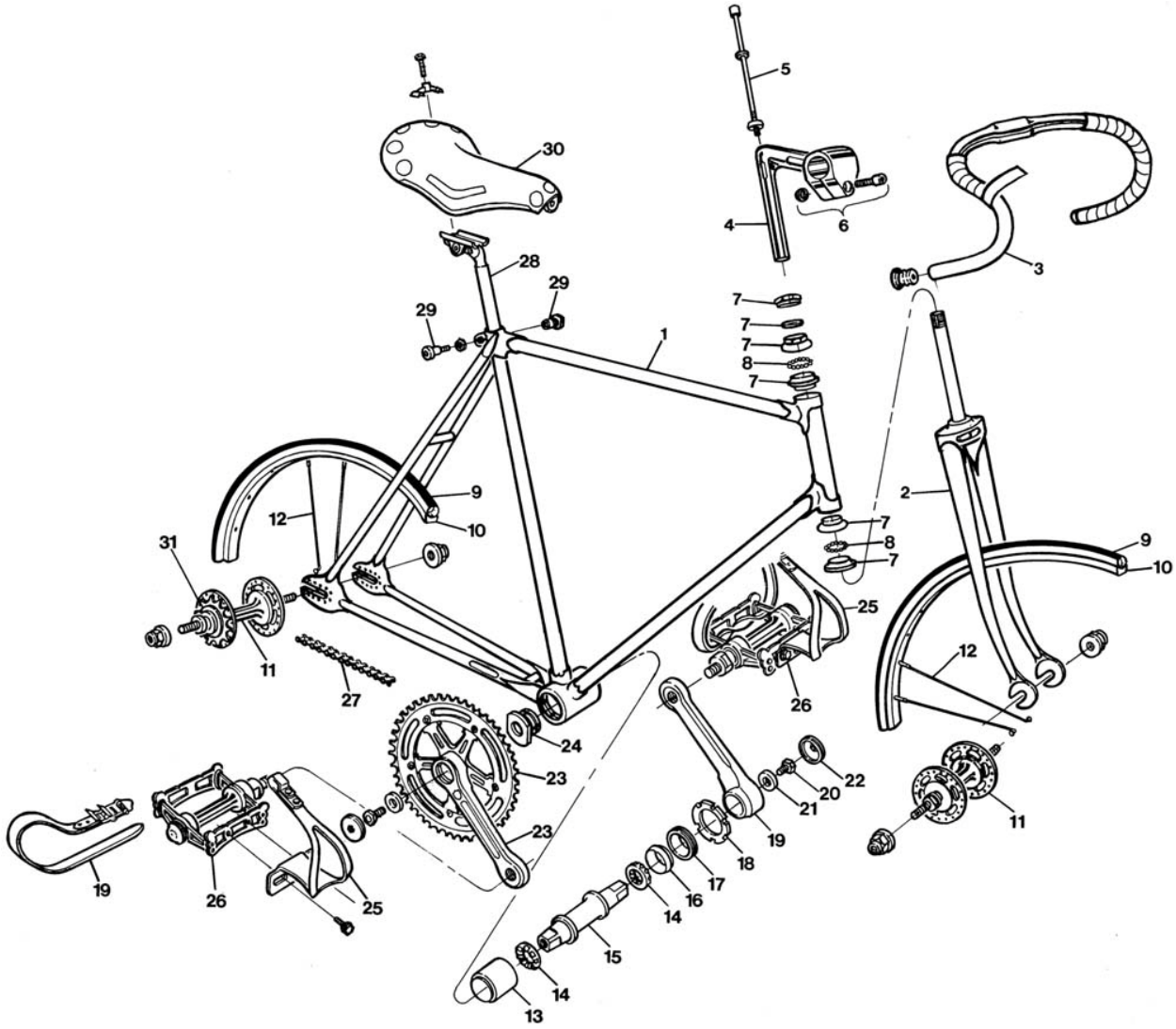
<u>Exploded View Drawings:</u> their purpose is to show the relationship between the assembly of all the parts of the object

<u>Example 1</u>**:**

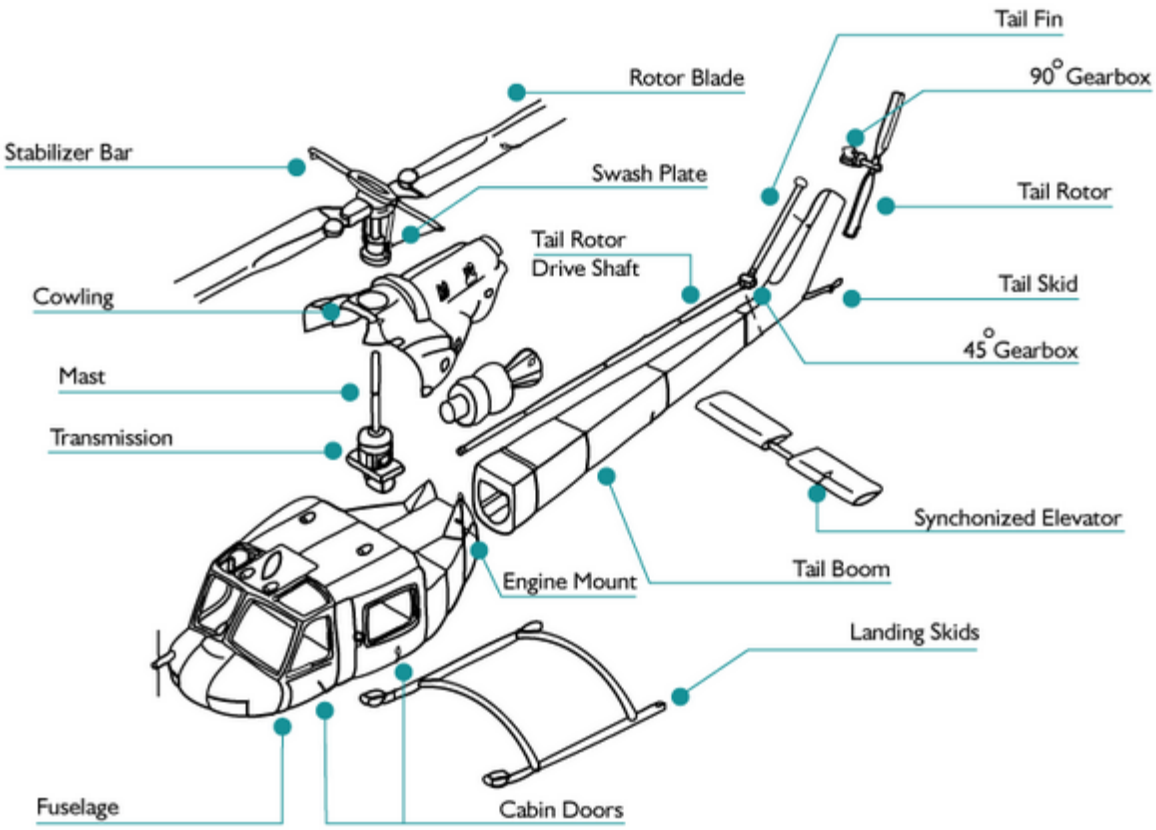


a) Are links shown?_____

b) Which two numbered parts are guiding controls for the front wheel?

c) Is the link between the seat and seat support direct?_____

Example 2



a) Us the apropriate symbols to show the motion of the three rotors.
b) Find two systems designed to amplify the velocity ratio.

Example 3 Complete the following table.(see p 75 of Toolbox booklet)

Type of Motion	Symbol
Unidirectional translational motion	
bidirectional translational motion	
Unidirectional rotational motion	
bidirectional rotational motion	
Unidirectional helical motion	
bidirectional helical motion	

Example 4 (based on p 76 of Toolbox Manual)

Draw the 5 gear systems(gear, train, friction gear, etc) and for each diagram include two motion symbols—one for each component.

Exercises:

1. Draw the 5 motion transformation systems(slider-crank, rack and pinion etc) and for each diagram include two motion symbols—one for each component.

Physics Review

We interrupt this ST technology-stuff for a little physics review.

2. a) What is the work performed by ahorse pulling a carriage with an 8 N force over a 2 km distance?

b) What two assumptions regarding applied force and friction did you make in solving the above problem?

3. A large book is palced on a table used for drawing. The table is tilted at 60.0 ^{o} and the book's weight is 45N. What is the effective force that causes the book to slide down the table. First draw what is being described.

4. After the prom at the Vaudreuil Castle, which is not really a castle, Joe refuses to drive fast. He doesn't want to crash becuase he enjoys kissing his girl friend and solving physics problems. To convince his friends to be cautious, he urges them to calculate the ratio of kinetic energy of his 2000 kg vehicle moving at 120 km/h versus his vehicle moving at 80 km/h.

a) Calculate that ratio.

b) In case of a collision, how much more force of impact will his car have at 120 km/h compared to 80 km/h?