QY80K 汽车起重机

QY80K TRUCK CRANE

重型QY80K采用五轴单发动机设计，底盘通过能力强；双功控模式的电控发动机，环保且高效；采用圆弧形截面吊臂，中长臂性能尤其令人瞩目。固定平衡重和自拆装平衡重组合、2级水平支腿，大幅度拓展了整机的起重性能；整机秉承徐工重型K系列产品的特点，各部件组合紧凑、布局合理、美观且更人性化。

QY80K is designed as 5-axle crane carrier with single engine, and the chassis has strong pass-ability. The engine is electronic-controlled injection engine with two operation control modes, environmental protection and high efficient. The oviform boom profile contributes prominent lifting performance for half and fully extended boom section. The combination of fixed counterweight and self-assembled counterweight and 2-section outrigger increase the crane overall lifting performance. The whole machine still holds the K series crane features, compact arrangement for each part, reasonable layout, good-looking appearance and ergonomically design.

集K系列起重机新技术、新工艺于一身
Combination of New Technology and New Techniques of K Series Crane

采用第三代改良型操纵室、驾驶室，空间利用更加合理，流线型的外观造型风格统一
The third generation of improved type operator's cab and driver's cab, interior space is more reasonable, streamlined appearance and unified style, and with our exclusive oviform boom profile. (three-color lamp is for option)

液压系统为高效节能的恒功率变量系统
The hydraulic system is constant output variable displacement system, high work efficient and energy saving.

配有自动润滑装置
Centralized lubrication system

采用双功控模式的电控发动机，行驶时输出315kW功率，上车作业时仅输出180 kW
The electronic-controlled injection engine with two operation control modes, 315kW output for crane travel drive and only 180 kW output for crane lifting operation.

各种机构和控制系统的部件精确到每个匹配细节
Various mechanism and control system are accurate to every detail.

通过性能卓越的五轴底盘
The 5-axle crane carrier has excellent passability

精巧的高悬式弧形配重
The smart and highly suspended arc type counterweight.

整体感更强，整车品质感更优越
The overall sense is stronger, and the overall quality is superior.

平衡重为自装配组合式，有3种组合方式
The counterweight is self-assembly and with 3 type of combination.

人性化的体贴设计，造型美观，具有良好的隔音效果
The ergonomically and considerate design, beautiful shape and with good soundproof effect.

QY80K 汽车起重机技术参数
TRUCK CRANE TECHNICAL SPECIFICATION

尺寸参数 Dimensions

整机全长 Overall length	14370mm
整机全宽 Overall width	2800mm
整机全高 Overall height	3770mm
轴距 Wheel space	2950+1875+1350+1400mm
轮距 Track	
1、2、5轴 Axle 1,2,5	2410mm
3、4轴 Axle 3,4	2107mm
前悬 Front overhang	2360mm
后悬 Rear overhang	1608mm

重量参数 Weight

行驶状态总重量 Dead weight in travel state	54800kg
轴荷 Axle load	
1轴 First axle	9650kg
2轴 Second axle	9650kg
3轴 Third axle	12850kg
4轴 Forth axle	12850kg
5轴 Fifth axle	9800kg

动力参数 Power

发动机型号 Engine model	OM457LA
发动机额定功率 Engine rated output	315/1900kw/(r/min)
发动机最大扭矩 Engine rated torque	2100/1100N.m/(r/min)
发动机额定转速 Engine rated speed	1900r/min
发动机稳定怠速 Engine idle speed	560r/min

行驶参数 Travel

行驶速度 Travel speed	
最高行驶速度 Max.travel speed	75km/h
最低行驶速度 Min.travel speed	3km/h
转弯直径 Turning diameter	
最小转弯直径 Min.turning diameter	23m
臂头最小转弯直径 Min.turning diameter at boom tip	24.5m
比功率 Power/mass ratio	5.7km/t
最小离地间隙 Min.ground clearance	270mm
接近角 Approach angle	22°
离去角 Departure angle	21.5°
制动距离（车速为30km/h） Braking distance(at 30km/h)	≤10m
最大爬坡度 Max.gradeability	40%
百公里油耗 Fuel consumption of 100km	50L
加速行驶机外噪声 Exterior noise at acceleration	≤84dB(A)

主要性能参数 Lifting performance

最大额定总起重量 Max.total rated lifting load	80t
最小额定幅度 Min.rated working radius	3m
转台尾部回转半径 Turning radius at swing tadble tail	
平衡重处 Turning radius at counterweight	4200mm
副卷处 Turning radius at Aux.winch	4650mm
最大起重力矩 Max.load moment	
基本臂 Base boom	2675KN.m/(6m×45.5t)
最长主臂 Full-extend boom	1341KN.m/(18m×7.6t)
最长主臂＋副臂 Full-extend boom+Jib	703KN.m/(23.9m×3t)
支腿跨距（全伸）Outrigger span(full extension)	
纵向 Longitudinal	7m
横向 Lateral	7m
起升高度 Lifting height	
基本臂 Base boom	11.8m
最长主臂 Full-extend boom	44.8m
最长主臂＋副臂 Full-extend boom+Jib	60.8m
起重臂长度 Boom length	
基本臂 Base boom	12m
最长主臂 Full-extend boom	45m
最长主臂＋副臂 Full-extend boom+Jib	45+16m

工作速度参数 Working speed

起重臂变幅时间 Boom elevating time	
起臂 Boom raising	75s
起重臂伸缩时间 Boom telescoping time	
全伸／全缩 Full－extending／retracting	165s
最大回转速度 Max.slewing speed	1.6r/min
支腿伸缩时间 Outrigger telescoping time	
水平支腿同时伸/缩 Outrigger beam extending/retracting synchronously	25s/15s
垂直支腿同时伸/缩 Outrigger jack extending/retracting synchronously	40/25s
起升速度（单绳，第三层） Hoistiong speed(single rope)	
主起升机构 Main winch	100m/min
副起升机构 Auxiliary winch	115m/min
作业噪声 Operation noise	
机外辐射 Crane exterior noise	≤118dB(A)
司机位置处 Noise at seated position	≤90dB(A)

主臂起重性能表 Total rated lifting load for boom（表一 Table 1）

全伸支腿，4.7吨平衡重　单位：吨
Outrigger fully extend,4.7t counterweight　Unit: t

工作幅度 Working radius (m)	4.7t平衡重 全伸支腿360°作业 4.7t counterweight,360° swing on full-extended outriggers 主臂长度(m) Boom length								
	12	16.13	20.25	24.38	28.5	32.63	36.75	40.88	45
3	80	62							
3.5	69	57	42						
4	63	53	42	32					
4.5	57	49.5	42	32	30				
5	51	46	41.6	32	30				
6	41	41	36.8	28.5	27.6	25			
7	31	31.3	31.1	26	24.5	23	20.5		
8	23.3	23.4	23.8	24	23.4	21.5	18.6	15.5	
9	18	19.2	18.9	20	20.8	20	17.2	14.5	12.6
10		15.6	15.3	16.3	17.1	16.7	15.8	14	12
11		12.9	12.6	13.6	14.3	14	14.4	13.1	11.6
12		10.7	10.5	11.5	12.1	11.9	12.3	12.3	11.4
14			7.2	8.3	9	8.9	9.3	9.5	9.4
16			4.8	5.8	6.5	6.6	7	7.3	7.3
18				4.1	4.7	4.9	5.3	5.6	5.6
20				2.8	3.4	3.7	4	4.3	4.3
22					2.4	2.7	3	3.3	3.3
24					1.6	1.9	2.2	2.5	2.6
26						1.2	1.6	1.8	1.9
28						0.7	1	1.3	1.4
30								0.8	1
倍率 Parts of line	12	10	8	6	6	5	4	3	2
最小主臂仰角 Min.boom angle	21°	30°	27°	26°	25°	25°	38°	42°	48°
最大主臂仰角 Max.boom angle	67°	74°	76°	78°	80°	79°	79°	80°	79°
使用吊钩 Hook block	80吨吊钩(1000Kg)				40吨吊钩(360Kg)				

全伸支腿，12吨平衡重　单位：吨
Outrigger fully extend,12t counterweight　Unit: t

工作幅度 Working radius (m)	12t平衡重 全伸支腿360°作业 12t counterweight,360° swing on full-extended outriggers 主臂长度(m) Boom length								
	12	16.13	20.25	24.38	28.5	32.63	36.75	40.88	45
3	80	62							
3.5	73	57	42						
4	67	53	42	32					
4.5	60	49.5	42	32	30				
5	54	46	41.6	32	30				
6	45.5	41	36.8	28.5	27.6	25			
7	38.5	36	33.4	26	24.5	23	20.5		
8	31.2	30.6	30.2	24	23.4	21.5	18.6	15.5	
9	25.1	24.6	24.3	22	21.7	20	17.2	14.5	12.6
10		20.3	20	20	19.5	17.8	15.8	14	12
11		17	16.7	17.7	18.3	16.5	14.6	13.1	11.6
12		14.4	14.1	15.1	15.8	15.2	13.4	12.3	11.4
14			10.4	11.3	11.9	11.7	11.5	10.6	10
16			7.1	8.6	9.3	9.2	9.5	9.1	8.2
18				6.7	7.3	7.3	7.6	7.9	7.6
20				5.2	5.8	5.9	6.2	6.4	6.4
22					4.6	4.7	5	5.3	5.3
24					3.6	3.8	4.1	4.3	4.4
26						3	3.3	3.6	3.6
28						2.3	2.7	2.3	3
30							2.1	1.8	2.4
32								1.4	1.9
34									1.5
36									1.1
倍率 Parts of line	12	10	8	6	6	5	4	3	2
最小主臂仰角 Min.boom angle	21°	30°	27°	26°	25°	25°	32°	31°	35°
最大主臂仰角 Max.boom angle	67°	74°	76°	78°	80°	79°	79°	80°	79°
使用吊钩 Hook block	80吨吊钩(1000Kg)				40吨吊钩(360Kg)				

全伸支腿，6.6吨平衡重　单位：吨
Outrigger fully extend,6.6t counterweight　Unit: t

工作幅度 Working radius (m)	6.6t平衡重 全伸支腿360°作业 6.6t counterweight,360° swing on full-extended outriggers 主臂长度(m) Boom length								
	12	16.13	20.25	24.38	28.5	32.63	36.75	40.88	45
3	80	62							
3.5	69	57	42						
4	63	53	42	32					
4.5	57	49.5	42	32	30				
5	51	46	41.6	32	30				
6	43	41	36.8	28.5	27.6	25			
7	32.3	33.5	31.1	26	24.5	23	20.5		
8	24.9	25.8	25.5	24	23.4	21.5	18.6	15.5	
9	19.7	20.6	20.3	21.4	21.7	20	17.2	14.5	12.6
10		16.8	16.5	17.6	18.3	17.8	15.8	14	12
11		13.9	13.7	14.7	15.4	15	14.6	13.1	11.6
12		11.7	11.4	12.4	13.1	12.8	13.2	12.3	11.4
14			8.2	9.1	9.7	9.6	10	10.3	10
16			5.7	6.7	7.4	7.4	7.7	8	7.9
18				4.8	5.5	5.7	6	6.3	6.3
20				3.4	4.1	4.3	4.7	4.9	4.9
22					3	3.2	3.6	3.9	3.9
24					2.1	2.4	2.7	3	3.1
26						1.7	2	2.3	2.4
28						1.1	1.5	1.7	1.8
30							1	1.2	1.3
32								0.8	0.9
倍率 Parts of line	12	10	8	6	6	5	4	3	2
最小主臂仰角 Min.boom angle	21°	30°	27°	26°	25°	25°	32°	37°	44°
最大主臂仰角 Max.boom angle	67°	74°	76°	78°	80°	79°	79°	80°	79°
使用吊钩 Hook block	80吨吊钩(1000Kg)				40吨吊钩(360Kg)				

半伸支腿(横向跨距5.6m)，4.7吨平衡重　单位：吨
Outrigger mid-extend(lateral span 5.6m),4.7t counterweight　Unit: t

工作幅度 Working radius (m)	4.7t平衡重 半伸支腿360°作业 4.7t counterweight,360° swing on mid-extend outriggers 主臂长度(m) Boom length								
	12	16.13	20.25	24.38	28.5	32.63	36.75	40.88	45
3	80	62							
3.5	69	57	42						
4	63	53	42	32					
4.5	57	49.5	42	32	30				
5	50	46	41.6	32	30				
6	33.9	33.1	32.7	28.5	27.6	25			
7	24.3	23.7	23.3	24.6	24.5	23	20.5		
8	18.4	17.9	17.5	18.7	19.5	19	18.6	15.5	
9	14.4	13.9	13.6	14.7	15.5	15.1	15.6	14.5	12.6
10		11	10.7	11.8	12.5	12.3	12.7	13.1	12
11		8.9	8.6	9.6	10.3	10.2	10.6	10.9	10.7
12		7.2	6.9	7.9	8.6	8.6	8.9	9.2	9.1
14			4.4	5.4	6	6.1	6.5	6.8	6.7
16			2.7	3.6	4.2	4.4	4.8	5	5
18				2.3	2.9	3.2	3.5	3.8	3.8
20					1.9	2.2	2.5	2.8	2.9
22					1.1	1.5	1.8	2	2.1
24						0.8	1.1	1.4	1.5
26								0.9	1
倍率 Parts of line	12	10	8	6	6	5	4	3	2
最小主臂仰角 Min.boom angle	21°	30°	27°	26°	25°	40°	48°	50°	55°
最大主臂仰角 Max.boom angle	67°	74°	76°	78°	80°	79°	79°	80°	79°
使用吊钩 Hook block	80吨吊钩(1000Kg)				40吨吊钩(360Kg)				

QY80K 汽车起重机技术参数
TRUCK CRANE TECHNICAL SPECIFICATION

主臂起重性能表 Total rated lifting load for boom（表一 Table 1）

半伸支腿(横向跨距5.6m)，6.6吨平衡重 单位：吨
Outrigger mid-extend(lateral span 5.6m),6.6t counterweight Unit: t

6.6t平衡重 半伸支腿360°作业 6.6t counterweight,360° swing on mid-extend outriggers									
工作幅度 Working radius (m)	主臂长度(m) Boom length								
	12	16.13	20.25	24.38	28.5	32.63	36.75	40.88	45
3	80	62							
3.5	73	57							
4	67	53	42	32					
4.5	60	49.5	42	32	30				
5	54	46	41.6	32	30				
6	36.7	35.9	35.5	28.5	27.6	25			
7	26.4	25.8	25.4	26	24.5	23	20.5		
8	20.1	19.5	19.2	20.4	21.2	20.6	18.6	15.5	
9	15.8	15.3	15	16.1	16.9	16.5	16.9	14.5	12.6
10		12.3	11.9	13	13.7	13.5	13.9	14	12
11		9.9	9.6	10.7	11.4	11.2	11.6	11.9	11.6
12		8.1	7.9	8.8	9.5	9.5	9.8	10.1	10
14			5.2	6.1	6.8	6.9	7.2	7.5	7.4
16			3.4	4.3	4.9	5.1	5.4	5.7	5.6
18				2.9	3.5	3.7	4	4.3	4.3
20					2.4	2.7	3	3.3	3.3
22					1.6	1.9	2.2	2.4	2.5
24						1.2	1.5	1.8	1.9
26						0.7	1	1.2	1.3
28								0.8	0.9
倍率 Parts of line	12°	10°	8°	6°	6°	5°	4°	3°	2°
最小主臂仰角 Min.boom angle	21°	30°	27°	26°	25°	33°	43°	46°	52°
最大主臂仰角 Max.boom angle	67°	74°	76°	78°	80°	79°	79°	80°	79°
使用吊钩 Hook block	80吨吊钩(1000Kg)				40吨吊钩(360Kg)				

半伸支腿(横向跨距5.6m)，12吨平衡重 单位：吨
Outrigger mid-extend(lateral span 5.6m),12t counterweight Unit: t

12t平衡重 半伸支腿360°作业 12t counterweight,360° swing on mid-extend outriggers									
工作幅度 Working radius (m)	主臂长度(m) Boom length								
	12	16.13	20.25	24.38	28.5	32.63	36.75	40.88	45
3	80	62							
3.5	73	57							
4	67	53	42	32					
4.5	60	49.5	42	32	30				
5	54	46	41.6	32	30				
6	44.4	41	36.8	28.5	27.6	25			
7	32.3	31.7	31.3	26	23.4	23	20.5		
8	24.9	24.3	24	24	24.5	21.5	18.6	15.5	
9	19.8	19.3	19	20.1	20.9	20	17.2	14.5	12.6
10		15.7	15.4	16.4	17.2	16.8	15.8	14	12
11		13	12.7	13.7	14.4	14.1	14.5	13.1	11.6
12		10.8	10.6	11.5	12.2	12	12.4	12.3	11.4
14			7.4	8.4	9	9	9.3	9.6	9.4
16			5.2	6.2	6.8	6.8	7.2	7.4	7.4
18				4.5	5.1	5.3	5.6	5.8	5.8
20					3.9	4.1	4.4	4.6	4.6
22					2.9	3.1	3.4	3.7	3.7
24						2.3	2.6	2.9	2.9
26						1.7	2	2.2	2.3
28						1.1	1.4	1.7	1.8
30							1	1.2	1.3
32								0.8	0.9
倍率 Parts of line	12°	10°	8°	6°	6°	5°	4°	3°	2°
最小主臂仰角 Min.boom angle	21°	30°	27°	26°	25°	25°	32°	37°	44°
最大主臂仰角 Max.boom angle	67°	74°	76°	78°	80°	79°	79°	80°	79°
使用吊钩 Hook block	80吨吊钩(1000Kg)				40吨吊钩(360Kg)				

副臂起重性能表 Total rated lifting load for jib（表二 Table 2）

全伸支腿，4.7吨平衡重 单位：吨
Outrigger fully extend,4.7t counterweight Unit: t

4.7t平衡重 全伸支腿 360°作业 4.7t counterweight,360° swing on full-extended outriggers												
主臂仰角 Boom angle	45m主臂 Boom length 45m											
	9.5m副臂 Jib length 9.5m						16m副臂 Jib length 16m					
	副臂0° Jib0°		副臂15° Jib15°		副臂30° Jib30°		副臂0° Jib0°		副臂15° Jib15°		副臂30° Jib30°	
	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius
78°	5	12.4	3	14.5	2.5	16.3	2.8	14.1	1.8	17.8	1.3	20.9
75°	4.4	15.2	2.7	17.2	2.1	18.9	2.4	17.2	1.5	20.7	1	23.8
72°	3.6	17.8	2.6	19.8	1.9	21.5	2.1	20.2	1.4	23.6	0.9	26.5
70°	2.6	19.6	1.8	21.5	1.5	23.1	1.6	22.2	1.1	25.6	0.7	28.4
65°	2.2	23.9	1.5	25.7	1.3	27.2	1.3	26.9	1	30.2	0.6	32.7
60°	1.2	28	1.1	29.7	1.1	31	0.9	31.5	0.7	34.5	0.5	36.8
55°	0.8	31.8	0.7	33.4	0.7	34.6						
吊钩重量 Weight of hook block	250kg											

- ◆ 表中所列起重量是在平整坚固的地面上本机所能保证的最大起重量，严禁超过该起重量作业；
- ◆ 表中所列额定起重量包括吊钩和吊具的重量；
- ◆ 表中的工作幅度是包括吊臂的变形量在内的实际值；
- ◆ 臂端单滑轮的起重性能同9.5米、副臂0°安装角时的起重性能（按主臂仰角）；
- ◆ 除全伸支腿基本臂工况外，即使空载，也不要使吊臂的仰角处于以上各工况表中所给出的范围以外，以防起重机倾覆；
- ◆ 允许起重机在不大于7级风的情况下作业。

副臂起重性能表 Total rated lifting load for jib（表二 Table 2）

半伸支腿(横向跨距5.6m)，4.7吨平衡重 单位：吨
Outrigger mid-extend(lateral span 5.6m),4.7t counterweight Unit: t

4.7t平衡重 半伸支腿 360°作业 4.7t counterweight,360° swing on mid-extend outriggers												
主臂仰角 Boom angle	45m主臂 Boom length 45m											
	9.5m副臂 Jib length 9.5m						16m副臂 Jib length 16m					
	副臂0° Jib0°		副臂15° Jib15°		副臂30° Jib30°		副臂0° Jib0°		副臂15° Jib15°		副臂30° Jib30°	
	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius
78°	3.8	12.4	2.2	14.5	1.8	16.3	2.1	14.1	1.4	17.8	1	20.9
75°	3.3	15.2	2	17.2	1.5	18.9	1.8	17.2	1.1	20.7	0.7	23.8
72°	2.7	17.8	1.9	19.8	1.4	21.5	1.5	20.2	1	23.6	0.6	26.5
70°	1.9	19.6	1.3	21.5	1.1	23.1	1.2	22.2	0.8	25.6	0.5	28.4
65°	1.4	23.9	1.1	25.7	0.9	27.2	0.9	26.9	0.7	30.2	0.4	32.7
60°	0.7	28	0.7	29.7	0.6	31	0.6	31.5	0.5	34.5		
吊钩重量 Weight of hook block	250kg											

半伸支腿(横向跨距5.6m)，12吨平衡重 单位：吨
Outrigger mid-extend(lateral span 5.6m),12t counterweight Unit: t

12t平衡重 半伸支腿 360°作业 12t counterweight,360° swing on mid-extend outriggers												
主臂仰角 Boom angle	45m主臂 Boom length 45m											
	9.5m副臂 Jib length 9.5m						16m副臂 Jib length 16m					
	副臂0° Jib0°		副臂15° Jib15°		副臂30° Jib30°		副臂0° Jib0°		副臂15° Jib15°		副臂30° Jib30°	
	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius	起重量 Lifting capacity	幅度(m) Working radius
78°	5	12.4	3	14.5	2.5	16.3	2.8	14.1	1.8	17.8	1.3	20.9
75°	4	15.2	2.6	17.2	2	18.9	2.3	17.2	1.5	20.7	1	23.8
72°	3	17.8	2.2	19.8	1.7	21.5	1.8	20.2	1.2	23.6	0.8	26.5
70°	2.5	19.6	1.7	21.5	1.4	23.1	1.5	22.2	1	25.6	0.7	28.4
65°	2	23.9	1.4	25.7	1.3	27.2	1.3	26.9	1	30.2	0.6	32.7
60°	1.1	28	1	29.7	0.9	31	1	31.5	0.8	34.5	0.5	36.8
55°	0.8	31.8	0.8	33.4	0.8	34.6	0.7	35.8	0.6	38.6		
吊钩重量 Weight of hook block	250kg											

- ◆ The data given in the tables are the maximum lifting capacity when the crane is set up on level and firm ground, which do not be exceeded.
- ◆ The total rated lifting load includes the weight of hook block and slings.
- ◆ The working radii in the tables are the actual values including boom deflection under load.
- ◆ The lifting load of single top is same as that of 9.5m boom with 0° offset jib (acc. to boom angle)
- ◆ Except for lifting on full-extended outrigger, the boom angle should not exceed the data in the tables even with no load to avoid crane tipping.
- ◆ Lifting operation is permissible under the condition of wind force less than 7 grade.