

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

CASE
CONSTRUCTION



**THE CONSTRUCTION
KING**

www.casece.com

**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.



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.



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.



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



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 delivering constant power, better operator controllability and fast cycles.



“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 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



STRAIGHT LOADER ARM

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.



STRAIGHT LOADER ARM

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



LOAD SENSING HYDRAULIC SYSTEM

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



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



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. 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

580T

580ST

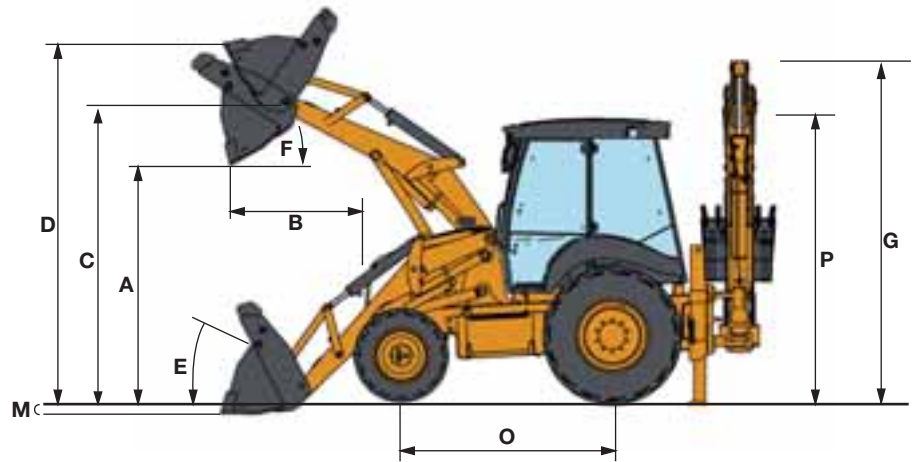
590ST

695ST

ENGINE	Conform to 97/68/CE Tier 3 standards for reduced pollution - 4 cylinders Turbocharged 4,5 liter			
Injection system	Direct Mechanical	High pressure Common Rail	High pressure Common Rail	High pressure Common Rail
Make	CNH 445TA/ML5	CNH 445TA/EEA	CNH 445TA/EGH	CNH 445TA/EGH
Power (according to ISO 14396)	72 kW / 97 hp	72 kW / 97 hp	82 kW / 110 hp	82 kW / 110 hp
Maximum torque (according ISO 14963)	400 Nm @ 1400 1/min	453 Nm @ 1400 1/min	516 Nm @ 1400 1/min	516 Nm @ 1400 1/min
TRANSMISSION				
Powershuttle				
Forward speeds	6-10-21-40 Km/h	6-10-21-40 Km/h	6-10-21-40 Km/h	-
Reverse speeds	7-12-25-47 Km/h	7-12-25-47 Km/h	7-12-25-47 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 and flow	Twin Gear Pump 156 l/min @ 2200 rpm	Variable Displ. 6 to 165 l/min @ 2200 rpm Twin Gear Pump 156 l/min @ 2200 rpm	Variable Displacement 6 to 165 l/min @ 2200 rpm	Variable Displacement 6 to 165 l/min @ 2200 rpm
Maximum pressure level	205 bars	205 bars	205 bars	205 bars
BATTERY				
12 Volts / 12V 95Ah, 900A (SAE) / 120 A				
TURNING RADIUS				
Front tires 12.5/80-18, wheel not braked, 4WD engaged		4300 mm at ext. edge of front tires - 5600 mm at bucket corner		
AXLES, TIRES & BRAKE				
Brake	Power braking: brake with friction area of 2472 cm ²			
Tires	Tires must be multi-purpose, or industrial for hard terrain, or agricultural for loose terrain			
- Front tires	18" front with 26" or 28" rear	18" front with 26" or 28" rear	18" front with 26" or 28" rear	26" front with 26"
- Rear tires	20" front with 30" rear	20" front with 30" rear	20" front with 30" rear	24" front with 24"
Front axle: oscillation of +/- 11°	Differential lock	Differential lock	Differential lock	Limited-slip differential
CAPACITIES				
Fuel tank	145 l	145 l	145 l	145 l
Cooling system	24 l	24 l	24 l	24 l
Hydraulic oil	122 l	122 l	122 l	126 l
Gear box oil: Power Shuttle 4 WD	20.8 l	20.8 l	20.8 l	20.8 l
PowerShift: Front axle 4WD Differential	6.5 l	6.5 l	6.5 l	6.5 l
Output stage	0.7 + 0.7 l	0.8 l + 0.8 l	0.8 l + 0.8 l	0.8 l + 0.8 l
Rear axle 4WD Total	21.2 l	21.2 l	21.2 l	21.2 l
EMISSIONS (g/kWh)				
CO2 emission	773	790	744	744
NOx emission	4.1	4.4	3.6	3.6
HC emission	0.1	0.1	0.1	0.1
CO emission	1.8	1.8	0.9	0.9
PM emission	0.26	0.25	0.13	0.13
NOx + HCNM emission	4.2	4.5	3.7	3.7
NOISE				
Internal dB(A)	77			
External dB(A)	102	102	103	103
VIBRATION LEVELS				
Upper limbs 2.5 m/s ² - Abdomen 0.5 m/s ²				

GENERAL DIMENSIONS

4WD (580T)
Front tires: 12,5/80
Rear tires: 18,4-26-R4
Ballast: Heavy for HED, light for STD dipper
Loader bucket: 1m³
Backhoe bucket: 610 mm (24IN)
 NO HQC on TB53 dipper



Tool carrier

Straight loader

580T

LOADER			580T		580T	
			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	120
E	Bucket angle (on ground)	°	43	43	36	36
F	Bucket angle (in the transport position)	°	46	46	45	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	180	180
L	Maximum digging depth	mm	5435	4369	5441	4406
I	Maximum reach from swing centre	mm	6238	5229	6647	5697
	Maximum reach at rear axle	mm	7563	6554	7979	7036
J	Maximum operating height	mm	6789	5875	6150	5546
K	Load height	mm	4834	3923	4467	3863
N	Central offset	mm	620	620	620	620
	Lift capacity at max outreach	kg	1049	1393/1296	900	1195/1112
	Breakout force (bucket)	daN	5323	5323	5520	5520
	Breakout force (dipperstick)	daN	2441	3352	2870	4100
R	Bucket rotation	°	200/195	200/195	200	200

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	2175	2175
P	Cab height	mm	2950	2950	2950	2950
Q	Overall width - with standard bucket	mm	2430	2430	2430	2430
	Width outside tires	mm	2230	2230	2230	2230
S	Stabilizer leveling compensation angle	°	14	14	14	14
OPERATING WEIGHT						
	4 WD, standard dipper (ext.)	kg	8385	7725	8345	7685
	4 WD, extendible dipper (ext.)	kg	8510	8265	8470	8225

T-SERIES BACKHOE LOADERS

4WD (580ST)

Front tires: 12,5/80

Rear tires: 18,4-26-R4

Ballast: Heavy for HED, light for STD dipper

Loader bucket: 1m³

Backhoe bucket: 610 mm (24IN)

NO HQC on TB53 dipper

4WD (590ST)

Front tires: 16/70 20

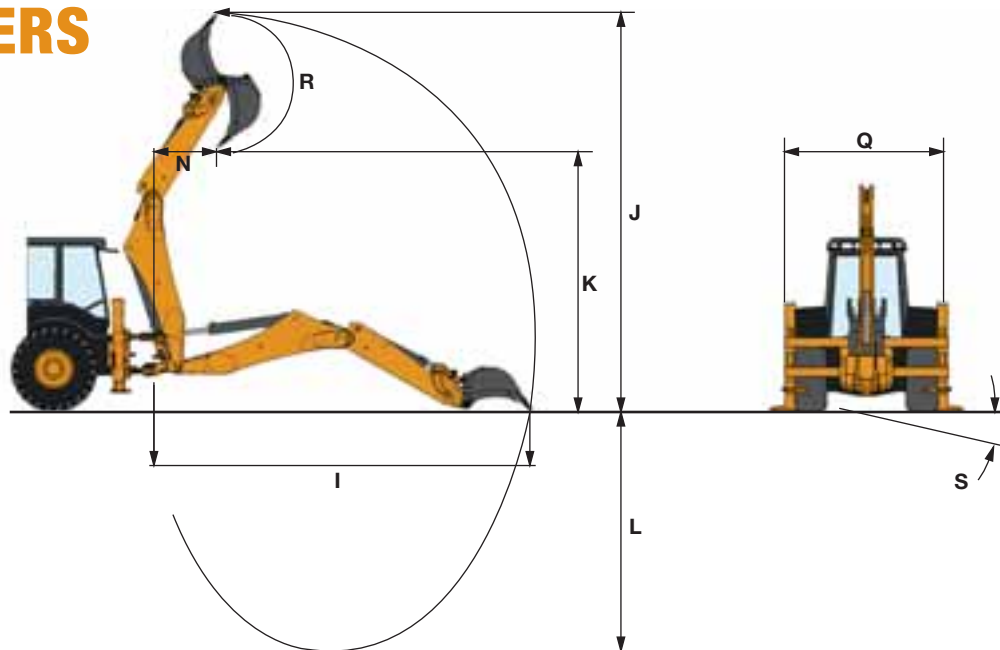
Rear tires: 16.9-30

Ballast: Heavy for HED, light for STD dipper

Loader bucket: 1.15 m³ 6x1

Backhoe bucket: 610 mm (24IN)

NO HQC on TB53 dipper



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

BACKHOE			"CASE DNA" backhoe		"In-Line geometry" backhoe		"CASE DNA" backhoe	
			Ext.	Std/Retr.	Ext.	Std/Retr.	Ext.	Std/Retr.
	Swinging angle	°	180	180	180	180	180	180
L	Maximum digging depth	mm	5435	4369	5441	4406	5887	4670
I	Maximum reach from swing centre	mm	6238	5229	6647	5697	6655	5497
	Maximum reach at rear axle	mm	7563	6554	7979	7036	7960	6510
J	Maximum operating height	mm	6789	5875	6150	5546	7141	6111
K	Load height	mm	4834	3923	4467	3863	5196	4166
N	Central offset	mm	620	620	620	620	0.62	0.62
	Lift capacity at max outreach	kg	1049	1393/1296	900	1195/1112	1097	1472/1369
	Breakout force (bucket)	daN	5323	5323	5520	5520	6111	6111
	Breakout force (dipperstick)	daN	2441	3352	2870	4100	2488	3482
R	Bucket rotation	°	200/195	200/195	200	200	198/195*	198/195*

DIMENSIONS			Tool carrier		Straight loader		
			"CASE DNA"	"In-Line"	"CASE DNA"	"In-Line"	
G	Boom height (transport position)	mm	3495	3930	3495	3930	3682
	Overall length - with standard bucket	mm	5790	5675	5790	5745	5560
O	Wheelbase	mm	2175	2175	2175	2175	2175
P	Cab height	mm	2950	2950	2950	2950	2950
Q	Overall width - with standard bucket	mm	2430	2430	2430	2430	2430
	Width outside tires	mm	2230	2230	2230	2230	2230
S	Stabilizer leveling compensation angle	°	14	14	14	14	14
OPERATING WEIGHT							
	4 WD standard dipper (ext.)	kg	8385	7725	8345	7685	9085
	4 WD extendible dipper (ext.)	kg	8510	8265	8470	8225	9245

* hyd. QC

SPECIFICATIONS

4WD / 4 WS (695ST)

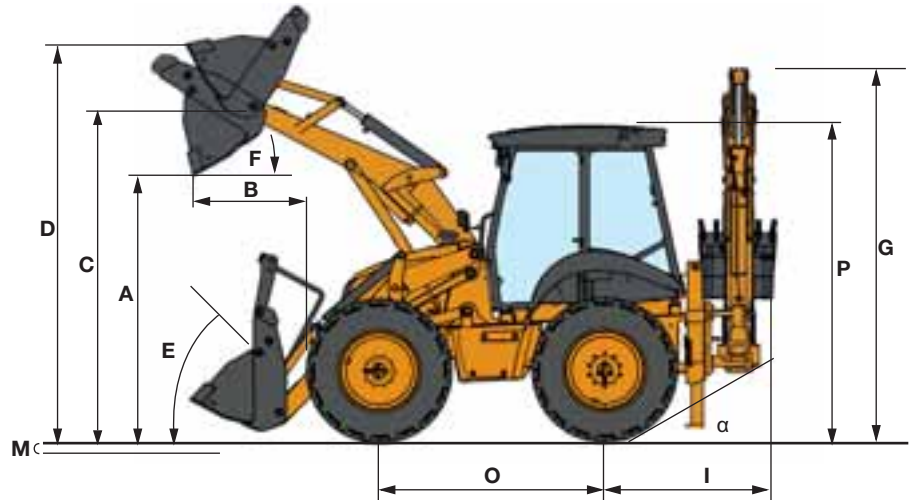
Front and rear tires: 16.9-28

Ballast: Heavy for HED, light for STD dipper

Loader bucket: 1.15 m³ 6x1

Bhoe bucket: 610 mm (24IN)

NO HQC on TB53 dipper



Tool Carrier 695ST

LOADER		Std	4 in 1
A	Maximum dump height under bucket at 45°	mm 2750	2750
B	Maximum reach with bucket at 45°	mm 750	720
C	Maximum height pin	mm 3520	3520
D	Maximum bucket height	mm 4350	4460
M	Horizontal bucket digging depth	mm 85	90
E	Bucket angle (on ground)	° 45	45
F	Bucket angle (in the transport position)	° 46	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	7400
	Breakout force (bucket cylinders)	daN 5520	5500
BACKHOE		Ext.	Std/Retr.
	Swinging angle	° 180	180
L	Maximum digging depth	mm 5810	4595
I	Maximum reach from swing centre	mm 6645	5185
	Maximum reach at rear axle	mm 7960	6510
J	Maximum operating height	mm 7215	6192
K	Load height	mm 5271	4249
N	Central offset	mm 0.62	0.62
	Lift capacity at max outreach	kg 1097	1472/1369
	Breakout force (bucket)	daN 6111	6111
	Breakout force (dipperstick)	daN 2488	3482
R	Bucket rotation	° 198/195 hyd. QC	198/195 hyd. QC
DIMENSIONS			
G	Boom height (transport position)	mm 3647	
	Overall length - with standard bucket	mm 5499	
O	Wheelbase	mm 2200	
P	Cab height	mm 2900	
Q	Overall width - with standard bucket	mm 2480	
	Width outside tires	mm -	
S	Stabilizer leveling compensation angle	° 14	
OPERATING WEIGHT			
	4 WD standard dipper (ext.)	kg 9080	
	4 WD extendible dipper (ext.)	kg 9240	

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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

