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Ammar Mahamoud Leili

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تناول البحث الانواع المختلفة من الرافعات البرجية المستخدمة
فى المشاريع الهندسية ومن ثم اعتمد نوعا مناسباً ليتم تحليله
وتصميمه لمقاومة الاحمال المؤثرة على الرافعة البرجية من
الاحمال الاستاتيكية ، الحمل الذاتى للرافعة ، الحمل الحى
،احمال الرياح ، الاحمال الديناميكية اضافة الحمل اللازم لاتزان
الرافعة.كما تضمن البحث مناقشة الاساليب النظرية لتحليل
الانشائى للرافعة البرجية باستخدام الحاسوب فضلا عن دراسة
القوى المؤثرة على قاعدة الرافعة البرجية وعلى ضوءه تم
التصميم لكل من الرافعة البرجية وقاعدته. تم التصميم وفقا
لمعايير التصميم والسلامة والامان اللازمة لثبات الرافعة
البرجية .

Abstract

The research deals with various types of tower cranes and the adoption of appropriate type to be analyzed and designed to resist the loads, affecting the static load, the load resulting from the case, the Self-load and the load used to balance the tower. In addition to the payload side resulting from the impact of wind on the tower, the tower is also to produce a dynamic payload of the movement crane. The Research also includes suggestion about the suitable geometric shape to carry the above-mentioned loads.

The research discusses methods of analyzes of tower by using the computer in order to obtain the forces acting on the tower, as well as members of the forces transmitted to the base of the tower .In light of this the design will be to the tower and its base.

The Design is in accordance with the results of the analysis using any specifications for the design of cranes. Design also includes the design of the tower base to include a safety in terms of consistency, and load the following on it.

Table of content

Acknowledgement	I
Abstract	III
Table of content	IV
List of table	VII
List of figure	VIII

1. CHAPTER ONE: INTRODUCTION

1.1	General introductions -----	1
1.2	The problem -----	2
1.3	Scope-----	2
1.4	Research objectives-----	2
1.5	Methodology-----	3
1.6	Organization of the research-----	3

2. CHAPTER TWO: LITERATURE REVIEW

2.1	Definition of tower crane-----	5
2.2	History of Tower crane-----	6
2.2.1	Early Crane Evolution-----	6
2.2.2	The First Tower Cranes-----	7
2.2.3	Hans Liebherr tower crane`-----	7
2.2.4	Tower cranes Grow to New Heights-----	8
2.2.5	The Tallest Crane in the World-----	10
2.3	Theory of tower cranes-----	11
2.4	Tower cranes uses-----	11
2.5	Modern tower cranes-----	11
2.6	Types of tower crane-----	12
2.6. 1.	Self erect tower crane-----	
	12	

2.6.2. Assisted Erect Tower Crane	12
2.6.3. Horizontal Jib	12
2.6.4. Luffing Jib	16
Self erecting crane	16
2.6.6. Rail mounted free travelling	16
2.6.7. Lorry mounted	18
2.6.8. Crawler mounted	18
2.7 The parts of tower cranes	18
2.8 Characteristics of tower cranes	21
2.9 Installation of tower crane	22
2.10 Climbing tower crane	22
2.11 Dismantling	23
2.12 Tower crane management	23
2.13 Health and safety in tower cranes	25
2.13.1 Workplace health and safety	25
2.13.2 The objective of the Workplace Health and Safety	25
2.13.3 Responsibilities in the tower crane site place	26
2.13.3.1 Responsibilities of the Owner	26
2.13.3.2 Responsibilities Site Supervisor	26
2.13.3.3 Responsibilities Crane Operator	26
2.13.4 The precautions and regulations of tower cranes	27
2.13.4.1 The precautions to be taken when choosing the installation site	27
2.13.4.2 Precautions to be taken during the installation of tower cranes in place	27
2.13.4.3 Precautions before the daily operation of the crane tower	30
2.14 Codes of practice and standards of tower cranes	32
2.15 Selection of tower crane type	36
2.16 Tower cranes accident and failures	41
2.16.2 Categories of Crane accidents	41
2.16.3 Accidents of cranes in Sudan	42
2.17 Tower cranes in the Sudan	42
2.18 Marketing and sales of tower crane	43
3. Chapter three: Analysis of tower crane	
3.1 Introduction	44
3.2 General Loads	45
3.3 Types of loading in tower crane	45
3.3.1 Structural loads	45

3.3.2 Wind loading-----	45
3.3.3 In service loading-----	47
3.3.4 Out of service loading-----	48
3.3.5. Foundation loads that are supplied with the crane -----	48
3.3.6 Other loading-----	48
3.4 Loads applied to the foundations-----	49
3.5 Loading information supplied by manufacturers-----	54
3.6 Determination of load vectors data-----	52
3.7. The theory of loading-----	54
3.8 Factors of safety-----	58
3.8.1 Principles of factors recommended by the codes -----	58
3.8.2 Foundations factors`-----	58
3.9 load combinations -----	59
3. 10 Methods of analysis of tower crane- -----	67
3.10.1the finite element methods-----	65
3. 11 Short brief about computer aided analysis and design -----	78
3.12 Background about Prokon 2.4 program-----	79
3.12 analysis of the Case study of the research -----	80
3.13 Modeling of tower crane geometry -----	83
3.14. The case study results`-----	88
4. Chapter four: design of tower crane	
4.1 Codes of design of tower cranes 4.1.1 BS 5950-1:2000 -----	96
4.1.2 BS 2573-1:1983: The design of cranes-----	96
4.1.3 BS 8110-1:1997: Code of practice for design and construction in r. concrete----	96
4.2 factors of safety for tower crane -----	96
4.2.1 The temperature-----	97
4.2.2 Middle Third Rule-----	97
4.2.3 Crane wind conditions-----	97
4.2.3.1 In Service wind condition-----	97
4.2.3.2 Out of Service wind condition-----	97
4.2.4 Wind Loading-----	98
4.3 foundation of tower crane-----	98
4.3.1 The types of foundations-----	99
4.3.2 Selection of foundation-----	99
4.4. Tying-----	10
4.5 Types of connections on Tower cranes-----	102
4.5.1 Welded connections-----	102
4.5.2 Bolted connections-----	102
4.6 The checking of the design -----	102
4.7. Basic stresses in connections-----	111
4.8 Bolts and studs-----	111

4.9 Widths of plates-----	113
4.10 Design of foundation of tower crane-----	115
5. Chapter five: Discussion, conclusion and recommendations.	
5.1 Discussion-----	121
5.2 Conclusion-----	122
5.3 Recommendations-----	123
References-----	126
Appendices-----	127

List of tables

Table	Description	page
Table 2.1.	Standards relating to tower crane temporary works Design and operation	34
Table 2.2.	the rate of accident in USA	35
Table 3.1.	Checklist for crane loading information supplied	56
Table 3.2.	Impact and duty factors according to crane type And application In-service	32
Table 3.3.	design wind pressures	63
Table 3.4.	Out-of-service design wind pressures	63
Table 3.5.	Force coefficients	63
Table 3.6.	shielding factors ϕ	65
Table 3.7.	general data of project	84
Table 3.8.	properties of materials	
Table 3.9.	indicate the cross sections are used in data base	84
Table 3.10.	indicate the properties of materials are used in data base	85
Table3.11-3.15	the values of reaction in worst case	93

List of figures

figure	description	page
Figure 2.1.	Typical tower crane	9
Figure 2.2.	Luffing jibs	9
Figure 2.3.	The slewing in the top	13
Figure 2.4.	the slewing in the bottom	13
Figure 2.6.	Assisted Erect Tower Crane	14
Figure 2.5.	Self Erect Tower Crane	14
Figure 2.7.	Trolley Jib Crane	15
Figure2.8.	Luffing Jib Crane	15
Figure 2.9.	Self erecting crane	15
Figure2.10.	Rail mounted tower crane	17
Figure 2.11 .	Lorry mounted tower crane	17
Figure 2.12.	Crewel tower crane	17
Figure 2.13.	Jib arm	19
Figure 2.14.	Counter weight balance	19
Figure 2.15.	The operators cab	19
Figure 2.16.a	.section of tower crane base	20
Figure 2.16.b.	layout of tower crane base	20
Figure 2.17.c.	foundation details	20
Figure 2.18.	stages of selection of tower crane.	38
Figure 2.19.	The ratios of causes of tower crane accidents.	38
Figure 3.1.a.	Loading applied to tower crane foundation	50
Figure 3.1.b	Loading applied to tower crane foundation	50

Figure 3.2.	Shows the load vectors of tower crane	53
Figure 3.3.	Indicate the resultant of loading applied to the foundation	55
Figure 3.4.	Skew load coefficients	62
Figure 3.5.	Aerodynamic slender ness and section ratio	62
Figure 3.6.	Solidity ratio	66
Figure 3.7.	Spacing ratio	66
Figure 3.8.	The forces in space truss.	68
Figure 3.9.	Simple space truss	68
Figure 3.10.	Complex space truss	68
Fig 3.11.	The element geometry of space (3D) bar element.	71
Fig 3.12.	Displacement of the3D bar element	71
Fig 3.13.	forces in the bar element 3D	76
Figure 3.14.	Global and local coordinate system	76
Figure 3.15.	the tower crane elements	86
Figure 3.16.	Deflection in X, Y, Z for load combination 2.	89
Figure 3.17.	The moments in X direction	89
Figure 3.18.	The moments in Y directions	90
Figure 3.19	shown the Y-shear in the tower crane	90
Figure 3.20.	The moments in Y directions	91
Figure 3.21.	The shears in X directions	91
Figure 3.22.	The torsion moments in the tower crane	92
figure 4.1.	the wind load effects on the faces of building	101
Figure 4.2.	The shape of tie	101
Figure 4.3.	Applied loads on footing	114
Figure 4.4.	vectors of loading applied to footing of tower crane	114
Figure 4.5.	Footing applied moment lay out	118

