

CASE
CONSTRUCTION

F-SERIES WHEEL LOADERS

721F | 821F | 921F

SCR
TECHNOLOGY



FAST, PRODUCTIVE, FUEL EFFICIENT

Be ready for the best:

- Advanced Engine Technology
- High Efficiency Transmission
- High Productivity Differential and Axles
- Low Maintenance Cooling Design
- Premium Ergonomics



F-SERIES WHEEL LOADERS

721F | 821F | 921F



ADVANCED ENGINE TECHNOLOGY

New generation engine:

The extremely compact second generation common rail engine delivers top performance in load response, max torque, power and fuel economy.

The combustion is optimized for maximum efficiency, at high temperatures using 100% fresh, cool air, as the air intake is separated from the exhaust.

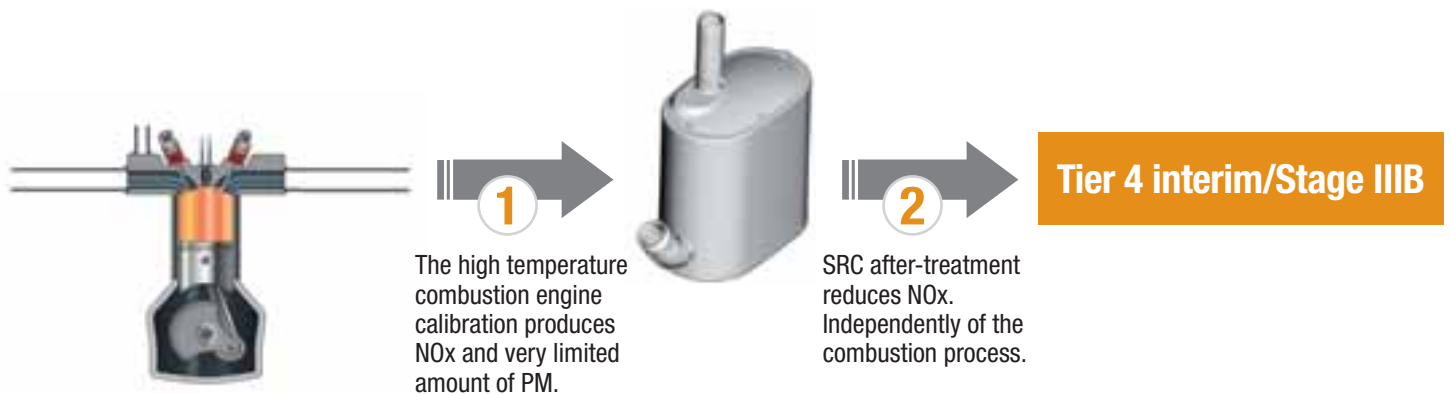
The turbocharged engine with an Air-to-Air intercooler relies on a 3-step injection technology to maximize responsiveness and fuel efficiency with reduced engine noise and vibrations.

4 working modes (max, economy, normal and auto) allow you to maximize productivity or fuel efficiency according to your needs.



Premium Tier 4 technology: “SCR only”

The Selective Catalytic Reduction (SCR) solution meets EPA's Tier 4 interim emission standards in two simple steps:



The Case “SCR only” solution is an after-treatment system that cuts emissions levels with no limitation on engine output. The combustion at high temperature with fresh air delivers more power density with less fuel, resulting in a powerful performance with superior fuel efficiency.

The “SCR only” solution reduces PM in the engine through high combustion temperatures and uses easy to find AdBlue™ diesel exhaust fluid (DEF) to break down NOx.

Our SCR technology is a well-proven reliable solution, in use in Europe since 2004 on trucks.

F-SERIES WHEEL LOADERS

721F | 821F | 921F



10% Lower fuel consumption

The high combustion temperature result in optimum engine performance. The second generation common rail engine ensures better engine control at all rpm. The multiple injection technology delivers optimum combustion control.

Outstanding flat torque

The second generation common rail engine ensures better engine control at all rpm and the 100% fresh air input further improves engine output. The multiple injection technology ensures optimum combustion control, while the 1600 bar injection delivers best-in-class torque performance.

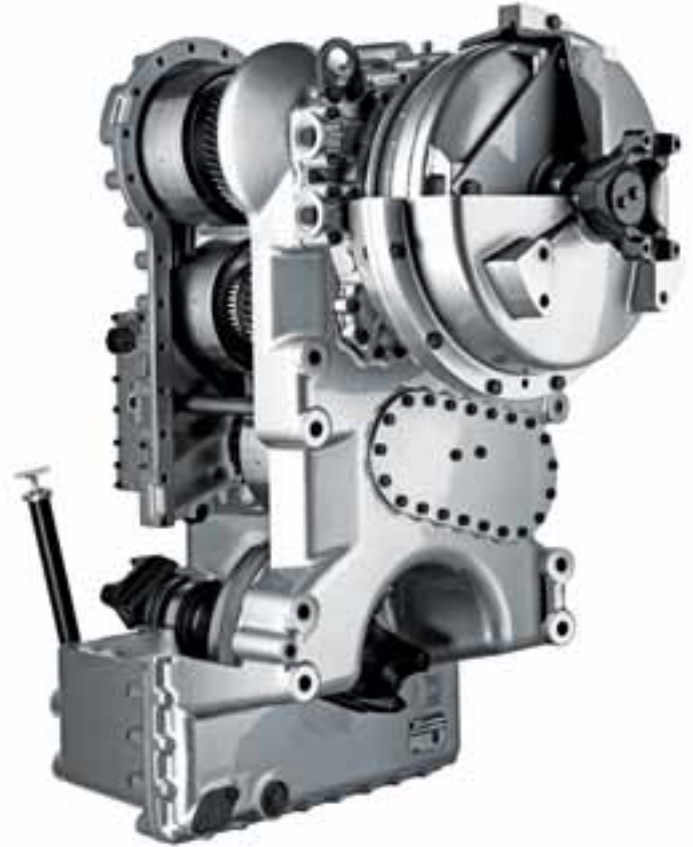
Lower maintenance costs

The combustion chamber and high pressure injection are optimized to reduce oil dilution. The engine only breathes fresh air, so there is no oil contamination. It also has better fuel compatibility because there is no exhaust gas recirculation and it doesn't need a specific oil because with "SCR only" there is no Diesel Particulate Filter.

EFFICIENT TRANSMISSION

Proshift, five premium features:

- **5-speed**
The 5-speed feature enables you to work at lower rpm and fully use the engine's outstanding torque. The big additional push in 2nd gear is useful on terrains such as sandy soil, where the first gear can slip.
- **Lock-up of torque converter:**
The lock-up is auto-activated during traveling, eliminating friction in the torque converter, resulting in more efficiency and 12% more power available for faster travelling. It also can be activated manually.
- **Power inch:**
With Power Inch, positioning the loader is as smooth as it is with a hydrostatic transmission, but with the pushing power of the torque converter – and there is no roll back on slopes.
- **Optimized gear shifting:**
PROSHIFT optimizes gearshift timing and engine de-rating according to engine mode, resulting in smoother shifts and reduced fuel usage.
- **Extended transmission oil intervals:**
Transmission oil intervals have been extended to 1500 hours, maximising uptime and lowering operating costs.



The well proven 4-speed torque converter is also available for a limited investment



No Roll Back even on steep slopes



Easier Positioning during truck loading

F-SERIES WHEEL LOADERS

721F | 821F | 921F



10% Additional fuel efficiency and less maintenance

Proshift delivers 10% more fuel savings than 4-speed transmissions and lengthens the life of transmission oil from 1000 to 1500 hours, resulting in maintenance intervals being 50% longer.

The premium performance of Proshift results in a superior resale value for the 721F, 821F and 921F, as no equivalent model offers such a superior performance.

Maximum productivity

Proshift delivers faster acceleration and, with the slightly shorter 2nd gear, more pushing power.

Power Inch enables faster positioning and ensures there is no roll back even on steep slopes, making it easier and quicker to dump into a truck.

Superior comfort

Proshift results in a remarkably comfortable ride, with exceptionally smooth gear change and, when braking, with engine de-rating.

Power Inch makes dumping into trucks easy and avoids roll back on steep slopes.

HIGH PRODUCTIVITY DIFFERENTIAL AND AXLES



New heavy-duty axles

The new heavy-duty axles are tougher, bigger and easier to service with the 3-piece housing design. Wet multiple disc brakes made of resistant sinter bronze are located in each wheel hub.

Front differential with 100% Auto-lock

With 100% Auto-lock, 100% of the available torque goes to the wheel with adherence, a big step up from the 75% of a limited slip differential! There is no slippage between the wheels and no friction in the differential. The Auto-lock is activated automatically when a front wheel is about to slip, or you can easily do it manually with your left foot.

Open differentials front and rear

With open differentials, no friction is applied to reduce wheel slip, resulting in less wear and lower energy losses.



To reduce your initial investment:

- 921F is also available without 100% auto-lock, suitable for jobs on dry, hard, flat surfaces
- 721F and 821F are also available with limited slip differentials, heavy-duty front axle and standard rear axles

F-SERIES WHEEL LOADERS

721F | 821F | 921F



With L5 tyres, needed for work in very abrasive environments, we recommend heavy-duty axles. Solid tires can be retrofitted

More productivity

100% of available torque is transmitted to the wheels, delivering optimum pushing power.

Greater return on investment

Tyre wear is reduced by 20-30% because there is no slippage between the wheels, fuel consumption is lower because there is no friction in the differential, less maintenance is needed because there are fewer moving components with open differentials. The result: better resale value.

Always reliable

The heavy duty axles and open differentials result in superior reliability.

LOW MAINTENANCE COOLING DESIGN



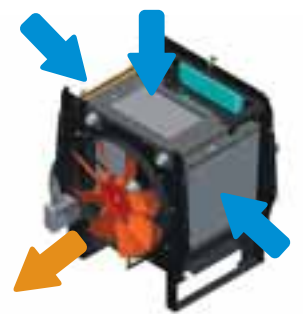
Better weight distribution with the rear mounted engine

The cooling cube

The 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 cooling cube

The engine is mounted at the rear of the machine. 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.



F-SERIES WHEEL LOADERS

721F | 821F | 921F



Less maintenance

The radiators are easy to clean with the reversible fan, which is activated from the cab. The cube design of the cooling system results in more effective cleaning of the radiators, and additional cleaning can be easily done manually, with separate access to each radiator. The efficient cube design also results in a longer life for the cooling fluid, which lasts 500 hours more, so that change intervals are 1500 hours.

Increased reliability

The constant temperature of the fluid maximises its cooling performance and protects the axles, resulting in greater reliability. This is further enhanced by the easy maintenance and longer service intervals.

The better weight distribution means that a smaller counterweight or dead weight is needed, which reduces stress on the axles and the brakes.

Upper class bucket payload

Don't be surprised to notice our wheel loader has the same payload as a competitive model of the upper class of weight: this happens because the rear engine position allows to reduce significantly the amount of dead weight in the machine

PREMIUM ERGONOMICS

Protected cab

Our reinforced cab guarantees protection against roll over (ROPS) and falling objects (FOPS)



Low operator vibrations

Engine noise and vibrations are reduced by 3-step injection: pre-, main- and post-injection. To further increase the operator comfort the rear mounted engine is distant from the cab and standard the seat air suspended. Heated seat is optional.



All controls at your fingertips

Outstanding all-round visibility

You'll feel more confident and work faster with the great all-round visibility provided by the very low shape of the curved rear hood and the ample glazed surfaces.

17 air vents ensure your comfort and prevent the windshields from steaming up.



F-SERIES WHEEL LOADERS

721F | 821F | 921F



PREMIUM ERGONOMICS



Hydraulic functions that add to your comfort

To maximise your focus on the job and reduce your stress levels, you can activate the following functions from the ergonomically positioned control panel under your right hand:

- Auto-shift : ensures the machine always operates in the most suitable gear according to speed, kick down and engine braking
- Reverse button on the joystick: activates front, neutral or reverse
- Return to dig : brings back the bucket in the right position for loading again
- Return to travel : lowers the boom to carry position, which can be adjusted
- Auto-lift : lifts the boom to the max height you have set
- Auto-Ride Control: reduces loader arm bounce during travel, maintaining maximum material retention. It activates from 8 km/h
- Auto-diff lock : The 100% differential lock can be activated manually with your left foot or automatically for greater focus on the job
- Auxiliary circuit lever: For hydraulic attachments such as high tip bucket, you can order the optional auxiliary circuit controlled by a lever next to the joystick for your ease of use.



Joystick steering

Long days of repetitive cycles go faster with joystick steering (optional) because your sitting position is better. The steering wheel is maintained for a better handling. You will appreciate it during transfers on uneven terrains, on a descending slope and in case of emergency



Levers controls

Depending on your habits you may prefer the optional 2-lever control to the standard joystick control. The optional 3rd lever controls the attachment auxiliary circuit. It can also be retrofitted as a kit.

F-SERIES WHEEL LOADERS

721F | 821F | 921F



FAST AND EASY MAINTENANCE

One-piece electric hood

The positioning of the engine at the rear and the easy-to-open electric hood ensure fast access to the service points. Jumper cables are available as standard for jump starting the engine if the battery is low.

Ground level maintenance design

Don't be surprised if you don't see any safety handrails around the hood or steps behind the rear wheels, all service points are easily accessible at ground level. You can do a fast visual check of the hydraulic and transmission oil levels. The three drains are grouped together on the left side, below the hood and battery switches, so that fluids are easy and quick to replace.

Less maintenance, more uptime

You can maximise the working time with these wheel loaders, with the long service intervals of 1500 hours for the transmission oil and filter, the axle oil and filter, and the coolant. The positioning of the cooling system behind the cab means that it needs less cleaning, and the cooling cube design enables you to clean very efficiently with the reversible fan as well as manually. Both pumps and engine distributions rely on one belt only for faster maintenance

Greater Safety

All the main service points are easily accessible from the ground, so you can carry out your daily maintenance safely and efficiently.



The layout of the components under the hood is optimized and results in easier maintenance.



Hood opening and battery on/off switches. In case of flat battery, hood opening can be done externally with remote jump start



Grouped drains



Only one AdBlue fill is need every 3 fuel fill

F-SERIES WHEEL LOADERS

721F | 821F | 921F



THE DNA OF YOUR 721F

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 _____ 140 m³/h or 280 t/h
52 loading cycles/h with standard bucket 2.7 m³ or 5.4 tonnes

Engine Tier 4 interim

Compliant with Tier 4 interim (EU stage IIIB regulations)

FPT turbocharged engine FAHFE613Y with:

- 100% fresh air combustion
- Air to Air intercooler
- Second generation 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 _____ 145 kW / 195 hp @1800 rpm

Maximum torque SAE J1349 _____ 950 Nm @1300 rpm

Nox emission _____ 1,53 g/kWh

HC emission _____ 0,02 g/kWh

CO emission _____ 0,23 g/kWh

PM emission _____ 0,0106 g/kWh

Transmission

All-wheel drive with planetary axles

Kick-down function

5-speed powershift with lock up (proshift)

5-speed transmission. Lock-up eliminates torque converter friction as from 8 km/h.

Power inch _ proportional declutching depending on braking intensity
forward speeds _____ 7-13-19-30-40 Km/h

reverse speeds _____ 8-14-31 Km/h

4-speed torque converter

4-speed auto Powershift switchable to manual shifting

ZF , switchable to manual shifting

forward speeds _____ 8-13-25-37 Km/h

reverse speeds _____ 8-13-26 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 (options) 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-L3085-II)

Rear _____ standard axle (ZF type MT-L3075-II)

Rear axle total oscillation _____ 24°

Tyres

Tyres _____ 20,5R25

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.
Main valve with 3 sections

Steering _____ The steering orbitrol hydraulically is actuated with priority valve

Type of pump _____ Tandem Variable displacement pump
(206 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 _____ 246 usable litres

AdBlue tank _____ 41.3 usable litres

Cooling system _____ 28 litres

Engine oil _____ 15 litres

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

Transmission oil _____ 34 litres

Cab and controls

For your 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

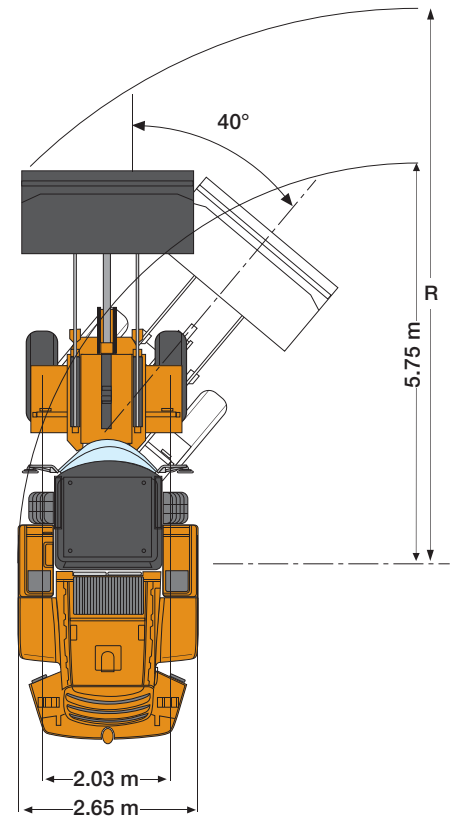
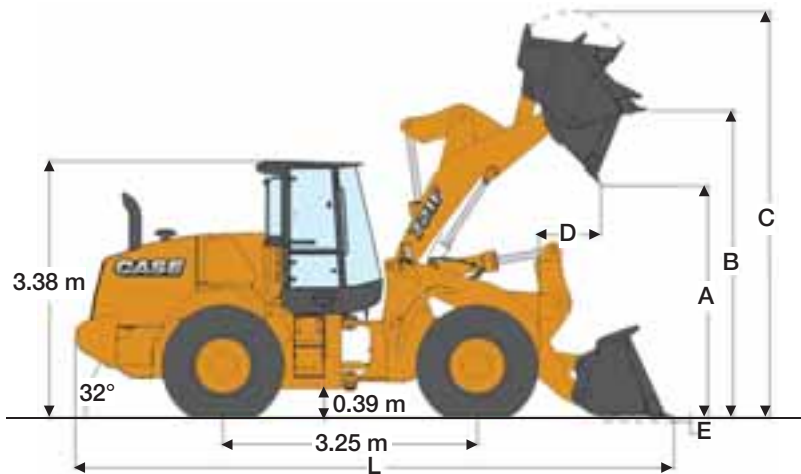
Vibrations _____ air-cushioned seat MSG 95A/732
average 1.4m/s² as per ISO/TR 25398:2006

Electrical system

24V. Batteries 2 x 12V.

Alternator _____ 65A

721F Specifications



LOADER SPEED

| | |
|-----------------------------------|---------|
| Raising time (loaded) | 5.2 sec |
| Dump time (loaded) | 1.2 sec |
| Lowering time (empty, power down) | 2.5 sec |
| Lowering time (empty, float down) | 2.4 sec |

| 721F | Z-BAR buckets | | | | XR buckets | | | | XT buckets | | |
|--|-----------------------|--------------------|-------|-------------------------|------------|---------------------------|-------|-------------------------|------------|-------------------------|-------|
| | Bucket with bolt on: | 2.7 m ³ | | 2.4 m ³ w/QC | | 2.7 m ³ bucket | | 2.4 m ³ w/QC | | 2.4 m ³ w/QC | |
| | | edge | teeth | edge | teeth | edge | teeth | edge | teeth | edge | teeth |
| Bucket volume (heaped) | m ³ | 2.7 | 2.7 | 2.4 | 2.4 | 2.7 | 2.7 | 2.4 | 2.4 | 2.4 | 2.4 |
| Bucket Payload | kg | 5440 | 5369 | 5299 | 5325 | 4533 | 4464 | 4385 | 4409 | 4924 | 4946 |
| Maximum material density | tonnes/m ³ | 2.0 | 2.0 | 2.2 | 2.2 | 1.7 | 1.7 | 1.8 | 1.8 | 2.1 | 2.1 |
| Bucket outside width | m | 2.73 | 2.73 | 2.47 | 2.47 | 2.73 | 2.73 | 2.47 | 2.47 | 2.47 | 2.47 |
| Bucket weight | kg | 1237 | 1344 | 1656 | 1619 | 1237 | 1344 | 1656 | 1619 | 1627 | 1590 |
| Tipping load - straight | kg | 12435 | 12292 | 11356 | 11405 | 10419 | 10280 | 10129 | 10177 | 11280 | 11326 |
| Tipping load - Articulated at 40° | kg | 10881 | 10738 | 10599 | 10649 | 9066 | 8927 | 8770 | 8818 | 9847 | 9893 |
| Breakout force | kg | 14236 | 12885 | 12185 | 11284 | 14160 | 12817 | 12040 | 11151 | 12016 | 11193 |
| Lift capacity from ground | kg | 13607 | 13480 | 13419 | 13462 | 11302 | 11177 | 11072 | 11115 | 13096 | 13111 |
| A - Dump height at 45° at full height | m | 2.93 | 2.86 | 2.82 | 2.74 | 3.33 | 3.26 | 3.21 | 3.14 | 2.77 | 2.69 |
| B - Hinge pin height | m | 3.98 | 3.98 | 3.98 | 3.98 | 4.37 | 4.37 | 4.37 | 4.37 | 4.16 | 4.16 |
| C - Overall height | m | 5.52 | 5.52 | 5.51 | 5.51 | 5.91 | 5.91 | 5.90 | 5.90 | 5.67 | 5.66 |
| D - Bucket reach at full height | m | 1.13 | 1.21 | 1.28 | 1.36 | 1.13 | 1.21 | 1.28 | 1.36 | 1.27 | 1.36 |
| E - Dig depth | cm | 7.4 | 7.4 | 6.2 | 6.7 | 7.6 | 7.7 | 6.5 | 6.9 | 21 | 21.3 |
| Overall length without bucket | m | 6.53 | 6.53 | 6.53 | 6.53 | 6.85 | 6.85 | 6.85 | 6.85 | 6.52 | 6.52 |
| L - Overall length with bucket on the ground | m | 7.65 | 7.76 | 7.83 | 7.95 | 7.65 | 7.76 | 8.18 | 8.30 | 8.12 | 8.24 |
| R - Turning radius to front corner of the bucket | m | 6.3 | 6.4 | 6.3 | 6.3 | 6.5 | 6.5 | 6.5 | 6.5 | 6.2 | 6.3 |
| Bucket rollback in carry position | ° | 43 | 43 | 38 | 38 | 41 | 41 | 36 | 36 | 58 | 58 |
| Dump angle at full height | ° | 55 | 55 | 61 | 61 | 55 | 55 | 61 | 61 | 54 | 54 |
| Machine operating weight | kg | 14225 | 14532 | 14844 | 14807 | 14644 | 14751 | 15063 | 15026 | 14915 | 14878 |

THE DNA OF YOUR 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 tonnes

Engine Tier 4 interim

Compliant with Tier 4 interim (EU stage IIIB regulations)

FPT turbocharged engine FAHFE613X with:

- 100% fresh air combustion
- Air to Air intercooler
- Second generation 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 _____ 1184 Nm @1300 rpm

Nox emission _____ 1,53 g/kWh

HC emission _____ 0,02 g/kWh

CO emission _____ 0,23 g/kWh

PM emission _____ 0,0106 g/kWh

Transmission

All-wheel drive with planetary axles

kick-down function

5-speed powershift with lock up (proshift)

5-speed transmission. Lock-up eliminates torque converter friction as from 8 km/h.

Power inch _ proportional declutching depending on braking intensity
forward speeds _____ 6,6-11-17-26-40 Km/h

reverse speeds _____ 7-12-28 Km/h

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. Main valve with 3 sections

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

AdBlue tank _____ 41.3 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 your 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

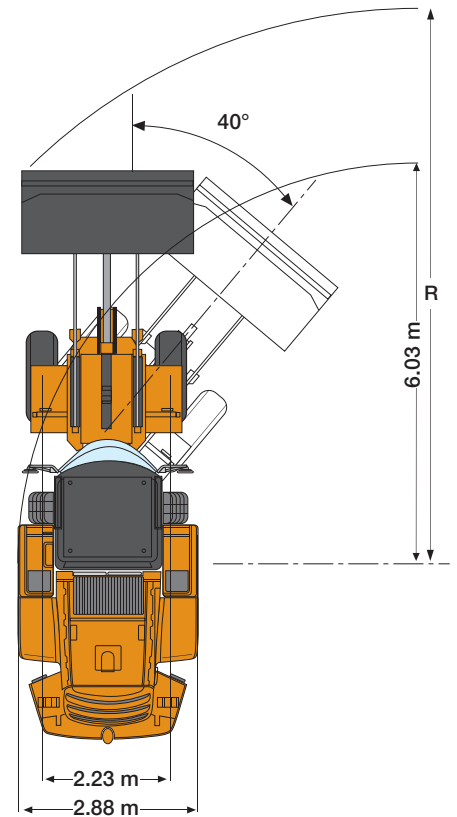
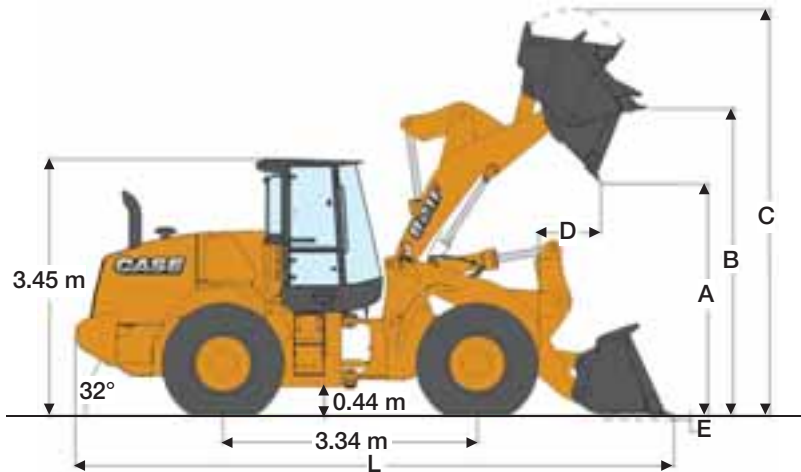
Vibrations _____ air-cushioned seat MSG 95A/732
average 1.4m/s² as per ISO/TR 25398:2006

Electrical system

24V. Batteries 2 x 12V.

Alternator _____ 65A

821F Specifications



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 | | Z-BAR buckets | | | | XR buckets | | | | | | |
|------|--|-----------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|-------|
| | | 3.4 m ³ | | 3.2 m ³ | | 2.8 m ³ | | 3.2 m ³ | | 2.8 m ³ | | |
| | Bucket with bolt on: | edge | teeth | edge | teeth | edge | teeth | edge | teeth | edge | teeth | |
| | Bucket volume (heaped) | m ³ | 3.42 | 3.24 | 3.20 | 3.10 | 2.8 | 2.5 | 3.2 | 3.1 | 2.8 | 2.5 |
| | Bucket Payload | kg | 6146 | 6268 | 6184 | 6295 | 6274 | 6478 | 4878 | 4970 | 4968 | 5123 |
| | Maximum material density | tonnes/m ³ | 1.80 | 1.94 | 1.93 | 2.03 | 2.24 | 2.59 | 1.53 | 1.60 | 1.77 | 2.05 |
| | Bucket outside width | m | 2.95 | 2.95 | 2.94 | 2.94 | 2.95 | 2.94 | 2.95 | 2.94 | 2.95 | 2.94 |
| | Bucket weight | kg | 1550 | 1460 | 1520 | 1430 | 1366 | 1276 | 1520 | 1430 | 1366 | 1276 |
| | Tipping load - straight | kg | 14203 | 14465 | 14284 | 14523 | 14465 | 14917 | 11366 | 11562 | 11547 | 11889 |
| | Tipping load - Articulated at 40° | kg | 12293 | 12536 | 12367 | 12590 | 12547 | 12955 | 9756 | 9941 | 9936 | 10246 |
| | Breakout force | kg | 15076 | 16133 | 15473 | 16676 | 17751 | 19180 | 15721 | 16953 | 18032 | 19496 |
| | Lift capacity from ground | kg | 17976 | 18137 | 18055 | 18201 | 18263 | 18559 | 13725 | 13885 | 13938 | 14237 |
| | A - Dump height at 45° at full height | m | 2.94 | 2.86 | 2.96 | 2.88 | 3.06 | 2.99 | 3.34 | 3.33 | 3.50 | 3.43 |
| | B - Hinge pin height | m | 4.12 | 4.12 | 4.12 | 4.12 | 4.12 | 4.12 | 4.56 | 4.56 | 4.56 | 4.56 |
| | C - Overall height | m | 5.49 | 5.49 | 5.45 | 5.45 | 5.29 | 5.29 | 5.89 | 5.89 | 5.73 | 5.73 |
| | D - Bucket reach at full height | m | 1.17 | 1.13 | 1.15 | 1.27 | 1.02 | 1.14 | 1.26 | 1.38 | 1.14 | 1.26 |
| | E - Dig depth | cm | 7 | 5 | 7 | 5 | 7 | 5 | 14 | 11 | 14 | 11 |
| | L - Overall length with bucket on the ground | m | 7.94 | 8.06 | 7.90 | 8.03 | 7.74 | 7.86 | 8.39 | 8.52 | 8.23 | 8.35 |
| | Overall length without bucket | m | 6.78 | 6.78 | 6.78 | 6.78 | 6.78 | 6.78 | 7.24 | 7.24 | 7.24 | 7.24 |
| | R - Turning radius to front corner of the bucket | m | 6.6 | 6.7 | 6.6 | 6.6 | 6.6 | 6.6 | 6.9 | 6.9 | 6.8 | 6.8 |
| | Bucket rollback in carry position | ° | 44 | 44 | 44 | 44 | 44 | 44 | 43 | 43 | 43 | 43 |
| | Dump angle at full height | ° | 55 | 55 | 55 | 55 | 55 | 55 | 49 | 49 | 49 | 49 |
| | Machine operating weight | kg | 17694 | 17604 | 17664 | 17574 | 17510 | 17420 | 18046 | 17956 | 17892 | 17802 |

THE DNA OF YOUR 921F

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 _____ 210 m³/h or 375 t/h
52 loading cycles/h with standard bucket 4.0 m³ or 7.2 tonnes

Engine Tier 4 interim

compliant with Tier 4 interim (EU stage IIIB regulations)

FPT turbocharged engine FAHFE6131 with:

- 100% fresh air combustion

- Air to Air intercooler

- 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 _____ 190kW / 255 hp @1800 rpm

Maximum torque SAE J1349 _____ 1300 Nm @1300 rpm

Nox emission _____ 1,53 g/kWh

HC emission _____ 0,02 g/kWh

CO emission _____ 0,23 g/kWh

PM emission _____ 0,0106 g/kWh

Transmission

All-wheel drive with planetary axles

kick-down function

5-speed powershift with lock up (proshift)

5-speed transmission. Lock-up eliminates torque converter friction as from 8 km/h.

Power inch _ proportional declutching depending on braking intensity
forward speeds _____ 6,4-11-17-26-40 Km/h

reverse speeds _____ 7-12-28 Km/h

4-speed torque converter

4-speed auto Powershift switchable to manual shifting

ZF , switchable to manual shifting

forward speeds _____ 7-12-23-36 Km/h

reverse speeds _____ 7-13-24 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 (options) 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 and rear _____ Heavy Duty axle +(ZF type MT-L3095-II)

Rear axle total oscillation _____ 24°

Tyres

Tyres _____ 23,5R25

Brakes

Service brake _____ Maintenance free, self-adjusting wet 4-wheel disc brakes

Area _____ 0.47 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. Main valve with 3 sections

Steering _____ The steering orbitrol hydraulically is actuated with priority valve

Type of pump _____ Tandem Variable displacement pump (282 l/min @2000 rpm)

Automatic hydraulic functions

- Bucket Return-to-dig

- Boom Return-to-travel

- Auto.lift (to adjustableheight)

Control type _____ Pilot control with single joystick or two levers

Capacities

Fuel tank _____ 288 usable litres

AdBlue tank _____ 41.3 usable litres

Cooling system _____ 30 litres

Engine oil _____ 15 litres

Hydraulic oil _____ Tank: 110 litres, total system: 200 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 ISO6595/6396/3744

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

Switchable reverse gear alarm

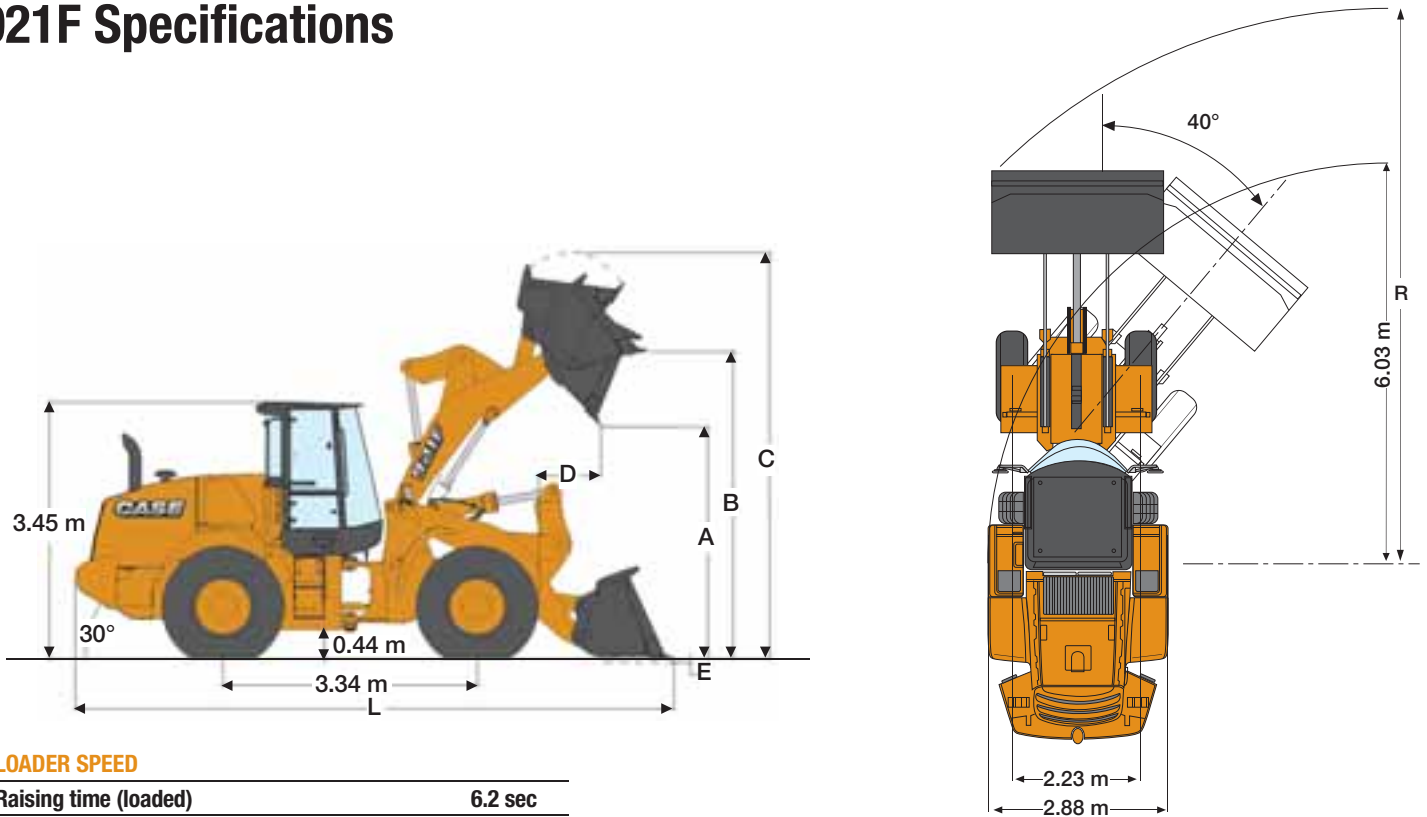
Vibrations _____ air-cushioned seat MSG 95A/732
average 1.4m/s² as per ISO/TR 25398:2006

Electrical system

24V. Batteries 2 x 12V.

Alternator _____ 65A

921F Specifications



LOADER SPEED

| | |
|-----------------------------------|---------|
| Raising time (loaded) | 6.2 sec |
| Dump time (loaded) | 1.4 sec |
| Lowering time (empty, power down) | 3.8 sec |
| Lowering time (empty, float down) | 3.1 sec |

| 921F | | Z-BAR buckets | | XR buckets | | |
|------|--|-----------------------|-------|--------------------|-------|-------|
| | | 4.0 m ³ | | 4.0 m ³ | | |
| | Bucket with bolt on: | edge | teeth | edge | teeth | |
| | Bucket volume (heaped) | m ³ | 3.98 | 3.82 | 3.98 | 3.80 |
| | Bucket Payload | kg | 7205 | 7245 | 5695 | 5735 |
| | Maximum material density | tonnes/m ³ | 1.8 | 1.9 | 1.4 | 1.5 |
| | Bucket outside width | m | 2.98 | 2.98 | 2.98 | 2.98 |
| | Bucket weight | kg | 1922 | 1807 | 1922 | 1807 |
| | Tipping load - straight | kg | 16765 | 16867 | 13361 | 13463 |
| | Tipping load - Articulated at 40° | kg | 14409 | 14491 | 11389 | 11471 |
| | Breakout force | kg | 17738 | 18886 | 18061 | 19209 |
| | Lift capacity from ground | kg | 21587 | 21735 | 16739 | 16887 |
| A | Dump height at 45° at full height | m | 2.86 | 2.86 | 3.22 | 3.22 |
| B | Hinge pin height | m | 4.12 | 4.12 | 4.56 | 4.56 |
| C | Overall height | m | 5.71 | 5.71 | 6.15 | 6.15 |
| D | Bucket reach at full height | m | 1.05 | 1.16 | 1.19 | 1.3 |
| E | Dig depth | cm | 7 | 7 | 14 | 14 |
| L | Overall length with bucket on the ground | m | 7.92 | 8.07 | 8.41 | 8.56 |
| | Overall length without bucket | m | 6.78 | 6.78 | 7.24 | 7.24 |
| R | Turning radius to front corner of the bucket | m | 6.6 | 6.7 | 6.6 | 6.7 |
| | Bucket rollback in carry position | ° | 44 | 44 | 43 | 43 |
| | Dump angle at full height | ° | 50 | 50 | 44 | 44 |
| | Machine operating weight | kg | 20068 | 19953 | 20210 | 20095 |



Form No. 20035GB - Printed in Italy - MediaCross Firenze - 04/12

Worldwide Case Construction Equipment Contact Information

EUROPE:

via Plava, 80
10135 TORINO - ITALIA

AFRICA/MIDDLE EAST/CIS:

Riva Paradiso 14
6902 Paradiso - SWITZERLAND

NORTH AMERICA/MEXICO:

700 State Street
Racine, WI 53404 U.S.A.

LATIN AMERICA:

Av. General David Sarnoff 2237
32210 - 900 Contagem - MG
Belo Horizonte BRAZIL

ASIA PACIFIC:

Unit 1 - 1 Foundation Place - Prospect
New South Wales - 2148 AUSTRALIA

CHINA:

No. 29, Industrial Premises, No. 376.
De Bao Road, Waigaoqiao Ftz, Pudong,
SHANGHAI, 200131, P.R.C.

CASE Construction Equipment

CNH UK Ltd
Unit 4,
Hayfield Lane Business Park,
Field Lane, Auckley,
Doncaster,
DN9 3FL
Tel. 00800-2273-7373
Fax +44 1302 802829



CASE Customer Assistance
00800-2273-7373

The call is free from a land line. Check in advance with your Mobile Operator if you will be charged.

NOTE: Standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional rather than standard fittings - consult your Case dealer. Furthermore, CNH reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC



www.casece.com