■STANDARD AND OPTIONAL EQUIPMENT

	STANDARD EQUIPMENT		OPTIONAL EQUIPMENT	
Undercarriage	•Travel emergency brake •Steering direction automatic changer •Travel brake air dryer	•Manual outrigger •Power steering •4 x 2 drive carrier	•Spare tire •Hydraulic outrigger ("H" type) •Hydraulic outrigger ("X" type)	
Superstructure	•Main hoist drum •MITSUBISHI 6D16-E1 engine •Torque converter •Swing and boom universal lever •Front wiper •Rear-view mirror •Tilt type steering wheel	•Reclining seat •Hand operated accelerator •Foot operated accelerator •Under cover •Floor-mat •Ashtray •Glove compartment •Hat hanger	•Auxiliary drum •Hot water heater •Cooler •Auto cigarette lighter •Roof wind wiper •Sunvisor •Fan •Radio-set •Muffler spark arrester •Fire extinguisher	•Main drum automatic brake system (with SML-06 Load Moment Limiter) ; applied when over-loading •Main/aux. drum automatic brake system (with SML-06 Load Moment Limiter) ; applied when over-loading •Drum gear lubricating device •Main/aux. drum automatic brake ; applied when control lever(s) is at neutral
Gauges/maters/ warning lights	•Engine tachometer w/hourmeter •Ammeter •Thermometer •Engine oil pressure gauge •T/C oil pressure gauge •"S-O-M" hyd. oil pressure gauge •Air pressure gauge •Fuel gauge	•E/G oil litter clogging warning light •E/G coolant water temp. warning light •E/G oil temp. warning light •T/C oil temp. warning light •Air pressure warning light •Superstructure direction indication light		
Lamps	•Directional indicator lamp (2) •Brake lamp (2) •Head lamp (2) •Tail lamp (2) •Back-up lamp with buzzer (2)	•Boom working lamp •Boom top marker lamp (2) •Room lamp •Room inspection lamp •Side marker lamp (2)	•Swing alarm lamp with buzzer •Amber rotating lamp	
Safety devices	•Hook over-hoist alarm •Boom over-hoist limiting device •Boom hoist drum pawl lock •Hook rope latch •Swing lock •Boom angle indicator	•Load chart plate •Travel emergency brake •Pneumatic pressure relief valve •Carrier level gauge •Boom back stops	•SML-06 Load Moment Alarm (or Limiter)	
Front attachment	•9.0m basic boom •25-ton, 3-sheave, 6-part hook •Main hoist rope, 20 dia×150m		•3.0m boom extention •6.0m boom extention •4.5-ton, 1-part hook •Wire rope guard Note: Buckets and lifting magnet of 1.3m / 1.5m dia. are available upon request.	•Tagline winder (spring type) •Auxiliary rope, 20 dia. x 60m
Miscellaneous	•Std. spare parts and tools •Std. painting		•Accumulator gas charging tool •Tire air-pressure charging device	•Refuel pump (manual or electric)

Hitachi Sumitomo Heavy Industries Construction Crane Co., Ltd.

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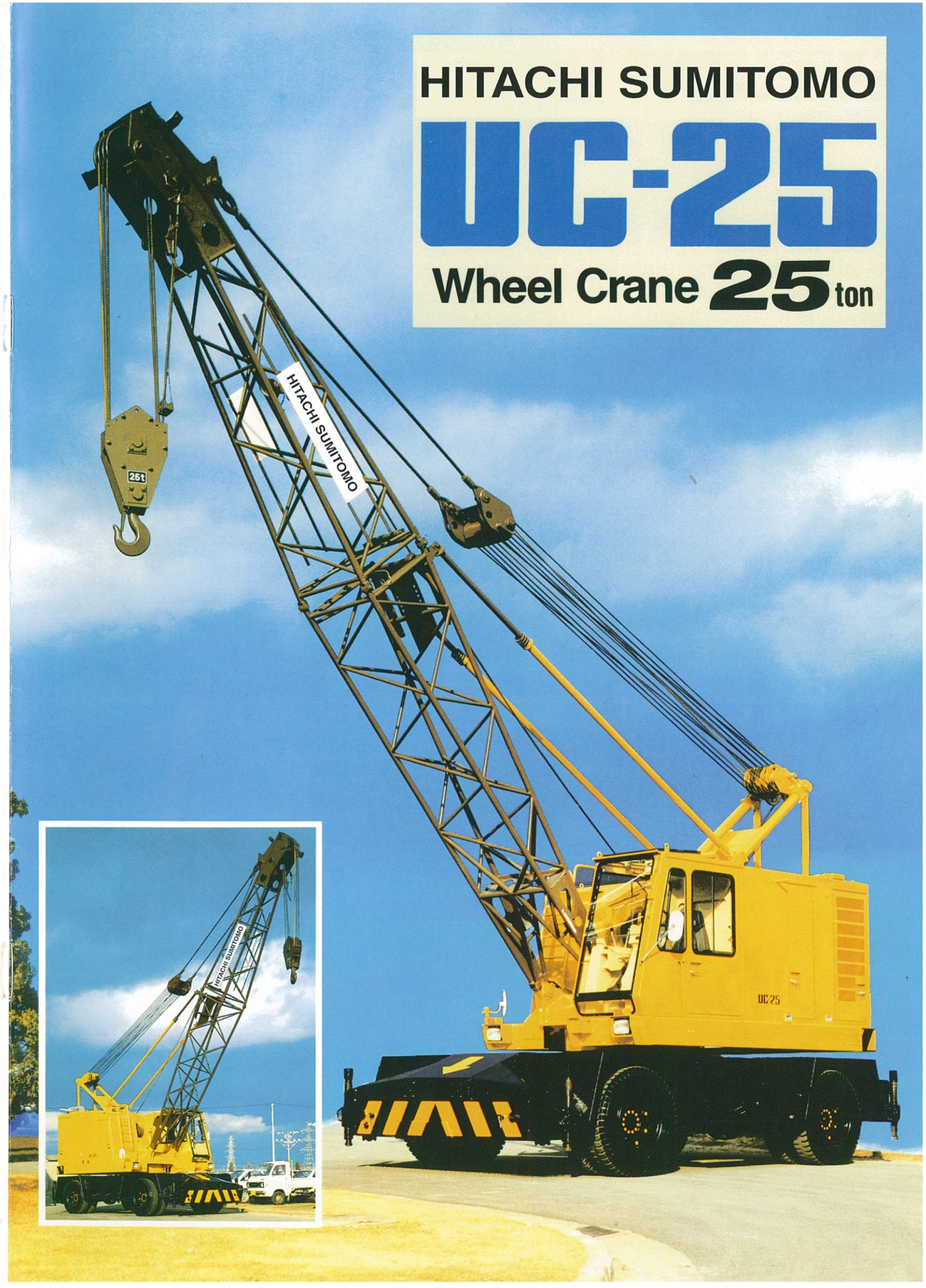
- We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.
- Units in this specification are shown under International System of Units; the figures in parenthesis are under Gravitational System of Units as old one.

Address Inquires to:

Printed in Japan
HX103-0203
(supersedes HX10-0985E)

HITACHI SUMITOMO
UC-25
Wheel Crane 25 ton



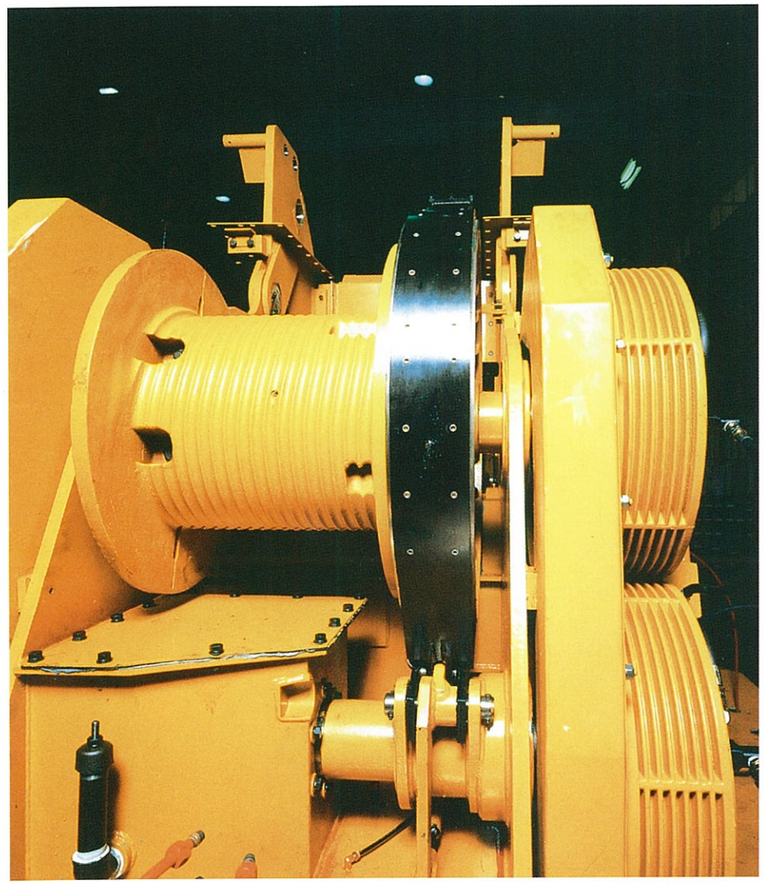
EXCELLENT LIFTING CAPABILITY AND HIGH WORK EFFICIENCY

Hitachi Sumitomo UC-25. To meet the needs of users in material handling industry especially at guay side, the UC-25 is there with you.

UC-25 is a wheel crane model accomplished on the basis of our unique design philosophy as well as its rich experiences and technologies accumulated over many years. Having been designed not only to have sufficient performances including lifting capability, durability and mobility to cope with multi-purpose and severe applications but with due consideration paid for economy and safety, UC-25 should totally satisfy every customer who selects and operates it.
It is with our pleasure to introduce the UC-25 and its complete functions and features hereunder:

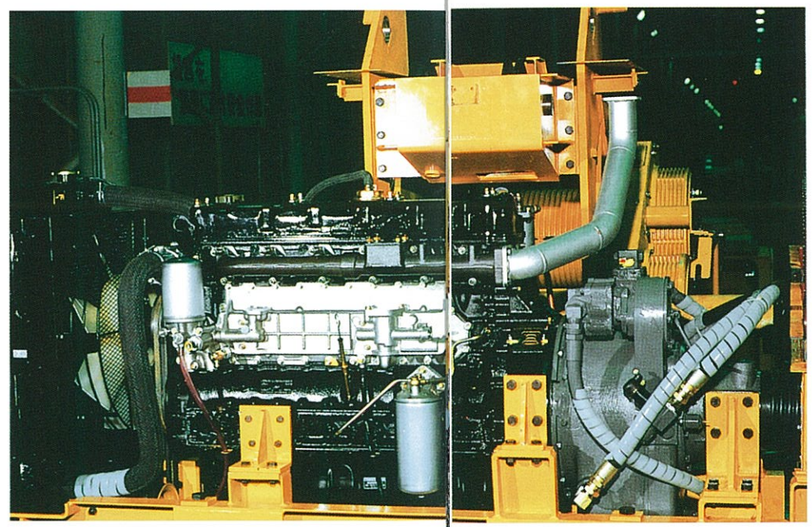
SUPERB PERFORMANCES TO WITHSTAND TOUGH WORK ASSUREDLY.

Max. lifting capacity 25 tons at 3.6m working radius. With a good lifting performance of 7.5ton at 10m working radius as a widely used working range, it handles any heavy load just as easily.



STRONG WINCH DRUM TO COPE WITH CONTINUOUS HARD WORKS

UC-25, designed to fulfill the needs for heavy duty continuous work, is provided with a powerful winch of 4.5-ton line pull and 75 m/min line speed. In addition, drums with special grooves that prevent disorderly wire rope winding are efficient in extending the rope life dramatically, and independent installation of clutch drum and brake drum improves heat radiation to get sufficient capabilities for continuous works such as general harbour material handling, lifting magnet or bucket work.



OUTRIGGER SYSTEM THAT ENHANCES STABILITY

UC-25 supported with a 4-outrigger has a great lifting capability under good stability which permits to perform every heavy load handling works. (Mechanical type outrigger-Standard. Hydraulic type-Optional)

PIN CONNECTED HIGH TENSILE STRENGTH TUBULAR BOOM

High-precision, contoured construction boom, made of lightweight and durable high tensile strength steel pipes with special machining and welding done at each lattice end, is designed to have high rigidity and strength to withstand severe work.

HIGH POWER OUTPUT, LOW FUEL CONSUMPTI0N ENGINE

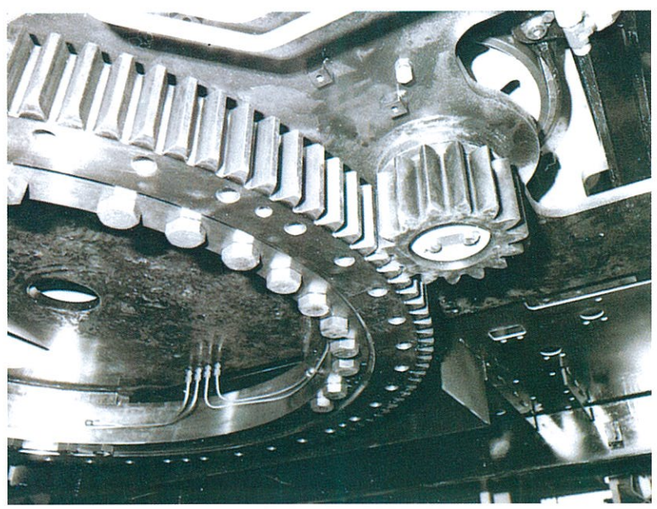
Mitsubishi 6D16-E1 engine, mounted on this machine, is a powerful and latest model engine of 93kW (126ps), high efficiency with direct injection and turbo-charger, and low fuel consumption.

TORQUE CONVERTER DEVELOPS OPTIMUM WORKING SPEED FOR DIFFERENT WORKS

Torque converter installed in power train permits highly efficient and safe operation such as "high speed for light load" and "low speed for heavy load". The torque converter also improves the life of machine parts drastically as impact load can be absorbed.

TURNTABLE BEARING PROVIDES SMOOTH SWING MOTION

High precision turntable bearing of ball type firmly supporting the upper swing body provides smooth swing motion feature, and it enables to prevent sway of load for safe operation.

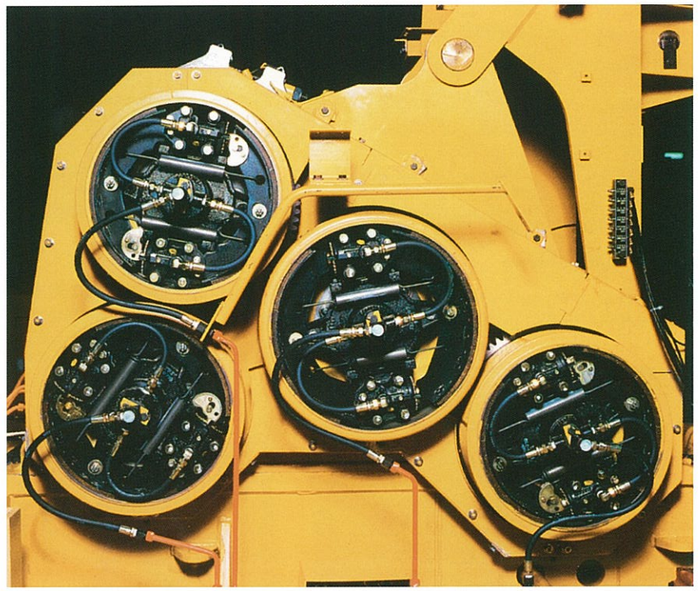


SIMPLE AND LIGHT OPERATIONAL CHARACTERISTICS, CAPABLE OF PERFORMING COMBINED OPERATIONS JUST AS CLEVERLY.

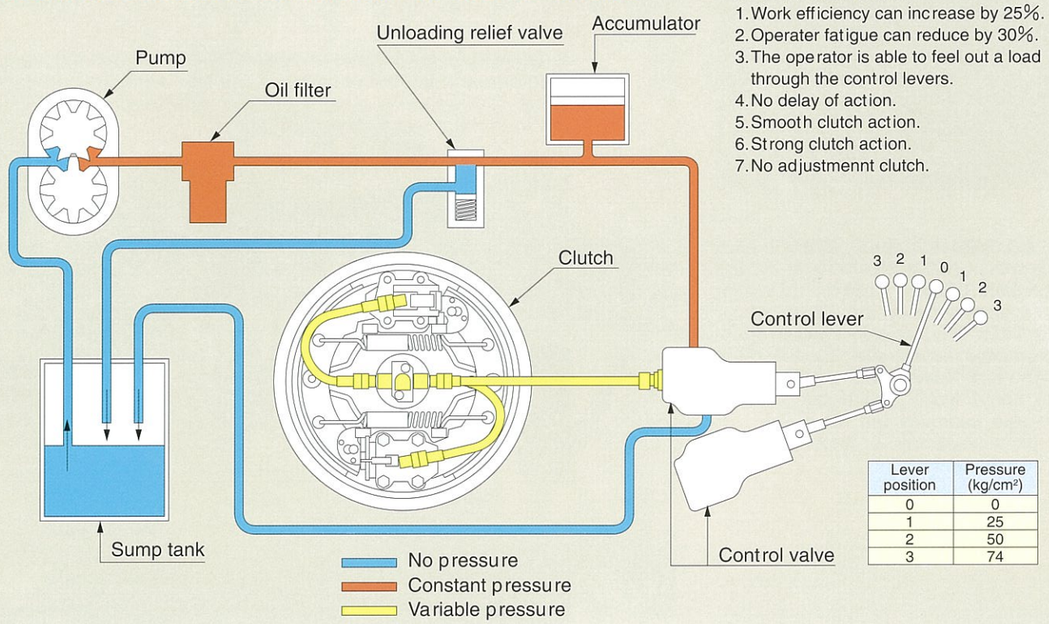
Speed-O-Matic control system helps perform desired inching operation.

SPEED-O-MATIC CONTROL SYSTEM WITH 2-CYLINDER AND 2-SHOE TYPE CLUTCH

"Speed-O-Matic" is a true power hydraulic control system, and is able to control all machine functions smoothly and precisely. Short-throw, finger-tip control levers produce an instantaneous, oil-smooth response free of jump, jerk or lag. With Speed-O-Matic, the operator has an in-hand "feel" of the load at all times-booming, swinging or traveling becomes one smooth, wrist-actuated fluid motion, and it accordingly enables to reduce operator fatigue so much.



HYDRAULIC CONTROL SYSTEM "SPEED-O-MATIC"

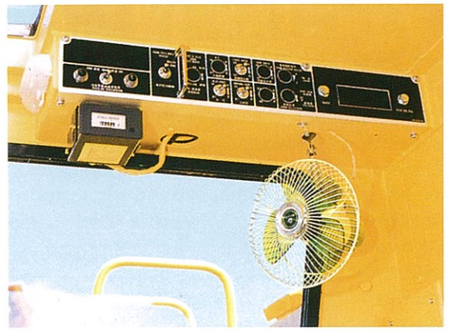


Lever position	Pressure (kg/cm²)
0	0
1	25
2	50
3	74

SPECIAL FEATURES
1. Work efficiency can increase by 25%.
2. Operater fatigue can reduce by 30%.
3. The operator is able to feel out a load through the control levers.
4. No delay of action.
5. Smooth clutch action.
6. Strong clutch action.
7. No adjustmennt clutch.

EXCELLENT WIDE VIEW AND WELL-VENTILATED OPERATOR CAB

Spacious operator cab that has both air tightness and good ventilation is glass-panelled on its top and 3 sides for excellent wide view. It is an all-weather type cab complete with reclining seat, fan, heater (optional) and cooler (optional) for remarkably comfortable working environment.



SINGLE LEVER COVERS BOTH BOOM HOIST AND SWING MOTIONS

Because single lever actuates boom hoist and swing motions, a combined operation is executed as desired without necessity for shifting a grip from one lever to another.

FUNCTIONAL DESIGN WITH LOGICAL LEVER AND INSTRUMENT LAYOUT

Control levers and instrument panels are logically layed out for easy and positive control of operation. Amid these layout, an instrument panel is arranged at left-front corner of operator's cab to easily check and read off at glance engine oil pressure, water temperature, engine rpm, or actuating pneumatic or hydraulic pressure while seated.

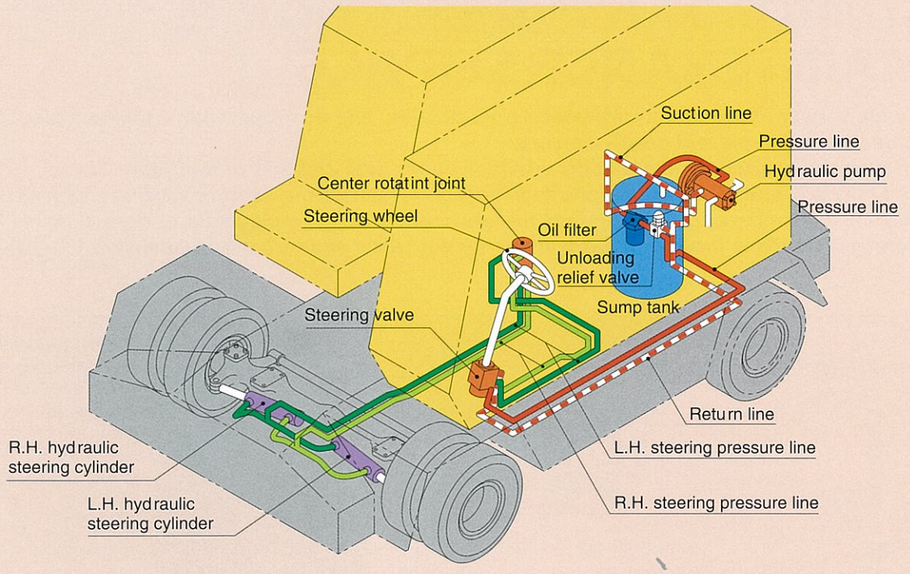
EXCELLENT MOBILITY WIDELY IMPROVES OPERATING RATE

With minimum turning radius of 8.0m and maximum traveling speed of 18Km/h, mobility is superb even in small yard. Capable of travelling with a load suspended as well. Travelling performance, with a transmission of two speeds respectively for forward and reverse, is based on powerful traction force in conjunction with torque converter and travelling speed maximizes 18 km/hr.
Excllent mobility is useful in moving between job sites resulting in an enhanced operating rate.

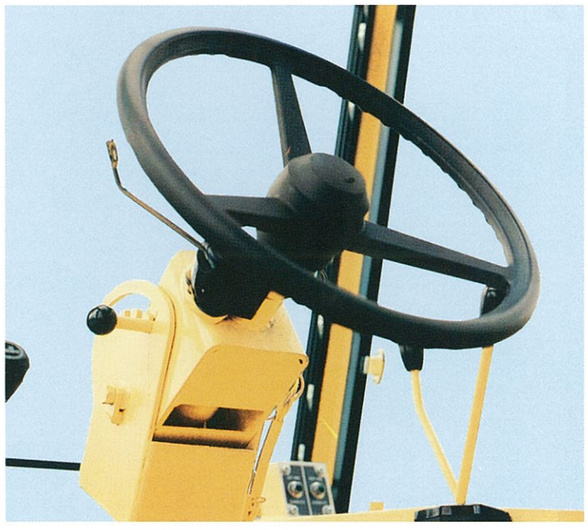
•TURNING RADIUS LESS THAN 8.0m

An 8m turning radius is available as minimum, and it is convenient in turning the directions or moving in tight and narrow job site.

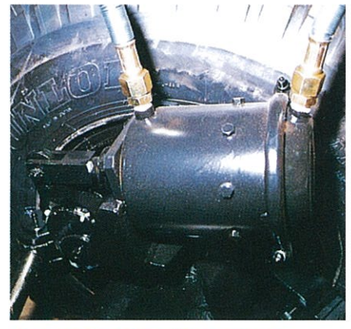
"HYDRAULIC POWER STEERING SYSTEM"



Drive position



Crane position (Working style)



LIGHT STEERING WHEEL OPERATION WITH HYDRAULIC POWER STEERING SYSTEM

For steering or inter-jobsite movement of the machine, UC-25 provides tilt type steering wheel, and hydraulic power steering function allows light steering operation while operator seated in optimum operating position.

SAFE AND POSITIVE TRAVEL BRAKE SYSTEM

Pneumatic type travel brake system that exerts great braking force even with small pedal depressing force gives a certain braking, and in case of air line failure, a spring type brake applies automatically for assured safety. Further, the pneumatic system standardizes to provide an air dryer for prevention of problem due to corrosion.

SOPHISTICATED SAFETY DESIGN AND SIMPLE DAILY INSPECTION & MAINTENANCE SERVICE

A wide variety of safety device protects operator. Pre- and post-operational maintenance checks can be carried out in simple and positive manner.
Through the inspection access doors provided on the side and rear of machinery house, maintenance checks are easily performed. Rotational shafts in power transmission system or various locations of crane mechanism minimizes greasing points for lubrication due to employment of grease-sealed bearing, thereby it results in increasing work efficiency with little amount of time spent for lubrication works.

A PROVISION FOR INSTALLATION OF LOAD MOMENT ALARM OR LIMITER TO PREVENT TIP OVER ACCIDENT

A Load Moment Alarm (or Limiter) with easy-to-read digital display panel can be installed as optional to notify operator lifting condition correctly for prevention of tip-over accident.

■SPECIFICATION

Max. lifting capacity		25ton x 3.6m
Attachment	Boom	• High tensile steel, lattice type, pin connection type.
	Standard boom length	• 9.0m (top 4.1m + bottom 4.9m)
	Extention booms	• 3.0m, 6.0m
	Longest boom length	• 24.0m (9.0m + 3.0m + 6.0m x 2)
	Hook block	• 25ton, 3 sheave block (standard) • 4.5ton ball type hook (optional)
Crane working speeds	Winch line speed	• 75m/min (rated), 95m (unloaded)
	Rated line pull	• 44.1kN 〈4.5ton〉
	Boom hoist rope speed	• 69m/min (rated)
	Rated line pull	• 26.4kN 〈2.7 ton〉
	Boom hoist time	• 15sec. (40°~60°)
	Swing speed	• 4.8min^{-1}〈4.8rpm〉
Superstructure	Control system	• Seed-O-Matic Hydraulic Control System.
	Clutch	• Internal expanding band clutch, 2-cylinder/2-shoe type.
	Winch drum	• Front drum; main hoist, rear drum; auxiliary hoist (optional) 380mm root dia grooved.
	Winch brake	• External contracting band brake, foot operated.
	Boom hoist system	• 305mm root dia. grooved drum with spring-applied, power hydraulically released external contracting band type automatic brake, and drum pawl lock.
	Swing system	• Spur grear driven; 2 sets of clutches transmit swing power into the swing pinion. System provided with external conracting band brake of spring-applied, power hydraulically released, and swing lock device.
	Turntable	• Single shear ball type; outer race with external swing (ring) gear bolted to chassis frame and inner race bolted to upper revolving frame.
	Gantry	• Retractable high gantry, self-setting type.
	Counterweight	• 4000kg bolted to swing frame rear end.
Engine	Make & model	• MITSUBISHI 6D16-E1 water cooled, 4-cycle, in-line, 6-cylinder, direct injection diesel with preheater.
	Bore x stroke, displacement	• 118mm x 115mm, 7,545cc
	Rated output	• 93kW / 2,000min^{-1}〈126ps/2,000rpm〉
	Maximum torque	• 461N・m/1,400min^{-1}〈47kg-m/1,400rpm〉
	Fuel tank capacity	• 250ℓ
	Torque converter	• NIIGATA 8 FCON 1350, 3-element 1-stage 2-phase, stall torque ratio-3.
	Electric system	• DC 24V
Undercarriage	Drive system	• Two axle type with front axle steering and rear axle driving.
	Transmission	• 2-stage hydraulic remote control, power shift.
	Tires	• 11.00-20-16 PR(1) x 8 tires, front and rear double tires.
	Brake system	• Pneumatic 4-wheel brake, spring loaded emergency brake.
	Steering system	• ORBIT ROLL, full hydraulic power steering, hydraulic linkage, with steering direction automatic compensator.
	Outrigger	• Manual type (std.) • Hydraulic type (optional)
	Travel performance	• Travel speed; high—18km/h, low—8km/h
	Turning radius	• 8.0m (at outside; outermost tire)
	Gradeability	• 15 degrees
Wire ropes	Main hoist	• 6 x Fi(29) IWRC, B-type, 20mm dia x 150m; breaking load 271kN 〈27.6ton〉 (JIS rated)
	Auxiliary hoist	• 6 x Fi(29) IWRC, C-type, 14mm dia x 115m; breaking load 145kN 〈14.8ton〉 (JIS rated)
	Pendant	• 6 x Fi(25) IWRC, B-type, 30mm dia; breaking load 593kN 〈60.5ton〉 (JIS rated), 2-sets
Safety devices		• Boom overhoist limiting device; • Swing lock; • Boom back stops; • Steering direction automatic compensator; • Boom hoist drum pawl lock; • SML-06 Load Moment Alarm (or Limiter)(optional); • Boom angle indicator; • Swing alarm (optional); • Hook over hoist alarm;

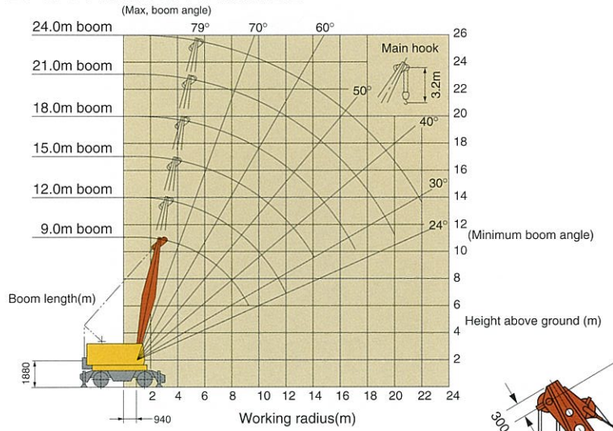
■ UC-25 CRANE CAPACITIES (TUBULAR BOOM)

(in metric tons)

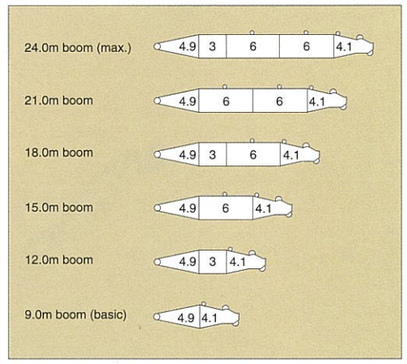
Working radius (m) \ Boom length (m)	9.0		12.0		15.0		18.0		21.0		24.0	
	On outrigger	On tires	On outrigger	On tires	On outrigger	On tires	On outrigger	On tires	On outrigger	On tires	On outrigger	On tires
3.6	*25.0	12.2										
4.0	*22.5	10.4	*22.3	10.3	*22.0	10.2						
5.0	*18.0	7.6	*17.8	7.5	*17.6	7.4	*17.5	7.3				
6.0	*15.0	5.9	*14.8	5.8	*14.6	5.7	*14.5	5.6	*14.4	5.5	*14.3	5.3
7.0	*12.8	4.8	*12.7	4.7	*12.6	4.7	*12.6	4.6	*12.6	4.5	*12.5	4.3
8.0	10.9	4.0	10.8	3.9	10.7	3.9	10.6	3.8	10.6	3.7	10.5	3.5
9.0	9.0	3.4	8.9	3.3	8.9	3.3	8.8	3.2	8.7	3.1	8.6	2.9
10.0			7.5	2.9	7.5	2.8	7.5	2.7	7.4	2.6	7.3	2.4
12.0			5.8	2.3	5.8	2.2	5.7	2.1	5.7	2.0	5.6	1.7
14.0					4.6	1.7	4.5	1.6	4.5	1.5	4.4	1.0
16.0							3.7	1.3	3.7	1.2	3.6	0.7
18.0							3.4/17.0	—	3.1	—	3.0	—
20.0									2.6	—	2.5	—
22.0											2.1	—

1. Capacities shown are in metric tons and are based on 78% of minimum tipping load.
2. Asterisk (*) indicates that capacities are based on factors other than those which would cause a tipping condition.

■ WORKING RANGES



■ BOOM CONSTRUCTION



■ DIMENSION