

T-SERIES BACKHOE LOADERS
580ST | 590ST | 695ST

CASE
CONSTRUCTION



**THE ORIGINAL,
READY FOR ANYTHING**

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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 Extindahoe.
- 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.
- 2016** CASE backhoe offering is enlarged introducing “In-Line” backhoe and “Straight-Loader” arm satisfying the different customer needs and preferences.
- 2017** CASE introduces a Tier 4 final fully customizable backhoe.

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.

FPT Engine family

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.
- 16 valves allows perfect air intake management, higher turbulence and consequently optimal combustion.
- 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.
- Fully HVO diesel compatible

The Auto/Engine Shut down electronic function surveys, the most critical engine and transmission working parameters, it switches off the engine automatically if the specific parameter is below a pre-defined and safe threshold:

- engine oil pressure
- engine coolant temperature
- transmission oil temperature

The system can be deactivated if required by the driver.

This solution together with SITE WATCH telematics helps to prevent any major failure, dramatically reducing costs for extraordinary maintenance.



ENGINE A POWERFUL HEART

Compact HI-eSCR



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.
- The externally installed SCR eases the access to the after-treatment components, while ensuring a wider space under the bonnet to be used for routine maintenance.



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.
- Pilot controls automatically deactivate when not in use for improved safety. They are immediately reactivated at the touch of a switch.



LOW PROFILE FOR EASY TRANSPORT

A compact machine for big jobs

We don't like to wasting 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.

BACKHOE TAILORED MADE SOLUTIONS



FLEXIBLE BUCKET CHOICE

CASE Universal Coupler

The new Universal coupler allows to install on Backhoe boom, not only traditional CASE buckets, but also the most common buckets of the main backhoe manufacturers. This solution allows the customer to have multiple choices and to fit buckets already present on his yard. The universal coupler is optional for in-line geometry backhoe design.



“IN-LINE” BACKHOE GEOMETRY

No Stress power

CASE has enriched the offering introducing a new backhoe design with “In-Line” cylinder geometry and inner extendahoe. The new solution allows the customer to choose the better technology for his own needs. A different solution to lead the market with top performances, comparable with well known CASE DNA characteristics. The aligned cylinders ensure perfect visibility across the boom and reduce the structure bending distributing the stress. This is the typical solution adopted on large excavators where productivity and reliability are a must. The new technology will flank the well known and more backhoe oriented CASE DNA boom with overlapping cylinders and outer extendahoe.

T-SERIES BACKHOE LOADERS



AUTO RIDE CONTROL

Safe productivity

- Auto Ride Control reduces loader arm bouncing 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: STRAIGHT TO PERFORMANCE



ABOVE ANY LIMIT

Top loading reach, lowest maintenance costs

For the professionals requiring very high tipping height or for those working mainly with the backhoe, the Straight Loader Arm is the preferred solution. The arm design makes the loader structure less complex minimizing the greasing points and providing higher visibility on the front of the machine. The straight and long arms have the loader pin point 8 cm higher than standard bent arms without affecting the breakout and loading performance which are aligned with the more “traditional” solution.

The anti-tipping function keeps the bucket on the correct position while lifting the load, consequently there is no risk of material spillage.

SMARTFIT[®]

BUCKET TOOTH SYSTEM

The new Smart-fit teeth are now available for the front and backhoe heavy-duty buckets.

These teeth contribute to the backhoe loader’s improved performance: they penetrate deeper and stay sharp longer, resulting in more productivity that lasts over time and lower service costs. They are also remarkably quick to change: it is just a matter of minutes and the machine is back at work. The result: more productivity, longer life, lower costs.

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.



“IN-LINE” BACKHOE GEOMETRY

- Higher visibility thanks to the narrower frame, high stress resistance due to balanced effort distribution along the boom.



FLEXIBLE BUCKET CHOICE

- Economic backhoe interchangeability keeping best/in/class digging performances.



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.



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.



ABOVE ANY LIMIT

- Straight loader arm
The CASE loader ensure highest loading capacity in the market combined with best-in-class tipping height.



LOW EMISSIONS

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



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.



COMFORTABLE AND SAFE CAB

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



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



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.

The new heated seat helps warming up in the coldest conditions.

- 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 LED or halogen working lights, including two on each side, for maximum visibility.

New LED option provides 4 times more light intensity.

Your work in dark conditions will be as bright as ever!

CAB AND SEAT A CAB FIT FOR A KING



Customized driving

Thanks to electronics the driver can set backhoe driving reaction on 3 different levels.

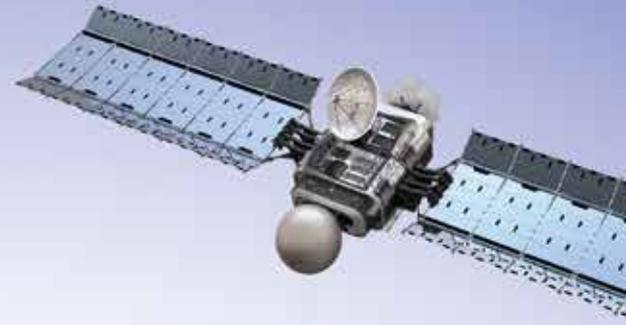
Through the board computer:

- ride control
- throttle
- F/N/R shift
- engine minimum and maximum rpm
- auto engine shut down

can be easily set matching specific customer needs or preferences.



TELEMATICS



CASE®
CONSTRUCTION

SiteWatch™

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

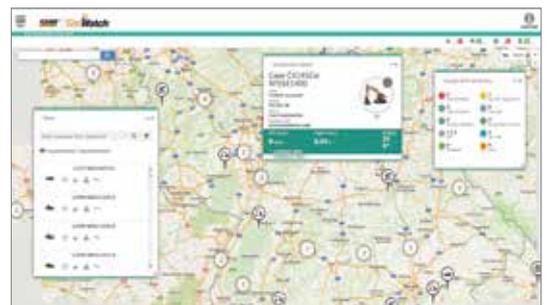
- Eliminate the “phantom fleet”: SiteWatch allows to identify spare units or under loaded machines on each site.
- Able to reallocate units where they are more needed.
- Maintenance planning is easier since the actual machine hours are available and alerts will be sent when a service is due.
- Extend 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 service intervention.
- Peace of mind, optimised uptime and lower repair costs: with preventive maintenance you can 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 receive alerts when is in use during the weekend or at night.

📶 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.
- Geo-fence your assets. You can define a virtual fence and receive an email when a machine exits that perimeter.
- Recover your asset if it is taken away, thanks to the continuous asset's tracking.

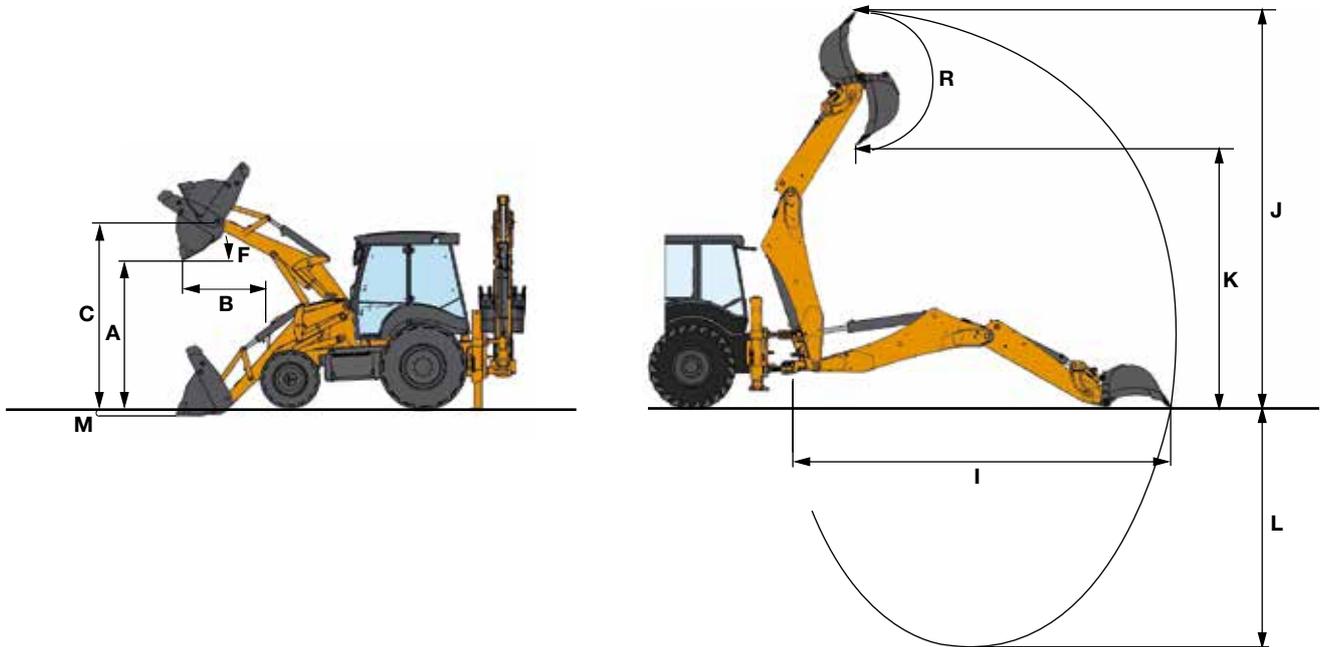


T-SERIES BACKHOE LOADERS

SPECIFICATIONS

ENGINE	580ST		590ST		695ST	
Make and Model	FPT F5C - F5BFL413B		FPT F5C - F5BFL413A			
Injection system	High Pressure Common Rail					
Emissions level	Stage IV / Tier 4 Final					
# of cylinders	4					
Bore / Stroke	99 mm x 110 mm					
Displacement / Compression ratio	3.4 ltr / 17 to 1					
Engine rated Power (ISO 14396)	72 KW (97 hp) @ 2200 rpm		82 KW (110 hp) @ 2200 rpm			
Max Net Power	84 KW (112 hp) @2000 rpm		89 KW (119 hp) @1900 rpm			
Maximum torque (ISO 14396)	459 Nm @ 1400 rpm		467 Nm @ 1400 rpm			
Engine speeds	2200 rpm (rated speed at full load) / 900-1000 rpm (low speed at no load)					
TRANSMISSION	4WD				4WD - 4WS	
Type	Powershuttle	Powershift	Powershuttle	Powershift	Powershift	
Model	Carraro TLB1 PB 4WD	Carraro TLB2 MPB 4WD	Carraro TLB1 PB 4WD	Carraro TLB2 MPB 4WD	Carraro TLB2 4WS MPB	
Forward travel speeds	6 - 10 - 21 - 40 (kph)				7 - 11 - 24 - 40 (kph)	
Reverse travel speeds	7 - 12 - 26 - 47 (kph)				8 - 13 - 29 (kph)	
FRONT AXLE	4WD Heavy duty				4WD with limited slip differential	
Oscillation	+/- 11°				+/- 8°	
REAR AXLE	Carraro 28.44FR with Differential lock		Carraro 28.50 with Differential lock		Carraro 26.43 with limited slip differential	
BRAKES	Hydraulic foot operated, 2 disc per side				Hydraulic foot operated, 3 disc per side	
Service brakes	Hydraulic foot operated, 2 disc per side				Hydraulic foot operated, 3 disc per side	
Parking brakes	Mechanically actuated					
TIRES	18"		20"		18"	
Front	18"		20"		24"	
Rear	26" or 28"		30"		24"	
STEERING	Power Steering					
Type	Power Steering					
System pressure / Displacement	180 bar / 160 cc					
Turning radius 4WD (external radius)	With 18" tires: 4300 mm with brakes off 3600 mm with brakes on				With 28" tires: 8180 mm in 2WS mode with brakes off 6820 mm in 2WS mode with brakes on 4810 mm in 4WS mode with brakes off	
HYDRAULIC SYSTEM	Load sensing closed center with twin gear pump		Load sensing closed center with variable volume pump		Load sensing closed center with variable volume pump	
Type	Load sensing closed center with twin gear pump		Load sensing closed center with variable volume pump		Load sensing closed center with variable volume pump	
Flow (@ 2200 rpm)	156 l/min		6 to 165 l/min		6 to 165 l/min	
Pressure	205 bar		205 bar		205 bar	
SERVICE CAPACITIES	8 l		8 l		8 l	
Engine oil	8 l		8 l		8 l	
Transmission oil	20.8 l		20.8 l		20.8 l	
Rear axle oil	21.2 l		21.2 l		13.6 l	
Hydraulic oil	142 l		142 l		142 l	
Fuel tank	131 l		131 l		131 l	
DEF tank	13.2 l		13.2 l		13.2 l	
Coolant	24 l		24 l		24 l	
ELECTRICAL SYSTEM	12 V		12 V		12 V	
Voltage	12 V		12 V		12 V	
Battery	Single: 95 Ah 900 A or Double: 60 Ah, 600 A (each)					
Alternator	120 A		120 A		120 A	
CAB	ROPS / FOPS		ROPS / FOPS		ROPS / FOPS	
Certification	ROPS / FOPS		ROPS / FOPS		ROPS / FOPS	
Air Conditioning	Optional		Optional		Optional	
NOISE	77 dB(A)		77 dB(A)		77 dB(A)	
Internal (cab)	77 dB(A)		77 dB(A)		77 dB(A)	
External	102 dB(A)		103 dB(A)		103 dB(A)	

GENERAL DIMENSIONS



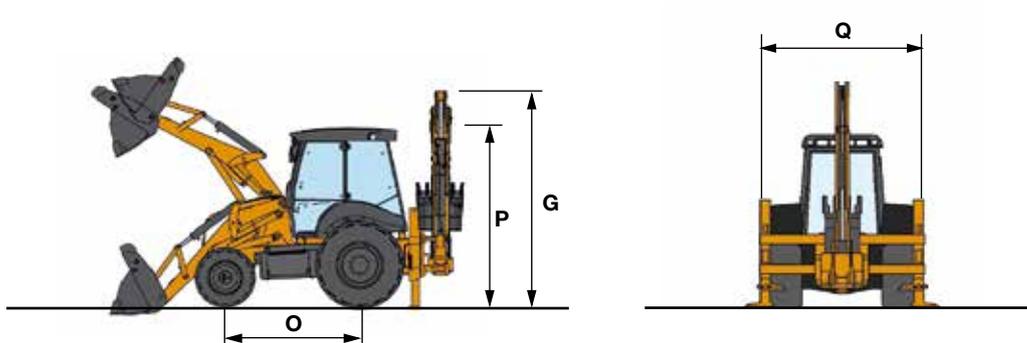
580ST - 590ST

		TOOL CARRIER LOADER ARM		STRAIGHT LOADER ARM		
		Std bucket	4 x 1 bucket	Std bucket	4 x 1 bucket	
LOADER (4WD configuration)						
A	Maximum dump height under bucket at 45°	mm	2606	2618	2711	2726
B	Dump Reach at full height	mm	844	825	815	785
C	Maximum height pin	mm	3460	3458	3490	3490
F	Dump angle	°	46		45	
M	Below ground level digging depth	mm	166	170	105	157
	Maximum lifting capacity @ ground level	kg	5670		4731	
	Maximum lifting capacity @ max height	kg	3934	3572	3553	3290
	Loader breakout force	daN	4910		3804	
	Bucket breakout force	daN	6338		5985	

		CASE DNA backhoe		In-Line cylinder backhoe		CASE DNA backhoe		In-Line cylinder backhoe		
		Std Dipper	Extendable Dipper	Std Dipper	Extendable Dipper	Std Dipper	Extendable Dipper	Std Dipper	Extendable Dipper	
BACKHOE										
	Backhoe size	ft		14 (580ST)		15 (590ST)		15 (580ST, 590ST)		
	Swinging angle	°		180		180		180		
I	Maximum reach from swing center	mm	5695	6699	5612	6286	5967	7111	5862	6991
J	Maximum operating height	mm	5802	6713	5425	6173	6043	7069	5616	6348
K	Maximum loading height	mm	3859	4752	3658	4424	4098	5124	3867	4601
L	Maximum digging depth	mm	4448	5514	4385	5627	4750	5965	4666	5881
R	Bucket rotation	°	198		203 (max amp hole)		198		203 (max amp hole)	
	Bucket breakout force	daN	5326		5971 (max force hole)		6114		5971 (max force hole)	
	Dipper breakout force	daN	3240	2375	3767	2592	3362	2420	3358	2389

T-SERIES BACKHOE LOADERS

GENERAL DIMENSIONS



OVERALL DIMENSIONS		580ST - 590ST	
		CASE DNA backhoe	In-Line cylinder backhoe
G Boom height (transport position)	mm	3560	3880
O Wheel base	mm		2175
P Cab height	mm		2950
Q Overall width with standard loader bucket	mm		2430
Minimum ground clearance	mm		348

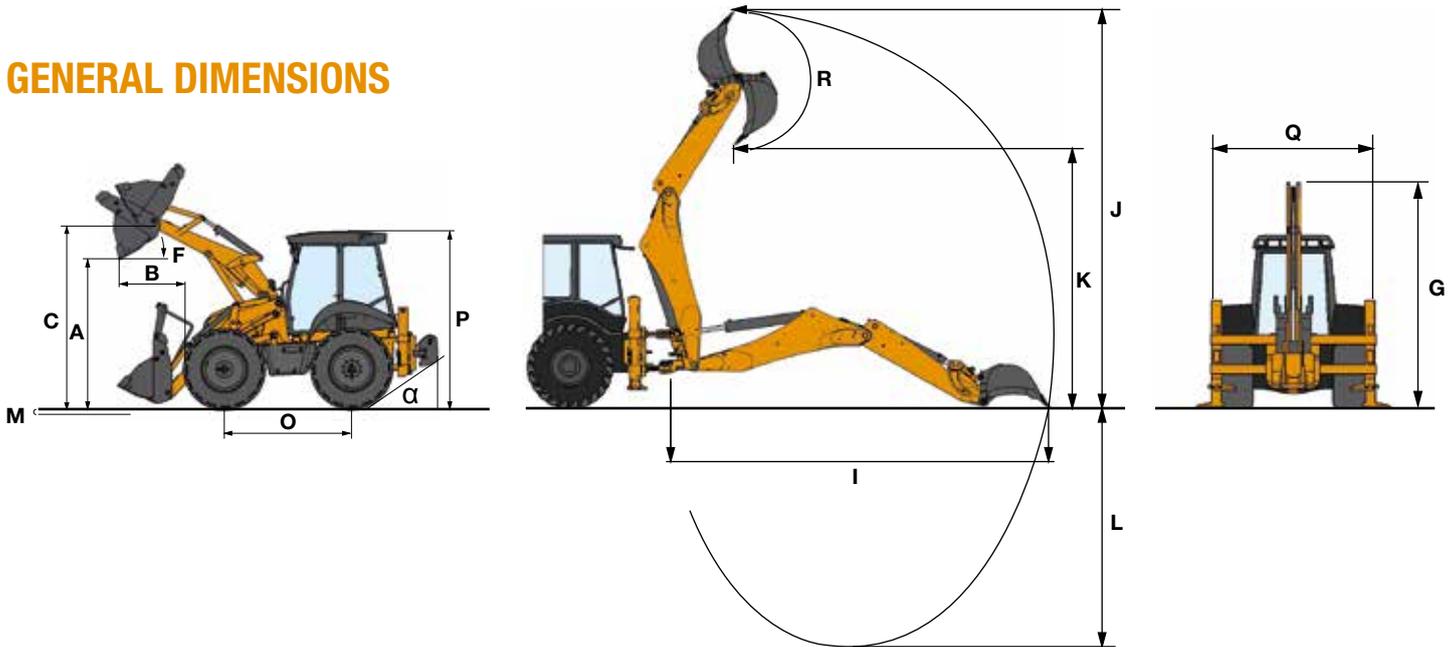
WEIGHTS		580ST	590ST
Total permissible mass	kg		9140

OPTIONAL BUCKETS Loader	Capacity (SAE ltr)	CASE DNA backhoe	Capacity (SAE ltr)	In-line cylinder backhoe	Capacity (SAE ltr)
Standard	1000 / 1200	300 mm backhoe trenching	80	300 mm backhoe trenching	80
4 x 1	1000 / 1150	400 mm backhoe trenching*	110	457 mm backhoe trenching	140
6 x 1	1000 / 1150	450 mm backhoe trenching*	120	610 mm backhoe trenching	180
		610 mm backhoe trenching*	180	760 mm backhoe trenching	260
		760 mm backhoe trenching	260	915 mm backhoe trenching	320
		900 mm backhoe trenching*	300		
		1500 mm Ditch Cleaning	280		

* Standard and Heavy Duty versions

SPECIFICATIONS

GENERAL DIMENSIONS



695ST TOOL CARRIER LOADER ARM

LOADER*		Std bucket	4 x 1 bucket	
A	Maximum dump height under bucket at 45°	mm	2708	2718
B	Dump Reach at full height	mm	799	782
C	Maximum height pin	mm	3531	3531
F	Dump angle	°	46	
M	Below ground level digging depth	mm	93	97
	Maximum lifting capacity @ ground level	kg	5350	
	Maximum lifting capacity @ max height	kg	3934	3572
	Loader breakout force	daN	4350	
	Bucket breakout force	daN	5240	

* Values valid also for Loader Only version

BACKHOE			CASE DNA backhoe		In-Line cylinder backhoe	
			Std Dipper	Extendable Dipper	Std Dipper	Extendable Dipper
	Backhoe size	ft	15		15	
	Swinging angle	°		180		
I	Maximum reach from swing center	mm	5961	7111	5862	6991
J	Maximum operating height	mm	6043	7069	5616	6348
K	Maximum loading height	mm	4098	5124	3867	4601
L	Maximum digging depth	mm	4750	5965	4666	5881
R	Bucket rotation	°	198		203 (max amp hole)	
	Bucket breakout force	daN	6114		5971 (max force hole)	
	Dipper breakout force	daN	3362	2420	3358	2389

OVERALL DIMENSIONS		CASE DNA backhoe	In-Line cylinder backhoe	695ST LOADER ONLY	
G	Boom height (transport position)	mm	3692	4013	-
O	Wheel base	mm	2220	2220	2220
P	Cab height	mm	3060	3060	3060
Q	Overall width with standard loader bucket	mm	2480	2480	2480
α	Ramp angle	°	34	34	34

WEIGHTS		695ST
Total permissible mass	kg	9350

OPTIONAL BUCKETS	Capacity (SAE Itr)	CASE DNA backhoe	Capacity (SAE Itr)	In-line cylinder backhoe	Capacity (SAE Itr)
Loader					
Standard	1200	300 mm backhoe trenching	80	300 mm backhoe trenching	80
4 x 1	1150 / 1200	400 mm backhoe trenching*	110	457 mm backhoe trenching	140
6 x 1	1150 / 1200	450 mm backhoe trenching*	120	610 mm backhoe trenching	180
		610 mm backhoe trenching*	180	760 mm backhoe trenching	260
		760 mm backhoe trenching	260	915 mm backhoe trenching	320
		900 mm backhoe trenching*	300		
		1500 mm Ditch Cleaning	280		

* Standard and Heavy Duty versions

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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
00800-2273-7373

The call is free from a land line.
Check in advance with your Mobile Operator if you will be charged. Toll free number not available from all calling areas.

