Faster, Fuel Efficient

www.casece.com
EXPERTS FOR THE REAL WORLD
SINCE 1842
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
ADVANCED ENGINE TECHNOLOGY
EFFICIENT TRANSMISSION

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.
LOW MAINTENANCE
COOLING DESIGN

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 mid-mount 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.
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.
PREMIUM ERGONOMICS

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.

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 an air suspension seat is standard.
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.
LEVERS OR JOYSTICK LOADER CONTROL

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.

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.
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 CASE DEALER: YOUR PROFESSIONAL PARTNER

Your success starts with world-class Case machinery and attachments. Your Case dealer will help you work smarter and faster by selecting equipment that delivers performance and operator comfort. Your dealer has the knowledge and experience necessary to help you choose the right attachments so you can…

- Work faster and extend equipment life.
- Increase machine utilization.
- Increase your capabilities.

Let your Case dealer service your machine on the jobsite. You’ll be back on the job faster. Advantages include…

- Responsive job site service to keep your equipment running.
- Increase machine uptime.
- Certified service staff and improved parts availability.
PARTS
When you’re looking for superior parts options to maximize the performance and lower the operating costs of your Case machinery, turn to CNH Industrial Genuine Parts to keep you equipped for success.
CNH Industrial Genuine Parts fit better, install faster and last longer and in an industry where “high impact” and “heavy lifting” are the norm, the smallest mechanical differences can lead to big problems.
CNH Industrial Genuine Parts from Case are manufactured from superior materials and specifically designed for Case construction equipment to continually and reliably withstand the punishment of everyday construction. So steer clear of mechanical problems and future breakdowns, by choosing CNH Industrial Genuine Parts from Case. They’re the only parts that are field-tested and proven to keep your Case equipment performing its best.

SERVICE. RELY ON CASE TO DELIVER FOR YOU
Your commitment to your operation is evident every day, but that doesn’t minimize the enormous pressure you face to reduce operating costs and improve productivity. So when you’re on the job, make sure you have top-notch service and support of Case behind you every step of the way.
With our factory trained technicians, you can ensure that top-notch service professionals are working on your maintenance needs, so you can focus on your business and the big job challenges ahead, not on the tasks of servicing your equipment.

With your Case Service, you get more than mere oil changes. A Case Service ensures your Case equipment receives a thorough service that meets all requirements of its service schedules and properly maintains it for the day-in, day-out punishment of construction work.
Don’t give another thought to time-consuming maintenance tasks. Simply rest easy and make certain that your service needs are taken care of by a Case factory trained technician.
When the unexpected occurs, you need to know your equipment is protected. At Case Construction we understand the importance of your machinery being in good working order when it counts.

ProCover is designed to help keep your equipment working well beyond the manufacturer’s base warranty period while taking away the concerns of the cost and inconvenience of mechanical failure.

**WHAT ARE THE ADVANTAGES OF PROCOVER?**

**PEACE OF MIND**
Provides protection beyond the Manufacturer’s Base Warranty Period.

**FLEXIBLE OPTIONS**
Plans can be customised to meet individual needs.

**DEPENDABLE SERVICE**
Eligible repairs completed by an authorised Case Construction Dealership and their trained service technician’s using genuine OEM parts & lubricants.

**TRANSFERABLE PROTECTION**
New Equipment Plans may be transferred to a new owner at no charge.

**COVERAGE**

- **STANDARD PROTECTION PLAN** 3 Years / 5000 Hours
  Additional years/hours can be purchased. Please contact your local Case Construction dealer for further information.
This plan provides coverage for the components listed below when a failure occurs due to a defect in material or workmanship, and may provide coverage for additional components not listed when the damage is caused by or resulting from a covered failure of a listed component.

**PREMIER COMPONENTS COVERED**

<table>
<thead>
<tr>
<th>ENGINE AND ALL INTERNAL LUBRICATED COMPONENTS WITHIN</th>
<th>TRANSMISSIONS/AXLES/HYDROSTATICS</th>
<th>ELECTRICAL</th>
<th>HYDRAULICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessory Gears</td>
<td>Axle Housing</td>
<td>Alternator</td>
<td>Accumulator And Related Relief Valve</td>
</tr>
<tr>
<td>Air Intake Hose</td>
<td>Axle Shaft</td>
<td>Gauges</td>
<td>Brake Accumulator</td>
</tr>
<tr>
<td>Camshaft</td>
<td>Clutch Disc (Wet Only)</td>
<td>Horn</td>
<td>Brake Pressure Sensor</td>
</tr>
<tr>
<td>Camshaft Bearings</td>
<td>Clutch Plates (Wet Only)</td>
<td>Indicators</td>
<td>Brake Pump, Brake Valve</td>
</tr>
<tr>
<td>Camshaft Drive Gear</td>
<td>Control Rods</td>
<td>Instruments</td>
<td>Differential Lock Valve</td>
</tr>
<tr>
<td>Catalytic Converter</td>
<td>Counter Shaft Clutch</td>
<td>Electronic Joysticks</td>
<td>Fan Pumps And Motors</td>
</tr>
<tr>
<td>Charge Air Cooler</td>
<td>Differential Housing</td>
<td>Electric Motors</td>
<td>Hydraulic Cylinders</td>
</tr>
<tr>
<td>Cold Start Enrichment Systems</td>
<td>Differential Pinion Gear / Ring Gear</td>
<td>Factory Installed Telematics</td>
<td>Hydraulic Hoses And Piping</td>
</tr>
<tr>
<td>Connecting Rods &amp; Bearings</td>
<td>Drive Axle Hub</td>
<td>Sensors</td>
<td>Hydraulic Motors</td>
</tr>
<tr>
<td>Crankshaft Bearings &amp; Gear</td>
<td>Drive Shaft Support Bearing</td>
<td>Solenoid Valves</td>
<td>Hydraulic Oil Coolers</td>
</tr>
<tr>
<td>Crankshaft Including Front And Rear Crankshaft Seals</td>
<td>Drive Shaft with Universal Joints</td>
<td>Starter And Starter Solenoid</td>
<td>Hydraulic Pumps</td>
</tr>
<tr>
<td>Cylinder Heads / Head Gaskets</td>
<td>Electronic Transmission Controller and Valve</td>
<td>Switches</td>
<td>Hydraulic Reservoir</td>
</tr>
<tr>
<td>Cylinder Liners</td>
<td>Enclosed Oil Immersed Chains and Sprockets</td>
<td>Traction Control System</td>
<td>Hydraulic Valves</td>
</tr>
<tr>
<td>Diesel Exhaust Fluid Tank and Dispensing System</td>
<td>External Oil Lines</td>
<td>Voltage Regulator</td>
<td>Internal O-Rings and Bonded Washers</td>
</tr>
<tr>
<td>Diesel Particulate Filter</td>
<td>Filler Tubes (Transmission)</td>
<td>Wiring Harnesses</td>
<td>Pilot Control</td>
</tr>
<tr>
<td>EGR System Manifold</td>
<td>Final Drive Pinion</td>
<td>Wiring Harnesses Exclusions</td>
<td>Pressure Reducing Valves</td>
</tr>
<tr>
<td>Electronic Engine Control Module</td>
<td>Final Drive Planetary Gears</td>
<td>Rubbing, Chafing, Loose Or Corroded Connections</td>
<td>Unloading Valves</td>
</tr>
<tr>
<td>Engine Block</td>
<td>Front Wheel Drive Sensors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine Mounts And Supports</td>
<td>Hydraulic Drive / Travel Motor</td>
<td>Accumulator</td>
<td>Backhoe Booms</td>
</tr>
<tr>
<td>Engine Oil Cooler</td>
<td>Hydraulic Drive Pump</td>
<td>Clutch</td>
<td>Backhoe/Excavator Dipper Sticks</td>
</tr>
<tr>
<td>Engine Speed Controls, Linkages, and Cables</td>
<td>Hydraulic Transmission-Control Valve</td>
<td>Compressor</td>
<td>C Frame</td>
</tr>
<tr>
<td>Exhaust Manifold and Muffler</td>
<td>Hydrostatic Motor</td>
<td>Condenser</td>
<td>Car Body</td>
</tr>
<tr>
<td>Fan And Fan Drive</td>
<td>Hydrostatic Transmission Charge Pump</td>
<td>Dryer</td>
<td>Chassis</td>
</tr>
<tr>
<td>Filter Mount</td>
<td>Hydrostatic Transmission Pump</td>
<td>Evaporator</td>
<td>Circle Frame</td>
</tr>
<tr>
<td>Flywheel, Ring Gear</td>
<td>Hydrostatic/Hydraulic Pump Drive</td>
<td>Expansion Valve</td>
<td>Engine Frame</td>
</tr>
<tr>
<td>Front And Rear Engine Covers And Seals</td>
<td>Internal Lubricated Clutch Housing</td>
<td>Heater Core</td>
<td>Equipment Frame</td>
</tr>
<tr>
<td>Front Damper</td>
<td>Internal Transmission Control Linkage</td>
<td>Hoses</td>
<td>Excavator Booms</td>
</tr>
<tr>
<td>Fuel Lines</td>
<td>Internal Wet Service Brakes</td>
<td>Pulley</td>
<td>Falling Object Protection Structure (FOPS)</td>
</tr>
<tr>
<td>Fuel Tank</td>
<td>MFWD Axle/Differential Assembly Including Driveshaft and U-Joint</td>
<td>Seals &amp; Gaskets</td>
<td>Forklift Masts</td>
</tr>
<tr>
<td>Fuel Transfer Pump &amp; Gasket</td>
<td>Planetary Gear Carrier</td>
<td>Temperature Control Programmers and Valves</td>
<td>Inner and Outer Dipper Arms of the Extendible Boom (Backhoe Loader)</td>
</tr>
<tr>
<td>Injection Pump</td>
<td>Pneumatic Valves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injectors</td>
<td>Rotary Hydraulic Manifold</td>
<td>Covers and Panels</td>
<td>Roller Protection Structure (ROPS)</td>
</tr>
<tr>
<td>Intake and Exhaust Manifold And Gaskets</td>
<td>Splitter Drive/ Drop Box</td>
<td>Exterior/Interior Door/Panel Latches, Hinges &amp; Struts</td>
<td>Swing Frame</td>
</tr>
<tr>
<td>Oil Filter Tube</td>
<td>Steering Clutches (WV)</td>
<td>Exterior/Interior Moldings</td>
<td>Swing Tower Castings (Backhoe Loader)</td>
</tr>
<tr>
<td>Oil Lines</td>
<td>Swing Motor And Swing Gear Box</td>
<td>Knects for Switches and Handles</td>
<td>Track Frame</td>
</tr>
<tr>
<td>Oil Pan And Gasket</td>
<td>Torque Converter</td>
<td>Mirrors</td>
<td>Wheel Loader/Skid steer Loader Arms</td>
</tr>
<tr>
<td>Oil Pump</td>
<td>Torque Converter Pump</td>
<td>Seal Frame &amp; Suspension</td>
<td></td>
</tr>
<tr>
<td>Pistons &amp; Rings</td>
<td>Transfer Drive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Cleaner/Air Cleaner Housing</td>
<td>Transmission Case</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure/Temperature Sensors &amp; Sending Units</td>
<td>Transmission Gears, Bearings, &amp; Shafts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulleys</td>
<td>Transmission Pump</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiator</td>
<td>Travel &amp; Swing Sections (only) Of Main Control Valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rocker Arm Assembly</td>
<td>Travel Control Valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selective Catalytic Reduction System</td>
<td>Turntable Bearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermostats</td>
<td>Undercarriage Roller And Idler Seals And Bearings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timing Gears</td>
<td>Undercarriage Tensioners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turbocharger And Gasket</td>
<td>UNDERCARRIAGE EXCLUSIONS,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve Cover And Gasket</td>
<td>Sprocket, Tracks, Pins, Bolts, Chains, Or Any Failure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Piping</td>
<td>Due To Wear, Or Breakage Caused By Wear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Pumps</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
F-SERIES
WHEEL LOADERS
621F

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 2.4 m³ bucket ___________________125 m³/h or 225 t/h of material

ENGINE
Make ______________________ FPT engine F4HE9687H compliant with EPA Tier3 or EU Stage 3A regulations
Number of cylinders ______________ 6 cylinders -6.7 liters - common rail
Max power SAE J1995 _________________ 128 kW / 172 hp @1800 rpm
Maximum torque SAE J1995 _________________ 730 Nm @1600 rpm

TRANSMISSION
All-wheel drive with planetary axles
4-speed auto Powershift ZF type 4WG160, switchable to manual shifting
Adjustable transmission declutch
forward speeds: 7-13-24-39 Km/h
reverse speeds: 7-14-25 Km/h
Kick-down function
Axles and differential
29% Limited slip differential on front and rear axles
Front and rear axle ZF type MT

TIRES
Tires ______________________________________________ 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 __________________________ 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 ___________ Tandem Variable displacement pump
(171 l/min @250 bar)
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 _____________________________________248 usable litres
Cooling system ___________________________________26.8 litres
Engine oil __________________________________________ 13 litres
Hydraulic oil ________________ Tank: 91 litres, total system: 148 litres
Transmission oil _______________________________ 27 litres

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
Driving noise in dB (A) 82 to SAE J88 @ 15 meters
Interior noise ___________________71 dB(A) as per ISO 6595/6396/3744
Exterior noise ___________________ 103 dB (A) according to ISO 6595/6396/3744
Reverse gear alarm
Vibrations ________________ air-cushioned seat MSG 95A/732
average 1,4 m/s ² as per ISO/TR 25398:2006

ELECTRICAL
24V. Batteries 2 x 12V.
Alternator ________________________________ 65 A
**SPECIFICATIONS**

**GENERAL DIMENSIONS**

**LOADER SPEED:**
- Raising time (loaded) 6.3 sec
- Dump time (loaded) 1.2 sec
- Lowering time (empty, power down) 4.4 sec
- Lowering time (empty, float down) 4.4 sec

<table>
<thead>
<tr>
<th>Bucket with bolt on</th>
<th>Z-bar 2.14 m³</th>
<th>XT Buckets 1.9 m³ w/QC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket volume (heaped)</td>
<td>m³</td>
<td>2.05</td>
</tr>
<tr>
<td>Bucket Payload</td>
<td>kg</td>
<td>4436</td>
</tr>
<tr>
<td>Maximum material density</td>
<td>ton/m³</td>
<td>1954</td>
</tr>
<tr>
<td>Bucket outside width</td>
<td>mm</td>
<td>2602</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>kg</td>
<td>902</td>
</tr>
<tr>
<td>Tipping load - straight</td>
<td>kg</td>
<td>107</td>
</tr>
<tr>
<td>Tipping load - Articulated at 40°</td>
<td>kg</td>
<td>8872</td>
</tr>
<tr>
<td>Breakout force</td>
<td>kg</td>
<td>11533</td>
</tr>
<tr>
<td>Lift capacity from ground</td>
<td>kg</td>
<td>11224</td>
</tr>
<tr>
<td>A - Dump height at 45° at full height</td>
<td>mm</td>
<td>2847</td>
</tr>
<tr>
<td>B - Hinge pin height</td>
<td>mm</td>
<td>3831</td>
</tr>
<tr>
<td>C - Overall height</td>
<td>mm</td>
<td>4956</td>
</tr>
<tr>
<td>D - Bucket reach at 45° full height</td>
<td>mm</td>
<td>969</td>
</tr>
<tr>
<td>E - Dig depth</td>
<td>mm</td>
<td>80</td>
</tr>
<tr>
<td>L - Overall length with bucket on the ground</td>
<td>mm</td>
<td>7315</td>
</tr>
<tr>
<td>R - Turning radius to front corner of the bucket</td>
<td>mm</td>
<td>5.75</td>
</tr>
<tr>
<td>Bucket rollback in carry position</td>
<td>°</td>
<td>23</td>
</tr>
<tr>
<td>Dump angle at full height</td>
<td>°</td>
<td>55</td>
</tr>
<tr>
<td>Machine operating weight</td>
<td>kg</td>
<td>12116</td>
</tr>
</tbody>
</table>
**F-SERIES**

**WHEEL LOADERS**

**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 ton

**ENGINE TIER 3**

Compliant with Tier 3 (EU stage 3a)

FPT turbocharged engine F4HE9684F*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 145 kW / 195 hp @2000 rpm
Maximum torque SAE J1349 862 Nm @1400 rpm

**HYDRAULIC**

Valves Rexroth Closed-center, Load sensing hydraulic system.

Steering Main valve with 3 sections

Type of pump Tandem Variable displacement pump

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

**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 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

**CAPACITIES**

Fuel tank 246 usable litres

Cooling system 28 litres

Engine oil 15 litres

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

Transmission oil 34 litres

**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

**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

![Diagram of the machine with dimensions labeled]

**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

### SPECIFICATIONS

#### GENERAL DIMENSIONS

- **Overall length without bucket**: 3.38 m
- **Overall length with bucket on the ground**: 3.25 m
- **Hinge pin height**: 3.2 m
- **Overall height**: 5.52 m
- **Bucket reach at full height**: 1.13 m
- **Bucket volume (heaped)**: 2.7 m³
- **Bucket Payload**: 5440 kg
- **Maximum material density**: 2.0 ton/m³
- **Bucket outside width**: 2.73 m
- **Bucket weight**: 1237 kg
- **Tipping load - straight**: 12435 kg
- **Tipping load - Articulated at 40°**: 10881 kg
- **Breakout force**: 14236 kg
- **Lift capacity from ground**: 13607 kg
- **A Dump height at 45° at full height**: 2.93 m
- **B Hinge pin height**: 3.98 m
- **C Overall height**: 5.52 m
- **D Bucket reach at full height**: 1.13 m
- **E Dig depth**: 7.4 cm
- **Overall length without bucket**: 6.53 m
- **Overall length with bucket on the ground**: 7.65 m
- **R Turning radius to front corner of the bucket**: 6.3 m
- **Bucket rollback in carry position**: 43°
- **Dump angle at full height**: 75°
- **Machine operating weight**: 14225 kg

#### Z-BAR BUCKETS

<table>
<thead>
<tr>
<th>Bucket with bolt on:</th>
<th>edge</th>
<th>teeth</th>
<th>edge</th>
<th>teeth</th>
<th>edge</th>
<th>teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket volume (heaped)</td>
<td>2.7</td>
<td>2.7</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Bucket Payload</td>
<td>5440</td>
<td>5369</td>
<td>5299</td>
<td>5325</td>
<td>4924</td>
<td>4946</td>
</tr>
<tr>
<td>Maximum material density</td>
<td>2.0</td>
<td>2.0</td>
<td>2.2</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Bucket outside width</td>
<td>2.73</td>
<td>2.73</td>
<td>2.47</td>
<td>2.47</td>
<td>2.47</td>
<td>2.47</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>1237</td>
<td>1344</td>
<td>1656</td>
<td>1619</td>
<td>1627</td>
<td>1590</td>
</tr>
<tr>
<td>Tipping load - straight</td>
<td>12435</td>
<td>12292</td>
<td>11356</td>
<td>11405</td>
<td>11280</td>
<td>11326</td>
</tr>
<tr>
<td>Tipping load - Articulated at 40°</td>
<td>10681</td>
<td>10738</td>
<td>10599</td>
<td>10649</td>
<td>9847</td>
<td>9893</td>
</tr>
<tr>
<td>Breakout force</td>
<td>14236</td>
<td>12685</td>
<td>12185</td>
<td>11284</td>
<td>12016</td>
<td>11193</td>
</tr>
<tr>
<td>Lift capacity from ground</td>
<td>13607</td>
<td>13480</td>
<td>13419</td>
<td>13462</td>
<td>13096</td>
<td>13111</td>
</tr>
</tbody>
</table>

#### XT BUCKETS (PARALLEL LIFT)

<table>
<thead>
<tr>
<th>Bucket with bolt on:</th>
<th>edge</th>
<th>teeth</th>
<th>edge</th>
<th>teeth</th>
<th>edge</th>
<th>teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket volume (heaped)</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Bucket Payload</td>
<td>5440</td>
<td>5369</td>
<td>5299</td>
<td>5325</td>
<td>4924</td>
<td>4946</td>
</tr>
<tr>
<td>Maximum material density</td>
<td>2.0</td>
<td>2.0</td>
<td>2.2</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Bucket outside width</td>
<td>2.73</td>
<td>2.73</td>
<td>2.47</td>
<td>2.47</td>
<td>2.47</td>
<td>2.47</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>1237</td>
<td>1344</td>
<td>1656</td>
<td>1619</td>
<td>1627</td>
<td>1590</td>
</tr>
<tr>
<td>Tipping load - straight</td>
<td>12435</td>
<td>12292</td>
<td>11356</td>
<td>11405</td>
<td>11280</td>
<td>11326</td>
</tr>
<tr>
<td>Tipping load - Articulated at 40°</td>
<td>10681</td>
<td>10738</td>
<td>10599</td>
<td>10649</td>
<td>9847</td>
<td>9893</td>
</tr>
<tr>
<td>Breakout force</td>
<td>14236</td>
<td>12685</td>
<td>12185</td>
<td>11284</td>
<td>12016</td>
<td>11193</td>
</tr>
<tr>
<td>Lift capacity from ground</td>
<td>13607</td>
<td>13480</td>
<td>13419</td>
<td>13462</td>
<td>13096</td>
<td>13111</td>
</tr>
</tbody>
</table>

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

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 ______________ 1184 Nm @1300 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 guaranted 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 guaranted 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 adjustableheight)
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
SPECIFICATIONS

GENERAL DIMENSIONS

[Image of a loader with dimensions labeled A to E]

LOADER SPEED

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raising time (loaded)</td>
<td>6.2 sec</td>
</tr>
<tr>
<td>Dump time (loaded)</td>
<td>1.2 sec</td>
</tr>
<tr>
<td>Lowering time (empty, power down)</td>
<td>2.9 sec</td>
</tr>
<tr>
<td>Lowering time (empty, float down)</td>
<td>2.5 sec</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Z-BAR BUCKETS</th>
<th>3.4 m$^3$</th>
<th>3.2 m$^3$</th>
<th>2.8 m$^3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket with bolt on:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bucket volume (heaped)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m$^3$</td>
<td>3.42</td>
<td>3.20</td>
<td>2.8</td>
</tr>
<tr>
<td>Bucket Payload</td>
<td>kg</td>
<td>kg</td>
<td>kg</td>
</tr>
<tr>
<td>6146</td>
<td>6184</td>
<td>6274</td>
<td></td>
</tr>
<tr>
<td>6268</td>
<td>6295</td>
<td>6478</td>
<td></td>
</tr>
<tr>
<td>Maximum material density</td>
<td>1.80</td>
<td>1.93</td>
<td>2.24</td>
</tr>
<tr>
<td>ton/m$^3$</td>
<td>1.94</td>
<td>2.03</td>
<td>2.59</td>
</tr>
<tr>
<td>Bucket outside width</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>2.95</td>
<td>2.94</td>
<td>2.95</td>
<td></td>
</tr>
<tr>
<td>Bucket weight</td>
<td>kg</td>
<td>kg</td>
<td>kg</td>
</tr>
<tr>
<td>1550</td>
<td>1520</td>
<td>1566</td>
<td></td>
</tr>
<tr>
<td>1460</td>
<td>1430</td>
<td>1390</td>
<td></td>
</tr>
<tr>
<td>Tipping load - straight</td>
<td>14203</td>
<td>14284</td>
<td>14465</td>
</tr>
<tr>
<td>kg</td>
<td>14465</td>
<td>14523</td>
<td>14917</td>
</tr>
<tr>
<td>Tipping load - Articulated at 40°</td>
<td>12293</td>
<td>12367</td>
<td>12547</td>
</tr>
<tr>
<td>kg</td>
<td>12536</td>
<td>12590</td>
<td>12955</td>
</tr>
<tr>
<td>Breakout force</td>
<td>kg</td>
<td>kg</td>
<td>kg</td>
</tr>
<tr>
<td>15076</td>
<td>15473</td>
<td>17751</td>
<td></td>
</tr>
<tr>
<td>16133</td>
<td>16676</td>
<td>19180</td>
<td></td>
</tr>
<tr>
<td>Lift capacity from ground</td>
<td>17976</td>
<td>18055</td>
<td>18263</td>
</tr>
<tr>
<td>kg</td>
<td>18137</td>
<td>18201</td>
<td>18559</td>
</tr>
<tr>
<td>A Dump height at 45° at full height</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>2.94</td>
<td>2.96</td>
<td>3.06</td>
<td></td>
</tr>
<tr>
<td>B Hinge pin height</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>4.12</td>
<td>4.12</td>
<td>5.92</td>
<td></td>
</tr>
<tr>
<td>C Overall height</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>5.49</td>
<td>5.45</td>
<td>5.92</td>
<td></td>
</tr>
<tr>
<td>D Bucket reach at full height</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>1.17</td>
<td>1.15</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>E Dig depth</td>
<td>cm</td>
<td>cm</td>
<td>cm</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>L Overall length with bucket on the ground</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>7.94</td>
<td>7.90</td>
<td>7.74</td>
<td></td>
</tr>
<tr>
<td>R Turning radius to front corner of the bucket</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>6.6</td>
<td>6.6</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Bucket rollback in carry position</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
<tr>
<td>44</td>
<td>44</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Dump angle at full height</td>
<td>°</td>
<td>°</td>
<td>°</td>
</tr>
<tr>
<td>55</td>
<td>55</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Machine operating weight</td>
<td>kg</td>
<td>kg</td>
<td>kg</td>
</tr>
<tr>
<td>17694</td>
<td>17664</td>
<td>17510</td>
<td></td>
</tr>
<tr>
<td>17604</td>
<td>17574</td>
<td>17420</td>
<td></td>
</tr>
</tbody>
</table>

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.