

INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Second School Year

LIFTS

Lifts are mechanical *devices*. They transport people or *freight*. They move in vertical or *slanted* directions between two or more locations.

In a *lift* people or *freight* are in a cabin or on a *platform*. The *platform* is the *load bearing* part of a *lift cage*. The *cage* moves in a *freight* line *upwards* and *downwards*.

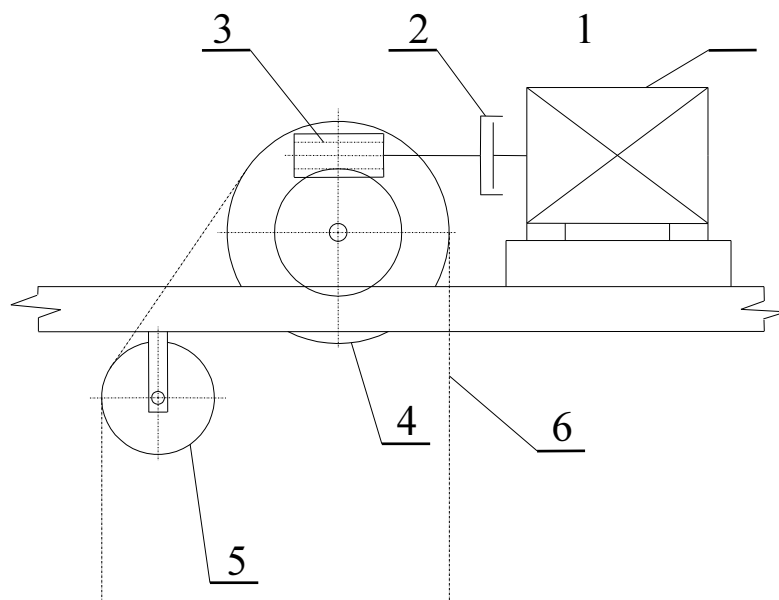
The *cage* is on a *load bearing* body. This body connects the *cage* to the *lift* engine.

Safety regulations for *lifts* are in the norms for ČSN EN (Czech Norms and Standards).

Lift have two types of drives:

- 1) with an electric drive
- 2) with a hydraulic drive

In the following picture you can see a diagram and description of the lifting engine:



In this picture there are the following positions:

- 1 electrical motor
- 2 *clutch* with *brake*
- 3 *worm gear unit*
- 4 *cable friction pulley*
- 5 guide *pulley*
- 6 lifting *cable*

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We can classify electrical *lifts* in categories I – VI:

- I. *lifts* for the transport of people
- II. *lifts* mostly for the transport of people
- III. *lifts* for *health care purposes*
- IV. *lifts* for the transport of *freight*
- V. small *freight lifts*
- VI. *lifts* for buildings with intensive operations

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VOCABULARY

brake	brzda
cable	lano
cage	klec
clutch	spojka
device	zařízení
downwards	dolů
engine room	strojovna
freight	náklad
health care purpose	zdravotnický účel
lift	výtah
load bearing	nosný
platform	plošina
pulley	kladka
shaft	šachta, jáma
slanted	šikmý, nakloněný
upwards	nahoru
worm gear unit	šneková převodovka

COMPREHENSION QUESTIONS

1. What do you know about lift?
2. What is the load bearing part of the lift cage?
3. Can you describe the lifting engine?
4. How do we classify the electrical lifts in categories?

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EXERCISES

1. Double puzzle

Unscramble each of the clue words. Copy the letters in the numbered cells to other cells with the same number.

ECGA		10
RFGITHE		3 19 21 20
SATFH		8 14
PULELY		1 11
HURCAILD		18 15 5 17
SATPORRNT		6
NEEGIN		2 12
NECCOTN		4
TNCIOEIRD		13 16 9
HLCUTC		7

1	2	3	4

W			
5	6	7	

8	9

10	11	12	13	14	15	16	17

			V	
18	19	20	21	

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2. Choose the words from the box according to the Czech translations:

mechanical device	safety regulation	worm gear unit	hydraulic drive
load bearing part	electrical motor	upwards and downwards	

- a) nahoru a dolů _____
- b) bezpečnostní předpis _____
- c) hydraulický pohon _____
- d) šneková převodovka _____
- e) nosná část _____
- f) elektromotor _____
- g) strojní zařízení _____

3. Here are four verbs. Make questions and ask partner.

move _____

drive _____

connect _____

transport _____

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KEY – FOR TEACHERS ONLY

1. LIFT WITH AN ELECTRIC DRIVE

cage, freight, shaft, pulley, hydraulic, transport, engine, connect, direction, clutch

2.

- | | |
|-------------------------|-----------------------|
| a) nahoru a dolů | upwards and downwards |
| b) bezpečnostní předpis | safety regulation |
| c) hydraulický pohon | hydraulic drive |
| d) šneková převodovka | worm gear unit |
| e) nosná část | load bearing part |
| f) elektromotor | electrical motor |
| g) strojní zařízení | mechanical device |