

# **TK750FS** **TK750S**

**Telescopic Crawler Crane**

**Max. Lifting Capacity : 75t × 3.0m**

Comply with Japanese Construction Codes for Mobile Cranes.

TELESCOPIC  
CRAWLER  
CRANE

# Strong Design from To

The TK750FS – Makes light work of heavy excavation!

The TK750S – Optimized for leader operations!

## Two Cranes That Handle Large-Scale Foundation Work with Ease

The telescopic crawler cranes of the KOBELCO TK750 Series combine the lifting power and high stability of crawler models with the excellent performance of an automatic boom extender/retractor. The series provides many advantages, such as adjustable boom lengths, automatic boom extender/retractors, compact design and excellent maneuverability, on-site rough terrain ability and mobility, and safety and efficiency features. These ensure convenience and flexibility, and consistently satisfy our customers' needs. And now, in response to a growing demand for machinery suited to larger-scale foundation work, special models TK750FS and TK750S are now available. Whether the job requires hard excavation, using a  $\phi 2,000\text{mm}$  all-casing method or clam-shell bucket, or vibro-hammer or auger work, this series performs with excellent efficiency. The two TK750 series models are pioneers in the new age of large-scale civil engineering work.

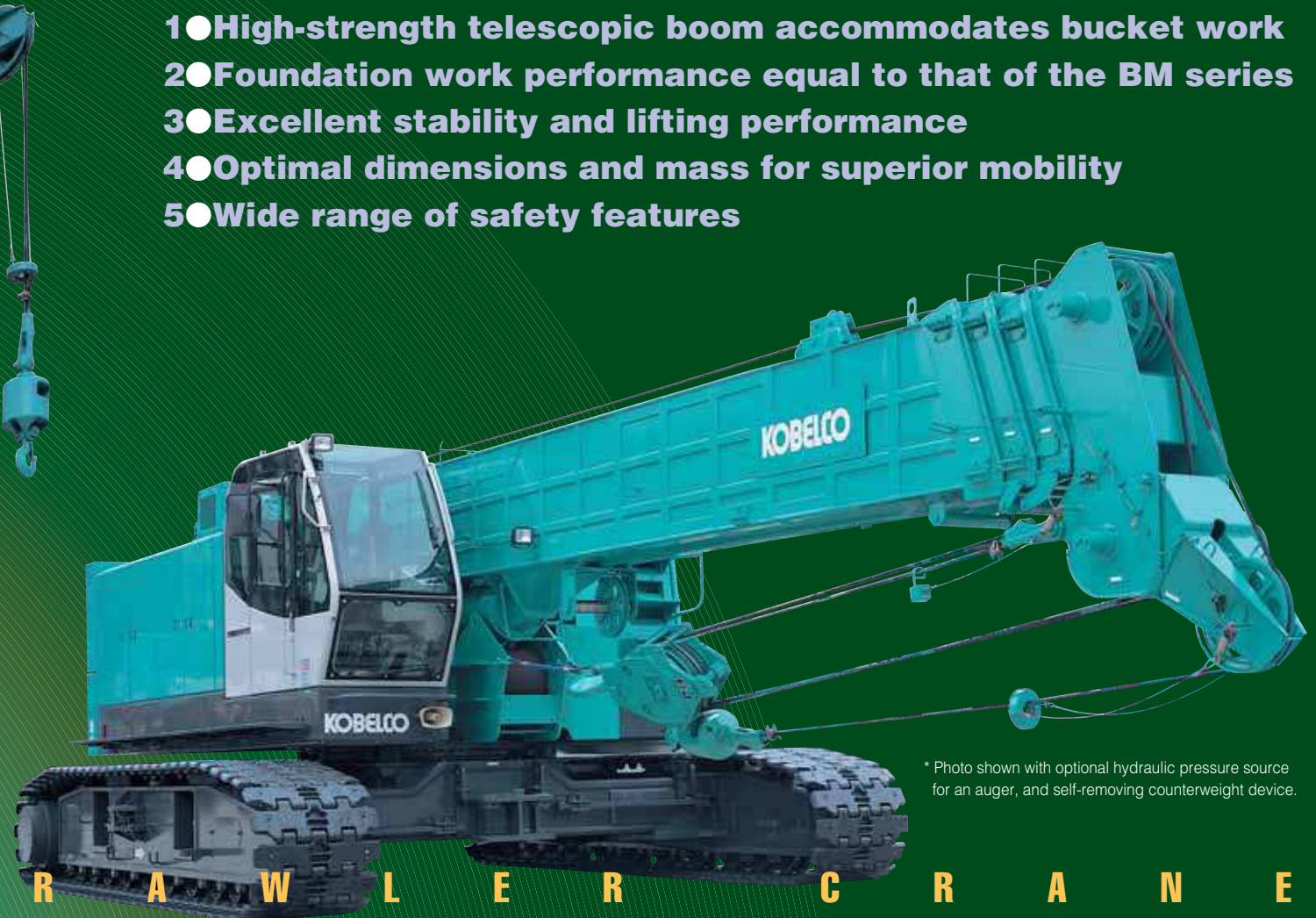
T E L E S C O P I C C



# Top to Bottom

## 5 Key Features:

- 1●High-strength telescopic boom accommodates bucket work
- 2●Foundation work performance equal to that of the BM series
- 3●Excellent stability and lifting performance
- 4●Optimal dimensions and mass for superior mobility
- 5●Wide range of safety features



\* Photo shown with optional hydraulic pressure source for an auger, and self-removing counterweight device.

## Equipped with Telescopic Boom Featuring High Strength and Rigidity

### ■Operability That Only a Telescopic Boom Can Deliver

The automatic boom extender/retractor easily adjusts the length of the boom to match working conditions, making the crane ideal for material handling.

●Boom Length : 9.99 ~ 30.1m

### ■Easily Handles Heavy-Duty Foundation Work, Including Bucket Work

Each boom section is fitted with four hydraulic cylinders for extension/retraction and extra rigidity at the attachment points. This makes the machine ideally suited for heavy-duty foundation work using clamshell, as well as hammer-grab, vibro-hammer and auger attachments.

### ■Boom Features Both Light Weight and High Stability

Despite its light weight, the boom features both high strength and high rigidity, supported by crawlers that deliver solid traction and 360-degree stability.

### ITCS

[ITCS], or the Intelligent Total Control System, refers to an advanced computerized system used to operate the machine with coordinated control.

# PERFORMANCE

## High Stability Ensures Dependable Performance

### ■ Dependable Performance

● Max. Lifting Capacity : **75t × 3.0m**

● Rated Line Pull (Main and Auxiliary) :

TK750FS : **107.9kN {11.0tf}** TK750S : **68.7kN {7.0tf}**

● Max. Line Pull \*1 (Referential Performance) :

TK750FS (Main, Aux. and Third) : **208kN {21.2tf}**

TK750S (Main, Aux.) : **153kN {15.6tf}** TK750S (Third \*2) : **107kN {10.9tf}**

\*1 : Single line on first drum layer \*2 : Third drum is option.

● Max. Lifting Height : **30.4m**

### ■ High Line Speed (Main and Auxiliary)

TK750FS : **125m/min** (1st layer) TK750S : **120m/min** (1st layer)

### ■ Plenty of Lifting Power

Features a lifting capacity of 5.5t in the frequently used 20m working radius (specification for the TK750FS with a 30.1m boom). Maintains a maximum lifting capacity of 18.5t with a fully extended boom in an 8m radius.

● Lifting Capacity in a 20m Working Radius (4 sections) : TK750FS **5.5t** TK750S **5.4t**

● Maximum Working Radius for Lifting **18.5t** (4 sections) : **8.0m**

### ■ Ample Lifting Capacity on Sites with Height Restrictions

The minimum boom length of just 9.99m, and the innovation of placing the winch behind the boom base, provide a high lifting capacity even on sites with height restrictions, such as under elevated structures.

● Height Restriction : 7m

TK750FS **26.3t × 7.5m**  
TK750S **25.9t × 7.5m**

● Height Restriction : 9m

TK750FS **30.4t × 6.7m**  
TK750S **26.3t × 6.7m**

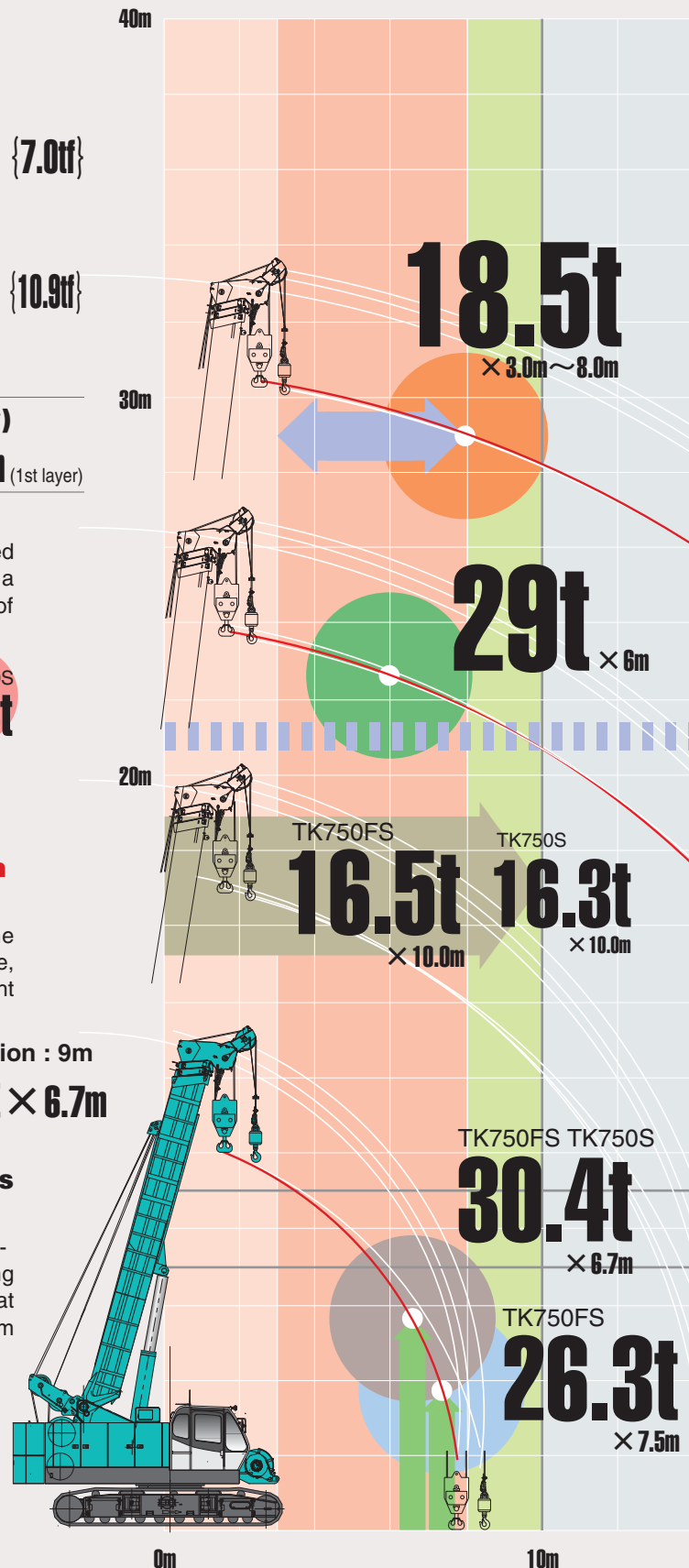
### ■ Compact Body with Rear Swing Radius of About 4m

The unique frame construction and patented upper-and-lower winch configuration allow a compact rear swing radius. If used, the third winch is mounted in front so that the rear swing radius stays the same and the third drum can be seen by the operator.

### ■ Lifting Capacity with Intermediate Counterweight (Optional)

To accommodate weight restrictions on such sites as wharves, the machine can be set to a rated load that reflects use with the intermediate counterweight only, or without counterweights. This feature comes with an automatic counterweight inspection system for safety.

### ■ Maintains a 1.25t x 26.0m Lifting Capacity with a Fully Extended Boom (at The Minimum Angle) Even When Only an Intermediate Counterweight Is Used. (TK750FS · TK750S)



# PERFORMANCE

## Foundation Work Performance Equal to That of the BM Series.

### High Stability Accommodates a Wide Operational Area

Delivers a maximum working radius of 27.8m, with a lifting capacity of 2.7t (TK750FS). The minimum working radius with a fully extended boom is 3.0m.

TK750FS **2.7t** × **27.8m** (4 sections)  
TK750S

TK750FS **5.5t** × 20m  
TK750S **5.4t** × 20m

With intermediate counterweight  
TK750FS TK750S  
**1.25t** × 26.0m

TK750S  
**25.9t**  
× 7.5m

20m

30m

### Equipped with a Large Engine That Provides a Large Capacity Hydraulic Pressure Source

This machine is outfitted with the same high-output engine used in the KOBELCO 200t-class crawler cranes and is capable of 235kW {320PS}. It supplies a large-capacity hydraulic pressure source that can be used for various applications, including auger work.

**235kW {320PS}**

### Optional Hydraulic Pressure Source Available for Various Attachments

The hydraulic pressure source provides a maximum flow of 425 ℓ /min and a maximum output of 145kW {200PS} for use with an auger. An optional four-valve system with a flow of 40 ℓ /min and output of 11kW {15PS} is also available.

The auger system has a flow adjustment switch.

\*The machine pictured features both the auger system and the four-valve source.



### Outfitted with a Wet-Type Third Winch That's Ideal for Foundation Work (TK750FS)

The main winch is equipped with an internal oil-cooled wet-type disc brake that allows for stable braking power even during continuous operations. The TK750FS also comes standard with a third winch capable of freefall operations. (TK750S model may be optionally fitted with a 18mm diameter third winch without a freefall function.)

### Comes Standard with Extra Wide, Large Capacity Hoist Drums (TK750S).

Both the main and auxiliary hoist drums are broad and grooved to accommodate 23 coils of 22mm diameter wire rope. The main winch has a maximum spooling capacity of 170m. The TK750FS model is equipped with the same 26mm diameter wire rope as the 80t class BM series on its main, auxiliary, and third winches.

### Lifting Capacity Matches That of a 55t Lattice-Type Crane

The rated line pull of both models is impressive, at 11t for the TK750FS, and 7t for the TK750S, making them well-suited for excavation jobs that require a burst of power. When the boom is not extended, the 14.35-16.5t lifting capacity in a practical operating radius of 10m is ideal for vibro-hammer or auger operations. When the boom is fully extended, the 29t x 6m lifting capacity is also optimal for vibro-hammer work.

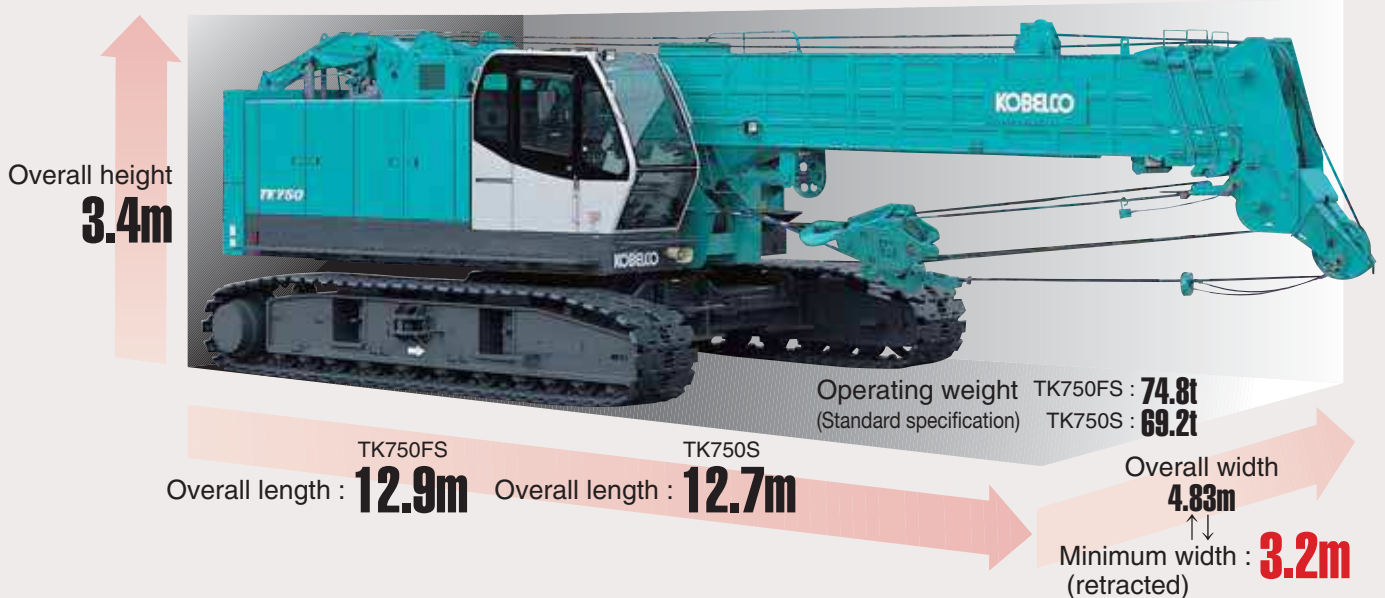
### Loaded with a 61,000kcal/h Large-Capacity Oil Cooler

The oil cooler's ample capacity can easily accommodate operations even when attachments are being used.

# TRANSPORT & MAINTENANCE

## Saves Time with Easy Transport and Maintenance.

### ■ Designed for Easy Transport.



### ■ Maintenance-Free Wet-Type Winch



The built-in wet-type disc brake has a forced-oil cooling system to prevent overheating, and requires no band adjustment or lining replacement. This significantly decreases maintenance labor and costs.

Plus, the drum's large diameter and ample capacity minimize damage to the wire rope, ensuring durability.

Counterweight

TK750FS/TK750S: **8.2t + 9.0t**



### ■ Telescopic Boom Requires No Assembly/Disassembly

The automatic extender/retractor saves time and effort, thereby maximizing time spent on the project at hand. There's no need to allot space to assemble, disassemble, and store the boom. On-site safety is also increased, as there is no potential for an accident during boom assembly/disassembly.

### ■ Counterweight Removal Device (Optional) for Optimal Operability

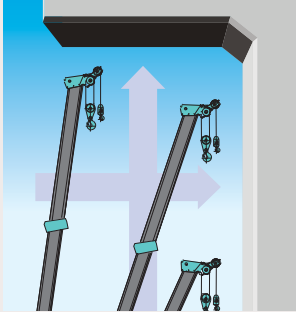
Counterweight can be removed using the main hoist.

### ■ Super-Fine Filter for Hydraulic Oil

A KOBELCO first, this machine is fitted with a finer filter than previous models. It filters out even the smallest of contaminants to increase the dependability of the hydraulic system.

## Safety and Comfort Give the Operator Peace of Mind.

### 11CS ■ Operational Range Limiter



By setting the parameters of boom angle (upper and lower limits), boom top height, and operating radius, the operator can limit the range in which the boom operates. A warning buzzer sounds and the machine stops automatically whenever those limits are approached. This mechanism has proved successful on wheel cranes, and can be used not only to prevent contact, but also to increase efficiency in repetitive tasks.

### 11CS ■ Engine Start-Up Safety Mechanism Prevents Accidental Operation

If the engine is started with the operation levers engaged, a safety mechanism prevents the winch and boom from moving. Only by returning the lever to neutral can operations begin.

### 11CS ■ Crawler Confirmation Switch



This feature prevents the crane from toppling if the boom or swing is mistakenly operated when the crawlers are being retracted. When the crawlers are in retraction mode (the load will not be displayed on the overload prevention mechanism), lowering the switch to 'confirmation' for two seconds will put it into crawler extender mode. A voice will prompt reconfirmation.

### ■ Three-Stage Procedure Helps Prevent Frefall Malfunction

To activate freefall, three separate steps must be taken : the freefall switch must be turned on, the freefall lock key must be released, and the freefall interlock must be released.



To prevent the load from accidentally dropping because of operator error, do not use freefall during lifting work.

### 11CS ■ Multi-Display Monitor Identifies Potential Machine Trouble in Real Time



The LCD multi-display shows a malfunction log (including fuel, hydraulic oil, cooling water, etc.) for 16 items, and its self-diagnostic function monitors a total of 41 items, including electrical malfunctions involving solenoid valves, sensors, etc.

### 11CS ■ Automatic Counterweight Inspection (Optional)

This optional safety feature provides security when operating the machine with intermediate or no counterweights. It automatically senses the number of counterweights being used and resets the rated load specifications accordingly to prevent overload.

### ■ Monitoring Cameras (Optional)



Cameras monitor the drums to help the operator catch potential accidents, such as spooling malfunctions, in their early stages. The cameras also monitor the rear of the machine to ensure the safety of workers

nearby. The images are displayed on an easy-to-see, easy-to-use monitor screen.

### ■ Roomy 940mm Wide Cab Ensures Operator Comfort



- Comfortable cab has wide frontal visibility and clear upper visibility
- Pressurized climate control with external air intake reduces dust
- Cloth-covered seat that tilts and reclines
- AM/FM radio with automatic selection and clock
- Tempered green glass windows
- Storage box

● Gate lock prevents accidental operation when the operator enters or leaves the cab ● Swing flashers warn surrounding workers when the machine is swinging ● Boom length display is installed on the right side of the boom ● Directional markings on the crawlers ● Leveling gauge

# TK750FS TK750S

Telescopic Crawler Crane

## SPECIFICATIONS

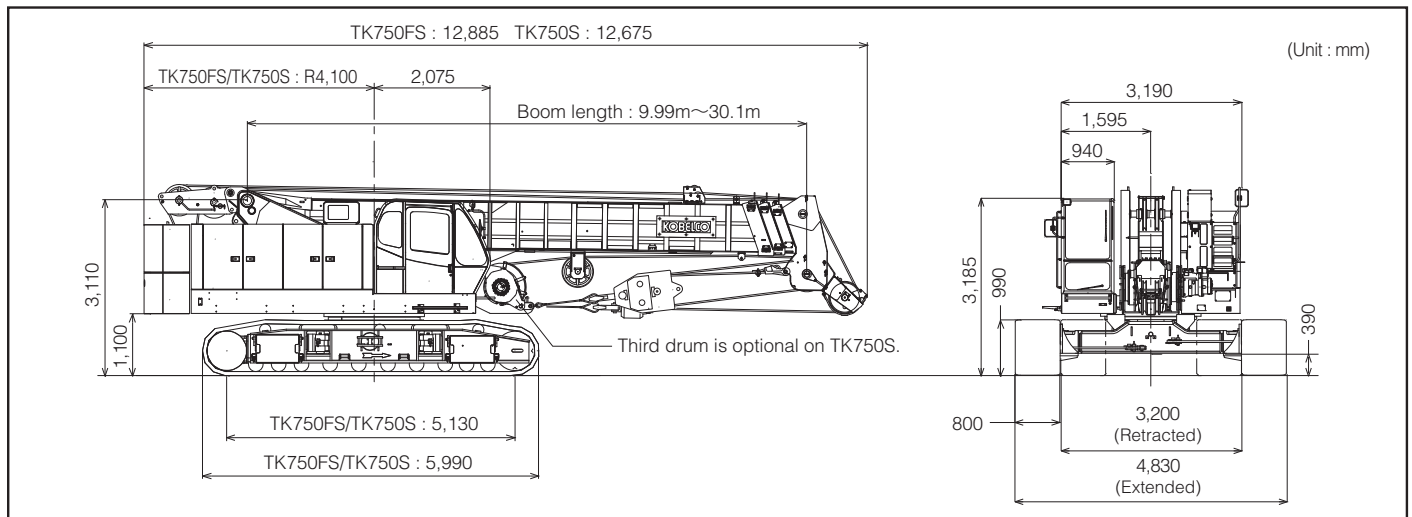
MODEL	TK750FS		TK750S	
<b>PERFORMANCE</b>				
Max. Rated Load				
9.99m boom	ton x m	75.0 x 3.0 (8-lines)	75.0 x 3.0 (11-lines)	
16.7m boom	ton x m	36.0 x 4.5 (4-lines)	36.0 x 4.5 (6-lines)	
23.4m boom	ton x m	29.0 x 6.0 (3-lines)	29.0 x 6.0 (5-lines)	
30.1m boom	ton x m	18.5 x 8.0 (2-lines)	18.5 x 8.0 (4-lines)	
Aux. Sheave (max.)	ton	11.0 (single line)	7.0 (single line)	
Boom Length	m	9.99 to 30.1		
Main Hook Max. Height	m	30.4		
Main Hook Max. Operating Radius	m	27.8		
Line Speed				
Main	m/min	125 (at first layer)	120 (at first layer)	
Aux.	m/min	125 (at first layer)	120 (at first layer)	
Third	m/min	125 (at first layer)	100 (at first layer)*2	
Boom Telescoping Speed	sec/m	125/20.1		
Boom Raising Speed	sec/degree	64/0 to 83		
Swing Speed	min <sup>-1</sup> {rpm}	2.5 {2.5}		
Travel Speed	km/h	1.9/1.2		
Operating Weight	ton	74.8	69.2	
Ground Pressure	kPa {kgf/cm <sup>2</sup> }	89.4 {0.91}	82.7 {0.84}	
Gradeability	%	40		
Rated Line Pull				
Main	kN {tf}	107.9 {11.0}	68.7 {7.0}	
Aux.	kN {tf}	107.9 {11.0}	68.7 {7.0}	
Third	kN {tf}	107.9 {11.0}	52.0 {5.3}*2	
Max. Line Pull*1 (Referential Performance)				
Main	kN {tf}	208 {21.2}	153 {15.6}	
Aux.	kN {tf}	208 {21.2}	153 {15.6}	
Third	kN {tf}	208 {21.2}	107 {10.9}*2	
<b>ENGINE</b>				
Model	MITSUBISHI 6D24-TLE2A			
Engine Output	kW/min <sup>-1</sup> {PS/rpm}	235/2,000 {320/2,000}		
<b>WIRE ROPE</b>				
Main	mm x m	26dia. x 110	22dia. x 170	
Aux.	mm x m	26dia. x 110	22dia. x 75	
Third	mm x m	26dia. x 125	18dia. x 170*2	

Units are SI units. { } indicates conventional units.

All speeds indicated are for unloaded operation and will change depending on the load.

\*1 : Single line on first drum layer. \*2 : Third drum is option.

## GENERAL DIMENSIONS The dimensions show TK750FS.



**Note:** This catalog may contain photographs of machines with specifications, attachments and optional equipment not certified for operation in your country. Please consult KOBELCO for those items you may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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Bulletin No. TK750FS-TK750S

130101F Printed in Japan

Courtesy of Crane.Market