

#STRUKA

virsabi



EFW



AT
AUGMENTED
TRAINING

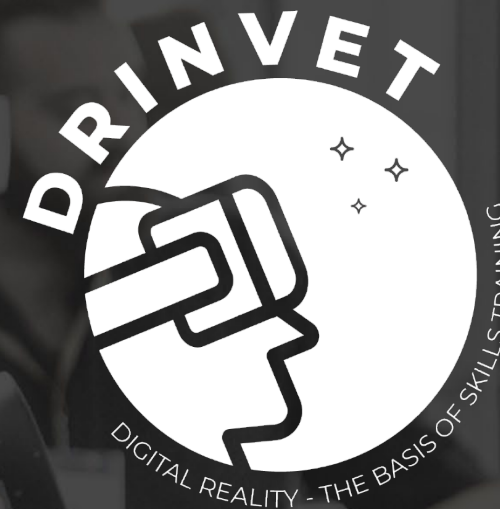
LVE
Learn Virtual Europe

SVS X ASS

DIGITAL EDUCATIONAL CONTENT

Subject Title: Electromechanical Engineering

Good practice example



Co-funded by the
Erasmus+ Programme
of the European Union

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Project No. 2020-1-HR01-KA226-VET-094650



Topic: Beam Pumping Units

Initial material:

Pumping unit is a kind of equipment for oil production, installed on the ground, which drives pump in and out of oil well, it is the most important lifting equipment in sucker rod pumping system.

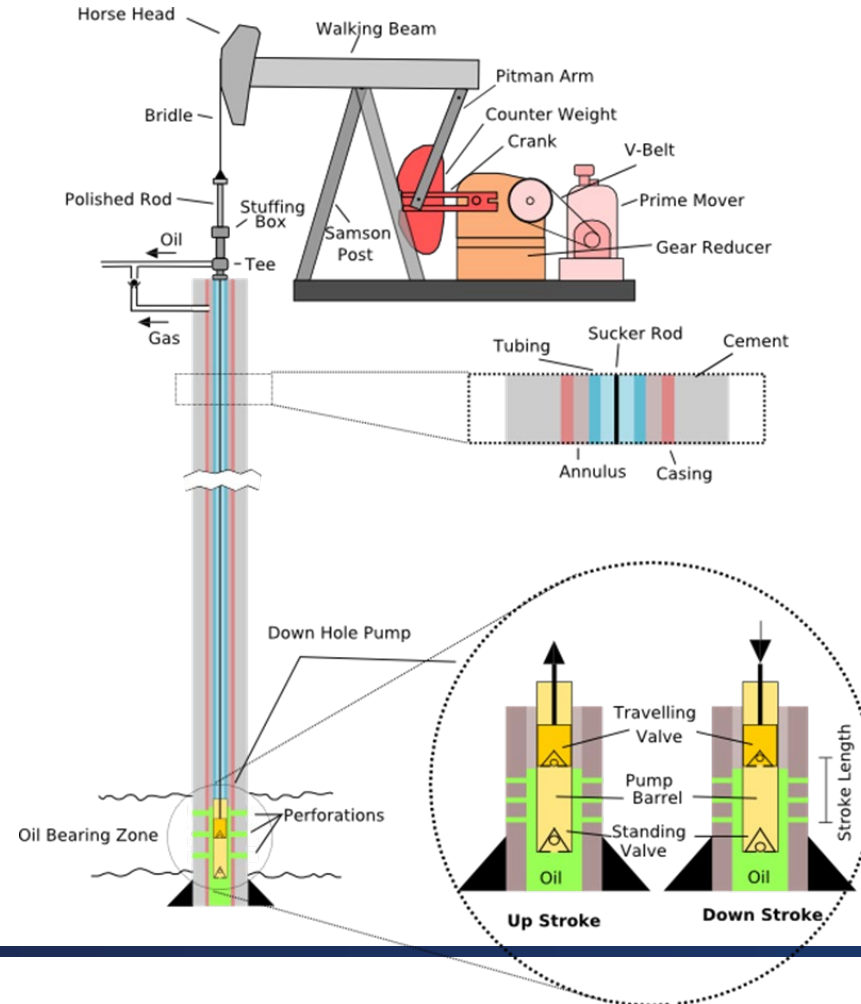
Useful links:

<https://libertylift.com/products/beam-pumping-units/>

<http://www.shivers-enterprises.com/championpumpingunits.html>



Topic: Beam Pumping Units





Topic: **Beam Pumping Units / Tasks**

1. Make a general description of the Beam pumping unit.
Describe where the equipment is used, for what purpose, whether it is standardized, describe the mode of operation and work in a safe manner and environmental protection.
2. Make a technical description of the device. Make a list of all parts and describe their function.
3. Describe in detail the mechanism of power transmission and equipment operation. Describe in detail the key elements of the equipment.
4. Prepare a technical study based on the previous three points.





Topic: Beam Pumping Units / Mode of operation

- **Virtual space:** Facebook closed group.
- Students are divided into 4 groups
- **First step:** "bidding" tasks for each group. The group that was given the fourth task is the process flow control group and the group that prepares the final document.
- **Second step:** The first three groups are working on their task. After completing 35% of the task, they publish their draft in virtual space.
- **Third step:** All three groups participate in the evaluation of all three tasks, and the evaluation is led by the fourth group. They comment on each other's work, give suggestions for improvements, and the fourth group checks that everything is within the set limits, whether the tasks are compatible and completes the evaluation for each task.
- **Fourth step:** The first three groups are working on their task. After completing 70% of the task, they publish their draft in virtual space.





Topic: Beam Pumping Units / Mode of operation

- Fifth step:

Same as step 3.



- Sixth step:

The first three groups complete their work and present it at a video conference of the whole group. The fourth group conducts the evaluation procedure according to the set criteria, and all participants participate in the evaluation.

- Seventh step:

The fourth group finalizes all three papers and completes the technical study with all the necessary components and places it on the Facebook group for a final insight into the complete paper.



Topic: Beam Pumping Units / Flipped classroom

- Step 8:

Flipped classroom: Debriefing

This step can also be called "reverse evaluation". The complete task and work of the fourth group is discussed and evaluated according to previously known criteria, and thus the processing of the topic is completed.

The teacher participates in the whole process as an advisor and one who takes care that the topic is completed within the prescribed framework and records the final grade for all participants.





Topic: Beam Pumping Units

Author:

Željko Habek

zeljkohabek@gmail.com

#STRUKA

www.struka.hr

info@struka.hr