

**F-SERIES COMPACT WHEEL LOADERS
21F | 121F | 221F | 321F**

CASE
CONSTRUCTION



**TIER 4
FINAL**

**PERFECT IN
EVERY MISSION**

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**EXPERTS FOR THE REAL WORLD
SINCE 1842**

HERITAGE

A TRADITION OF INDUSTRY FIRSTS



EXPERTS FOR THE REAL WORLD SINCE 1842

1842 Case is founded.

1869 First Case portable steam engine - road construction is born.

1957 The first factory - integrated loader/backhoe in the world: a Case industry first.

1958 The first Case 4-WD wheel loader, the W9.

1992 Case expands its wheel loader range with 21B, 121B, 221B and 321B models.

1998 Ride control on loader backhoes and skid steer loaders: another Case first.

2001 The exclusive Cooling Cube in Case wheel loaders means clean engine, reliability and massive bucket payloads.

2005 The E-Series compliant with EU Stage IIIA / Tier 3 regulations and with High Travel Speed option is launched.

2014 Case launches Tier 4 Final / EU Stage IIIB compact wheel loaders.

2015 Case extends its European product line-up with the new grader range.

ENGINE PERFECT IN EVERY MISSION



LOW EMISSIONS

FPT, in-house advanced engine technology

Case equipment features the advanced in-house engine technology developed by sister company FPT Industrial that pioneered low emissions, high efficiency solutions for on- and off-road applications. With a broad portfolio of technologies and products, FPT brings to Case customers the competitive advantage of powertrain technologies that reliably delivers high performance with low operating costs – proven technologies from a global engine manufacturer that produces as many as 600,000 engines a year.

- 3.4 liter 4-cylinder Turbocharged Multiple Injection High Pressure Common Rail Engine with Waste Gate for optimum turbo pressure stability
- Tier 4 final / EU Stage IIIB compliant using **Maintenance Free** Technology:
 - The DOC produces NO₂ by the oxidation of NO
 - Particulate Matters (PM) are trapped in the PM-Catalyst. The reaction with NO₂ convert PM's into carbon dioxide (CO₂) and pure nitrogen (N) passively.



Model	21F	121F	221F	321F
Power	58 hp / 43	64 hp / 48 kW	74 hp / 55 kW	74 hp / 55 kW
Torque	245 N.m	261 N.m	316 N.m	316 N.m

F-SERIES COMPACT WHEEL LOADERS



OUTSTANDING STABILITY

Oscillating rear axle

The combination of the articulated joint and the rear oscillating axle reduces maximum cab oscillation by 50% or more.



MILLIMETRIC CONTROL

Inch and brake pedal

It progressively disengages the transmission during the decelerating phase and progressively engages the brakes.

PRODUCTIVITY AND PRECISION IN EVERY MISSION



HIGH PAYLOAD

Handle heavier pallets



LOW CAB PROFILE

Take the shortest path

No waste of time with the reduced cab height:

- 21F and 121F: 2.46 m
- 221F: 2.63 m
- 321F: 2.68 m

You can always take the shortest path from point A to point B - in indoor jobs or when transporting on a truck.



SUPERIOR DUMP HEIGHT

Centred and higher loading

The superior hinge pin height and the Case “banana” arms make it easy to load at the centre of the trailer without touching the edge with the arms.

MAIN REASONS TO CHOOSE THE F-SERIES



COMFORTABLE AND SAFE CAB

- 10 air vents ensure perfect climate control in all seasons
- Control all functions from the joystick



HIGH VERSATILITY

Easy asphalt planing, snow blowing, brooming, compacting and much more with:

- 1 or 2 auxiliary hydraulic circuit
- Creep speed: max flow at constant low speed
- High flow option on 221F and 321F
- The wide offering of Case attachments



FAST ATTACHMENT CHANGE OVER

- Hydraulic coupler controlled from the all-in-one joystick
- Depressurized push-pull connectors



AUTO-RIDE CONTROL

Ride Control, activated only when needed, over 7 km/h prevents arm bouncing.



HIGH PAYLOAD

- From 1,9 t up to 2,5 t tipping load
- Auto-Ride Control optimizes bucket retention



SHORT TURNING RADIUS

Makes your day-to-day job easier when working in tight spaces.





LOW CAB PROFILE

Easy transport on truck,
quick access to the cab

- 21F and 121F: 2.46 m
- 221F: 2.63 m
- 321F: 2.68 m



CAB SAFETY

Keeps you protected in case the machine rolls over or a 227 kg object falls from 5 m high (ROPS and FOPS level II).



LOW EMISSIONS

- EU Stage IIIB / Tier 4 final compliant
- No particulate filter
- No fuel injectors in the exhaust



FAST TRAVELLING

- Engage Turtle/Rabbit speed under load
- 221F and 321F are available in High Travel Speed (HTS) version: 33 km/h



EASY ACCESS

Step in and out of the cab in a second.



OUTSTANDING STABILITY

- Oscillating rear axle
- Easier levelling on rough terrains

ATTACHMENTS

GREAT ADAPTABILITY



HIGH VERSATILITY

Ready for every attachment



FAST ATTACHMENT CHANGE OVER

Plug and unplug your attachment in a few seconds

With the depressurized push-pull connectors you will never need hand tools to swap your attachments

Front electrical socket

For multi-functioning or special attachments

Standard flow or high flow

- Standard Flow (Max pressure: 230 bar):
 - 21F-121F: 67 lpm @ 2500 rpm
 - 221F-321F: 85 lpm @ 2500 rpm
- The High Flow package is available on 221F-321F:
 - 130 lpm @ 2500 rpm

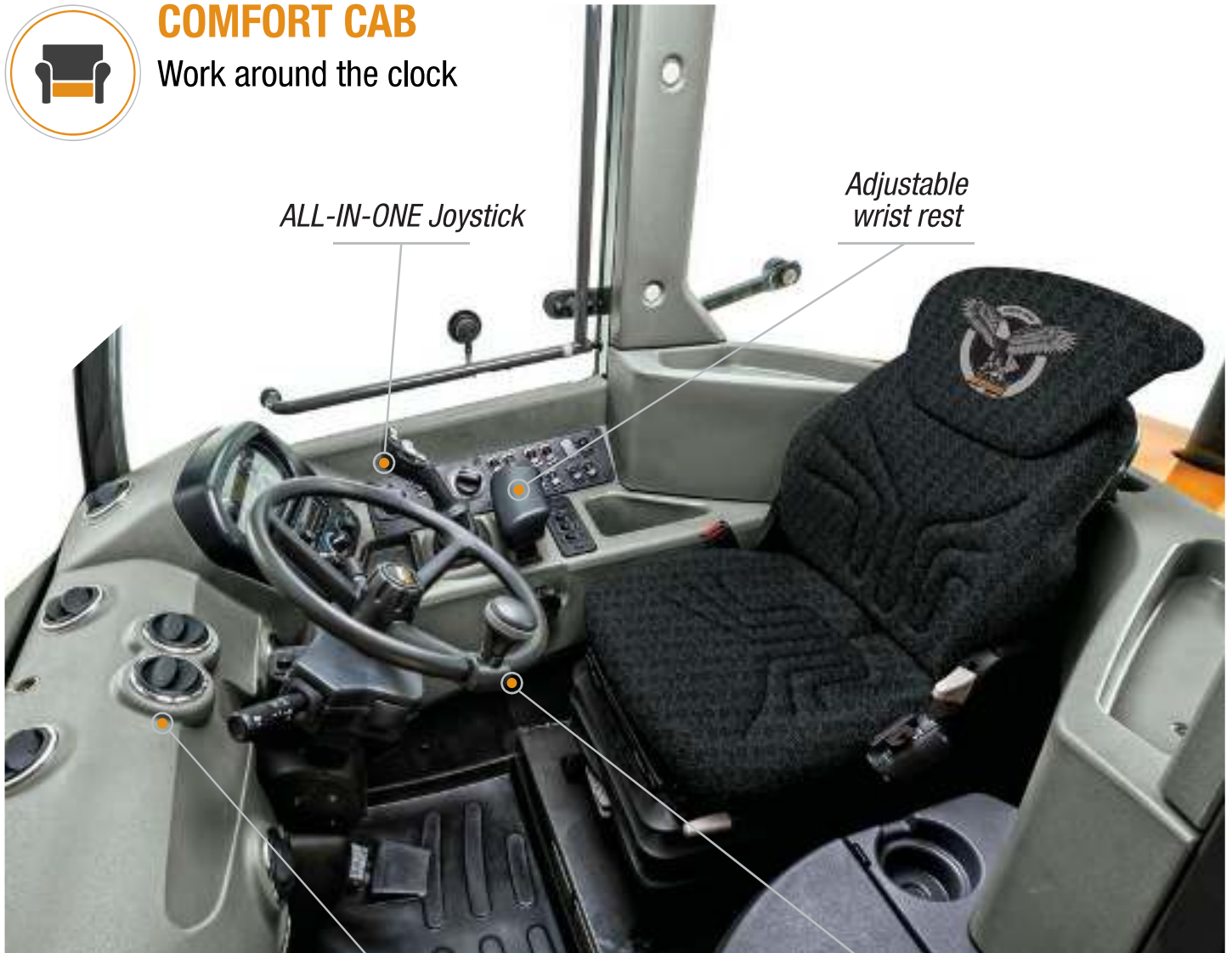
High Flow option always comes as part of a package including Creep Speed, Front electrical socket and Return Depressurized Drain.

COMFORT AND SAFETY IN ALL WORK CONDITIONS



COMFORT CAB

Work around the clock



ALL-IN-ONE Joystick

Adjustable wrist rest

10 air vents

Tilting adjustment of the steering wheel



CAB SAFETY

Cab structure: ROPS and FOPS level 2 come as standard

Designed to protect the operator in case the machine rolls over or a 227 kg rock falls from 5 meters height on the roof.



EASY ACCESS

Easy entrance

With low cab floor and wide steps.

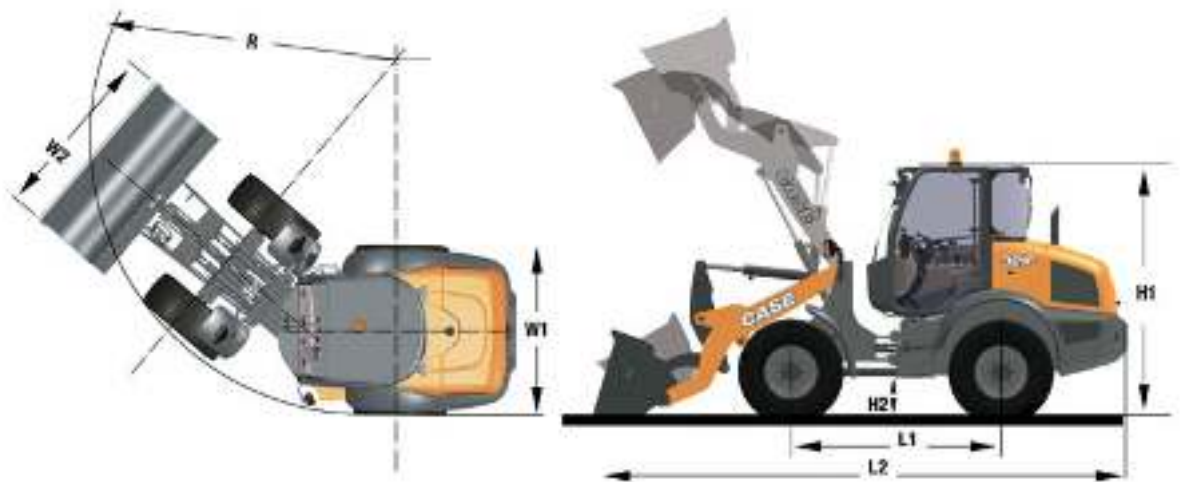
If you want even more

The Deluxe Option includes an additional storage compartment under you left hand, storage spaces around the seat and height adjustment of the steering wheel.

F-SERIES

COMPACT WHEEL LOADERS

GENERAL DIMENSIONS



	21F	121F	221F	321F
H1	2.46 m	2.46 m	2.63 m	2.68 m
H2	45 cm	45 cm	44 cm	49 cm
W1	1.74 m	1.74 m	1.80 m	1.86 m
W2	1.90 m	2.05 m	2.05 m	2.10 m
L1	2.08 m	2.08 m	2.22 m	2.23 m
R	3.72 m	3.72 m	3.99 m	3.99 m

TRANSMISSION

Hydrostatic 4-wheel Drive Transmission _____ Travel speed is proportional to the pressure on the throttle.

Speed with standard tyres

Operating speed range _____ 0–5 km/h

Travel speed range _____ 0–20 km/h

Optional High Travel Speed _____ 33 km/h

(upon request on 221F and 321F)

“Inch & Brake” Pedal

Power transfer from the transmission to the bucket hydraulics at constant rpm. Optimum speed control at low speed.

Optional Creep Speed (upon request on 221F and 321F):

Set and adjust travel speed in the 1–5 km/h range, adjust engine rpm for hand-free asphalt planing, snow blowing, brooming.

DIFFERENTIAL CHOICE

Limited slip front & rear (all models) or Front & rear open diff (21F & 121F) or open with 100% lock on front and rear differentials (221F & 321F)

TYRES

Standard

21F/121F _____ 12.5–18

221F _____ 12.5–20

321F _____ 14.5–20

More special tyres upon request

BRAKES

Standard brakes _____ disc brake.

Located in hubs for 221F/321F, centre mounted for 21F/121F

Parking brakes _____ disc brake on transmission shaft

STEERING

Fully hydraulic center pivot steering.
Front and rear wheels follow the same track.
Steering angle of 40° to each side.
Emergency steering function.

ELECTRICAL SYSTEM

Voltage _____ 12 V
Battery _____ 95 A.h
Alternator _____ 120 A.h

CAPACITIES

Diesel _____ 87 l
Engine oil _____ 7 l
Cooling liquid _____ 16 l
Total hydraulic oil _____ 57 l
Front axle _____ 9 l
Rear axle _____ 12 l

HYDRAULICS

Gear pump for loading and steering hydraulics
Priority valve favouring steering hydraulics
3rd or 4th functions are proportionally controlled by the All-in-one Joystick with , Flow memory button as standard.

Standard Flow

21F-121F _____ 67 lpm @ 2500 rpm

221F-321F _____ 85 lpm @ 2500 rpm

High Flow package

available upon request on

221F-321F _____ 130 lpm @ 2500 rpm

NOISE AND VIBRATIONS

External - Guaranteed acoustic power-level LWA (1) _____ 101 dB

Cab interior - Sound Pressure Level (2) 21F - 121F: _____ 71 dB

221F - 321F: _____ 72 dB

Hand- / arm- / body -vibration (3) _____ < 2.5 / 0.5 m/s²

(1) According to 2000/14/EG & annexes.

(2) According to ISO 6396.

(3) According to ISO 8041

EMISSIONS

Nox + HC _____ 4.5 g/kW/h

CO _____ 0.10 g/kW/h

PM _____ 0.02 g/kW/h

SPECIFICATIONS

EASY PALLET LOADING

Linkage: Mechanical self-levelling on XT and Z-bar

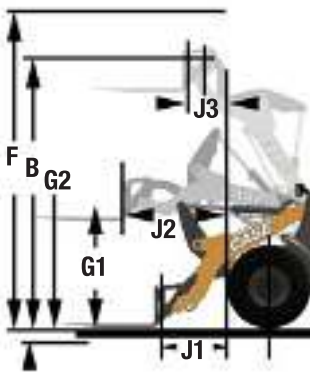


Z-bar is the most versatile linkage type. It offers more breakout force thanks to the 2 lifting cylinders and a higher dump height.



XT is the best linkage for pallet handling. Visibility on the pallet is the best with one lifting cylinder only and payload is optimum

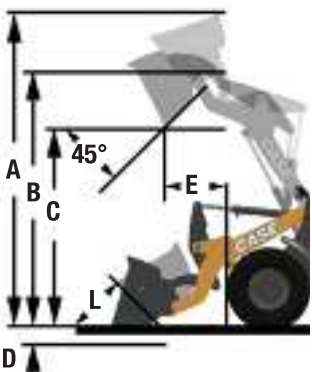
SPECIFICATIONS WITH FORKS



	21F		121F		221F	321F
	Z-BAR	XT	Z-BAR	XT	Z-BAR	Z-BAR
Tipping load straight	2.8 t	3.0 t	3.0 t	3.2 t	3.1 t	3.6 t
Tipping load at full turn (40°)	2.4 t	2.6 t	2.6 t	2.8 t	2.7 t	3.0 t
Payload @80%*	1.9 t	2.1 t	2.1 t	2.2 t	2.2 t	2.5 t
F Max overall height	3.48 m	3.63 m	3.53 m	3.65 m	3.63 m	3.73 m
B Hinge pin height	3.14 m	3.11 m	3.18 m	3.13 m	3.29 m	3.40 m
G2 Max fork height	2.90 m	2.96 m	2.95 m	2.97 m	3.08 m	3.19 m
G1 Forks height @ max reach	1.27 m	1.34 m	1.27 m	1.34 m	1.34 m	1.39 m
J1 Reach @ ground level	0.94 m	0.77 m	1.01 m	0.80 m	0.99 m	0.99 cm
J2 Max Reach	1.35 m	1.26 m	1.41 m	1.27 m	1.43 m	1.43 cm
J3 Reach @ max height	0.59 m	0.46 m	0.63 m	0.47 m	0.61 m	0.61 m
Operating weight with forks	5020 kg	4910 kg	5310 kg	5090 kg	5559 kg	6060 kg

* on even ground, according to ISO 8313 and EN 474-3

SPECIFICATIONS WITH BUCKET



	21F		121F		221F	321F
	Z-BAR	XT	Z-BAR	XT	Z-BAR	Z-BAR
Bucket Volume (SAE)	0.7-1.0 m ³		0.8-1.1 m ³		0.9 - 1.2 m ³	1.0 - 1.3 m ³
Tipping load straight	3.9 t	3.8 t	4.1 t	4.1 t	4.2 t	4.6 t
Tipping load at full turn (40°)	3.2 t	3.3 t	3.3 t	3.5 t	3.6 t	3.7 t
Payload @50%	1.6 t	1.6 t	1.7 t	1.8 t	1.8 t	1.9 t
Breakout Force	5925 daN	4024 daN	5375 daN	3849 daN	6269 daN	6194 daN
L2 Length with bucket	5.28 m	5.23 m	5.39 m	5.33 m	5.62 m	5.68 m
A Max bucket height	3.94 m	3.94 m	4.01 m	4.09 m	4.18 m	4.32 m
B Hinge pin height	3.14 m	3.11 m	3.18 m	3.13 m	3.29 m	3.40 m
C Dump height @45°	2.49 m	2.34 m	2.52 m	2.35 m	2.60 m	2.69 m
D Dig Depth	7.3 cm	13 cm	12 cm	14 cm	10 cm	8.4 cm
E Reach at full height	77 cm	71 cm	83 cm	74 cm	85 cm	85 cm
Operating weight (std. bucket)	5115 kg	5015 kg	5423 kg	5208 kg	5694 kg	6195 kg
Operating weight (4-in-1 bucket)	5414 kg	5304 kg	5742 kg	5507 kg	6034 kg	6535 kg

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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 Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC

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