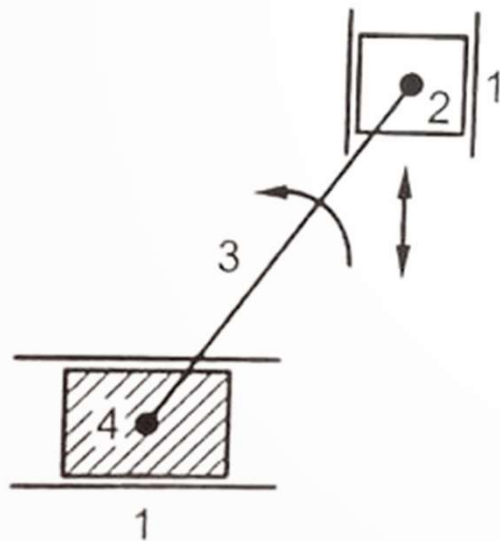
Link 1 – Reciprocates;

Link 2 & 4 – Fixed;

Link 3 – Rotates;

Practical Applications :

- Scotch yoke mechanism



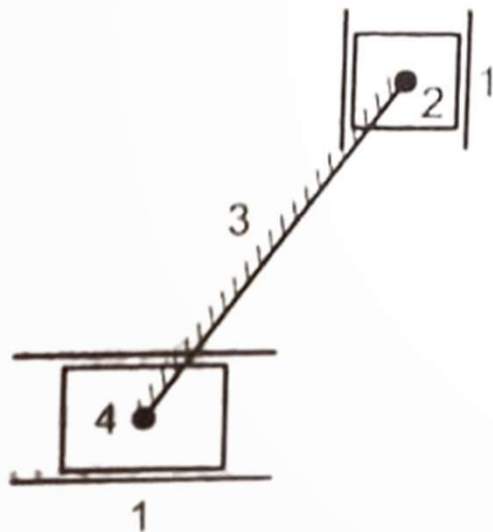
INVERSIONS OF DOUBLE SLIDER CRANK MECHANISM

Third Inversion :

Link 1 – Rotates;

Link 2 & 4 – Reciprocates;

Link 3 – Fixed;



Practical Applications :

- Oldham's coupling





ASSESSMENT !!!