Indian Standard

GEARS—SPUR AND HELICALGEARS—CALCULATION OF LOAD CAPACITY

PART 1 INTRODUCTION AND GENERAL INFLUENCE FACTORS

1 SCOPE

1.1 This Part 1 of the standard covers the symbols, general influence factors for calculation of load capacity, factors of safety, and the relevance of each factor in the design of spur and helical gears in relation to speed, applications, materials, manufacturing process, heat-treatment and lubrication.

PART 2 METHOD OF CALCULATION OF LOAD FACTORS FOR SURFACE DURABILITY (PITTING)

1 SCOPE

1.1 This Part 2 of the standard covers the method of calculating the load capacity taking into account surface durability (pitting) of spur and helical gears.

1.2 The load factors are arrived at by calculating the contact stress and factor of safety. The basic data is provided to the designer. Supplementary data is arrived at from the tables and figures which is used for calculation of load factors.

PART 3 METHOD OF CALCULATION OF LOAD FACTORS FOR BENDING STRENGTH

1 SCOPE

1.1 This Part 3 of the standard covers the method of calculating the load capacity taking into account the bending strength for spur and helical gears.

1.2 Basic data is provided to the designer. The load factors are arrived at by using the supplementary data obtained from tables and figures.