

T-SERIES BACKHOE LOADERS
580T | 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 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.

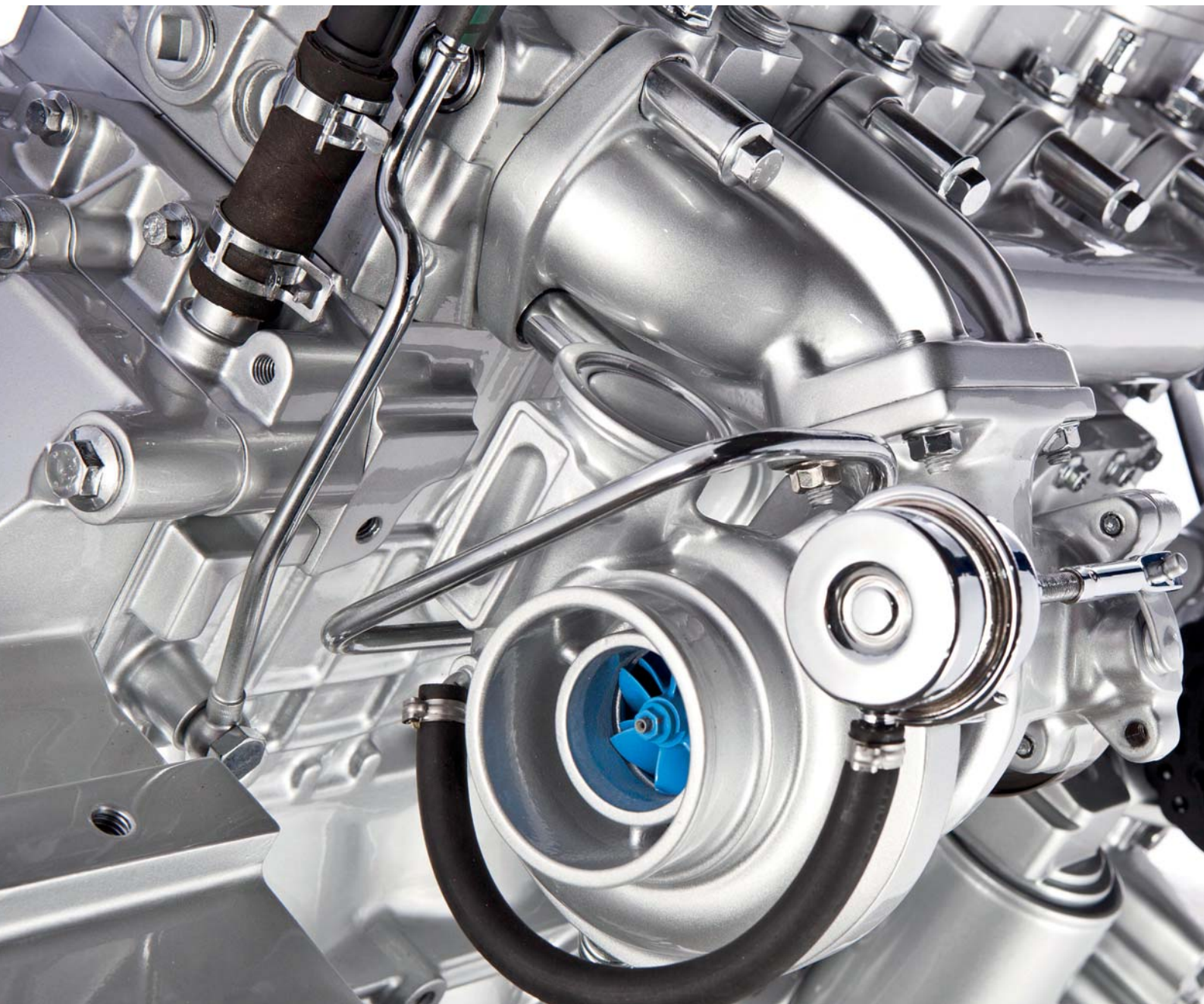
HERITAGE

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 satisfying diversified customer needs and preferences.

T-SERIES BACKHOE LOADERS



COST SAVINGS

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.

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 unforeseen maintenance costs due to cracks in the radiators.



4.5 lt FPT Multijet Engine

The 4.5 lt. 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 pre-filter 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
- Mechanical Injection Pump for 580T ensures high power combined with an easy to maintain and serve injection system
- Viscous fan: no power is wasted with its low cooling demands.

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 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 the 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 really quick and 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.



MAIN REASONS TO CHOOSE THE T-SERIES



“IN-LINE” BACKHOE GEOMETRY

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



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 provide an excellent material retention.



FLEXIBLE BUCKET CHOICE

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



ABOVE ANY LIMIT

- CASE straight loader arm ensures highest loading capacity in the market combined with best-in-class tipping height.



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.



COST SAVINGS

- The 4,5 litre FPT engine with high power and torque density dramatically reduces service time 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

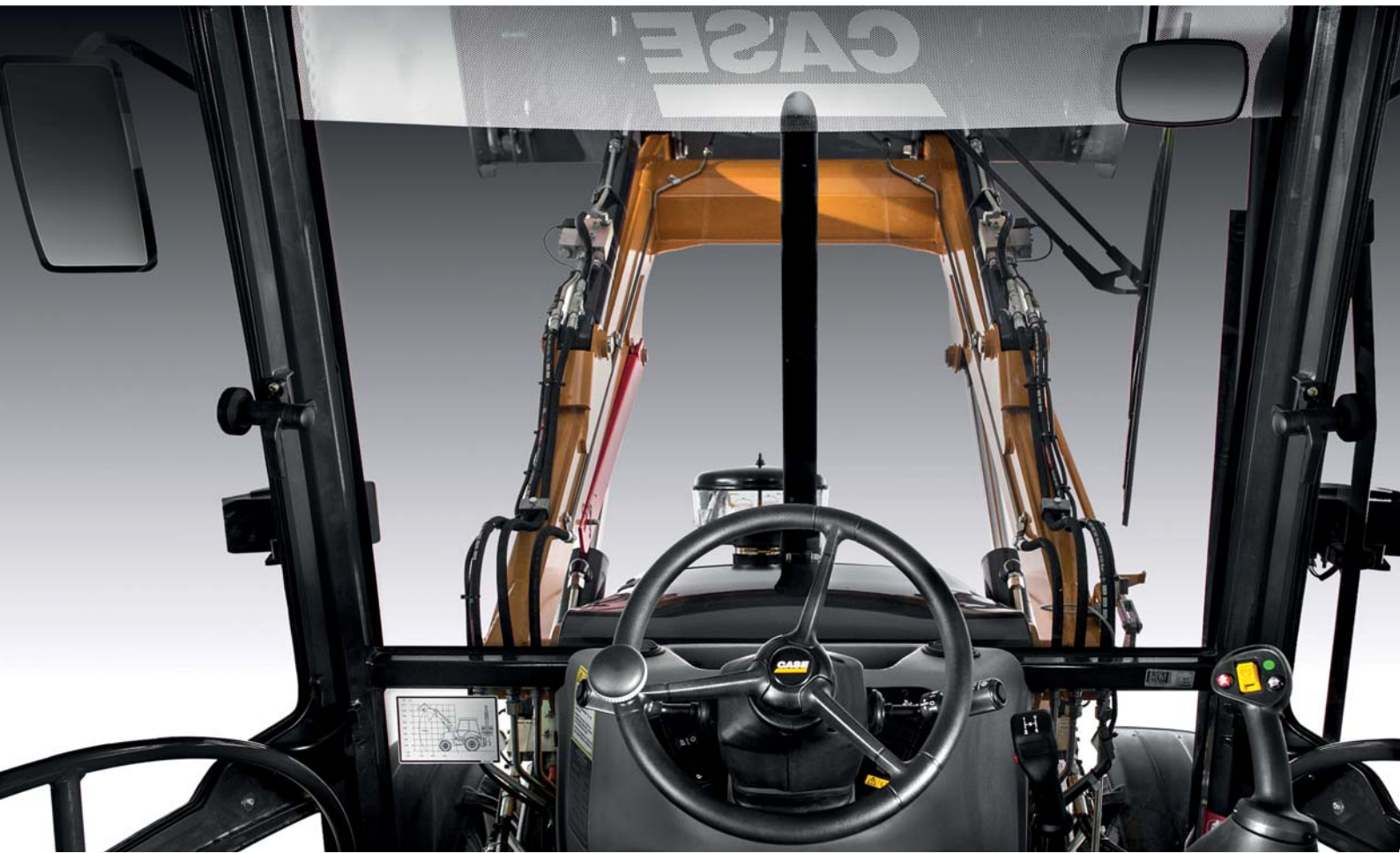
- Auto Ride Control offers 3 settings to match different working conditions.



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. Lumbar adjustment and fully adjustable armrests ensure a comfortable position throughout the working day. The new heated seat helps in 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 working lights, including two on each side, for maximum visibility.

CAB AND SEAT

A CAB FIT FOR A KING



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

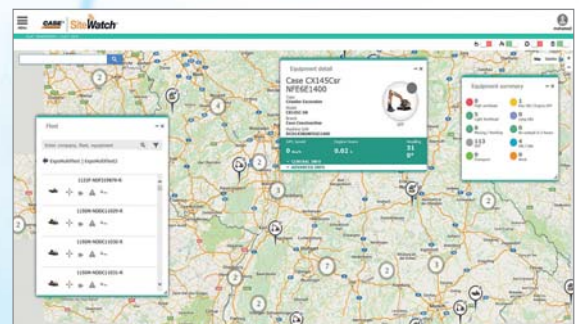
- Eliminate the “phantom fleet”: SiteWatch allows to identify spare units or under loaded machines on each site.
- Become able to reallocate units where they are more needed.
- Forward Maintenance Planning is easier since the actualised working hours are always available.
- Extend the benefits of SiteWatch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

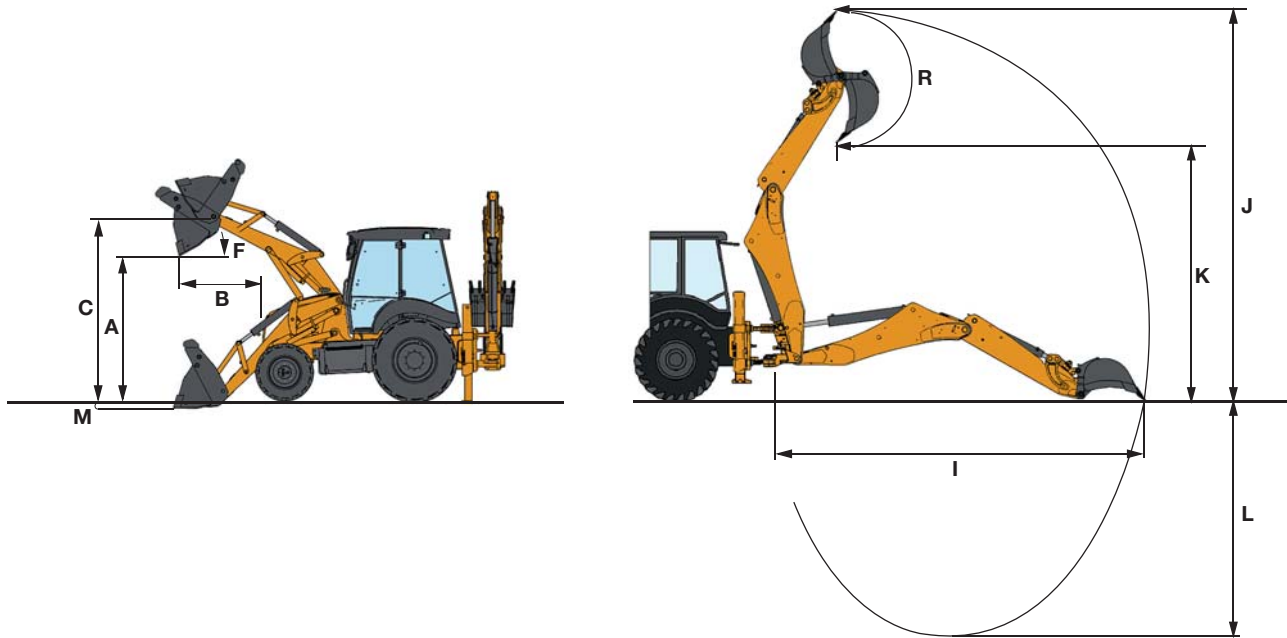
BACKHOE LOADERS

SPECIFICATIONS

ENGINE		580T		580ST		590ST		695ST	
Make and Model	FPT NEF4 - 445TA/ML5		FPT NEF4 - 445TA/EEA		FPT NEF4 - 445TA/EGH				
Injection system	Direct Mechanical		High Pressure Common Rail						
Emissions level	Tier 3 compliant								
# of cylinders	4								
Bore / Stroke	104 mm x 132 mm								
Displacement / Compression ratio	4.5 ltr / 17.5 to 1								
Engine rated Power (ISO 14396)	97 hp @ 2200 rpm					110 hp @ 2200 rpm			
Maximum torque (ISO 14396)	453 Nm @ 1400 rpm					516 Nm @ 1400 rpm			
Engine speeds	2200 rated speed at full load - 950 low speed at no load								
TRANSMISSION	2WD	4WD	4WD				4WD - 4WS		
Type	Powershuttle		Powershuttle	Powershift	Powershuttle	Powershift	Powershift		
Model	Carraro TLB1 PB 2WD	Carraro TLB1 PB 4WD	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)								
Reverse travel speeds	7 - 12 - 26 - 47 (kph)								
FRONT AXLE									
Model	2WD and 4WD Heavy duty		4WD Heavy duty				4WD with limited slip differential		
Oscillation	+/- 11°		+/- 11°				+/- 8°		
REAR AXLE									
Model	Carraro 28.44FR with Differential lock				Carraro 28.50 with Differential lock		Carraro 26.43 with limited slip differential		
BRAKES									
Service brakes	Hydraulic foot operated, 2 disc per side						Hydraulic foot operated, 3 disc per side		
Parking brakes	Mechanically actuated								
TIRES									
Front	18"	20"	18"	20"	18"	20"	24"	28"	
Rear	26" or 28"	30"	26" or 28"	30"	26" or 28"	30"	24"	28"	
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									
Type	Load sensing closed center with twin gear pump		Load sensing closed center with twin gear pump	Load sensing closed center with variable volume pump	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		156 l/min	6 to 165 l/min	156 l/min	6 to 165 l/min	6 to 165 l/min		
Pressure	205 bar								
SERVICE CAPACITIES									
Engine oil					13.6 l				
Transmission oil	18.5 l (2WD)	20.8 l (4WD)					20.8 l		
Rear axle oil	16.3 l						17.8 l		12.3 l
Hydraulic oil					118 l				
Fuel tank					126 l				
Coolant					24 l				
ELECTRICAL SYSTEM									
Voltage	12 V								
Battery	Single: 95 Ah 900 A or Double: 60 Ah, 600 A (each)								
Alternator	120 A								
CAB									
Certification	ROPS / FOPS								
Air Conditioning	Optional								
NOISE									
Internal (cab)	77 dB(A)								
External	102 dB(A)								

SPECIFICATIONS

GENERAL DIMENSIONS



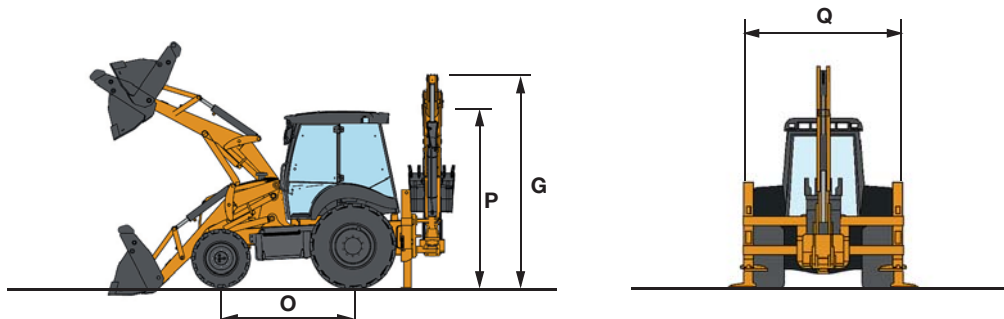
580T - 580ST - 590ST

LOADER (4WD configuration)			TOOL CARRIER LOADER ARM		STRAIGHT LOADER ARM	
			Std	4 x 1	Std	4 x 1
A	Maximum dump height under bucket at 45°	mm	2685	2693	2752	2689
B	Dump Reach at full height	mm	830	813	808	750
C	Maximum height pin	mm	3460	3458	3490	3490
F	Dump angle	°	46		45	
M	Below ground level digging depth	mm	120	125	120	120
	Maximum lifting capacity @ ground level	kg	5507	5153	4970	4745
	Maximum lifting capacity @ max height	kg	3934	3572	3553	3290
	Loader breakout force	daN	6545	6650	6340	6220
	Bucket breakout force	daN	4062	4076	3625	3625

BACKHOE			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 size	ft	14 (580T, 580ST)		14 (580T, 580ST)		15 (590ST)		15 (580T, 580ST, 590ST)		
	Swinging angle	°	180								
I	Maximum reach from swing center	mm	5661	6671	5579	6313	5929	7085	5831	6965	
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		198		203		
	Bucket breakout force	daN	5326		5971		6114		5971		
	Dipper breakout force	daN	3240	2375	3766	2593	3362	2420	3358	2389	

T-SERIES BACKHOE LOADERS

GENERAL DIMENSIONS



580T - 580ST - 590ST

OVERALL DIMENSIONS AND WEIGHTS

CASE DNA backhoe

In-Line cylinder backhoe

G Boom height (transport position)	mm	3495	3875
O Wheel base	mm	2175	
P Cab height	mm	2950	
Q Overall width with standard loader bucket	mm	2430	
Minimum ground clearance	mm	348	

		580T		580ST		590ST	
OPERATING WEIGHT		with 14ft CASE DNA Backhoe*	with 14ft In-line cylinder Backhoe*	with 14ft CASE DNA Backhoe*	with 14ft In-line cylinder Backhoe*	with 15ft CASE DNA Backhoe*	with 15ft In-line cylinder Backhoe*
With Tool Carrier loader arm	kg	8665	8420	8665	8420	9400	9155
With Straight Loader arm	kg	8390	8145	8390	8145	9125	8880

* Ext. Dipper

OPTIONAL BUCKETS Loader

Capacity (SAE ltr)

Standard	1000 / 1200
4 x 1	1000 / 1150
6 x 1	1000 / 1150

CASE DNA backhoe

Capacity (SAE ltr)

300 mm backhoe trenching	80
400 mm backhoe trenching*	110
450 mm backhoe trenching*	120
610 mm backhoe trenching*	180
760 mm backhoe trenching	260
900 mm backhoe trenching*	300
1500 mm Ditch Cleaning	280

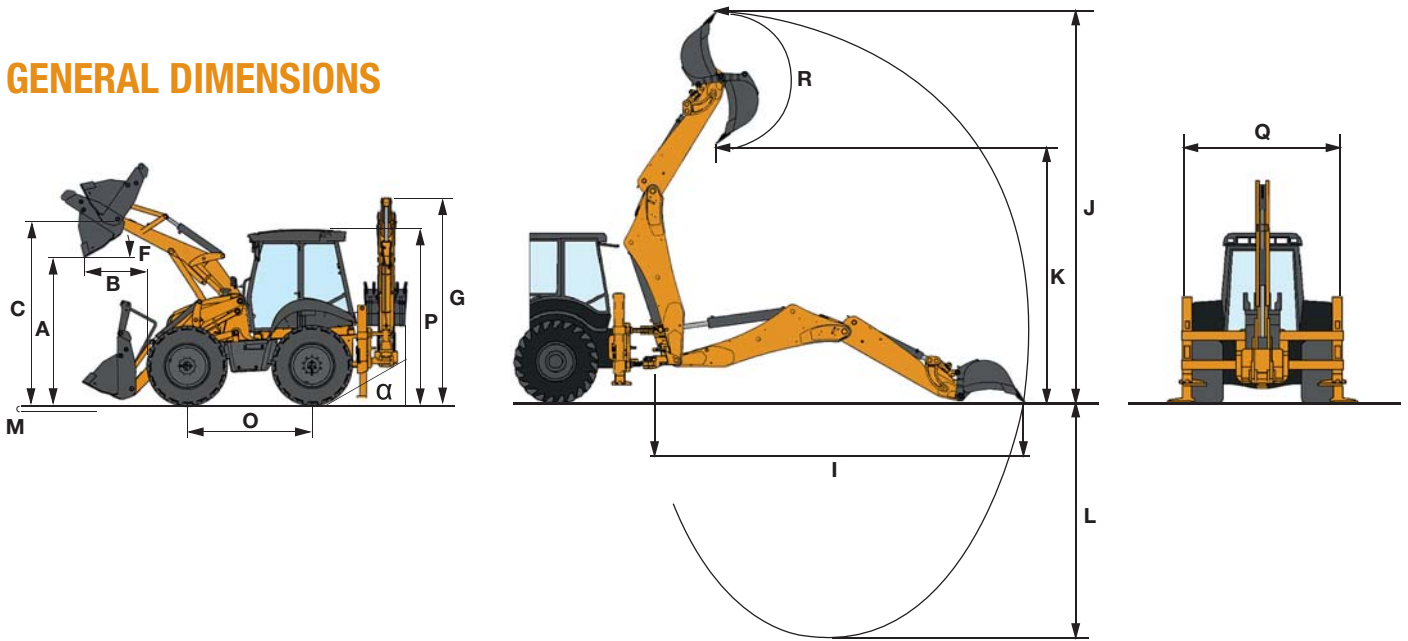
* Standard and Heavy Duty versions

In-line cylinder backhoe

Capacity (SAE ltr)

300 mm backhoe trenching	80
457 mm backhoe trenching	140
610 mm backhoe trenching	180
760 mm backhoe trenching	260
915 mm backhoe trenching	320

GENERAL DIMENSIONS



695ST
TOOL CARRIER LOADER ARM

LOADER

		Std	6 x 1
A Maximum dump height under bucket at 45°	mm	2717	2753
B Dump Reach at full height	mm	744	690
C Maximum height pin	mm	3491	3491
F Dump angle	°	46	
M Below ground level digging depth	mm	113	113
Maximum lifting capacity @ ground level	kg	5507	5153
Maximum lifting capacity @ max height	kg	3934	3572
Loader breakout force	daN	6545	6650
Bucket breakout force	daN	4062	4076

BACKHOE

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	5929	7085	5831	6965
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	
Bucket breakout force	daN	6114		4745	
Dipper breakout force	daN	3362	2420	3358	2389

OVERALL DIMENSIONS AND WEIGHTS

		CASE DNA backhoe	In-Line cylinder backhoe
G Boom height (transport position)	mm	3682	3875
O Wheel base	mm	2175	
P Cab height	mm	2950	
Q Overall width with standard loader bucket	mm	2430	
Minimum ground clearance	mm	348	

OPERATING WEIGHT

		with 14ft CASE DNA Backhoe - Ext. Dipper	with 14ft In-line cylinder Backhoe - Ext. Dipper
With Tool Carrier loader arm	kg	9430	9185

OPTIONAL BUCKETS

Loader	Capacity (SAE ltr)	CASE DNA backhoe	Capacity (SAE ltr)	In-line cylinder backhoe	Capacity (SAE ltr)
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		

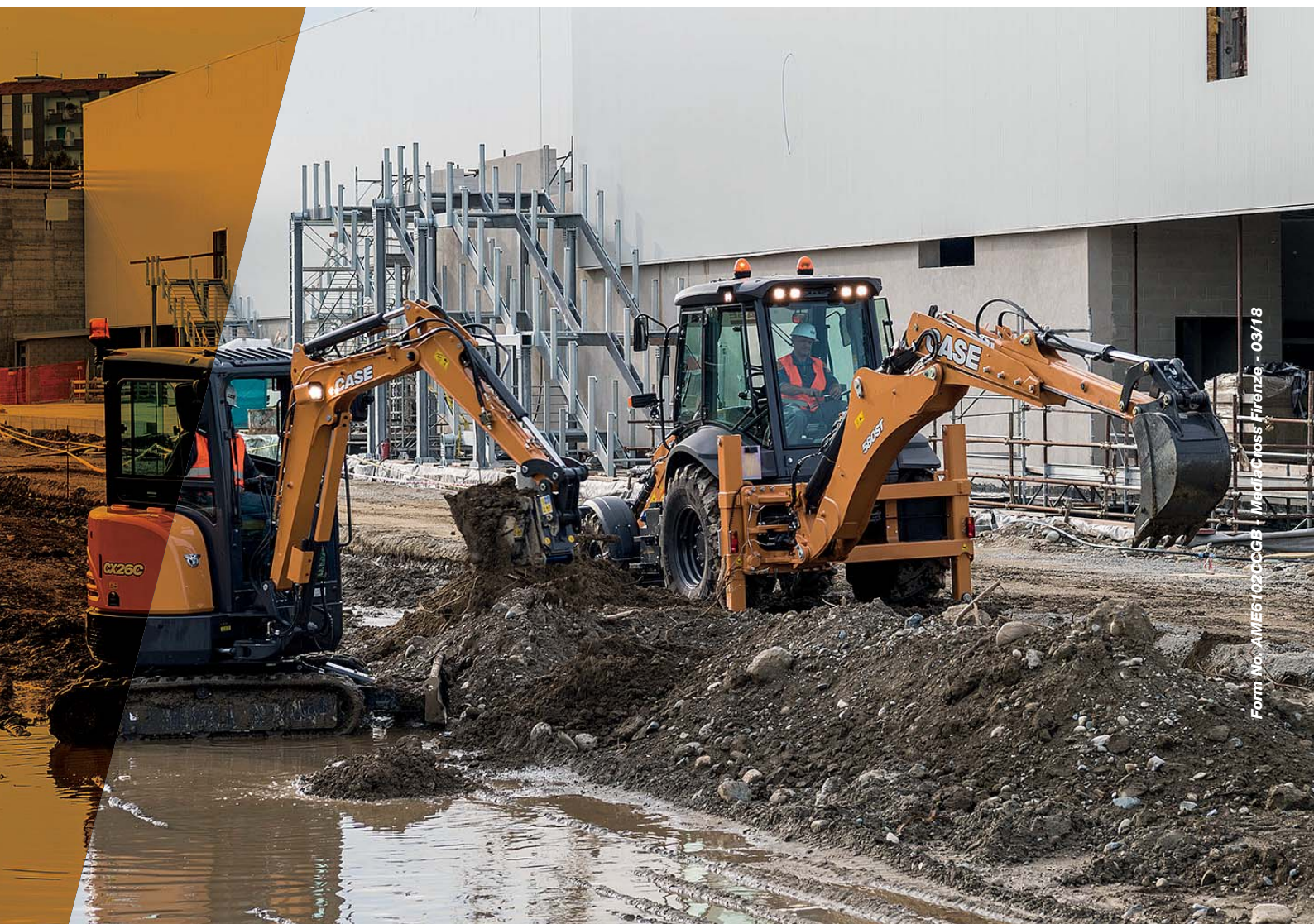
* Standard and Heavy Duty versions

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EXPERTS FOR THE REAL WORLD

SINCE 1842

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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

