DESIGN OPTIMIZATION OF TOWER CRANE

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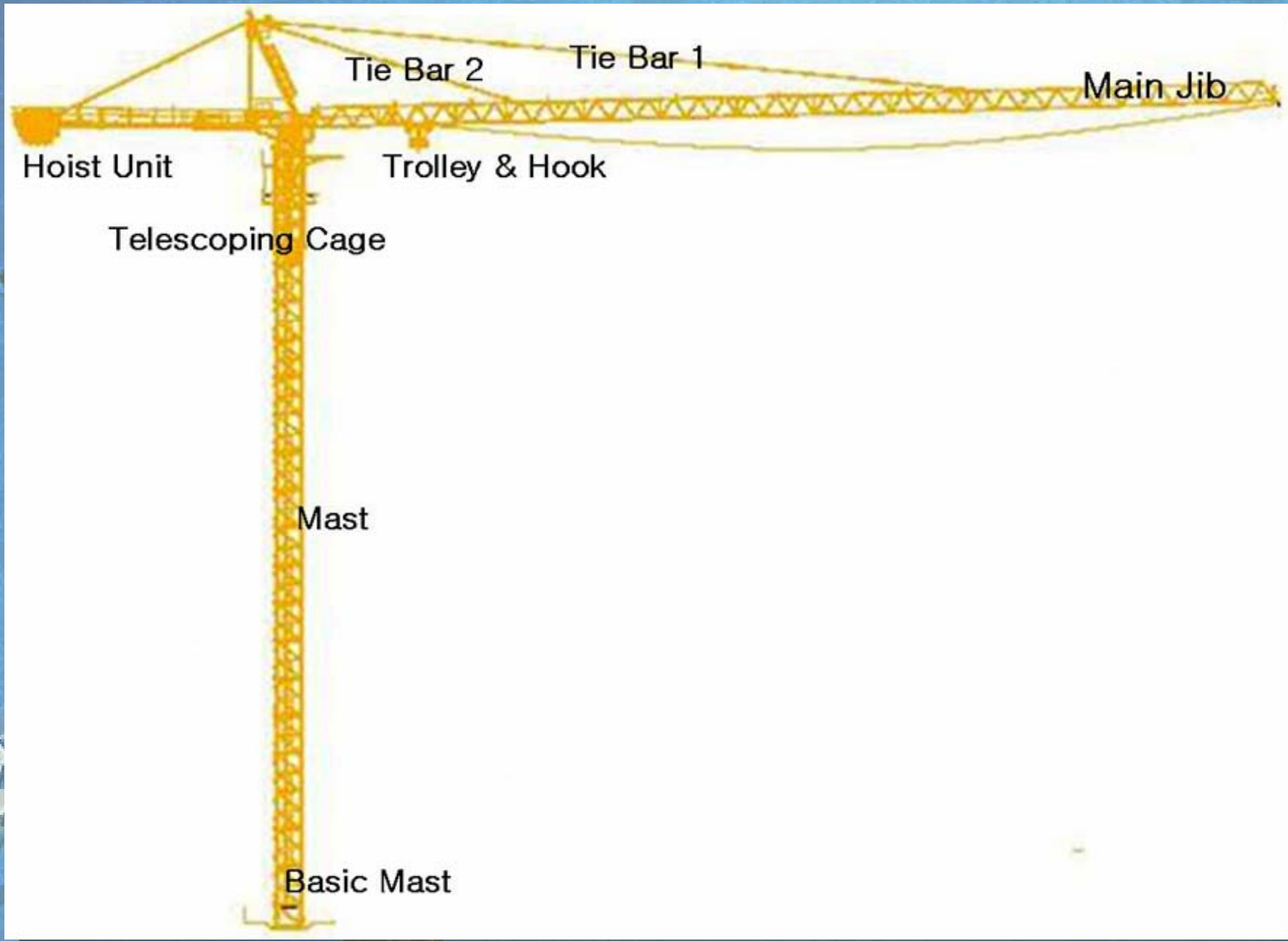
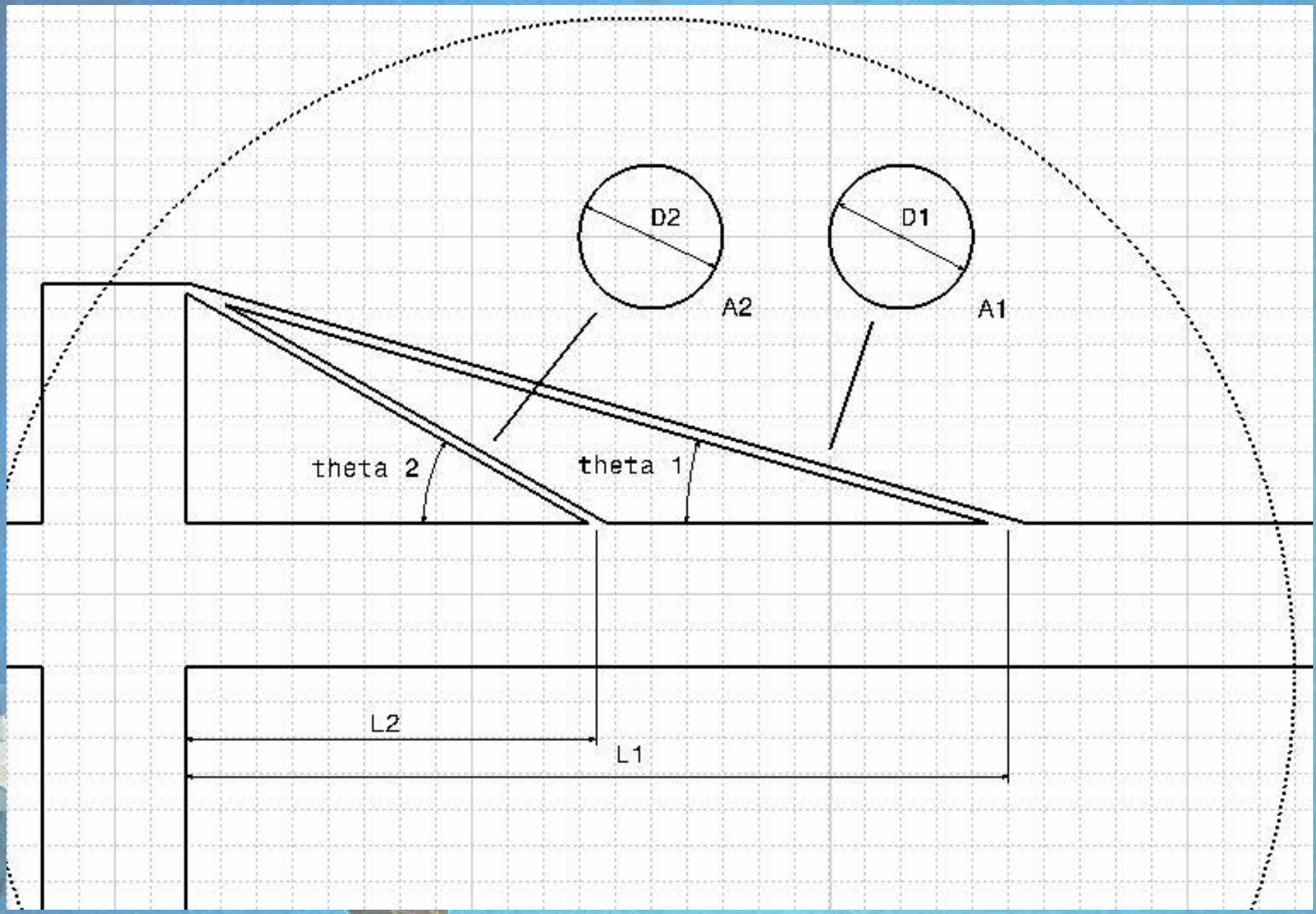

Tie Bar 2
Tie Bar 1
Main Jib
Hoist Unit
Trolley & Hook
Telescoping Cage
Mast
Basic Mast

Specified Data

$$P_{max} = 30\ \mathrm{kN}$$

$$A_n = \frac{D_n^2}{4}\pi \quad (n = 1,2)$$

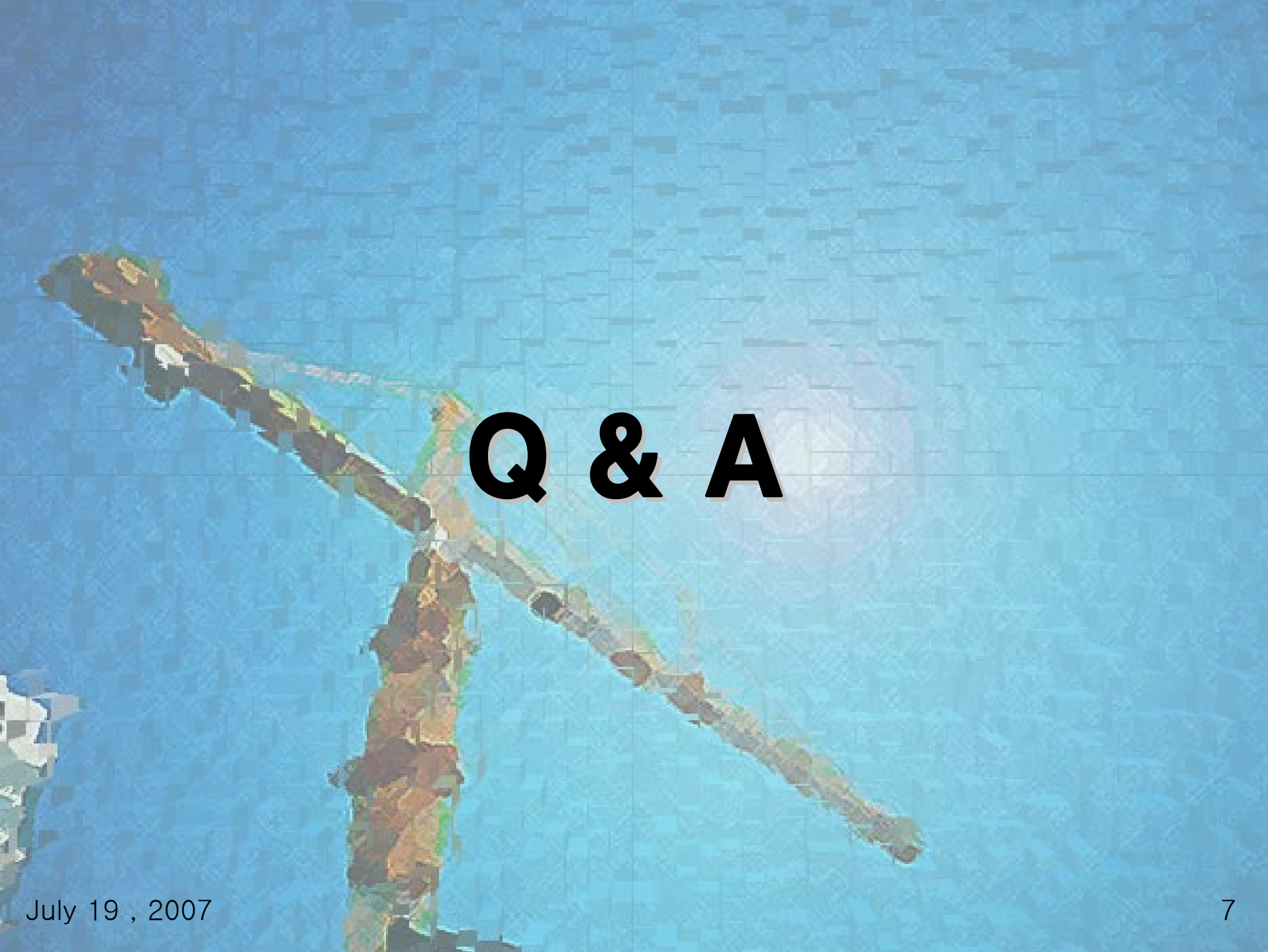
$$V_n = A_n \cdot \frac{L_n}{\sin\theta_n} \quad (n = 1,2)$$


D2
D1
A2
A1
theta 2
theta 1
L2
L1

Future Plan

- Tower Crane의 해석을 위한 CAE 모델링 및 해석 기술 개발

- 최적설계기술을 이용한 설계 결과 도출
  - 설계문제 파악을 위한 Parametric Study
  - 최적화 기법 선정
  - 소프트웨어 간 인터페이스 설정을 통한 설계 시스템 구축
  - 최적설계를 수행하여 최적해 도출


Q & A