

WHEEL LOADER

CASE

CONSTRUCTION

SINCE 1842.

721E

ENGINE

Brand	FPT
Model	F4HE9684F*J111
Type	4 stroke, turbocharged, cooling system air-watter, Mar-I/Tier 3
Cylinders	6
Bore x stroke	104 x 132 mm (4,09 x 5,19in)
Displacement	6,7 L (6.700 cm ³)
Fuel injection	Electronic
Fuel	Diesel
Fuel filter	disposable cartridge full flow threadable
Air filter	Dry type element with obstruction alert
Cooling pack with central assemble	
External radiators with independent assemble	
Fan – Hydraulic driven	
Type	suction with 8 wings
Diameter	813 mm (32 in)
Water pump	
Type	Integral
Engine pump oil	
Type	Deep crank case with cooling through of injectors under the pistons
Pump operation angle	
Transverse	35°
Longitudinal	35°
Oil filter	Disposable, cartridge full flow threadable
Horsepower	
Maximum Power	
Gross	195 hp (145 kW) at 2,000 rpm
Net Power	183 hp (137 kW) at 2,000 rpm
Standard Power	
Gross	182 hp (136 kW) at 1,900 rpm
Net Power	172 hp (128 kW) at 1,800 rpm
Eco Power	
Gross	157 hp (117 kW) at 1,500 rpm
Net Power	149 hp (111 kW) at 1,500 rpm

NOTE: Power and gross torque according SAE J1995.
Power and net torque according SAE J1349.

Torque	
Maximum Power	
Gross	862 N.m (87,9 kgf.m) at 1.400 rpm
Net	821 N.m (83,7 kgf.m) at 1.400 rpm
Standard Power	
Gross	847 N.m (86,4 kgf.m) at 1.400 rpm
Net	809 N.m (82,5 kgf.m) at 1.300 rpm
Eco Power	
Gross	832 N.m (84,8 kgf.m) at 1.200 rpm
Net	800 N.m (81,6 kgf.m) at 1.200 rpm
Torque increase	
Standard power at 2.000 rpm	31,4%

POWER TRAIN

Transmission	4F/3R	
	Proportional with electronic control module, automatic torque sensitive shift and manual shift	
Gears	Helical	
Gears ratio		
	Forward	Reverse
1 st	3,745	3,551
2 nd	2,089	1,981
3 th	1,072	1,017
4 th	0,636	don't available
Torque converter		
Ratio	2.84:1	
Differential	Limited slip on front and rear axles	
Rear axle oscillation	24° total	
Axles	Front	Rear
Differential Ratio	3,364	3,182
Planetary Ratio	6,000	6,400
Final axle ratio	20,18	20,36
Planetary		External
Service brakes		
	Hydraulically driven, maintenance free, multiple discs immersed in oil with accumulator for the four wheels. Brake system in accordance with ISO 3450	
Disc surface	0,387 m ² (per hub)	
Parking brake		
	Spring driven and hydraulically released Assembled on the output shaft of the transmission	

Ground speeds – km/h with tires 20,5x25 L3

	Forward	Reverse
1 st	7,6	8,0
2 nd	13,4	14,0
3 th	24,6	25,8
4 th	37,8	don't available

ELECTRICAL SYSTEM

Voltage	24 volts, negative to ground
Alternator	65 A
Batteries	(2) 12 V

HYDRAULIC SYSTEM

Pump (Steering/implements)	
	Closed centered system, with compensated pressure and flow
Variable displacement	
	120 L/min at 2.000 rpm at 248,22 bar (3,84 pol ³ /rev 31,6 gpm at 2.000 rpm at 3.600 psi)
Implements pump	
	Closed centered system, with compensated pressure and flow
Variable displacement	
	86 L/min at 2.000 rpm at 200 bar (2,74 pol ³ /rev 22,6 gpm at 2.000 rpm at 2.900 psi)
Loader control valve	
	Closed centered, sectional 2, 3 or 4 reels, with pilot control for lifting and tilting, auxiliary hydraulic system and electromagnetic detentions for lifting, floating and tilting.
Loader steering	
	Orbital hydraulics, with articulation centered on pivot with oil flow according to demand.
Steering system in accordance with SAE J1511 and ISO 5010	
Main relief pressure	250 bar (3.625 psi)
Filter	10 micron filter, disposable cartridges full flow in the return line, filter restriction indicator light

CYLINDERS

Lifting cylinders	
Cylinder bore	120,6 mm (4.75 in)
Rod diameter	76.2 mm (3 in)
Stroke	827,9 mm (32,6 in)
Unload cylinder (Z-Bar)	
Cylinder bore	146,0 mm (5.7 in)
Rod diameter	76.2 mm (3 in)
Stroke	629,4 mm (24.8 in)
Unload cylinder (XT)	
Cylinder bore	114,3 mm (4.5 in)
Rod diameter	57.2 mm (2.25 in)
Stroke	856,5 mm (33.72 in)
Steering cylinder	
Cylinder bore	76.2 mm (3 in)
Rod diameter	44.0 mm (1,75 in)
Stroke	481,9 mm

INSTRUMENTS

Electronic Information Center	
Indicators/gauges	
Speedometer	
Tachometer	
Selected steering F/N/R	
Transmission Modes – automatic/manual	
Selected gear	
Engine cooling temperature	
Fuel level	
Transmission oil temperature	
Hydraulic oil temperature	
Hourmeter	
Working mode	
Warning lights	
Low Fuel level	
Corner lights	
High beam	
Brake pressure	
Main hazard light	
Parking brake	
Audible alert	
Caution alert	
Emergency alert	
Rear alert	
Horn	

OPERATOR COMPARTMENT

ROPS/FOPS Cab with air conditioning and heater. In according with ISO 3471, 3449, SAE 1040C, J231, OSHA rules.	
Radio	
Key starter	
Articulated hydraulic steering with adjustable column	
Fully adjustable suspension seat	
Foot throttle	
Single control lever with wrist rest	
Cup holder	
Coat hanger	
Inner rearview mirror	
2-inch retractable seat belt	
Storage tray behind the seat	
Air conditioner	
Single brake pedal	
Gear key F/N/R	
Outer rearview mirrors	
Cooling box	
pressurized air filtering	
Defroster	
Lateral window, fully opening/partial	
Ceiling light	
Wiper, rear and front	
Corner flasher	
windshield washer, rear and front	
Glove compartment with key	
Comfort kit (cigarette lighter, Trinket box)	
LOADER	
Z cinematic arm	
Unique lift and tilt control	
Flotation with positive retention	
Automatic dig return	
Automatic height control	
Automatic shift return	
Disconnecting the transmission on the brake pedal (DeClutch)	
Bucket position indicator	

CYCLE TIMES

Raise bucket with nominal load	5,59 s
Unload bucket with nominal load	
Z-Bar	1,8 s
XT	1,9 s
Descent (empty)	
With power	3,29 s
Flotation	3,29 s

SERVICE CAPACITY

Fuel tank	246 L
Hydraulic system	
Overhall	177,8 L
Reservoir	90,8 L
Transmission	34.1 L
Service with filter	25.6 L
Front and Rear Axles	
Front axle	30,3 L
Rear axle	27,4 L
Engine oil with filter	13.25 L
Oil sump	12,3 L
Cooling system	28.4 L

OPERATING WEIGHT

Z-Bar

Unit equipped with ROPS / FOPS cab with heater and air conditioning, "Heavy Duty" counterweight, 20.5 R 25 XHA TL tires, 2.5 m³ (3.25 jd³) multi-purpose bucket with teeth and blade segments, fuel tank full and 79 kg operator's weight.

14,156 kg (31,209 lb)

XT

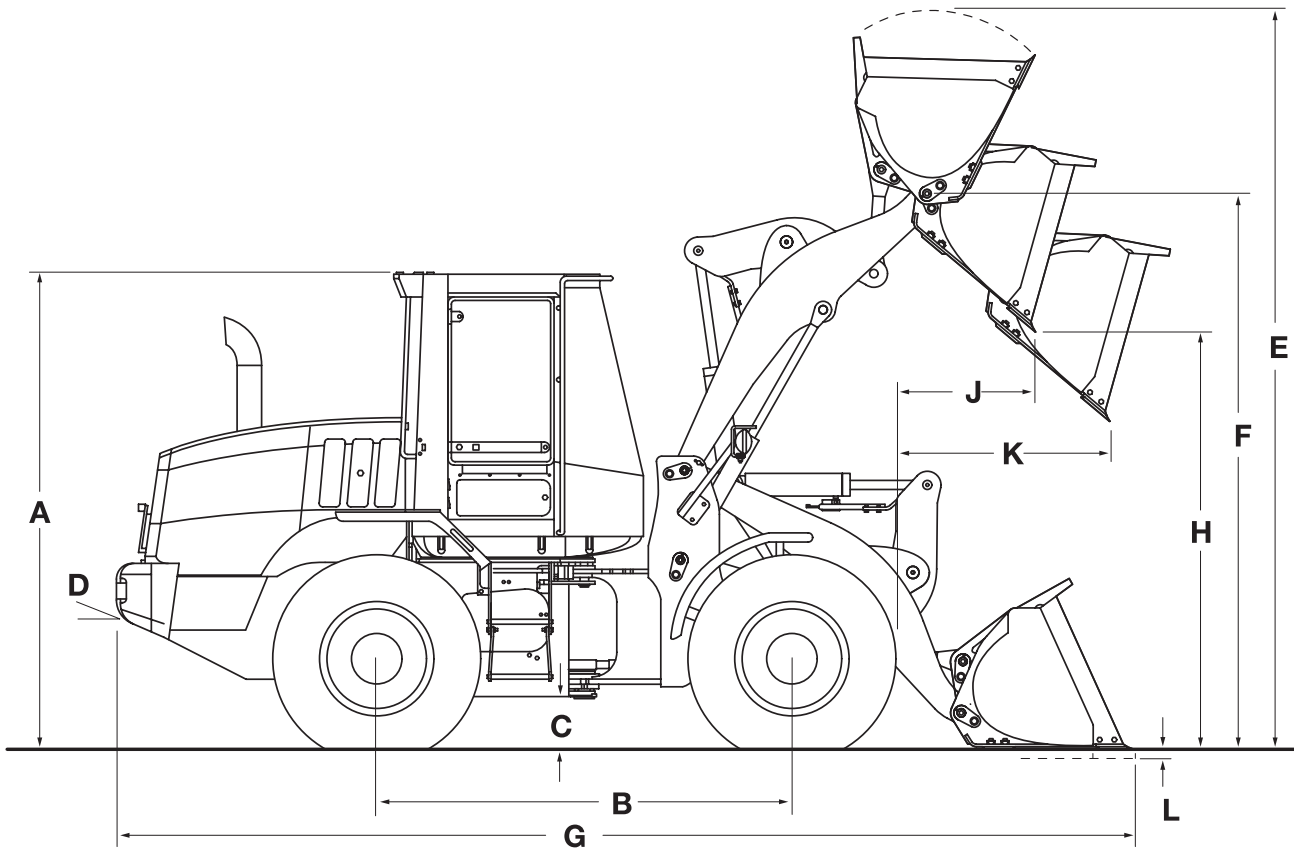
Unit equipped with ROPS / FOPS cab with heater and air conditioning, "Heavy Duty" counterweight, 20.5 R 25 XHA TL tires, 2.3 m³ (3.0 jd³) with teeth, fuel tank full and 79 kg operator's weight.

14.490 kg (31945lb)

DIMENSIONS

A. Height to top of cab ROPS	3,385 mm (133.2 in)
B. Wheelbase	3.253 m (128.07 in)
C. Ground clearance	365 mm (14.37 in)
D. Rear departure angle	32°
Width	
Total* w/o bucket	2,562 mm (100.86 in)
Turning radius	5,750 mm (226.4 in)
STEERING ANGLE	
From the center	40°
Overall angle	80°
Rear axle oscillation	24° total

NOTE: *Dimensions obtained with Michelin tires 20,5R25 XTLA.
Additional dimensions on pages 3 and 4.



WEIGHT ADJUSTMENTS

Select options	Weight setup	Tipping load adjustment	Load adjustment
			tipping articulated at 40°
Tires 20,5x25 12 canvas L2	-218 kg (-480 lb)	-171 kg (-376 lb)	-151 kg (-332 lb)
Tires 20,5x25 12 canvas L3	-69 kg (-152 lb)	-54 kg (-119 lb)	-48 kg (-105 lb)
Tires 20.5R25 XTLA	-172 kg (-379,2 lb)	-135 kg (-298 lb)	-119 kg (-263 lb)
Standard Counterweight	-555 kg (-1.223,5 lb)	-1.264 kg (-2.787 lb)	-1.070 kg (-2.359 lb)

NOTE:

Unit equipped with Z-Bar loader arms, 2.5 m³ (3.25 jd³) multi-purpose pinned bucket with bolted edge, Michelin 20.5R25 XHA TL tires, ROPS cab with heating and air conditioning, maximum counterweight, fuel tank full and 79 kg operator. Adjust the selected options from the nominal weight.

PERFORMANCE DATA

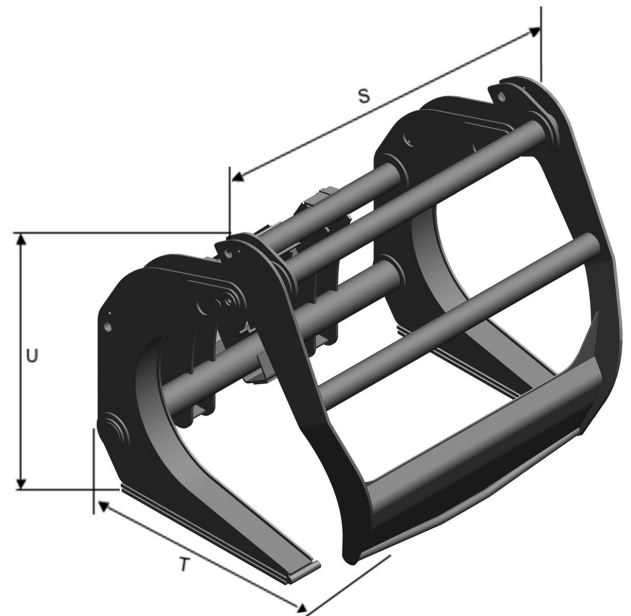
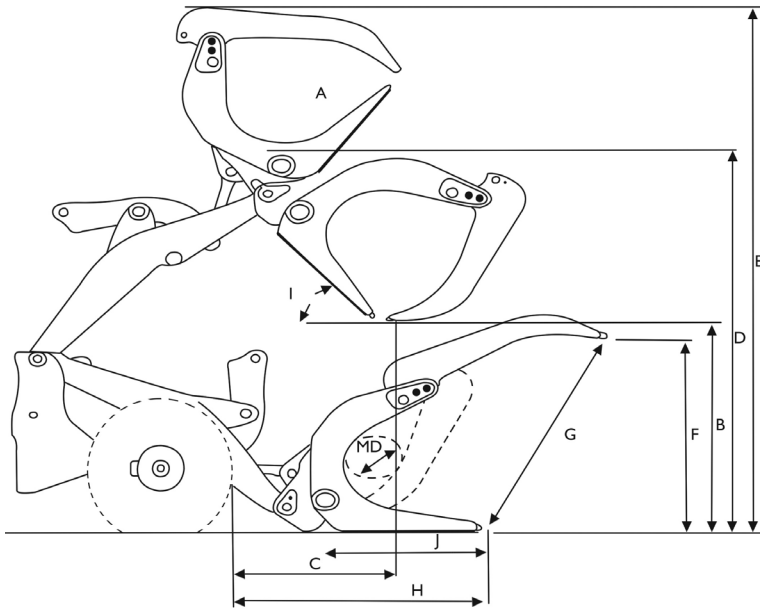
721E Z-Bar	Bucket 1,9 m ³ (2,5 jd ³) Blade "V" screwed without Teeth (heavy Duty)	Bucket 1,9 m ³ (2,5 jd ³) Straight blade with teeth and Segments (heavy Duty)	Bucket 1,9 m ³ (2,5 jd ³) Bolted straight blade (Heavy Duty)	Bucket 2,3 m ³ (3,0 jd ³) with straight blade
Bucket capacity - struck (SAE)	1.60 m ³ (2,1 jd ³)	1.60 m ³ (2,1 jd ³)	1.60 m ³ (2,1 jd ³)	1.94 m ³ (2,4 jd ³)
Heaped	1.90 m ³ (2,5 jd ³)	1.90 m ³ (2,5 jd ³)	1.90 m ³ (2,5 jd ³)	2.30 m ³ (3,0 jd ³)
Bucket width - external	2,700 mm (106.29 in)	2,700 mm (106.29 in)	2,700 mm (106.3 in)	2,700 mm (106.3 in)
Weight of bucket	1,207 kg	1,238 kg	1,228 kg	1,137 kg
E. Fully raised operating height with retaining plate	5,244 mm (206.45 in)	5,165 mm (203.34 in)	5,224 mm (205.66 in)	5,169 mm (203.5 in)
F. Height to hinge pin totally raised	3,941 mm (155.15 in)	3,941 mm (155.15 in)	3,941 mm (155.15 in)	3,980 mm (155.15 in)
G. Total length - bucket leveled on the ground	7,689 mm (302.7 in)	7,791 mm (306.73 in)	7,686 mm (302.59 in)	7,596 mm (299.05 in)
Dump angle - fully raised	55°	55°	55°	55°
H. Unloading height fully raised, dump at 45°	2,885 mm (113.58 in)	2,317 mm (91.22 in)	2,884 mm (91.22 in)	2,963 mm (116.65 in)
J. Bucket reach fully raised, dump at 45°	1,127 mm (44.37 in)	1,191 mm (46.88 in)	1,110 mm (43.70 in)	1,086 mm (42.75 in)
K. Bucket reach height 2.13 m, dump at 45°	1,634 mm (64.33 in)	1,670 mm (65.74 in)	1,622 mm (63.85 in)	1,633 mm (64.29 in)
Operating load - ISO	5,407 kg	5,899 kg	5,903 kg	5,342 kg
Maximum material density - ISO	2,846 kg/m ³	3,100 kg/m ³	3,107 kg/m ³	2,322 kg/m ³
Tipping load - ISO				
In a straight line	12,349 kg	13,494 kg	13,522 kg	12,315 kg
Articulated at 40°	10,815 kg	11,778 kg	11,806 kg	10,685 kg
LIFTING CAPACITY				
Maximum height	7,349 kg	7,456 kg	7,466 kg	7,630 kg
Maximum reach	10,233 kg	10,202 kg	10,216 kg	10,289 kg
Ground	13,826 kg	13,408 kg	13,463 kg	13,203 kg
Breakout force with discharge cylinder	15,261 kg	15,141 kg	14,345 kg	14,951 kg
Maximum recoil				
Ground	40°	41°	41°	39°
Transport position	44°	44°	44°	43°
Maximum reach	54°	54°	54°	54°
Maximum height	57°	57°	57°	57°
L. Digging depth	112 mm (4,41 in)	120 mm (4,72 in)	120 mm (4,72 in)	73 mm (2,87 in)
Maximum leveling angle with reverse drag bucket	61°	60°	60°	60°
Loader turning diameter(bucket end)	12,654 mm (498 in)	12,713 mm (500,5 in)	12,654 mm (498 in)	12,607 mm (496 in)

NOTE: Performance data for the Z-Bar version shown with maximum counterweight. XT lift arm with buckets for Leonardi coupling. Performance data from unit equipped with 20.5 x 25 16 L3 tires, ROPS cab with heater and air conditioning, standard counterweight, full fuel tank and 75 kg operator. Specifications according to standards SAE J732, J1234, J695, J742, J818, ISO 14397, ISO 5998, ISO 7546.

Bucket 2.3 m³ (3,0 jd³) Straight blade with teeth and and segments	Bucket 2.5 m³ (3,25 jd³) with straight blade screwed	Bucket 2,5 m³ (3,25 jd³) Straight blade with teeth and segments	Bucket 2,7 m³ (3,5 jd³) with straight blade	Bucket 4,2 m³ (5,5 jd³) With screwed straight blade
1.85 m ³ (2,42 yd ³)	2.11 m ³ (2,75 yd ³)	2.00 m ³ (2,62 yd ³)	2.30 m ³ (3,00 yd ³)	4.20 m ³ (5,49 yd ³)
2.13 m ³ (2,79 yd ³)	2.49 m ³ (3,25 yd ³)	2.30 m ³ (3,01 yd ³)	2.68 m ³ (3,50 yd ³)	4.20 m ³ (5,49 yd ³)
2,732 mm (107.5 in)	2,700 mm (106.3 in)	2,732 mm (107.5 in)	2,700 mm (106.3 in)	2,700 mm (106.3 in)
1,182 kg	1,186 kg	1,225 kg	1,257 kg	1,372 kg
5,169 mm (203,50 in)	5,229 mm (205.86 in)	5,229 mm (205.86 in)	5,298 mm (208.58 in)	5,670 mm (223.22 in)
3,980 mm (156.69 in)	3,980 mm (156.69 in)	3,980 mm (156.69 in)	3,980 mm (156.69 in)	3,979 mm (156.65 in)
7,748 mm (305.03 in)	7,648 mm (305.03 in)	7,799 mm (307.04 in)	7,708 mm (303.46 in)	8,119 mm (319.64 in)
55°	55°	55°	55°	55°
2,864 mm (112.75 in)	2,930 mm (115.35 in)	2,831 mm (111.45 in)	2,892 mm (113.85 in)	2,618 mm (103.07 in)
1,196 mm (47.08 in)	1,125 mm (44.29 in)	1,235 mm (48.62 in)	1,171 mm (46.10 in)	1,441 mm (56.73 in)
1,698 mm (66.85 in)	1,658 mm (65.27 in)	1,722 mm (67.79 in)	1,686 mm (66.37 in)	1,811 mm (71.29 in)
5,385 kg	5,306 kg	5,352 kg	5,252 kg	4,917 kg
2.528 kg/m ³	2.135 kg/m ³	2.327 kg/m ³	1.963 kg/m ³	1.171 kg/m ³
12,418 kg	12,239 kg	12,350 kg	12,124 kg	11,376 kg
10,769 kg	10,612 kg	10,704 kg	10,504 kg	9,834 kg
7,585 kg	7,581 kg	7,542 kg	7,510 kg	7,399 kg
10,254 kg	10,238 kg	10,209 kg	10,164 kg	10,003 kg
13,271 kg	13,106 kg	13,180 kg	12,977 kg	12,376 kg
16,173 kg	14,258 kg	15,369 kg	13,520 kg	10,130 kg
40°	39°	40°	39°	40°
43°	43°	43°	43°	43°
54°	54°	54°	54°	54°
57°	57°	57°	57°	57°
78 mm (3.07 in)	73 mm (2.87 in)	78 mm (3.07 in)	73 mm (2.87 in)	109 mm (4.29 in)
61°	60°	61°	60°	65°
12,724 mm (500,94 in)	12,636 mm (497.48 in)	12,754 mm (502.12 in)	12,671 mm (498.85 in)	12,923 mm (508.78 in)

WOOD GRAPPLE DIMENSIONS

A. Claw area	1.4 m ²
Operating load	4,475 kg
S. Width	2,325 mm (91.53 in)
T. Length	2,091 mm (82.32 in)
U. Height	2,022 mm (79.60 in)
Weight	2,130 kg
B. Unloading height at maximum articulation pin height (maximum discharge)	2,505 mm (98.62 in)
C. Unloading reach at maximum articulation pin height (maximum discharge)	1,351 mm (53.18 in)
D. Maximum unloading height	4,545 mm (178.94 in)
E. Maximum operating height	6,147 mm (242.00 in)
F. Maximum claw height in G	2,278 mm (89.68 in)
G. Maximum opening	2,525 mm (99.40 in)
H. Maximum ground reach	2,272 mm (89.44 in)
MD. Minimum diameter for handling	500 mm (19.68 in)
I. Maximum discharge angle at maximum articulation pin height	39°
J. Tip length	1,710 mm (67.32 in)



OPERATIONAL DATA OF THE 721E (Z-BAR) WITH 1.4 m² GRAPPLE LOGS

Straight machine	11,149 kg
Articulated at 40°	9,550 kg
Hydraulic lifting capacity at maximum height	6,575 kg
Hydraulic lifting capacity at maximum reach	9,257 kg
Lifting capacity on the ground	11,902 kg
Operating weight	14,688 kg

NOTE: Machine equipped with tires 20,5 x 25 – 16 canvas L3. Requires 3rd hydraulic function and heavy duty rear counterweight (1,565 kg). The grapple has high strength wear shoes.

STANDARD EQUIPMENT

OPERATOR COMPARTMENT

Refer to page 2

Engine

MAR-I (Tier 3)

Selectable working modes

- Maximum Power
- Automatic Power
- Standard Power
- Eco Power

Turbocharger

Cooling the intake air

Automatic adjustment of the alternator belt

Integral engine oil cooling

Fuel filter with water separator

Air filter with two elements

Alternator 65 A

(2) batteries 700 CCA 12 V

Muffler without spark suppressor

Cooling pack with central assemble

Electronic Common Rail Fuel Injection

Loader

Refer to page 2

POWER TRAIN

4 wheel drive

Selectable 4F / 3R transmission

automatic/manual

Electronic Control Module - Programmable

Proportional gear shifting

controlled by computer with selection of programmable gears

On-board diagnostics

Single lever for electronic control

of gear selection

Gear key F/N/R on lever

to control the loader

Downshift button

Torque converter

External planetary axes

Limited slip differential

Transmission oil cooler

Disconnecting the transmission by the brake

pedal (DeClutch)

Oil-immersed hydraulic brake discs

Spring-applied parking brake

hydraulically released

Limp-Home mode

Cardan with permanent lubrication

Hydraulic system

Lever loader control valve

unique and 2 reels

Low effort steering

Reversing hydraulic fan

(8) quick diagnostic couplings

Others

Electric hood lift

Front and rear fenders

Headlights

(2) headlights (high beam / low beam)

(2) front working headlights

(2) rear brake lights and reverse lights

(2) rear working headlights

Direction indicators / Front / rear warning lights

Standard Counterweight

Trailer pin

Joint locking bar

Lifting arm locking bar

Holder point and tie - front and rear

Reverse gear alarm

Remote drainage points

Note: The configuration of standard equipment may vary according the industry.

OPTIONAL EQUIPMENT

OPERATOR COMPARTMENT

Fabric-covered air suspension seat

RH side stairs and platform

Rotating light

Second brake pedal

Engine

Cold weather kit

Loader

Hydraulic coupling for accessories

Buckets (see pages 3 and 4)

XT arm (parallel cinematics)

Hydraulic system

Auxiliary hydraulics

Ride Control

Loader valves with 3 or 4 reels,

With 2 or 3 Loader control lever

Special versions

Version for corrosive environments:

- Parts with chamfered corners and special paint to protect against corrosive environments
- Application of special varnish to the entire machine surface for extra protection
- Bucket designed for handling fertilizer (4.0 m³)
- Chassis with openings to prevent material accumulation
- Fertilizer resistant alternator
- Special protection for electrical terminals
- Tubes with extra surface treatment, for greater durability

Sugarcane version:

- Cyclonic prefilter at engine inlet and air conditioning for better system efficiency and avoid clogging
- Bucket designed for handling bagasse (4.0 m³)
- Chassis with openings to prevent material accumulation
- Alternator with openings to prevent material build-up and prevent fire
- Fire extinguisher

Version for handling logs

- Heavy-duty counterweight and extra-strong hydraulic grapple developed exclusively by CASE, with a structure designed for the most severe applications in the timber industry
-

TIRES

20,5x25 L2/L3/L5 diagonals

20,5 R25 radial (earth / rock)

Others

Spare tires

Transmission guard

Tool box

Counterweight HD (Heavy Duty)

Side covers and drain protection

Clamp for handling logs



CASE reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold. The specifications, descriptions and illustrative material contained herein correctly reflect the data known at the time of publication, but may vary from region to region and are subject to change without notice. The illustrations may include optional equipment and accessories and may not include all standard equipment.

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