

# 1188 Hydraulic Wheeled and Crawler Excavators

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\* Consult the Schematic Set

\*\* Consult the engine Service Manual.

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\* Consult the Schematic Set

NOTE: CASE Company reserves the right to make changes in the specification and design of the machine without prior notice and without incurring any obligation to modify units previously sold.

The description of the models shown in this manual has been made in accordance with the technical specifications known as of the date of design of this document.

# Section 1001

**SAFETY, GENERAL INFORMATION  
AND TORQUE SPECIFICATIONS**

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**Thanks very much for your reading,  
Want to get more information,  
Please click here, Then get the complete  
manual**

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**If there is no response to click on the link above,  
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click on it.**

**Have any questions please write to me:  
[admin@servicemanualperfect.com](mailto:admin@servicemanualperfect.com)**

## SAFETY



**WARNING:** This symbol means **WARNING ! BE VIGILANT ! YOUR SAFETY IS AT RISK**. The message that follows the symbol contains important safety information. Read it carefully. Be sure you understand the possible risks of injury or even death.

To avoid all risks, always follow the safety notes contained in this section and throughout this manual.

Put the warning tag shown below on the key for the keyswitch when servicing or repairing the machine. One warning tag is supplied with each machine. Additional tags, Part Number 321-4614, are available from your service parts supplier.



PDG0328



**WARNING:** Read the Operator's Manual carefully and make sure you understand how to operate the controls correctly.



**WARNING:** Never operate the machine and attachment controls unless you are seated in the operator's seat. If you are not in the operator's seat, you run the risk of serious injury.



**WARNING:** The machine is built to carry the operator only. Do not allow passengers to ride on the machine.



**WARNING :** Prior to starting up the engine read the safety messages contained in the operator's manual carefully. Read all safety stickers on the machine. Have people move back from the machine. Learn how to use the controls before starting up the machine. It is your responsibility to follow the manufacturer's instructions on how to operate and maintain the machine. It is your responsibility to follow applicable rules and regulations. Service and Operator's Manuals are available from your J.I. Case Dealer.



**WARNING:** If you wear loose clothing or if you omit to use safety equipment for your work, you risk injury. Always wear clothes that do not risk getting caught in the machine. Other safety equipment may be necessary, in particular : helmets, safety shoes, ear plugs, safety glasses, protection mask, thick gloves and reflecting clothes.



**WARNING:** When working close to the fan with the engine running, avoid wearing loose clothing and operate with extreme caution.



**WARNING:** When checking the hydraulic circuits, follow procedures to the letter. **DO NOT CHANGE** procedures.



**WARNING:** Prior to operating the hydraulic cylinders of this machine for setting or to bleed the circuit, have all people standing around the machine move away.



**WARNING:** Wear gloves or insulated mittens when working on hot parts.



**WARNING:** Lower all attachments to the ground or rest them on stands before carrying out maintenance jobs.



**WARNING:** Fine sprays of hydraulic oil under pressure can penetrate the skin and cause serious infection. If hydraulic oil under pressure penetrates the skin, see a doctor immediately. Maintain all hoses and pipes in good condition. Make sure that all connections are properly tightened. Change all hoses or pipes that have been damaged or that are suspect. **DO NOT CHECK** for leaks with bare hands. Use a piece of cardboard or wood.



**WARNING:** To remove a hardened pin such as a pivot pin, or a hardened shaft, use a soft head hammer (brass or bronze) or a brass or bronze strip and a steel head hammer.



**WARNING:** When using a hammer to remove or reassemble pivot pins, or when using compressed air, or when using a grinder make sure to wear safety glasses that protect the eyes from all sides.



**WARNING:** Use proper lifting/hoisting equipment to lift wheels or tracks and always work on safe ground. Prevent the machine from moving using correct safety chocks.



**WARNING:** When performing maintenance or repair operations on the machine, make sure that the work shop floor, the cab and the steps of the excavator are free from oil, water, grease, tools etc. Use oil absorbing material or rags as necessary. Always think safety.



**WARNING:** Certain components of this machine are very heavy. Use hoisting tools or additional assistance as recommended in this manual.



**WARNING:** Exhaust fumes can cause death. If it is necessary to start up the engine in a closed building, evacuate exhaust fumes using an exhaust pipe extension. Open the doors and let fresh air into the building.



**WARNING:** When battery liquid is frozen, the battery can explode if : (1) you try to charge the battery or (2) you try to start the engine by connecting an auxiliary power source. To prevent battery electrolyte from freezing keep the battery fully charged. If you do not follow these instructions, you or others nearby may be injured.



**WARNING:** Batteries contain acid and explosive gases. A spark, a flame or an improper cable connection may cause an explosion. For proper connection of cables to the battery of this machine see the Operator's Manual. If you do not follow these instructions, you risk severe injury.

## TWIN WHEELS

### Safety rules



**WARNING:** *In all cases, before removing twin wheels, always deflate both tyres completely.*



**WARNING:** *If a tyre bursts it can cause serious injury. Check tyres regularly to see that they are in good condition and always be sure to inflate them to the correct pressure.*



**WARNING:** *Never face a tyre when checking pressure or adding air. Always stand in front of the tread. Use an inflation cage if the wheel has been removed from the machine. Make sure all people standing in the area move well away.*



**WARNING:** *Never weld near a tyre. If this can not be avoided, it is mandatory to remove the tyre before performing any welding operations.*



**WARNING:** *Make sure that all decals on the machine are perfectly legible, clean them regularly and replace any decals which are damaged, missing or painted over, with new ones.*

### Safety instructions

- Use appropriate, good quality tools to disassemble the various wheel components. Never use a hammer. Use a rubber, plastic or copper-faced mallet.

**IMPORTANT:** *Never remove the inner tyre valve extension, as this will be necessary afterwards for inflating and deflating the tyre.*

**IMPORTANT:** *If the valve or the valve extension are no longer accessible, take the necessary precautions and then, imperatively, puncture the tyre.*

- Use suitable grease to facilitate the installation and removal of the tyre.
- Never re-inflate a tyre on the machine which has been used at a pressure lower than 5.6 bar.
- Check the various components: tyre, rim, shoulder, retaining ring and replace any defective items.
- Never reuse a retaining ring which is distorted or rusty.



## GENERAL INFORMATION

### CLEANING

Clean all metal parts except bearings with white spirit or steam. Do not use caustic soda when steam cleaning. After cleaning, dry and lubricate all parts. Clean hydraulic lines with compressed air. Clean bearings with kerosene, then dry them and lubricate them.

### INSPECTION

Check all parts when disassembled. Change all parts showing wear or damage. Scratches that are not too deep can be removed by honing or with a rag dipped into buffing compound. A full visual inspection to detect wear and pitting and subsequent changing of parts will prevent premature failure.

### BEARINGS

Check that bearings rotate freely. If their adjustment is too loose or if they do not run regularly, change them. Wash bearings with a good solvent or kerosene and let them dry. **DO NOT DRY BEARINGS WITH COMPRESSED AIR.**

### NEEDLE BEARINGS

Before inserting needle bearings into a bore, remove all metal particles from the edge of the bore. Prior to mounting bearings with a press, coat the inside and the outside of the bearing with vaseline.

### GEARS

Check all the gears for wear or damage. Change worn or damaged gears.

### SEAL RINGS, O-RINGS, GASKETS

Always use new seal rings. O-rings and gaskets. Coat sealing rings and O-rings with vaseline.

### SHAFTS

Check all shafts showing signs of wear or damage. Check that the surface of a shaft running in a bearing is not damaged.

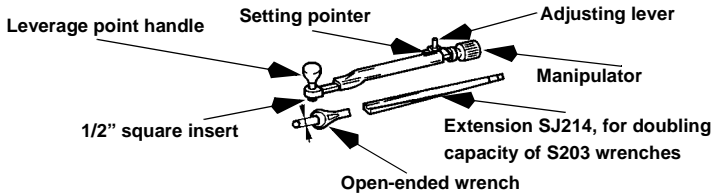
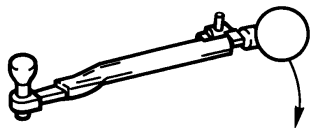
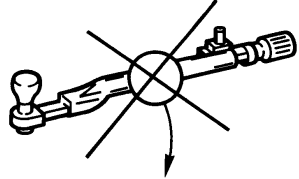
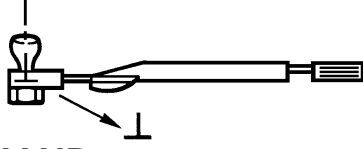
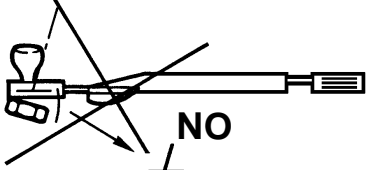
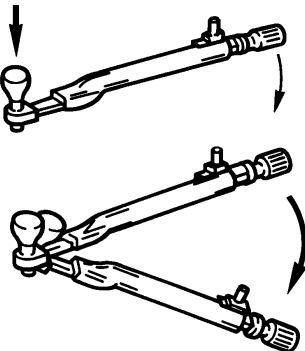
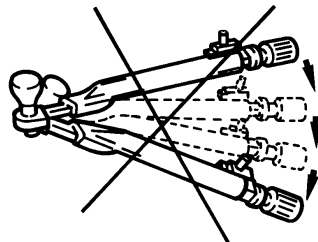
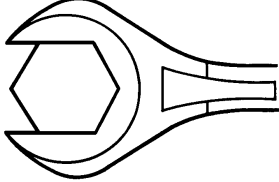
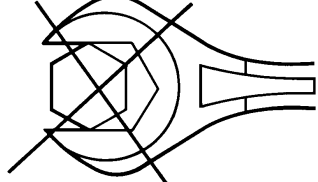
### SPARE PARTS

Always use original CASE spare parts. To order spare parts, see the Spare Parts Catalogue to indicate the proper reference of original CASE spare parts. Failures caused by the use of parts that are not original CASE spare parts are not covered by the warranty.

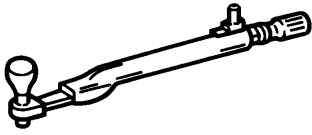
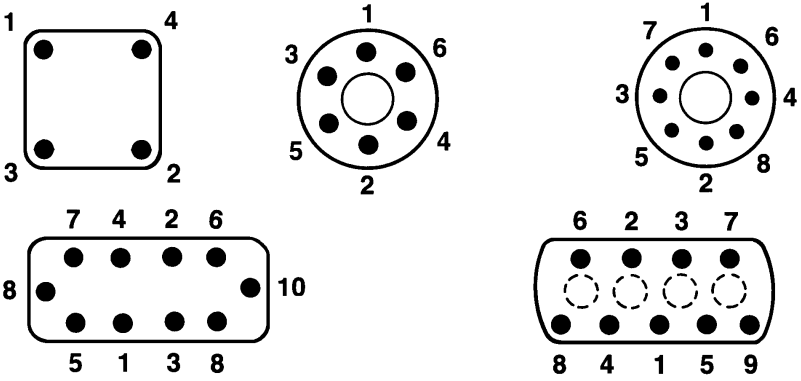
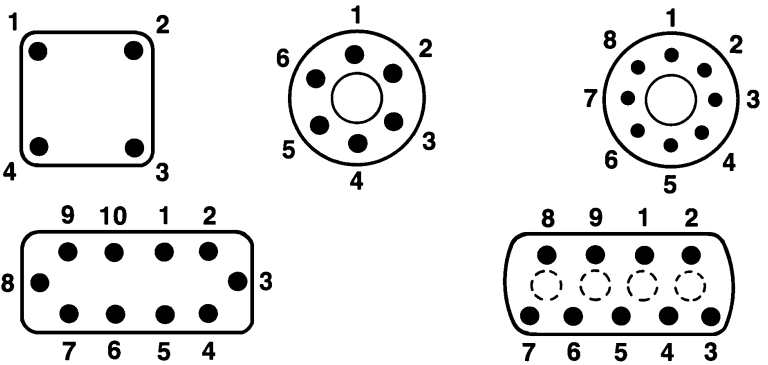
### LUBRICATION

Use only oils and lubricants specified in the Operator's and Service Manuals. Failures due to the use of oils and lubricants not specified are not covered by the warranty.

# CORRECT USE OF TORQUE WRENCHES

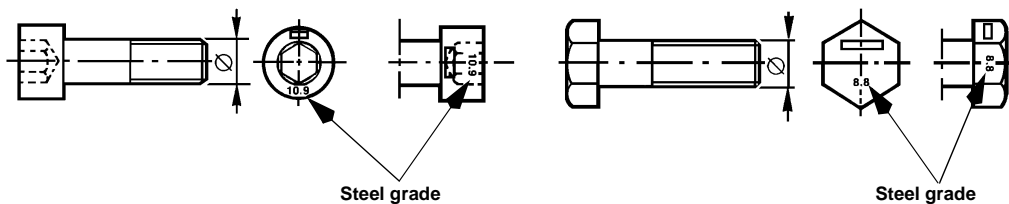
<p><b>TORQUE WRENCHES</b></p>	 <p style="text-align: right;">PDG0315</p>
<p><b>CORRECT USE</b></p> <p>a - Hold the wrench by the handle provided.</p> <p>b - When tightening, always keep the wrench perpendicular to the screw.</p> <p>c - Keep one hand on the leverage point handle on the wrench.</p> <p>d - Tighten progressively in one movement.</p> <p>e - Position a correctly dimensioned socket or open-ended wrench on the flats of the screw head.</p>	<div style="text-align: center;"> <p><b>NO</b></p>   </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>HAND</b></p>  </div> <div style="text-align: center;"> <p><b>NO</b></p>  </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> <p><b>NO</b></p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> <p><b>NO</b></p>  </div> </div> <p style="text-align: right;">PDG0316</p>

# HARDWARE TIGHTENING ORDER






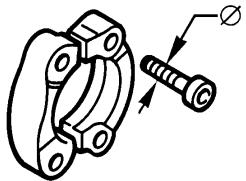
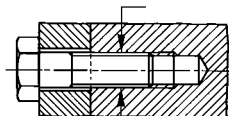
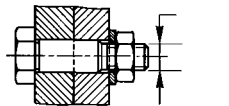
<p><b>TORQUE WRENCHES</b></p>	 <p style="text-align: right;">PDG0317</p>
<p><b>INITIAL TORQUE</b></p> <p>a - Torque wrench.</p> <p>- Follow the correct order of procedure when tightening.</p> <p>- Cross or diagonal pattern tightening.</p>	 <p style="text-align: right;">PDG0318</p>
<p><b>FINAL TORQUE</b></p> <p>Always tighten in clockwise order.</p>	 <p style="text-align: right;">PDG0319</p>



# STANDARD SCREW A TORQUE SPECIFICATIONS

## Correct screw identification



PDG0320

	Diameter x thread size Grade 8.8	 Key		Torque			
				Nm		lb.ft	
							
Two-part hydraulic connector (to SAE J518 specifications)    PDG0321	M5 x 0.8 M6 x 1 M8 x 1.5 M10 x 1.5 M12 x 1.75 M14 x 2 M16 x 2 M18 x 2.5 M20 x 2.5 M22 x 2.5 M24 x 3 M27 x 3 M30 x 3.5	4 5 6 8 10 12 14 14 17 17 - - -	8 10 13 17 19 22 24 27 30 32 36 41 46	5.5 9 22.5 45 70 100 170 250 350 500 600 900 1200	5.5 9 22.5 45 80 120 200 300 400 600 700 1000 1400	4.1 6.7 16.6 33.2 51.6 73.8 125.5 184.5 258.3 369 442.8 664.2 885.6	4.1 6.7 16.6 33.2 59 88.6 147.6 221.4 295.2 442.8 516.6 738 1033.2
Components assembled by screws and bolts <b>SCREW</b>      <b>BOLT</b>  PDG0322	<b>Grade 10.9</b> M5 x 0.8 M6 x 1 M8 x 1.5 M10 x 1.5 M12 x 1.75 M14 x 2 M16 x 2 M18 x 2.5 M20 x 2.5 M22 x 2.5 M24 x 3 M27 x 3 M30 x 3.5	4 5 6 8 10 12 14 14 17 17 - - -	8 10 13 17 19 22 24 27 30 32 36 41 46	75 12.5 35 60 100 170 250 350 500 700 900 1200 1700	75 12.5 35 70 120 200 300 400 600 800 1000 1400 1900	5.6 9.3 25.8 44.3 73.8 125.5 184.5 258.3 369 516.6 664.2 885.6 1254.6	5.6 9.3 25.8 51.6 88.6 147.6 221.4 295.2 442.8 442.8 738 1033.6 1402.2

 Zinc bichromate  
 Phosphate

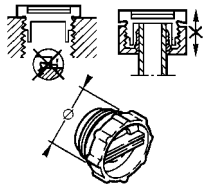
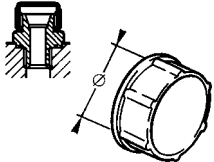
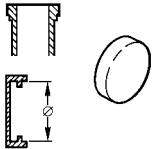
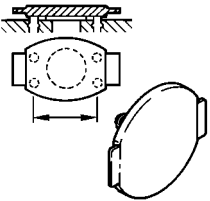
## METAL CAP REFERENCES

### To SAE J518 specifications

	NP 250 bar Ø ND	NP 400 bar Ø ND	Part number		
			A	B	
<p style="text-align: center;">PDG0323</p>	13 mm	-	D5327838	E5327839	
	19 mm	-	F5327840	G5327841	
	25 mm	-	H5327842	J5327843	
	32 mm	-	K5327844	L5327845	
	38 mm	-	M5327846	N5327847	
	-	13 mm	U5327830	V5327831	
	-	19 mm	W5327832	X5327833	
	-	25 mm	Z5327834	A5327835	
	-	32 mm	B5327836	C5327837	

NP = Nominal pressure  
 NP = Nominal diameter

## PLASTIC PLUG AND CAP REFERENCE CHART

	Dia. x pas	Part number	Dia. x pas	Part number
<b>Tapped orifices and connectors with tightening nuts = screw-type plugs</b>    PDG0324	M10 x 1.5 M12 x 1.5 M14 x 1.5 M16 x 1.5 M18 x 1.5	F3237416 G3237417 H3237418 J3237419 K3237420	M20 x 1.5 M22 x 1.5 M24 x 1.5 M27 x 2	L3237421 M3237422 N3237423 Q3237448
<b>Unions = Screw-type plugs</b>    PDG0325	M12 x 1.5 M14 x 1.5 M16 x 1.5 M18 x 1.5	X3237409 Z3237410 A3237411 B3237412	M20 x 1.5 M22 x 1.5 M30 x 1.5	C3237413 D3237414 E3237415
<b>S.A.E tube or hose collars = external plugs</b>    PDG0326	NP 250 bar 30.2 38.1 44.5 50.8 60.4	J2537460 K2537461 L2537462 M2537463 N2537464	NP 400 bar 31.8 41.3 47.6 54 63.6	P2537465 Q2537466 R2537467 S2537468 T2537469
<b>S.A.E orifices = caps for installation into tapped fitting orifices</b>    PDG0327	NP 250 bar L = 38.1 47.65 52.35 58.07 69.85	A2340480 B2340481 C2340482 D2340483 E2340484	NP 400 bar L = 40.5 50.8 57.15 66.7 79.4	K1640415 R1640421 S1640422 T1640423 Z1640479

NP = Nominal pressure  
 ND = Nominal diameter



# Section 1002

1002

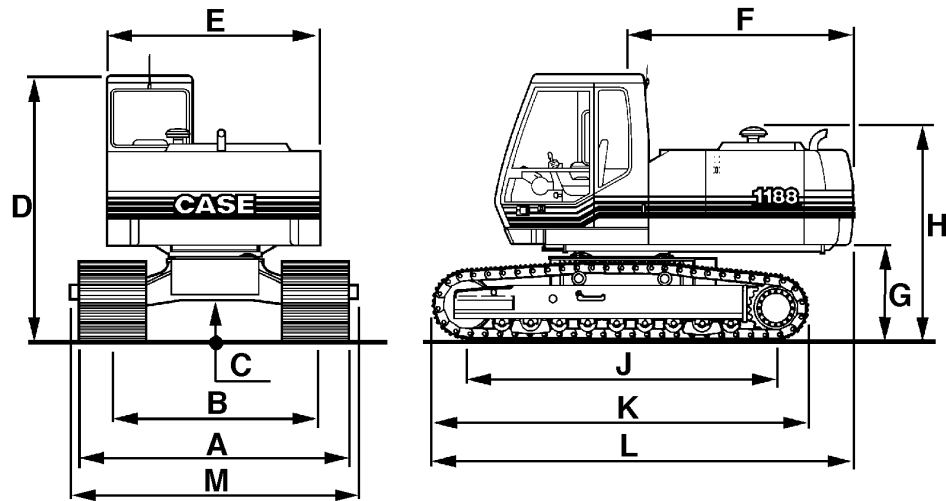
## SPECIFICATIONS 1188 *Plus* Crawler Excavators



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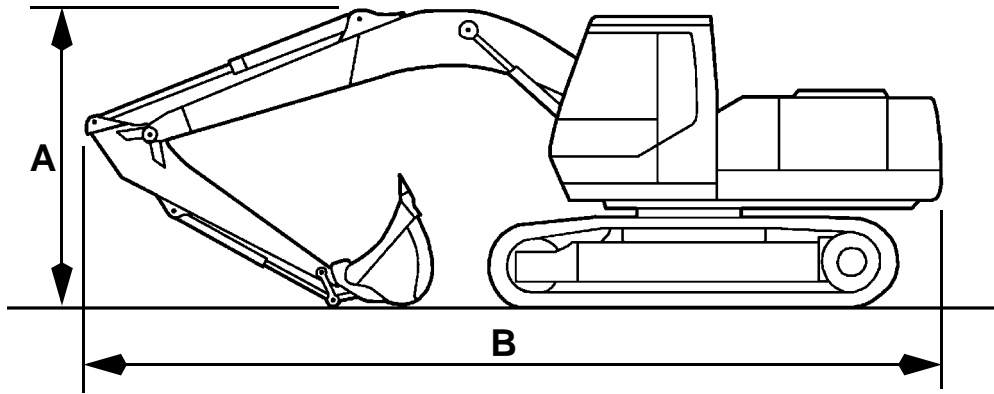
# MACHINE OVERALL DIMENSIONS



	<b>LC Type</b>	<b>CK Type</b>
A (0.50 m track pads) .....	2.87 m	2.47 m
A (0.60 m track pads) .....	2.97 m	2.57 m
A (0.75 m track pads) .....	3.12 m	2.72 m
A (0.90 m track pads) .....	3.27 m	
B .....	2.37 m	1.97 m
C .....	0.50 m	0.50 m
D .....	3.11 m	3.11 m
E .....	2.44 m	2.44 m
F (radius) .....	2.67 m	2.67 m
G .....	1.15 m	1.15 m
H .....	2.50 m	2.50 m
J .....	3.59 m	3.25 m
K .....	4.41 m	4.07 m
L .....	4.48 m	4.72 m
M .....	3.00 m	2.61 m

PDH0253M

## TRANSPORTATION OVERALL DIMENSIONS



PDH0256

**NOTE:** Cab height above ground: see section "Machine overall dimensions".

Boom	Dipper	A	B
<b>One-piece 4.80 m</b>	1.70 m	3.35	9.45
	2.20 m	3.20	9.10
	2.50 m *	3.25	8.80
	2.80 m	3.45	8.85
	3.40 m	3.95	8.60
<b>One-piece 5.40 m</b>	1.70 m	3.30	10.05
	2.20 m	3.05	9.05
	2.50 m *	3.10	9.50
	2.80 m	3.40	9.45
	3.40 m	3.75	9.40
<b>Articulated</b>	1.70 m	3.75	8.25
	2.20 m	3.75	7.30
	2.50 m *	3.75	8.55
	2.80 m	3.75	8.95
	3.40 m	3.75	9.70
<b>Adjustable</b>	1.70 m	3.60	7.55
	2.20 m	3.55	7.30
	2.50 m *	3.70	7.10
	2.80 m	4.10	6.80
	3.40 m	4.85	6.45
<b>Handling</b>	Handling	3.20	9.20

**NOTE:** These values are given in metres.

\* Special for Germany

## GENERAL MACHINE SPECIFICATIONS

### Engine

Make and type .....	CASE 6TA 590
Total SAE horsepower at 2800 rpm .....	126.4 kW (172 hp)
4 stroke, 6 cylinder .....	turbo-charged diesel
Capacity .....	5880 cm <sup>3</sup>
Bore .....	102 mm
Stroke .....	120 mm
Cooling .....	water-cooled
Starting: .....	2 x 12 volt batteries, 24 V, 120 A/h

### Working specifications

Engine speed .....	2000 rpm
Power: SAE J1995 .....	119 kW (160 hp)
DIN 70020 - DIN 6271 .....	113 kW (152 hp)
EEC 80/1269 - ISO 9249 .....	113 kW (152 hp)

Specifications maintained up to an altitude of 3000 m at a temperature of 25°C.

Capacities: Engine oil sump .....	14.3 L
Fuel tank .....	330 L

Fuel tank filler pump, electrical .....

Average hourly consumption .....

Engine and pump assembly mounted on rubber blocks.

Heavy-duty dust filtration.

### Hydraulic system

Variable output system with independent and simultaneous operation of all functions.

Electronic regulation of hydraulic power ("Powersensor" system) for optimal use of engine power.

3 regulation modes:

"FINE": For work requiring extreme precision.

"ECO" (ECONOMICAL): For normal jobs.

"MAX" (MAXIMUM): In this position, the operator has the entire power of the machine available for use.

Automatic engine return to idle at operator's choice.

Working pressure .....

Capacity of hydraulic reservoir .....

Total system capacity .....

Pumps:

One double-body variable displacement pump for supplying travel motors and attachments.

Flow .....

One single body variable displacement pump supplying the upperstructure swing.

Flow .....

Installed hydraulic power .....

1002-6

Fixed flow pump for the pilot systems.  
Parallel, closed centre type attachment and travel control valves.  
Flow rates per function, independent of pressures.

Oil cooler with air cooling from engine.  
Multispiral high pressure hoses  
    minimum safety factor ..... 2 to 4 times the working pressure  
Self-lubricating hydraulic swivel.

## Electrical system

Circuit voltage circuit ..... 24 volt, negative earth  
Batteries ..... two low-maintenance 12 volt batteries  
All electrical system safety functions are grouped in an electrical cabinet with a printed circuit.  
Instrument panel with printed circuit.  
Automatic instrument panel lamp testing.  
Two-stage alarm system.  
Upperstructure electrical power connection (24 V, 15 Amp.).  
Battery master switch.

## Upperstructure

### All welded frame

Modular structure.  
Transverse walkway giving access to the various components.  
Sound-proofed, lockable cowling meeting all current regulations.  
Tool box with tool set.

### Swing

Hydraulic motor with reduction gear and automatic static brake.  
Swing speed ..... 8.5 rpm  
Turntable ..... alternating rollers and internal teeth  
Bearing surface and tooth lubrication ..... centralised

## Cab

Removable, sound-proofed, on flexible mounting blocks.  
Up and over windshield.  
Tinted windshield.  
Pre-fitted for radio installation.  
Transparent roof hatch ..... optional equipment  
Sliding window on door ..... optional equipment  
Polycarbonate windows ..... optional equipment  
Cab safety guards ..... available on request  
Elevated cab ..... available on request  
Ant-vandal cab ..... optional equipment

## Operation

De-luxe seat with armrests and multi-position adjustment (vibration level III/ISO 7096).

Hydraulically assisted controls.

Attachment and swing ..... 2 control levers

Travel..... 2 pedals

Single-speed windshield wiper, plus intermittent action, windshield washer, heating, de-frosting, two-speed ventilation, cab light, cigarette lighter, sun shield.

Working lights:

On upperstructure .....2 x 70 W

On attachment ..... 70 W

Front and rear (on cab) ..... optional equipment

Rear (on cab) ..... 70 W

Air conditioning..... optional equipment

Cab sun-shield..... optional equipment

Cab blower ..... optional equipment

## Undercarriage

One-piece undercarriage chassis with welded components.

Lifetime lubricated rollers.

Tractor type tracks; grease cylinder type track tension; shock absorber for shock absorption.

Removable sprocket tooth rings.

Front and rear chain guide (central optional).

## Safety devices

In the event of engine failure, the attachment can be lowered, under control, to the ground.

Cancellation of controls by lifting the left-hand control arm.

Tinted safety glass, horn.

Cab safety guards .....available on request

Safety valves ..... optional equipment

Overload indicator ..... optional equipment

Roller type seat belt..... optional equipment

Fire extinguisher ..... optional equipment

Rotary light ..... special for certain countries

## Indicators

Engine coolant solution temperature, hydraulic fluid temperature, fuel level and hourmeter.

## Warning and indicator lamps

Engine oil pressure, battery charge, hydraulic and engine air filter start of restriction indicator.

Warning/indicator lamp test.

## Attachments

Sealed linkages, all linkages greased from ground level or walkway.

Double acting cylinders with end-of-stroke shock absorbers.

Play take-up system on bucket linkage.