

**BELARUSIAN NATIONAL TECHNICAL UNIVERSITY**

**Faculty of Mechanical Engineering  
Department of Mechanical Engineering Technology**

APPROVED FOR PROTECTION

Head of the Department

  
V.K. Sheleg

(signature)

17 June 2021

**EXPLANATORY NOTE  
GRADUATION PROJECT**


“Analysis of typical mechanical processing of gears and development of a technological process for manufacturing a planetary wheel. The volume of production is 120 thousand pieces per year

Specialty 1 - 36 01 01 "Technology of mechanical engineering"

Specialization 1 - 36 01 01 01 "Technology of mechanical assembly production"


Student

groups 10311117

  
signature, date,

S.M.P.M. Jayarathne  
initials and surname


Head of the diploma project

  
signature, date

Professor V.K. Sheleg  
initials and surname

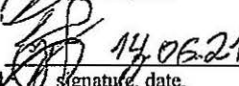
Consultants:

on the technological part

  
signature, date  
17.06.21

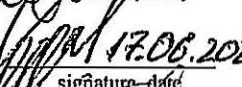
Professor V.K. Sheleg  
Initials and surname

CAD part

  
signature, date,  
14.06.21

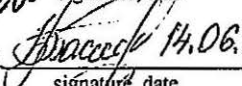
Assistant P.A Avgustovsky  
Initials and surname

Occupational safety

  
signature, date  
17.06.2021

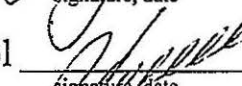
Senior lecturer Y.N. Fasevich  
initials and surname

on the economic part

  
signature, date  
14.06.21

Senior lecturer L.V. Butor  
initials and surname

Responsible for standard control

  
signature, date

Professor V.K. Sheleg  
initials and surname

Project scope:

Calculation and explanatory note - pages

graphic part - sheets

Minsk, 2021



## LITERATURE

1. Design of technological processes of mechanical processing in mechanical engineering. / Ed. V.V. Babuka. - Minsk: Higher school, 1987 .-- 255 p.
2. Gorbatshevich A.F., Shkred V.A. Course design in mechanical engineering technology. - Minsk: Higher school, 1983 .-- 256 p.
3. Handbook of a mechanical engineer. B2-x т. / Ed. A.G. Kosilova and R.K. Meshcheryakov. - M.: Mechanical Engineering, 1986.
4. Modes of cutting metals. Directory. / Ed. Yu.V. Baranovsky. - M.: Mashinostroenie, 1972 .-- 409 p.
5. Antonyuk V.E., Korolev V.A., Bashev S.M. Designer handbook for the calculation and design of machine tools. - Minsk: Belarus, 1969 .-- 392 p.
6. Graduate design in mechanical engineering technology. / Under total. ed. V.V. Babuka. - Minsk: Higher school, 1979 .-- 464 p.
7. Antonyuk V.E. Gear cutter reference book. - Minsk: Belarus, 1989 .-- 303 p.
8. Vlasov A.F. Safety when working on metal-cutting machines. - M.: Mashinostroenie, 1977 .-- 120 p.
9. Calculation of the economic efficiency of new technological processes: a teaching aid for students of mechanical engineering specialties (course and diploma design) / I.M. Babuk et al. - Minsk: BNTU, 2010 .-- 56 p.
10. Technology of mechanical engineering. Course design: textbook. manual / Kane M.M. (and others), ed. Kane M.M., Shelega V.K. - Minsk: Vysh. school, 2013 .-- 311 p.
11. Methodical guidelines for diploma design for students of the specialty - "Technology of mechanical engineering" - Minsk: BNTU, 2006. - 35 p.
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13. Occupational safety and fire safety: textbook / Lazarenkov A.M., Fasevich Yu. N - -Minsk: IVC of the Ministry of Finance, 2020. - 548 p

14. Lazarenkov, A.M., Fasevich, Yu. N. Course of lectures: textbook on the discipline "Labor Protection" [Electronic resource] / A.M. Lazarenkov, Yu. N. Fasevich; Belarusian National Technical University, Department of "Labor Protection". – Minsk: BNTU, 2019—174 p.

15. Electronic educational and methodological complex for the academic discipline "Labor Protection" [Electronic resource] / Belarusian National Technical University, Department of "Labor Protection"; comp.: Lazarenkov A.M., Panteleenko E.F., Kot T.P., Fasevich, Yu. N. – Minsk: BNTU, 2020.