

**TIER 4i T-SERIES BACKHOE LOADERS
580ST | 590ST | 695ST**

CASE
CONSTRUCTION



**THE CONSTRUCTION
KING**

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**EXPERTS FOR THE REAL WORLD
SINCE 1842**

T-SERIES BACKHOE LOADERS



EXPERTS FOR THE REAL WORLD SINCE 1842

- 1842** Case is founded.
- 1959** Case TLB 420 was the first diesel powered model.
- 1964** Case is the first manufacturer to develop an extending dipper, the patented Case Extendahoe.
- 1969** Case begins skid steer loader production.
- 1998** Case is the first to offer Ride Control on a loader/backhoe.
- 1999** Case is the first company to offer a Powershift transmission on a loader/backhoe.
- 2000** Case is the first company to offer a backhoe loader integrated quick coupler.

HERITAGE CASE DNA SINCE 1957



- 2001** Case M series Backhoe is listed in “Construction Equipment” magazine among the TOP 100 products.
- 2005** Case produces its 500,000th loader/backhoe and is today well on the way to three quarters of a million.
- 2012** Case achieves Tier 4 emissions standards while delivering best-in-class breakout force and lift capacity.
- 2015** Case extends its European product line-up with the new grader range.

T-SERIES BACKHOE LOADERS



LOW EMISSIONS

FPT: a leader in engine technologies.

- Fiat invented the «Common Rail» technology in the 80s
- Fiat Power Train produces over 600.000 industrial engines per year
- Our engines are used not only in earthmoving equipment but also in trucks, agricultural equipment, marine and military applications.
- Our engines are made to run on up to 20% biofuel blends, reducing even more their environmental impact.



COST SAVINGS

3.4 litre FPT Multijet engine

The 3.4 litre FPT engine featuring state-of-the-art technology delivers a big performance in a small package with the lowest maintenance cost in the market:

- The air intake system with centrifugal dust separator reduces the cleaning intervals
- High turbulence piston and air intake manifold
- High pressure multi-injection common rail for a perfect air-fuel mix and greater burning efficiency
- Electronically controlled “waste-gate” valve for immediate engine reaction and shorter lag time before the turbo begins to spool and generate a boost
- The integrated engine and after treatment system management always provide the highest power with the lowest fuel consumption, whatever the climate conditions or engine load.
- Viscous fan: no power is wasted with its low cooling demands.



ENGINE

A POWERFUL HEART



SAFE AND EASY MAINTENANCE

Compact engine, optimized layout

- Oil and filter check points are easily accessible on the left side of the bonnet. The front opening provides the operator with a full view of the engine components.
- The anti bumping frame surrounding the radiators prevents damage if the machine hits an obstacle at speeds up to 5 km/h, reducing extraordinary maintenance costs due to cracks in the radiators.



T-SERIES BACKHOE LOADERS



PROTECTED BACKHOE OPERATION

The King's DNA

Customers around the world have built their success on the power and performance of the Case backhoe.

- The exclusive outer extendahoe is part of the CASE DNA: all the components in contact with the soil are protected against impact and material accumulation
- The gripper teeth provide perfect material retention especially when working on pipe placement
- The curved main boom provides greater digging ability and makes it easier to load a truck
- The 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 inside the boom frame.
- 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.
- Stabiliser legs are equipped with safety valves.



FASTER BACKHOE REPOSITIONING

with Case Swing Dampening

The swing dampening function results in a faster digging cycle and more comfortable backhoe operation boom rebound is eliminated and the operator is more precise when positioning the bucket.

BACKHOE EXTENDED CONTROLLABILITY



LOAD SENSING HYDRAULIC SYSTEM

Modulated Power

The load sensing hydraulics provide just the right amount of oil for each task, even when the engine is running at low rpm. This results in fuel savings of up to 14% compared to traditional gear pumps. CASE is the only Backhoe loader manufacturer offering closed hydraulic centre whatever the choice of pump. Closed hydraulics enable simultaneous movements independent from work load and functions and delivers constant power, better operator controllability and fast cycles.



LOW PROFILE FOR EASY TRANSPORT

A compact machine for big jobs

We don't like to waste time and fuel, and we know you don't either, so we reduced significantly transport height with the overlapping cylinder geometry. The 580ST measures less than 3.5 m in height, while the 590ST and the 695ST measure less than 3.7 m



TIME SAVING

Do it from the cab!

- The patented integrated hydraulic quick coupler enables the operator to change over the backhoe attachments from the cab, with a simple switch.
- The hydraulic side shift allows easy and quick backhoe replacement in all working conditions.

T-SERIES BACKHOE LOADERS



AUTO RIDE CONTROL

Safe productivity

- 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 system offers a choice of 3 settings to match customer preferences or different soil conditions.
- The front axle offers +/-11 degrees of oscillation, to maintain traction on the toughest terrain, improve bucket retention and maintain high productivity.
- Different tyre designs (from industrial to agricultural) and technologies (radial or bias) are available to meet the different requirements for traction or resistance to impact and stress.



FAST LOADING CYCLE

The job has never been so easy!

Curved front loader arms improve truck loading while mechanical self-levelling assists the operator. Return-to-dig function significantly reduces operator effort on repetitive loading operations and speeds up the whole cycle. Excellent front loader visibility and the mechanical self-levelling feature make loading and unloading pallets simple.

LOADER: EFFECTIVE IN THE WORST CONDITIONS



PRECISE GRADING AND OPTIMAL PENETRATION

In the harshest work conditions

- The Powershift transmission offers greater tractive effort and improved bucket fill, thanks to the kick-down button.
- 4 wheel drive and 100% rear axle diff. lock provide all-weather traction in the toughest work conditions.
- Optional 20" front tyres in combination with 30" rear tyres are the best solution in jobsites where high floatability is required. The equal-sized wheel 695ST is highly manoeuvrable in all materials thanks to 3 steering modes.
- Effective grading is further simplified, thanks to:
 - float position on the control lever.
 - flat-bottomed bucket
 - precision tooth alignment with the bottom of the bucket.
- 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.

MAIN REASONS TO CHOOSE THE T-SERIES



LOW PROFILE FOR EASY TRANSPORT

- The design with overlapping cylinders reduces the overall boom transport height to 3.5 m for 580ST and 3.7 m for 590ST and 695ST.



PROTECTED BACKHOE OPERATION

- The outer extendahoe is the perfect solution for tough working conditions: the sliding part never touches the soil preserving its efficiency.
- The gripper teeth are the right tool for excellent material retention.



FASTER BACKHOE REPOSITIONING

- The Swing Dampening function reduces backhoe rebound ensuring perfect operator controllability and digging cycles.



COMFORTABLE AND SAFE CAB

- Excellent visibility for all operations with loader or backhoe.
- Fully openable front and rear windscreens for excellent cab ventilation.



TIME SAVING

- The patented integrated hydraulic quick coupler allows changing over the backhoe attachments from the cab with a simple switch.
- The hydraulic side shift enables easy and quick backhoe replacement in all work conditions.



LOW EMISSIONS

- The 3.4-litre PFT engine with high power and torque density dramatically reduces emissions ensuring the lowest maintenance costs in the market.



LOAD SENSING HYDRAULIC SYSTEM

- The variable displacement pump combined with Tier 4i engine reduces fuel consumption by up to 14%.



SAFE AND EASY MAINTENANCE

- All the main check points are easily accessible from the ground.
- The front tilting engine hood and the perfect layout of the components enable fast routine maintenance operations



AUTO RIDE CONTROL

- Auto Ride Control offers 3 settings to match different working conditions.



FAST LOADING CYCLE

- The return to dig mode guarantees precise automatic loader repositioning and easy to control loading operations.



T-SERIES BACKHOE LOADERS



CAB AND SEAT

A CAB FIT FOR A KING



COMFORTABLE AND SAFE CAB

Get settled on your seat

- Personalised working position: pilot control columns and wrist rests are fully adjustable to suit your size.
- The sound of silence: the cab sits on insulating mountings, reducing vibration and noise levels to 77 dB(A)
- Excellent visibility equals greater safety: the rear screen is fully tiltable to provide an unobstructed view of 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 comfortable 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. For night working the Case backhoe loader comes with 10 working lights, including two on each side, for maximum visibility.



A single control joystick for all the loader 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 features a limited slip differential)
- Cut off transmission switch
- Automatic return to dig position





THE SCIENCE BIT

The Case SiteWatch telematics system uses a high-tech control unit mounted on each machine to collate information from that machine and from GPS satellites. This data is then sent wirelessly through the mobile communication networks to the Case Telematics Web Portal.

SiteWatch: centralised fleet control benefits at your fingertips

Measure your true asset availability and optimise it

- Eliminate the “phantom fleet”: SiteWatch allows to identify spare units or under loaded machines on each site.
- Become able to reallocate units where they are more needed.
- Forward Maintenance Planning is easier since the actualised working hours are always available.
- Extend the benefits of SiteWatch to the rest of your fleet: SiteWatch can be installed on the units of other brands as well.

Challenge your Total Cost of Ownership!

- Being able to compare the fuel usage of different machine types will allow you choose the right equipment.
- Save on transport costs with planned and grouped maintenance tasks.
- Peace of mind, optimised uptime and lower repair costs: with preventive maintenance you can for example be alerted if the engine needs to be serviced and avoid a disruptive breakdown.
- Be able to compare your asset Return On Investment on different sites.
- Your equipment is used only during working hours. You can set up alerts so that you know if it is in use during the weekend or at night.
- Integrate with the programmed maintenance package, so that you can be sure every machine is at the right place at the right time.

More Safety, Lower Insurance Premium

- Keep thieves away: dissuade them from attacking your asset because it is geo-localised. SiteWatch is hidden so that thieves can't find it quickly.
- Your fleet is used only where you decide. You can define a virtual fence and receive an email when a machine exits that perimeter.



T-SERIES BACKHOE LOADERS



T-SERIES BACKHOE LOADERS

SPECIFICATIONS

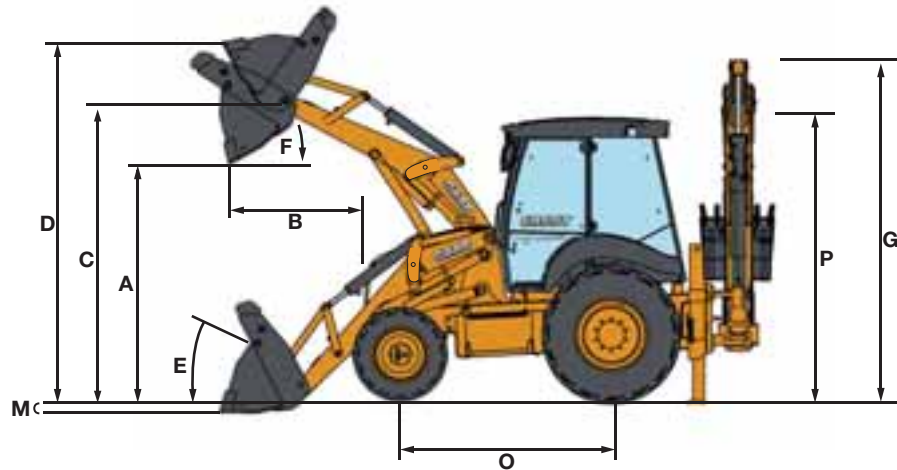
580ST

590ST

695ST

ENGINE	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
TRANSMISSION			
Powershuttle			
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	-
Powershift			
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
HYDRAULICS			
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
BATTERY	12 Volts / 95 Ah, 900A (SAE)		
OPERATING WEIGHT	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
TURNING RADIUS			
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
AXLES, TIRES & BRAKE			
Brake	Power braking: brake with friction area of 2.472 cm ²		
Tires 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" rear 28" front with 28" rear
Front axle: oscillation of +/- 11°	Standard	Standard	Standard
Rear axle	Differential lock	Differential lock	Limited-slip differential (front and rear)
CAPACITIES			
Fuel tank	156 l		132 l
Cooling system	24 l		
Hydraulic oil	155 l	155 l	135 l
Gear box oil: Power Shuttle / Powershift	18.5 / 20.8 l	18.5 / 20.8 l	20.8 l
Front axle: 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
EMISSIONS (g/kWh)			
CO ₂ emission	890	890	890
NO _x 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
NO _x + HCNM emission	4.5	3.7	3.7
NOISE			
Internal dB(A)	77		
External dB(A)	102	103	103
VIBRATION LEVELS	Upper limbs 2.5 m/s ² - Abdomen 0.5 m/s ²		

GENERAL DIMENSIONS



580 ST

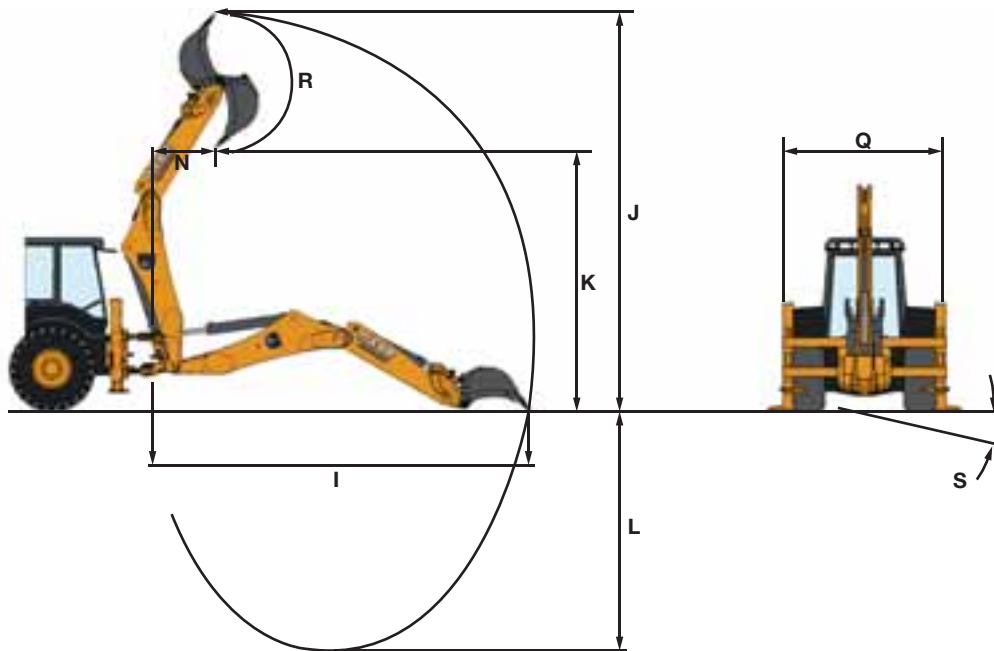
LOADER	Bucket	4-IN-1 / 6-IN-1	Std
A	Maximum dump height under bucket at 45°	2.693 mm	2.685 mm
B	Maximum reach with bucket at 45°	813 mm	830 mm
C	Maximum height pin	3.458 mm	3.460 mm
D	Maximum bucket height	4.405 mm	4.250 mm
M	Horizontal bucket digging depth	125 mm	120 mm
E	Bucket angle (on ground)	43°	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	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°

T-SERIES BACKHOE LOADERS





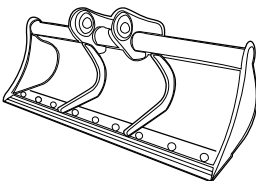


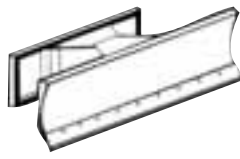
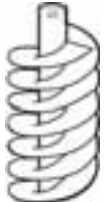
LOADER	Bucket	590 ST		695 ST	
		4-IN-1 / 6-IN-1	Std	4-IN-1 / 6-IN-1	Std
A	Maximum dump height under bucket at 45°	2693 mm	2685 mm	2750 mm	2750 mm
B	Maximum reach with bucket at 45°	813 mm	830 mm	720 mm	750 mm
C	Maximum height pin	3458 mm	3460 mm	3520 mm	3520 mm
D	Maximum bucket height	4405 mm	4250 mm	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	590 ST		695 ST	
		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
Q	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°

SPECIFICATIONS

ATTACHMENT	APPLICATION	WIDTH	CAPACITY	WEIGHT	HYDRAULICS	580ST 590ST	695ST 590ST
6 IN 1 AND 4-IN-1 LOADER BUCKETS 	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
STANDARD BUCKETS 	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
DITCH CLEANING BUCK. 	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
V-TYPE BUCKET 	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
ATTACHMENT	APPLICATION	MODEL	TOOL DIA.	WEIGHT	HYDRAULICS	580ST 590ST	695ST 590ST
HAMMER 	Hydraulic hammer for breaking of asphalt, concrete, hard or frozen ground. The CB90S hammer has a silencer system that is suited to urban applications.	CB65B CB90S	63 mm 80 mm	310 kg 360 kg	Hammer line Single acting	X	X
SNOW BLADE 	Specially designed for clearing snow in tough conditions. Hydraulically powered with 30° angle to the right or left - optional wheel kit	2640			Double acting Hydraulic line	X	X
AUGERS 	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.						

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CONSTRUCTION



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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

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.

