

**F-SERIES WHEEL LOADERS
521F**

CASE
CONSTRUCTION



**FASTER,
FUEL EFFICIENT**

www.casece.com
**EXPERTS FOR THE REAL WORLD
SINCE 1842**

FASTER, FUEL EFFICIENT

A SAFE INVESTMENT FOR THE TOUGHEST JOBS

For the toughest jobs, reliability comes with a perfect control of the oil temperature in the axles.

- **For soft soil** where higher grip control and higher resistance are needed:
 - **Effective grip control** with the differential lock on the front axle. It can be activated automatically or manually controlled with the left foot.
 - **No overheating** because the differential lock does not slip
 - **Higher resistance** with heavy duty front and rear axles.
- **For a limited investment**, standard axles with limited slip differential are also available and proven to be reliable.
- **For even more reliability**, we have invented the COOLING BOX that keeps constant the cooling fluids temperature.

EASIER MAINTENANCE, LOWER COSTS

- A single piece electronically-operated engine hood lifts clear of the engine for service and maintenance
- There are remote fluids drain taps for the engine oil, coolant and hydraulic oil.



PREMIUM ENGINE TECHNOLOGY

This electronically-controlled 4.7 liter engines offers the operator a choice of four power and torque ratings, MAX, STANDARD, ECONOMY or AUTOMATIC mode. This boosts productivity and reduce fuel consumption.



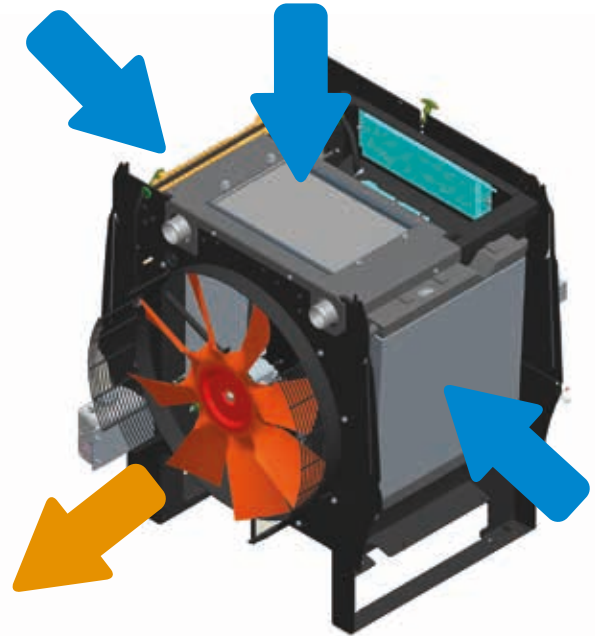
MORE COMFORT FOR MORE PRODUCTIVITY

BETTER WEIGHT DISTRIBUTION WITH THE REAR MOUNTED ENGINE

MID-MOUNT COOLING SYSTEM

This unique design, with the five radiators mounted to form a cube instead of overlapping, ensures that each radiator receives fresh air and that clean air enters from the sides and the top, maintaining constant fluid temperatures. The high efficiency of the cooling system lengthens the life of the coolant to 1500 hours. The standard reversible fan can be activated from the cab and is very effective thanks to the midmount cooling system.

The engine is mounted at the rear of the machine, therefore minimizes the need for an additional counterweight. This, together with the lower fan speed (just 1200 rpm), results in lower noise and vibration levels in the cab.



DESIGNED FOR DUSTY ENVIRONMENT

The cooling system is mounted behind the cab, far from the rear of the machine and from the ground - away from the dust.



ACCESS FIT FOR A KING

Getting in the cab is easy; the wide steps and the handle make you feel safe, while the wide door provides unobstructed access.

OUTSTANDING VISIBILITY

You'll feel more confident and work faster with the great all round visibility. The curved rear hood shape is very low, reducing the risk of accidents and improving safety on site.

ALL CONTROLS AT YOUR FINGERTIPS

Greater focus on the job and less stress with fewer arm movements thanks to the ergonomic positioning of the control panel under your right hand.

FEEL CONFIDENT WITH ROPS

All F Series cabins are reinforced and guarantee the operator protection against roll over (**ROPS certified**).

GREAT STORAGE SPACE

The overhead radio placement and the storage make the Case cab even more convenient for you



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PRODUCTIVITY (50 meter distance cycle)

Considering density at 1,8 t/m³ and 100% fill factor
52 cycles/hour including 5 minute break _____ 52 loading cycles/h
with 2.1 m³ bucket _____ 110 m³/h or 198 t/h of material

ENGINE

Make _____ FPT engine F4HFA413A compliant with
EPA Tier2 or EU Stage II regulations
Number of cylinders _____ 4 cylinders - 4,7 liters - common rail
Max power SAE J1995 _____ 106kW / 142 hp @1800 rpm
Maximum torque SAE J995 _____ 608 Nm @1600 rpm

TRANSMISSION

All-wheel drive with planetary axles
Kick-down function
4-speed torque converter
4-speed auto Powershift ZF type 4WG130, switchable to manual shifting
forward speeds: 6-11-22-36 Km/h
reverse speeds: 6.4-12-23 Km/h
Adjustable transmission declutch

AXLES AND DIFFERENTIAL

- for outstanding traction with 50% longer maintenance intervals and 30%
less tire wear:
100% auto-lock differential on front axle and open rear axles
Front and rear ZF heavy duty axles with open differential
type MT-L3065-II
- for limited investment and good traction:
29% Limited slip differential on front and rear axles
front and rear axle ZF type MT-L3065-II

TIRES

Tires _____ 17,5R25

BRAKES

Service brake _____ Maintenance free, self-adjusting wet 4-wheel
disc brakes
Area _____ 0,31 m²/hub
Parking brake _____ Disc brake on transmission activated from the
cab cluster
Area _____ 58 cm²

HYDRAULICS

Valves _____ Rexroth Closed-center, Load sensing hydraulic system.
Main valve with 3 sections
Steering _____ The steering orbitrol hydraulically is actuated with
priority valve
Type of pump _____ Variable displacement pump
(134 l/min @250 bar)Automatic hydraulic functions
- Bucket Return-to-dig
- Boom Return-to-travel
- Autolift (adjustable height)
Control type _____ Pilot control with single joystick or two levers

CAPACITIES

Fuel tank _____ 189 usable liters
Cooling system _____ 22 liters
Engine oil _____ 12 liters
Hydraulic oil _____ Tank: 57 liters, total system: 114 liters
Transmission oil _____ 19 liters

CAB

Cab complies to:
protection against falling objects (FOPS) _____ ISO EN3449
protection against roll over (ROPS) _____ ISO EN13510
Air flow _____ 8.5 m³ / min spread through 17 air vents

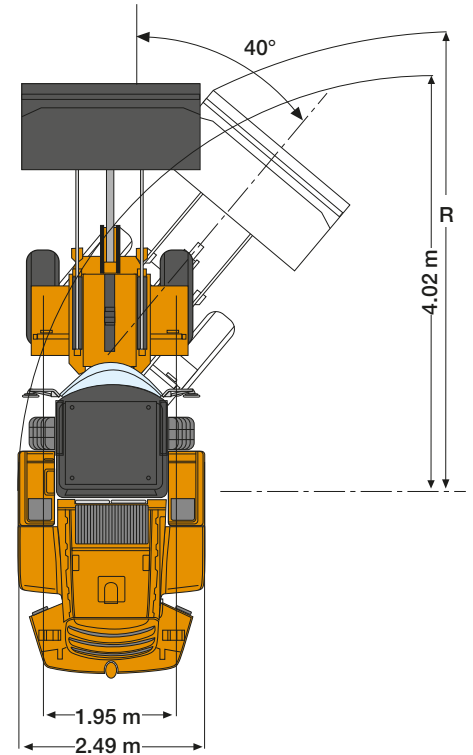
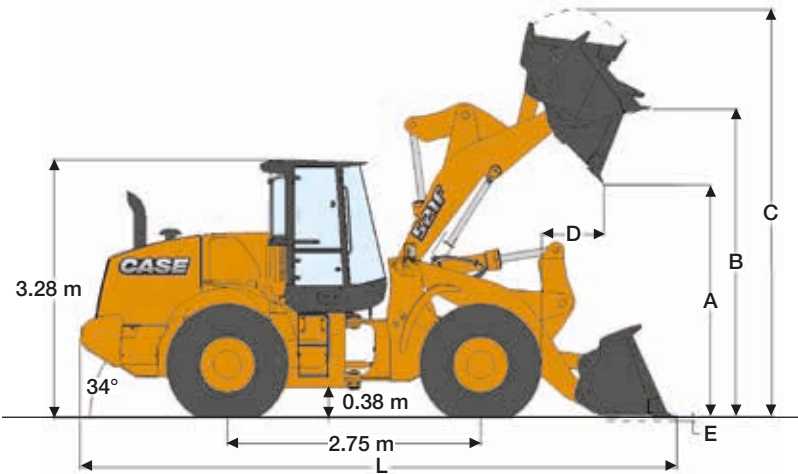
NOISE AND VIBRATION

Interior noise _____ 72 dB(A) according to ISO6595/6396/3744
Exterior noise _____ 72 dB(A) at 15 meters as per SAE J88 SEP80
103 dB(A) according to ISO6595/6396/3744
Reverse gear alarm
Vibrations _____ air-cushioned seat MSG 95A/732

ELECTRICAL

24 V. Batteries 2 x 12V.
Alternator _____ 70 A

GENERAL DIMENSIONS



LOADER SPEED:

Raising time (loaded)	5.4 sec
Dump time (loaded)	1.2 sec
Lowering time (empty, power down)	3.9 sec
Lowering time (empty, float down)	3.9 sec

521F		Z-bar				TC	
		2.1 m ³ bucket		1.7 m ³ bucket with quick coupler		1.7 m ³ bucket with quick coupler	
		edge	teeth + segment	edge	teeth	edge	teeth
Bucket with bolt on							
Bucket volume (heaped)	m ³	2.07	2.07	1.70	1.70	1.70	1.70
Bucket Payload	kg	3478	3475	3535	3584	3249	3296
Maximum material density	ton/m ³	1.7	1.7	2.1	2.1	1.9	1.9
Bucket outside width	m	2.49	2.54	2.44	2.44	2.44	2.44
Bucket weight	kg	857	877	1137	1065	1117	1045
Tipping load - straight	kg	8150	8145	8317	8415	7634	7728
Tipping load - Articulated at 40°	kg	6957	6949	7069	7167	6497	6591
Breakout force	kg	7591	7781	7104	6959	8288	8124
Lift capacity from ground	kg	8889	8979	10620	10700	10236	10365
A - Dump height at 45° at full height	m	2.62	2.55	2.58	2.56	2.5	2.49
B - Hinge pin height	m	3.61	3.61	3.61	3.61	3.75	3.75
C - Overall height	m	4.75	4.75	4.77	4.77	4.94	4.94
D - Bucket reach at full height	m	1.12	1.19	1.18	1.22	1.23	1.27
E - Dig depth	cm	8	8	7	5	19	18
L - Overall length with bucket on the ground	m	6.83	6.94	6.90	6.92	7.05	7.07
R - Turning radius to front corner of the bucket	m	5.5	5.6	5.5	5.5	5.5	5.6
Bucket rollback in carry position		43°	43°	48°	48°	52°	52°
Dump angle at full height		55°	55°	50°	50°	62°	62°
Machine operating weight	kg	10448	10468	10728	10656	11189	11117

Note: bucket specification can slightly differ according to plant source. More bucket choice is available, please contact your local dealer.



PARTS AND SERVICE

Wide network of customer support across the world.

No matter where you work, we're here to support and protect your investment and exceed your expectations. You can count on CASE and your CASE dealer for full-service solutions-productive equipment, expert advice, flexible financing, genuine CASE parts and fast service. We're here to provide you with the ultimate ownership experience. To locate a CASE dealer or learn more about CASE equipment or customer service, go to www.casece.com

NOTE: CASE provides specific outfits for various countries and many optional fittings (OPT). The illustrations on this or other leaflets may relate to standard or optional fittings. please consult your CASE dealer for any information in this regard and any possible updating on components. CNH Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

