

**F-SERIES WHEEL LOADERS
721F/821F**

CASE
CONSTRUCTION



TIER 3
EU STAGE IIIA

**FASTER,
FUEL EFFICIENT**

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SINCE 1842

F-SERIES WHEEL LOADERS

821F

PRODUCTIVITY (50-meter distance cycle)

Considering: density: 1,8 t/m³, fill factor: 100%, 52 cycles/hour and each hour includes a 5-minute break _____ 160 m³/h or 320 t/h
52 loading cycles/h with standard bucket 3.4 m³ or 6.2 ton

ENGINE TIER 3

Compliant with Tier 3 (EU stage 3a)

FPT turbocharged engine F4HE9684E*J with:

- 100% fresh air combustion
- Air to Air intercooler
- Common rail (1.600 bar)
- Multiple injections similar to multi-jet automotive technology to achieve best in class load response, max torque and power with the minimum fuel consumption.

6 cylinders -6,7 liters

Max power SAE J1995 _____ 172kW / 230 hp @1800 rpm

Maximum torque SAE J1349 _____ 1002 Nm @ 1500 rpm

TRANSMISSION

All-wheel drive with planetary axles

kick-down function

4-speed torque converter

4-speed auto Powershift switchable to manual shifting

ZF , switchable to manual shifting

forward speeds _____ 7-12-23-37 Km/h

reverse speeds _____ 7-13-25 Km/h

Adjustable transmission declutch

AXLES AND DIFFERENTIAL

For outstanding traction with 50% longer maintenance intervals and 30% less tire wear

Front auto-lock differential 100% of available torque is always guaranteed on the wheel(s) with traction

Front and rear ZF Heavy Duty axles with Open Differential

Excellent traction:

Limited slip differential front and rear _____ when one wheel slips 73% of the available axle torque is guaranteed on the other wheel

Front _____ Heavy Duty axle +(ZF type MT-L3095-II)

Rear _____ standard axle (ZF type MT-L3085-II)

Rear axle total oscillation _____ 24°

TYRES

Tyres _____ 23,5R25

BRAKES

Service brake ___ Maintenance free, self-adjusting wet 4-wheel disc brakes
Area _____ 0.39 m²/hub

Parking brake ___ Disc brake on transmission activated from the cab cluster

Area _____ 82 cm²

HYDRAULIC

Valves _____ Rexroth Closed-center, Load sensing hydraulic system.

Steering _____ The steering orbitrol hydraulically is actuated with priority valve

Type of pump _____ Tandem Variable displacement pump (240 l/min @2000 rpm)

Automatic hydraulic functions

- Bucket Return-to-dig
- Boom Return-to-travel
- Auto.lift (to adjustable height)

Control type _____ Pilot control with single joystick or two levers

CAPACITIES

Fuel tank _____ 288 usable litres

Cooling system _____ 30 litres

Engine oil _____ 15 litres

Hydraulic oil _____ Tank: 91 litres, total system: 180 litres

Transmission oil _____ 34 litres

CAB AND CONTROLS

For you safety the cab complies to:

protection against falling objects (FOPS) _____ ISO EN3449

protection against roll over (ROPS) _____ ISO EN13510

NOISE AND VIBRATION

Driving noise in dB (A) 82 to SAE J88 @ 15 meters

Interior noise _____ 72 LpA as per ISO6395/6396/3744

Exterior noise _____ 71 dB(A) at 15 meters as per SAE J88 SEP80
103 LwA according to ISO6395/6396/3744

Switchable reverse gear alarm

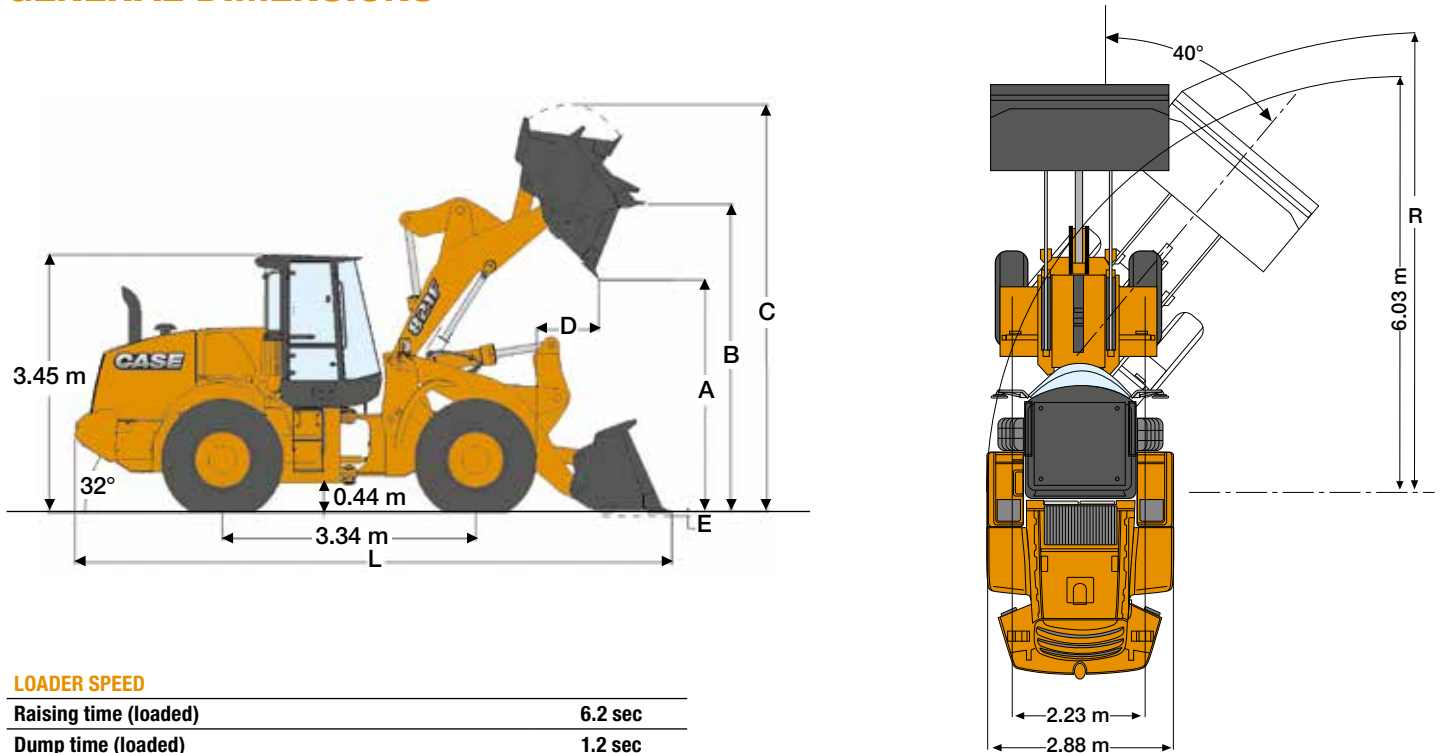
Vibrations _____ air-cushioned seat MSG 95A/732
average 1.4m/s² as per ISO/TR 25398:2006

ELECTRICAL SYSTEM

24V. Batteries 2 x 12V.

Alternator _____ 65A

GENERAL DIMENSIONS



LOADER SPEED

Raising time (loaded)	6.2 sec
Dump time (loaded)	1.2 sec
Lowering time (empty, power down)	2.9 sec
Lowering time (empty, float down)	2.5 sec

821F		3.4 m ³		Z-BAR BUCKETS		2.8 m ³		
		edge	teeth	edge	teeth	edge	teeth	
	Bucket with bolt on:							
	Bucket volume (heaped)	m ³	3.42	3.24	3.20	3.10	2.8	2.5
	Bucket Payload	kg	6146	6268	6184	6295	6274	6478
	Maximum material density	ton/m ³	1.80	1.94	1.93	2.03	2.24	2.59
	Bucket outside width	m	2.95	2.95	2.94	2.94	2.95	2.94
	Bucket weight	kg	1550	1460	1520	1430	1366	1276
	Tipping load - straight	kg	14203	14465	14284	14523	14465	14917
	Tipping load - Articulated at 40°	kg	12293	12536	12367	12590	12547	12955
	Breakout force	kg	15076	16133	15473	16676	17751	19180
	Lift capacity from ground	kg	17976	18137	18055	18201	18263	18559
A	Dump height at 45° at full height	m	2.94	2.86	2.96	2.88	3.06	2.99
B	Hinge pin height	m	4.12	4.12	4.12	4.12	4.12	4.12
C	Overall height	m	5.49	5.49	5.45	5.45	5.29	5.29
D	Bucket reach at full height	m	1.17	1.13	1.15	1.27	1.02	1.14
E	Dig depth	cm	7	5	7	5	7	5
L	Overall length with bucket on the ground	m	7.94	8.06	7.90	8.03	7.74	7.86
	Overall length without bucket	m	6.78	6.78	6.78	6.78	6.78	6.78
R	Turning radius to front corner of the bucket	m	6.6	6.7	6.6	6.6	6.6	6.6
	Bucket rollback in carry position	°	44	44	44	44	44	44
	Dump angle at full height	°	55	55	55	55	55	55
	Machine operating weight	kg	17694	17604	17664	17574	17510	17420

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



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