



**CASE**  
CONSTRUCTION

# FX SERIES LOADER BACKHOES



770FX | 851FX | 770FX Plus | 851FX Plus

**BS4**  
CEV

**FPT**  
POWERTRAIN TECHNOLOGIES

**4WD**

**COOL**  
**PLUS**



# ACROSS HISTORY



**1842**

J.I. CASE company is founded.



**1959**

CASE introduces industry's first diesel-powered loader backhoe.



**1999**

Fiat Group acquires Case Corporation and merges it with New Holland N.V. to create CNH Global, a world leader in farm machinery and construction equipment.



**2013**

CASE introduces fuel efficient FPT engines in its India product range



**2017**

CASE celebrates 175 years of history. EX Series launched in India, powered by FPT S8000 Engine.

1840 1940 1980 2000 2010 2021

**1957**

CASE produces the first factory-integrated loader backhoe.



**1989-90**

CASE introduced its first loader backhoe in India.



**2005**

CASE manufactures the 500,000<sup>th</sup> loader backhoe.



**2020**

CASE presents 580 EV, industry's first Fully Electric award winning loader backhoe.



**2021**

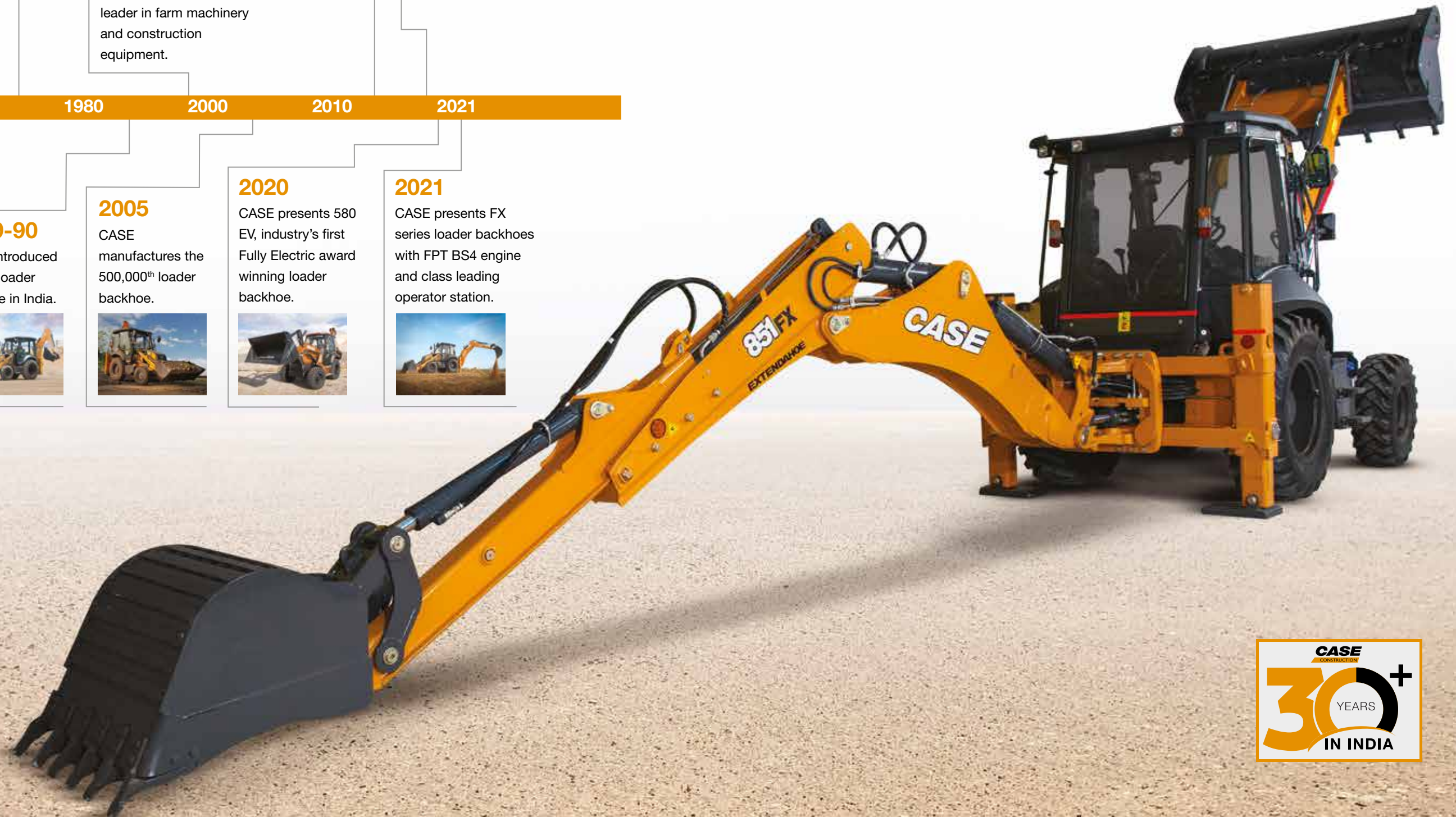
CASE presents FX series loader backhoes with FPT BS4 engine and class leading operator station.



# FX SERIES LOADER BACKHOES

CASE presented the world with its first ever factory-integrated Loader Backhoe. Over the years, many other industry firsts were added to these wonder machines. Now, CASE presents its latest offering in Loader Backhoes, the FX Series. Boasting of a BS4 engine and class leading operator station, FX Series is a revolutionary step towards an extended care for the people and environment, something that has always been part of the CASE DNA.

The world-class manufacturing facility at Pithampur is in sync with the vision of Make in India for the world. The facility takes the pride of manufacturing machines that are in turn exported to 25 countries.





# MAIN REASONS TO CHOOSE FX SERIES



## A LEGACY OF HIGH PERFORMANCE

Efficient CEV-IV compliant FPT engine with high power and torque density coupled with proven transmission provides best-in-class dozing, stockpiling and travel capability.



## IMPROVED OPERATOR STATION

Electronic hand throttle and foot accelerator pedal, increased storage spaces, one touch idle, intuitive side cluster, comfortable and multi-adjustable operator seat in a spacious world-class cabin improve productivity for every operator.



## HIGH VISIBILITY

Sloping bonnet, new side quarter windows, newly positioned work lamps and New Gen Low Glare Cabin interiors improve all around visibility.



## FAST LOADING CYCLE

The improved FNR lever location supports fast directional change, improving site manoeuvrability and productivity.



## CASE DNA "S'TYLED BACKHOE"

The new backhoe represents the continuity of CASE DNA. The S'tyled boom provides higher reach and better digging depth.



## STRAIGHT LOADER ARM

The CASE straight loader arm ensures better work visibility, loading performance and good site manoeuvrability. It also ensures less daily maintenance time.



## IMPROVED FUEL EFFICIENCY

Advanced hydraulic system along with VVP provides fuel savings of ~12-14%. With the new ECO mode and Auto idling feature, fuel savings go up to 20%



## BIGGER AND BETTER

With the new FX series you can reach further and dig more per cycle. The backhoe offers class leading forces, various bucket sizes and dipper options.



## TECHNICAL SUPERIORITY

High operating weight for best-in-class travel stability, leading breakout forces for the toughest terrains and improved ease of use with the new age controls.



## BETTER STRUCTURE

Robot welded boom, dipper and chassis. Long lasting axles, pins & bushes and protected hoses.



## ENHANCED SAFETY

New age inclined pillar cabin provides better travel safety. Engine Protection Shutdown protects against unplanned breakdown and AV warning system makes operations safer.





# BS4 FOR THE ENVIRONMENT

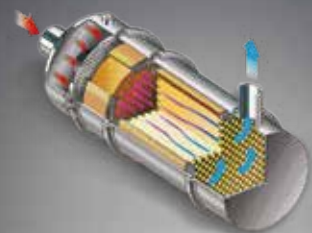
## BS4 ADVANCED EMISSION NORMS

### BS4 (CEV) Regulation

In this revolutionary engine, particulate matter emission (PM) will be reduced by 16 times, Hydro Carbons (HC) and Nitrous Oxide (NOx) emission will also go down by seven times. It banks upon Diesel Oxidation Catalysts (DOC) to reduce harmful emissions dramatically. Using Superior technology, AD-BLUE : 32.5% Urea Solution is injected into Selective Catalyst Reduction (SCR) with a rate <10% of fuel consumption, which leads to reduced NOx emissions.

### Superior Technology to Boost Efficiency

The all new FPT BS4 (CEV) 74 hp (55 kW) engine is 6% more fuel efficient and offers better response time owing to ECU. At the same time, its 97 hp (72 kW) variant is 6% more fuel efficient and offers 8% higher torque.



Diesel Oxidation Catalyst



## FPT ELECTRONIC ENGINE

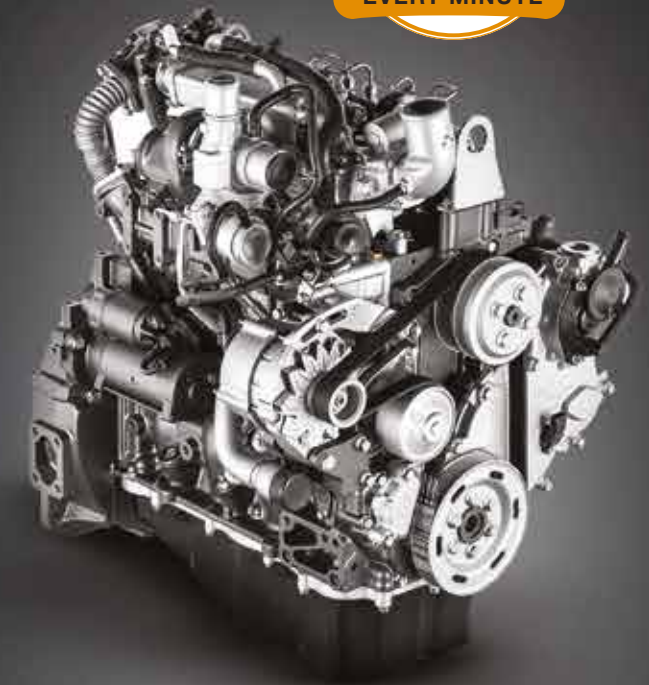
The New FX series offers FPT Electronic engine, which accurately controls the fuel injection to optimize the power delivery compared to mechanically controlled BS3 engines.

### Upgrades and Advantages

FPT BS4 engine offers high performance with better power and torque management, better driveability and improved fuel efficiency.

### Aftermarket Support

BS4 engines are highly dependable as they are designed and proven in Indian conditions. To ensure field readiness for the new generation engines, the vast network of dealers and support staff have been trained and certified for addressing BS4 engine technology.



## NEW GENERATION HYDRAULICS

### Variable Displacement Pump

New generation hydraulics with VVP optimizes hydraulic oil flow as per load and improves fuel consumption up to 14%, which combined with ECO MODE and AUTO IDLE offer up to 20% better fuel economy and potential savings worth ₹2.2 lakh annually. It also offers faster cycle time compared to gear pump, thereby improving the productivity.



Variable Displacement Pump



Up To **14%\***  
Fuel Savings With  
Variable Pump



Fx Series Offers  
Up To **20%\***  
Fuel Savings

### ECO Mode

Automatically limits the peak engine rpm both in Backhoe and Loader function depending on the seat position.



### One Touch Idle

If no hydraulic operations are active, Engine comes to idle rpm (950 rpm) after a predefined time, thereby reducing the wastage of fuel.



\*T&C apply

Under standard test conditions when compared to earlier model



# COMFORTABLE AND PRODUCTIVE OPERATOR STATION



## RIGHT – Information Cluster and Controls

- The new gen MID - analogue gauges showing critical machine parameters
- Digital screen for setting machine parameters/ diagnostics
- Audio and visual warning system, which alerts the operator in case any of the critical parameters are outside the acceptable range
- Engine protection shutdown
- On-cluster controls - ECO mode, Auto idle, Electronic RPM knob, 2WD/4WD selector and Electrical side shift
- Pillar mounted HVAC controls and mobile holder with net (Optional)
- Additional storage spaces on rear side and floor area with new bottle holder



## FRONT – Travel and Loader Controls

- New parking brake mechanism - easy to access and operate vs ground placed setup
- Relocated FNR Lever - can be operated without removing the hand off the steering
- Large cushioned steering wheel
- Operator seat position - Seat position shifted towards steering wheel to have better control of steering, foot pedals and front dashboard
- Electronic accelerator pedal - low effort and high accuracy
- Low effort loader lever



## LEFT – Entry and Exit

- LH door accessible from the operator seat
- Improved leg clearance turning from Loader to Backhoe and vice versa
- Larger buddy seat with lockable storage compartment
- Large side windows with easy open lever and auto latch mechanism



## REAR – Backhoe Controls

- New side quarter window gives better visibility
- Improved efforts of rear sliding door
- Backhoe lever mounted horn
- Low effort backhoe and stabilizer levers



# UNMATCHED PRODUCTIVITY

## Rear Quarter Window

Provides all round rear visibility and enhanced productivity.  
Reduced blind spots add to the safety of surroundings.

## New Improved FNR Lever

The new FNR lever is close to the steering wheel, which ensures easier accessibility. It can be operated with hands on the steering wheel, making operations more efficient.

## Large Cushioned Steering Wheel

Increased steering size from 340mm to 380mm offers lower effort of operation with better control and manoeuvrability.

## Backhoe and Loader Lever Effort

Get comfortable and fatigue-free machine operations with the improved backhoe and loader levers. This ease and comfort increase the machine work hours for the operators, thereby enhancing productivity.

## High Profile Bucket\*

New spill proof loader bucket improves bucket spill ratio, thereby enhancing loader productivity.

## Increased Swing Tower Ground Clearance

Improvement in ground clearance by 2 inches enhances productivity in stockpiling application.

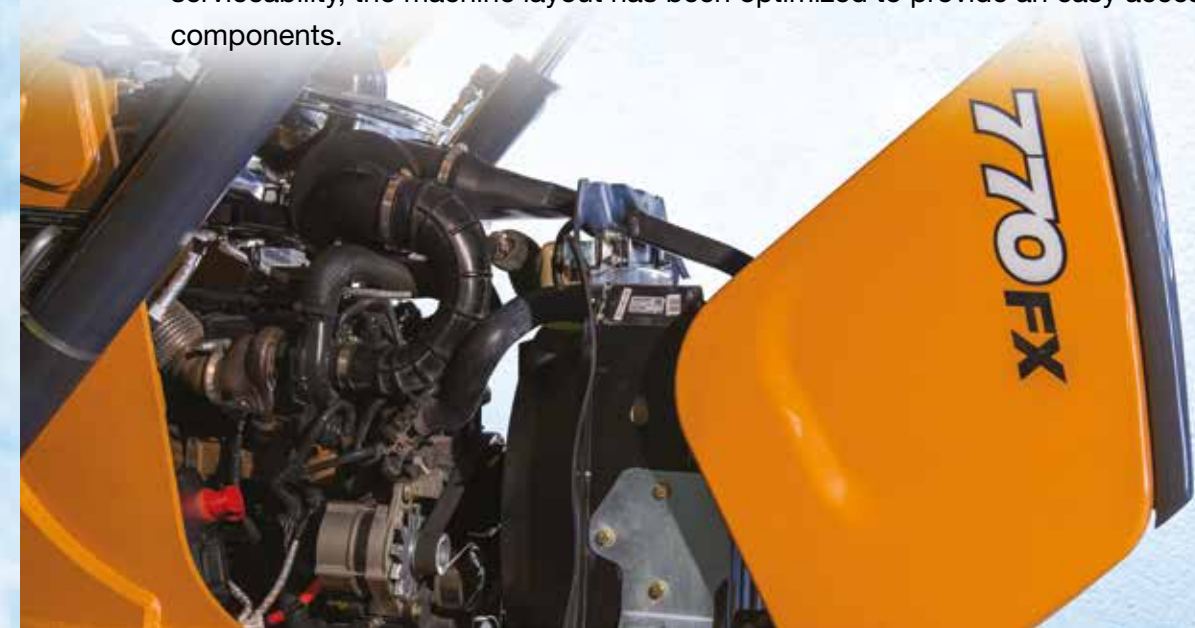


\*Future Change / T&C apply



# EASY MAINTENANCE

CASE knows that the easier it is to perform routine maintenance, the more likely it will get done. The easy serviceability due to the large access area available when opening the new tiltable front engine hood, is a hallmark of CASE Loader Backhoe machine design. To improve serviceability, the machine layout has been optimized to provide an easy access to all the main components.



# CASE GENUINE LUBRICANTS POWER. PROTECTION. PERFORMANCE.

Especially formulated for CASE equipment, to keep them healthy and young for superior performance.





# SAFER OPERATIONS LONGER WORK LIFE

## Audio Visual Warning System

Quick information for serviceability that enhances the life of machine components, thus, reducing maintenance costs. Machine error diagnostics prevent any major failures resulting in higher productivity and extended work hours.



## Engine Protection Shut Down

This feature will optionally allow the Vehicle Control Module (VCM) to shut down the engine if any of the critical operating parameters are out of the acceptable range like engine oil pressure, coolant temperature, transmission oil temperature, low DEF level and high DEF consumption etc. This will ensure that machine is protected against any major failure/breakdown and is failsafe for any unplanned expenses for the machine owner.



## Backhoe Lever Mounted Horn

Excavator like horn mounted on the backhoe lever, improve, the safety of the surroundings.



## Jump Start

In case battery gets over-discharged, this feature allows operator to short the battery with external power source and start the engine.



## Safe Battery Compartment and Battery Cut Off Switch

Battery location is now safer. It is not prone to theft and is housed in a dust free environment that gives better life to the machine and results in lowered maintenance costs. Battery cut off switch is easy to use and secured.



## Rear View Mirror

Internal Rear-View mirror, now comes as a standard fitment for additional visibility and safety, especially during reversing and roading application. Additionally, two standard external side view mirrors are provided.



# PEACE OF MIND EASE OF MAINTENANCE



CASE Machines are designed to exceed expectations, CASE Care helps to keep your machine performing at its peak.



As a customer of CASE Construction, you deserve the additional peace of mind of knowing that your product is covered, in case of an unexpected return. CASE Protect removes the burden of cost and the inconvenience of mechanical failure once your manufacturer's warranty has expired.

1 PRIORITY SERVICE	2 SPECIALIZED SUPPORT
3 PRO-ACTIVE MAINTENANCE	4 HIGHER RESALE VALUE



# SPARE PARTS

A robust dealer network, a fully stocked central warehouse and our well-connected depots help us in the smooth and on-time delivery of parts and services, thus, decreasing downtime and maximizing productivity and efficiency of your machine.



# APPLICATIONS AND ATTACHMENTS

## Complete Solutions for Every Need and Application

Brick Kiln | Crusher Application | Road and General Construction

Municipal Solid Waste Management | Trenching and Pipe-laying



## Attachments

Rock Breaker | Auger (Drill) for Plantation, Fencing and Light Pole | 4-in-1 and 6-in-1 BDB buckets

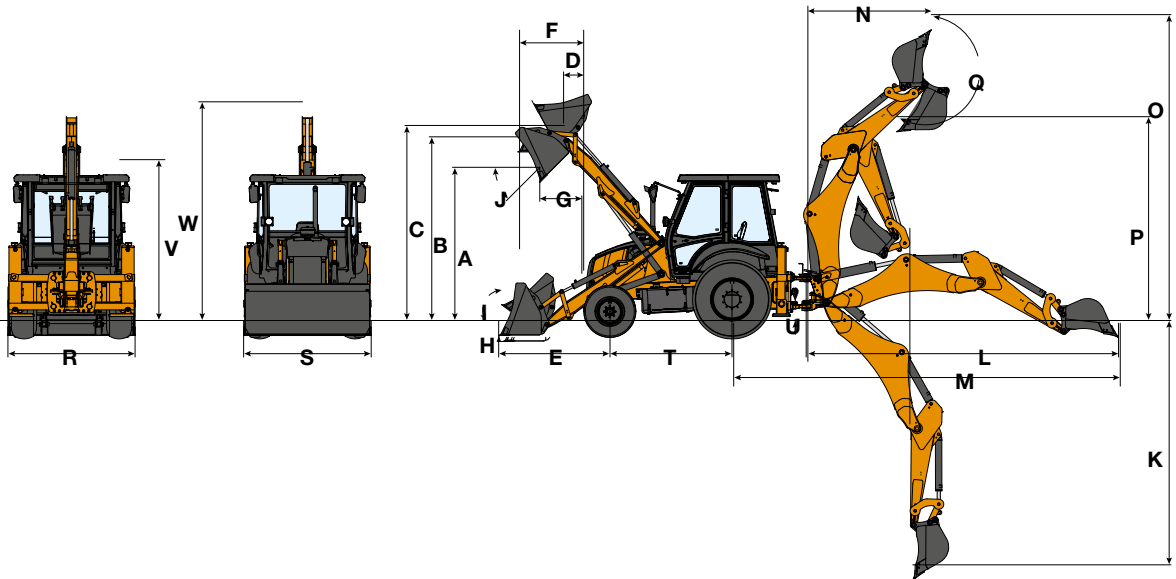
## Bucket Options

Backhoe - 0.08, 0.12, 0.18, 0.22 m<sup>3</sup>. | Loader - 1.0, 1.1, 1.2 m<sup>3</sup>.



MODEL	770FX	770FX+	851FX/ FX CP	851FX+/ FX+ CP
ENGINE	FPT			
Engine Model	F5HFL463A*W		F5BFL413A*W	
Emission Compliant	Tier 4B			
Engine Displacement (L)	3.4			
Engine Air Intake Type	Turbocharged			
Engine Gross Power @2200 rpm	55 kW (74 hp)		72 kW (97 hp)	
Engine Max. Torque @1400 rpm (Nm)	325 Nm		453 Nm	
HYDRAULIC SYSTEM				
System Type	Open Centre		Closed Centre	
Pump Type	Gear	Variable Displacement	Gear	Variable Displacement
Pump Flow (lpm) @rated rpm	123	143	154	156
System Relief Pressure (bar)	195	210		
LOADER GENERAL DIMENSIONS				
A - Dump Height (m)	2.73		2.66	
B - Load Over Height (m)	3.3			
C - Hinge Pin Height (m)	3.6			
D - Hinge Pin Forward Reach (m)	0.24			
E - Reach at Ground (m)	1.98		2.08	
F - Max. Reach at Full Height (m)	1.19 (2WD), 1.15 (4WD)			
G - Max. Reach at Full Height-Bucket Dumped (m)	0.76		0.84	
H - Below Ground Level-Dig Depth (m)	0.11			
I - Rollback at Ground (degree)	33			
J - Dump Angle (degree)	45			
Bucket Capacity Std. (m³)	1.1		1.2	
Bucket Breakout Force (kgf/ kN)	5805/ 56.9	6250/ 61.3	5520 / 54.1 6250 / 61.29 (BDB)	
Loader Arm Breakout Force (kgf/ kN)	4750/ 46.6	5115/ 50.2	4937/ 48.4 5115/ 50.2 (BDB)	
Max. Lifting Capacity @Max. Height	3515		3700	
BACKHOE GENERAL DIMENSIONS				
Dipper Configuration	4.3 m (14ft)		4.6 m (15ft)	
K - Max. Dig Depth (m)	4.40		4.70	
L - Reach Ground Level to Swing Center (m)	5.62		5.90	
M - Reach-Ground Level to Rear Wheel Centre (m)	6.95		7.23	
N - Reach at Full Height to Slew Centre (m)	2.10		2.34	
O - Max. Working Height (m)	5.5		5.7	
P - Max. Load Over Height (m)	3.8			
Bucket Capacity (m³)	0.26	0.30		
Q - Bucket Rotation (degree)	204			
Bucket Breakout Force (kgf/ kN)	5206 / 51.0		5616 / 55.1	
Dipper Tearout Force (kgf/ kN)	3031/ 29.72		3780/ 37.1	
Max. Lift Capacity (kg)	1330		1530	
Safe Working Load (kg) @3.2m Radius	1000		1100	
OVERALL DIMENSIONS AND WEIGHTS				
Max. Operating Weight (kg)	7600	7920	8100	
Transport Length (m)	5.88	5.96	6.06	
R - Width Over Stabilizer (m)	2.27			
S - Width Over Bucket (m)	2.30			
Track Width- Rear (m)	1.70			
Track width- Front (m)	1.88 (2WD), 1.90 (4WD)			
T - Wheelbase (m)	2.18			
U - Minimum Ground Clearance (m)	0.38			
V - Height to Top of Cabin (m)	2.83			
W - Overall Transport Height (m)	3.85			

SERVICE CAPACITIES	
Engine Oil (L) - System	9.1
Rear Axle (L)	17.1
Hydraulic Oil (L) - System/ Replacement	107
Transmission Oil (L) - System	18-2WD, 20-4WD
DEF Tank Capacity (L)	21 (851FX/FX+)
Fuel Tank (L)	129
Coolant (L)	20
POWER TRAIN	
Power Train Type	Power Shuttle with TC
Transmission Make and Model	CARRARO 2WD/4WD TLB1
AXLE	
Rear	CARRARO 28.32M
Front	CARRARO 28.32M (2WD) CNH PS1300 (4WD)
Front Axle Oscillation (degree)	±21 (2WD), ±16 (4WD)
STEERING	
Type	Power Steering
System Pressure (bar)	140
Pump Displacement (cc)	125
Turning Circle Outside Bucket-Braked (m)	9.2 (2WD), 9.8 (4WD)
Turning Circle Outside Bucket-Not Braked (m)	11.1 (2WD), 11.2 (4WD)
BRAKES	
Service	Wet Multi Discs, 4 Discs
Parking	Manual with Lever
TYRE	
2WD - Standard - Front	9.0 x 16 - 16 PR
2WD - Standard - Rear	16.9 x 28 - 12 PR
2WD - Heavy Duty - Rear	14.0 x 25 - 20 PR
4WD - Heavy Duty - Front	12.5 x 18 - 12 PR
4WD - Standard - Rear	16.9 x 28 - 12 PR
ELECTRICAL SYSTEM	
Battery	12 volts, 110 Ah
TRAVEL SPEED	
Forward (1st/2nd/3rd/4th) (km/ hr)	770FX/FX+: 5.7/9.1/19.5/34.9 851FX/FX+: 6.2/10.0/20.7/39.2
Reverse (1st/2nd/3rd/4th) (km/ hr)	770FX/FX+: 7.0/11.2/23.8/NR 851FX/FX+: 7.4/12.0/24.8/NR
OPTIONAL EQUIPMENT	
Cabin	HVAC
Drive	4WD
Fenders	Front in 4WD
Loader Bucket	Bottom Dump Bucket
Dipper	Extendahoe
Counterweight	Light/Heavy/NC
Dipper Option	14ft & 15ft (4.3 m & 4.6 m)
Dipper Cylinder Diameter (mm)	110 - 770FX 125 - 770FX+
Tyre	Heavy Duty



\*The product images shown are for illustration purposes only and may not be an exact representation of the product.