

# KOMATSU®

## WH613

LIFTING HEIGHT

12.700 mm

LIFTING CAPACITY

3.500 kg

OPERATING WEIGHT

9.800 kg

**WH**  
**613**

TELESCOPIC HANDLER



## WH613

# WALK-AROUND

The WH613 belongs to the new series of KOMATSU telescopic handlers, which offers:

- the high quality, the safety and the cutting edge technology which typically characterise all KOMATSU products
- the **Super Low Boom Profile**, a new design which offers unique advantages in terms of stability and visibility

### **Excellent Visibility**

- thanks to the particular design of the frame, the hinging point of the boom is extremely low; this characteristic, together with the extending cylinder which is inside the boom, ensures a 360° visibility, an unparalleled feature

### **Top Performance**

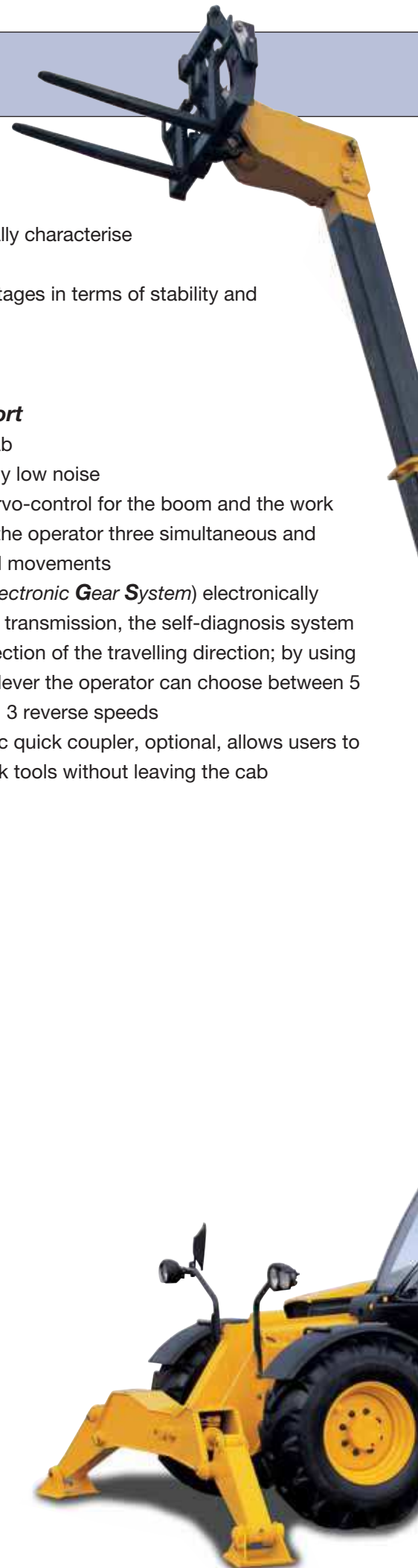
- high lifting capacity to the maximum height and the maximum reach, both on stabilisers and on tyres, with the help of the optional frame levelling ( $\pm 10^\circ$ )
- the **CLSS (Closed Load Sensing System)** hydraulic system, which is a closed-centre circuit, with Load Sensing and a variable displacement pump that ensures smooth proportional and combined movements; all this guarantees maximum productivity and minimum consumption
- high travel speed powered by the standard Full Power Shift transmission

### **Easy Manoeuvrability**

- the wide steering angles make the steering radius extremely reduced for the category, both over tyres and over forks
- three different steering modes (two-wheel, four-wheel and crab) allow the operator to smoothly and precisely move the machine, whatever the conditions, from small building yards to road transfers

### **Total Comfort**

- spacious cab
- exceptionally low noise
- the **PPC** servo-control for the boom and the work tool allows the operator three simultaneous and proportional movements
- the **EGS (Electronic Gear System)** electronically controls the transmission, the self-diagnosis system and the selection of the travelling direction; by using a twist grip lever the operator can choose between 5 forward and 3 reverse speeds
- the hydraulic quick coupler, optional, allows users to change work tools without leaving the cab



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### Full Safety

- the **SLI** stability control device (**Safe Load Indicator**), equipped with an acoustic and visual alarm, informs the operator when the machine stability limit is approaching
- the **ASM** anti-tipping system (**Auto Stop of the Movements**), optional, prevents the machine from aggravating movements and only allows the retraction of the boom
- the selection of the three steering modes by the simultaneous pushing of two buttons avoids accidental shifting, always ensuring total safety in steering mode changes
  - three working modes provide full operator comfort and safety: travelling, working, working and travelling (except for higher speeds)
  - servo-assisted service brakes with double hydraulic independent circuits, active on both axles
  - the automatic rear axle oscillation lock, optional, increases both lift performance and security
  - safety valves on the hydraulic cylinders



### Highest Stability

- the long wheel-base provides the machine with a wide bearing area; together with a very low centre of gravity, it also guarantees excellent static and dynamic stability to the KOMATSU telescopic handler
- the three stage telescopic boom features chains for the extension of the third stage of the boom; this solution helps to reduce the weight of the whole structure, improving stability and loading capacity

# OPERATOR'S ENVIRONMENT



## ***Total Comfort***

The ROPS (ISO 3471) and FOPS (ISO 3449) cab has a modern and ergonomic layout and is mounted on four elastic supports.

The wide glass surface provides the operator with excellent visibility in any direction.

The suspension seat and the steering column can be adjusted by the user to obtain the ideal driving position.

The EGS leds indicate movement direction, gear shifting and diagnostic test results.

The modern LCD panel displays digital instruments like speedometer, rpm, fuel level and water temperature indicators, as well as many pilot lights.

The optional air-conditioning system provides the ideal temperature and prevents steaming up in all weather conditions, thus guaranteeing maximum comfort to the operator.

# STRONG POINTS

## **Engine**

The displacement (4,5 litres) of the KOMATSU engine, which is also available in the Turbo version, guarantees high power and torque, together with superior reliability. The advanced technology ensures minimum levels of emissions, in compliance with the European standards (97/68/CE - Stage 2). The engine and the transmission layout makes all service and maintenance operations easy to perform.



## **Super Low Boom Profile**

The boom extension is performed by means of a hydraulic cylinder for the second stage and chains for the third one. The easy-to-remove cover protects the chains, such that the likelihood of damage is extremely low. All stages run on adjustable anti-wear pads. A compensation cylinder ensures the work tool self-levelling.



## **Joystick**

On the right side, the operator can find the servo-controlled joystick, in addition to the controls for the stabilisers and the frame levelling. The joystick mounts a unique slider switch and allows three simultaneous boom functions: lifting, extending and tool carriage rotating. The adjustable armrest enhances precision and comfort in all movements.



## **Stability Control Device**

The stability control device (SLI) indicator is well positioned on the board; it enables the operator to constantly monitor the stability of the machine and to be instantly advised when the limit is approaching, with the help of distinct leds and an acoustic warning.

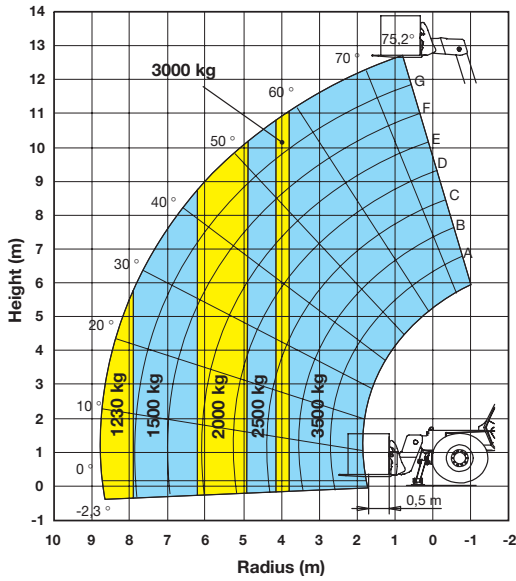


## **Steering & Working Selection**

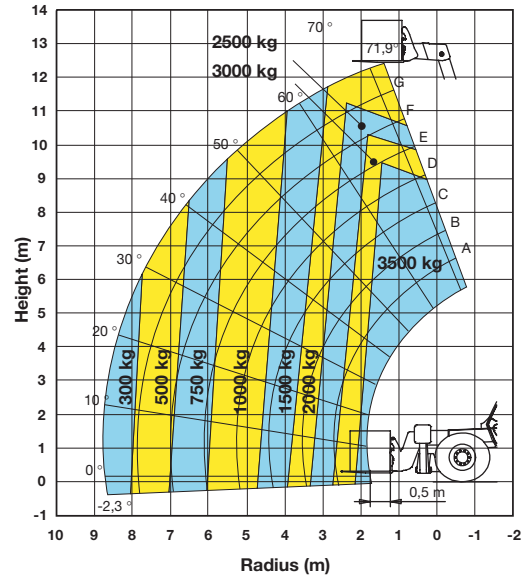
The operator can switch working mode by simply turning a knob on the panel, which is placed on the left side of the steering column. The buttons for the steering mode selection are easily accessible on the same board and they are protected by a waterproof surface.



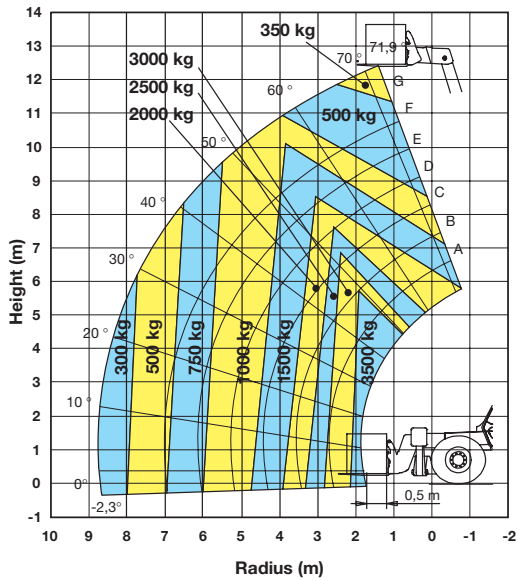
# LOAD CHARTS AND DIMENSIONS



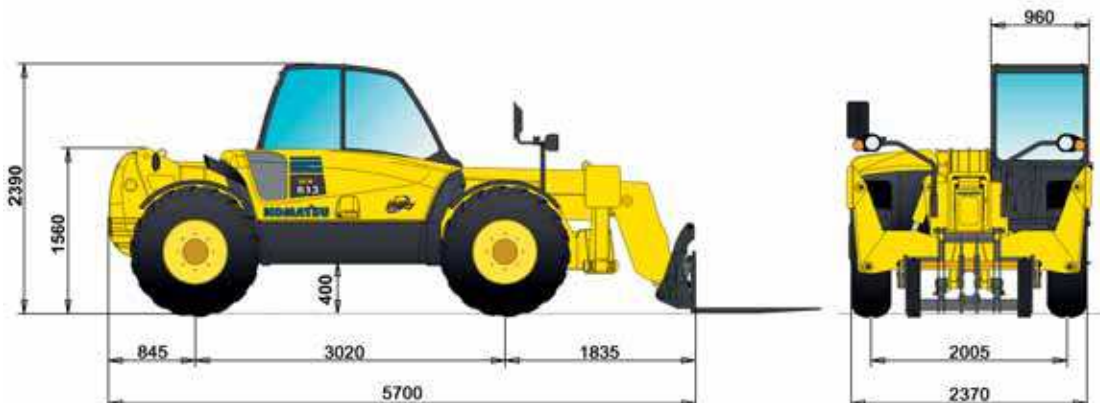
On Stabilisers



On Tyres With Frame Levelling



On Tyres



NOTE: In conformity to the Standard UNI EN 1459 Annex B

# SPECIFICATIONS



## ENGINE

The last generation engine has been developed in compliance with the European standards (97/68/CE - Stage 2) on the reduction of exhaust emissions.

Model ..... Komatsu 4D104E-1 [S4D104E-1]  
 Type.....4-cycle water-cooled diesel engine  
 Displacement..... 4.485 cm<sup>3</sup>  
 Aspiration ..... natural [turbo]  
 Rated power:  
 SAE J 1349 ..... 60 kW / 80,5 HP [74 kW / 99,2 HP] @ 2.300 rpm  
 EEC 80/1269 ..... 60 kW / 80,5 HP [74 kW / 99,2 HP] @ 2.300 rpm  
 Max. torque ..... 320 Nm [398 Nm] @ 1.400 rpm



## HYDRAULIC SYSTEM

Type.....CLSS (Closed Load Sensing System)  
 Pump ..... variable displacement, axial piston  
 Max. operating pressure ..... 260 bar  
 Max. pump flow..... 142 ltr/min  
 Auxiliary hydraulic line ..... 62 ltr/min



## CONTROLS

Boom lifting, boom extension and tool carriage rotation are controlled by a PPC joystick, which allows proportional and simultaneous movements.



## CAB

The cab meets the European ROPS (ISO 3471) / FOPS (ISO 3449) safety standards. Two independent piece door; windscreen wiper; rear opening window with wiper.  
 Cab internal width ..... 940 mm



## BRAKE SYSTEM

Servo-assisted service brakes with 2 independent lines, acting on both axles.  
 Service brakes type.....oil immersed multi-disk  
 Parking brakes type .....acting on front axle service brake



## TYRES

Standard..... 405/70 - 24 PR14



## OPERATING PERFORMANCES

Max. lifting height ..... 12.700 mm  
 Max. lifting capacity ..... 3.500 kg  
 Capacity at max. height ..... 3.500 kg  
 Max. forward reach ..... 8.800 mm  
 Capacity at max. forward reach ..... 1.230 kg  
 Drawbar pull ..... 8.080 [8.890] daN  
 Breakout force (ISO 3813) ..... 6.420 daN



## STEERING SYSTEM

Turning radius, four wheel steering:  
 over tyres ..... 3.610 mm  
 over forks ..... 5.270 mm



## TRANSMISSION

Full Power Shift transmission, permanent four wheel drive.  
 EGS electronic control system; twist grip lever for direction and speed selection.

Travel speeds:  
 forward  
 1° ..... 5 [6] km/h  
 2° ..... 11 [13] km/h  
 3° ..... 16 [19] km/h  
 4° ..... 21 [25] km/h  
 5° ..... 33 [38] km/h  
 reverse  
 1° ..... 5 [6] km/h  
 2° ..... 11 [13] km/h  
 3° ..... 21 [25] km/h



## ELECTRIC SYSTEM

Voltage ..... 12 V  
 Battery ..... 110 Ah  
 Alternator ..... 90 A  
 Starter motor ..... 3 kW



## SERVICE CAPACITIES

Fuel tank ..... 130 ltr  
 Hydraulic oil tank ..... 107 ltr  
 Front axle oil ..... 9 ltr  
 Rear axle oil ..... 9 ltr  
 Transmission oil ..... 13 ltr  
 Engine oil ..... 12,8 ltr  
 Coolant ..... 15 ltr



## OPERATING WEIGHT

Operating weight: standard machine with forks ..... 9.800 kg

[ ]: with optional turbo engine

# TELESCOPIC HANDLER

## STANDARD EQUIPMENT

- KOMATSU Stage 2 aspirated engine
- Air cleaner with dual element
- Fuel filter with water separator and clogging indicator
- Full Power Shift transmission with EGS electronic control (5 forward and 3 reverse speeds)
- CLSS hydraulic system
- Transmission oil filter
- 4 wheel steering (3 steering modes)
- Safety valves on hydraulic cylinders
- Auxiliary hydraulic circuit up to the boom head
- SLI (acoustic and visual alarm) stability control device
- Alternator: 90 A
- Battery: 110 Ah
- 12 V internal and external power supply
- Radio pre-setting
- Horn
- ROPS/FOPS cab with heater and fan
- PPC servo-control with adjustable armrest
- Adjustable seat with safety belt
- Adjustable steering wheel
- Two piece door
- Rear opening window wiper
- Boom angle indicator
- Mudguards
- Stabilisers
- Mechanical quick coupler
- Forks
- Tyres: 405/70-24 PR14

## OPTIONAL EQUIPMENT

- Turbo engine 99,2 HP
- Semiautomatic transmission
- ASM (automatic lockout of movements) anti-tipping system
- Battery: 148 Ah
- Catalytic muffler
- Cold area arrangement
- Air cyclone pre-filter
- Hydraulic biodegradable oil
- Boom upper protection
- Front window guard
- Deluxe seat
- Air conditioning
- Radio
- Upper window with wiper
- Boom working lights
- Rear working light
- Rotating beacon
- Frame levelling:  $\pm 10^\circ$
- Automatic rear axle lock
- Back-up alarm
- Road homologation
- Customised paint
- Hydraulic quick coupler
- Forks protection guard
- Buckets: general purpose 2.320 mm and 2.420 mm (1,0 m<sup>3</sup>), high capacity for light materials 2.420 mm (1,5 m<sup>3</sup>)
- Side-shift forks



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