

**TIER 4 FINAL
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.
- 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.

FTP Engine family

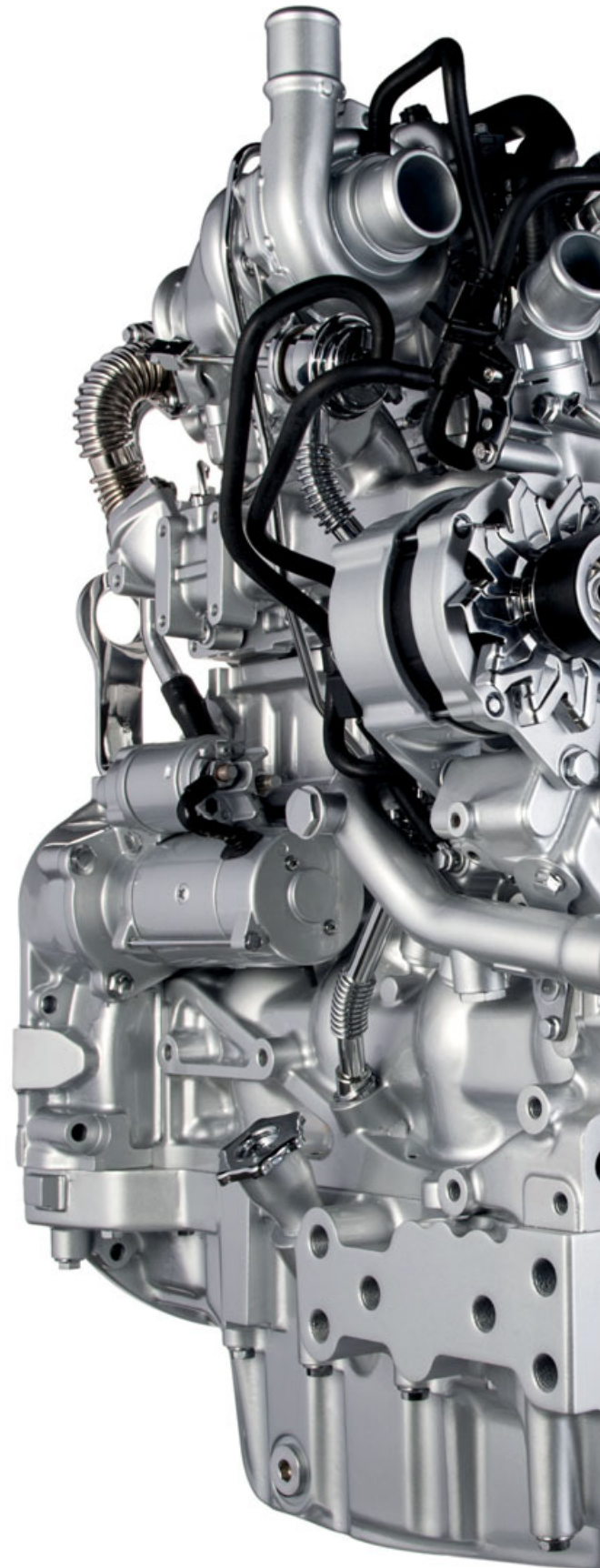
The 3.4 litre FPT engine featuring state-of-the-art technology delivers a big performance in a small package with the lowest maintenance cost in the market:

- 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.

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

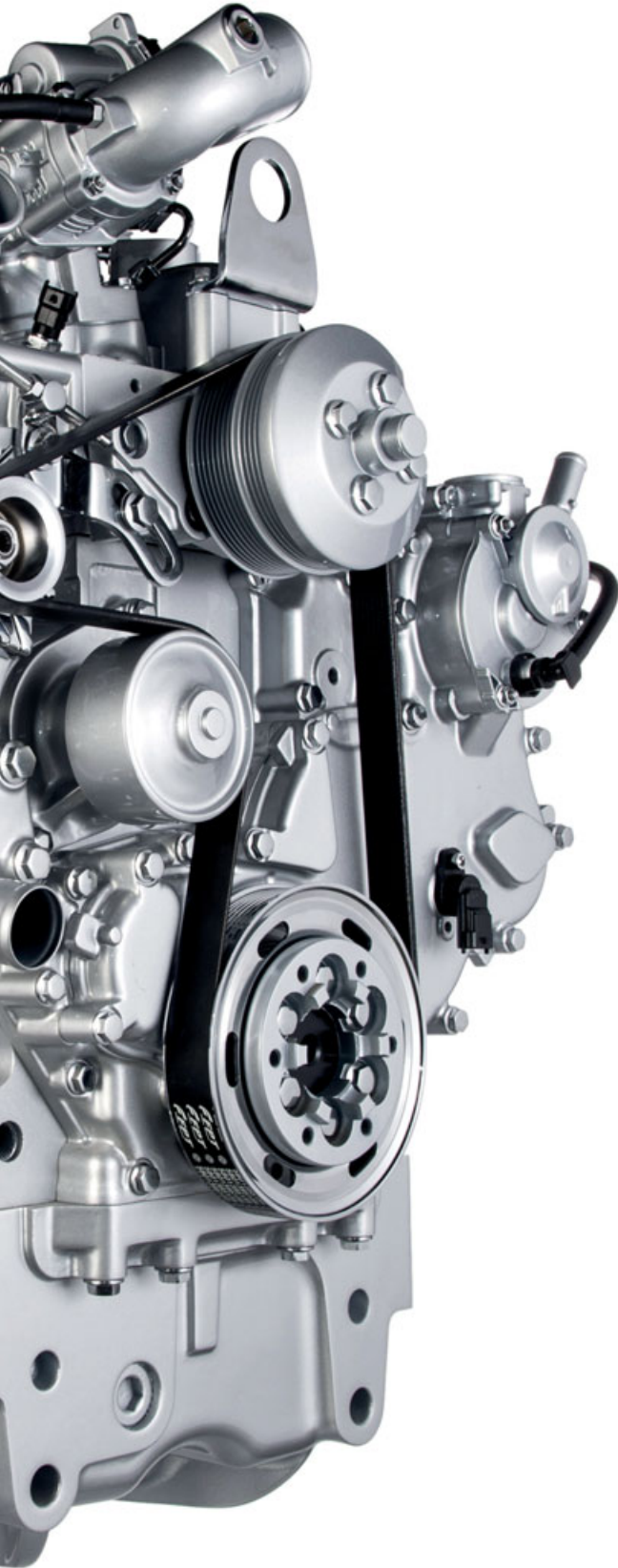
Compact HI-eSCR



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 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.

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 couple is optional for both CASE backhoe designs.



“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 stresses. 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 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: 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.



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.
- 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.

CAB AND SEAT A CAB FIT FOR A KING



Customized driving

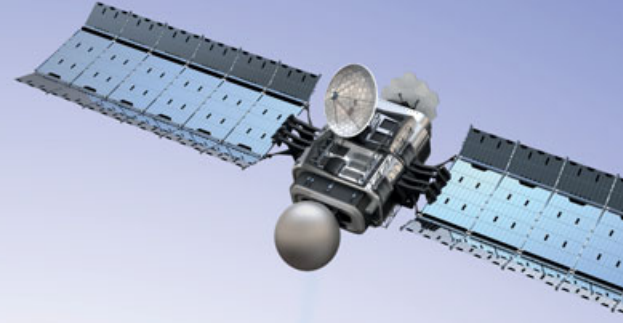
Thanks to electronics the driver can set backhoe driving reaction on 3 different levels.

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

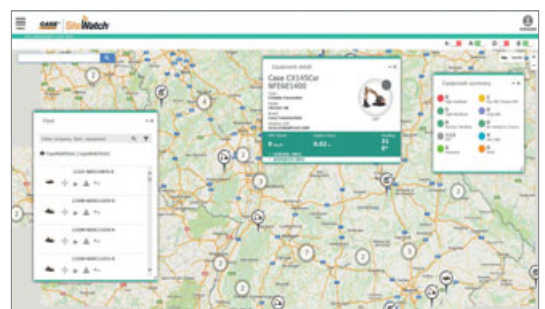
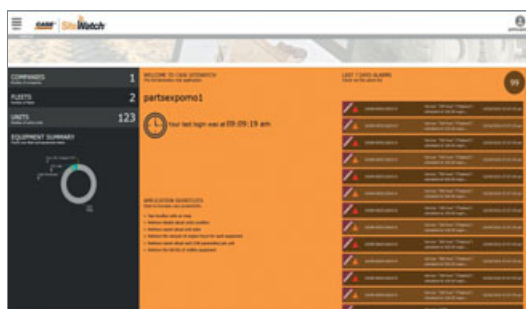
- Eliminate the “phantom fleet”: SiteWatch allows to identify spare units or under loaded machines on each site.
- Become able to reallocate units where they are more needed.
- Forward Maintenance Planning is easier since the actualised working hours are always available.
- Extend the benefits of SiteWatch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

SPECIFICATIONS

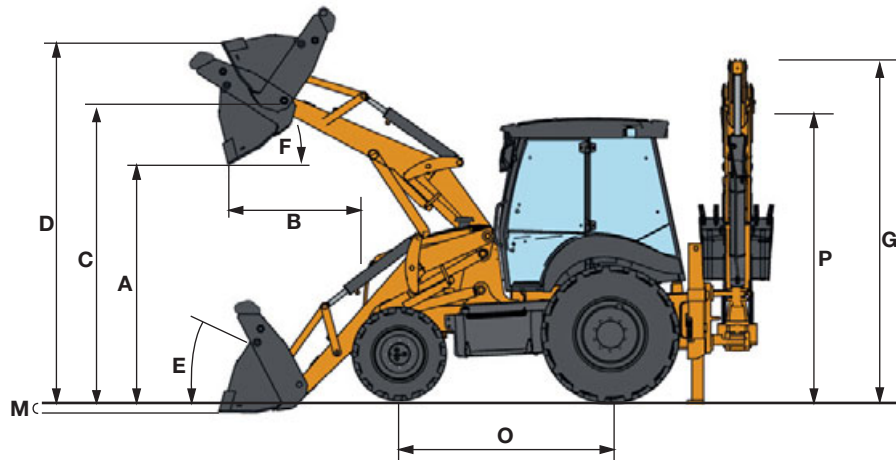
580ST

590ST

695ST

Injection system	High pressure Common Rail		
Make	FPT F5BFL413B	FPT F5BFL413A	
Engine Rated Net Power (ISO14396/ECE R120)	72 kW (97 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	
Maximum torque (according ISO 14963)	459 Nm @ 1400 rpm	467 Nm @ 1400 rpm	
TRANSMISSION			
Powershuttle			
Forward speeds	6 - 10 - 21 - 40 Km/h		-
Reverse speeds	7 - 12 - 25 - 40 Km/h		-
Powershift			
Forward speeds	6 - 10 - 22 - 39 Km/h		
Reverse speeds	7 - 12 - 26 Km/h		
HYDRAULICS			
Type of pump	Gear or Variable displacement pump	Variable Displacement	
Maximum flow	156 or 6 to 165 l/min @ 2200 rpm	6 to 165 l/min @ 2200 rpm	
Maximum pressure level	205 bars		
BATTERY			
12 Volts / 95 Ah, 900A (SAE)			
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		24" front with 24" rear 28" front with 28" rear
Front axle: oscillation of +/- 11°	Standard		
Rear axle	Differential lock		Limited-slip differential (front and rear)
CAPACITIES			
Fuel tank	131 l		
AdBlue	13.2 l		
Cooling system	24 l		
Hydraulic oil	111 l		
Gear box oil: Power Shuttle / Powershift	18.5 / 20.8 l		20.8 l
Front axle: 4 WD	6.5 l		
Final Drives (Front / Rear)	0.7 l (front)		0.7 l + 0.8 l
Rear axle	21.2 l		
NOISE			
Internal dB(A)	77		
External dB(A)	102	103	
VIBRATION LEVELS			
Upper limbs 2.5 m/s ² - Abdomen 0.5 m/s ²			

GENERAL DIMENSIONS



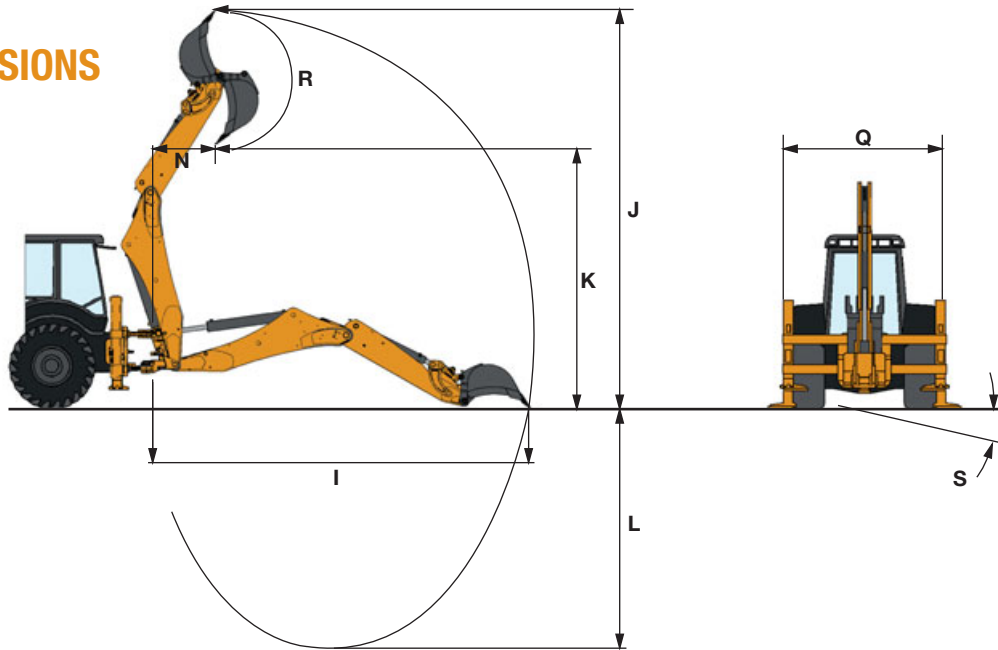
LOADER			Tool carrier		Straight loader	
			Std	4 in 1	Std	4 in 1
A	Maximum dump height under bucket at 45°	mm	2685	2693	2752	2689
B	Maximum reach with bucket at 45°	mm	830	813	808	750
C	Maximum height pin	mm	3460	3458	3490	3490
D	Maximum bucket height	mm	4250	4405	4333	4467
M	Horizontal bucket digging depth	mm	120	125		120
E	Bucket angle (on ground)	°		43		36
F	Bucket angle (in the transport position)	°		46		45
	Lift capacity (at bucket load centre of gravity)	kg	4830	4610	4970	4745
	Maximum height lifting capacity	kg	3450	3195	3550	3290
	Lift force (boom cylinders)	daN	4050	4070	3625	3645
	Breakout force (bucket cylinders)	daN	6545	6650	6340	6440

BACKHOE			"CASE DNA" backhoe		"In-Line geometry" backhoe	
			Ext.	Std/Retr.	Ext.	Std/Retr.
	Swinging angle	°		180		180
L	Maximum digging depth	mm	5435	4369	5441	4406
I	Maximum reach from swing centre	mm	6238	5229	6647	5697
J	Maximum operating height	mm	6789	5875	6150	5546
K	Load height	mm	4834	3923	4467	3863
	Lift capacity at max outreach	kg	1049	1393/1296	900	1195/1112
	Breakout force (bucket)	daN		5323		5520
	Breakout force (dipperstick)	daN	2441	3352	2870	4100
R	Bucket rotation	°		198 Mqc		203

DIMENSIONS			Tool carrier		Straight loader	
			"CASE DNA"	"In-Line"	"CASE DNA"	"In-Line"
G	Boom height (transport position)	mm	3495	3930	3495	3930
	Overall length - with standard bucket	mm	5790	5675	5790	5745
O	Wheelbase	mm		2175		2175
P	Cab height	mm		2950		2950
Q	Overall width - with standard bucket	mm		2430		2430
	Width outside tires	mm		2230		2230
S	Stabilizer leveling compensation angle	°		14		14
	OPERATING WEIGHT					
	4 WD, extendible dipper (ext.)	kg		8665		8390

T-SERIES BACKHOE LOADERS

GENERAL DIMENSIONS

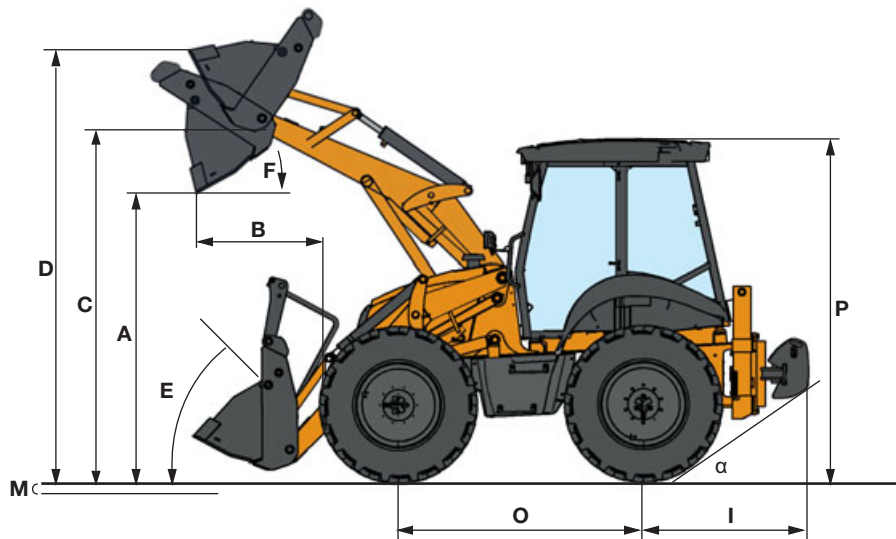


LOADER	Tool Carrier 590ST		Tool Carrier 695ST	
	Std	4 in 1	Std	4 in 1
A Maximum dump height under bucket at 45°	mm	2685	2693	2750
B Maximum reach with bucket at 45°	mm	830	813	750
C Maximum height pin	mm	3460	3458	3520
D Maximum bucket height	mm	4250	4405	4350
M Horizontal bucket digging depth	mm	120	125	85
E Bucket angle (on ground)	°	43	45	46
F Bucket angle (in the transport position)	°	46	46	
Lift capacity (at bucket load centre of gravity)	kg	4830	4610	4770
Maximum height lifting capacity	kg	3450	3195	3550
Lift force (boom cylinders)	daN	4050	4070	7400
Breakout force (bucket cylinders)	daN	6545	6650	5520

BACKHOE		"CASE DNA"		"In line" geometry		"CASE DNA"		"In line" geometry	
		Ext.	Std/Retr.	Ext.	Std/Retr.	Ext.	Std/Retr.	Ext.	Std/Retr.
Swinging angle	°	180		180		180		180	
L Maximum digging depth	mm	5887	4670	5885	4640	5810	4595	5881	4666
I Maximum reach from swing centre	mm	6655	5497	6965	5831	6645	5185	6965	5831
J Maximum operating height	mm	7141	6111	6374	5642	7215	6192	6348	5616
K Load height	mm	5196	4166	4627	3893	5271	4249	4601	3867
Lift capacity at max outreach	kg	999	1428/1300	1032	1423/1299	999	1428/1300	1032	1423/1299
Breakout force (bucket)	daN		6111		5970		6111		5970
Breakout force (dipperstick)	daN	2488	3482	2388	3358	2488	3482	2388	3358
R Bucket rotation	°		198 Mqc		203		198 Mqc		203

DIMENSIONS		Tool Carrier 590ST		Tool Carrier 695ST	
G Boom height (transport position)	mm	3682	3682	3647	3647
Overall length - with standard bucket	mm	5560	5560	5499	5499
O Wheelbase	mm	2175	2175	2200	2200
P Cab height	mm	2950	2950	2900	2900
Q Overall width - with standard bucket	mm	2430	2430	2480	2480
Width outside tires	mm	2230	2230	-	-
S Stabilizer leveling compensation angle	°	14	14	14	14
OPERATING WEIGHT		Tool Carrier 590ST		Tool Carrier 695ST	
4 WD extendible dipper (ext.)	kg	9400	9400	9430	9430

GENERAL DIMENSIONS



		Tool Carrier 695ST	
		Std	4 in 1
LOADER			
A	Maximum dump height under bucket at 45°	mm	2750
B	Maximum reach with bucket at 45°	mm	750 720
C	Maximum height pin	mm	3520
D	Maximum bucket height	mm	4350 4460
M	Horizontal bucket digging depth	mm	85 90
E	Bucket angle (on ground)	°	45
F	Bucket angle (in the transport position)	°	46
	Lift capacity (at bucket load centre of gravity)	kg	4770 4580
	Maximum height lifting capacity	kg	3550 3075
	Lift force (boom cylinders)	daN	7400
	Breakout force (bucket cylinders)	daN	5520 5500
DIMENSIONS			
	Overall length - with standard bucket	mm	5659
O	Wheelbase	mm	2200
P	Cab height	mm	2900
Q	Overall width - with standard bucket	mm	2480
I	Rear overhang (from tyre center)	mm	1484
α	Ramp angle	°	34
OPERATING WEIGHT			
	Rear counterweight (26 mass x 45 kg)	kg	1170
	4WD with full rear counterweight	kg	9350

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CASE
00800-2273-7373

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Check in advance with your Mobile Operator if you will be charged. Toll free number not available from all calling areas.

