

**CASE**  
CONSTRUCTION

# TIER 4i T-SERIES BACKHOE LOADERS

580ST | 590ST | 695ST

TIER  
4i



# CASE CONSTRUCTION KING



## CASE DNA SINCE 1957

Case has been an innovative construction equipment market leader since 1912.

In the Spring of 1957 Case introduced Model 320, the world's first factory-built tractor loader backhoe (TLB). Since that time we have continuously developed and improved our loader/backhoe range, to meet the changing needs of our customers around the world.

- Case was the first manufacturer to develop an extending dipper, the patented Case Extendahoe
- Case was the first to offer Ride Control on a loader/backhoe
- Case was the first company to offer a Powershift transmission on a loader/backhoe
- Case was the first company to offer a backhoe loader integrated quick coupler
- **CASE IS THE FIRST COMPANY TO INTRODUCE TIER 4 INTERIM ENGINE**

In 2005 Case produced its 500,000th loader/backhoe, and today we are well on the way to three quarters of a million. No other manufacturer comes close: a pedigree that guarantees strong residual values for your machine.



## YOUR CONSTRUCTION KING:

### **695ST**

A four equal-sized wheel machine powered by a 110 hp engine driving through a standard Powershift transmission. For the backhoe, customers can choose between pilot or mechanical control systems.

### **590ST**

The same features as the successful 695ST, with a choice of 20" or 18" front tires and two-wheel steer. The machine comes with a Powershuttle transmission as an option.

### **580ST**

This machine has the same features as the 590ST, but is powered by a 97 hp turbocharged and aftercooled engine. The 580ST has a common rail diesel engine with Powershift transmission as option.

# THE KING

## Tier 4i technology leader

Proven reliable Tier 4i compliant engines are available with a choice of 97 hp or 110 hp, 10% more than our main competitors.

These fuel-efficient engines provide the power to get more work done.

Our new generation engine and the variable displacement pump hydraulic system reduce fuel consumption by 14%, a saving that represents about €1,200/year per machine.



## Site security

- Engine hood lock is situated in the cab to prevent vandalism.
- Anti-theft devices are available for all models.
- The hydraulic tank features a secure oil cap breather to prevent siphoning.
- Lockable battery box prevents theft from site.

## Save time

- Daily check and fill points are accessible from ground level, saving time.
- The braking system uses the machine's main hydraulic oil reservoir, so there is no requirement for a separate filler.
- The Case Electronic Service Tool ensures rapid common rail engine diagnostics, cutting downtime.
- Large capacity fuel tank ensures longer working hours between refills, increasing working hours on site.



# CASE CONSTRUCTION KING



## The DNA of the King

- Customers around the world have built their success on the power and performance of the Case backhoe.
- Overlapping boom cylinders provide lower transport height and a slimmer boom width for improved visibility
- The curved main boom ensures increased digging ability and easier loading over a truck
- Boom dipper and swing cylinders have standard hydraulic end stroke cushioning to improve precision, prolong component life and ensure smooth operation
- The hydraulic circuits are protected.

## Lower cost of ownership, more comfort

- The Case loader/backhoe offers a tailored working position to improve control and reduce your fatigue.
- Internal cab noise levels are just 77 dB, offering you an improved working environment.
- Fully adjustable control lever towers provide you a comfortable working position, whatever your size
- The return-to-idle button is positioned under your thumb.

## The safety of the King

- Pilot controls automatically deactivate when not in use for improved safety. They are immediately reactivated at the touch of a switch.
- The optional lifting hook is now available as part of a Handling Kit, that includes safety hose burst valves on the boom and dipper cylinders and an overload warning device.
- Stabilizer legs are equipped with safety valves.
- Multiple disc, oil-immersed service brakes on the rear axle, together with automatic front wheel drive engagement, ensure safe operation in all travelling conditions.



## Passes under 3.5 m bridge

We don't like to waste time and fuel and we know you don't either, that is why we reduced significantly transport height.

The 580ST measures less than 3.5 m in height, while the 590ST and the 695ST measure less than 3.7 m.

For an even easier transport, the hydraulic boom lock is a standard feature.

## Saves you time

- Rapid hydraulic side shift (in option), in less than 5 seconds.
- Factory supplied hydraulic and mechanical quick coupler options.



## Is welcome on urban job sites

In residential areas everyone will appreciate that your Case machine has low noise levels, reduced exhaust emissions and a secure footprint.

- Tier 4i low emission engines
- Rubber pads on the stabilizer legs reduce surface damage
- Low noise levels
- Silenced Case CB90S hydraulic breaker specifically designed for backhoe installation

# CASE CONSTRUCTION KING



## Keeps the bucket full at 40 km/h

- Auto Ride Control reduces loader arm bounce during travel, maintaining maximum material retention on all surfaces, for higher travel speeds and reduced journey times.
- The front axle offers +/-11 degrees of oscillation, to maintain traction on the toughest terrain, improving bucket retention and maintaining productivity.
- Wide front tires available as an option for ultimate cross country travel.

## Precise grading and optimal penetration

- Improved bucket penetration, thanks to the position of the side teeth at the edge of the blade.
- Powershift transmission offers greater tractive effort and improved bucket fill, thanks to the kick-down button.
- Easy grading, thanks to
  - float position on the control lever.
  - flat-bottomed bucket
  - precision tooth alignment with the bottom of the bucket.
- Automatic return-to-dig function and mechanical self-leveling feature reduce your effort and fatigue.



## In the worst worksite conditions

- The automatic dust ejector of the filter allows long cleaning intervals even on dusty working conditions
- 4 wheel drive and 100% locking differential fitted to the rear axle provide all-weather traction in the toughest site conditions.
- Optional 20" front tires provide maximum flotation.
- Equal-sized wheel 695ST remains highly maneuverable in all materials thanks to 3 steering modes.
- For night working the Case loader/backhoe comes with 10 working lights, including two on the sides, for maximum visibility.



## Loads and unloads easily

- Curved front loader arms improve truck loading while mechanical self-leveling assists the operator.
- Return-to-dig function significantly reduces your effort in repetitive loading operations.
- Excellent front loader visibility and mechanical self-leveling feature make pallet loading and unloading simple.



## A single control joystick for simultaneous movements

A single control joystick for all the loader's functions:

- Raise/lower the loader
- Bucket tilt
- Proportional control of the closing and opening of the 4-in-1 bucket or other hydraulic accessories
- Floating bucket position
- Differential lock (except on the 695ST, which is fitted with a limited-slip differential)
- Cut off transmission switch
- Automatic return to dig position

## Moves 4.6 tons

- Reinforced loader arm features exceptional rigidity and strength.

## Is load sensitive

The load sensing hydraulic system only generates the pressure and flow you need, resulting in reduced fuel consumption, lower noise levels and longer component life. There is no requirement for a slow flow switch as hydraulic speed is controlled automatically.

## Allows for simultaneous movements

The hydraulic circuit with flow compensation, which is similar to the circuits available on wheel loaders, allows you to use all the functions at the same time. This guarantees short and smooth cycles and improved productivity.

# CASE CONSTRUCTION KING



# A CAB FIT FOR A KING

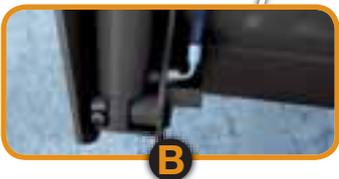
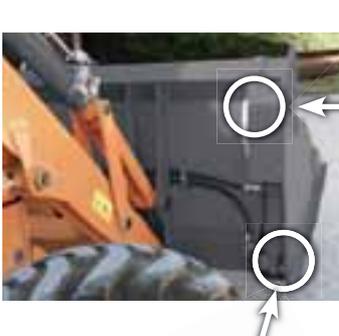


- **Tailored working position:** Pilot control columns and wrist rests are fully adjustable to suit your size.
- **The sound of silence:** The cab is secured on insulating mountings, reducing vibration and noise levels for you. Interior 77 dB(A)
- **Excellent visibility equals improved safety:** The rear screen is fully tiltable to provide an unobstructed view to the digging area. The stowed rear screen also provides rain protection in the open position.
- **King Class Seat:** You can set the height and the suspension of the seat pneumatically. Lumbar adjustment and fully adjustable armrests ensure a comfortable position throughout the working day.
- **Enhanced cab ventilation:** All four cab windows can be opened partially or fully, to provide maximum ventilation in the cab.
- **Plenty of storage space:** A new overhead radio position and document storage box, combined with a lockable storage compartment make the Case cab your convenient office.
- **Access to the King:** Wide steps and sturdy grab handles make it easy to get in and out of the cab. Large door apertures without obstacles make access to the seat equally easy.



## Maintenance friendly

- Single piece tilting engine hood offers excellent top and side access for safe and easy maintenance.
- Hydraulic and steering pressure control points are conveniently located between the cab and the fuel tank for easy checking.
- Common rail engines are compatible with the Case Electronic Service Tool (EST), making fault diagnosis easier and reducing possible downtime.
- All Case TLBs are equipped with a strong 3.4 liter turbocharged engine that complies with Tier 4 I emissions legislation.



## Long life easy maintenance design

- A** - Greasing points and protected cylinders
- B** - Hydraulic connections are well protected, flexible and easy to use
- C** - Bucket teeth are pin mounted for rapid replacement
- D** - Bolted dozing blade for easy replacement

# TIER 4 T-SERIES BACKHOE LOADERS

580ST | 590ST | 695ST

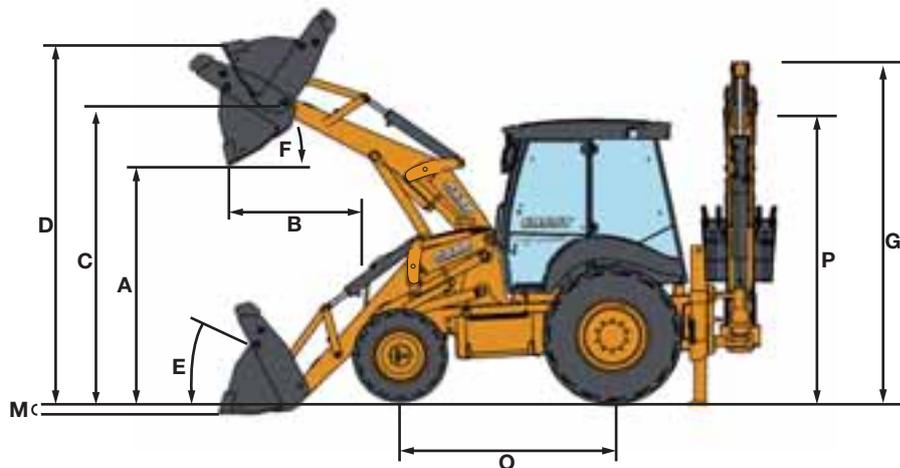
## Specifications

	580ST	590ST	695ST
<b>ENGINE</b>	Conform to 97/68/CETIER 4 l standards 4 cylinders turbocharged and aftercooled 3.4 liter		
Injection system	High pressure Common Rail	High pressure Common Rail	High pressure Common Rail
Make	CASE 434T/E by FPT	CASE 434T/E by FPT	CASE 434T/E by FPT
Engine Rated Net Power (ISO14396/ECE R120)	72 kW (97 hp) @ 2200 rpm	82 kW (110 hp) @ 2200 rpm	82 kW (110 hp) @ 2200 rpm
Engine Max Net Power (ISO14396/ECE R120)	83 kW (112 hp) @ 2000 rpm	89 kW (120 hp) @ 1900 rpm	89 kW (120 hp) @ 1900 rpm
Maximum torque (according ISO 14963)	453 Nm @ 1400 rpm	460 Nm @ 1400 rpm	460 Nm @ 1400 rpm
<b>TRANSMISSION</b>			
<b>Powershuttle</b>			
Forward speeds	6 - 10 - 21 - 40 Km/h	6 - 10 - 21 - 40 Km/h	-
Reverse speeds	7 - 12 - 25 - 40 Km/h	7 - 12 - 25 - 40 Km/h	-
<b>Powershift</b>			
Forward speeds	6 - 10 - 22 - 39 Km/h	6 - 10 - 22 - 39 Km/h	6 - 10 - 22 - 39 Km/h
Reverse speeds	7 - 12 - 26 Km/h	7 - 12 - 26 Km/h	7 - 12 - 26 Km/h
<b>HYDRAULICS</b>			
Type of pump	Gear or Variable displacement pump	Variable Displacement	Variable Displacement
Maximum flow	156 or 6 to 165 l/min @ 2200 rpm	6 to 165 l/min @ 2200 rpm	6 to 165 l/min @ 2200 rpm
Maximum pressure level	205 bars	205 bars	205 bars
<b>BATTERY</b>	12 Volts / 95 Ah, 900A (SAE)		
<b>OPERATING WEIGHT</b>	In sideshift version, with the standard tooth loader bucket, 610 mm rear bucket, full fuel tank and 75 kg operator		
4 WD, standard dipper/Ext.	7950 Kg	8020 Kg	8740 Kg
4 WD, extendible dipper/Ext	8050 Kg	8120 Kg	8840 Kg
<b>TURNING RADIUS</b>			
2 wheel steer mode, 4 wd engaged, without brakes	External tire 4300 mm Bucket edge 5600 mm		External tire 7830 mm Bucket edge 8550 mm
<b>AXLES, TIRES &amp; BRAKE</b>			
Brake	Power braking: brake with friction area of 2.472 cm <sup>2</sup>		
<b>Tires</b> Tires must be multi-purpose, or Industrial for hard terrain, or Agricultural for loose terrain.	18" front with 26" or 28" rear or 20" front with 30" rear	18" front with 26" or 28" rear or 20" front with 30" rear	26" front with 26" 28" front with 28"
Front axle: oscillation of +/- 11°	Standard	Standard	Standard
Rear axle	Differential lock	Differential lock	Limited-slip differential (front and rear)
<b>CAPACITIES</b>			
Fuel tank	156 l		132 l
Cooling system	24 l		
Hydraulic oil	155 l	155 l	135 l
<b>Gear box oil:</b> Power Shuttle / Powershift	18.5 / 20.8 l	18.5 / 20.8 l	20.8 l
<b>Front axle:</b> 4 WD	8.6 l	8.6 l	10.5 l
Final Drives (Front / Rear)	1 l (front)	1 l (front)	1.3 l +1.3 l
Rear axle	15.5 l	17 l	11 l
<b>EMISSIONS (g/kWh)</b>			
CO2 emission	890	890	890
NOx emission	3.03	3.03	3.03
HC emission	0.1	0.1	0.1
CO emission	0.05	0.05	0.05
PM emission	0.01	0.01	0.01
NOx + HCNM emission	4.5	3.7	3.7
<b>NOISE</b>			
Internal dB(A)	77		
External dB(A)	102	103	103
<b>VIBRATION LEVELS</b>	Upper limbs 2.5 m/s <sup>2</sup> - Abdomen 0.5 m/s <sup>2</sup>		

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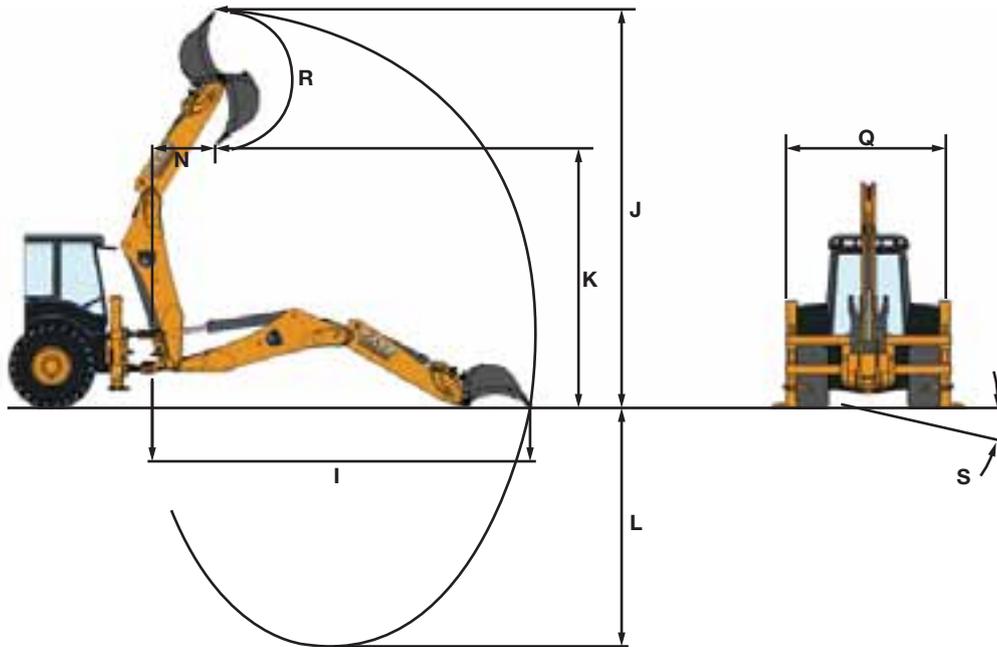
## General dimensions



LOADER	Bucket	580 ST	
		4-IN-1 / 6-IN-1	Std
A	Maximum dump height under bucket at 45°	2.693 mm	2.685 mm
B	Maximum reach with bucket at 45°	813 mm	830 mm
C	Maximum height pin	3.458 mm	3.460 mm
D	Maximum bucket height	4.405 mm	4.250 mm
M	Horizontal bucket digging depth	125 mm	120 mm
E	Bucket angle (on ground)	43°	43°
F	Bucket angle (in the transport position)	46°	46°
	Lift capacity (at bucket load centre of gravity)	4.610 kg	4.830 kg
	Maximum height lifting capacity	3.195 kg	3.450 kg
	Lift force (boom cylinders)	4.070 daN	4.050 daN
	Breakout force (bucket cylinders)	6.650 daN	6.545 daN

BACKHOE	Bucket	580 ST	
		Extended	Std/Retracted
	Swinging angle	180°	180°
L	Maximum digging depth	5435 mm	4369 mm
I	Maximum reach from swing centre	6238 mm	5229 mm
	Maximum reach at rear axle	7563 mm	6554 mm
J	Maximum operating height	6789 mm	5875 mm
K	Load height	4834 mm	3923 mm
	Central offset	0.62 m	0.62 m
	Lift capacity at max outreach	1049 kg	1393/1296 kg
	Breakout force (bucket)	5323 daN	5323 daN
	Breakout force (dipperstick)	2441 daN	3352 daN
R	Bucket rotation	200°/195° hyd. QC	200°/195° hyd. QC

DIMENSIONS		
G	Boom height (transport position)	3.455 mm
	Overall length - with standard bucket	5.560 mm
O	Wheelbase	2.175 mm
P	Cab height	2.950 mm
Q	Overall width - with standard bucket	2.430 mm
	Width outside tires	2.230 mm
S	Stabilizer leveling compensation angle	14°



### 590 ST

### 695 ST

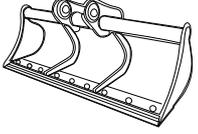
LOADER	Bucket	4-IN-1 / 6-IN-1	Std	4-IN-1 / 6-IN-1	Std
A	Maximum dump height under bucket at 45°	2693 mm	2685 mm	2750 mm	2750 mm
B	Maximum reach with bucket at 45°	813 mm	830 mm	720 mm	750 mm
C	Maximum height pin	3458 mm	3460 mm	3520 mm	3520 mm
D	Maximum bucket height	4405 mm	4250 mm	4460 mm	4350 mm
M	Horizontal bucket digging depth	125 mm	120 mm	90 mm	85 mm
E	Bucket angle (on ground)	43°	43°	45°	45°
F	Bucket angle (in the transport position)	46°	46°	46°	46°
	Lift capacity (at bucket load centre of gravity)	4610 kg	4830 kg	4580 kg	4770 kg
	Maximum height lifting capacity	3195 kg	3450 kg	3075 kg	3550 kg
	Lift force (boom cylinders)	4070 daN	4050 daN	7400 daN	7400 daN
	Breakout force (bucket cylinders)	6650 daN	6545 daN	5500 daN	5520 daN

BACKHOE	Bucket	Extended	Std/Retracted	Extended	Std/Retracted
	Swinging angle	180°	180°	180°	180°
L	Maximum digging depth	5887 mm	4670 mm	5810 mm	4595 mm
I	Maximum reach from swing centre	6655 mm	5497 mm	6645 mm	5185 mm
	Maximum reach at rear axle	7960 mm	6510 mm	7960 mm	6510 mm
J	Maximum operating height	7141 mm	6111 mm	7215 mm	6192 mm
K	Load height	5196 mm	4166 mm	5271 mm	4249 mm
	Central offset	0.62 m	0.62 m	0.62 m	0.62 m
	Lift capacity at max outreach	1097 kg	1472/1369 kg	1097 kg	1472/1369 kg
	Breakout force (bucket)	6111 daN	6111 daN	6111 daN	6111 daN
	Breakout force (dipperstick)	2488 daN	3482 daN	2488 daN	3482 daN
R	Bucket rotation	198°/195° hyd. QC	198°/195° hyd. QC	198°/195° hyd. QC	198°/195° hyd. QC

### DIMENSIONS

G	Boom height (transport position)	3.682 mm	3.647 mm
	Overall length - with standard bucket	5.560 mm	5.499 mm
O	Wheelbase	2.175 mm	2.200 mm
P	Cab height	2.950 mm	2.900 mm
Q	Overall width - with standard bucket	2.430 mm	2.480 mm
	Width outside tires	2.230 mm	-
S	Stabilizer leveling compensation angle	14°	14°

# THE KING OF VERSATILITY

		Width	Capacity	Weight	Hydraulics	580ST 590ST	695ST 590ST
<b>6 in 1 and 4-in-1 loader buckets</b> 	For lifting and handling pallets, the 6-in-1 bucket can be ordered initially or can be obtained by installing the fork pack on a 4-in-1 bucket.	2250 mm 2400 mm	1000 l 1200 l	300 Kg 380 Kg	Hydraulic line, double acting	X	X
<b>Standard buckets</b> 	Reinforced buckets for extreme wear resistance in all digging applications	300 mm 400 mm 450 mm 600 mm 760 mm 915 mm	96 l 100 l 150 l 220 l 290 l 360 l	130 Kg 140 Kg 158 Kg 187 Kg 214 Kg 240 Kg	none none none none none none	X X X X X X	X X X X X X
<b>Ditch cleaning buck.</b> 	Wide bucket for ditch cleaning and grading operations	1200 mm 1300 mm 1400 mm 1500 mm	192 l 209 l 226 l 243 l	127 Kg 145 Kg 153 Kg 160 Kg	none none none none	X X X X	X X X X
<b>V-type bucket</b> 	V-shaped bucket specially designed for digging ditches	1000 mm (up) 200 mm (down)	243 l 150 l	160 Kg 229 Kg	none	X	X
<b>Hammer</b> 	Hydraulic hammer for breaking of asphalt, concrete, hard or frozen ground. The CB90S hammer has a silencer system that is suited to urban applications.	<b>Model</b> CB65B CB90S	<b>Tool dia.</b> 63 mm 80 mm	<b>Weight</b> 310 kg 360 kg	<b>Hydraulics</b> hammer line single acting	X	X
<b>Snow blade</b> 	Specially designed for clearing snow in tough conditions. Hydraulically powered with 30° angle to the right or left - optional wheel kit	2640 mm			double-acting hydraulic line	X	X
<b>Augers</b> 	A complete range of augers from 150 to 1,050 mm diameter is available for each application: installation of telegraph poles, electricity pylons, signposts, pillars, tree and shrub planting. For more details consult your dealer.						

**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.



Conforms to directive 2006/42/EC

