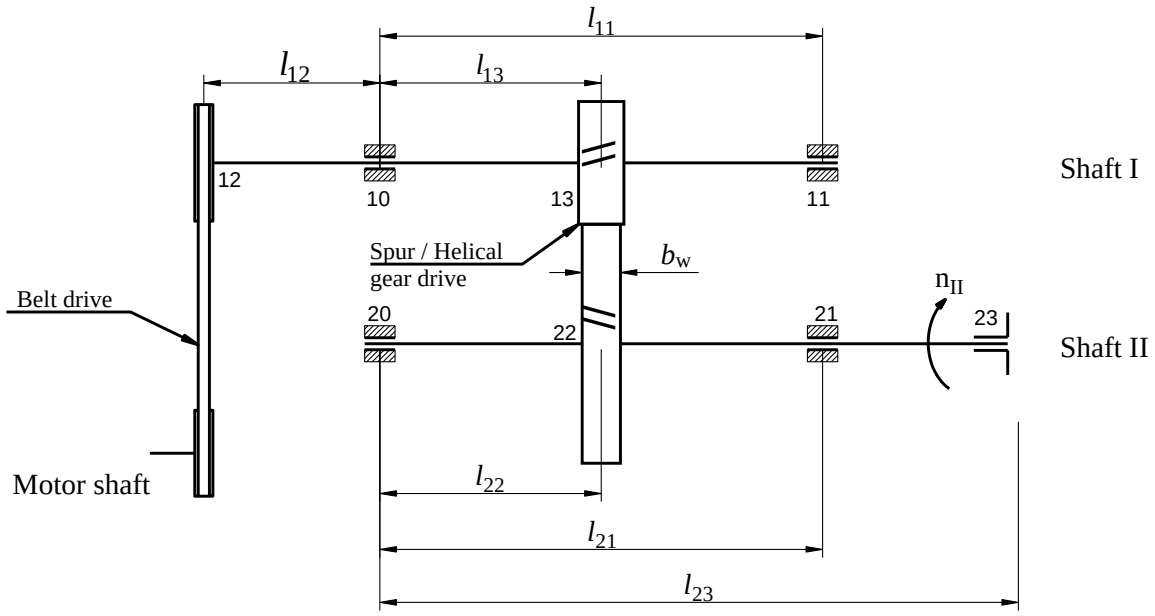
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H1

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 24000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 40° (Đai dẹt)
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 49.74 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.6	0.564	0.542	0.531
n (v/ph)	720	257.14	58.44	58.44
T (Nmm)	7958.3	20946.6	88571.2	86773.6
u		2.80	4.40	1

- Distances between the load positions are given by the formula as:
  $l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Hoàng Trung An……..22010740*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

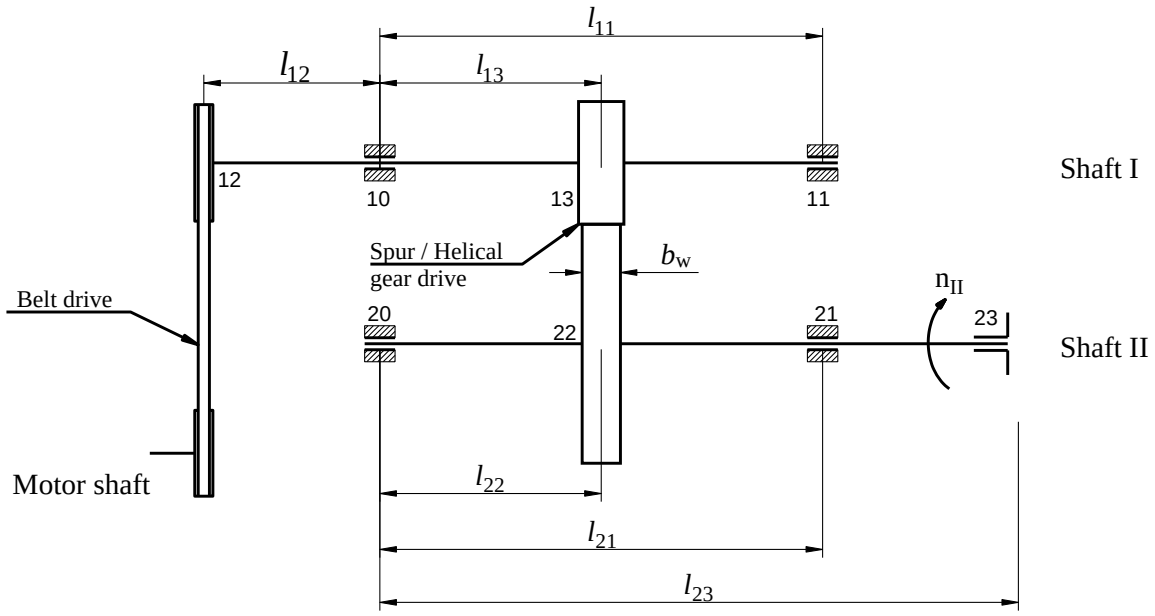
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H2

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 21000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 5° (Đai dẹt)
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 17.56 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.8	0.752	0.722	0.708
n (v/ph)	1450	580.00	131.82	131.82
T (Nmm)	5269.0	12382.1	52306.9	51292.7
u		2.50	4.40	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Hoàng Anh……...22013901*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

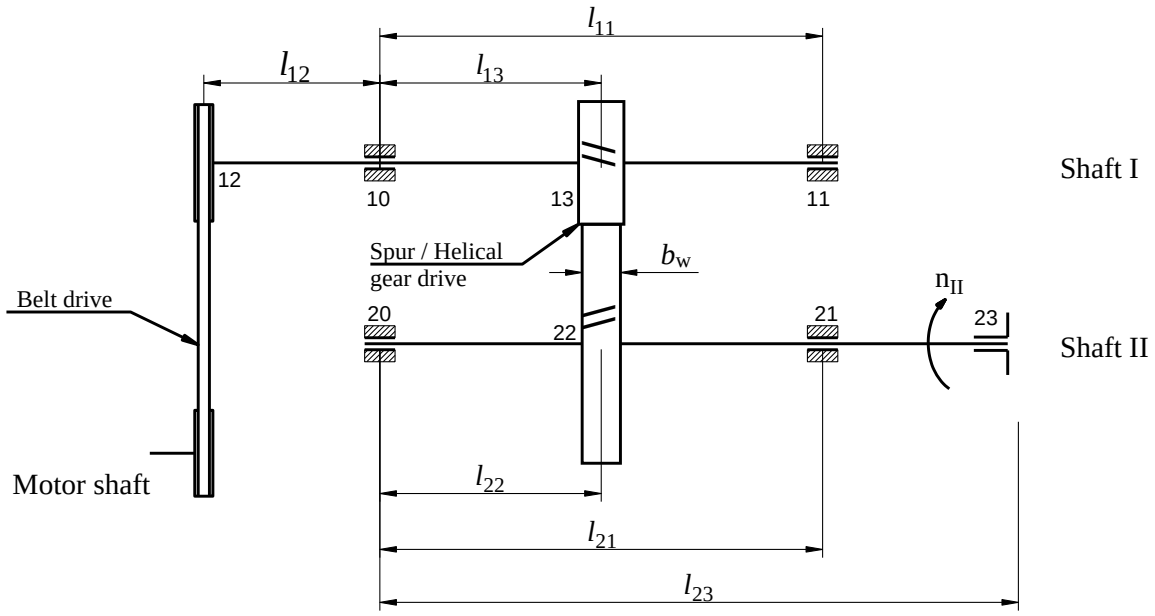
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H3

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 22000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 40° (Đai thang)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 36.84 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.941	0.904	0.886
n (v/ph)	720	228.57	63.49	63.49
T (Nmm)	13263.9	39316.4	135977.3	133269.8
u		3.15	3.60	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Trần Tuấn Anh……...22010768*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

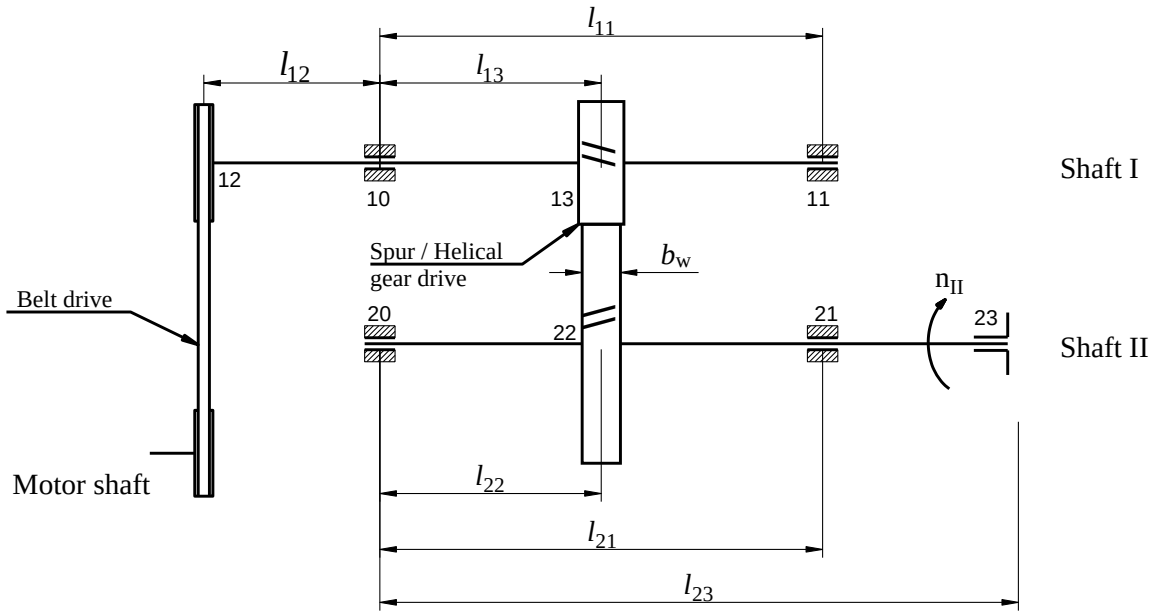
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H4

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 17000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 15° (Đai thang)
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 45.59 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.1	1.035	0.994	0.974
n (v/ph)	960	480.00	126.32	126.32
T (Nmm)	10942.7	20592.2	75148.0	73636.0
u		2.00	3.80	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Gia Bảo……...22010593*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

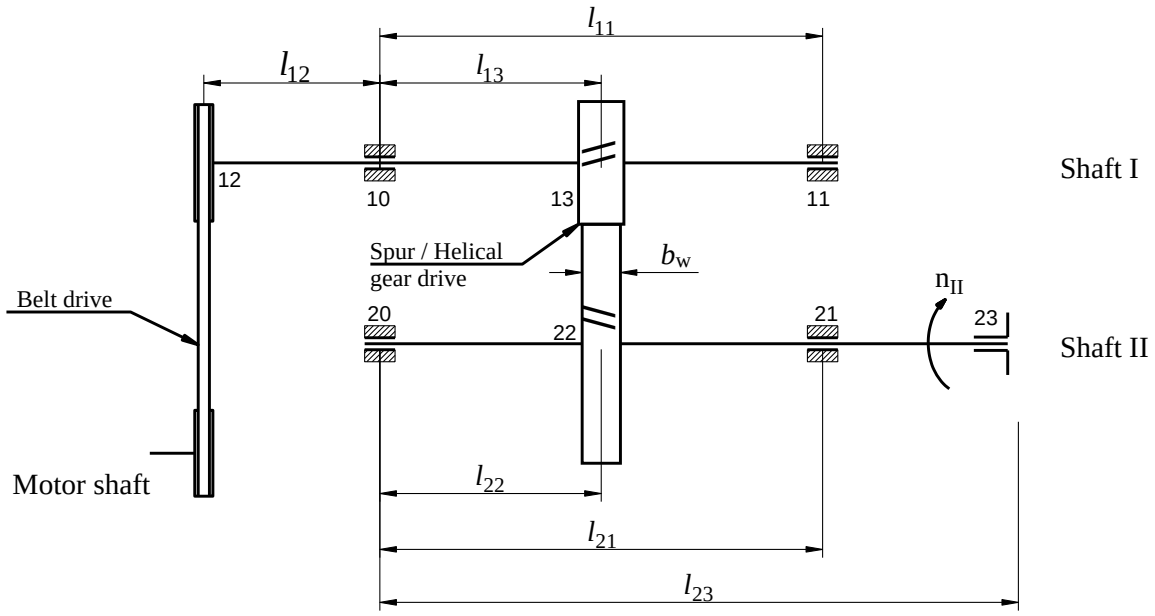
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H5

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 17000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 25° (Đai dẹt)
  - Load property: Êm
  - Coupling force on the shaft: 15.54 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.5	0.470	0.451	0.442
n (v/ph)	960	428.57	104.53	104.53
T (Nmm)	4974.0	10473.2	41204.0	40381.7
u		2.24	4.10	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Đức Bình……...22010960*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

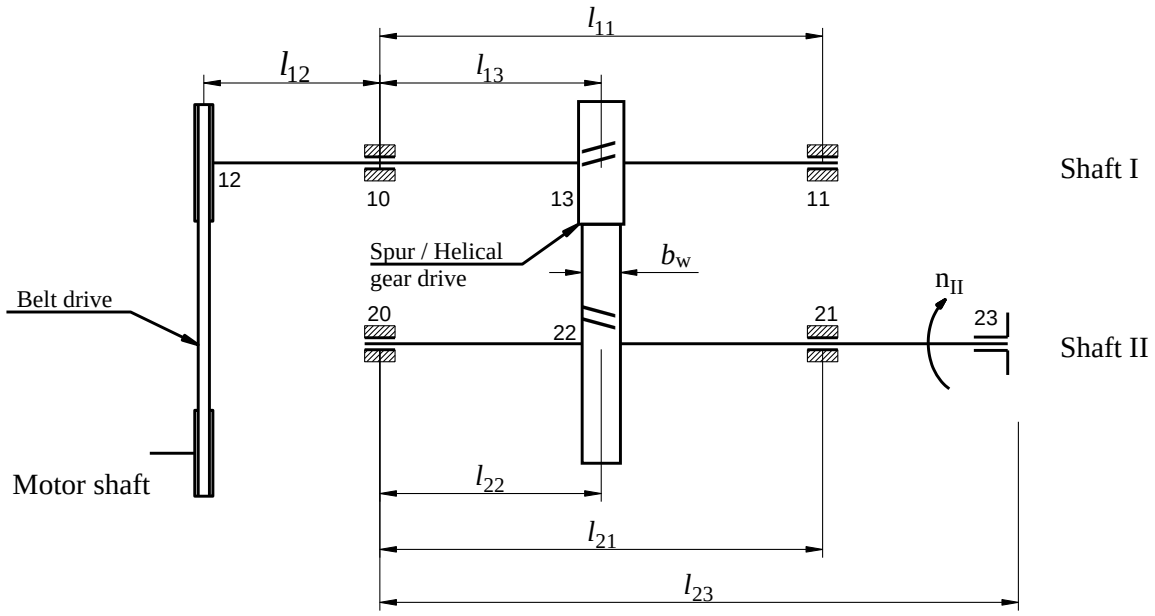
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H6

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 14000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 45° (Đai thang)
  - Load property: Êm
  - Coupling force on the shaft: 16.58 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.6	0.564	0.542	0.531
n (v/ph)	960	304.76	69.26	69.26
T (Nmm)	5968.8	17673.6	74734.3	73217.6
u		3.15	4.40	1

- Distances between the load positions are given by the formula as:
  $l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Văn Doanh……...22010652*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

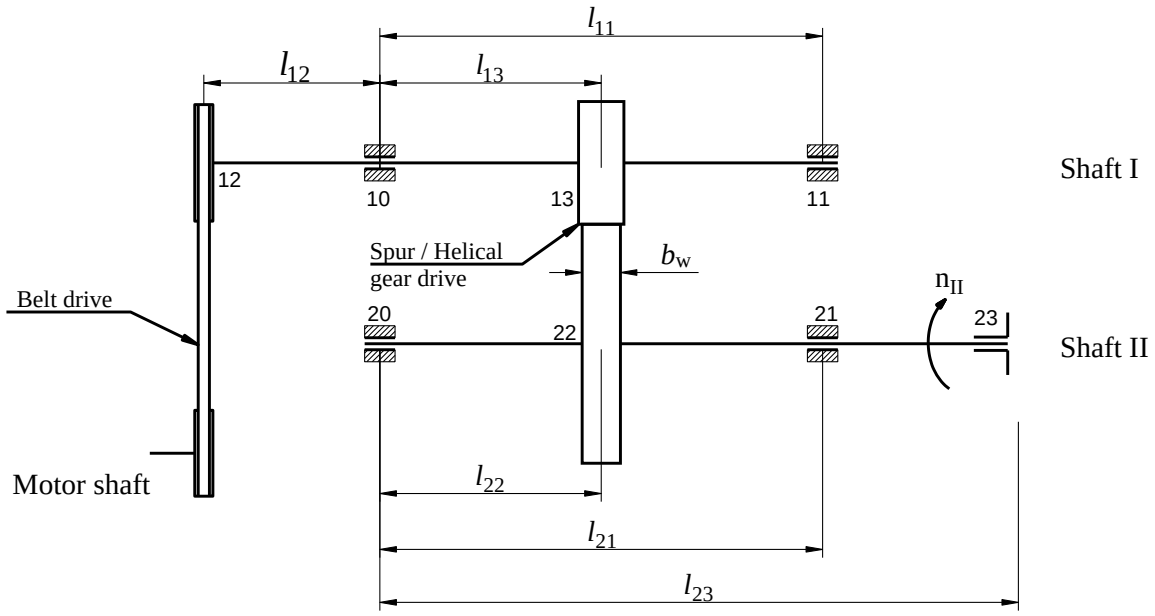
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H7

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 12000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 40° (Đai dẹt)
  - Load property: Êm
  - Coupling force on the shaft: 40.70 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	960	304.76	84.66	84.66
T (Nmm)	8953.1	26510.4	91597.0	89792.1
u		3.15	3.60	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Hùng Dương……...22014374*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

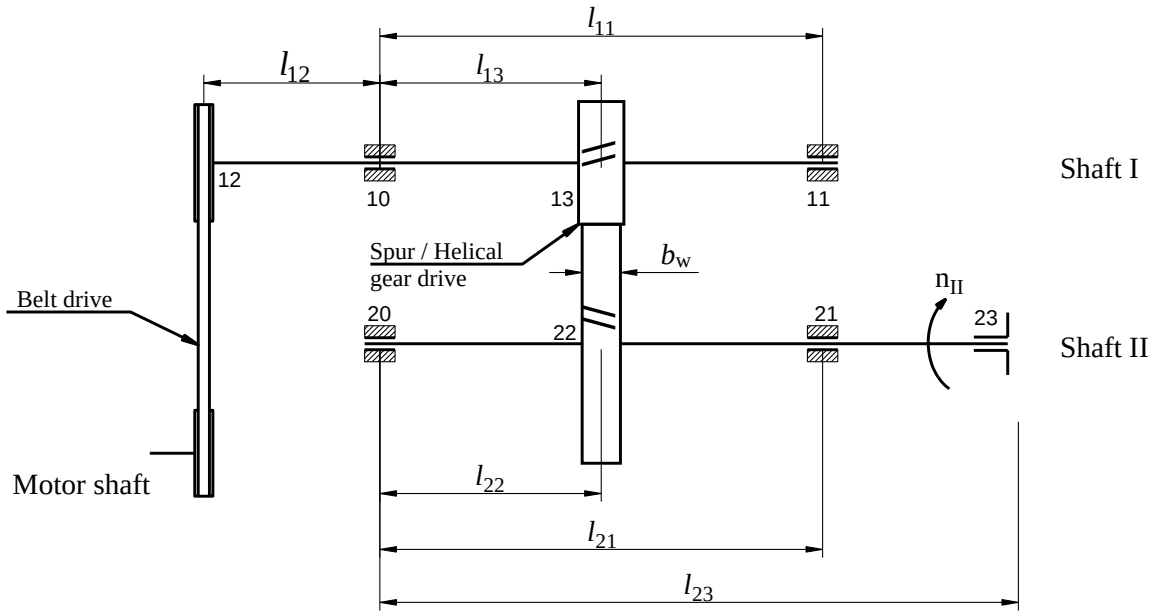
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H8

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 10000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 0° (Đai dẹt)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 34.44 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	960	269.66	74.91	74.91
T (Nmm)	8953.1	29961.1	103518.9	101479.1
u		3.56	3.60	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Đức Hải……...22010578*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

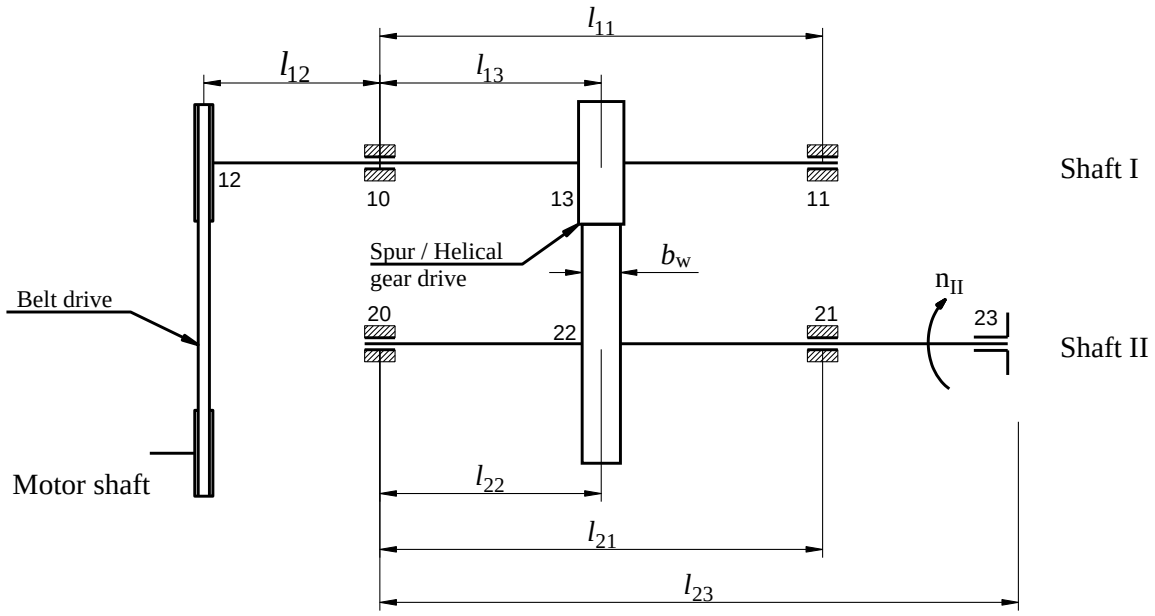
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H9

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 10000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 20° (Đai dẹt)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 22.11 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.6	0.564	0.542	0.531
n (v/ph)	720	321.43	82.42	82.42
T (Nmm)	7958.3	16757.0	62801.5	61526.9
u		2.24	3.90	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Lê Trọng Hiếu……...22011037*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

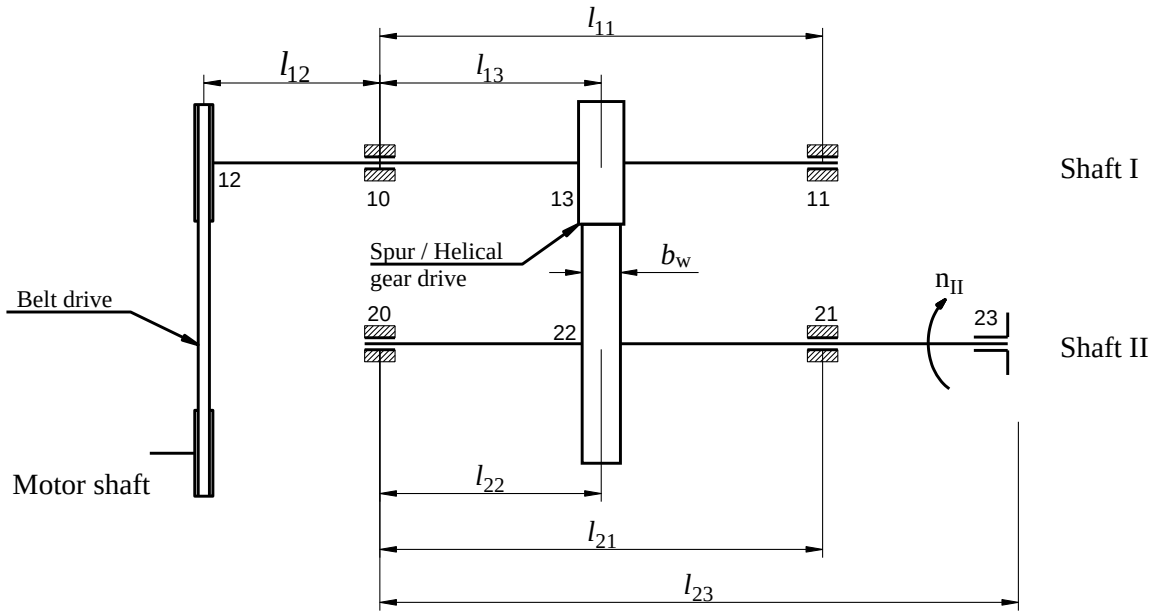
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H10

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 17000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 60° (Đai dẹt)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 25.79 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.7	0.658	0.632	0.619
n (v/ph)	720	228.57	55.75	55.75
T (Nmm)	9284.7	27492.2	108261.9	106035.0
u		3.15	4.10	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Huy Hoàng……...22010951*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

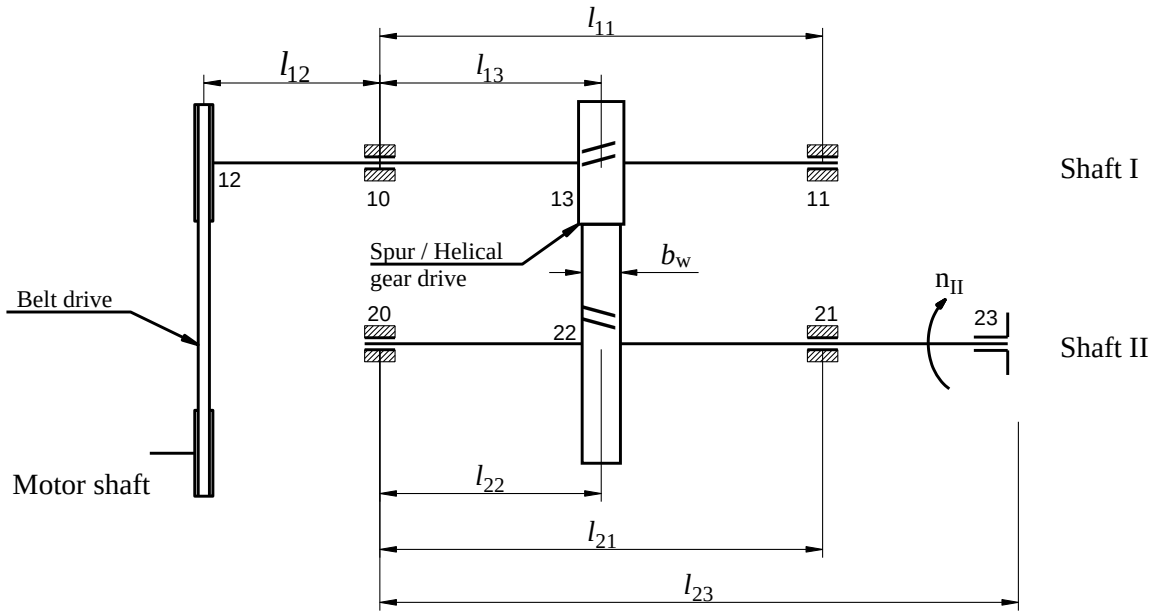
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H11

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 18000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the belt drive: 90° (Đai thang)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 21.32 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.6	0.564	0.542	0.531
n (v/ph)	960	384.00	89.30	89.30
T (Nmm)	5968.8	14026.6	57963.0	56786.7
u		2.50	4.30	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Đặng Nguyễn Quang Huy……...22010701*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

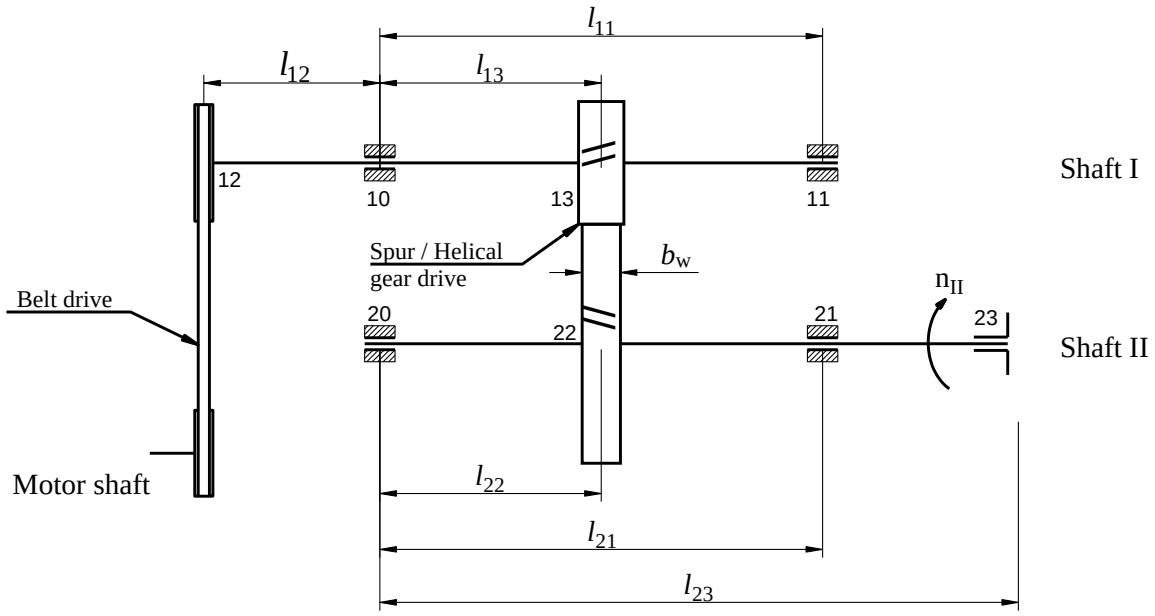
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H12

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 12000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 20° (Đai dẹt)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 31.41 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	720	257.14	65.93	65.93
T (Nmm)	11937.5	31419.8	117618.7	115301.1
u		2.80	3.90	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Đức Khang……...22011063*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

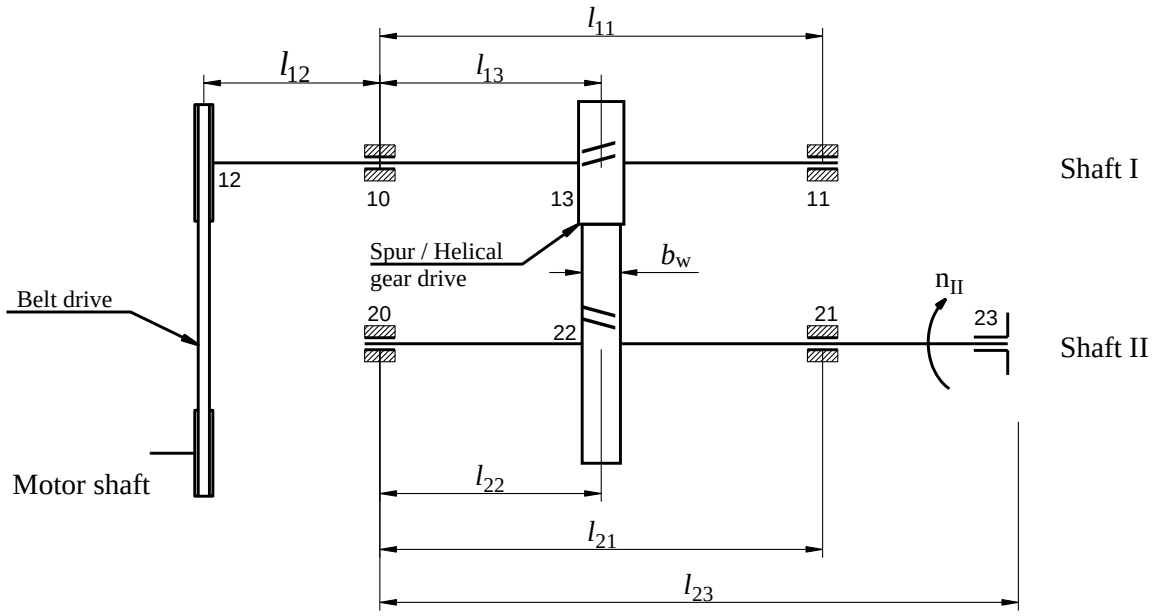
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H13

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 11000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 80° (Đai thang)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 49.74 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	720	257.14	67.67	67.67
T (Nmm)	11937.5	31419.8	114594.4	112336.3
u		2.80	3.80	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Ngô Thị Thùy Linh……...22010446*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

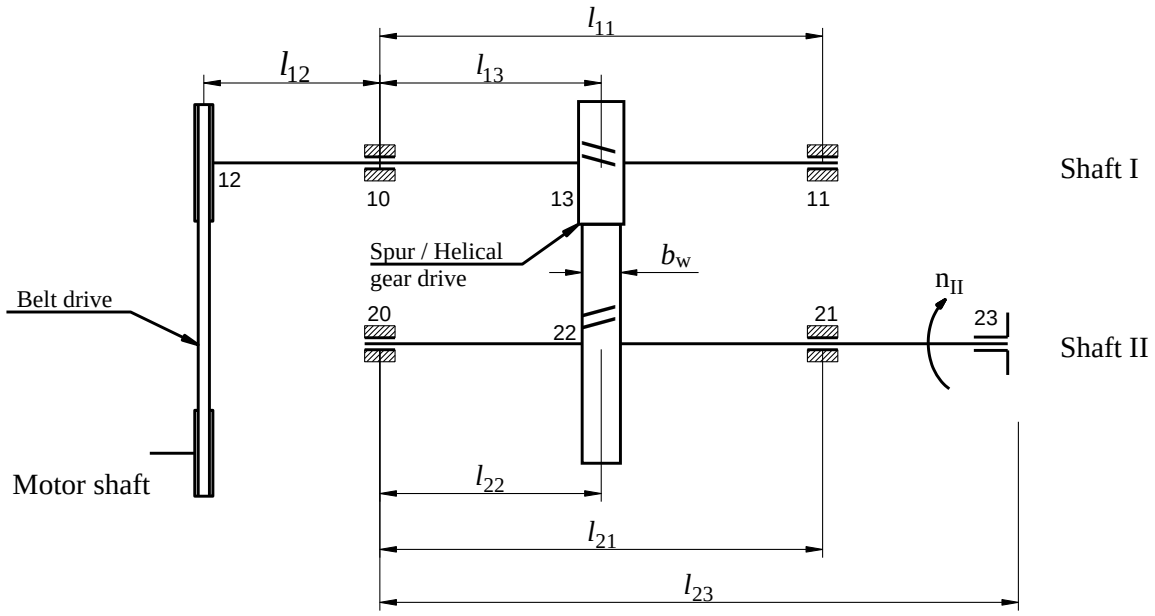
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H14

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 20000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 45° (Đai thang)
  - Load property: Êm
  - Coupling force on the shaft: 25.61 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.7	0.658	0.632	0.619
n (v/ph)	1450	725.00	201.39	201.39
T (Nmm)	4610.3	8667.4	29969.7	29353.2
u		2.00	3.60	1

- Distances between the load positions are given by the formula as:
  $l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Thành Lộc……...22010598*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

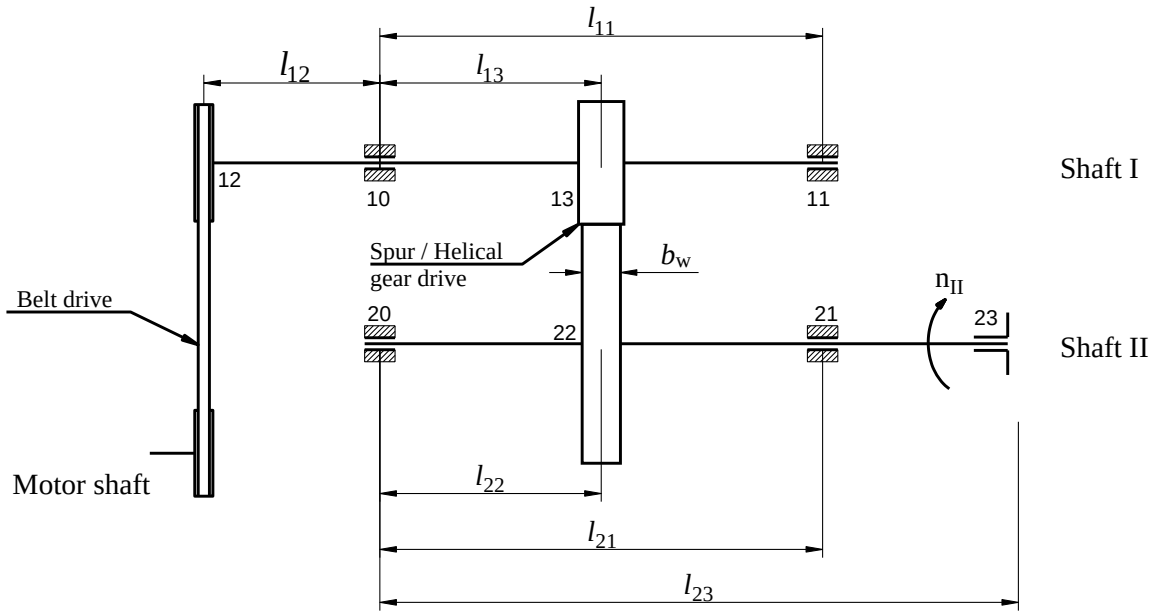
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H15

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 14000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 30° (Đai thang)
  - Load property: Êm
  - Coupling force on the shaft: 24.87 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	960	480.00	126.32	126.32
T (Nmm)	8953.1	16831.9	61388.5	60178.9
u		2.00	3.80	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Xuân Minh……...22010639*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

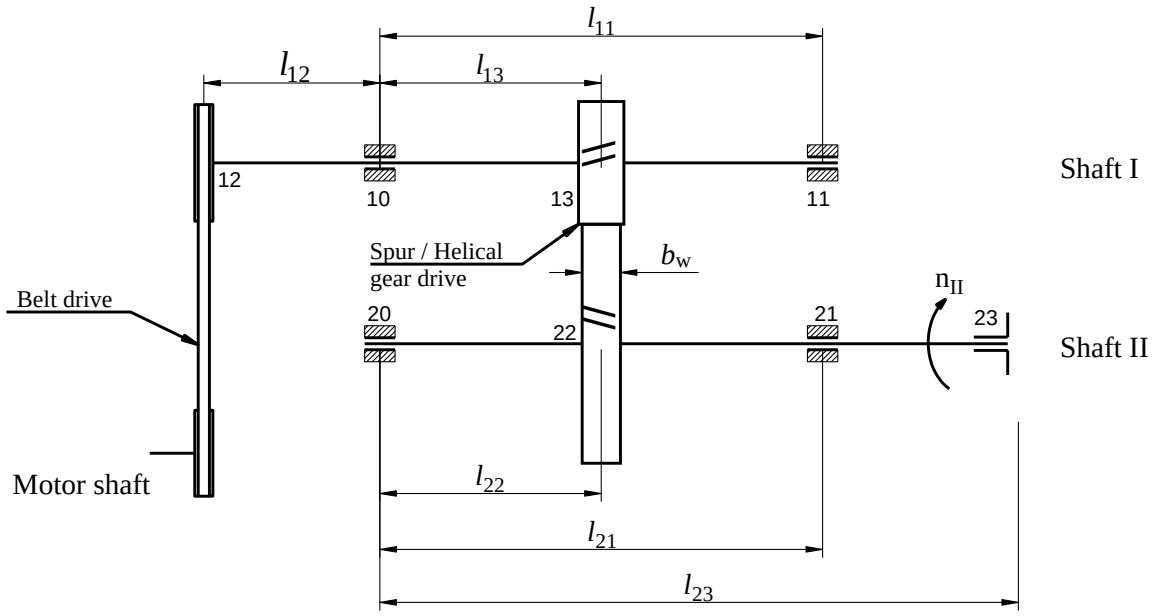
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H16

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 25000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the belt drive: 55° (Đai dẹt)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 34.44 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	960	480.00	114.29	114.29
T (Nmm)	8953.1	16831.9	67850.2	66513.3
u		2.00	4.20	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Hữu Nghĩa……...20011010*** *Class:* ***K14-CĐT***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

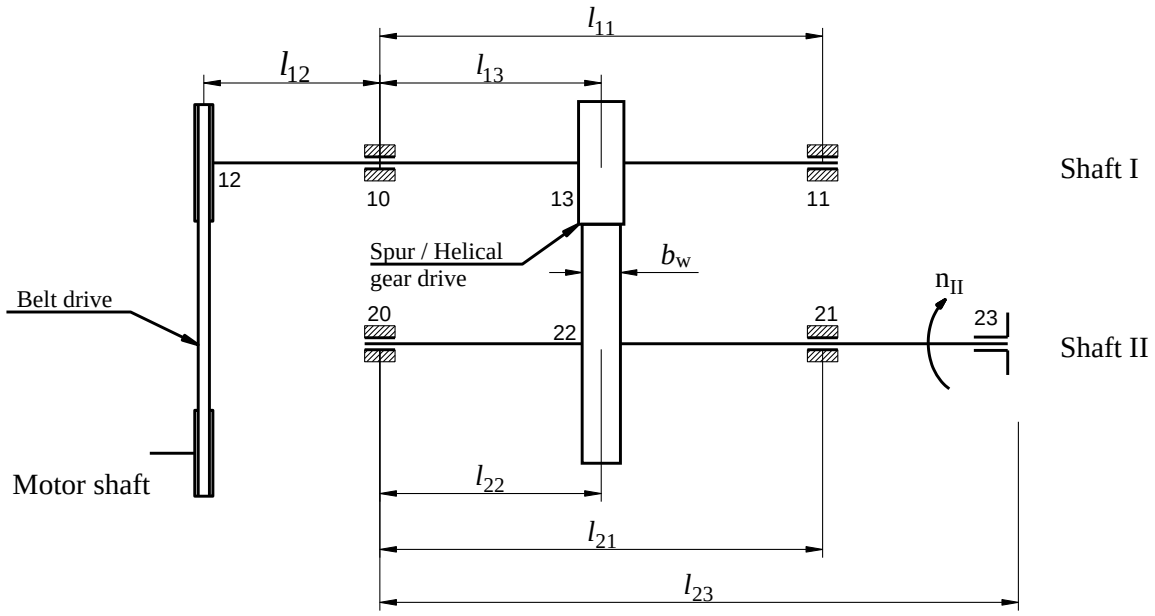
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H17

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 22000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the belt drive: 25° (Đai thang)
  - Load property: Êm
  - Coupling force on the shaft: 10.40 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.6	0.564	0.542	0.531
n (v/ph)	1450	647.32	165.98	165.98
T (Nmm)	3951.7	8320.8	31185.1	30552.2
u		2.24	3.90	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Thái Minh Quân……...22011109*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

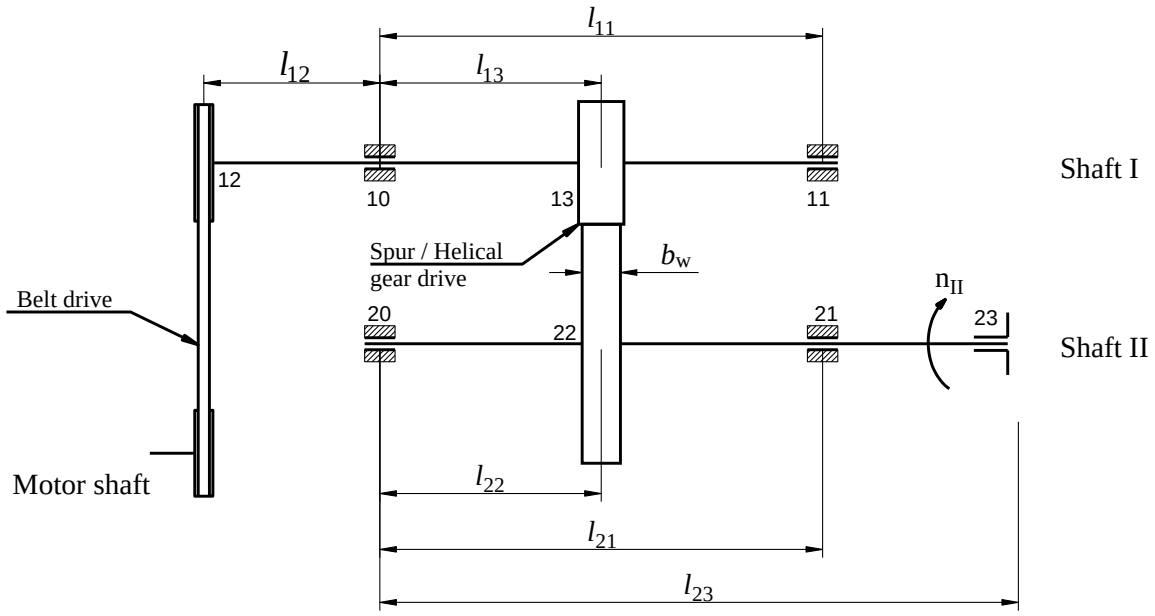
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H18

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 25000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 70° (Đai dẹt)
  - Load property: Va đập vừa
  - Coupling force on the shaft: 33.16 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.941	0.904	0.886
n (v/ph)	960	428.57	97.40	97.40
T (Nmm)	9947.9	20968.7	88636.6	86871.7
u		2.24	4.40	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Văn Quyến……...22010985*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

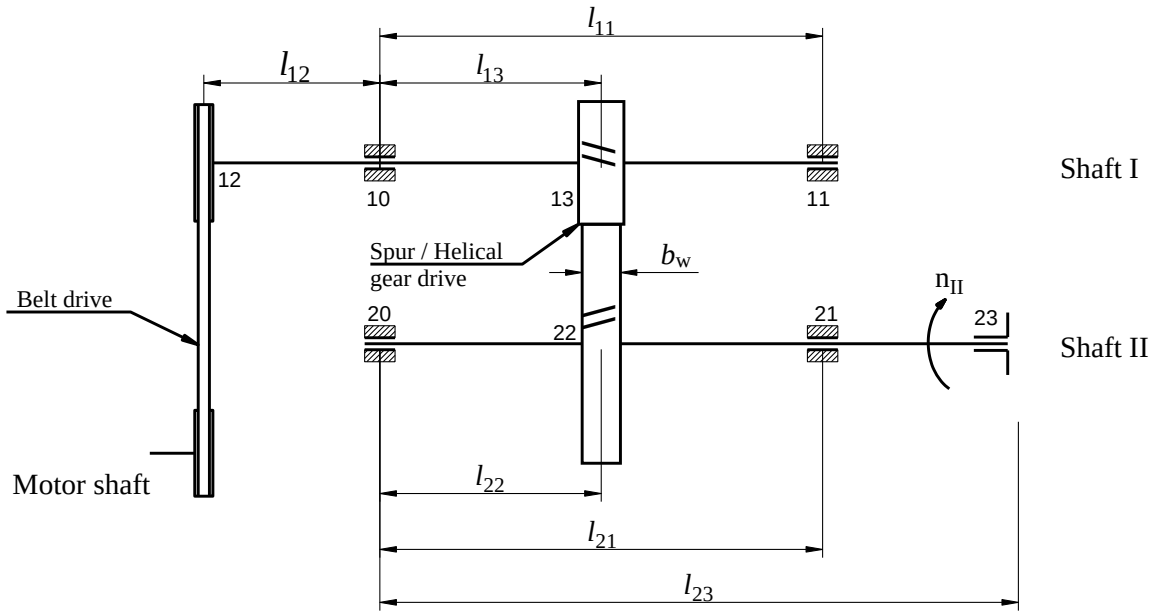
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H19

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 14000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the belt drive: 10° (Đai thang)
  - Load property: Êm
  - Coupling force on the shaft: 29.64 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	1450	517.86	136.28	136.28
T (Nmm)	5927.6	15601.3	56902.0	55780.7
u		2.80	3.80	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Ngô Đức Thắng……...22014523*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

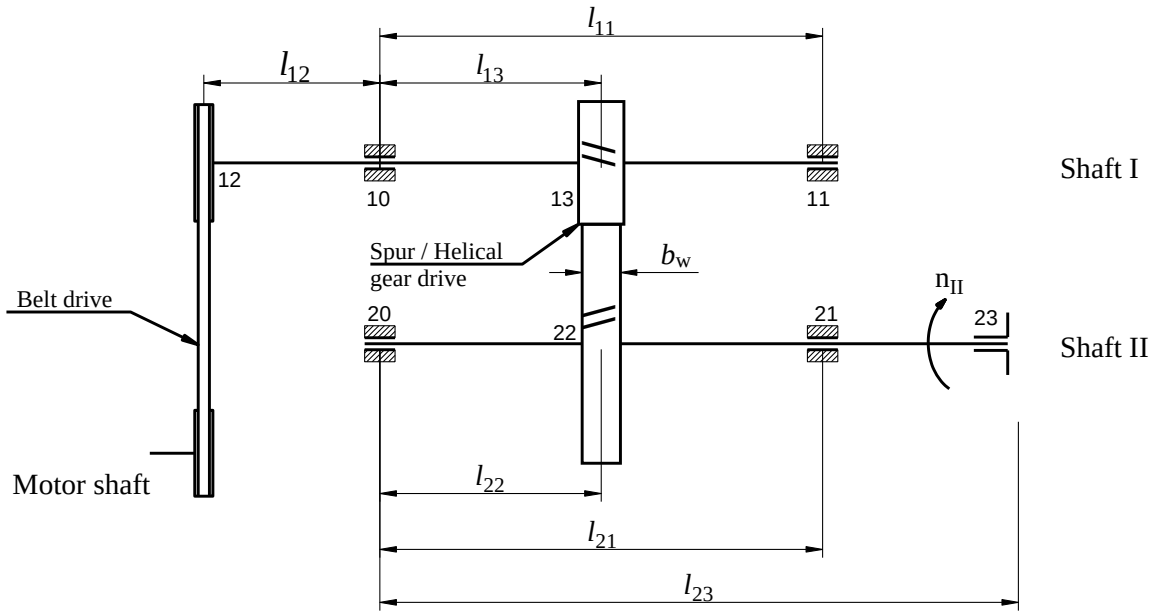
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H20

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 18000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the belt drive: 35° (Đai thang)
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 25.79 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.7	0.658	0.632	0.619
n (v/ph)	720	360.00	80.00	80.00
T (Nmm)	9284.7	17455.3	75445.0	73893.1
u		2.00	4.50	1

- Distances between the load positions are given by the formula as:
  $l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Phạm Thị Thủy……...22011010*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

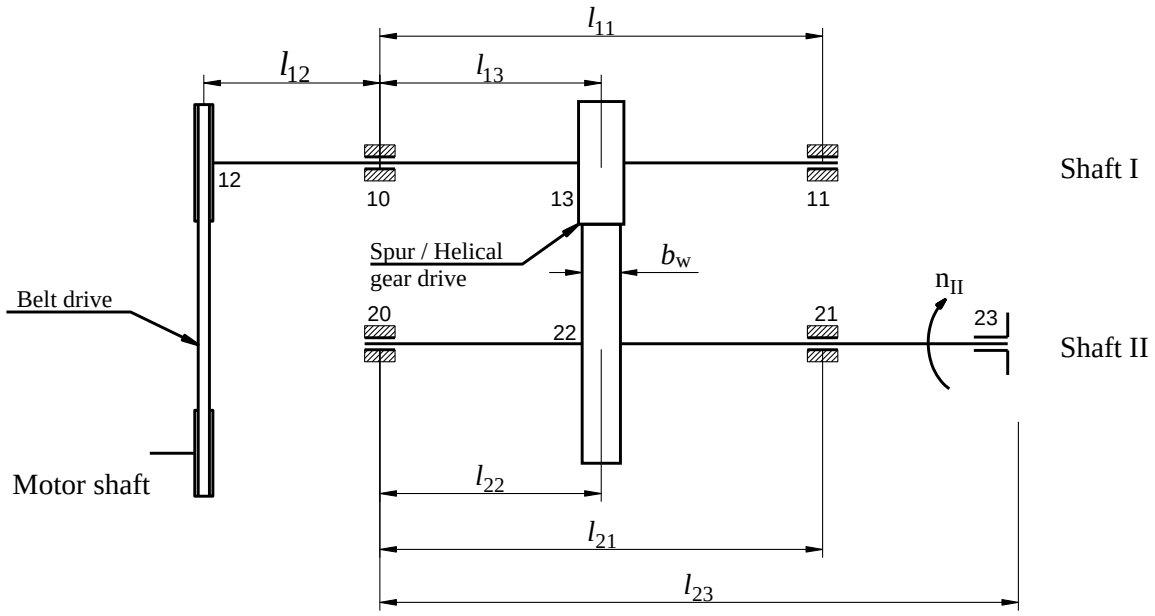
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H21

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 25000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the belt drive: 65° (Đai dẹt)
  - Load property: Êm
  - Coupling force on the shaft: 30.19 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.1	1.035	0.994	0.974
n (v/ph)	1450	517.86	117.70	117.70
T (Nmm)	7244.8	19086.7	80651.7	79028.9
u		2.80	4.40	1

- Distances between the load positions are given by the formula as:
  $l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Hữu Toàn……...22011478*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

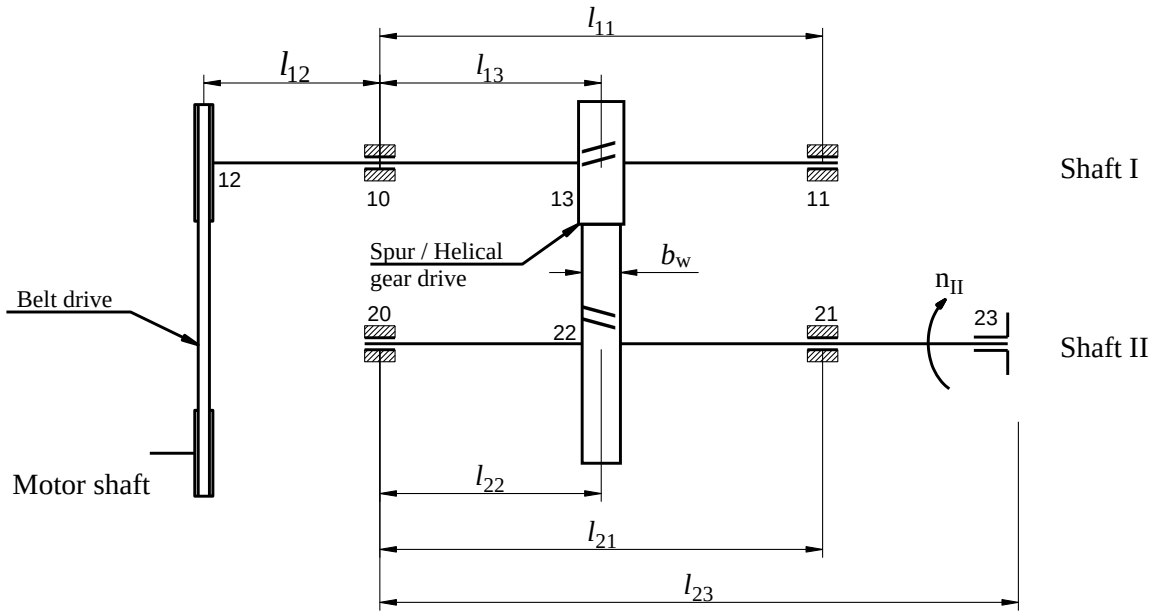
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 1/P.MEM16.H22

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 15000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the belt drive: 25° (Đai thang)
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 33.16 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.846	0.812	0.796
n (v/ph)	720	202.25	51.86	51.86
T (Nmm)	11937.5	39947.1	149529.5	146583.1
u		3.56	3.90	1

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the belt and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Hữu Văn……...22011194*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

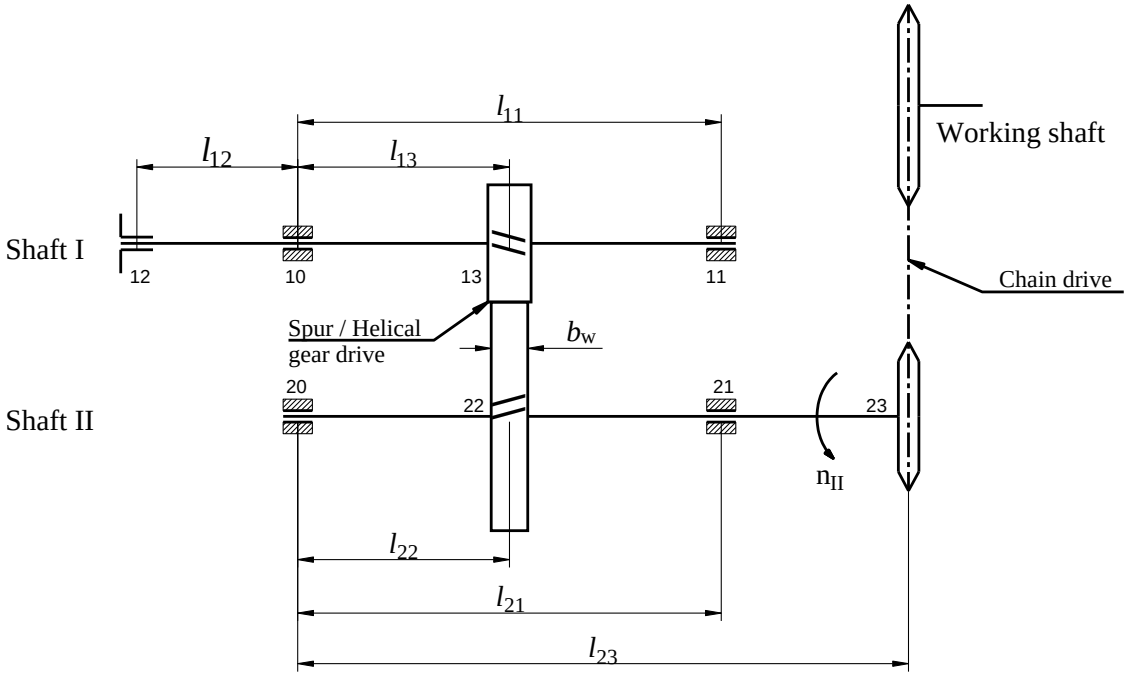
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H1

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 24000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the chain drive: 5°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 66.32 (N)

Shaft / Params	Motor	I	II	Working
P (kW)	0.7	0.686	0.659	0.633
n (rpm)	720	720.0	171.43	50.42
T (Nmm)	9284.7	9099.0	36711.5	119895.9
u		1	4.20	3.40	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Hà Việt Anh……...22011039*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

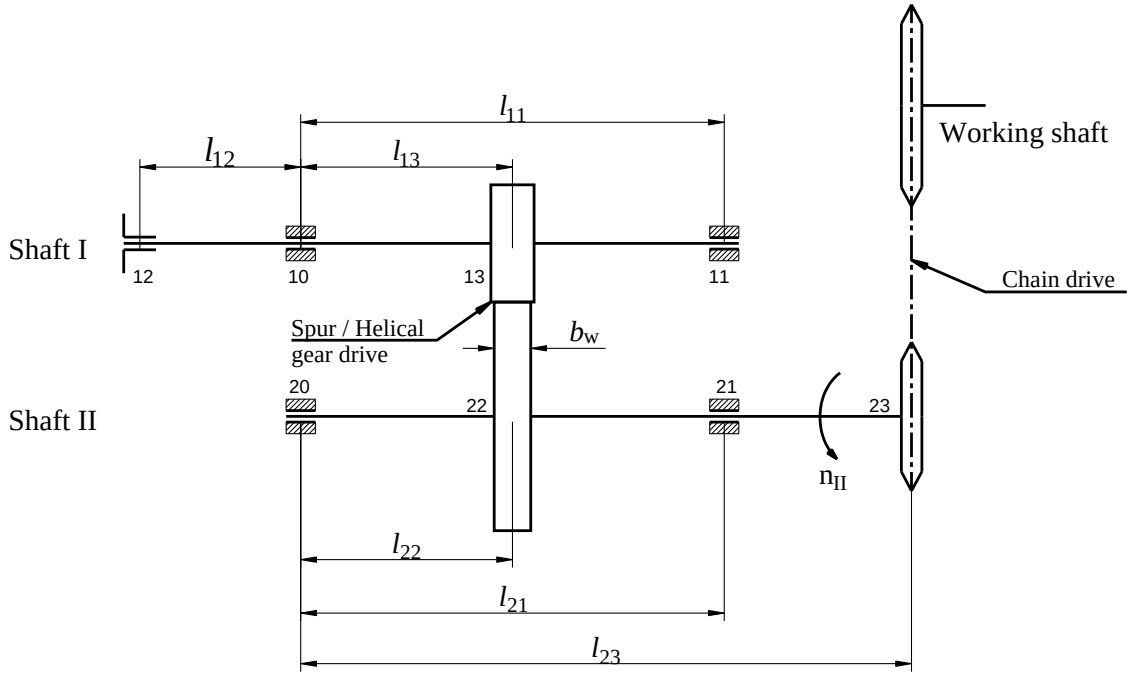
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H2

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 18000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 55°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 29.01 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.7	0.686	0.659	0.633
n (rpm)	960	960.0	259.46	76.31
T (Nmm)	6963.5	6824.3	24256.0	79218.3
u		1	3.70	3.40	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Hùng Anh……...22010732*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

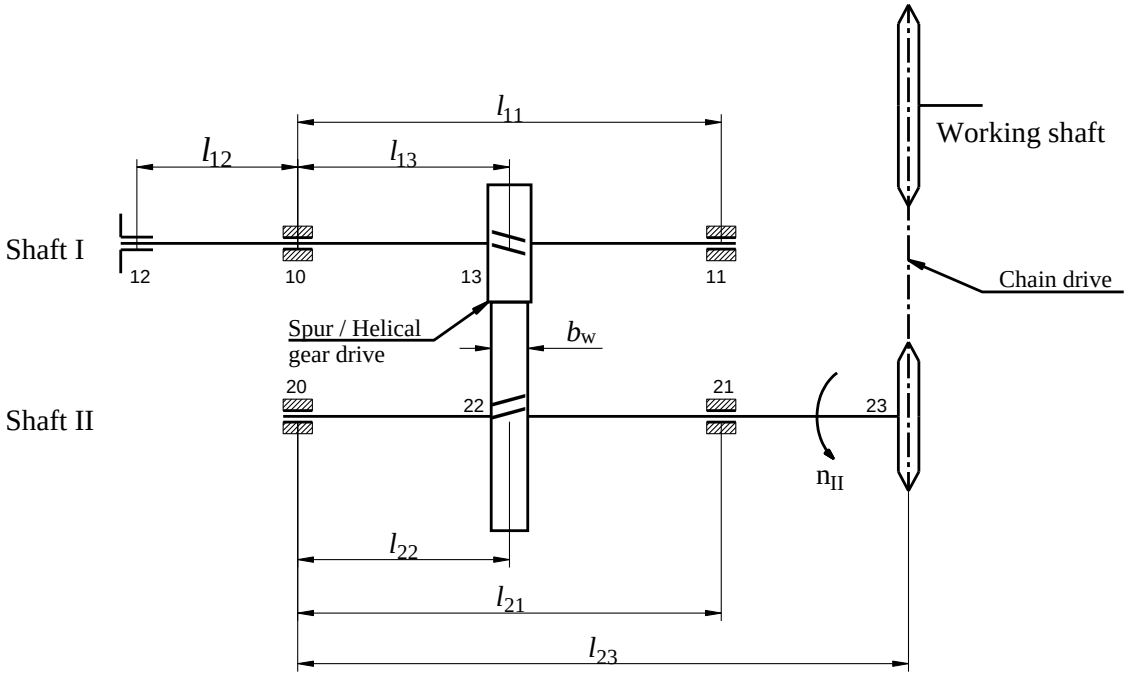
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H3

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 20000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 55°
  - Load property: Êm
  - Coupling force on the shaft: 99.48 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.9	0.882	0.847	0.813
n (rpm)	720	720.0	194.59	69.50
T (Nmm)	11937.5	11698.8	41568.7	111714.4
u		1	3.70	2.80	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Chu Bằng……...22010955*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

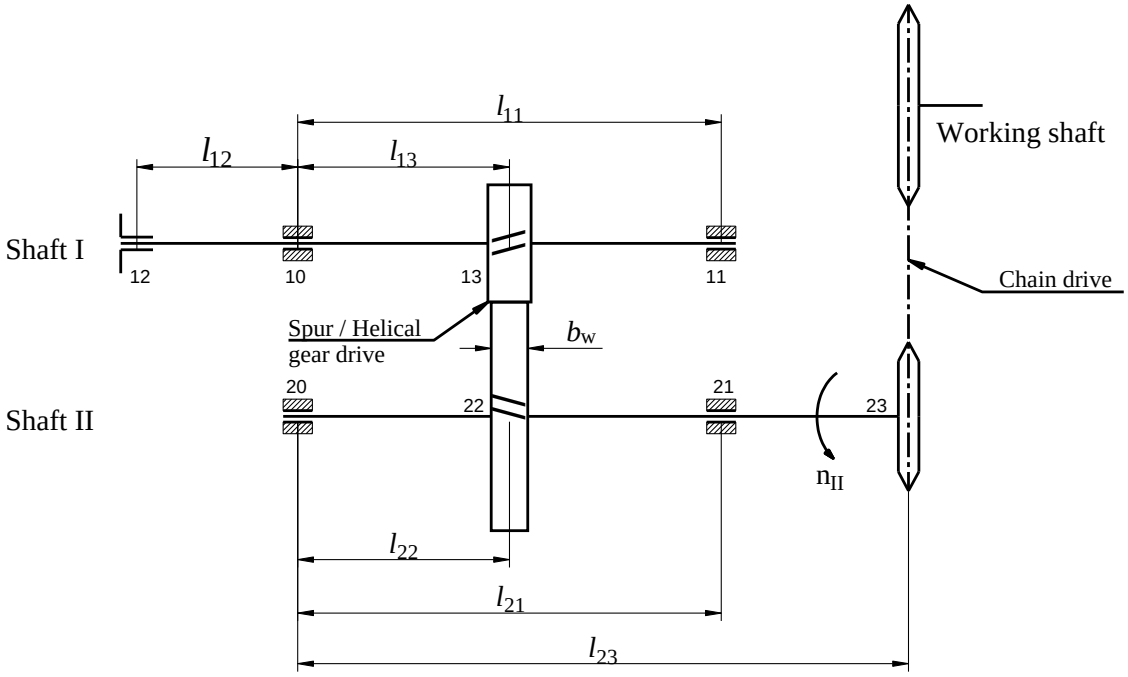
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H4

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 12000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 75°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 72.35 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.2	1.176	1.129	1.084
n (rpm)	720	720.0	180.00	90.00
T (Nmm)	15916.7	15598.3	59899.7	115024.4
u		1	4.00	2.00

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Duy Bình……...22010710*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

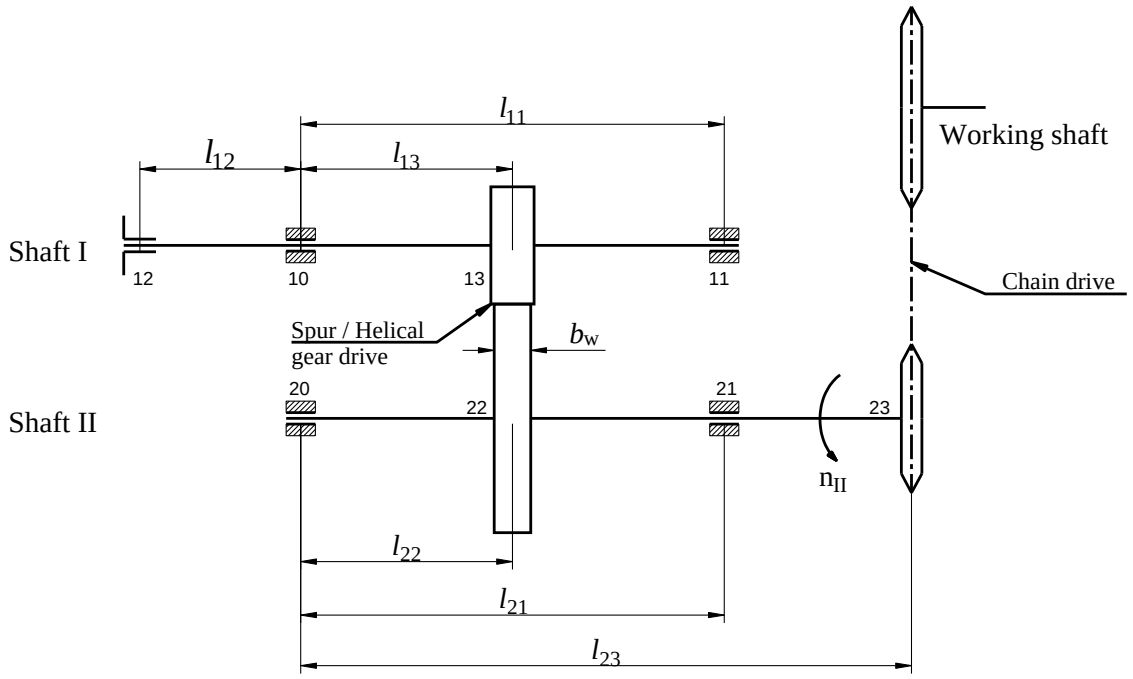
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H5

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 11000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 20°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 88.43 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.2	1.176	1.129	1.084
n (rpm)	720	720.0	180.00	75.00
T (Nmm)	15916.7	15598.3	59899.7	138029.3
u		1	4.00	2.40	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Phạm Quyết Chiến……...20010997*** *Class:* ***K14-CĐT***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

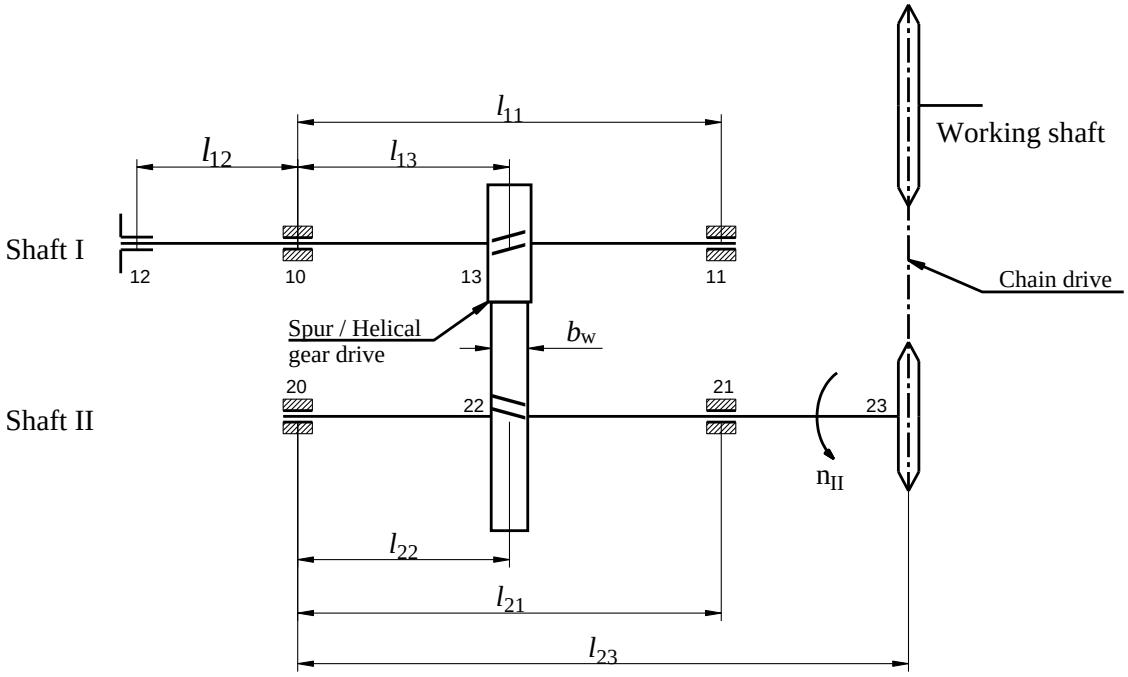
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H6

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 14000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 50°
  - Load property: Êm
  - Coupling force on the shaft: 79.58 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.2	1.176	1.129	1.084
n (rpm)	720	720.0	175.61	83.62
T (Nmm)	15916.7	15598.3	61397.1	123800.5
u		1	4.10	2.10	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Mạnh Dũng……...22010928*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

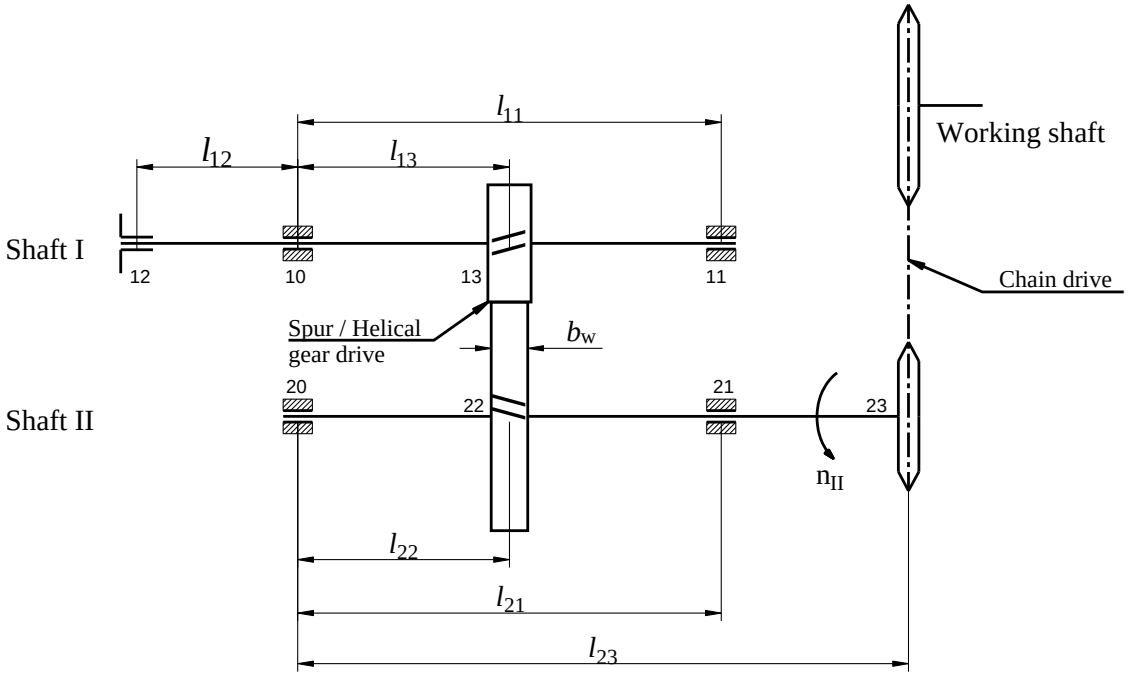
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H7

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 21000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 90°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 18.30 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.5	0.490	0.471	0.452
n (rpm)	1450	1450.0	353.66	136.02
T (Nmm)	3293.1	3227.2	12718.6	31735.0
u		1	4.10	2.60	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Trần Văn Đạt……..22011214*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

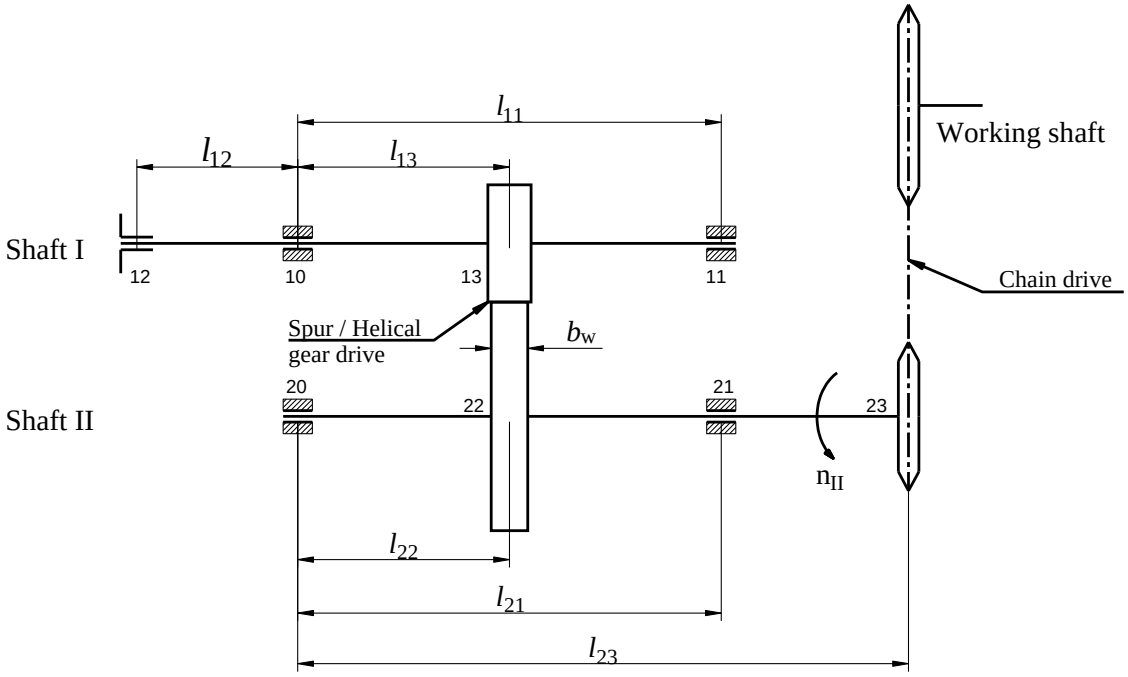
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H8

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 22000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 15°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 94.74 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.980	0.941	0.904
n (rpm)	720	720.0	171.43	68.57
T (Nmm)	13263.9	12998.6	52421.1	125903.5
u		1	4.20	2.50	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Đặng Duy Hiếu……...22014152*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

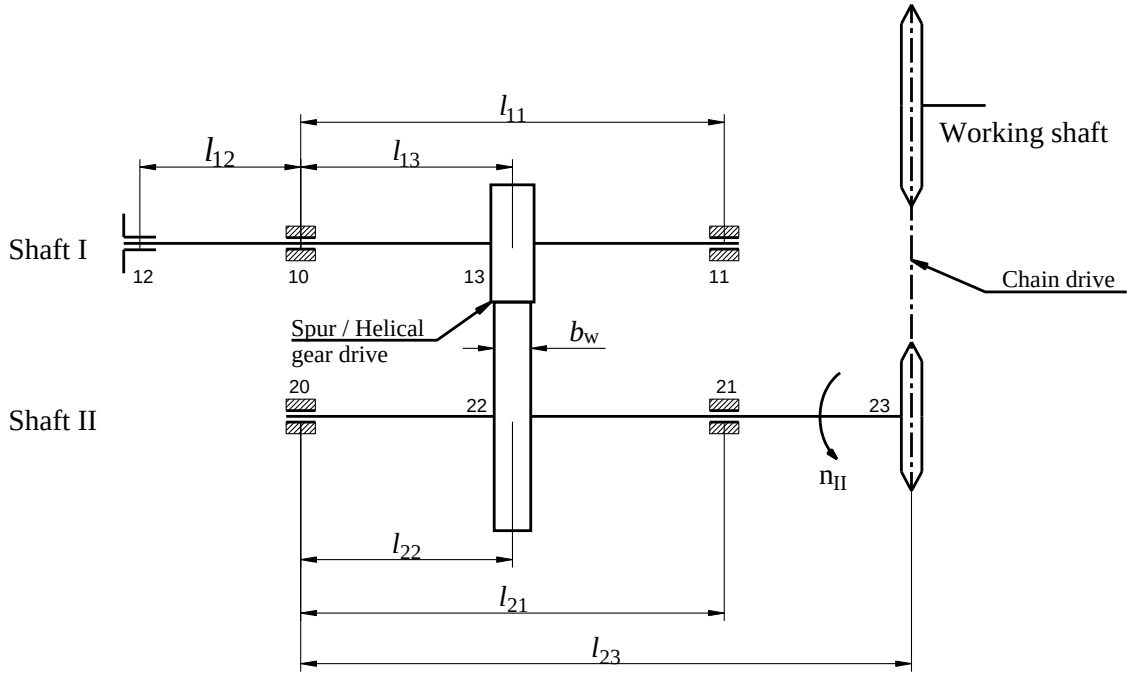
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H9

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 15000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 35°
  - Load property: Êm
  - Coupling force on the shaft: 32.93 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.980	0.941	0.904
n (rpm)	1450	1450.0	353.66	101.05
T (Nmm)	6586.2	6454.5	25410.1	85434.9
u		1	4.10	3.50	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Như Hoà……...20011003*** *Class:* ***K14-CĐT***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

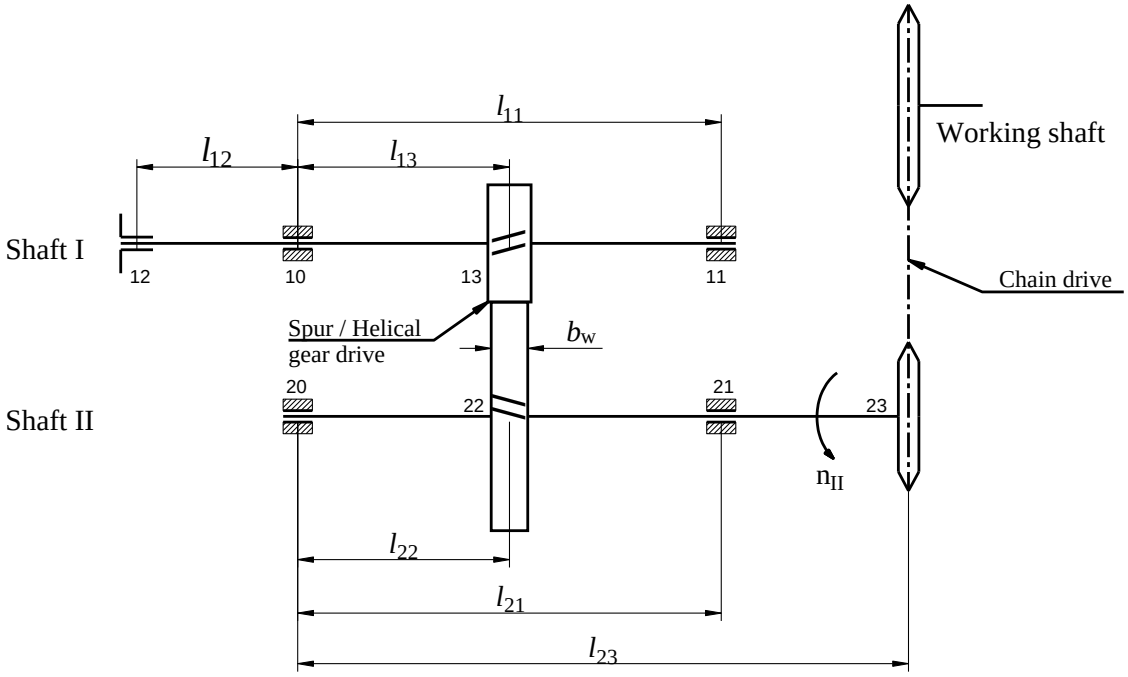
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H10

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 22000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 10°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 42.63 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.6	0.588	0.565	0.543
n (rpm)	960	960.0	259.46	112.81
T (Nmm)	5968.8	5849.4	20796.1	45968.0
u		1	3.70	2.30	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Ngô Sinh Hùng……...20011004*** *Class:* ***K14-CĐT***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

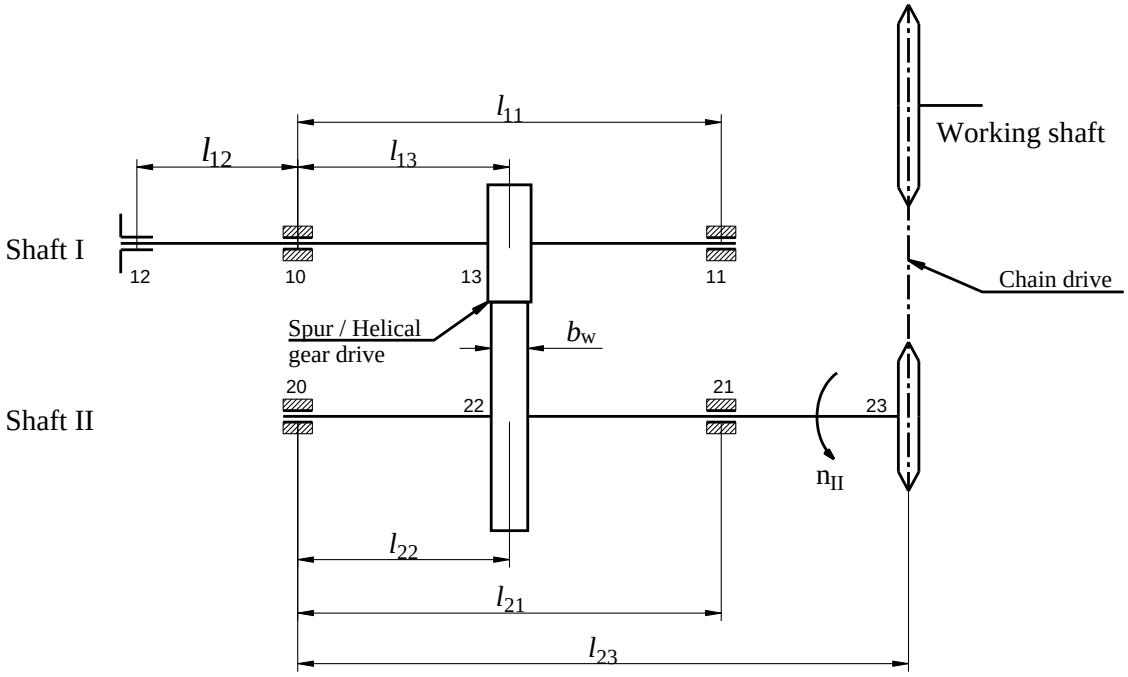
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H11

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 25000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 50°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 45.59 (N)

Shaft / Params	Motor	I	II	Working
P (kW)	1.1	1.078	1.035	0.994
n (rpm)	960	960.0	246.15	111.89
T (Nmm)	10942.7	10723.9	40155.4	84839.6
u		1	3.90	2.20	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Ngô Thế Hướng……...22010538*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

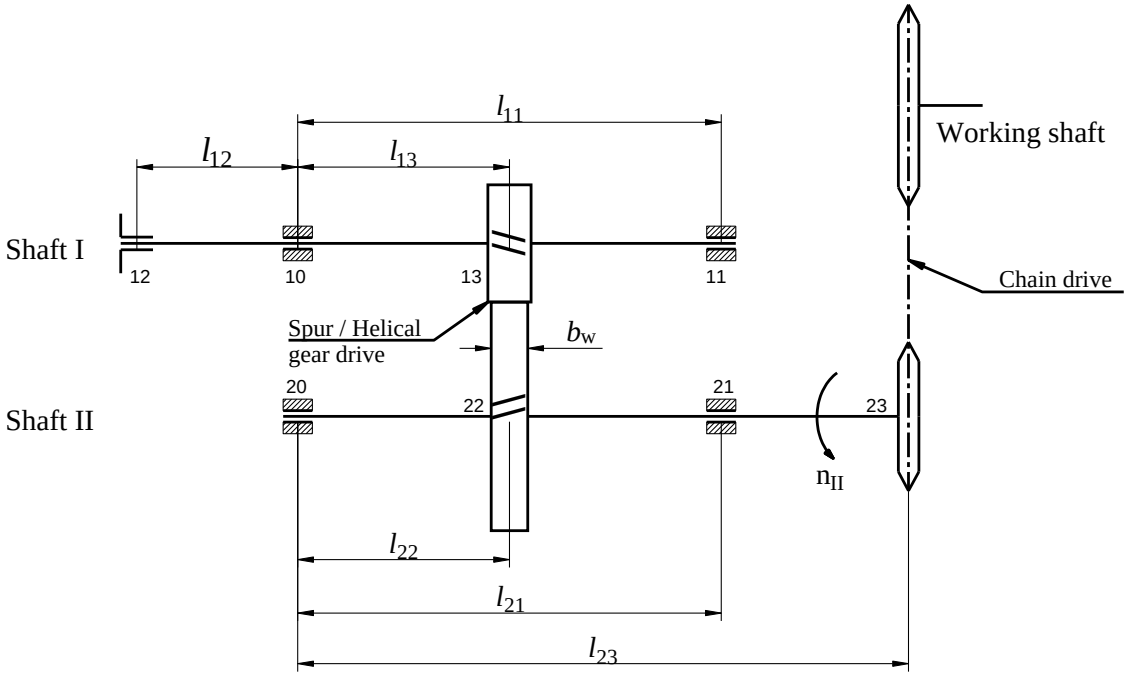
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H12

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 14000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the chain drive: 90°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 132.64 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.2	1.176	1.129	1.084
n (rpm)	720	720.0	189.47	72.87
T (Nmm)	15916.7	15598.3	56905.8	142063.9
u		1	3.80	2.60	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Nam Khánh……...22010856*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

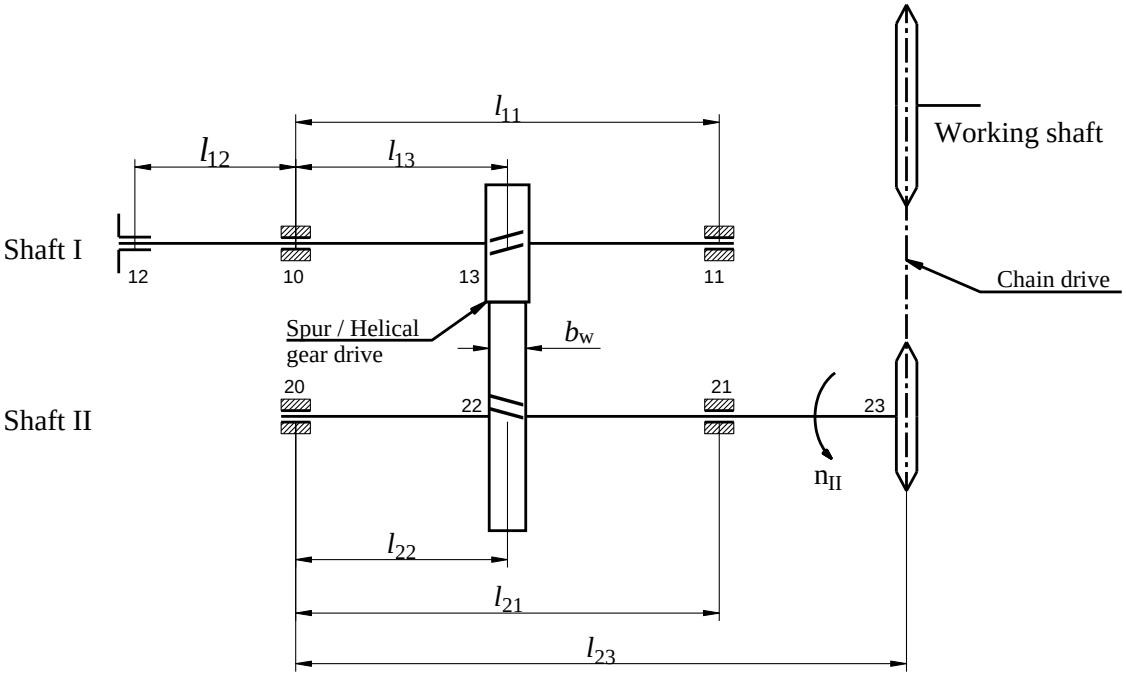
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H13

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 25000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 75°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 32.93 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.2	1.176	1.129	1.084
n (rpm)	1450	1450.0	391.89	145.14
T (Nmm)	7903.4	7745.4	27512.7	71325.6
u		1	3.70	2.70	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Hoàng Đức Long……...22010790*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

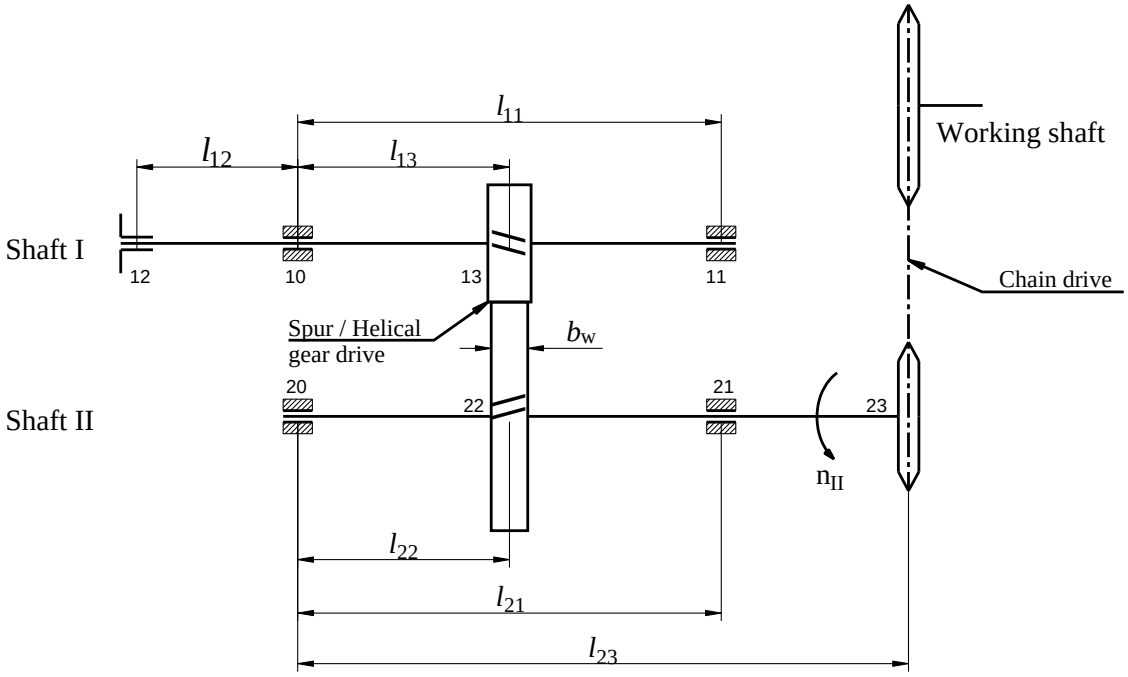
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H14

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 15000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 50°
  - Load property: Êm
  - Coupling force on the shaft: 33.16 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	0.5	0.490	0.471	0.452
n (rpm)	720	720.0	160.00	72.73
T (Nmm)	6631.9	6499.3	28112.8	59351.0
u		1	4.50	2.20	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Vũ Hữu Lộc……...22011006*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

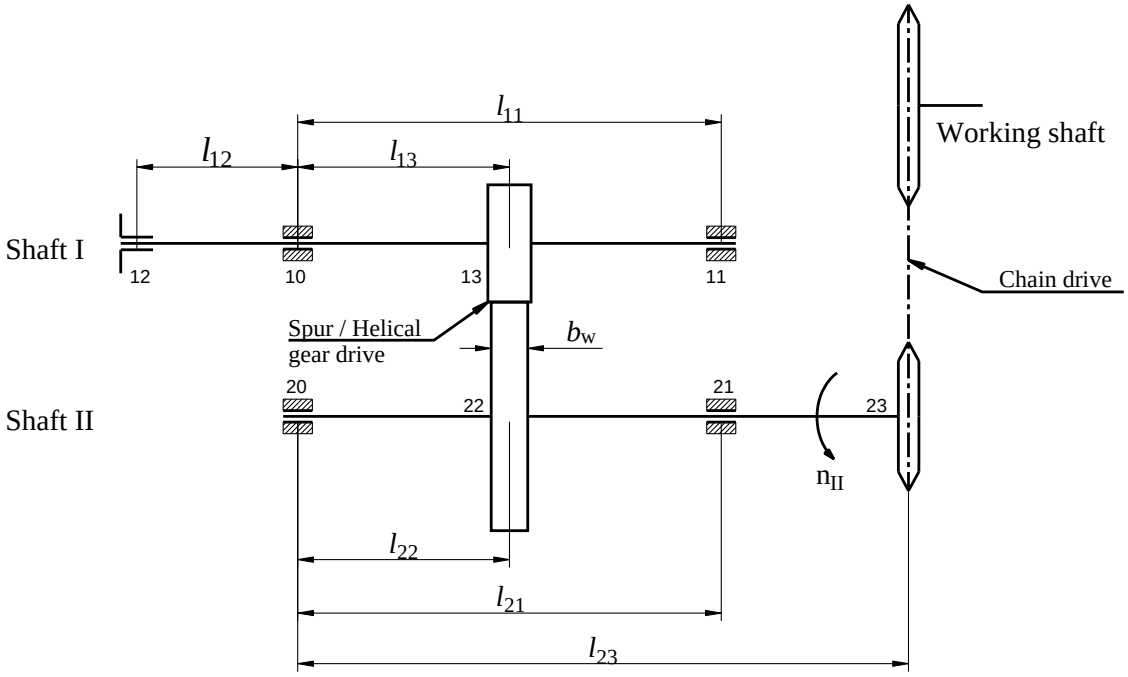
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H15

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 23000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the chain drive: 85°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 99.48 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.2	1.176	1.129	1.084
n (rpm)	720	720.0	184.62	80.27
T (Nmm)	15916.7	15598.3	58400.8	128967.2
u		1	3.90	2.30

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Vũ Trí Minh……..22010944*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

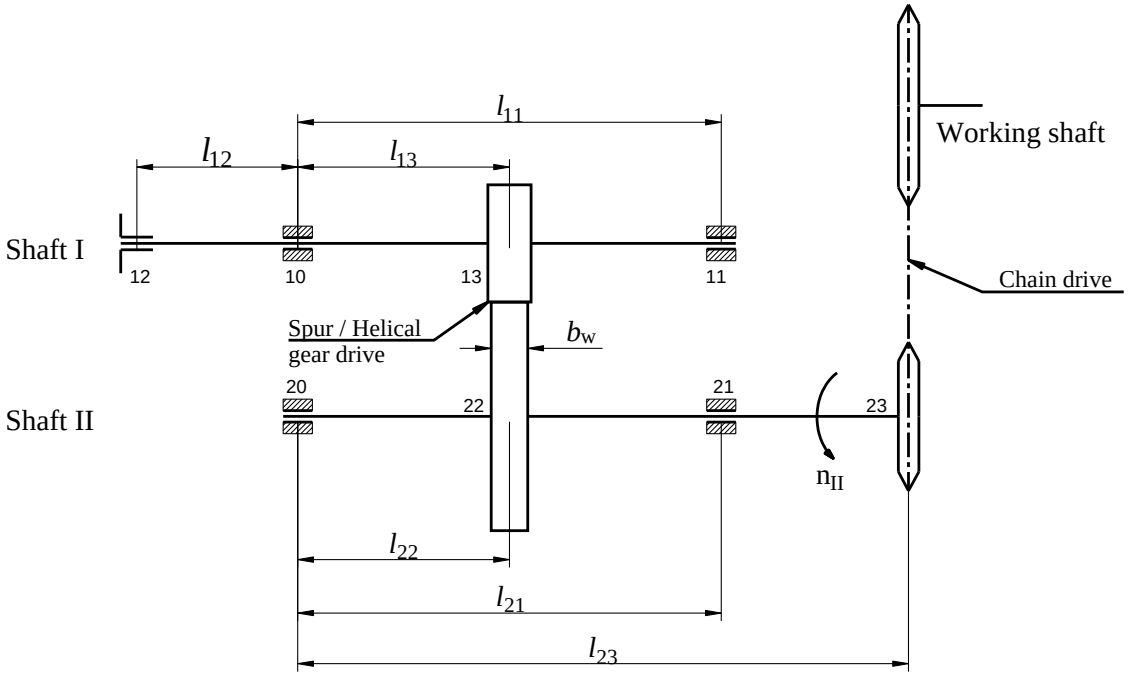
LECTURER
(sign and full name)

PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT
Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H16

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 22000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 90°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 45.22 (N)

Shaft / Params	Motor	I	II	Working
P (kW)	1.0	0.980	0.941	0.904
n (rpm)	960	960.0	234.15	90.06
T (Nmm)	9947.9	9749.0	38379.5	95860.5
u		1	4.10	2.60	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Quang Phúc……...22010934*** *Class:* ***K16-KTCĐT_3***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

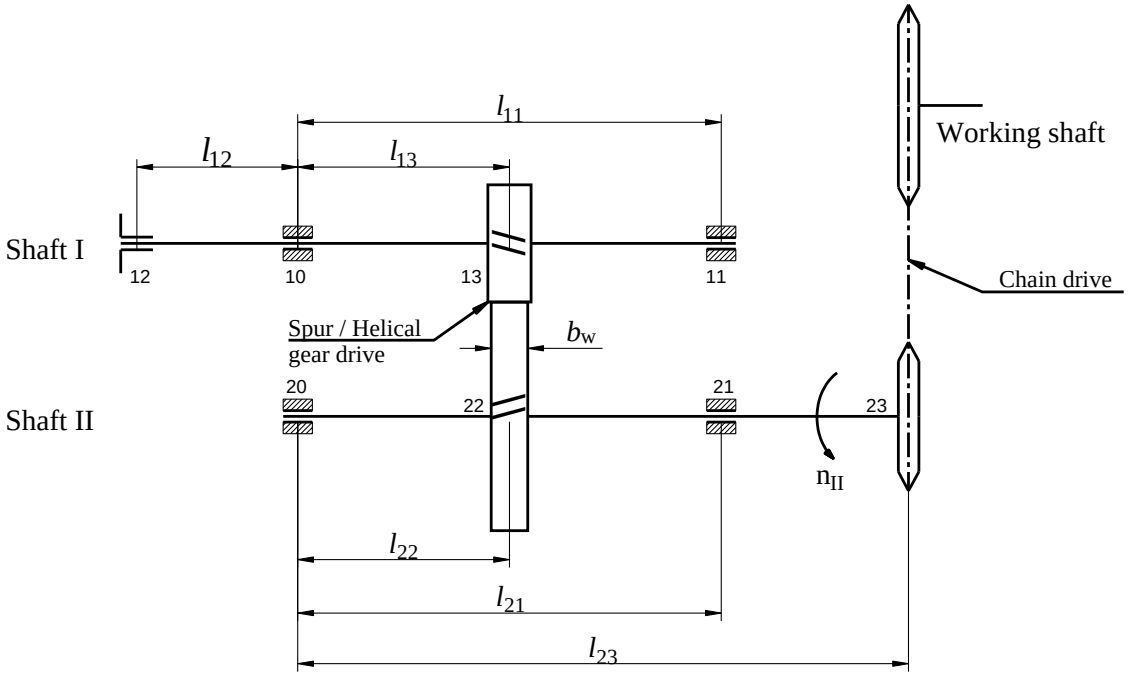
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H17

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 12000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 60°
  - Load property: Va đập vừa
  - Coupling force on the shaft: 54.89 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.980	0.941	0.904
n (rpm)	1450	1450.0	381.58	181.70
T (Nmm)	6586.2	6454.5	23550.9	47513.5
u		1	3.80	2.10	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Phan Bảo Quốc……...22010591*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

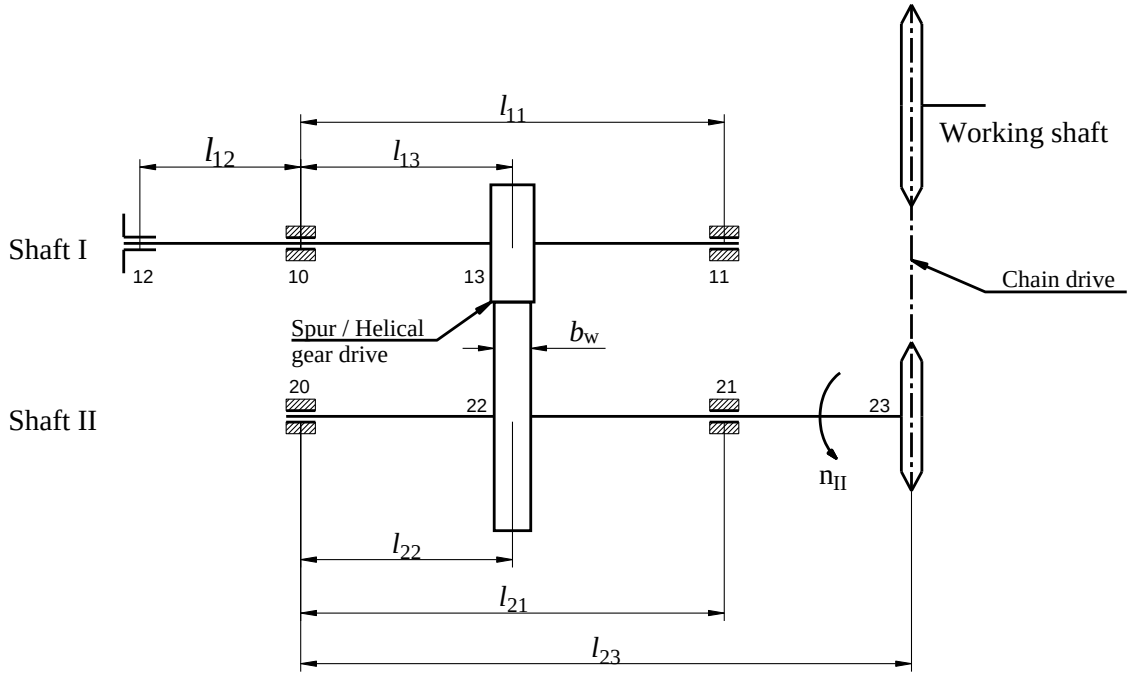
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H18

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 24000 (hour)
  - Number of shifts: 1 (shift)
  - The tilt angle of the center line of the chain drive: 85°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 60.37 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.1	1.078	1.035	0.994
n (rpm)	1450	1450.0	345.24	111.37
T (Nmm)	7244.8	7099.9	28630.1	85235.7
u		1	4.20	3.10	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 2
+ Presenting the report on paper with A4 size.

Student: ***Vũ Đức Thành……..22010922*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

DEAN
(sign and full name)

LECTURER
(sign and full name)

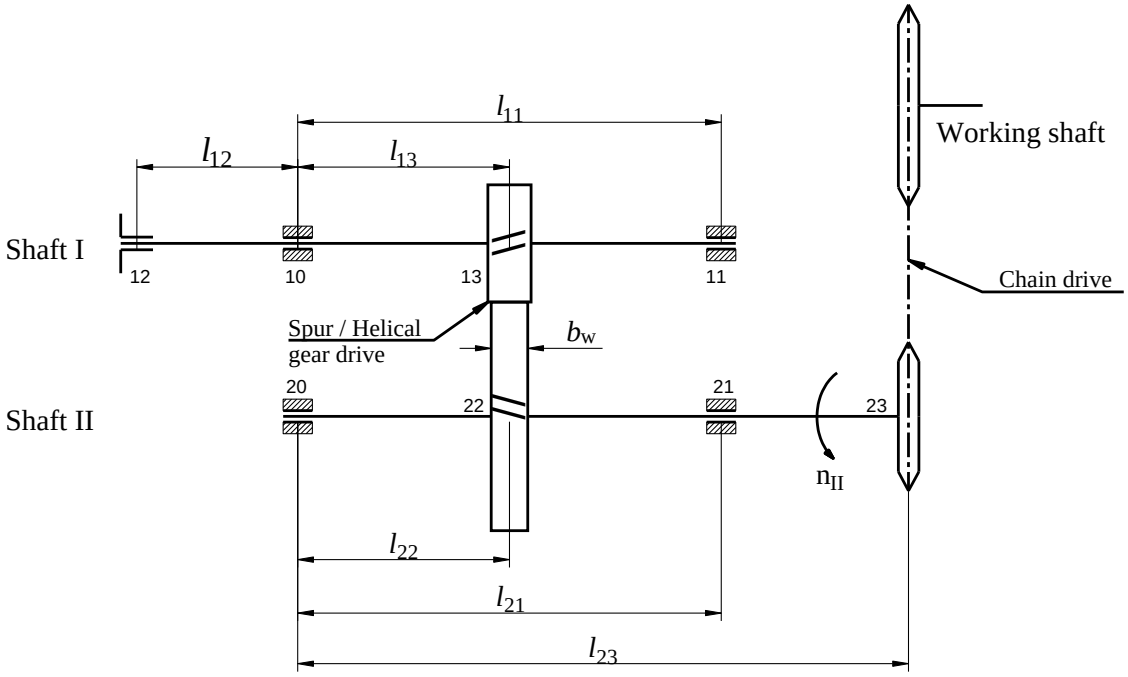
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H19

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 10000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 25°
  - Load property: Êm
  - Coupling force on the shaft: 49.74 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.980	0.941	0.904
n (rpm)	960	960.0	252.63	120.30
T (Nmm)	9947.9	9749.0	35572.0	71763.9
u		1	3.80	2.10

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Văn Thịnh……...22010640*** *Class:* ***K16-KTCĐT_1***

Instructor: *Vũ Lê Huy*

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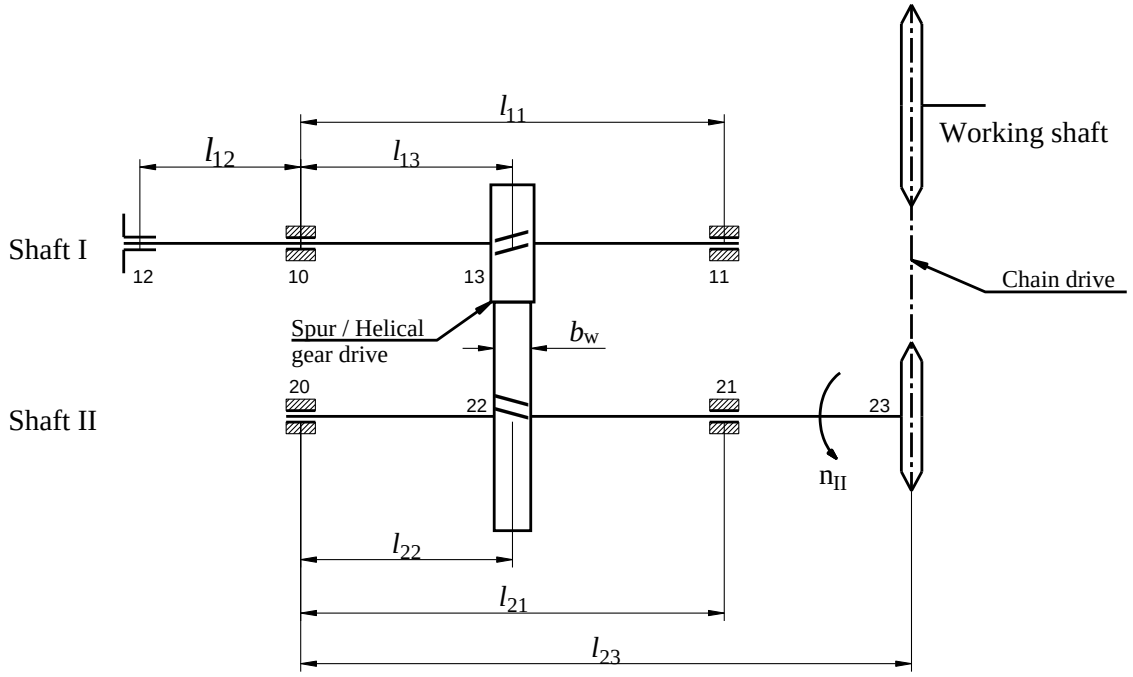
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H20

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 19000 (hour)
  - Number of shifts: 2 (shift)
  - The tilt angle of the center line of the chain drive: 10°
  - Load property: Êm
  - Coupling force on the shaft: 29.94 (N)

Params \ Shaft	Motor	I	II	Working
P (kW)	1.0	0.980	0.941	0.904
n (rpm)	1450	1450.0	391.89	111.97
T (Nmm)	6586.2	6454.5	22931.3	77102.8
u		1	3.70	3.50	

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Nguyễn Văn Tiến……...22014512*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

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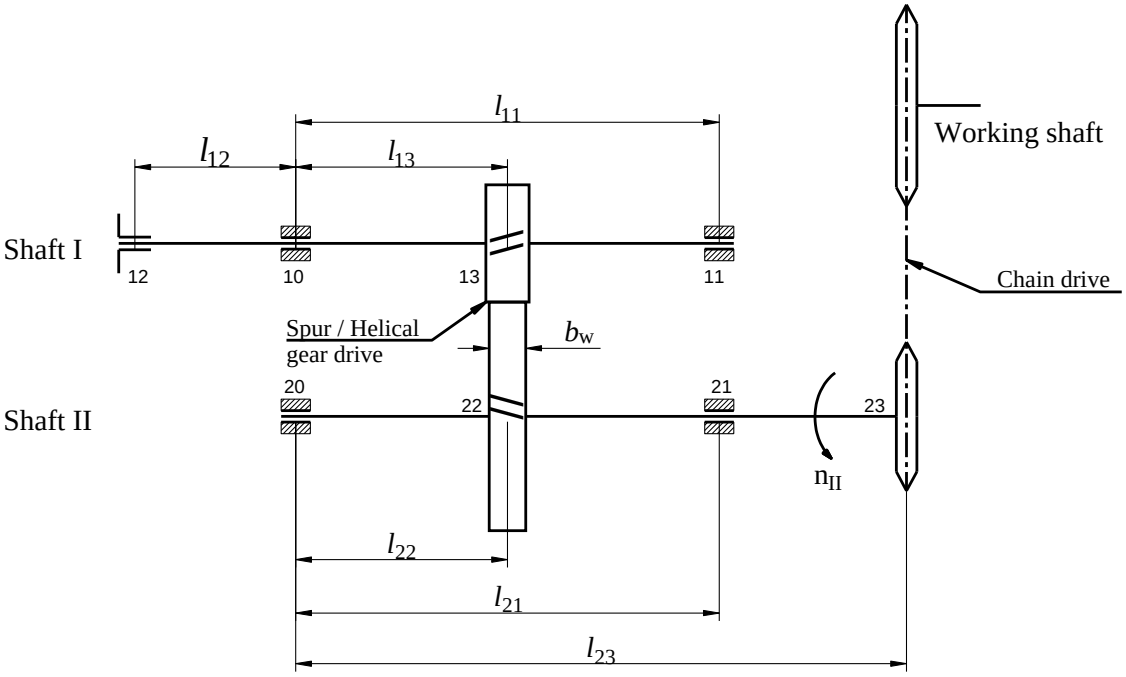
PHENIKAA UNIVERSITY
FACULTY OF MECHANICAL ENGINEERING & MECHATRONICS

MINOR PROJECT

Course Code: MEM703002
Class: Chi tiết máy-1-1-24(N01)
Semester: 2024.1

Project number: 2/P.MEM16.H21

A transmission system is given as:



- Working conditions and parameters are given as:
  - Service time: L_h = 16000 (hour)
  - Number of shifts: 3 (shift)
  - The tilt angle of the center line of the chain drive: 35°
  - Load property: Va đập nhẹ
  - Coupling force on the shaft: 74.61 (N)

Shaft / Params	Motor	I	II	Working
P (kW)	0.9	0.882	0.847	0.813
n (rpm)	720	720.0	171.43	81.63
T (Nmm)	11937.5	11698.8	47184.6	95113.9
u	1		4.20	2.10

- Distances between the load positions are given by the formula as:

$l_{12} = 5.b_w$ $l_{13} = l_{22} = 4.b_w$ $l_{11} = l_{21} = 2.l_{13}$ $l_{23} = l_{21} + 6.b_w$

Requirements:
+ Performing the design calculation of the chain and gear drives
+ Performing the design calculation of the shaft: 1
+ Presenting the report on paper with A4 size.

Student: ***Đào Tiến Tuấn……...22010619*** *Class:* ***K16-KTCĐT_2***

Instructor: *Vũ Lê Huy*

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