

## ENGINE

Complies with European Directive Model	97/68 CE - STAGE 3 Yanmar 4TNV98T-Z	97/68 CE - STAGE 4F Yanmar 4TNV98CT
Max power ISO TR14396	HP- kW 91,7 - 67,4	HP- kW 74 - 55,3
Regimen adjusted	rpm 2500	rpm 2500
Power adjusted CE 80/1269	HP - kW 85 - 62,5	HP - kW 72 - 53,7
Numbers of cylinders	4	4
Injection	Direct with EGR system	Direct with EGR system + DPF
Intake	Turbo feeded	Turbo feeded
Displacement	cc. 3319	cc. 3319
Cooling	water	water
Air filter with double protection	dry	dry
Electrical equipment	volt 12	volt 12
Free maintenance battery	Ah 105	Ah 105
Self regulated alternator	W 660	W 960
Fuel tank capacity	l 100	l 100

## TRANSMISSION

Hydrostatic transmission at closed circuit, with automatic adjustment of power, axial pistons pump and engine at variable displacement.  
Hydraulic inching on brake pedal.  
Automatic selection of working speed.  
2 forward and 2 backward speeds, electrical control on the joystick.  
Mechanical transfer, 2 speeds with electric switch and electronic control.  
4 total speeds: n. 2 working speeds + n. 2 travel speeds.

## SPEED

		1 <sup>st</sup>	2 <sup>nd</sup> automatic
Working speed (with 16/70 - 20 tyres)			
Forwards	Km/h	0 ÷ 5	0 ÷ 13
Backwards	Km/h	0 ÷ 5	0 ÷ 13
Travel speed (with 16/70 - 20 tyres)			
Forwards	Km/h	0 ÷ 15	0 ÷ 40
Backwards	Km/h	0 ÷ 15	0 ÷ 40

## AXLES

With epicycloid reduction gears on all four driving wheels.  
Front axles: rigid with automatic proportional self-locking differential. (Limited slip)  
Rear axles: oscillating of a 25° total range steering.

## BRAKES

Duty brakes: with hydraulic control and servobrake, autoregistrating multiple disks under oil bath, acting upon all four wheels.  
Parking brakes: Negative under oil bath, with electrical control.

## HYDRAULIC SYSTEM

Composed by: hydraulic piston pump with variable displacement and power control. Modular distributor with main relief valve, shock-proof and anticavitation valve. Priority valve on steering. Pressurised circuit.

Max pump capacity:	134,25 l
Max pump pressure:	250 Kg/cm <sup>2</sup>
Loader lifting cylinder:	Bore x Stroke 80 x 665 mm
Loader bucket cylinder:	Bore x Stroke 95 x 467 mm
Hydraulic cycle time:	9"
Oil tank capacity, circuit included:	95 kg

## STEERING

Servoassisted, with hydroguide and articulated chassis. Total steering angle of 80°. The hydraulic system is "Load Sensing" equipped.

## TYRES

Standard: driving type 16/70 - 20  
Optional: 405/70 R20 - 425/70 R20 - 16/70 R20  
Other models on request.

## LOADER

Single servocontrol lever for arm and bucket. "Z" boom kinematism.

## DIMENSIONS

Wheelbase	2300 mm
Front and rear track width	1500 mm
External tyres width	(with 16/70 - 20) 1907 mm

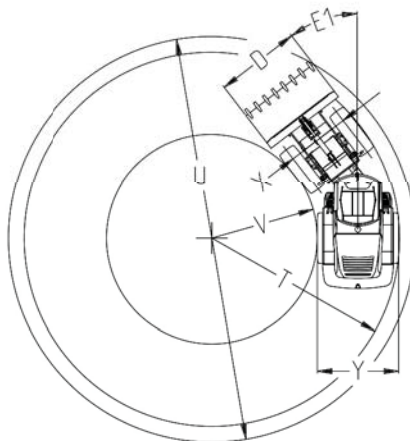
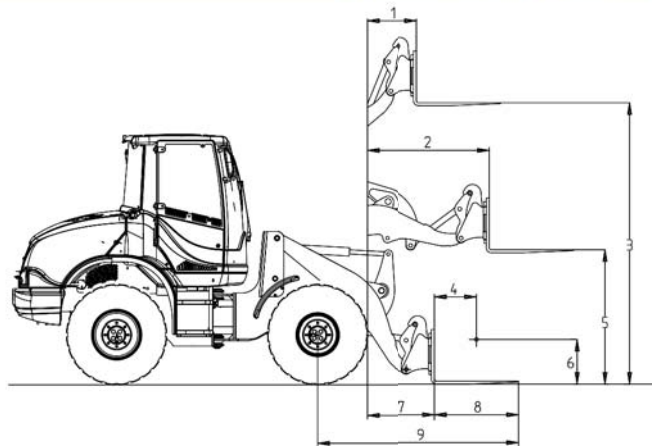
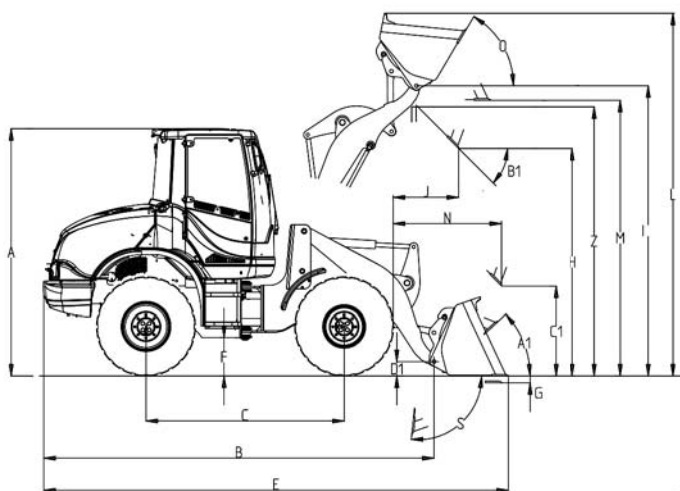
## STANDARD EQUIPMENT

- Loader servo control
- Automatic proportional self-locking differential on front and rear axle (Limited Slip)
- Hydraulic Inching control (transmission speed regulations on brake pedal)
- Antipollution tank plug
- Bucket with screwed teeth
- Bucket mechanic levelling
- Reverse motion alarm
- Battery disconnecting switch
- Front and rear work lights
- Rotating lamp with magnetic fixing
- Shock absorbing and regulating "Deluxe" seat, with safety belt
- Regulating and telescopic steering wheel
- Floating system
- Air conditioning predisposition
- Heating plant
- Air filter in aspiration from outside
- Multifunction joystick with transmission and speedcontrol
- Rotoform front mudguards
- Tool box
- Use and maintenance manual, spare parts catalogue
- Accessories for road circulation
- Italian road homologation for daily and night circulation
- CE Certification

## OPTIONAL EQUIPMENT

- 100% self locking differential on rear axle
- Hydraulic quick bucket connection
- Universal forks
- Enlarged bucket
- Extra enlarged bucket for light material
- Enlarged bucket for light material having higher unloading
- 4:1 multipurpose bucket
- Paper and branches grab
- Bucket with side unloading
- Mixer bucket
- Wood grab
- Snow blade or snow plough
- Front rotating brush with bucket
- Teeth blade
- Asphalt concrete milling
- Inching control manually operated
- Electronic weighting system
- Air conditioning
- Radio
- Theft protection
- Ride control
- Automatic electro-mechanic bucket leveller
- Video camera
- Pneumatic "Deluxe" seat
- "Elite" cabin

For other accessories and equipment for characteristics and dimension, please see the "equipment catalogue".



Date according to bucket type PL 165HS with 405/70 - R20 tyres	STD.	LIGHT MATERIAL	EXTRA ENLARGED	4:1	HIGHER UNLOADING
<b>Capacity heaped</b> m <sup>3</sup>	1,15	1,25	1,6	0,9	1,8
<b>Material density</b> kg/m <sup>3</sup>	1800	1400	1000	1900	800
<b>Tipping load with aligned machine (ISO 14397)</b> kg	4482	4400	4060	4420	4460
<b>Tipping load in max articulated position (40°) (ISO 14397)</b> kg	3998	3900	3602	3910	3890
<b>Lifting capacity at max height</b> kN	36,5	35,1	34,4	35	30,5
<b>Breakout force</b> kN	71,5	62	55,1	66,2	/
<b>E Total length</b> mm	5409	5450	5520	5409	5785
<b>L max. lifting height</b> mm	4167	4212	4387	4167	5090
<b>D bucket width</b> mm	2000	2200	2300	2000	2000
<b>U clearance diameter</b> mm	9510	9725	9870	9510	9830
<b>G digging depth</b> mm	100	100	100	100	120
<b>H dump height 45°</b> mm	2613	2578	2508	2613	3906
<b>J reach at max height</b> mm	960	995	1067	960	1300
<b>N max reach</b> mm	1090	1110	1180	1090	2170
<b>Operating weight</b> kg	5900	6100	6100	5950	6100

PL 165HS 405/70-R20 tyres	
<b>A</b>	2750 mm
<b>A1</b>	43°
<b>B</b>	4668 mm
<b>B1</b>	45°
<b>C</b>	2300 mm
<b>C1</b>	1000 mm
<b>D1</b>	70 mm
<b>E1</b>	40°
<b>F</b>	320 mm
<b>I</b>	3335 mm
<b>M</b>	3160 mm
<b>O</b>	60°
<b>S</b>	96°
<b>T</b>	4300 mm
<b>V</b>	2380 mm
<b>X</b>	1600 mm
<b>Y</b>	1865 mm
<b>Z</b>	3080 mm

Data with universal forks Centre of gravity 500 mm	
<b>Tipping load articulated (ISO 14397)</b> kg	2843
<b>Operative load EN 474-3, (80%)</b> kg	2275
<b>Operative load EN 474-3, (60%)</b> kg	1705

<b>1)</b> 813 mm	<b>6)</b> 500 mm
<b>2)</b> 1592 mm	<b>7)</b> 1037 mm
<b>3)</b> 3195 mm	<b>8)</b> 1000 mm
<b>4)</b> 500 mm	<b>9)</b> 2585 mm
<b>5)</b> 1505 mm	

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NC 482 A 17 Technical sheet PL 165HS english