



## XF Series LPG Cushion Tire Forklift

with capacities of 13,500 to 15,500lbs



**HANGCHA**

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***Making Material Handling Easier***  
SINCE 1956



# CONCEPT

Designed for the North American market, the XF Series LPG Cushion Tire Forklift from Hangcha Group is built to meet the needs of warehouses, distribution centers, and manufacturing facilities. This forklift features a high load capacity, capable of lifting 13,500-15,500lbs. This forklift also includes the latest advancements from Hangcha. These advancements include LED efficient lighting, a load-sensing hydraulic system, a reliable lpg engine, noise & vibration control, and a new control system. This is the XF Series LPG Cushion Tire Forklift from Hangcha Group.



## LED Light System and Environmentally-Friendly Materials



LED lights are used throughout the entire truck. The lights are energy-efficient, have a longer service life, and offer a significant increase in performance.

Environmentally friendly materials are also used throughout the truck to minimize environmental damage and impact.

## Large LCD Instrument Panel



The newly developed LCD instrument display has additional functions and offers more stable performance. Important information including the running status of the entire truck and a check engine light can be displayed. This allows the operator to easily understand the status of the truck for easy maintenance.



Suspension Seat

72 INCHES  
Short Wheelbase



# TOUGH TRUCKS



## PSI 4.3L LPG Engine

The PSI 4.3L LPG engine has the power and torque to get the job done. This engine is also electronically controlled to increase the fuel economy and the reliability of the trucks.



## The New Integrated Fuse Box

The next generation of integrated fuse box has been added to the truck. It offers a better layout, ease of service and maintenance, and is waterproof. The entire truck is also equipped with waterproof connectors to increase the electronics' reliability.



## OKAMURA Transmission

The world-renown OKAMURA transmission, with the Power Take-Off (PTO) feature, is used in the XF Series LPG Cushion Tire Forklift. This transmission was chosen as a part of our forklift's design for its reliability. The gear pump is also extremely efficient.



## Heavy-Duty Drive Axle

The XF Series LPG Cushion Tire Forklift features a heavy-duty drive axle with two-speed deceleration for safe and reliable operation. The wet disc brakes allow for better braking, heat dissipation, and are maintenance-free.

## Maintenance Hatch with a Safety Latch

The maintenance hatch opens wide enough to provide easy serviceability of key components. The safety latch prevents the hatch from compromising operator safety when using the truck.

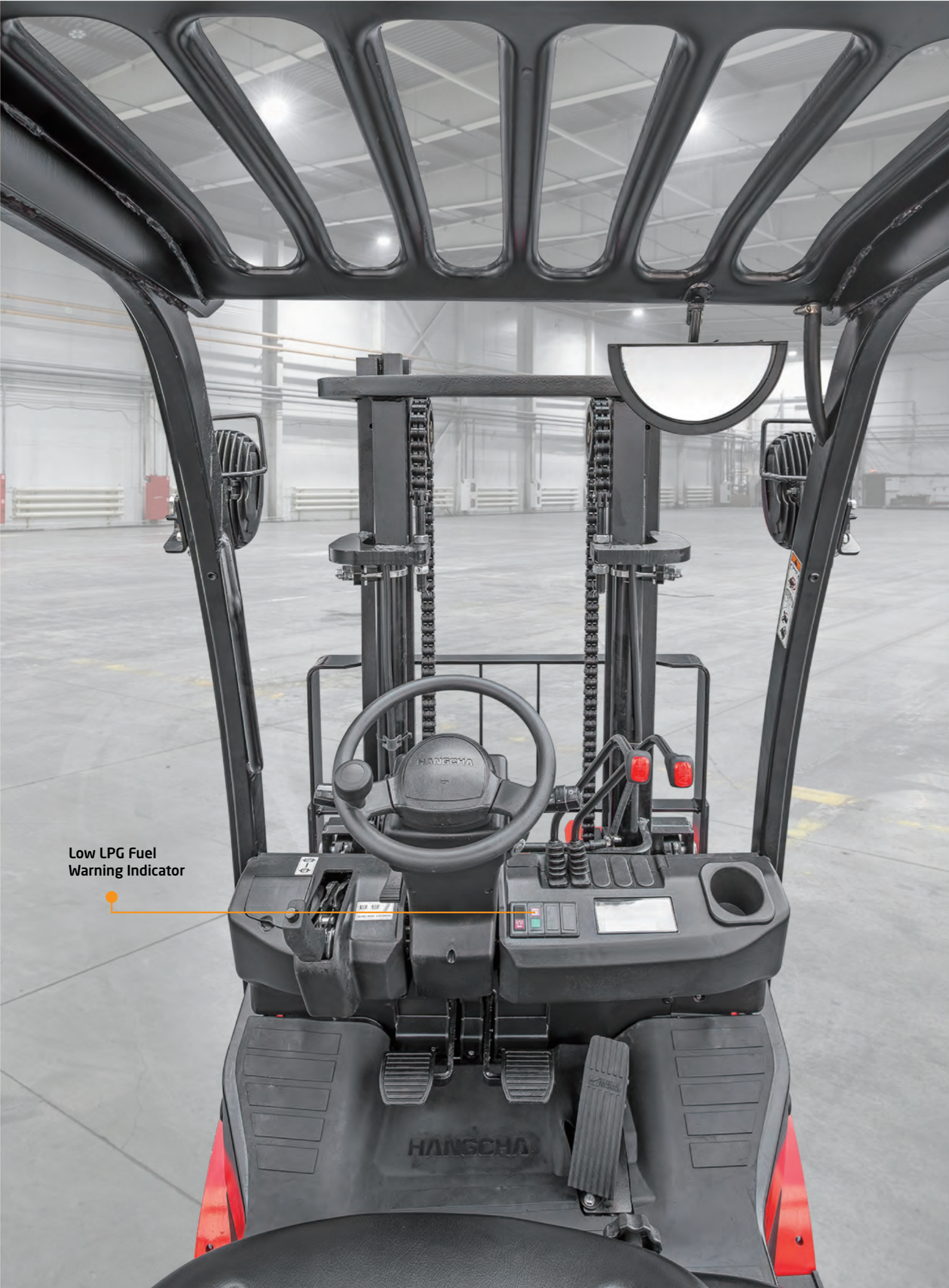
## Optimized Cooling System

The cooling system has been designed to maximize cooling and increase the reliability of the engine when working under heavy loads. This system uses an aluminum radiator, independent oil cooler, optimized heat transfer channel, and a dual-hole counterweight to increase cooling efficiency.

## Reliable Hydraulic System

The truck adopts a high-pressure hydraulic system and steering load sensing technology, which can effectively improve operational efficiency. The multi-way valve uses the double pump confluence, the single pump discharge system, reduces gives off heat, the standard matches the hydraulic pressure oil to dissipate heat, enhances the hydraulic pressure system reliability.





Low LPG Fuel  
Warning Indicator



### The Wide View Mast Offers Better Visibility

The mast has been redesigned to include new types of steel channels and a new mast system. This was done to increase forward visibility for the operator.



### Large Hand Grip

The large hand grip on the overhead guard is designed to allow the operator to get in and out of the truck safer and easier.



### Panoramic Rear View Mirror

The panoramic rear view mirror allows the operator to have wider rear visibility when operating the forklift.



### Ergonomic Design

The small diameter, adjustable steering wheel, electro-hydraulic steering, and the combination switch increase the ease of operation and operator comfort substantially.



### High-Strength Overhead Guard

The overhead guard is fabricated with specially shaped steel tubes to increase its structural rigidity and strength. It is also designed to be easily disassembled and reassembled for repairs. The guard features a flexible connection between it and the chassis to decrease vibrations.



### Steering Axle

The steering axle uses large conical bearings on the master pin, buffer blocks, and a large-diameter steering cylinder to substantially increase the reliability and service life of the steering system.

## Standard Configuration

- / Traction Unit
- / Small Diameter Steering Wheel
- / Integrated Combination Switch
- / Extended Hand Grip
- / Adjustable Steering Wheel
- / Mechanical Parking Brake (with self-lock)
- / Suspension Seat
- / Large Capacity Aluminum Radiator
- / Dynamic Load Sensing System
- / Suspension Integral Overhead Guard
- / Whirlwind High Efficiency Air Filter
- / Hydraulic Oil Suction Filter
- / Rain cover for the Overhead Guard
- / Safe Filter Element
- / Inclined Oil Way Latching Valve
- / Panoramic Rear View Mirror
- / Highly Efficient Exhaust Muffler
- / Hydraulic Oil Dipstick
- / Access/Exit Safe Step
- / Highly Efficiency LED Combination Front and Rear Lights
- / Large Rubber Pedal Pad
- / Full Floating Transmission
- / Maintenance-Free Battery
- / Transmission Oil Filter
- / Hydraulic Oil Return Filter
- / Combined LCD Displays
- / Gearbox Dipstick
- / Maintenance Hatch Spring
- / Integrated Controller
- / Gearbox Oil Cooler
- / Clipboard
- / Strobe Light
- / Wet Brakes
- / Electro-Hydraulic Steering
- / Charging Reminder
- / Suspended Operation Pedal
- / Oil Gauge
- / Water Thermometer
- / Cup Holder
- / Preheating Indication
- / Limited Free Lift 2 Stage Mast
- / Standard Fork
- / Standard Carriage
- / Engine Oil Pressure Alarm
- / Load Backrest
- / Gearbox Oil Temperature Alarm
- / Maintenance Reminder
- / Load Safety Valve
- / Horn
- / Soft Landing System
- / Reverse Buzzer
- / Mast Lifting Buffer Device
- / Tilt Piston Rod Jacket
- / Fan Protector
- / Rear Grip with Horn Button
- / Front Acoustic Hood of Steering Wheels
- / Low LPG Fuel Warning Indicator
- / Swing-Out LP Bracket
- / Operator Presence Sensing System (OPS)
- / Counterweight Grill
- / Smooth Cushion Tire
- / Double Soundproof Pad on Maintenance Hatch

## Options

- / Customizable Paint Colors
- / Treaded Cushion Tire
- / LED Rear Working Light
- / Auxiliary Hydraulic Valve Group
- / Fire Extinguisher
- / High-Low Overhead Guard
- / Radiator Screen
- / Air Pre-Cleaner
- / Blue Light
- / Non-Marking Cushion Tire
- / Full Free Lift 2 Stage Mast
- / Full Free Lift 3 Stage Mast
- / Wider Carriage
- / Various Fork Lengths
- / Sideshifter
- / Various Specialty Accessories



# XF Series LPG Cushion Tire Forklift Specification

Distinguishing Marks	1.1 Manufacturer		HANGCHA GROUP CO.,LTD.	
	HCFA Model		FP60C	FP70C
Weight	1.2 Manufacturer's Type Designation		CPYD60-XW68B-C	CPYD70-XW68B-C
	1.3 Drive		LPG	LPG
Tires & Chassis	1.4 Operator Type		Seated	Seated
	1.5 Load Capacity/Rated Load	Q lb (kg)	13500(6000)	15500(7000)
Dimensions	1.6 Load Centre Distance	c in(mm)	24(600)	24(600)
	1.7 Load Distance, centre of drive axle to fork	x in(mm)	19.6(498)	19.8(503)
	1.8 Wheelbase	y in(mm)	72(1830)	72(1830)
	2.1 Service Weight	lb(kg)	19510(8850)	21060(9550)
	2.2 Axle Loading, laden front/rear	lb(kg)	28880/3860(13100/1750)	32170/4320(14590/1960)
	2.3 Axle Loading, unladen front/rear	lb(kg)	6570/12940(2980/5870)	7100/13960(3220/6330)
	3.1 Tires		Cushion	Cushion
	3.2 Tire Size, front		28x12x22	28x12x22
	3.3 Tire Size, rear		22x10x16	22x10x16
	3.4 Wheels, number front rear (x = driven wheels)		2x/2	2x/2
	3.5 Tread, front	b10 in(mm)	44.6(1133)	44.6(1133)
	3.6 Tread, rear	b11 in(mm)	46.6(1184)	46.6(1184)
	4.1 Tilt of Mast/Fork Carriage Forward/Backward	a/β (°)	6/10	6/10
	4.2 Height, mast lowered	h1 in(mm)	98.4(2500)	98.4(2500)
	4.3 Free Lift	h2 in(mm)	6.7(170)	6.7(170)
	4.4 Lift	h3 in(mm)	118.1(3000)	118.1(3000)
	4.5 Height, mast extended	h4 in(mm)	171.5(4357)	171.5(4357)
	4.6 Height of Overhead Guard (cabin)	h6 in(mm)	88(2235)	88(2235)
	4.7 Seat Height	h7 in(mm)	50.4(1280)	50.4(1280)
	4.8 Coupling Height	h10 in(mm)	16.1(410)	16.1(410)
	4.9 Overall Length	l1 in(mm)	163.4(4150)	163.6(4155)
4.10 Length to Face of Forks	l2 in(mm)	115.4(2930)	115.6(2935)	
4.11 Overall Width	b1 in(mm)	56.6(1438)	56.6(1438)	
4.12 Fork Dimensions	s/e/l in(mm)	2.4*6*48(60*150*1220)	2.6*6*48(65*150*1220)	
4.13 Fork Carriage DIN 15 173, class/type A, B		Class4 A	Class4 A	
4.14 Backrest Width	b2 in(mm)	51.5(1308)	51.5(1308)	
4.15 Fork-Carriage Width	b3 in(mm)	49.2(1250)	49.2(1250)	
4.16 Distance between Fork-Arms	b5 in(mm)	12.3-41.7(312-1058)	12.3-41.7(312-1058)	
4.17 Ground Clearance, laden, below mast	m1 in(mm)	4.3(110)	4.3(110)	
4.18 Ground Clearance, centre of wheelbase	m2 in(mm)	7.5(190)	7.5(190)	
4.19.1 Aisle Width for Pallets 39" x 47" Crossways	Ast in(mm)	168.4(4278)	168.4(4278)	
4.19.2 Aisle Width for Pallets 31.5" x 47" Lengthways	Ast in(mm)	176.3(4478)	176.3(4478)	
4.20 Turning Radius	Wa in(mm)	101.6(2580)	101.6(2580)	
4.21 Internal Turning Radius	b13 in (mm)	27.6(702)	27.6(702)	
Performance Data	5.1 Travel Speed, laden/unladen	mph(km/h)	13/13.7(21/22)	13/13.7(21/22)
	5.2 Lift Speed, laden/unladen	ft/min(m/s)	94.5/100.4(0.48/0.51)	94.5/100.4(0.48/0.51)
	5.3 Lowering Speed, laden/unladen	ft/min(m/s)	98.4/74.8(0.500/0.380)	98.4/74.8(0.500/0.380)
	5.4 Drawbar Pull, laden/unladen	N	44000	44000
	5.5 Gradeability, laden, 1mph(1.5km/h)	%	26	23
	5.6 Service Brake		Hydraulic	Hydraulic
	5.7 Parking Brake		Mechanical	Mechanical
Combustion Engine	6.1 Engine Manufacturer/Type		PSI 4.3L LPG	PSI 4.3L LPG
	6.2 Engine Power according to ISO 1585	hp(kW)	105(77)	105(77)
	6.3 Rated Speed	r/min	2300	2300
	6.4 No. of Cylinders/Displacement	(-)/(cm³)	6/4294	6/4294
	6.5 Generator	A	70	70
	6.6 Vehicle Electrical System Voltage	V	12	12
	6.7 Battery Voltage/Nominal Capacity	V/Ah	12/60	12/60
	6.8 Rated Torque	N·m/r/min	332.85/1400	332.85/1400
	6.9 Transmissions Manufacturer		OKAMURA	OKAMURA
	6.10 Transmissions Type		Powershift	Powershift
	6.11 Stage FWD/RVS		1/1	1/1
Additional Data	7.1 Operating Pressure for Attachments	psi(MPa)	3132(21.6)	3132(21.6)
	7.2 Hydraulic Tank - Capacity (drain & refill)	gal(liter)	26.4(100)	26.4(100)
	7.3 Fuel Tank - Capacity (Gasoline or Diesel-Powered Units Only)	gal(liter)	NA	NA

# 13,500-15,500lbs XF Series Mast:

Type	Model	Max. Fork Height in (mm)	Overall Height				Free Lift		Front Overhang		Tilt Range F/R (°)	Capacity Load capacity at 24 in (600mm)	
			Lowered in (mm)	Extended		Without Backrest in (mm)	With Backrest in (mm)	13500lb	15500lbs	15500lb(6000kg)		15500lb(7000kg)	
				Without Backrest in (mm)	With Backrest in (mm)								
Limited Free Lift 2 Stage Mast	XBC70M250	98.4(2500)	88.6(2250)	139.5(3543)	151.9(3857)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70M300	118.1(3000)	98.4(2500)	159.2(4043)	171.5(4357)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70M330	129.9(3300)	104.3(2650)	171(4343)	183.3(4657)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70M340	133.9(3400)	106.3(2700)	174.9(4443)	187.3(4757)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70M360	141.7(3600)	110.2(2800)	182.8(4643)	195.2(4957)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70M440	173.2(4400)	127.6(3240)	214.4(5445)	226.7(5757)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70M500	196.9(5000)	139.4(3540)	238(6045)	250.3(6357)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
Full Free Lift 3 Stage Mast	XBC70M540	212.6(5400)	147.2(3740)	253.7(6445)	266(6757)	6.7(170)	6.7(170)	19.6(498)	19.8(503)	6/10	13500(6000)	15500(7000)	
	XBC70N360	141.7(3600)	86.6(2200)	189.5(4813)	195.2(4957)	39.3(997)	33.6(853)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N400	157.5(4000)	92.5(2350)	205.2(5213)	210.9(5357)	45.2(1147)	39.5(1003)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N430	169.3(4300)	96.1(2440)	217(5513)	222.7(5657)	48.7(1237)	43(1093)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N470	185(4700)	101.2(2570)	232.8(5913)	238.5(6057)	53.8(1367)	48.1(1223)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N500	196.9(5000)	105.1(2670)	244.6(6213)	250.3(6357)	57.8(1467)	52.1(1323)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N550	216.5(5500)	111.8(2840)	264.3(6713)	270(6857)	64.4(1637)	58.8(1493)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N560	220.5(5600)	113(2870)	268.2(6813)	273.9(6957)	65.6(1667)	60(1523)	21.5(546)	21.7(551)	6/6	13500(6000)	15500(7000)	
	XBC70N600	236.2(6000)	118.1(3000)	284(7213)	289.6(7357)	70.7(1797)	65.1(1653)	21.5(546)	21.7(551)	6/6	13000(5900)	15200(6900)	
	XBC70N620	244.1(6200)	122.8(3120)	291.9(7413)	297.5(7557)	75.5(1917)	69.8(1773)	21.5(546)	21.7(551)	6/6	12800(5800)	15000(6800)	

With the sideshifter, subtract 880lbs (400kg). With the integral sideshifter, subtract 1100lbs (500kg).

